KC-992

# SPECIFICATIONS

Performance

| | |
|---|---|
| Input Sensitivity | |
| PHONO | 2.5 mV/47 kΩ |
| TUNER/TAPE/CD/VIDEO | 200 mV/47 kΩ |
| Signal-to-Noise Ratio (IHF-A) | |
| PHONO | 80 dB for 2.5 mV input |
| TUNER/TAPE/CD/VIDEO | 101 dB |
| Phono Maximum Input Level | 100 mV, T.H.D. 0.3% at 1 kHz |
| Total Harmonic Distortion | |
| 20 Hz to 20 kHz | 0.005% at rated output |
| Loudness Control | +8 dB at 100 Hz (at –30 dB VOLUME Level) |
| Graphic equalizer control | |
| (60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz) | ±10 dB |
| Output Voltage and Impedance | |
| Tape REC | 200 mV/220Ω |
| PRE OUT | 1 V/2.2 kΩ |

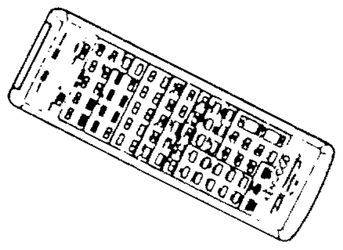
General

| | |
|---|---|
| Power Consumption | 15 W |
| AC outlets | |
| SWITCHED | For USA and Canada: 2; (Total 680 W, 5.6 A max.)<br>For other countries: 2; (Total 420 W) |
| Dimensions | W: 440 mm (17-5/6")<br>H: 85 mm ( 3-3/8")<br>D: 277 mm (10-7/8") |
| Weight (Net) | 3.8 kg (8.4 lb) |

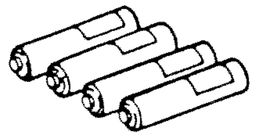
Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

## Accessories

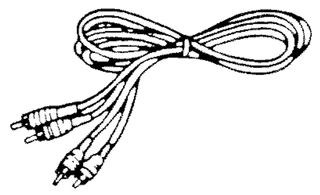
Remote control unit.....1
(A70-0590-05)
(A09-0086-08): Battery Cover



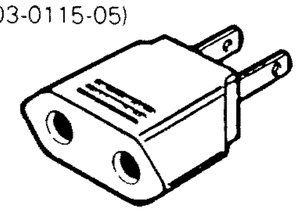
Battery ("AAA" or "R03").....4



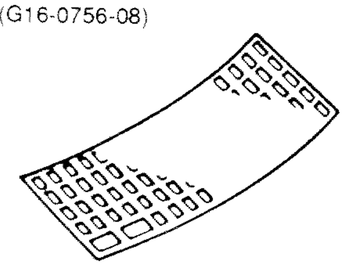
Audio cord .....1
(E30-0615-05)



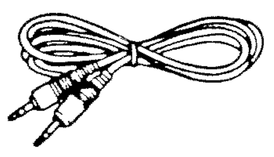
AC plug adaptor.....1
(except for some areas)
For the unit with a European AC plug in areas other than Europe.
(E03-0115-05)



Overlay sheet .....1
(G16-0756-08)



System control cord .....1
(E30-1392-05)

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STEREO CONTROL AMPLIFIER

# KC-992

# SERVICE MANUAL

KENWOOD


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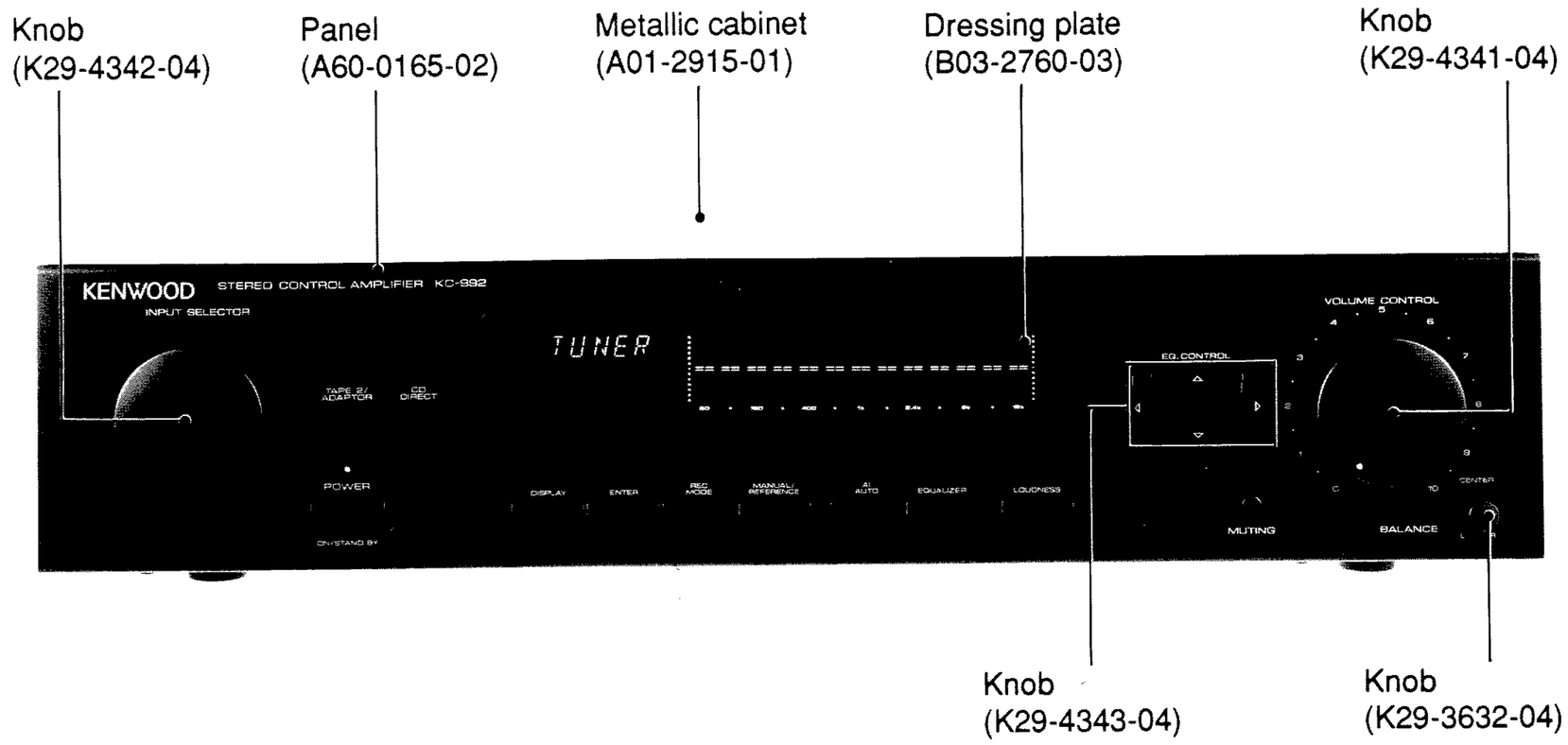


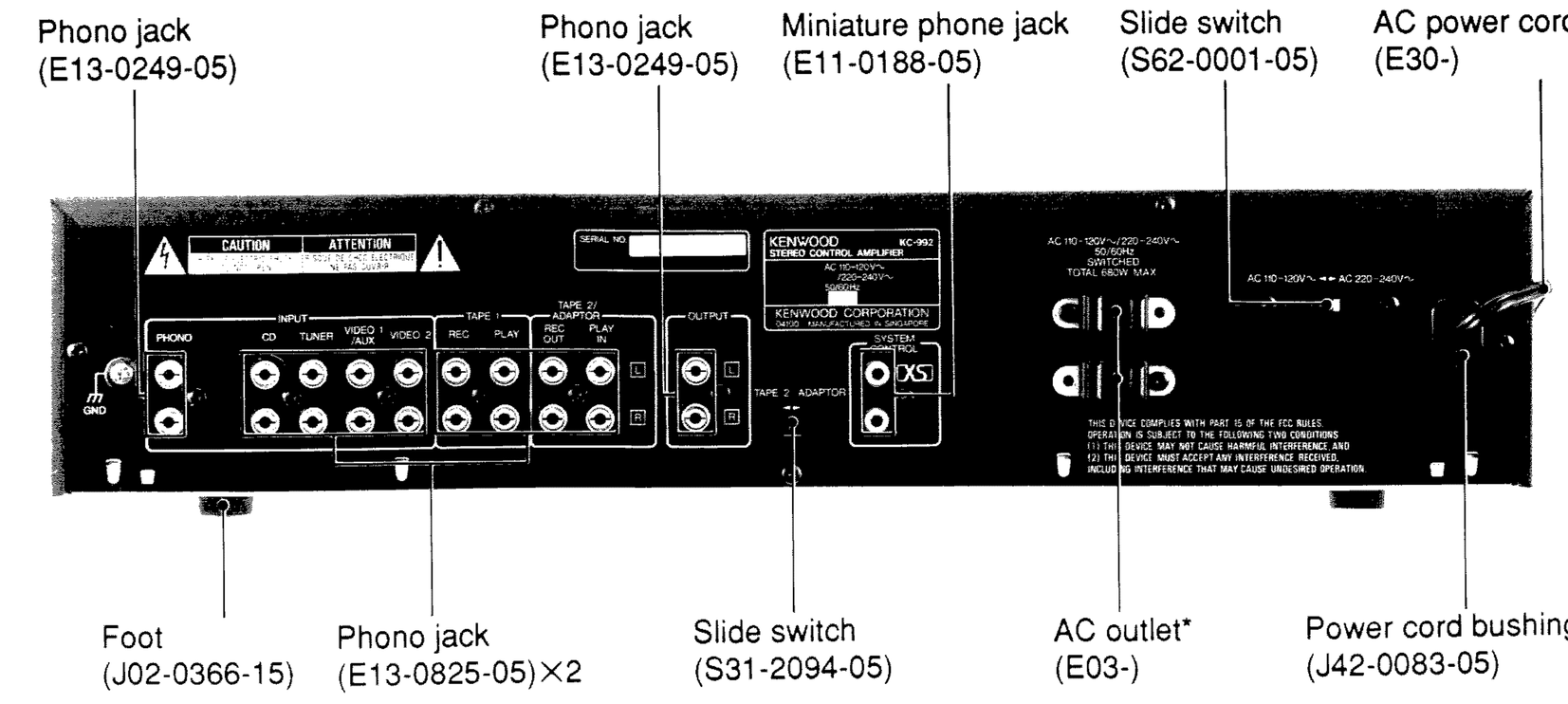



* Refer to parts list on page 26.

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SPECIFICATIONS .....BACK COVER


## Supplied Remote Controller Table

The supplied remote controller model and method of packaging varies according to system grade and destination market.

| | K | P | M, X, Y |
|---|---|---|---|
| KC-992 | RC-992 OR RC-160 | RC-160 | RC-160 |

→ Supplied with the amplifier.

→ Selected by the distributor according to the grade of the system and placed inside the outer carton (not supplied with the amplifier).

The RC-992 is a general system remote controller.
The RC-160 is a system remote controller with running function.

## Protection circuit

While the protection circuit is operating, the indicator's alphanumeric display section flashes "------".
The protection circuit operates when it detects power transistor over-current or output section DC drift.

## Explanation of Back Panel Switch

This switches the input/output function of the TAPE 2/ ADAPTOR.

TAPE (a) ☐ (b) ADAPTOR

(a) Conventional tape monitor function

(b) When this switch is set to the ADAPTOR side, it operates as follows:

(1) When the front panel TAPE 2/ADPT switch is turned on, the MAIN VR lowers once to zero and then rises again, stopping near the middle.
(2) While ① is in progress, no keys function besides the power switch.
(3) While the TAPE 2/ADPT switch is on, the MAIN VR cannot be remote-controlled; other functions work normally.
(4) When the TPAE 2/ADPT switch is turned off, the MAIN VR automatically lowers to zero, and henceforth all functions, including MAIN VR, work normally.

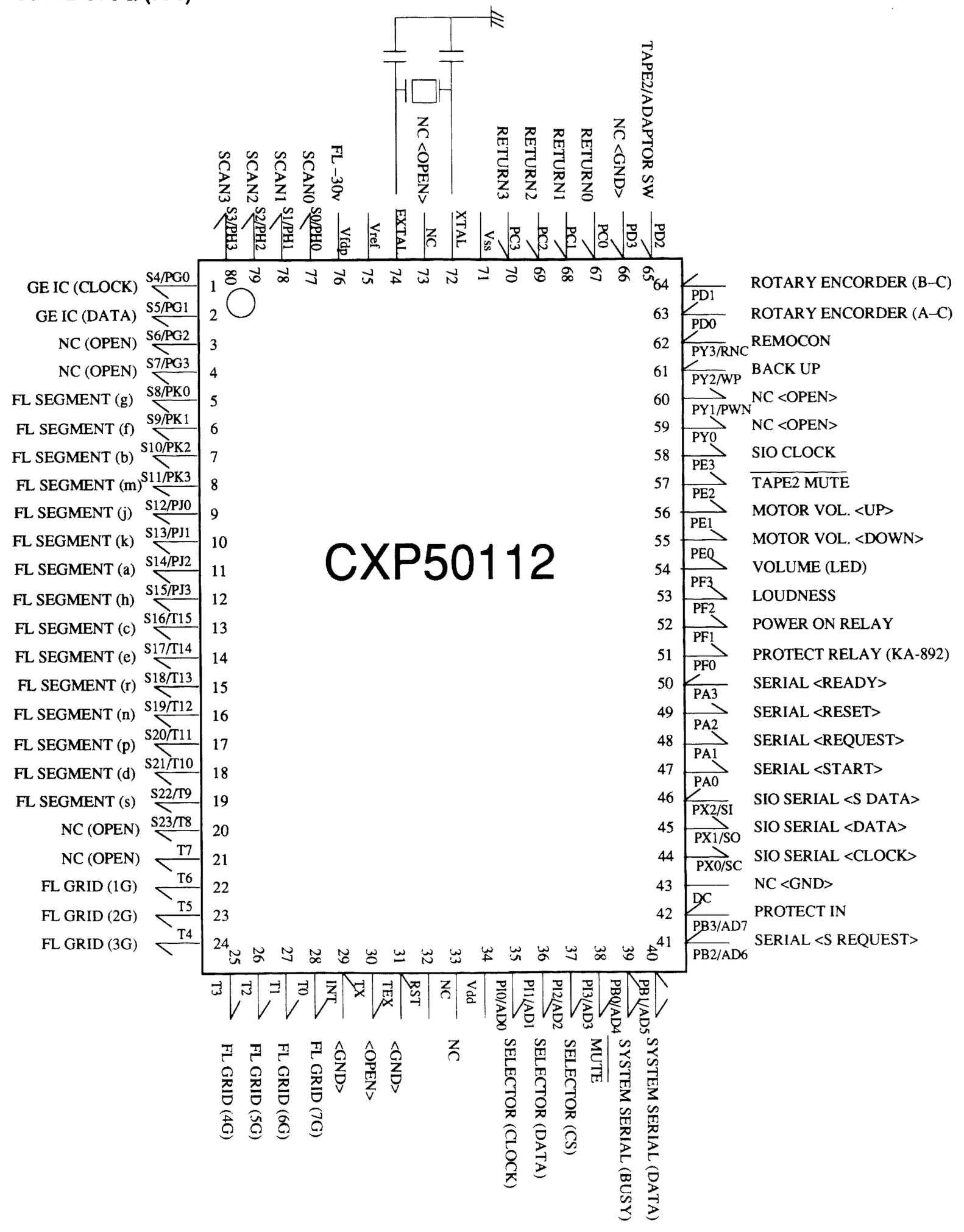
This function was included with the surround processors SS-592 and SS-992 in mind and is irrelevant except when used with these two surround processors.





