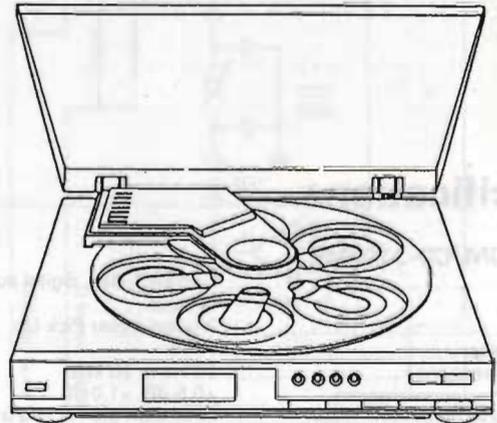




SERVICE MANUAL

CD-3100M CD-3100ME CD-570M CD-570ME

COMPACT DISC AUTO
CHANGER

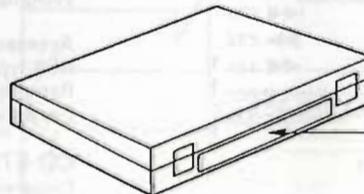


CAUTION

1. Parts identified by the  symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

Cautions Concerning Handling of The Laser

The following label has been affixed to the unit, listing the proper procedure for working with the laser beam.



(UL, SS, and XX model only)

PRODUCT COMPLIES WITH DHHS
RULES 21 CFR, SUBCHAPTER J,
PART 1040. 10.
MANUFACTURED:

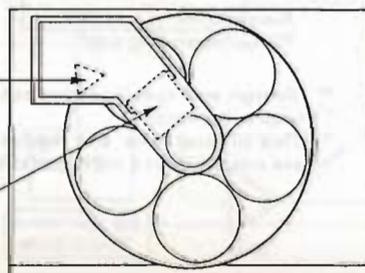
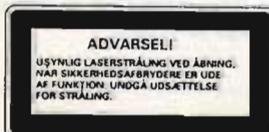
(CSA model only)

CERTIFIED ONLY TO CANADIAN
ELECTRICAL CODE.
CERTIFIÉ EN VERTU DU CODE
CANADIEN DE L'ÉLECTRICITÉ
SEULEMENT.

(EU model only)

**CLASS 1
LASER PRODUCT**

(EU model only)



NOTICE

- The symbols UL, CSA, EU, SS and XX <EXPORT> on the parts list and the schematic diagram mean followings respectively.
UL..... Manufactured for U.S.A. market.
(Underwriters Laboratories approved model.)
CSA..... Manufactured for Canadian market.
EU..... Manufactured for European market.
SS..... Manufactured for Saudi Arabian market.
XX..... Standard Version.
<EXPORT>
NON MARK..... Common Parts.

- Some printed circuit boards are not supplied assembled. To separate these in this service manual, the stock numbers are not indicated for these boards. However, stock numbers for individual parts are indicated.
- Since some capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors and resistors, which was issued on June 1987.
- Abbreviations in this service manual are as follows.

| Abbreviations List | | | |
|-----------------------------------|--|--------------|--|
| N.I.R. : Non-Inflammable Resistor | S.V.R. : Semi Variable Resistor | SW. : Switch | |
| C.C. : Ceramic Capacitor | E.B. : Bi-Polar Electrolytic Capacitor | | |
| E.C. : Electrolytic Capacitor | | | |

Specifications

CD-3100M/CD-3100ME

| | |
|-------------------------------|-------------------------------------|
| Formation..... | Compact disk, digital audio system |
| Pick Up..... | 3-beam Laser Pick Up |
| D/A Converter..... | 16bit |
| Frequency response..... | 20 Hz to 20 kHz +0.5 dB, -1.0 dB |
| Ttal harmonic distortion..... | Less than 0.04% (1kHz) |
| Signal-to-Noise Ratio..... | 98 dB more |
| Dynamic Range..... | 92dB more |
| Wow & Flutter..... | Below measurement threshold |
| Output Voltage..... | 2 V(RMS) |
| Power consumption..... | AC 120V/220V-240V, 50/60 Hz |
| For U.S.A & Canada..... | AC 120V, 60 Hz |
| European..... | 220V, 50 Hz |
| United kingdom..... | 240V, 50 Hz |
| Rated power consumption..... | 15 Watts |

CD-570M/CD-570ME

| | |
|-------------------------------|-------------------------------------|
| Formation..... | Compact disk, digital audio system |
| Pick Up..... | 3-beam Laser Pick Up |
| D/A Converter..... | 16bit |
| Frequency response..... | 20 Hz to 20 kHz +0.5 dB, -1.0 dB |
| Ttal harmonic distortion..... | Less than 0.04% (1kHz) |
| Signal-to-Noise Ratio..... | 98 dB more |
| Dynamic Range..... | 92dB more |
| Wow & Flutter..... | Below measurement threshold |
| Output Voltage..... | 2 V(RMS) |
| Power consumption..... | AC 120V/220V-240V, 50/60 Hz |
| For U.S.A & Canada..... | AC 120V, 60 Hz |
| European..... | 220V, 50 Hz |
| United kingdom..... | 240V, 50 Hz |
| Rated power consumption..... | 15 Watts |

CD-3100M

| | |
|----------------------------------|---|
| Dimensions(With Dust cover)..... | 420 mm (16-9/16") W 380 mm (15") D 112 mm (4-7/16") H |
| Weight(With Dust cover)..... | 3.9 kg (8.6 lbs) net 5.5 kg (12.1 lbs) packed |

Remote Controller

| | |
|--------------------------------|--|
| Transmission Method..... | Infrared Rays Pulse System |
| Battery..... | *AAA(IEC R03) x 2 (DC3V) |
| Dimensions..... | 60 mm (2-3/8") W 134.5mm (5-5/16") D 14 mm (9/16") H |
| Weight(Without Batteries)..... | 65 g (0.1 lbs) |

Accessories

| | |
|-----------------------------|-------------------|
| RCA-type pin-plug cord..... | 1 |
| Remote controller..... | 1 |
| Dry batteries..... | *AAA(IEC R03) x 2 |
| Synchro cord..... | 1 |

CD-3100ME

| | |
|-------------------------------------|--|
| Dimensions(Without Dust cover)..... | 420 mm (16-9/16") W 380 mm (15") D 90 mm (3-9/16") H |
| Weight(Without Dust cover)..... | 3.3 kg (7.3 lbs) net 4.5 kg (9.9 lbs) packed |

Accessories

| | |
|------------------------|---|
| RCA-TYPE Pin-plug..... | 1 |
| Synchro cord..... | 1 |

CD-570M

| | |
|----------------------------------|---|
| Dimensions(With Dust cover)..... | 360 mm (14-3/16") W 380 mm (15") D 112 mm (4-7/16") H |
| Weight(With Dust cover)..... | 3.6 kg (7.9 lbs) net 4.7 kg (10.4 lbs) packed |

Remote Controller

| | |
|--------------------------------|--|
| Transmission Method..... | Infrared Rays Pulse System |
| Battery..... | *AAA(IEC R03) x 2 (DC3V) |
| Dimensions..... | 60 mm (2-3/8") W 134.5mm (5-5/16") D 14 mm (9/16") H |
| Weight(Without Batteries)..... | 65 g (0.1 lbs) |

Accessories

| | |
|-----------------------------|-------------------|
| RCA type pin plug cord..... | 1 |
| Remote controller..... | 1 |
| Dry batteries..... | *AAA(IEC R03) x 2 |

CD-570ME

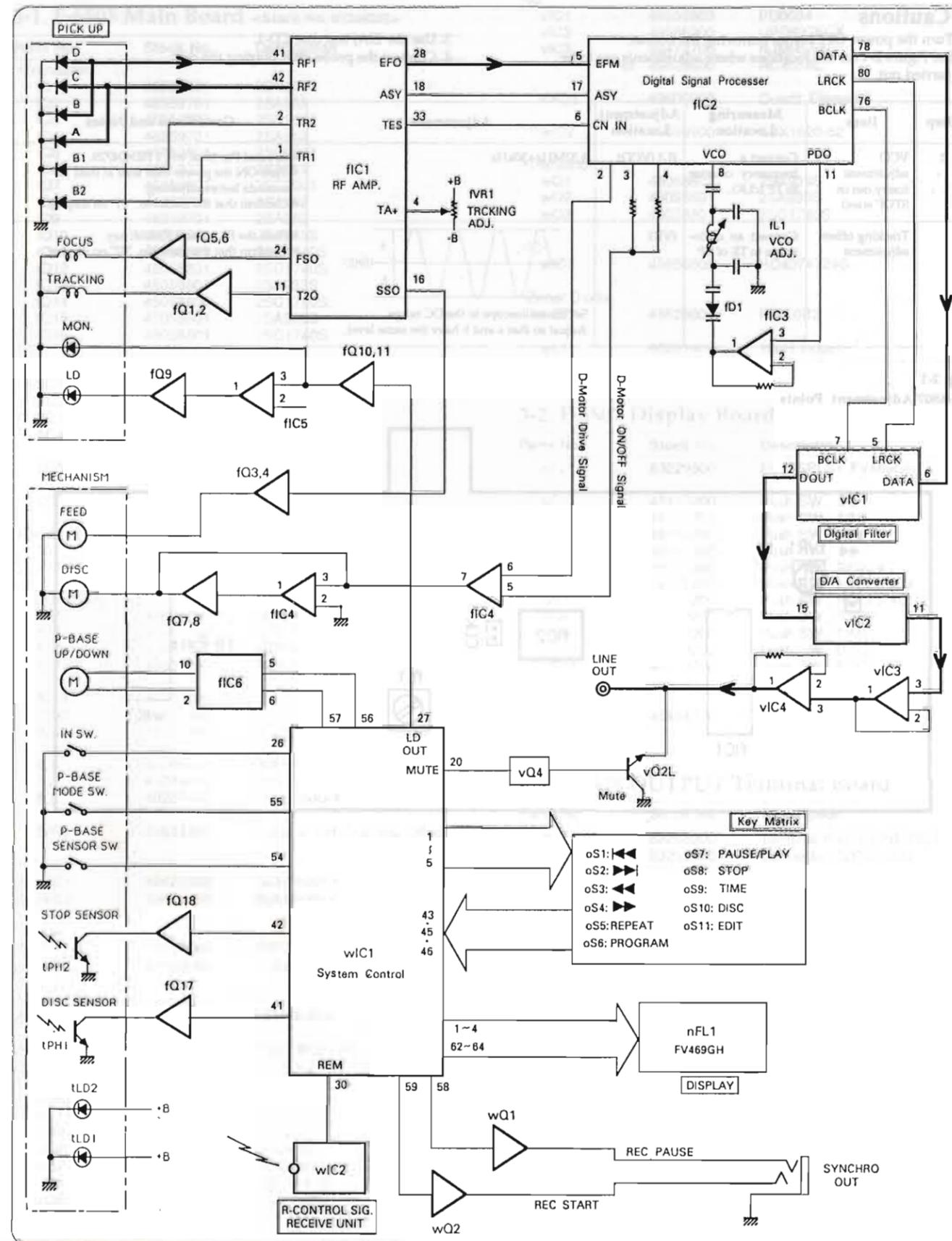
| | |
|----------------------------------|---|
| Dimensions(With Dust cover)..... | 360 mm (14-3/16") W 380 mm (15") D 112 mm (4-7/16") H |
| Weight(With Dust cover)..... | 3.6 kg (7.9 lbs) net 4.0 kg (8.8 lbs) packed |

Accessories

| | |
|-----------------------------|---|
| RCA-type pin-plug cord..... | 1 |
|-----------------------------|---|

- Design and specifications subject to change without notice for improvements.
- Due to local laws and regulations, this unit sold in some areas are not equipped with variable voltage selectors.

