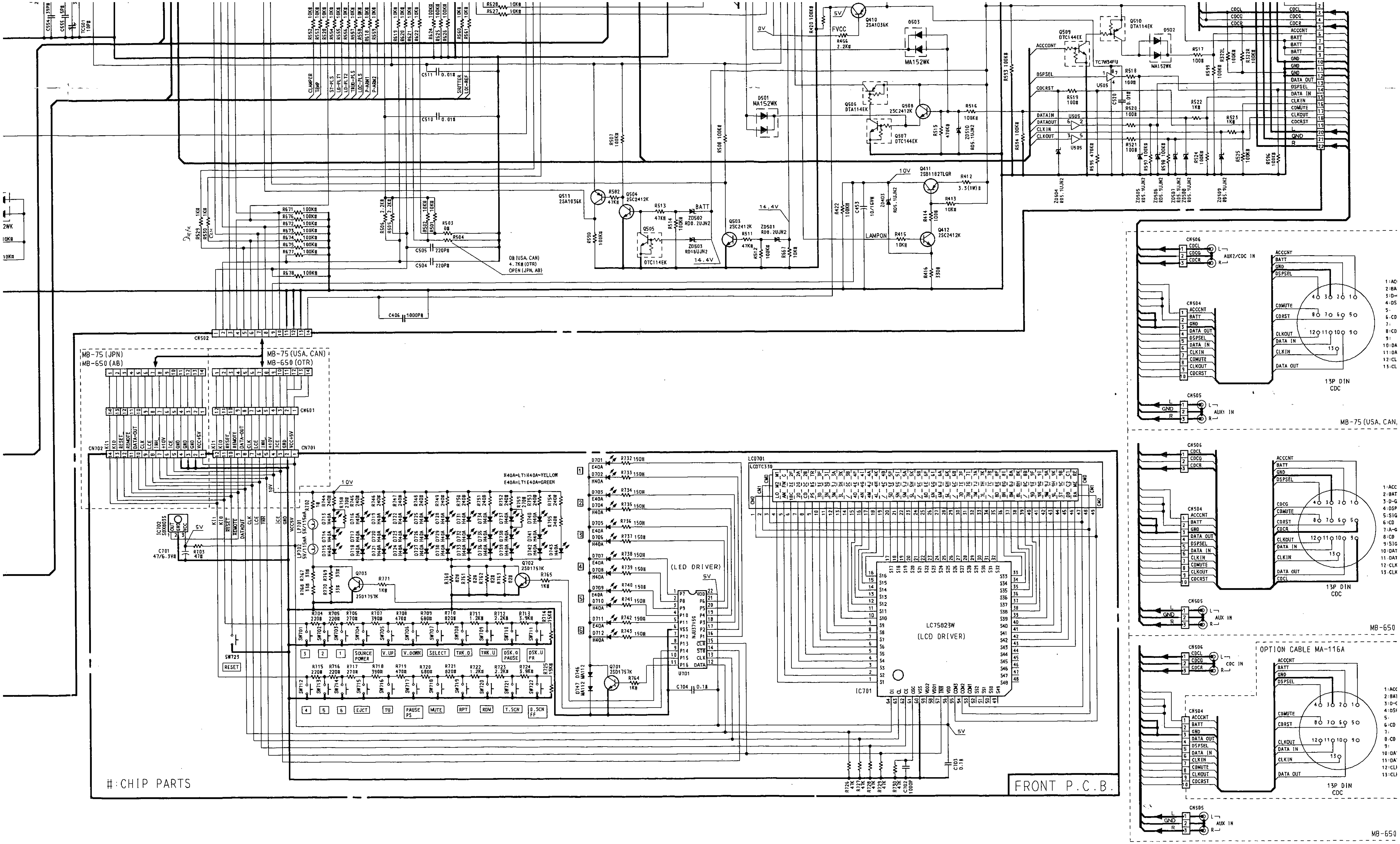
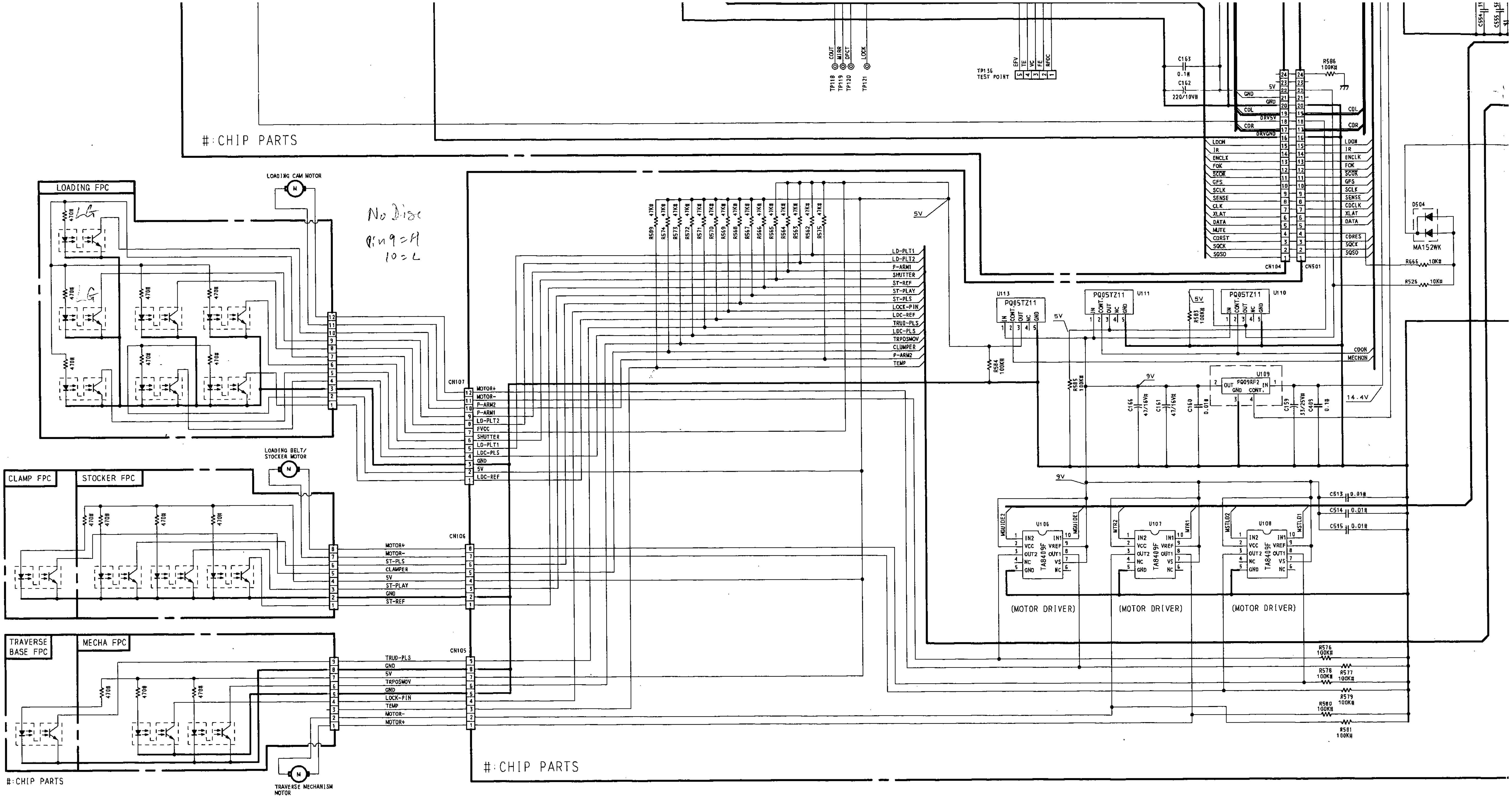
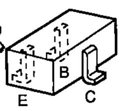


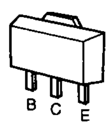
(LED DRIVER)
NJU3715G
U101
LC75823W
(LCD DRIVER)
IC701
LCDTC330
LC0701
H40A=LT1H40A=YELLOW
E40A=LT1E40A=GREEN
0Ω (USA, CAN)
4.7KΩ (OTR)
OPEN (JPN, AB)
MB-75 (JPN)
MB-650 (AB)
MB-75 (USA, CAN)
MB-650 (OTR)
CN502
CN601
CN701
CN702
SOURCE POWER
V.UP
V.DOWN
SELECT
TRK.D
TRK.U
DSK.D PAUSE
DSK.U FR
EJCT
TU
PAUSE PS
MUTE
RPT
RDM
T.SCN
D.SCN FF
RESET
SW723
IC702
S80805S
#:CHIP PARTS
FRONT P.C.B.
MA152WK
2SA1036K
2SC2412K
DTA114EK
DTC144EK
DTC114EK
2SB1182TLQR
2SD1757K
TC7W34FU
LAMPON
BATT
ACCCNT
DSPSEL
CDCRST
DATAIN
DATAOUT
CLKIN
CLKOUT
CN504
CN505
CN506
AUX2/CDC IN
AUX1 IN
AUX IN
CDC IN
13P DIN
CDC
MB-75 (USA, CAN,
MB-650
OPTION CABLE MA-116A



