MULTIPLE COMPACT DISC PLAYER

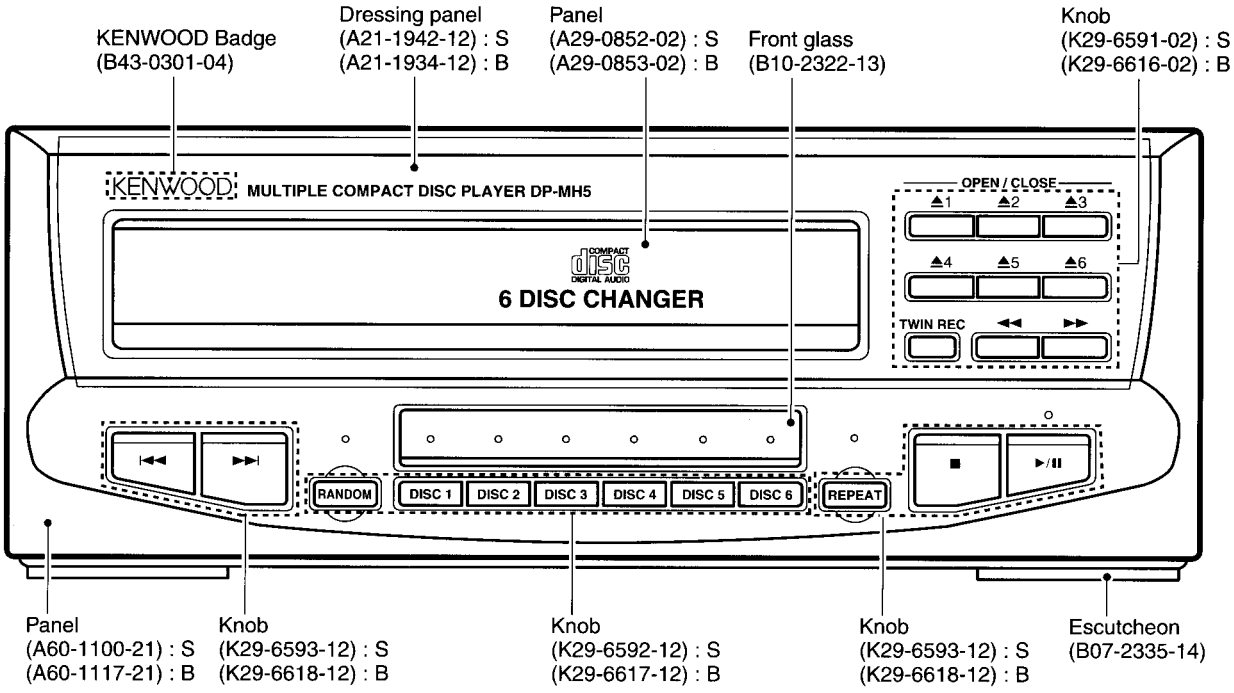
# DP-MH5

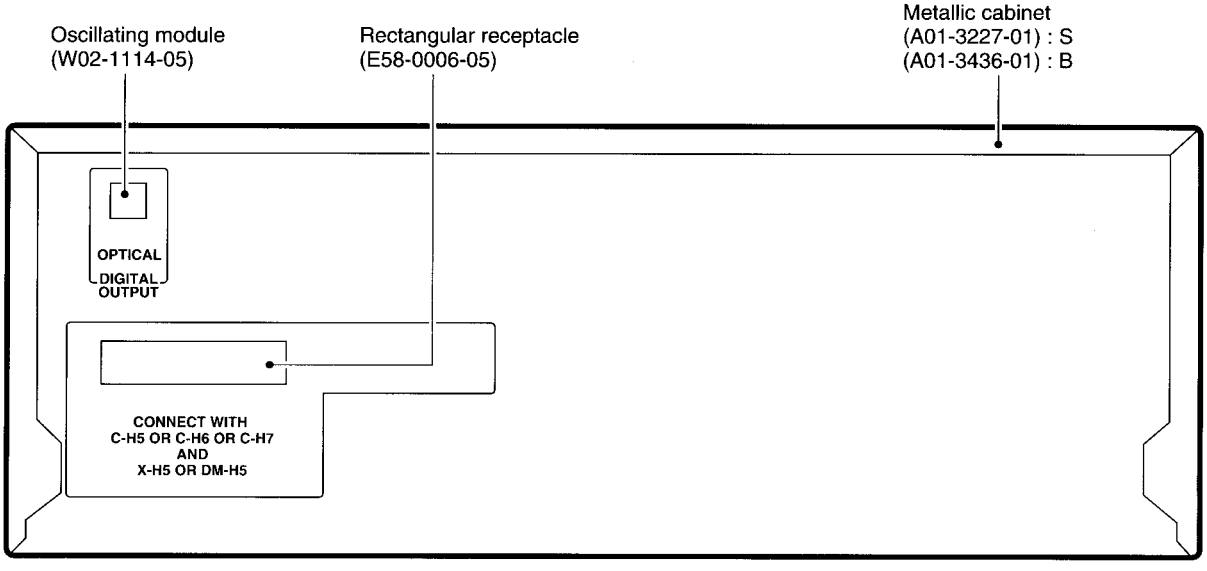
# SERVICE MANUAL

## (XD-6000/8000/9580 SERIES)

KENWOOD






**B : Black, S : Silver**

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040. 10, Chapter 1, Subchapter J.

**DANGER : Laser radiation when open and interlock defeated. ID DIRECT EXPOSURE TO BEAM.**

**PRECAUTIONS FOR REPAIR**

**DP-MH5** does not have power supply transformer. Use **A-H5** or **C-H series** or **PS-94UA** power supply jig to supply power.

**Refer to DP-MG7 service manual (B51-5177-00), if require disassembly for repair/circuit description in detail.**

# DP-MH5

# CONTENTS / ACCESSORIES

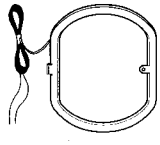
## Contents



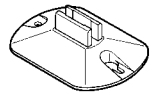
## Accessories

FM indoor antenna .....(1)
(T90-0801-05): KM
(T90-0809-05): TE

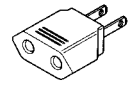
AM loop antenna .....(1)
(T90-0820-05)



Loop antenna stand (1)
(J19-3645-05)

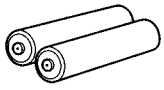


AC plug adaptor.....(2)
(E03-0115-05)

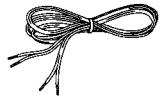


Batteries (R6/AA).....(2)

(—)

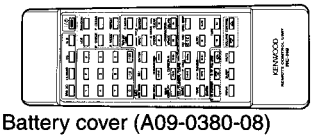


Speaker cords.....(2)
(E30-5156-08)



Parallel cord.....(1)
(E30-2738-05)

Remote control unit .....(1)
(A70-1110-05): KM
(A70-1121-05): TE



Battery cover (A09-0380-08)

## System configuration

| SYSTEM | TUNER / EQUALIZER | AMPLIFIER | CASSETTE DECK | CD PLAYER | SPEAKER | MD RECORDER |
|---|---|---|---|---|---|---|
| XD-6060 | C-H51 | A-H5 | X-H5 | DP-H5 | LS-H6 | – |
| XD-6500 | C-H5 | A-H5 | X-H5 | DP-MH5 | LS-H5 | – |
| XD-6560 | C-H51 | A-H5 | X-H5 | DP-MH5 | LS-H6 | – |
| XD-8000 | C-H6 | A-H5 | X-H5 | DP-H5 | LS-H6 | – |
| XD-8550 | C-H6 | A-H5 | X-H5 | DP-MH5 | LS-H6 | – |
| XD-8560 | C-H61 | A-H5 | X-H5 | DP-MH5 | LS-H6 | – |
| XD-6000/W | C-H5/W | A-H5 | X-H5 | DP-H5 | LS-H5 | – |
| XD-6050/W | C-H5/W | A-H5 | X-H5 | DP-H5 | LS-H5 | – |
| XD-6550/W | C-H5/W | A-H5 | X-H5 | DP-MH5 | LS-H5 | – |
| XD-8050/W | C-H6/W | A-H5 | X-H5 | DP-H5 | LS-H6 | – |
| XD-8500/W | C-H6 | A-H5 | X-H5 | DP-MH5 | LS-H6 | – |
| XD-9580MD | C-H7 | A-H5 | – | DP-MH5 | LS-H6 | DM-H5 |

## Cautions

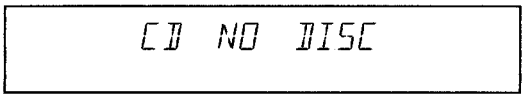
***Note related to transportation and movement (CD player)***

Before transporting or moving this unit, carry out the following operations.

1. Turn the power ON. Then press the OPEN/CLOSE (⏏) key of the CD player and take out all CDs

   DP-MH5 : Ensure that no CD is loaded in any of the DISC1 to DISC6 trays by opening each of them.

2. Select the "CD" input and ensure that the following message is displayed.




3. Wait for a few seconds then turn power off.

**Beware of condensation**

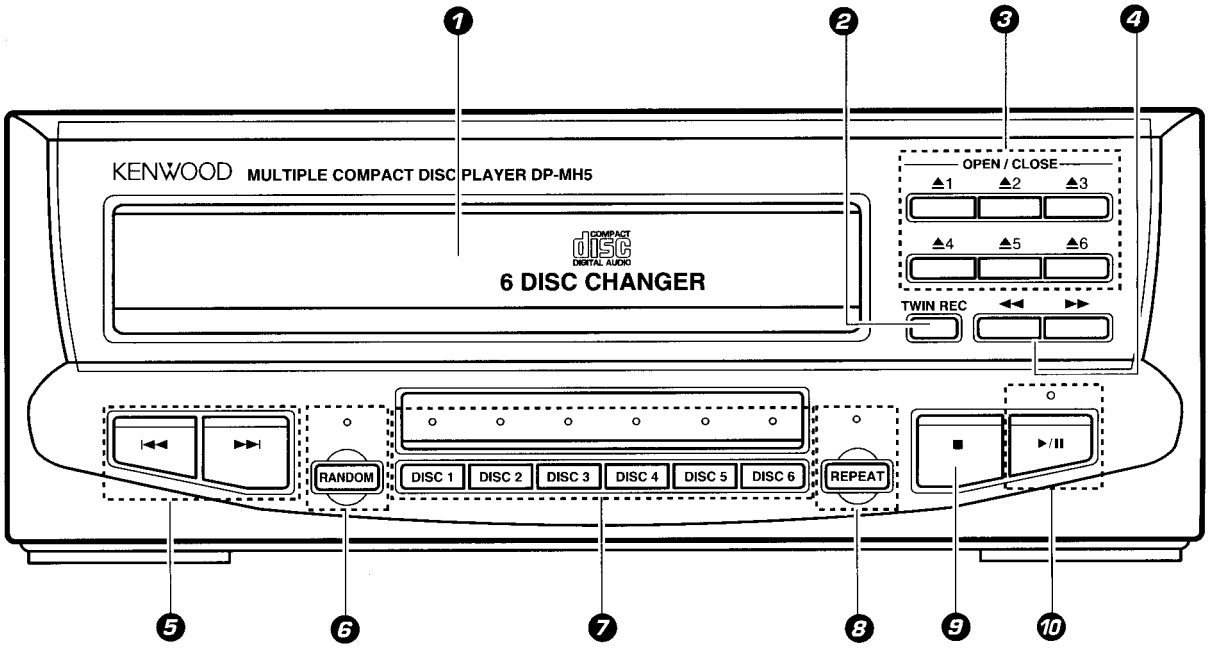
When water vapor comes into contact with the surface of cold material, water drops are produced. If condensation occurs, correct operation may not be possible, or t he unit may not function correctly. This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit for several hours.)

**Be especially careful in the following conditions:**

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

# CONTROLS

## *CD player unit ( DP-MH5)*




**❶ Disc tray**

**❷ TWIN REC key**
Press when recording CD simultaneously onto a MD and tape.

**❸ OPEN / CLOSE (▲1 ~ ▲6) key**
The disc tray is opened and closed.

**❹ Fast forward and fast reverse (◄◄ ►►) keys**
Press to move the played position forward or backward.

**❺ Skip (|◄◄ ►►|) keys**
Press to skip tracks to the beginning of the desired track.

**❻ RANDOM key / Indicator**
Press to play tracks in a different order than the recorded order.

**❼ Disc selector (DISC 1 to DISC 6) keys / indicators**
Press one of the keys to select the disc to be played. If a disc exists in the selected tray, the indicated of the key lights up. The indicator blinks during playback of the disc.