1. BLOCK DIAGRAM



2. ADJUSTMENT METHOD

• Cautions

1. Turn the power OFF before removing the bonnet.
2. See Figure 2-1 for the locations where adjustments are to be carried out.
3. Use the EIAJ test disc CD-1.
4. Connect the probe after playing the disc.

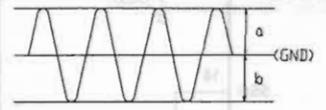
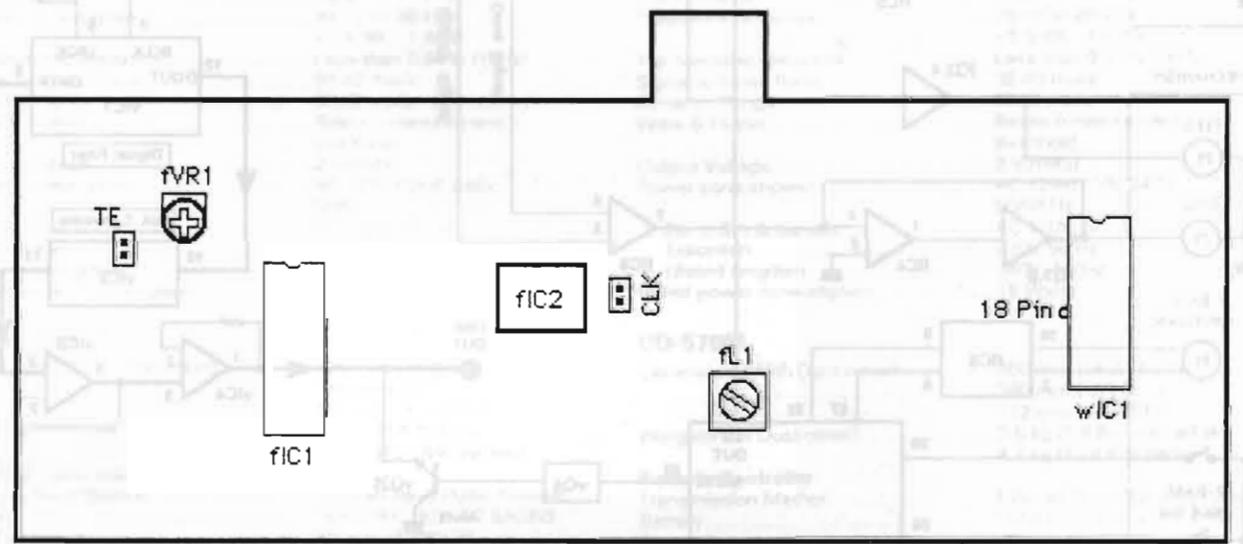
| Step | Item | Measuring Location | Adjustment Location | Adjustment | Conditions and Notes |
|------|--|--|---------------------|--|---|
| 1 | VCO adjustment (carry out in STOP state) | Connect a frequency counter to TP (CLK). | fL1 (VCO) | 4.32MHz±30kHz | <ul style="list-style-type: none"> • Ground Pin 18 of wIC1 HD404729. • Turn ON the power then wait at least 10 seconds before adjusting. • Confirm that the track No. "01" on display. |
| 2 | Tracking offset adjustment | Connect an oscilloscope to TE of TP. | fVR1 |  <p>Set the oscilloscope to the DC range. Adjust so that a and b have the same level.</p> | <ul style="list-style-type: none"> • Push the PLAY and PAUSE key. • Confirm that the track No. "02" on display. |

Fig. 2-1
•F-6507 Adjustment Points



3. PARTS LIST OF CIRCUIT

3-1. F-6505 Main Board <Stock No. 01246201>

| Parts No. | Stock No. | Description |
|--------------|-------------|------------------------------|
| •Transistor | | |
| fQ1 | 46359801 | 2SC2001 |
| fQ2 | 46359701 | 2SA952 |
| fQ3 | 46359801 | 2SC2001 |
| fQ4 | 46359701 | 2SA952 |
| fQ5 | 46359801 | 2SC2001 |
| fQ6 | 46359701 | 2SA952 |
| fQ7 | 46359801 | 2SC2001 |
| fQ8 | 46359701 | 2SA952 |
| fQ9 | 46359701 | 2SA952 |
| fQ10 | 48058601 | 2SA933S |
| fQ11 | 48058801 | 2SC1740S |
| fQ12 | 48058801 | 2SC1740S |
| fQ13 | 48058601 | 2SA933S |
| fQ14 | 48058801 | 2SC1740S |
| fQ15 | 48058601 | 2SA933S |
| fQ16 | 48058801 | 2SC1740S |
| •IC | | |
| fIC1 | 49556800 | HA12095NT |
| fIC2 | 49552800 | CXD1167Q |
| fIC3 | 49395500 | NJM2082L |
| fIC4 | 49472700 | NJM4558L |
| | or 49623600 | RC4558L |
| fIC5 | 49472700 | NJM4558L |
| | or 49623600 | RC4558L |
| fIC6 | 48982600 | LB1641 |
| •Diode | | |
| fD1 | 49557000 | SVC342 |
| fD2-9 | 46464100 | 1SS133 |
| •Zener Diode | | |
| fDZ1 | 48628800 | RD3.0B2 |
| fDZ2 | 48631200 | RD5.6B2 |
| fDZ3 | 48631900 | RD6.8B1 |
| fDZ4 | 48631900 | RD6.8B1 |
| fC13 | 48103000 | 0.22μF 50V E.B. |
| fC30 | 48103400 | 1μF 50V E.B. |
| fC32 | 48103300 | 0.68μF 50V E.B. |
| fL1 | 83265400 | AM RF Coil |
| fL2 | 48289400 | 10μH Inductor |
| fL3 | 48289400 | 10μH Inductor |
| fVR1 | 46634300 | 10kΩ S.V.R., Tracking Offset |
| •IC | | |
| ▲ mIC1 | 49420700 | NJM7805FA |
| ▲ mIC2 | 49474700 | NJM7905FA |
| •Diode | | |
| ▲ mD1 | 03117000 | RB152-LFF |
| ▲ mD2 | 48123600 | 11E2 |
| •Zener Diode | | |
| ▲ mDZ1 | 48612000 | RD24B3ES |
| ▲ mR1 | 46250500 | 1kΩ 1W N.I.R. |
| ▲ mR4,5 | 46227100 | 2.7Ω 1/2W N.I.R. |
| •Transistor | | |
| vQ1 | 46604301 | 2SC3327 |
| vQ2 | 46604301 | 2SC3327 |
| vQ3 | 48058601 | 2SA933S |
| vQ4 | 48058601 | 2SA933S |
| vQ5 | 48058801 | 2SC1740S |
| vQ6 | 48058801 | 2SC1740S |

| Parts No. | Stock No. | Description |
|--------------|-------------|----------------|
| •IC | | |
| vIC1 | 49556900 | PD0034 |
| vIC2 | 49586300 | UPD6376CX |
| vIC3 | 49472700 | NJM4558L |
| | or 49623600 | RC4558L |
| vXO1 | 49600000 | Quartz Element |
| wIC2 | 49559900 | SBX1620-52 |
| •Transistor | | |
| wQ1 | 48058601 | 2SA933S |
| wQ2 | 48058601 | 2SA933S |
| wQ3 | 48058801 | 2SC1740S |
| •IC | | |
| wIC1 | 49556600 | HD4074729S |
| •Zener Diode | | |
| wDZ1 | 48628800 | RD3.0B2 |
| wL1 | 48289400 | 10μH Inductor |

3-2. F-6507 Display Board

| Parts No. | Stock No. | Description |
|-----------|-----------|----------------------|
| nFL1 | 83229500 | FL DISPLSY FV469GH |
| •Diode | | |
| oS1 | 48113200 | Push SW., ▶▶▶ |
| oS2 | 48113200 | Push SW., ▶▶▶ |
| oS3 | 48113200 | Push SW., ▶▶▶ |
| oS4 | 48113200 | Push SW., ▶▶▶ |
| oS5 | 48113200 | Push SW., REPEAT |
| oS6 | 48113200 | Push SW., PROGRAM |
| oS7 | 48113200 | Push SW., PLAY/PAUSE |
| oS8 | 48113200 | Push SW., STOP |
| oS9 | 48113200 | Push SW., TIME |
| oS10 | 48113200 | Push SW., DISC |
| oS11 | 48113200 | Push SW., EDIT |
| •Diode | | |
| wD1-5 | 46464100 | 1SS133 |

3-3. F-6508 OUTPUT Terminal Board

| Parts No. | Stock No. | Description |
|-----------|-----------|--------------------------|
| oJ1 | 83265200 | Terminal Board, LINE OUT |
| oJ2 | 83265500 | Connector, SYNCHRO |