# CIRCUIT DESCRIPTION

**Micro Processor Diagram**
**Main μ-com**
**CXP-50112-373Q (IC1)**



# CIRCUIT DESCRIPTION

**Pin Description main μ-com CXP50112-373Q (IC1)**

| Pin No. | Pin Name | I/O | Name | Description |
|---|---|---|---|---|
| 1 | S4/PG0 | O | GE IC CLOCK (NJU7305) | GE IC CLOCK output |
| 2 | S5/PG1 | O | GE IC DATA (NJU7305) | GE IC DATA output |
| 3 | S6/PG2 | – | NC (OPEN) | |
| 4 | P7/PG3 | – | NC (OPEN) | |
| 5 | S8/PK0 | O | FL SEGMENT (g) | FL segment (g) |
| 6 | S9/PK1 | O | FL SEGMENT (f) | FL segment (f) |
| 7 | S10/PK2 | O | FL SEGMENT (b) | FL segment (b) |
| 8 | S11/PK3 | O | FL SEGMENT (m) | FL segment (m) |
| 9 | S12/PJ0 | O | FL SEGMENT (j) | FL segment (j) |
| 10 | S13/PJ1 | O | FL SEGMENT (k) | FL segment (k) |
| 11 | S14/PJ2 | O | FL SEGMENT (a) | FL segment (a) |
| 12 | S15/PJ3 | O | FL SEGMENT (h) | FL segment (h) |
| 13 | S16/T15 | O | FL SEGMENT (c) | FL segment (c) |
| 14 | S17/T14 | O | FL SEGMENT (e) | FL segment (e) |
| 15 | S18/T13 | O | FL SEGMENT (r) | FL segment (r) |
| 16 | S19/T12 | O | FL SEGMENT (n) | FL segment (n) |
| 17 | S20/T11 | O | FL SEGMENT (p) | FL segment (p) |
| 18 | S21/T10 | O | FL SEGMENT (d) | FL segment (d) |
| 19 | S22/T9 | O | FL SEGMENT (s) | FL segment (s) |
| 20 | S23/T8 | – | NC (OPEN) | |
| 21 | S23/T7 | – | NC (OPEN) | |
| 22 | S23/T6 | O | FL GRID (1G) | FL grid (1G) |
| 23 | S23/T5 | O | FL GRID (2G) | FL grid (2G) |
| 24 | S23/T4 | O | FL GRID (3G) | FL grid (3G) |
| 25 | S23/T3 | O | FL GRID (4G) | FL grid (4G) |
| 26 | S23/T2 | O | FL GRID (5G) | FL grid (5G) |
| 27 | S23/T1 | O | FL GRID (6G) | FL grid (6G) |
| 28 | S23/T0 | O | FL GRID (7G) | FL grid (7G) |
| 29 | INT | I | NC (GND) | External interrupt (No used) |
| 30 | TX | – | NC (OPEN) | 32kHz T/C clock output (No used) |
| 31 | TEX | I | NC (GND) | 32kHz T/C clock input (No used) |
| 32 | RST | I/O | | Microprocessor reset |
| 33 | NC | – | | |
| 34 | $V_{DD}$ | – | | Power supply |
| 35 | PI0/AD0 | O | SERECTOR (CLOCK) | Serector (TC9162/TC9163) CLOCK output |
| 36 | PI1/AD1 | O | SERECTOR (DATA) | Serector (TC9162/TC9163) DATA output |
| 37 | PI2/AD2 | O | SERECTOR (CS) | Serector (TC9162/TC9163) CS output |
| 38 | PI3/AD3 | O | MUTE | MUTE output |
| 39 | PB0/AD4 | I/O | SERIAL (BUSY) | Serial "BUSY" |
| 40 | PB1/AD5 | I/O | SERIAL (DATA) | Serial "DATA" |
| 41 | PB2/AD6 | I | SERIAL (SLAVE REQUEST) | Serial "S REQUEST" (communication) |
| 42 | PB3/AD7 | I | PROTECT IN | Protection input |
| 43 | EC | – | NC (GND) | |
| 44 | PX0/SC | O | SIO CLOCK | SIO serial CLOCK (communication) |



KC-992

CIRCUIT DESCRIPTION

**CXP50112-373Q (IC1)**

| Pin No. | Pin Name | I/O | Name | Description |
|---|---|---|---|---|
| 45 | PX1/SO | O | SIO DATA OUT | SIO serial DATA (communication) |
| 46 | PX2/SI | I | SIO DATA IN | SIO serial DATA (communication) |
| 47 | PA0 | O | SERIAL (START) | Serial "START" (communication) |
| 48 | PA1 | O | SERIAL (REQUEST) | Serial "REQUEST" (communication) |
| 49 | PA2 | O | SERIAL (RESET) | Serial "RESET" (communication) |
| 50 | PA3 | I | SERIAL (READY) | Serial "READY" (communication) |
| 51 | PF0 | O | PROTECTION RELAY | Not used |
| 52 | PF1 | O | POWER ON RELAY | Power on relay |
| 53 | PF2 | – | NC (GND) | |
| 54 | PF3 | O | MASTER VOLUME (LED) | LED |
| 55 | PE0 | O | MOTOR VOLUME <DOWN> | Motor volume "DOWN" output |
| 56 | PE1 | O | MOTOR VOLUME <UP> | Motor volume "UP" output |
| 57 | PE2 | O | TAPE 2 MUTE | TAPE 2 MUTE output |
| 58 | PE3 | O | SERIAL SIO (CLOCK OUT) | SIO external CLOCK output |
| 59 | PY0 | – | NC (OPEN) | |
| 60 | PY1/PWM | – | NC (OPEN) | |
| 61 | PY2/WP | I | BACK UP | Backup input |
| 62 | PY3/RMC | I | REMOCON | Remote control signal input |
| 63 | PD0 | I | ROTARY ENCODER (A–C) | Rotary encoder input pin |
| 64 | PD1 | I | ROTARY ENCODER (B–C) | Rotary encoder input pin |
| 65 | PD2 | I | TAPE2/ADAPTOR | TAPE 2/Adaptor selector switch input pin |
| 66 | PD3 | – | NC (GND) | |
| 67 | PC0 | I | RETURN 0 | Key return 0 |
| 68 | PC1 | I | RETURN 1 | Key return 1 |
| 69 | PC2 | I | RETURN 2 | Key return 2 |
| 70 | PC3 | I | RETURN 3 | Key return 3 |
| 71 | Vss | – | | GND |
| 72 | XTAL | – | | CLOCK output |
| 73 | NC | – | NC (OPEN) | |
| 74 | EXTAL | I | | CLOCK input |
| 75 | $V_{REF}$ | – | | Voltage detection reference voltage pin (No used) |
| 76 | $V_{FDP}$ | – | | FL load power supply pin |
| 77 | S0/PH0 | O | SCAN 0 | Key scan 0 |
| 78 | S1/PH1 | O | SCAN 1 | Key scan 1 |
| 79 | S2/PH2 | O | SCAN 2 | Key scan 2 |
| 80 | S3/PH3 | O | SCAN 3 | Key scan 3 |

# CIRCUIT DESCRIPTION

## Test Mode Specifications

As shown below, this unit has three test modes.

TEST 1.....Test mode using the main unit's keys
TEST 2.....RAM contents initial setting mode
TEST 3.....Test mode using serial terminal

Addition: The RAM contents are returned to initial settings by unplugging from the AC power outlet during TEST 1 and TEST 3 modes.

### Setting methods

1) TEST 1: Plug into the AC power outlet while pressing the CD DIRECT key
2) TEST 2: Plug into the AC power outlet while pressing the ENTER key
3) TEST 3: With POWER OFF, transmit serial code TEST ON (71H)

### Usage methods

All the FLs and LED indicators go on during 1).
Initial settings and POWER OFF mode (shipping mode) during 2).
Serial actuations (shown in table on separate sheet) conducted during 3).

1) TEST 1 (Operation through the main unit's keys)
   a) Operate any key to cancel all the FL and LED indicators that go on.
   b) MASTER VOLUME
      The following keys are applied to VOLUME UP / STOP / DOWN, operating as follows.
      VOLUME UP = continuous increase with the control UP key.
      VOLUME STOP = stops UP/DOWN with the LEFT/ RIGHT key.
      VOLUME DOWN = continuous decrease with the control DOWN key.

   c) Graphic equalizer
      Input of the EQ. ON key causes the following modes to repeat.
      → Equalizer OFF
      ↑ ↓
      ↑ Equalizer ON (Level ALL MINIMUM)
      ↑ ↓
      ↑ Equalizer ON (Level ALL FLAT)
      ↑ ↓
      ← Equalizer ON (Level ALL MAXIMUM)

2) TEST 3 (Serial pin operation)
   Normally the received serial code is sent just as it is.
   However, the following codes are exceptions:

| | |
|---|---|
| TEST OFF (70H) | Serial code not sent |
| TEST ON (71H) | Serial code not sent |
| POWER (8CH) | System ON/OFF code (25H/26H) sent |
| SELECTOR [PHONO] (80H) | Position code (73H) sent |
| SELECTOR [CD] (81H) | Position code (74H) sent |
| SELECTOR [TUNER] (82H) | Position code (72H) sent |
| SELECTOR [TAPE1] (83H) | Position code (76H) sent |
| SELECTOR [TAPE2] (84H) | ON OFF code ON/ OFF=(7DH/7EH) sent |
| SELECTOR [VIDEO1] (87H) | Position code (7AH) sent |
| SELECTOR [VIDEO2] (88H) | Position code (77H) sent |

### Master volume

Uses the Volume UP (8FH)/DOWN (8EH) keys and continues to work when one transmission is carried out.
Also, when stopping KEY OFF (90H) is sent.
**Note:** Only the color-differentiated codes on the separate serial code chart operate.





# CIRCUIT DESCRIPTION

## Test Mode Serial Codes

| AMPLIFIER 8 | AMPLIFIER 9 | AMPLIFIER A | AMPLIFIER B | AMPLIFIER C | AMPLIFIER D | AMPLIFIER E | AMPLIFIER F | CD F |
|---|---|---|---|---|---|---|---|---|
| PHONO | KEY OFF | DELAY | VISUAL | SP.A | | | | |
| | | TIME MIN | FIX | | | | | |
| CD/LD | UP/DOWN third stage OFF | DELAY | | SP.B | | | | ⏏/⏏ |
| | | TIME MAX | 1 | | | | | PLAY/PAU |
| TUNER | UP/DOWN third stage ON | PRESENCE | | LOUDNESS | | | | □ |
| | | LEVE MIN | 2 | | | | | STOP |
| (TAPE A) TAPE 1 | Initial condition setting | PRESENCE | | SUBSONIC | | | | |
| | | LEVE MAX | 3 | FILTER | | | | CHECK |
| (TAPE B) TAPE 2 | FL.LED full illumination | CENT MOD | | ADPT/ | | | | |
| | | ON/OFF | 4 | TAPE3 | | | | CLEAR |
| AV/AUX | DECK adjustment mode setting | TEST | | BYPASS | | | | |
| | | ON/OFF | 5 | | | | | OPEN/ CLOSE |
| DAT | CD.SOURCE | TEST | BASS CON | DSP | | | | |
| | DIRECT | TONE MOD | DOWN | | | | | SKIP UP |
| (VIDEO) VIDEO 1 | DAT | WOOFER | BASS | DOLBY | | | | |
| | DIRECT | ON/OFF | CONTL UP | 3STEREO | | | | SKIP DOWN |
| VIDEO 2 | CD REC | CENTER | | DOLBY | | | | |
| | | LEVE MIN | | PRO LOGI | | | | P-MODE |
| VIDEO 3 | FRONT | CENTER | | LINE | | | | |
| | /REAR | LEVE MAX | | STRAIGHT | | | | SPACE |
| VDP | SURROUND | MEMORY | TITLE | INPUT | | | | |
| | ON/OFF | SAVE | ON/OFF | LEVEL – | | | | TIME DISPLAY |
| AUX | SURROUND | MEMORY | TITLE | INPUT | | | | |
| | MODE | OUT | SHIFT | LEVEL + | | | | +10 |
| POWER | REAR | REAR BAL | TITLE | DSP | | | | |
| | LEVE MIN | –ANC Roh | → (R) | LOGIC | | | | EDIT |
| MUTE | REAR | REAR | TITLE | REAR LEV | | | | |
| | LEVE MAX | BALLANCE | ← (L) | (MID) | | | | RANDOM |
| MAIN VOL DOWN | MOTOR VL | REC OUT | TITLE | CENT LEV | | | | |
| | ALL DOWN | SEL VID1 | SET | (MID) | | | | REPEAT |
| MAIN VOL UP | MOTOR VL | MENU | DSPS | PRESENCE | | | | |
| | ALL UP | | | LEV (MID) | | | | |

