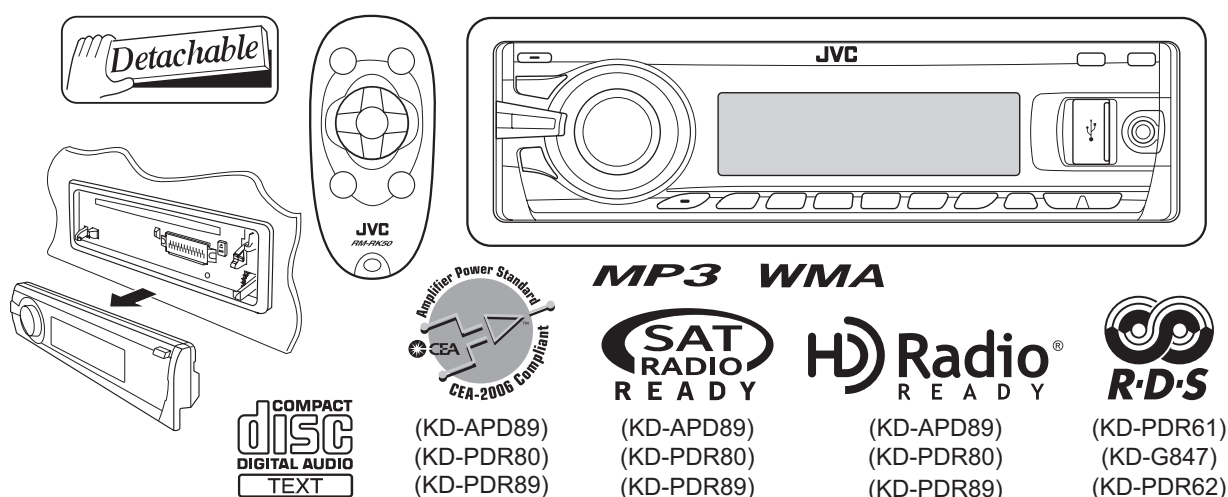


# JVC

## SERVICE MANUAL

### CD RECEIVER

**KD-APD89J, KD-PDR80J, KD-PDR61E,  
KD-PDR61EX, KD-PDR61EY, KD-G844UI,  
KD-G845U, KD-G845UN, KD-G845UT,  
KD-G845UH, KD-G847EE, KD-PDR89UR,  
KD-PDR62E, KD-PDR62EX, KD-PDR62EY**



Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)  
Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)

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# SPECIFICATION

## KD-APD89/KD-PDR80/KD-PDR89

| AUDIO AMPLIFIER SECTION                      |                                         |                                                                                                                                      |
|----------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Power Output                                 |                                         | 20 W RMS × 4 Channels at 4 Ω and < or = 1% THD+N                                                                                     |
| Signal-to-Noise Ratio                        |                                         | 80 dBA (reference: 1 W into 4 Ω)                                                                                                     |
| Load Impedance                               |                                         | 4 Ω (4 Ω to 8 Ω allowance)                                                                                                           |
| Tone Control Range                           | Bass                                    | ±12 dB (60 Hz, 80 Hz, 100 Hz, 200 Hz)                                                                                                |
|                                              | Mid-range                               | ±12 dB (500 Hz, 1.0 kHz, 1.5 kHz, 2.5 kHz)                                                                                           |
|                                              | Treble                                  | ±12 dB (10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz)                                                                                      |
| Frequency Response                           |                                         | 40 Hz to 20 000 Hz                                                                                                                   |
| Line-Out Level/Impedance                     | KD-APD89                                | 5.0 V/20 kΩ load (full scale)                                                                                                        |
|                                              | KD-PDR80                                | 2.5 V/20 kΩ load (full scale)                                                                                                        |
| Subwoofer-Out Level/Impedance                | KD-APD89                                | 5.0 V /20 kΩ load (full scale)                                                                                                       |
|                                              | KD-PDR80                                | 2.5 V/20 kΩ load (full scale)                                                                                                        |
| Output Impedance                             |                                         | 1 kΩ                                                                                                                                 |
| Other Terminal                               |                                         | CD changer jack, AUX (auxiliary) input jack, USB input jack, Steering wheel remote input (only for KD-APD89), Antenna input          |
| TUNER SECTION                                |                                         |                                                                                                                                      |
| Frequency Range                              | FM                                      | with channel interval set to 100 kHz or 200 kHz: 87.5 MHz to 107.9 MHz<br>with channel interval set to 50 kHz: 87.5 MHz to 108.0 MHz |
|                                              | AM                                      | with channel interval set to 10 kHz: 530 kHz to 1 710 kHz<br>with channel interval set to 9 kHz: 531 kHz to 1 602 kHz                |
| FM Tuner                                     | Usable Sensitivity                      | 11.3 dBf (1.0 μV/75 Ω)                                                                                                               |
|                                              | 50 dB Quieting Sensitivity              | 16.3 dBf (1.8 μV/75 Ω)                                                                                                               |
|                                              | Alternate Channel Selectivity (400 kHz) | 65 dB                                                                                                                                |
|                                              | Frequency Response                      | 40 Hz to 15 000 Hz                                                                                                                   |
|                                              | Stereo Separation                       | 35 dB                                                                                                                                |
| AM Tuner                                     | Sensitivity                             | 20 μV                                                                                                                                |
|                                              | Selectivity                             | 35 dB                                                                                                                                |
| CD PLAYER SECTION                            |                                         |                                                                                                                                      |
| Type                                         |                                         | Compact disc player                                                                                                                  |
| Signal Detection System                      |                                         | Non-contact optical pickup (semiconductor laser)                                                                                     |
| Number of Channels                           |                                         | 2 channels (stereo)                                                                                                                  |
| Frequency Response                           |                                         | 5 Hz to 20 000 Hz                                                                                                                    |
| Dynamic Range                                |                                         | 96 dB                                                                                                                                |
| Signal-to-Noise Ratio                        |                                         | 98 dB                                                                                                                                |
| Wow and Flutter                              |                                         | Less than measurable limit                                                                                                           |
| MP3 Decoding Format: (MPEG1/2 Audio Layer 3) |                                         | Max. Bit Rate: 320 kbps                                                                                                              |
| WMA (Windows Media® Audio) Decoding Format   |                                         | Max. Bit Rate: 192 kbps                                                                                                              |
| USB SECTION                                  |                                         |                                                                                                                                      |
| USB Standards                                |                                         | USB 1.1, USB 2.0                                                                                                                     |
| Data Transfer Rate                           | Full Speed                              | Maximum 12 Mbps                                                                                                                      |
|                                              | Low Speed                               | Maximum 1.5 Mbps                                                                                                                     |
| Compatible Device                            |                                         | Mass storage class                                                                                                                   |
| Compatible File System                       |                                         | FAT 32/16/12                                                                                                                         |
| Playable Audio Format                        |                                         | MP3/WMA/WAV                                                                                                                          |
| Max. Current                                 |                                         | 500 mA/5 V                                                                                                                           |
| GENERAL                                      |                                         |                                                                                                                                      |
| Power Requirement                            |                                         | Operating Voltage                                                                                                                    |
|                                              |                                         | DC 14.4 V (11 V to 16 V allowance)                                                                                                   |
| Grounding System                             |                                         | Negative ground                                                                                                                      |
| Allowable Operating Temperature              |                                         | 0°C to +40°C (32°F to 104°F)                                                                                                         |
| Dimensions (W × H × D): (approx.)            | Installation Size                       | 182 mm × 52 mm × 160 mm (7-3/16" × 2-1/16" × 6-5/16")                                                                                |
|                                              | Panel Size                              | 188 mm × 58 mm × 6 mm (7-7/16" × 2-5/16" × 1/4")                                                                                     |
| Mass                                         |                                         | 1.4 kg (3.1 lbs) (excluding accessories)                                                                                             |

Design and specifications are subject to change without notice.

| AUDIO AMPLIFIER SECTION                      |                                         |                                                                                                        |
|----------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------|
| Maximum Power Output                         | Front/Rear                              | 50 W per channel                                                                                       |
| Continuous Power Output (RMS)                | Front/Rear                              | 19 W per channel into 4 $\Omega$ , 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion   |
| Load Impedance                               |                                         | 4 $\Omega$ (4 $\Omega$ to 8 $\Omega$ allowance)                                                        |
| Tone Control Range                           | Bass                                    | $\pm 12$ dB (60 Hz, 80 Hz, 100 Hz, 200 Hz)                                                             |
|                                              | Mid-range                               | $\pm 12$ dB (500 Hz, 1.0 kHz, 1.5 kHz, 2.5 kHz)                                                        |
|                                              | Treble                                  | $\pm 12$ dB (10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz)                                                   |
| Frequency Response                           |                                         | 40 Hz to 20 000 Hz                                                                                     |
| Signal to Noise Ratio                        |                                         | 70 dB                                                                                                  |
| Audio Output Level                           | Line-Out Level/Impedance                | 2.5 V/20 k $\Omega$ load (full scale)                                                                  |
|                                              | Output Impedance                        | 1 k $\Omega$                                                                                           |
|                                              | Subwoofer-Out Level/Impedance           | 2.5 V /20 k $\Omega$ load (full scale)                                                                 |
| Other Terminals                              |                                         | CD changer jack, AUX (auxiliary) input jack, USB input jack, Aerial input, Steering wheel remote input |
| TUNER SECTION                                |                                         |                                                                                                        |
| Frequency Range                              | FM                                      | 87.5 MHz to 108.0 MHz                                                                                  |
|                                              | AM                                      | MW: 522 kHz to 1 620 kHz<br>LW: 144 kHz to 279 kHz                                                     |
| FM Tuner                                     | Usable Sensitivity                      | 11.3 dBf (1.0 $\mu$ V/75 $\Omega$ )                                                                    |
|                                              | 50 dB Quieting Sensitivity              | 16.3 dBf (1.8 $\mu$ V/75 $\Omega$ )                                                                    |
|                                              | Alternate Channel Selectivity (400 kHz) | 65 dB                                                                                                  |
|                                              | Frequency Response                      | 40 Hz to 15 000 Hz                                                                                     |
|                                              | Stereo Separation                       | 30 dB                                                                                                  |
| MW Tuner                                     | Sensitivity/Selectivity                 | 20 $\mu$ V/35 dB                                                                                       |
| LW Tuner                                     | Sensitivity                             | 50 $\mu$ V                                                                                             |
| CD PLAYER SECTION                            |                                         |                                                                                                        |
| Type                                         |                                         | Compact disc player                                                                                    |
| Signal Detection System                      |                                         | Non-contact optical pickup (semiconductor laser)                                                       |
| Number of Channels                           |                                         | 2 channels (stereo)                                                                                    |
| Frequency Response                           |                                         | 5 Hz to 20 000 Hz                                                                                      |
| Dynamic Range                                |                                         | 96 dB                                                                                                  |
| Signal-to-Noise Ratio                        |                                         | 98 dB                                                                                                  |
| Wow and Flutter                              |                                         | Less than measurable limit                                                                             |
| MP3 Decoding Format: (MPEG1/2 Audio Layer 3) | Max. Bit Rate                           | 320 kbps                                                                                               |
| WMA (Windows Media® Audio) Decoding Format   | Max. Bit Rate                           | 320 kbps                                                                                               |
| USB SECTION                                  |                                         |                                                                                                        |
| USB Standard                                 |                                         | USB 1.1, USB 2.0                                                                                       |
| Data Transfer Rate (Full Speed)              | Full Speed                              | Max. 12 Mbps                                                                                           |
|                                              | Low Speed                               | Max. 1.5 Mbps                                                                                          |
| Compatible Device                            |                                         | Mass storage class                                                                                     |
| Compatible File System                       |                                         | FAT 32/16/12                                                                                           |
| Playable Audio Format                        |                                         | MP3/WMA/WAV                                                                                            |
| Max. Current                                 |                                         | 500 mA/5V                                                                                              |
| GENERAL                                      |                                         |                                                                                                        |
| Power Requirement                            | Operating Voltage                       | DC 14.4 V (11 V to 16 V allowance)                                                                     |
| Grounding System                             |                                         | Negative ground                                                                                        |
| Allowable Operating Temperature              |                                         | 0°C to +40°C                                                                                           |
| Dimensions (W $\times$ H $\times$ D)         | Installation Size (approx.)             | 182 mm $\times$ 52 mm $\times$ 160 mm                                                                  |
|                                              | Panel Size (approx.)                    | 188 mm $\times$ 58 mm $\times$ 12 mm                                                                   |
| Mass (approx.)                               |                                         | 1.4 kg (excluding accessories)                                                                         |

Design and specifications are subject to change without notice.

| AUDIO AMPLIFIER SECTION                         |                                         |                                                                                                       |
|-------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------|
| Maximum Power Output                            | Front/Rear                              | 50 W per channel                                                                                      |
| Continuous Power Output (RMS)                   | Front/Rear                              | 19 W per channel into 4 $\Omega$ , 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion. |
| Load Impedance                                  |                                         | 4 $\Omega$ (4 $\Omega$ to 8 $\Omega$ allowance)                                                       |
| Tone Control Range                              | Bass                                    | $\pm 12$ dB (60 Hz, 80 Hz, 100 Hz, 200 Hz)                                                            |
|                                                 | Mid-range                               | $\pm 12$ dB (500 Hz, 1.0 kHz, 1.5 kHz, 2.5 kHz)                                                       |
|                                                 | Treble                                  | $\pm 12$ dB (10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz)                                                  |
| Frequency Response                              |                                         | 40 Hz to 20 000 Hz                                                                                    |
| Signal-to-Noise Ratio                           |                                         | 70 dB                                                                                                 |
| Line-Out and Subwoofer-Out Level/Impedance      |                                         | 2.5 V/20 k $\Omega$ load (full scale)                                                                 |
| Output Impedance                                |                                         | 1 k $\Omega$                                                                                          |
| Other Terminal                                  |                                         | CD changer jack, AUX (auxiliary) input jack, USB input jack, Antenna input                            |
| TUNER SECTION                                   |                                         |                                                                                                       |
| Frequency Range                                 | FM                                      | 87.5 MHz to 108.0 MHz                                                                                 |
|                                                 | AM                                      | 531 kHz to 1 602 kHz                                                                                  |
| FM Tuner                                        | Usable Sensitivity                      | 11.3 dBf (1.0 $\mu$ V/75 $\Omega$ )                                                                   |
|                                                 | 50 dB Quieting Sensitivity              | 16.3 dBf (1.8 $\mu$ V/75 $\Omega$ )                                                                   |
|                                                 | Alternate Channel Selectivity (400 kHz) | 65 dB                                                                                                 |
|                                                 | Frequency Response                      | 40 Hz to 15 000 Hz                                                                                    |
|                                                 | Stereo Separation                       | 30 dB                                                                                                 |
| AM Tuner                                        | Sensitivity/Selectivity                 | 20 $\mu$ V/35 dB                                                                                      |
| CD PLAYER SECTION                               |                                         |                                                                                                       |
| Type                                            |                                         | Compact disc player                                                                                   |
| Signal Detection System                         |                                         | Non-contact optical pickup (semiconductor laser)                                                      |
| Number of Channels                              |                                         | 2 channels (stereo)                                                                                   |
| Frequency Response                              |                                         | 5 Hz to 20 000 Hz                                                                                     |
| Dynamic Range                                   |                                         | 96 dB                                                                                                 |
| Signal-to-Noise Ratio                           |                                         | 98 dB                                                                                                 |
| Wow and Flutter                                 |                                         | Less than measurable limit                                                                            |
| MP3 Decoding Format: (MPEG1/2 Audio Layer 3)    | Max. Bit Rate                           | 320 kbps                                                                                              |
| WMA (Windows Media® Audio) Decoding Format      | Max. Bit Rate                           | 192 kbps                                                                                              |
| USB SECTION                                     |                                         |                                                                                                       |
| USB Standard                                    |                                         | USB 1.1, USB 2.0                                                                                      |
| Data Transfer Rate                              |                                         | Full Speed: Max. 12 Mbps                                                                              |
|                                                 |                                         | Low Speed: Max. 1.5 Mbps                                                                              |
| Compatible Device                               |                                         | Mass storage class                                                                                    |
| Compatible File System                          |                                         | FAT 32/16/12                                                                                          |
| Playable Audio Format                           |                                         | MP3/WMA/WAV                                                                                           |
| Max. Current                                    |                                         | 500 mA/5 V                                                                                            |
| GENERAL                                         |                                         |                                                                                                       |
| Power Requirement                               | Operating Voltage                       | DC 14.4 V (11 V to 16 V allowance)                                                                    |
| Grounding System                                |                                         | Negative ground                                                                                       |
| Allowable Operating Temperature                 |                                         | 0°C to +40°C                                                                                          |
| Dimensions (W $\times$ H $\times$ D): (approx.) | Installation Size                       | 182 mm $\times$ 52 mm $\times$ 160 mm                                                                 |
|                                                 | Panel Size                              | 188 mm $\times$ 58 mm $\times$ 6 mm                                                                   |
| Mass                                            |                                         | 1.4 kg (excluding accessories)                                                                        |

Design and specifications are subject to change without notice.

| AUDIO AMPLIFIER SECTION                         |                                         |                                                                                                       |
|-------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------|
| Maximum Power Output                            | Front/Rear                              | 50 W per channel                                                                                      |
| Continuous Power Output (RMS)                   | Front/Rear                              | 19 W per channel into 4 $\Omega$ , 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion. |
| Load Impedance                                  |                                         | 4 $\Omega$ (4 $\Omega$ to 8 $\Omega$ allowance)                                                       |
| Tone Control Range                              | Bass                                    | $\pm 12$ dB (60 Hz, 80 Hz, 100 Hz, 200 Hz)                                                            |
|                                                 | Mid-range                               | $\pm 12$ dB (500 Hz, 1.0 kHz, 1.5 kHz, 2.5 kHz)                                                       |
|                                                 | Treble                                  | $\pm 12$ dB (10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz)                                                  |
| Frequency Response                              |                                         | 40 Hz to 20 000 Hz                                                                                    |
| Signal-to-Noise Ratio                           |                                         | 70 dB                                                                                                 |
| Line-Out and Subwoofer-Out Level/Impedance      |                                         | 2.5 V/20 k $\Omega$ load (full scale)                                                                 |
| Output Impedance                                |                                         | 1 k $\Omega$                                                                                          |
| Other Terminal                                  |                                         | CD changer jack, AUX (auxiliary) input jack, USB input jack, Antenna input                            |
| TUNER SECTION                                   |                                         |                                                                                                       |
| Frequency Range                                 | FM                                      | 87.5 MHz to 108.0 MHz                                                                                 |
|                                                 | AM                                      | 531 kHz to 1 602 kHz                                                                                  |
| FM Tuner                                        | Usable Sensitivity                      | 11.3 dBf (1.0 $\mu$ V/75 $\Omega$ )                                                                   |
|                                                 | 50 dB Quieting Sensitivity              | 16.3 dBf (1.8 $\mu$ V/75 $\Omega$ )                                                                   |
|                                                 | Alternate Channel Selectivity (400 kHz) | 65 dB                                                                                                 |
|                                                 | Frequency Response                      | 40 Hz to 15 000 Hz                                                                                    |
|                                                 | Stereo Separation                       | 30 dB                                                                                                 |
| AM Tuner                                        | Sensitivity/Selectivity                 | 20 $\mu$ V/35 dB                                                                                      |
| CD PLAYER SECTION                               |                                         |                                                                                                       |
| Type                                            |                                         | Compact disc player                                                                                   |
| Signal Detection System                         |                                         | Non-contact optical pickup (semiconductor laser)                                                      |
| Number of Channels                              |                                         | 2 channels (stereo)                                                                                   |
| Frequency Response                              |                                         | 5 Hz to 20 000 Hz                                                                                     |
| Dynamic Range                                   |                                         | 96 dB                                                                                                 |
| Signal-to-Noise Ratio                           |                                         | 98 dB                                                                                                 |
| Wow and Flutter                                 |                                         | Less than measurable limit                                                                            |
| MP3 Decoding Format: (MPEG1/2 Audio Layer 3)    | Max. Bit Rate                           | 320 kbps                                                                                              |
| WMA (Windows Media® Audio) Decoding Format      | Max. Bit Rate                           | 192 kbps                                                                                              |
| USB SECTION                                     |                                         |                                                                                                       |
| USB Standard                                    |                                         | USB 1.1, USB 2.0                                                                                      |
| Data Transfer Rate                              |                                         | Full Speed: Max. 12 Mbps                                                                              |
|                                                 |                                         | Low Speed: Max. 1.5 Mbps                                                                              |
| Compatible Device                               |                                         | Mass storage class                                                                                    |
| Compatible File System                          |                                         | FAT 32/16/12                                                                                          |
| Playable Audio Format                           |                                         | MP3/WMA/WAV                                                                                           |
| Max. Current                                    |                                         | 500 mA/5 V                                                                                            |
| GENERAL                                         |                                         |                                                                                                       |
| Power Requirement                               | Operating Voltage                       | DC 14.4 V (11 V to 16 V allowance)                                                                    |
| Grounding System                                | Allowable Operating Temperature         | 0°C to +40°C                                                                                          |
| Dimensions (W $\times$ H $\times$ D): (approx.) | Installation Size                       | 182 mm $\times$ 52 mm $\times$ 160 mm                                                                 |
|                                                 | Panel Size                              | 188 mm $\times$ 58 mm $\times$ 6 mm                                                                   |
| Mass                                            |                                         | 1.4 kg (excluding accessories)                                                                        |

Design and specifications are subject to change without notice.

| AUDIO AMPLIFIER SECTION                      |                                         |                                                                                                      |
|----------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------|
| Maximum Power Output                         | Front/Rear                              | 50 W per channel                                                                                     |
| Continuous Power Output (RMS)                | Front/Rear                              | 19 W per channel into 4 $\Omega$ , 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion |
| Load Impedance                               |                                         | 4 $\Omega$ (4 $\Omega$ to 8 $\Omega$ allowance)                                                      |
| Tone Control Range                           | Bass                                    | $\pm 12$ dB (60 Hz, 80 Hz, 100 Hz, 200 Hz)                                                           |
|                                              | Mid-range                               | $\pm 12$ dB (500 Hz, 1.0 kHz, 1.5 kHz, 2.5 kHz)                                                      |
|                                              | Treble                                  | $\pm 12$ dB (10.0 kHz, 12.5 kHz, 15.0 kHz, 17.5 kHz)                                                 |
| Frequency Response                           |                                         | 40 Hz to 20 000 Hz                                                                                   |
| Signal to Noise Ratio                        |                                         | 70 dB                                                                                                |
| Audio Output Level                           | Line-Out Level/Impedance                | 2.5 V/20 k $\Omega$ load (full scale)                                                                |
|                                              | Output Impedance                        | 1 k $\Omega$                                                                                         |
|                                              | Subwoofer-Out Level/Impedance           | 2.5 V /20 k $\Omega$ load (full scale)                                                               |
| Other Terminals                              |                                         | CD changer jack, AUX (auxiliary) input jack, USB input jack, Aerial input                            |
| TUNER SECTION                                |                                         |                                                                                                      |
| Frequency Range                              | FM1/FM2                                 | 87.5 MHz to 108.0 MHz                                                                                |
|                                              | FM3                                     | 65.00 MHz to 74.00 MHz                                                                               |
|                                              | AM                                      | MW: 522 kHz to 1 620 kHz<br>LW: 144 kHz to 279 kHz                                                   |
| FM Tuner                                     | Usable Sensitivity                      | 11.3 dBf (1.0 $\mu$ V/75 $\Omega$ )                                                                  |
|                                              | 50 dB Quieting Sensitivity              | 16.3 dBf (1.8 $\mu$ V/75 $\Omega$ )                                                                  |
|                                              | Alternate Channel Selectivity (400 kHz) | 65 dB                                                                                                |
|                                              | Frequency Response                      | 40 Hz to 15 000 Hz                                                                                   |
|                                              | Stereo Separation                       | 30 dB                                                                                                |
| MW Tuner                                     | Sensitivity/Selectivity                 | 20 $\mu$ V/35 dB                                                                                     |
| LW Tuner                                     | Sensitivity                             | 50 $\mu$ V                                                                                           |
| CD PLAYER SECTION                            |                                         |                                                                                                      |
| Type                                         |                                         | Compact disc player                                                                                  |
| Signal Detection System                      |                                         | Non-contact optical pickup (semiconductor laser)                                                     |
| Number of Channels                           |                                         | 2 channels (stereo)                                                                                  |
| Frequency Response                           |                                         | 5 Hz to 20 000 Hz                                                                                    |
| Dynamic Range                                |                                         | 96 dB                                                                                                |
| Signal-to-Noise Ratio                        |                                         | 98 dB                                                                                                |
| Wow and Flutter                              |                                         | Less than measurable limit                                                                           |
| MP3 Decoding Format: (MPEG1/2 Audio Layer 3) | Max. Bit Rate                           | 320 kbps                                                                                             |
| WMA (Windows Media® Audio) Decoding Format   | Max. Bit Rate                           | 320 kbps                                                                                             |
| USB SECTION                                  |                                         |                                                                                                      |
| USB Standard                                 |                                         | USB 1.1, USB 2.0                                                                                     |
| Data Transfer Rate (Full Speed)              | Full Speed                              | Max. 12 Mbps                                                                                         |
|                                              | Low Speed                               | Max. 1.5 Mbps                                                                                        |
| Compatible Device                            |                                         | Mass storage class                                                                                   |
| Compatible File System                       |                                         | FAT 32/16/12                                                                                         |
| Playable Audio Format                        |                                         | MP3/WMA/WAV                                                                                          |
| Max. Current                                 |                                         | 500 mA/5V                                                                                            |
| GENERAL                                      |                                         |                                                                                                      |
| Power Requirement                            | Operating Voltage                       | DC 14.4 V (11 V to 16 V allowance)                                                                   |
| Grounding System                             |                                         | Negative ground                                                                                      |
| Allowable Operating Temperature              |                                         | 0°C to +40°C                                                                                         |
| Dimensions (W $\times$ H $\times$ D)         | Installation Size (approx.)             | 182 mm $\times$ 52 mm $\times$ 160 mm                                                                |
|                                              | Panel Size (approx.)                    | 188 mm $\times$ 58 mm $\times$ 12 mm                                                                 |
| Mass (approx.)                               |                                         | 1.4 kg (excluding accessories)                                                                       |

Design and specifications are subject to change without notice.

## 1.2 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

### 1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as laser products.

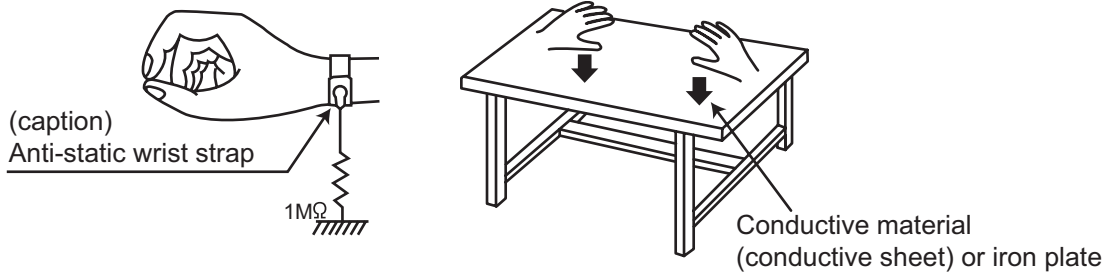
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

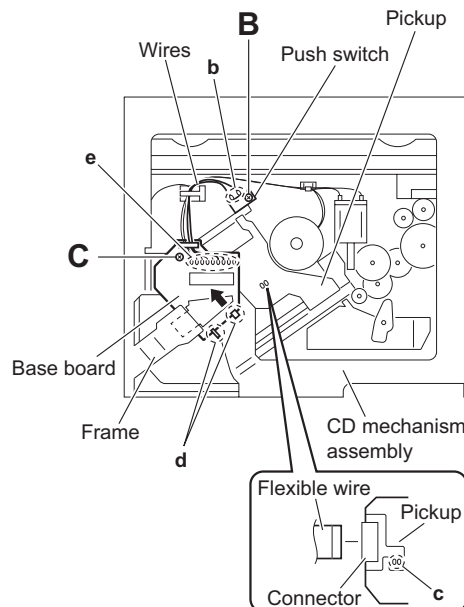
## 1.3 Handling the traverse unit (optical pickup)

- (1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- (2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
- (3) Handle the flexible cable carefully as it may break when subjected to strong force.
- (4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

## 1.4 Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for the pickup unit.**

- Apply solder to the short land before the card wire is disconnected from the connector on the pickup unit. (If the card wire is disconnected without applying solder, the pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land after connecting the card wire.



## 1.5 Important for laser products

### 1.CLASS 1 LASER PRODUCT

#### 2.CAUTION :

(For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(Others) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

**3.CAUTION :** Visible and/or invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

**4.CAUTION :** This laser product uses visible and/or invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

(For U.S.A.)

**CAUTION :** Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(Others)

**CAUTION :** Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments

**ACHTUNG:** Sichtbare und/oder unsichtbare Laserstrahlung der Klasse 1M bei offenen Abdeckungen. Nicht direkt mit optischen Instrumenten betrachten.

**ATTENTION:** Rayonnement laser visible et/ou invisible de classe 1M une fois ouvert. Ne pas regarder directement avec des instruments optiques.

**VOORZICHTIG:** Zichtbare en/of onzichtbare klasse 1M laserstralen indien geopend. Bekijk niet direct met optische instrumenten.

**ATTENZIONE:** Radiazione laser in classe 1M visibile e/o invisibile quando aperto. Non osservare direttamente con strumenti ottici.

**WARNING:** Synlig och/eller osynlig laserstrålning, klass 1M, när denna del är öppnad. Betrakta ej strålen med optiska instrument.

**VARO!** Avattaessa olet alttiina näkyvälle ja/tai näkymättömälle luokan 1M lasersäteilylle. Älä tarkastele sitä optisen laitteen läpi.

**ADVARSEL:** Synlig og/eller usynlig klasse 1M-laserstrålning ved åbning. Se ikke direkte med optiske instrumenter.

**AVISO:** Radiación láser de clase 1M visible y/o invisible cuando está abierto. No mirar directamente con instrumental óptico.

**PRECAUÇÃO:** Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos ópticos.

**5.CAUTION :** If safety switches malfunction, the laser is able to function.

**6.CAUTION :** Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.



**CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

**PRECAUÇÃO:** Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos ópticos.

**ПРЕДУПРЕЖДЕНИЕ:** В открытом состоянии происходит видимое и/или невидимое излучение лазера класса 1M. Не смотрите непосредственно в оптические инструменты.

**UWAGA:** Otwarcie spowoduje narażenie na widzialne i/lub niewidzialne promieniowanie lasera klasy 1M. Nie patrzeć bezpośrednio w przyrządy optyczne.

**UPOZORNĚNÍ:** Při otevření vydává viditelné popř. neviditelné laserové ozaření třídy 1M. Nedívejte se do otvoru přímo s optickými nástroji.

**FIGYELMEZTETÉS:** Látható és/vagy láthatatlan 1M osztályú sugárzás nyitott állapotban. Ne nézze közvetlenül optikai műszerekkel.

注意：打開蓋板可能會產生可見或不可見的 1M 級鐳射。不要使用光學儀器直接進行窺視。

注意：打开盖板可能会产生可见或不可见的 1M 级辐射。不要使用光学仪器直接进行窥视。

**تنبيه:** يوجد إشعاع ليزري مرئي و/أو غير مرئي من الفئة 1M عندما يكون الجهاز مفتوحاً. تجنب النظر مباشرة داخل الجهاز باستخدام أدوات بصرية.

احتياط: هنگامی که باز گردد، تشعشع مرئی و یا نامرئی کلاس 1M لیزر وجود دارد. با لوازم چشمی مستقیماً به آن نگاه نکنید.

**주의:** 개방하면 가시 및/또는 비가시 클래스 1M 레이저 방사선이 나옵니다. 광학 기구로 직접 들여다보지 마십시오.

## REPRODUCTION AND POSITION OF LABELS and PRINT WARNING LABEL and PRINT



|                                                                                                                                                                          |                                                                                                                                                                                      |                                                                                                                                                                     |                                                                                                                                                                         |                                                                                                   |                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CAUTION</b><br>VISIBLE AND/OR<br>INVISIBLE CLASS 1M<br>LASER RADIATION<br>WHEN OPEN. DO NOT<br>VIEW DIRECTLY WITH<br>OPTICAL INSTRUMENTS.<br>IEC80025-1:2001<br>(ENG) | <b>ATTENTION</b><br>RAYONNEMENT LASER<br>VISIBLE ET/OU<br>INVISIBLE DE CLASSE<br>1M UNE FOIS OUVERT.<br>NE PAS REGARDER<br>DIRECTEMENT AVEC<br>DES INSTRUMENTS<br>OPTIQUES.<br>(FRA) | <b>AVISO</b><br>RADIACIÓN LÁSER<br>DE CLASE 1M<br>VISIBLE Y/O INVISIBLE<br>CUANDO ESTA<br>ABIERTO. NO MIRAR<br>DIRECTAMENTE<br>CON INSTRUMENTAL<br>ÓPTICO.<br>(ESP) | <b>WARNING</b><br>SYNLIG OCH/ELLER<br>OSYNLIG<br>LASERSTRÅLNING,<br>KLASS 1M, NÄR DENNA<br>DEL ÄR ÖPPNAD.<br>BETRAKTA EJ<br>STRÅLEN MED OPTISKA<br>INSTRUMENT.<br>(SWE) | <b>注意</b><br>ここを覗くと可視<br>及び/または不可視<br>のクラス 1M<br>レーザー放射が<br>出ます。<br>光学装置で直接<br>見ないでください。<br>(JPN) | <b>CAUTION</b><br>VISIBLE AND/OR<br>INVISIBLE CLASS 1<br>LASER RADIATION<br>WHEN OPEN.<br>DO NOT STARE<br>INTO BEAM.<br>FDA 21 CFR (ENG)<br>LV44803-003A |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 2 SPECIFIC SERVICE INSTRUCTIONS

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

## SECTION 3 DISASSEMBLY

### 3.1 Main body (Used figure are KD-APD39)

#### 3.1.1 Removing the Bottom chassis (See Fig.1)

- (1) Remove the four screws **A**, two screws **B** attaching the heat sink.
- (2) Remove the one screw **C** attaching the Bottom chassis.
- (3) Slide to backward, and then take out the Bottom chassis.

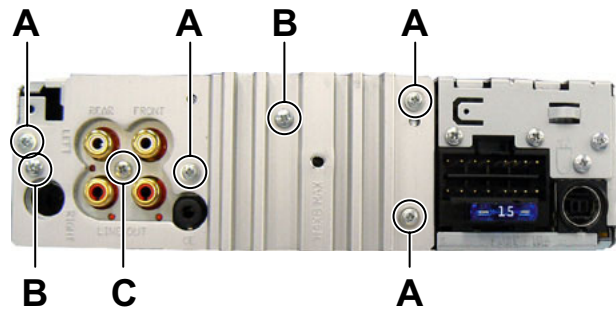


Fig.1

#### 3.1.2 Removing the Front chassis (See Fig.2, 3)

- (1) Remove the two screws **D** attaching the Front chassis. (See Fig.2)
- (2) Remove the two screws **E** attaching the both side of Front chassis. (See Fig.3)
- (3) Disengage four hooks **a** engaged both side of Front chassis. (See Fig.3)

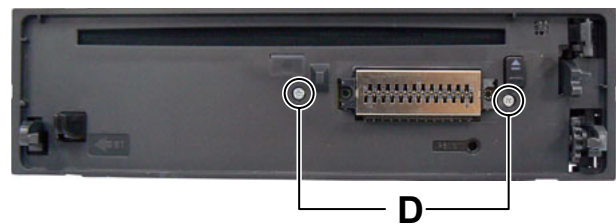


Fig.2

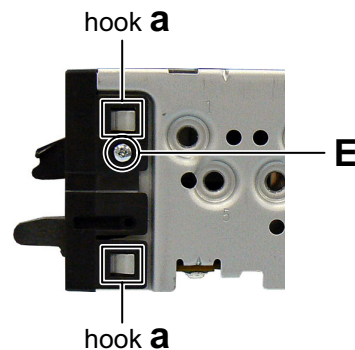


Fig.3

### 3.1.3 Removing the Sub board (See Fig.4)

- (1) Disconnect the connector [CN741](#) of the Sub board from the connector [CN701](#) of the Main board.

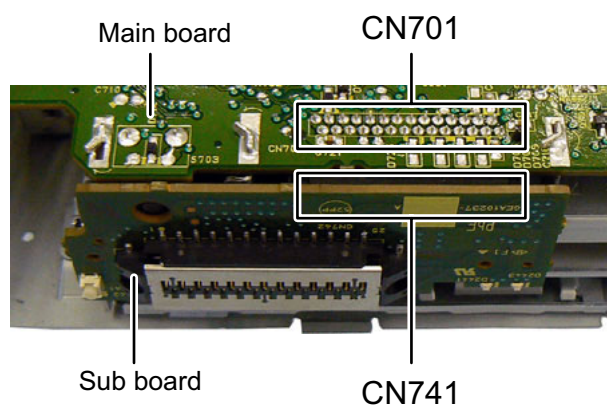


Fig.4

#### 3.1.4 Removing the Main board (See Fig.5 to 7)

- (1) Remove the two screws **F** and one screw **G** attaching the Heat sink. (See Fig.5)
- (2) Remove the two screws **H** and one screw **J** attaching the Main board. (See Fig.6)
- (3) Remove the two screws **K** attaching the Main board. (See Fig.7)
- (4) Disconnect the connector [CN501](#) connected to CD mechanism. (See Fig.7)

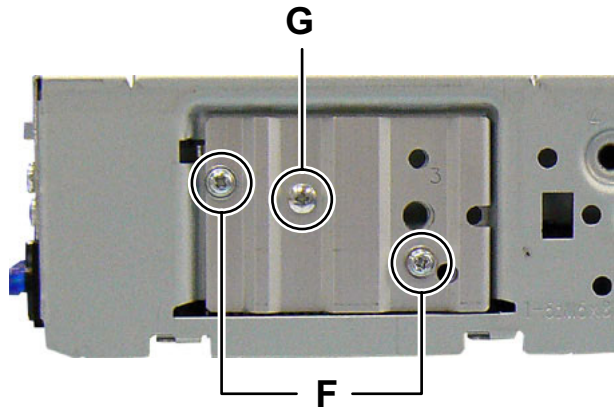


Fig.5

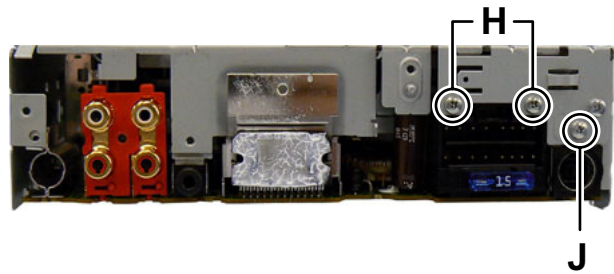


Fig.6

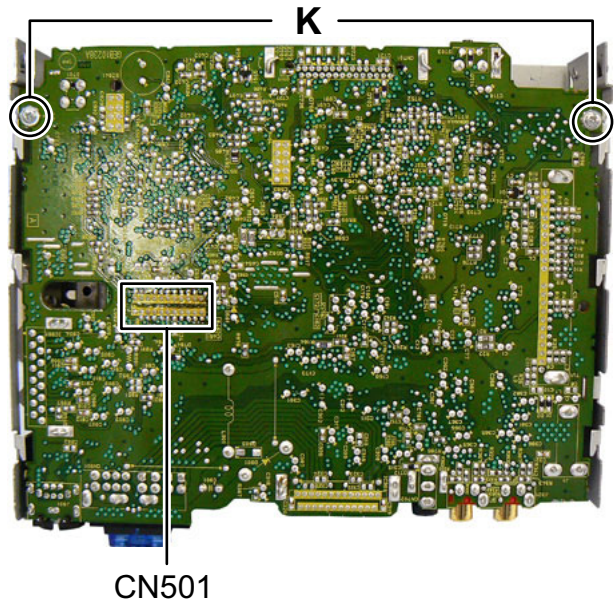


Fig.7

### 3.1.5 Removing the CD mechanism (See Fig.8)

- (1) Remove the three screws **L** attaching the CD mechanism.

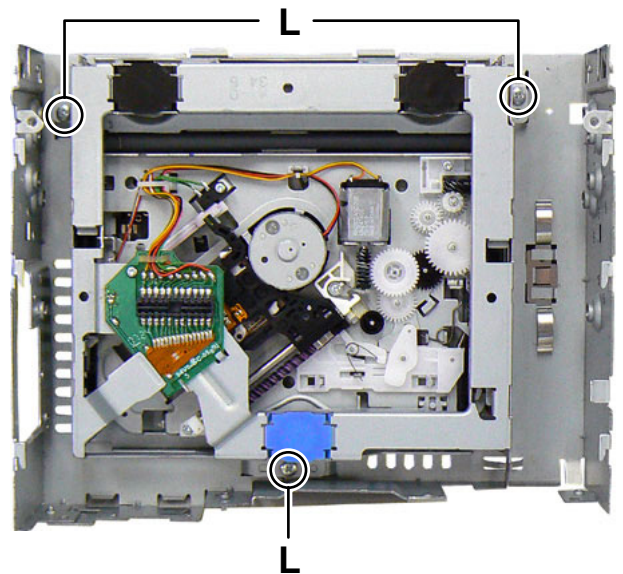


Fig.8

### 3.1.6 Removing the Switch board (See Fig.9, 10)

- (1) Remove the volume knob.
- (2) Remove the one screw **M** attaching the Rear cover. (See Fig.9)
- (3) Remove the four screws **N** attaching the Rear cover. (See Fig.10)
- (4) Disengage nine hooks **b** engaged Rear cover. (See Fig.10)

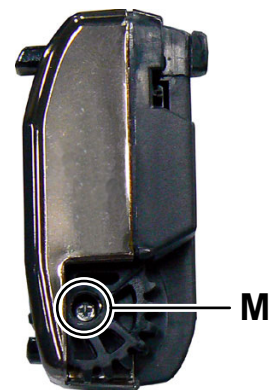


Fig.9

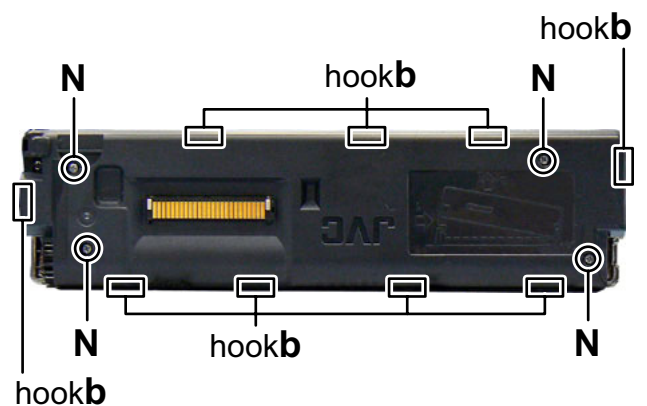


Fig.10

## 3.2 CD mechanism assembly

### 3.2.1 Removing the top cover (See Figs.1 and 2)

- (1) From the both side of the CD mechanism assembly, remove the four screws **A** attaching the top cover. (See Fig.1.)
- (2) Lift the front side of the top cover and move the top cover backward to release the two joints **a**. (See Figs.1 and 2.)