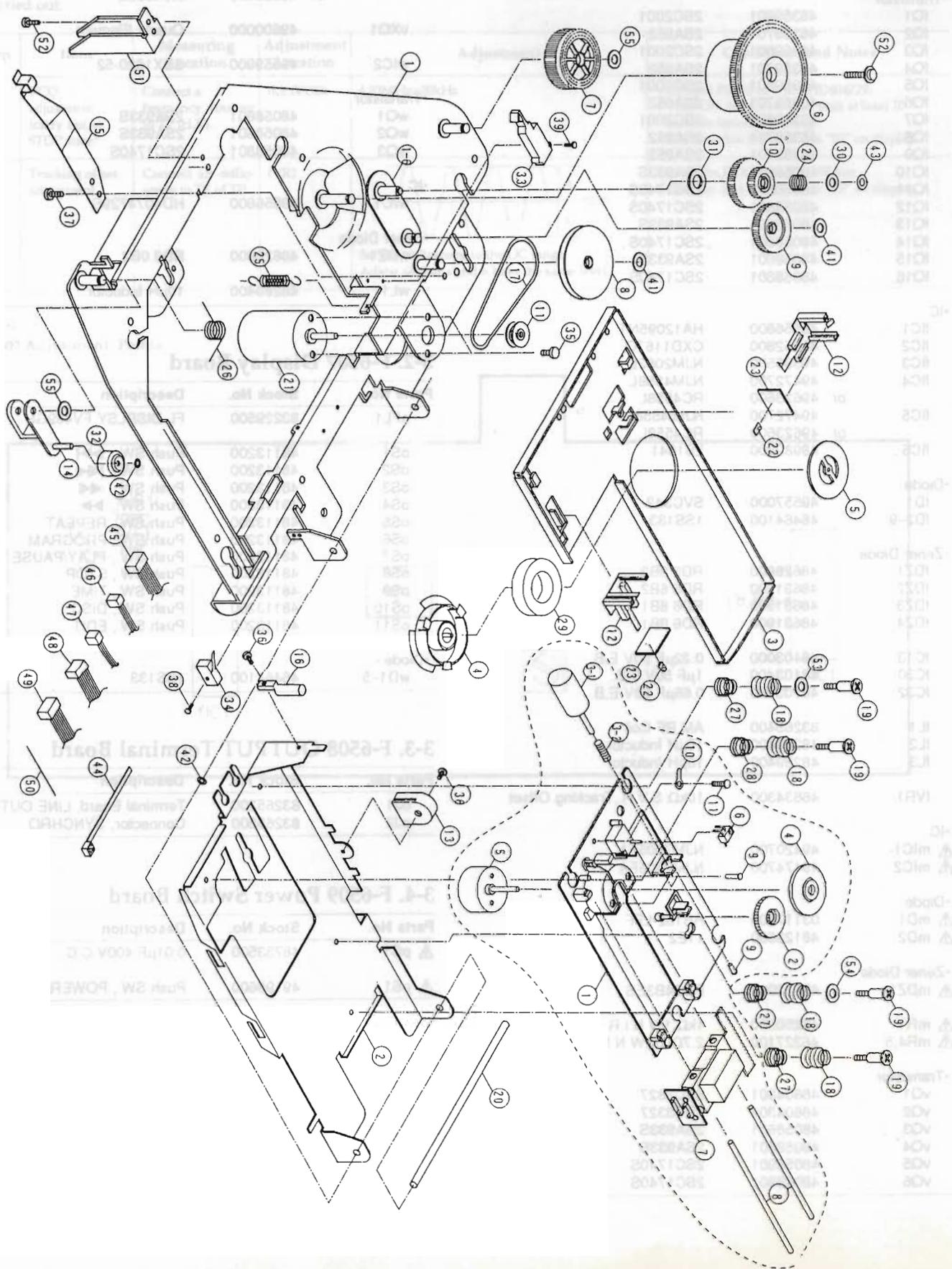
3-4. F-6509 Power Switch Board

| Parts No. | Stock No. | Description |
|-----------|-----------|------------------|
| ▲ pC1 | 48733500 | 0.01μF 400V C.C. |
| ▲ pS1 | 49198600 | Push SW., POWER |

4. EXPLODED VIEW OF MECHANIZM & PARTS LIST

Exploded View of Mechanizm (Type No. TCD-RM5CT Stock No. 0002104292)

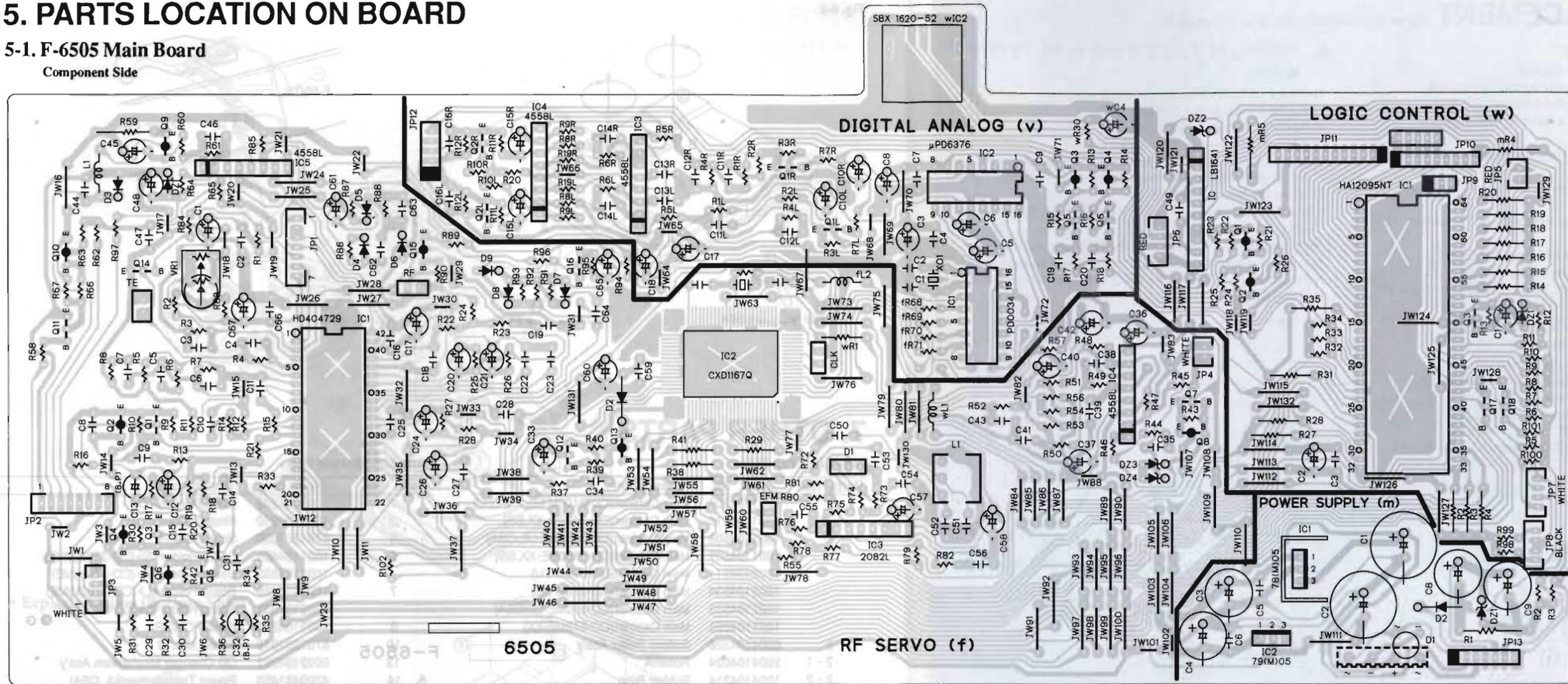
Note: This mechanism is supplied assembled only, so individual parts are not supplied.
Use this exploded view for reference only.



5. PARTS LOCATION ON BOARD

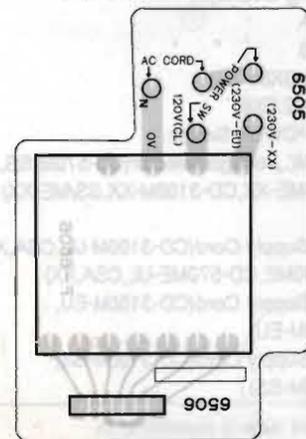
5-1. F-6505 Main Board

Component Side



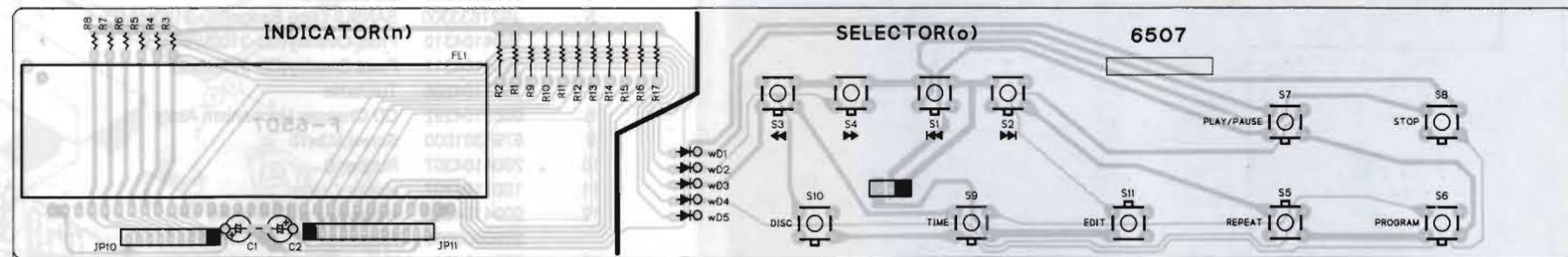
5-2. F-6506 Power Transformer

Component Side



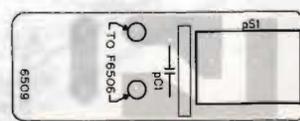
5-3. F-6507 Display Board

Component Side



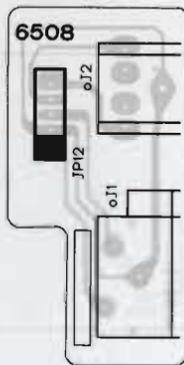
5-5. F-6509 Power Switch Board

Component Side



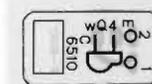
5-4. F-6508 OUTPUT Terminal Board

Component Side



5-6. F-6510 STOP Sensor Board

Component Side



5-7. F-6568 Disc Sensor Board

Component Side



6. MAIN REPLACEMENT (Refer to Exploded View of set on page 8)

A. CD Mechanism Ass'y

- 1) Unlock two stoppers (A & B). (See Fig. 6-4)
 - 2) Loosen seven screws (5) to remove the bottom cabinet (16).
 - 3) Loosen two screws (2) to remove a holder cover (11).
 - 4) Loosen three screws (9) to remove a clamper holder (8).
- Note: Do not injure a cabinet.
- 5) Unhook two stoppers to remove sensors with board (SP-13A) on clamper holder. (See Fig. 6-1)
 - 6) Pull out two sensors with board through a hole of a clamper holder and a main cabinet.
 - 7) Unfasten two connectors at pick-up terminals on the mechanism.
 - 8) Loosen five screws (5) to remove the PC board, F-6505 (12).
 - 9) Loosen four screws (5) to remove the mechanism ass'y (13).
 - 10) Unfasten four connectors on the PC board, F-6505. (See Fig. 6-2)

B. TACT Knob & PLAY/STOP Knob

- 1) Unlock two stoppers (A & B). (See Fig. 6-4)
- 2) Loosen seven screws (5) to remove the bottom cabinet (16).
- 3) Loosen five screws (5) to remove the PC board, F-6505 (12).
- 4) Loosen one screw (5) to remove a board holder (L) (7).
- 5) Loosen one screw (5) to remove a board holder (S) (6).
- 6) Loosen one screw (5) to remove a PC board, F-6507 (3).
- 7) Loosen two screws (5) to remove a TACT knob (2) and a PLAY/STOP knob (1).