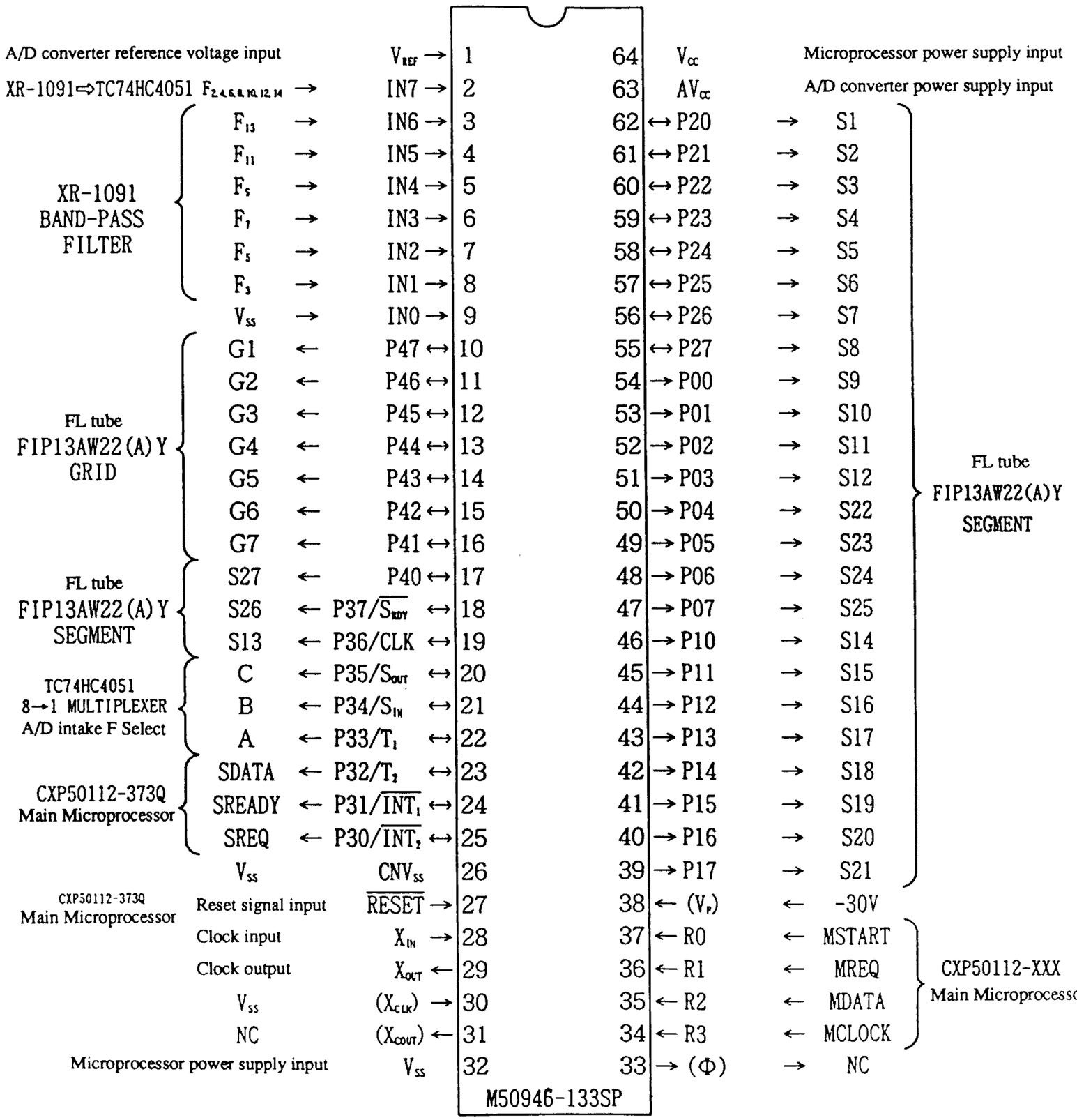
| TYPE / FUNC | GRAPHIC EQUALIZER 0 | GRAPHIC EQUALIZER 1 | GRAPHIC EQUALIZER 2 | GRAPHIC EQUALIZER 3 | TUNER 4 | TUNER 5 | TUNER 6 | TUNER 7 |
|---|---|---|---|---|---|---|---|---|
| 0 | 32Hz | 32Hz | EQ REC | R1 | 0/10 | AUTO/ | CLEAR | TEST OFF |
| | UP | DOWN | ON/OFF | | | MANU | | |
| 1 | 55Hz | 55Hz | | R2 | 1 | P.SCAN | ADJUST | TEST ON |
| | UP | DOWN | DISP 2 | | | | | |
| 2 | 90Hz | 90Hz | | R3 | 2 | ENTER | PROGRAM | |
| | UP | DOWN | | | | (MEMORY) | PRO1 | |
| 3 | 150Hz | 150Hz | DISP | R4 | 3 | KEY | SLEEP | |
| | UP | DOWN | (Roh) | | | OFF | | |
| 4 | 240Hz | 240Hz | DISP | R5 | 4 | Test frequency setting | EXE | |
| | UP | DOWN | (Loh) | | | | | |
| 5 | 400Hz | 400Hz | | FLAT | 5 | Initial condition setting | DISPLAY | |
| | UP | DOWN | | | | | | |
| 6 | 620Hz | 620Hz | REC MODE | POWER | 6 | FL.LED full illumination | C.CHECK | |
| | UP | DOWN | | | | | | |
| 7 | | | REAK HOL | EQ ON/OFF | 7 | DIRECT | PRO2 | |
| | | | ON/OFF | | | | | |
| 8 | 1kHz | 1kHz | UP/DOWN third stage ON | M1 | 8 | DIGIT | | |
| | UP | DOWN | | | | | | |
| 9 | 1.6kHz | 1.6kHz | UP/DOWN third stage OFF | M2 | 9 | CHARATER | | |
| | UP | DOWN | | | | | | |
| A | 2.6kHz | 2.6kHz | Initial condition setting | M3 | POWER | SNDC | | |
| | UP | DOWN | | | | | | |
| B | 4.2kHz | 4.2kHz | EQ test memory settings | M4 | BAND | P.SCAN– | | |
| | UP | DOWN | | | | | | |
| C | 6.8kHz | 6.8kHz | FL.LD full | M5 | (FM) BAND | +10 | | |
| | UP | DOWN | illumination | | | | | |
| D | 10kHz | 10kHz | | MEMORY | (AM) BAND | | | |
| | UP | DOWN | | | | | | |
| E | 16kHz | 16kHz | | DISPLAY | (LW/TV) DOWN | | | |
| | UP | DOWN | | | | | | |
| F | | | KEY OFF | REVERSE | UP | | | |

□ : After receiving code, a code that issues the SEL CODE, SYSTEM ON/OFF code.
□ : After receiving code, a code that issues the same code as the input code.
□ : After receiving code, a code that issues no code.

# CIRCUIT DESCRIPTION

### Microprocessor Pin Layout Diagram

### GE control and display μ-com M50946-133SP (IC2)








# CIRCUIT DESCRIPTION

### Pin Description sub μ-com M50946-133SP (IC2)

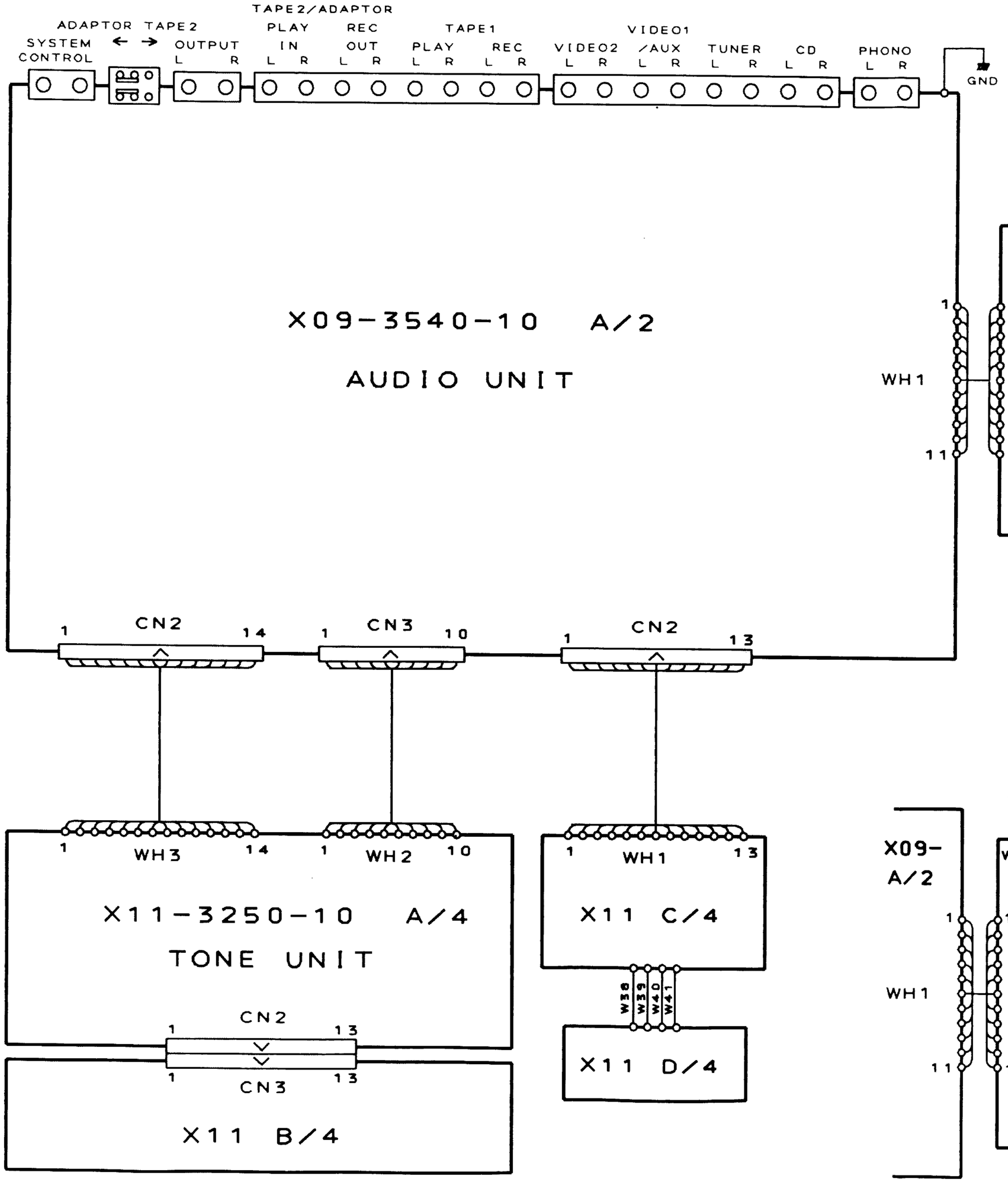
| Pin No. | Pin Name | I/O | Name | Description |
|---|---|---|---|---|
| 1 | VREF | | VREF | A/D converter reference power supply input |
| 2 | IN7 | I | F2, F4, F6, F8, F10, F12, F14 | Analog signal input through the multiplexer TC74HC4051<br>F2: 63Hz, F4: 160Hz, F6: 400Hz, F8: 1kHz, F10: 2.5kHz, F12: 6.3kHz, F14: 16kHz |
| 3 | IN6 | I | F13 | 10kHz analog signal input (signal input directly from the filter circuit) |
| 4 | IN5 | I | F11 | 3.9kHz analog signal input (signal input directly from the filter circuit) |
| 5 | IN4 | I | F9 | 1.5kHz analog signal input (signal input directly from the filter circuit) |
| 6 | IN3 | I | F7 | 625Hz analog signal input (signal input directly from the filter circuit) |
| 7 | IN2 | I | F5 | 250Hz analog signal input (signal input directly from the filter circuit) |
| 8 | IN1 | I | F3 | 98Hz analog signal input (signal input directly from the filter circuit) |
| 9 | IN0 | I | Vss | Unused (analog input pin) |
| 10 | P47 | O | G1 | FL tube grid G1 (Pin number 77) drive signal input H: on L: off |
| 11 | P46 | O | G2 | FL tube grid G2 (Pin number 76) drive signal input H: on L: off |
| 12 | P45 | O | G3 | FL tube grid G3 (Pin number 75) drive signal input H: on L: off |
| 13 | P44 | O | G4 | FL tube grid G4 (Pin number 74) drive signal input H: on L: off |
| 14 | P43 | O | G5 | FL tube grid G5 (Pin number 73) drive signal input H: on L: off |
| 15 | P42 | O | G6 | FL tube grid G6 (Pin number 72) drive signal input H: on L: off |
| 16 | P41 | O | G7 | FL tube grid G7 (Pin number 71) drive signal input H: on L: off |
| 17 | P40 | O | S27 | FL tube segment S27 (Pin number 44) drive signal input H: on L: off |
| 18 | P37 (SRDY) | O | S26 | FL tube segment S26 (Pin number 43) drive signal input H: on L: off |
| 19 | P36 (CLK) | O | S13 | FL tube segment S13 (Pin number 42) drive signal input H: on L: off |
| 20 | P35 (SOUT) | O | C | Multiplexer TC74HC4051 control signal output<br>(TC74HC4051: F2, 4, 6, 8, 10, 12, 14 for analog signal selection) |
| 21 | P34 (SIN) | O | B | Multiplexer TC74HC4051 control signal output |
| 22 | P33 (T1) | O | A | Multiplexer TC74HC4051 control signal output |
| 23 | P32 (T2) | O | SDATA | Sub microprocessor serial DATA signal output |
| 24 | P31 (INT1) | O | SREADY | Sub microprocessor serial DATA communicability signal output<br>H: data communications possible L: data communications impossible |
| 25 | P30 (INT2) | O | SREQ | Sub microprocessor serial DATA send request signal output<br>H: Sub microprocessor DATA send request L: others |
| 26 | CNVss | | Vss | Unused (microprocessor internal mode switching) |
| 27 | RESET | I | RESET | Reset signal detect H: others L: reset |
| 28 | XIN | I | XIN | System clock input (4.0MHz resonator) |
| 29 | XOUT | O | XOUT | System clock input (4.0MHz resonator) |
| 30 | XCIN | I | Vss | Unused (clock input pin) |
| 31 | XCOUT | O | NC | Unused (clock output pin) |
| 32 | Vss | | | GND |
| 33 | Φ | O | NC | Unused (system clock 1/4 cycle output) |
| 34 | R3 | I | MCLOCK | Main microprocessor serial DATA communications CLOCK signal input |
| 35 | R2 | I | MDATA | Main microprocessor serial DATA signal input |
| 36 | R1 | I | MREQ | Main microprocessor serial DATA send request signal input<br>H: Main microprocessor DATA send request L: others |
| 37 | R0 | I | MSTART | Main microprocessor serial DATA communications start signal input<br>H: Main-Sub data communications start L: others |
| 38 | Vp | I | –30V | PULL DOWN V input –30V |
| 39 | P17 | O | S21 | FL tube segment S21 (Pin number 45) drive signal input H: on L: off |
| 40 | P16 | O | S20 | FL tube segment S20 (Pin number 46) drive signal input H: on L: off |