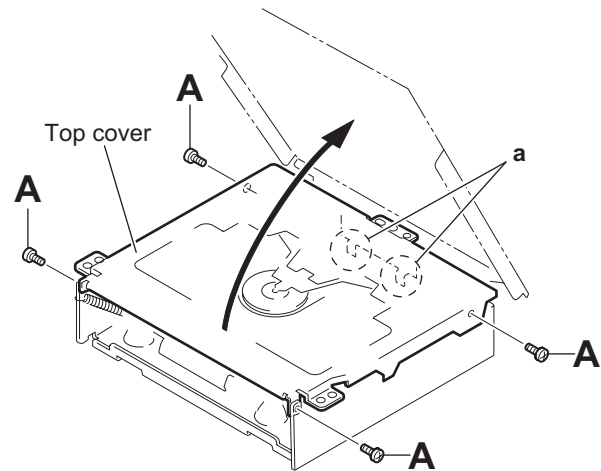


Fig.1

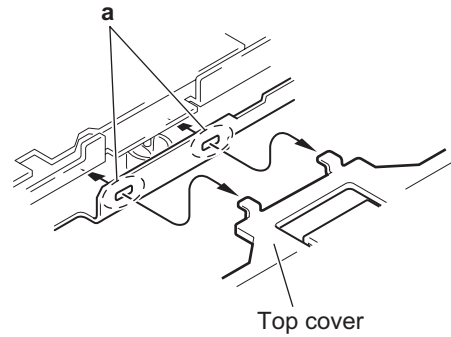


Fig.2

### 3.2.2 Removing the push switch (See Figs.3)

- (1) From the bottom side of the CD mechanism assembly, remove the screw **B** attaching the push switch.
- (2) Take out the push switch from the CD mechanism assembly.

#### Reference:

Remove the wires from soldered sections **b** of the push switch as required.

### 3.2.3 Removing the base board (See Figs.3 and 4)

#### Caution:

Solder the short land **c** before the flexible wire is disconnected from the connector on the pickup. If the flexible wire is disconnected without applying solder, the pickup may be destroyed by static electricity. (See Fig.3.)

- (1) From the bottom side of the CD mechanism assembly, remove the screw **C** attaching the base board. (See Figs.3 and 4.)
- (2) Solder the short land **c** on the pickup. (See Fig.3.)
- (3) Disconnect the flexible wire from the connector on the pickup. (See Fig.3.)
- (4) Remove the base board from the joints **d** of the frame in the direction of the arrow. (See Figs.3 and 4.)

#### Reference:

Remove the wires from the soldered sections **e** on the base board as required. (See Fig.3.)

#### Caution:

When reattaching the base board, be sure to remove solder from the short land **c** after connecting the flexible wire. (See Fig.3.)

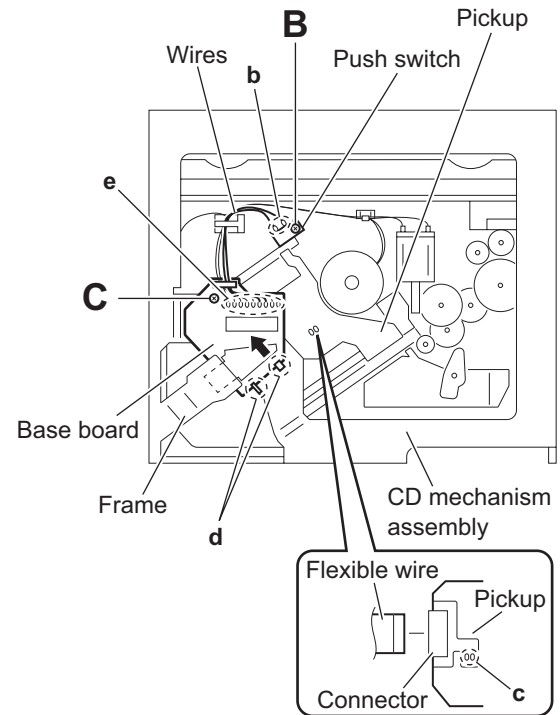


Fig.3

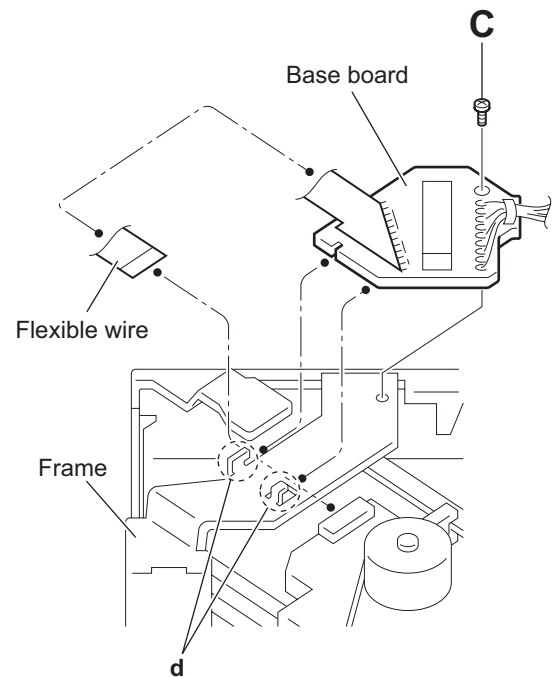


Fig.4

### 3.2.4 Removing the chassis unit (See Figs.5 and 6)

- Remove the top cover and base board.
  - From the top side of the CD mechanism assembly, remove the front suspension springs and rear suspension springs attaching the chassis unit to the frame. (See Fig.5.)
  - Remove the chassis unit from the dampers on the frame in an upward direction. (See Fig.6.)

**Note:**

- Pay attention to misuse and loss of each spring. (See Fig.5.)
- When reassembling, make sure that the three shafts on the underside of the chassis unit are inserted to the dampers certainly. (See Fig.6.)

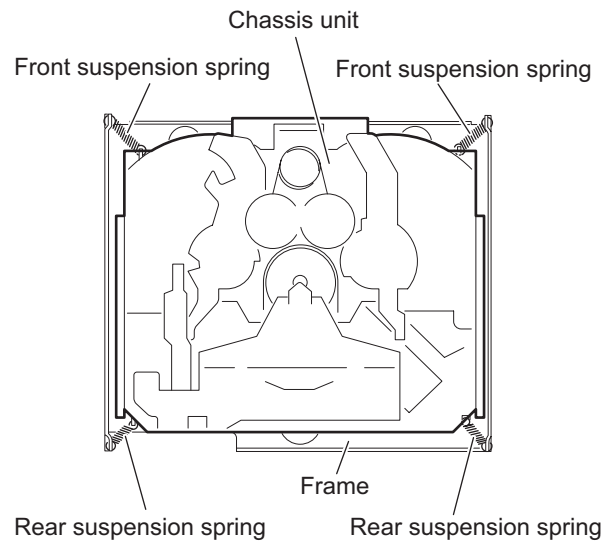


Fig.5

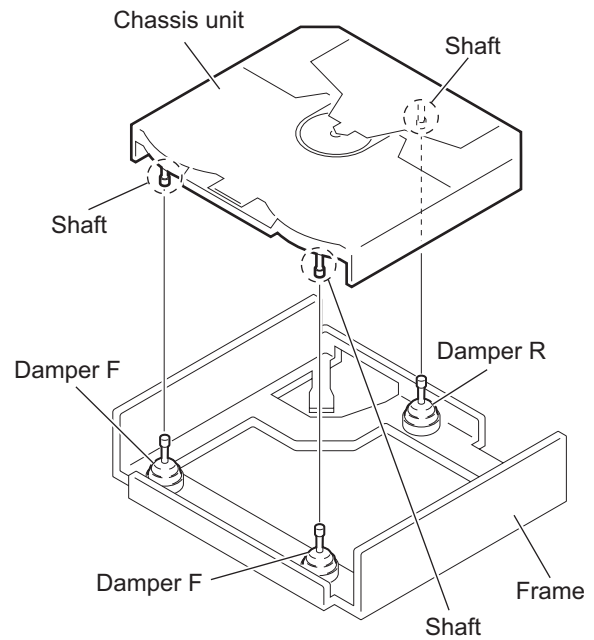


Fig.6

### 3.2.5 Removing the clamper assembly (See Figs.7 and 8)

- Remove the top cover.

Move the clamper assembly in the direction of the arrow to release the joints **f** from the chassis unit.

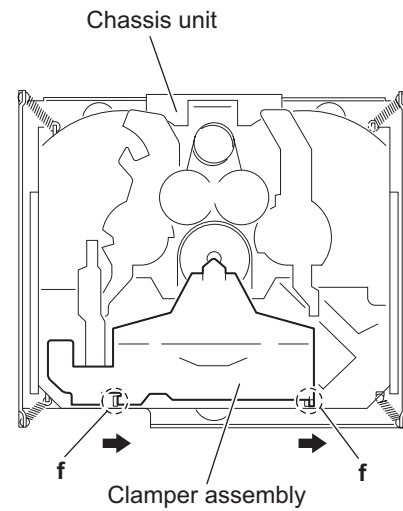


Fig.7

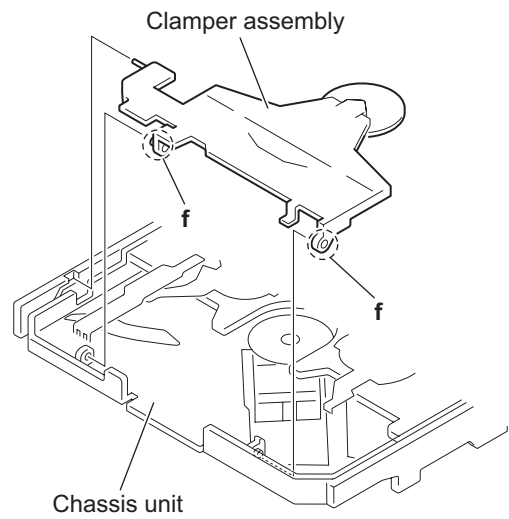


Fig.8

### 3.2.6 Removing the loading/feed motor assembly (See Fig.9)

- Remove the top cover, base board and chassis unit.

From the bottom side of the chassis unit, remove the screw **D** and take out the loading/feed motor assembly in the direction of the arrow.

#### Reference:

Remove the wires from the soldered sections **g** of the loading/feed motor assembly as required.

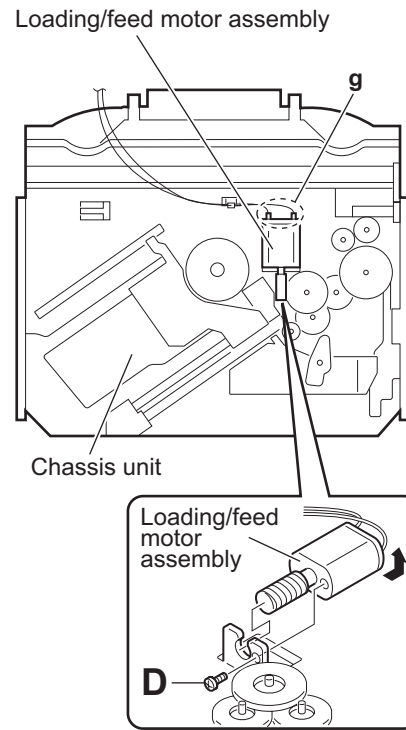


Fig.9

### 3.2.7 Removing the pickup (See Figs.10 to 12)

- Remove the top cover, base board and chassis unit.
- (1) From the bottom side of the chassis unit, remove the screw **E** attaching the pu. shaft holder B and pull the pu. shaft out of the pu. shaft holder A. (See Fig.10.)
- (2) Remove the screw **F** attaching the pu. shaft holder A. (See Fig.10.)
- (3) Take out the pickup with pu. shaft holder A and feed screw assembly from the chassis unit. (See Fig.11.)
- (4) Remove the section **h** of the pu. shaft holder A in the direction of the arrow. (See Fig.11.)
- (5) Remove the feed screw assembly from the section **j** of the pickup in the direction of the arrow. (See Fig.11.)
- (6) Remove the screw **G** attaching the feed screw holder to the pickup. (See Fig.12.)

#### Reference:

Remove the feed nut spring from the feed screw holder as required. (See Fig.12.)

- (7) Release the claw **k** in the direction of the arrow to remove the feed sub holder. (See Fig.12.)

### 3.2.8 Reattaching the pickup (See Figs.10 to 13)

- (1) Reattach the feed sub holder to the pickup. (See Fig.12.)
- (2) Reattach the feed screw holder to the pickup using the screw **G**. (See Fig.12.)
- (3) Reattach the feed screw assembly and pu. shaft holder A to the pickup as before. (See Fig.11.)
- (4) Set the section **m** of the pickup to the rail of the chassis unit at first and attach the pickup to the chassis unit with the screw **F** as before. (See Figs.10 and 13.)
- (5) Attach the pu. shaft to the pickup as before. (See Fig.10.)
- (6) Attach the pu. shaft holder B to the chassis unit with the screw **E** as before. (See Fig.10.)

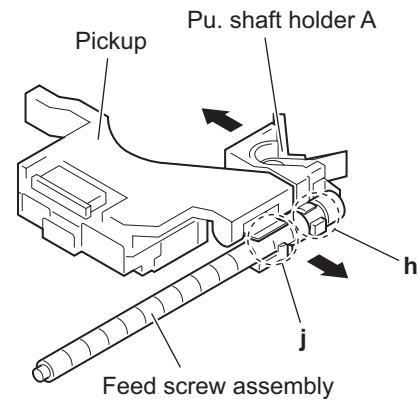
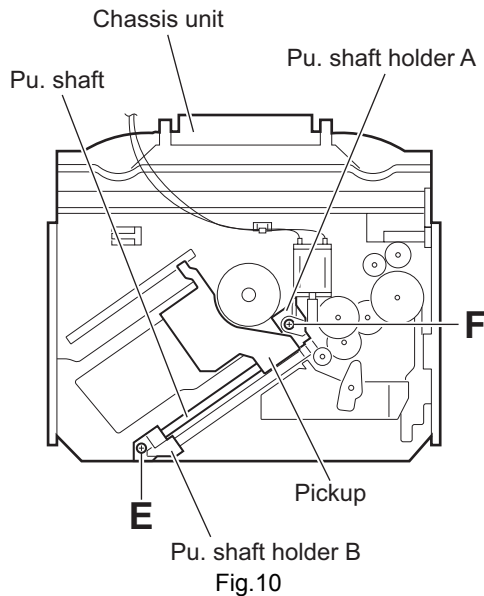


Fig.11

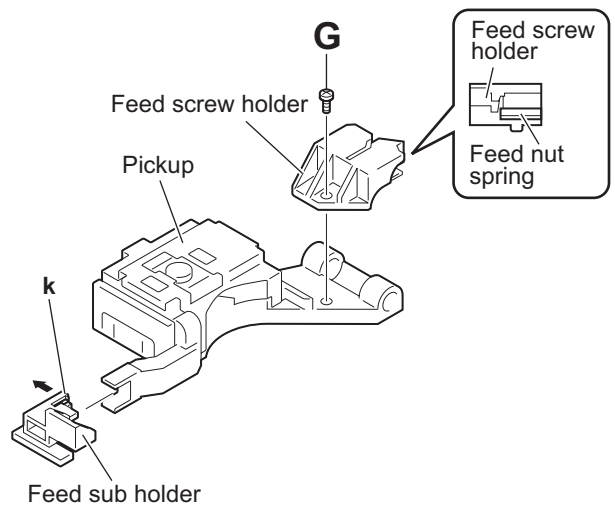


Fig.12

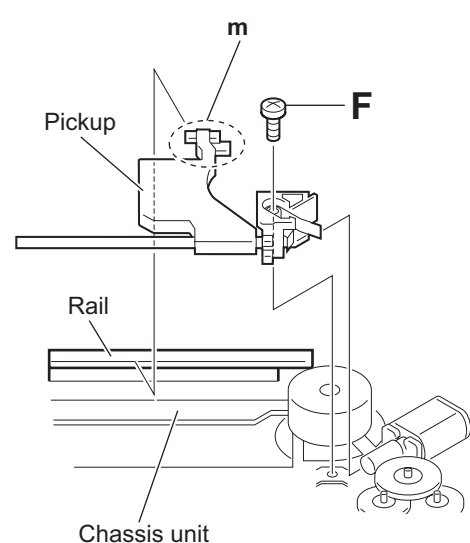


Fig.13

### 3.2.9 Removing the trigger arm (See Fig.14)

- Remove the top cover, base board, chassis unit and clamper assembly.

- From the top side of the chassis unit, remove the trigger arm spring from the sections (n, p).
- From the bottom side of the chassis unit, release the claws q of the trigger arm base in the direction of the arrow to remove them from the sections r of the chassis unit to the other side.

**Note:**

When releasing the claws q, take care not to break them.

- From the top side of the chassis unit, move the select arm R and select lock arm in the direction of the arrow to remove the trigger arm base from the section s in the direction of the arrow.
- Remove the trigger arm from the section t.

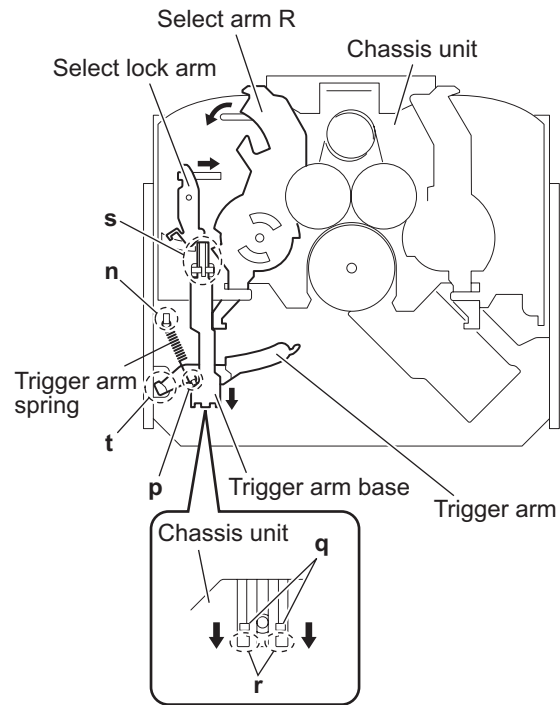


Fig.14

### 3.2.10 Removing the top plate assembly (See Fig.15)

- Remove the top cover, base board, chassis unit, clamper assembly and trigger arm.

- Remove the screw H attaching the top plate assembly.
- Move the top plate assembly in the direction of the arrow to release the joints (u, v).

**Reference:**

Remove the wires from the soldered sections w of the top plate assembly as required.

**Note:**

When reassembling, solder the wires as before.

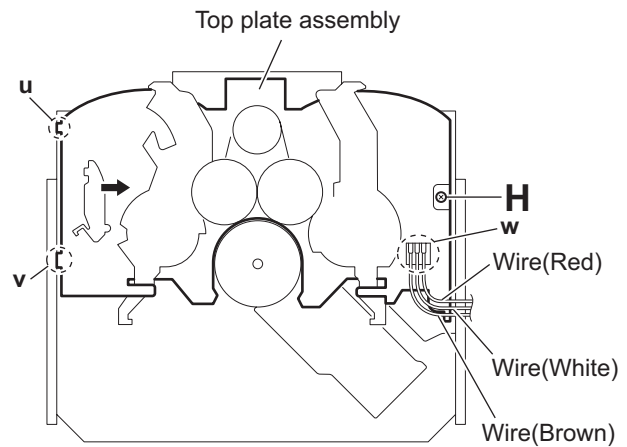


Fig.15

### 3.2.11 Removing the mode switch

(See Fig.16)

- Remove the top cover, base board, chassis unit, clamber assembly, trigger arm and top plate assembly.
  - (1) From the top side of the top plate assembly, remove the link gear spring from the sections **x** of the link gear L and link gear R.
  - (2) Remove the link gear L in an upward direction while releasing the claws **y** of the link gear L in the direction of the arrow.
  - (3) Move the mode switch in the direction of the arrow 1 to remove the sections **z** of the top plate assembly.
  - (4) Move the mode switch in the direction of the arrow 2 and remove the mode switch from the sections (**aa**, **ab**).

#### Note:

When reattaching the link gear L, attach it after aligning the hole **ac** of the link gear L to the hole **ac** of the link gear R.

#### Reference:

When reassembling, reverse the above removing procedure.

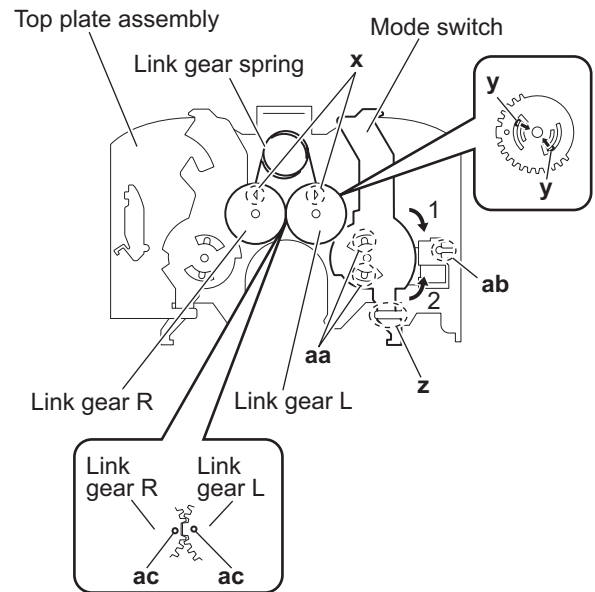


Fig.16

### 3.2.12 Removing the select arm R and select lock arm (See Figs.17 and 18)

- Remove the top cover, base board, chassis unit, clamper assembly, trigger arm and top plate assembly.
  - (1) From the top side of the top plate assembly, remove the link gear spring from the sections **ad** of the link gear L and link gear R. (See Fig.17.)
  - (2) Remove the link gear R in an upward direction while releasing the claws **ae** of the link gear R in the direction of the arrow. (See Fig.17.)
  - (3) Move the select arm R in the direction of the arrow 1 to remove the sections **af** of the top plate assembly. (See Fig.17.)
  - (4) Move the select arm R in the direction of the arrow 2 and remove the select arm R from the sections **ag**. (See Fig.17.)
  - (5) From the bottom side of the top plate assembly, remove the select lock arm spring from the section **ah**. (See Fig.18.)
  - (6) From the top side of the top plate assembly, remove the section **aj** of the select lock arm from the top plate assembly at first and remove the sections (**ak**, **am**) of the select lock arm from the top plate assembly. (See Fig.18.)

#### Note:

- When removing the select lock arm spring, be careful not to lose it. (See Fig 18.)
- When reattaching the link gear R, attach it after aligning the hole **an** of the link gear R to the hole **an** of the link gear L. (See Fig.17.)

#### Reference:

When reassembling, reverse the above removing procedure.

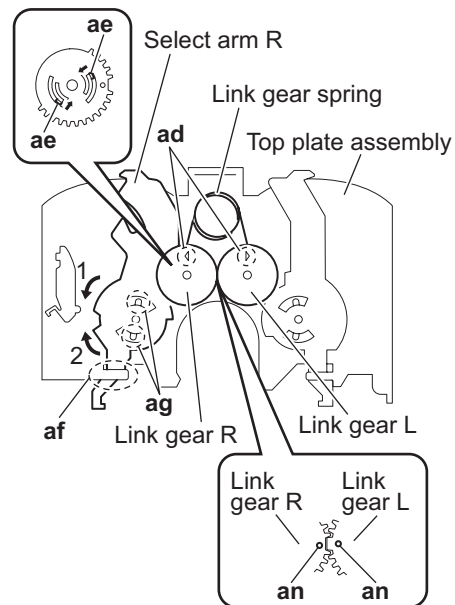


Fig.17

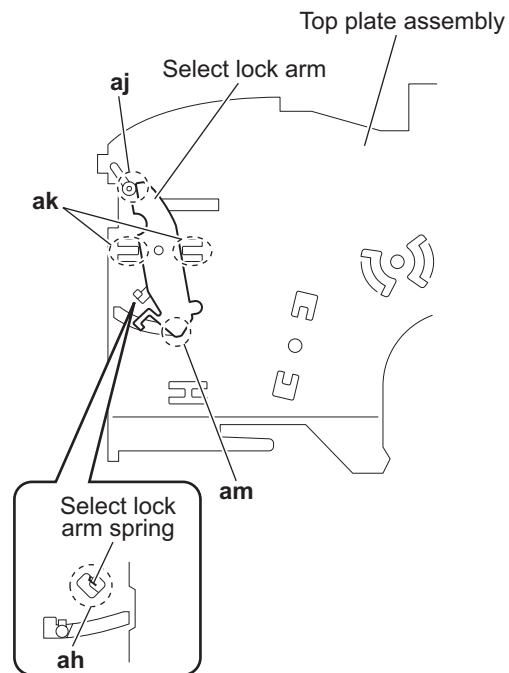
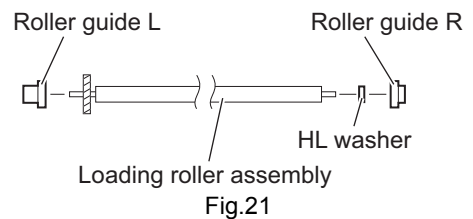
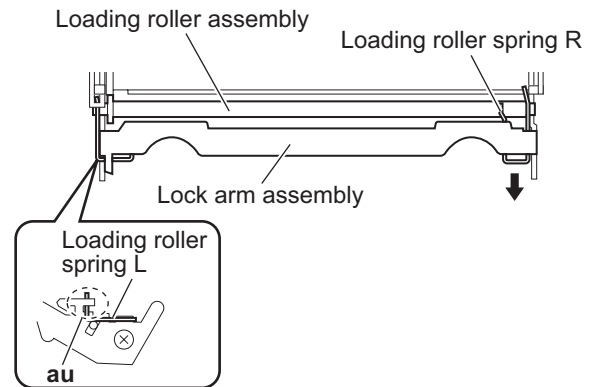
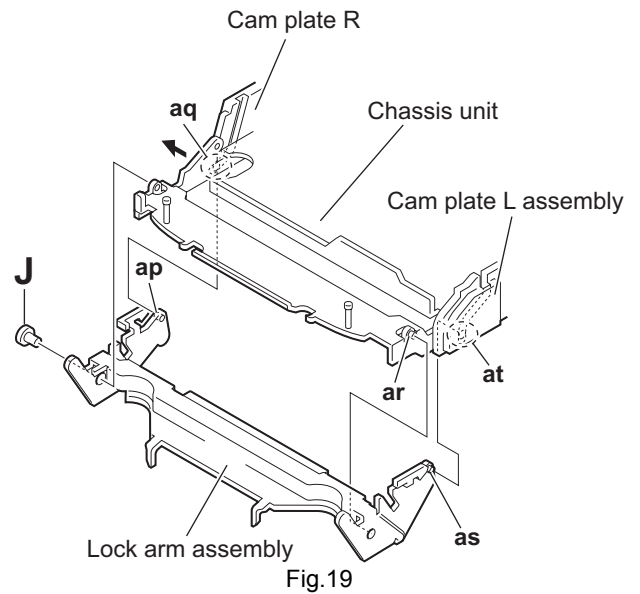


Fig.18

### 3.2.13 Removing the loading roller assembly (See Figs.19 to 21)

- Remove the top cover, base board, chassis unit, clamber assembly and top plate assembly.
- (1) From the left side of the chassis unit, remove the screw **J** attaching the lock arm assembly. (See Fig.19.)
  - (2) Remove the projection **ap** of the lock arm assembly from the joint **aq** while opening the cam plate R in the direction of the arrow. (See Fig.19.)
  - (3) Remove the lock arm assembly from the projection **ar** of the chassis unit. (See Fig.19.)
  - (4) Remove the projection **as** of the lock arm assembly from the joint **at** of the cam plate L assembly. (See Fig.19.)
  - (5) From the right side of the lock arm assembly, remove the loading roller spring L from the section **au**. (See Fig.20.)
  - (6) From the top side of the lock arm assembly, remove the loading roller spring R in the direction of the arrow and remove the loading roller assembly. (See Fig.20.)
  - (7) Remove the roller guide R, HL washer and roller guide L from the both ends of the loading roller assembly. (See Fig.21.)



### 3.2.14 Removing the loading gear 1, loading gear 2, loading gear 3 and feed gear 1 (See Fig.22)

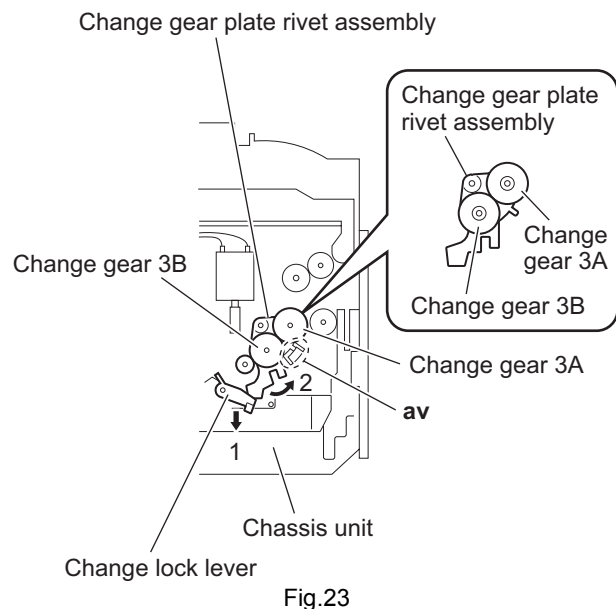
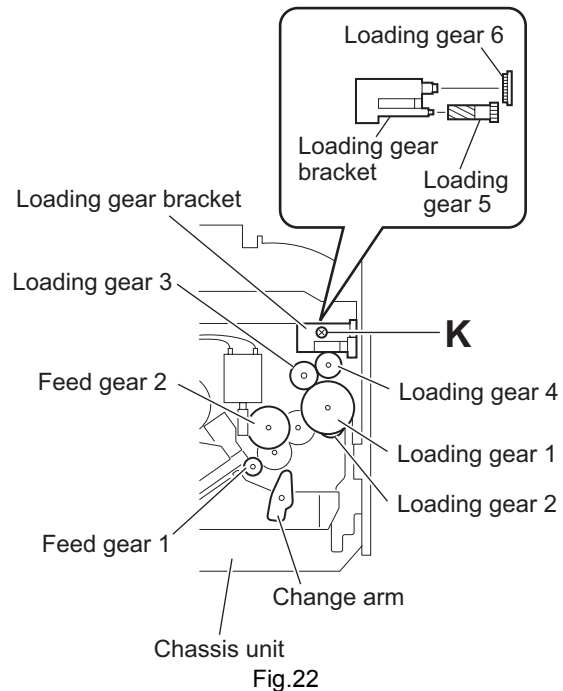
- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, pull out the loading gear 1.
  - (2) Take out the loading gear 2.
  - (3) Pull out the loading gear 3.
  - (4) Pull out the feed gear 1.

### 3.2.15 Removing the loading gear 4, loading gear 5 and loading gear 6 (See Fig.22)

- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, remove the screw **K** attaching the loading gear bracket.
  - (2) Take out the loading gear bracket and remove the loading gear 5 and loading gear 6 from the loading gear bracket.
  - (3) Pull out the loading gear 4.

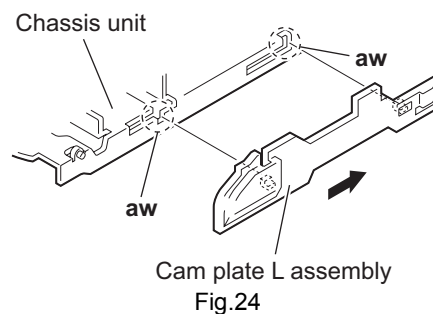
### 3.2.16 Removing the change gear 2, change gear 3A and change gear 3B (See Figs.22 and 23)

- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, pull out the loading gear 1. (See Fig.22.)
  - (2) Pull out the change gear 2. (See Fig.22.)
  - (3) Pull out the change arm. (See Fig.22.)
  - (4) Move the change gear plate rivet assembly in the direction of the arrow 2 to remove the section **av** of the change gear plate rivet assembly from the chassis unit while moving the change lock lever in the direction of the arrow 1. (See Fig.23.)
  - (5) Pull out the change gear 3A and change gear 3B from the change gear plate rivet assembly. (See Fig.23.)



### 3.2.17 Removing the cam plate L assembly (See Fig.24)

- Remove the top cover, base board, chassis unit, clamper assembly, top plate assembly and loading roller assembly.
  - (1) From the left side of the chassis unit, slide the cam plate L assembly in the direction of the arrow.
  - (2) Remove the cam plate L assembly from the slots **aw** of the chassis unit.



### 3.2.18 Removing the cam plate R (See Fig.25)

- Remove the top cover, base board, chassis unit, clamper assembly, top plate assembly and loading roller assembly.

From the right side of the chassis unit, remove the cam plate R from the slots **ax** of the chassis unit.

#### Reference:

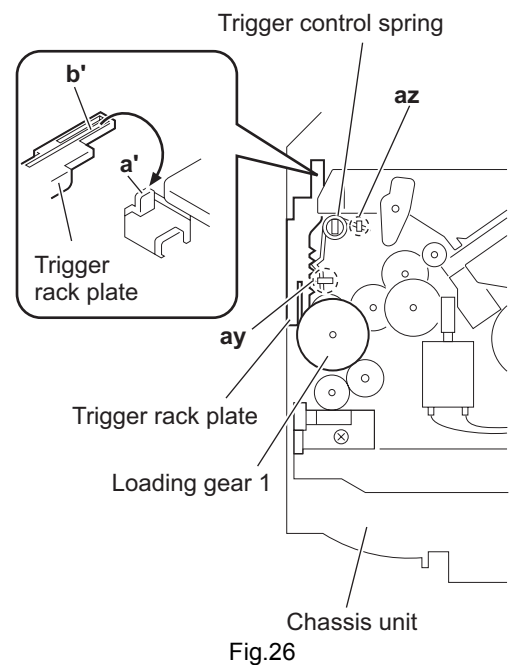
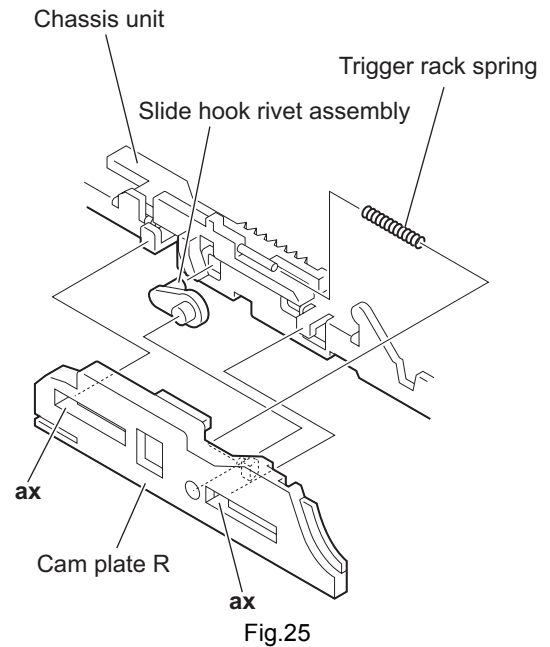
When a slide hook rivet assembly and a trigger rack spring have come off from the chassis unit, attach them before attaching the cam plate R.

### 3.2.19 Removing the trigger rack plate (See Figs.25 and 26)

- Remove the top cover, base board, chassis unit, clamper assembly, top plate assembly, loading roller assembly and cam plate R.
  - (1) Remove the slide hook rivet assembly and trigger rack spring from the chassis unit. (See Fig.25.)
  - (2) From the bottom side of the chassis unit, pull out the loading gear 1. (See Fig.26.)
  - (3) Remove the trigger control spring from the sections (**ay**, **az**). (See Fig.26.)
  - (4) Take out the trigger rack plate from the chassis unit. (See Fig.26.)

#### Reference:

When attaching the trigger rack plate, insert the projection **a'** of the chassis unit in the slot **b'** on the bottom side of the trigger rack plate as before. (See Fig.26.)



### 3.2.20 Removing the spindle motor assembly (See Figs.27 and 28)

- Remove the top cover, base board, chassis unit and clamper assembly.
  - (1) From the top side of the chassis unit, turn the turn table from side to side and remove the two screws **M** attaching the spindle motor assembly through the hole of the turn table. (See Fig.27.)
  - (2) From the bottom side of the chassis unit, turn the change gear 2 in the direction of the arrow 2 while pulling the trigger arm in the direction of the arrow 1 and let the pickup move in the direction of the arrow 3. (See Fig.28.)
  - (3) Slide the spindle motor assembly in the direction of the arrow and take out it in an upward direction from the chassis unit. (See Fig.28.)

#### Reference:

Remove the wires from the soldered sections **c'** on the base board and remove them from the sections (**d'**, **e'**) on the chassis unit as required.

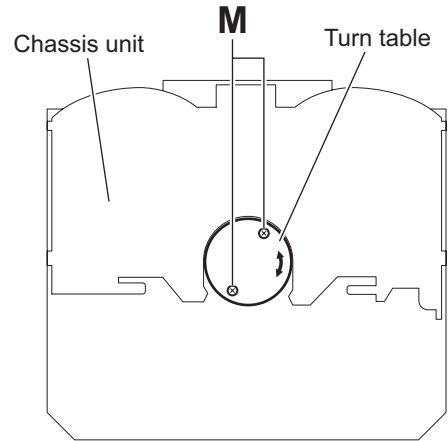


Fig.27

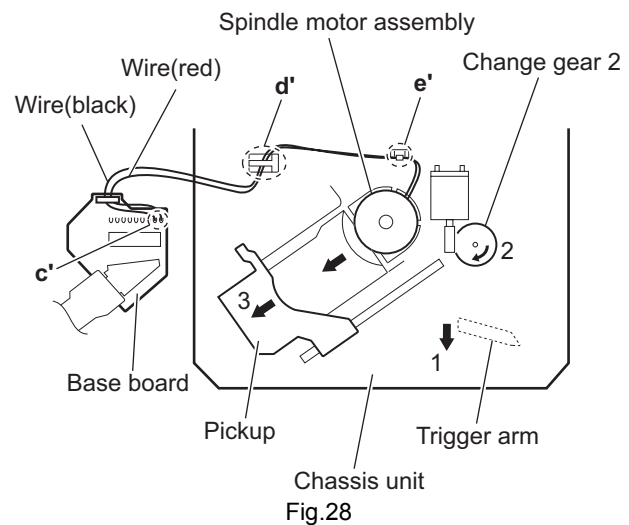


Fig.28

## SECTION 4 ADJUSTMENT

### 4.1 Test instruments required for adjustment

- (1) Digital oscilloscope (100MHz)
- (2) Electric voltmeter
- (3) Digital tester
- (4) Tracking offset meter
- (5) Test Disc JVC :CTS-1000
- (6) Extension cable for check  
EXTSH002-22P x 1

### 4.2 Standard measuring conditions

Power supply voltage DC14.4V(10.5 to 16V)  
Load impedance 20K.(2 Speakers connection)  
Output Level Line out 2.5V (Vol. MAX)

### 4.5 How to connect the extension cable for adjusting

#### Caution:

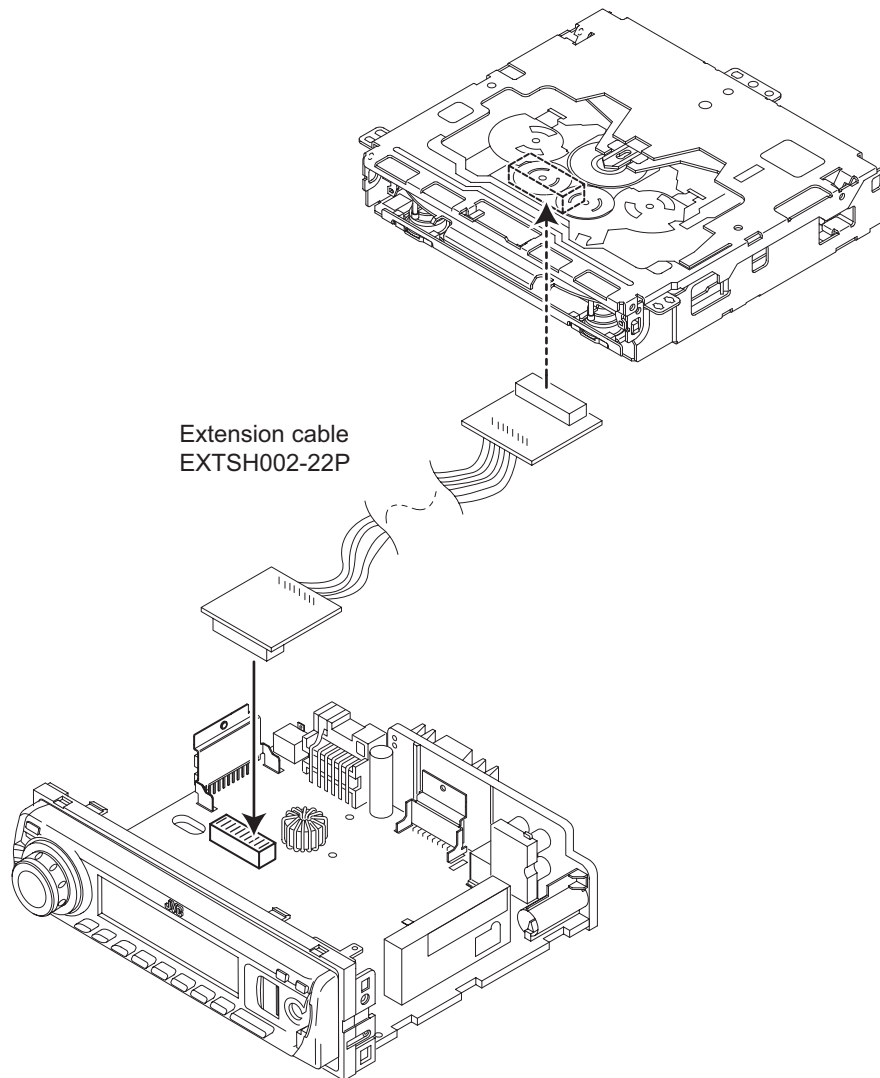
Be sure to attach the heat sink and rear bracket onto the power amplifier IC and regulator IC respectively, before supply the power.  
If voltage is applied without attaching these parts, the power amplifier IC and regulator IC will be destroyed by heat.

### 4.3 Standard volume position

Balance and Bass & Treble volume : Indication "0"  
Loudness : OFF

### 4.4 Dummy load

Exclusive dummy load should be used for AM, and FM.  
For FM dummy load, there is a loss of 6dB between SSG output and antenna input.  
The loss of 6dB need not be considered since direct reading of figures are applied in this working standard.

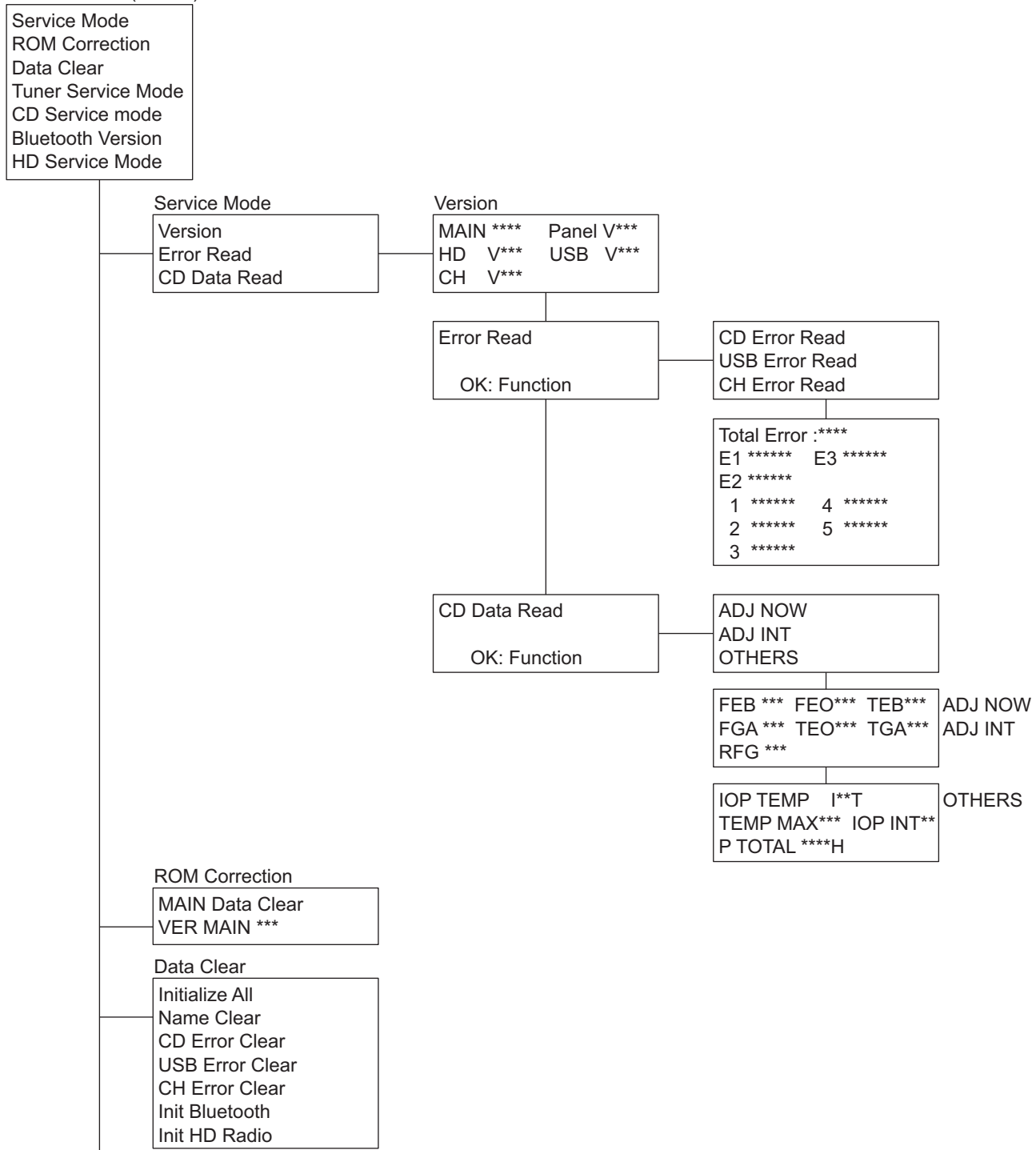


## 4.6 Service mode

### Service mode setting

- (1) Push POWER BUTTON (Power ON)
- (2) Set to service mode  
Keep this state more 2 seconds while connecting pressing the [SEL] button, [STANDBY/ON ATTENUATOR] button and [SOURCE] button sequentially.
- (3) Select the menu with [▲] button and [▼] button, and decide it with [1] button.
- (4) When the [3] button is pushed, it returns to the former menu.