Fig. 6-1

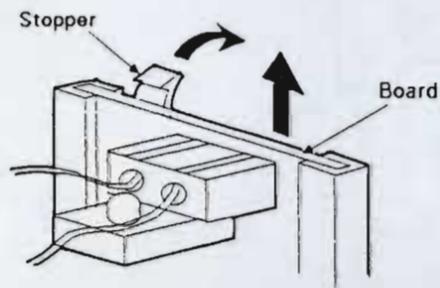
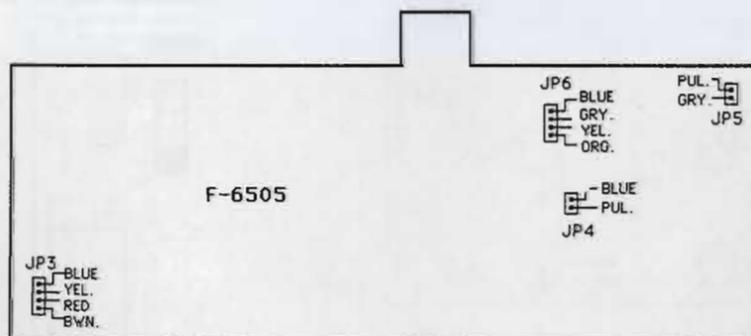


Fig. 6-2



C. Putting of TACT Knob & PLAY/STOP Knob

- 1) Put a PLAY/STOP knob (1) where it was.
 - 2) Put back a tact knob (2) where it was.
 - 3) Fit the PC board, F-6507 (3) into the holding groove of top cabinet and screw the board. (See Fig. 6-3)
 - 4) Insert a two pins of board holder (L) (7) into holes of PC board, F-6507 at TIME SW and screw the board holder. (See Fig. 6-5)
 - 5) Screw the board holder (S) (6).
 - 6) Insert a remove sensor into hole of PC board, F-6507 (3) and screw the PC board, F-6505 (12).
- Note: Do not put wires between the PC board and a cabinet.
- 7) Put back a bottom cabinet (16) where it was and screw it.
- Note: Insert the PC board, F-6507 (3) into slits of bottom cabinet. (See Fig. 6-3)

Fig. 6-3

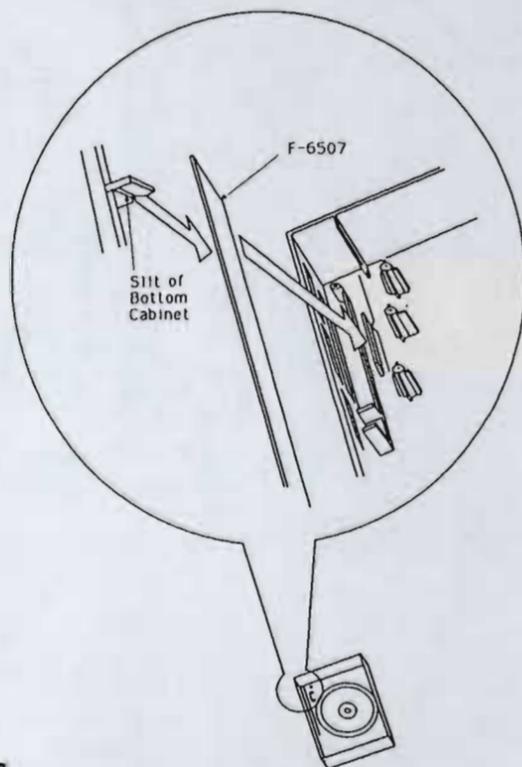


Fig. 6-4

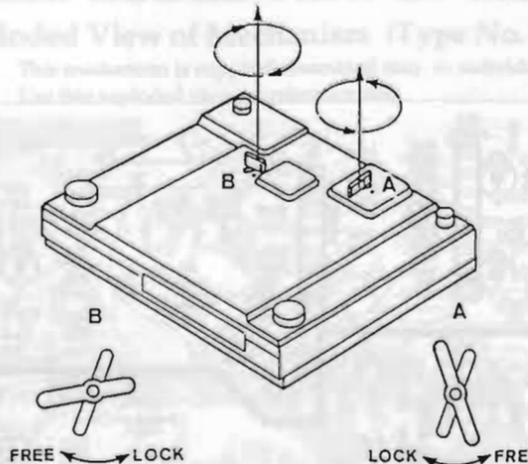
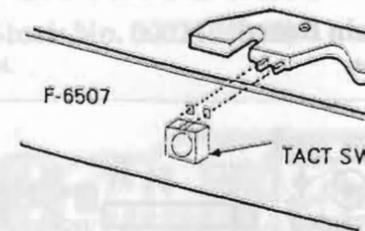


Fig. 6-5



7. OTHER PARTS

Parts List <Top Side>

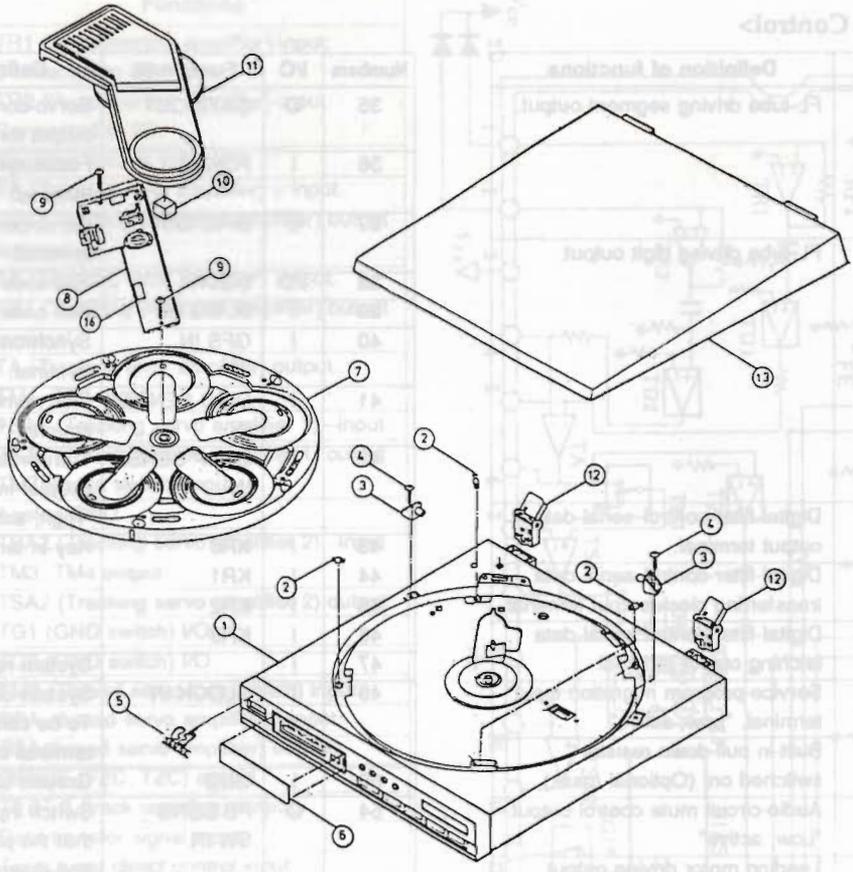
| Parts No. | Stock No. | Description |
|-----------|------------|----------------------------------|
| 1 | 1001104201 | Main Cabinet(CD-3100M-UL,CSA,EU) |
| | 1001104510 | Main Cabinet(CD-3100M-XX,SS) |
| | 1001104508 | Main Cabinet(CD-3100ME-UL,CSA) |
| | 1001104509 | Main Cabinet(CD-3100ME-XX,SS) |
| | 1002104511 | Main Cabinet(CD-570M-EU) |
| | 1002104534 | Main Cabinet(CD-570M-SS) |
| | 1002104533 | Main Cabinet(CD-570ME-UL,CSA) |
| | 1001104200 | Main Cabinet(CD-570ME-XX) |
| 2 | 0004104328 | Bottom Roller Ass'y |
| 2-1 | 2004104024 | Roller-A |
| 2-2 | 1004104314 | Rubber Ring |
| 3 | 0004104327 | Top Roller Ass'y |
| 3-1 | 2004104080 | Roller-B |
| 3-2 | 1004104294 | Holder |
| 3-3 | 3004100463 | Poly-Washer |
| 3-4 | 1004104314 | Rubber Ring |
| 4 | 8792300800 | Screw,M3x8 |
| 5 | JS27833300 | SANSUI Logo Badge(CD-3100M/ME) |
| 6 | 1004104310 | Front Overlay(CD-3100M/ME) |
| | 1004104311 | Front Overlay(CD-570M/ME) |
| 7 | 1001104206 | Turutable |
| 8 | 0002104292 | CD Changer Mechanism Ass'y |
| 9 | 8791301000 | Screw,M3x10 |
| 10 | 2004104307 | Rubber-B |
| 11 | 1001104207 | Holder Cover |
| 12 | 0004104358 | Hinge Ass'y(CD-3100M) |
| | 2000000895 | Hinge Ass'y(CD-570M/ME) |
| 13 | 0004104321 | Dust Cover Ass'y(CD-3100M) |
| | 0004104322 | Dust Cover Ass'y(CD-570M/ME) |

