

# DPX501/501U/501UY DPX-MP2090U SERVICE MANUAL

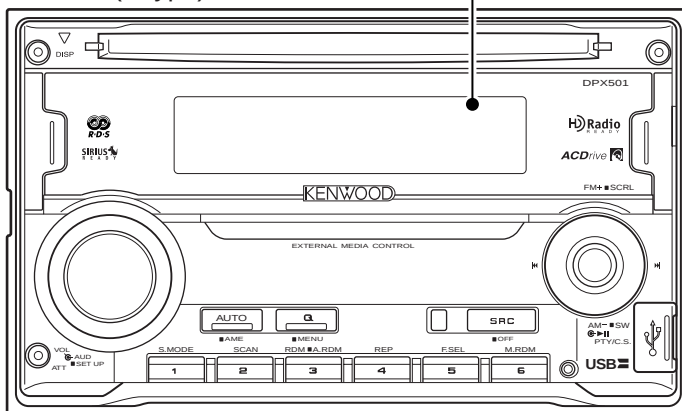
# KENWOOD

Kenwood Corporation

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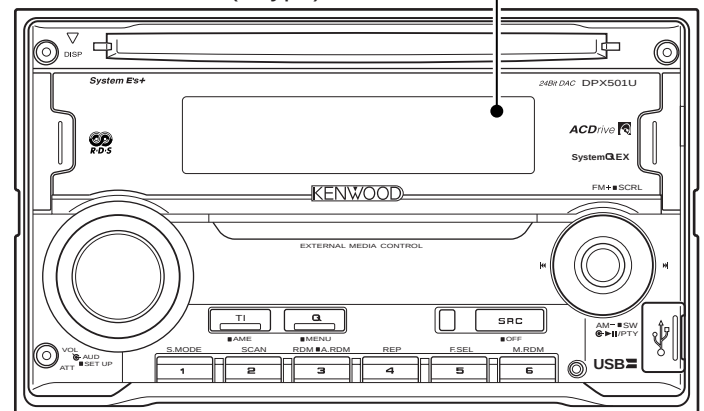
DPX501 (K type)

Panel assy (A64-3814-02)



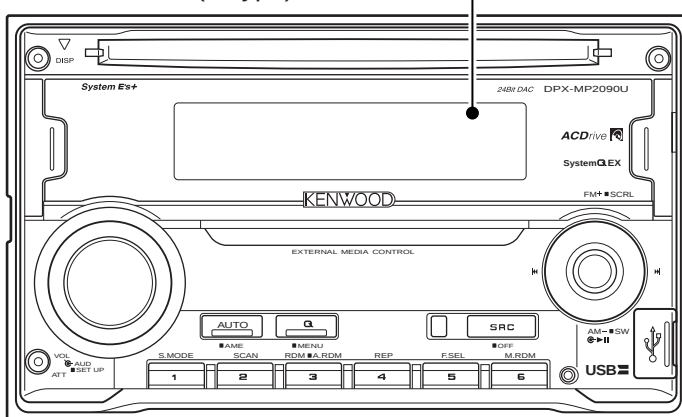
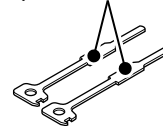
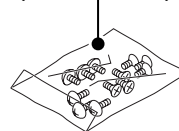
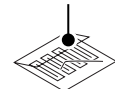
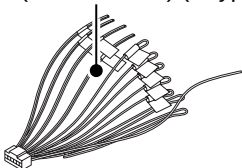
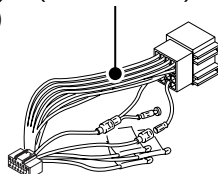
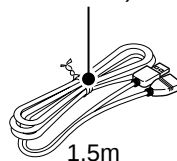
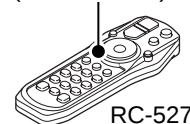
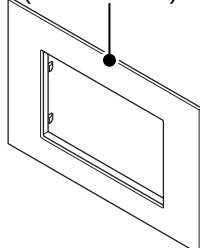
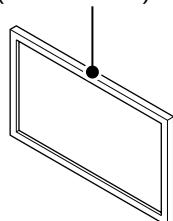
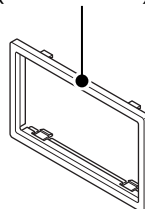
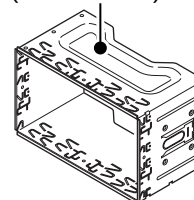
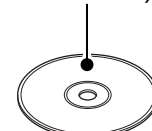
DPX501U/501UY (E type)

Panel assy (A64-3871-02)



DPX-MP2090U (M type)

Panel assy (A64-3966-02)

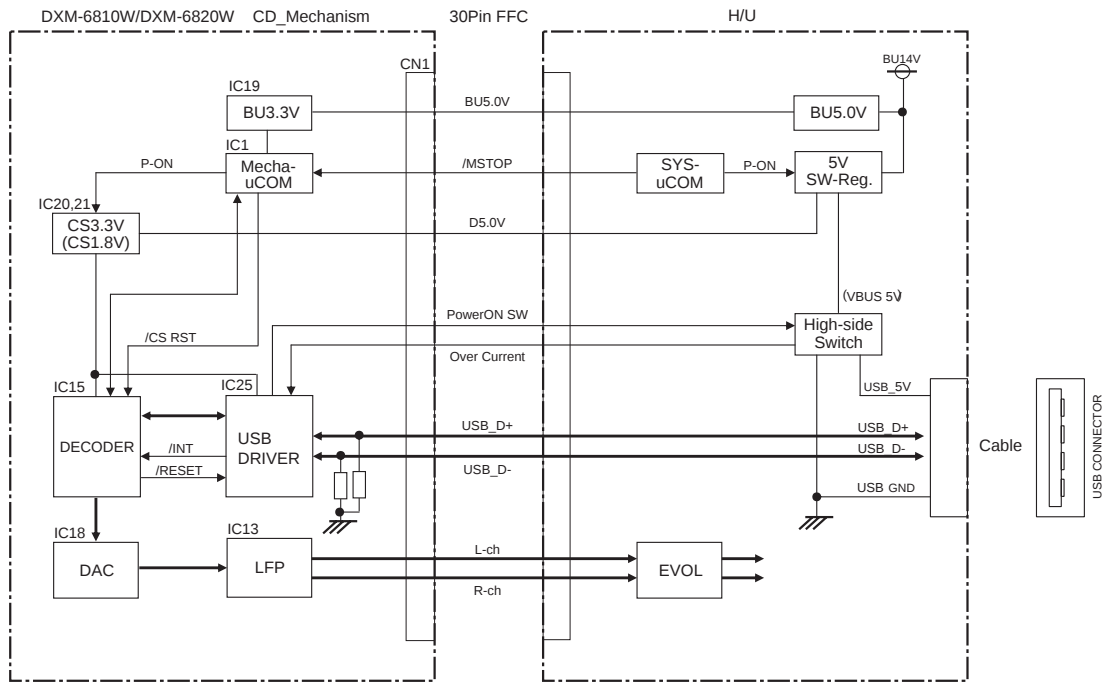
Lever (K,E type)  
(D10-4589-04) x2Antenna adaptor (E type)  
(T90-0523-05)Screw set (K,M type)  
(N99-1779-05)Adhesive double-coated tape (K,E type)  
(H30-0595-04)DC cord  
(E30-6408-05):(M type)  
(E30-6414-05):(K type)DC cord (E type)  
(E30-6412-05)Cord with connector(USB)  
(E30-6535-05)Remote controller  
assy (K,M type)  
(A70-2067-15)SIZE AA BATTERY(K,M type)  
(Not supplied)Escutcheon (K,E type)  
(B07-3172-12)Escutcheon (M type)  
(B07-3046-04)Escutcheon (K,E type)  
(B07-3165-02)Mounting hardware  
assy (K,E type)  
(J22-0429-13)Compact disc  
(W01-1673-05):(K,M type)  
(W01-1674-05):(E type)

## ELECTRIC UNIT (X34- )

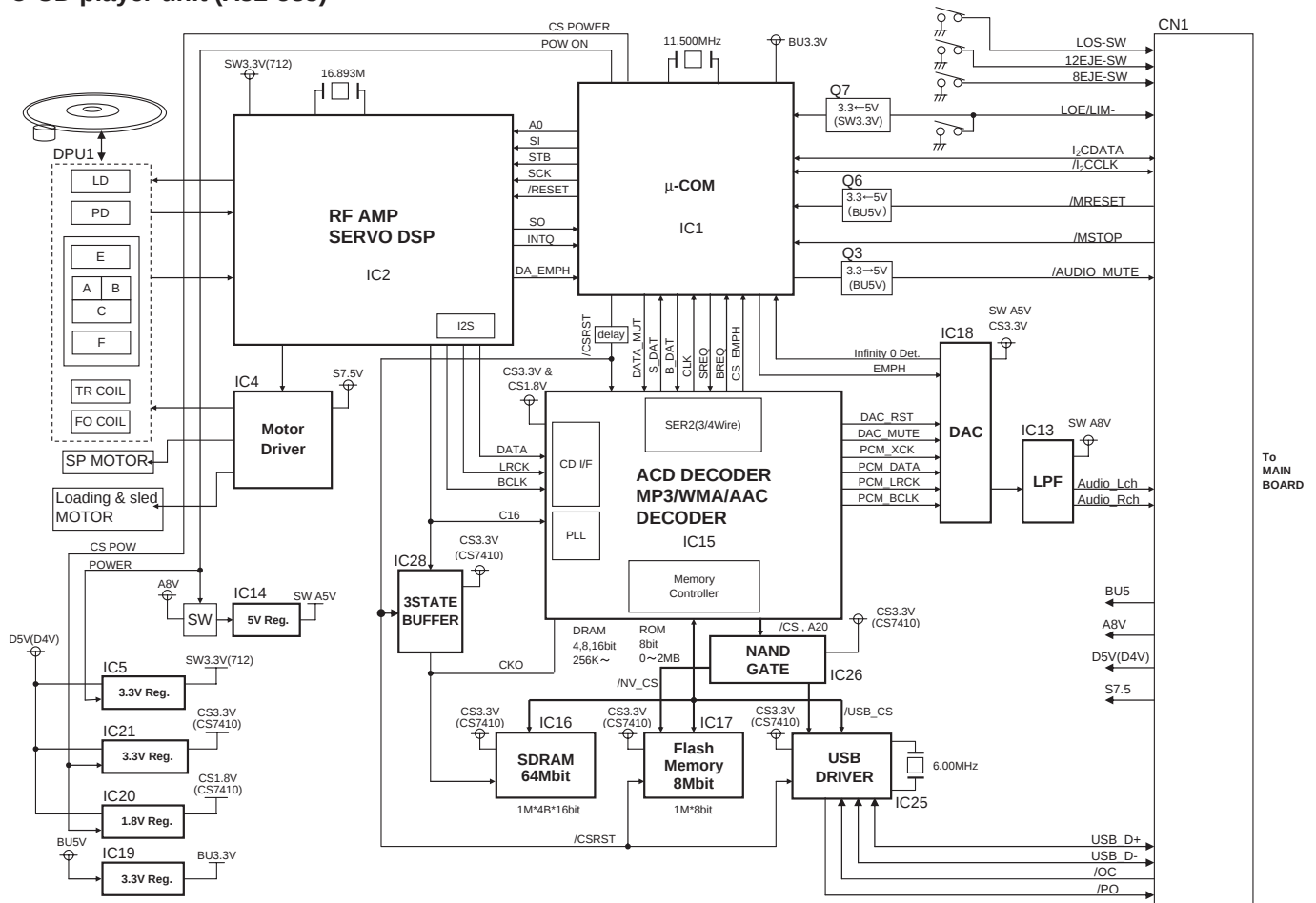


# BLOCK DIAGRAM

## ● AC Drive + USB Mechanism unit



## ● CD player unit (X32-583)



## COMPONENTS DESCRIPTION

### ● ELECTRIC UNIT (X34-415x-xx)

| Ref. No.             | Application / Function | Operation / Condition / Compatibility                                                                                                             |
|----------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| IC1                  | System $\mu$ -COM      | Controls FM/AM tuner, the changer, CD mechanism, panel, volume and tone.                                                                          |
| IC2                  | E-VOL                  | Controls the source, volume, tone.                                                                                                                |
| IC3                  | A8V REF Power Supply   | Outputs 1.27V.                                                                                                                                    |
| IC4                  | Power IC               | Amplifies the front L/R and the rear L/R to 50W maximum.                                                                                          |
| IC5                  | ILLUMI+B Power Supply  | Outputs 11.25V.                                                                                                                                   |
| IC6                  | Muting Logic IC        | Controls logic for muting.                                                                                                                        |
| IC7                  | Reset IC               | "Lo" when detection voltage goes below 3.6V or less.                                                                                              |
| IC8                  | Hi-side SW             | Over current protection of USB power supply.<br>When pin 1 goes "Hi", USB5V is ON.                                                                |
| IC9                  | RDS IC                 | Decodes RDS.                                                                                                                                      |
| IC10                 | Installer Memory IC    | Installer memory.                                                                                                                                 |
| IC12                 | SW Regulator           | Supplies power for USB and CD mechanism.                                                                                                          |
| IC13                 | FL+B Power Supply      | Outputs 3.0V.                                                                                                                                     |
| Q1,2                 | B.U.5V AVR             | While BU is applied, BU5V AVR outputs +5V.                                                                                                        |
| Q3,11                | SW5V                   | When Q11's base goes "Hi", SW5V outputs +5V.                                                                                                      |
| Q4,9                 | SW14V                  | When Q9's base goes "Hi", SW14V outputs 14V.                                                                                                      |
| Q5,6,10              | AUDIO8V AVR            | When Q10's base goes "Hi", A8V AVR outputs 8.0V.                                                                                                  |
| Q7,8                 | SERVO+B AVR            | When Q8's base goes "Hi", S+B AVR outputs 7.5V.                                                                                                   |
| Q12,21               | Serge Protect for IC12 | Outputs 20V when BU is over 20V.                                                                                                                  |
| Q13                  | PANEL5V                | When the base goes "Lo", PANEL5V outputs 5V.                                                                                                      |
| Q17                  | IC12 ON/OFF            | When the base goes "Lo", IC12 is "ON".                                                                                                            |
| Q101,102             | P-ANT SW               | When Q102's base goes "Hi", P-ANT SW outputs 14V.                                                                                                 |
| Q103,106             | P-CON SW               | When Q106's base goes "Hi", AVR outputs 14V.                                                                                                      |
| Q104,105             | P-CON Protection       | Output protection is applied when P-CON output voltage fall is detected.<br>The 2 transistors protect Q103 false operation when P-CON SW is "ON". |
| Q107                 | EXT-AMP-CON            | When the base goes "Lo", Q107 is turned on.                                                                                                       |
| Q108                 | Small Lamp DET SW      | When the base goes "Hi", Q108 is turned on.                                                                                                       |
| Q109                 | Serge DET              | When the base goes "Hi", IC4 is changed into standby source.                                                                                      |
| Q111                 | BU DET                 | When the base goes "Hi", Q111 is turned on.                                                                                                       |
| Q112                 | ACC DET                | When the base goes "Hi", Q112 is turned on.                                                                                                       |
| Q113                 | Mute Driver            | When the base goes "Hi", pre-out mute driver is turned on.                                                                                        |
| Q116                 | Pre-out Mute Driver    | When the base goes "Lo", mute driver is turned on.                                                                                                |
| Q300,301             | AM+B                   | When Q301's base goes "Hi", AM+B is output.                                                                                                       |
| Q302,303             | Tuner8V                | When Q303's base goes "Hi", Tuner8V outputs 8V.                                                                                                   |
| Q305,306             | SW ILLUMI+B            | When Q306's base goes "Hi", SW ILLUMI+B outputs 11V.                                                                                              |
| Q400~403<br>Q406,407 | Pre-out Mute SW        | When the base goes "Hi", pre-out is muted.                                                                                                        |
| Q408                 | Pre-out Mute ON/OFF    | When the base goes "Lo", pre-out mute is "ON".                                                                                                    |

# COMPONENTS DESCRIPTION

## ● SWITCH UNIT (X16-353x-xx)

| Ref. No. | Application / Function | Operation / Condition / Compatibility                               |
|----------|------------------------|---------------------------------------------------------------------|
| IC1      | Remote Control IC      |                                                                     |
| Q1~3     | GRID_DRIVER            | Each transistor's base is "L" then GRID is on.                      |
| Q6,7     | SW5V                   | The power supply of IC1 is turned on when Q6's base level goes "L". |
| Q8       | DBO LED SW             | DBO LED is turned on when Q8's base level goes "H".                 |
| Q9       | RED SW                 | RED LED is turned on when Q9's base level goes "H".                 |
| Q12      | VFD Restart            | Key scan start at Q12's base goes "H", when the set's power is on.  |

## ● CD PLAYER UNIT (X32-5830-00)

| Ref. No. | Application / Function                                | Operation / Condition / Compatibility                                                                                                 |
|----------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| IC1      | Mechanism $\mu$ -com                                  |                                                                                                                                       |
| IC2      | Signal Processor                                      |                                                                                                                                       |
| IC4      | BTL Driver                                            | Spindel motor, sled (including loading & eject) motor and pick-up actuator                                                            |
| IC5      | SW3.3V Regulator                                      | 3.3V power supply for IC2, pick-up, IC18 digital part                                                                                 |
| IC13     | Audio Active Filter                                   | 2nd LPF                                                                                                                               |
| IC14     | A5V Regulator                                         | 3.3V power supply for DAC                                                                                                             |
| IC15     | DSP for Compression Audio Decoder                     | ACDrive decoder, MP3/WMA/AAC decoder                                                                                                  |
| IC16     | Compression Audio Codec SDRAM                         |                                                                                                                                       |
| IC17     | Decoder Software &<br>Unique ID Strage Flash ROM      |                                                                                                                                       |
| IC18     | Audio D-A Converter (24-bit external)                 | External 24-bit for audio                                                                                                             |
| IC19     | BU3.3V Regulator                                      | 3.3V power supply for $\mu$ -com                                                                                                      |
| IC20     | 1.8V Regulator                                        | 1.8V power supply for IC15 core part                                                                                                  |
| IC21     | Decoder/SDRAM/Flash ROM/<br>USB Driver 3.3V Regulator | Power supply for decoder, SDRAM, flash ROM and USB driver.<br>3.3V power supply for IC15 port parts, IC16, IC17, IC25, IC26 and IC28. |
| IC25     | USB Host Controller                                   |                                                                                                                                       |
| IC26     | Switching among IC15 & Flash ROM &<br>SDRAM & USB     | For DSP for Compression Audio Decoder, Flash ROM, SDRAM and USB                                                                       |
| IC28     | Clock SW                                              | To SDRAM                                                                                                                              |
| Q3       | Level Shift 3.3V→5V                                   |                                                                                                                                       |
| Q6,7     | Level Shift 3.3V→5V                                   |                                                                                                                                       |
| Q8       | APC (Auto Power Control)                              |                                                                                                                                       |
| Q9,10    | Anticipation Sub-beam Delay                           | During non-searching                                                                                                                  |
| Q17      | USB Hi-side SW                                        |                                                                                                                                       |
| D2       | Static Electricity Countermeasure                     | For IC2 built-in reset terminal                                                                                                       |
| D3       | Laser Diode Protection                                |                                                                                                                                       |
| D9       | Static Electricity Countermeasure                     |                                                                                                                                       |

# MICROCOMPUTER'S TERMINAL DESCRIPTION

## ● SYSTEM MICROCOMPUTER: 30624MHPA86GP (X34: IC1)

| Pin No. | Pin Name                   | I/O | Application                                                   | Truth Value Table | Processing Operation Description                                                                    |
|---------|----------------------------|-----|---------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------|
| 1       | REMO                       | I   | Remote control signal input                                   |                   | Detects pulse width                                                                                 |
| 2       | LX MUTE                    | I   | Mute request from slave unit                                  |                   | H: Mute ON, L: Mute OFF                                                                             |
| 3       | AUD SDA                    | O   | E-VOL data output                                             |                   |                                                                                                     |
| 4       | AUD SEL                    | O   | E-VOL control                                                 |                   |                                                                                                     |
| 5       | AUD SCL                    | O   | E-VOL clock output                                            |                   |                                                                                                     |
| 6       | BYTE                       | -   |                                                               |                   |                                                                                                     |
| 7       | CNVSS                      | -   |                                                               |                   |                                                                                                     |
| 8       | XCIN                       | I   |                                                               |                   |                                                                                                     |
| 9       | XCOUT                      | I   |                                                               |                   |                                                                                                     |
| 10      | RESET                      | -   |                                                               |                   |                                                                                                     |
| 11      | XOUT                       | -   |                                                               |                   |                                                                                                     |
| 12      | VSS                        | -   |                                                               |                   |                                                                                                     |
| 13      | XIN                        | -   | 12.0MHz                                                       |                   |                                                                                                     |
| 14      | VCC1                       | -   |                                                               |                   |                                                                                                     |
| 15      | NMI                        | -   | Not used                                                      |                   |                                                                                                     |
| 16      | $\overline{\text{CN DET}}$ | I   | Panel communication detection<br>(Flip-down panel model only) |                   | H: Panel detached, L: Panel attached                                                                |
| 17      | RDS CLK                    | I   | RDS decoder clock input                                       |                   |                                                                                                     |
| 18      | LX REQ S                   | I   | Communication request from slave unit                         |                   |                                                                                                     |
| 19      | PON AM                     | I/O | AM power supply control                                       |                   | H: Receiving AM, Hi-z: No AM                                                                        |
| 20      | LX REQ M                   | O   | Communication request to slave unit                           |                   |                                                                                                     |
| 21      | TUN IFC OUT                | I   | Front-end IFC-OUT input                                       |                   | H: Station found, L: No station                                                                     |
| 22      | NC                         | -   | Not used                                                      |                   | L fixed                                                                                             |
| 23      | RDS AFS M                  | I/O | Noise detection time constant switching                       | ①                 | Refer to the truth value table                                                                      |
| 24      | RDS QUAL                   | I   | RDS decoder QUAL input                                        |                   |                                                                                                     |
| 25      | RDS DATA                   | I   | RDS decoder data input                                        |                   |                                                                                                     |
| 26      | PWIC BEEP                  | O   | Beep output                                                   |                   |                                                                                                     |
| 27      | TUN SCL                    | I/O | Front-end I2C clock input and output                          |                   | MAX400kHz                                                                                           |
| 28      | TUN SDA                    | I/O | Front-end I2C data input and output                           |                   |                                                                                                     |
| 29      | VFD DATA                   | I/O | VFD data input and output                                     |                   |                                                                                                     |
| 30      | VFD INT                    | I   | VFD INT input                                                 |                   | INT input                                                                                           |
| 31      | VFD CLK                    | O   | VFD clock output                                              |                   | Normal: 125kHz, Low consumption mode: 62.5kHz                                                       |
| 32      | VFD RST                    | O   | VFD driver reset                                              |                   | H: Canceling reset, L: Reset<br>L: Momentary power down, panel detached or 11 minutes after ACC OFF |
| 33      | ROMCOR SDA                 | I/O | E2PROM I2C data input and output for ROM correction           |                   |                                                                                                     |

# MICROCOMPUTER'S TERMINAL DESCRIPTION

| Pin No. | Pin Name      | I/O | Application                                           | Truth Value Table | Processing Operation Description                                                        |
|---------|---------------|-----|-------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------|
| 34      | ROMCOR SCL    | I/O | E2PROM I2C clock output for ROM correction            |                   |                                                                                         |
| 35      | PON PANEL     | I/O | Panel 5V control<br>(Flip-down panel model only)      |                   | L: ON<br>Hi-Z: Momentary power down, panel detached or 11 minutes after ACC OFF         |
| 36      | DSI           | I/O | DSI/EJECT LED control<br>(Flip-down panel model only) |                   | OFF: Hi-z, Pulse drive: Panel detached<br>H: Illumination ON or panel opened (POWER ON) |
| 37,38   | NC            | -   | Not used                                              |                   | L fixed                                                                                 |
| 39      | EPM           | I   | Flash EPM input                                       |                   |                                                                                         |
| 40      | PANEL DET     | I   | Panel detection (Flip-down panel model only)          |                   | L: Panel detached, H: Panel attached                                                    |
| 41      | NC            | -   | Not used                                              |                   | L fixed                                                                                 |
| 42      | ROMCOR DET    | I   | E2PROM writing request                                |                   | H: Writing                                                                              |
| 43      | PON FL        | O   | FL+B control                                          |                   | H: FL+B ON, L: FL+B OFF                                                                 |
| 44      | VFD CS        | O   | VFD chip select control                               |                   |                                                                                         |
| 45      | ROTARY CW     | I   | VOL key input                                         |                   | Detects pulse width                                                                     |
| 46      | ROTARY CCW    | I   | VOL key input                                         |                   | Detects pulse width                                                                     |
| 47      | CD DISC12 SW  | I   | 12cm CD detection                                     |                   |                                                                                         |
| 48      | CD LOS SW     | I   | CD loading detection                                  |                   |                                                                                         |
| 49      | CD MUTE R     | I   | Rch CD mute request                                   |                   | H: Normal, L: Requesting Rch mute                                                       |
| 50      | CD MUTE L     | I   | Lch CD mute request                                   |                   | H: Normal, L: Requesting Rch mute                                                       |
| 51      | CD MRST       | O   | CD mecha $\mu$ -COM reset                             |                   | H: Normal, L: Reset                                                                     |
| 52      | CD MSTOP      | O   | CD mechanism $\mu$ -COM stop                          |                   | H: Mecha $\mu$ -COM operates, L: Mecha $\mu$ -COM stops                                 |
| 53      | CD DISC8 SW   | I   | 8cm CD detection (Not used)                           |                   |                                                                                         |
| 54      | CD LOE LIM SW | I   | CD detection (Chuckling SW)                           |                   | H: Loading completes, L: No disc                                                        |
| 55      | CD LOEJ       | I/O | CD motor control                                      | ②                 | Refer to the truth value table                                                          |
| 56      | CD MOTOR      | O   | CD motor control                                      | ②                 | Refer to the truth value table                                                          |
| 57      | PON ILLUMI    | I/O | Key illumination power supply control                 |                   | H: ON, Hi-Z: OFF                                                                        |
| 58      | PON CD        | O   | Power supply control for CD-WMA                       |                   | L: POWER ON, H: POWER OFF<br>L: Before M-STOP with reset                                |
| 59      | PON           | O   | Power supply                                          |                   | H: POWER ON, L: POWER OFF                                                               |
| 60      | VCC2          | -   |                                                       |                   |                                                                                         |
| 61      | EXT AMP CON   | I/O | EXTERNAL AMP control                                  |                   |                                                                                         |
| 62      | VSS           | -   |                                                       |                   |                                                                                         |
| 63~65   | TYPE 1~3      | I   | Destination switching                                 | ③                 | Refer to the truth value table                                                          |
| 66      | TUN TYPE1     | I   | Destination setting 1                                 | ④                 | Refer to the truth value table                                                          |
| 67      | TUN TYPE2     | I   | Destination setting 2                                 | ④                 | Refer to the truth value table                                                          |
| 68      | OEM DISP DATA | I/O | External display data<br>(Destination K and E only)   |                   | External display                                                                        |