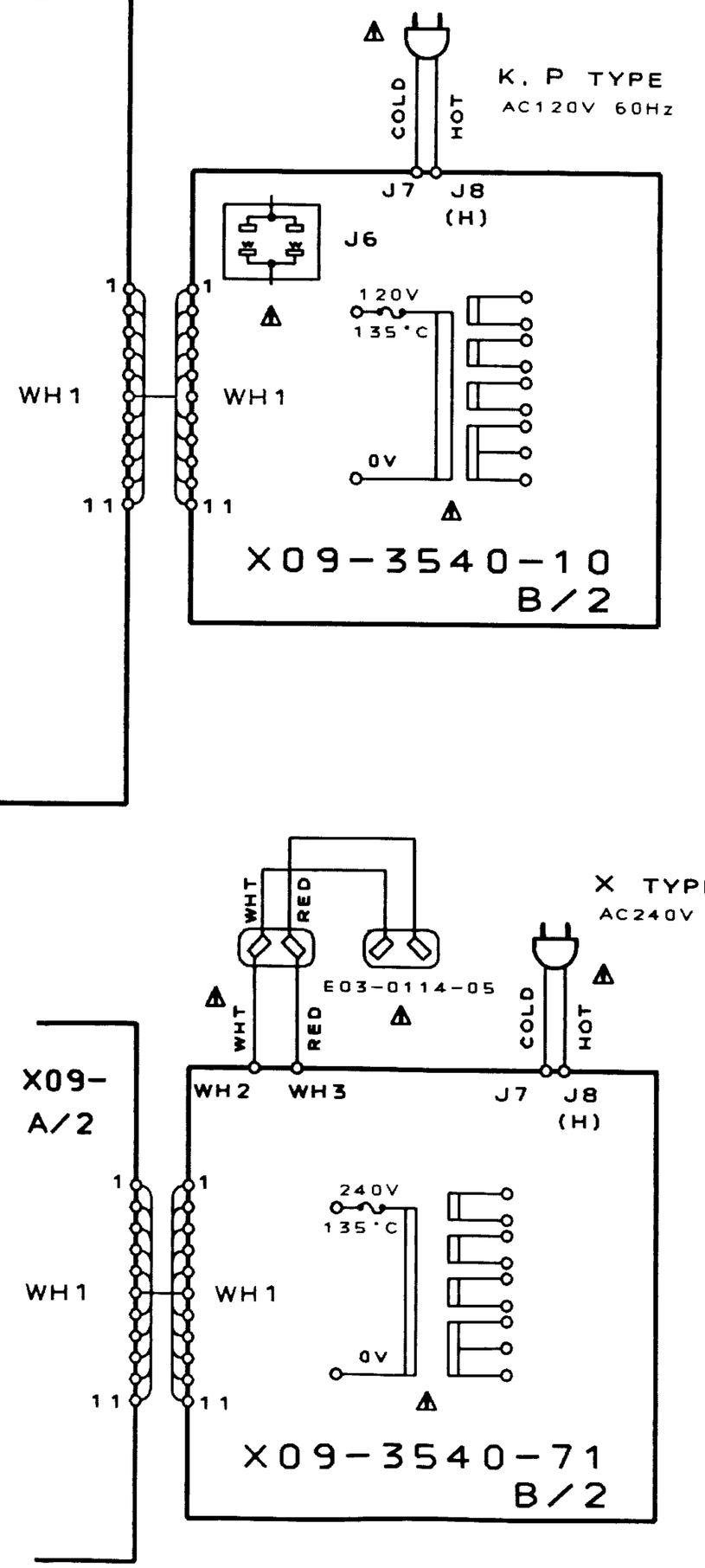
# CIRCUIT DESCRIPTION

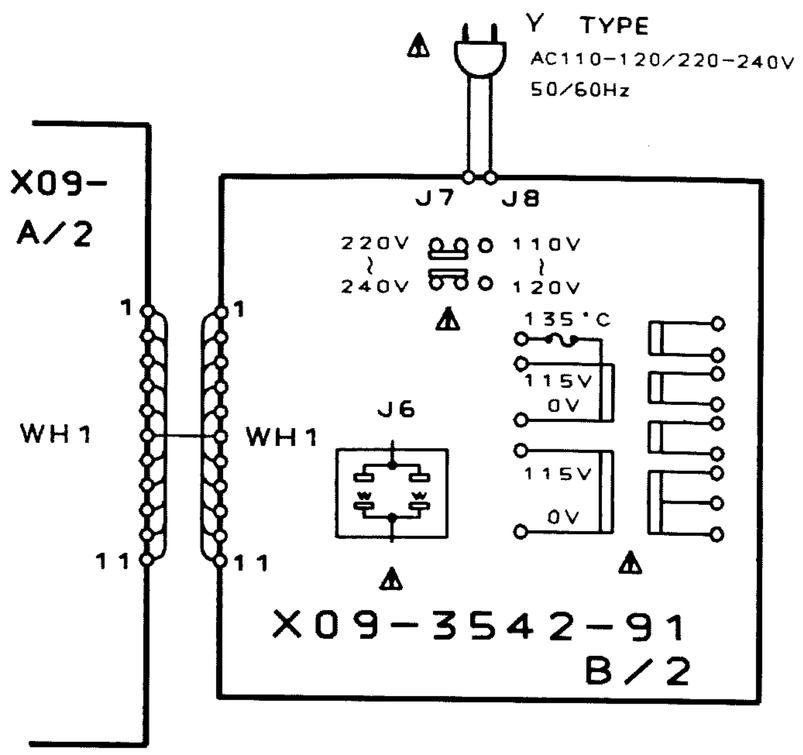
## M50940-133SP (IC2)

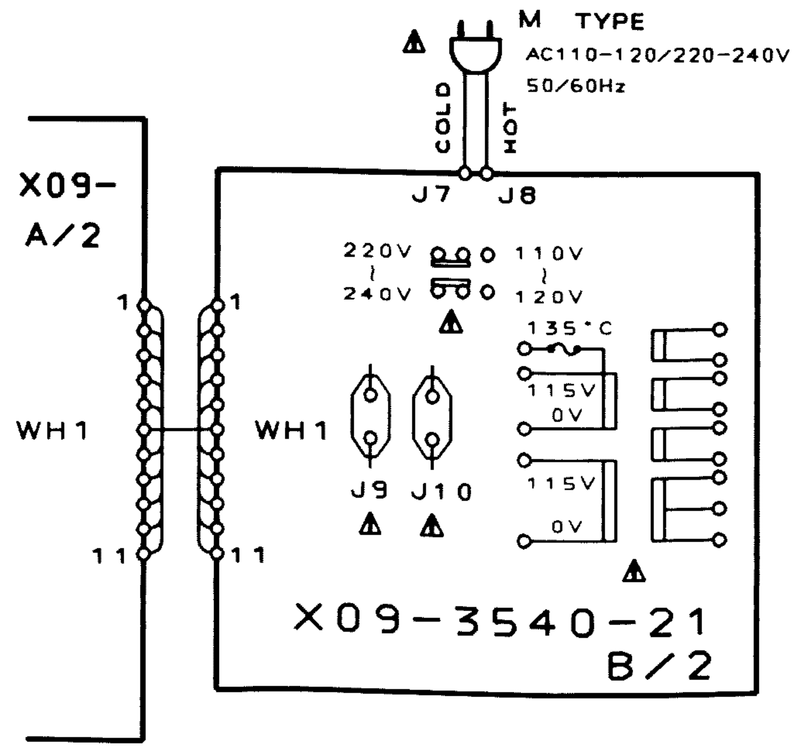
| Pin No. | Pin Name | I/O | Name | Description |
|---|---|---|---|---|
| 41 | P15 | O | S19 | FL tube segment S19 (Pin number 47) drive signal input H: on L: off |
| 42 | P14 | O | S18 | FL tube segment S18 (Pin number 48) drive signal input H: on L: off |
| 43 | P13 | O | S17 | FL tube segment S17 (Pin number 49) drive signal input H: on L: off |
| 44 | P12 | O | S16 | FL tube segment S16 (Pin number 50) drive signal input H: on L: off |
| 45 | P11 | O | S15 | FL tube segment S15 (Pin number 51) drive signal input H: on L: off |
| 46 | P10 | O | S14 | FL tube segment S14 (Pin number 52) drive signal input H: on L: off |
| 47 | P07 | O | S25 | FL tube segment S25 (Pin number 53) drive signal input H: on L: off |
| 48 | P06 | O | S24 | FL tube segment S24 (Pin number 54) drive signal input H: on L: off |
| 49 | P05 | O | S23 | FL tube segment S23 (Pin number 55) drive signal input H: on L: off |
| 50 | P04 | O | S22 | FL tube segment S22 (Pin number 56) drive signal input H: on L: off |
| 51 | P03 | O | S12 | FL tube segment S12 (Pin number 57) drive signal input H: on L: off |
| 52 | P02 | O | S11 | FL tube segment S11 (Pin number 58) drive signal input H: on L: off |
| 53 | P01 | O | S10 | FL tube segment S10 (Pin number 59) drive signal input H: on L: off |
| 54 | P00 | O | S9 | FL tube segment S09 (Pin number 60) drive signal input H: on L: off |
| 55 | P27 | O | S8 | FL tube segment S08 (Pin number 61) drive signal input H: on L: off |
| 56 | P26 | O | S7 | FL tube segment S07 (Pin number 62) drive signal input H: on L: off |
| 57 | P25 | O | S6 | FL tube segment S06 (Pin number 63) drive signal input H: on L: off |
| 58 | P24 | O | S5 | FL tube segment S05 (Pin number 64) drive signal input H: on L: off |
| 59 | P23 | O | S4 | FL tube segment S04 (Pin number 65) drive signal input H: on L: off |
| 60 | P22 | O | S3 | FL tube segment S03 (Pin number 66) drive signal input H: on L: off |
| 61 | P21 | O | S2 | FL tube segment S02 (Pin number 67) drive signal input H: on L: off |
| 62 | P20 | O | S1 | FL tube segment S01 (Pin number 68) drive signal input H: on L: off |
| 63 | AVcc | | AVcc | A/D converter power supply input +5V |
| 64 | Vcc | | Vcc | Microprocessor power supply input +5V |