Parts List <Bottom Side>

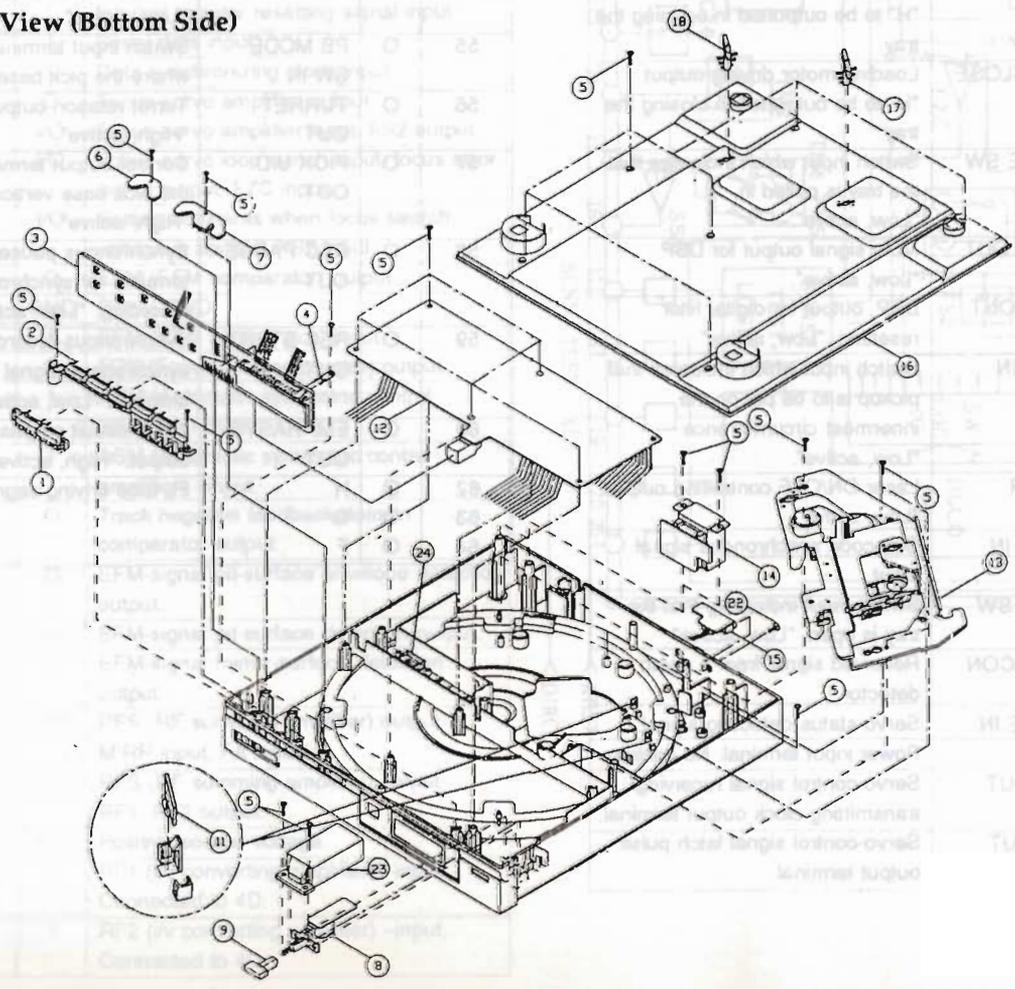
| Parts No. | Stock No. | Description |
|-----------|---------------|--|
| 1 | 1003104209 | Knob,PLAY/STOP |
| 2 | 1002104210 | Knob,TACT |
| 5 | 8791301000 | Screw,M3x10 |
| 6 | 1001104450 | Board Holder<S>(CD-3100M/ME) |
| | 1002104533 | Board Holder<S>(CD-570M/ME) |
| 7 | 1001104450 | Board Holder<L>(CD-3100M/ME) |
| | 1002104533 | Board Holder<L>(CD-570M/ME) |
| 9 | 1003104208 | Knob,POWER |
| 10 | 8761301012 | Screw,M3x10 |
| 13 | 0002104292 | CD Changer Mechanism Ass'y |
| 14 | 4200481450 | Power Transformer(UL,CSA) |
| | or 4200481410 | Power Transformer(UL,CSA) |
| | 4200484450 | Power Transformer(CD-3100M/ME, CD-570ME-XX,SS) |
| | or 4200484410 | Power Transformer(CD-3100M/ME-XX,SS) |
| | 4200483450 | Power Transformer(EU) |
| 16 | 0004104323 | Bottom Cabinet Ass'y(CD-3100M/ME) |
| | 0004104324 | Bottom Cabinet Ass'y(CD-3100M/ME) |
| 16-1 | 1001104205 | Bottom Cabinet(CD-3100M/ME) |
| | 1001104204 | Bottom Cabinet(CD-570M/ME) |
| 16-2 | 1004103957 | Rubber-A for Leg |
| 16-3 | 1004104475 | Foot Ring Overlay |
| 17 | 2003104295 | LOCK-A |
| 18 | 2003104296 | LOCK-B |
| 21 | 8761300612 | Screw,M3X6 |
| 22 | 8762260808 | Screw,M2.5X6 |
| 23 | 2004104497 | Cover,POWER Switch |
| 24 | 4411011601 | Slide SW.,voltage selector(CD-570M-SS, CD-570ME-XX,CD-3100M-XX,SS/ME-XX) |
| | 4631112065 | Power Supply Cord(CD-3100M-UL,CSA,XX, CD-3100ME,CD-570ME-UL,CSA,XX) |
| | 4632212265 | Power Supply Cord(CD-3100M-EU, CD-570M-EU) |
| | 4635212065 | Power Supply Cord(CD-3100M-SS, CD-570M-SS) |

• Though every Part included in exploded view is numbered in exploded View, Parts Unlisted in parts list are not supplied.

• Exploded View (Top Side)



• Exploded View (Bottom Side)



8. INTERIOR BLOCK DIAGRAM & TERMINAL FUNCTION OF IC

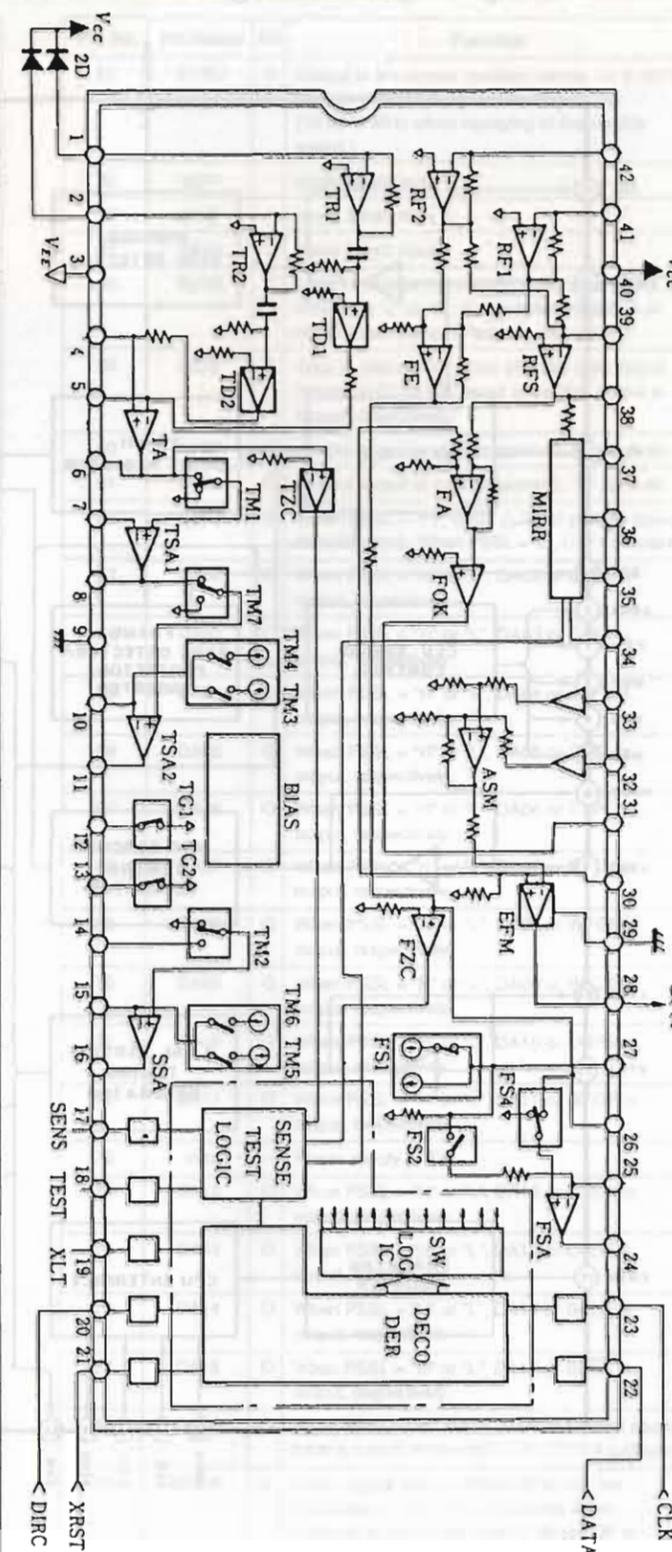
• HD4074729S <System Control>

| Numbers | I/O | Functions. | Definition of functions |
|---------|-----|---------------|--|
| 1 | O | E | FL-tube driving segment output. |
| 2 | O | D | |
| 3 | O | C | |
| 4 | O | B | |
| 5 | O | A | |
| 6 | O | G1 | FL-tube driving digit output. |
| 7 | O | G2 | |
| 8 | O | G3 | |
| 9 | O | G4 | |
| 10 | O | G5 | |
| 11 | O | G6 | |
| 12 | O | G7 | |
| 13 | O | G8 | |
| 14 | O | G9 | |
| 15 | O | ATT OUT | Digital-filter-control serial-data output terminal. |
| 16 | O | SHIFT OUT | Digital-filter-control serial-data transferring clock output terminal. |
| 17 | O | LATCH OUT | Digital-filter-control serial-data latching output terminal. |
| 18 | I | TEST | Service-program migration input terminal. "Low, active". |
| 19 | I | VDSP | Built-in pull-down resistor switched on. (Optional mask) |
| 20 | O | MUTE OUT | Audio-circuit mute control output. "Low, active". |
| 21 | O | LDG OPEN OUT | Loading motor driving output. "H" to be outputted in opening the tray. |
| 22 | O | LDG CLOSE OUT | Loading motor driving output. "H" to be outputted in closing the tray. |
| 23 | I | CLOSE SW IN | Switch input which indicates that the tray is pulled in. "Low, active". |
| 24 | O | MUTG OUT | Mute signal output for DSP. "Low, active". |
| 25 | O | XRST OUT | DSP, output for digital filter resetting. "Low, active". |
| 26 | O | IN SW IN | Switch input which indicates that pickup is to be put on the innermost circumference. "Low, active". |
| 27 | O | LASER OUT | Laser ON/OFF controlling output. "Low, active". |
| 28 | I | SCOR IN | Sub-code synchronous signal input. |
| 29 | I | OPEN SW IN | Switch input indicating that the tray is open. "Low, active". |
| 30 | I | REMOCON IN | Received signal from a photo detector. |
| 31 | I | SENSE IN | Servo-status detecting signal. |
| 32 | | | Power input terminal. No backup. |
| 33 | O | CLK OUT | Servo-control signal receiving/transmitting clock output terminal. |
| 34 | O | XLT OUT | Servo-control signal latch pulse output terminal. |