# MICROCOMPUTER'S TERMINAL DESCRIPTION

| Pin No. | Pin Name                        | I/O | Application                                                    | Truth Value Table | Processing Operation Description                                                   |
|---------|---------------------------------|-----|----------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------|
| 69      | OEM DISP CLK                    | I/O | External display clock<br>(Destination K and E only)           |                   | External display                                                                   |
| 70      | OEM DISP CE                     | I/O | External display control request<br>(Destination K and E only) |                   | External display                                                                   |
| 71      | $\overline{\text{EJECT}}$       | I   | Eject key input (Flip-down panel model only)                   |                   | L: Eject                                                                           |
| 72      | P CON                           | O   | External amplifier control                                     |                   | H: POWER ON, L: POWER OFF or STANDBY                                               |
| 73      | VFD KEY REQ                     | I   | Communication request from VFD driver                          |                   | Connects to INT                                                                    |
| 74      | ANT CON                         | O   | Power antenna control                                          |                   | Tuner ON: H                                                                        |
| 75      | $\overline{\text{ILLUMI DET}}$  | I   | Dimmer illumination detection                                  |                   | L: ON, H: OFF                                                                      |
| 76      | $\overline{\text{BU DET}}$      | I   | Momentary power-down detection                                 |                   | L: BU found, H: No BU or momentary power down                                      |
| 77      | $\overline{\text{ACC DET}}$     | I   | ACC power supply detection                                     |                   | L: ACC found, H: No ACC                                                            |
| 78      | (PWIC SVR)                      | O   | SVR discharging circuit                                        |                   | H: POWER OFF or 5 seconds after momentary power down, L: Other conditions          |
| 79      | $\overline{\text{PWIC MUTE}}$   | O   | Power IC mute                                                  |                   | L: STANDBY, momentary power down or TEL mute                                       |
| 80      | PWIC STBY                       | O   | Power IC standby control                                       |                   | H: POWER ON, L: POWER OFF                                                          |
| 81      | LX CON                          | O   | Start-up request to slave unit                                 |                   | H: Slave unit starts up, L: Slave unit stops                                       |
| 82      | MUTE PRE R                      | O   | Rch preout mute                                                |                   | CD MUTE R is Lo: H (CD playing), Momentary power down: H, L: DUAL ZONE or NAVI INT |
| 83      | MUTE PRE L                      | O   | Lch preout mute                                                |                   | CD MUTE L is Lo: H (CD playing), Momentary power down: H, L: DUAL ZONE or NAVI INT |
| 84      | $\overline{\text{MUTE 0}}$      | I/O | E-VOL front mute                                               |                   | L: Mute ON, Hi-Z: Mute OFF                                                         |
| 85      | $\overline{\text{MUTE 1}}$      | I/O | E-VOL rear mute                                                |                   | L: Mute ON, Hi-Z: Mute OFF                                                         |
| 86      | $\overline{\text{MUTE 2}}$      | I/O | E-VOL mute (Except front/rear)                                 |                   |                                                                                    |
| 87      | LINE MUTE                       | I   | Line mute detection                                            |                   | TEL mute: Below 1V<br>NAVI mute: Over 2.5V                                         |
| 88      | $\overline{\text{MUTE PRE SW}}$ | I/O | NF preout mute                                                 |                   | L: Mute ON, Hi-Z: Mute OFF<br>OFF fixed: Selecting REAR in REAR/SUB selection      |
| 89      | PWIC DC DET                     | I   | DC offset error detection                                      |                   |                                                                                    |
| 90      | LX RST                          | O   | Forced reset to slave unit                                     |                   | H: Reset, L: Normal                                                                |
| 91      | $\overline{\text{MUTE C}}$      | I/O | E-VOL mute                                                     |                   | L: Mute ON, Hi-Z: Mute OFF                                                         |
| 92      | NC                              | -   | Not used                                                       |                   | L fixed                                                                            |
| 93      | RDS NOISE                       | I   | FM noise detection                                             |                   |                                                                                    |
| 94      | AVSS                            | -   |                                                                |                   |                                                                                    |
| 95      | TUN SMETER                      | I   | S-meter input                                                  |                   |                                                                                    |
| 96      | VREF                            | -   |                                                                |                   | Connects to P.ON                                                                   |
| 97      | AVCC                            | -   |                                                                |                   | Connects to VCC                                                                    |
| 98      | LX DATA S                       | I   | Data from slave unit                                           |                   |                                                                                    |
| 99      | LX DATA M                       | I/O | Data from and to slave unit                                    |                   |                                                                                    |
| 100     | LX CLK                          | I/O | LX-BUS clock                                                   |                   |                                                                                    |

# MICROCOMPUTER'S TERMINAL DESCRIPTION

## Truth value table

### ① AFS CONTROL

|          | RDS AFS M | Condition                      |
|----------|-----------|--------------------------------|
| AFS LOW  | L         | No sound output with AF search |
| AFS MID  | L         | Sound output with AF search    |
| AFS HIGH | Hi-Z      | Normal reception               |

### ② CD MOTOR CONTROL

|       | CD MOTOR | CD LOADING/EJECT |
|-------|----------|------------------|
| Stop  | L        | L                |
| Load  | H        | L                |
| Eject | H        | H                |
| Brake | H        | Hi-z             |

### ③ DESTINATION SW

| TYPE 3<br>(Pin 65) | TYPE 2<br>(Pin 64) | TYPE 1<br>(Pin 63) | DESTINATION | MODEL         |
|--------------------|--------------------|--------------------|-------------|---------------|
| 0                  | 0                  | 0                  | K           | KDC-X590      |
| 0                  | 0                  | 1                  | K           | KDC-MP632U    |
| 0                  | 1                  | 0                  | E           | KDC-W6534U/UY |
| 0                  | 1                  | 1                  | E           | DPX501U/UY    |
| 1                  | 0                  | 0                  | M           | KDC-X7533U    |
| 1                  | 0                  | 1                  | M           | DPX-MP2090U   |
| 1                  | 1                  | 0                  | K           | DPX501        |
| 1                  | 1                  | 1                  | J           | DPX-U077      |

### ④ TUNER TYPE

|                     | TUN TYPE1<br>(Pin 66) | TUN TYPE2<br>(Pin 67) |
|---------------------|-----------------------|-----------------------|
| Kenwood brand model | L                     | L                     |
| OEM model 1         | L                     | H                     |
| OEM model 2         | H                     | L                     |
| OEM model 3         | H                     | H                     |

# MICROCOMPUTER'S TERMINAL DESCRIPTION

## ● MECHANISM MICROCOMPUTER: M30620FCPGP (X32: IC1)

| Pin No. | Pin Name                     | I/O | Application                                 | Processing Operation Description                                           |
|---------|------------------------------|-----|---------------------------------------------|----------------------------------------------------------------------------|
| 1~5     | NC                           | -   | Not used                                    | Opened output L fixed                                                      |
| 6       | BYTE                         | I   | External data bus SW input                  | Connects to GND                                                            |
| 7       | CNVSS                        | I   | Processor mode SW                           | L: Single chip mode<br>H: Microprocessor mode or flash ROM writing         |
| 8       | $\overline{\text{MUTE}}$     | O   | Audio mute control                          | L: Mute ON, H: Mute OFF                                                    |
| 9       | NC                           | -   | Not used                                    | Opened output L fixed                                                      |
| 10      | $\overline{\text{RESET}}$    | I   | Reset detection                             | L: Reset (Flash ROM writing), H: Normal                                    |
| 11      | XOUT                         | O   | Main clock output                           | Connects to resonator                                                      |
| 12      | VSS                          | -   | Power supply input                          | Connects to GND                                                            |
| 13      | XIN                          | I   | Main clock input                            | Connects to resonator                                                      |
| 14      | VCC1                         | -   | Power supply input                          | Connects to BU3.3V                                                         |
| 15      | $\overline{\text{NMI}}$      | I   | NMI interruption input                      | Input Hi (Pull-up) fixed                                                   |
| 16      | $\overline{\text{MSTOP}}$    | I   | STANDBY comeback interruption               | L: Stop, H: Stop cancelled (Hi edge)                                       |
| 17      | NC                           | -   | Not used                                    | Opened output L fixed                                                      |
| 18      | DSP INT                      | I   | DSP interruption signal input               | H: Interruption (Hi edge)                                                  |
| 19~22   | NC                           | -   | Not used                                    | Opened output L fixed                                                      |
| 23      | E2P SCL                      | I/O | E2P I2C clock output                        | Series resistors and E2PROM are not built when ROM collection is not used. |
| 24      | E2P SDA                      | I/O | E2P I2C data input and output               | Series resistors and E2PROM are not built when ROM collection is not used. |
| 25,26   | NC                           | -   | Not used                                    | Opened output L fixed                                                      |
| 27      | SCL                          | I   | System $\mu$ -com I2C clock input           |                                                                            |
| 28      | SDA                          | I/O | System $\mu$ -com I2C data input and output |                                                                            |
| 29      | DSP TXD                      | O   | Data output for DSP serial data             | Flash ROM writing: TXD (Pull-up)                                           |
| 30      | DSP RXD                      | I   | Data input for DSP serial data              | Flash ROM writing: RXD                                                     |
| 31      | DSP CLK                      | O   | Clock output for DSP serial data            | Flash ROM writing: SCLK(Pull-up)                                           |
| 32      | DSP STB (BUSY)               | O   | DSP data strove signal output               | Flash ROM writing: BUSY                                                    |
| 33      | CS SDATA                     | O   | Data output for decoder serial data         |                                                                            |
| 34      | CS BDATA                     | I   | Data input for decoder serial data          |                                                                            |
| 35      | CS CLK                       | O   | Clock output for decoder serial data        |                                                                            |
| 36~38   | NC                           | -   | Not used                                    | Opened output L fixed                                                      |
| 39      | $\overline{\text{EPM}}$      | -   | Not used (Flash ROM: EPM)                   | Opened output L fixed                                                      |
| 40      | PON D3.3                     | O   | D3.3V POWER ON control                      | H: POWER ON, L: POWER OFF                                                  |
| 41      | PON A5                       | O   | A5.0V POWER ON control                      | H: POWER ON, L: POWER OFF                                                  |
| 42      | PON CS1                      | O   | IC15 series 3.3V POWER ON control           | H: POWER ON, L: POWER OFF                                                  |
| 43      | PON CS2                      | O   | IC15 series 1.8V POWER ON control           | H: POWER ON, L: POWER OFF                                                  |
| 44      | CE                           | -   | Not used (Flash ROM: CE)                    | Opened output L fixed                                                      |
| 45      | $\overline{\text{DRV MUTE}}$ | O   | Driver mute                                 | L: Stop, H: Mute OFF                                                       |
| 46,47   | NC                           | -   | Not used                                    | Opened output L fixed                                                      |

# MICROCOMPUTER'S TERMINAL DESCRIPTION

| Pin No. | Pin Name                      | I/O | Application                                                    | Processing Operation Description                                   |
|---------|-------------------------------|-----|----------------------------------------------------------------|--------------------------------------------------------------------|
| 48      | ZERO M                        | I   | 0-bit mute detection                                           | H: Mute ON, L: Mute OFF<br>(No distinction of Lch/Rch)             |
| 49      | DE-EMPHASIS                   | O   | DAC de-emphasis control                                        | H: De-emphasis ON, L: De-emphasis OFF                              |
| 50,51   | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 52      | LIM SW                        | I   | Laser pick-up inner circumference detection<br>SW signal input | H: Inner circumference                                             |
| 53      | DISC NORMAL                   | O   | Media discrimination result output (Not used)                  | H: Normal disc, L: Other disc                                      |
| 54      | DISC H RW                     | O   | Media discrimination result output (Not used)                  | H: High reflecting RW disc, L: Other disc                          |
| 55      | DISC RW                       | O   | Media discrimination result output (Not used)                  | H: Normal RW disc, L: Other disc                                   |
| 56~59   | TEST OUT4~1                   | O   | Output for test                                                | Opened output L fixed                                              |
| 60      | VCC2                          | -   | Power supply input                                             | Connects to BU3.3V                                                 |
| 61      | TEST OUT0                     | O   | Output for test                                                | Opened output L fixed                                              |
| 62      | VSS                           | -   | Power supply input                                             | Connects to GND                                                    |
| 63~66   | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 67      | TEST IN3                      | I   | TEST IN3                                                       | Pull-down connection (L: Normal/H: During test)                    |
| 68      | MODEL SEL                     | I   | Model determination                                            | L: DXM-6810W (X32-583), H: DXM-6820W (X32-587)                     |
| 69      | E2P WRITE                     | I   | TEST IN1: E2P writing permission                               | Pull-down connection (L: Normal/H: During writing)                 |
| 70      | UNIQ ID                       | I   | TEST IN0: Unique ID writing permission                         | Pull-down connection (L: Normal/H: During writing)                 |
| 71~73   | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 74      | SEARCH                        | O   | Searching situation output                                     | H: During seaching, L: Normal                                      |
| 75,76   | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 77      | $\overline{\text{DSP RST}}$   | O   | DSP reset control                                              | L: Reset, H: Normal                                                |
| 78      | DSP A0                        | O   | DSP command/parameter discrimination<br>signal output          | H: During parameter transmitting<br>L: During command transmitting |
| 79      | DA EMPHASIS                   | I   | DSP DA emphasis input                                          | H: emphasis ON, L: emphasis OFF                                    |
| 80      | ROM EMPHASIS                  | I   | Decoder ROM emphasis input                                     | H: emphasis ON, L: emphasis OFF                                    |
| 81      | $\overline{\text{DATA MUTE}}$ | O   | Data output status                                             | L: During data output muting, H: During data output                |
| 82      | $\overline{\text{CS RST}}$    | O   | Decoder reset control                                          | L: Reset, H: Nornal                                                |
| 83      | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 84      | SREQ                          | O   | Decoder SREQ signal output                                     |                                                                    |
| 85      | BREQ                          | I   | Decoder BREQ signal input                                      |                                                                    |
| 86~93   | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 94      | AVSS                          | -   | Analog power supply input                                      | Connects to GND                                                    |
| 95      | NC                            | -   | Not used                                                       | Opened output L fixed                                              |
| 96      | VREF                          | -   | Reference voltage input                                        | Not used: Connects to GND                                          |
| 97      | AVCC                          | -   | Analog power supply input                                      | Connects to BU3.3V                                                 |
| 98~100  | NC                            | -   | Not used                                                       | Opened output L fixed                                              |

## TEST MODE

### ● How to enter the test mode

In order to enter the test mode, reset the unit while simultaneously pressing down [1] and [3] keys.

(Even when the security is set, power can be ON for 30 minutes.)

### ● How to clear the test mode

The test mode is cleared in case of any of the following events: resetting, momentary power down, Acc OFF and Power OFF.

### ● Initial conditions of the test mode

- Source is STANDBY.
- Displays lights are all turned on.
- The volume is at -10dB (The display is 30).
- Loudness (LOUD) is OFF.
- CRSC is OFF, regardless of whether there are switching functions or not.
- SYSTEM Q is NATURAL (=FLAT).
- BEEP will sound anytime with a less than 1 second push.
- Auxiliary (AUX) is ON.
- SWPRE is Sub woofer (2 PREOUT model)

### ● RDS/RBDS automatic measurement

Conventionally, the PS display has been visually checked on the production line. This will be replaced by a new processing. The PS data will be received and the PS contents is to be verified as "RDS\_TEST". When this is verified, the P-CON terminal is forced to go OFF. (In this case, " \_ " means blank.)

→ This will be a dedicated test mode processing.

On the P-CON, when power is turned off once and, then, turned on again, (Power OFF → ON) the unit will be re-started.

### ● Special display when set to TUNER

When in TUNER mode, if any of the following displays appear, there is an abnormality with the front end.

- "TNE2P\_NG" : Front-end E2PROM values are still default (not determined).
- "TNCON\_NG" : In this condition, the communication with the front-end is not possible.

### ● Forced switching of K3I

In TUNER FM mode, each time [6] key is pressed, the functions move in the following cycle :

AUTO → forced WIDE → forced MIDDLE → force NARROW → AUTO

The initial condition is AUTO and the displays below will appear.

- AUTO : FM1\_98.1A
- Forced MIDDLE : FM1\_98.1M
- Forced WIDE : FM1\_98.1W
- Forced NARROW : FM1\_98.1N

### ● CD source test mode specifications

- Display mode default setting shall be P-TIME.
- Jumps are made to the following tracks by pressing the [▶▶] key.

No. 9 → No. 15 → No. 10 → No. 11 → No. 12 → No. 13 → No. 22 → No. 14 → No. 9 (Returns to the beginning)

It must be noted, however, that when playing MP3 / WMA / AAC disk, which contain 8 files or less, the first track and the following tracks are played in order.

- When [◀◀] key is pressed, it goes down by 1 track.
- When playing an MP3/WMA/AAC disc, display the file format before starting to play each file. ("MP3", "WMA", "AAC")
- When a CD is used as a source, by pressing [1] key for less than 1 second, a jump to the Track No. 28 is made.
- When a CD is used as a source, by pressing [2] key for less than 1 second, a jump to the Track No. 14 is made.
- When a CD is used as a source, by pressing [3] key for less than 1 second, a display of CD mechanism model name and its version is made. When the pressing of [3] key for less than 1 second is made for the second time, the normal display is resumed. (Time code display)

|            |   |   |   |   |         |   |   |   |
|------------|---|---|---|---|---------|---|---|---|
| 6          | 8 | 1 | 0 | : | 0       | 1 | 2 | 3 |
| Model name |   |   |   |   | Version |   |   |   |

- When a CD is used as a source, by pressing [6] key for less than 1 second, a jump to the Track No. 15 is made. At the same time, the volume value is set to 25 (2V PRE).

# TEST MODE

## ● Test mode specification for USB source

- While in USB source, by [6] key, set the volume value to 15.

## ● Audio adjust mode

- By pressing [AUD] key for less than 1 second, the Audio Adjust mode is entered.
- As with the [AUD] key, [\*] key on the remote controller can be used to enter the Audio Adjust mode.
- As for the adjustment items, items for both the AUDIO FUNCTION MODE and SETUP MODE are included.
- By pressing [AUD] or [FM] key briefly, switch the item to be adjusted in the following order. (only in forward rotation)  
The initial item will be Fader, which is followed by : Balance → Bass Level → Middle Level → Treble Level → HPF Front → HPF Rear → LPF Sub Woofer (After this, it will be arbitrary)
- With the remote controller, continuous forwarding is prohibited.
- Using the VOL knob and [◀◀] / [▶▶] key, the Fader can be adjusted in 3 steps : R15 ↔ 0 ↔ F15 (The initial value is 0)
- Using the VOL knob and [◀◀] / [▶▶] key, the Balance can be adjusted in 3 steps : L15 ↔ 0 ↔ R15 (The initial value is 0)
- Using the VOL knob and [◀◀] / [▶▶] key, the Bass / Middle / Treble Level can be adjusted in 3 steps : -8 ↔ 0 ↔ +8 (The initial value is 0)
- Using the VOL knob and [◀◀] / [▶▶] key, the HPF Front / Rear can be adjusted in 2 steps : Through ↔ 220Hz (The initial value is Through)
- Using the VOL knob and [◀◀] / [▶▶] key, the LPF Sub Woofer can be adjusted in 2 steps : 50Hz ↔ Through (The initial value is Through)
- Using the VOL knob and [◀◀] / [▶▶] key, the Sub Woofer Phase can be adjusted in 2 steps : Reverse ↔ Normal (The initial value is Normal)
- Using the VOL knob and [◀◀] / [▶▶] key, the Volume Offset can be adjusted in 2 steps : -8 ↔ 0 (The initial value is 0)
- Using the VOL knob and [◀◀] / [▶▶] key, the Loudness ON/OFF can be adjusted in 2 steps : OFF ↔ ON (The initial value is OFF)
- Using the VOL knob and [◀◀] / [▶▶] key, 2-Zone ON/OFF can be adjusted in 2 steps : OFF ↔ ON (The initial value is OFF)
- Bass f / Bass Q / Bass EXT / Middle f / Middle Q / Treble f do no appear in audio adjustments.

## ● MENU items

- Press [Q] key briefly to enter the MENU.
- The [DNPP/SBF] and [DIRECT] keys on the remote controller can also be used to enter the MENU.
- With the remote controller, continuous forwarding is prohibited.
- When a CD/USB is used as a source, the default item will be the F/W Version.

## ● 2-ZONE (Dual Zone) items

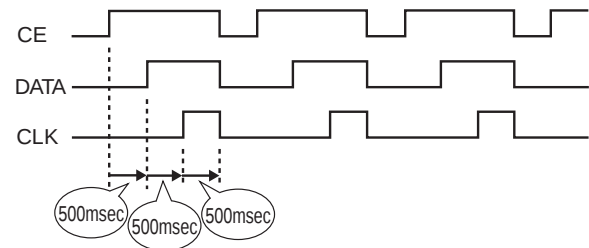
- When using sources other than the STANDBY source, using a short-press on [AUTO] or [TI] key, 2-ZONE ON/OFF is achieved.

## ● Backup current measurement

When reset in Acc OFF (Back Up ON) condition, MUTE terminal goes off after 2 seconds, instead of 15 seconds. (During this time, the CD mechanism does not function.)

## ● OPEL communication items (OPEL communication specification supporting model)

During the test mode, OPEL communication line outputs the following (At every 500msec, the output condition of the communication line will be switched.)



## ● Special display when all lights are on

When all lights are on with the STANDBY source, the following displays are made when the keys shown below are pressed.

|         |                                                                                                                                                                                                                                                                        |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [1] key | Version is displayed (forwarding)<br>(Display) TYPE : x____ ("x" is displayed hexadecimally)<br>→ 529K-1.02 ("Development name" – "Version")<br>→ All indicators on →<br>* TYPE indicates μ-com destination, and shows real-time condition of the destination terminal |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## TEST MODE

|              |                                                                                                                                                                                                                                                                                                                                                                |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [2] key      | Serial number display (8 digits)<br>(Display) xxxxxxxx                                                                                                                                                                                                                                                                                                         |
| [3] key      | Key pressed briefly : Power ON time is displayed.<br>(Display) PON_0Hxx (00~50 is displayed for "xx".<br>When less than 1 hour, displayed<br>by increments of 10 minutes.)<br>xxxxx (00001~10922 is displayed for<br>"xxxxx".) MAX 10922 (times)<br>During Power On time display, by pressing for at least 2<br>seconds, the Power ON time is cleared.         |
| [4] key      | Key pressed briefly : CD operation time is displayed.<br>(Display) CDT_0Hxx (00~50 is displayed for "xx".<br>When less than 1 hour, displayed<br>by increments of 10 minutes.)<br>xxxxx (00001~10922 is displayed for<br>"xxxxx".) MAX 10922 (times)<br>During CD operation time display, by pressing for at least<br>2 seconds, CD operation time is cleared. |
| [5] key      | Key pressed briefly : CD EJECT number is displayed.<br>(Display) EJCxxxxx MAX 65535 (times)<br>During CD EJECT number display, by pressing for at<br>least 2 seconds, CD EJECT number display is cleared.                                                                                                                                                      |
| [FM]<br>key  | ROM correction version display<br>(Display) ROM_R123<br>When E2PROM is not installed : ROM_ERR_<br>When un-written : ROM_R - - -<br>When data is incompatible : ROM_R * * *                                                                                                                                                                                    |
| [▶▶I]<br>key | AUDIO data default value setting<br>(Display) AUD_INIT                                                                                                                                                                                                                                                                                                         |
| [I◀◀]<br>key | Key pressed briefly : Forced Power OFF data displayed.<br>(Display) POFF_ - - - (No Forced Power OFF)<br>SEC (Forced Power OFF because of<br>missing Security Code)<br>PNL (Forced Power OFF because of<br>system μ-com panel communica-<br>tion error)<br>While the forced power OFF data is displayed, press and<br>hold for 2 seconds to clear the data.    |
| [▶II]<br>key | Key pressed briefly : CD information display mode ON/OFF<br>While in CD information display mode, press and hold for<br>2 seconds to clear all CD information.<br>* Please refer to the table right.                                                                                                                                                           |

### ● CD information display mode

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  | Displays I2C communication status.<br>(Display) I2C_OK__<br>NG                                                                                                                                                                                                                                                                                                                                                                                               |
|                  | Displays CD loading error data.<br>(Display) Load_Error____<br>(Display) __ (1) xx__ (2) xx (number of times is displayed<br>for "xx")<br>MAX 99 (times)<br>Disk detection switch ON/OFF is monitored, and when<br>the loading operation is not completed within the specified<br>time length, or when E-99 mechanism error occurred,<br>record which SW signal had an error.<br>*Refer to the note at the end of [CD LOAD error detection].                 |
| [AM]<br>key<br>↑ | Displays CD ejection error data.<br>(Display) Eject_Error____<br>(Display) __ (1) xx__ (2) xx<br>(Display) __ (3) xx__ (4) xx (number of times is displayed<br>for "xx")<br>MAX 99 (times)<br>Disk detection SW ON/OFF is monitored, and when the<br>ejection operation is not completed within the specified<br>time length, or when E-99 mechanism error occurred,<br>record which SW signal had an error.<br>*Refer to [CD EJECT error detection]'s note. |
| ↓<br>[FM]<br>key | Displays CD time code count error data (missing count).<br>(Display) Count_Lose<br>(Display) __CDDA_ : xx<br>(Display) __CDROM : xx (number of times is displayed<br>for "xx")<br>MAX 99 (times)<br>Monitor time code continuity. Record the number of times<br>when discontinuity occurred as error data.<br>Record the data of compressed audio and CD-DA played<br>separately.                                                                            |
|                  | Displays CD time code count error data (count not updated).<br>(Display) Count_Stay<br>(Display) __CDDA_ : xx<br>(Display) __CDROM : xx (number of times is displayed<br>for "xx")<br>MAX 99 (times)<br>When the time code is not renewed for 2 or more seconds,<br>record the number of times occurred as error data<br>(skipped sound).                                                                                                                    |

# TEST MODE

## ● Initializing AUDIO-related value setting

During STANDBY sourcing, by pressing [▶▶1] key for less than 1 second, AUDIO setting values are returned to the default values.