### Service mode (MENU)



#### Tuner Service Mode

```

TU=M***
D/******      SPI=****
PI =****      ** *
SM=*.*V        SQ=*.*V
PI =****      ** **
TP/TA=*/*      FSTR=***
MS/DI=*/*      DEV=**
AJCH=***      ISS=***
PTY=****      No Name
VER=****
AF
** ** ** **
** ** ** **
** ** ** **

```

#### RDS Engineer Mode

OK: Function

```

SYNC  =*
PIC   =*s
AFC   =*s
SMTH1=*.*
SMTH2=*.*
SQ    =**H
SM L  =**H
SMM1  =**H
SMM2  =**H
ERR1  =**H
SYNC  =***
AFSYN=***
TUR   =** **
TUW   =** **

```

#### CD Service Mode

```

FEBC =**  FGADD=**
TEBC =**  TGADD=**
FEOF =*** TEOF  =***
RFGC=**

```

#### Bluetooth Version (It is displayed in Bluetooth adaptor connection.)

```

SW BT_CORE      ***
HW BT_MODULE    ***
SW BT_MODULE    ***
SW HIDEAWAY     ***
ADR-*****

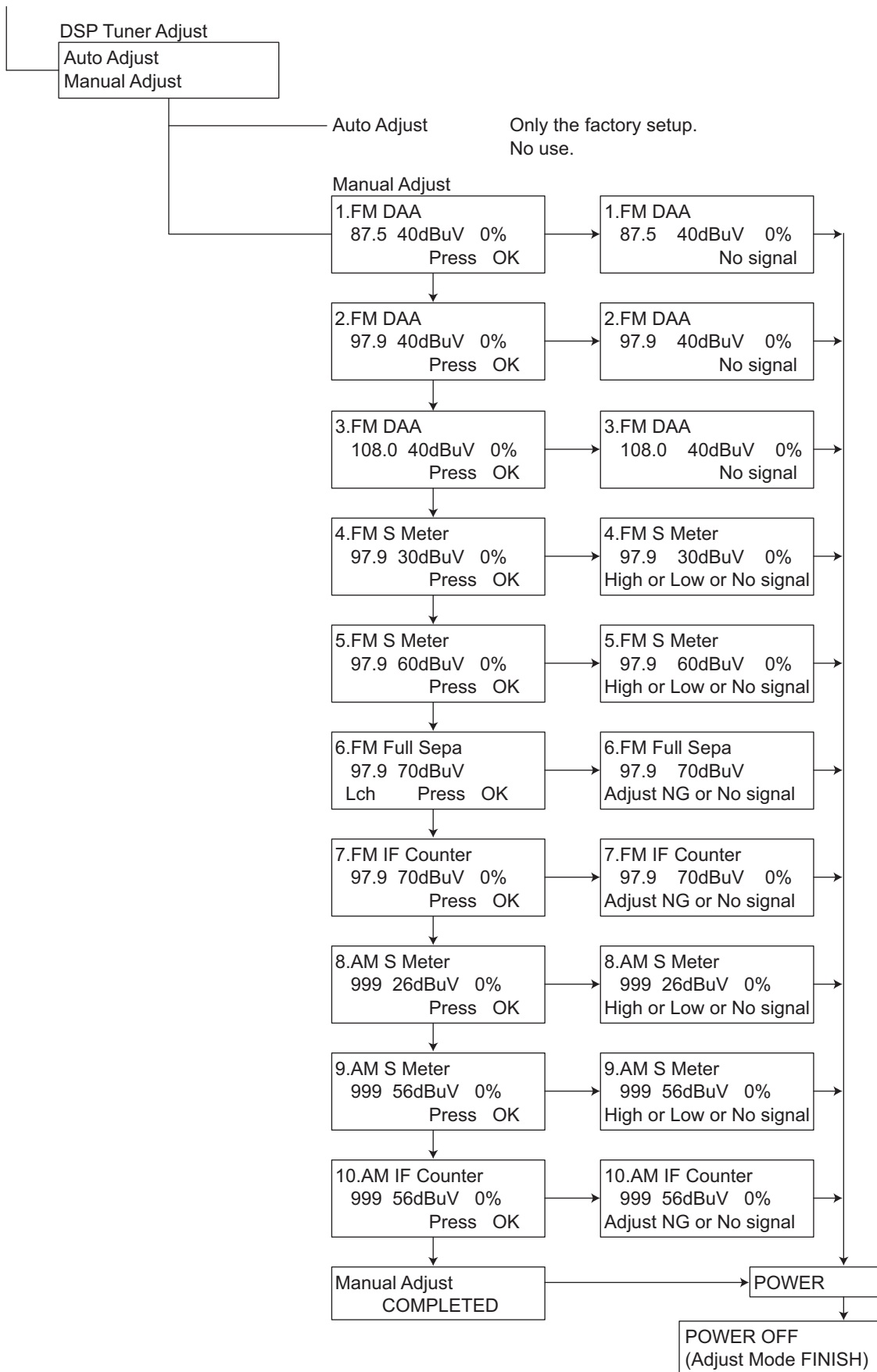
```

#### HD Service Mode (It is displayed in HD Radio Tuner connection.)

```

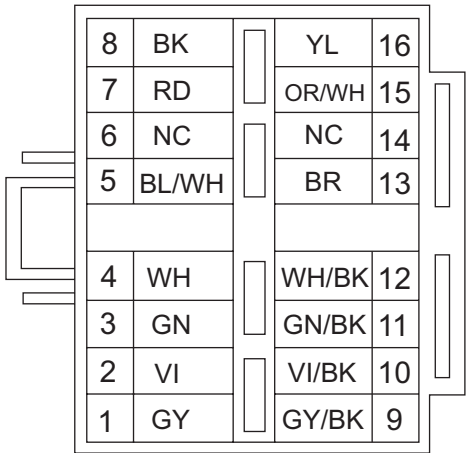
SM      **
IDM     V***
MP      **
ADJ     **
IFBW    *
IF      *****
QI      **
SNR     **
BCNT    *
AGAIN   **

```

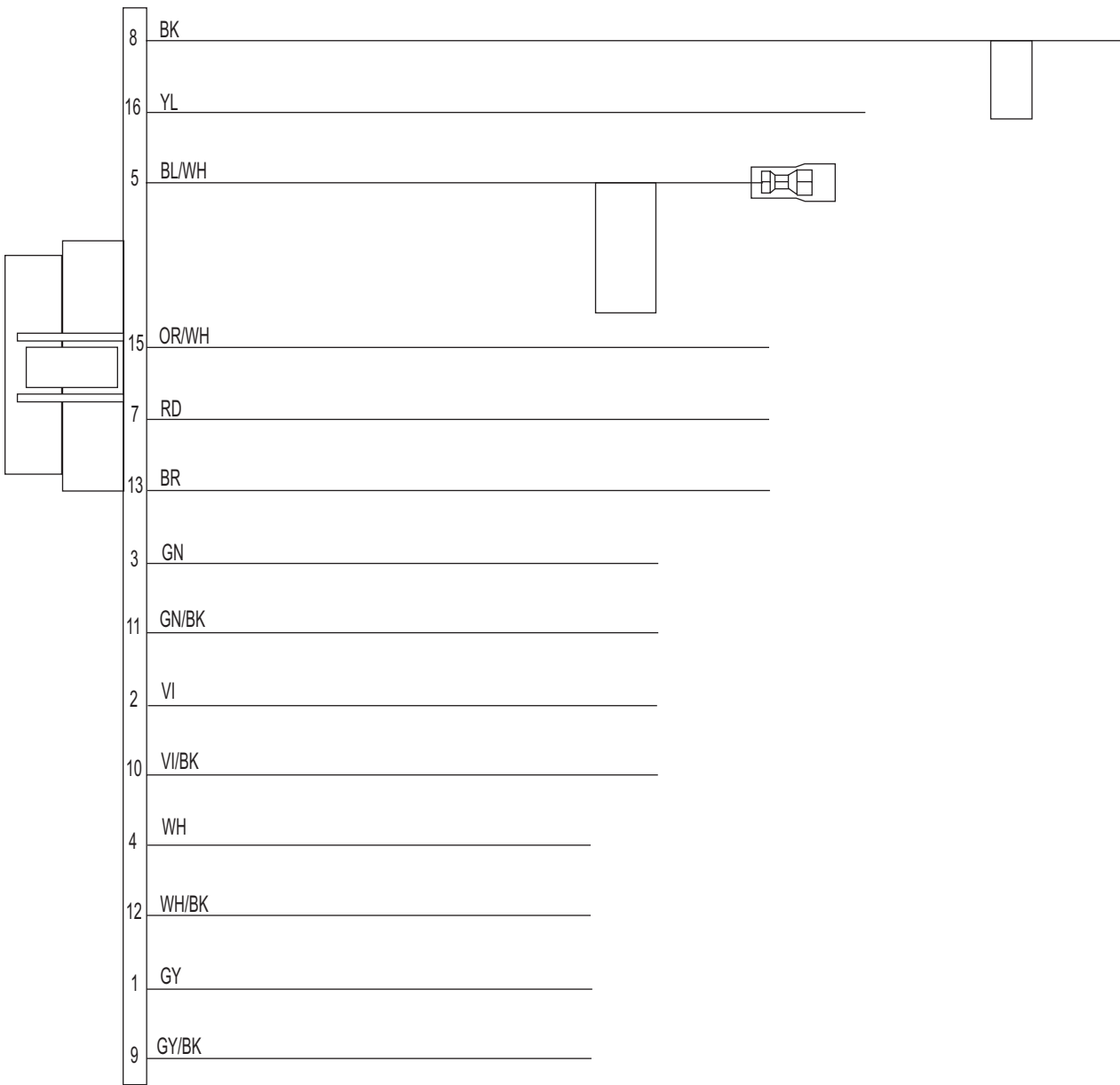


# SECTION 5 TROUBLESHOOTING

## 5.1 16 PIN CORD DIAGRAM (for KD-APD89)

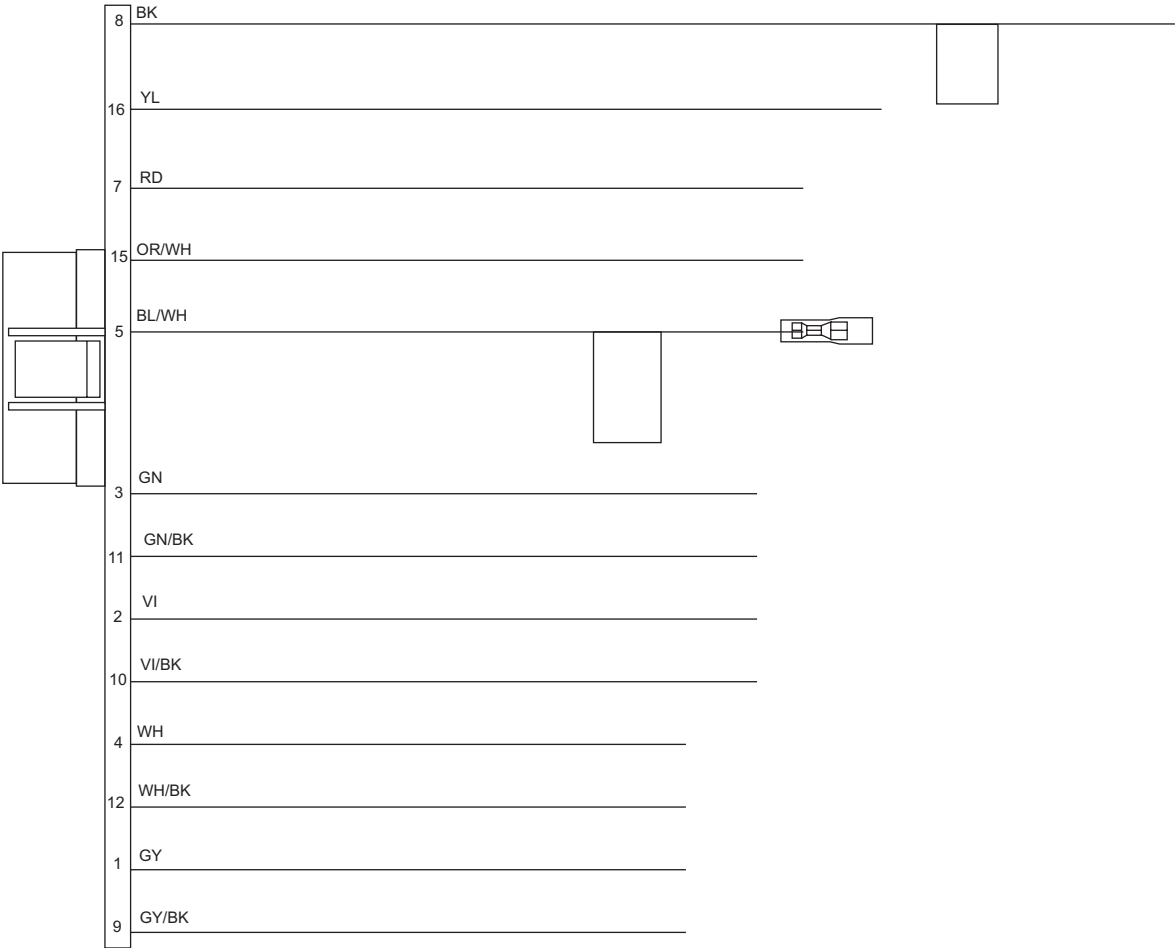
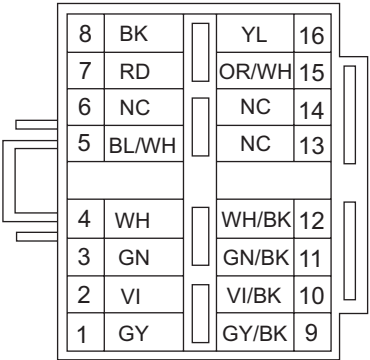


|    |       |    |        |
|----|-------|----|--------|
| BK | Black | VI | Violet |
| RD | Red   | GY | Gray   |
| BL | Blue  | YL | Yellow |
| WH | White | OR | Orange |
| GN | Green | BR | Brown  |

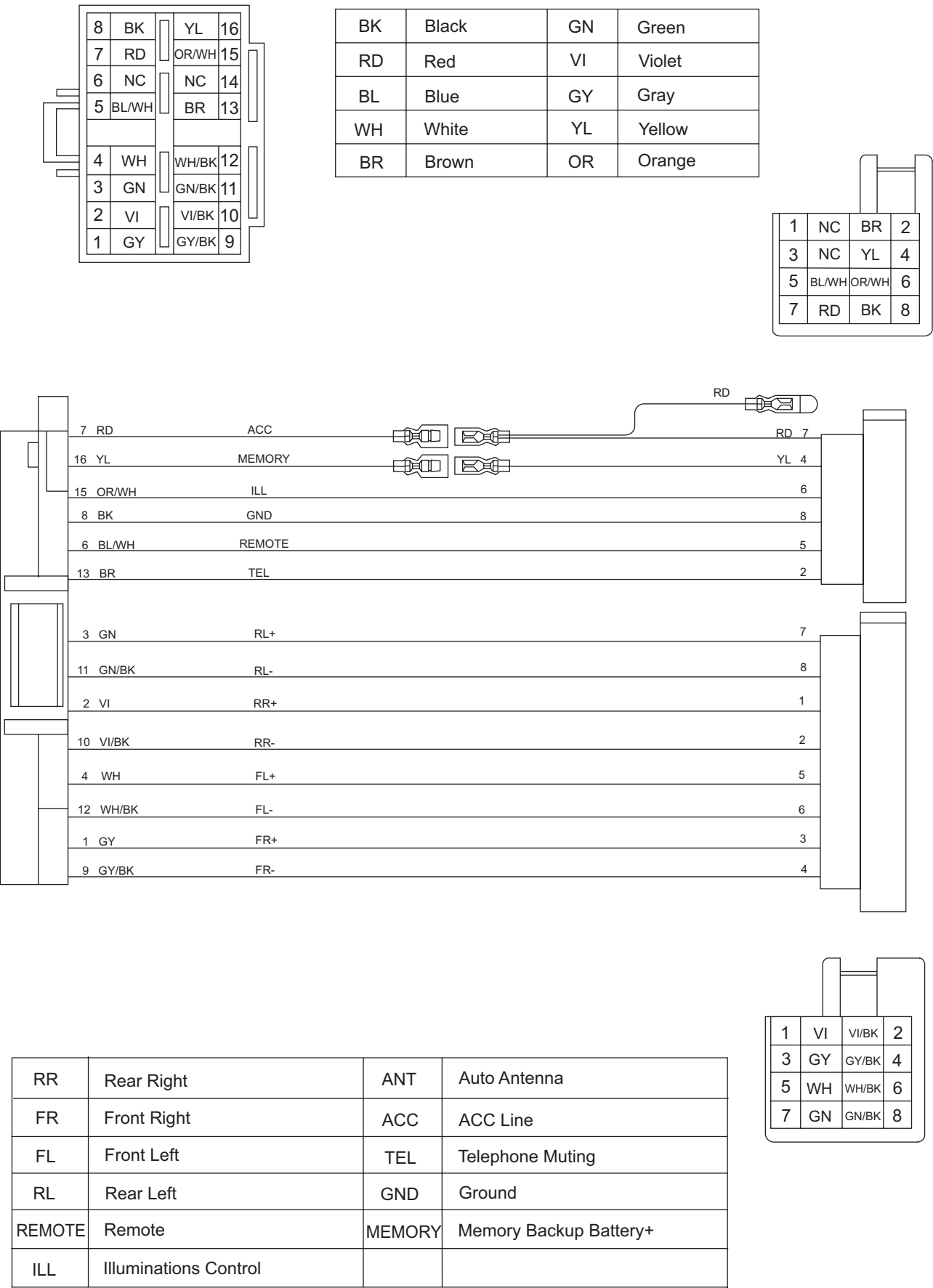


5.2 16 PIN CORD DIAGRAM (for KD-PDR80)

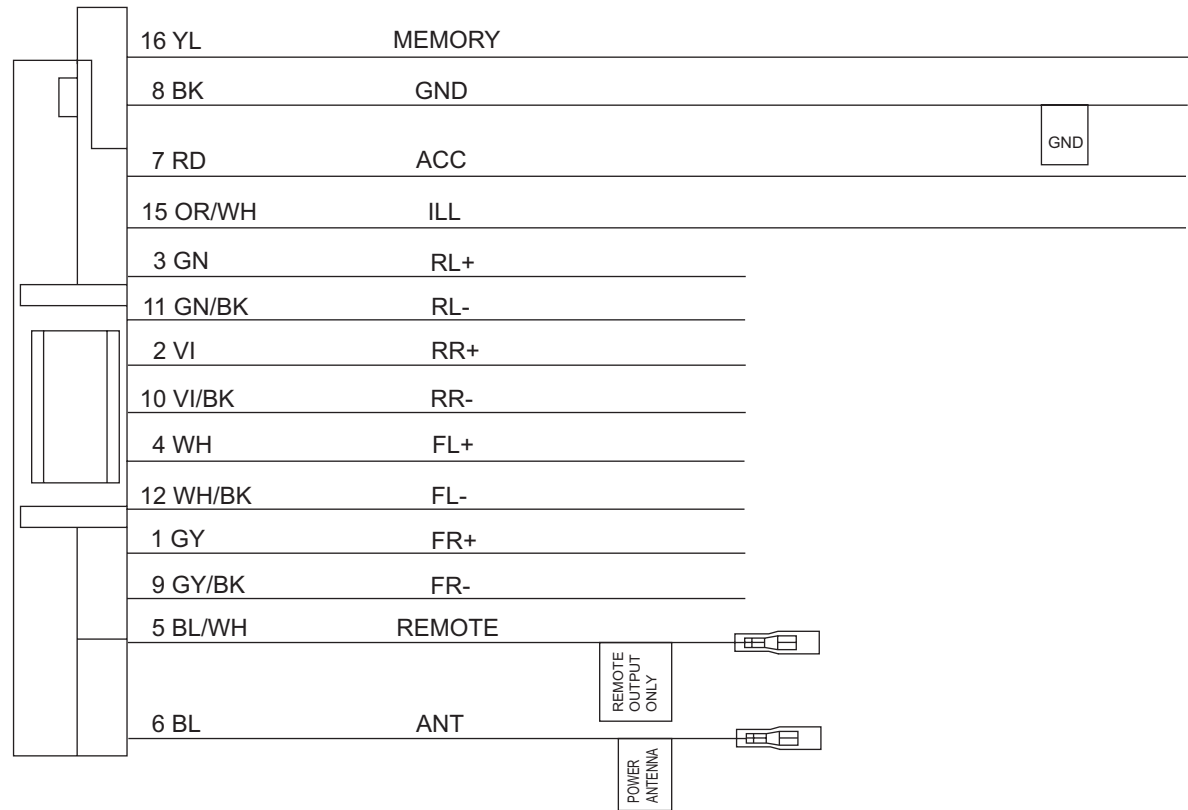
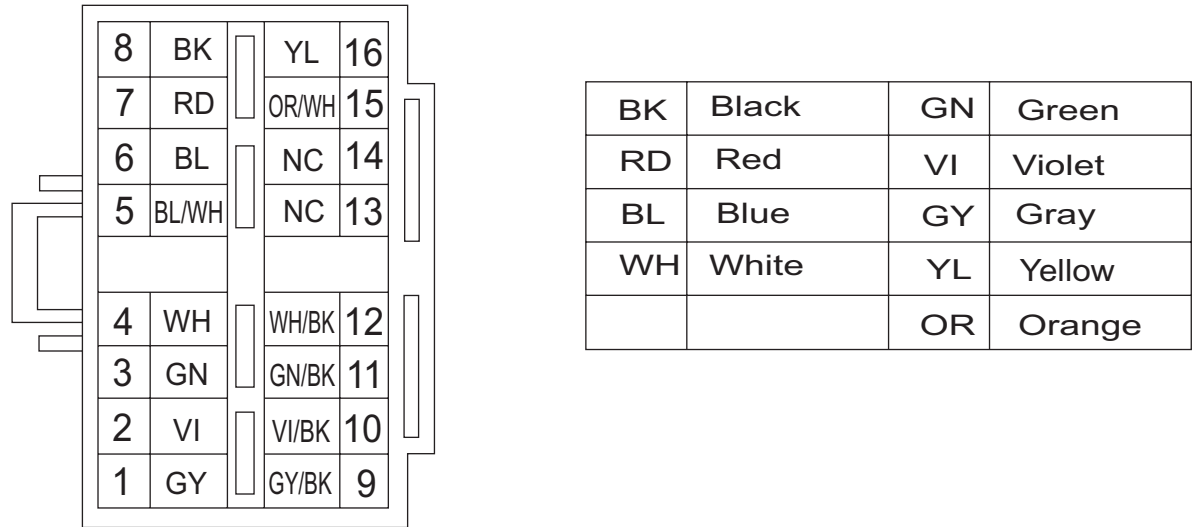
|    |        |    |        |
|----|--------|----|--------|
| BK | Black  | GN | Green  |
| RD | Red    | VI | Violet |
| BL | Blue   | GY | Gray   |
| WH | White  | YL | Yellow |
| OR | Orange |    |        |



5.3 16 PIN CORD DIAGRAM (for KD-PDR61, KD-G847, KD-PDR62)

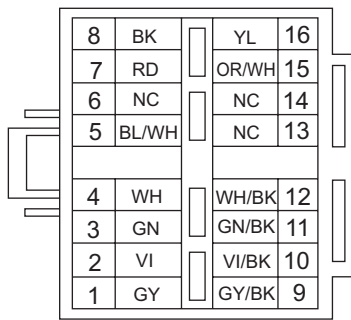


5.4 16 PIN CORD DIAGRAM (for KD-G844, KD-G845)

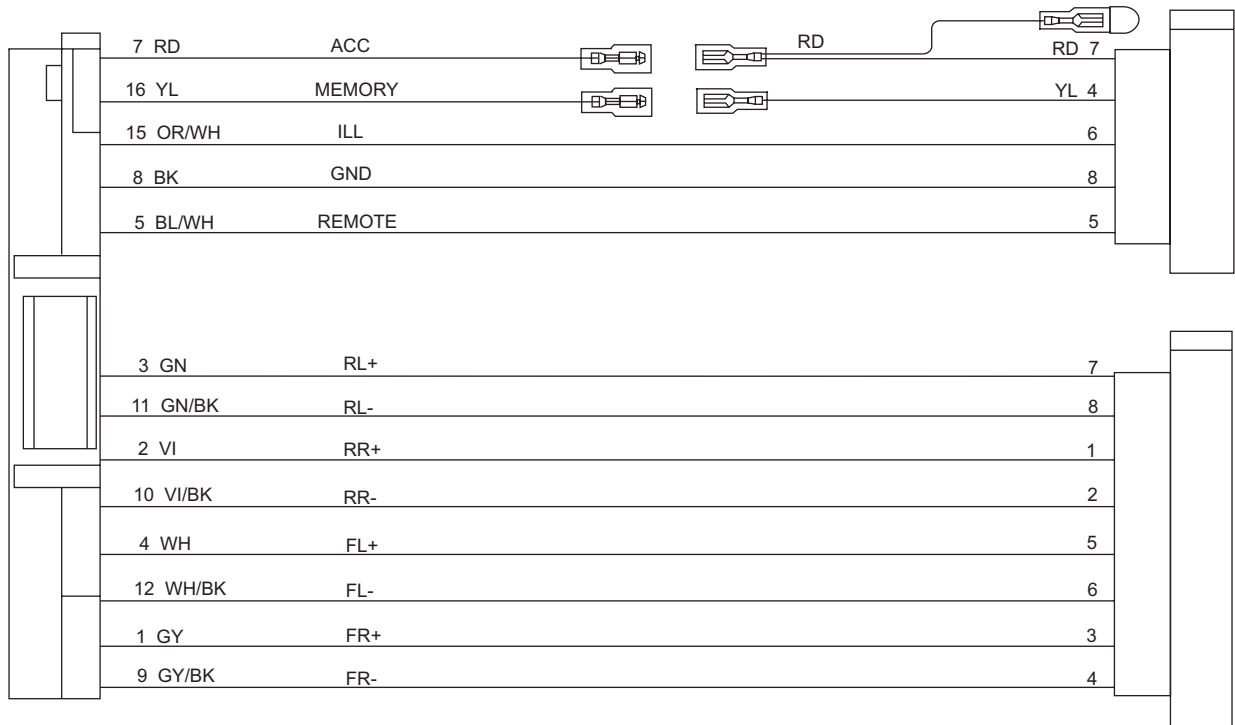
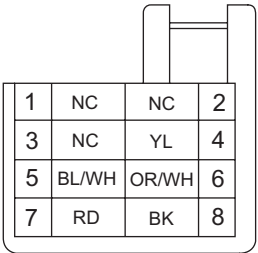


|        |             |        |                        |
|--------|-------------|--------|------------------------|
| RR     | Rear Right  | ANT    | Auto Antenna           |
| FR     | Front Right | ACC    | ACC Line               |
| FL     | Front Left  | ILL    | Illuminations Control  |
| RL     | Rear Left   | GND    | Ground                 |
| REMOTE | Remote out  | MEMORY | Memory Backup Battery+ |

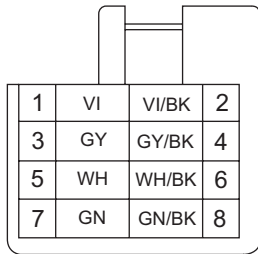
5.5 16 PIN CORD DIAGRAM



|    |        |    |        |
|----|--------|----|--------|
| BK | Black  | GN | Green  |
| RD | Red    | VI | Violet |
| BL | Blue   | GY | Gray   |
| WH | White  | YL | Yellow |
| OR | Orange |    |        |



|    |             |        |                        |
|----|-------------|--------|------------------------|
| RR | Rear Right  | REMOTE | Remote out             |
| FR | Front Right | ACC    | ACC Line               |
| FL | Front Left  | MEMORY | Memory Backup Battery+ |
| RL | Rear Left   | GND    | Ground                 |
|    |             | ILL    | Illuminations Control  |



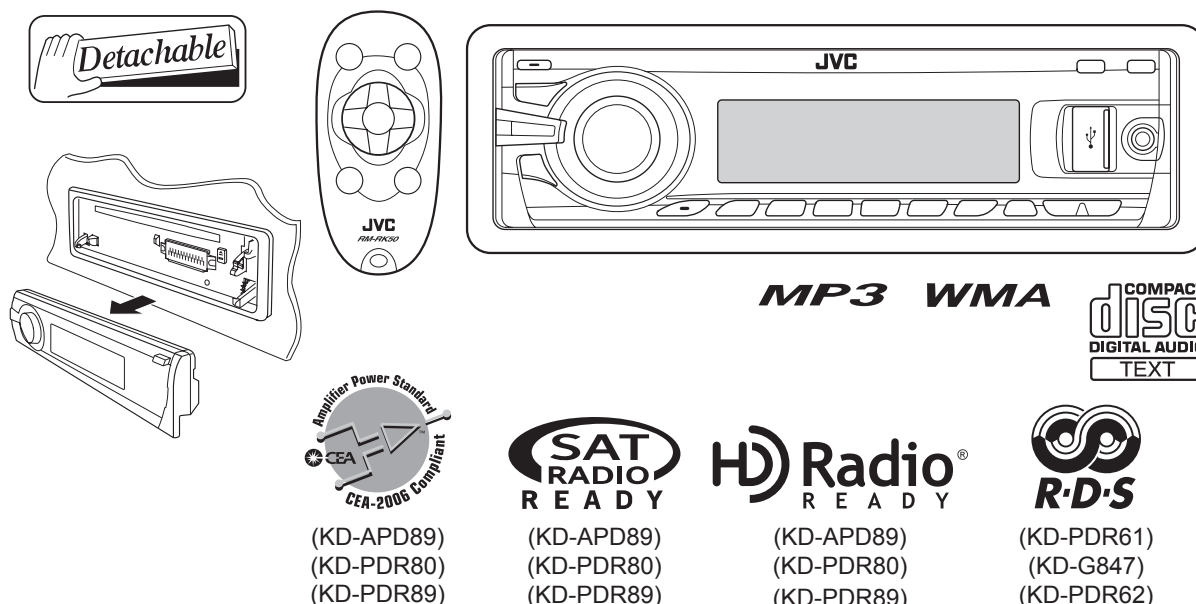
# JVC

## SCHEMATIC DIAGRAMS

### CD RECEIVER

**KD-APD89J, KD-PDR80J, KD-PDR61E  
KD-PDR61EX, KD-PDR61EY, KD-G844UI  
KD-G845U, KD-G845UN, KD-G845UT  
KD-G845UH, KD-G847EE, KD-PDR89UR  
KD-PDR62E, KD-PDR62EX, KD-PDR62EY**

DVD-ROM No.SML2008Q2



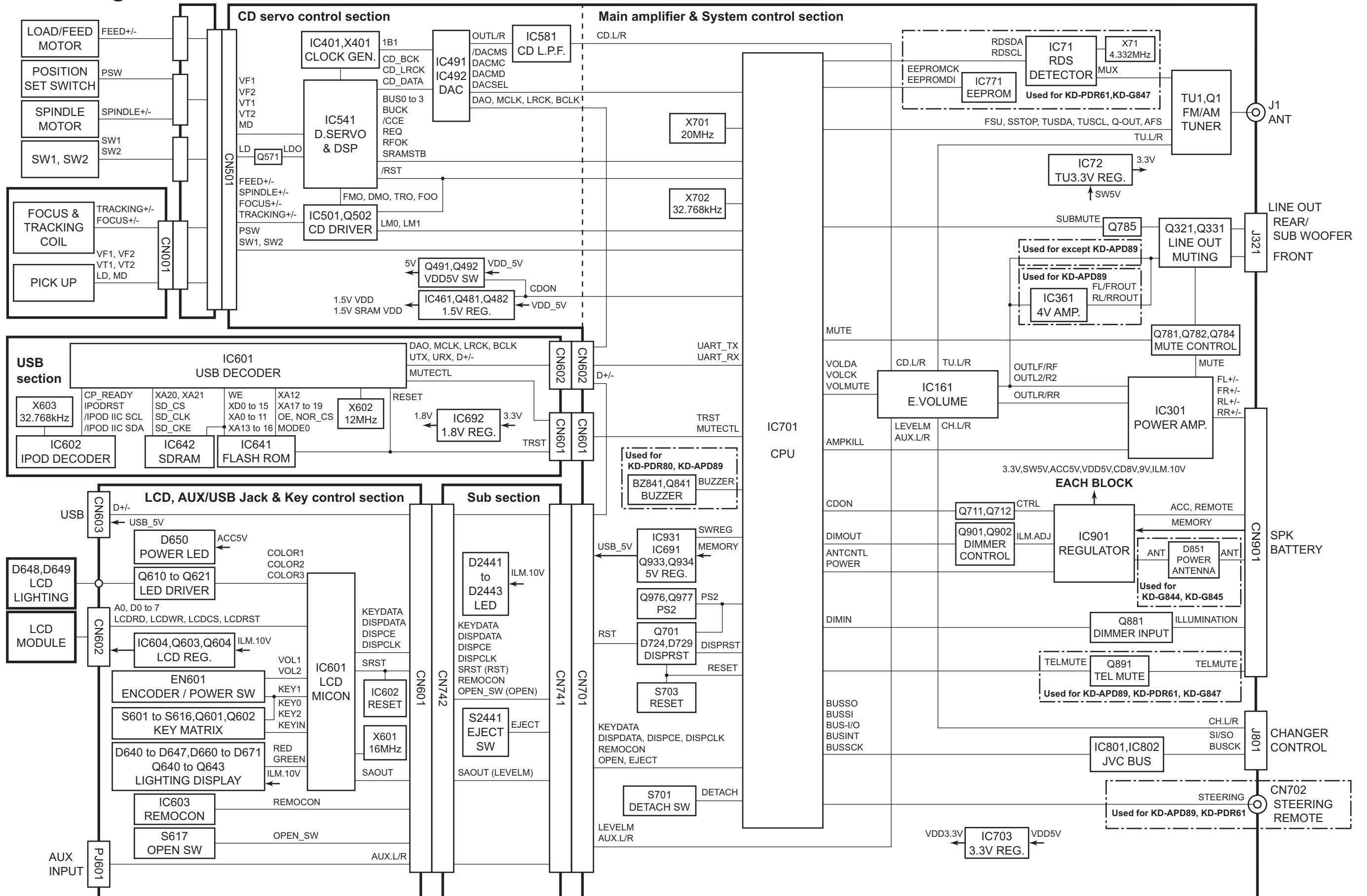
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)

#### Contents

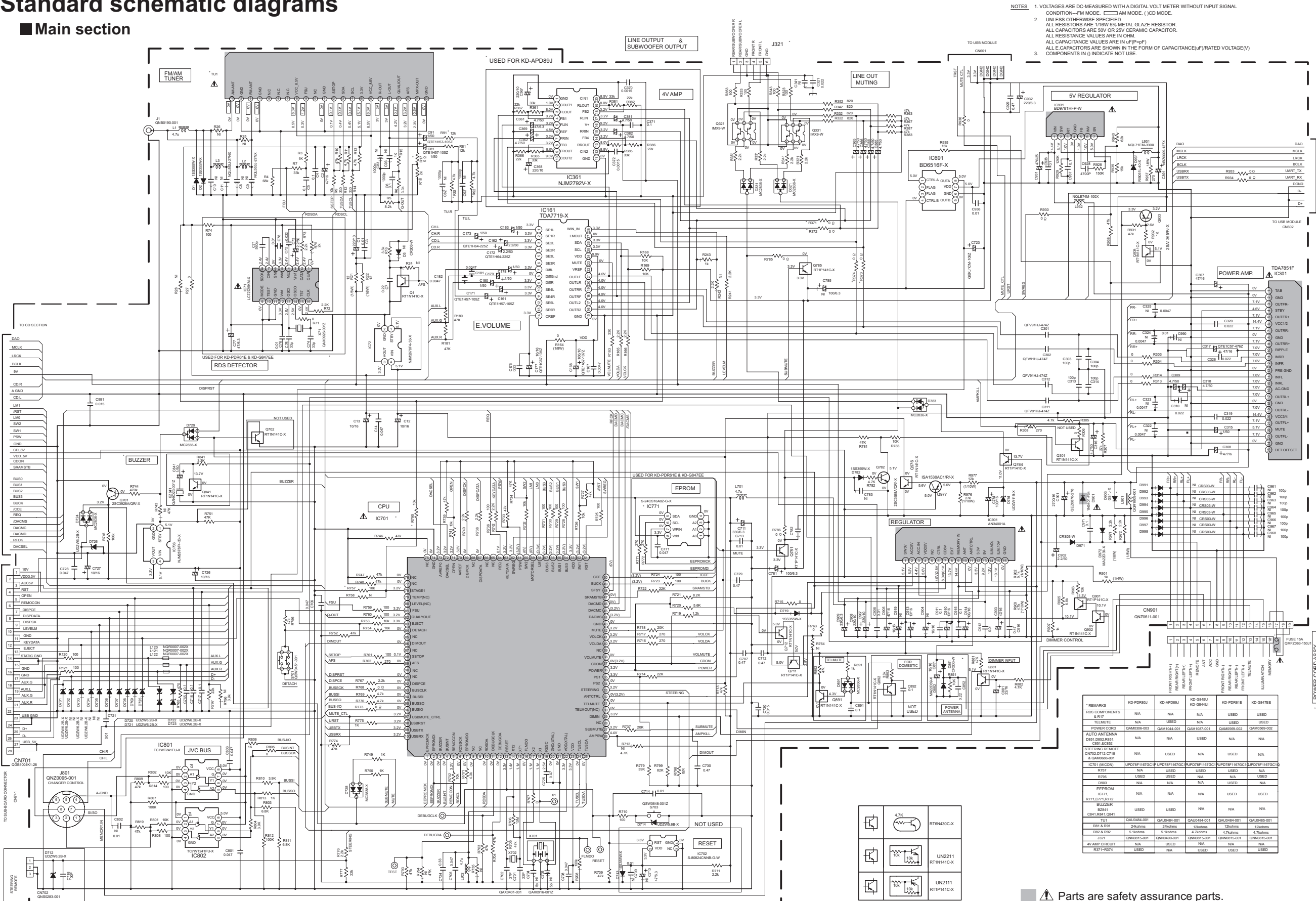
|                                   |          |
|-----------------------------------|----------|
| Block diagram .....               | 2-1      |
| Standard schematic diagrams ..... | 2-2      |
| Printed circuit boards .....      | 2-7 to 8 |

## Block diagram

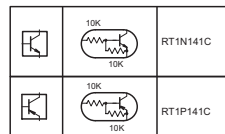
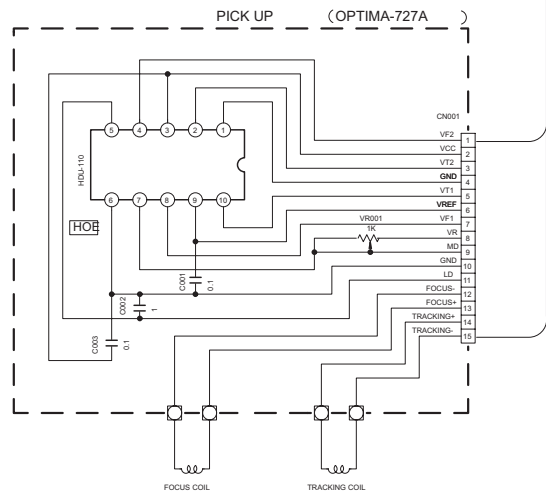
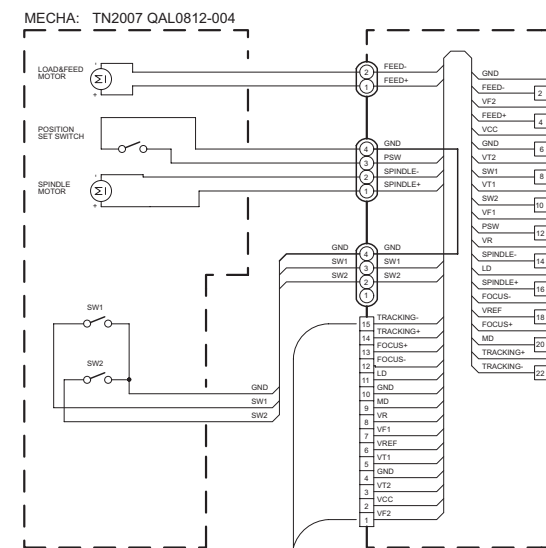