# WIRING DIAGRAM



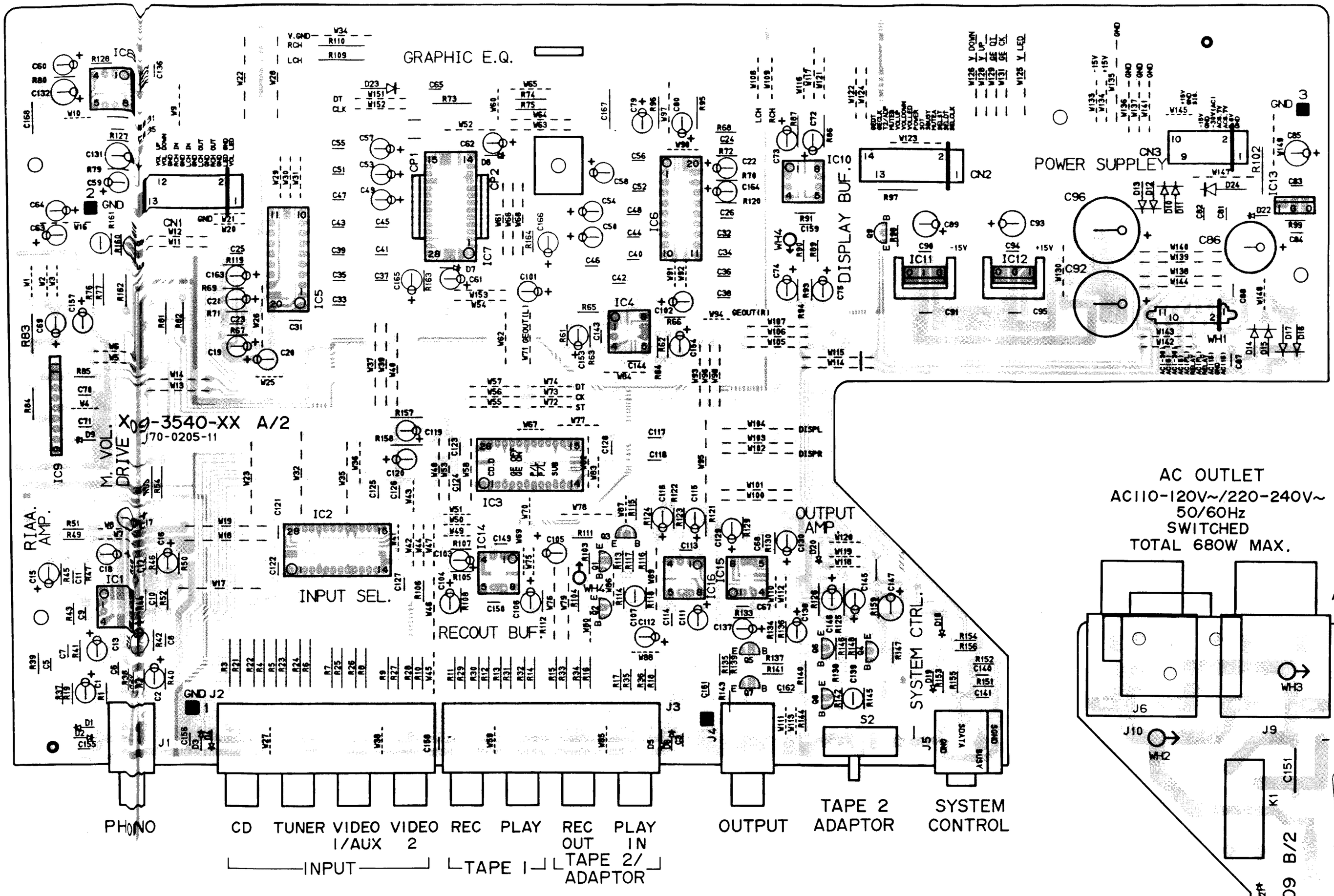



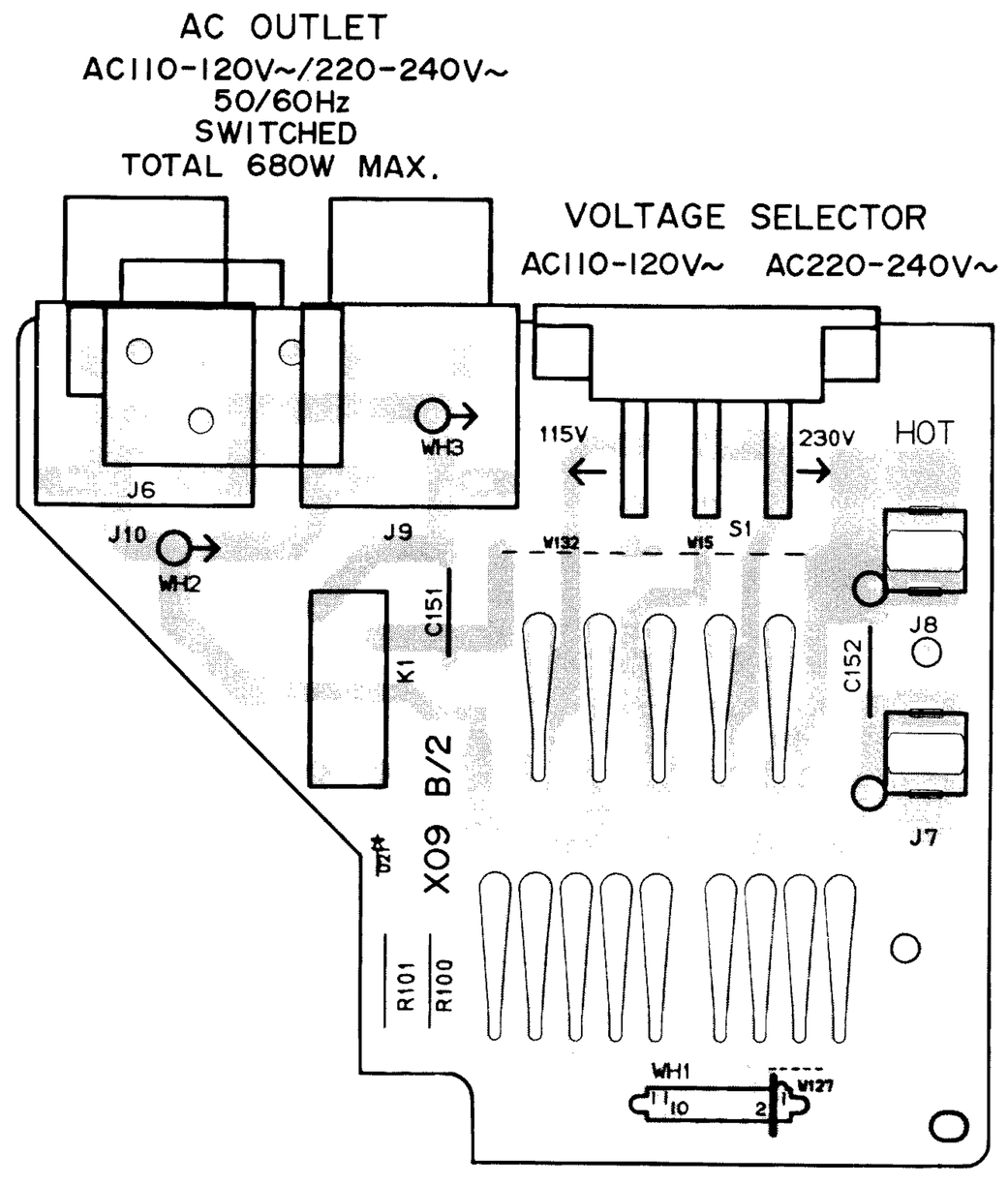



KC-992

WIRING DIAGRAM

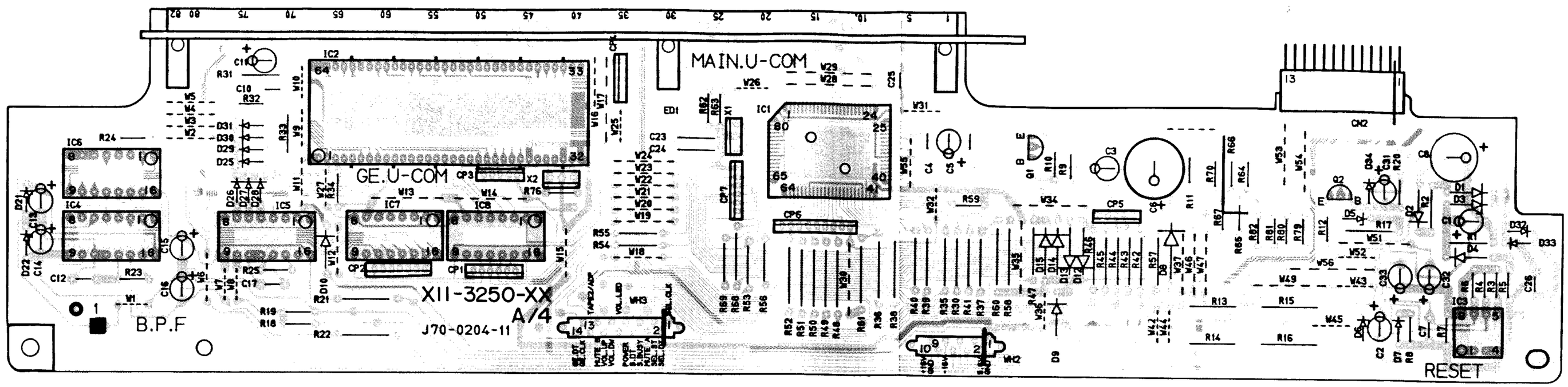
# PC BOARD (Component side view)

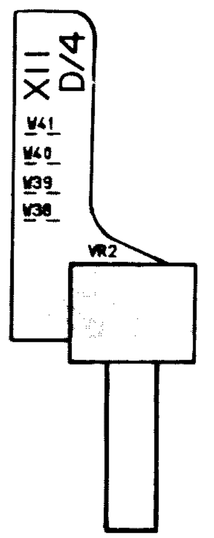


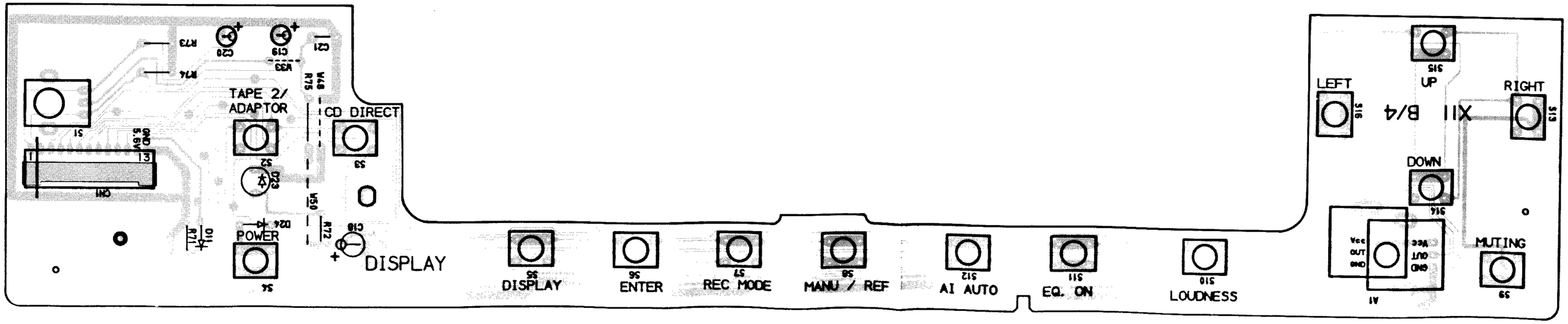



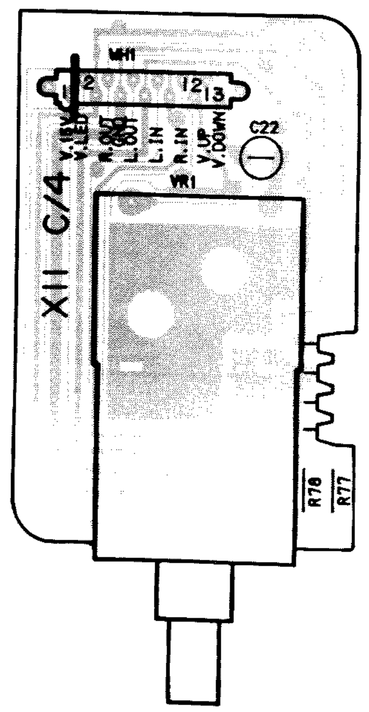

Refer to the schematic diagram for the values of resistors and capacitors.