## ● Other

- At Power ON, "CODE\_OFF", "CODE\_ON" displays will not be made.
  - When the source is STANDBY, press [AUTO] / [TI] key briefly to switch triangle illumi RED ↔ GREEN. (In models with Display Blackout function)
  - When the source is STANDBY, press and hold [AUTO] / [TI] key for 1 second to switch PREOUT Rear ↔ Sub Woofer. (2PREOUT model)
  - When in USB source, press [1] key briefly to turn ON/OFF the front grass indirect lighting.
  - When staring up in the test mode, LINE MUTE prohibition time is set to 1 second instead of 10 seconds.
  - While in the test mode, security jig should not be used to write the security code.
  - While in the test mode, serial writing jig should not be used to write the serial number.
  - While in the test mode, even when a DC offset error is detected, the detection information will not be written to the E2PROM.
  - While in the test mode, even after an elapse of pre-set time, the backup memory items will not be written to the E2PROM.
  - While in the test mode, backup/installer memory information clear mode, CD mechanism error log information clear mode and DC offset error detection information clear mode, DEMO mode operation will not be conducted.
- Also, in the above mode, the menu of the STANDBY source will not display DEMO ON/OFF switching items.

## ● Clearing backup/installer memory and CD mechanism information, and service information (Clearing E2PROM data)

Backup/installer memory X34-IC10 (E2PROM) "AU\_"  
CD mechanism information and service information: TUNER F/E (E2PROM) "CD\_"

1. While pressing and holding the [Q] key and the [ATT] key, reset-start to start backup/installer memory data, and CD mechanism and service information initialization. (Even when the security is set, power can be ON for 30 minutes.)

[CD mechanism information]

- Displays I2C communication condition
- Displays CD mechanism error log
- Displays CD loading error data.
- Displays CD ejection error data.
- Displays CD time code error count data (missing count).
- Displays CD time code error count data (count not updated).

[Service Information]

- Displays power ON time is displayed.
- Displays CD operation time.
- Displays number of CD EJECT times.
- Displays number of times panel was opened/closed.
- Displays forced Power OFF data.

2. After the initialization process is completed, the following is displayed.

At normal termination: "CD\_O : AU\_O\_"

At abnormal termination 1: "CD\_O : AU\_X\_" (When backup/installer memory initialization is NG.)

At abnormal termination 2: "CD\_X : AU\_O\_" (When CD mechanism information / service information initialization NG.)

At abnormal termination 3: "CD\_X : AU\_X\_" (When all initialization NG.)

3. While in this mode, even after an elapse of a pre-set time, no backup memory items will be written to the E2PROM.
4. This mode is released by resetting. (What was on the last screen will not be retained.)

## ● Clearing DC offset error detection information (E2PROM (F/E) data clear)

1. While simultaneously pressing down on [3] and [6] keys, reset the unit to enter the DC offset error display mode. (Even when the security is set, power can be ON for 30 minutes.)
2. During STANDBY sourcing, the current DC offset error conditions will be displayed.  
When error detected : "DC\_ERR\_"  
When error not detected : "DC\_OK\_"
3. While the error conditions are being displayed, press [AUTO] / [TI] key for less than 1 second to clear the detection information. (E2PROM clear)
4. DC offset error display mode is released by resetting. (What was on the last screen will not be retained.)

## TEST MODE

### ● FM/AM channel space switching (K,M type)

From the Power OFF condition, while pressing [1] and [5] keys down simultaneously, press the [SRC] key and turn power ON.

### ● Security

#### • Forced Power ON mode

Even when the security is set, by resetting while pressing [Q] key and [4] key simultaneously, it is possible to turn the power ON for 30 minutes only.

#### • Method of clearing the programmable security code (Programmable security models: K type)

1. While “— — —” is being displayed, press [▶▶I] key for at least 3 seconds while pressing [AUTO] / [TI] key.  
This makes “— — —” display disappear.
2. Using the remote controller, input “KCAR”.  
Press the remote control [5] key 2 times, display “K”, and press the [▶▶I] key.  
Press the remote control [2] key 3 times, display “C”, and press the [▶▶I] key.  
Press the remote control [2] key once, display “A”, and press the [▶▶I] key.  
Press the remote control [7] key 2 times, display “R”, and press the [▶▶I] key.
3. The security is released and the unit enters the STANDBY mode.
4. If a wrong code is input, the unit goes into the Code Request mode.

#### • How to register the security code on the “Car Audio Passport” after replacement of the E2PROM (F/E) (Code security models: E,M type)

1. Enter the test mode. (Refer to the section on “How to Enter the Test Mode.”)
2. Press [Q] key briefly to enter the MENU.  
While “CODE\_SET” is being displayed, press [▶II] key for at least 1 second and enter the security registration mode.
3. Using [FM] / [AM] / [I◀◀] / [▶▶I] keys, enter the code.  
[FM] key : Number up      [AM] key : Number down  
[▶▶I] key : Cursor Right      [I◀◀] key : Cursor Left
4. Press [▶II] key for at least 3 seconds to display “RE-ENTER”. Then, re-enter the code using the method in above No. “3”.
5. Press [▶II] key for at least 3 seconds to display “APPROVED”.
6. Release the test mode. (Refer to the section on “How to Release the Test Mode.”)

**Note :** The security code for this model cannot be deleted by “all clear” command.

## DC OFFSET ERROR

### ● Purpose

Prevent customers' vehicle speakers damages, burnouts, and smoking.

Avoid the connected speakers to be burned out, damaged, or to smoke when DC occurs between the audio power amp. + and - outputs.

### ● Processing after detection

#### 1. System status

- At the detection of DC error, error data is to be saved immediately (E2PROM error log save area).
- Display the error message on the display. The system shall maintain the current condition, including the operation. Shut down audio system power supply. Set Mute to ON.
- Although switching between Power OFF and ON (ACC, BU, and Key operation) is valid, switching from Off to ON shall be error until the  $\mu$ -com is reset.
- \* While power-on, even if the IC2VI DCErr output terminal logic recovered to normal level value, the error condition shall continue.
- Prohibit to save the backup/installer memory to E2PROM (nonvolatile memory).

#### 2. Controlling $\mu$ -com terminal

- Set Mute for all channels including for pre-out.
- Turn off power IC control system power supply. (Set AMP-Standby function to valid)
- Set P-Con output to OFF (Logic by which external AMP unit is turned off).
- \* The purpose is to shut down audio output. Basically, the logic sets the audio output system signal line when in Standby source.

#### 3. Key specification

- No specific limitation (Normal operation).

#### 4. Display specification

- Display the "PROTECT" string and blink all characters at 1Hz.
- \* Use the indication below with the highest priority (error message), and maintain the error message even when the source is changed.

Display Example



### ● Cancel Condition

- Press the Reset terminal on the main body. or set Backup to OFF (Unplug and plug back in the DC connector). The history is maintained (E2PROM data is saved).

### ● Note while in test mode

- While in test mode, even if DC leak is detected, it is not written into E2PROM. When an error is detected, the display is enabled.

### ● Other

- Function for checking and clearing data in E2PROM by a given key shall be included. (Used at production dpt. and service center, etc.)

## CD LOAD ERROR DETECTION

### ● Overview

Record the number of times when mechanism error (SW error) occurred at CD LOAD.

LOAD error recording shall be done in 2 patterns, by the SW status illustrated below.

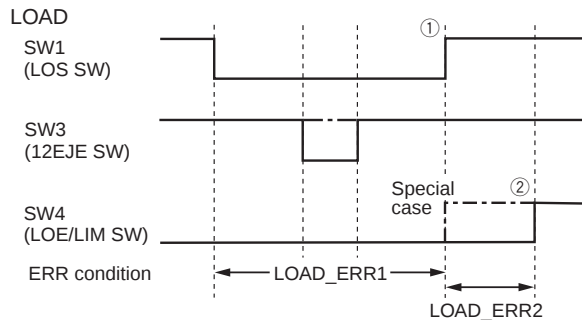
LOAD error is established when LOAD operation is not completed after LOAD operation is started before the protect timer count is completed.

Clearing of record is done in the following situations:

- 1) After reset is cancelled, when reading EEPROM, the code is NG.
  - 2) While in test mode, the specified key (Play/Pause key pressed for 2 seconds) input.
  - 3) When in EEPROM all-clear initialization mode (refer to the test mode specification document)
- Display is shown on the test mode specification document.
  - Number of times with error(s) is 99 at MAX.
  - Not recorded in test mode [1+3 keys].

## CD LOAD ERROR DETECTION

### ● Operation



- \* Trigger for starting the sequence: detecting the inserted disc with SW 1 and 3 LOW edge.  
(As an exception, protect LOAD when EJECT error)

- ① If the protect timer was counted up before the LOS (SW1) up edge detection, it is recorded as LOAD\_ERR1.
- ② If the protect timer was counted up after the LOS (SW1) up edge detection, before the LOE/LIM (SW4) up edge detection, it is recorded as LOAD\_ERR2.

- \* When DISC was inserted briefly but pulled out immediately (DISC is detected but not inserted), it is considered as an error.

Special case: Even if LOS (SW1) up edge is not detected, if LOE/LIM (SW4) up edge is detected, it is still recorded as LOAD\_ERR1. Also, if SW4 up edge is detected, the motor is stopped.

## CD EJECT ERROR DETECTION

### ● Overview

Record the number of times when mechanism error (SW error) occurred at CD EJECT.

EJECT error recording shall be done in 4 patterns, by the SW status illustrated below (3 patterns in models other than TYPE-J).

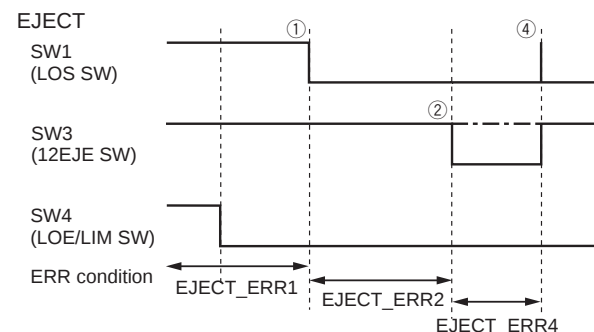
EJECT error is established when EJECT operation is not completed after EJECT operation is started before the protect timer count is completed (False EJECT, or ejection with no CD, is considered as exception and is not recorded).

(False EJECT is determined when: while chucking is not done, and when SW status is determined as NO DISC.)

Clearing of record is done in the following situations :

- 1) After reset is cancelled, when reading EEPROM, the code is NG.
  - 2) While in test mode, the specified key (Play/Pause key pressed for 2 seconds) is input.
  - 3) When in EEPROM all-clear initialization mode (refer to the test mode specification document).
- Indication is shown on the test mode specification document.
  - Number of times with error(s) is 99 times at MAX.
  - Not recorded in test mode [1+3 keys].
  - When EJECT was error, re-try 3 times, and count each error while re-try as 1 error.

### ● Operation



- \* Trigger for starting the sequence: detecting DISC ejection by EJECT key. (As an exception, protect EJECT when LOAD error)

- ① If the protect timer was counted up before the LOS (SW1) down edge detection, it is recorded as EJECT\_ERR1.
- ② If the protect timer was counted up after LOS (SW1) down edge before the 12EJE (SW3) down edge detection, it is recorded as EJECT\_ERR2.
- ④ If the protect timer was counted up after LOS (SW1)/12EJE (SW3) down edge before the down edge detection of any of these, it is recorded as EJECT\_ERR4.

- \* When EJECT is started, if not chucking, it is not counted as EJECT error (considered as false EJECT). However, EJECT when SW change is detected.

## INSTALLER MEMORY SPECIFICATIONS

At specialists (or specialty stores), when the installer sends the vehicle back to the user, they may make the store-recommended audio configuration.

When the user changes the setting values, when the backup power supply was taken out at times of battery change or when the reset button was pressed, to make it possible to recall the setting values, the store-recommended configuration values can be saved into E2PROM.

The specification detail defer in "with-DSP model" and in "without-DSP model".

- Calling and saving the configuration is done by the MENU.
- Items to be saved are Bass, Middle, Treble, X' over, and Sub Woofer Level (Refer to the separate document for more detail). Only one setting can be saved for each item (Bass/Middle/Treble settings can be changed for each source, but only one setting can be saved as the installer memory specification, and the source in which the saving operation was carried out is saved as such).

- The contents read out by the call key shall be reflected only to the current source at the time → EQ curve is "USER" (Bass/Middle/Treble settings can be changed for each source, but not reflected to Bass/Middle/Treble settings of sources other than where the calling operation was carried out).
- When the backup power supply was taken out at times of battery change or when the reset button was pressed, as the initial setting values of Bass, Middle, Treble, X' over, and Sub Woofer Level, the saved memory is reflected. (Bass/Middle/Treble setting initial setting value memory is reflected in all sources.)

**NOTE:** By such, EQ curve initial setting shall always be "USER" (NOT "NATURAL" or "FLAT").

## BACKUP MEMORY SPECIFICATIONS

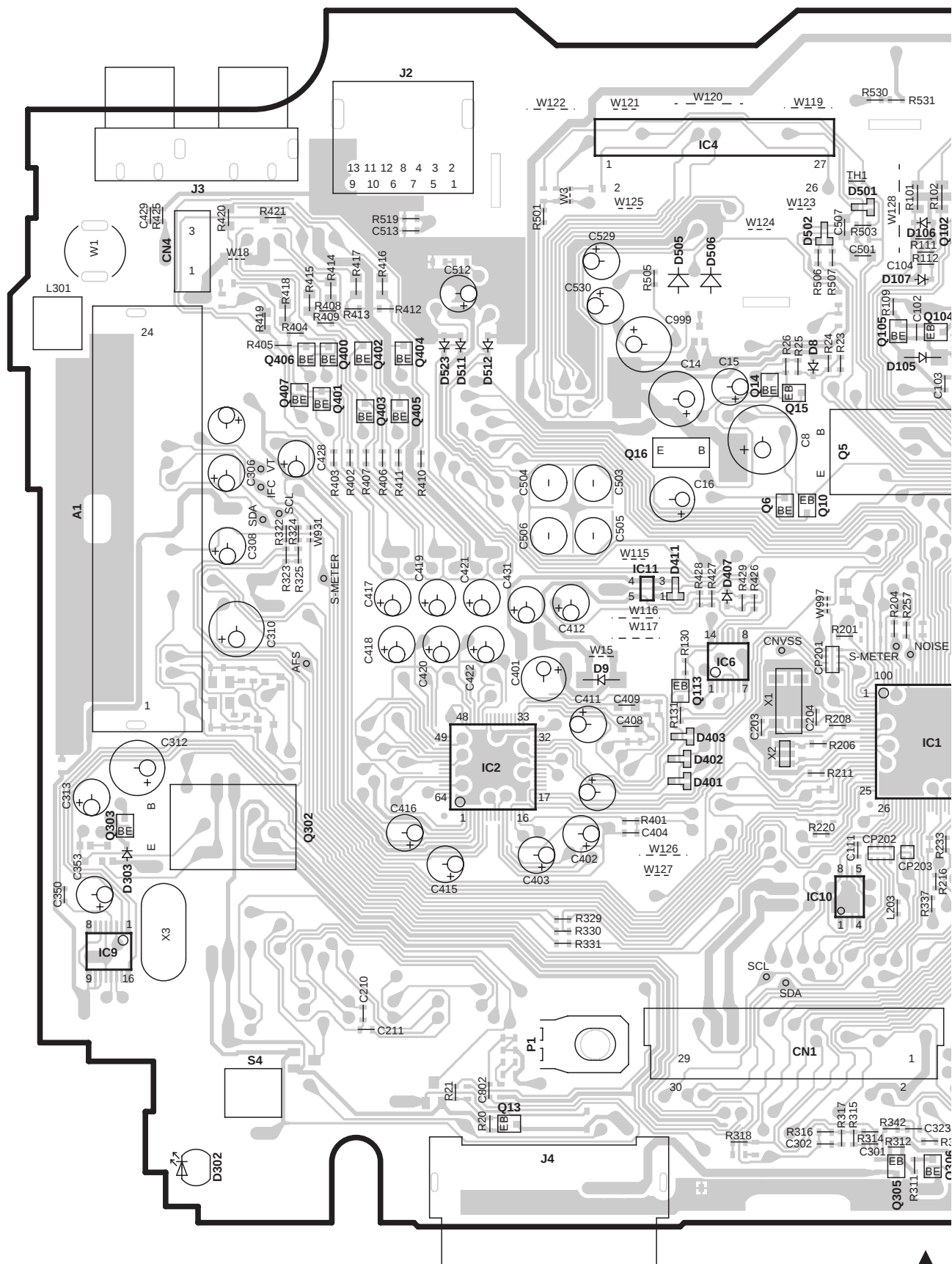
Settings by the user other than the installer memory items are saved into the E2PROM, and when the backup power supply was taken out at times of battery change or when the reset button was pressed, it is made possible to recall the setting values saved.

- While Power ON, the memory is saved and accumulated at a certain interval (temporary).
- Items to be saved into the memory are: Volume Offset (for all sources) and preset frequencies (FM/AM all bands x 6 channels).

- When the backup power supply was taken out at times of battery change or when the reset button was pressed, as the initial setting values of Volume Offset (for all sources) and preset frequencies (FM/AM all bands x 6 channels), the saved memory is reflected.
- In models which includes span-switching, when span is switched, TUNER-preset frequencies are set back to the default values.

# PC BOARD (COMPONENT SIDE VIEW)

ELECTRIC UNIT X34-415x-xx (J76-0169-02)

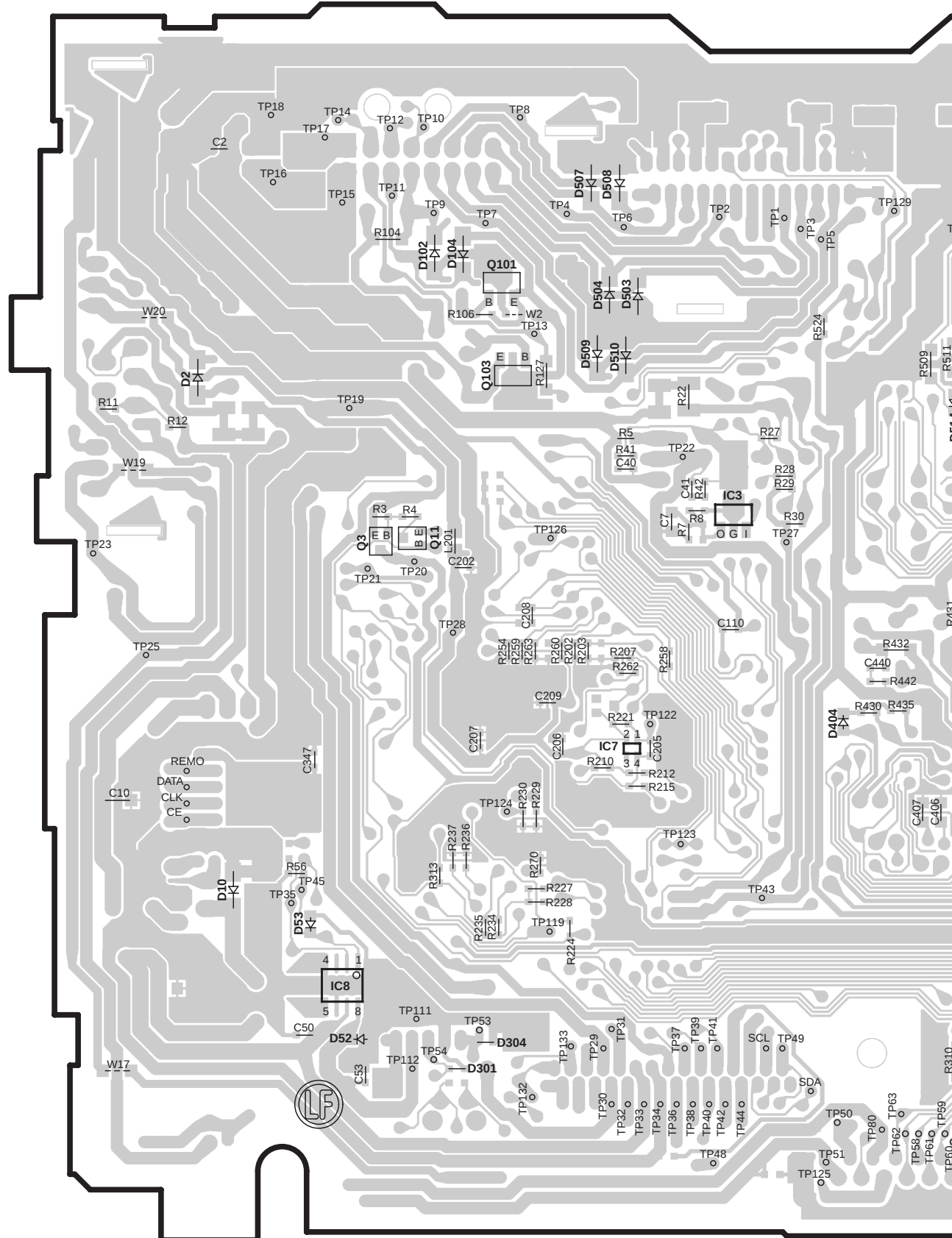




DPX501/501U/501UY  
DPX-MP2090U

# PC BOARD (FOIL SIDE VIEW)

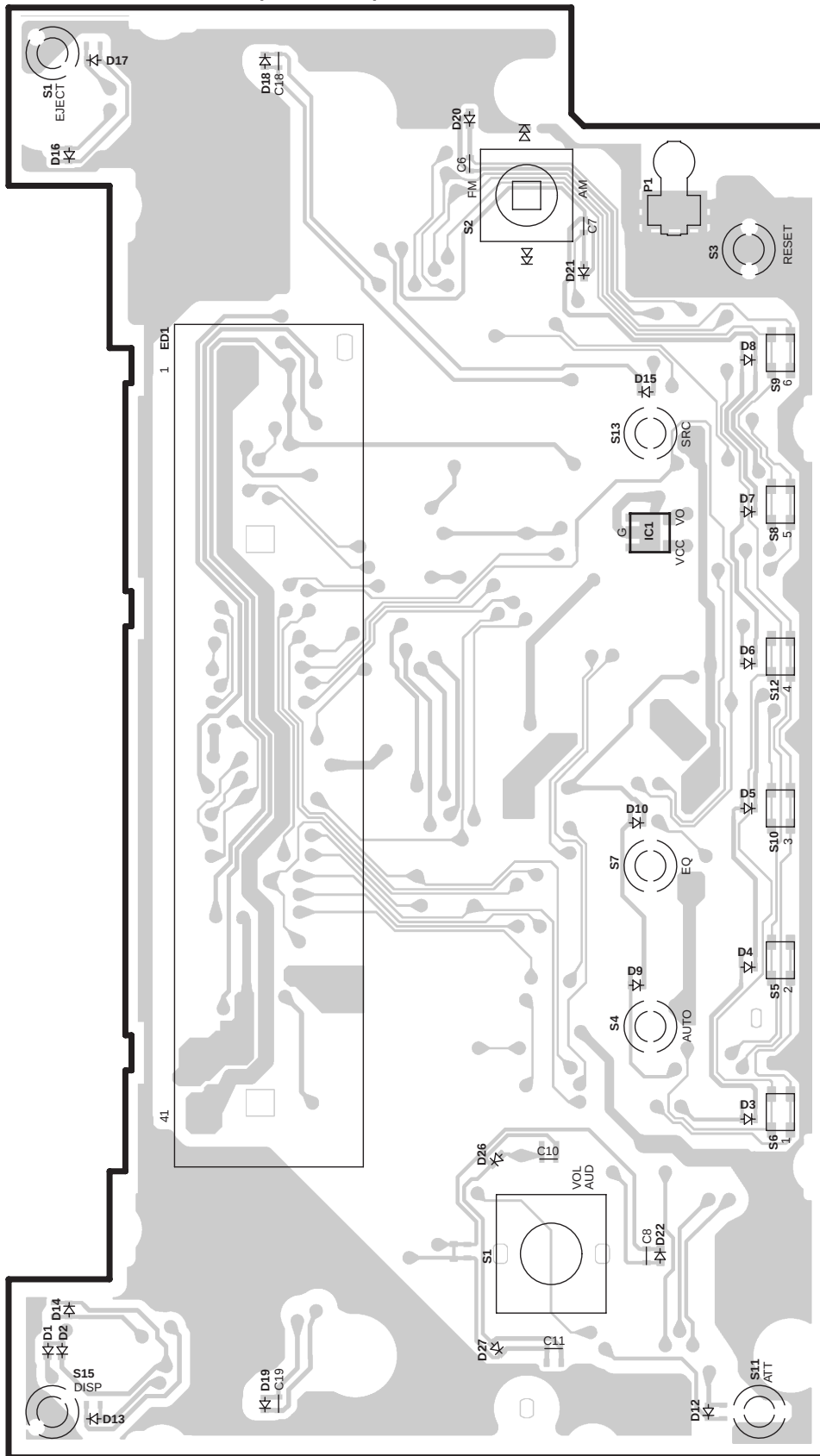
ELECTRIC UNIT X34-415x-xx (J76-0169-02)





# PC BOARD (COMPONENT SIDE VIEW)

SWITCH UNIT X16-353x-xx (J76-0176-12)



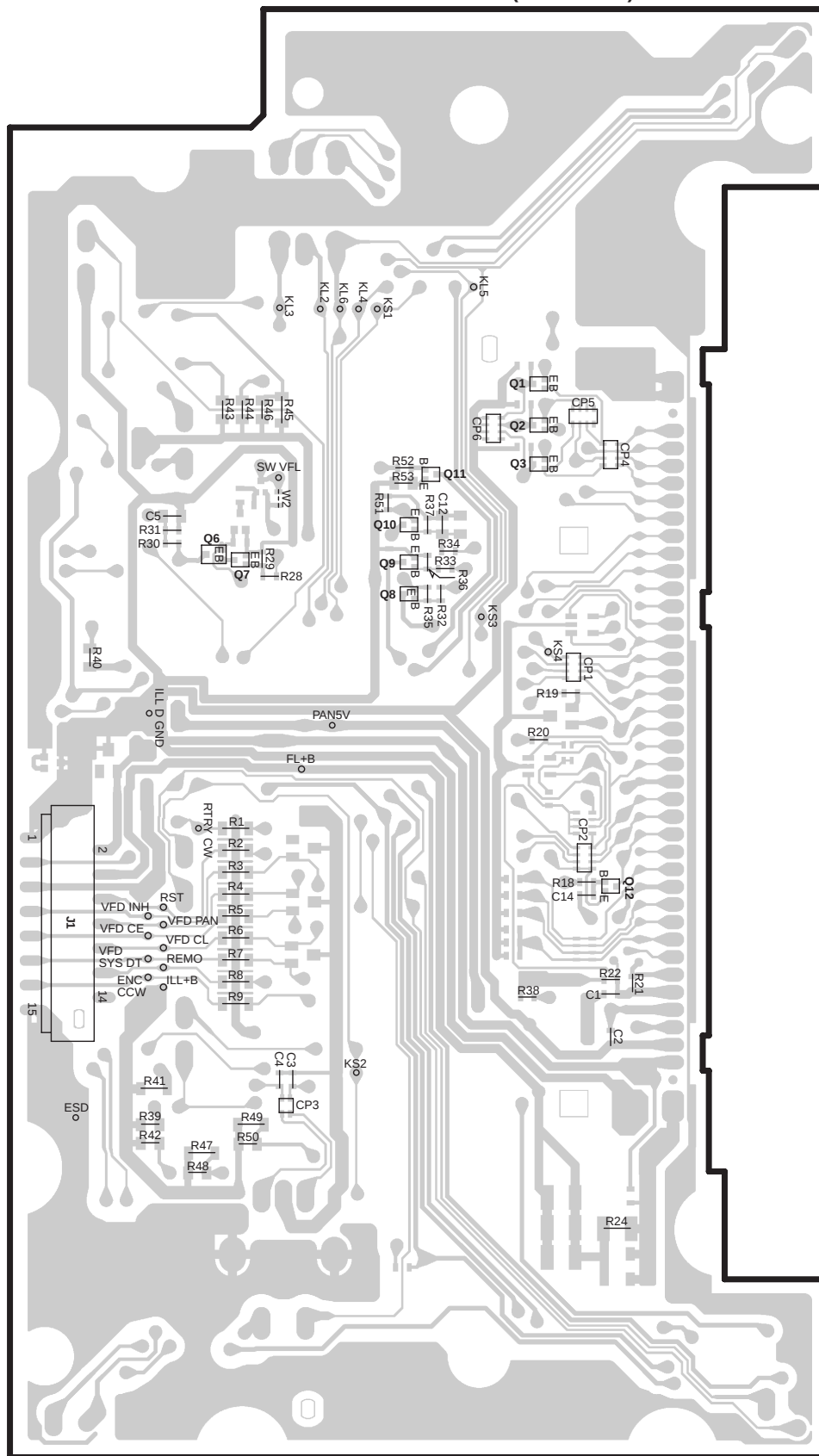
X16-353x-xx

| Ref. No. | Address |
|----------|---------|
| IC1      | 3X      |

Refer to the schematic diagram for the values of resistors and capacitors.