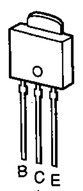
LG = Load Guide RB



2SA1036
2SC2412
2SD1757
DTA114EK
DTC114EK
DTC114EKA
DTC144EK
DTC144TK
DTC314TK



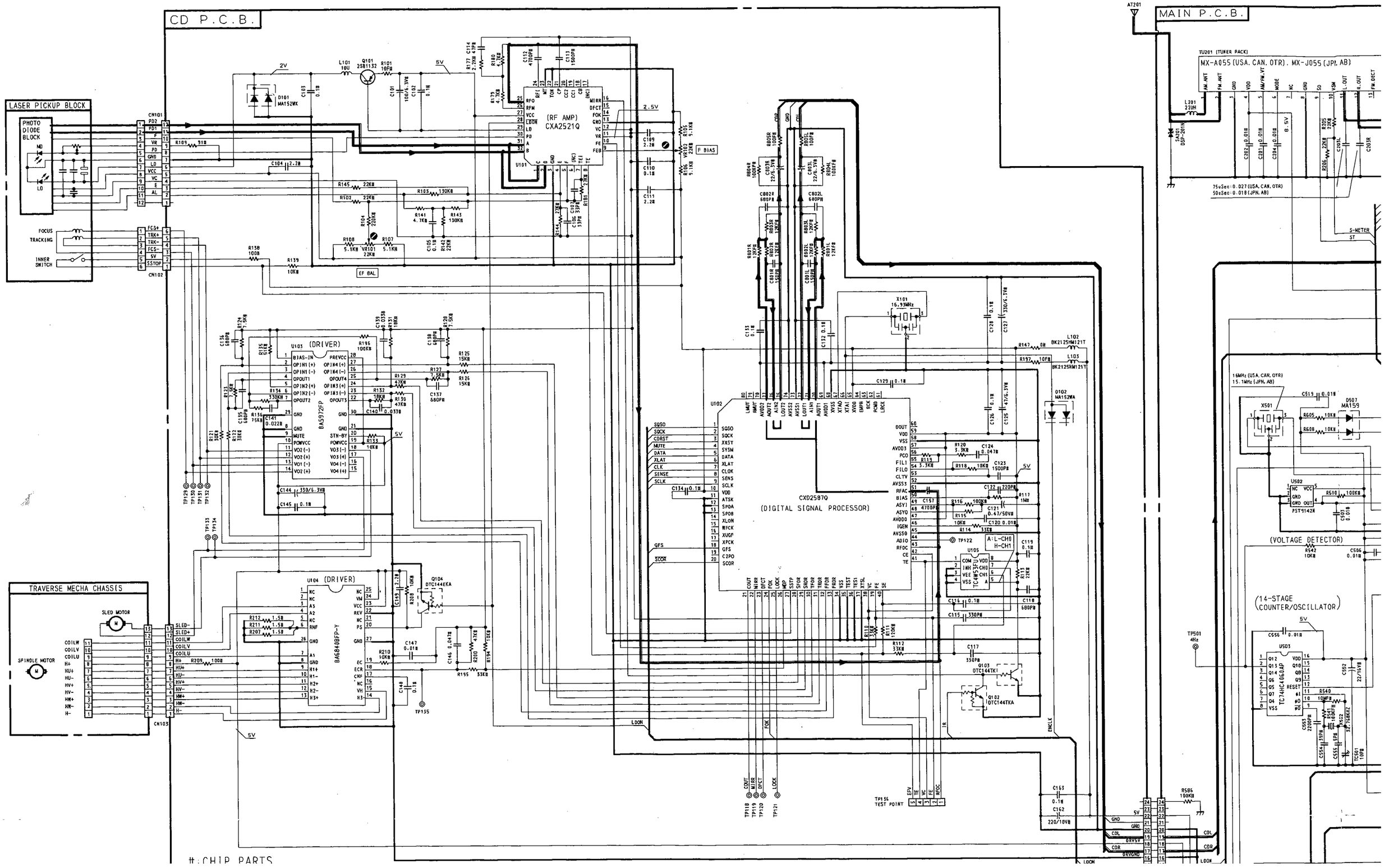
2SB1132

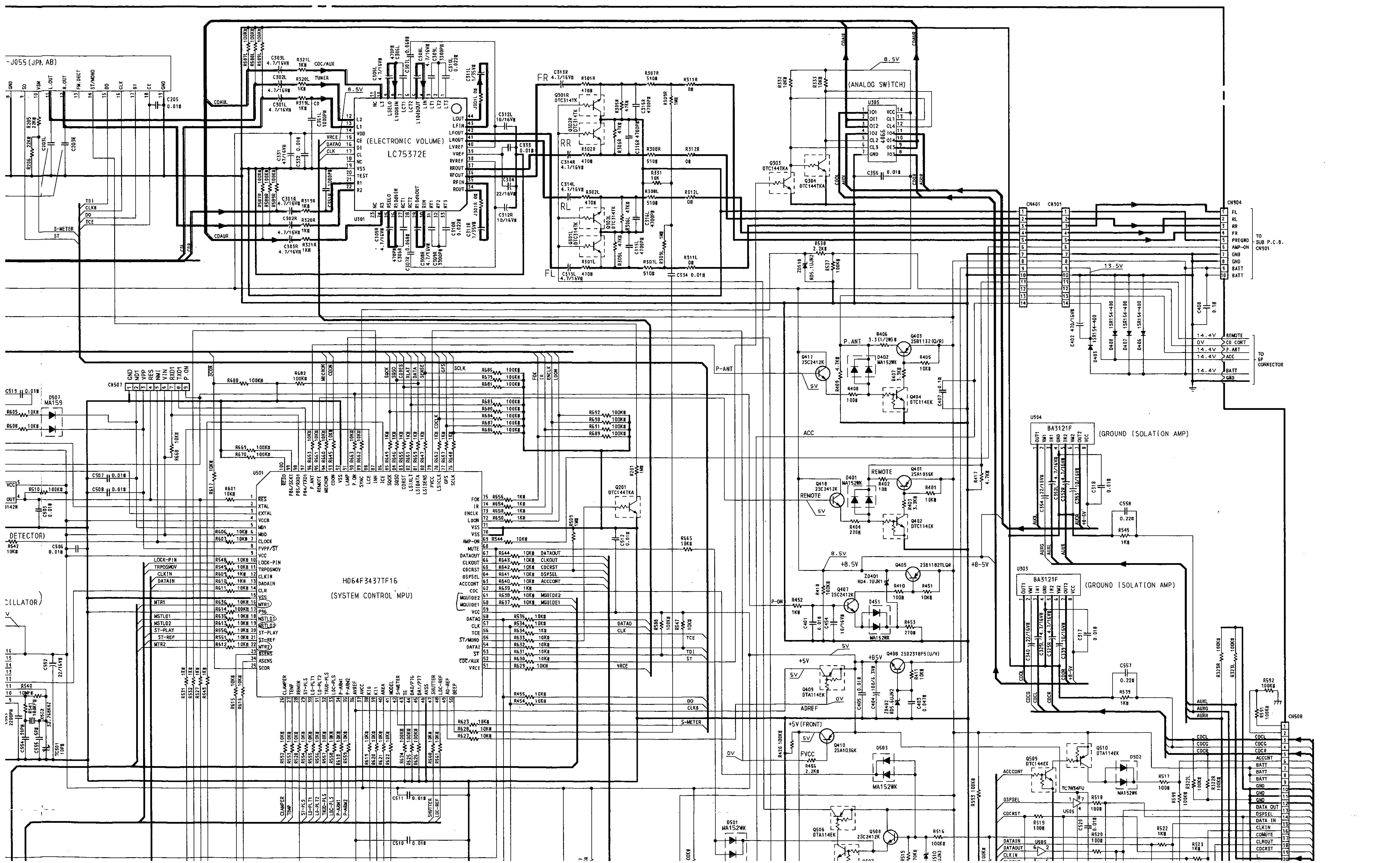


2SB1182
2SD2318

NOTE: Description of electrolytic capacitor: 100/16V = 100µ 16V

● Receiver / 6 Disc MusicBank CD Changer

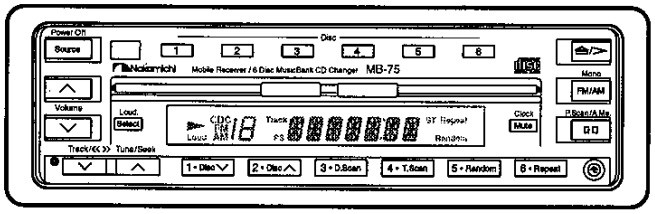



(ELECTRONIC VOLUME)
LC75372E
U301
(ANALOG SWITCH)
U305
4066
HD64F3437TF16
(SYSTEM CONTROL MPU)
U501
U304
BA3121F
(GROUND ISOLATION AMP)
U303
BA3121F
(GROUND ISOLATION AMP)
CN401
CN901
CN904
FL
RL
RR
FR
PREGND
AMP-ON
GND
GND
BATT
BATT
TO SUB P.C.B. CN901
14.4V REMOTE
0V CD CONT
14.4V P.ANT
14.4V ACC
14.4V BATT
GND
TO 6P CONNECTOR
CN507
CN508
CDCL
CDCG
CDCR
ACCCNT
BATT
BATT
BATT
GND
GND
GND
DATA OUT
DSPSEL
DATA IN
CLKIN
CDMUTE
CLKOUT
CDCRST
Q403 2SB1132(Q/R)
Q401 2SA1036K
Q405 2SB1182TLQR
Q408 2SD2318F5(U/V)
Q410 2SA1036K
8.5V
13.5V
P-ANT
ACC
REMOTE
+5V(FRONT)
S-METER

Service Manual

Mobile Receiver / 6 Disc Music-Bank CD Changer

MB-75



Nakamichi

CONTENTS

GENERAL

1.1. Product Code
V624

1.2. Destinations
USA, CAN, JPN

Abbreviations for Destinations:
USA — U.S.A.
CAN — Canada
JPN — Japan

1.3. Cautions/Warnings

(1) Protection of Eyes from Laser Beam
To protect eyes from invisible laser beam during servicing,
DO NOT LOOK AT THE LASER BEAM.

- Laser Diode Properties

Material:	GaAs+GaAlAs
Laser output:	0.4mW Max.
Wavelength:	760 - 800 nm
Emission duration:	Continuous

(2) Laser Caution
CAUTION
Adjusting the knobs, switches, and controls, etc. or taking actions not specified herein may result in a harmful emission of laser beams. This CD Changer must be adjusted and repaired only by qualified service personnel.