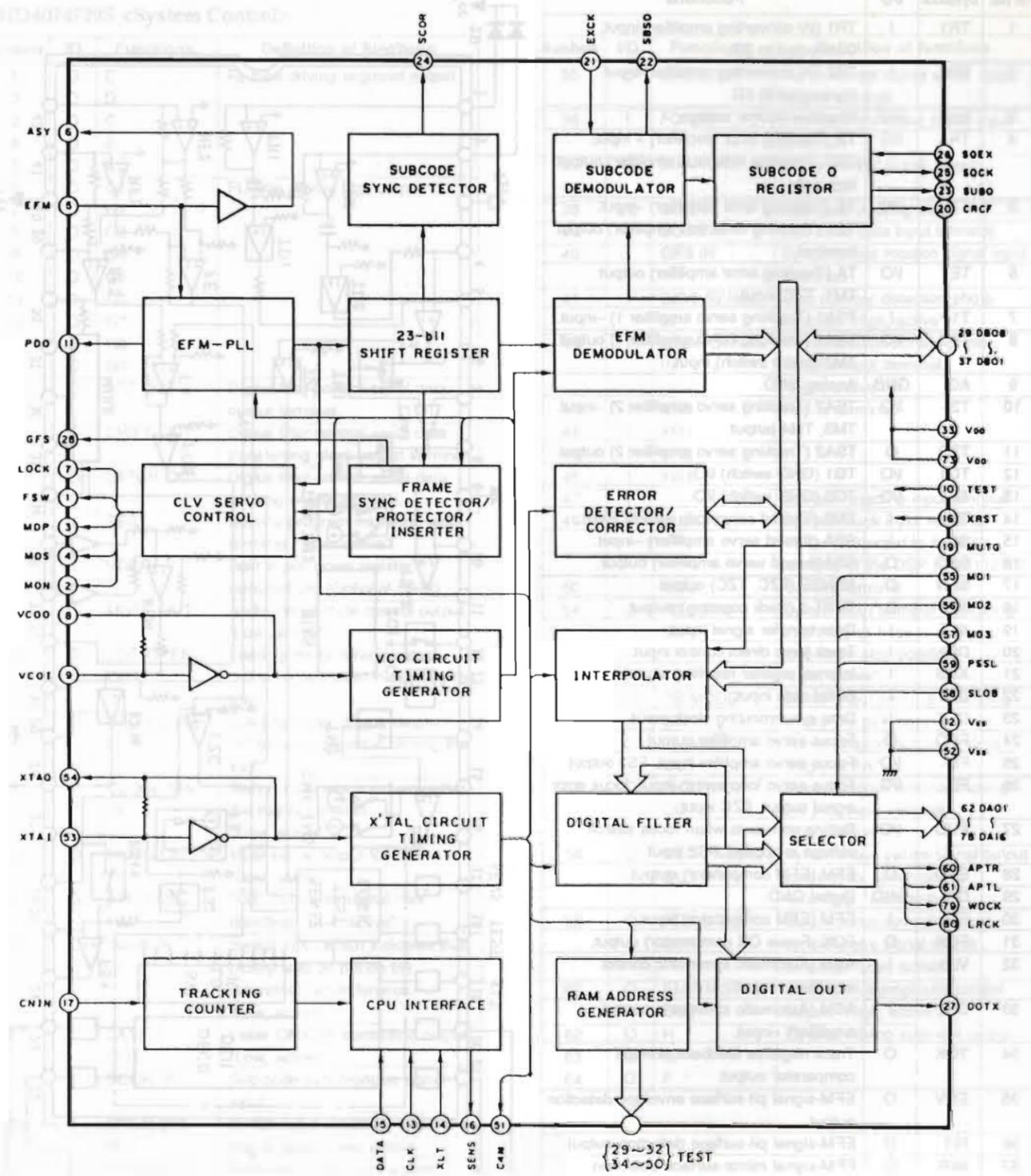
| Numbers | I/O | Functions. | Definition of functions |
|---------|-----|---------------|---|
| 35 | O | DATA OUT | Servo-control signal serial data output terminal. |
| 36 | I | FOK IN | Focus synchronous signal input terminal. |
| 37 | O | DIRC OUT | Servo-control signal output terminal. |
| 38 | I/O | SQCK | Sub-code reading clock. |
| 39 | I | SUBQ IN | Sub-code data input terminal. |
| 40 | I | GFS IN | Synchronous rotation signal input terminal. |
| 41 | I | DISC SENSE IN | Disc number detection photo coupler. "High, active". |
| 42 | I | STOP SENSE IN | Turret-rotation control photo coupler input terminal. "High, active". |
| 43 | I | KR0 | Key-in terminal. |
| 44 | I | KR1 | |
| 45 | I | KR2 | |
| 46 | I | KR3 | |
| 47 | I | | System resetting input terminal. |
| 49 | I | CLOCK IN | System clock input terminal. To be connected to the C4N terminal of the DSP (CXD1125Q). |
| 50 | I | GND | Ground terminal. |
| 54 | O | PB SENS SW IN | Switch input terminal indicating that the pick base is at the up-and-down stop position. "Low, active". |
| 55 | O | PB MODE SW IN | Switch input terminal indicating where the pick base is. |
| 56 | O | TURRET OUT | Turret rotation output terminal "High, active". |
| 57 | O | PICK U/D OUT | Control output terminal moving the pick base vertically. "High, active". |
| 58 | O | REC PAUSE OUT | Synchronous pause signal output terminal for synchronous recording. "Low, active". |
| 59 | O | REC START OUT | Synchronous-recording start signal output terminal. "Low, active". |
| 60 | O | EMPHASYS OUT | Audio circuit emphasis control output. "High, active". |
| 62 | O | H | FL tube driving segment output. |
| 63 | O | G | |
| 64 | O | F | |

• HA12095NT <RF Amp.>

| Pin No. | Symbols | I/O | Functions |
|---------|---------|-----|--|
| 1 | TR1 | I | TR1 (i/v converting amplifier)-input. Connected to 2D. |
| 2 | TR2 | I | TR2 (i/v converting amplifier)-input. Connected to 2D. |
| 3 | VEE | VEE | Negative source voltage. |
| 4 | TA+ | I/O | TA (Tracking error amplifier) + input. TD2 (Tracking detection amplifier) output terminal. |
| 5 | TA- | I/O | TA (Tracking error amplifier) -input. TD1 (Tracking detection amplifier) output terminal. |
| 6 | TE | I/O | TA (Tracking error amplifier) output. TM1, TZC input. |
| 7 | T1- | I | TSA1 (Tracking servo amplifier 1) -input. |
| 8 | T1O | I/O | TSA1 (Tracking servo amplifier 1) output. TM7 (brake switch) input. |
| 9 | AG | GND | Analog GND. |
| 10 | T2- | I/O | TSA2 (Tracking servo amplifier 2) -input. TM3, TM4 output. |
| 11 | T2O | O | TSA2 (Tracking servo amplifier 2) output. |
| 12 | TG1 | I/O | TG1 (GND switch) I/O. |
| 13 | TG2 | I/O | TG2 (GND switch) I/O. |
| 14 | TM2 | I | TM2 (Thread servo loop switch) input. |
| 15 | SS- | I | SSA (thread servo amplifier) -input. |
| 16 | SSO | O | SSA (thread servo amplifier) output. |
| 17 | SEN | O | SENSE (FZC, TZC) output. |
| 18 | TES | O | TEST 8 (track counting) output. |
| 19 | XLT | I | Data transfer signal input. |
| 20 | DIR | I | Track jump direct control input. |
| 21 | XRS | I | Internal register resetting signal input. |
| 22 | DAT | I | Serial data input. |
| 23 | CLK | I | Data synchronizing clock input. |
| 24 | FSO | O | Focus servo amplifier output. |
| 25 | FS- | I/O | Focus servo amplifier input. FS2 output. |
| 26 | FE | I/O | Focus servo loop switch input, focus error signal output, FZC input. |
| 27 | EUD | I/O | Setting constants when focus search. voltage is applied. FS2 input. |
| 28 | EFO | O | EFM (EFM comparator) output. |
| 29 | DG | GND | Digital GND. |
| 30 | EF1 | I | EFM (EFM comparator) input. |
| 31 | FOK | O | FOK (Focus OK comparator) output. |
| 32 | Vdd | I | ASM (Automatic symmetric control amplifier) -input. |
| 33 | DSL | I | ASM (Automatic symmetric control amplifier) +input. |
| 34 | TOK | O | Track negative feedback domain comparator output. |
| 35 | ENV | O | EFM-signal pit-surface envelope detection output. |
| 36 | PIT | O | EFM-signal pit-surface detection output. |
| 37 | MIR | O | EFM-signal mirror-surface detection output. |
| 38 | RFS | I/O | RFS (RF summing amplifier) output. MIRR input, FA input. |
| 39 | RF- | I/O | RFS (RF summing amplifier) -input. RF1, RF2 output. |
| 40 | Vcc | Vcc | Positive source voltage. |
| 41 | RF1 | I | RF1 (i/v converting amplifier) -input. Connected to 4D. |
| 42 | RF2 | I | RF2 (i/v converting amplifier) -input. Connected to 4D. |



• CXD1167Q (Digital Signal Processing)