Standard schematic diagrams

Main section

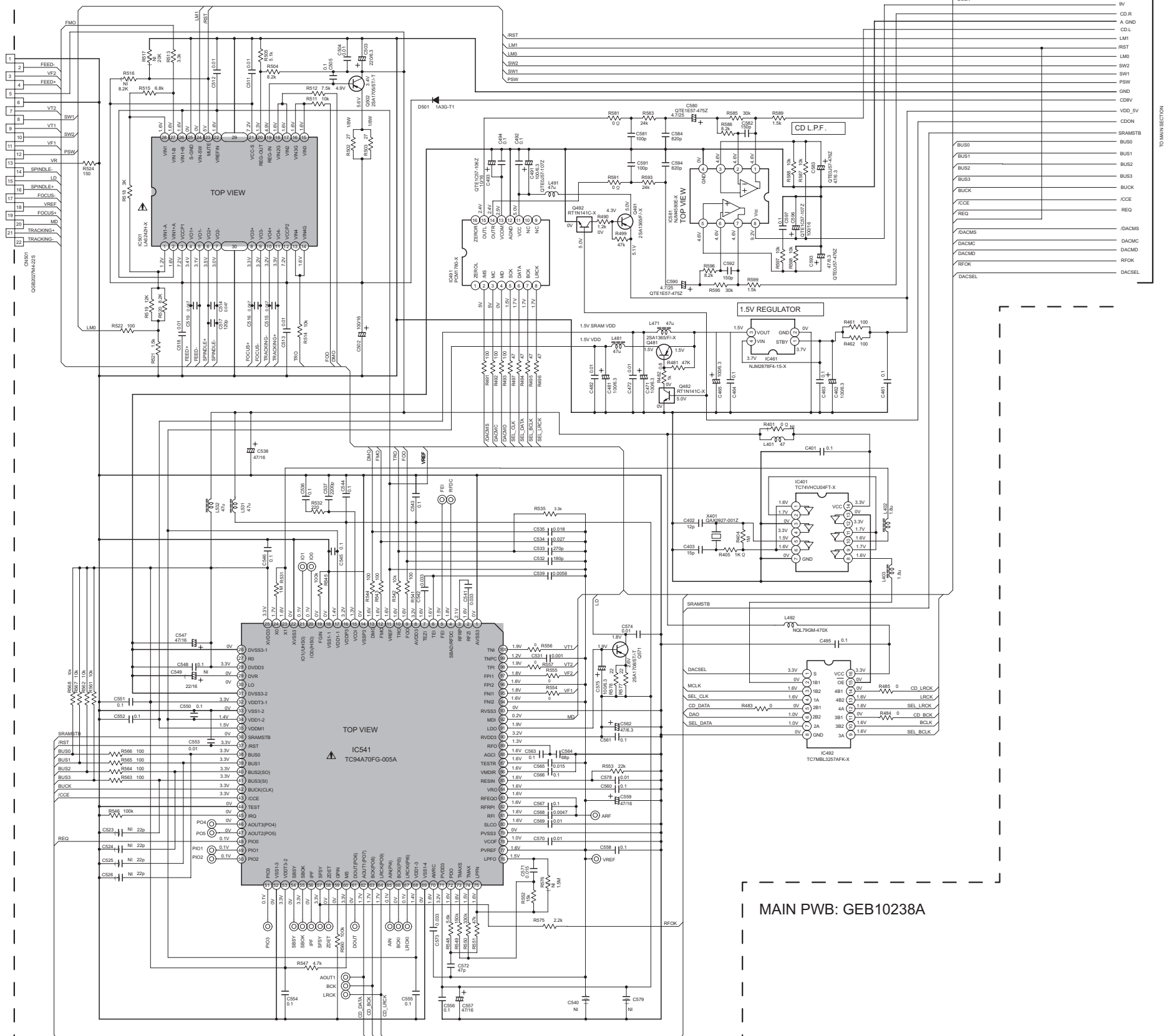


## ■ CD section



NOTES:

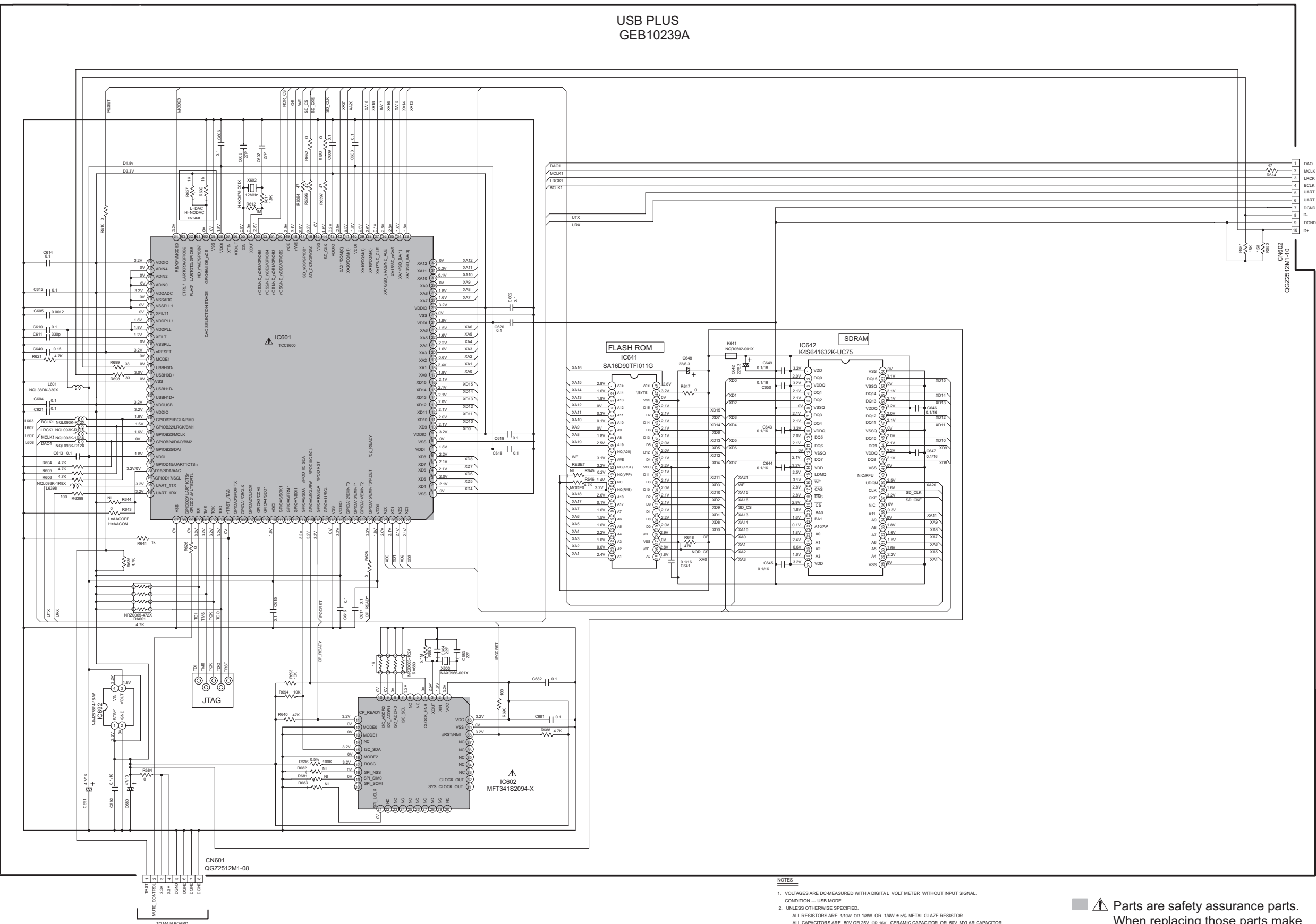
1. VOLTAGE ARE DC-MEASURED WITH A DIGITAL VOLTMETER WITHOUT INPUT SIGNAL CONDITION --- DC MODE.
2. UNLESS OTHERWISE SPECIFIED.  
ALL RESISTOR ARE 1/16W 5%METAL GLAZE RESISTOR.  
ALL CAPACITOR ARE 50V OR 25V CERAMIC CAPACITOR .  
ALL RESISTANCE VALUES ARE IN OHM  
ALL CAPACITANCE VALUES ARE IN  $\mu F(p.p.f)$  .  
ALL INDUCTANCE VALUES ARE IN  $\mu H$   
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE( $\mu F$ )/RATED VOLTAGE (V)



MAIN PWB: GEB10238A

 Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■ USB section



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
CONDITION — USB MODE

2. UNLESS OTHERWISE SPECIFIED:

ALL RESISTORS ARE 1/10W OR 1/8W OR 1/4W  $\pm 5\%$  METAL GLAZE RESISTOR.

ALL CAPACITORS ARE .50V OR .25V OR .16V CERAMIC CAPACITOR OR .50V MYLAR CAPACITOR.

ALL RESISTANCE VALUES ARE IN OHMS( $\Omega$ ).

ALL CAPACITANCE VALUES ARE IN  $\mu$ F( $\mu$ F).

ALL E CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE( $\mu$ F)/RATED VOLTAGE (V).

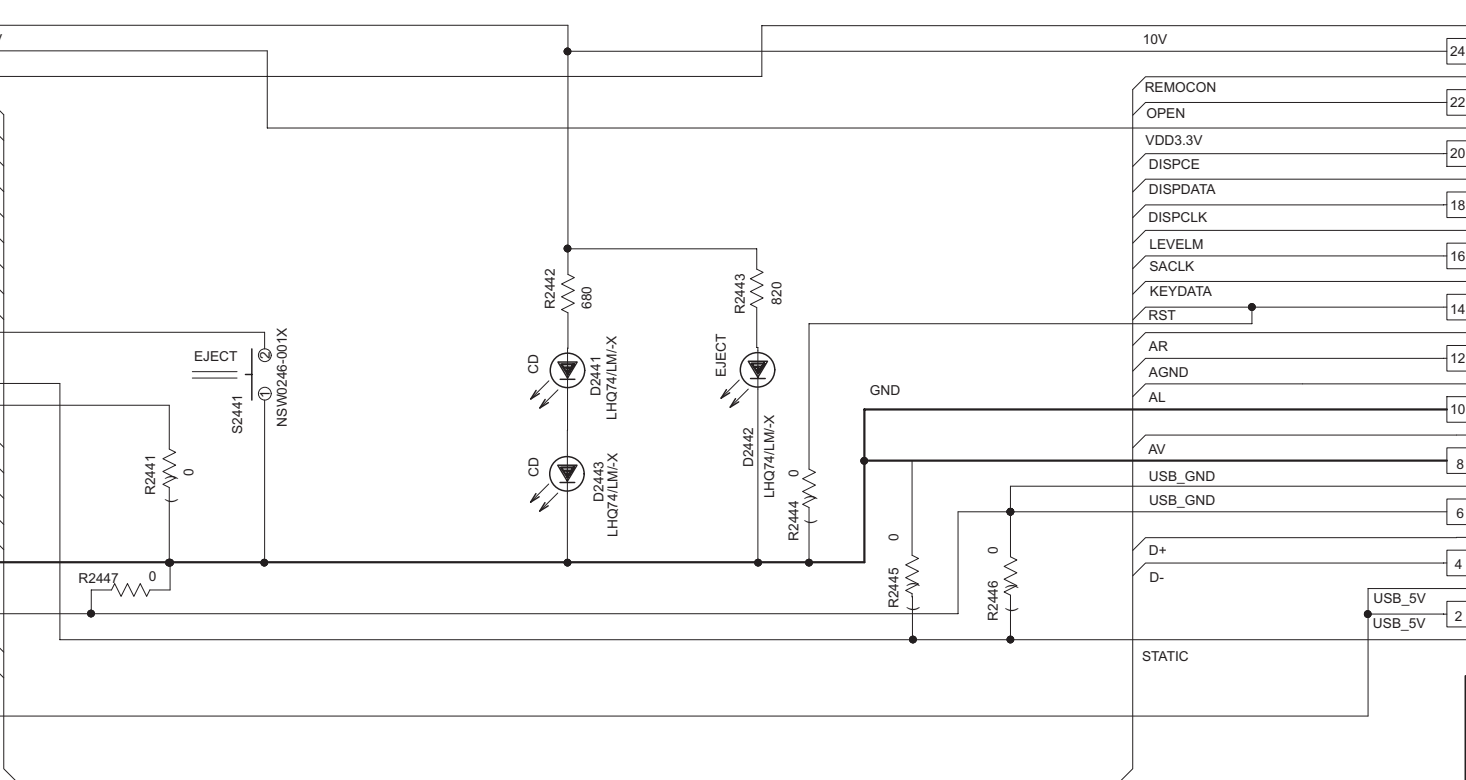
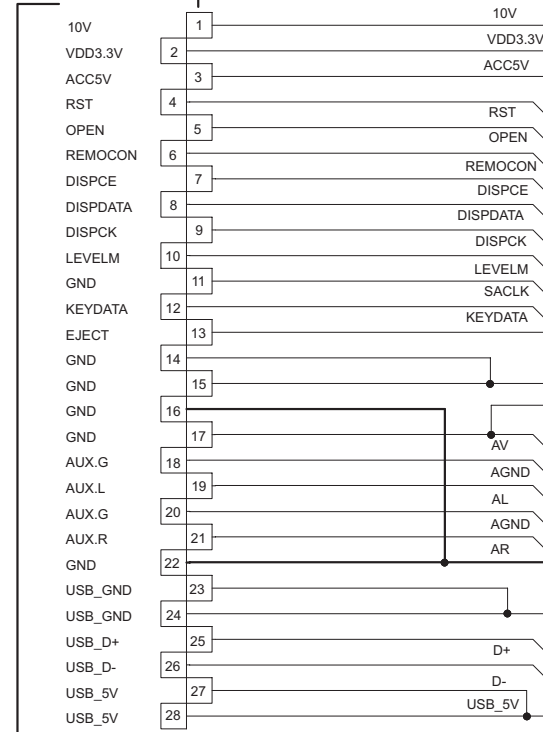
⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.

■ Sub board section

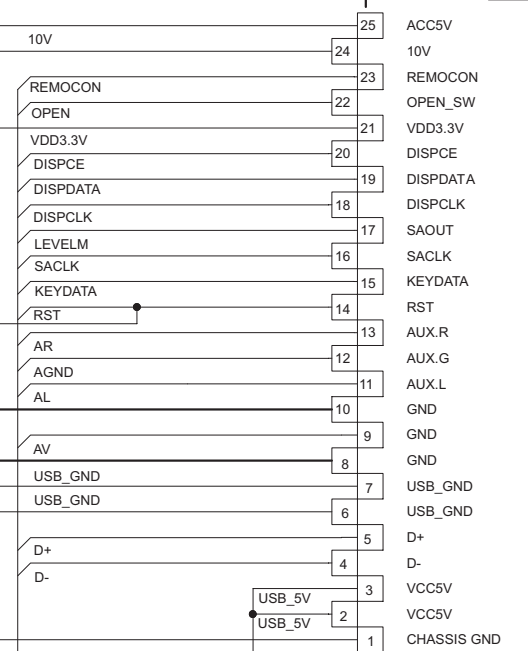
TO MAIN BOARD

CN701

CN741  
QGB1004J2-28X



CN742  
QGZ1201L1-25



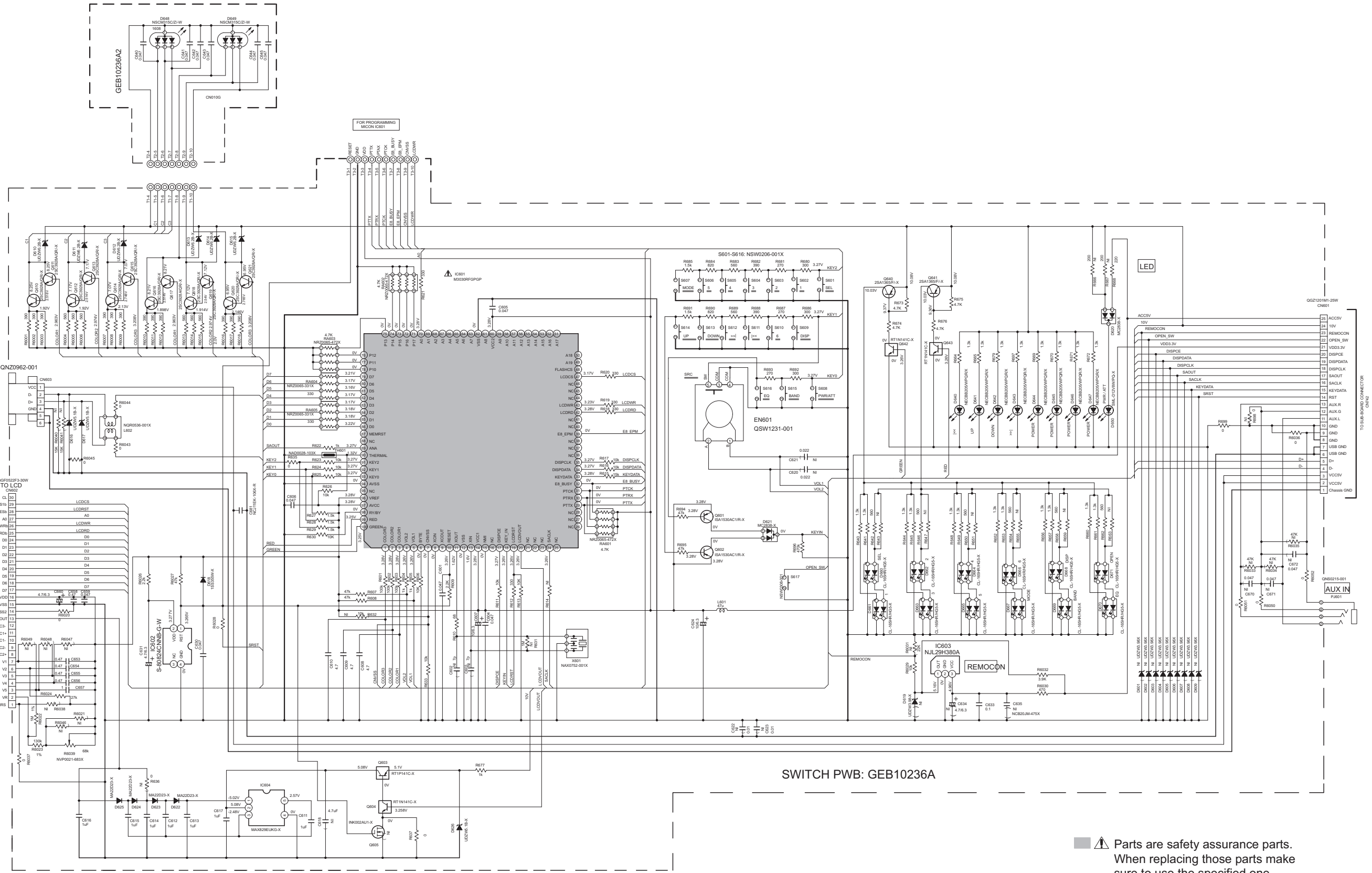
TO PANEL

CN601

SUB-BOARD PWB: GEB10237A

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL  
CONDITION --- CD MODE, ( ) FM MODE, AM MODE.
2. UNLESS OTHERWISE SPECIFIED.  
ALL RESISTORS ARE 1/10W +5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM.  
ALL CAPACITANCE VALUES ARE IN uF(P=pF )  
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(uF)/RATED VOLTAGE(V)  
F --- FILM CAPACITOR
3. NI STANDS FOR NOT INSERTED PARTS

■ LCD & Key control section



SWITCH PWB: GEB10236A

⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.

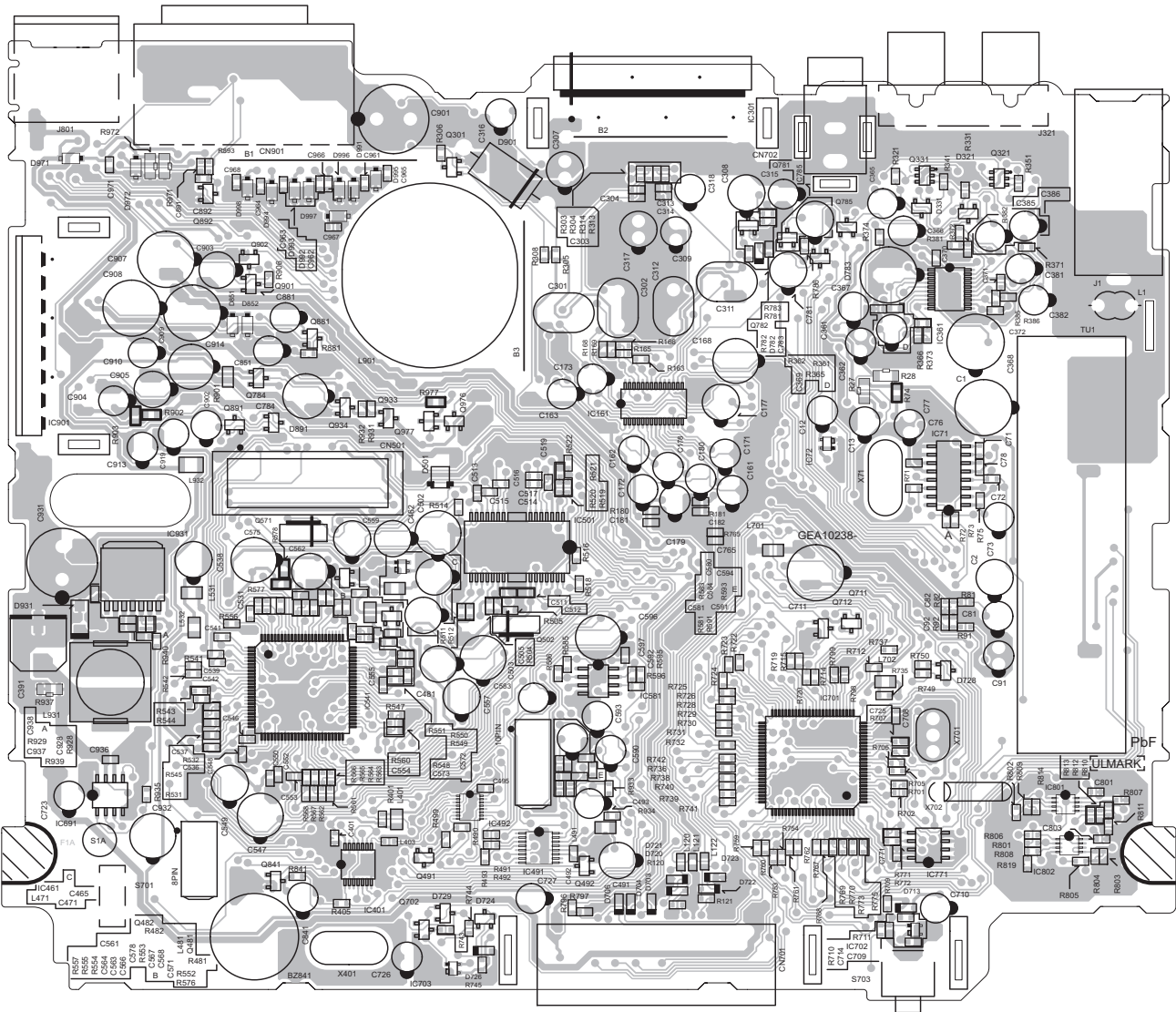
Printed circuit boards

- Main board

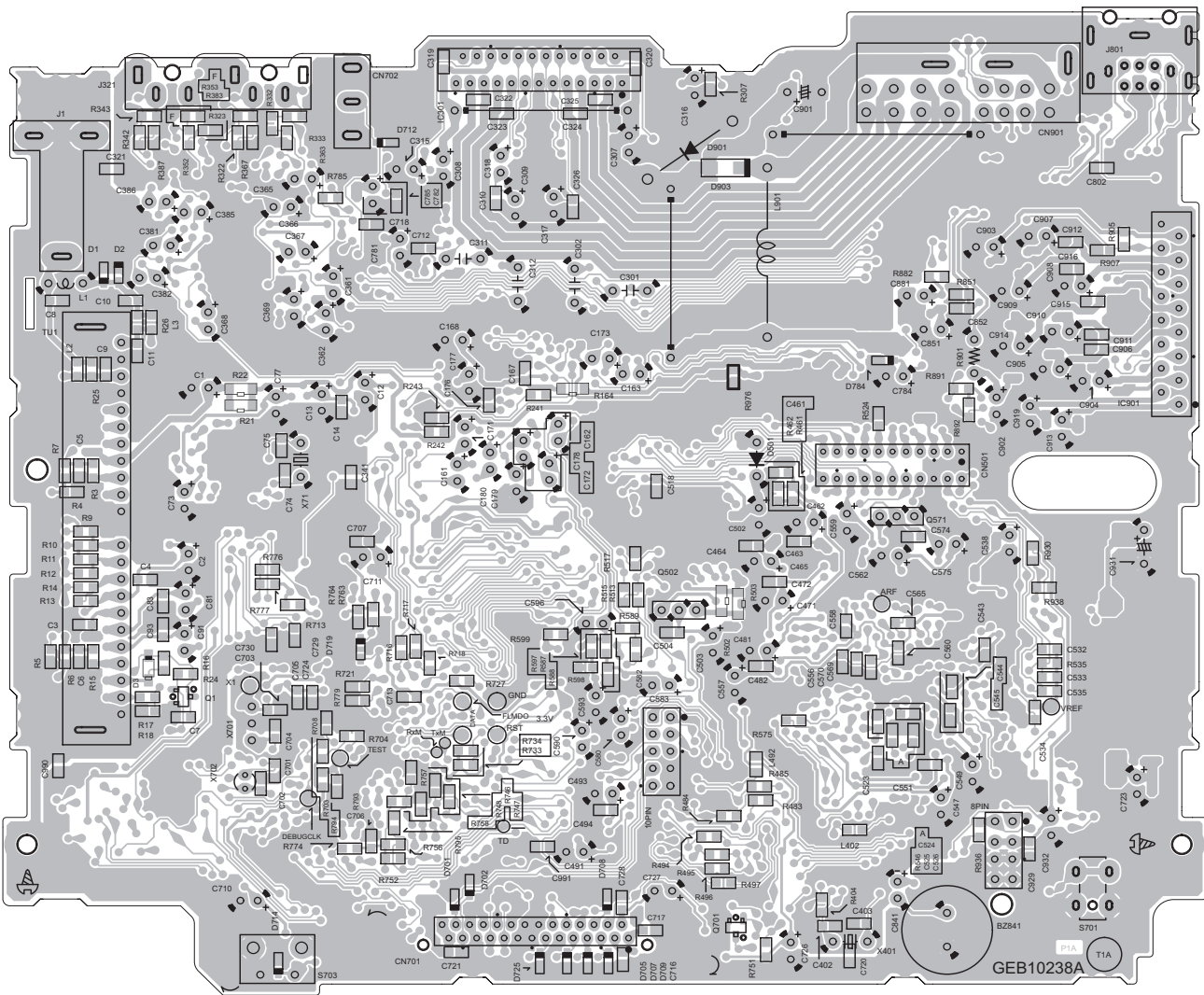
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)

forward side



reverse side

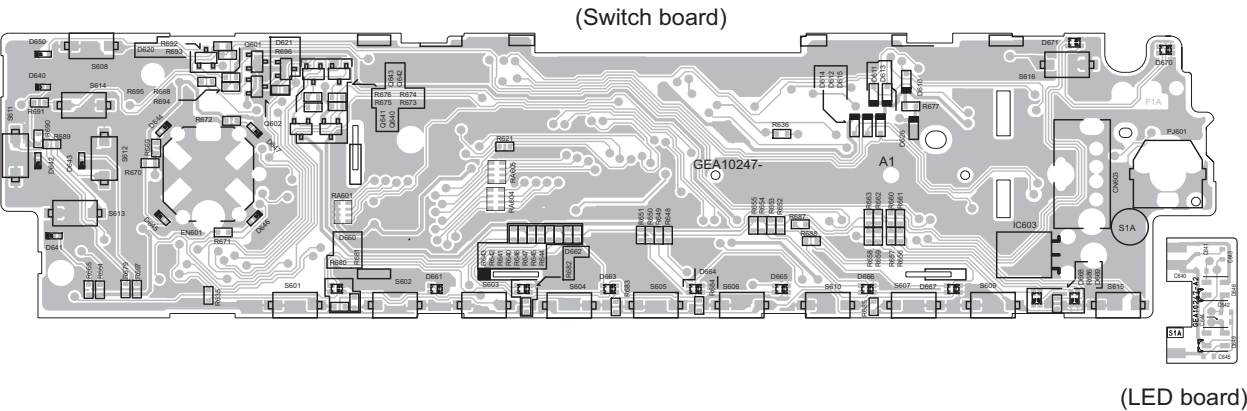


- Switch board

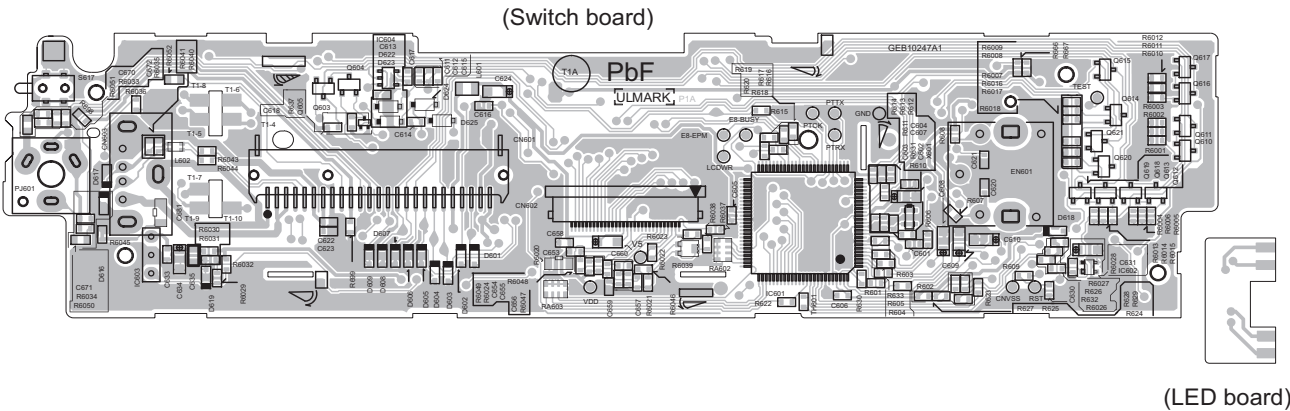
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)

forward side



reverse side



|             |                                                                                          |
|-------------|------------------------------------------------------------------------------------------|
| ■ USB board | Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade) |
|             | Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)    |

|             |                                                                                          |
|-------------|------------------------------------------------------------------------------------------|
| ■ Sub board | Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade) |
|             | Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)    |

< MEMO >



**Victor Company of Japan, Limited**

Mobile Entertainment Business Group Mobile Entertainment Category 10-1, 1chome, Ohwatari-machi, Maebashi-city, Gumma-ken, 371-8543, Japan

## PARTS LIST

KD-APD89J,KD-PDR80J,KD-PDR61E  
KD-PDR61EX,KD-PDR61EY,KD-G844UI  
KD-G845U,KD-G845UN,KD-G845UT  
KD-G845UH,KD-G847EE, KD-PDR89UR  
KD-PDR62E,KD-PDR62EX,KD-PDR62EY

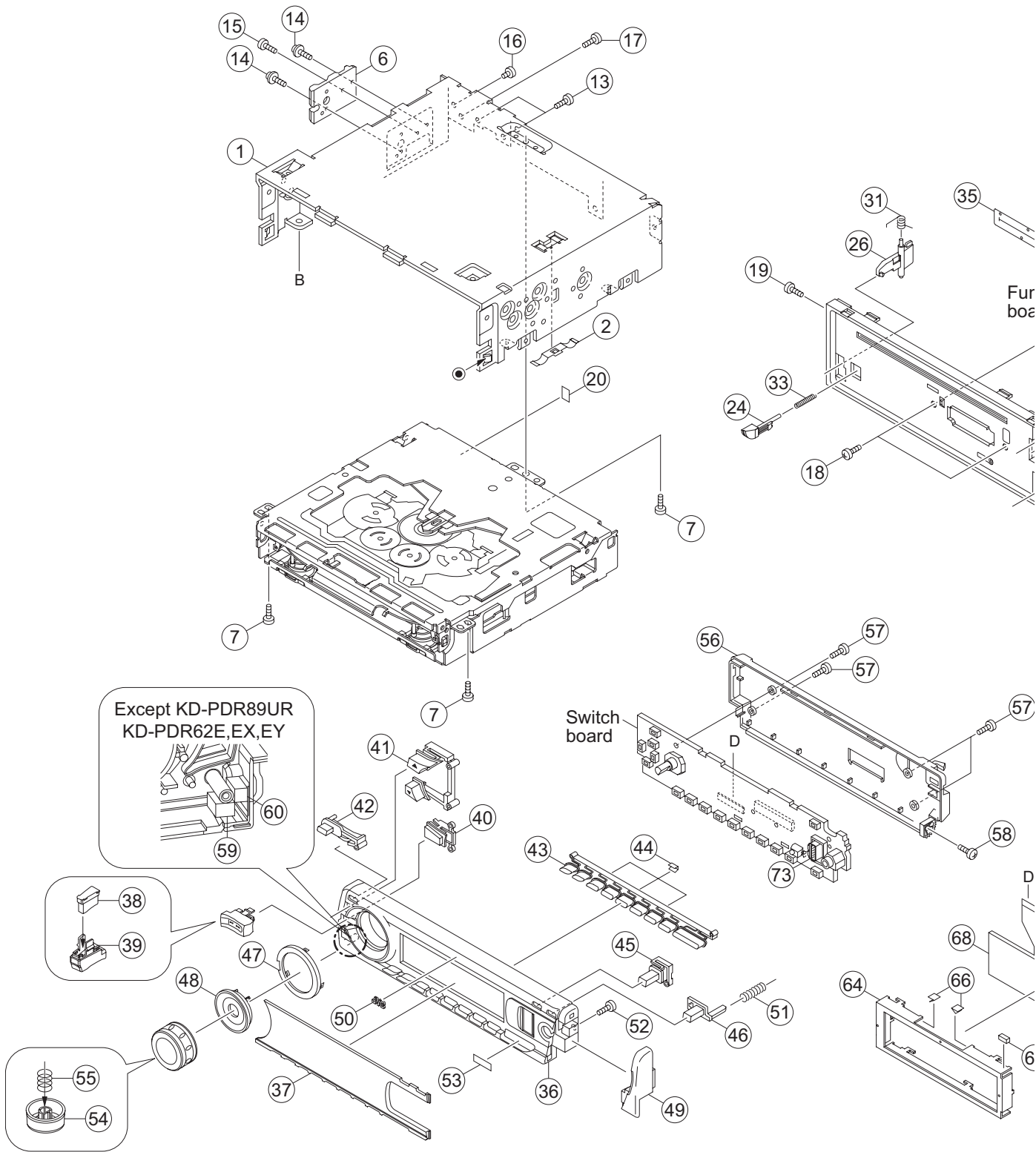
\* All printed circuit boards and its assemblies are not available as service parts.

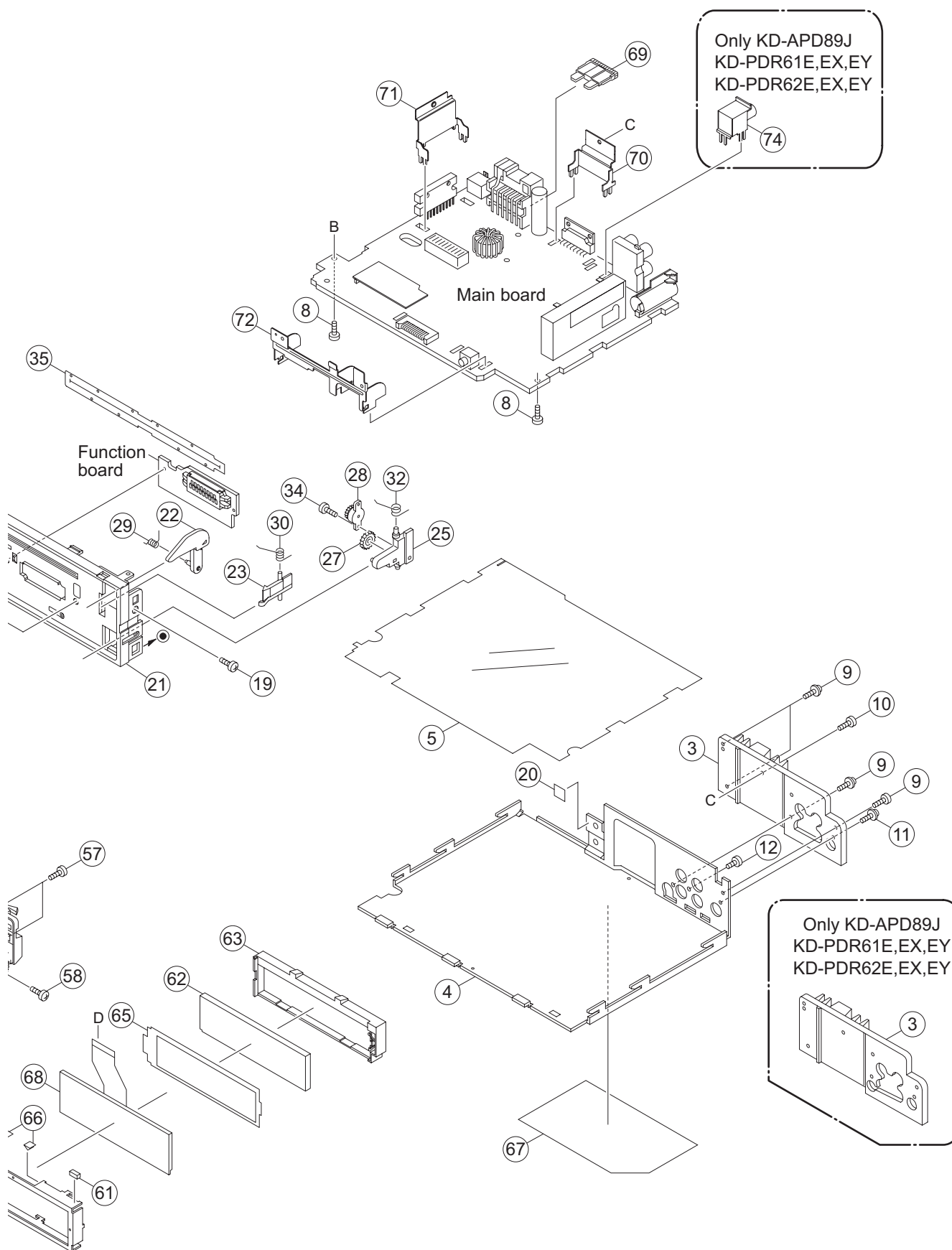
### - Contents -

|                                                                      |      |
|----------------------------------------------------------------------|------|
| Exploded view of general assembly and parts list (Block No.M1) ..... | 3- 2 |
| CD mechanism assembly and parts list (Block No.MB) .....             | 3- 6 |
| Electrical parts list (Block No.01~04) .....                         | 3-11 |
| Packing materials and accessories parts list (Block No.M3) .....     | 3-26 |

Exploded view of general assembly and parts list

Block No. M 1 M M





# General Assembly

Block No. [M][1][M][M]

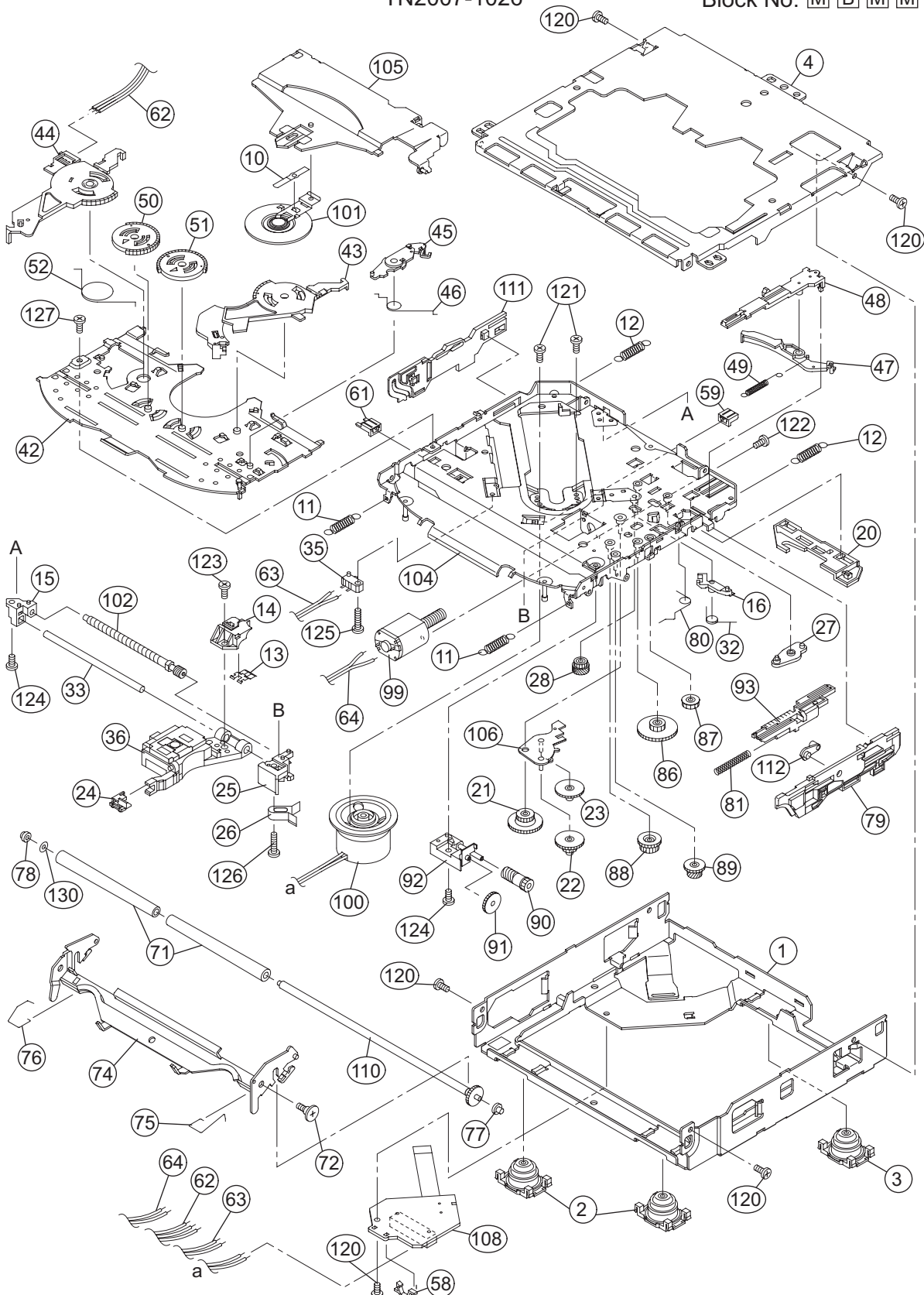
| Symbol No. | Part No.     | Part Name          | Description    | Local                                                                                                        |
|------------|--------------|--------------------|----------------|--------------------------------------------------------------------------------------------------------------|
| 1          | GE10227-003A | TOP CHASSIS        |                |                                                                                                              |
| 2          | GE40135-001A | EARTH PLATE        |                |                                                                                                              |
| 3          | GE32823-003A | HEAT SINK          |                | APD89J,PDR61E,PDR61EX,PDR61EY,PDR62E,PDR62EX,PDR62EY                                                         |
| 3          | GE32823-004A | HEAT SINK          |                | PDR80J,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR89UR                                                      |
| 4          | GE20242-001A | BOTTOM COVER       |                |                                                                                                              |
| 5          | GE33080-001A | INSULATOR          |                |                                                                                                              |
| 6          | GE40395-001A | SIDE PANEL         |                |                                                                                                              |
| 7          | QYSDST2604ZA | TAP SCREW          | M2.6 x 4mm(x3) |                                                                                                              |
| 8          | GE40377-002A | SCREW              | (x2)           |                                                                                                              |
| 9          | GE40377-001A | SCREW              | (x4)           |                                                                                                              |
| 10         | QYSDST2610ZA | TAP SCREW          | M2.6 x 10mm    |                                                                                                              |
| 11         | QYSDST2610ZA | TAP SCREW          | M2.6 x 10mm    |                                                                                                              |
| 12         | QYSDSF2606ZA | TAP SCREW          | M2.6 x 6mm     |                                                                                                              |
| 13         | QYSDSF2606ZA | TAP SCREW          | M2.6 x 6mm(x2) |                                                                                                              |
| 14         | GE40377-002A | SCREW              | (x2)           |                                                                                                              |
| 15         | QYSDST2608ZA | TAP SCREW          | M2.6 x 8mm     |                                                                                                              |
| 16         | QYSDST2604ZA | TAP SCREW          | M2.6 x 4mm     |                                                                                                              |
| 17         | QYSDST2606ZA | TAP SCREW          | M2.6 x 6mm     |                                                                                                              |
| 18         | GE40425-001A | SCREW              | (x2)           |                                                                                                              |
| 19         | QYSDST2004ZA | TAP SCREW          | M2 x 4mm(x2)   |                                                                                                              |
| 20         | GE40218-084A | SHEET              | (x2)           |                                                                                                              |
| 21         | GE33102-001A | F.CHASSIS ASSY     |                | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR89UR,PDR62E,PDR62EX,PDR62EY |
| 21         | GE33102-005A | F.CHASSIS ASSY     |                |                                                                                                              |
| 22         | GE33085-001A | OPEN LEVER         |                |                                                                                                              |
| 23         | GE33082-001A | EJECT LEVER        |                | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR89UR,PDR62E,PDR62EX,PDR62EY |
| 23         | GE33082-002A | EJECT LEVER        |                |                                                                                                              |
| 24         | GE33086-001A | DETACH LEVER       |                |                                                                                                              |
| 25         | GE33083-001A | LOCK LEVER(R)      |                |                                                                                                              |
| 26         | GE33084-001A | LOCK LEVER(L)      |                |                                                                                                              |
| 27         | GE40154-001A | GEAR               |                |                                                                                                              |
| 28         | QZW0108-002  | OIL DAMPER         |                |                                                                                                              |
| 29         | GE40419-001A | TORSION SPRING     |                |                                                                                                              |
| 30         | GE40420-004A | TORSION SPRING     |                |                                                                                                              |
| 31         | GE40422-003A | TORSION SPRING     |                |                                                                                                              |
| 32         | GE40421-003A | TORSION SPRING     |                |                                                                                                              |
| 33         | GE40202-023A | COMPRESSION SPRING |                |                                                                                                              |
| 34         | QYSDSF2006ZA | TAP SCREW          | M2 x 6mm       |                                                                                                              |
| 35         | GE40433-001A | BLIND              |                |                                                                                                              |
| 36         | GE33101-070A | FRONT PANEL ASSY   |                | APD89J                                                                                                       |
| 36         | GE33101-058A | FRONT PANEL ASSY   |                | PDR80J                                                                                                       |
| 36         | GE33101-057A | FRONT PANEL ASSY   |                | PDR61E,PDR61EX,PDR61EY                                                                                       |
| 36         | GE33101-053A | FRONT PANEL ASSY   |                | G844UI                                                                                                       |
| 36         | GE33101-054A | FRONT PANEL ASSY   |                | G845U,G845UN,G845UT,G845UH                                                                                   |
| 36         | GE33101-055A | FRONT PANEL ASSY   |                | G847EE                                                                                                       |
| 36         | GE33101-121A | FRONT PANEL ASSY   |                | PDR89UR                                                                                                      |
| 36         | GE33101-0D8A | FRONT PANEL ASSY   |                | PDR62E,PDR62EX,PDR62EY                                                                                       |
| 37         | GE33073-013A | FINDER ASSY        |                | APD89J                                                                                                       |
| 37         | GE33073-014A | FINDER ASSY        |                | PDR80J                                                                                                       |
| 37         | GE33073-006A | FINDER ASSY        |                | PDR61E,PDR61EX,PDR61EY,PDR62E,PDR62EX,PDR62EY                                                                |
| 37         | GE33073-004A | FINDER ASSY        |                | G844UI,G845U,G845UN,G845UT,G845UH                                                                            |
| 37         | GE33073-007A | FINDER ASSY        |                | G847EE                                                                                                       |
| 37         | GE33073-012A | FINDER ASSY        |                | PDR89UR                                                                                                      |
| 38         | GE40407-001A | SEARCH BTN LENS    |                |                                                                                                              |
| 39         | GE33079-003A | SEARCH BTN COV     |                | APD89J,PDR89UR                                                                                               |
| 39         | GE33079-004A | SEARCH BTN COV     |                | PDR80J,G847EE                                                                                                |
| 39         | GE33079-001A | SEARCH BTN COV     |                | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                                                     |
| 39         | GE33079-002A | SEARCH BTN COV     |                | PDR62E,PDR62EX,PDR62EY                                                                                       |
| 40         | GE33069-001A | SEARCH BTN BASE    |                |                                                                                                              |
| 41         | GE33070-003A | UP DOWN BUTTON     |                | APD89J,PDR89UR                                                                                               |
| 41         | GE33070-004A | UP DOWN BUTTON     |                | PDR80J,G847EE                                                                                                |
| 41         | GE33070-001A | UP DOWN BUTTON     |                | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                                                     |
| 41         | GE33070-002A | UP DOWN BUTTON     |                | PDR62E,PDR62EX,PDR62EY                                                                                       |
| 42         | GE33071-003A | POWER BUTTON       |                | APD89J,PDR80J,PDR89UR,PDR62E,PDR62EX,PDR62EY                                                                 |
| 42         | GE33071-001A | POWER BUTTON       |                | EY                                                                                                           |
| 42         | GE33071-005A | POWER BUTTON       |                | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                                                     |
| 43         | GE20241-003A | PRESET BUTTON      |                | G847EE                                                                                                       |
|            |              |                    |                | APD89J,PDR89UR,PDR62E,PDR62EX,PDR62EY                                                                        |