OBSERVERA!
Sådana inställningar av rattarna, omkopplarna eller övriga kontrollknappar som inte är beskriva i bruksanvisningen kan resultera i farlig laserutstrålning. Justering eller reparation av denna kompaktskivspelare skall endast utföras av kvalificerad servicepersonal.

OBS!
Indstilling af knapper, cmskiftere og øvrige kontrolknapper, som ikke følger den i brugsanvisningen beskrevne måde, kan resultere i farlig laserudstråling. Justering eller reparation af denno CD-afspiller må kun udføres af kvalificeret servicepersonale.

OBS!
Justering av ratt, brytere og kontroller andre enn de som er beskrevet her, kan resultere i farlig laserbestråling. Justering eller reparasjon av denne kompaktdiskspilleren ma bare utføres av kvalifiserte fagfolk.

HUOMAUTUS
Jos nuppeja, kytkimiä ja säätimiä ym, säädetään tai laitetta käytetään toisella tavalla kuin on selostettu, tuloksena saattaa olla vaarallista lasersäteiden vuotoa. CD-soittimen säätö ja korjaus on jätettävä aina asiantuntevan huoltoteknikon tehtäväksi.

ADVERSEL:	USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSAETTELSE FOR STRÅLING.
VARO!:	AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING —	OSYNLIG LASERSTRÅLNING NAR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.

CLASS 1
LASER PRODUCT

THIS COMPACT DISC PLAYER IS CLASSIFIED AS A CLASS 1 LASER PRODUCT.
THE CLASS 1 LASER PRODUCT LABEL IS LOCATED ON THE REAR EXTERIOR.

1.4. Handling the Laser Pickup
In case of repair or replacement of the Laser Pickup, pay attention to the following handling instructions since the laser diode in the Laser Pickup is not resistant to static electricity.

(1) Grounding
When you repair a Laser Pickup, first ground the human body, as well as the measuring instruments and other tools (with particular caution to soldering iron). What's more, your workbench and floor should desirably be grounded using conductive sheet or copper plate. See Fig. 1.1.
NOTE: Be careful so as not to let your clothes touch the Laser Pickup, as static electricity on the clothes will not be released even if your body is grounded.

(2) Discharge of Electricity
Be sure to discharge electricity from objects brought into contact with the Laser Pickup (i.e., soldering iron, tweezers, probes, volt-ohm-meter probes, etc.) before starting work by contacting them with the body chassis. Besides, never touch the Laser Pickup while power is applied.

(3) Soldering Iron to be Used
The soldering iron for use in repair work should be: (1) a ceramic soldering iron, (2) a soldering iron with its metal part grounded, or (3) a soldering iron whose insulation resistance after five minutes of power application is 10 M-ohm or more at 500 VDC. Soldering should be completed promptly, at a soldering iron temperature of 320° max (39 W). A soldering iron heated above this temperature can break down the laser diode.

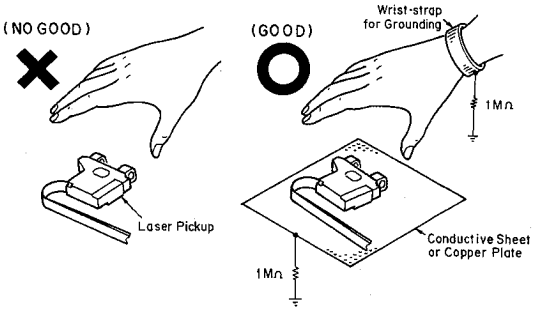


Fig. 1.1 Handling the Laser Pickup

1.5. Shipping Procedure after Service Work

Always follow the steps below before returning the Unit.

START

Initialize the Mechanism.

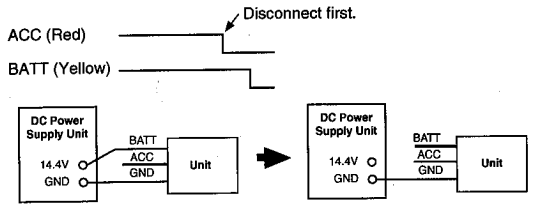
While the **DISC6** button is kept pressed, push the **RESET** button.

DISC6 + **RESET**

The Unit will display the firmware version and then starts mechanism initialization.

Disconnect the ACC line first, and then BATT line.

Turn OFF the Unit in the same order when the Unit is used in the car. Namely, disconnect the ACC line first and then the BATT line.



To fix the mechanical parts, insert the Clamp Arm Stopper and fasten the U G Screws.

1. Insert the Clamp Arm Stopper to lock the Clamper Ass'y.
   NOTE: If it cannot be correctly inserted into the Unit, do not force to insert it.
   You should correctly follow the shipping procedure again from the beginning.
2. Cover the Clamp Arm Stopper with a tape.
3. Put the Mecha Lock Caution as shown in the figure.
4. Fasten the two U G Screws from the bottom of the Unit to lock the Traverse Ass'y, passing through the Mecha Lock Caution.

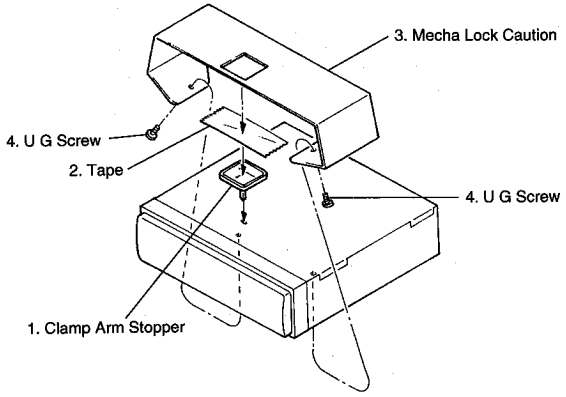


Fig. 1.2 Shipping Form

END

1.6. Handling the Laser Pickup

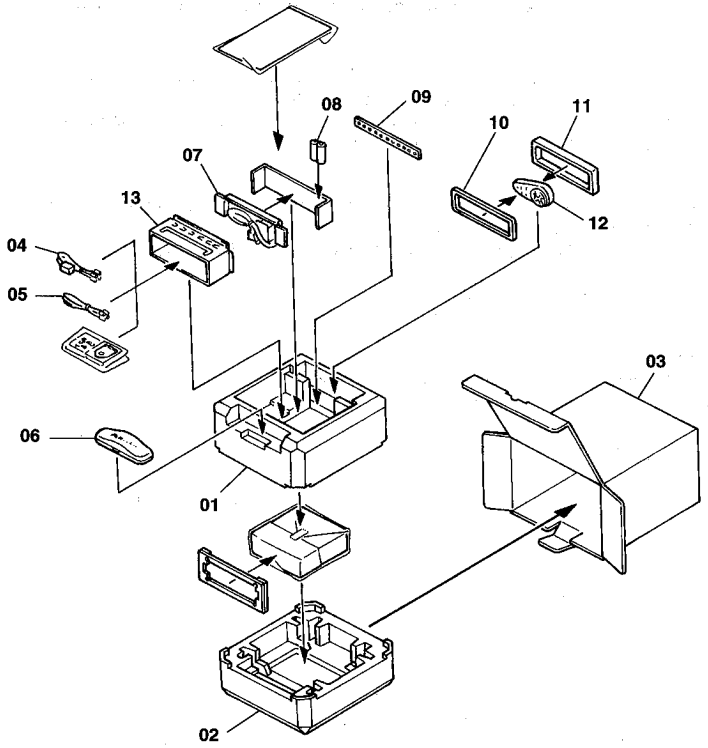


Fig. 1.3

Schematic Ref. No.	Part No.	Description	Q'ty
	—	**Package and Accessory Ass'y**	
01	0F05345A	Package Top (USA, CAN)	1
	0F05359A	Package Top (JPN)	1
02	0F05346A	Package Bottom (USA, CAN)	1
	0F05360A	Package Bottom (JPN)	1
03	0F05363A	Inner Carton (USA, CAN)	1
	0F05361A	Inner Carton (JPN)	1
04	0B84883B	6P Wire Ass'y	1
05	0B84862C	8P SP Cable Ass'y	1
06	DA05321A	Carrying Case Ass'y (USA, CAN)	1
07	HA07655A	Heat Sink Bracket Ass'y	1
08	0B90462A	Battery UM4x1	2
09	0J07417A	Metal Stay (USA, CAN)	1
10	0H07542A	Panel Frame (USA, CAN)	1
11	0H07771A	Panel Frame L (USA, CAN)	1
12	DA05247A	Remote Ass'y	1
13	HG07456B	Sleeve Ass'y (USA, CAN)	1
—	0D07031C	Owner's Manual (English)	1
—	0D07030B	Owner's Manual (Japanese)	1
—	0F05381A	Soft Sheet (for Front Panel)	1

Schematic Ref. No.	Part No.	Description	Q'ty
—	0B90359A	Masking Tape	4
—	0B90520A	Fuse 250V 3A	1
—	0B90525A	Fuse N8A 250V	1
—	0D06960A	Magic Tape A	1
—	0D06961A	Magic Tape B	1
—	0D06962A	Magic Tape C	1
—	0D07048A	Magic Tape BK A	2
—	0D07049A	Magic Tape BK B	2
—	DG05271A	Screw Kit	1
—	JG04899A	Bolt Ass'y	1
—	0J08221B	Connector Bracket	1
—	0E00612A	M3x6 + Pan (2A) (for Connector Bracket)	1
—	0J07428A	Rubber Cap (USA, CAN)	1
—	0J07968B	Lock Plate (USA, CAN)	2
—	DG04858A	Terminal Ass'y D (JPN)	1

2. REMOVAL PROCEDURES

WARNING:

Before starting disassembly, be sure to disconnect the power supply lines from a power source.