## PC BOARD (FOIL SIDE VIEW)

SWITCH UNIT X16-353x-xx (J76-0176-12)



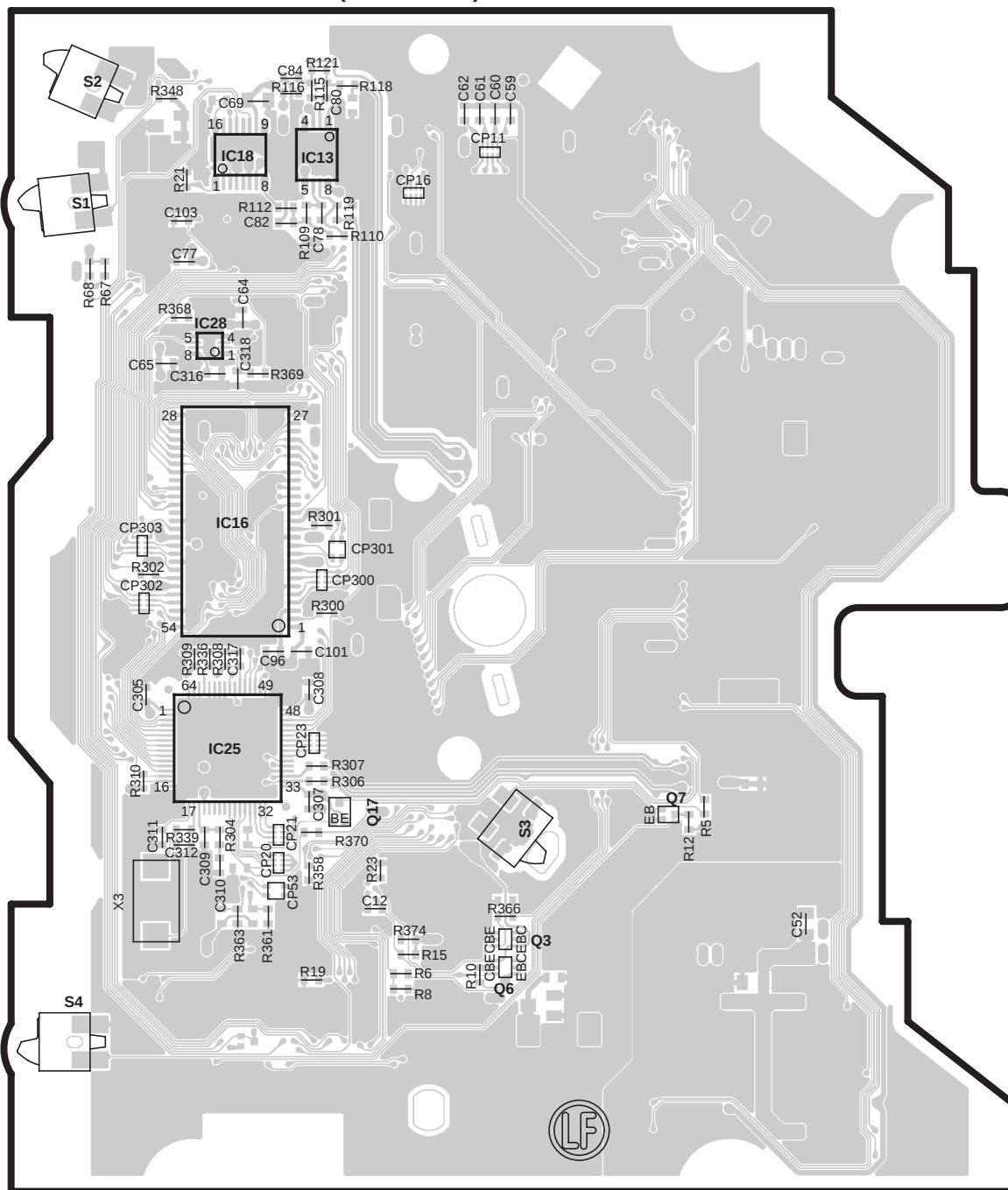
X16-353x-xx

| Ref. No. | Address |
|----------|---------|
| Q1       | 3AB     |
| Q2       | 3AB     |
| Q3       | 3AB     |
| Q6       | 3Z      |
| Q7       | 4AA     |
| Q8       | 4AA     |
| Q9       | 3AA     |
| Q10      | 3AA     |
| Q11      | 3AA     |
| Q12      | 5AB     |

Refer to the schematic diagram for the values of resistors and capacitors.

### PC BOARD (COMPONENT SIDE VIEW)

**CD PLAYER UNIT X32-5830-00 (J76-0184-02)**



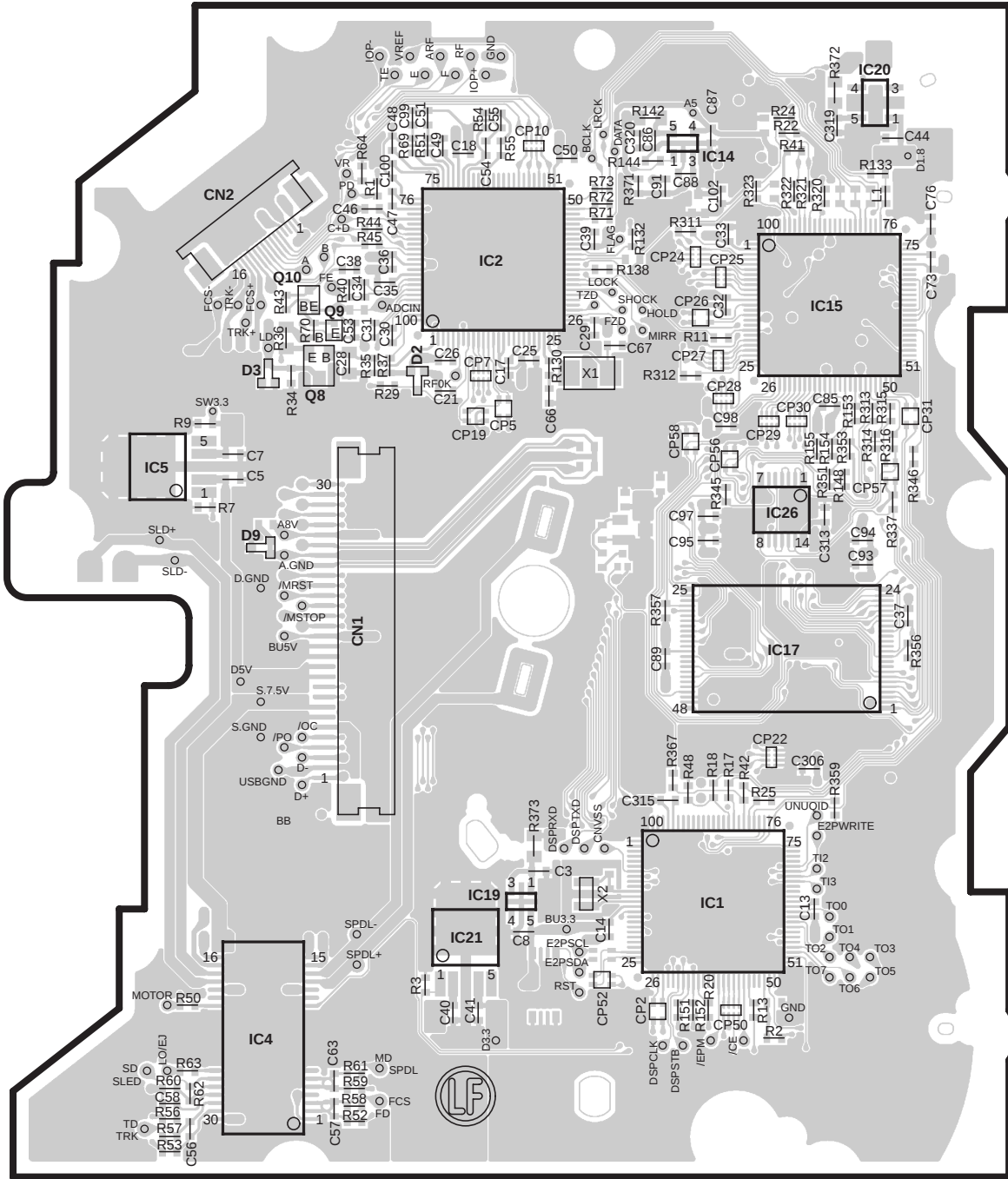
X32-5830-00

| Ref. No. | Address | Ref. No. | Address |
|----------|---------|----------|---------|
| IC13     | 2AF     | Q3       | 5AG     |
| IC16     | 3AF     | Q6       | 5AG     |
| IC18     | 2AF     | Q7       | 4AH     |
| IC25     | 4AF     | Q17      | 4AG     |
| IC28     | 3AF     |          |         |

Refer to the schematic diagram for the values of resistors and capacitors.

## PC BOARD (FOIL SIDE VIEW)

CD PLAYER UNIT X32-5830-00 (J76-0184-02)

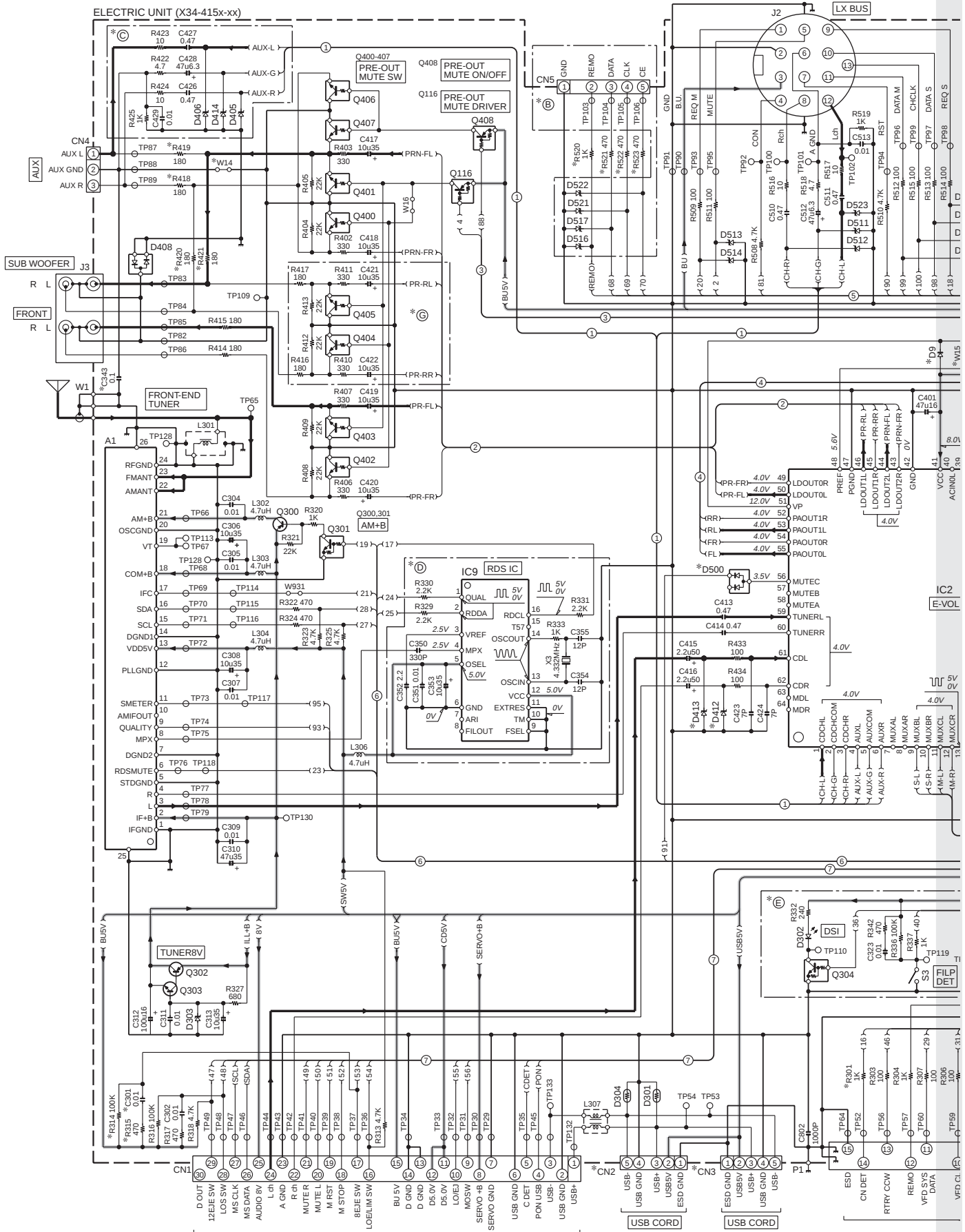


X32-5830-00

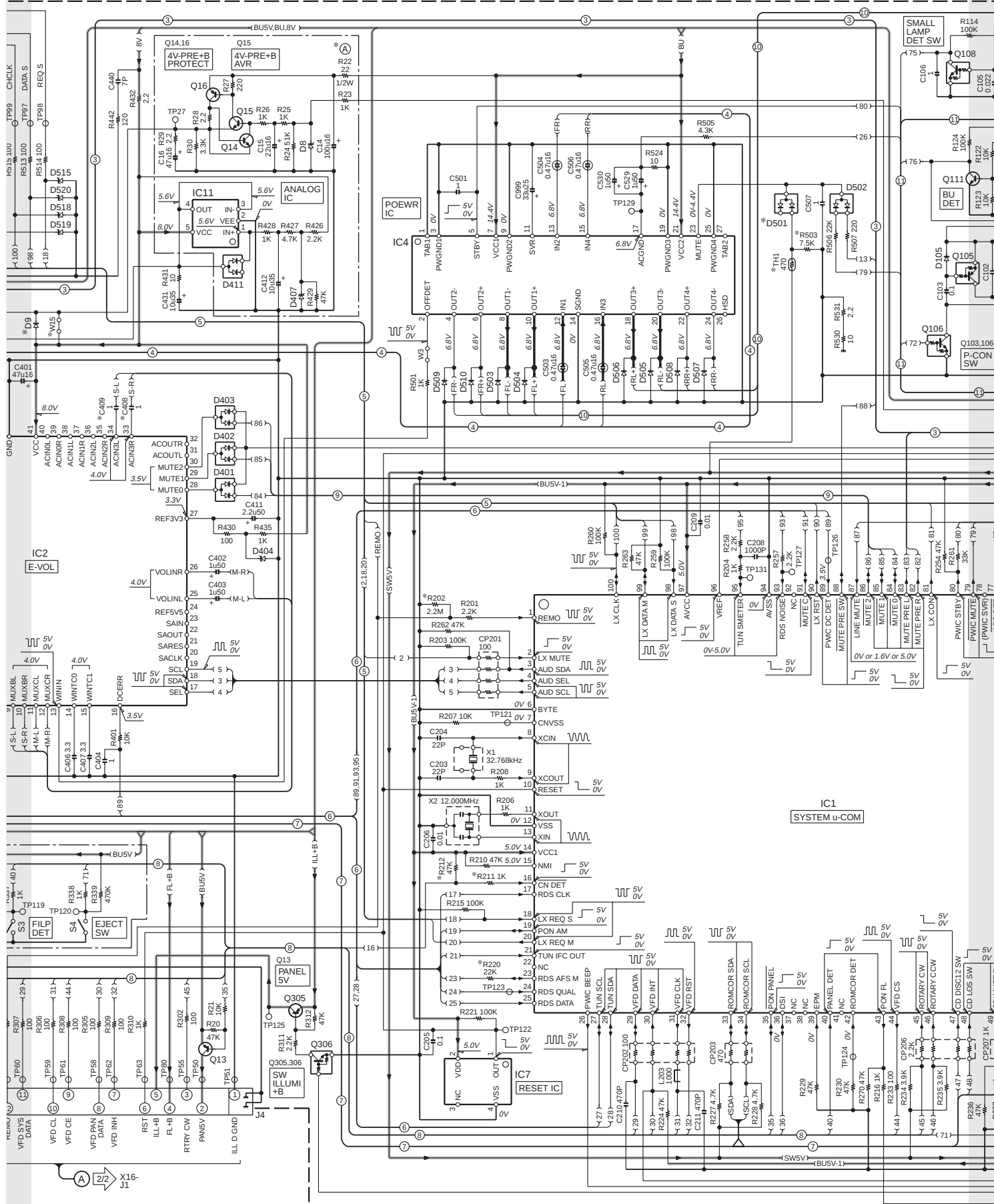
| Ref. No. | Address | Ref. No. | Address | Ref. No. | Address |
|----------|---------|----------|---------|----------|---------|
| IC1      | 5AM     | IC15     | 3AM     | IC26     | 3AM     |
| IC2      | 2AL     | IC17     | 4AM     | Q8       | 3AK     |
| IC4      | 5AK     | IC19     | 5AL     | Q9       | 3AK     |
| IC5      | 3AJ     | IC20     | 2AM     | Q10      | 2AK     |
| IC14     | 2AM     | IC21     | 5AL     |          |         |

Refer to the schematic diagram for the values of resistors and capacitors.

# DPX501/501U/501UY DPX-MP2090U

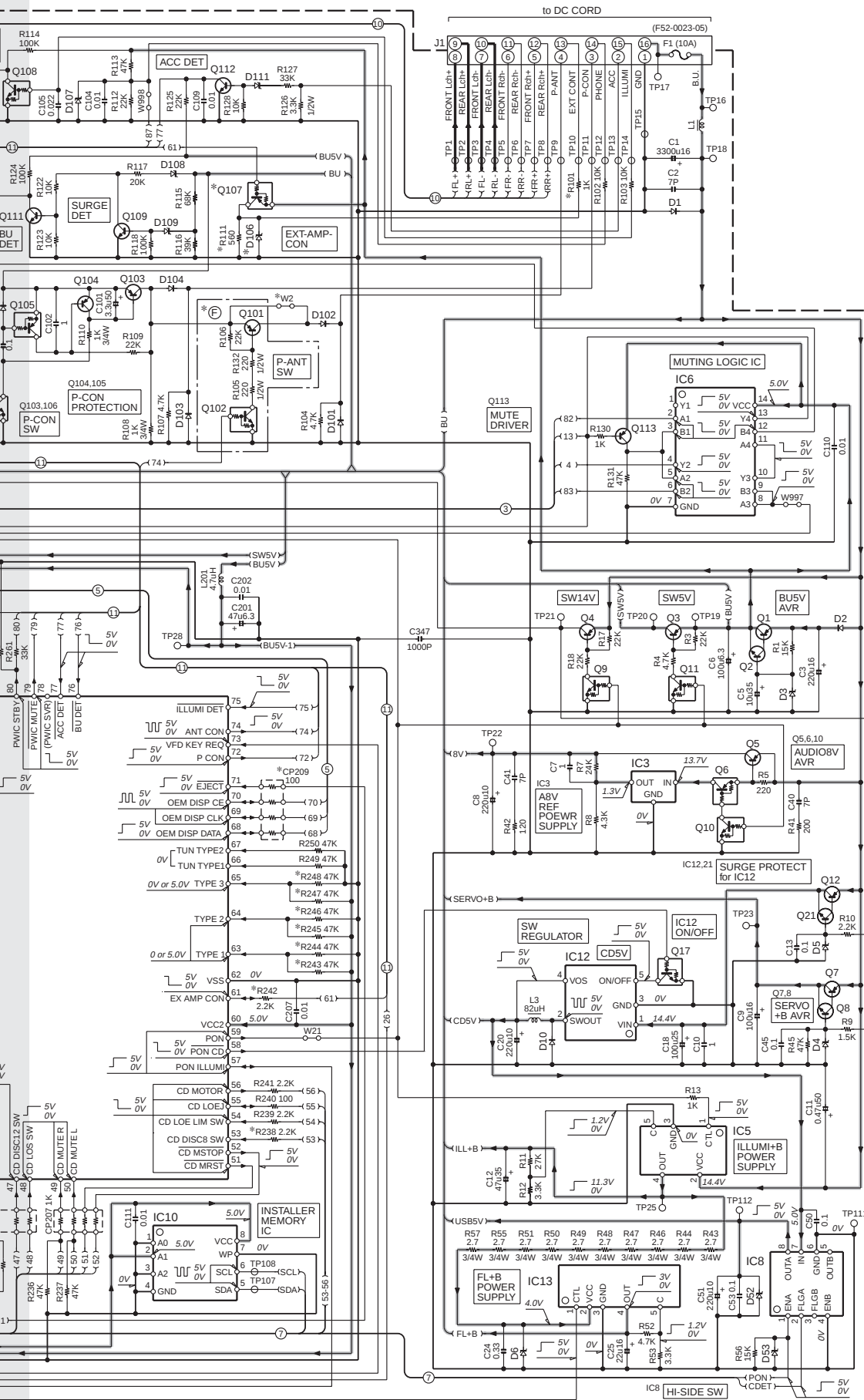


**CAUTION :** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).



⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

# DPX501/501U/501UY DPX-MP2090U



IC1 : 30624MWP86GP  
IC2 : E-TDA7415C  
IC3 : M5237ML-CF0J  
IC4 : E-TDA7560A  
IC5 : BA00CCWTV-5  
IC6 : SN74HC02APWR  
IC7 : S-90836CNCN8-J  
IC8 : MIC2026-1YM  
IC9 : E-TDA7479AD  
IC10 : BR24L04FV-W  
IC11 : TA75558F-F  
IC12 : SI-8050RF3NF  
IC13 : BA00CCWVFP

Q1,5,7,302 : 2SB1565  
Q2,8,14,15,21,303 : KTC4075P(Y,GR)  
Q3,4,13,104,113 : KTA201,4P(Y,GR)  
Q6,116,408 : DTA124EUA  
Q9-11,301 : DTC124EUA  
Q12 : 2SA1488NF  
Q16 : 2SB1443  
Q17,108,306 : DTC144EUA  
Q101,103 : 2SB1188(Q,R)  
Q102,106,304 : DTC114YUA  
Q105 : DTA114EUA  
Q107 : DTA123JK  
Q109,111,112 : 2SC4155A(Q,R,S)  
Q300 : 2SB1689  
Q305 : 2SA1577  
Q400-407 : DTC143TUA

D1 : S2V60+A  
D2 : R8150L-40  
D3,106,407 : 02D25.6F-Y  
D4 : 02D28.2F-Y  
D5 : 02D220F-Y  
D6 : PTZ4.7B  
D8 : 02D212F-X  
D9,102-105,503,504,507-510 : 1SR154-400  
D10 : R8081L-20  
D52,53,108,109,405,406 : 02D26.8F-Y  
D101 : 10EDA20  
D107 : 02D24.7F-Y  
D111,414,511-523 : 02D26.2F-Y  
D301,304 : IMSA-6802-E  
D302 : B30-1710-05  
D303 : 02D29.1F-Z  
D401-403,411,500-502 : BAW56W  
D404 : UDZ53.3B  
D408 : DA204K  
D412,413 : UDZ55.6B  
D505,506 : 1SR139-400T64