# PC BOARD (Component side view)

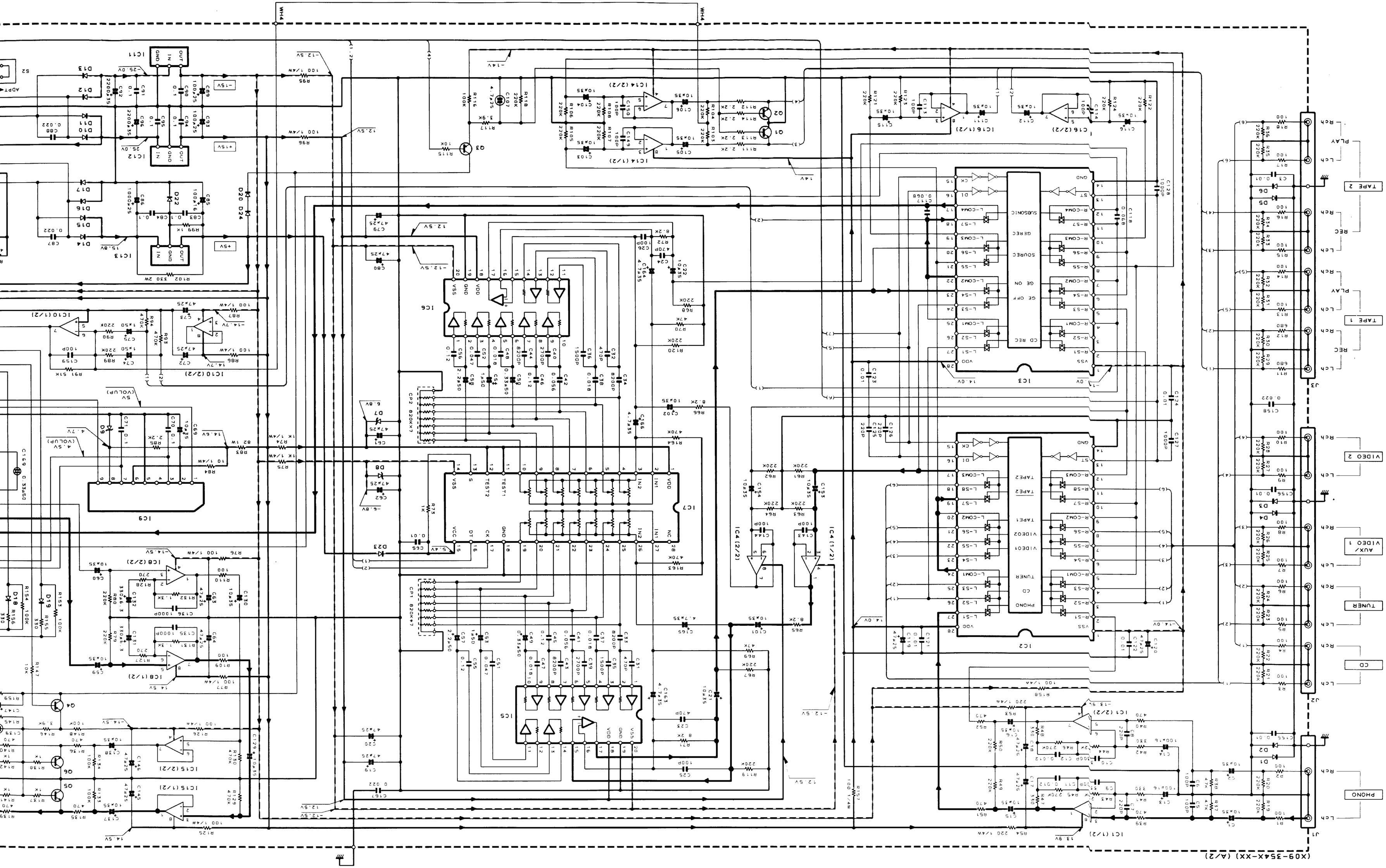


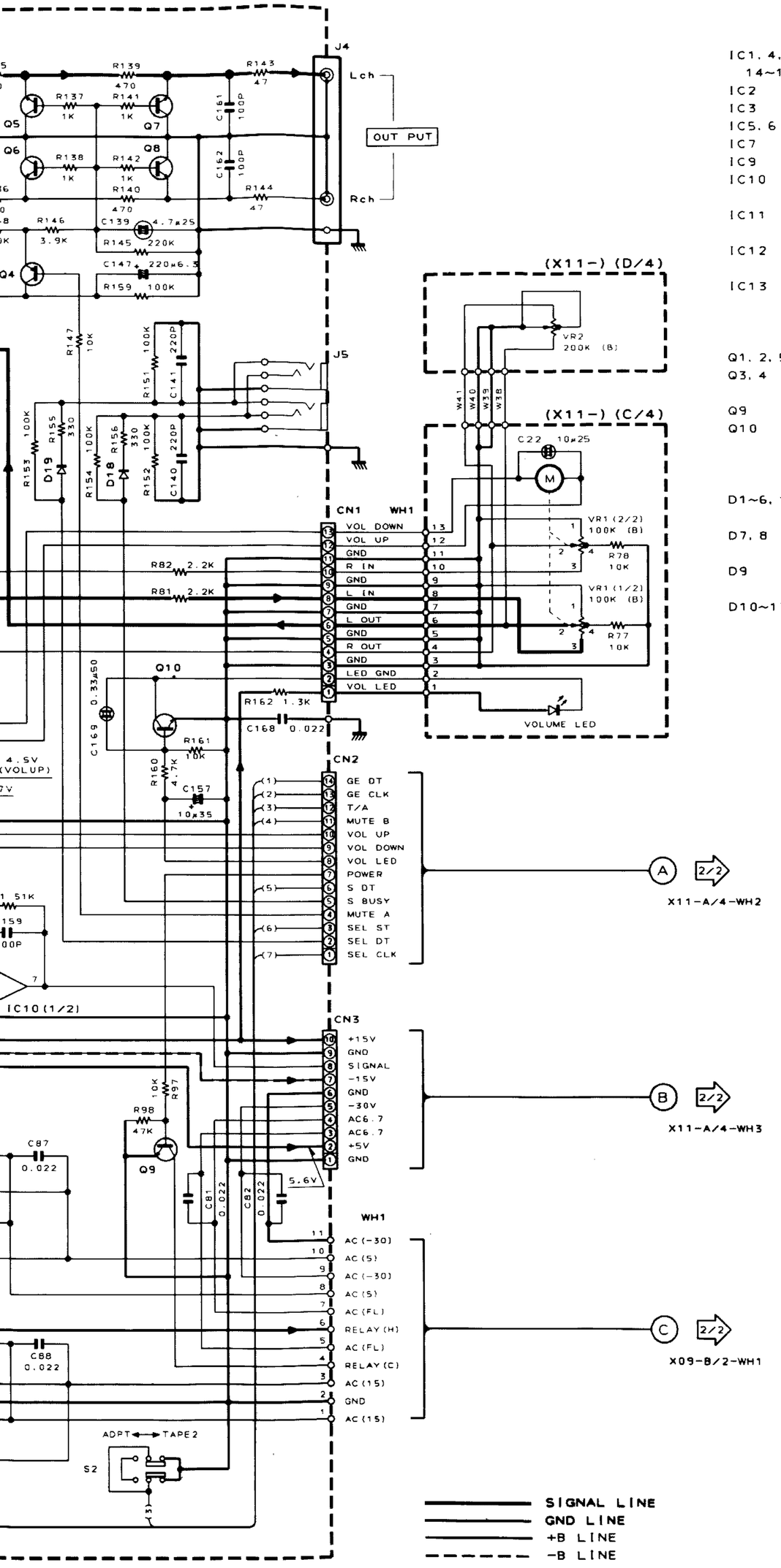



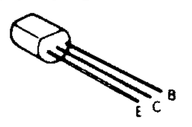

Refer to the schematic diagram for the values of resistors and capacitors


IC11
IC12
IC13
IC14 (1/2)
IC14 (2/2)
IC16 (1/2)
IC16 (2/2)
IC10 (1/2)
IC10 (2/2)
IC8 (1/2)
IC8 (2/2)
IC15 (1/2)
IC15 (2/2)
IC6
IC7
IC5
IC4 (1/2)
IC4 (2/2)
IC3
IC2
IC1 (1/2)
IC1 (2/2)
Q1
Q2
Q3
Q4
Q5
Q6
D20
D21
D22
D23
WH4
J3
J2
J1
TAPE 2
TAPE 1
VIDEO 2
AUX/ VIDEO 1
TUNER
CD
PHONO
SUBSONIC
SOUREC
GE ON
GE OFF
CD REC
TAPE2
TAPE1
VIDEO2
VIDEO1
TUNER
CD
PHONO
-12.5V
+12.5V
+5V
-5V
-14V
+14V
(X09-354X-XX) (A/2)

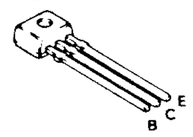



| | | |
|---|---|---|
| IC1, 4, 8, 14~16 | or | RC4565D-D<br>BA15218-DX |
| IC2 | | TC9163N |
| IC3 | | TC9162N |
| IC5, 6 | | M5229P |
| IC7 | | NJU7305L |
| IC9 | | TA8409S |
| IC10 | | RC4565D |
| | or | BA15218 |
| IC11 | | µPC7915HF |
| | or | TA79015S |
| IC12 | | µPC7815HF |
| | or | TA7815S |
| IC13 | | µPC7805HF |
| | or | TA7805S |
| Q1, 2, 5~8 | | 2SC2878 (B) |
| Q3, 4 | | 2SA933S (Q, R) |
| | or | 2SA1175 (F, E) |
| Q9 | | 2SC2003 (L, K) |
| Q10 | | 2SC1740S (Q, R) |
| | or | 2SC2785 (F, E) |
| D1~6, 18~24 | | HSS104 |
| | or | 1SS133 |
| D7, 8 | | RD6.8ES (B2) |
| | or | HZS6.8N (B2) |
| D9 | | RD4.7ES (B) |
| | or | HZS4.7N (B) |
| D10~17 | | S5566B |
| | or | 1SR139-100 |

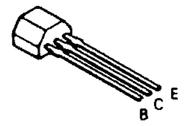
2SA954
2SC2003
2SC2878



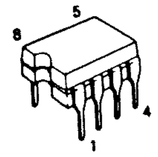
2SA1175
2SC2785



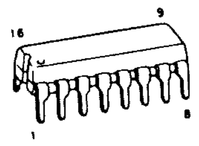
2SA933S
2SC1740S



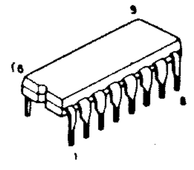
BA15218
BA15218-DX



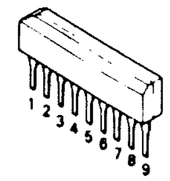
LB1294



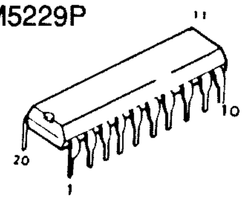
TC4051BP



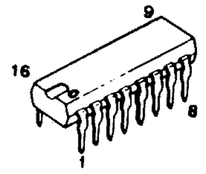
TA8409S



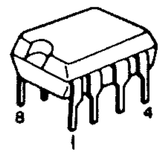
M5229P



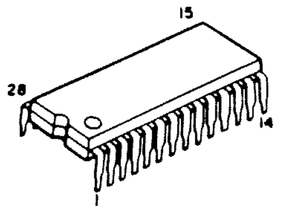
XR-1091ECP



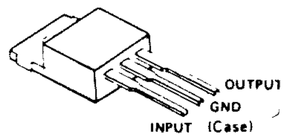
BA10393
RC4565D
RC4565D-D



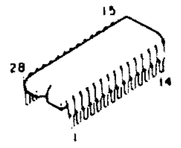
NJU7305L



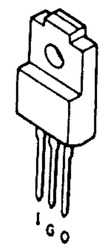
UPC7805HF
UPC7815HF




TC9162N
TC9163N



TA7805S
TA7815S



UPC7915HF

DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

**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.



KC-992

KENWOOD

WH2
GND
+5.6V
AC8 8V
AC6 7
-30V
GND
-15V
SIGNAL
GND
+15V

WH3
GE DT
GE CLK
T/A
MUTE B
VOL UP
VOL DOWN
VOL LED
POWER
S DT
S BUSY
MUTE A
SEL ST
SEL DT
SEL CLK

X09-A/2-CN2
X09-A/2-CN3
X09-A/2-WH1

-33.0V
-28.2V
-28.8V
Q2
D1
D2
D3
D4
D5
D10
D34
R1 10K
R2 1
R12 20
R13 2.2 1W
R14 2.2 1W
R15 47 2W
R16 47 2W
R17 5.6K 1W
R18 8.2K
R19 5.6K
R20 680
R21 330 1W
R22 330 1W
C1 4.7µ50
C8 330µ50
C31 10µ50
C32 10µ50
C33 10µ50

C10 0.01
C11 100µ10
R31 47K

IC4
60Hz 150 400 1k 2.4k 6k 15k
VDD NC VEE
R23 1.5K
C12 1000P
C13 100µ10
C14 100µ10
5.6V
-5.6V

IC5
80Hz 200 500 1.2K 3K 8K
R25 2.2K
C15 100µ10
C16 100µ10
C17 1000P

IC6
2.4K 15K COM 6K INH VEE VSS
VDD 400 150 60 1K A B C
R24 270K

IC7
-28.0V
4.7V
CP2 100K×6
R33 100K
R32 10

IC2
VREF f7 f6 8K f5 3K f4 1.2K f3 500 f2 200 f1 80Hz
VDD AVDD S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S22 S23 S24 S25 S14 S15 S16 S17 S18 S19 S20 S21
START REQ DT CLK NC
G7 G6 G5 G4 G3 G2 G1 S27 S26 S13 C B A DT(S) RDY REQ(S) GND RESET XIN XOUT NC VSS
R34 100K
D25 D26 D27 D28 D29 D30 D31
R35 100
R36 100
R37 100
R39 100
R40 100
R30 100
R41 100
CP4 100K×4
R76 1M
X2 4MHz
5.0V

IC8
CP1 100K×5
CP3 100K×4

IC3 (2/2)
IC3 (1/2)
R3 680
R4 680
2.7V
3V
5V
R5 1K
R6 10K
R7 47K
R8 47K
R9 100K
R10 10K
R11 22
C2 2.2µ35
C3 1µ50
C4 0.01
C5 100µ10
C6 220µ6.3
C7 0.01
D6
D7
Q1

C25 10P

ED1
13G h 12G k 11G 10G 9G 8G
TAPE2 ADAPTOR CD DIRECT
C-CAR HEADPHONE ST
MANUAL REFERENCE
AI AUTO LOUDNESS
EQ.ON MEMORY

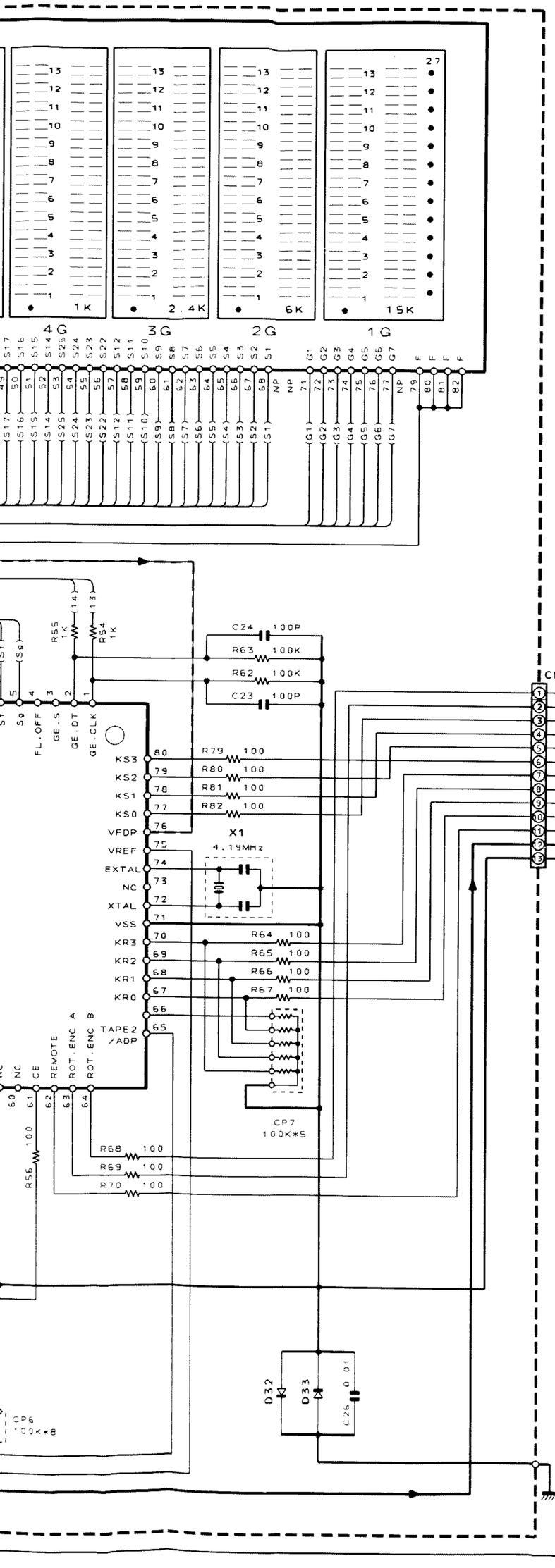
14G 7G 6G 5G 4G

IC1
TOP VIEW
RESET
VDD
SEL.CLK
SEL.DT
SEL.ST
MUTE A
S.BUSY
S.DT
REQ S
GND
CLK
DT
DT S
START
REQ
S.RESET
READY
POWER
LOUDNESS
V LED
V DWN
V UP
MUTE B
NC
CE
REMOTE