CAUTIONS:

- Before turning on the power, be sure that there is no abnormality.
- Be careful not to leave parts such as screws and washers unattached or loose inside the Unit.
- Be careful not to damage the flexible cable during service work.
- Do not excessively tighten screws.
- Do not reuse E-rings.
- Assembly should be performed in the reverse order of disassembly unless otherwise specified. However, be sure to follow the notes or procedures if written.
- Before returning the Unit, follow 1.5 "Shipping Procedure after Service Work" on page 3.

General Maintenance Tools:

- Philips screwdriver
- Tweezers
- Cutting Nippers
- Soldering Iron (Ceramic one or whose metal part is grounded)

Removal Procedures:

2.1. Preparation

(1) Remove the two transportation screws (U G Screws) on the bottom, that lock the Traverse Ass'y.

(2) Remove the Mecha Lock Caution , tape, and Clamp Arm Stopper on the Top Cover. The Clamp Arm Stopper is used to lock the Clamper Ass'y of the Unit.

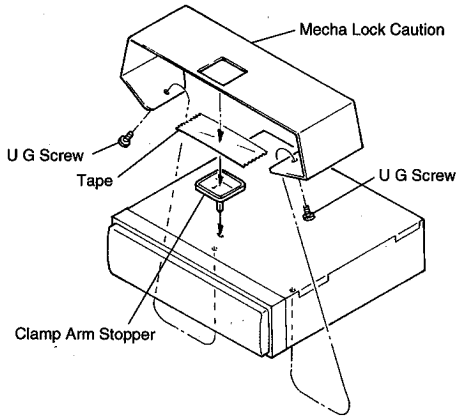


Fig. 2.1

2.2. Top Cover Ass'y

Refer to Fig. 2.2.

(1) Remove the screws F01 (2 pcs.) and detach F02 (Lock Plate, 2 pcs.).

(2) Remove the screws F03 (M1.4x3 Countersunk (Black Chromate), 2 pcs.) and detach F04 (Top Cover Ass'y).
NOTE: Do not apply excessive force to the Top Cover Ass'y as it can be deformed.

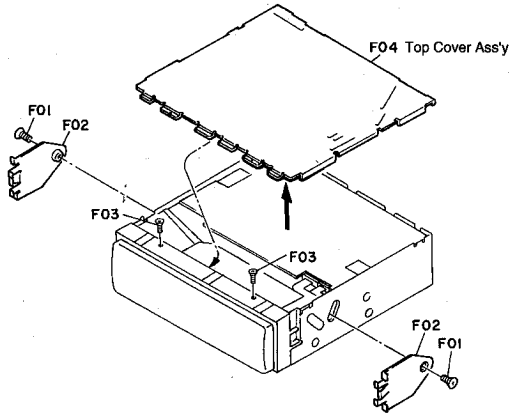


Fig. 2.2

2.3. Main P.C.B. Ass'y and Front Panel Block

Refer to Figs. 2.3.1 and 2.3.2.

(1) Remove the Top Cover Ass'y. See item 2.2.
(2) Remove the screws F01 (M2x1.8 + Pan, 5 pcs.), F02 (M2.6x3 + Pan, 2 pcs.), F03 (M2.6x8 + Pan, 1 pce.) and F04 (M3x3 + Binding, 1 pce.).
(3) Gently lift the CN-501 part (the right front part) of F10 (Main P.C.B. Ass'y) to disconnect CN-501 from the CD P.C.B. Ass'y on the Mechanism Ass'y. Refer to Fig. 2.3.2.

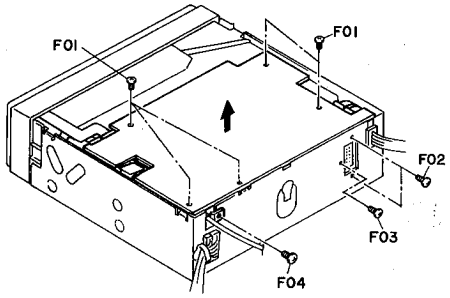
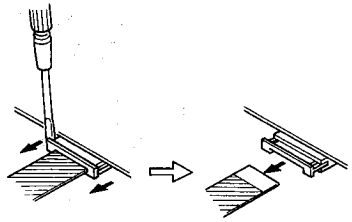


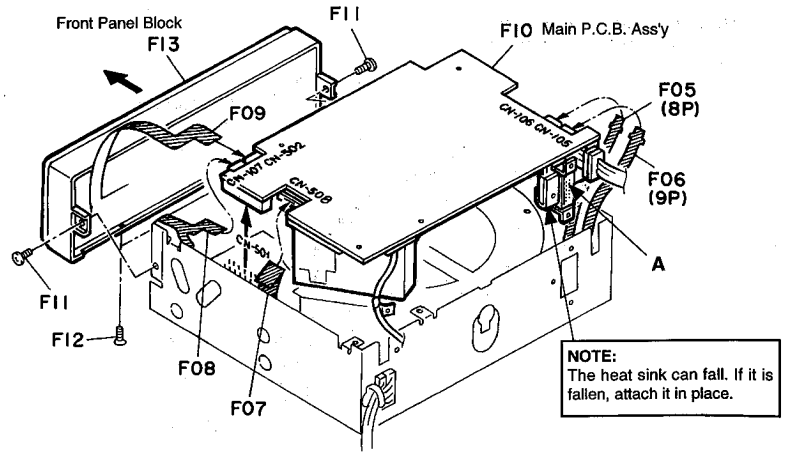
Fig. 2.3.1

(4) While lifting F10 (Main P.C.B. Ass'y) a little, disconnect the five flexible cables F05 to F09 from CN-106, CN-105, CN-508, CN-107, and CN-502 on F10 (Main P.C.B. Ass'y).
NOTE: To disconnect the flexible cable, unlock the connector lock before disconnecting it.



[Disconnecting the Flexible Cable]

(5) Remove F10 (Main P.C.B. Ass'y) while lifting its rear left cable upward.
NOTE: At this time, push the connector case "A" inward as it comes in contact with the chassis hole edge.
(6) Remove the screws F11 (M3x3 + Binding, 2 pcs.) and F12 (M1.4x4 Countersunk, 2 pcs.) and detach F13 (Front Panel Block).
* F12 for JPN: M1.4x3 Countersunk, 2 pcs.



NOTE:
The heat sink can fall. If it is fallen, attach it in place.

Fig. 2.3.2

2.4. Loading Ass'y

2.4.1. Removing the Loading Ass'y

Refer to Fig. 2.4.1.

(1) Remove the Main P.C.B. Ass'y. See 2.3 "Main P.C.B. Ass'y and Front Panel Block".
(2) Remove the screws F01 (M1.7x2 + Pan (Black Chromate), 2 pcs.), F02 (M17 STC Lock Screw, 2 pcs.) and F03 (M2x2 Countersunk, 2 pcs.).
(3) Carefully disengage the cut washer F04 (Cut Washer 1.6x3.5x0.125) to disengage F05 (Loading Ass'y) from the main body.
(4) While lifting the right side of F05 (Loading Ass'y) (①), carefully remove it as shown by the arrow ②.
NOTE: While removing, do not damage the flexible cables and other parts.

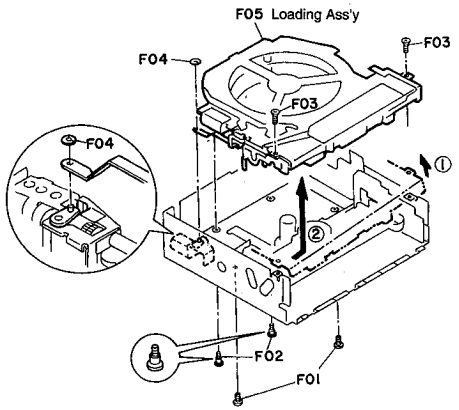
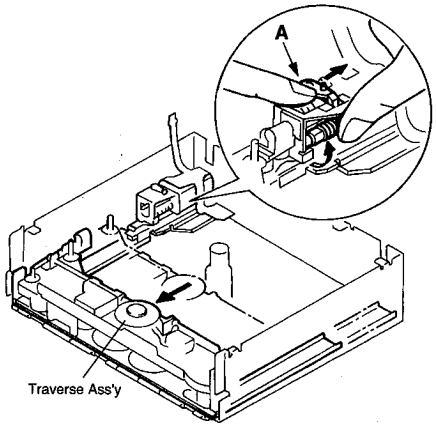


Fig. 2.4.1

How To Move the Traverse Ass'y
While pushing the part "A" backward, turn the gear of the Feed Motor Ass'y with your finger tip in the direction as shown by the arrow to move the Traverse Ass'y forward. To move it backward, turn the gear in reverse.



[How to move the Traverse Ass'y]

2.4.2. Installing the Loading Ass'y

Refer to Fig. 2.4.2.
Install the Loading Ass'y by reversing the removal procedure. However, pay attention to the following points.

- Pay special attention so as not to let fall the four white caps (Stocker Screw Top) of the Loading Ass'y.
  NOTE: If it falls, recheck the position of the Stocker Screw Gears. Refer to Fig. 2.10.3 for correct positions.
- To allow installation of the Loading Ass'y, move the Traverse Ass'y toward the front of the Unit. See "How To Move the Traverse Ass'y" on the right column.
- Set F06 (Stocker Clutch Plate) in place before installing the Loading Ass'y as F06 (Stocker Clutch Plate) can move freely.

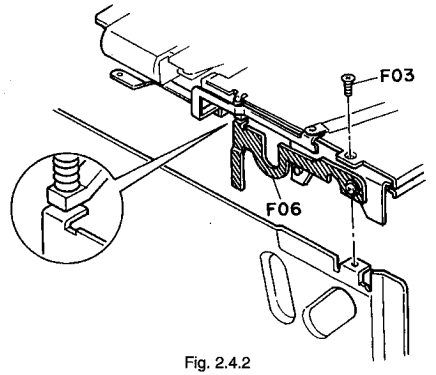


Fig. 2.4.2

2.5. CD P.C.B. Ass'y

2.5.1. Removing the CD P.C.B. Ass'y

Refer to Figs. 2.5.1 and 2.5.2.