4

5

6

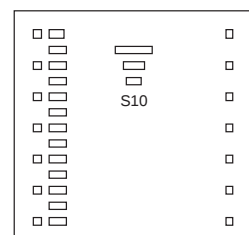
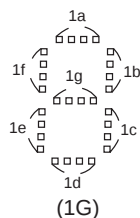
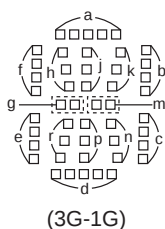
7

DPX501/501U/501UY  
DPX-MP2090U (1/2)

• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

# DPX501/501U/501UY DPX-MP2090U

1



(1G)

2

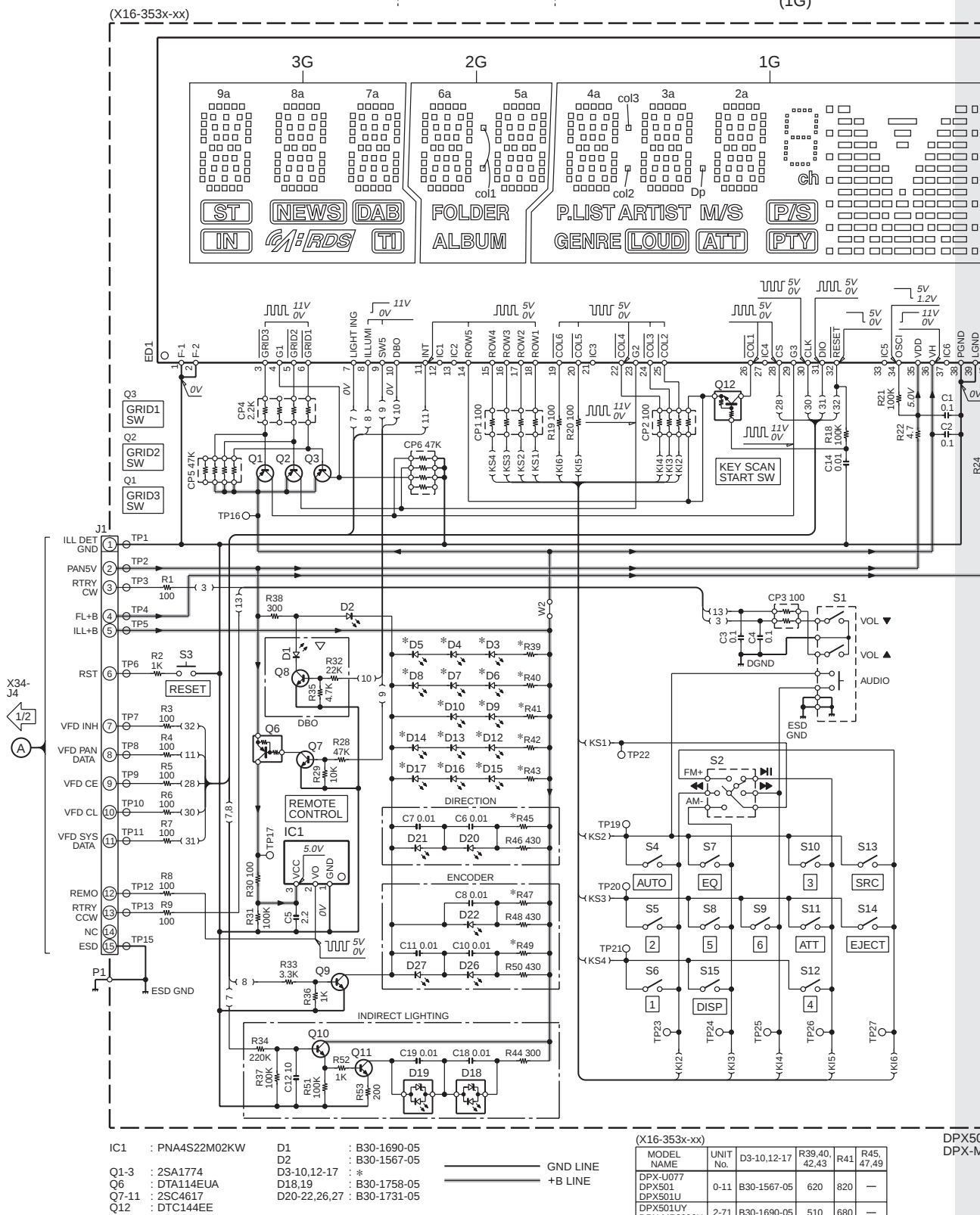
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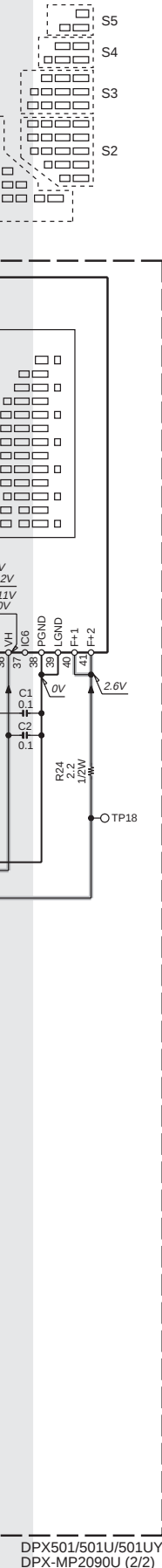
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5

6

7

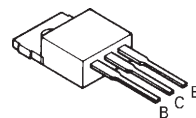




# ANODE CONNECTION

| PIN NAME | 3G | 2G     | 1G     |
|----------|----|--------|--------|
| P1       | 9a | —      | 2a     |
| P2       | 9h | —      | 2h     |
| P3       | 9j | —      | 2j     |
| P4       | 9k | —      | 2k     |
| P5       | 9b | —      | 2b     |
| P6       | 9f | —      | 2f     |
| P7       | 9m | —      | 2m     |
| P8       | 9g | —      | 2g     |
| P9       | 9c | —      | 2c     |
| P10      | 9e | —      | 2e     |
| P11      | 9r | —      | 2r     |
| P12      | 9p | —      | 2p     |
| P13      | 9n | —      | 2n     |
| P14      | 9d | —      | 2d     |
| P15      | 8a | 6a     | 4a     |
| P16      | 7a | 5a     | 3a     |
| P17      | 8h | 6h     | 4h     |
| P18      | 7h | 5h     | 3h     |
| P19      | 8j | 6j     | 4j     |
| P20      | 7j | 5j     | 3j     |
| P21      | 8k | 6k     | 4k     |
| P22      | 7k | 5k     | 3k     |
| P23      | 8b | 6b     | 4b     |
| P24      | 7b | 5b     | 3b     |
| P25      | 8f | 6f     | 4f     |
| P26      | 7f | 5f     | 3f     |
| P27      | 8m | 6m     | 4m     |
| P28      | 7m | 5m     | 3m     |
| P29      | 8g | 6g     | 4g     |
| P30      | 7g | 5g     | 3g     |
| P31      | 8c | 6c     | 4c     |
| P32      | 7c | 5c     | 3c     |
| P33      | 8e | 6e     | 4e     |
| P34      | 7e | 5e     | 3e     |
| P35      | 8r | 6r     | 4r     |
| P36      | 7r | 5r     | 3r     |
| P37      | 8p | 6p     | 4p     |
| P38      | 7p | 5p     | 3p     |
| P39      | 8n | 6n     | 4n     |
| P40      | 7n | 5n     | 3n     |
| P41      | 8d | 6d     | 4d     |
| P42      | 7d | 5d     | 3d     |
| P43      | —  | col1   | col2   |
| P44      | —  | —      | col3   |
| P45      | —  | —      | Dp     |
| P46      |    | FOLDER | P.LIST |
| P47      |    | ALBUM  | ARTIST |
| P48      |    | —      | M/S    |
| P49      |    | —      | GENRE  |
| P50      |    | —      | LOUD   |
| P51      |    | —      | ATT    |
| P52      | —  | —      | 1a     |
| P53      | —  | —      | 1b     |
| P54      | —  | —      | 1f     |
| P55      | —  | —      | 1g     |
| P56      | —  | —      | 1c     |
| P57      | —  | —      | 1e     |
| P58      | —  | —      | 1d     |
| P59      | —  | —      | ch     |
| P60      | —  | —      |        |
| P61      | —  | —      |        |
| P62      | —  | —      | S1     |
| P63      | —  | —      | S2     |
| P64      | —  | —      | S3     |
| P65      | —  | —      | S4     |
| P66      | —  | —      | S5     |
| P67      | —  | —      | S6     |
| P68      | —  | —      | S7     |
| P69      | —  | —      | S8     |
| P70      | —  | —      | S9     |
| P71      | —  | —      | S10    |

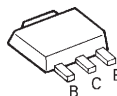
2SB1565



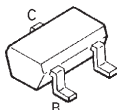
DTA123JK  
DTC114YE  
DTC114YUA  
DTC124EE  
DTC143TUA  
DTC144EE  
2SC4617



2SB1188



2SA1774  
2SC4081



**CAUTION :** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

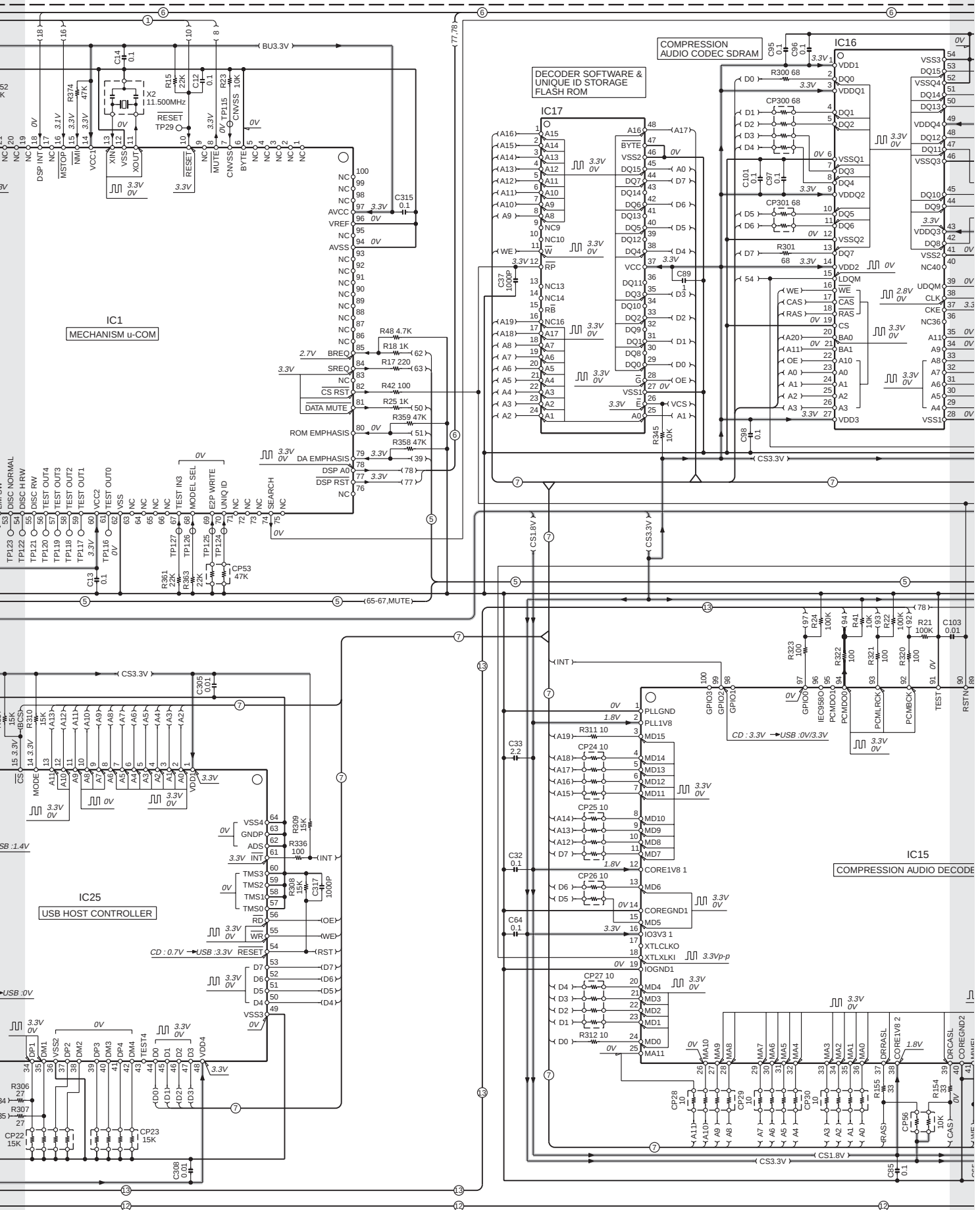
⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

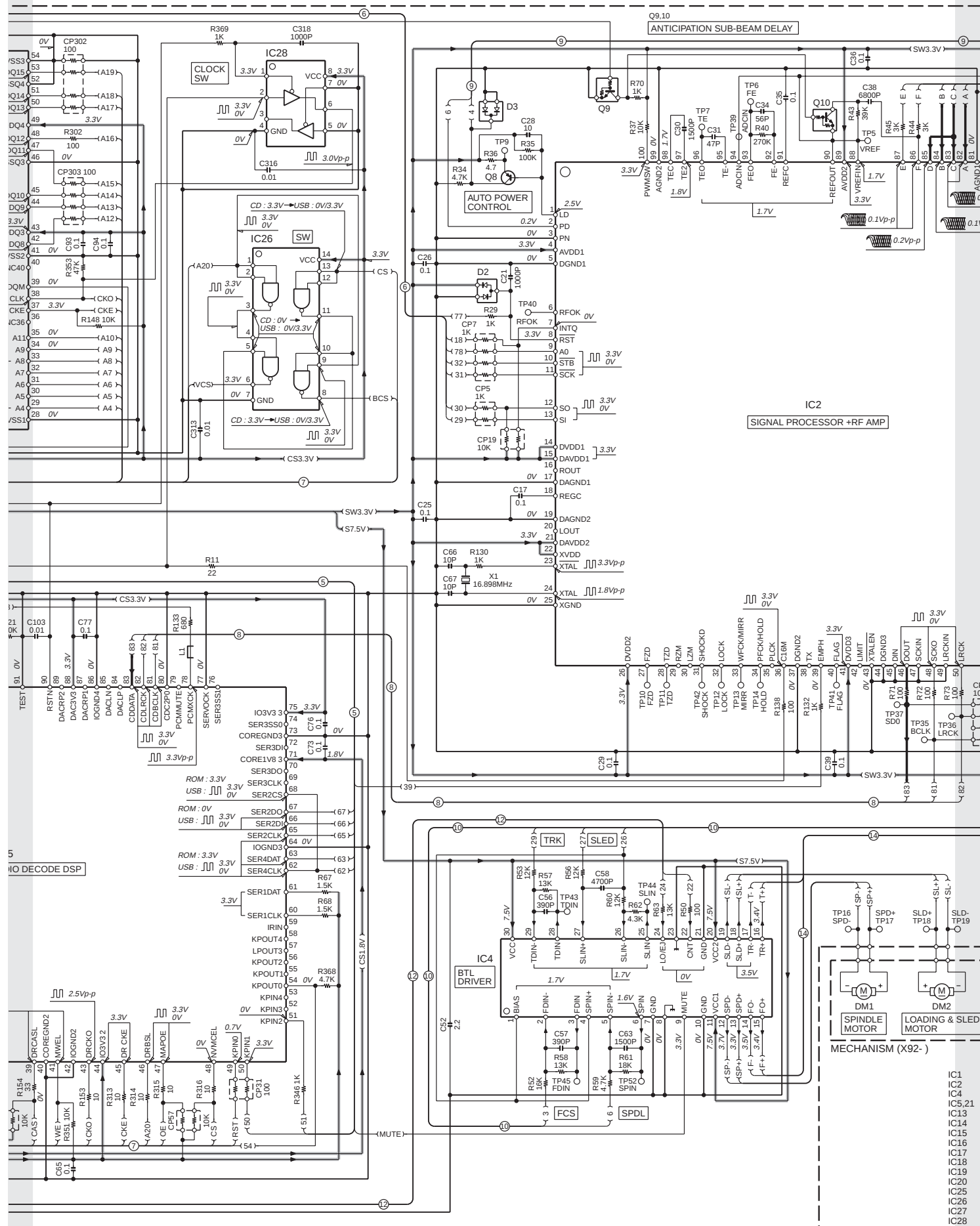


# DPX501/501U/501UY

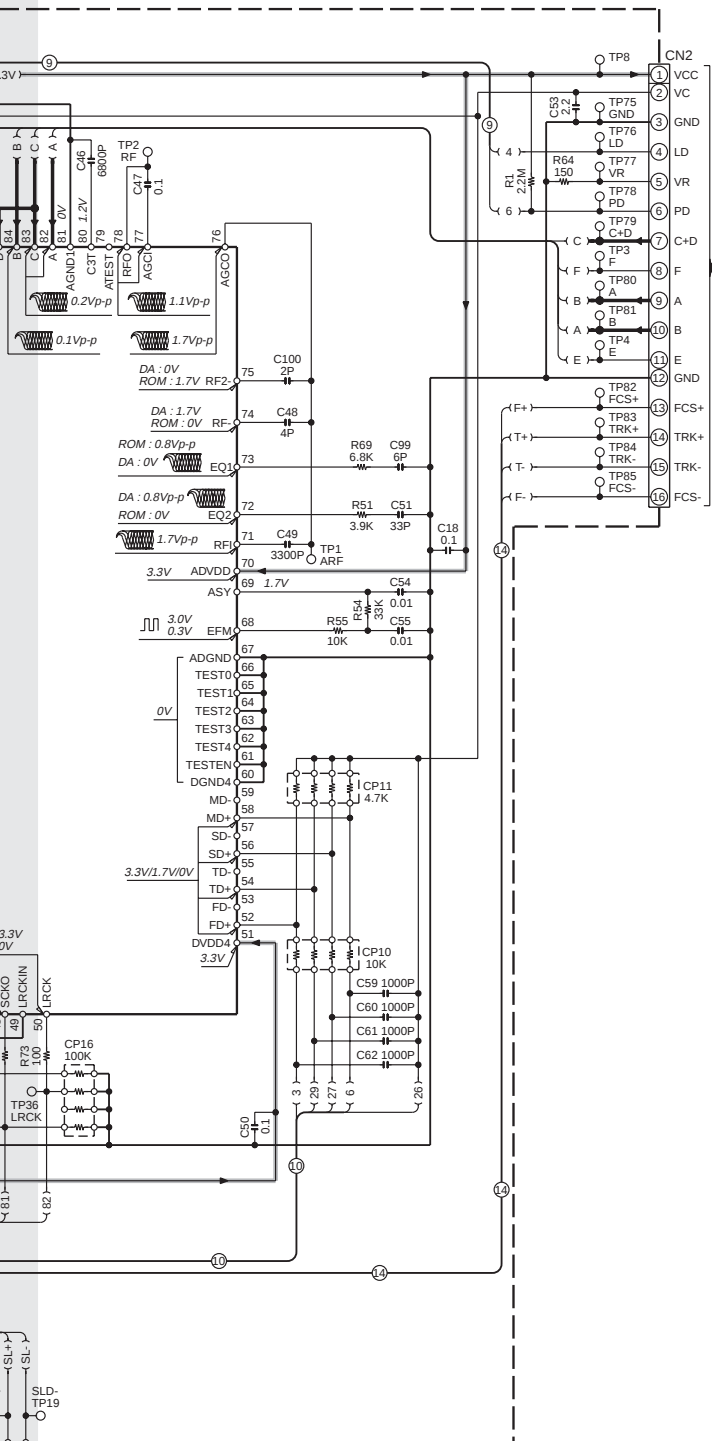
## DPX-MP2090U



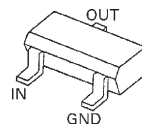
DPX501/501U/501UY  
DPX-MP2090U



# DPX501/501U/501UY DPX-MP2090U

DPU1  
(X92-)OPTICAL  
PICKUP

DTA114EUA  
DTA124EUA  
DTC124EUA  
DTC144EUA



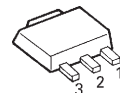
DAN202U



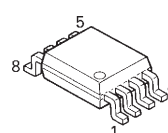
DA204K  
DA204U



M5237ML-CF0J



NJM2100V-ZB



**CAUTION :** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

△ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

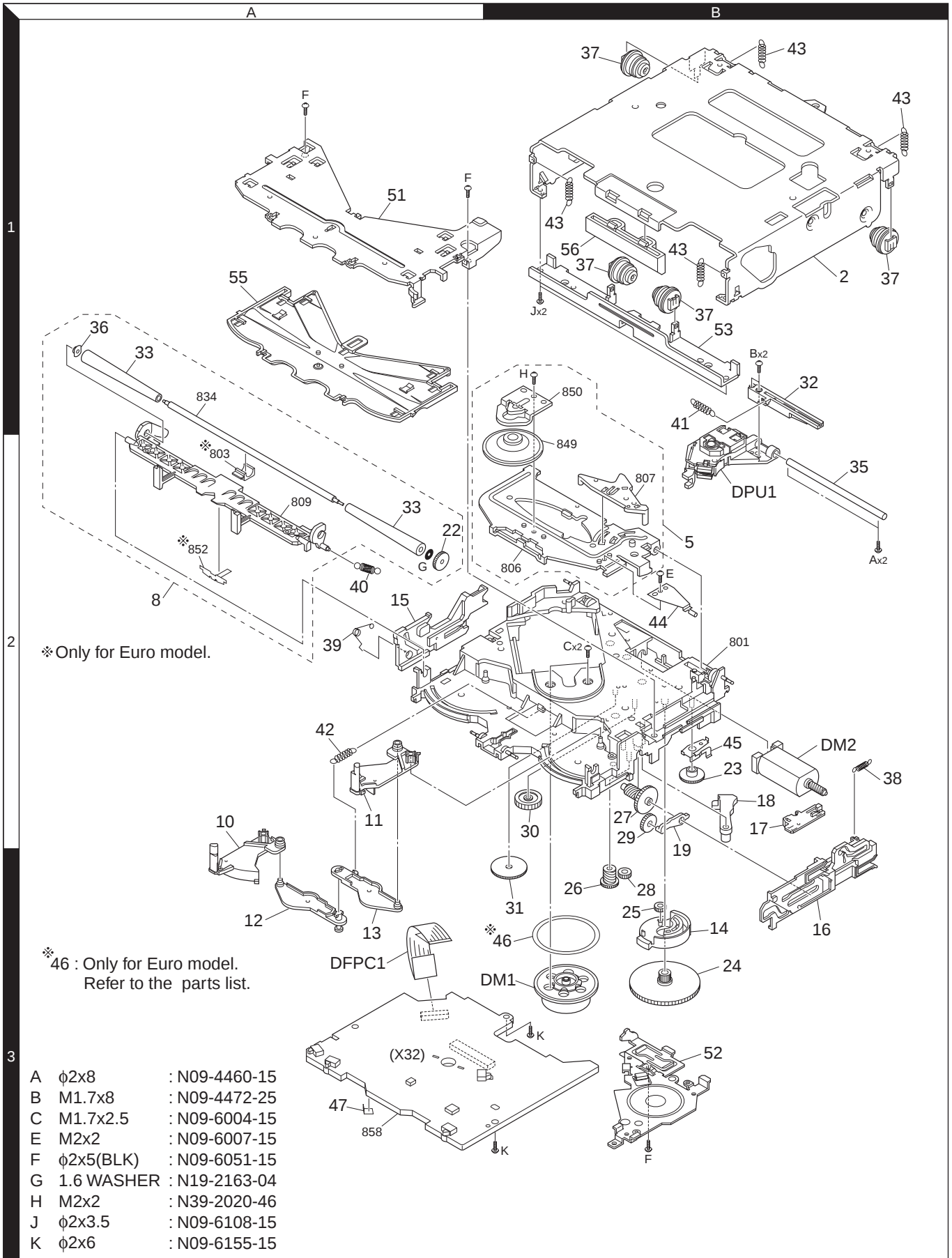
IC1 : M30620FCPP  
IC2 : UPD63712GC  
IC4 : BA5824FP  
IC5,21 : BD33KA5WFP-E2  
IC13 : NJM2100V-ZB  
IC14 : TAR550-F  
IC15 : CS7410-IQZ  
IC16 : IC42S164007TiG  
IC17 : 29LV800CBT19V1  
IC18 : PCM1754DB  
IC19 : R1114N331B-TR  
IC20 : S-1132B18U5T1G  
IC25 : TDUHC1240F0C00  
IC26 : TC74LCX00FT-F  
IC27 : NOT USED  
IC28 : TC7WH125FK-F