**❽ REPEAT key / Indicator**
Press to start repeat playback.

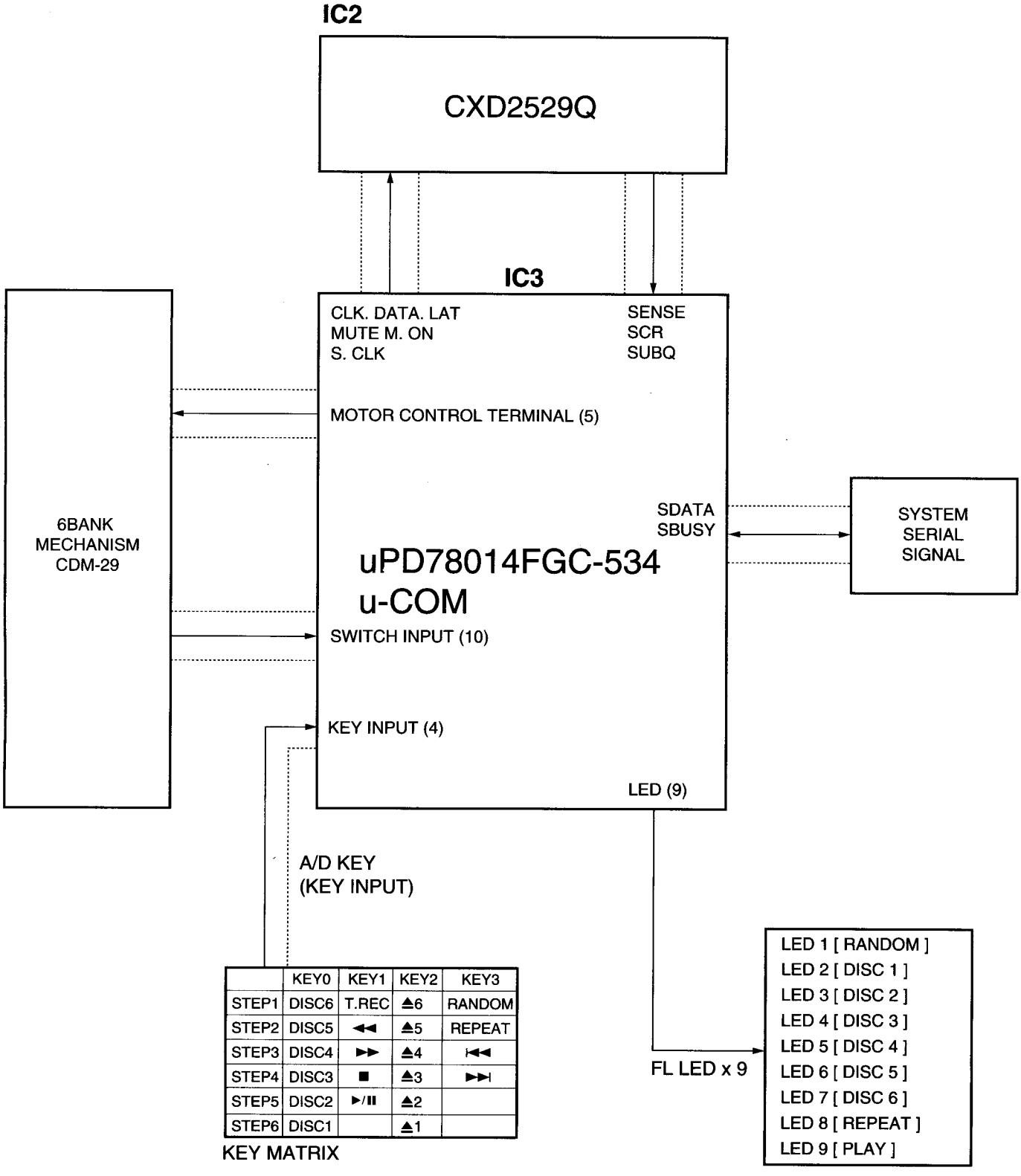
**❾ Stop (■) key**

**❿ Play / pause (►/II) key**
The playback or pause functions are activated alternately every time the key is pressed.

# CIRCUIT DESCRIPTION

## 1. Microprocessor : uPD78014FGC534 (X32-, IC3)

### 1-1 Microprocessor periphery block diagram




| | KEY0 | KEY1 | KEY2 | KEY3 |
|---|---|---|---|---|
| STEP1 | DISC6 | T.REC | ▲6 | RANDOM |
| STEP2 | DISC5 | ◄◄ | ▲5 | REPEAT |
| STEP3 | DISC4 | ►► | ▲4 | I◄◄ |
| STEP4 | DISC3 | ■ | ▲3 | ►►I |
| STEP5 | DISC2 | ►/II | ▲2 | |
| STEP6 | DISC1 | | ▲1 | |

KEY MATRIX

# CIRCUIT DESCRIPTION

## 1-2 Pin description

| Pin No. | Pin Name | I/O | Description | Active |
|---|---|---|---|---|
| 1 | /T.OPEN | I | Tray open sw | L : open |
| 2 | /D.DET | I | Disc check | L : disc |
| 3 | MOTOR1 | O | Tray motor | H : close/t.u. down |
| 4 | MOTOR2 | O | Loading motor | H : stocker up/single tray load |
| 5 | MOTOR3 | O | Tray motor | H : open/t.u up |
| 6 | MOTOR4 | O | Loading motor | H : stocker down/single tray store |
| 7 | S.DATA | I/O | in/output port of serial data | |
| 8 | S.BUSY | I/O | In/output port of serial busy | |
| 9 | Vss | - | GND | |
| 10 | /XLAT | O | Output port of latch to CXD2529Q | |
| 11 | /DATA | O | Output port of data to CXD2529Q | |
| 12 | /CLK | O | Output port of clock to CXD2529Q | |
| 13 | MON | O | Control port of focus function | |
| 14 | SYS.MUTE | O | Output port of system mute to CXD2529Q | |
| 15 | /LDC | O | Output port of laser | L : led on |
| 16,17 | N.C. | O | No use | |
| 18 | SENSE | I | Input port of SENSE signal from CXD2529Q | |
| 19 | LED9 | O | LED9(play) | |
| 20 | LED8 | O | LED8(repeat) | |
| 21-23 | LED6-4 | O | Disc 6-4 | |
| 24 | Vss | - | Microprocessor GND | |
| 25-27 | LED3-1 | O | LED3-1(disc3-1) | |
| 28 | LED7 | O | LED7(random) | |
| 29,30 | N.C. | I | No use | |
| 31 | T.DOWN | I | Tray down switch | L : down |
| 32-34 | N.C. | O | No use | |
| 35 | /RESET | I | Input port of RESET | |
| 36 | /DEFECT | I | Output port of detection for poor disk | L : countermeasure |
| 37,38 | N.C. | O | No use | |
| 39 | SCOR | I | Input port of sub-code synchro frame signal | |
| 40 | Vdd | - | Power supply (+5V) | |
| 41,42 | X1,2 | - | Oscillation port | |
| 43 | IC | - | Connect to GND | |
| 44,45 | N.C. | - | No use | |
| 46 | Avss | - | Gnd port of A/D converter | |
| 47-50 | KEY0-3 | I | Input port of A/D key 0-3 | |
| 51 | /SLTSW | I | Input port of start limit switch | L : slt sw on |
| 52 | /T.CLOSE | I | Tray close sw | L : close |
| 53 | /H.POS | I | Stocker position sw | L : home position |
| 54 | /D.CNT | I | Disc count/detection of height sw | H : height ok |
| 55 | Avdd | - | Power supply of A/D converter | |
| 56 | Avref | - | Input port of standard voltage for A/D converter | |
| 57 | /ST.OUT | I | Single tray position detection sw | L : slider store position |
| 58 | /ST.IN | I | Single tray position detection sw | L : slider load position |
| 59 | /ST.ON | I | Single stocker detection sw | L : single tray |
| 60 | /TU DOWN | I | Traverse unit down detection | L : down |
| 61 | C.BOS | I | Center Bos detection sw | L : center bos ok |
| 62 | SUBQ | I | Input port of Q data | |
| 63 | N.C. | O | No use | |
| 64 | SQCK | O | Clock output port of Q data read | |

# CIRCUIT DESCRIPTION

## 2. TEST MODE

### 2-1 MODE "00"

**MODE "00" : USE FOR TEST OR ALIGNMENT**

| PRESS KEY | LED | | | OPERATION | | REMARK |
|---|---|---|---|---|---|---|
| AC-ON AND KEEP TO PRESS "DISC 1" | REPEAT | RANDOM | PLAY | | | |
| | ON/OFF | OFF | OFF | DISC 1 TRAY SELF OPEN | | SET THE TEST MODE |
| ►/II PLAY / PAUSE | ON/OFF | OFF | ON/OFF | DISC TRAY CLOSE & CHANGE THE MODE (03, 05) | 03 MODE | TE-BAL ALIGNMENT |
| | | | ON | | 05 MODE | FE/FG/TG ALIGNMENT |
| ►►I FF | ON/OFF | OFF | OFF | PICK MANUAL FEED (IN TO OUT) | | STOP MODE ONLY |
| ◄◄ FB | ON/OFF | OFF | OFF | PICK MANUAL FEED (OUT TO IN) | | STOP MODE ONLY |
| ►►I UP | – | – | – | LED ALL ON ←→ LED ALL OFF | | |
| ▲ OPEN/CLOSE (DISC 1~6) | ON/OFF | OFF | OFF | TRAY 1-6 OPEN/CLOSE | | |
| ■ STOP | ON/OFF | OFF | OFF | STOP (NO STOCK FOR DISC 1) | | |
| DISC 6 | ON/OFF | ON/OFF | – | SHIFT TO "MODE 15" | | |
| I◄◄ DOWN | OFF | OFF | OFF | | | CANCEL THE TEST MODE |

### 2-2 MODE "12"

**MODE "12" : DISC TRAY OPEN-CLOSE & CHANGE**

| PRESS KEY | LED | | | OPERATION | REMARK |
|---|---|---|---|---|---|
| AC-ON AND KEEP TO PRESS "DISC 4" | REPEAT | RANDOM | ON/OFF | | |
| | ON/OFF | OFF | DISC 1 | DISC 1 TRAY OPEN (0.5sec)→ CLOSE | |
| | | | DISC 2 | DISC 2 TRAY OPEN (0.5sec)→ CLOSE | |
| | | | DISC 3 | DISC 3 TRAY OPEN (0.5sec)→ CLOSE | |
| | | | DISC 4 | DISC 4 TRAY OPEN (0.5sec)→ CLOSE | |
| | | | DISC 5 | DISC 5 TRAY OPEN (0.5sec)→ CLOSE | |
| | | | DISC 6 | DISC 6 TRAY OPEN (0.5sec)→ CLOSE | |

※ IF THIS MODE FINISHED, RETURN TO NORMAL CONDITION

### 2-3 MODE "13"

**MODE "13" : DISC AUTO CHANGE**

| PRESS KEY | LED | | | OPERATION | REMARK |
|---|---|---|---|---|---|
| AC-ON AND KEEP TO PRESS "DISC 5" | REPEAT | RANDOM | ON/OFF | | |
| | | | DISC 1 | DISC 1 DISC SENSE | |
| | | | DISC 2 | DISC 2 DISC SENSE | |
| | | | DISC 3 | DISC 3 DISC SENSE | |
| | | | DISC 4 | DISC 4 DISC SENSE | |
| | | | DISC 5 | DISC 5 DISC SENSE | |
| | | | DISC 6 | DISC 6 DISC SENSE → STOP | |

※ IF THIS MODE FINISHED, RETURN TO NORMAL CONDITION

### 2-4 MODE "15"

**MODE "15" : MECHA MANUAL MODE (ESCAPE FOR MECHA-JAM)**

| PRESS KEY | LED LAMP | | | OPERATION | REMARK |
|---|---|---|---|---|---|
| AC-ON AND KEEP | REPEAT | RANDOM | ON/OFF | | |
| TO PRESS "DISC 6" | ON/OFF | ON/OFF | ON/OFF | | SET THE TEST MODE |
| DISC 1 | ON/OFF | ON/OFF | – | IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE OPEN-SIDE. | LED (DISC 1) BLINKS UP WHILE PRESSING THE DISC1 KEY |
| DISC 2 | ON/OFF | ON/OFF | – | IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE CLOSE-SIDE. | LED (DISC 2) BLINKS UP WHILE PRESSING THE DISC 2 KEY |
| DISC 4 | ON/OFF | ON/OFF | – | IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE UP-SIDE. | LED (DISC 4) BLINKS UP WHILE PRESSING THE DISC 4 KEY |
| DISC 5 | ON/OFF | ON/OFF | – | IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE DOWN-SIDE. | LED (DISC 5) BLINKS UP WHILE PRESSING THE DISC 5 KEY |

※THE KEYS OF DISC 3 AND DISC 6 ARE NOT OPERATE IN MODE "15"

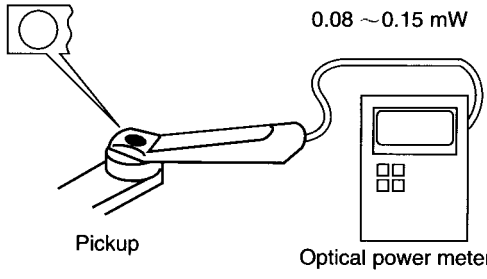
NOTE : LED ON/OFF (TURN ON AND OFF) LED ON (TURN ON) LED OFF (TURN OFF)

# ADJUSTMENT

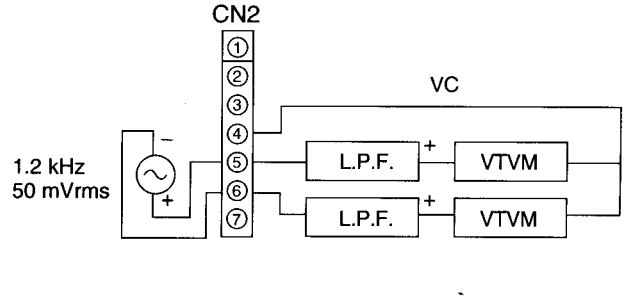
| No. | ITEM | INPUT SETTINGS | OUTPUT SETTINGS | PLAYER SETTINGS | ALIGNMENT POINTS | ALIGN FOR | FIG. |
|---|---|---|---|---|---|---|---|
| **While pressing the "DISC 1" key, turn the AC ON. { Refer to test mode (MODE 0 0) }** | | | | | | | |
| 1 | LASER POWER | – | Apply the sensor section of optical power meter on the pickup lens. | Press the PLAY/PAUSE key, then confirm that the LED is "03". | – | On the power from 0.08 to 0.15 mW, when the diffraction grating is correctly aligned with the RF level of 0.6 Vp-p or more. | (a) |
| 2 | TRACKING ERROR BALANCE | Test disc Type 4 | Connect an oscilloscope as follows. CH1 : RF (CN2 pin 1) CH2 : TE (CN2 pin 6) | Press the PLAY/PAUSE key, then confirm that the LED is "03". | TE BALANCE VR2 | Symmetry between upper and lower patterns | |
| 3 | FOCUS ERROR BALANCE | Test disc Type 4 | Connect an oscilloscope as follows. CH1 : RF (CN2 pin 1) CH2 : FE (CN2 pin 2) | Press the PLAY/PAUSE key, then confirm that the LED is "05". | FE BALANCE VR1 | Optimum eye pattern | |
| 4 | TRACKING GAIN | Test disc Type 4 Apply signal of 1.2 kHz, 50mVrms to CN2 pin 5-6. | Connect a LPF to CN2 pin 5-6 to which you connect an oscilloscope or AC voltmeters. | Press the PLAY/PAUSE key, then confirm that the LED is "05". | TRACKING GAIN VR3 | Two VTVMs should read the same value. | (e) |

Note:
Type 4 disc : SONY YEDS-18 Test Disc or equivalent.
LPF: Around 47 kΩ+ 390 pF or so.
Step 1~4 are in Test Mode.