| △ | Symbol No. | Part No.       | Part Name          | Description | Local                                                                         |
|---|------------|----------------|--------------------|-------------|-------------------------------------------------------------------------------|
|   | 43         | GE20241-001A   | PRESET BUTTON      |             | PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH               |
|   | 43         | GE20241-005A   | PRESET BUTTON      |             | G847EE                                                                        |
|   | 44         | FSYH4036-069   | SHEET              | (x3)        |                                                                               |
|   | 45         | GE33074-004A   | EQ BUTTON          |             | APD89J,PDR80J                                                                 |
|   | 45         | GE33074-002A   | EQ BUTTON          |             | PDR61E,PDR61EX,PDR61EY                                                        |
|   | 45         | GE33074-001A   | EQ BUTTON          |             | G844UI,G845U,G845UN,G845UT,G845UH                                             |
|   | 45         | GE33074-013A   | EQ BUTTON          |             | G847EE                                                                        |
|   | 45         | GE33074-019A   | EQ BUTTON          |             | PDR89UR                                                                       |
|   | 45         | GE33074-018A   | EQ BUTTON          |             | PDR62E,PDR62EX,PDR62EY                                                        |
|   | 46         | GE33075-003A   | OPEN BUTTON        |             | APD89J,PDR80J,PDR89UR,PDR62E,PDR62EX,PDR62EY                                  |
|   | 46         | GE33075-001A   | OPEN BUTTON        |             | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                      |
|   | 46         | GE33075-005A   | OPEN BUTTON        |             | G847EE                                                                        |
|   | 47         | GE33076-003A   | RIM COVER          |             | APD89J,PDR89UR                                                                |
|   | 47         | GE33076-004A   | RIM COVER          |             | PDR80J,G847EE                                                                 |
|   | 47         | GE33076-001A   | RIM COVER          |             | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                      |
|   | 47         | GE33076-002A   | RIM COVER          |             | PDR62E,PDR62EX,PDR62EY                                                        |
|   | 48         | GE33077-001A   | RIM LENS           |             |                                                                               |
|   | 49         | GE33068-003A   | SIDE COV RIGHT     |             | APD89J,PDR89UR                                                                |
|   | 49         | GE33068-004A   | SIDE COV RIGHT     |             | PDR80J,G847EE                                                                 |
|   | 49         | GE33068-001A   | SIDE COV RIGHT     |             | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                      |
|   | 49         | GE33068-002A   | SIDE COV RIGHT     |             | PDR62E,PDR62EX,PDR62EY                                                        |
|   | 50         | GE40403-001A   | JVC BADGE          |             |                                                                               |
|   | 51         | GE40202-012A   | COMPRESSION SPRING |             |                                                                               |
|   | 52         | VKZ4777-011    | MINI SCREW         |             |                                                                               |
|   | 53         | GE40431-001A   | REMOTE SHEET       |             |                                                                               |
|   | 54         | GE40398-003A   | VOL KNOB ASSY      |             | APD89J,PDR89UR                                                                |
|   | 54         | GE40398-004A   | VOL KNOB ASSY      |             | PDR80J,G847EE                                                                 |
|   | 54         | GE40398-002A   | VOL KNOB ASSY      |             | PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH                      |
|   | 54         | GE40398-001A   | VOL KNOB ASSY      |             | PDR62E,PDR62EX,PDR62EY                                                        |
|   | 55         | GE40127-005A   | KNOB SPRING        |             |                                                                               |
|   | 56         | GE10226-007A   | REAR COVER         |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE |
|   | 56         | GE10226-010A   | REAR COVER         |             | PDR89UR                                                                       |
|   | 56         | GE10226-009A   | REAR COVER         |             | PDR62E,PDR62EX,PDR62EY                                                        |
|   | 57         | VKZ4777-010    | MINI SCREW         | (x4)        |                                                                               |
|   | 58         | VKZ4777-011    | MINI SCREW         |             |                                                                               |
|   | 59         | GE40218-089A   | SHEET              |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE |
|   | 60         | GE40218-093A   | SHEET              |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE |
|   | 61         | GE40218-094A   | SHEET              |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE |
|   | 62         | GE33066-001A   | LCD LENS           |             |                                                                               |
|   | 63         | GE33063-001A   | LENS CASE          |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE |
|   | 63         | GE33063-002A   | LENS CASE          |             | PDR89UR,PDR62E,PDR62EX,PDR62EY                                                |
|   | 64         | GE33060-001A   | LCD CASE           |             |                                                                               |
|   | 65         | GE40411-001A   | LIGHTING SHEET     |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE |
|   | 65         | GE40411-002A   | LIGHTING SHEET     |             | PDR89UR,PDR62E,PDR62EX,PDR62EY                                                |
|   | 66         | GE40218-085A   | SHEET              | (x2)        |                                                                               |
|   | 67         | GE33103-002A   | NAME PLATE         |             | APD89J                                                                        |
|   | 67         | GE33106-001A   | NAME PLATE         |             | PDR80J                                                                        |
|   | 67         | GE33115-001A   | NAME PLATE         |             | PDR61E,PDR61EX,PDR61EY                                                        |
|   | 67         | GE33112-002A   | NAME PLATE         |             | G844UI                                                                        |
|   | 67         | GE33109-002A   | NAME PLATE         |             | G845U,G845UN,G845UT,G845UH                                                    |
|   | 67         | GE33118-001A   | NAME PLATE         |             | G847EE                                                                        |
|   | 67         | GE33334-001A   | NAME PLATE         |             | PDR62E,PDR62EX,PDR62EY                                                        |
|   | 68         | QLD0511-001    | LCD MODULE         |             |                                                                               |
| △ | 69         | QMFZ063-150-J1 | FUSE               | 15A         |                                                                               |
|   | 70         | GE40396-002A   | REG BRACKET        |             |                                                                               |
|   | 71         | GE40354-001A   | IC BRACKET         |             |                                                                               |
|   | 72         | GE33091-002A   | CON PWB BRACKET    |             |                                                                               |
|   | 73         | GE40416-001A   | USB HOLDER         |             |                                                                               |
|   | 74         | GE40424-001A   | OE HOLDING BKT     |             | APD89J,PDR61E,PDR61EX,PDR61EY,PDR62E,PDR62EX,PDR62EY                          |

# CD mechanism assembly and parts list

TN2007-1026

Block No. M B M M



The parts without symbol number are not service.

## CD mechanism

Block No. [M][B][M][M]

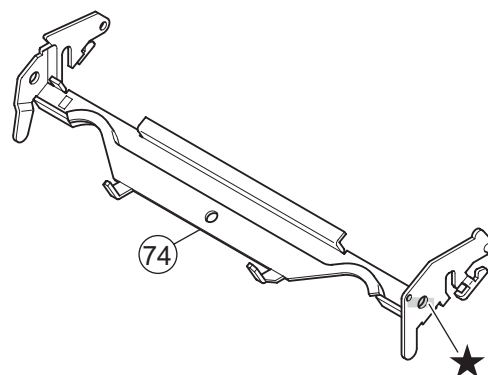
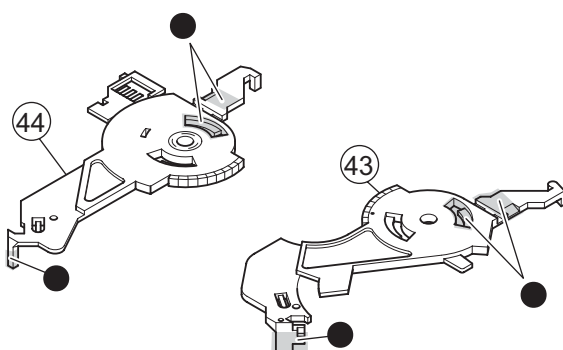
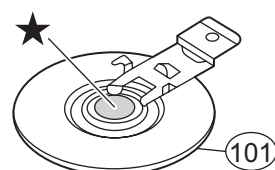
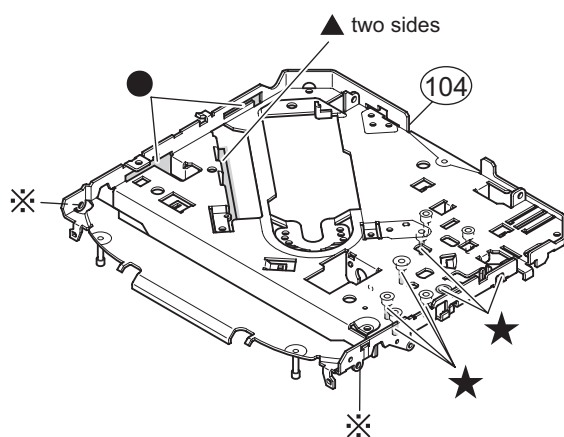
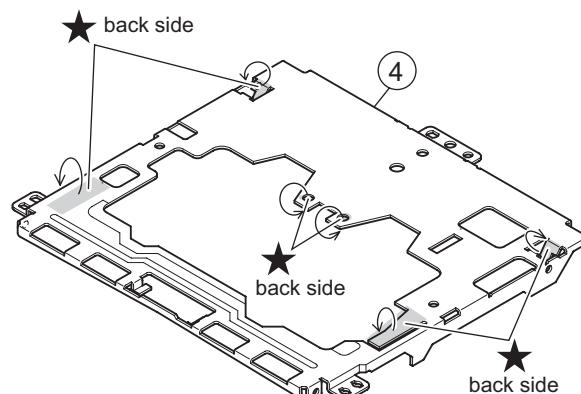
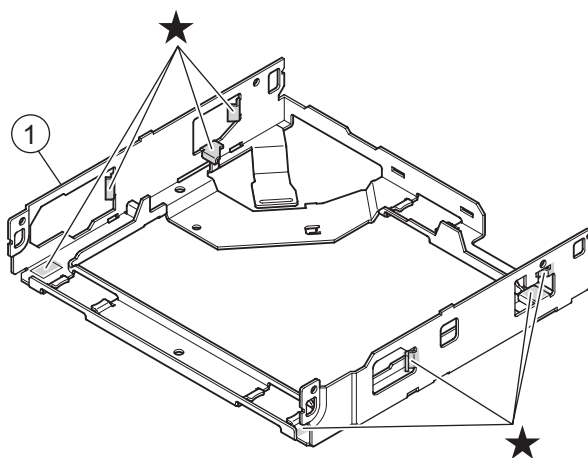
| △ | Symbol No. | Part No.   | Part Name       | Description  | Local |
|---|------------|------------|-----------------|--------------|-------|
|   | 1          | 30350101T  | FRAME           |              |       |
|   | 2          | 30350103T  | DAMPER F        | (x2)         |       |
|   | 3          | 30350104T  | DAMPER R        |              |       |
|   | 4          | 30350107T  | TOP COVER       |              |       |
|   | 10         | 30320513T  | CLAMPER SUB SPG |              |       |
|   | 11         | 30350505T  | FRONT SUS SPG   | (x2)         |       |
|   | 12         | 30350506T  | REAR SUS SPRING | (x2)         |       |
|   | 13         | 30350508T  | FEED NUT SPP    |              |       |
|   | 14         | 30350509T  | FEED SCREW HLDR |              |       |
|   | 15         | 30350525T  | PU SHAFT HLDR B |              |       |
|   | 16         | 30350528T  | LOCK LEVER      |              |       |
|   | 20         | 30350529T  | LOCK PLATE      |              |       |
|   | 21         | 30350581T  | CHANGE GEAR2    |              |       |
|   | 22         | 30350582T  | CHANGE GEAR 3A  |              |       |
|   | 23         | 30350583T  | CHANGE GEAR 3B  |              |       |
|   | 24         | 30350535T  | FEED SUB HOLDER |              |       |
|   | 25         | 30350536T  | PU SHAFT HLDR A |              |       |
|   | 26         | 30350539T  | FD THRUST SPP   |              |       |
|   | 27         | 30350542T  | CHANGE ARM      |              |       |
|   | 28         | 30350580T  | FEED GEAR 1     |              |       |
|   | 32         | 30350554T  | LOCK LEVER SP   |              |       |
|   | 33         | 30350555T  | PU SHAFT        |              |       |
|   | 35         | 64010418T  | PUSH SW P389-01 |              |       |
|   | 36         | 69011629T  | PICK UP         | OPTIMA-727AD |       |
|   | 42         | 30350801T  | TOP PLATE       |              |       |
|   | 43         | 30350802T  | SELECT ARM R    |              |       |
|   | 44         | 30350803T  | MODE SWICH      |              |       |
|   | 45         | 30350806T  | SELECT LOCK ARM |              |       |
|   | 46         | 30350807T  | SPRING          |              |       |
|   | 47         | 30350808T  | TRIGGER ARM     |              |       |
|   | 48         | 30350809T  | TRG ARM BASE    |              |       |
|   | 49         | 30350810T  | TRIGGER ARM SPR |              |       |
|   | 50         | 30350811T  | LINK GEAR L     |              |       |
|   | 51         | 30350812T  | LINK GEAR R     |              |       |
|   | 52         | 30350813T  | LINK GEAR SPR   |              |       |
|   | 58         | 19501403T  | WIRE CLUMPER    |              |       |
|   | 59         | 30321013T  | WIRE CLAMPER    |              |       |
|   | 61         | 30351001T  | WIRE CLAMPER    |              |       |
|   | 62         | 30351008T  | MODE SW WIRE    |              |       |
|   | 63         | 30351003T  | REST SW WIRE    |              |       |
|   | 64         | 30351004T  | LD WIRE         |              |       |
|   | 71         | 30321137T  | LDG ROLLER      | (x2)         |       |
|   | 72         | 30321143T  | COLLAR SCREW    |              |       |
|   | 74         | 30351101T  | LOCK ARM        |              |       |
|   | 75         | 30351102T  | LD ROLLER SPR R |              |       |
|   | 76         | 30351103T  | LD ROLLER SPR L |              |       |
|   | 77         | 30351105T  | ROLLER GUIDE R  |              |       |
|   | 78         | 30351106T  | ROLLER GUIDE L  |              |       |
|   | 79         | 30351116T  | CAM PLATE R (N) |              |       |
|   | 80         | 30351111T  | TR CONTROL SPR  |              |       |
|   | 81         | 30351113T  | SPRING          |              |       |
|   | 86         | 30351122T  | LOADING GEAR 1  |              |       |
|   | 87         | 30351123T  | LOADING GEAR 2  |              |       |
|   | 88         | 30351128T  | LOADING GEAR 3  |              |       |
|   | 89         | 30351129T  | LOADING GEAR 4  |              |       |
|   | 90         | 30351140T  | LOADING GEAR 5  |              |       |
|   | 91         | 30351131T  | LOADING GEAR 6  |              |       |
|   | 92         | 30351133T  | LD GEAR BRACKET |              |       |
|   | 93         | 30351135T  | PLATE           |              |       |
|   | 99         | 303505309T | MORTER ASSY     |              |       |
|   | 100        | 303505302T | SPINDLE MOTOR   |              |       |
|   | 101        | 303505303T | CLAMPER ASSY    |              |       |
|   | 102        | 303505304T | FEED SCREW ASSY |              |       |
|   | 104        | 303505501T | CHASSIS RIVET   |              |       |
|   | 105        | 303505502T | CLAMPER ARM RVT |              |       |
|   | 106        | 303505503T | RIVET ASSY      |              |       |
|   | 108        | 303510304T | BASE BOARD ASSY |              |       |
|   | 110        | 303511301T | ROLLER SHAFT    |              |       |
|   | 111        | 303511302T | CAM PLATE L     |              |       |
|   | 112        | 303511501T | SLIDE HOOK RVT  |              |       |
|   | 120        | 9P0420037T | SCREW           | (x5)         |       |
|   | 121        | 9C0117187T | SCREW           | (x2)         |       |
|   | 122        | 9C0120207T | SCREW           |              |       |
|   | 123        | 9C4517506T | SCREW           |              |       |

|  Symbol No. | Part No.   | Part Name | Description | Local |
|--------------------------------------------------------------------------------------------|------------|-----------|-------------|-------|
| 124                                                                                        | 9P0420047T | SCREW     | (x2)        |       |
| 125                                                                                        | 9P0420067T | SCREW     |             |       |
| 126                                                                                        | 9P0420087T | SCREW     |             |       |
| 127                                                                                        | 9C0420257T | SCREW     |             |       |
| 130                                                                                        | 9W0513060T | HL WASHER |             |       |

## Grease point 1/2

grease

- ★ TNG-87
- TN-4456
- ▲ TNS-925R
- ※ GP-501MK



Grease point 2/2

grease

★

TNG-87

●

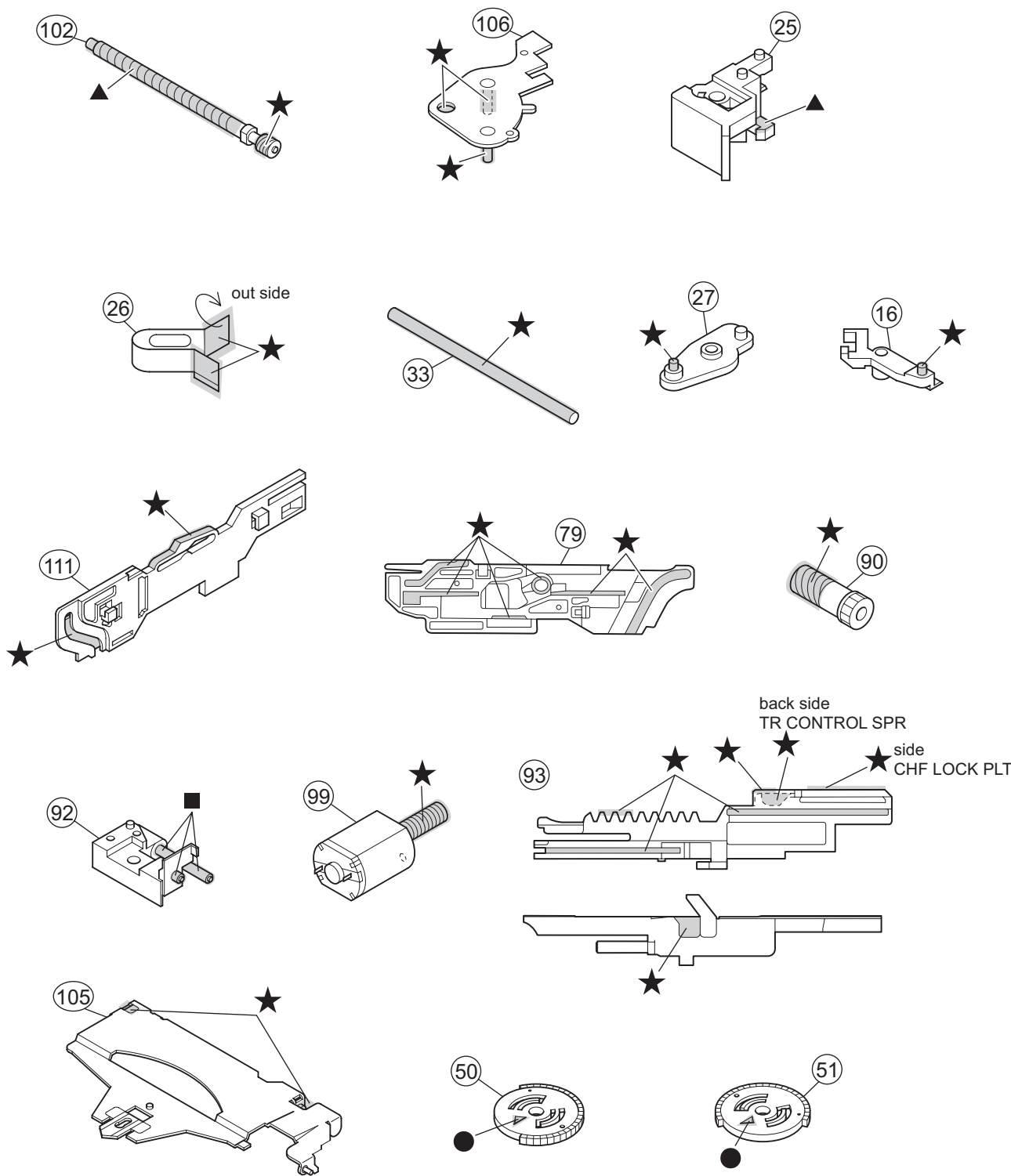
TN-4456

▲

TNS-925R

■

G-322



# Electrical parts list

## Main board

Block No. [0][1]

| △ Symbol No. | Part No.        | Part Name       | Description | Local                                                                                                       |
|--------------|-----------------|-----------------|-------------|-------------------------------------------------------------------------------------------------------------|
| △ IC71       | LC72725KM-X     | IC              |             | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY                                                    |
| IC72         | NJM2878F4-33-X  | IC              |             |                                                                                                             |
| IC161        | TDA7719-X       | IC              |             |                                                                                                             |
| △ IC301      | TDA7851F        | IC              |             |                                                                                                             |
| IC361        | NJM2792V-X      | IC              |             | APD89J                                                                                                      |
| IC401        | TC74VHC04FT-X   | IC              |             |                                                                                                             |
| IC461        | NJM2878F4-15-X  | IC              |             |                                                                                                             |
| IC491        | PCM1780-X       | IC              |             |                                                                                                             |
| IC492        | TC7MBL3257AFK-X | IC              |             |                                                                                                             |
| △ IC501      | LA6242H-X       | IC              |             |                                                                                                             |
| △ IC541      | TC94A70FG-005A  | IC              |             |                                                                                                             |
| IC581        | NJM4580E-X      | IC              |             |                                                                                                             |
| IC691        | BD6516F-X       | IC              |             |                                                                                                             |
| △ IC701      | UPD78F1167GC1P  | IC(PROGRAMED)   |             | APD89J,PDR80J ,G844UI,G845U, G845UN,G845U T,G845UH,PDR8 9UR                                                 |
| △ IC701      | UPD78F1167GC1Q  | IC(PROGRAMED)   |             | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY                                                    |
| IC703        | NJM2878F4-33-X  | IC              |             |                                                                                                             |
| IC771        | S-24CS16A0I-G-X | IC              |             | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY                                                    |
| IC801        | TC7WT241FU-X    | IC              |             |                                                                                                             |
| IC802        | TC7WT241FU-X    | IC              |             |                                                                                                             |
| △ IC901      | AN34001A        | REGULATOR IC    |             |                                                                                                             |
| △ IC931      | BD9781HFP-W     | IC              |             |                                                                                                             |
| Q1           | RT1N141C-X      | DIGI TRANSISTOR |             |                                                                                                             |
| Q1           | or UN2211-X     | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| Q321         | IMX9-W          | PAIR TRANSISTOR |             |                                                                                                             |
| Q331         | IMX9-W          | PAIR TRANSISTOR |             |                                                                                                             |
| Q481         | 2SA1365/F/-X    | TRANSISTOR      |             |                                                                                                             |
| Q482         | RT1N141C-X      | DIGI TRANSISTOR |             |                                                                                                             |
| Q482         | or UN2211-X     | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| Q491         | 2SA1365/F/-X    | TRANSISTOR      |             |                                                                                                             |
| Q492         | RT1N141C-X      | DIGI TRANSISTOR |             |                                                                                                             |
| Q492         | or UN2211-X     | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| Q502         | 2SA1705/ST/-T   | TRANSISTOR      |             |                                                                                                             |
| Q571         | 2SA1708/ST/-T   | TRANSISTOR      |             |                                                                                                             |

| △ Symbol No. | Part No.         | Part Name       | Description | Local                                                                                                               |
|--------------|------------------|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------|
| Q701         | 2SC3928A/QR/-X   | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q701         | or 2SD601A/QR/-X | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY PDR89UR |
| Q701         | 2SD601A/QR/-X    | TRANSISTOR      |             |                                                                                                                     |
| Q711         | RT1P141C-X       | DIGI TRANSISTOR |             |                                                                                                                     |
| Q711         | or UN2111-X      | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q712         | RT1N141C-X       | DIGI TRANSISTOR |             |                                                                                                                     |
| Q712         | or UN2211-X      | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q781         | RT1P141C-X       | DIGI TRANSISTOR |             |                                                                                                                     |
| Q781         | or UN2111-X      | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q782         | 2SC3928A/QR/-X   | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q782         | or 2SD601A/QR/-X | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY PDR89UR |
| Q782         | 2SD601A/QR/-X    | TRANSISTOR      |             |                                                                                                                     |
| Q784         | RT1P141C-X       | DIGI TRANSISTOR |             |                                                                                                                     |
| Q784         | or UN2111-X      | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q785         | RT1P141C-X       | DIGI TRANSISTOR |             |                                                                                                                     |
| Q785         | or UN2111-X      | TRANSISTOR      |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q841         | RT1N141C-X       | DIGI TRANSISTOR |             | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY         |
| Q841         | or UN2211-X      | TRANSISTOR      |             | APD89J,PDR80J                                                                                                       |
| Q881         | RT1N141C-X       | DIGI TRANSISTOR |             | APD89J,PDR80J                                                                                                       |

| △ Symbol No. | Part No.         | Part Name       | Description                                                                                                 | Local | △ Symbol No. | Part No.       | Part Name | Description                                                                                                 | Local |
|--------------|------------------|-----------------|-------------------------------------------------------------------------------------------------------------|-------|--------------|----------------|-----------|-------------------------------------------------------------------------------------------------------------|-------|
| Q881         | or UN2211-X      | TRANSISTOR      | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D2           | 1SS355W-X      | DIODE     | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q891         | RT1N141C-X       | DIGI TRANSISTOR | APD89J,PDR61 E,PDR61EX,PD R61EY,G847EE, PDR62E,PDR62 EX,PDR62EY                                             |       | D2           | or MA111-X     | SI DIODE  | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q891         | or UN2211-X      | TRANSISTOR      | APD89J,PDR61 E,PDR61EX,PD R61EY,G847EE, PDR62E,PDR62 EX,PDR62EY                                             |       | D2           | MA111-X        | SI DIODE  | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q901         | RT1P141C-X       | DIGI TRANSISTOR |                                                                                                             |       | D321         | MC2836-X       | DIODE     |                                                                                                             |       |
| Q901         | or UN2111-X      | TRANSISTOR      | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D321         | or MA152WA-X   | DIODE     | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q902         | RT1N141C-X       | DIGI TRANSISTOR |                                                                                                             |       | D331         | MC2836-X       | DIODE     |                                                                                                             |       |
| Q902         | or UN2211-X      | TRANSISTOR      | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D331         | or MA152WA-X   | DIODE     | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q933         | 2SA1365/F/-X     | TRANSISTOR      |                                                                                                             |       | D501         | 1A3G-T1        | SI DIODE  |                                                                                                             |       |
| Q934         | RT1N141C-X       | DIGI TRANSISTOR |                                                                                                             |       | D701         | UDZW6.2B-X     | Z DIODE   |                                                                                                             |       |
| Q934         | or UN2211-X      | TRANSISTOR      | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D701         | or MA8062/M/-X | Z DIODE   | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q976         | RT1N141C-X       | DIGI TRANSISTOR |                                                                                                             |       | D701         | MA8062/M/-X    | Z DIODE   | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q976         | or UN2211-X      | TRANSISTOR      | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D702         | UDZW6.2B-X     | Z DIODE   | PDR89UR                                                                                                     |       |
| Q977         | ISA1530AC1/R/-X  | TRANSISTOR      |                                                                                                             |       | D702         | MA8062/M/-X    | Z DIODE   | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| Q977         | or 2SB709A/QR/-X | TRANSISTOR      | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D702         | or MA8062/M/-X | Z DIODE   | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| D1           | 1SS355W-X        | DIODE           | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D702         | MA8062/M/-X    | Z DIODE   | PDR89UR                                                                                                     |       |
| D1           | or MA111-X       | SI DIODE        | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       | D705         | UDZW6.2B-X     | Z DIODE   | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |
| D1           | MA111-X          | SI DIODE        | PDR89UR                                                                                                     |       | D705         | or MA8062/M/-X | Z DIODE   | APD89J,PDR80J ,PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |       |

| △ Symbol No.        | Part No.    | Part Name | Description | Local         | △ Symbol No.        | Part No.   | Part Name | Description | Local         |
|---------------------|-------------|-----------|-------------|---------------|---------------------|------------|-----------|-------------|---------------|
| D705                | MA8062/M/-X | Z DIODE   |             | PDR89UR       | D722                | UDZW6.2B-X | Z DIODE   |             | APD89J,PDR80J |
| D707                | UDZW6.2B-X  | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | ,PDR61E,PDR61 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | EX,PDR61EY,G8 |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 845UH,G847EE, |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | PDR62E,PDR62  |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | EX,PDR62EY    | D722 or MA8062/M/-X |            | Z DIODE   |             | APD89J,PDR80J |
| D707 or MA8062/M/-X |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | ,PDR61E,PDR61 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | EX,PDR61EY,G8 |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 845UH,G847EE, |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | PDR62E,PDR62  |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | EX,PDR62EY    | D722 MA8062/M/-X    |            | Z DIODE   |             | PDR89UR       |
| D707 MA8062/M/-X    |             | Z DIODE   |             | PDR89UR       | D723 UDZW6.2B-X     |            | Z DIODE   |             | APD89J,PDR80J |
| D712 UDZW6.2B-X     |             | Z DIODE   |             | APD89J,PDR61  |                     |            |           |             | ,PDR61E,PDR61 |
|                     |             |           |             | E,PDR61EX,PD  |                     |            |           |             | EX,PDR61EY,G8 |
|                     |             |           |             | R61EY,PDR62E, |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | PDR62EX,PDR6  |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | 2EY           |                     |            |           |             | 845UH,G847EE, |
| D712 or MA8062/M/-X |             | Z DIODE   |             | APD89J,PDR61  | D723 or MA8062/M/-X |            | Z DIODE   |             | PDR62E,PDR62  |
|                     |             |           |             | E,PDR61EX,PD  |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | R61EY,PDR62E, |                     |            |           |             | APD89J,PDR80J |
|                     |             |           |             | PDR62EX,PDR6  |                     |            |           |             | ,PDR61E,PDR61 |
|                     |             |           |             | 2EY           |                     |            |           |             | EX,PDR61EY,G8 |
| D714 UDZW5.6B-X     |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | 845UH,G847EE, | D723 MA8062/M/-X    |            | Z DIODE   |             | PDR89UR       |
|                     |             |           |             | PDR62E,PDR62  | D724 MC2836-X       |            | DIODE     |             |               |
|                     |             |           |             | EX,PDR62EY    | D724 or MA152WA-X   |            | DIODE     |             | APD89J,PDR80J |
| D714 or MA8056/M/-X |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | ,PDR61E,PDR61 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | EX,PDR61EY,G8 |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 845UH,G847EE, |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | PDR62E,PDR62  |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | EX,PDR62EY    | D726 UDZW6.2B-X     |            | Z DIODE   |             | APD89J,PDR80J |
| D714 MA8056/M/-X    |             | Z DIODE   |             | PDR89UR       |                     |            |           |             | ,PDR61E,PDR61 |
| D720 UDZW6.2B-X     |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | EX,PDR61EY,G8 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | 845UH,G847EE, |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | PDR62E,PDR62  | D726 or MA8062/M/-X |            | Z DIODE   |             | APD89J,PDR80J |
|                     |             |           |             | EX,PDR62EY    |                     |            |           |             | ,PDR61E,PDR61 |
| D720 or MA8062/M/-X |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | EX,PDR61EY,G8 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | 845UH,G847EE, |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | PDR62E,PDR62  | D726 MA8062/M/-X    |            | Z DIODE   |             | APD89J,PDR80J |
|                     |             |           |             | EX,PDR62EY    | D728 MC2838-X       |            | DIODE     |             | ,PDR61E,PDR61 |
| D720 MA8062/M/-X    |             | Z DIODE   |             | PDR89UR       | D728 or MA152WK-X   |            | SI DIODE  |             | EX,PDR61EY,G8 |
| D721 UDZW6.2B-X     |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | 845UH,G847EE, | D729 MC2838-X       |            | DIODE     |             | APD89J,PDR80J |
|                     |             |           |             | PDR62E,PDR62  | D729 or MA152WK-X   |            | SI DIODE  |             | ,PDR61E,PDR61 |
|                     |             |           |             | EX,PDR62EY    |                     |            |           |             | EX,PDR61EY,G8 |
| D721 or MA8062/M/-X |             | Z DIODE   |             | APD89J,PDR80J |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             | ,PDR61E,PDR61 |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             | EX,PDR61EY,G8 |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             | 44UI,G845U,G8 |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             | 45UN,G845UT,G |                     |            |           |             | EX,PDR62EY    |
|                     |             |           |             | 845UH,G847EE, | D782 1SS355W-X      |            | DIODE     |             | APD89J,PDR80J |
|                     |             |           |             | PDR62E,PDR62  |                     |            |           |             | ,PDR61E,PDR61 |
|                     |             |           |             | EX,PDR62EY    |                     |            |           |             | EX,PDR61EY,G8 |
| D721 MA8062/M/-X    |             | Z DIODE   |             | PDR89UR       |                     |            |           |             | 44UI,G845U,G8 |
|                     |             |           |             |               |                     |            |           |             | 45UN,G845UT,G |
|                     |             |           |             |               |                     |            |           |             | 845UH,G847EE, |
|                     |             |           |             |               |                     |            |           |             | PDR62E,PDR62  |
|                     |             |           |             |               |                     |            |           |             | EX,PDR62EY    |

| △ Symbol No. | Part No.        | Part Name | Description                                                                                                                                 | Local                                                                                                                            | △ Symbol No. | Part No.       | Part Name    | Description                                                                                                                      | Local                                                                                                                            |
|--------------|-----------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|--------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| D782         | or MA111-X      | SI DIODE  | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY<br>PDR89UR | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY | D971         | or RB160M-30-X | SB DIODE     | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY |
| D782         | MA111-X         | SI DIODE  |                                                                                                                                             |                                                                                                                                  | D971         | MA22D23-X      | SB DIODE     |                                                                                                                                  |                                                                                                                                  |
| D783         | MC2836-X        | DIODE     |                                                                                                                                             |                                                                                                                                  | D972         | MA22D39-X      | SB DIODE     |                                                                                                                                  |                                                                                                                                  |
| D783         | or MA152WA-X    | DIODE     | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY            | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY | C1           | QEKJ1AM-227Z   | E CAPACITOR  | 220uF 10V M                                                                                                                      |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C2           | QEKJ1CM-476Z   | E CAPACITOR  | 47uF 16V M                                                                                                                       |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C3           | NCB31CK-103X   | C CAPACITOR  | 0.01uF 16V K                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C4           | NCB31CK-104X   | C CAPACITOR  | 0.1uF 16V K                                                                                                                      |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C5           | NCB31CK-104X   | C CAPACITOR  | 0.1uF 16V K                                                                                                                      |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C6           | NCB31CK-104X   | C CAPACITOR  | 0.1uF 16V K                                                                                                                      |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C7           | NCB31CK-224X   | C CAPACITOR  | 0.22uF 16V K                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C12          | QEKJ1CM-106Z   | E CAPACITOR  | 10uF 16V M                                                                                                                       |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C13          | QEKJ1CM-106Z   | E CAPACITOR  | 10uF 16V M                                                                                                                       |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C14          | NCB31EK-473X   | C CAPACITOR  | 0.047uF 25V K                                                                                                                    |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C71          | NDC31HJ-561X   | C CAPACITOR  | 560pF 50V J                                                                                                                      | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D784         | UDZW11B-X       | Z DIODE   | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY            | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY | C72          | NCB31EK-223X   | C CAPACITOR  | 0.022uF 25V K                                                                                                                    | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D784         | or MA8110/M/-X  | Z DIODE   | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY            | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY | C73          | QEKJ1HM-225Z   | E CAPACITOR  | 2.2uF 50V M                                                                                                                      | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D784         | MA8110/M/-X     | Z DIODE   | PDR89UR                                                                                                                                     | PDR89UR                                                                                                                          | C74          | NDC31HJ-330X   | C CAPACITOR  | 33pF 50V J                                                                                                                       | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D851         | or CRS03-W      | SB DIODE  | G844UI,G845U,<br>G845UN,G845U<br>T,G845UH                                                                                                   | G844UI,G845U,<br>G845UN,G845U<br>T,G845UH                                                                                        | C75          | NDC31HJ-330X   | C CAPACITOR  | 33pF 50V J                                                                                                                       | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D851         | MA22D23-X       | SB DIODE  | G844UI,G845U,<br>G845UN,G845U<br>T,G845UH                                                                                                   | G844UI,G845U,<br>G845UN,G845U<br>T,G845UH                                                                                        | C76          | NCB31HK-103X   | C CAPACITOR  | 0.01uF 50V K                                                                                                                     | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D852         | MA22D39-X       | SB DIODE  | G844UI,G845U,<br>G845UN,G845U<br>T,G845UH                                                                                                   | G844UI,G845U,<br>G845UN,G845U<br>T,G845UH                                                                                        | C77          | QEKJ0JM-476Z   | E CAPACITOR  | 47uF 6.3V M                                                                                                                      | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D891         | MC2836-X        | DIODE     | APD89J,PDR61<br>E,PDR61EX,PD<br>R61EY,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY                                                                 | APD89J,PDR61<br>E,PDR61EX,PD<br>R61EY,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY                                                      | C78          | NCB31HK-103X   | C CAPACITOR  | 0.01uF 50V K                                                                                                                     | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY                                                             |
| D891         | or MA152WA-X    | DIODE     | APD89J,PDR61<br>E,PDR61EX,PD<br>R61EY,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY                                                                 | APD89J,PDR61<br>E,PDR61EX,PD<br>R61EY,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY                                                      | C81          | QTE1H57-105Z   | E CAPACITOR  | 1uF 50V                                                                                                                          |                                                                                                                                  |
| △ D901       | 1N5401-F64      | SI DIODE  |                                                                                                                                             |                                                                                                                                  | C91          | QTE1H57-105Z   | E CAPACITOR  | 1uF 50V                                                                                                                          |                                                                                                                                  |
| △ D901       | or 1N5401-TU-15 | SI DIODE  | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY            | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY | C161         | QTE1H57-105Z   | E CAPACITOR  | 1uF 50V                                                                                                                          |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C162         | QTE1H64-225Z   | E CAPACITOR  | 2.2uF 50V                                                                                                                        |                                                                                                                                  |
| D903         | GS1J-X          | DIODE     | PDR61E,PDR61<br>EX,PDR61EY,P<br>DR62E,PDR62E<br>X,PDR62EY                                                                                   | PDR61E,PDR61<br>EX,PDR61EY,P<br>DR62E,PDR62E<br>X,PDR62EY                                                                        | C163         | QEKJ1HM-105Z   | E CAPACITOR  | 1uF 50V M                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C167         | NCB31HK-472X   | C CAPACITOR  | 4700pF 50V K                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C168         | QTE1A57-107Z   | E CAPACITOR  | 100uF 10V                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C171         | QTE1H57-105Z   | E CAPACITOR  | 1uF 50V                                                                                                                          |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C172         | QTE1H64-225Z   | E CAPACITOR  | 2.2uF 50V                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C173         | QEKJ1HM-105Z   | E CAPACITOR  | 1uF 50V M                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C176         | NCB31AK-224X   | C CAPACITOR  | 0.22uF 10V K                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C177         | QTE1C57-106Z   | E CAPACITOR  | 10uF 16V                                                                                                                         |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C178         | QEKJ1HM-105Z   | E CAPACITOR  | 1uF 50V M                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C179         | QEKJ1HM-105Z   | E CAPACITOR  | 1uF 50V M                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C180         | QEKJ1HM-105Z   | E CAPACITOR  | 1uF 50V M                                                                                                                        |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C181         | NCB31HK-472X   | C CAPACITOR  | 4700pF 50V K                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C182         | NCB31HK-472X   | C CAPACITOR  | 4700pF 50V K                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C301         | QFV91HJ-474Z   | MF CAPACITOR | 0.47uF 50V J                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C302         | QFV91HJ-474Z   | MF CAPACITOR | 0.47uF 50V J                                                                                                                     |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C303         | NDC31HJ-101X   | C CAPACITOR  | 100pF 50V J                                                                                                                      |                                                                                                                                  |
|              |                 |           |                                                                                                                                             |                                                                                                                                  | C304         | NDC31HJ-101X   | C CAPACITOR  | 100pF 50V J                                                                                                                      |                                                                                                                                  |
| D931         | RB051L-40-X     | SB DIODE  | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY            | APD89J,PDR80J<br>,PDR61E,PDR61<br>EX,PDR61EY,G8<br>44UI,G845U,G8<br>45UN,G845UT,G<br>845UH,G847EE,<br>PDR62E,PDR62<br>EX,PDR62EY |              |                |              |                                                                                                                                  |                                                                                                                                  |
| D971         | or CRS03-W      | SB DIODE  |                                                                                                                                             |                                                                                                                                  |              |                |              |                                                                                                                                  |                                                                                                                                  |