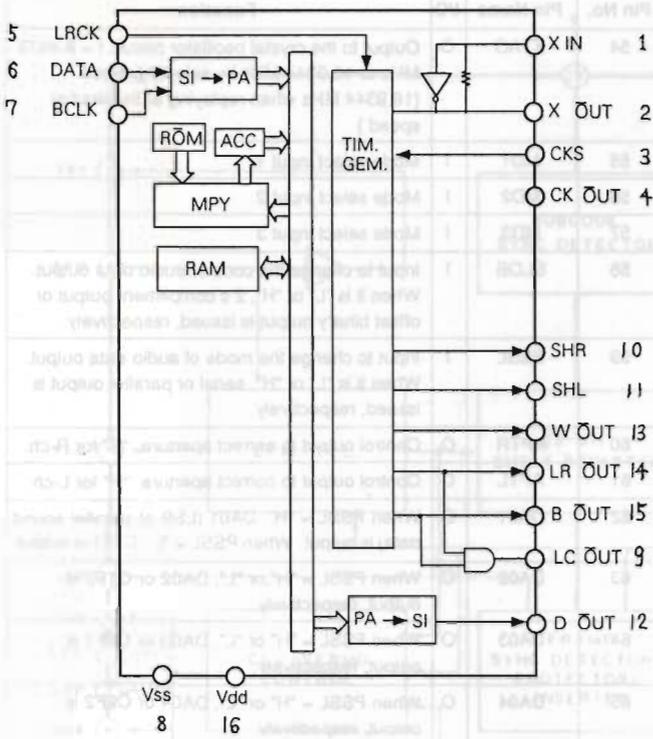


Terminal Function <CXD1167Q>

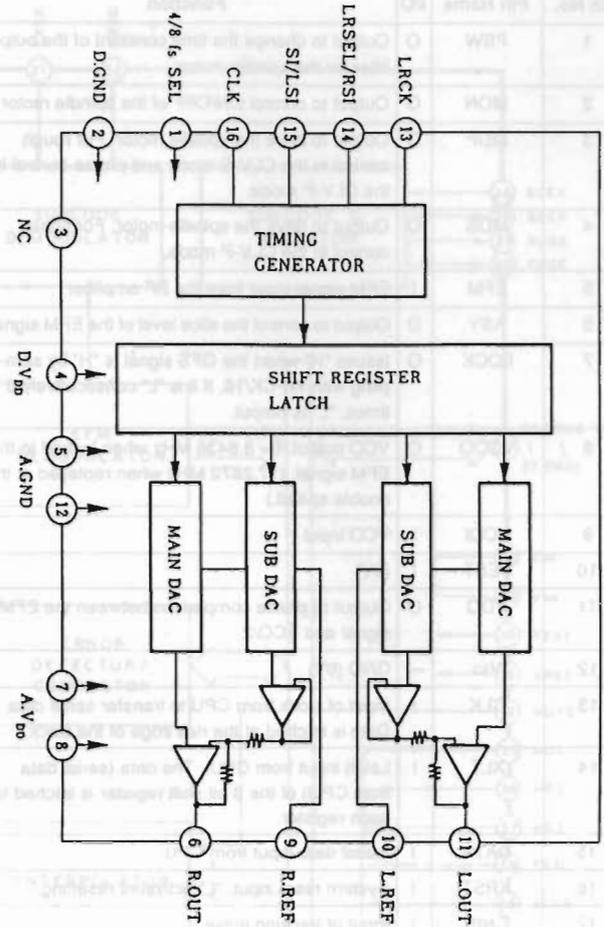
| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|--|
| 1 | FSW | O | Output to change the time constant of the output filter for the spindle motor |
| 2 | MON | O | Output to control ON/OFF of the spindle motor |
| 3 | MDP | O | Output to drive the spindle motor. For rough control in the CLV-S mode and phase control in the CLV-P mode. |
| 4 | MDS | O | Output to drive the spindle motor. For speed control in the CLV-P mode. |
| 5 | EFM | I | EFM signal input from the RF amplifier |
| 6 | ASY | O | Output to control the slice level of the EFM signal. |
| 7 | LOCK | O | Issues "H" when the GFS signal is "H" by sampling with WFCK/16. If it is "L" consecutively 8 times, "L" is output. |
| 8 | VCOO | O | VCO output. f = 8.6436 MHz when locked to the EFM signal. (17.2872 MHz when replayed at the double speed.) |
| 9 | VCOI | I | VCO input |
| 10 | TEST | I | (0V) |
| 11 | PDO | O | Output of phase comparison between the EFM signal and VCO/2 |
| 12 | VSS | — | GND (0V) |
| 13 | CLK | I | Input of clock from CPU to transfer serial data. Data is latched at the rise edge of the clock. |
| 14 | XLT | I | Latch input from CPU. The data (serial data from CPU) of the 8 bit shift register is latched to each register. |
| 15 | DATA | I | Serial data input from CPU |
| 16 | XRST | I | System reset input. "L" activates resetting. |
| 17 | CNIN | I | Input of tracking pulse |
| 18 | SENS | O | Issues internal status according to the address |
| 19 | MUTG | I | Muting input. When ATTM of the internal register A is "L", MUTG is "L", i.e. normal status. "H" activates no-sound status. |
| 20 | CRCF | O | Issues the output of CRC check result for the subcode Q. |
| 21 | EXCK | I | Clock input for serial output of subcode |
| 22 | SBSO | O | Serial output of subcode |
| 23 | SUBQ | O | Output of subcode Q |
| 24 | SCOR | O | Output of subcode sync S0 + S1 |
| 25 | SQCK | I/O | Clock to read subcode Q. |
| 26 | SQEX | I | SQCK selection input (see the CPU interface for more detail.) |
| 27 | DOTX | O | Digital output (WFCK is output when DO is OFF.) |
| 28 | GFS | O | Output to indicate locked status of frame sync |
| 29-33 | TEST | I | Fix to "H" or "L". Don't make it open. |
| 33 | VDD | — | Power supply (+ 5V) |
| 34-40 | TEST | I | Fix to "H" or "L". Don't make it open. |
| 41-50 | TEST | I | Fix to "H" or "L". Don't make it open. |
| 51 | C4M | O | Frequency division output of the crystal oscillator. f = 4.2336 MHz (8.4672 MHz when replayed at the double speed.) |
| 52 | VSS | — | GND (0V) |
| 53 | XTAI | I | Input to the crystal oscillator circuit. f = 8.4672 MHz or 16.9344 MHz by selecting mode. (16.9344 MHz when replayed at the double speed.) |

| Pin No. | Pin Name | I/O | Function |
|---------|----------|-----|--|
| 54 | XTAO | O | Output to the crystal oscillator circuit. f = 8.4672 MHz or 16.9344 MHz by selecting mode. (16.9344 MHz when replayed at the double speed.) |
| 55 | MD1 | I | Mode select input 1 |
| 56 | MD2 | I | Mode select input 2 |
| 57 | MD3 | I | Mode select input 3 |
| 58 | SLOB | I | Input to change the code of audio data output. When it is "L" or "H", 2's compliment output or offset binary output is issued, respectively. |
| 59 | PSSL | I | Input to change the mode of audio data output. When it is "L" or "H", serial or parallel output is issued, respectively. |
| 60 | APTR | O | Control output to correct aperture. "H" for R-ch. |
| 61 | APTL | O | Control output to correct aperture. "H" for L-ch |
| 62 | DA01 | O | When PSSL = "H", DA01 (LSB of parallel sound data) is output. When PSSL = "L", C1F1 is output. |
| 63 | DA02 | O | When PSSL = "H" or "L", DA02 or C1F2 is output, respectively. |
| 64 | DA03 | O | When PSSL = "H" or "L", DA03 or C2F1 is output, respectively. |
| 65 | DA04 | O | When PSSL = "H" or "L", DA04 or C2F2 is output, respectively. |
| 66 | DA05 | O | When PSSL = "H" or "L", DA05 or C2FL is output, respectively. |
| 67 | DA06 | O | When PSSL = "H" or "L", DA06 or C2PO is output, respectively. |
| 68 | DA07 | O | When PSSL = "H" or "L", DA07 or RFCK is output, respectively. |
| 69 | DA08 | O | When PSSL = "H" or "L", DA08 or WFCK is output, respectively. |
| 70 | DA09 | O | When PSSL = "H" or "L", DA09 or PLCK is output, respectively. |
| 71 | DA10 | O | When PSSL = "H" or "L", DA10 or UGFS is output, respectively. |
| 72 | DA11 | O | When PSSL = "H" or "L", DA11 or GTOP is output, respectively. |
| 73 | VDD | — | Power supply (+ 5V) |
| 74 | DA12 | O | When PSSL = "H" or "L", DA12 or RAOV is output, respectively. |
| 75 | DA13 | O | When PSSL = "H" or "L", DA13 or C4LR is output, respectively. |
| 76 | DA14 | O | When PSSL = "H" or "L", DA14 or BCLK is output, respectively. |
| 77 | DA15 | O | When PSSL = "H" or "L", DA15 or BCLK is output, respectively. |
| 78 | DA16 | O | When PSSL = "H", DA16 (MSB of parallel sound data) is output. When PSSL = "L", DATA is output. |
| 79 | WDCK | O | Strobe signal output. When DF is ON, the frequency is 176.4 kHz (352.8 kHz when replayed at the double speed). When DF is OFF, it is 88.2 kHz (176.4 kHz when replayed at the double speed). |
| 80 | LRCK | O | Strobe signal output. When DF is ON, the frequency is 88.2 kHz (176.4 kHz when replayed at the double speed). When DF is OFF, it is 44.1 kHz (88.2 kHz when replayed at the double speed). |

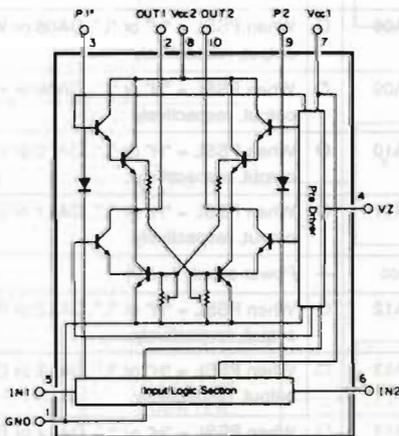
• PD0034 (Digital Filter)



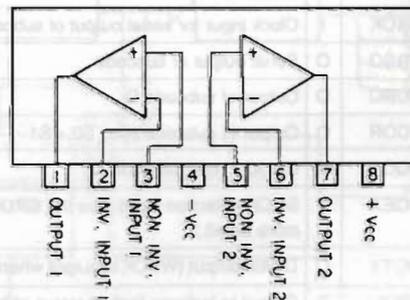
• μ PD6376CX (D/A Converter)



• LB1641 (Motor Driver)