**(a) Laser power**




**(e) Tracking gain**

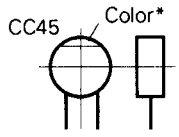


# PARTS DESCRIPTIONS

## CAPACITORS

CC 45 TH 1H 220 J
1 2 3 4 5 6

1 = Type ... ceramic, electrolytic, etc.
2 = Shape ... round, square, ect.
3 = Temp. coefficient
4 = Voltage rating
5 = Value
6 = Tolerance




**• Capacitor value**

010 = 1pF
100 = 10pF
101 = 100pF
102 = 1000pF = 0.001μF
103 = 0.01μF

2 2 0 = 22pF
0 = Multiplier
2 = 2nd number
2 = 1st number

**• Temperature coefficient**

| 1st Word | C | L | P | R | S | T | U |
|---|---|---|---|---|---|---|---|
| Color* | Black | Red | Orange | Yellow | Green | Blue | Violet |
| ppm/°C | 0 | -80 | -150 | -220 | -330 | -470 | -750 |

| 2nd Word | G | H | J | K | L |
|---|---|---|---|---|---|
| ppm/°C | ±30 | ±60 | ±120 | ±250 | ±500 |

Example : CC45TH = -470 ± 60ppm/°C

**• Tolerance (More than 10pF)**

| Code | C | D | G | J | K | M | X | Z | P | No code |
|---|---|---|---|---|---|---|---|---|---|---|
| (%) | ±0.25 | ±0.5 | ±2 | ±5 | ±10 | ±20 | +40 | +80 | +100 | More than 10μF – 10 ~ +50 |
| | | | | | | | -20 | -20 | -0 | Less than 4.7μF -10 ~ +75 |

**(Less than 10pF)**

| Code | B | C | D | F | G |
|---|---|---|---|---|---|
| (pF) | ±0.1 | ±0.25 | ±0.5 | ±1 | ±2 |

**• Voltage rating**

| 1st word \ 2nd word | A | B | C | D | E | F | G | H | J | K | V |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.0 | 1.25 | 1.6 | 2.0 | 2.5 | 3.15 | 4.0 | 5.0 | 6.3 | 8.0 | – |
| 1 | 10 | 12.5 | 16 | 20 | 25 | 31.5 | 40 | 50 | 63 | 80 | 35 |
| 2 | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 500 | 630 | 800 | – |
| 3 | 1000 | 1250 | 1600 | 2000 | 2500 | 3150 | 4000 | 5000 | 6300 | 8000 | – |

**• Chip capacitors**

(EX) C C 7 3 F S L 1 H 0 0 0 J
1 2 3 4 5 6 7
(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
1 2 3 4 5 6 7
(Chip) (B, F)

Refer to the table above.
1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Voltage rating
6 = Value
7 = Tolerance

**Dimension (Chip capacitors)**

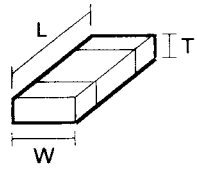
| Dimension code | L | W | T |
|---|---|---|---|
| Empty | 5.6 ± 0.5 | 5.0 ± 0.5 | Less than 2.0 |
| A | 4.5 ± 0.5 | 3.2 ± 0.4 | Less than 2.0 |
| B | 4.5 ± 0.5 | 2.0 ± 0.3 | Less than 2.0 |
| C | 4.5 ± 0.5 | 1.25 ± 0.2 | Less than 1.25 |
| D | 3.2 ± 0.4 | 2.5 ± 0.3 | Less than 1.5 |
| E | 3.2 ± 0.2 | 1.6 ± 0.2 | Less than 1.25 |
| F | 2.0 ± 0.3 | 1.25 ± 0.2 | Less than 1.25 |
| G | 1.6 ± 0.2 | 0.8 ± 0.2 | Less than 1.0 |

## RESISTORS

**• Chip resistor (Carbon)**

(EX) R K 7 3 E B 2 B 0 0 0 J
1 2 3 4 5 6 7
(Chip) (B,F)

**Dimension**




**Dimension (Chip resistor)**

| Dimension code | L | W | T |
|---|---|---|---|
| E | 3.2 ± 0.2 | 1.6 ± 0.2 | 1.0 |
| F | 2.0 ± 0.3 | 1.25 ± 0.2 | 1.0 |
| G | 1.6±0.2 | 0.8±0.2 | 0.5±0.1 |

**• Carbon resistor (Normal type)**

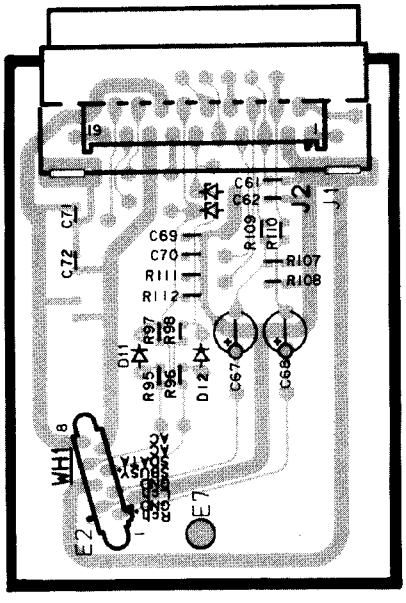
(EX) R D 1 4 B B 2 C 0 0 0 J
1 2 3 4 5 6 7

1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Rating wattage
6 = Value
7 = Tolerance

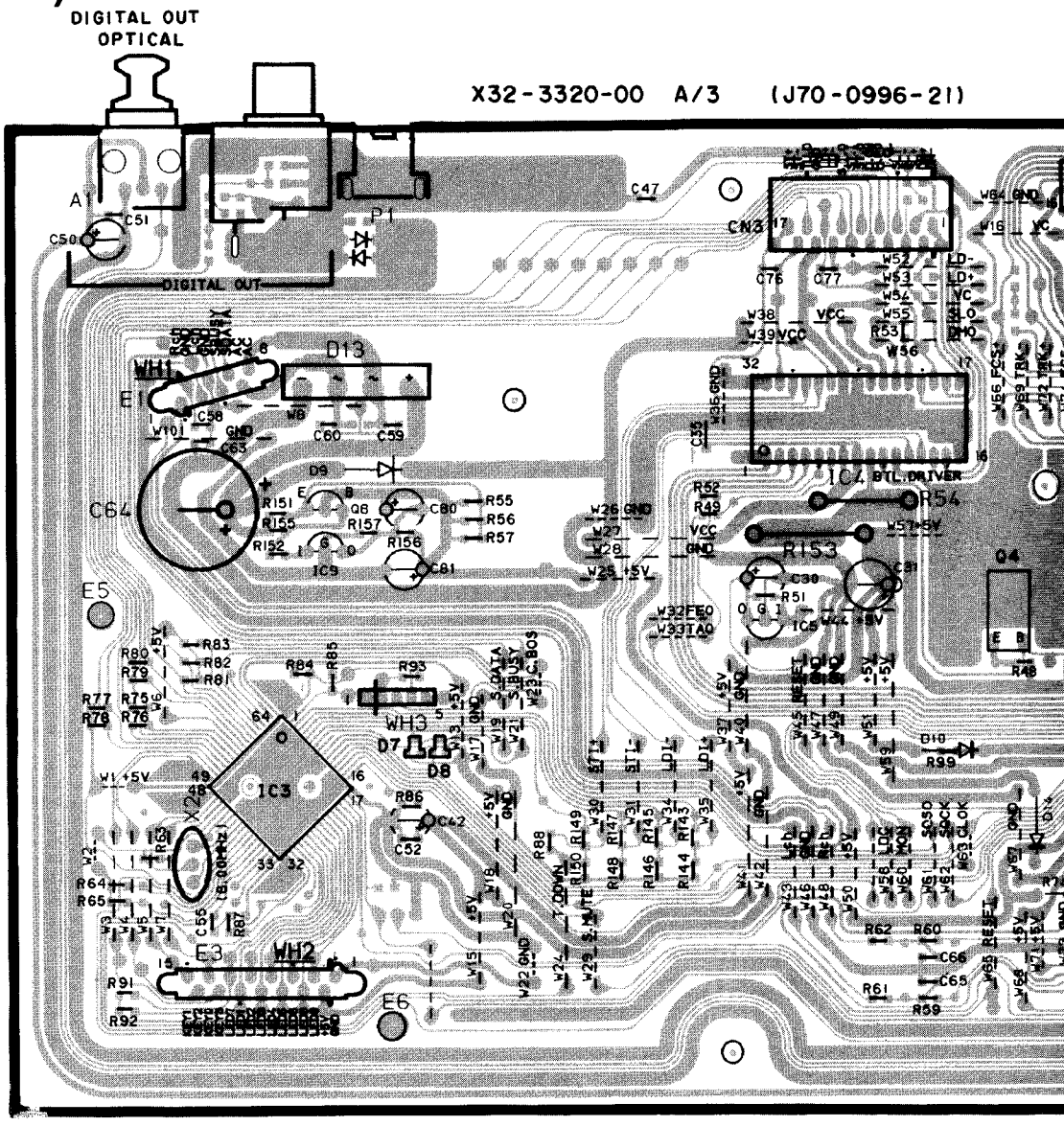
**Rating wattage**

| Code | Wattage | Code | Wattage | Code | Wattage |
|---|---|---|---|---|---|
| 1J | 1/16W | 2C | 1/6W | 3A | 1W |
| 2A | 1/10W | 2E | 1/4W | 3D | 2W |
| 2B | 1/8W | 2H | 1/2W | | |

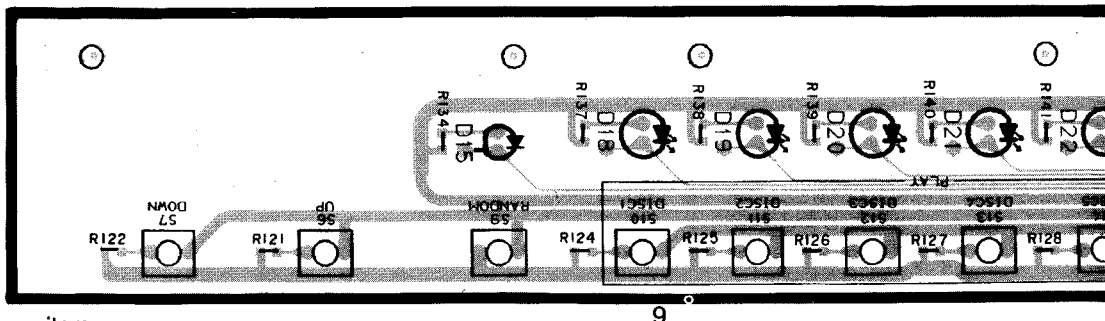
# ARD(Component side view)