| △ Symbol No. | Part No.     | Part Name    | Description   | Local  | △ Symbol No. | Part No.     | Part Name   | Description   | Local                                                                |
|--------------|--------------|--------------|---------------|--------|--------------|--------------|-------------|---------------|----------------------------------------------------------------------|
| C307         | QEKJ1CM-476Z | E CAPACITOR  | 47uF 16V M    |        | C550         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C308         | QEKJ1CM-476Z | E CAPACITOR  | 47uF 16V M    |        | C551         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C309         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C552         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C311         | QFV91HJ-474Z | MF CAPACITOR | 0.47uF 50V J  |        | C553         | NCB31EK-103X | C CAPACITOR | 0.01uF 25V K  |                                                                      |
| C312         | QFV91HJ-474Z | MF CAPACITOR | 0.47uF 50V J  |        | C554         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C313         | NDC31HJ-101X | C CAPACITOR  | 100pF 50V J   |        | C555         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C314         | NDC31HJ-101X | C CAPACITOR  | 100pF 50V J   |        | C556         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C315         | QEKJ1HM-105Z | E CAPACITOR  | 1uF 50V M     |        | C557         | QEKJ1CM-476Z | E CAPACITOR | 47uF 16V M    |                                                                      |
| C316         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C558         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C317         | QTE1C57-476Z | E CAPACITOR  | 47uF 16V      |        | C559         | QEKJ1CM-476Z | E CAPACITOR | 47uF 16V M    |                                                                      |
| C318         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C560         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C319         | NCB31EK-223X | C CAPACITOR  | 0.022uF 25V K |        | C561         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C320         | NCB31EK-223X | C CAPACITOR  | 0.022uF 25V K |        | C562         | QERF0JM-476Z | E CAPACITOR | 47uF 6.3V M   |                                                                      |
| C321         | NCB31CK-223X | C CAPACITOR  | 0.022uF 16V K |        | C563         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C326         | NCB31EK-223X | C CAPACITOR  | 0.022uF 25V K |        | C564         | NDC31HJ-680X | C CAPACITOR | 68pF 50V J    |                                                                      |
| C361         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   | APD89J | C565         | NCB31EK-153X | C CAPACITOR | 0.015uF 25V K |                                                                      |
| C362         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   | APD89J | C566         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C365         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C567         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C366         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C568         | NCB31HK-472X | C CAPACITOR | 4700pF 50V K  |                                                                      |
| C367         | QEKJ1AM-227Z | E CAPACITOR  | 220uF 10V M   | APD89J | C569         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                      |
| C368         | QEKJ1AM-227Z | E CAPACITOR  | 220uF 10V M   | APD89J | C570         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                      |
| C369         | QEKJ0JM-476Z | E CAPACITOR  | 47uF 6.3V M   | APD89J | C571         | NCB31EK-153X | C CAPACITOR | 0.015uF 25V K |                                                                      |
| C370         | NCB31HK-152X | C CAPACITOR  | 1500pF 50V K  | APD89J | C572         | NDC31HJ-470X | C CAPACITOR | 47pF 50V J    |                                                                      |
| C371         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   | APD89J | C573         | NCB31EK-333X | C CAPACITOR | 0.033uF 25V K |                                                                      |
| C372         | NCB31HK-152X | C CAPACITOR  | 1500pF 50V K  | APD89J | C574         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                      |
| C381         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   | APD89J | C575         | QERF0JM-107Z | E CAPACITOR | 100uF 6.3V M  |                                                                      |
| C382         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   | APD89J | C578         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                      |
| C385         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C580         | QTE1E57-475Z | E CAPACITOR | 4.7uF 25V     |                                                                      |
| C386         | QEKJ1HM-475Z | E CAPACITOR  | 4.7uF 50V M   |        | C581         | NDC31HJ-101X | C CAPACITOR | 100pF 50V J   |                                                                      |
| C391         | NBZ0009-127X | E CAPACITOR  | 120uF         |        | C582         | NDC31HJ-151X | C CAPACITOR | 150pF 50V J   |                                                                      |
| C401         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C583         | QTE0J57-476Z | E CAPACITOR | 47uF 6.3V     |                                                                      |
| C402         | NDC31HJ-120X | C CAPACITOR  | 12pF 50V J    |        | C584         | NDC31HJ-821X | C CAPACITOR | 820pF 50V J   |                                                                      |
| C403         | NDC31HJ-150X | C CAPACITOR  | 15pF 50V J    |        | C590         | QTE1E57-475Z | E CAPACITOR | 4.7uF 25V     |                                                                      |
| C461         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C591         | NDC31HJ-101X | C CAPACITOR | 100pF 50V J   |                                                                      |
| C462         | QEKJ0JM-107Z | E CAPACITOR  | 100uF 6.3V M  |        | C592         | NDC31HJ-151X | C CAPACITOR | 150pF 50V J   |                                                                      |
| C463         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C593         | QTE0J57-476Z | E CAPACITOR | 47uF 6.3V     |                                                                      |
| C464         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C594         | NDC31HJ-821X | C CAPACITOR | 820pF 50V J   |                                                                      |
| C465         | QEKJ0JM-107Z | E CAPACITOR  | 100uF 6.3V M  |        | C596         | QTE1C57-107Z | E CAPACITOR | 100uF 16V     |                                                                      |
| C471         | QEKJ0JM-107Z | E CAPACITOR  | 100uF 6.3V M  |        | C597         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C472         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        | C701         | NDC31HJ-220X | C CAPACITOR | 22pF 50V J    |                                                                      |
| C481         | QEKJ0JM-107Z | E CAPACITOR  | 100uF 6.3V M  |        | C702         | NDC31HJ-270X | C CAPACITOR | 27pF 50V J    |                                                                      |
| C482         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        | C705         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K |                                                                      |
| C491         | QTE0J57-107Z | E CAPACITOR  | 100uF 6.3V    |        | C706         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K |                                                                      |
| C492         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C707         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                      |
| C493         | QTE1C57-106Z | E CAPACITOR  | 10uF 16V      |        | C708         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K |                                                                      |
| C494         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C711         | QERF0JM-337Z | E CAPACITOR | 330uF 6.3V M  |                                                                      |
| C495         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C712         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                      |
| C502         | QEKJ1CM-107Z | E CAPACITOR  | 100uF 16V M   |        | C713         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                      |
| C503         | QEKJ0JM-227Z | E CAPACITOR  | 220uF 6.3V M  |        | C714         | NCB31EK-103X | C CAPACITOR | 0.01uF 25V K  |                                                                      |
| C504         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        | C716         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C505         | NCB31CK-104X | C CAPACITOR  | 0.1uF 16V K   |        | C717         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C511         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        | C718         | NDC31HJ-101X | C CAPACITOR | 100pF 50V J   | APD89J,PDR61<br>E,PDR61EX,PD<br>R61EY,PDR62E,<br>PDR62EX,PDR6<br>2EY |
| C512         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        |              |              |             |               |                                                                      |
| C513         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        |              |              |             |               |                                                                      |
| C514         | NCB31EK-473X | C CAPACITOR  | 0.047uF 25V K |        |              |              |             |               |                                                                      |
| C515         | NCB31EK-473X | C CAPACITOR  | 0.047uF 25V K |        | C720         | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K |                                                                      |
| C516         | NCB31EK-473X | C CAPACITOR  | 0.047uF 25V K |        | C721         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                      |
| C517         | NDC31HJ-121X | C CAPACITOR  | 120pF 50V J   |        | C723         | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M    |                                                                      |
| C518         | NCB31HK-103X | C CAPACITOR  | 0.01uF 50V K  |        | C724         | NCB31AK-334X | C CAPACITOR | 0.33uF 10V K  |                                                                      |
| C519         | NCB31EK-473X | C CAPACITOR  | 0.047uF 25V K |        | C725         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                      |
| C531         | NCB31HK-102X | C CAPACITOR  | 1000pF 50V K  |        | C726         | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M    |                                                                      |
| C532         | NDC31HJ-181X | C CAPACITOR  | 180pF 50V J   |        | C727         | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M    |                                                                      |
| C533         | NDC31HJ-271X | C CAPACITOR  | 270pF 50V J   |        | C728         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K |                                                                      |
| C534         | NCB31EK-273X | C CAPACITOR  | 0.027uF 25V K |        | C729         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                      |
| C535         | NCB31HK-183X | C CAPACITOR  | 0.018uF 50V K |        | C730         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                      |
| C536         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C765         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                      |
| C537         | NCB31HK-222X | C CAPACITOR  | 2200pF 50V K  |        | C771         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K | PDR61E,PDR61<br>EX,PDR61EY,G8<br>47EE,PDR62E,P<br>DR62EX,PDR62<br>EY |
| C538         | QEKJ1CM-476Z | E CAPACITOR  | 47uF 16V M    |        |              |              |             |               |                                                                      |
| C539         | NCB31HK-562X | C CAPACITOR  | 5600pF 50V K  |        |              |              |             |               |                                                                      |
| C541         | NCB31HK-333X | C CAPACITOR  | 0.033uF 50V K |        |              |              |             |               |                                                                      |
| C542         | NCB31HK-333X | C CAPACITOR  | 0.033uF 50V K |        |              |              |             |               |                                                                      |
| C543         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C784         | QEKJ1CM-107Z | E CAPACITOR | 100uF 16V M   |                                                                      |
| C544         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C801         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K |                                                                      |
| C545         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C803         | NCB31EK-473X | C CAPACITOR | 0.047uF 25V K |                                                                      |
| C546         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        | C841         | QEKJ1HM-105Z | E CAPACITOR | 1uF 50V M     | APD89J,PDR80J<br>,PDR89UR                                            |
| C547         | QERF1CM-476Z | E CAPACITOR  | 47uF 16V M    |        |              |              |             |               |                                                                      |
| C548         | NCB31EK-104X | C CAPACITOR  | 0.1uF 25V K   |        |              |              |             |               |                                                                      |

| △ Symbol No. | Part No.     | Part Name   | Description   | Local                                                           | △ Symbol No. | Part No.     | Part Name   | Description   | Local                                                                                        |
|--------------|--------------|-------------|---------------|-----------------------------------------------------------------|--------------|--------------|-------------|---------------|----------------------------------------------------------------------------------------------|
| C851         | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M    | G844UI,G845U, G845UN,G845U T,G845UH                             | R81          | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J  | PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| C852         | NCB31CK-224X | C CAPACITOR | 0.22uF 16V K  | G844UI,G845U, G845UN,G845U T,G845UH                             | R82          | NRSA63J-512X | MG RESISTOR | 5.1kΩ 1/16W J | APD89J,PDR80J ,PDR89UR                                                                       |
| C881         | QEKJ1CM-226Z | E CAPACITOR | 22uF 16V M    |                                                                 | R82          | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| C891         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   | APD89J,PDR61 E,PDR61EX,PD R61EY,G847EE, PDR62E,PDR62 EX,PDR62EY | R91          | NRSA63J-243X | MG RESISTOR | 24kΩ 1/16W J  | APD89J,PDR80J ,PDR89UR                                                                       |
| C901         | QEZ0870-278  | E CAPACITOR | 2700uF        |                                                                 | R91          | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J  | PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| C902         | QEKJ1HM-225Z | E CAPACITOR | 2.2uF 50V M   |                                                                 | R92          | NRSA63J-512X | MG RESISTOR | 5.1kΩ 1/16W J | APD89J,PDR80J ,PDR89UR                                                                       |
| C903         | QEKJ1CM-476Z | E CAPACITOR | 47uF 16V M    |                                                                 | R92          | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | PDR61E,PDR61 EX,PDR61EY,G8 44UI,G845U,G8 45UN,G845UT,G 845UH,G847EE, PDR62E,PDR62 EX,PDR62EY |
| C905         | QEKJ1CM-476Z | E CAPACITOR | 47uF 16V M    |                                                                 | R120         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                              |
| C906         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                 | R121         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                              |
| C907         | QEKJ1AM-227Z | E CAPACITOR | 220uF 10V M   |                                                                 | R163         | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |                                                                                              |
| C908         | QEKJ1AM-227Z | E CAPACITOR | 220uF 10V M   |                                                                 | R164         | NRS181J-0R0X | MG RESISTOR | 0Ω 1/8W J     |                                                                                              |
| C909         | QERF0JM-337Z | E CAPACITOR | 330uF 6.3V M  |                                                                 | R165         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| C910         | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M    |                                                                 | R166         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| C911         | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K   |                                                                 | R168         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                              |
| C912         | NCB31HK-103X | C CAPACITOR | 0.01uF 50V K  |                                                                 | R169         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                              |
| C913         | QEKJ1CM-106Z | E CAPACITOR | 10uF 16V M    |                                                                 | R180         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                              |
| C914         | QEKJ1CM-107Z | E CAPACITOR | 100uF 16V M   |                                                                 | R181         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                              |
| C915         | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K   |                                                                 | R241         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| C916         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                 | R303         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                              |
| C928         | NCB31HK-472X | C CAPACITOR | 4700pF 50V K  |                                                                 | R304         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                              |
| C929         | NCB31AK-474X | C CAPACITOR | 0.47uF 10V K  |                                                                 | R305         | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                                              |
| C931         | QEZ0595-477Z | E CAPACITOR | 470uF 25V M   |                                                                 | R307         | NRSA63J-273X | MG RESISTOR | 27kΩ 1/16W J  |                                                                                              |
| C932         | QEKJ0JM-227Z | E CAPACITOR | 220uF 6.3V M  |                                                                 | R313         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                              |
| C936         | NCB31CK-103X | C CAPACITOR | 0.01uF 16V K  |                                                                 | R314         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                              |
| C937         | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K   |                                                                 | R321         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| C938         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                 | R322         | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J  |                                                                                              |
| C971         | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K   |                                                                 | R323         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                              |
| C991         | NCB31HK-153X | C CAPACITOR | 0.015uF 50V K |                                                                 | R331         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| R3           | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                 | R332         | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J  |                                                                                              |
| R4           | NRSA63J-683X | MG RESISTOR | 68kΩ 1/16W J  |                                                                 | R333         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                              |
| R5           | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J |                                                                 | R341         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| R6           | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J |                                                                 | R342         | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J  |                                                                                              |
| R7           | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J  |                                                                 | R343         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                              |
| R9           | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                 | R351         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                              |
| R10          | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                 | R352         | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J  |                                                                                              |
| R11          | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                 | R353         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                              |
| R12          | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |                                                                 | R361         | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J  | APD89J                                                                                       |
| R13          | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                 | R362         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  | APD89J                                                                                       |
| R14          | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |                                                                 | R363         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                              |
| R15          | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                 | R365         | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J  | APD89J                                                                                       |
| R16          | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J |                                                                 | R366         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  | APD89J                                                                                       |
| R17          | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY        | R367         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                              |
| R21          | NRS181J-120X | MG RESISTOR | 12Ω 1/8W J    |                                                                 | R371         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    | PDR80J,PDR61 E,PDR61EX,PD R61EY,G844UI, G845U,G845UT, G845UH,G847EE,P DR62EX,PDR62 EY        |
| R22          | NRS181J-120X | MG RESISTOR | 12Ω 1/8W J    |                                                                 |              |              |             |               |                                                                                              |
| R27          | NRS181J-0R0X | MG RESISTOR | 0Ω 1/8W J     |                                                                 |              |              |             |               |                                                                                              |
| R71          | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY        |              |              |             |               |                                                                                              |
| R72          | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY        |              |              |             |               |                                                                                              |
| R73          | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY        |              |              |             |               |                                                                                              |
| R74          | NRSA02J-101X | MG RESISTOR | 100Ω 1/10W J  | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY        |              |              |             |               |                                                                                              |
| R81          | NRSA63J-243X | MG RESISTOR | 24kΩ 1/16W J  | APD89J,PDR80J ,PDR89UR                                          |              |              |             |               |                                                                                              |

| △ Symbol No. | Part No.     | Part Name   | Description   | Local                                                                                                        | △ Symbol No. | Part No.     | Part Name   | Description   | Local |
|--------------|--------------|-------------|---------------|--------------------------------------------------------------------------------------------------------------|--------------|--------------|-------------|---------------|-------|
| R372         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    | PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI, G845U,G845UN, G845UT,G845U H,G847EE,PDR 89UR,PDR62E,P DR62EX,PDR62 EY | R552         | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R553         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R554         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |              |             |               |                                                                                                              | R555         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |              |             |               |                                                                                                              | R556         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |              |             |               |                                                                                                              | R557         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |              |             |               |                                                                                                              | R560         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |       |
| R373         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    | PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI, G845U,G845UN, G845UT,G845U H,G847EE,PDR 89UR,PDR62E,P DR62EX,PDR62 EY | R561         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R562         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R563         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
|              |              |             |               |                                                                                                              | R564         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
|              |              |             |               |                                                                                                              | R565         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
|              |              |             |               |                                                                                                              | R566         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
|              |              |             |               |                                                                                                              | R567         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R568         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R575         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |       |
| R374         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    | PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI, G845U,G845UN, G845UT,G845U H,G847EE,PDR 89UR,PDR62E,P DR62EX,PDR62 EY | R577         | NRSA02J-220X | MG RESISTOR | 22Ω 1/10W J   |       |
|              |              |             |               |                                                                                                              | R578         | NRSA02J-220X | MG RESISTOR | 22Ω 1/10W J   |       |
|              |              |             |               |                                                                                                              | R581         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |              |             |               |                                                                                                              | R583         | NRSA63J-243X | MG RESISTOR | 24kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R585         | NRSA63J-303X | MG RESISTOR | 30kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R586         | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J |       |
|              |              |             |               |                                                                                                              | R587         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R588         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |              |             |               |                                                                                                              | R589         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
| R381         | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J  | APD89J                                                                                                       | R591         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
| R382         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  | APD89J                                                                                                       | R593         | NRSA63J-243X | MG RESISTOR | 24kΩ 1/16W J  |       |
| R383         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                                              | R595         | NRSA63J-303X | MG RESISTOR | 30kΩ 1/16W J  |       |
| R385         | NRSA63J-333X | MG RESISTOR | 33kΩ 1/16W J  | APD89J                                                                                                       | R596         | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J |       |
| R386         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  | APD89J                                                                                                       | R597         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
| R387         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                                              | R598         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
| R404         | NRSA63J-105X | MG RESISTOR | 1MΩ 1/16W J   |                                                                                                              | R599         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
| R405         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                                                              | R701         | NRSA63J-432X | MG RESISTOR | 4.3kΩ 1/16W J |       |
| R461         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R702         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
| R462         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R703         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R481         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                                              | R704         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R482         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                                                              | R705         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R483         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                                              | R706         | NRSA63J-106X | MG RESISTOR | 10MΩ 1/16W J  |       |
| R484         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                                              | R707         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
| R485         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                                              | R709         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R490         | NRSA63J-122X | MG RESISTOR | 1.2kΩ 1/16W J |                                                                                                              | R710         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R491         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R713         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R492         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R714         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  |       |
| R493         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R715         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
| R494         | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J   |                                                                                                              | R716         | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  |       |
| R495         | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J   |                                                                                                              | R717         | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  |       |
| R496         | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J   |                                                                                                              | R718         | NRSA63J-203X | MG RESISTOR | 20kΩ 1/16W J  |       |
| R497         | NRSA63J-470X | MG RESISTOR | 47Ω 1/16W J   |                                                                                                              | R719         | NRSA63J-122X | MG RESISTOR | 1.2kΩ 1/16W J |       |
| R499         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                                              | R720         | NRSA63J-562X | MG RESISTOR | 5.6kΩ 1/16W J |       |
| R502         | NRS181J-270X | MG RESISTOR | 27Ω 1/8W J    |                                                                                                              | R721         | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J |       |
| R503         | NRS181J-270X | MG RESISTOR | 27Ω 1/8W J    |                                                                                                              | R722         | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  |       |
| R504         | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J |                                                                                                              | R723         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R505         | NRSA63J-512X | MG RESISTOR | 5.1kΩ 1/16W J |                                                                                                              | R724         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R511         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                                              | R725         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R512         | NRSA63J-752X | MG RESISTOR | 7.5kΩ 1/16W J |                                                                                                              | R726         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
| R513         | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J |                                                                                                              | R727         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R514         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                                              | R728         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R515         | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J |                                                                                                              | R729         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R518         | NRSA63J-302X | MG RESISTOR | 3kΩ 1/16W J   |                                                                                                              | R730         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R519         | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J  |                                                                                                              | R731         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R520         | NRSA63J-822X | MG RESISTOR | 8.2kΩ 1/16W J |                                                                                                              | R732         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
| R521         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |                                                                                                              | R733         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R522         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R734         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R524         | NRSA63J-151X | MG RESISTOR | 150Ω 1/16W J  |                                                                                                              | R736         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |       |
| R531         | NRSA63J-105X | MG RESISTOR | 1MΩ 1/16W J   |                                                                                                              | R737         | NRSA63J-203X | MG RESISTOR | 20kΩ 1/16W J  |       |
| R532         | NRSA63J-221X | MG RESISTOR | 220Ω 1/16W J  |                                                                                                              | R738         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |       |
| R535         | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J |                                                                                                              | R739         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R541         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R740         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |       |
| R542         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                                              | R741         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
| R543         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R742         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |       |
| R544         | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                                              | R744         | NRSA63J-474X | MG RESISTOR | 470kΩ 1/16W J |       |
| R545         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |                                                                                                              | R745         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |       |
| R546         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |                                                                                                              | R746         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R547         | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                                                              | R747         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R548         | NRSA63J-562X | MG RESISTOR | 5.6kΩ 1/16W J |                                                                                                              | R748         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
| R549         | NRSA63J-154X | MG RESISTOR | 150kΩ 1/16W J |                                                                                                              | R749         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |       |
| R550         | NRSA63J-334X | MG RESISTOR | 330kΩ 1/16W J |                                                                                                              | R750         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |       |
| R551         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                                              |              |              |             |               |       |

| Symbol No. | Part No.     | Part Name   | Description   | Local                                                                          | Symbol No. | Part No.     | Part Name       | Description   | Local                                                                                                         |
|------------|--------------|-------------|---------------|--------------------------------------------------------------------------------|------------|--------------|-----------------|---------------|---------------------------------------------------------------------------------------------------------------|
| R751       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  | APD89J,PDR61E,PDR61EX,PD R61EY,G844UI, G845U,G845UN, H,PDR62E,PDR 62EX,PDR62EY | R892       | NRSA63J-473X | MG RESISTOR     | 47kΩ 1/16W J  | APD89J,PDR61E,PDR61EX,PD R61EY,G847EE, PDR62E,PDR62 EX,PDR62EY                                                |
| R752       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | R901       | QRE142J-102X | C RESISTOR      | 1kΩ 1/4W J    |                                                                                                               |
| R753       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                | R902       | NRSA02J-912X | MG RESISTOR     | 9.1kΩ 1/10W J |                                                                                                               |
| R754       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                | R903       | NRSA02J-472X | MG RESISTOR     | 4.7kΩ 1/10W J |                                                                                                               |
| R756       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | R905       | NRSA63J-682X | MG RESISTOR     | 6.8kΩ 1/16W J |                                                                                                               |
| R757       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                | R906       | NRSA63J-123X | MG RESISTOR     | 12kΩ 1/16W J  |                                                                                                               |
|            |              |             |               |                                                                                | R907       | NRSA63J-102X | MG RESISTOR     | 1kΩ 1/16W J   |                                                                                                               |
| R759       | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                | R928       | NRSA63J-154X | MG RESISTOR     | 150kΩ 1/16W J |                                                                                                               |
| R760       | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                | R929       | NRSA63D-124X | MG RESISTOR     | 120kΩ 1/16W D |                                                                                                               |
| R761       | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                | R930       | NRSA63J-0R0X | MG RESISTOR     | 0Ω 1/16W J    |                                                                                                               |
| R762       | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  |                                                                                | R931       | NRSA63J-473X | MG RESISTOR     | 47kΩ 1/16W J  |                                                                                                               |
| R763       | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                | R932       | NRSA63J-102X | MG RESISTOR     | 1kΩ 1/16W J   |                                                                                                               |
| R765       | NRSA63J-471X | MG RESISTOR | 470Ω 1/16W J  |                                                                                | R933       | NRSA63J-0R0X | MG RESISTOR     | 0Ω 1/16W J    |                                                                                                               |
| R767       | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                | R934       | NRSA63J-0R0X | MG RESISTOR     | 0Ω 1/16W J    |                                                                                                               |
| R768       | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                | R935       | NRSA63J-153X | MG RESISTOR     | 15kΩ 1/16W J  |                                                                                                               |
| R769       | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                                | R936       | NRSA63J-0R0X | MG RESISTOR     | 0Ω 1/16W J    |                                                                                                               |
| R770       | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                                | R937       | NRS181J-271X | MG RESISTOR     | 270Ω 1/8W J   |                                                                                                               |
| R771       | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY                       | R938       | NRSA63J-473X | MG RESISTOR     | 47kΩ 1/16W J  |                                                                                                               |
|            |              |             |               |                                                                                | R939       | NRSA63D-153X | MG RESISTOR     | 15kΩ 1/16W D  |                                                                                                               |
| R772       | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  | PDR61E,PDR61 EX,PDR61EY,G8 47EE,PDR62E,P DR62EX,PDR62 EY                       | R940       | NRSA63D-623X | MG RESISTOR     | 62kΩ 1/16W D  |                                                                                                               |
|            |              |             |               |                                                                                | R971       | NRS181J-222X | MG RESISTOR     | 2.2kΩ 1/8W J  |                                                                                                               |
| R773       | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                | R972       | NRS181J-222X | MG RESISTOR     | 2.2kΩ 1/8W J  |                                                                                                               |
| R775       | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                                | R976       | NRSA02J-273X | MG RESISTOR     | 27kΩ 1/10W J  |                                                                                                               |
| R776       | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |                                                                                | R977       | NRSA02J-123X | MG RESISTOR     | 12kΩ 1/10W J  |                                                                                                               |
| R777       | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  |                                                                                | L1         | QQL244J-4R7Z | P COIL          | 4.7uH J       |                                                                                                               |
| R779       | NRSA63J-393X | MG RESISTOR | 39kΩ 1/16W J  |                                                                                | L2         | NQL553J-27NX | COIL            | 27nH J        |                                                                                                               |
| R781       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | L3         | NQL553J-27NX | COIL            | 27nH J        |                                                                                                               |
| R782       | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                                | L120       | NQR0007-002X | FERRITE BEADS   |               |                                                                                                               |
| R783       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                | L121       | NQR0007-002X | FERRITE BEADS   |               |                                                                                                               |
| R785       | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                | L122       | NQR0007-002X | FERRITE BEADS   |               |                                                                                                               |
| R786       | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                | L401       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R793       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | L402       | NQL093K-1R8X | COIL            | 1.8uH K       |                                                                                                               |
| R795       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  | APD89J,PDR80J ,G847EE,PDR89 UR                                                 | L403       | NQL093K-1R8X | COIL            | 1.8uH K       |                                                                                                               |
|            |              |             |               |                                                                                | L471       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R797       | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J  |                                                                                | L481       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R798       | NRSA63J-823X | MG RESISTOR | 82kΩ 1/16W J  |                                                                                | L491       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R799       | NRSA63J-823X | MG RESISTOR | 82kΩ 1/16W J  |                                                                                | L492       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R801       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                | L531       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R802       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |                                                                                | L532       | NQL79GM-470X | COIL            | 47uH M        |                                                                                                               |
| R803       | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J |                                                                                | L701       | NQL79GM-4R7X | COIL            | 4.7uH M       |                                                                                                               |
| R804       | NRSA63J-392X | MG RESISTOR | 3.9kΩ 1/16W J |                                                                                | L702       | NQL79GM-4R7X | COIL            | 4.7uH M       |                                                                                                               |
| R805       | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |                                                                                | L901       | QQR1809-001  | CHOKE COIL      |               |                                                                                                               |
| R806       | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                                | L931       | NQL71EM-330X | COIL            | 33uH M        |                                                                                                               |
| R807       | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |                                                                                | L932       | NQLE74M-100X | COIL            | 10uH M        |                                                                                                               |
| R808       | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                | BZ841      | QAN0023-001Z | BUZZER          |               | APD89J,PDR80J ,PDR89UR                                                                                        |
| R809       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | CN501      | QGB2027MD-22 | CONNECTOR       | B-B (1-22)    |                                                                                                               |
| R810       | NRSA63J-392X | MG RESISTOR | 3.9kΩ 1/16W J |                                                                                | CN701      | QGB1004K1-28 | CONNECTOR       | B-B (1-28)    |                                                                                                               |
| R811       | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J |                                                                                | CN702      | QNS0283-001  | STEERING REMOTE |               | APD89J,PDR61 E,PDR61EX,PD R61EY,PDR62E, PDR62EX,PDR6 2EY                                                      |
| R812       | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |                                                                                |            |              |                 |               |                                                                                                               |
| R813       | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |                                                                                | CN901      | QNZ0611-001  | 16P CONNECTOR   |               |                                                                                                               |
| R814       | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J  |                                                                                | J1         | QNB0190-001  | CAR ANT JACK    |               |                                                                                                               |
| R819       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | J321       | QNN0490-001  | PIN JACK        |               | APD89J                                                                                                        |
| R841       | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | APD89J,PDR80J ,PDR89UR                                                         | J321       | QNN0815-001  | PIN JACK        |               | PDR80J,PDR61 E,PDR61EX,PD R61EY,G844UI, G845U,G845UN, G845UT,G845U H,G847EE,PDR 89UR,PDR62E,P DR62EX,PDR62 EY |
| R851       | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  | G844UI,G845U, G845UN,G845U T,G845UH                                            |            |              |                 |               |                                                                                                               |
|            |              |             |               |                                                                                | J801       | QNZ0095-001  | CONNECTOR       |               |                                                                                                               |
| R881       | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |                                                                                | S701       | QSW0451-001  | DETECT SW       |               |                                                                                                               |
| R882       | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |                                                                                | S703       | QSW0648-001Z | TACT SWITCH     |               |                                                                                                               |
| R891       | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   | APD89J,PDR61 E,PDR61EX,PD R61EY,G847EE, PDR62E,PDR62 EX,PDR62EY                |            |              |                 |               |                                                                                                               |

| △ Symbol No. | Part No.                    | Part Name             | Description | Local                                                                                                        |
|--------------|-----------------------------|-----------------------|-------------|--------------------------------------------------------------------------------------------------------------|
| △ TU1        | QAU0484-001                 | TUNER PACK            |             | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,PDR89UR,PDR62E,PDR62EX,PDR62EY G847EE |
| △ TU1 X71    | QAU0485-001<br>QAX0926-001Z | TUNER PACK<br>CRYSTAL |             | PDR61E,PDR61EX,PDR61EY,G847EE,PDR62E,PDR62EX,PDR62EY                                                         |
| X401         | QAX0927-001Z                | CRYSTAL               |             |                                                                                                              |
| X701         | QAX0916-001Z                | CRYSTAL               |             |                                                                                                              |
| X702         | QAX0401-001                 | CRYSTAL               | 32.768KHz   |                                                                                                              |

## Switch board

Block No. [0][2]

| △ Symbol No. | Part No.         | Part Name       | Description | Local                                                                                                 |
|--------------|------------------|-----------------|-------------|-------------------------------------------------------------------------------------------------------|
| △ IC601      | M3030RFGPGP1A    | IC(PROGRAMED)   |             |                                                                                                       |
| △ IC602      | S-80824CNNB-G-W  | IC              |             |                                                                                                       |
| △ IC602      | or IC-PST3424U-X | IC              |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| IC603        | NJL29H380A       | REMOCON RCV     |             |                                                                                                       |
| IC604        | MAX829EUKG-X     | REMOCON RCV     |             |                                                                                                       |
| Q601         | ISA1530AC1/R/-X  | TRANSISTOR      |             |                                                                                                       |
| Q601         | or 2SB709A/QR/-X | TRANSISTOR      |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q602         | ISA1530AC1/R/-X  | TRANSISTOR      |             |                                                                                                       |
| Q602         | or 2SB709A/QR/-X | TRANSISTOR      |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q603         | RT1P141C-X       | DIGI TRANSISTOR |             |                                                                                                       |
| Q603         | or UN2111-X      | TRANSISTOR      |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q604         | RT1N141C-X       | DIGI TRANSISTOR |             |                                                                                                       |

| △ Symbol No. | Part No.         | Part Name  | Description | Local                                                                                                 |
|--------------|------------------|------------|-------------|-------------------------------------------------------------------------------------------------------|
| Q604         | or UN2211-X      | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q610         | 2SC3928A/QR/-X   | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q610         | or 2SD601A/QR/-X | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q610         | 2SD601A/QR/-X    | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q611         | 2SC3928A/QR/-X   | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q611         | or 2SD601A/QR/-X | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q611         | 2SD601A/QR/-X    | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q612         | 2SC3928A/QR/-X   | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q612         | or 2SD601A/QR/-X | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q612         | 2SD601A/QR/-X    | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| Q613         | 2SC3928A/QR/-X   | TRANSISTOR |             | APD89J,PDR80J,PDR61E,PDR61EX,PD R61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |

| △ Symbol No. | Part No.         | Part Name  | Description                                                                                                   | Local |
|--------------|------------------|------------|---------------------------------------------------------------------------------------------------------------|-------|
| Q613         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q613         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q614         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q614         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q614         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q615         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q615         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q615         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q616         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q616         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q616         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q617         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |

| △ Symbol No. | Part No.         | Part Name  | Description                                                                                                   | Local |
|--------------|------------------|------------|---------------------------------------------------------------------------------------------------------------|-------|
| Q617         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q617         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q618         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q618         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q618         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q619         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q619         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q619         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q620         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q620         | or 2SD601A/QR/-X | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| Q620         | 2SD601A/QR/-X    | TRANSISTOR | PDR89UR                                                                                                       |       |
| Q621         | 2SC3928A/QR/-X   | TRANSISTOR | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |

| △ Symbol No. | Part No.         | Part Name       | Description | Local                                                                                                                                               | △ Symbol No. | Part No.       | Part Name | Description | Local                                                                                                                                    |
|--------------|------------------|-----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Q621         | or 2SD601A/QR/-X | TRANSISTOR      |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY<br>PDR89UR | D612         | UDZW6.2B-X     | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| Q621         | 2SD601A/QR/-X    | TRANSISTOR      |             |                                                                                                                                                     | D612         | or MA8062/M/-X | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| Q640         | 2SA1365/F/-X     | TRANSISTOR      |             |                                                                                                                                                     |              |                |           |             |                                                                                                                                          |
| Q641         | 2SA1365/F/-X     | TRANSISTOR      |             |                                                                                                                                                     |              |                |           |             |                                                                                                                                          |
| Q642         | RT1N141C-X       | DIGI TRANSISTOR |             |                                                                                                                                                     |              |                |           |             |                                                                                                                                          |
| Q642         | or UN2211-X      | TRANSISTOR      |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY            | D612         | MA8062/M/-X    | Z DIODE   |             | PDR89UR                                                                                                                                  |
|              |                  |                 |             |                                                                                                                                                     | D613         | UDZW6.2B-X     | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| Q643         | RT1N141C-X       | DIGI TRANSISTOR |             |                                                                                                                                                     |              |                |           |             |                                                                                                                                          |
| Q643         | or UN2211-X      | TRANSISTOR      |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY            | D613         | or MA8062/M/-X | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| D610         | UDZW6.2B-X       | Z DIODE         |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY            | D613         | MA8062/M/-X    | Z DIODE   |             | PDR89UR                                                                                                                                  |
|              |                  |                 |             |                                                                                                                                                     | D614         | UDZW6.2B-X     | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| D610         | or MA8062/M/-X   | Z DIODE         |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY            | D614         | or MA8062/M/-X | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| D610         | MA8062/M/-X      | Z DIODE         |             | PDR89UR                                                                                                                                             |              |                |           |             |                                                                                                                                          |
| D611         | UDZW6.2B-X       | Z DIODE         |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY            | D614         | MA8062/M/-X    | Z DIODE   |             | PDR89UR                                                                                                                                  |
|              |                  |                 |             |                                                                                                                                                     | D615         | UDZW6.2B-X     | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| D611         | or MA8062/M/-X   | Z DIODE         |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY            | D615         | or MA8062/M/-X | Z DIODE   |             | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |
| D611         | MA8062/M/-X      | Z DIODE         |             | PDR89UR                                                                                                                                             |              |                |           |             |                                                                                                                                          |
|              |                  |                 |             |                                                                                                                                                     | D615         | MA8062/M/-X    | Z DIODE   |             | PDR89UR                                                                                                                                  |

| △ Symbol No. | Part No.       | Part Name | Description                                                                                                   | Local |
|--------------|----------------|-----------|---------------------------------------------------------------------------------------------------------------|-------|
| D616         | UDZW5.1B-X     | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D616         | or MA8051/M/-X | Z DIODE   | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D616         | MA8051/M/-X    | Z DIODE   | PDR89UR                                                                                                       |       |
| D617         | UDZW5.1B-X     | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D617         | or MA8051/M/-X | Z DIODE   | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D617         | MA8051/M/-X    | Z DIODE   | PDR89UR                                                                                                       |       |
| D618         | 1SS355W-X      | DIODE     | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D618         | or MA111-X     | SI DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D618         | MA111-X        | SI DIODE  | PDR89UR                                                                                                       |       |
| D620         | MC2838-X       | DIODE     |                                                                                                               |       |
| D620         | or MA152WK-X   | SI DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D621         | MC2838-X       | DIODE     |                                                                                                               |       |
| D621         | or MA152WK-X   | SI DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D622         | MA22D23-X      | SB DIODE  |                                                                                                               |       |

| △ Symbol No. | Part No.       | Part Name | Description                                                                                                   | Local |
|--------------|----------------|-----------|---------------------------------------------------------------------------------------------------------------|-------|
| D622         | or CRS03-W     | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D622         | or RB160M-30-X | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D623         | MA22D23-X      | SB DIODE  |                                                                                                               |       |
| D623         | or CRS03-W     | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D623         | or RB160M-30-X | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D624         | MA22D23-X      | SB DIODE  |                                                                                                               |       |
| D624         | or CRS03-W     | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D624         | or RB160M-30-X | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D625         | MA22D23-X      | SB DIODE  |                                                                                                               |       |
| D625         | or CRS03-W     | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |
| D625         | or RB160M-30-X | SB DIODE  | APD89J,PDR 80J,PDR61E, PDR61EX,PD R61EY,G844U I,G845U,G845 UN,G845UT,G 845UH,G847 EE,PDR62E,P DR62EX,PDR 62EY |       |

| △ Symbol No. | Part No.        | Part Name      | Description   | Local                                                                                                                                    | △ Symbol No. | Part No.     | Part Name   | Description   | Local |
|--------------|-----------------|----------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|-------------|---------------|-------|
| D626         | UDZW5.1B-X      | SB DIODE       |               | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY | R601         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R602         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R603         | NRSA63J-104X | MG RESISTOR | 100kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R604         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |       |
|              |                 |                |               |                                                                                                                                          | R605         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |       |
|              |                 |                |               |                                                                                                                                          | R606         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R607         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R608         | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R609         | NRSA63J-222X | MG RESISTOR | 2.2kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R610         | NRSA63J-680X | MG RESISTOR | 68Ω 1/16W J   |       |
|              |                 |                |               |                                                                                                                                          | R611         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R612         | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R613         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R615         | NRSA63J-153X | MG RESISTOR | 15kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R616         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R617         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R618         | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R619         | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R620         | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R621         | NRSA63J-331X | MG RESISTOR | 330Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R622         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |       |
|              |                 |                |               |                                                                                                                                          | R623         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R624         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R625         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R626         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R627         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R628         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R629         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R630         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R633         | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R635         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |                 |                |               |                                                                                                                                          | R637         | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J    |       |
|              |                 |                |               |                                                                                                                                          | R640         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R641         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R642         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R644         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R645         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R646         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R648         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R649         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R650         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R652         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R653         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R654         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R656         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R657         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R658         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R660         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R661         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R662         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R664         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R665         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R668         | NRSA63J-221X | MG RESISTOR | 220Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R669         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R670         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R671         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R672         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R673         | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R674         | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R675         | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R676         | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R677         | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J   |       |
|              |                 |                |               |                                                                                                                                          | R679         | NRSA63J-132X | MG RESISTOR | 1.3kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R680         | NRSA63J-301X | MG RESISTOR | 300Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R681         | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R682         | NRSA63J-391X | MG RESISTOR | 390Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R683         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R684         | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R685         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R686         | NRSA63J-301X | MG RESISTOR | 300Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R687         | NRSA63J-271X | MG RESISTOR | 270Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R688         | NRSA63J-391X | MG RESISTOR | 390Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R689         | NRSA63J-561X | MG RESISTOR | 560Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R690         | NRSA63J-821X | MG RESISTOR | 820Ω 1/16W J  |       |
|              |                 |                |               |                                                                                                                                          | R691         | NRSA63J-152X | MG RESISTOR | 1.5kΩ 1/16W J |       |
|              |                 |                |               |                                                                                                                                          | R692         | NRSA63J-301X | MG RESISTOR | 300Ω 1/16W J  |       |
| D626         | or MA8051/M/-X  | Z DIODE        |               | APD89J,PDR<br>80J,PDR61E,<br>PDR61EX,PD<br>R61EY,G844U<br>I,G845U,G845<br>UN,G845UT,G<br>845UH,G847<br>EE,PDR62E,P<br>DR62EX,PDR<br>62EY |              |              |             |               |       |
| D626         | MA8051/M/-X     | Z DIODE        |               | PDR89UR                                                                                                                                  |              |              |             |               |       |
| D640         | LBQ39G/L2N2/-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D641         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D642         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D643         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D644         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D645         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D646         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D647         | NECBB205/WPQR/X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D648         | NSCM315C/Z/-W   | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D649         | NSCM315C/Z/-W   | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D650         | SML-D12V8W/PQ-X | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D660         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D661         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D662         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D663         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D664         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D665         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D666         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D667         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D668         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D669         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D670         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| D671         | CL-165HR/HG5-X  | LED            |               |                                                                                                                                          |              |              |             |               |       |
| C601         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C604         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C605         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C606         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C607         | NBE20JM-106X    | TA E CAPACITOR | 10uF 6.3V M   |                                                                                                                                          |              |              |             |               |       |
| C608         | NBE20JM-475X    | TA E CAPACITOR | 4.7uF 6.3V M  |                                                                                                                                          |              |              |             |               |       |
| C609         | NBE20JM-475X    | TA E CAPACITOR | 4.7uF 6.3V M  |                                                                                                                                          |              |              |             |               |       |
| C610         | NBE20JM-475X    | TA E CAPACITOR | 4.7uF 6.3V M  |                                                                                                                                          |              |              |             |               |       |
| C611         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C612         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C613         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C614         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C615         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C616         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C617         | NCB31CK-105X    | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C624         | NBE20JM-106X    | TA E CAPACITOR | 10uF 6.3V M   |                                                                                                                                          |              |              |             |               |       |
| C630         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C631         | NBE20JM-475X    | TA E CAPACITOR | 4.7uF 6.3V M  |                                                                                                                                          |              |              |             |               |       |
| C633         | NCB31EK-104X    | C CAPACITOR    | 0.1uF 25V K   |                                                                                                                                          |              |              |             |               |       |
| C640         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C641         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C642         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C643         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C644         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C645         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C653         | NCB31AK-474X    | C CAPACITOR    | 0.47uF 10V K  |                                                                                                                                          |              |              |             |               |       |
| C654         | NCB31AK-474X    | C CAPACITOR    | 0.47uF 10V K  |                                                                                                                                          |              |              |             |               |       |
| C655         | NCB31AK-474X    | C CAPACITOR    | 0.47uF 10V K  |                                                                                                                                          |              |              |             |               |       |
| C656         | NCB31AK-474X    | C CAPACITOR    | 0.47uF 10V K  |                                                                                                                                          |              |              |             |               |       |
| C657         | NCJ31CK-105X-A  | C CAPACITOR    | 1uF 16V K     |                                                                                                                                          |              |              |             |               |       |
| C658         | NCB31AK-474X    | C CAPACITOR    | 0.47uF 10V K  |                                                                                                                                          |              |              |             |               |       |
| C659         | NCB31EK-473X    | C CAPACITOR    | 0.047uF 25V K |                                                                                                                                          |              |              |             |               |       |
| C660         | NBE20JM-475X    | TA E CAPACITOR | 4.7uF 6.3V M  |                                                                                                                                          |              |              |             |               |       |
| C681         | NCJ11EK-106X-R  | C CAPACITOR    | 10uF 25V      |                                                                                                                                          |              |              |             |               |       |

| Symbol No. | Part No.      | Part Name      | Description    | Local |
|------------|---------------|----------------|----------------|-------|
| R693       | NRSA63J-271X  | MG RESISTOR    | 270Ω 1/16W J   |       |
| R694       | NRSA63J-473X  | MG RESISTOR    | 47kΩ 1/16W J   |       |
| R695       | NRSA63J-473X  | MG RESISTOR    | 47kΩ 1/16W J   |       |
| R696       | NRSA63J-474X  | MG RESISTOR    | 470kΩ 1/16W J  |       |
| R697       | NRSA63J-132X  | MG RESISTOR    | 1.3kΩ 1/16W J  |       |
| R699       | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6001      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6002      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6003      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6004      | NRSA63J-561X  | MG RESISTOR    | 560Ω 1/16W J   |       |
| R6005      | NRSA63J-561X  | MG RESISTOR    | 560Ω 1/16W J   |       |
| R6006      | NRSA63J-561X  | MG RESISTOR    | 560Ω 1/16W J   |       |
| R6007      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6008      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6009      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6010      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6011      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6012      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6013      | NRSA63J-561X  | MG RESISTOR    | 560Ω 1/16W J   |       |
| R6014      | NRSA63J-561X  | MG RESISTOR    | 560Ω 1/16W J   |       |
| R6015      | NRSA63J-561X  | MG RESISTOR    | 560Ω 1/16W J   |       |
| R6016      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6017      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6018      | NRSA63J-391X  | MG RESISTOR    | 390Ω 1/16W J   |       |
| R6020      | NRS181J-0R0X  | MG RESISTOR    | 0Ω 1/8W J      |       |
| R6022      | NRSA63F-105X  | MG RESISTOR    | 1MΩ 1/16W F    |       |
| R6023      | NRSA63F-134X  | MG RESISTOR    | 130kΩ 1/16W F  |       |
| R6024      | NRSA63J-273X  | MG RESISTOR    | 27kΩ 1/16W J   |       |
| R6026      | NRSA63J-222X  | MG RESISTOR    | 2.2kΩ 1/16W J  |       |
| R6027      | NRSA63J-473X  | MG RESISTOR    | 47kΩ 1/16W J   |       |
| R6028      | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6029      | NRSA63J-103X  | MG RESISTOR    | 10kΩ 1/16W J   |       |
| R6030      | NRSA63J-471X  | MG RESISTOR    | 470Ω 1/16W J   |       |
| R6032      | NRSA63J-392X  | MG RESISTOR    | 3.9kΩ 1/16W J  |       |
| R6036      | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6037      | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6039      | NVP0021-683X  | TRIM RESISTOR  | 68kΩ           |       |
| R6043      | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6044      | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6045      | NRSA63J-0R0X  | MG RESISTOR    | 0Ω 1/16W J     |       |
| R6050      | NRSA02J-0R0X  | MG RESISTOR    | 0Ω 1/10W J     |       |
| R6051      | NRSA02J-0R0X  | MG RESISTOR    | 0Ω 1/10W J     |       |
| R6052      | NRSA02J-0R0X  | MG RESISTOR    | 0Ω 1/10W J     |       |
| RA601      | NRZ0065-472X  | MG RESISTOR    | 4.7kΩ          |       |
| RA602      | NRZ0065-472X  | MG RESISTOR    | 4.7kΩ          |       |
| RA603      | NRZ0065-472X  | MG RESISTOR    | 4.7kΩ          |       |
| RA604      | NRZ0065-331X  | NET RESISTOR   | 330Ω           |       |
| RA605      | NRZ0065-331X  | NET RESISTOR   | 330Ω           |       |
| L601       | NQL79GM-470X  | COIL           | 47uH M         |       |
| L602       | NQR0536-001X  | CHOKE COIL     |                |       |
| CN601      | QGZ1201M1-25W | CONNECTOR      | (1-25)         |       |
| CN602      | QGF0522F3-30W | CONNECTOR      | FFC/FPC (1-30) |       |
| CN603      | QNZ0962-001   | USB JACK       |                |       |
| EN601      | QSW1231-001   | ROTARY ENCODER |                |       |
| PJ601      | QNS0215-001   | 3.5 JACK       |                |       |
| S601       | NSW0206-001X  | TACT SWITCH    |                |       |
| S602       | NSW0206-001X  | TACT SWITCH    |                |       |
| S603       | NSW0206-001X  | TACT SWITCH    |                |       |
| S604       | NSW0206-001X  | TACT SWITCH    |                |       |
| S605       | NSW0206-001X  | TACT SWITCH    |                |       |
| S606       | NSW0206-001X  | TACT SWITCH    |                |       |
| S607       | NSW0206-001X  | TACT SWITCH    |                |       |
| S608       | NSW0206-001X  | TACT SWITCH    |                |       |
| S609       | NSW0206-001X  | TACT SWITCH    |                |       |
| S610       | NSW0206-001X  | TACT SWITCH    |                |       |
| S611       | NSW0206-001X  | TACT SWITCH    |                |       |
| S612       | NSW0206-001X  | TACT SWITCH    |                |       |
| S613       | NSW0206-001X  | TACT SWITCH    |                |       |
| S614       | NSW0206-001X  | TACT SWITCH    |                |       |
| S615       | NSW0206-001X  | TACT SWITCH    |                |       |
| S616       | NSW0206-001X  | TACT SWITCH    |                |       |
| S617       | NSW0308-001X  | OPEN SWITCH    |                |       |
| TH601      | NAD0028-103X  | N THERMISTOR   | 10kΩ           |       |
| X601       | NAX0752-001X  | RESONATOR      |                |       |