(1) Remove the Loading Ass'y. See 2.4 "Loading Ass'y".
(2) Be sure that the Traverse Ass'y is in the front position. (If not, move it by referring to "How To Move the Traverse Ass'y" in 2.4 "Loading Ass'y".)
(3) Remove the screws F01 (M2.6x3 + Pan (Black Chromate), 2 pcs.).
(4) Disconnect the flexible cables F02 and F03 from the CD P.C.B. Ass'y.
(5) Lift F05 (CD P.C.B. Ass'y) and short the laser diode shorting lands "A" on the flexible cable F04.
NOTE: Use the ceramic soldering iron or the soldering iron whose metal part is grounded.
(6) Disconnect the flexible cable F04 from F05 (CD P.C.B. Ass'y).

2.5.2. Installing the CD P.C.B. Ass'y

Install the CD P.C.B. Ass'y by reversing the removal procedure.

NOTE: Do not forget to remove the solder on the laser diode shorting lands "A" with the soldering iron after connecting the flexible cable of the pickup to F05 (CD P.C.B. Ass'y).
Use the ceramic soldering iron or the soldering iron whose metal part is grounded.

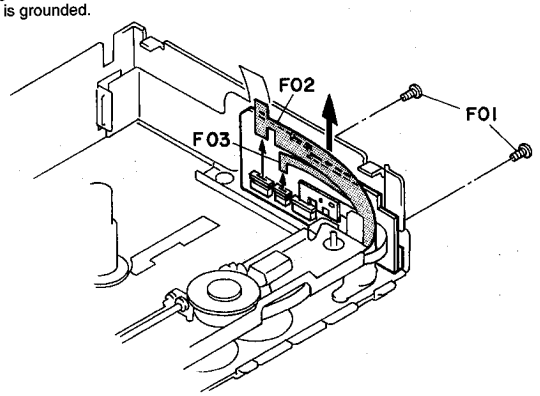


Fig. 2.5.1

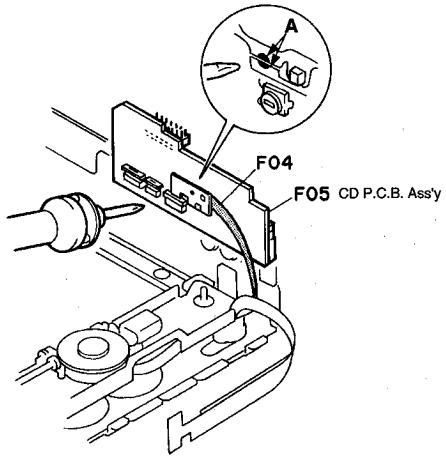


Fig. 2.5.2

2.6. Traverse Mecha Chassis Ass'y

2.6.1. Removing the Traverse Mecha Chassis Ass'y

Refer to Fig. 2.6.

(1) Remove the CD P.C.B. Ass'y. See 2.5 "CD P.C.B. Ass'y".
(2) Remove the screws F01 (M1.7x1.6 + Pan (Black Chromate), 2 pcs.) and detach F02 (Guide PL Block).
(3) Remove the C-ring F03 (1 pce.), washers F04 (Washer 2.6x5x0.5, 2 pcs.), F05 (Thrust Ring, 3 pcs.), and F06 (Lock Guide Top, 3 pcs.).
(4) Remove F07 (Traverse Mecha Chassis Ass'y) from the dampers of the main body.
The four springs F08-F10 are fallen.
NOTE: Be sure which spring should be mounted on which damper as there are three kinds of springs.

2.6.2. Installing the Traverse Mecha Chassis Ass'y

Install the Traverse Mecha Chassis Ass'y by reversing the removal procedure. However, pay attention to the following points.

- Mount the correct spring on each damper.

- Securely insert the Traverse Mecha Chassis Ass'y into the four dampers.

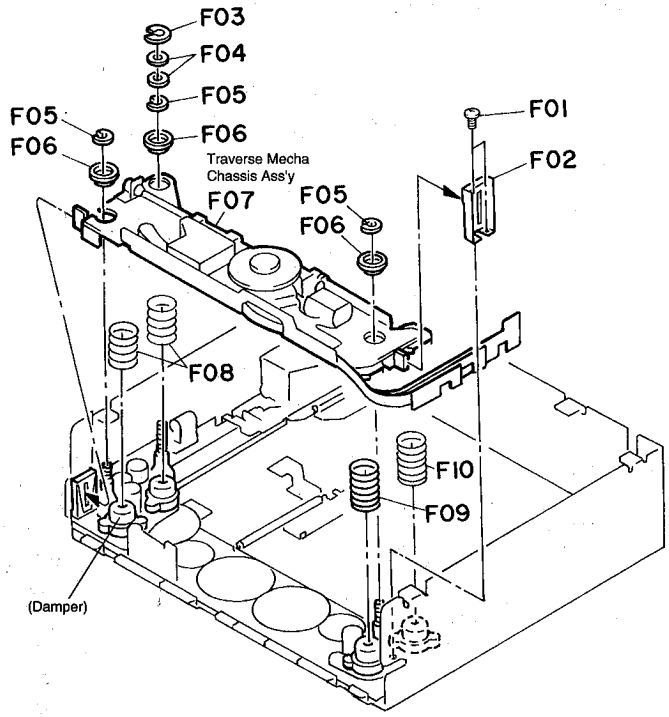


Fig. 2.6

2.7. Laser Pickup

2.7.1. Removing the Laser Pickup

Refer to Fig. 2.7.

(1) Remove the Traverse Mecha Chassis Ass'y. See 2.6 "Traverse Mecha Chassis Ass'y".
(2) Remove the screws F01 (M1.7x1.8 Countersunk , 3 pcs.) and detach F02 (Spindle Motor Ass'y).
(3) Remove the screws F03 (M1x1.5 + Pan (Black Chromate), 2 pcs.) and the washers F04 (Plastic Washer 1.3x3.3x0.3).
(4) Remove the screws F05 (M1.4x1.4 + Pan (Black Chromate), 2 pcs.) and detach F06 (Thrust Bracket Block).
(5) Remove the cut washer (Cut Washer 1.6x3.5x0.5) and detach F08 (Pickup Block).
(6) Remove the screws F09 (M1.7x1.6 + Pan (Black Chromate), 2 pcs.) and F10 (Pickup Feed Spring) and pull out F11 (Pickup Feed Shaft Ass'y) from F12 (Pickup).

2.7.2. Installing a Laser Pickup

Install the Pickup by reversing the removal procedure.

NOTES: 1. As a Laser Pickup is packed in a conductive pack, do not take it out of the pack until you need it.
2. Do not unsolder the shorting lands on the flexible cable of the pickup in this stage. It should be removed after inserting the flexible cable into the CD P.C.B. Ass'y as described in 2.5.2 "Installing the CD P.C.B. Ass'y".

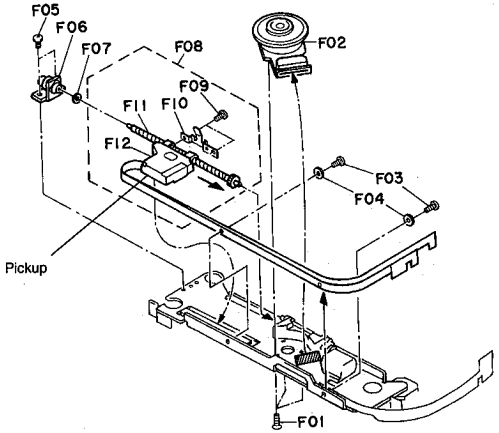


Fig. 2.7

2.8. Sled Motor Ass'y

Refer to Fig. 2.8.

(1) Remove the Traverse Mecha Chassis Ass'y. See 2.6 "Traverse Mecha Chassis Ass'y".
(2) Remove the screws F01 (M1.7x1.8 Countersunk , 3 pcs.) and detach F02 (Spindle Motor Ass'y).
(3) Remove the screws F03 (M2x1.8 + Countersunk, 2 pcs.), F04 (M1x1.5 + Pan (Black Chromate), 1 pce.), and the washer F05 (Plastic Washer 1.3x3.3x0.3).
(4) Remove F06 (Sled Motor Ass'y) and F07 (Sled Belt, 2 pcs.)

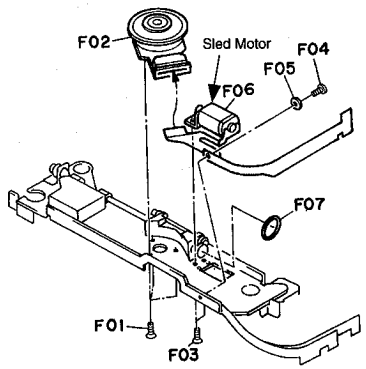


Fig. 2.8

2.9. Feed Motor Ass'y

2.9.1. Removing the Feed Motor Ass'y

Refer to Figs. 2.9.1 to 2.9.3.

(1) Remove the Loading Ass'y. See 2.4 "Loading Ass'y".
(2) Be sure that the Traverse Ass'y is in the front position. (If not, move it by hand. See "How To Move the Traverse Ass'y" in 2.4 "Loading Ass'y".)
(3) Remove the screws F01 (M1.7x1.6 + Pan (Black Chromate), 2 pcs.).
(4) Unsolder the flexible cable (unsolder three places).
(5) Unhook the spring F02 (Disc Lock Arm Spring).
(6) Remove the screws F03 (M2x2 Countersunk (Black Chromate), 2 pcs.) and F04 (BT2x3.5 Countersunk (Black Chromate), 2 pcs.).
(7) Peel off F05 (Feed Motor Spacer) that sticks the flexible cable onto the chassis, then remove F06 (Feed Motor Ass'y).