X32 C/3

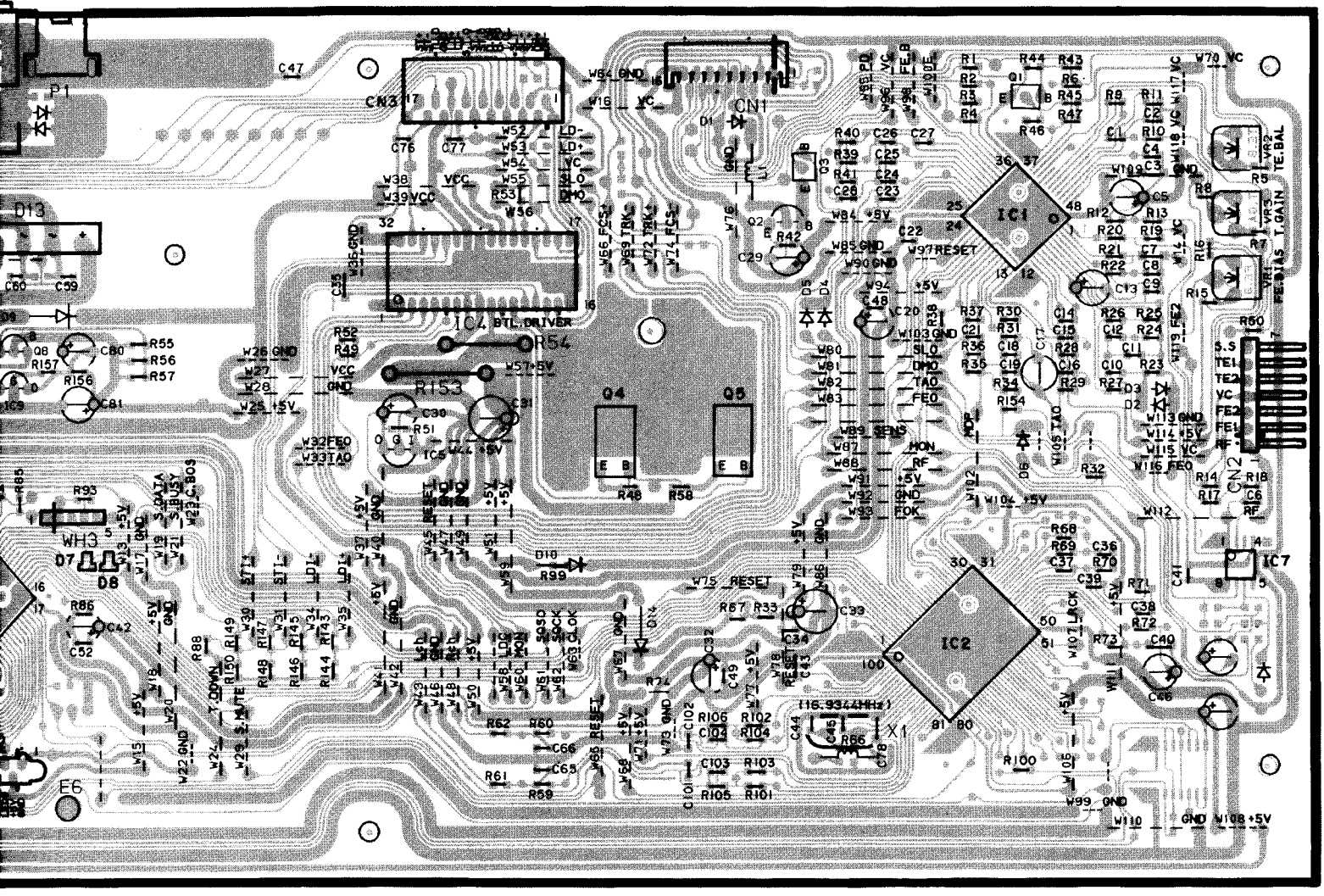


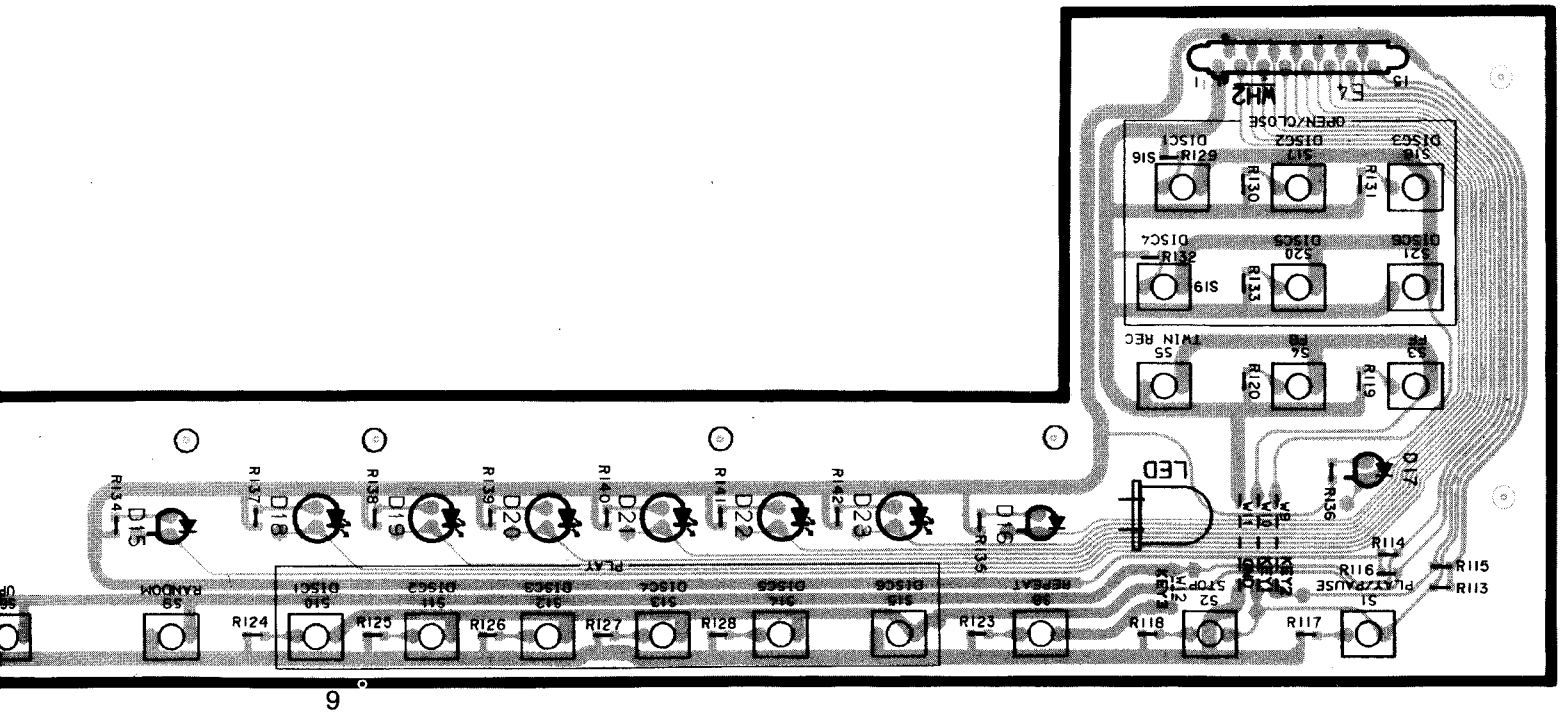

X32 B/3

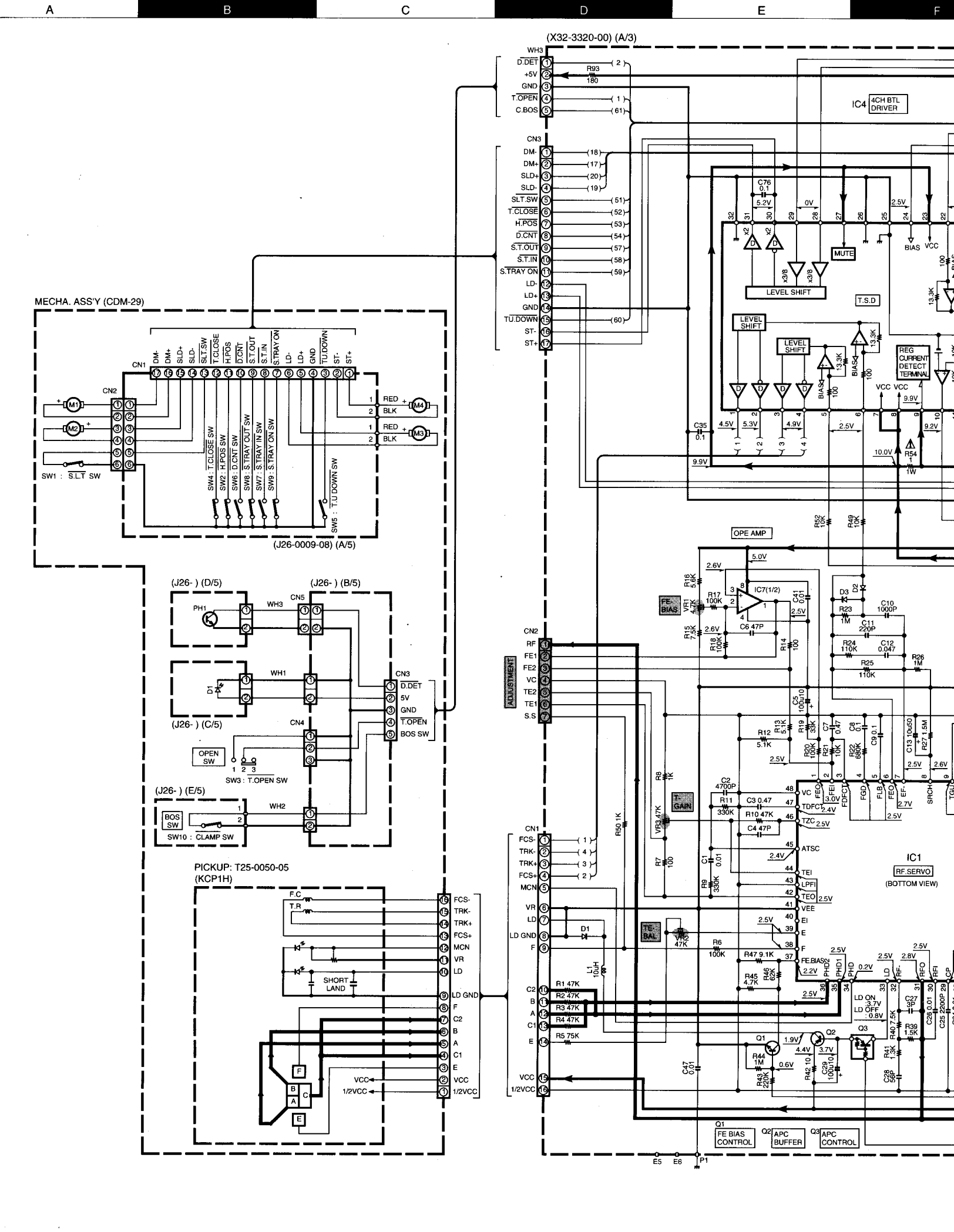


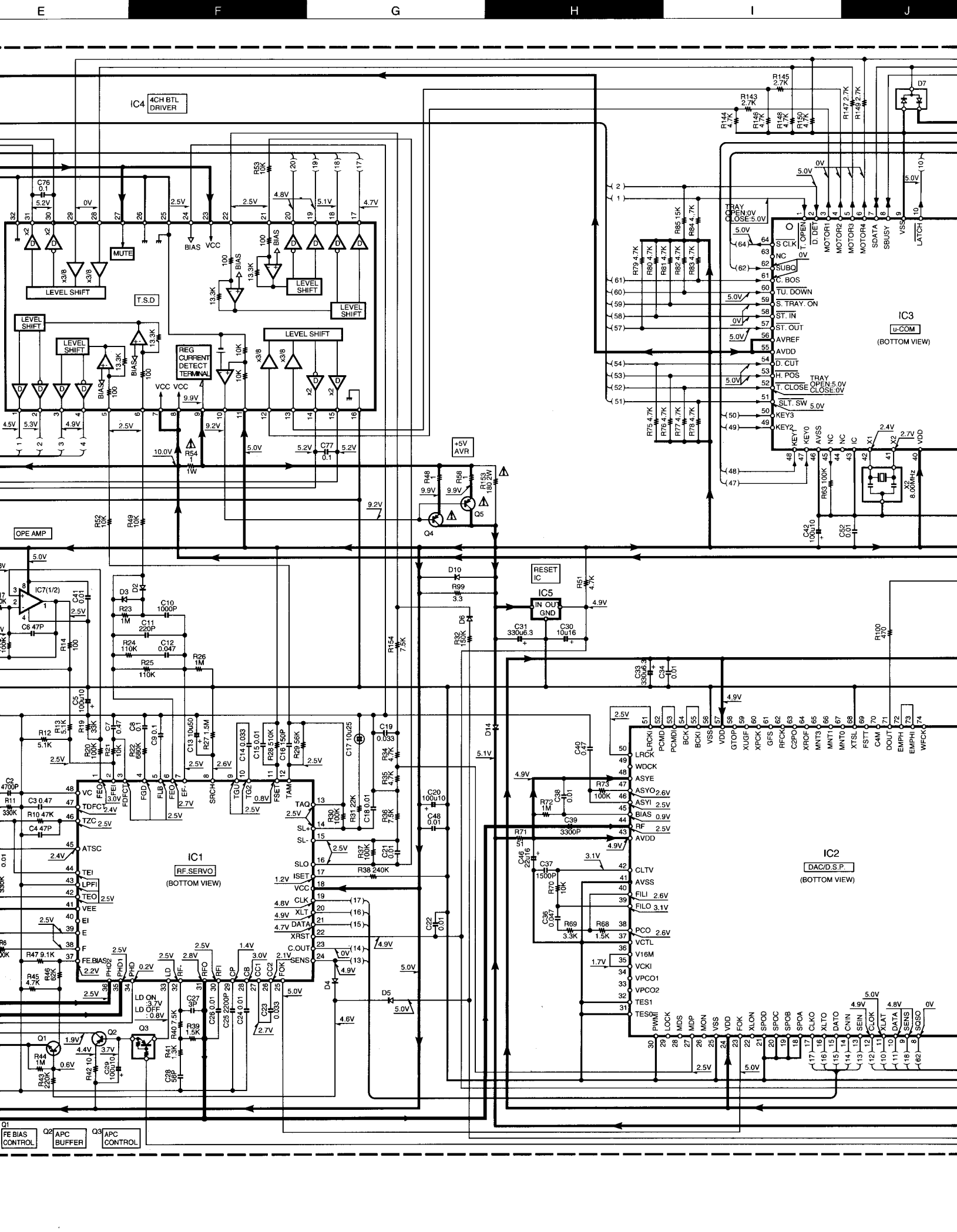
schematic diagram for the value of resistors and capacitors.