CP5 100K×4
CP6 100K×8
R42 100
R43 100
R44 100
R45 100
R46 100
R47 100
R52 100
R51 100
R50 100
R49 330
R48 100
R53 100
R57 47K
R38 100
R56 100
R55 100
R60 100K
R59 100K
R58 100K
R61 100K
D8
D9
D12
D13
D14
D15

(1~6,13,14)
(7~12)

| | |
|---|---|
| IC1 | CXP50112-373Q |
| IC2 | M50946-133SP |
| IC3 | BA10393 |
| IC4, 5 | XR-1091ECP |
| IC6 | TC4051BP |
| IC7~8 | LB1294 |
| Q1 | 2SC1740S (Q, R) or 2SC2785 (F, E) |
| Q2 | 2SA954 (L, K) |
| D1, 4 | HSS104A or 1SS131 |
| D2 | S5688B or 1SR139-100 |
| D3 | RD10ES (B2) or HZS10N (B2) |
| D5 | RD8.2ES (B2) or HZS8.2N (B2) |
| D6 | RD2.7ES (B2) or HZS2.7N (B2) |
| D7~15, 24~33 | HSS104 or 1SS133 |
| D21, 22 | RD5.6ES (B2) or HZS5.6N (B2) |
| D23 | 830-1291-05 |
| D34 | RD30ES (B) or HZS30N (B) |




DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

**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.

× 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.

No. 4

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名／規格 | Destination 仕向 | Remarks 備考 |
|---|---|---|---|---|---|---|
| IC4 | | | RC4565D-D | IC(OP AMP X2) | | |
| IC5 ,6 | | | M5229P | IC(7CH GRAPHIC EQUALIZER) | | |
| IC7 | | | NJU7305L | IC(ELECTRIC VOLUME) | | |
| IC8 | | * | BA15218-DX | IC(OP AMP X2) | | |
| IC8 | | | RC4565D-D | IC(OP AMP X2) | | |
| IC9 | | | TA8409S | IC(MOTOR CONTROL) | | |
| IC10 | | | BA15218 | IC(OP AMP X2) | | |
| IC10 | | | RC4565D | IC(OP AMP X2) | | |
| IC11 | | | TA79015S | IC(VOLTAGE REGULATOR/ -15V) | | |
| IC11 | | | UPC7915HF | IC(VOLTAGE REGULATOR/ -15V) | | |
| IC12 | | | TA7815S | IC(VOLTAGE REGULATOR/ +15V) | | |
| IC12 | | | UPC7815HF | IC(VOLTAGE REGULATOR/ +15V) | | |
| IC13 | | | TA7805S | IC(VOLTAGE REGULATOR/ +5V) | | |
| IC13 | | | UPC7805HF | IC(VOLTAGE REGULATOR/ +5V) | | |
| IC14-16 | | * | BA15218-DX | IC(OP AMP X2) | | |
| IC14-16 | | | RC4565D-D | IC(OP AMP X2) | | |
| Q1 ,2 | | | 2SC2878(B) | TRANSISTOR | | |
| Q3 ,4 | | | 2SA1175(F,E) | TRANSISTOR | | |
| Q3 ,4 | | | 2SA933S(Q,R) | TRANSISTOR | | |
| Q5 -8 | | | 2SC2878(B) | TRANSISTOR | | |
| Q9 | | | 2SC2003(L,K) | TRANSISTOR | | |
| Q10 | | | 2SC1740S(Q,R) | TRANSISTOR | | |
| Q10 | | | 2SC2785(F,E) | TRANSISTOR | | |
| **TONE UNIT (X11-3250-10)** | | | | | | |
| D23 | | | B30-1291-05 | LED(LN21CPSLX(V)-(TA4)) | | |
| C1 | | | CE04LW1H4R7M | ELECTRO 4.7UF 50WV | | |
| C2 | | | CE04LW1H2R2M | ELECTRO 2.2UF 50WV | | |
| C3 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C4 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C5 | | | CE04LW1A101M | ELECTRO 100UF 10WV | | |
| C6 | | | CE04LW0J222M | ELECTRO 2200UF 6.3WV | | |
| C7 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C8 | | | CE04LW1H331M | ELECTRO 330UF 50WV | | |
| C10 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C11 | | | CE04LW1A101M | ELECTRO 100UF 10WV | | |
| C12 | | | CQ92FM1H102J | MYLAR 1000PF J | | |
| C13 -16 | | | CE04LW1A101M | ELECTRO 100UF 10WV | | |
| C17 | | | CQ92FM1H102J | MYLAR 1000PF J | | |
| C18 | | | CE04LW1A101M | ELECTRO 100UF 10WV | | |
| C19 ,20 | | | CE04JW1H010M | ELECTRO 1.0UF 50WV | | |
| C21 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C22 | | | CE04HW1E100M | NP-ELEC 10UF 25WV | | |
| C23 ,24 | | | C91-0745-05 | CERAMIC 100PF K | | |
| C25 | | | CC45FSL1H100D | CERAMIC 10PF D | | |
| C26 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C31 -33 | | | CE04LW1H100M | ELECTRO 10UF 50WV | | |
| X1 | | | L78-0267-05 | RESONATOR | | |
| X2 | | | L78-0244-05 | RESONATOR 4MHz | | |
| CP1 | | | R90-0855-05 | MULTI-COMP 100KX5 J | | |
| CP2 | | | R90-0500-05 | MULTI-COMP 100KX6 J 1/4W | | |
| CP3 -5 | | | R90-0482-05 | MULTI-COMP 100KX4 J 1/6W | | |
| CP6 | | | R90-0492-05 | MULTI-COMP 100KX8 J 1/6W | | |
| CP7 | | | R90-0855-05 | MULTI-COMP 100KX5 J | | |

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Y:AAFES(Europe) X:Australia M:Other Areas

⚠ indicates safety critical components.

× New Parts
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Teile ohne Parts No. werden nicht geliefert.

No. 5

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名／規格 | Destination 仕向 | Remarks 備考 |
|---|---|---|---|---|---|---|
| R2 | | | RD14GB2E1R0J | FL-PROOF RD 1.0 J 1/4W | | |
| R13 ,14 | | | RS14KB3A2R2J | FL-PROOF RS 2.2 J 1W | | |
| R15 ,16 | | | RS14KB3D470J | FL-PROOF RS 47 J 2W | | |
| R17 | | | RS14KB3A562J | FL-PROOF RS 5.6K J 1W | | |
| R21 ,22 | | | RS14KB3A331J | FL-PROOF RS 330 J 1W | | |
| VR1 | | | R29-5050-05 | MOTOR VR 100KB X2 VOLUME | | |
| VR2 | | | R01-5066-05 | POTENTIOMETER 200KB BALANCE | | |
| S2 -16 | | | S40-1064-05 | PUSH SWITCH KEY BOARD | | |
| S1 | | | T99-0509-05 | ROTARY ENCODER INPUT SELECTOR | | |
| D1 | | | HSS104A | DIODE | | |
| D1 | | | 1SS131 | DIODE | | |
| D2 | | | S5688B | DIODE | | |
| D2 | | | 1SR139-100 | DIODE | | |
| D3 | | | HZS10N(B2) | ZENER DIODE | | |
| D3 | | | RD10ES(B2) | ZENER DIODE | | |
| D4 | | | HSS104A | DIODE | | |
| D4 | | | 1SS131 | DIODE | | |
| D5 | | | HZS8.2N(B2) | ZENER DIODE | | |
| D5 | | | RD8.2ES(B2) | ZENER DIODE | | |
| D6 | | | HZS2.7N(B2) | ZENER DIODE | | |
| D6 | | | RD2.7ES(B2) | ZENER DIODE | | |
| D7 -15 | | | HSS104 | DIODE | | |
| D7 -15 | | | 1SS133 | DIODE | | |
| D21 ,22 | | | HZS5.6N(B2) | ZENER DIODE | | |
| D21 ,22 | | | RD5.6ES(B2) | ZENER DIODE | | |
| D24 -33 | | | HSS104 | DIODE | | |
| D24 -33 | | | 1SS133 | DIODE | | |
| D34 | | | HZS30N(B) | ZENER DIODE | | |
| D34 | | | RD30ES(B) | ZENER DIODE | | |
| ED1 | | * | FIP13AW22AY | FLUORESCENT INDICATOR TUBE | | |
| IC1 | | * | CXP50112-373Q | IC(MICROPROCESSOR) | | |
| IC2 | | * | M50946-133SP | IC(MICROPROCESSOR) | | |
| IC3 | | | BA10393 | IC(DUAL COMPALATOR) | | |
| IC4 ,5 | | * | XR-1091ECP | IC(EQUALIZER FILTER) | | |
| IC6 | | | TC4051BP | IC(8CH MPX/ DE-MPX) | | |
| IC7 ,8 | | | LB1294 | IC(6CH DARLINGTON DRIVER) | | |
| Q1 | | | 2SC1740S(Q,R) | TRANSISTOR | | |
| Q1 | | | 2SC2785(F,E) | TRANSISTOR | | |
| Q2 | | | 2SA954(L,K) | TRANSISTOR | | |
| A1 | | | W02-1043-05 | OPTIC RECEIVING MODULE | | |
| A1 | | | W02-1046-05 | OPTIC RECEIVING MODULE | | |

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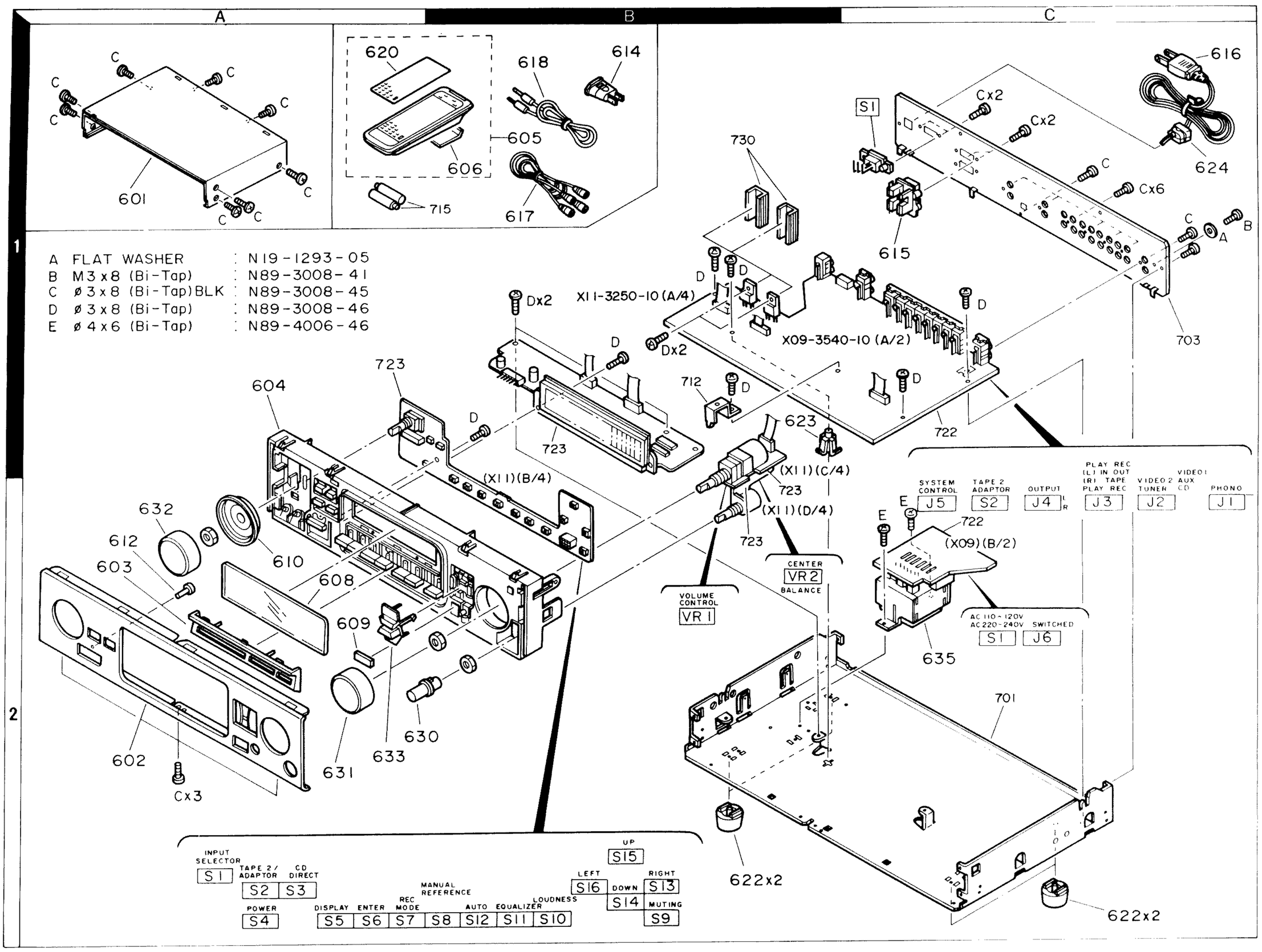
## EXPLODED VIEW

Parts with the exploded numbers larger than 700 are not supplied.