## Function board

Block No. [0][3]

| Symbol No. | Part No.      | Part Name   | Description  | Local |
|------------|---------------|-------------|--------------|-------|
| D2441      | LHQ974/LM/-X  | LED         |              |       |
| D2442      | LHQ974/LM/-X  | LED         |              |       |
| D2443      | LHQ974/LM/-X  | LED         |              |       |
| R2442      | NRSA63J-681X  | MG RESISTOR | 680Ω 1/16W J |       |
| R2443      | NRSA63J-821X  | MG RESISTOR | 820Ω 1/16W J |       |
| R2447      | NRSA63J-0R0X  | MG RESISTOR | 0Ω 1/16W J   |       |
| CN741      | QGB1004J2-28X | CONNECTOR   | B-B (1-28)   |       |
| CN742      | QGZ1201L1-25  | CONNECTOR   | (1-25)       |       |
| S2441      | NSW0246-001X  | TACK SW     |              |       |

## USB board

Block No. [0][4]

| Symbol No. | Part No.        | Part Name      | Description   | Local                                                                                                                |
|------------|-----------------|----------------|---------------|----------------------------------------------------------------------------------------------------------------------|
| △ IC601    | TCC8600         | IC             |               |                                                                                                                      |
| △ IC602    | MFI341S2094-X   | IC(MCU)        |               |                                                                                                                      |
| IC641      | SA16D90TFI011G  | IC (PROGRAMED) |               |                                                                                                                      |
| IC642      | K4S641632K-UC75 | IC             |               | APD89J,PDR8 0J,PDR61E,PD R61EX,PDR61 EY,G844UI,G8 45U,G845UN, G845UT,G845 UH,G847EE PDR89UR,PD R62E,PDR62E X,PDR62EY |
| IC642      | M12L64164A-7TG  | IC             |               |                                                                                                                      |
| IC692      | NJM2878F4-18-X  | IC             |               |                                                                                                                      |
| C602       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C603       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C604       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C605       | NCB31HK-122X    | C CAPACITOR    | 1200pF 50V K  |                                                                                                                      |
| C606       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C607       | NDC31HJ-270X    | C CAPACITOR    | 27pF 50V J    |                                                                                                                      |
| C608       | NDC31HJ-270X    | C CAPACITOR    | 27pF 50V J    |                                                                                                                      |
| C609       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C610       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C611       | NDC31HJ-331X    | C CAPACITOR    | 330pF 50V J   |                                                                                                                      |
| C612       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C613       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C614       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C615       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C616       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C617       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C618       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C619       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C620       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C621       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C640       | NCB31AK-154X    | C CAPACITOR    | 0.15uF 10V K  |                                                                                                                      |
| C641       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C642       | NBE20JM-226X    | TA E CAPACITOR | 22uF 6.3V M   |                                                                                                                      |
| C643       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C644       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C645       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C646       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C647       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C648       | NBE20JM-226X    | TA E CAPACITOR | 22uF 6.3V M   |                                                                                                                      |
| C649       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C650       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C680       | NBE41AM-476X    | TA E CAPACITOR | 47uF 10V M    |                                                                                                                      |
| C681       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C682       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| C691       | NBE21CM-475X    | TA E CAPACITOR | 4.7uF 16V M   |                                                                                                                      |
| C692       | NCB31CK-104X    | C CAPACITOR    | 0.1uF 16V K   |                                                                                                                      |
| R604       | NRSA63J-472X    | MG RESISTOR    | 4.7kΩ 1/16W J |                                                                                                                      |
| R605       | NRSA63J-472X    | MG RESISTOR    | 4.7kΩ 1/16W J |                                                                                                                      |

△ Symbol No.    Part No.    Part Name    Description    Local

|       |              |              |               |  |
|-------|--------------|--------------|---------------|--|
| R606  | NRSA63J-472X | MG RESISTOR  | 4.7kΩ 1/16W J |  |
| R610  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R611  | NRSA63J-152X | MG RESISTOR  | 1.5kΩ 1/16W J |  |
| R612  | NRSA63J-105X | MG RESISTOR  | 1MΩ 1/16W J   |  |
| R614  | NRSA63J-470X | MG RESISTOR  | 47Ω 1/16W J   |  |
| R621  | NRSA63J-472X | MG RESISTOR  | 4.7kΩ 1/16W J |  |
| R626  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R628  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R635  | NRSA63J-472X | MG RESISTOR  | 4.7kΩ 1/16W J |  |
| R640  | NRSA63J-473X | MG RESISTOR  | 47kΩ 1/16W J  |  |
| R641  | NRSA63J-102X | MG RESISTOR  | 1kΩ 1/16W J   |  |
| R643  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R646  | NRSA63J-472X | MG RESISTOR  | 4.7kΩ 1/16W J |  |
| R647  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R648  | NRSA63J-473X | MG RESISTOR  | 47kΩ 1/16W J  |  |
| R650  | NRSA63J-153X | MG RESISTOR  | 15kΩ 1/16W J  |  |
| R651  | NRSA63J-153X | MG RESISTOR  | 15kΩ 1/16W J  |  |
| R652  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R653  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R684  | NRSA63J-0R0X | MG RESISTOR  | 0Ω 1/16W J    |  |
| R688  | NRSA63J-472X | MG RESISTOR  | 4.7kΩ 1/16W J |  |
| R690  | NRSA63J-101X | MG RESISTOR  | 100Ω 1/16W J  |  |
| R693  | NRSA63J-103X | MG RESISTOR  | 10kΩ 1/16W J  |  |
| R694  | NRSA63J-103X | MG RESISTOR  | 10kΩ 1/16W J  |  |
| R696  | NRSA63D-104X | MG RESISTOR  | 100kΩ 1/16W D |  |
| R698  | NRSA63J-330X | MG RESISTOR  | 33Ω 1/16W J   |  |
| R699  | NRSA63J-330X | MG RESISTOR  | 33Ω 1/16W J   |  |
| R6394 | NRSA63J-470X | MG RESISTOR  | 47Ω 1/16W J   |  |
| R6396 | NRSA63J-470X | MG RESISTOR  | 47Ω 1/16W J   |  |
| R6397 | NRSA63J-470X | MG RESISTOR  | 47Ω 1/16W J   |  |
| R6399 | NRSA63J-101X | MG RESISTOR  | 100Ω 1/16W J  |  |
| RA601 | NRZ0065-472X | MG RESISTOR  | 4.7kΩ         |  |
| RA680 | NRZ0065-102X | NET RESISTOR | 1kΩ 1/16W J   |  |

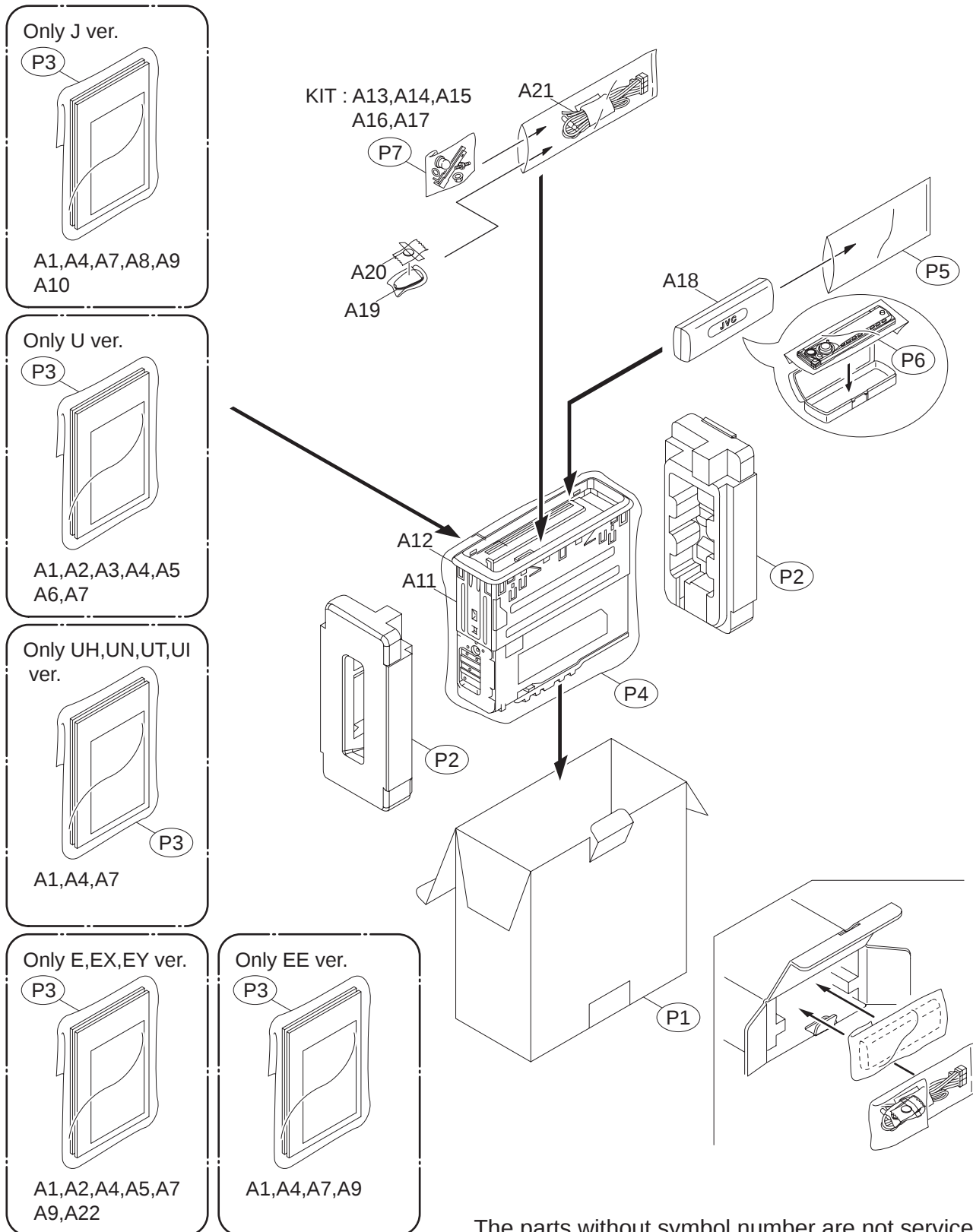
|       |              |      |          |  |
|-------|--------------|------|----------|--|
| L601  | NQL38DK-330X | COIL | 33uH K   |  |
| L602  | NQL093K-R12X | COIL | 0.12uH K |  |
| L603  | NQL093K-R12X | COIL | 0.12uH K |  |
| L607  | NQL093K-1R8X | COIL | 1.8uH K  |  |
| L608  | NQL093K-R12X | COIL | 0.12uH K |  |
| L6398 | NQL093K-1R8X | COIL | 1.8uH K  |  |

|       |              |               |        |  |
|-------|--------------|---------------|--------|--|
| CN601 | QGZ2512M1-08 | CONNECTOR     | (1-8)  |  |
| CN602 | QGZ2512M1-10 | CONNECTOR     | (1-10) |  |
| K641  | NQR0502-001X | FERRITE BEADS |        |  |
| X602  | NAX0975-001X | CRYSTAL       |        |  |
| X603  | NAX0966-001X | C RESONATOR   |        |  |

# Packing materials and accessories parts list

Block No. M 3 M M

No additional / supplemental order of WARRANTY CARDS are available.



# Packing and Accessories

Block No. [M][3][M][M]

| △ Symbol No. | Part No.      | Part Name       | Description             | Local                                                                                                |
|--------------|---------------|-----------------|-------------------------|------------------------------------------------------------------------------------------------------|
| A 1          | GET0519-001A  | INST BOOK       | ENG SPA FRE             | APD89J,PDR80J                                                                                        |
| A 1          | GET0524-001A  | INST BOOK       | GER FRE ITA             | PDR61E                                                                                               |
| A 1          | GET0524-003A  | INST BOOK       | ENG FRE                 | PDR61EX                                                                                              |
| A 1          | GET0524-006A  | INST BOOK       | ENG GER RUS             | PDR61EY                                                                                              |
| A 1          | GET0523-001A  | INST BOOK       | ENG                     | G844UI                                                                                               |
| A 1          | GET0498-001A  | INST BOOK       | ENG THA                 | G845U,G845UH                                                                                         |
| A 1          | GET0498-004A  | INST BOOK       | ENG INA                 | G845UN                                                                                               |
| A 1          | GET0498-005A  | INST BOOK       | ENG CHI(TAIWAN)         | G845UT                                                                                               |
| A 1          | GET0525-001A  | INST BOOK       | ENG RUS UKR             | G847EE                                                                                               |
| A 1          | GET0524-001B  | INST BOOK       | GER FRE ITA             | PDR62E                                                                                               |
| A 1          | GET0524-003B  | INST BOOK       | ENG FER                 | PDR62EX                                                                                              |
| A 1          | GET0524-006B  | INST BOOK       | ENG GER RUS             | PDR62EY                                                                                              |
| A 2          | GET0524-002A  | INST BOOK       | SPA GRE POR             | PDR61E                                                                                               |
| A 2          | GET0524-004A  | INST BOOK       | DUT SWE DAN FIN         | PDR61EX                                                                                              |
| A 2          | GET0524-007A  | INST BOOK       | POL CZE HUN             | PDR61EY                                                                                              |
| A 2          | GET0498-002A  | INST BOOK       | KOR CHI(TAIWAN) ARA PER | G845U                                                                                                |
| A 2          | GET0524-002B  | INST BOOK       | SPA GER POR             | PDR62E                                                                                               |
| A 2          | GET0524-004B  | INST BOOK       | DUT SWE DAN FIN         | PDR62EX                                                                                              |
| A 2          | GET0524-007B  | INST BOOK       | POL CZE HUN             | PDR62EY                                                                                              |
| A 3          | GET0498-003A  | INST BOOK       | RUS                     | G845U                                                                                                |
| A 4          | GET0519-002A  | INST.MANUAL     | ENG SPA FRE             | APD89J,PDR80J                                                                                        |
| A 4          | GET0524-008A  | INST.MANUAL     | GER FRE ITA             | PDR61E                                                                                               |
| A 4          | GET0524-010A  | INST.MANUAL     | ENG FRE                 | PDR61EX                                                                                              |
| A 4          | GET0524-013A  | INST.MANUAL     | ENG GER RUS             | PDR61EY                                                                                              |
| A 4          | GET0523-002A  | INST.MANUAL     | ENG                     | G844UI                                                                                               |
| A 4          | GET0498-006A  | INST.MANUAL     | ENG THA                 | G845U,G845UH                                                                                         |
| A 4          | GET0498-009A  | INST.MANUAL     | ENG INA                 | G845UN                                                                                               |
| A 4          | GET0498-010A  | INST.MANUAL     | ENG CHI(TAIWAN)         | G845UT                                                                                               |
| A 4          | GET0525-002A  | INST.MANUAL     | ENG RUS UKR             | G847EE                                                                                               |
| A 4          | GET0524-009C  | INST.MANUAL     | GER FRE ITA             | PDR62E                                                                                               |
| A 4          | GET0524-010C  | INST.MANUAL     | ENG FRE                 | PDR62EX                                                                                              |
| A 4          | GET0524-013C  | INST.MANUAL     | ENG GER RUS             | PDR62EY                                                                                              |
| A 5          | GET0524-009A  | INST.MANUAL     | SPA GRE POR             | PDR61E                                                                                               |
| A 5          | GET0524-011A  | INST.MANUAL     | DUT SWE DAN FIN         | PDR61EX                                                                                              |
| A 5          | GET0524-014A  | INST.MANUAL     | POL CZE HUN             | PDR61EY                                                                                              |
| A 5          | GET0498-007A  | INST.MANUAL     | KOR CHI(TAIWAN) ARA PER | G845U                                                                                                |
| A 5          | GET0524-008C  | INST.MANUAL     | SPA GER POR             | PDR62E                                                                                               |
| A 5          | GET0524-011C  | INST.MANUAL     | DUT SWE DAN FIN         | PDR62EX                                                                                              |
| A 5          | GET0524-014C  | INST.MANUAL     | POL CZE HUN             | PDR62EY                                                                                              |
| A 6          | GET0498-008A  | INST.MANUAL     | RUS                     | G845U                                                                                                |
| A 7          | LVT1672-002A  | INST SHEET      |                         | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| A 8          | BT-51041-1    | REGIS.CARD      |                         | APD89J,PDR80J                                                                                        |
| A 9          | -----         | WARRANTY CARD   | BT-51029-3              | APD89J                                                                                               |
| A 9          | -----         | WARRANTY CARD   | BT-51018-5              | PDR80J                                                                                               |
| A 9          | -----         | WARRANTY CARD   | BT-54032-1              | PDR61E,PDR61EX,PDR61EY,G847EE                                                                        |
| A 9          | -----         | WARRANTY CARD   | BT-54035-1              | PDR62E,PDR62EX,PDR62EY                                                                               |
| A 10         | -----         | WARRANTY CARD   | BT-52007-1              | APD89J,PDR80J                                                                                        |
| A 11         | GE20137-003A  | MOUNTING SLEEVE |                         |                                                                                                      |
| A 12         | GE20235-001A  | TRIM PLATE      |                         | APD89J,PDR80J,PDR89UR                                                                                |
| A 12         | GE20218-003A  | TRIM PLATE      |                         | PDR61E,PDR61EX,PDR61EY                                                                               |
| A 12         | GE20235-004A  | TRIM PLATE      |                         | G844UI,G845U,G845UN,G845UT,G845UH                                                                    |
| A 12         | GE20218-009A  | TRIM PLATE      |                         | G847EE                                                                                               |
| A 12         | GE20218-002A  | TRIM PLATE      |                         | PDR62E,PDR62EX,PDR62EY                                                                               |
| A 13         | VKZ4027-202   | PLUG NUT        |                         |                                                                                                      |
| A 14         | GE40426-002A  | MOUNT BOLT      |                         |                                                                                                      |
| A 15         | VKZ4328-003   | LOCK NUT        |                         |                                                                                                      |
| A 16         | QYVWS53A008ZA | WASHER          | 0mm/5.3mm x (x2)        |                                                                                                      |
| A 17         | GE40130-002A  | HOOK            |                         |                                                                                                      |
| A 18         | GE32320-001A  | HARD CASE ASSY  |                         |                                                                                                      |
| A 19         | RM-RK50C      | REMOCON         |                         | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| A 20         | -----         | BATTERY         | 3V                      | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE                        |
| A 20         | -----         | BATTERY         |                         | PDR62E,PDR62EX,PDR62EY                                                                               |
| A 21         | QAM1044-001   | 16P CORD ASSY   |                         | APD89J                                                                                               |
| A 21         | QAM0306-003   | 16P CORD ASSY   |                         | PDR80J                                                                                               |
| A 21         | QAM0569-002   | 16P CORD ASSY   |                         | PDR61E,PDR61EX,PDR61EY,G847EE,PDR62E,PDR62EX,PDR62EY                                                 |
| A 21         | QAM1087-001   | 16P CORD ASSY   |                         | G844UI,G845U,G845UN,G845UT,G845UH                                                                    |
| A 21         | QAM0531-002   | 16P CORD ASSY   |                         | PDR89UR                                                                                              |

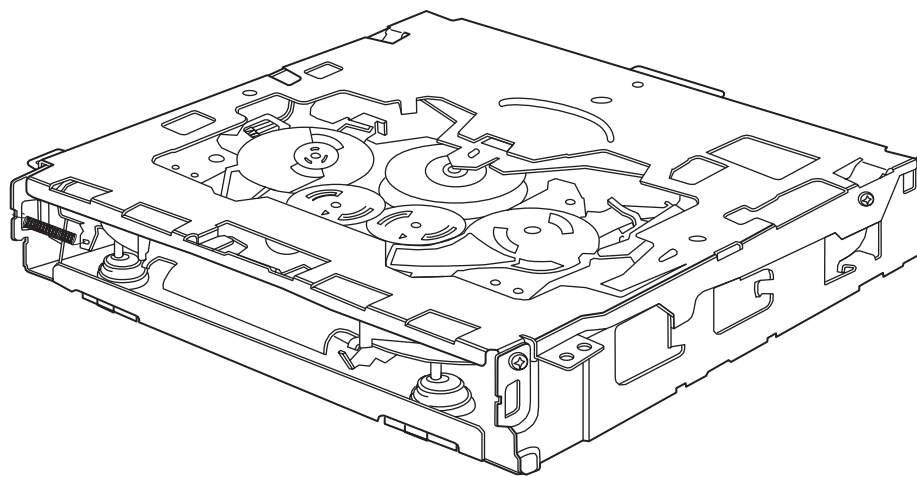
| Symbol No. | Part No.      | Part Name       | Description         | Local                                                                                                |
|------------|---------------|-----------------|---------------------|------------------------------------------------------------------------------------------------------|
| A 22       | VND3050-002   | IDENTITY CARD   |                     | PDR61E,PDR61EX,PDR61EY,PDR62E,PDR62EX,PDR62EY                                                        |
| KIT        | SRW-MA372     | SCREW PARTS KIT | A13 A14 A15 A16 A17 |                                                                                                      |
| P 1        | GE33104-001A  | CARTON          |                     | APD89J                                                                                               |
| P 1        | GE33107-001A  | CARTON          |                     | PDR80J                                                                                               |
| P 1        | GE33116-001A  | CARTON          |                     | PDR61E,PDR61EX,PDR61EY                                                                               |
| P 1        | GE33113-001A  | CARTON          |                     | G844UI                                                                                               |
| P 1        | GE33110-001A  | CARTON          |                     | G845U,G845UN,G845UT,G845UH                                                                           |
| P 1        | GE33119-001A  | CARTON          |                     | G847EE                                                                                               |
| P 1        | GE33335-001A  | CARTON          |                     | PDR62E,PDR62EX,PDR62EY                                                                               |
| P 2        | GE10228-001A  | EPS CUSHION     |                     | APD89J,PDR80J,G844UI,G845U,G845UN,G845UT,G845UH                                                      |
| P 2        | GE10232-001A  | EPS CUSHION     |                     | PDR61E,PDR61EX,PDR61EY,G847EE                                                                        |
| P 2        | GE10232-002A  | EPS CUSHION     |                     | PDR62E,PDR62EX,PDR62EY                                                                               |
| P 3        | FSPG4002-001  | POLY BAG        |                     | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| P 4        | QPC03004315PB | POLY BAG        | 30cm x 43cm         | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| P 5        | QPA01003003   | POLY BAG        | 10cm x 30cm         | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| P 6        | QPC01002515   | POLY BAG        | 10cm x 25cm         | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |
| P 7        | QPA00801205   | POLY BAG        | 8cm x 12cm          | APD89J,PDR80J,PDR61E,PDR61EX,PDR61EY,G844UI,G845U,G845UN,G845UT,G845UH,G847EE,PDR62E,PDR62EX,PDR62EY |

# JVC

## SERVICE MANUAL

### CD MECHANISM

## TN2007-1026



Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

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# SECTION 1

## PRECAUTIONS

### 1.1 Safety Precautions



**CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.



**CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

## 1.2 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

### 1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players.

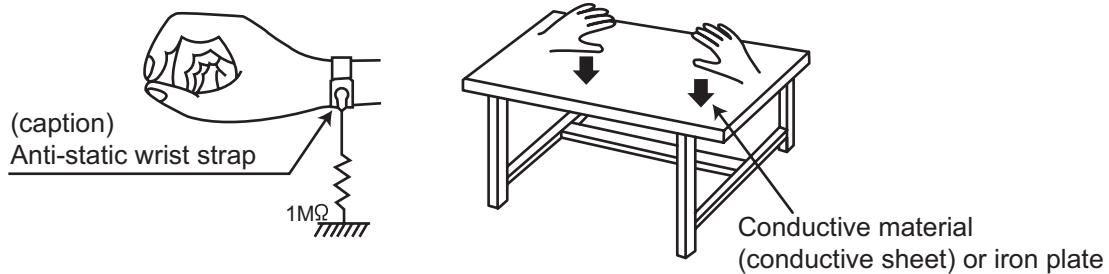
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

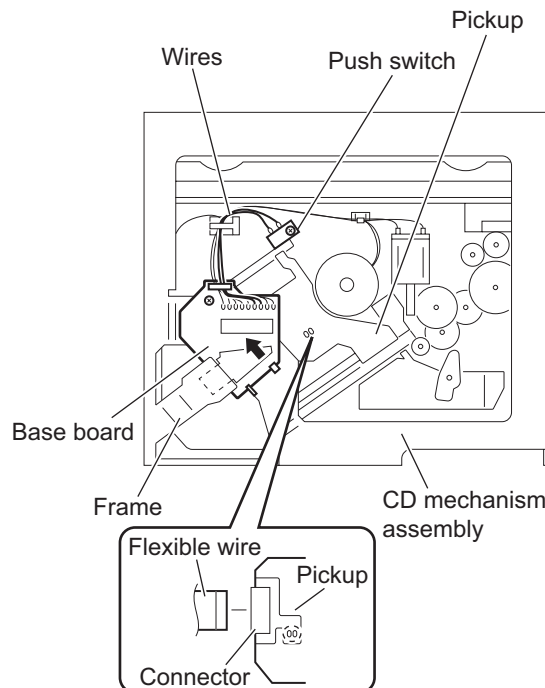
## 1.3 Handling the traverse unit (optical pickup)

- (1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- (2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
- (3) Handle the flexible cable carefully as it may break when subjected to strong force.
- (4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

## 1.4 Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for the CD pickup unit.**

- Apply solder to the short land before the flexible wire is disconnected from the connector on the CD pickup unit. (If the flexible wire is disconnected without applying solder, the CD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land after connecting the flexible wire.



## 1.5 Important for laser products

### 1.CLASS 1 LASER PRODUCT

#### 2.CAUTION :

(For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.  
(Others) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

**3.CAUTION :** Visible and/or invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

**4.CAUTION :** This laser product uses visible and/or invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

(For U.S.A.)

**CAUTION :** Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(Others)

**CAUTION :** Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments

**ACHTUNG:** Sichtbare und/oder unsichtbare Laserstrahlung der Klasse 1M bei offenen Abdeckungen. Nicht direkt mit optischen Instrumenten betrachten.

**ATTENTION:** Rayonnement laser visible et/ou invisible de classe 1M une fois ouvert. Ne pas regarder directement avec des instruments optiques.

**VOORZICHTIG:** Zichtbare en/of onzichtbare klasse 1M laserstralen indien geopend. Bekijk niet direct met optische instrumenten.

**ATTENZIONE:** Radiazione laser in classe 1M visibile e/o invisibile quando aperto. Non osservare direttamente con strumenti ottici.

**VARNING:** Synlig och/eller osynlig laserstrålning, klass 1M, när denna del är öppnad. Betrakta ej strålen med optiska instrument.

**VARO!** Avattaessa olet alttiina näkyvälle ja/tai näkymättömälle luokan 1M lasersäteilylle. Älä tarkastele sitä optisen laitteen läpi.

**ADVASEL:** Synlig og/eller usynlig klasse 1M-laserstråling ved åbning. Se ikke direkte med optiske instrumenter.

**AVISO:** Radiación láser de clase 1M visible y/o invisible cuando está abierto. No mirar directamente con instrumental óptico.

**PRECAUÇÃO:** Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos ópticos.

**5.CAUTION :** If safety switches malfunction, the laser is able to function.

**6.CAUTION :** Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.



**CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

**PRECAUÇÃO:** Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos ópticos.

**ПРЕДУПРЕЖДЕНИЕ:** В открытом состоянии происходит видимое и/или невидимое излучение лазера класса 1M. Не смотрите непосредственно в оптические инструменты.

**UWAGA:** Otwarcie spowoduje narażenie na widzialne i/lub niewidzialne promieniowanie lasera klasy 1M. Nie patrzeć bezpośrednio w przyrządy optyczne.

**UPOZORNĚNÍ:** Při otevření vydává viditelné popř. neviditelné laserové ozáření třídy 1M. Nedívejte se do otvoru přímo s optickými nástroji.

**FIGYELMEZTETÉS:** Látható és/vagy láthatatlan 1M osztályú sugárzás nyitott állapotban. Ne nézze közvetlenül optikai műszerekkel.

**注意:** 打開蓋板可能會產生可見或不可見的 1M 級鐳射。不要使用光學儀器直接進行窺視。

**注意:** 打开盖板可能会产生可见或不可见的 1M 级辐射。不要使用光学仪器直接进行窥视。

**تنبيه:** يوجد إشعاع ليزري مرئي و/أو غير مرئي من الفئة 1M عندما يكون الجهاز مفتوحاً. تجنب النظر مباشرة داخل الجهاز باستخدام أدوات بصرية.

**احتياط:** هنگامی که باز گردد، تشعشع مرئی و یا نامرئی کلاس 1M لیزر وجود دارد. با لوازم چشمی مستقیماً به آن نگاه نکنید.

**주의:** 개방하면 가시 및/또는 비가시 클래스 1M 레이저 방사선이 나옵니다. 광학 기구로 직접 들여다보지 마십시오.

## **SECTION 2**

### **SPECIFIC SERVICE INSTRUCTIONS**

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

## SECTION 3 DISASSEMBLY

### 3.1 CD mechanism assembly

#### 3.1.1 Removing the top cover (See Figs.1 and 2)

- (1) From the both side of the CD mechanism assembly, remove the four screws **A** attaching the top cover. (See Fig.1.)
- (2) Lift the front side of the top cover and move the top cover backward to release the two joints **a**. (See Figs.1 and 2.)

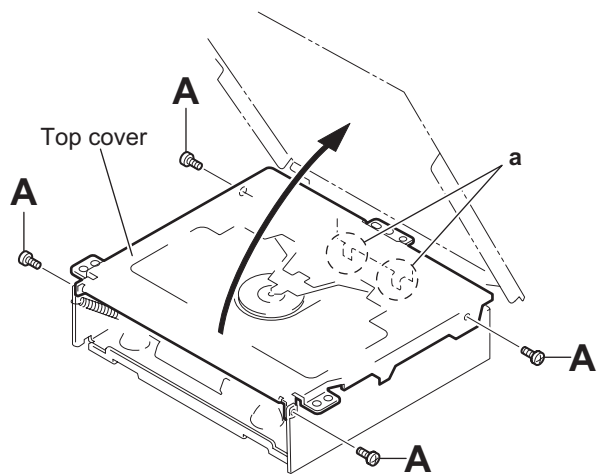


Fig.1

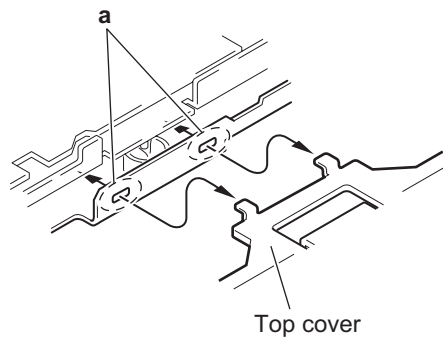


Fig.2

### 3.1.2 Removing the push switch

(See Figs.3)

- (1) From the bottom side of the CD mechanism assembly, remove the screw **B** attaching the push switch.
- (2) Take out the push switch from the CD mechanism assembly.

#### Reference:

Remove the wires from soldered sections **b** of the push switch as required.

### 3.1.3 Removing the base board

(See Figs.3 and 4)

#### Caution:

Solder the short land **c** before the flexible wire is disconnected from the connector on the pickup. If the flexible wire is disconnected without applying solder, the pickup may be destroyed by static electricity. (See Fig.3.)

- (1) From the bottom side of the CD mechanism assembly, remove the screw **C** attaching the base board. (See Figs.3 and 4.)
- (2) Solder the short land **c** on the pickup. (See Fig.3.)
- (3) Disconnect the flexible wire from the connector on the pickup. (See Fig.3.)
- (4) Remove the base board from the joints **d** of the frame in the direction of the arrow. (See Figs.3 and 4.)

#### Reference:

Remove the wires from the soldered sections **e** on the base board as required. (See Fig.3.)

#### Caution:

When reattaching the base board, be sure to remove solder from the short land **c** after connecting the flexible wire. (See Fig.3.)

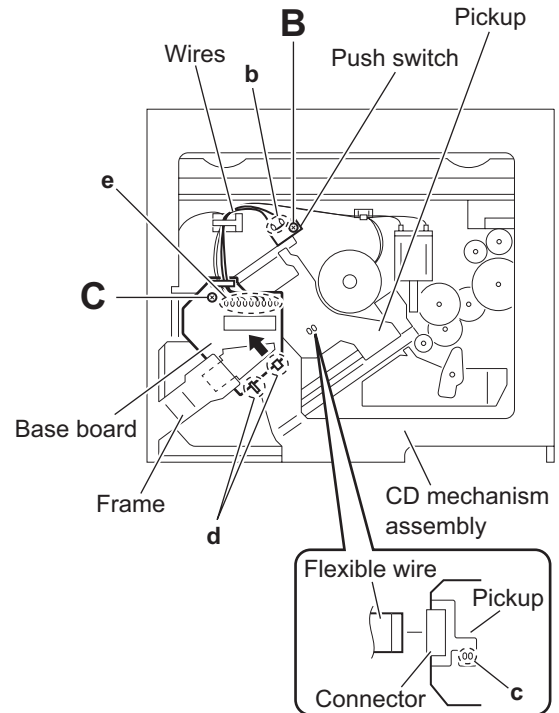


Fig.3

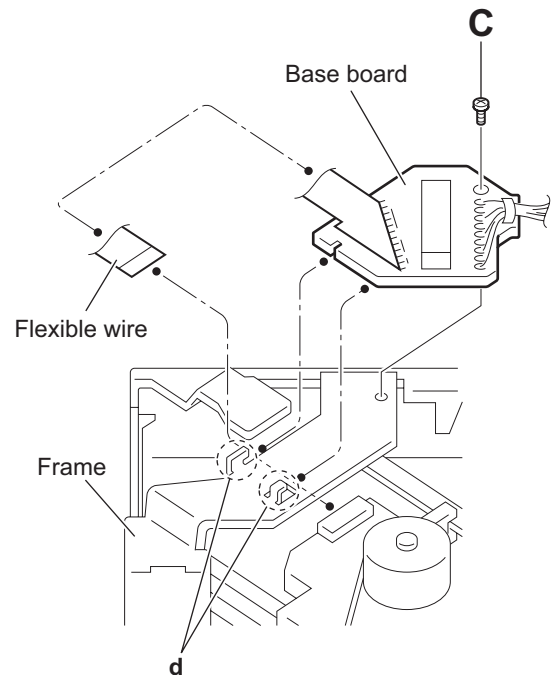


Fig.4

### 3.1.4 Removing the chassis unit (See Figs.5 and 6)

- Remove the top cover and base board.
  - From the top side of the CD mechanism assembly, remove the front suspension springs and rear suspension springs attaching the chassis unit to the frame. (See Fig.5.)
  - Remove the chassis unit from the dampers on the frame in an upward direction. (See Fig.6.)

#### Note:

- Pay attention to misuse and loss of each spring. (See Fig.5.)
- When reassembling, make sure that the three shafts on the underside of the chassis unit are inserted to the dampers certainly. (See Fig.6.)

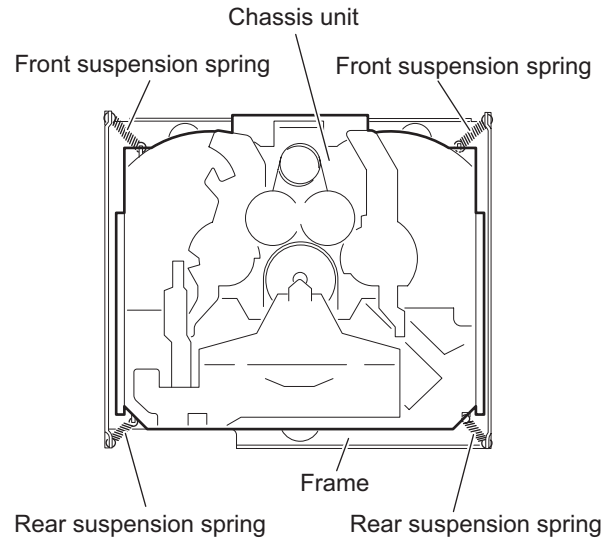


Fig.5

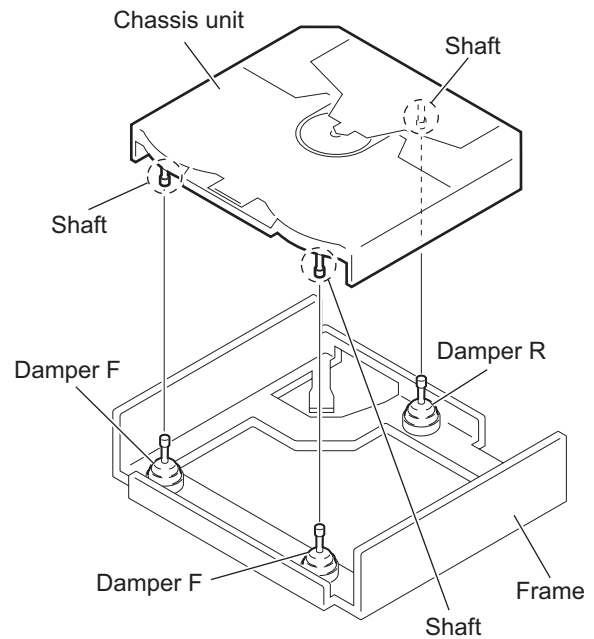


Fig.6

### 3.1.5 Removing the clamper assembly (See Figs.7 and 8)

- Remove the top cover.

Move the clamper assembly in the direction of the arrow to release the joints **f** from the chassis unit.