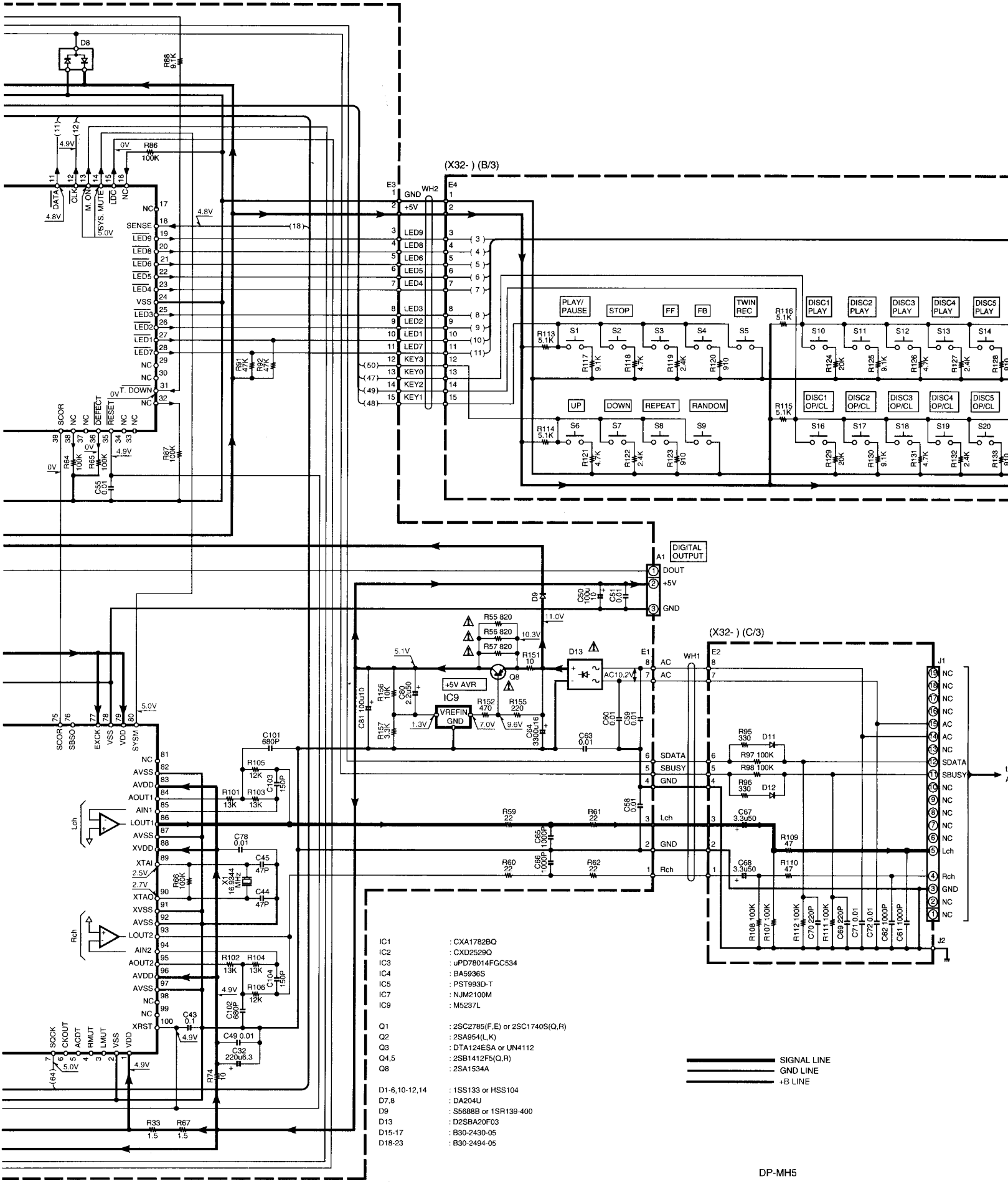
X32-3320-00 A/3 (J70-0996-21)



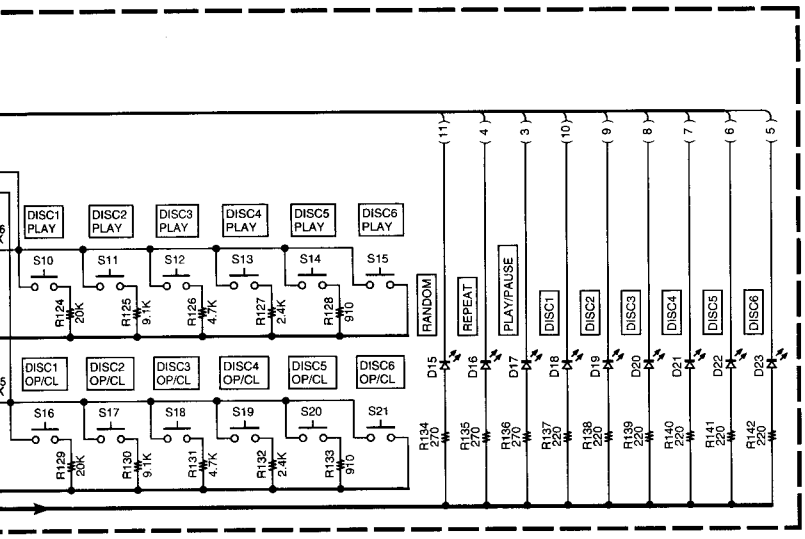

A
B
C
D
E
F
(X32-3320-00) (A/3)
WH3
D.DET
+5V
GND
T.OPEN
C.BOS
R93
180
CN3
DM-
DM+
SLD+
SLD-
SLT.SW
T.CLOSE
H.POS
D.CNT
S.T.OUT
S.T.IN
S.TRAY ON
LD-
LD+
GND
TU.DOWN
ST-
ST+
IC4
4CH BTL DRIVER
MUTE
LEVEL SHIFT
T.S.D
REG CURRENT DETECT TERMINAL
BIAS
VCC
MECHA. ASS'Y (CDM-29)
CN1
CN2
M1
M2
M3
M4
RED
BLK
SW1 : S.L.T SW
SW4 : T.CLOSE SW
SW2 : H.POS SW
SW6 : D.CNT SW
SW8 : S.TRAY OUT SW
SW7 : S.TRAY IN SW
SW9 : S.TRAY ON SW
SW5 : T.U.DOWN SW
(J26-0009-08) (A/5)
(J26- ) (D/5)
(J26- ) (B/5)
PH1
WH3
CN5
WH1
D1
CN3
D.DET
5V
GND
T.OPEN
BOS SW
(J26- ) (C/5)
CN4
OPEN SW
SW3 : T.OPEN SW
(J26- ) (E/5)
WH2
BOS SW
SW10 : CLAMP SW
PICKUP: T25-0050-05
(KCP1H)
F.C
T.R
SHORT LAND
FCS-
TRK-
TRK+
FCS+
MCN
VR
LD
LD GND
F
C2
B
A
C1
E
VCC
1/2VCC
OPE AMP
IC7(1/2)
FE BIAS
ADJUSTMENT
T. GAIN
TE BAL
IC1
RF.SERVO
(BOTTOM VIEW)
VC
TDFCT
TZC
ATSC
TEI
LPFI
TEO
VEE
EI
E
F
FE.BIAS
PHD1
PHD
LD
RF-
RFO
RFI
CP
LD ON 3.7V
LD OFF : 0.8V
Q1
Q2
Q3
FE BIAS CONTROL
APC BUFFER
APC CONTROL
E5
E6
P1

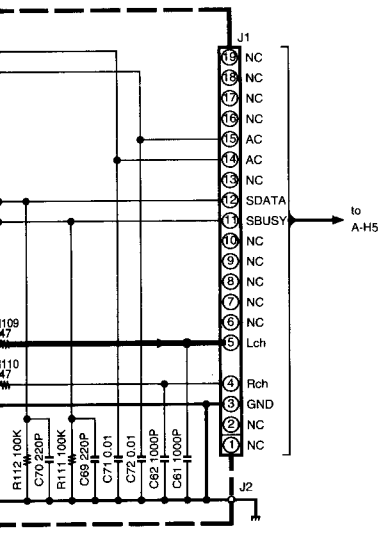

IC4 4CH BTL DRIVER
MUTE
BIAS
VCC
LEVEL SHIFT
T.S.D
REG CURRENT DETECT TERMINAL
OPE AMP
IC7(1/2)
+5V AVR
Q4
Q5
RESET IC
IC5
IN OUT GND
IC3
u-COM
(BOTTOM VIEW)
TRAY OPEN:0V CLOSE:5.0V
S CLK
T. OPEN
D. DET
MOTOR1
MOTOR2
MOTOR3
MOTOR4
SDATA
SBUSY
VSS
LATCH
NC
SUBQ
TC. BOS
TU. DOWN
S. TRAY. ON
ST. IN
ST. OUT
AVREF
AVDD
D. CUT
H. POS
T. CLOSE
SLT. SW
KEY3
KEY2
KEY1
KEY0
AVSS
IC
X1
X2
VDD
X2 8.00MHz
IC1
RF.SERVO
(BOTTOM VIEW)
IC2
DAC/D.S.P.
(BOTTOM VIEW)
LD ON 2.7V
LD OFF : 0.8V
Q1 FE BIAS CONTROL
Q2 APC BUFFER
Q3 APC CONTROL




| | |
|---|---|
| IC1 | : CXA1782BQ |
| IC2 | : CXD2529Q |
| IC3 | : uPD78014FGC534 |
| IC4 | : BA5936S |
| IC5 | : PST993D-T |
| IC7 | : NJM2100M |
| IC9 | : M5237L |
| Q1 | : 2SC2785(F,E) or 2SC1740S(Q,R) |
| Q2 | : 2SA954(L,K) |
| Q3 | : DTA124ESA or UN4112 |
| Q4,5 | : 2SB1412F5(Q,R) |
| Q8 | : 2SA1534A |
| D1-6,10-12,14 | : 1SS133 or HSS104 |
| D7,8 | : DA204U |
| D9 | : S5688B or 1SR139-400 |
| D13 | : D2SBA20F03 |
| D15-17 | : B30-2430-05 |
| D18-23 | : B30-2494-05 |

DP-MH5

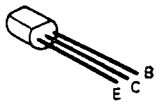


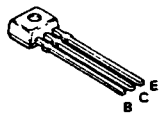

SIGNAL LINE
GND LINE
B LINE

H5

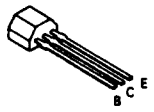
2SA1534A
2SA954



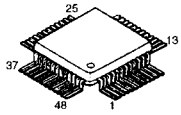
2SC2785



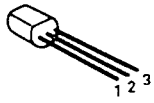
DTA124ESA
UN4112
2SC1740S



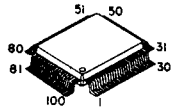
CXA1782BQ



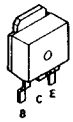
M5237L



CXD2529Q



2SB1412F5



DA204U

***CAUTION:*** *For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). 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.*