A FLAT WASHER : N19-1293-05
B M3x8 (Bi-Tap) : N89-3008-41
C ø3x8 (Bi-Tap)BLK : N89-3008-45
D ø3x8 (Bi-Tap) : N89-3008-46
E ø4x6 (Bi-Tap) : N89-4006-46



* 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

No. 1

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名／規格 | Destination 仕向 | Remarks 備考 |
|---|---|---|---|---|---|---|
| **KC-992** | | | | | | |
| 601 | 1A | * | A01-2915-01 | METALLIC CABINET | | |
| 602 | 2A | * | A60-0165-02 | PANEL | | |
| 603 | 2A | * | A21-1807-03 | DRESSING PANEL | | |
| 604 | 1A | * | A22-1537-01 | SUB PANEL | | |
| 605 | 1B | * | A70-0590-05 | REMOTE CONTROLLER ASSY | PYMX | |
| 606 | 1B | | A09-0086-08 | BATTERY COVER | PYMX | |
| 608 | 2A | * | B03-2760-03 | DRESSING PLATE FRONT GLASS | | |
| 609 | 2A | * | B03-2763-04 | DRESSING PLATE OPTIC RECEIVING | | |
| 610 | 1A | * | B07-2201-04 | ESCUTCHEON | | |
| 612 | 2A | * | B19-1518-04 | LIGHTING BOARD | | |
| - | | | B46-0092-03 | WARRANTY CARD | K | |
| - | | | B46-0094-03 | WARRANTY CARD | Y | |
| - | | | B46-0095-03 | WARRANTY CARD | Y | |
| - | | * | B46-0096-33 | WARRANTY CARD | X | |
| - | | | B46-0121-13 | WARRANTY CARD | P | |
| - | | | B58-0513-04 | CAUTION CARD (PRESET220-240) | Y | |
| - | | * | B60-0712-00 | INSTRUCTION MANUAL (ENGLISH) | | |
| - | | * | B60-0713-00 | INSTRUCTION MANUAL (FRENCH) | P | |
| - | | * | B60-0714-00 | INSTRUCTION MANUAL (SP,AL,CH) | M | |
| ⚠ 614 | 1B | | E03-0115-05 | AC PLUG ADAPTER | M | |
| ⚠ 615 | 1C | | E03-0114-05 | AC OUTLET | X | |
| ⚠ 616 | 1C | | E30-2274-05 | AC POWER CORD | KP | |
| ⚠ 616 | 1C | | E30-2275-05 | AC POWER CORD | X | |
| ⚠ 616 | 1C | | E30-2277-05 | AC POWER CORD | M | |
| ⚠ 616 | 1C | | E30-2284-05 | AC POWER CORD | Y | |
| 617 | 1B | | E30-0615-05 | AUDIO CORD | | |
| 618 | 1B | | E30-1392-05 | CORD WITH PLUG | | |
| 620 | 1A | | G16-0756-08 | REMOTE CONTROL UNIT ENTRYSHEET | PYMX | |
| | | * | H50-0215-04 | ITEM CARTON CASE | KPYX | |
| | | * | H50-0282-04 | ITEM CARTON CASE | M | |
| - | | * | H10-5252-12 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | * | H10-5253-02 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | | H25-0223-04 | PROTECTION BAG (750X350X0.03) | | |
| - | | | H25-0232-04 | PROTECTION BAG (235X350X0.03) | | |
| 622 | 2B,2C | | J02-0366-15 | FOOT | | |
| 623 | 1B | | J19-3179-05 | UNIT HOLDER | | |
| ⚠ 624 | 1C | | J42-0083-05 | POWER CORD BUSHING | | |
| 630 | 2A | | K29-3632-04 | KNOB BALANCE | | |
| 631 | 2A | * | K29-4341-04 | KNOB VOLUME CONTROL | | |
| 632 | 2A | * | K29-4342-04 | KNOB INPUT SELECTOR | | |
| 633 | 2A | * | K29-4343-04 | KNOB EQ CONTROL | | |
| ⚠ 635 | 2C | * | L07-0458-05 | POWER TRANSFORMER | KP | |
| ⚠ 635 | 2C | * | L07-0459-05 | POWER TRANSFORMER | YM | |
| ⚠ 635 | 2C | * | L07-0460-05 | POWER TRANSFORMER | X | |
| A | 1C | | N19-1293-05 | FLAT WASHER GND | | |
| B | 1C | | N89-3008-41 | BINDING HEAD TAPTITE SCREW GND | | |
| C | 1A,1C | | N89-3008-45 | BINDING HEAD TAPTITE SCREW | | |
| D | 1B | | N89-3008-46 | BINDING HEAD TAPTITE SCREW | | |
| E | 2C | | N89-4006-46 | BINDING HEAD TAPTITE SCREW | | |

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**Y**:PX(Far East, Hawaii) **T**:England **E**:Europe
**Y**:AAFES(Europe) **X**:Australia **M**:Other Areas

⚠ indicates safety critical components.

AUDIO UNIT

| UNIT No. | Destination |
|---|---|
| X09-3540-10 | K, P |
| X09-3540-21 | T, M |
| X09-3540-71 | X |

TONE UNIT

| | |
|---|---|
| X11-3250-10 | |

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Teile ohne Parts No. werden nicht geliefert.

No. 2

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名／規格 | Destination 仕向 | Remarks 備考 |
|---|---|---|---|---|---|---|
| **AUDIO UNIT (X09-3540-10: K, P, 0-21: M, 0-71: X, 2-91: Y)** | | | | | | |
| C1 ,2 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C3 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C5 ,6 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C7 ,8 | | | CC45FSL1H221J | CERAMIC 220PF J | | |
| C9 ,10 | | | CQ92FM1H332J | MYLAR 3300PF J | | |
| C11 ,12 | | | CQ92FM1H123J | MYLAR 0.012UF J | | |
| C13 ,14 | | | CE04LW1C101M | ELECTRO 100UF 16WV | | |
| C15 ,16 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C17 -20 | | | CE04LW1E470M | ELECTRO 47UF 25WV | | |
| C21 ,22 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C23 ,24 | | | CK45FB1H471K | CERAMIC 470PF K | | |
| C25 ,26 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C31 ,32 | | | CK45FB1H471K | CERAMIC 470PF K | | |
| C33 ,34 | | | CQ92FM1H822J | MYLAR 8200PF J | | |
| C35 ,36 | | | CQ92FM1H152J | MYLAR 1500PF J | | |
| C37 ,38 | | | CQ92FM1H183J | MYLAR 0.018UF J | | |
| C39 ,40 | | | CQ92FM1H272J | MYLAR 2700PF J | | |
| C41 ,42 | | | CF92FV1H563J | MF 0.056UF J | | |
| C43 ,44 | | | CQ92FM1H822J | MYLAR 8200PF J | | |
| C45 ,46 | | | CF92FV1H124J | MF 0.12UF J | | |
| C47 ,48 | | | CQ92FM1H183J | MYLAR 0.018UF J | | |
| C49 ,50 | | | CE04LW1HR33M | ELECTRO 0.33UF 50WV | | |
| C51 ,52 | | | CF92FV1H473J | MF 0.047UF J | | |
| C53 ,54 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C55 ,56 | | | CF92FV1H124J | MF 0.12UF J | | |
| C57 ,58 | | | CE04LW1H2R2M | ELECTRO 2.2UF 50WV | | |
| C59 ,60 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C61 -64 | | | CE04LW1E470M | ELECTRO 47UF 25WV | | |
| C65 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C69 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C70 ,71 | | | CF92FV1H104J | MF 0.10UF J | | |
| C72 ,73 | | | CE04LW1E470M | ELECTRO 47UF 25WV | | |
| C74 ,75 | | | CE04LW1H010M | ELECTRO 1.0UF 50WV | | |
| C79 ,80 | | | CE04LW1E470M | ELECTRO 47UF 25WV | | |
| C81 ,82 | | | CK45FF1H223Z | CERAMIC 0.022UF Z | | |
| C83 ,84 | | | CF92FV1H104J | MF 0.10UF J | | |
| C85 | | | CE04LW1C101M | ELECTRO 100UF 16WV | | |
| C86 | | | CE04LW1E102M | ELECTRO 1000UF 25WV | | |
| C87 ,88 | | | CK45FF1H223Z | CERAMIC 0.022UF Z | | |
| C89 | | | CE04LW1E101M | ELECTRO 100UF 25WV | | |
| C90 ,91 | | | CF92FV1H104J | MF 0.10UF J | | |
| C92 | | | CE04LW1V222M | ELECTRO 2200UF 35WV | | |
| C93 | | | CE04LW1E101M | ELECTRO 100UF 25WV | | |
| C94 ,95 | | | CF92FV1H104J | MF 0.10UF J | | |
| C96 | | | CE04LW1V222M | ELECTRO 2200UF 35WV | | |
| C101-106 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C107 | | | CE04HW1E4R7M | NP-ELEC 4.7UF 25WV | | |
| C111,112 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C113,114 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C115,116 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C117,118 | | | CF92FV1H683J | MF 0.068UF J | | |
| C119,120 | | | CE04LW1E470M | ELECTRO 47UF 25WV | | |
| C121-124 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |

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No. 3

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名／規格 | Destination 仕向 | Remarks 備考 |
|---|---|---|---|---|---|---|
| C125,126 | | | CC45FSL1H221J | CERAMIC 220PF J | | |
| C127,128 | | | CK45FB1H102K | CERAMIC 1000PF K | | |
| C129,130 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C131,132 | | | CE04LW0J331M | ELECTRO 330UF 6.3WV | | |
| C135,136 | | | CK45FB1H102K | CERAMIC 1000PF K | | |
| C137,138 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C139 | | | CE04HW1E4R7M | NP-ELEC 4.7UF 25WV | | |
| C140,141 | | | CC45FSL1H221J | CERAMIC 220PF J | | |
| C143,144 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C145,146 | | | CE04LW1E470M | ELECTRO 47UF 25WV | | |
| C147 | | | CE04LW0J221M | ELECTRO 220UF 6.3WV | | |
| C149,150 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| ⚠ C151,152 | | | C91-0971-05 | FILM 0.01UF 250WV | | |
| C153,154 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C155,156 | | | CK45FF1H103Z | CERAMIC 0.010UF Z | | |
| C157 | | | CE04LW1V100M | ELECTRO 10UF 35WV | | |
| C158 | | | CK45FF1H223Z | CERAMIC 0.022UF Z | | |
| C159 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C161,162 | | | CC45FSL1H101J | CERAMIC 100PF J | | |
| C163-166 | | | CE04LW1V4R7M | ELECTRO 4.7UF 35WV | | |
| C167,168 | | | C91-0085-05 | CERAMIC 0.022UF N | | |
| J1 | | | E13-0249-05 | PHONO JACK PHONO | | |
| J2 ,3 | | | E13-0825-05 | PHONO JACK OTHER INPUT | | |
| J4 | | | E13-0249-05 | PHONO JACK OUTPUT | | |
| J5 | | | E11-0188-05 | MINIATURE PHONE JACK SYNCRO | | |
| J6 | | | E03-0117-05 | AC OUTLET | KPY | |
| ⚠ J9 ,10 | | | E03-0108-05 | AC OUTLET | M | |
| J7 ,8 | | | J21-5159-04 | MOUNTING HARDWARE | YMX | |
| D | 1B | | N35-3008-46 | BINDING HEAD MACHIN SCREW | | |
| CP1 ,2 | | | R90-0491-05 | MULTI-COMP 820KX7 J 1/6W | | |
| R83 | | | RS14KB3A820J | FL-PROOF RS 82 J 1W | | |
| R84 | | | RD14GB2E100J | FL-PROOF RD 10 J 1/4W | | |
| R100 | | | RS14KB3D390J | FL-PROOF RS 39 J 2W | | |
| R102 | | | RS14KB3D331J | FL-PROOF RS 330 J 2W | | |
| K1 | | * | S76-0019-05 | MAGNETIC RELAY | | |
| S1 | | | S62-0001-05 | SLIDE SWITCH VOLTAGE SELECT | YM | |
| S2 | | | S31-2094-05 | SLIDE SWITCH ADAPTER/TAPE2 | | |
| D1 -6 | | | HSS104 | DIODE | | |
| D1 -6 | | | 1SS133 | DIODE | | |
| D7 ,8 | | | HZS6.8N(B2) | ZENER DIODE | | |
| D7 ,8 | | | RD6.8ES(B2) | ZENER DIODE | | |
| D9 | | | HZS4.7N(B) | ZENER DIODE | | |
| D9 | | | RD4.7ES(B) | ZENER DIODE | | |
| D10 -17 | | | S5688B | DIODE | | |
| D10 -17 | | | 1SR139-100 | DIODE | | |
| D18 -24 | | | HSS104 | DIODE | | |
| D18 -24 | | | 1SS133 | DIODE | | |
| IC1 | | * | BA15218-DX | IC(OP AMP X2) | | |
| IC1 | | | RC4565D-D | IC(OP AMP X2) | | |
| IC2 | | | TC9163N | IC(BILATERAL SWITCH X16) | | |
| IC3 | | | TC9162N | IC(ANALOG SWITCH ARRAY) | | |
| IC4 | | * | BA15218-DX | IC(OP AMP X2) | | |

**L**:Scandinavia **K**:USA **P**:Canada
**Y**:PX(Far East, Hawaii) **T**:England **E**:Europe
**Y**:AAFES(Europe) **X**:Australia **M**:Other Areas

⚠ indicates safety critical components.