Q3 : UMD9N  
Q6 : UMD12N  
Q7 : DTC124EE  
Q8 : 2SB0970  
Q9 : DTC114YE  
Q10 : DTC114YUA  
Q17 : DTA143XUA

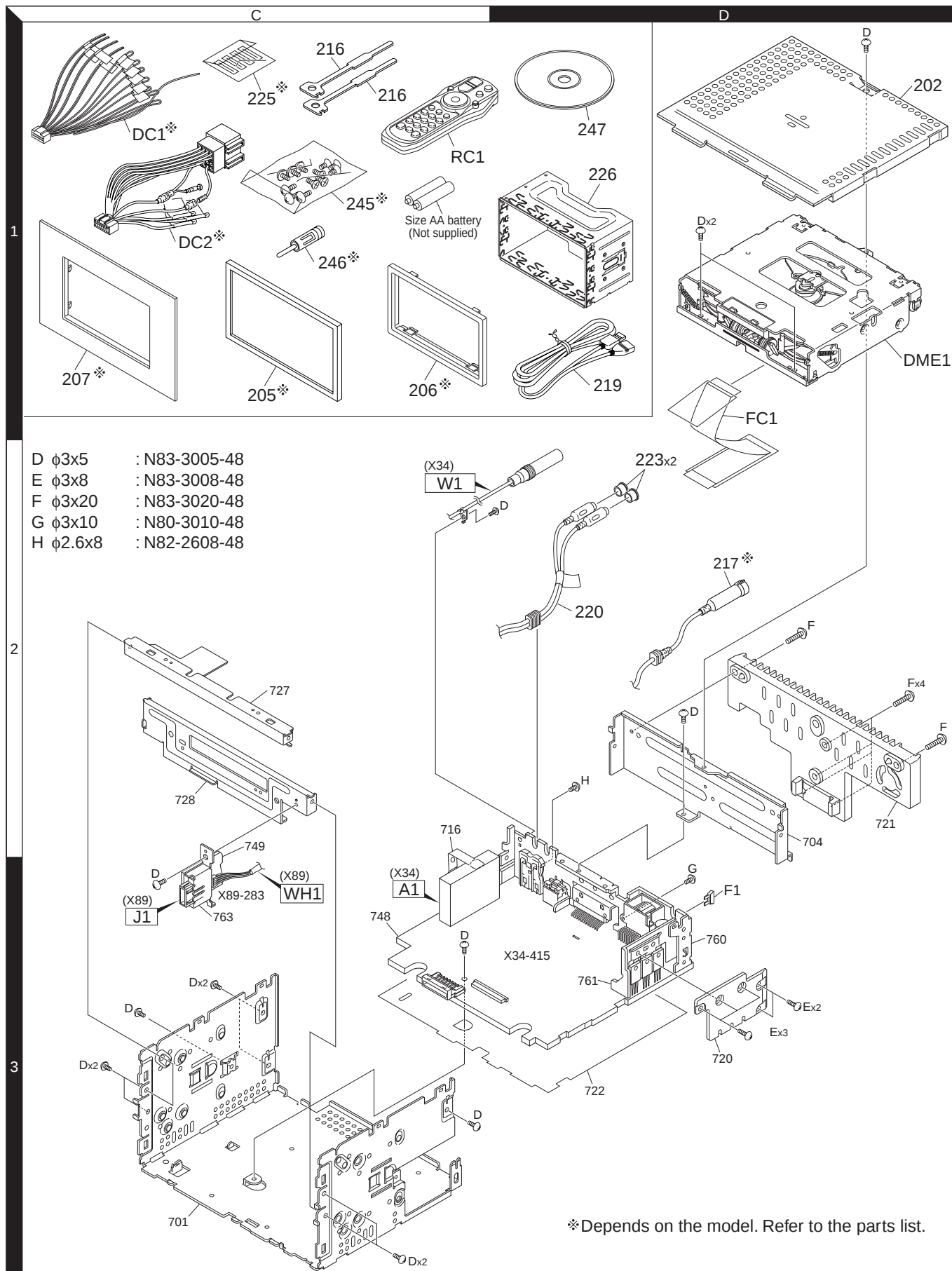
D2,9 : DA204U  
D3 : DAN202U

— SIGNAL LINE  
— GND LINE  
— +B LINE

# EXPLODED VIEW (CD MECHANISM)

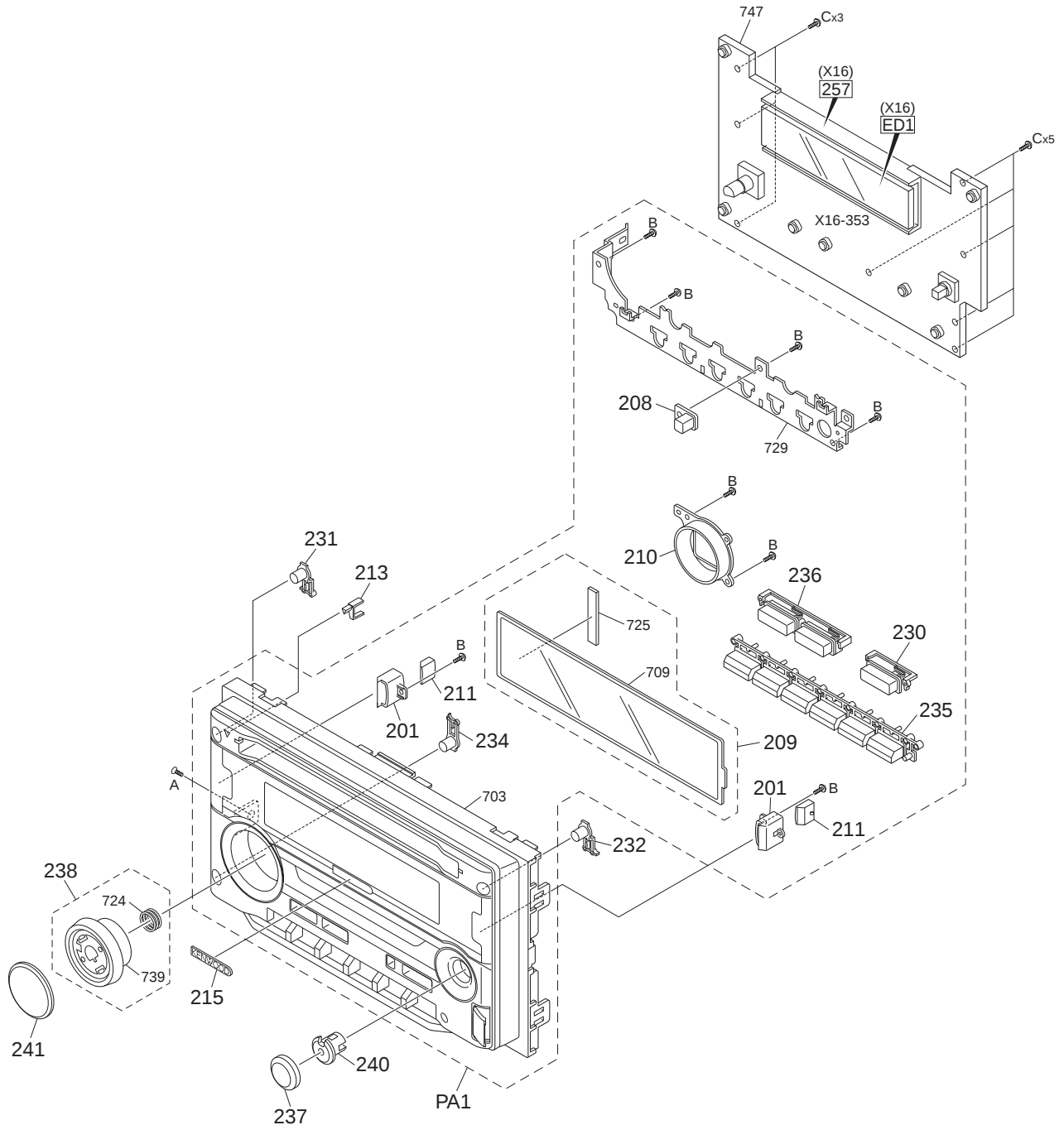


# EXPLODED VIEW (UNIT)



# EXPLODED VIEW (PANEL)

- |   |        |               |
|---|--------|---------------|
| A | φ2.6x6 | : N78-2660-48 |
| B | φ2x6   | : N80-2006-48 |
| C | φ2x8   | : N80-2008-48 |



DPX501/501U/501UY  
DPX-MP2090U

PARTS LIST

\* New parts  
Parts without **Parts No.** are not supplied.  
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.  
Teile ohne **Parts No.** werden nicht geliefert.

| Ref. No.                       | A<br>d<br>d | N<br>e<br>w | Parts No.   | Description                     | Desti-<br>nation |
|--------------------------------|-------------|-------------|-------------|---------------------------------|------------------|
| DPX501/501U/501UY, DPX-MP2090U |             |             |             |                                 |                  |
| 201                            | 2E          |             | A33-0642-03 | REFLECTOR                       |                  |
| 202                            | 1D          |             | A52-0872-12 | TOP PLATE                       |                  |
| PA1                            | 3E          | *           | A64-3814-02 | PANEL ASSY                      | K1               |
| PA1                            | 3E          | *           | A64-3871-02 | PANEL ASSY                      | E3E4             |
| PA1                            | 3E          | *           | A64-3966-02 | PANEL ASSY                      | M2               |
| RC1                            | 1C          |             | A70-2067-15 | REMOTE CONTROLLER ASSY (RC-527) | K1M2             |
| -                              |             |             | B46-0612-14 | ID CARD                         | E3E4             |
| -                              |             |             | B46-0682-00 | WARRANTY CARD                   | K1E3M2           |
| -                              |             |             | B59-1850-00 | SUB-INSTRUCTION MANUAL          |                  |
| -                              |             | *           | B64-3396-00 | INSTRUCTION MANUAL (ENGLISH)    | K1               |
| -                              |             | *           | B64-3397-00 | INSTRUCTION MANUAL (FRENCH)     | K1               |
| -                              |             | *           | B64-3398-00 | INSTRUCTION MANUAL (SPANISH)    | K1               |
| -                              |             | *           | B64-3402-00 | INSTRUCTION MANUAL (ENGLISH)    | E3E4             |
| -                              |             | *           | B64-3403-00 | INSTRUCTION MANUAL (FRENCH)     | E3               |
| -                              |             | *           | B64-3404-00 | INSTRUCTION MANUAL (GERMAN)     | E3               |
| -                              |             | *           | B64-3405-00 | INSTRUCTION MANUAL (DUTCH)      | E3               |
| -                              |             | *           | B64-3406-00 | INSTRUCTION MANUAL (ITALIAN)    | E3               |
| -                              |             | *           | B64-3407-00 | INSTRUCTION MANUAL (SPANISH)    | E3               |
| -                              |             | *           | B64-3408-00 | INSTRUCTION MANUAL (PORTUGUESE) | E3               |
| -                              |             | *           | B64-3409-00 | INSTRUCTION MANUAL (RUSSIAN)    | E4               |
| -                              |             | *           | B64-3433-00 | INSTRUCTION MANUAL (ENGLISH)    | M2               |
| -                              |             | *           | B64-3434-00 | INSTRUCTION MANUAL (T-CHI.KOR)  | M2               |
| 205                            | 1C          |             | B07-3046-04 | ESCUTCHEON ASSY                 | M2               |
| 206                            | 1C          |             | B07-3165-02 | ESCUTCHEON                      | K1E3E4           |
| 207                            | 1C          |             | B07-3172-12 | ESCUTCHEON                      | K1E3E4           |
| 208                            | 2F          |             | B10-4811-03 | FRONT GLASS                     |                  |
| 209                            | 2F          | *           | B10-4809-03 | FRONT GLASS ASSY                |                  |
| 210                            | 2F          |             | B19-2368-03 | LIGHTING BOARD                  |                  |
| 211                            | 2E          |             | B19-2370-04 | LIGHTING BOARD                  |                  |
| 213                            | 2E          |             | B19-2373-03 | LIGHTING BOARD                  |                  |
| 215                            | 3E          |             | B43-1535-04 | BADGE                           |                  |
| 216                            | 1C          |             | D10-4589-04 | LEVER                           | K1E3E4           |
| 217                            | 2D          |             | E30-6420-05 | CORD WITH DIN CONNECTOR         | E3E4             |
| 219                            | 1D          | *           | E30-6535-05 | CORD WITH CONNECTOR (USB)       |                  |
| 220                            | 2D          |             | E30-6291-15 | CORD WITH PINPLUG               |                  |
| △ DC1                          | 1C          |             | E30-6408-05 | DC CORD                         | M2               |
| △ DC1                          | 1C          |             | E30-6414-05 | DC CORD                         | K1               |
| △ DC2                          | 1C          |             | E30-6412-05 | DC CORD                         | E3E4             |
| FC1                            | 1D          | *           | E39-0812-05 | FLAT CABLE                      |                  |
| 223                            | 2D          |             | F29-0626-04 | INSULATING COVER                |                  |
| △ F1                           | 3D          |             | F52-0006-05 | FUSE (MINI BLADE TYPE) 10A      |                  |
| -                              |             |             | H10-4970-02 | POLYSTYRENE FOAMED FIXTURE      | M2               |
| -                              |             |             | H10-4971-02 | POLYSTYRENE FOAMED FIXTURE      | K1E3E4           |
| -                              |             |             | H25-0337-04 | PROTECTION BAG (180X300X0.03)   |                  |
| -                              |             |             | H25-1164-04 | PROTECTION BAG (0.5X350X480)    |                  |
| -                              |             |             | H25-1170-04 | PROTECTION BAG                  | M2               |
| -                              |             | *           | H54-3663-03 | ITEM CARTON CASE                | K1               |
| -                              |             | *           | H54-3668-03 | ITEM CARTON CASE                | E3               |
| -                              |             | *           | H54-3669-03 | ITEM CARTON CASE                | E4               |
| -                              |             | *           | H54-3803-03 | ITEM CARTON CASE                | M2               |
| 225                            | 1D          |             | H30-0595-04 | ADHESIVE DOUBLE-COATED TAPE     | K1E3E4           |

| Ref. No.                  | A<br>d<br>d | N<br>e<br>w | Parts No.    | Description                   | Desti-<br>nation |
|---------------------------|-------------|-------------|--------------|-------------------------------|------------------|
| 226                       | 1D          | *           | J22-0429-13  | MOUNTING HARDWARE ASSY        | K1E3E4           |
| 230                       | 2F          |             | K24-4445-03  | PUSH KNOB (SRC)               |                  |
| 231                       | 2E          |             | K24-4448-03  | PUSH KNOB (DISP)              |                  |
| 232                       | 3F          |             | K24-4450-03  | PUSH KNOB (EJECT)             |                  |
| 234                       | 2E          |             | K24-4454-03  | PUSH KNOB (ATT)               |                  |
| 235                       | 3F          |             | K25-1787-02  | PUSH KNOB (PRESET)            |                  |
| 236                       | 2F          |             | K25-1801-03  | PUSH KNOB (AUTO)              | K1M2             |
| 236                       | 2F          | *           | K25-1820-03  | PUSH KNOB (TI)                | E3E4             |
| 237                       | 3E          |             | K28-0106-03  | KEY TOP (CONTROL)             |                  |
| 238                       | 3E          |             | K29-7195-03  | KNOB ASSY (VOL)               |                  |
| 240                       | 3E          |             | K29-7197-03  | KNOB BASE (CONTROL)           |                  |
| 241                       | 3E          |             | K29-7198-03  | KEY TOP (VOL)                 |                  |
| 245                       | 1C          |             | N99-1779-05  | SCREW SET                     | K1M2             |
| A                         | 3E          |             | N78-2660-48  | PAN HEAD TAPTITE SCREW        |                  |
| B                         | 2F          |             | N80-2006-48  | PAN HEAD TAPTITE SCREW        |                  |
| C                         | 1F          |             | N80-2008-48  | PAN HEAD TAPTITE SCREW        |                  |
| D                         | 3C          |             | N83-3005-48  | PAN HEAD TAPTITE SCREW        |                  |
| E                         | 3D          |             | N83-3008-48  | PAN HEAD TAPTITE SCREW        |                  |
| F                         | 2D          |             | N83-3020-48  | PAN HEAD TAPTITE SCREW        |                  |
| 246                       | 1C          |             | T90-0523-05  | ANTENNA ADAPTOR               | E3E4             |
| 247                       | 1C          |             | W01-1673-05  | COMPACT DISC                  | K1M2             |
| 247                       | 1C          |             | W01-1674-05  | COMPACT DISC                  | E3E4             |
| DME1                      | 1D          |             | X92-5440-00  | CD MECHANISM ASSY (DXM-6810W) | K1M2             |
| DME1                      | 1D          |             | X92-5440-04  | CD MECHANISM ASSY (DXM-6814W) | E3E4             |
| SWITCH UNIT (X16-353x-xx) |             |             |              |                               |                  |
| D1                        |             |             | B30-1690-05  | LED (1608,YG)                 |                  |
| D2                        |             |             | B30-1567-05  | LED (1608,RED)                | E4M2             |
| D2-10                     |             |             | B30-1567-05  | LED (1608,RED)                | K1E3             |
| D3-10                     |             |             | B30-1690-05  | LED (1608,YG)                 | E4M2             |
| D12-17                    |             |             | B30-1567-05  | LED (1608,RED)                | K1E3             |
| D12-17                    |             |             | B30-1690-05  | LED (1608,YG)                 | E4M2             |
| D18,19                    |             |             | B30-1758-05  | LED (1608,BLUE RANK)          |                  |
| D20-22                    |             |             | B30-1731-05  | LED (1608,BLUE)               |                  |
| D26,27                    |             |             | B30-1731-05  | LED 1608,BLUE)                |                  |
| C1-4                      |             |             | CK73GB1H104K | CHIP C 0.10UF K               |                  |
| C5                        |             |             | CK73FB1A225K | CHIP C 2.2UF K                |                  |
| C6-8                      |             |             | CK73GB1H103K | CHIP C 0.010UF K              |                  |
| C10,11                    |             |             | CK73GB1H103K | CHIP C 0.010UF K              |                  |
| C12                       |             |             | CK73FB0J106K | CHIP C 10UF K                 |                  |
| C14                       |             |             | CK73GB1H103K | CHIP C 0.010UF K              |                  |
| C18,19                    |             |             | CK73GB1H103K | CHIP C 0.010UF K              |                  |
| J1                        |             |             | E59-0851-05  | RECTANGULAR PLUG              |                  |
| 257                       | 1F          | *           | J19-7119-12  | HOLDER                        |                  |
| CP1,2                     |             |             | RK74GB1J101J | CHIP-COM 100 J 1/16W          |                  |
| CP3                       |             |             | RK74GA1J101J | CHIP-COM 100 J 1/16W          |                  |
| CP4                       |             |             | RK74GB1J222J | CHIP-COM 2.2K J 1/16W         |                  |
| CP5,6                     |             |             | RK74GB1J473J | CHIP-COM 47K J 1/16W          |                  |
| R1                        |             |             | RK73EB2E101J | CHIP R 100 J 1/4W             |                  |
| R2                        |             |             | RK73EB2E102J | CHIP R 1.0K J 1/4W            |                  |

E3 : DPX501U    E4 : DPX501UY    (Europe)  
K1 : DPX501    (North America)  
M2 : DPX-MP2090U    (Other Areas)

△ Indicates safety critical components.

# PARTS LIST

## SWITCH UNIT (X16-353x-xx)

| Ref. No.                            | Add | New | Parts No.    | Description                | Destination |
|-------------------------------------|-----|-----|--------------|----------------------------|-------------|
| R3-9                                |     |     | RK73EB2E101J | CHIP R 100 J 1/4W          |             |
| R18                                 |     |     | RK73GB2A104J | CHIP R 100K J 1/10W        |             |
| R19,20                              |     |     | RK73GB2A101J | CHIP R 100 J 1/10W         |             |
| R21                                 |     |     | RK73GB2A104J | CHIP R 100K J 1/10W        |             |
| R22                                 |     |     | RK73GB2A4R7J | CHIP R 4.7 J 1/10W         |             |
| R24                                 |     |     | RK73PB2H2R2J | CHIP R 2.2 J 1/2W          |             |
| R28                                 |     |     | RK73GB2A473J | CHIP R 47K J 1/10W         |             |
| R29                                 |     |     | RK73GB2A103J | CHIP R 10K J 1/10W         |             |
| R30                                 |     |     | RK73GB2A101J | CHIP R 100 J 1/10W         |             |
| R31                                 |     |     | RK73GB2A104J | CHIP R 100K J 1/10W        |             |
| R32                                 |     |     | RK73GB2A223J | CHIP R 22K J 1/10W         |             |
| R33                                 |     |     | RK73GB2A332J | CHIP R 3.3K J 1/10W        |             |
| R34                                 |     |     | RK73GB2A224J | CHIP R 220K J 1/10W        |             |
| R35                                 |     |     | RK73GB2A472J | CHIP R 4.7K J 1/10W        |             |
| R36                                 |     |     | RK73GB2A102J | CHIP R 1.0K J 1/10W        |             |
| R37                                 |     |     | RK73GB2A104J | CHIP R 100K J 1/10W        |             |
| R38                                 |     |     | RK73GB2A301J | CHIP R 300 J 1/10W         |             |
| R39,40                              |     |     | RK73FB2B511J | CHIP R 510 J 1/8W          | E4M2        |
| R39,40                              |     |     | RK73FB2B621J | CHIP R 620 J 1/8W          | K1E3        |
| R41                                 |     |     | RK73EB2E681J | CHIP R 680 J 1/4W          | E4M2        |
| R41                                 |     |     | RK73EB2E821J | CHIP R 820 J 1/4W          | K1E3        |
| R42,43                              |     |     | RK73FB2B511J | CHIP R 510 J 1/8W          | E4M2        |
| R42,43                              |     |     | RK73FB2B621J | CHIP R 620 J 1/8W          | K1E3        |
| R44                                 |     |     | RK73FB2B301J | CHIP R 300 J 1/8W          |             |
| R46                                 |     |     | RK73FB2B431J | CHIP R 430 J 1/8W          |             |
| R48                                 |     |     | RK73FB2B431J | CHIP R 430 J 1/8W          |             |
| R50                                 |     |     | RK73FB2B431J | CHIP R 430 J 1/8W          |             |
| R51                                 |     |     | RK73GB2A104J | CHIP R 100K J 1/10W        |             |
| R52                                 |     |     | RK73GB2A102J | CHIP R 1.0K J 1/10W        |             |
| R53                                 |     |     | RK73FB2B201J | CHIP R 200 J 1/8W          |             |
| W2                                  |     |     | R92-1252-05  | CHIP R 0 OHM J 1/16W       |             |
| S2                                  |     |     | S70-0106-05  | TACT SWITCH                |             |
| S3,4                                |     |     | S70-0051-15  | TACT SWITCH                |             |
| S5,6                                |     |     | S70-0901-05  | TACT SWITCH                |             |
| S7                                  |     |     | S70-0051-15  | TACT SWITCH                |             |
| S8-10                               |     |     | S70-0901-05  | TACT SWITCH                |             |
| S11                                 |     |     | S70-0051-15  | TACT SWITCH                |             |
| S12                                 |     |     | S70-0901-05  | TACT SWITCH                |             |
| S13-15                              |     |     | S70-0051-15  | TACT SWITCH                |             |
| S1                                  |     |     | T99-0457-15  | ROTARY ENCODER             |             |
| ED1                                 |     |     | 3-BT-235INK  | FLUORESCENT INDICATOR TUBE |             |
| IC1                                 |     |     | PNA4S22M02KW | ANALOGUE IC                |             |
| Q1-3                                |     |     | 2SA1774      | TRANSISTOR                 |             |
| Q6                                  |     |     | DTA114EUA    | DIGITAL TRANSISTOR         |             |
| Q7-11                               |     |     | 2SC4617      | TRANSISTOR                 |             |
| Q12                                 |     |     | DTC144EE     | DIGITAL TRANSISTOR         |             |
| <b>CD PLAYER UNIT (X32-5830-00)</b> |     |     |              |                            |             |
| C3                                  |     |     | CK73GB1A105K | CHIP C 1.0UF K             |             |
| C5                                  |     |     | CK73GB1A105K | CHIP C 1.0UF K             |             |
| C7                                  |     |     | CK73GB0J225K | CHIP C 2.2UF K             |             |
| C8                                  |     |     | CK73GB1A105K | CHIP C 1.0UF K             |             |
| C12-14                              |     |     | CK73GB1H104K | CHIP C 0.10UF K            |             |

| Ref. No. | Add | New | Parts No.     | Description      | Destination |
|----------|-----|-----|---------------|------------------|-------------|
| C17,18   |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C21      |     |     | CK73GB1H102K  | CHIP C 1000PF K  |             |
| C25,26   |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C28      |     |     | CK73FB0J106K  | CHIP C 10UF K    |             |
| C29      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C30      |     |     | CK73GB1H152K  | CHIP C 1500PF K  |             |
| C31      |     |     | CC73GCH1H470J | CHIP C 47PF J    |             |
| C32      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C33      |     |     | CK73GB0J225K  | CHIP C 2.2UF K   |             |
| C34      |     |     | CC73GCH1H560J | CHIP C 56PF J    |             |
| C35,36   |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C37      |     |     | CK73GB1H102K  | CHIP C 1000PF K  |             |
| C38      |     |     | CK73GB1H682K  | CHIP C 6800PF K  |             |
| C39      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C40      |     |     | CK73GB1A105K  | CHIP C 1.0UF K   |             |
| C41      |     |     | CK73GB0J225K  | CHIP C 2.2UF K   |             |
| C44      |     |     | CK73GB1A105K  | CHIP C 1.0UF K   |             |
| C46      |     |     | CK73GB1H682K  | CHIP C 6800PF K  |             |
| C47      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C48      |     |     | CC73GCH1H040C | CHIP C 4.0PF C   |             |
| C49      |     |     | CK73GB1H332K  | CHIP C 3300PF K  |             |
| C50      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C51      |     |     | CC73GCH1H330J | CHIP C 33PF J    |             |
| C52      |     |     | CK73FB1A225K  | CHIP C 2.2UF K   |             |
| C53      |     |     | CK73GB0J225K  | CHIP C 2.2UF K   |             |
| C54,55   |     |     | CK73GB1H103K  | CHIP C 0.010UF K |             |
| C56,57   |     |     | CC73GCH1H391J | CHIP C 390PF J   |             |
| C58      |     |     | CK73GB1H472K  | CHIP C 4700PF K  |             |
| C59-62   |     |     | CK73GB1H102K  | CHIP C 1000PF K  |             |
| C63      |     |     | CK73GB1H152K  | CHIP C 1500PF K  |             |
| C64,65   |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C66,67   |     |     | CC73GCH1H100D | CHIP C 10PF D    |             |
| C69      |     |     | CK73FB0J106K  | CHIP C 10UF K    |             |
| C73      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C76,77   |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C78      |     |     | CC73GCH1H151J | CHIP C 150PF J   |             |
| C80      |     |     | CC73GCH1H151J | CHIP C 150PF J   |             |
| C82      |     |     | CC73GCH1H681J | CHIP C 680PF J   |             |
| C84      |     |     | CC73GCH1H681J | CHIP C 680PF J   |             |
| C85      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C86      |     |     | CK73GB1A105K  | CHIP C 1.0UF K   |             |
| C87      |     |     | CK73GB0J475K  | CHIP C 4.7UF K   |             |
| C88      |     |     | CK73GB1H473K  | CHIP C 0.047UF K |             |
| C89      |     |     | CK73GB1A105K  | CHIP C 1.0UF K   |             |
| C91      |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C93-98   |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C99      |     |     | CC73GCH1H060D | CHIP C 6.0PF D   |             |
| C100     |     |     | CC73GCH1H020C | CHIP C 2.0PF C   |             |
| C101     |     |     | CK73GB1H104K  | CHIP C 0.10UF K  |             |
| C102     |     |     | CK73GB1H102K  | CHIP C 1000PF K  |             |
| C103     |     |     | CK73GB1H103K  | CHIP C 0.010UF K |             |
| C305-308 |     |     | CK73GB1H103K  | CHIP C 0.010UF K |             |
| C309     |     |     | CK73GB1H222K  | CHIP C 2200PF K  |             |
| C310     |     |     | CK73GB1H103K  | CHIP C 0.010UF K |             |
| C311,312 |     |     | CC73GCH1H060D | CHIP C 6.0PF D   |             |

E3 : DPX501U E4 : DPX501UY (Europe)  
K1 : DPX501 (North America)  
M2 : DPX-MP2090U (Other Areas)

△ Indicates safety critical components.