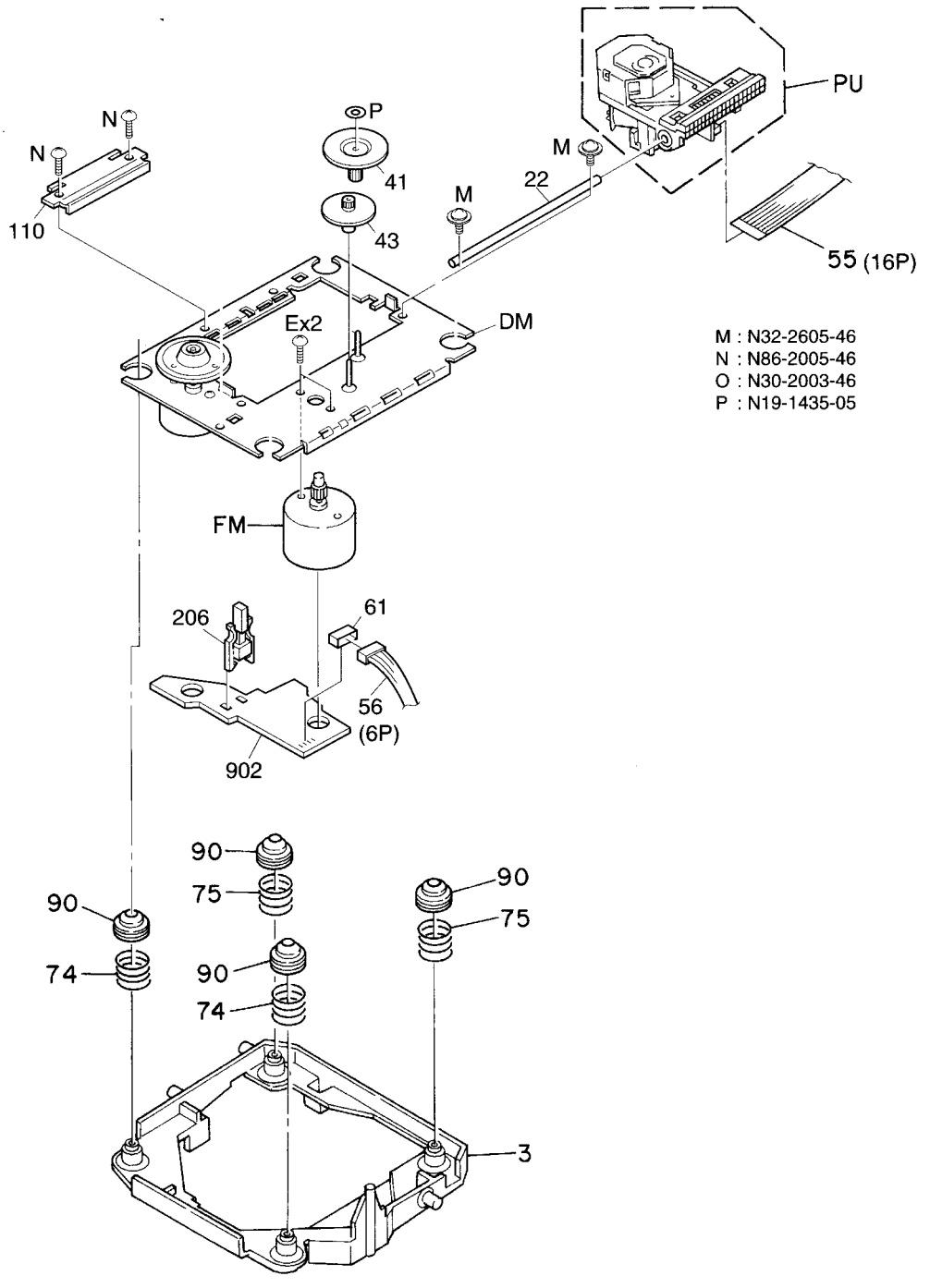
*The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during PLAY unless otherwise specified; The value shown in ( ) is the voltage measured at the moment of STOP.*



DP-MH5

KENWOOD

# EXPLODED VIEW (CD MECHANISM)



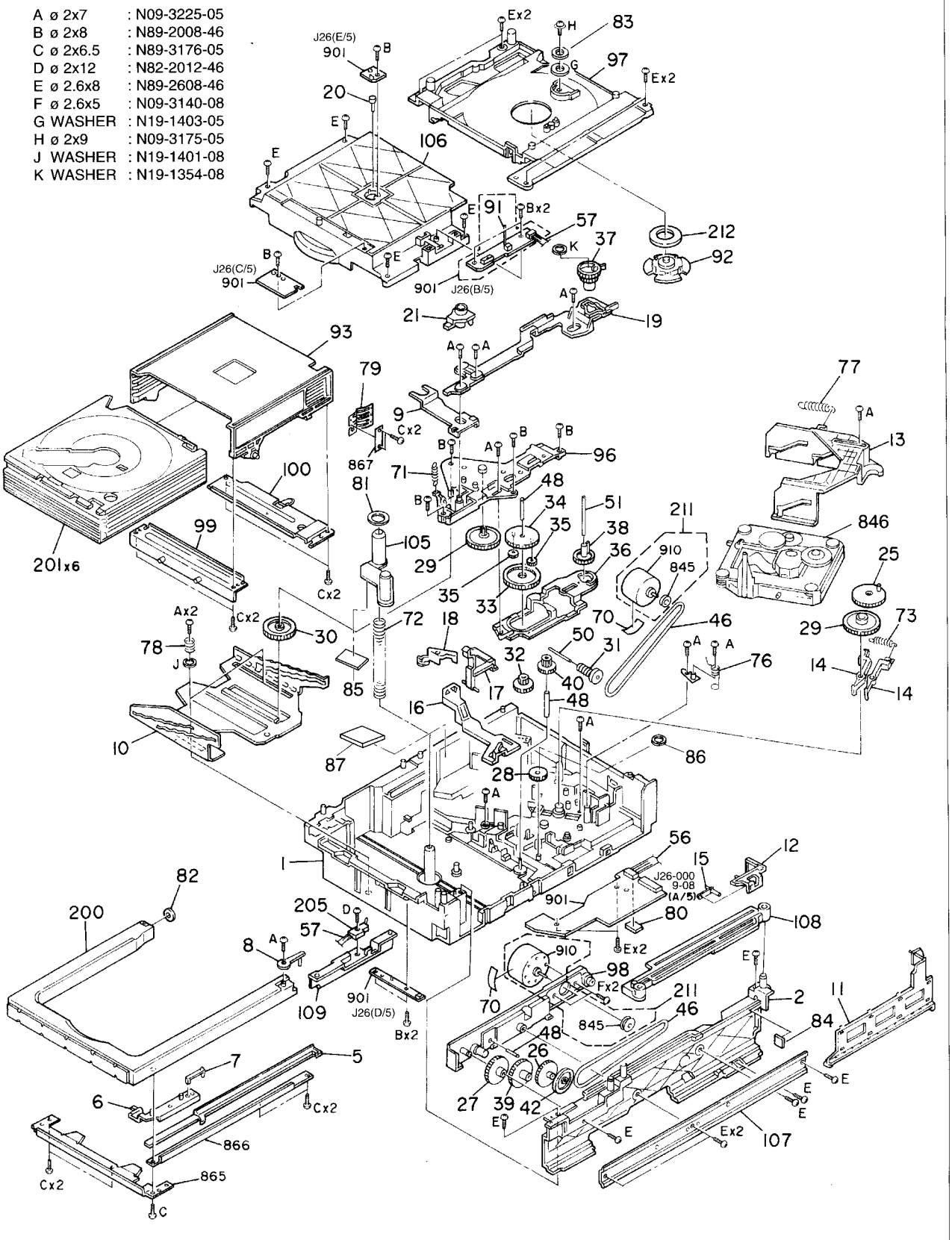



Parts with the exploded numbers larger than 700 are not supplied.

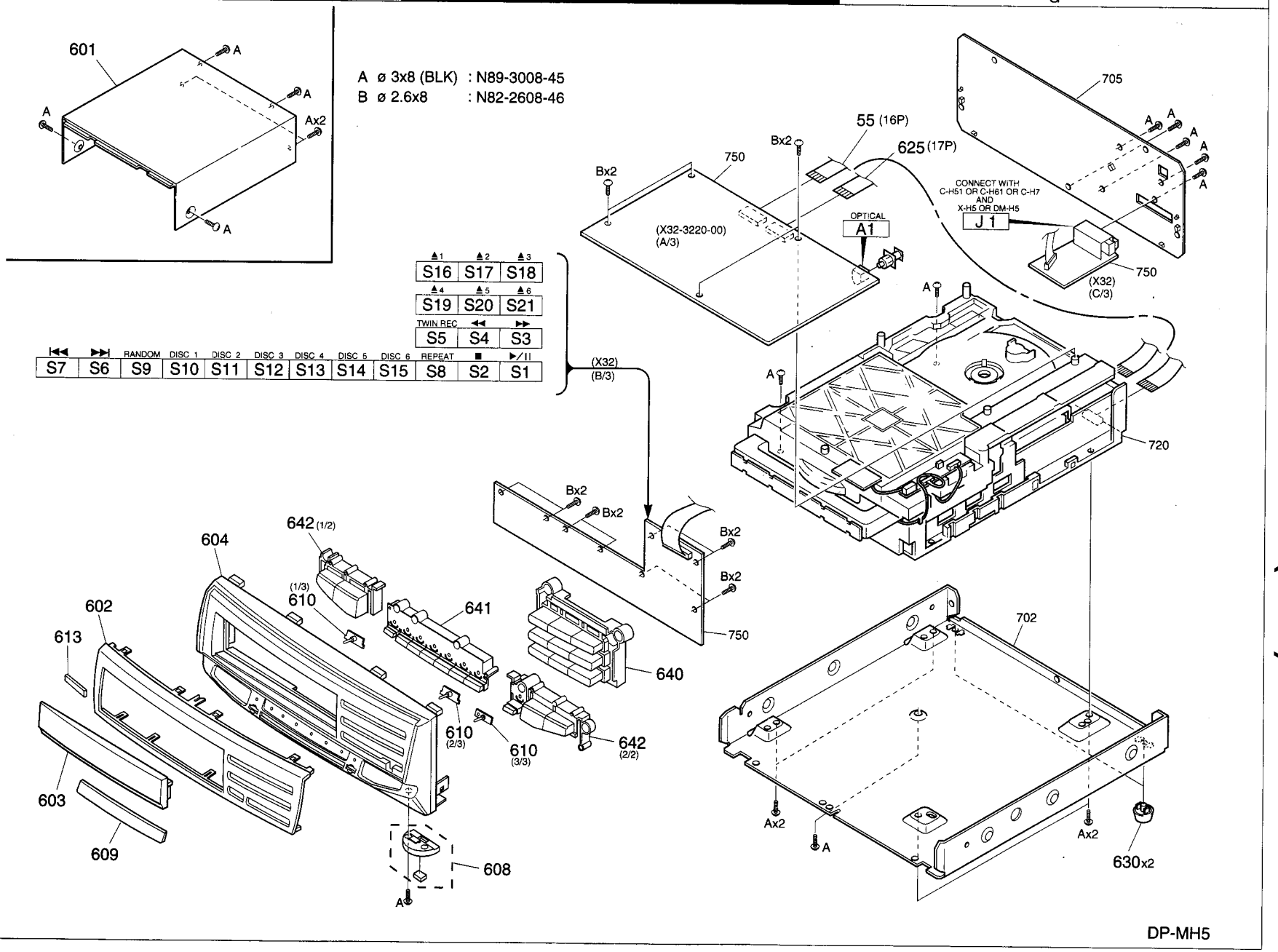
# DP-MH5

## EXPLODED VIEW (CD MECHANISM)

| | |
|---|---|
| A ø 2x7 | : N09-3225-05 |
| B ø 2x8 | : N89-2008-46 |
| C ø 2x6.5 | : N89-3176-05 |
| D ø 2x12 | : N82-2012-46 |
| E ø 2.6x8 | : N89-2608-46 |
| F ø 2.6x5 | : N09-3140-08 |
| G WASHER | : N19-1403-05 |
| H ø 2x9 | : N09-3175-05 |
| J WASHER | : N19-1401-08 |
| K WASHER | : N19-1354-08 |




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




DP-MH5

# EXPLODED VIEW (UNIT)

# DP-MH5

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

* 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.

❶

| Ref. No | Address | New Parts | Parts No. | Description | Destination | Remarks |
|---|---|---|---|---|---|---|
| **DP-MH5** | | | | | | |
| 601 | 1E | | A01-3227-01 | METALLIC CABINET(BLK) | | |
| 601 | 1E | * | A01-3436-01 | METALLIC CABINET(SLV) | | |
| 602 | 2E | * | A21-1934-12 | DRESSING PANEL (BLK) | | |
| 602 | 2E | * | A21-1942-12 | DRESSING PANEL (SLV) | | |
| 603 | 2E | | A29-0852-02 | PANEL (SLV) | | |
| 603 | 2E | * | A29-0853-02 | PANEL (BLK) | | |
| 604 | 2E | * | A60-1100-21 | PANEL (SLV) | | |
| 604 | 2E | * | A60-1117-21 | PANEL (BLK) | | |
| 608 | 2F | | B07-2335-14 | ESCUTCHEON | | |
| 609 | 2E | * | B10-2322-13 | FRONT GLASS | | |
| 610 | 2E,2F | * | B12-0305-14 | INDICATOR | | |
| 613 | 2E | | B43-0301-04 | KENWOOD BADGE | | |
| - | | | B58-1507-00 | CAUTION CARD | | |
| 625 | 1G | | E35-1348-05 | FLAT CABLE (17P) | | |
| - | | | H10-7264-12 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | | H10-7265-12 | POLYSTYRENE FOAMED FIXTURE | | |
| - | | | H20-0576-04 | PROTECTION COVER | MI | |
| - | | | H25-0681-04 | PROTECTION BAG | KYTEQ | |
| - | | * | H50-2358-04 | ITEM CARTON CASE | KY | |
| - | | * | H50-2359-04 | ITEM CARTON CASE | MI | |
| - | | * | H50-2360-04 | ITEM CARTON CASE(SLV) | TEQ | |
| - | | * | H50-2361-04 | ITEM CARTON CASE(BLK) | TEQ | |
| 630 | 2G | | J02-0366-15 | FOOT | | |
| - | | | J61-0307-05 | WIRE BAND | | |
| 640 | 2F | * | K29-6591-02 | KNOB (SLV) | | |
| 640 | 2F | * | K29-6616-02 | KNOB (BLK) | | |
| 641 | 2F | * | K29-6592-12 | KNOB (SLV) | | |
| 641 | 2F | * | K29-6617-12 | KNOB (BLK) | | |
| 642 | 2E,2F | * | K29-6593-12 | KNOB (SLV) | | |
| 642 | 2E,2F | * | K29-6618-12 | KNOB (BLK) | | |
| **MECHANISM PCB (J26-0009-08)** | | | | | | |
| D1 | | | SIR-33ST3 | LED | | |
| CN1 | | | E40-4197-05 | FLAT CABLE CONNECTOR(17P) | | |
| CN2 | | | E40-3264-05 | PIN ASSY (6P) | | |
| CN3 | | | E40-3263-05 | PIN ASSY (5P) | | |
| CN4 | | | E40-4972-05 | PIN ASSY (3P) | | |
| CN5 | | | E40-3260-05 | PIN ASSY (2P) | | |
| - | | | J11-0808-05 | WIRE CLAMPER | | |
| SW2 | | | S40-1140-05 | PUSH SWITCH | | |
| SW4 -8 | | | S68-0025-05 | PUSH SWITCH | | |
| SW9 ,10 | | | S40-1140-05 | PUSH SWITCH | | |
| PH1 | | | RPT-38PT3F | PHOTO TRANSISTOR | | |
| **CONTROL PCB (X32-3320-00)** | | | | | | |
| D15 -17 | | | B30-2430-05 | LED | | |
| D18 -23 | | | B30-2494-05 | LED | | |
| C1 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C2 | | | CK73FB1H472K | CHIP C 4700PF K | | |
| C3 | | | CK73EB1C474K | CHIP C 0.47UF K | | |

**L** : Scandinavia **K** : USA **P** : Canada **R** : Mexico **I** : Malaysia
**Y** : PX(Far East, Hawaii) **T** : Europe **E** : Europe **G** : Germany
**Y** : AAFES(Europe) **X** : Australia **M** : Other Areas **Q** : Russia

⚠ indicates safety critical components.