2.9.2 Installing the Feed Motor Ass'y

Install the Feed Motor Ass'y by reversing the removal procedure. However, pay attention to the following points.

- Insert the flexible cable of the Feed Motor Ass'y (part "A") between the chassis and the flexible cable "B" as shown in Fig. 2.9.3.
- Stick F05 (Feed Motor Spacer) on the original place.
- When tightening the screws F01, slide the flexible cable toward the front as shown by the arrow in Fig. 2.9.1.

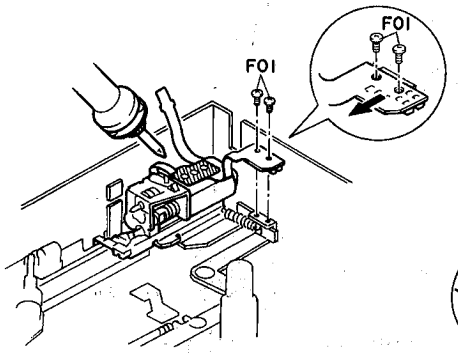


Fig. 2.9.1

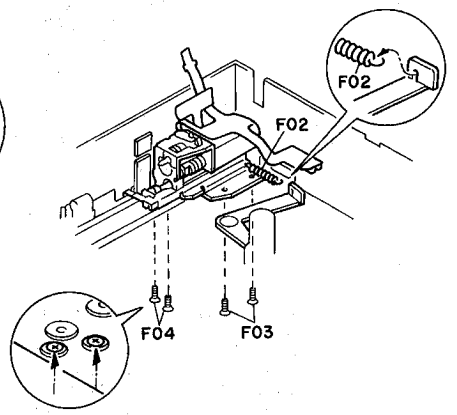


Fig. 2.9.2

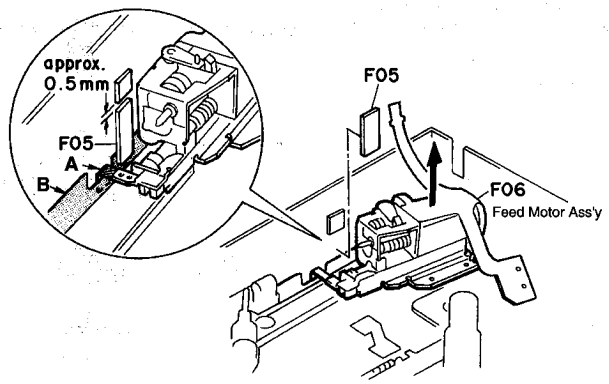


Fig. 2.9.3

2.10. Stocker Ass'y and Disc Holders

2.10.1. Removing the Stocker Ass'y and Disc Holders

Refer to Fig. 2.10.1.

(1) Remove the Loading Ass'y. See 2.4 "Loading Ass'y".
(2) Remove F01 (Stocker Screw Top, 4 pcs.).
(3) Carefully remove F02 (Stocker Ass'y).
(4) By turning the four Stocker Screw Gears little by little in turn, remove the six Disc Holders from the Stocker Screw Gears one by one.

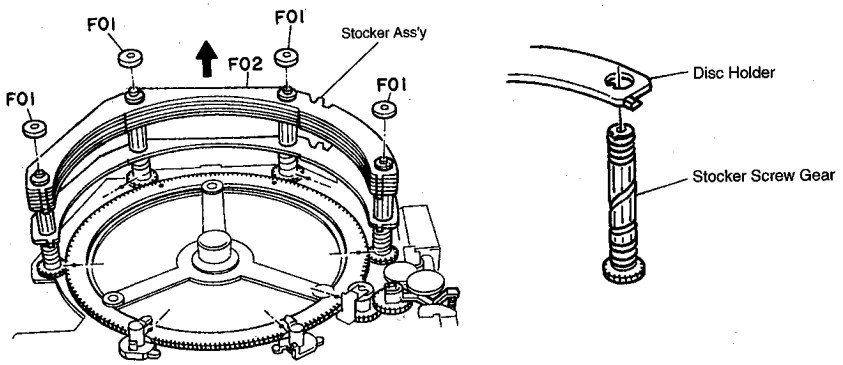


Fig. 2.10.1

2.10.2. Installing the Stocker Ass'y and Disc Holders

Refer to Figs. 2.10.2 and 2.10.3.

(1) While turning the four Stocker Screw Gears little by little in turn, insert each Disc Holder one by one.
- As shown in Fig. 2.10.2, leave space of approx. 2 mm (approx. equivalent to the Disc Holder's thickness) at the free end of the Stocker Screw Gears.
- Insert the Disc Holders without space between them. When you try to insert the 5th Disc Holder, the first one will apart approx. 10 mm as shown in Fig. 2.10.2.

(to be continued on the next page)

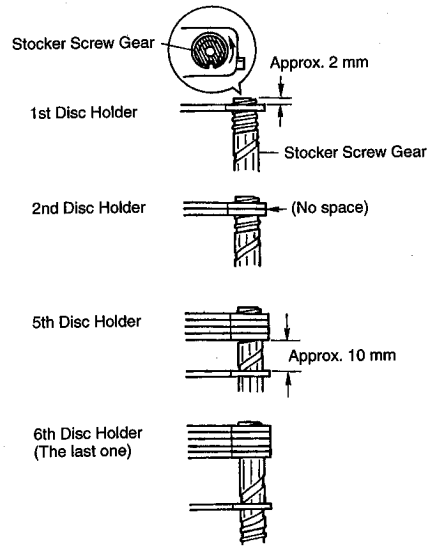


Fig. 2.10.2

(2) When installing the Stocker Ass'y in the chassis, align the position of the gear of each Stocker Screw Gear as shown in Fig. 2.10.3.
1) Before installing the Stocker Screw Gears in the chassis, be sure the large Stocker Drive Gear position is correct.
- The holes "A", "B", and "C" on the Stocker Drive Gears should align with corresponding marks "a", "b", and "C".
- If not, turn the large Stocker Drive Gear by hand to correct its position, while depressing the part "D" with your finger tip as shown in the figure. (By pressing the part "D", the Stocker Drive Gear can turn.)

2) Aligning the two Stocker Screw Gear at the front: Align the mark (projection) on the gear of the Stocker Screw Gear with the mark (hole) on the large Stocker Drive Gear as shown in the figure.
NOTE: Since the mark (projection) on the gear is difficult to find, it is a good idea to reflect light to find it.
3) Aligning the two Stocker Screw Gear at the rear: Align the mark (projection) on the gear of the Stocker Screw Gear with the mark (hole) on the chassis as shown in the figure.

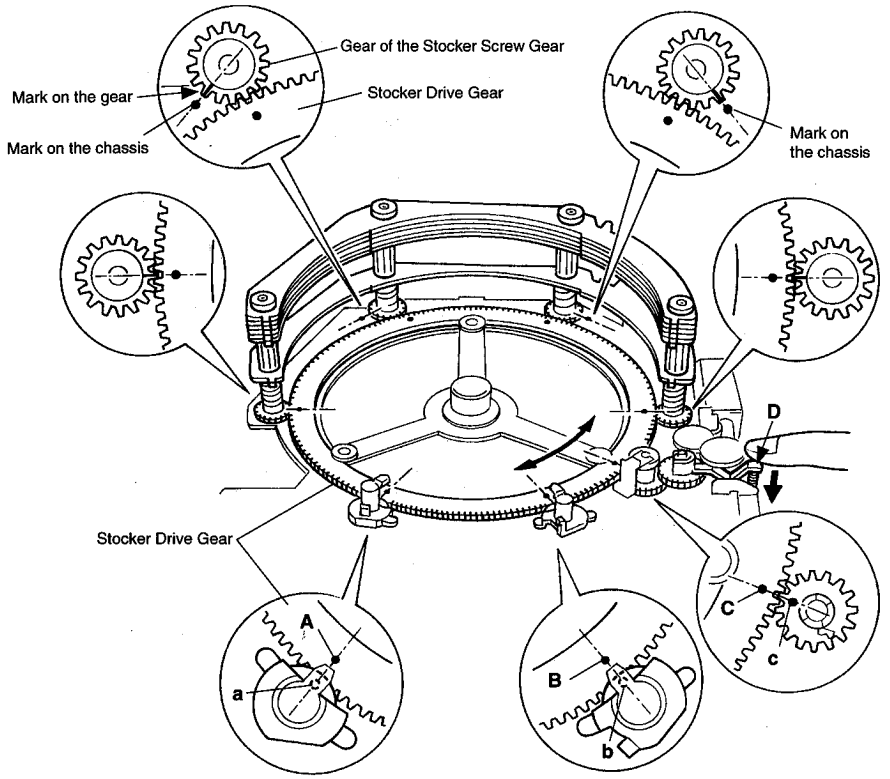


Fig. 2.10.3

2.11. Shut Arm Block and Loading FPC Ass'y

Refer to Fig. 2.11.

2.11.1. Removing the Shut Arm Block and Loading FPC Ass'y

(1) Remove the Loading Ass'y. See 2.4 "Loading Ass'y".
(2) Remove the screws F01 (M2x1.8 + Pan (Black Chromate), 3 pcs.) and detach F02 (Shut Arm Block) by shifting it to the right in Fig. 2.11.
(3) Remove the screws F03 (M2x1.8 + Pan (Black Chromate), 1 pce.) and F04 (M2x2.5 + Pan, 1 pce.) that fasten F05 (Loading FPC Ass'y).
(The Loading FPC Ass'y are soldered to the motor terminals.)