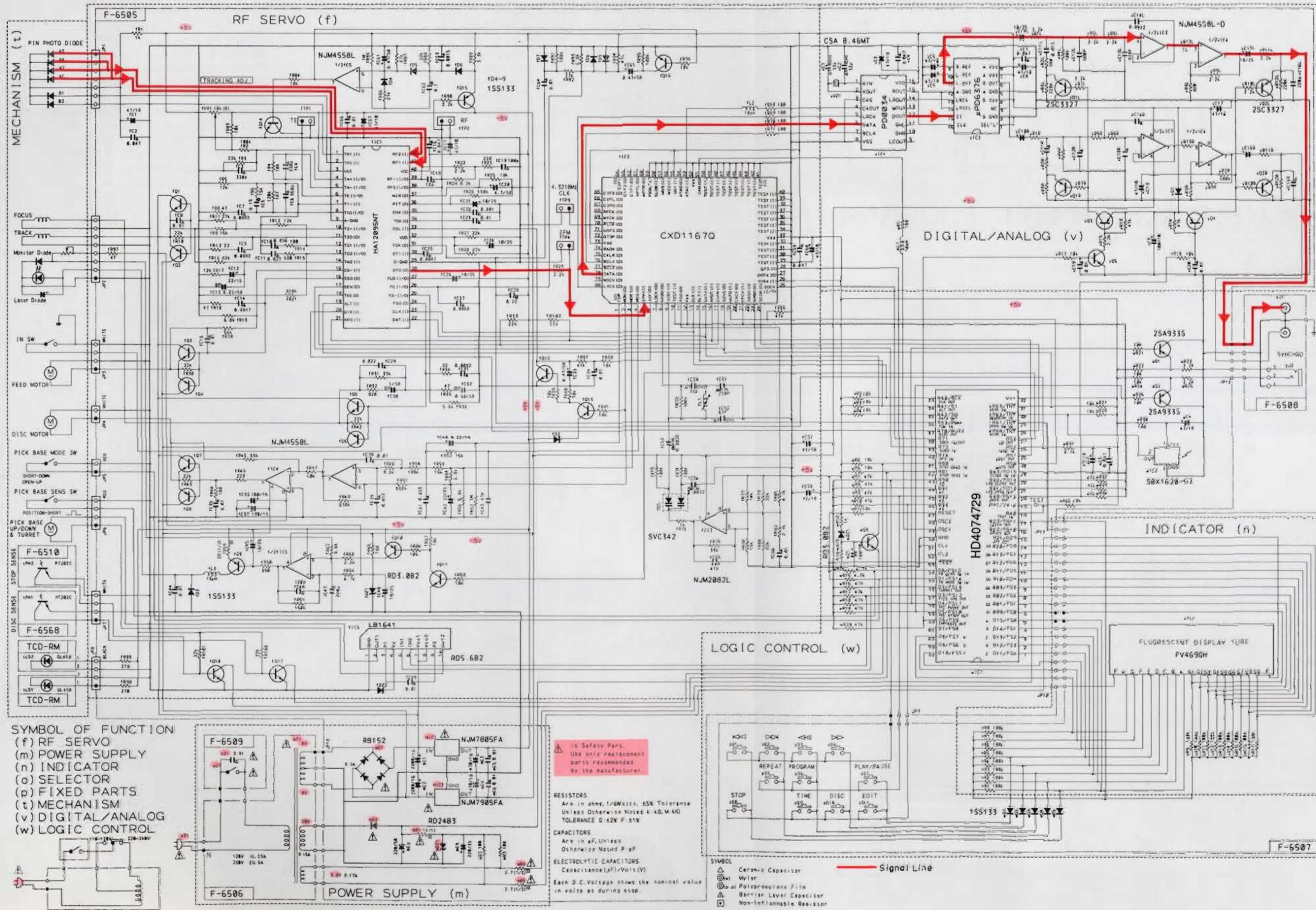


• M5218L/M5238L/NJM4558L/NJM2082L (OP Amp.)



9. SCHEMATIC DIAGRAM

• Design and specifications subject to change without notice for improvement.
• La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
• Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



SYMBOL OF FUNCTION
 (f) RF SERVO
 (m) POWER SUPPLY
 (n) INDICATOR
 (o) SELECTOR
 (p) FIXED PARTS
 (t) MECHANISM
 (v) DIGITAL/ANALOG
 (w) LOGIC CONTROL

is Safety Parts.
 Use only replacement parts recommended by the manufacturer.

RESISTORS
 Are in ohms, 1/8Watts, 5% Tolerance
 Unless Otherwise Noted k, M, Ω
 TOLERANCE G ±2% F ±1%

CAPACITORS
 Are in μF, Unless
 Otherwise Noted p pF

ELECTROLYTIC CAPACITORS
 Capacitance (μF)/Volts (V)
 Each D.C. Voltage shows the nominal value
 in volts at during stop.

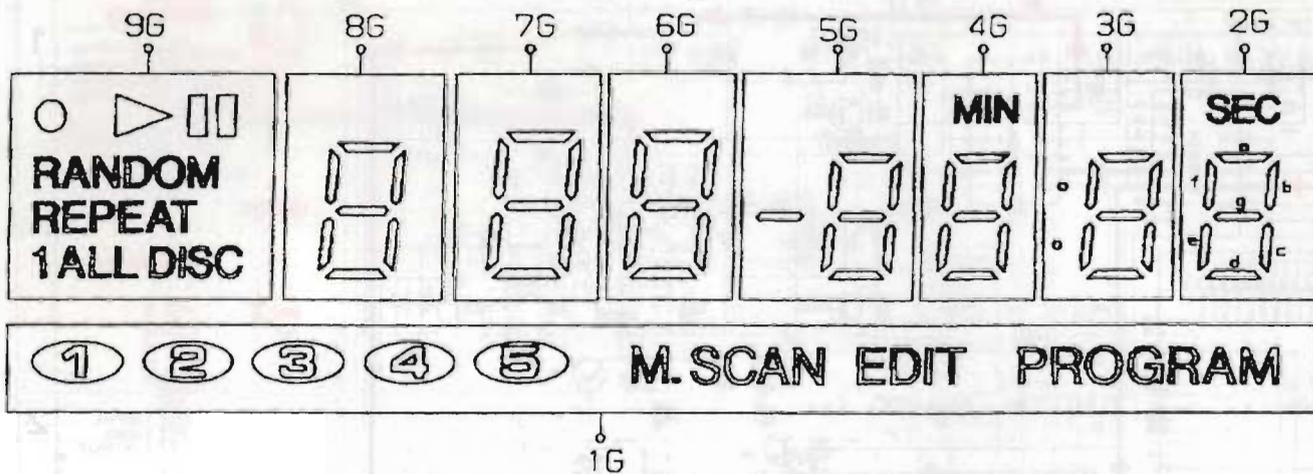
SYMBOL
 △ Ceramic Capacitor
 ⊗ Mylar
 ⊕ as Polypropylene Film
 ▽ Barrier Layer Capacitor
 □ Non-Inflammable Resistor

Signal Line

- 1 11E2 HA12095NT
HD407429S
PD0034
UPD6376CX
Dot or Slot or Line
- 2 1S5133 NJM7805FA
1: INPUT
2: GND
3: OUTPUT
- 3 RB-152 NJM7905FA
1: GND
2: INPUT
3: OUTPUT
- 4 RD24ES
RD3.0ES
RD6.8ES
RD5.6ES
2SA933S
2SC2001
- 5 NJM2082L
NJM4558LD
2SA933S
2SC1740S

10. PIN ASSIGNMENT OF FL DISPLAY, FV469GH

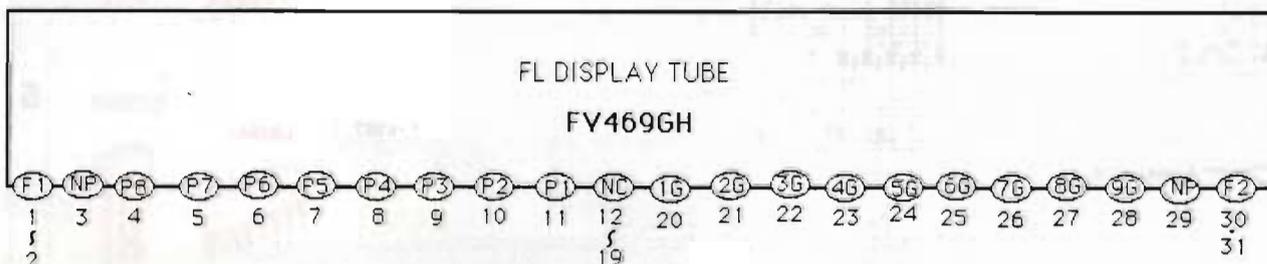
• Grid Assignment



• Anode Connection

| | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G |
|----|--------|----|----|----|----|-----|----|-----|---------|
| P1 | □□ | f | f | f | f | f | f | f | PROGRAM |
| P2 | ALL | c | c | c | c | c | c | c | EDIT |
| P3 | 1 | d | d | d | d | d | d | d | M.SCAN |
| P4 | DISC | e | e | e | e | e | e | e | ⑤ |
| P5 | REPEAT | g | g | g | g | g | g | g | ④ |
| P6 | RANDOM | b | b | b | b | b | b | b | ③ |
| P7 | ▶ | a | a | a | a | a | a | a | ② |
| P8 | ○ | / | / | / | — | MIN | ○ | SEC | ① |

• Pin Assignment



11. ACCESSORY LIST

| Parts No. | Stock No. | Description |
|-----------|------------|---|
| | 9004104359 | Operating Instruction(E.F.S) |
| | 9004104357 | Operating Instruction(H.G.I.Sw) |
| | 571C900001 | Remote Controller Unit (CD-3100M,570M) |
| | 4500100313 | Jack,synchro(CD-3100M/ME) |
| | 4510130301 | Synchro Cord(CD-3100M) |
| | 5620708008 | RCA Pin Plug Cord |
| △ | 4570206108 | Plug,type changer of AC plug (XX) |

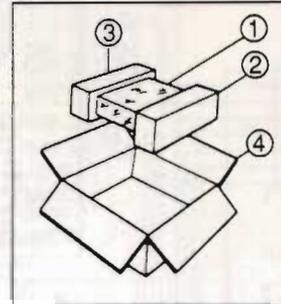
Note:

E · F · S: English · French and Spanish Version

H · G · I · Sw: Hollands · German · Italian and Swedish Version

12. PACKING LIST

| Parts No. | Stock No. | Description |
|-----------|------------|----------------------------------|
| 1 | 9004104548 | Poly Bag(CD-3100M/ME) |
| | 9905006546 | Poly Bag(CD-570M/ME) |
| 2 | 9001104315 | Styrofoam Packing<R>(CD-3100M) |
| | 9001104366 | Styrofoam Packing<R>(CD-3100ME) |
| | 9001104316 | Styrofoam Packing<R>(CD-570M/ME) |
| 3 | 9001104317 | Styrofoam Packing<L>(CD-3100M) |
| | 9001104367 | Styrofoam Packing<L>(CD-3100ME) |
| | 9001104318 | Styrofoam Packing<L>(CD-570M/ME) |
| 4 | 9002104319 | Carton Case(CD-3100M) |
| | 9002104342 | Carton Case(CD-3100ME) |
| | 9002104320 | Carton Case(CD-570M) |



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SANSUI DEUTSCHLAND GMBH:

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