* 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.

❷

| Ref. No | Address | New Parts | Parts No. | Description | Destination | Remarks |
|---|---|---|---|---|---|---|
| C4 | | | CC73FSL1H470J | CHIP C 47PF J | | |
| C5 | | | CE04KW1A101M | ELECTRO 100UF 10WV | | |
| C6 | | | CC73FSL1H470J | CHIP C 47PF J | | |
| C7 | | | CK73EB1C474K | CHIP C 0.47UF K | | |
| C8 ,9 | | | CK73FB1E104K | CHIP C 0.10UF K | | |
| C10 | | | CK73FB1H102K | CHIP C 1000PF K | | |
| C11 | | | CC73FSL1H221J | CHIP C 220PF J | | |
| C12 | | | CK73FB1H473K | CHIP C 0.047UF K | | |
| C13 | | | CE04KW1H100M | ELECTRO 10UF 50WV | | |
| C14 | | | CK73FB1H333K | CHIP C 0.033UF K | | |
| C15 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C16 | | | CC73FSL1H151J | CHIP C 150PF J | | |
| C17 | | | CE04HW1E100M | NP-ELEC 10UF 25WV | | |
| C18 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C19 | | | CK73FB1H333K | CHIP C 0.033UF K | | |
| C20 | | | CE04KW1A101M | ELECTRO 100UF 10WV | | |
| C21 ,22 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C23 | | | CK73FB1H333K | CHIP C 0.033UF K | | |
| C24 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C25 | | | CK73FB1H222K | CHIP C 2200PF K | | |
| C26 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C27 | | | CC73FCH1H030C | CHIP C 3.0PF C | | |
| C28 | | | CC73FSL1H560J | CHIP C 56PF J | | |
| C29 | | | CE04KW1A101M | ELECTRO 100UF 10WV | | |
| C30 | | | CE04KW1C100M | ELECTRO 10UF 16WV | | |
| C31 | | | CE04KW0J331M | ELECTRO 330UF 6.3WV | | |
| C32 | | | CE04KW0J221M | ELECTRO 220UF 6.3WV | | |
| C33 | | | CE04KW0J331M | ELECTRO 330UF 6.3WV | | |
| C34 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C35 | | | CK73EB1H104K | CHIP C 0.10UF K | | |
| C36 | | | CK73FB1H473K | CHIP C 0.047UF K | | |
| C37 | | | CK73FB1H152K | CHIP C 1500PF K | | |
| C38 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C39 | | | CK73FB1H332K | CHIP C 3300PF K | | |
| C40 | | | CK73EB1C474K | CHIP C 0.47UF K | | |
| C41 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C42 | | | CE04KW1A101M | ELECTRO 100UF 10WV | | |
| C43 | | | CK73EB1H104K | CHIP C 0.10UF K | | |
| C44 ,45 | | | CC73FCH1H470J | CHIP C 47PF J | | |
| C46 | | | CE04KW1C220M | ELECTRO 22UF 16WV | | |
| C47 -49 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C50 | | | CE04KW1A101M | ELECTRO 100UF 10WV | | |
| C51 ,52 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C55 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C58 -60 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C61 ,62 | | | CK73FB1H102K | CHIP C 1000PF K | | |
| C63 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C64 | | | CE04KW1C332M | ELECTRO 3300UF 16WV | | |
| C65 ,66 | | | CK73FB1H102K | CHIP C 1000PF K | | |
| C67 ,68 | | | CE04KW1H3R3M | ELECTRO 3.3UF 50WV | | |
| C69 ,70 | | | CC73FSL1H221J | CHIP C 220PF J | | |
| C71 ,72 | | | CK73FB1H103K | CHIP C 0.010UF K | | |
| C76 ,77 | | | CK73FB1E104K | CHIP C 0.10UF K | | |
| C78 | | | CK73EB1H103K | CHIP C 0.010UF K | | |
| C80 | | | CE04KW1H2R2M | ELECTRO 2.2UF 50WV | | |

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❸

| Ref. No | Address | New Parts | Parts No. | Description | | | | Destination | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| C81 | | | CE04KW1A101M | ELECTRO | 100UF | | 10WV | | |
| C101,102 | | | CC73FSL1H681J | CHIP C | 680PF | J | | | |
| C103,104 | | | CC73FSL1H151J | CHIP C | 150PF | J | | | |
| CN1 | | | E40-4997-05 | FLAT CABLE CONNECTOR | | | | | |
| CN2 | | | E40-4979-05 | PIN ASSY | | | | | |
| CN3 | | | E40-4942-05 | FLAT CABLE CONNECTOR | | | | | |
| J1 | | | E58-0006-05 | RECTANGULAR RECEPTACLE | | | | | |
| E5 -7 | | | J11-0809-05 | WIRE CLAMPER | | | | | |
| L1 | | | L40-1001-17 | SMALL FIXED INDUCTOR(10UH,K) | | | | | |
| X1 | | | L77-2190-05 | CRYSTAL RESONATOR(16.9344MHZ) | | | | | |
| X2 | | | L78-0290-05 | RESONATOR | (8MHZ) | | | | |
| R1 -4 | | | RK73FB2A473J | CHIP R | 47K | J | 1/10W | | |
| R5 | | | RK73FB2A753J | CHIP R | 75K | J | 1/10W | | |
| R6 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R7 | | | RK73FB2A101J | CHIP R | 100 | J | 1/10W | | |
| R8 | | | RK73FB2A102J | CHIP R | 1.0K | J | 1/10W | | |
| R9 | | | RK73FB2A334J | CHIP R | 330K | J | 1/10W | | |
| R10 | | | RK73FB2A473J | CHIP R | 47K | J | 1/10W | | |
| R11 | | | RK73FB2A334J | CHIP R | 330K | J | 1/10W | | |
| R12 ,13 | | | RK73FB2A512J | CHIP R | 5.1K | J | 1/10W | | |
| R14 | | | RK73FB2A101J | CHIP R | 100 | J | 1/10W | | |
| R15 | | | RK73FB2A752J | CHIP R | 7.5K | J | 1/10W | | |
| R16 | | | RK73FB2A562J | CHIP R | 5.6K | J | 1/10W | | |
| R17 ,18 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R19 | | | RK73FB2A333J | CHIP R | 33K | J | 1/10W | | |
| R20 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R21 | | | RK73FB2A103J | CHIP R | 10K | J | 1/10W | | |
| R22 | | | RK73FB2A684J | CHIP R | 680K | J | 1/10W | | |
| R23 | | | RK73FB2A105J | CHIP R | 1.0M | J | 1/10W | | |
| R24 ,25 | | | RK73FB2A114J | CHIP R | 110K | J | 1/10W | | |
| R26 | | | RK73FB2A105J | CHIP R | 1.0M | J | 1/10W | | |
| R27 | | | RK73FB2A155J | CHIP R | 1.5M | J | 1/10W | | |
| R28 | | | RK73FB2A514J | CHIP R | 510K | J | 1/10W | | |
| R29 | | | RK73FB2A563J | CHIP R | 56K | J | 1/10W | | |
| R30 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R31 | | | RK73FB2A223J | CHIP R | 22K | J | 1/10W | | |
| R32 | | | RK73FB2A154J | CHIP R | 150K | J | 1/10W | | |
| R33 | | | RK73FB2A1R5J | CHIP R | 1.5 | J | 1/10W | | |
| R34 ,35 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R36 | | | RK73FB2A752J | CHIP R | 7.5K | J | 1/10W | | |
| R37 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R38 | | | RK73FB2A244J | CHIP R | 240K | J | 1/10W | | |
| R39 | | | RK73FB2A152J | CHIP R | 1.5K | J | 1/10W | | |
| R40 | | | RK73FB2A752J | CHIP R | 7.5K | J | 1/10W | | |
| R41 | | | RK73FB2A132J | CHIP R | 1.3K | J | 1/10W | | |
| R42 | | | RK73FB2A100J | CHIP R | 10 | J | 1/10W | | |
| R43 | | | RK73FB2A224J | CHIP R | 220K | J | 1/10W | | |
| R44 | | | RK73FB2A105J | CHIP R | 1.0M | J | 1/10W | | |
| R45 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R46 | | | RK73FB2A623J | CHIP R | 62K | J | 1/10W | | |
| R47 | | | RK73FB2A912J | CHIP R | 9.1K | J | 1/10W | | |
| R48 | | | RK73FB2A1R0J | CHIP R | 1 | J | 1/10W | | |
| R49 | | | RK73FB2A103J | CHIP R | 10K | J | 1/10W | | |

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❹

| Ref. No | Address | New Parts | Parts No. | Description | | | | Destination | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| R50 | | | RK73FB2A102J | CHIP R | 1.0K | J | 1/10W | | |
| R51 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R52 ,53 | | | RK73FB2A103J | CHIP R | 10K | J | 1/10W | | |
| ⚠ R54 | | | RS14KB3A1R0J | FL-PROOF RS | 1 | J | 1W | | |
| ⚠ R55 -57 | | | RK73FB2A821J | CHIP R | 820 | J | 1/10W | | |
| R58 | | | RK73FB2A1R0J | CHIP R | 1 | J | 1/10W | | |
| R59 -62 | | | RK73FB2A220J | CHIP R | 22 | J | 1/10W | | |
| R63 -66 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R67 | | | RK73FB2A1R5J | CHIP R | 1.5 | J | 1/10W | | |
| R68 | | | RK73FB2A152J | CHIP R | 1.5K | J | 1/10W | | |
| R69 | | | RK73FB2A332J | CHIP R | 3.3K | J | 1/10W | | |
| R70 | | | RK73FB2A103J | CHIP R | 10K | J | 1/10W | | |
| R71 | | | RK73FB2A510J | CHIP R | 51 | J | 1/10W | | |
| R72 | | | RK73FB2A105J | CHIP R | 1.0M | J | 1/10W | | |
| R73 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R75 -84 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R85 | | | RK73FB2A153J | CHIP R | 15K | J | 1/10W | | |
| R86 ,87 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R88 | | | RK73FB2A912J | CHIP R | 9.1K | J | 1/10W | | |
| R91 ,92 | | | RK73FB2A473J | CHIP R | 47K | J | 1/10W | | |
| R93 | | | RK73FB2A181J | CHIP R | 180 | J | 1/10W | | |
| R95 ,96 | | | RK73FB2A331J | CHIP R | 330 | J | 1/10W | | |
| R97 ,98 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R99 | | | RK73FB2A3R3J | CHIP R | 3.3 | J | 1/10W | | |
| R100 | | | RK73FB2A471J | CHIP R | 470 | J | 1/10W | | |
| R101-104 | | | RK73FB2A133J | CHIP R | 13K | J | 1/10W | | |
| R105,106 | | | RK73FB2A123J | CHIP R | 12K | J | 1/10W | | |
| R107,108 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R109,110 | | | RK73FB2A470J | CHIP R | 47 | J | 1/10W | | |
| R111,112 | | | RK73FB2A104J | CHIP R | 100K | J | 1/10W | | |
| R113-116 | | | RK73FB2A512J | CHIP R | 5.1K | J | 1/10W | | |
| R117 | | | RK73FB2A912J | CHIP R | 9.1K | J | 1/10W | | |
| R118 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R119 | | | RK73FB2A242J | CHIP R | 2.4K | J | 1/10W | | |
| R120 | | | RK73FB2A911J | CHIP R | 910 | J | 1/10W | | |
| R121 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R122 | | | RK73FB2A242J | CHIP R | 2.4K | J | 1/10W | | |
| R123 | | | RK73FB2A911J | CHIP R | 910 | J | 1/10W | | |
| R124 | | | RK73FB2A203J | CHIP R | 20K | J | 1/10W | | |
| R125 | | | RK73FB2A912J | CHIP R | 9.1K | J | 1/10W | | |
| R126 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R127 | | | RK73FB2A242J | CHIP R | 2.4K | J | 1/10W | | |
| R128 | | | RK73FB2A911J | CHIP R | 910 | J | 1/10W | | |
| R129 | | | RK73FB2A203J | CHIP R | 20K | J | 1/10W | | |
| R130 | | | RK73FB2A912J | CHIP R | 9.1K | J | 1/10W | | |
| R131 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R132 | | | RK73FB2A242J | CHIP R | 2.4K | J | 1/10W | | |
| R133 | | | RK73FB2A911J | CHIP R | 910 | J | 1/10W | | |
| R134-136 | | | RK73FB2A271J | CHIP R | 270 | J | 1/10W | | |
| R137-142 | | | RK73FB2A221J | CHIP R | 220 | J | 1/10W | | |
| R143 | | | RK73FB2A272J | CHIP R | 2.7K | J | 1/10W | | |
| R144 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R145 | | | RK73FB2A272J | CHIP R | 2.7K | J | 1/10W | | |
| R146 | | | RK73FB2A472J | CHIP R | 4.7K | J | 1/10W | | |
| R147 | | | RK73FB2A272J | CHIP R | 2.7K | J | 1/10W | | |