2.11.2. Installing the Shut Arm Block and Loading FPC Ass'y

(1) Fasten F05 (Loading FPC Ass'y) with the screws in the following order.
1) Fasten the center screw F04 and then right and left screws F03 and F01.
2) Loosen the center screw F04 once and then refasten it.
(2) Shift the Shut Arm Block to the right in Fig. 2.11. Then, assemble it to the Shut Arm Rack of the Loading Ass'y. In this case, assemble it so that 3 teeth of the Shut Arm Rack comes out as shown when the Shut Arm is set free (set vertically).

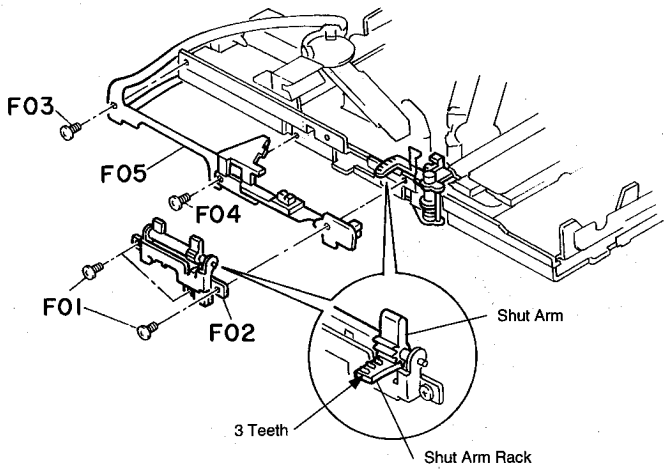


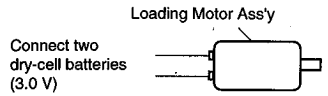
Fig. 2.11

2.12. Loading Guide Ass'y

2.12.1. Preparation Before Removing the Loading Guide Ass'y

It is required to position the Clamper Ass'y of the Loading Ass'y in the clamp (chucking) position before removing the Loading Guide Ass'y. Otherwise, the Loading Guide Ass'y cannot be installed to the loading chassis.
To position the Clamper Ass'y to the clamp (chucking) position, follow the steps below:

(1) Check if the Clamper Ass'y is in the clamp (chucking) position as shown in Fig. 2.12.1.
If not, proceed to step (2).
(2) Connect two batteries (3.0 V) between the terminals of the Loading Motor Ass'y. As you apply the voltage to the Loading Motor Ass'y, the loading mechanism will move. So, set the Clamper Ass'y to the clamp (chucking) position or near position.



[Connecting battery to turn the Loading Motor Ass'y]

2.12.2. Removing the Loading Guide Ass'y

Refer to Fig. 2.12.1.

(1) Remove the Shut Arm Block and Loading FPC Ass'y. See 2.11 "Shut Arm Block and Loading FPC Ass'y".
(2) Remove the cut washer F01 (Cut Washer 2.1x5x0.125) and pull out F02 (Gear TBL 2).
(3) Remove the screw F03 (M2x2.5 + Pan (Black Chromate)) and detach F04 (P Arm Guide).
(4) Remove the screws F05 (M2x3 + Pan (Black Chromate), 5 pcs), disengage F06 (Cut Washer 1.2x3x 0.125), and detach F07 (Loading Guide Ass'y) by lifting it upward.
To separate F07 (Loading Guide Ass'y) from the Loading Chassis Ass'y, it is required to unsolder the flexible cable from the Loading Motor Ass'y.

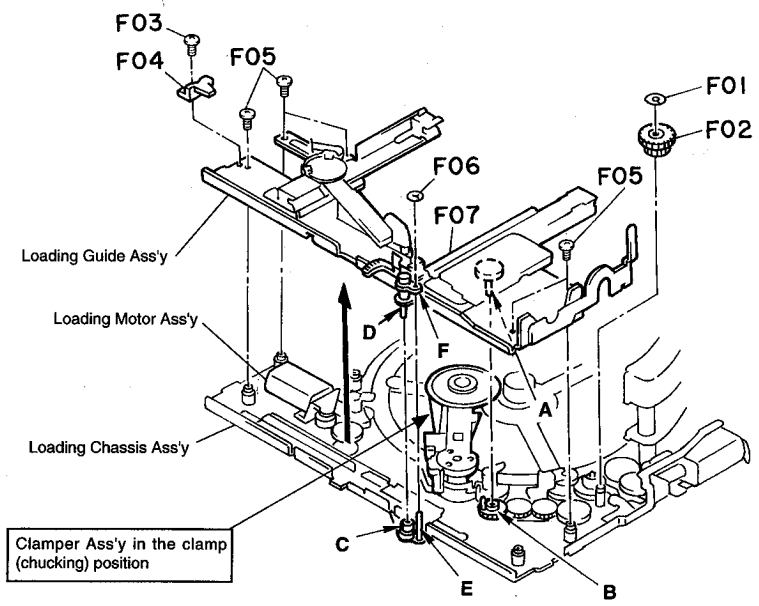


Fig. 2.12.1

2.12.3. Installing the Loading Guide Ass'y

When installing the Loading Guide Ass'y in the Loading Chassis Ass'y, follow the steps below:
Note that the 3 places "A"-"B", "C"-"D" and "E"-"F" (see Figs. 2.12.1 and 2.12.2) must be correctly positioned.

(1) First, temporarily mount the Plate LG R of the Loading Guide Ass'y on the Loading Chassis Ass'y with two screws "G", as it can move freely and come in contact with other parts. Refer to Fig. 2.12.2.
(2) Turn the movable Plate PLS Sub Ass'y "H" to bring it to the position shown in Fig. 2.12.2.
(3) Insert the shaft "A" of the Loading Guide Ass'y into the hole "B" of the gear train on the Loading Chassis Ass'y. (After insertion, the Loading Guide Ass'y will float from the Loading Chassis Ass'y a little.)
(4) While opening the Loading Guide L outward, align the hole "C" of the Plate PLS Sub Ass'y with the pin "D" of the Loading Guide Ass'y and, at the same time, align the pin "E" of the Plate PLS Sub Ass'y with the hole "F" of the Loading Guide Ass'y. Then, engage them each other.
(5) Move the part "I" in the direction shown by the arrow. Then, be sure that the Loading Guide Ass'y is securely seated to the Loading Chassis Ass'y.
(6) Fasten the cut washer F06 and 5 screws F05 to mount the Loading Guide Ass'y.

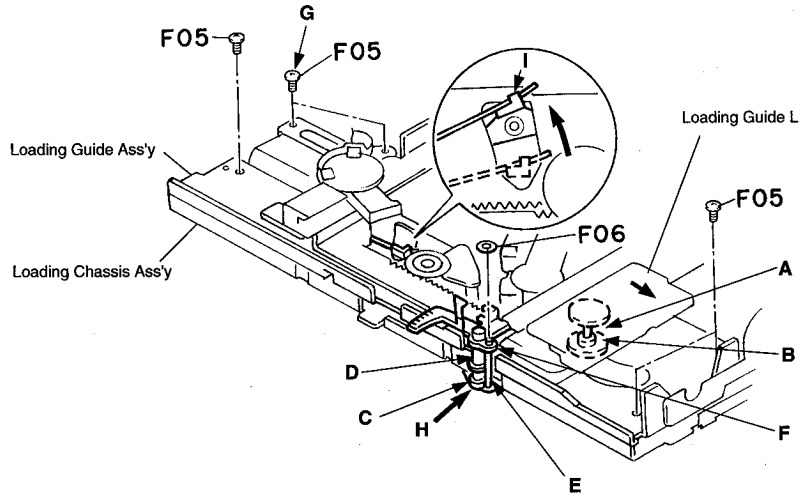


Fig. 2.12.2

3. MECHANICAL ADJUSTMENTS

3.1. Gear Position Adjustments around the Stocker Drive Gear

Refer to Fig. 3.1.
NOTE: To turn the large Stocker Drive Gear, depress the part "A" with your finger tip as shown in Fig. 3.1.

3.1.1. Positioning the STCD Gear and Disc Lock SG

The STCD Gear and two Disc Lock SGs must be positioned as shown in Fig. 3.1.

3.1.2. Positioning the Stocker Screw Gears

The four Stocker Screw Gears must be positioned as shown in Fig. 3.1.
(1) Aligning the two Stocker Screw Gear at the front:
Align the mark (projection) on the gear of the Stocker Screw Gear with the mark (hole) on the large Stocker Drive Gear as shown in the figure.
NOTE: Since the mark (projection) on the gear is difficult to find, it is a good idea to reflect light to find it.
(2) Aligning the two Stocker Screw Gear at the rear:
Align the mark (projection) on the gear of the Stocker Screw Gear with the mark (hole) on the chassis as shown in the figure.

For details, refer to 2.10.2 "Installing the Stocker Ass'y and Disc Holders".