# PARTS LIST

## CD PLAYER UNIT (X32-5830-00)

| Ref. No.                                     | A<br>d<br>d | N<br>e<br>w | Parts No.                                                                    | Description                                                                                                             | Desti-<br>nation |
|----------------------------------------------|-------------|-------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------|
| C313<br>C315<br>C316<br>C317,318<br>C319     |             |             | CK73GB1H103K<br>CK73GB1H104K<br>CK73GB1H103K<br>CK73GB1H102K<br>CK73GB1A105K | CHIP C 0.010UF K<br>CHIP C 0.10UF K<br>CHIP C 0.010UF K<br>CHIP C 1000PF K<br>CHIP C 1.0UF K                            |                  |
| C320                                         |             |             | CC73GCH1H070D                                                                | CHIP C 7.0PF D                                                                                                          |                  |
| CN1<br>CN2                                   |             |             | E41-2630-05<br>E41-2612-05                                                   | FLAT CABLE CONNECTOR<br>FLAT CABLE CONNECTOR                                                                            |                  |
| L1<br>X1<br>X2<br>X3                         |             |             | L92-0615-05<br>L77-2863-05<br>L78-1215-05<br>L77-2923-05                     | CHIP FERRITE<br>CRYSTAL RESONATOR (16.899M)<br>RESONATOR (11.500MHZ)<br>CRYSTAL RESONATOR (6.000MHZ,LF)                 |                  |
| CP2<br>CP5<br>CP7<br>CP10<br>CP11            |             |             | RK74GA1J101J<br>RK74GA1J102J<br>RK74HB1J102J<br>RK74HB1J103J<br>RK74HB1J472J | CHIP-COM 100 J 1/16W<br>CHIP-COM 1.0K J 1/16W<br>CHIP-COM 1.0K J 1/16W<br>CHIP-COM 10K J 1/16W<br>CHIP-COM 4.7K J 1/16W |                  |
| CP16<br>CP19<br>CP20-23<br>CP24,25<br>CP26   |             |             | RK74HB1J104J<br>RK74GA1J103J<br>RK74HB1J153J<br>RK74HB1J100J<br>RK74GA1J100J | CHIP-COM 100K J 1/16W<br>CHIP-COM 10K J 1/16W<br>CHIP-COM 15K J 1/16W<br>CHIP-COM 10 J 1/16W<br>CHIP-COM 10 J 1/16W     |                  |
| CP27-30<br>CP31<br>CP50<br>CP52<br>CP53      |             |             | RK74HB1J100J<br>RK74GA1J101J<br>RK74HB1J102J<br>RK74GA1J472J<br>RK74GA1J473J | CHIP-COM 10 J 1/16W<br>CHIP-COM 100 J 1/16W<br>CHIP-COM 1.0K J 1/16W<br>CHIP-COM 4.7K J 1/16W<br>CHIP-COM 47K J 1/16W   |                  |
| CP56,57<br>CP300<br>CP301<br>CP302,303<br>R1 |             |             | RK74GA1J103J<br>RK74HB1J680J<br>RK74GA1J680J<br>RK74HB1J101J<br>RK73GB2A225J | CHIP-COM 10K J 1/16W<br>CHIP-COM 68 J 1/16W<br>CHIP-COM 68 J 1/16W<br>CHIP-COM 100 J 1/16W<br>CHIP R 2.2M J 1/10W       |                  |
| R2,3<br>R5<br>R6<br>R7<br>R8                 |             |             | RK73GB2A223J<br>RK73GB2A101J<br>RK73GH2A223D<br>RK73GB2A223J<br>RK73GH2A393D | CHIP R 22K J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 22K D 1/10W<br>CHIP R 22K J 1/10W<br>CHIP R 39K D 1/10W              |                  |
| R9<br>R10<br>R11<br>R12<br>R13               |             |             | RK73GB2A223J<br>RK73GB2A101J<br>RK73GB2A220J<br>RK73GB2A223J<br>RK73GB2A102J | CHIP R 22K J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 22 J 1/10W<br>CHIP R 22K J 1/10W<br>CHIP R 1.0K J 1/10W              |                  |
| R15<br>R17<br>R18<br>R19<br>R20              |             |             | RK73GB2A223J<br>RK73GB2A221J<br>RK73GB2A102J<br>RK73GB2A472J<br>RK73GB2A102J | CHIP R 22K J 1/10W<br>CHIP R 220 J 1/10W<br>CHIP R 1.0K J 1/10W<br>CHIP R 4.7K J 1/10W<br>CHIP R 1.0K J 1/10W           |                  |
| R21,22<br>R23<br>R24<br>R25<br>R29           |             |             | RK73GB2A104J<br>RK73GB2A103J<br>RK73GB2A104J<br>RK73GB2A102J<br>RK73GB2A102J | CHIP R 100K J 1/10W<br>CHIP R 10K J 1/10W<br>CHIP R 100K J 1/10W<br>CHIP R 1.0K J 1/10W<br>CHIP R 1.0K J 1/10W          |                  |
| R34                                          |             |             | RK73GB2A472J                                                                 | CHIP R 4.7K J 1/10W                                                                                                     |                  |

| Ref. No.                                         | A<br>d<br>d | N<br>e<br>w | Parts No.                                                                    | Description                                                                                                    | Desti-<br>nation |
|--------------------------------------------------|-------------|-------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------|
| R35<br>R36<br>R37<br>R40<br>R41                  |             |             | RK73GB2A104J<br>RK73FB2B4R7J<br>RK73GB2A103J<br>RK73GB2A274J<br>RK73GB2A103J | CHIP R 100K J 1/10W<br>CHIP R 4.7 J 1/8W<br>CHIP R 10K J 1/10W<br>CHIP R 270K J 1/10W<br>CHIP R 10K J 1/10W    |                  |
| R42<br>R43<br>R44,45<br>R48<br>R50               |             |             | RK73GB2A101J<br>RK73GB2A393J<br>RK73GB2A302J<br>RK73GB2A472J<br>RK73GB2A101J | CHIP R 100 J 1/10W<br>CHIP R 39K J 1/10W<br>CHIP R 3.0K J 1/10W<br>CHIP R 4.7K J 1/10W<br>CHIP R 100 J 1/10W   |                  |
| R51<br>R52<br>R53<br>R54<br>R55                  |             |             | RK73GB2A392J<br>RK73GB2A163J<br>RK73GB2A123J<br>RK73GB2A333J<br>RK73GB2A103J | CHIP R 3.9K J 1/10W<br>CHIP R 16K J 1/10W<br>CHIP R 12K J 1/10W<br>CHIP R 33K J 1/10W<br>CHIP R 10K J 1/10W    |                  |
| R56<br>R57,58<br>R59<br>R60<br>R61               |             |             | RK73GB2A123J<br>RK73GB2A133J<br>RK73GB2A472J<br>RK73GB2A123J<br>RK73GB2A183J | CHIP R 12K J 1/10W<br>CHIP R 13K J 1/10W<br>CHIP R 4.7K J 1/10W<br>CHIP R 12K J 1/10W<br>CHIP R 18K J 1/10W    |                  |
| R62<br>R63<br>R64<br>R67,68<br>R69               |             |             | RK73GB2A432J<br>RK73GB2A133J<br>RK73GB2A151J<br>RK73GB2A152J<br>RK73GB2A682J | CHIP R 4.3K J 1/10W<br>CHIP R 13K J 1/10W<br>CHIP R 150 J 1/10W<br>CHIP R 1.5K J 1/10W<br>CHIP R 6.8K J 1/10W  |                  |
| R70<br>R71-73<br>R109<br>R110<br>R112            |             |             | RK73GB2A102J<br>RK73GB2A101J<br>RK73GH2A822D<br>RK73GH2A392D<br>RK73GH2A682D | CHIP R 1.0K J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 8.2K D 1/10W<br>CHIP R 3.9K D 1/10W<br>CHIP R 6.8K D 1/10W |                  |
| R115<br>R116<br>R118,119<br>R121<br>R130         |             |             | RK73GH2A822D<br>RK73GH2A682D<br>RK73GH2A100D<br>RK73GH2A392D<br>RK73GB2A102J | CHIP R 8.2K D 1/10W<br>CHIP R 6.8K D 1/10W<br>CHIP R 10 D 1/10W<br>CHIP R 3.9K D 1/10W<br>CHIP R 1.0K J 1/10W  |                  |
| R132<br>R133<br>R138<br>R142<br>R144             |             |             | RK73GB2A102J<br>RK73GB2A681J<br>RK73GB2A101J<br>RK73FB2B4R7J<br>RK73GB2A223J | CHIP R 1.0K J 1/10W<br>CHIP R 680 J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 4.7 J 1/8W<br>CHIP R 22K J 1/10W     |                  |
| R148<br>R151<br>R152<br>R153<br>R154,155         |             |             | RK73GB2A103J<br>RK73GB2A102J<br>RK73GB2A221J<br>RK73GB2A100J<br>RK73GB2A330J | CHIP R 10K J 1/10W<br>CHIP R 1.0K J 1/10W<br>CHIP R 220 J 1/10W<br>CHIP R 10 J 1/10W<br>CHIP R 33 J 1/10W      |                  |
| R300,301<br>R302<br>R304<br>R306,307<br>R308-310 |             |             | RK73GB2A680J<br>RK73GB2A101J<br>RK73GB2A101J<br>RK73GB2A270J<br>RK73GB2A153J | CHIP R 68 J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 27 J 1/10W<br>CHIP R 15K J 1/10W       |                  |
| R311-316<br>R320-323<br>R336<br>R337<br>R339     |             |             | RK73GB2A100J<br>RK73GB2A101J<br>RK73GB2A101J<br>RK73GB2A153J<br>RK73GB2A682J | CHIP R 10 J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 15K J 1/10W<br>CHIP R 6.8K J 1/10W     |                  |

E3 : DPX501U E4 : DPX501UY (Europe)  
K1 : DPX501 (North America)  
M2 : DPX-MP2090U (Other Areas)

△ Indicates safety critical components.

# PARTS LIST

## CD PLAYER UNIT (X32-5830-00)

| Ref. No.                           | Add | New | Parts No.      | Description           | Destination | Ref. No. | Add | New | Parts No.     | Description        | Destination |
|------------------------------------|-----|-----|----------------|-----------------------|-------------|----------|-----|-----|---------------|--------------------|-------------|
| R345                               |     |     | RK73GB2A103J   | CHIP R 10K J 1/10W    |             | C12      |     |     | CD04BF1V470M  | ELECTRO 47UF 35WV  |             |
| R346                               |     |     | RK73GB2A102J   | CHIP R 1.0K J 1/10W   |             | C13      |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| R348                               |     |     | RK73GB2A223J   | CHIP R 22K J 1/10W    |             | C18      |     |     | CD04BF1E101M  | ELECTRO 100UF 25WV |             |
| R351                               |     |     | RK73GB2A103J   | CHIP R 10K J 1/10W    |             | C20      |     |     | CD04BK1A221M  | ELECTRO 220UF 10WV |             |
| R353                               |     |     | RK73GB2A473J   | CHIP R 47K J 1/10W    |             | C24      |     |     | CK73GB1A334K  | CHIP C 0.33UF K    |             |
| R358,359                           |     |     | RK73GB2A473J   | CHIP R 47K J 1/10W    |             | C25      |     | *   | CD04BA0J220M  | ELECTRO 22UF 6.3WV |             |
| R361                               |     |     | RK73GB2A223J   | CHIP R 22K J 1/10W    |             | C40,41   |     |     | CC73GCH1H070D | CHIP C 7.0PF D     |             |
| R363                               |     |     | RK73GB2A223J   | CHIP R 22K J 1/10W    |             | C45      |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| R366                               |     |     | RK73GB2A101J   | CHIP R 100 J 1/10W    |             | C50      |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| R368                               |     |     | RK73GB2A472J   | CHIP R 4.7K J 1/10W   |             | C51      |     |     | CD04BK1A221M  | ELECTRO 220UF 10WV |             |
| R369                               |     |     | RK73GB2A102J   | CHIP R 1.0K J 1/10W   |             | C53      |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| R370                               |     |     | RK73GB2A101J   | CHIP R 100 J 1/10W    |             | C101     |     |     | CD04AS1H3R3M  | ELECTRO 3.3UF 50WV |             |
| R371                               |     |     | RK73GB2A2R2J   | CHIP R 2.2 J 1/10W    |             | C102     |     |     | CK73GB1A105K  | CHIP C 1.0UF K     |             |
| R372,373                           |     |     | RK73FB2B2R2J   | CHIP R 2.2 J 1/8W     |             | C103     |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| R374                               |     |     | RK73GB2A473J   | CHIP R 47K J 1/10W    |             | C104     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| S1,2                               |     |     | S68-0863-05    | PUSH SWITCH           |             | C105     |     |     | CK73GB1H223K  | CHIP C 0.022UF K   |             |
| S3                                 |     |     | S68-0862-05    | PUSH SWITCH           |             | C106     |     |     | CK73GB1A105K  | CHIP C 1.0UF K     |             |
| D2                                 |     |     | DA204U         | DIODE                 |             | C109-111 |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| D3                                 |     |     | DAN202U        | DIODE                 |             | C201     |     |     | CD04AS0J470M  | ELECTRO 47UF 6.3WV |             |
| D9                                 |     |     | DA204U         | DIODE                 |             | C202     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC1                                |     |     | M30620FCPGP    | MICROCONTROLLER IC    |             | C203,204 |     |     | CC73GCH1H220J | CHIP C 22PF J      |             |
| IC2                                |     |     | UPD63712GC     | MOS-IC                |             | C205     |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| IC4                                |     |     | BA5824FP       | ANALOGUE IC           |             | C206,207 |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC5                                |     |     | BD33KA5WFP-E2  | ANALOGUE IC           |             | C208     |     |     | CK73GB1H102K  | CHIP C 1000PF K    |             |
| IC13                               |     |     | NJM2100V-ZB    | ANALOGUE IC           |             | C209     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC14                               |     |     | TAR5S50-F      | ANALOGUE IC           |             | C210,211 |     |     | CK73GB1H471K  | CHIP C 470PF K     |             |
| IC15                               |     |     | CS74110-IQZ    | MOS-IC                |             | C302     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC16                               |     |     | IC42S164007TIG | DRAM IC               |             | C304,305 |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC17                               |     |     | 29LV800CBT19V1 | ROM IC                |             | C306     |     |     | CD04AS1V100M  | ELECTRO 10UF 35WV  |             |
| IC18                               |     |     | PCM1754DB      | MOS-IC                |             | C307     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC19                               |     |     | R1114N331B-TR  | ANALOGUE IC (3.3V LF) |             | C308     |     |     | CD04AS1V100M  | ELECTRO 10UF 35WV  |             |
| IC20                               |     |     | S-1132B18U5T1G | ANALOGUE IC           |             | C309     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC21                               |     |     | BD33KA5WFP-E2  | ANALOGUE IC           |             | C310     |     |     | CD04BF1V470M  | ELECTRO 47UF 35WV  |             |
| IC25                               |     |     | TDUHC1240F0C00 | MOS-IC                |             | C311     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   |             |
| IC26                               |     |     | TC74LCX00FT-F  | MOS-IC                |             | C312     |     |     | CD04BK1C101M  | ELECTRO 100UF 16WV |             |
| IC28                               |     |     | TC7WH125FK-F   | MOS-IC                |             | C313     |     |     | CD04AS1V100M  | ELECTRO 10UF 35WV  |             |
| Q3                                 |     |     | UMD9N          | TRANSISTOR            |             | C343     |     |     | CK73GB1H104K  | CHIP C 0.10UF K    |             |
| Q6                                 |     |     | UMD12N         | TRANSISTOR            |             | C347     |     |     | CK73GB1H102K  | CHIP C 1000PF K    |             |
| Q7                                 |     |     | DTC124EE       | DIGITAL TRANSISTOR    |             | C350     |     |     | CC73GCH1H331J | CHIP C 330PF J     | K1E3E4      |
| Q8                                 |     |     | 2SB0970        | TRANSISTOR            |             | C351     |     |     | CK73GB1H103K  | CHIP C 0.010UF K   | K1E3E4      |
| Q9                                 |     |     | DTC114YE       | DIGITAL TRANSISTOR    |             | C352     |     |     | CK73GB0J225K  | CHIP C 2.2UF K     | K1E3E4      |
| Q10                                |     |     | DTC114YUA      | DIGITAL TRANSISTOR    |             | C353     |     |     | CD04AS1V100M  | ELECTRO 10UF 35WV  | K1E3E4      |
| Q17                                |     |     | DTA143XUA      | DIGITAL TRANSISTOR    |             | C354,355 |     |     | CC73GCH1H120J | CHIP C 12PF J      | K1E3E4      |
| <b>ELECTRIC UNIT (X34-415x-xx)</b> |     |     |                |                       |             | C401     |     |     | CD04AS1C470M  | ELECTRO 47UF 16WV  |             |
| C1                                 |     |     | C90-6746-05    | ELECTRO 3300UF 16WV   |             | C402,403 |     |     | CD04AS1H010M  | ELECTRO 1UF 50WV   |             |
| C2                                 |     |     | CC73GCH1H070D  | CHIP C 7.0PF D        |             | C404     |     |     | CK73GB1A105K  | CHIP C 1.0UF K     |             |
| C3                                 |     |     | C90-5692-05    | ELECTRO 220UF 16WV    |             | C406,407 |     |     | CK73FB1A335K  | CHIP C 3.3UF K     |             |
| C5                                 |     |     | CD04AS1V100M   | ELECTRO 10UF 35WV     |             | C408,409 |     |     | CK73FB1C105K  | CHIP C 1.0UF K     |             |
| C6                                 |     |     | CD04AS0J101M   | ELECTRO 100UF 6.3WV   |             | C411     |     |     | CD04AS1H2R2M  | ELECTRO 2.2UF 50WV |             |
| C7                                 |     |     | CK73FB1C105K   | CHIP C 1.0UF K        |             | C413,414 |     |     | CK73FB1E474K  | CHIP C 0.47UF K    |             |
| C8                                 |     |     | CD04AT1A221M   | ELECTRO 220UF 10WV    |             | C415,416 |     |     | CD04AS1H2R2M  | ELECTRO 2.2UF 50WV |             |
| C9                                 |     |     | CD04BA1C101M   | ELECTRO 100UF 16WV    |             | C417-420 |     |     | CD04AS1V100M  | ELECTRO 10UF 35WV  |             |
| C10                                |     |     | CK73EB1E105K   | CHIP C 1.0UF K        |             | C423,424 |     |     | CC73GCH1H070D | CHIP C 7.0PF D     |             |
| C11                                |     |     | CD04AS1HR47M   | ELECTRO 0.47UF 50WV   |             | C426,427 |     |     | CK73FB1E474K  | CHIP C 0.47UF K    |             |
|                                    |     |     |                |                       |             | C428     |     |     | CD04AS0J470M  | ELECTRO 47UF 6.3WV |             |

E3 : DPX501U E4 : DPX501UY (Europe)  
K1 : DPX501 (North America)  
M2 : DPX-MP2090U (Other Areas)

△ Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-415x-xx)

| Ref. No.                                      | Added          | New | Parts No.                                                                    | Description                                                                                                            | Destination |
|-----------------------------------------------|----------------|-----|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------|
| C429<br>C431<br>C440<br>C501<br>C503-506      |                |     | CK73GB1H103K<br>CD04AS1V100M<br>CC73GCH1H070D<br>CK73FB1C105K<br>C90-6779-05 | CHIP C 0.010UF K<br>ELECTRO 10UF 35WV<br>CHIP C 7.0PF D<br>CHIP C 1.0UF K<br>ELECTRO 0.47UF 16WV                       |             |
| C507<br>C510,511<br>C512<br>C513<br>C529,530  |                |     | CK73FB1C105K<br>CK73FB1E474K<br>CD04AS0J470M<br>CK73GB1H103K<br>C90-6711-05  | CHIP C 1.0UF K<br>CHIP C 0.47UF K<br>ELECTRO 47UF 6.3WV<br>CHIP C 0.010UF K<br>ELECTRO 1UF 50WV                        |             |
| C802<br>C999                                  |                |     | CK73GB1H102K<br>CD04BM1E330M                                                 | CHIP C 1000PF K<br>ELECTRO 33UF 25WV                                                                                   |             |
| CN1<br>CN3<br>CN4<br>CN5<br>J1                |                |     | E41-2629-05<br>E41-0930-05<br>E41-2446-05<br>E41-0944-05<br>E58-0991-05      | FLAT CABLE CONNECTOR<br>PIN ASSY<br>PIN ASSY<br>PIN ASSY<br>RECTANGULAR RECEPTACLE                                     | E3E4        |
| J2<br>J3<br>J4<br>W1                          |                |     | E56-0855-05<br>E63-0896-05<br>E58-0993-05<br>E30-6218-15                     | CYLINDRICAL RECEPTACLE<br>PIN JACK<br>RECTANGULAR RECEPTACLE<br>CORD WITH PLUG (ANT)                                   |             |
| L1<br>L3<br>L201<br>L203<br>L301              |                |     | L33-1988-05<br>L33-2335-05<br>L41-4795-33<br>L92-0339-05<br>L33-2260-05      | CHOKE COIL ASSY<br>CHOKE COIL<br>SMALL FIXED INDUCTOR (4.7U)<br>CHIP FERRITE<br>CHOKE COIL                             |             |
| L302-304<br>L306<br>L307<br>X1<br>X2          |                |     | L41-4795-33<br>L41-4795-33<br>L92-0616-05<br>L77-2880-05<br>L78-0872-05      | SMALL FIXED INDUCTOR (4.7U)<br>SMALL FIXED INDUCTOR (4.7U)<br>CHIP FERRITE<br>CRYSTAL RESONATOR<br>RESONATOR (12MHZ)   | K1E3E4      |
| X3                                            |                |     | L77-2002-05                                                                  | CRYSTAL RESONATOR                                                                                                      | K1E3E4      |
| D<br>G<br>H                                   | 2D<br>3D<br>2D |     | N83-3005-48<br>N80-3010-48<br>N82-2608-48                                    | PAN HEAD TAPTITE SCREW<br>PAN HEAD TAPTITE SCREW<br>BINDING HEAD TAPTITE SCREW                                         |             |
| CP201,202<br>CP203<br>CP206<br>CP207<br>CP209 |                |     | RK74GB1J101J<br>RK74GA1J471J<br>RK74GB1J222J<br>RK74GB1J102J<br>RK74GB1J101J | CHIP-COM 100 J 1/16W<br>CHIP-COM 470 J 1/16W<br>CHIP-COM 2.2K J 1/16W<br>CHIP-COM 1.0K J 1/16W<br>CHIP-COM 100 J 1/16W | E3E4        |
| R1<br>R3<br>R4<br>R5<br>R7                    |                |     | RK73FB2B153J<br>RK73GB2A223J<br>RK73GB2A472J<br>RK73FB2B221J<br>RK73GH2A243D | CHIP R 15K J 1/8W<br>CHIP R 22K J 1/10W<br>CHIP R 4.7K J 1/10W<br>CHIP R 220 J 1/8W<br>CHIP R 24K D 1/10W              |             |
| R8<br>R9<br>R10<br>R11<br>R12                 |                |     | RK73GH2A432D<br>RK73FB2B152J<br>RK73FB2B222J<br>RK73GH2A273D<br>RK73GH2A332D | CHIP R 4.3K D 1/10W<br>CHIP R 1.5K J 1/8W<br>CHIP R 2.2K J 1/8W<br>CHIP R 27K D 1/10W<br>CHIP R 3.3K D 1/10W           |             |
| R13<br>R17,18<br>R20                          |                |     | RK73GB2A102J<br>RK73GB2A223J<br>RK73GB2A473J                                 | CHIP R 1.0K J 1/10W<br>CHIP R 22K J 1/10W<br>CHIP R 47K J 1/10W                                                        |             |

| Ref. No.                                         | Added | New | Parts No.                                                                      | Description                                                                                                   | Destination    |
|--------------------------------------------------|-------|-----|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------|
| R21<br>R41<br>R42<br>R43,44<br>R45               |       |     | RK73GB2A103J<br>RK73GB2A201J<br>RK73GB2A121J<br>R92-5110-05<br>RK73GB2A473J    | CHIP R 10K J 1/10W<br>CHIP R 200 J 1/10W<br>CHIP R 120 J 1/10W<br>CHIP R 2.7 J 3/4W<br>CHIP R 47K J 1/10W     |                |
| R46-51<br>R52<br>R53<br>R55<br>R56               |       |     | R92-5110-05<br>RK73GH2A472D<br>RK73GH2A332D<br>R92-5110-05<br>RK73GB2A153J     | CHIP R 2.7 J 3/4W<br>CHIP R 4.7K D 1/10W<br>CHIP R 3.3K D 1/10W<br>CHIP R 2.7 J 3/4W<br>CHIP R 15K J 1/10W    |                |
| R57<br>R101<br>R102,103<br>R104<br>R105          |       |     | R92-5110-05<br>RK73EB2E102J<br>RK73EB2E103J<br>RK73EB2E472J<br>RK73PB2H221J    | CHIP R 2.7 J 3/4W<br>CHIP R 1.0K J 1/4W<br>CHIP R 10K J 1/4W<br>CHIP R 4.7K J 1/4W<br>CHIP R 220 J 1/2W       | E3E4M2<br>K1M2 |
| R106<br>R107<br>R108<br>R109<br>R110             |       |     | RK73GB2A223J<br>RK73FB2B472J<br>R92-5024-05<br>RK73GB2A223J<br>R92-5024-05     | CHIP R 22K J 1/10W<br>CHIP R 4.7K J 1/8W<br>CHIP R 1K J 1/2W<br>CHIP R 22K J 1/10W<br>CHIP R 1K J 1/2W        | K1M2           |
| R111<br>R112<br>R113<br>R114<br>R115             |       |     | RK73FB2B561J<br>RK73GB2A223J<br>RK73GB2A473J<br>RK73GB2A104J<br>RK73FB2B683J   | CHIP R 560 J 1/8W<br>CHIP R 22K J 1/10W<br>CHIP R 47K J 1/10W<br>CHIP R 100K J 1/10W<br>CHIP R 68K J 1/8W     | E3E4M2         |
| R116<br>R117<br>R118<br>R122,123<br>R124         |       |     | RK73GB2A393J<br>RK73FB2B203J<br>RK73GB2A104J<br>RK73GB2A103J<br>RK73GB2A104J   | CHIP R 39K J 1/10W<br>CHIP R 20K J 1/8W<br>CHIP R 100K J 1/10W<br>CHIP R 10K J 1/10W<br>CHIP R 100K J 1/10W   |                |
| R125<br>R126<br>R127<br>R128<br>R130             |       |     | RK73GB2A223J<br>RD14DB2H332J-T<br>RK73EB2E333J<br>RK73GB2A103J<br>RK73GB2A102J | CHIP R 22K J 1/10W<br>SMALL-RD 3.3K J 1/2W<br>CHIP R 33K J 1/4W<br>CHIP R 10K J 1/10W<br>CHIP R 1.0K J 1/10W  |                |
| R131<br>R132<br>R201<br>R203<br>R204             |       |     | RK73GB2A473J<br>RK73PB2H221J<br>RK73GB2A222J<br>RK73GB2A104J<br>RK73GB2A102J   | CHIP R 47K J 1/10W<br>CHIP R 220 J 1/2W<br>CHIP R 2.2K J 1/10W<br>CHIP R 100K J 1/10W<br>CHIP R 1.0K J 1/10W  | K1M2           |
| R206<br>R207<br>R208<br>R210<br>R215             |       |     | RK73GB2A102J<br>RK73GB2A103J<br>RK73GB2A102J<br>RK73GB2A473J<br>RK73GB2A104J   | CHIP R 1.0K J 1/10W<br>CHIP R 10K J 1/10W<br>CHIP R 1.0K J 1/10W<br>CHIP R 47K J 1/10W<br>CHIP R 100K J 1/10W |                |
| R216<br>R220<br>R221<br>R224<br>R227,228         |       |     | RK73GB2A102J<br>RK73GB2A223J<br>RK73GB2A104J<br>RK73GB2A473J<br>RK73GB2A472J   | CHIP R 1.0K J 1/10W<br>CHIP R 22K J 1/10W<br>CHIP R 100K J 1/10W<br>CHIP R 47K J 1/10W<br>CHIP R 4.7K J 1/10W | K1E3E4         |
| R229,230<br>R233<br>R234,235<br>R236,237<br>R239 |       |     | RK73GB2A473J<br>RK73GB2A101J<br>RK73GB2A392J<br>RK73GB2A473J<br>RK73GB2A222J   | CHIP R 47K J 1/10W<br>CHIP R 100 J 1/10W<br>CHIP R 3.9K J 1/10W<br>CHIP R 47K J 1/10W<br>CHIP R 2.2K J 1/10W  |                |

E3 : DPX501U    E4 : DPX501UY    (Europe)  
K1 : DPX501    (North America)  
M2 : DPX-MP2090U    (Other Areas)

△ Indicates safety critical components.