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5

| Ref. No | Address | New Parts | Parts No. | Description | | | Destination | Remarks |
|---|---|---|---|---|---|---|---|---|
| R148 | | | RK73FB2A472J | CHIP R | 4.7K | J 1/10W | | |
| R149 | | | RK73FB2A272J | CHIP R | 2.7K | J 1/10W | | |
| R150 | | | RK73FB2A472J | CHIP R | 4.7K | J 1/10W | | |
| R151 | | | RK73FB2A100J | CHIP R | 10 | J 1/10W | | |
| R152 | | | RK73FB2A471J | CHIP R | 470 | J 1/10W | | |
| ⚠ R153 | | | RS14KB3D181J | FL-PROOF RS | 180 | J 2W | | |
| R154 | | | RK73FB2A752J | CHIP R | 7.5K | J 1/10W | | |
| R155 | | | RK73FB2A221J | CHIP R | 220 | J 1/10W | | |
| R156 | | | RK73FB2A103J | CHIP R | 10K | J 1/10W | | |
| R157 | | | RK73FB2A332J | CHIP R | 3.3K | J 1/10W | | |
| VR1 | | | R12-1619-05 | TRIMMING POT.(4.7K) | | | | |
| VR2 ,3 | | | R12-3688-05 | TRIMMING POT.(47K) | | | | |
| S1 -21 | | | S70-0031-05 | TACT SWITCH | | | | |
| D1 -6 | | | HSS104 | DIODE | | | | |
| D1 -6 | | | 1SS133 | DIODE | | | | |
| D7 ,8 | | | DA204U | DIODE | | | | |
| D9 | | | S5688B | DIODE | | | | |
| D9 | | | 1SR139-400 | DIODE | | | | |
| D10 -12 | | | HSS104 | DIODE | | | | |
| D10 -12 | | | 1SS133 | DIODE | | | | |
| ⚠ D13 | | | D2SBA20F03 | DIODE | | | | |
| D14 | | | HSS104 | DIODE | | | | |
| D14 | | | 1SS133 | DIODE | | | | |
| IC1 | | | CXA1782BQ | IC(RF SERVO) | | | | |
| IC2 | | | CXD2529Q | MOS-IC | | | | |
| IC3 | | ∗ | UPD78014FGC534 | MI-COM IC | | | | |
| IC4 | | ∗ | BA5936S | ANALOGUE IC | | | | |
| IC5 | | | PST993D-T | ANALOGUE IC | | | | |
| IC7 | | | NJM2100M | IC(OP AMPLIFIER) | | | | |
| IC9 | | | M5237L | ANALOGUE IC | | | | |
| Q1 | | | 2SC1740S(Q,R) | TRANSISTOR | | | | |
| Q1 | | | 2SC2785(F,E) | TRANSISTOR | | | | |
| Q2 | | | 2SA954(L,K) | TRANSISTOR | | | | |
| Q3 | | | DTA124ESA | DIGITAL TRANSISTOR | | | | |
| Q3 | | | UN4112 | DIGITAL TRANSISTOR | | | | |
| ⚠ Q4 ,5 | | | 2SB1412F5(Q,R) | TRANSISTOR | | | | |
| ⚠ Q8 | | | 2SA1534A | TRANSISTOR | | | | |
| A1 | | | W02-1114-05 | OSCILLATING MODULE | | | | |
| **MECHANISM (D40-1525-05/CDM-29)** | | | | | | | | |
| 1 | 3C | | A10-3202-08 | CHASSIS | (MAIN) | | | |
| 2 | 3D | | A11-1063-18 | SUB CHASSIS | (RIGHT) | | | |
| 3 | 3B | | A13-3024-08 | FRAME | | | | |
| 5 | 3C | | D10-3555-08 | SLIDER | (MAIN) | | | |
| 6 | 3C | | D10-3556-08 | SLIDER | (CD-TRAY) | | | |
| 7 | 3C | | D10-3557-08 | LEVER | (CD-TRAY) | | | |
| 8 | 3C | | D10-3558-08 | LEVER | (TRAY-A) | | | |
| 9 | 2C | | D10-3559-08 | LEVER | (GUIDE-A) | | | |
| 10 | 2C | | D10-3560-08 | SLIDER | (LIFT) | | | |
| 11 | 3D | | D10-3561-08 | SLIDER | (LOADING) | | | |
| 12 | 3D | | D10-3562-08 | LEVER | (LOADING) | | | |
| 13 | 2D | | D10-3565-08 | SLIDER | (UP/DOWN) | | | |
| 14 | 2D | | D10-3566-08 | ARM | (UP/DOWN) | | | |

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|---|---|---|---|---|---|---|---|
| 15 | 3D | | D10-3578-08 | LEVER | (LIMIT) | | |
| 16 | 2C | | D10-3579-08 | LEVER | (SWITCH LOAD) | | |
| 17 | 2D | | D10-3580-08 | LEVER | (TRAY-B) | | |
| 18 | 2C | | D10-3581-08 | LEVER | (STOCK SWITCH) | | |
| 19 | 1D | | D10-3582-08 | LEVER | (GUIDE-B) | | |
| 20 | 1C | | D10-3600-08 | ARM | (SWITCH) | | |
| 21 | 1C | | D10-3605-08 | LEVER | (GUIDE-C) | | |
| 22 | 1B | | D10-3659-04 | ROD | | | |
| 25 | 2D | | D12-0152-08 | CAM | (GEAR) | | |
| 26 | 3D | | D13-1756-08 | GEAR | (CENTER) | | |
| 27 | 3D | | D13-1691-08 | GEAR | (FINAL-A) | | |
| 28 | 2D | | D13-1692-08 | GEAR | (IDLER-A) | | |
| 29 | 2C,2D | | D13-1693-08 | GEAR | (IDLER-B) | | |
| 30 | 2C | | D13-1694-08 | GEAR | (FINAL-B) | | |
| 31 | 2D | | D13-1696-08 | WORM | (PULLEY) | | |
| 32 | 2D | | D13-1697-08 | GEAR | (SUN) | | |
| 33 | 2D | | D13-1698-08 | GEAR | (INTERNAL) | | |
| 34 | 2D | | D13-1699-08 | GEAR | (CARRIER) | | |
| 35 | 2C,2D | | D13-1700-08 | GEAR | (PLANET) | | |
| 36 | 2D | | D13-1701-08 | RACK | (BRAKE) | | |
| 37 | 1D | | D13-1702-08 | GEAR | (TOP) | | |
| 38 | 2D | | D13-1737-08 | GEAR ASSY | (BOTTOM) | | |
| 39 | 3D | | D13-1706-08 | GEAR | (IDLER-C) | | |
| 40 | 2D | | D13-1719-08 | GEAR | (HELICAL) | | |
| 41 | 1B | | D13-1765-03 | GEAR | (DRIVING) | | |
| 42 | 3D | | D13-1757-08 | GEAR | (PULLEY 2) | | |
| 43 | 1B | | D13-1763-04 | GEAR | (MIDDLE) | | |
| 46 | 2D | | D16-0383-08 | BELT | (A) | | |
| 48 | 2D,3D | | D21-1794-08 | SHAFT | (PULLEY) | | |
| 50 | 2D | | D21-1796-08 | SHAFT | (WORM) | | |
| 51 | 2D | | D21-1797-08 | SHAFT | (CAM GEAR) | | |
| 55 | 1B | | E35-1147-08 | FLAT CABLE | (16P) | | |
| 56 | 2B,1G | | E35-1148-08 | WIRING HARNESS | (6P) | | |
| 57 | 1D,3C | | E35-1162-05 | WIRING HARNESS | (2P) | | |
| 61 | 2B | | E40-3264-05 | PIN ASSY | (6P) | | |
| 70 | 2D,3D | | G01-0192-04 | SOFT TAPE | | | |
| 71 | 2C | | G01-3780-08 | EXTENSION SPRING | (A) | | |
| 72 | 2C | | G01-3781-08 | COMPRESSION SPRING | (A) | | |
| 73 | 2D | | G01-3782-08 | EXTENSION SPRING | (B) | | |
| 74 | 3A | | G01-3799-08 | COMPRESSION SPRING | (B) | | |
| 75 | 2A,2B | | G01-3800-08 | COMPRESSION SPRING | (C) | | |
| 76 | 2D | | G01-3825-08 | TORSION SPRING | | | |
| 77 | 1D | | G01-3826-08 | EXTENSION SPRING | (C) | | |
| 78 | 2C | | G01-3847-08 | COMPRESSION SPRING | (D) | | |
| 79 | 1C | | G02-1079-08 | FLAT SPRING | (C) | | |
| 80 | 3D | | G13-0521-08 | CUSHION | | | |
| 81 | 2C | | G13-0522-08 | CUSHION | (B) | | |
| 82 | 3C | | G16-0821-04 | SHEET | (TRAY-B) | | |
| 83 | 1D | | G13-0523-08 | CUSHION | (C) | | |
| 84 | 3D | | G13-0525-08 | CUSHION | (D) | | |
| 85 | 2C | | G16-0880-08 | SOFT TAPE | | | |
| 86 | 2D | | G13-0538-08 | CUSHION | | | |
| 87 | 2C | | G16-0881-08 | CUSHION E | | | |

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|---|---|---|---|---|---|---|
| 90 | 2A,2B | | J02-1133-08 | INSULATOR | | |
| 91 | 1D | | J11-0098-05 | STYLE PIN | | |
| 92 | 1D | | J11-0804-08 | CLAMPER | | |
| 93 | 1C | | J19-3768-08 | HOLDER (TOP) | | |
| 96 | 2D | | J19-3773-18 | BRACKET (GEAR-A) | | |
| 97 | 1D | | J19-3774-08 | BRACKET (CLAMP) | | |
| 98 | 3D | | J19-5726-08 | BRACKET (MOTOR 2) | | |
| 99 | 2C | | J19-3797-08 | HOLDER ASSY (BOTTOM-F) | | |
| 100 | 2C | | J19-3798-08 | HOLDER ASSY (BOTTOM-R) | | |
| 105 | 2C | | J90-0826-08 | GUIDE (DISC) | | |
| 106 | 1C | | J90-0827-08 | GUIDE (TOP) | | |
| 107 | 3D | | J90-0828-18 | RAIL (LOADING) | | |
| 108 | 3D | | J90-0830-08 | RAIL (R) | | |
| 109 | 3C | | J90-0833-08 | GUIDE (TRAY) | | |
| 110 | 1A | | J90-0844-03 | GUIDE (RAIL) | | |
| 200 | 3C | | J99-0570-08 | TRAY (MAIN) | | |
| 201 | 2C | | J99-0572-08 | TRAY (STOCK) | | |
| F | | | N09-3140-08 | SCREW (E/M2.6X5) | | |
| J | | | N19-1401-08 | WASHER (5.3X10X1) | | |
| K | | | N19-1354-08 | NYLON WASHER | | |
| 205 | 3C | | S64-0015-08 | LEVER SWITCH (SW3) | | |
| 206 | 2A | | S74-0065-05 | LEAF SWITCH | | |
| 211 | 2D,3D | | T42-0821-05 | MOTOR ASSY | | |
| 212 | 1D | | T99-0503-15 | MAGNET | | |
| DM | 1B | | A11-1114-08 | SUB CHASSIS ASSY | | |
| FM | 2A | | T42-0872-08 | MOTOR ASSY | | |
| PU | 1B | | T25-0050-05 | PICK-UP ASSY (KCP1H) | | |

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# DP-MH5

# SPECIFICATIONS

***CD player unit (DP-MH5)***

***[Format section]***

Laser .....Semiconductor laser

***[D/A convertors section]***

D/A conversion .....1 bit
Oversampling.....8 ft (352.8 kHz)

***[Audio section]***

Frequency response .....8 Hz ~ 20 kHz, ±1.0 dB
Signal to noise ratio .....More than 96 dB
Dynamic range.....More than 90 dB
Total harmonic distortion
.....Less than 0.008 % (at 1 kHz)
Channel separation.....More than 90 dB (at 1 kHz)
Wow & Flutter.....Unmeasurable Limit
Digital output
Optical.....-15 dBm ~ -21 dBm (wave length 660 nm)

***[General]***

Dimensions .....w : 270 mm (10-5 / 8")
.....H : 104 mm (4-1 / 8")
.....D : 326 mm (12-13 / 16")
Weight (net)
DP-MH5 .....3.4 kg (7.5lb)

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. Sufficient performance may not be exhibited at extremely cold locations (where water freezes).

**Note:**
Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.


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