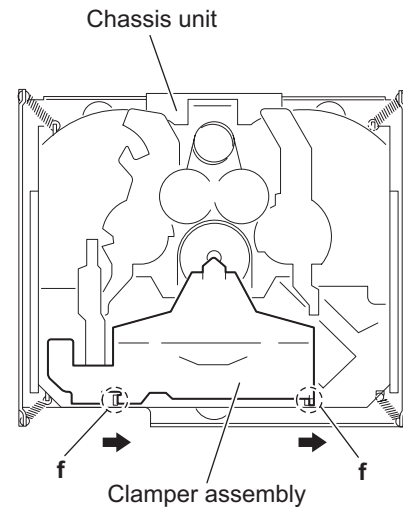


Fig.7

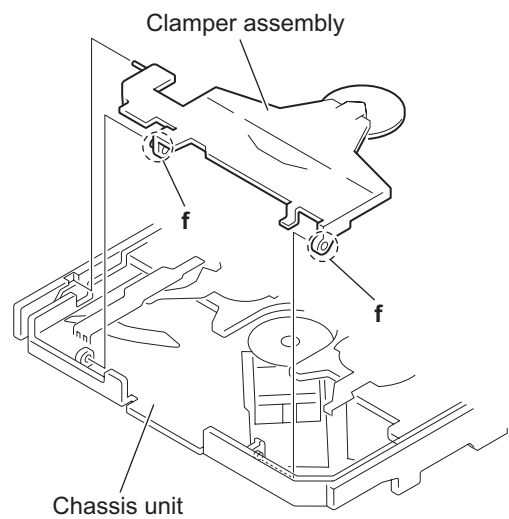


Fig.8

### 3.1.6 Removing the loading/feed motor assembly (See Fig.9)

- Remove the top cover, base board and chassis unit.

From the bottom side of the chassis unit, remove the screw **D** and take out the loading/feed motor assembly in the direction of the arrow.

#### Reference:

Remove the wires from the soldered sections **g** of the loading/feed motor assembly as required.

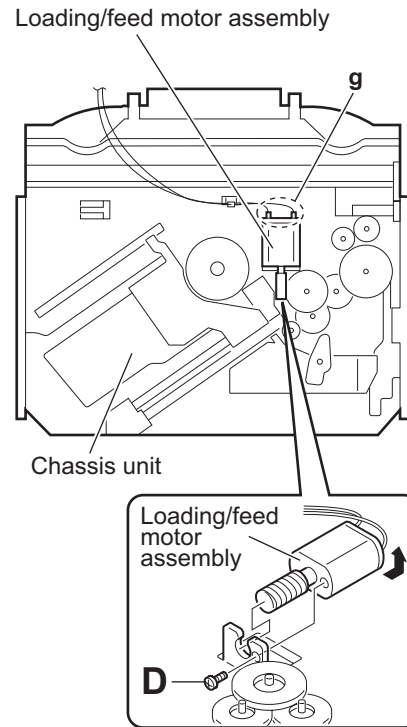


Fig.9

### 3.1.7 Removing the pickup (See Figs.10 to 12)

- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, remove the screw **E** attaching the pu. shaft holder B and pull the pu. shaft out of the pu. shaft holder A. (See Fig.10.)
  - (2) Remove the screw **F** attaching the pu. shaft holder A. (See Fig.10.)
  - (3) Take out the pickup with pu. shaft holder A and feed screw assembly from the chassis unit. (See Fig.11.)
  - (4) Remove the section **h** of the pu. shaft holder A in the direction of the arrow. (See Fig.11.)
  - (5) Remove the feed screw assembly from the section **j** of the pickup in the direction of the arrow. (See Fig.11.)
  - (6) Remove the screw **G** attaching the feed screw holder to the pickup. (See Fig.12.)

#### Reference:

Remove the feed nut spring from the feed screw holder as required. (See Fig.12.)

- (7) Release the claw **k** in the direction of the arrow to remove the feed sub holder. (See Fig.12.)

### 3.1.8 Reattaching the pickup (See Figs.10 to 13)

- (1) Reattach the feed sub holder to the pickup. (See Fig.12.)
- (2) Reattach the feed screw holder to the pickup using the screw **G**. (See Fig.12.)
- (3) Reattach the feed screw assembly and pu. shaft holder A to the pickup as before. (See Fig.11.)
- (4) Set the section **m** of the pickup to the rail of the chassis unit at first and attach the pickup to the chassis unit with the screw **F** as before. (See Figs.10 and 13.)
- (5) Attach the pu. shaft to the pickup as before. (See Fig.10.)
- (6) Attach the pu. shaft holder B to the chassis unit with the screw **E** as before. (See Fig.10.)

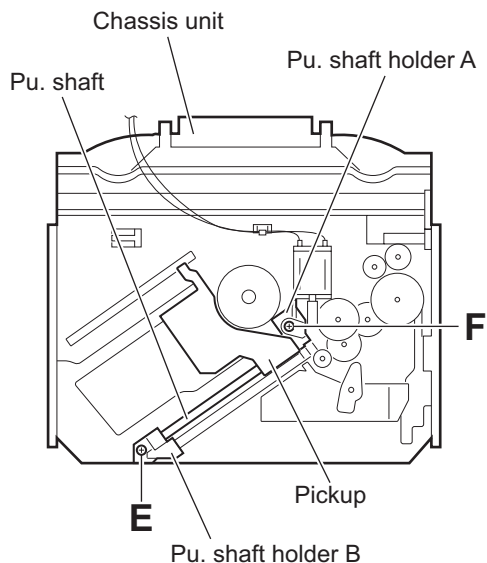


Fig.10

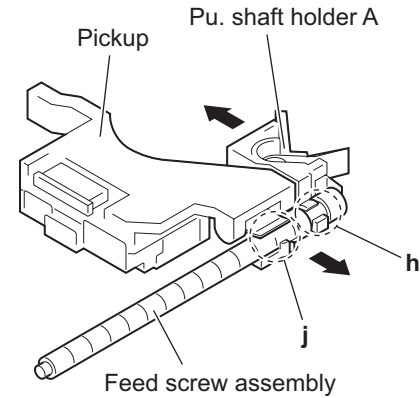


Fig.11

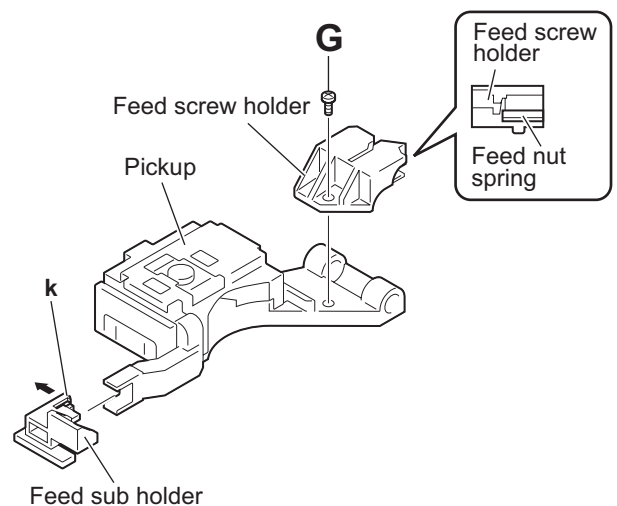


Fig.12

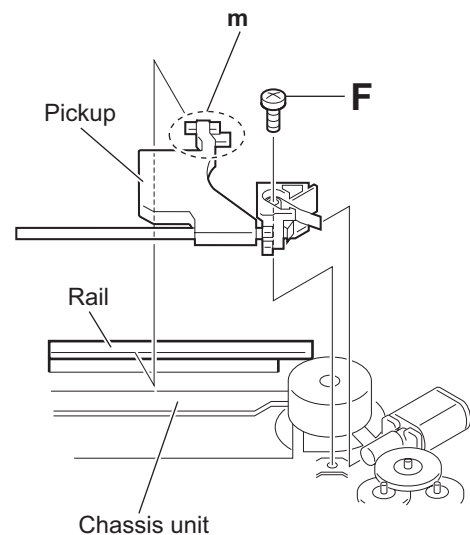


Fig.13

### 3.1.9 Removing the trigger arm (See Fig.14)

- Remove the top cover, base board, chassis unit and clamber assembly.

- From the top side of the chassis unit, remove the trigger arm spring from the sections (n, p).
- From the bottom side of the chassis unit, release the claws q of the trigger arm base in the direction of the arrow to remove them from the sections r of the chassis unit to the other side.

**Note:**

When releasing the claws q, take care not to break them.

- From the top side of the chassis unit, move the select arm R and select lock arm in the direction of the arrow to remove the trigger arm base from the section s in the direction of the arrow.
- Remove the trigger arm from the section t.

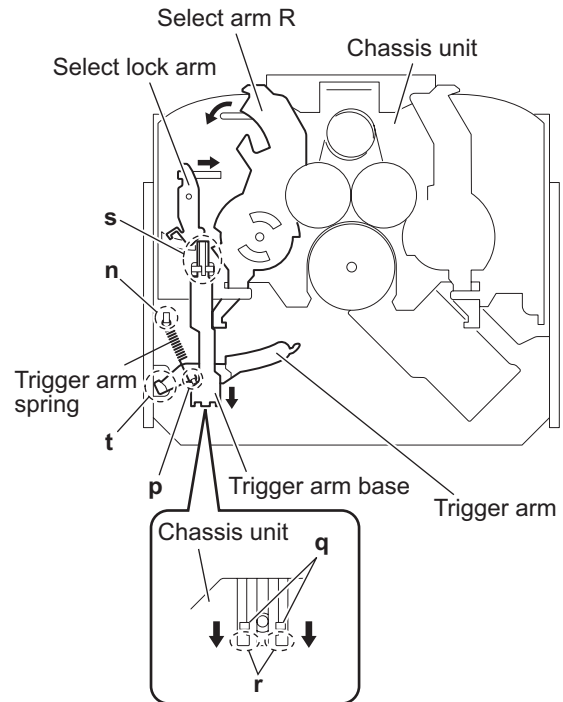


Fig.14

### 3.1.10 Removing the top plate assembly (See Fig.15)

- Remove the top cover, base board, chassis unit, clamber assembly and trigger arm.

- Remove the screw H attaching the top plate assembly.
- Move the top plate assembly in the direction of the arrow to release the joints (u, v).

**Reference:**

Remove the wires from the soldered sections w of the top plate assembly as required.

**Note:**

When reassembling, solder the wires as before.

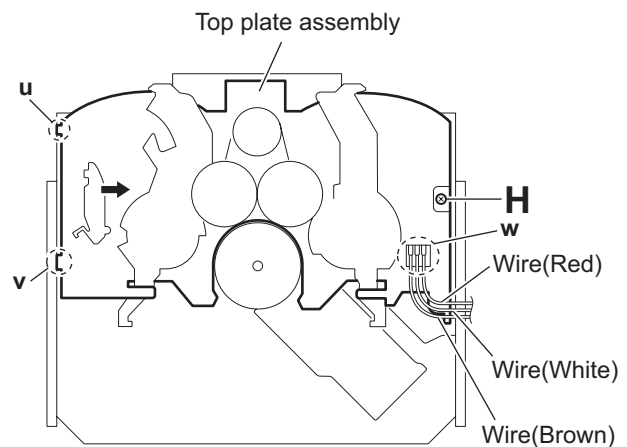


Fig.15

### 3.1.11 Removing the mode switch

(See Fig.16)

- Remove the top cover, base board, chassis unit, clamber assembly, trigger arm and top plate assembly.
  - (1) From the top side of the top plate assembly, remove the link gear spring from the sections **x** of the link gear L and link gear R.
  - (2) Remove the link gear L in an upward direction while releasing the claws **y** of the link gear L in the direction of the arrow.
  - (3) Move the mode switch in the direction of the arrow 1 to remove the sections **z** of the top plate assembly.
  - (4) Move the mode switch in the direction of the arrow 2 and remove the mode switch from the sections (**aa**, **ab**).

#### Note:

When reattaching the link gear L, attach it after aligning the hole **ac** of the link gear L to the hole **ac** of the link gear R.

#### Reference:

When reassembling, reverse the above removing procedure.

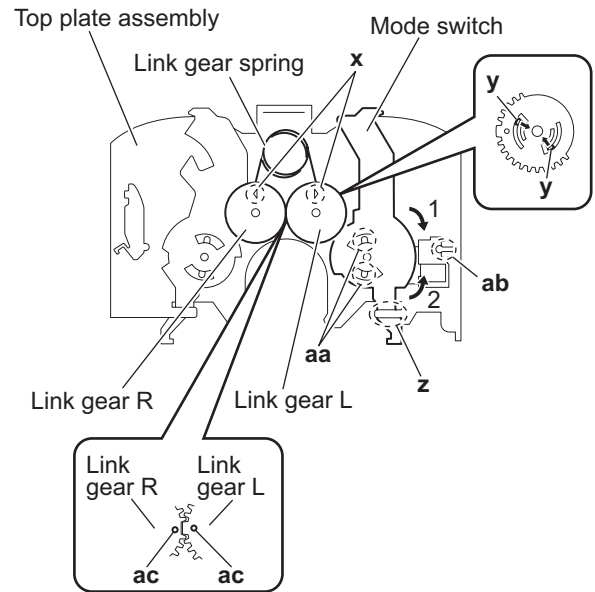


Fig.16

### 3.1.12 Removing the select arm R and select lock arm (See Figs.17 and 18)

- Remove the top cover, base board, chassis unit, clamber assembly, trigger arm and top plate assembly.
  - (1) From the top side of the top plate assembly, remove the link gear spring from the sections **ad** of the link gear L and link gear R. (See Fig.17.)
  - (2) Remove the link gear R in an upward direction while releasing the claws **ae** of the link gear R in the direction of the arrow. (See Fig.17.)
  - (3) Move the select arm R in the direction of the arrow 1 to remove the sections **af** of the top plate assembly. (See Fig.17.)
  - (4) Move the select arm R in the direction of the arrow 2 and remove the select arm R from the sections **ag**. (See Fig.17.)
  - (5) From the bottom side of the top plate assembly, remove the select lock arm spring from the section **ah**. (See Fig.18.)
  - (6) From the top side of the top plate assembly, remove the section **aj** of the select lock arm from the top plate assembly at first and remove the sections (**ak**, **am**) of the select lock arm from the top plate assembly. (See Fig.18.)

#### Note:

- When removing the select lock arm spring, be careful not to lose it. (See Fig 18.)
- When reattaching the link gear R, attach it after aligning the hole **an** of the link gear R to the hole **an** of the link gear L. (See Fig.17.)

#### Reference:

When reassembling, reverse the above removing procedure.

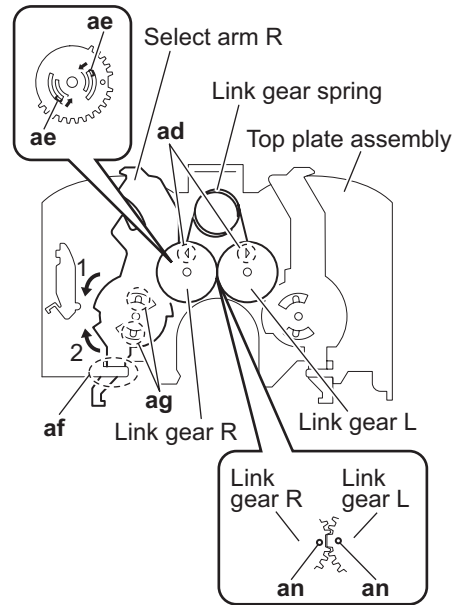


Fig.17

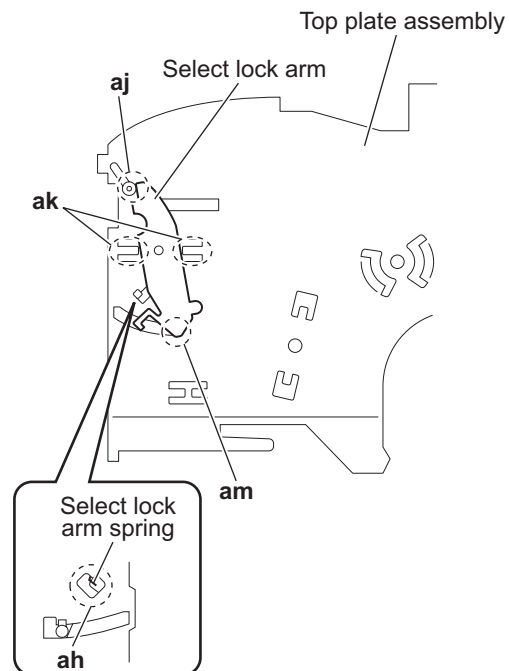


Fig.18

### 3.1.13 Removing the loading roller assembly (See Figs.19 to 21)

- Remove the top cover, base board, chassis unit, clasper assembly and top plate assembly.
- (1) From the left side of the chassis unit, remove the screw **J** attaching the lock arm assembly. (See Fig.19.)
  - (2) Remove the projection **ap** of the lock arm assembly from the joint **aq** while opening the cam plate R in the direction of the arrow. (See Fig.19.)
  - (3) Remove the lock arm assembly from the projection **ar** of the chassis unit. (See Fig.19.)
  - (4) Remove the projection **as** of the lock arm assembly from the joint **at** of the cam plate L assembly. (See Fig.19.)
  - (5) From the right side of the lock arm assembly, remove the loading roller spring L from the section **au**. (See Fig.20.)
  - (6) From the top side of the lock arm assembly, remove the loading roller spring R in the direction of the arrow and remove the loading roller assembly. (See Fig.20.)
  - (7) Remove the roller guide R, HL washer and roller guide L from the both ends of the loading roller assembly. (See Fig.21.)

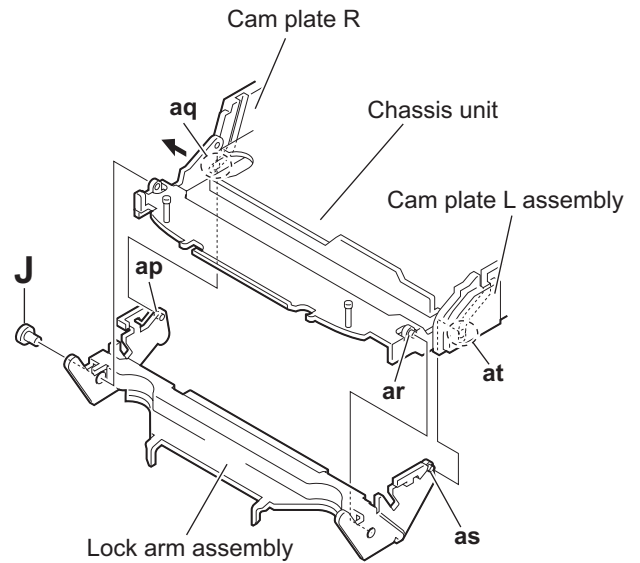


Fig.19

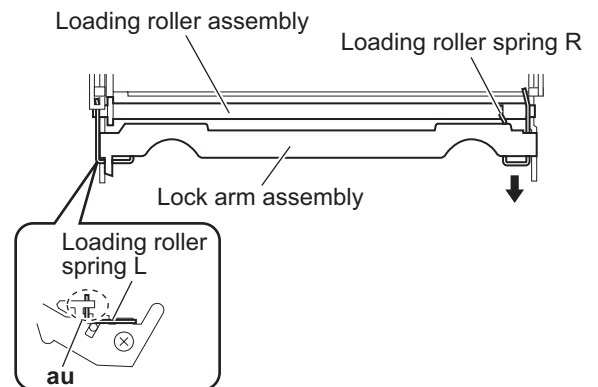


Fig.20

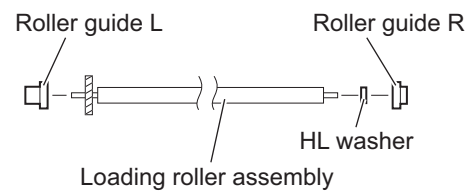


Fig.21

### 3.1.14 Removing the loading gear 1, loading gear 2, loading gear 3 and feed gear 1 (See Fig.22)

- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, pull out the loading gear 1.
  - (2) Take out the loading gear 2.
  - (3) Pull out the loading gear 3.
  - (4) Pull out the feed gear 1.

### 3.1.15 Removing the loading gear 4, loading gear 5 and loading gear 6 (See Fig.22)

- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, remove the screw **K** attaching the loading gear bracket.
  - (2) Take out the loading gear bracket and remove the loading gear 5 and loading gear 6 from the loading gear bracket.
  - (3) Pull out the loading gear 4.

### 3.1.16 Removing the change gear 2, change gear 3A and change gear 3B (See Figs.22 and 23)

- Remove the top cover, base board and chassis unit.
  - (1) From the bottom side of the chassis unit, pull out the loading gear 1. (See Fig.22.)
  - (2) Pull out the change gear 2. (See Fig.22.)
  - (3) Pull out the change arm. (See Fig.22.)
  - (4) Move the change gear plate rivet assembly in the direction of the arrow 2 to remove the section **av** of the change gear plate rivet assembly from the chassis unit while moving the change lock lever in the direction of the arrow 1. (See Fig.23.)
  - (5) Pull out the change gear 3A and change gear 3B from the change gear plate rivet assembly. (See Fig.23.)

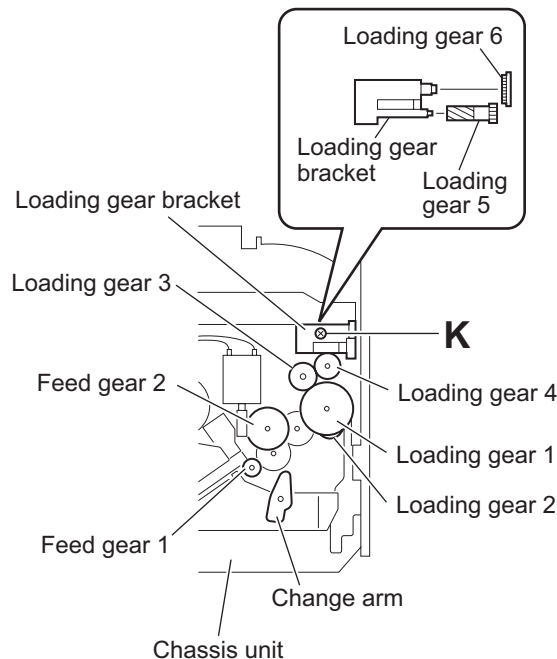


Fig.22

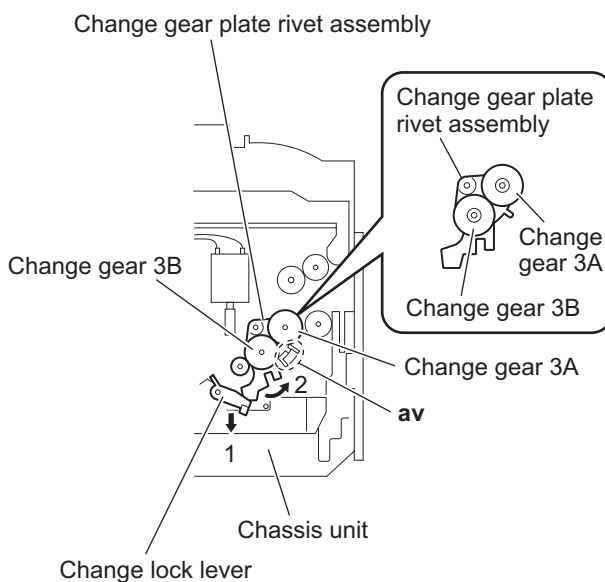


Fig.23

### 3.1.17 Removing the cam plate L assembly (See Fig.24)

- Remove the top cover, base board, chassis unit, clamber assembly, top plate assembly and loading roller assembly.
  - (1) From the left side of the chassis unit, slide the cam plate L assembly in the direction of the arrow.
  - (2) Remove the cam plate L assembly from the slots **aw** of the chassis unit.

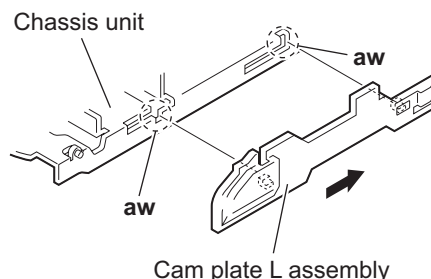


Fig.24

### 3.1.18 Removing the cam plate R (See Fig.25)

- Remove the top cover, base board, chassis unit, clamber assembly, top plate assembly and loading roller assembly.  
From the right side of the chassis unit, remove the cam plate R from the slots **ax** of the chassis unit.

#### Reference:

When a slide hook rivet assembly and a trigger rack spring have come off from the chassis unit, attach them before attaching the cam plate R.

### 3.1.19 Removing the trigger rack plate (See Figs.25 and 26)

- Remove the top cover, base board, chassis unit, clamber assembly, top plate assembly, loading roller assembly and cam plate R.
  - Remove the slide hook rivet assembly and trigger rack spring from the chassis unit. (See Fig.25.)
  - From the bottom side of the chassis unit, pull out the loading gear 1. (See Fig.26.)
  - Remove the trigger control spring from the sections (**ay**, **az**). (See Fig.26.)
  - Take out the trigger rack plate from the chassis unit. (See Fig.26.)

#### Reference:

When attaching the trigger rack plate, insert the projection **a'** of the chassis unit in the slot **b'** on the bottom side of the trigger rack plate as before. (See Fig.26.)

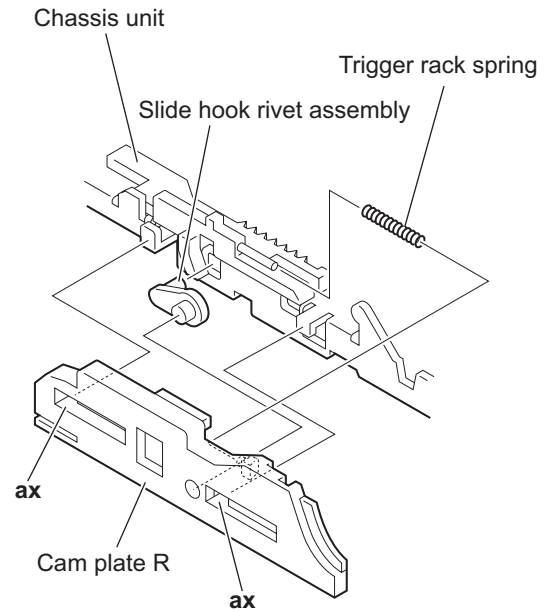


Fig.25

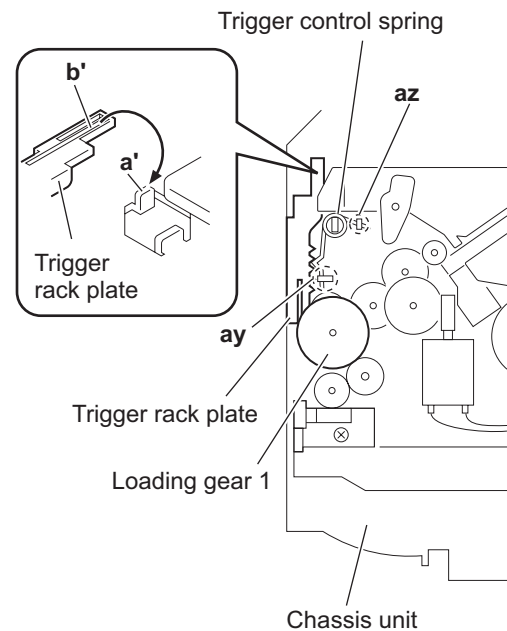


Fig.26

### 3.1.20 Removing the spindle motor assembly (See Figs.27 and 28)

- Remove the top cover, base board, chassis unit and clamper assembly.
  - (1) From the top side of the chassis unit, turn the turn table from side to side and remove the two screws **M** attaching the spindle motor assembly through the hole of the turn table. (See Fig.27.)
  - (2) From the bottom side of the chassis unit, turn the change gear 2 in the direction of the arrow 2 while pulling the trigger arm in the direction of the arrow 1 and let the pickup move in the direction of the arrow 3. (See Fig.28.)
  - (3) Slide the spindle motor assembly in the direction of the arrow and take out it in an upward direction from the chassis unit. (See Fig.28.)

#### Reference:

Remove the wires from the soldered sections **c'** on the base board and remove them from the sections (**d'**, **e'**) on the chassis unit as required.

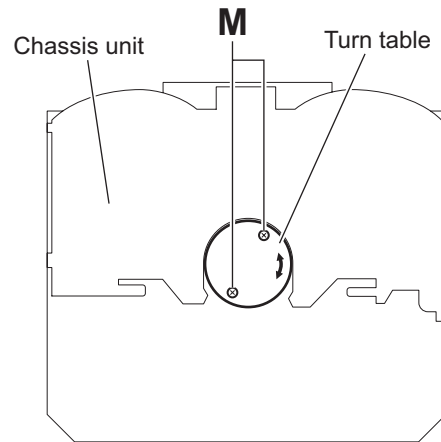


Fig.27

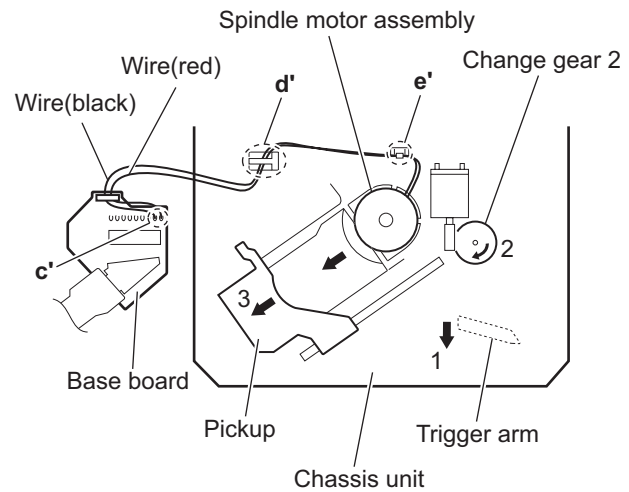


Fig.28

## **SECTION 4 ADJUSTMENT**

This service manual does not describe ADJUSTMENT.

## **SECTION 5 TROUBLESHOOTING**

This service manual does not describe TROUBLESHOOTING.



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(No.MY008)



Printed in Japan  
VPT

# PARTS LIST

TN2007-1026

\* All printed circuit boards and its assemblies are not available as service parts.

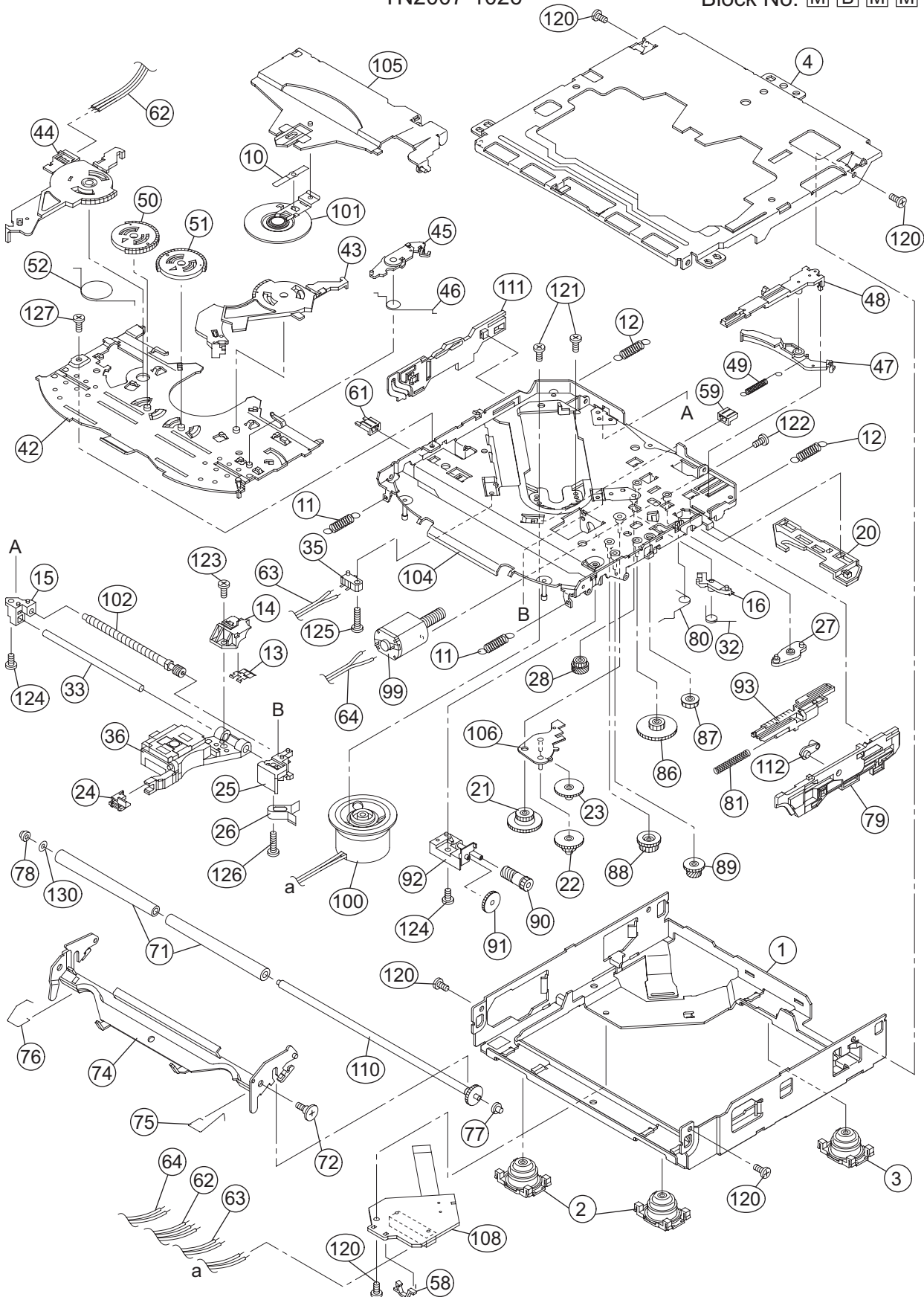
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|                                                    |           |
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| CD mechanism assembly and parts list (Block No.MB) | ..... 3-2 |
|----------------------------------------------------|-----------|

# CD mechanism assembly and parts list

TN2007-1026

Block No. **M B M M**



## CD mechanism

Block No. [M][B][M][M]

| △ | Symbol No. | Part No.   | Part Name       | Description  | Local |
|---|------------|------------|-----------------|--------------|-------|
|   | 1          | 30350101T  | FRAME           |              |       |
|   | 2          | 30350103T  | DAMPER F        | (x2)         |       |
|   | 3          | 30350104T  | DAMPER R        |              |       |
|   | 4          | 30350107T  | TOP COVER       |              |       |
|   | 10         | 30320513T  | CLAMPER SUB SPG |              |       |
|   | 11         | 30350505T  | FRONT SUS SPG   | (x2)         |       |
|   | 12         | 30350506T  | REAR SUS SPRING | (x2)         |       |
|   | 13         | 30350508T  | FEED NUT SPP    |              |       |
|   | 14         | 30350509T  | FEED SCREW HLDR |              |       |
|   | 15         | 30350525T  | PU SHAFT HLDR B |              |       |
|   | 16         | 30350528T  | LOCK LEVER      |              |       |
|   | 20         | 30350529T  | LOCK PLATE      |              |       |
|   | 21         | 30350581T  | CHANGE GEAR2    |              |       |
|   | 22         | 30350582T  | CHANGE GEAR 3A  |              |       |
|   | 23         | 30350583T  | CHANGE GEAR 3B  |              |       |
|   | 24         | 30350535T  | FEED SUB HOLDER |              |       |
|   | 25         | 30350536T  | PU SHAFT HLDR A |              |       |
|   | 26         | 30350539T  | FD THRUST SPP   |              |       |
|   | 27         | 30350542T  | CHANGE ARM      |              |       |
|   | 28         | 30350580T  | FEED GEAR 1     |              |       |
|   | 32         | 30350554T  | LOCK LEVER SP   |              |       |
|   | 33         | 30350555T  | PU SHAFT        |              |       |
|   | 35         | 64010418T  | PUSH SW P389-01 |              |       |
|   | 36         | 69011629T  | PICK UP         | OPTIMA-727AD |       |
|   | 42         | 30350801T  | TOP PLATE       |              |       |
|   | 43         | 30350802T  | SELECT ARM R    |              |       |
|   | 44         | 30350803T  | MODE SWICH      |              |       |
|   | 45         | 30350806T  | SELECT LOCK ARM |              |       |
|   | 46         | 30350807T  | SPRING          |              |       |
|   | 47         | 30350808T  | TRIGGER ARM     |              |       |
|   | 48         | 30350809T  | TRG ARM BASE    |              |       |
|   | 49         | 30350810T  | TRIGGER ARM SPR |              |       |
|   | 50         | 30350811T  | LINK GEAR L     |              |       |
|   | 51         | 30350812T  | LINK GEAR R     |              |       |
|   | 52         | 30350813T  | LINK GEAR SPR   |              |       |
|   | 58         | 19501403T  | WIRE CLUMPER    |              |       |
|   | 59         | 30321013T  | WIRE CLAMPER    |              |       |
|   | 61         | 30351001T  | WIRE CLAMPER    |              |       |
|   | 62         | 30351008T  | MODE SW WIRE    |              |       |
|   | 63         | 30351003T  | REST SW WIRE    |              |       |
|   | 64         | 30351004T  | LD WIRE         |              |       |
|   | 71         | 30321137T  | LDG ROLLER      | (x2)         |       |
|   | 72         | 30321143T  | COLLAR SCREW    |              |       |
|   | 74         | 30351101T  | LOCK ARM        |              |       |
|   | 75         | 30351102T  | LD ROLLER SPR R |              |       |
|   | 76         | 30351103T  | LD ROLLER SPR L |              |       |
|   | 77         | 30351105T  | ROLLER GUIDE R  |              |       |
|   | 78         | 30351106T  | ROLLER GUIDE L  |              |       |
|   | 79         | 30351116T  | CAM PLATE R (N) |              |       |
|   | 80         | 30351111T  | TR CONTROL SPR  |              |       |
|   | 81         | 30351113T  | SPRING          |              |       |
|   | 86         | 30351122T  | LOADING GEAR 1  |              |       |
|   | 87         | 30351123T  | LOADING GEAR 2  |              |       |
|   | 88         | 30351128T  | LOADING GEAR 3  |              |       |
|   | 89         | 30351129T  | LOADING GEAR 4  |              |       |
|   | 90         | 30351140T  | LOADING GEAR 5  |              |       |
|   | 91         | 30351131T  | LOADING GEAR 6  |              |       |
|   | 92         | 30351133T  | LD GEAR BRACKET |              |       |
|   | 93         | 30351135T  | PLATE           |              |       |
|   | 99         | 303505309T | MORTER ASSY     |              |       |
|   | 100        | 303505302T | SPINDLE MOTOR   |              |       |
|   | 101        | 303505303T | CLAMPER ASSY    |              |       |
|   | 102        | 303505304T | FEED SCREW ASSY |              |       |
|   | 104        | 303505501T | CHASSIS RIVET   |              |       |
|   | 105        | 303505502T | CLAMPER ARM RVT |              |       |
|   | 106        | 303505503T | RIVET ASSY      |              |       |
|   | 108        | 303510304T | BASE BOARD ASSY |              |       |
|   | 110        | 303511301T | ROLLER SHAFT    |              |       |
|   | 111        | 303511302T | CAM PLATE L     |              |       |
|   | 112        | 303511501T | SLIDE HOOK RVT  |              |       |
|   | 120        | 9P0420037T | SCREW           | (x5)         |       |
|   | 121        | 9C0117187T | SCREW           | (x2)         |       |
|   | 122        | 9C0120207T | SCREW           |              |       |
|   | 123        | 9C4517506T | SCREW           |              |       |

|  Symbol No. | Part No.   | Part Name | Description | Local |
|--------------------------------------------------------------------------------------------|------------|-----------|-------------|-------|
| 124                                                                                        | 9P0420047T | SCREW     | (x2)        |       |
| 125                                                                                        | 9P0420067T | SCREW     |             |       |
| 126                                                                                        | 9P0420087T | SCREW     |             |       |
| 127                                                                                        | 9C0420257T | SCREW     |             |       |
| 130                                                                                        | 9W0513060T | HL WASHER |             |       |

# Grease point 1/2

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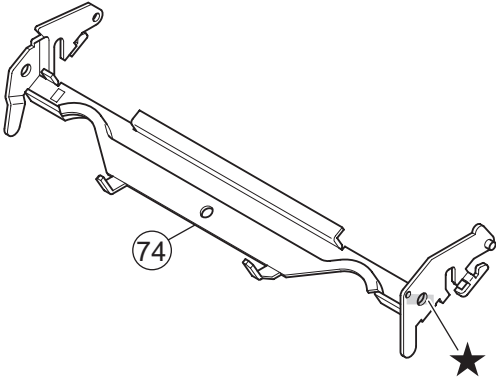
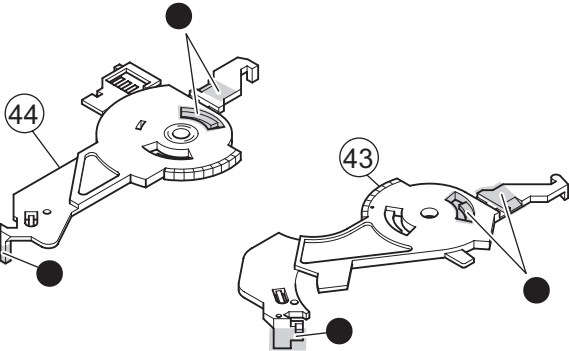
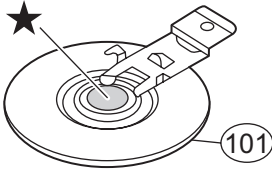
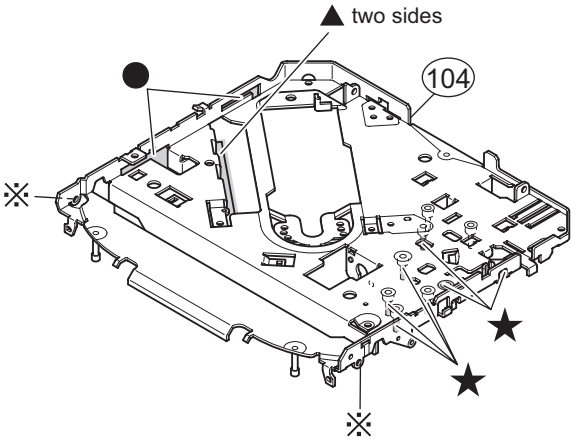
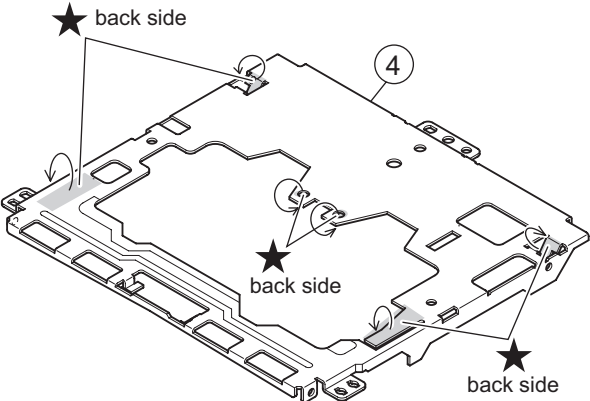
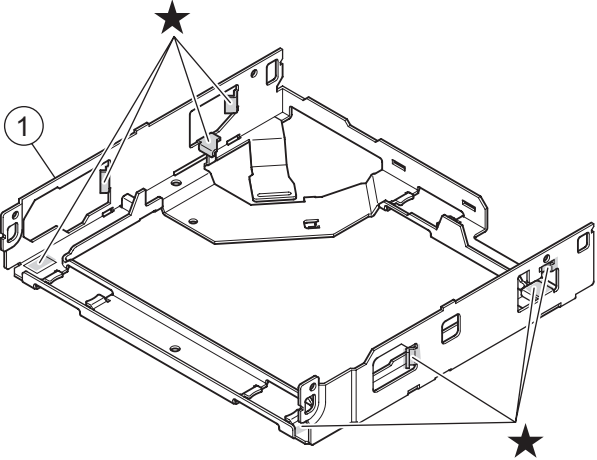
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Grease point 2/2

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