## PARTS LIST

## ELECTRIC UNIT (X34-415x-xx)

| Ref. No. | Add | New | Parts No.    | Description         | Destination                      | Ref. No. | Add | New | Parts No.     | Description          | Destination    |
|----------|-----|-----|--------------|---------------------|----------------------------------|----------|-----|-----|---------------|----------------------|----------------|
| R240     |     |     | RK73GB2A101J | CHIP R 100 J 1/10W  | K1<br>E3E4M2<br>K1               | R508     |     |     | RK73EB2E472J  | CHIP R 4.7K J 1/4W   | K1E3E4<br>E3E4 |
| R241     |     |     | RK73GB2A222J | CHIP R 2.2K J 1/10W |                                  | R509     |     |     | RK73EB2E101J  | CHIP R 100 J 1/4W    |                |
| R241,242 |     |     | RK73GB2A222J | CHIP R 2.2K J 1/10W |                                  | R510     |     |     | RK73EB2E472J  | CHIP R 4.7K J 1/4W   |                |
| R243     |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | R511-515 |     |     | RK73EB2E101J  | CHIP R 100 J 1/4W    |                |
| R244,245 |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | R516,517 |     |     | RK73EB2E100J  | CHIP R 10 J 1/4W     |                |
| R245     |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  | E3E4<br>M2<br>K1<br>E3E4<br>K1M2 | R518     |     |     | RK73EB2E4R7J  | CHIP R 4.7 J 1/4W    | K1E3E4<br>E3E4 |
| R246,247 |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | R519     |     |     | RK73GB2A102J  | CHIP R 1.0K J 1/10W  |                |
| R247     |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | R520     |     |     | RK73EB2E102J  | CHIP R 1.0K J 1/4W   |                |
| R248-250 |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | R521-523 |     |     | RK73EB2E471J  | CHIP R 470 J 1/4W    |                |
| R249,250 |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | R524     |     |     | RK73GB2A100J  | CHIP R 10 J 1/10W    |                |
| R254     |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  | E3E4<br>K1M2                     | R530     |     |     | RK73GB2A100J  | CHIP R 10 J 1/10W    | E3E4<br>K1M2   |
| R257,258 |     |     | RK73GB2A222J | CHIP R 2.2K J 1/10W |                                  | R531     |     |     | RK73GB2A2R2J  | CHIP R 2.2 J 1/10W   |                |
| R259,260 |     |     | RK73GB2A104J | CHIP R 100K J 1/10W |                                  | W2,3     |     |     | R92-1252-05   | CHIP R 0 OHM J 1/16W |                |
| R261     |     |     | RK73GB2A333J | CHIP R 33K J 1/10W  |                                  | W3       |     |     | R92-1252-05   | CHIP R 0 OHM J 1/16W |                |
| R262,263 |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | W15      |     |     | R92-2053-05   | CHIP R 0 OHM J 1/8W  |                |
| R270     |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  | K1E3E4<br>K1E3E4                 | W16      |     |     | R92-1252-05   | CHIP R 0 OHM J 1/16W | E3E4<br>K1M2   |
| R302,303 |     |     | RK73EB2E101J | CHIP R 100 J 1/4W   |                                  | W17-20   |     |     | R92-2053-05   | CHIP R 0 OHM J 1/8W  |                |
| R304     |     |     | RK73EB2E102J | CHIP R 1.0K J 1/4W  |                                  | W21      |     |     | R92-1252-05   | CHIP R 0 OHM J 1/16W |                |
| R305-309 |     |     | RK73EB2E101J | CHIP R 100 J 1/4W   |                                  | W931     |     |     | R92-1252-05   | CHIP R 0 OHM J 1/16W |                |
| R310     |     |     | RK73EB2E102J | CHIP R 1.0K J 1/4W  |                                  | W997,998 |     |     | R92-1252-05   | CHIP R 0 OHM J 1/16W |                |
| R311     |     |     | RK73GB2A222J | CHIP R 2.2K J 1/10W | K1E3E4<br>K1E3E4                 | D1       |     |     | S2V60*A       | DIODE                | E3E4M2         |
| R312     |     |     | RK73GB2A473J | CHIP R 47K J 1/10W  |                                  | D2       |     |     | RB160L-40     | DIODE                |                |
| R313     |     |     | RK73GB2A472J | CHIP R 4.7K J 1/10W |                                  | D3       |     |     | 02DZ5.6F-Y    | ZENER DIODE          |                |
| R316     |     |     | RK73GB2A104J | CHIP R 100K J 1/10W |                                  | D4       |     |     | 02DZ8.2F-Y    | ZENER DIODE          |                |
| R317     |     |     | RK73GB2A471J | CHIP R 470 J 1/10W  |                                  | D5       |     |     | 02DZ20F-Y     | ZENER DIODE          |                |
| R318     |     |     | RK73GB2A472J | CHIP R 4.7K J 1/10W | K1E3E4<br>K1E3E4                 | D6       |     | *   | PTZ4.7B       | ZENER DIODE          | E3E4M2         |
| R320     |     |     | RK73FB2B102J | CHIP R 1.0K J 1/8W  |                                  | D10      |     |     | RB081L-20     | DIODE                |                |
| R321     |     |     | RK73GB2A223J | CHIP R 22K J 1/10W  |                                  | D52,53   |     |     | 02DZ6.8F-Y    | ZENER DIODE          |                |
| R322     |     |     | RK73GB2A471J | CHIP R 470 J 1/10W  |                                  | D101     |     |     | 10EDA20       | DIODE                |                |
| R323     |     |     | RK73GB2A472J | CHIP R 4.7K J 1/10W |                                  | D102-105 |     |     | 1SR154-400    | DIODE                |                |
| R324     |     |     | RK73GB2A471J | CHIP R 470 J 1/10W  | K1E3E4<br>K1E3E4                 | D106     |     |     | 02DZ5.6F-Y    | ZENER DIODE          | E3E4M2         |
| R325     |     |     | RK73GB2A472J | CHIP R 4.7K J 1/10W |                                  | D107     |     |     | 02DZ4.7F-Y    | ZENER DIODE          |                |
| R327     |     |     | RK73GB2A681J | CHIP R 680 J 1/10W  |                                  | D108,109 |     |     | 02DZ6.8F-Y    | ZENER DIODE          |                |
| R329-331 |     |     | RK73GB2A222J | CHIP R 2.2K J 1/10W |                                  | D111     |     |     | 02DZ6.2F-Y    | ZENER DIODE          |                |
| R333     |     |     | RK73GB2A102J | CHIP R 1.0K J 1/10W |                                  | D301     |     |     | 1MSA-6802-E   | SURGE ABSORBER       |                |
| R401     |     |     | RK73GB2A103J | CHIP R 10K J 1/10W  | K1E3E4<br>K1E3E4                 | D303     |     |     | 02DZ9.1F-Z    | ZENER DIODE          | E3E4           |
| R402,403 |     |     | RK73GB2A331J | CHIP R 330 J 1/10W  |                                  | D304     |     |     | 1MSA-6802-E   | SURGE ABSORBER       |                |
| R404,405 |     |     | RK73GB2A223J | CHIP R 22K J 1/10W  |                                  | D401-403 |     |     | BAW56W        | DIODE                |                |
| R406,407 |     |     | RK73GB2A331J | CHIP R 330 J 1/10W  |                                  | D404     |     |     | UDZS3.3B      | ZENER DIODE          |                |
| R408,409 |     |     | RK73GB2A223J | CHIP R 22K J 1/10W  |                                  | D405,406 |     |     | 02DZ6.8F-Y    | ZENER DIODE          |                |
| R414,415 |     |     | RK73FB2B181J | CHIP R 180 J 1/8W   | K1E3E4<br>K1E3E4                 | D408     |     |     | DA204K        | DIODE                | E3E4           |
| R420,421 |     |     | RK73FB2B181J | CHIP R 180 J 1/8W   |                                  | D412,413 |     |     | UDZS5.6B      | ZENER DIODE          |                |
| R422     |     |     | RK73EB2E4R7J | CHIP R 4.7 J 1/4W   |                                  | D414     |     |     | 02DZ6.2F-Y    | ZENER DIODE          |                |
| R423,424 |     |     | RK73EB2E100J | CHIP R 10 J 1/4W    |                                  | D500     |     |     | BAW56W        | DIODE                |                |
| R425     |     |     | RK73GB2A102J | CHIP R 1.0K J 1/10W |                                  | D502     |     |     | BAW56W        | DIODE                |                |
| R430     |     |     | RK73GB2A101J | CHIP R 100 J 1/10W  | K1E3E4<br>K1E3E4                 | D503,504 |     |     | 1SR154-400    | DIODE                | K1M2<br>E3E4   |
| R431     |     |     | RK73GB2A100J | CHIP R 10 J 1/10W   |                                  | D505,506 |     |     | 1SR139-400T64 | DIODE                |                |
| R432     |     |     | RK73EB2E2R2J | CHIP R 2.2 J 1/4W   |                                  | D507-510 |     |     | 1SR154-400    | DIODE                |                |
| R433,434 |     |     | RK73GB2A101J | CHIP R 100 J 1/10W  |                                  | D511-515 |     |     | 02DZ6.2F-Y    | ZENER DIODE          |                |
| R435     |     |     | RK73GB2A102J | CHIP R 1.0K J 1/10W |                                  | D511-523 |     |     | 02DZ6.2F-Y    | ZENER DIODE          |                |
| R442     |     |     | RK73GB2A121J | CHIP R 120 J 1/10W  | K1M2<br>K1M2                     | D518-520 |     |     | 02DZ6.2F-Y    | ZENER DIODE          | K1M2<br>K1M2   |
| R501     |     |     | RK73GB2A102J | CHIP R 1.0K J 1/10W |                                  | D523     |     |     | 02DZ6.2F-Y    | ZENER DIODE          |                |
| R505     |     |     | RK73GB2A432J | CHIP R 4.3K J 1/10W |                                  | IC1      |     |     | 30624MWP86GP  | MICROCONTROLLER IC   |                |
| R506     |     |     | RK73GB2A223J | CHIP R 22K J 1/10W  |                                  | IC2      |     |     | E-TDA7415C    | ANALOGUE IC          |                |
| R507     |     |     | RK73GB2A221J | CHIP R 220 J 1/10W  |                                  | IC3      |     |     | M5237ML-CF0J  | ANALOGUE IC          |                |

E3 : DPX501U E4 : DPX501UY (Europe)  
K1 : DPX501 (North America)  
M2 : DPX-MP2090U (Other Areas)

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-415x-xx)

| Ref. No.                                                    | A<br>d<br>d    | N<br>e<br>w | Parts No.                                                                     | Description                                                                                        | Desti-<br>nation |
|-------------------------------------------------------------|----------------|-------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------|
| IC4<br>IC5<br>IC6<br>IC7<br>IC8                             |                |             | E-TDA7560A<br>BA00CCWT-V5<br>SN74HC02APWR<br>S-80836CNNB-J<br>MIC2026-1YM     | ANALOGUE IC<br>ANALOGUE IC<br>MOS-IC<br>MOS-IC<br>MOS-IC                                           |                  |
| IC9<br>IC10<br>IC12<br>IC13<br>Q1                           |                |             | E-TDA7479AD<br>BR24L04FV-W<br>SI-8050RF3NF<br>BA00CC0WFP<br>2SB1565           | ANALOGUE IC<br>ROM IC<br>ANALOGUE IC<br>ANALOGUE IC<br>TRANSISTOR                                  | K1E3E4           |
| Q2<br>Q3,4<br>Q5<br>Q6<br>Q7                                |                |             | KTC4075P(Y,GR)<br>KTA2014P(Y,GR)<br>2SB1565<br>DTA124EUA<br>2SB1565           | TRANSISTOR<br>TRANSISTOR<br>TRANSISTOR<br>DIGITAL TRANSISTOR<br>TRANSISTOR                         |                  |
| Q8<br>Q9-11<br>Q12<br>Q13<br>Q17                            |                |             | 2SC4081<br>DTC124EUA<br>2SA1488NF<br>KTA2014P(Y,GR)<br>DTC144EUA              | TRANSISTOR<br>DIGITAL TRANSISTOR<br>TRANSISTOR<br>TRANSISTOR<br>DIGITAL TRANSISTOR                 |                  |
| Q21<br>Q101<br>Q102<br>Q103<br>Q104                         |                |             | KTC4075P(Y,GR)<br>2SB1188(Q,R)<br>DTC114YUA<br>2SB1188(Q,R)<br>KTA2014P(Y,GR) | TRANSISTOR<br>TRANSISTOR<br>DIGITAL TRANSISTOR<br>TRANSISTOR<br>TRANSISTOR                         | K1M2<br>K1M2     |
| Q105<br>Q106<br>Q107<br>Q108<br>Q109                        |                |             | DTA114EUA<br>DTC114YUA<br>DTA123JK<br>DTC144EUA<br>2SC4155A(Q,R,S)            | DIGITAL TRANSISTOR<br>DIGITAL TRANSISTOR<br>DIGITAL TRANSISTOR<br>DIGITAL TRANSISTOR<br>TRANSISTOR | E3E4M2           |
| Q111<br>Q112<br>Q113<br>Q116<br>Q300                        |                |             | 2SC4081<br>2SC4155A(Q,R,S)<br>KTA2014P(Y,GR)<br>DTA124EUA<br>2SB1689          | TRANSISTOR<br>TRANSISTOR<br>TRANSISTOR<br>DIGITAL TRANSISTOR<br>TRANSISTOR                         |                  |
| Q301<br>Q302<br>Q303<br>Q305<br>Q306                        |                |             | DTC124EUA<br>2SB1565<br>KTC4075P(Y,GR)<br>2SA1577<br>DTC144EUA                | DIGITAL TRANSISTOR<br>TRANSISTOR<br>TRANSISTOR<br>TRANSISTOR<br>DIGITAL TRANSISTOR                 |                  |
| Q400-403<br>Q406,407<br>Q408                                |                |             | DTC143TUA<br>DTC143TUA<br>DTA124EUA                                           | DIGITAL TRANSISTOR<br>DIGITAL TRANSISTOR<br>DIGITAL TRANSISTOR                                     |                  |
| A1<br>A1                                                    | 3E<br>3E       |             | X86-4000-11<br>X86-4002-70                                                    | FRONT-END UNIT<br>FRONT-END UNIT                                                                   | K1M2<br>E3E4     |
| <b>DAUGHTER UNIT (X89-2830-10)</b>                          |                |             |                                                                               |                                                                                                    |                  |
| J1<br>WH1                                                   |                | *<br>*      | E59-0849-05<br>E39-0848-15                                                    | RECTANGULAR PLUG<br>WIRING HARNESS                                                                 |                  |
| <b>CD MECHANISM ASSY (X92-5440-00/04) (DXM-6810W/6814W)</b> |                |             |                                                                               |                                                                                                    |                  |
| 2                                                           | 1B             |             | A10-4827-32                                                                   | CHASSIS                                                                                            |                  |
| 5<br>8<br>8                                                 | 2B<br>2A<br>2A | *<br>*<br>* | D10-4576-93<br>D10-4787-63<br>D10-4901-13                                     | ARM ASSY<br>LEVER ASSY<br>LEVER ASSY                                                               | E3E4<br>K1M2     |

| Ref. No.                   | A<br>d<br>d                | N<br>e<br>w | Parts No.                                                               | Description                                                                                                                             | Desti-<br>nation |
|----------------------------|----------------------------|-------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 10<br>11<br>12<br>13<br>14 | 2A<br>2A<br>3A<br>3A<br>3B |             | D10-4581-13<br>D10-4582-13<br>D10-4583-03<br>D10-4584-03<br>D10-4585-03 | ARM<br>ARM<br>ARM<br>ARM<br>ARM                                                                                                         |                  |
| 15<br>16<br>17<br>18<br>19 | 2A<br>3B<br>2B<br>2B<br>2B |             | D10-4586-13<br>D10-4587-52<br>D10-4588-13<br>D10-4595-04<br>D10-4596-24 | SLIDER<br>SLIDER<br>SLIDER<br>ARM<br>ARM                                                                                                |                  |
| 22<br>23<br>24<br>25<br>26 | 2A<br>2B<br>3B<br>3B<br>3B |             | D13-2151-04<br>D13-2152-04<br>D13-2153-04<br>D13-2154-04<br>D13-2155-04 | GEAR<br>GEAR<br>GEAR<br>GEAR<br>WORM                                                                                                    |                  |
| 27<br>28<br>29<br>30<br>31 | 2B<br>3B<br>2B<br>2B<br>3B |             | D13-2156-14<br>D13-2157-04<br>D13-2158-04<br>D13-2168-04<br>D13-2171-04 | GEAR<br>GEAR<br>GEAR<br>GEAR<br>GEAR                                                                                                    |                  |
| 32<br>33<br>35<br>36<br>37 | 1B<br>2A<br>2B<br>1A<br>1B |             | D13-2172-13<br>D14-0759-04<br>D21-2382-04<br>D23-0954-04<br>D39-0246-05 | RACK (GEAR)<br>ROLLER<br>SHAFT<br>RETAINER<br>DAMPER                                                                                    | K1M2             |
| 37                         | 1B                         |             | D39-0260-05                                                             | DAMPER                                                                                                                                  | E3E4             |
| 38<br>39<br>40<br>41<br>42 | 2B<br>2A<br>2A<br>1B<br>2A |             | G01-3072-04<br>G01-3073-04<br>G01-3074-04<br>G01-3075-24<br>G01-3076-04 | EXTENSION SPRING<br>TORSION COIL SPRING<br>EXTENSION SPRING<br>EXTENSION SPRING<br>EXTENSION SPRING                                     |                  |
| 43<br>44<br>45             | 1B<br>2B<br>2B             |             | G01-3077-14<br>G02-1399-04<br>G02-1408-04                               | EXTENSION SPRING<br>FLAT SPRING<br>FLAT SPRING                                                                                          |                  |
| 46<br>47                   | 3B<br>3A                   |             | F09-1804-04<br>F09-2824-14                                              | SHEET<br>SHEET                                                                                                                          | E3E4             |
| 51<br>52<br>53<br>55<br>56 | 1A<br>3B<br>1B<br>1A<br>1B |             | J21-9676-32<br>J21-9677-22<br>J21-9678-13<br>J90-1001-11<br>J90-1023-03 | MOUNTING HARDWARE<br>MOUNTING HARDWARE<br>MOUNTING HARDWARE<br>GUIDE<br>GUIDE                                                           |                  |
| DFPC1                      | 3A                         |             | J86-0027-05                                                             | FPC (LEAD FREE)                                                                                                                         |                  |
| A<br>B<br>C<br>E<br>F      | 2B<br>1B<br>2B<br>2B<br>1A |             | N09-4460-15<br>N09-4472-25<br>N09-6004-15<br>N09-6007-15<br>N09-6051-15 | TAPTITE SCREW (PT2X8)<br>MACHINE SCREW (M1.7X8.0)<br>MACHINE SCREW (M1.7X2.5)<br>MACHINE SCREW (PAN M2X2)<br>TAPTITE SCREW (BIND P 2X5) |                  |
| G<br>H<br>J<br>K           | 2A<br>1B<br>1B<br>3B       |             | N19-2163-04<br>N39-2020-46<br>N09-6108-15<br>N09-6155-15                | FLAT WASHER<br>PAN HEAD MACHINE SCREW<br>TAPTITE SCREW (M2X3.5)<br>SEMS (TAPTITE SCREW) (PT2X6)                                         |                  |
| DM1                        | 3B                         |             | T42-1066-14                                                             | DC MOTOR (SPINDLE)                                                                                                                      |                  |

E3 : DPX501U E4 : DPX501UY (Europe)  
K1 : DPX501 (North America)  
M2 : DPX-MP2090U (Other Areas)

△ Indicates safety critical components.



# SPECIFICATIONS

## FM tuner section

### Frequency range

|               |       |                                 |
|---------------|-------|---------------------------------|
| DPX501U/501UY | ..... | 87.5MHz~108.0MHz (50kHz space)  |
| DPX501        | ..... | 87.9MHz~107.9MHz (200kHz space) |
| DPX-MP2090U   | ..... | 87.5MHz~108.0MHz (50kHz space)  |
|               | ..... | 87.9MHz~107.9MHz (200kHz space) |

### Usable sensitivity

|                                |       |                    |
|--------------------------------|-------|--------------------|
| DPX501U/501UY (S/N=26dB)       | ..... | 0.7μV/75Ω          |
| DPX501, DPX-MP2090U (S/N=30dB) | ..... | 9.3dBf (0.8μV/75Ω) |

### Quieting Sensitivity

|                                |       |                     |
|--------------------------------|-------|---------------------|
| DPX501U/501UY (S/N=46dB)       | ..... | 1.6μV/75Ω           |
| DPX501, DPX-MP2090U (S/N=50dB) | ..... | 15.2dBf (1.6μV/75Ω) |

### Frequency response (±3.0dB)

### Signal to Noise ratio (MONO)

|                     |       |      |
|---------------------|-------|------|
| DPX501U/501UY       | ..... | 65dB |
| DPX501, DPX-MP2090U | ..... | 70dB |

### Selectivity (±400kHz)

### Stereo separation (1kHz)

|                     |       |      |
|---------------------|-------|------|
| DPX501U/501UY       | ..... | 35dB |
| DPX501, DPX-MP2090U | ..... | 40dB |

## AM tuner section (DPX501, DPX-MP2090U)

### Frequency range

|             |       |                              |
|-------------|-------|------------------------------|
| DPX501      | ..... | 530kHz~1700kHz (10kHz space) |
| DPX-MP2090U | ..... | 531kHz~1611kHz (9kHz space)  |
|             | ..... | 530kHz~1700kHz (10kHz space) |

### Usable sensitivity (S/N=20dB)

## MW tuner section (DPX501U/501UY)

### Frequency range

### Usable sensitivity (S/N=20dB)

## LW tuner section (DPX501U/501UY)

### Frequency range

### Usable sensitivity (S/N=20dB)

## CD player section

### Laser diode

### Digital filter (D/A)

### D/A Converter

### Spindle speed (Audio file)

|                   |       |                           |
|-------------------|-------|---------------------------|
| DPX501/501U/501UY | ..... | 500~200rpm (CLV)          |
| DPX-MP2090U       | ..... | 1000~400rpm (CLV 2 times) |

### Wow & Flutter

### Frequency response (±1dB)

### Total harmonic distortion (1kHz)

### Signal to Noise ratio (1kHz)

### Dynamic range

### MP3 decode

### WMA decode

### AAC decode

## USB Interface

### USB Standard

### Maximum Supply current

### File System

### MP3 decode

### WMA decode

### AAC decode

## Audio section

### Maximum output power

### Output power (DIN 45324, +B=14.4V)

### DPX501U/501UY

### Full Bandwidth Power (at less than 1% THD)

### DPX501, DPX-MP2090U

### Speaker impedance

### Tone action

### Bass

### Middle

### Treble

### Preout level/Load (during disc play)

### Preout impedance

## Auxiliary input

### Frequency response (±1dB)

### Input Maximum Voltage

### Input impedance

## General

### Operating voltage (11~16V allowable)

### Current consumption

### Installation Size (W x H x D)

### DPX-MP2090U

### DPX501/501U/501UY

### Weight

### DPX-MP2090U

### DPX501/501U/501UY

### DANGER:

Please do not look the laser beam directly during re-  
pair or operation check.

KENWOOD follows a policy of continuous advancements  
in development.

For this reason specifications may be changed without notice.