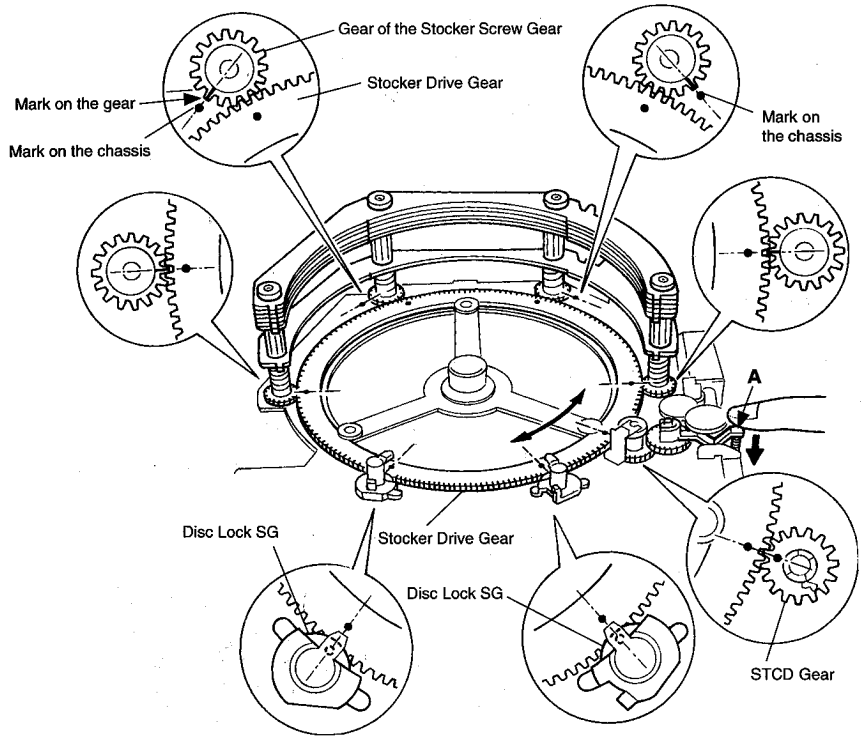


Fig. 3.1

3.2. Disc Lock Drive Gear Positioning

(1) Lower the Disc Lock Sleeve until it reaches the lowest position. Namely, turn the Disc Lock Drive Gear fully clockwise until it stops.
(2) Install the Disc Lock Plate so that its 3rd tooth engages with the Disc Lock Drive Gear as shown in Fig. 3.2.

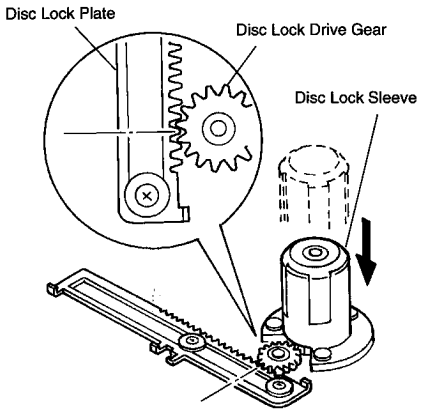


Fig. 3.2

3.3. Loading Guide R B Positioning

Install the Loading Guide R B so that its gear is engaged with the P Arm Gear as shown in Fig. 3.3.
In this case, be sure that the Loading Guide R B is fully pushed against the Loading Plate R Sub Ass'y.

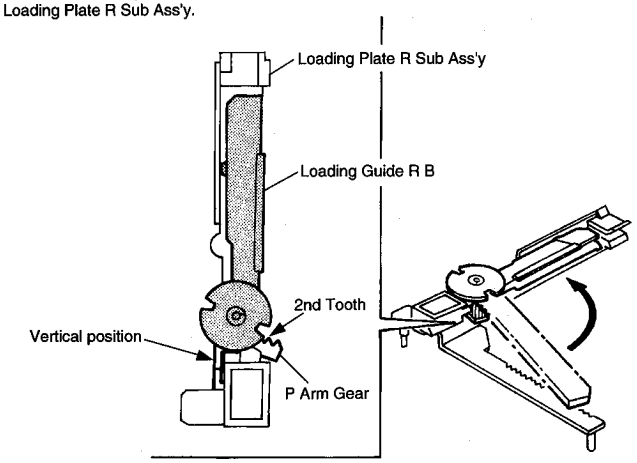


Fig. 3.3

4. MEASUREMENT INSTRUMENTS AND JIGS

(1) Oscilloscope (40 MHz or more)
(2) DC Power Supply Unit (+14.4 V DC)
(3) DC Power Supply Unit (+5 V DC)
(4) ABEX Test Disc TCD-725A (DA09193A)
(5) ABEX Test Disc TCD-784 (DA09195A)
(6) CD-ROM Test Unit (DA09190A)
(7) Test Unit Cable (DA05322A)
(8) Tracking Offset Meter LTM-9055 or LE 9055A (Leader Electronics Corp.)

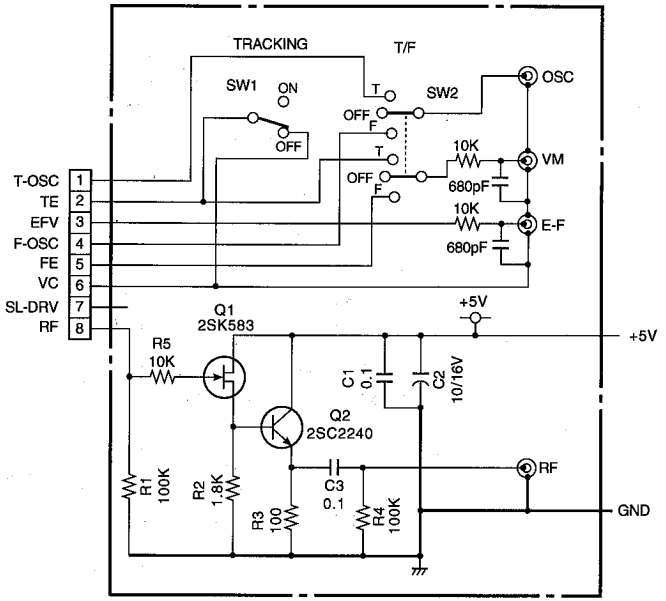


Fig. 4.1 CD-ROM Test Unit

5. ELECTRICAL ADJUSTMENTS

NOTES:

1. Preset position of the semi-fixed volumes:
   When the CD P.C.B. Ass'y or semi-fixed volume VR101 or VR102 is replaced with new one, preset the semi-fixed volumes to their mechanical center positions before starting adjustment.

2. Connecting Measurement Instruments:
   Connect measurement instruments to the CD P.C.B. Ass'y as shown in Fig. 5.1. Fig. 5.1 also shows the parts location for adjustment.

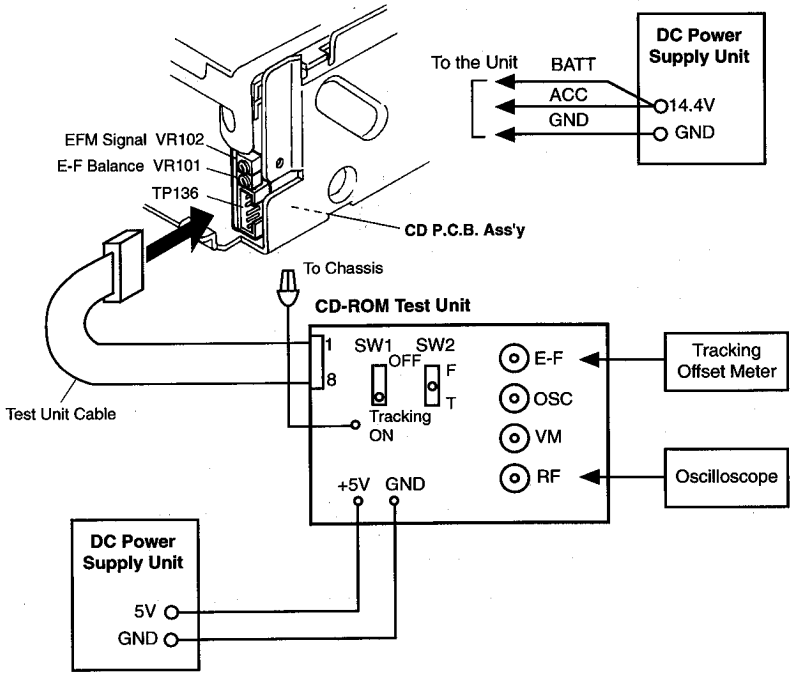
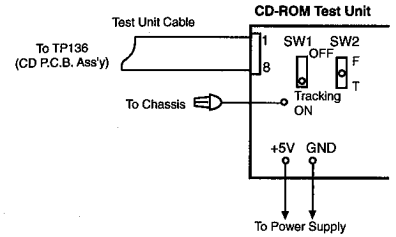
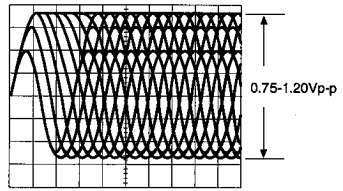
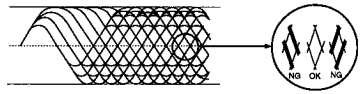
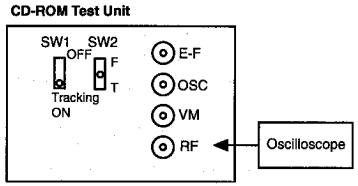
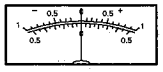
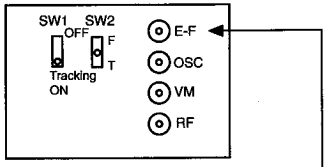
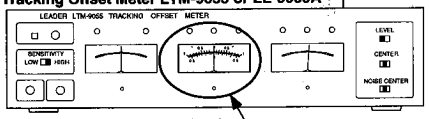
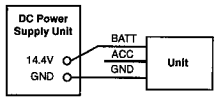
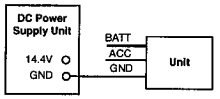
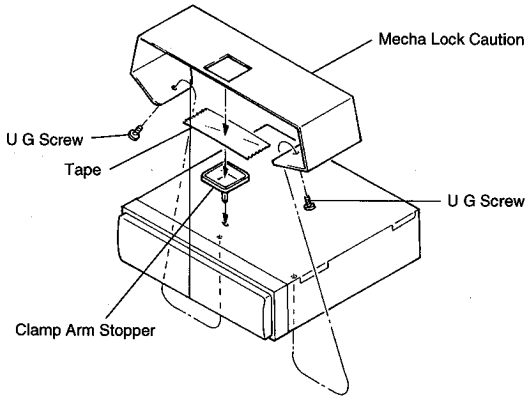


Fig. 5.1 Measurement Instrument Connecting Diagram

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUST-MENT	REMARKS
1	Preparation		See Fig. 5.1.		1. To access to the semi-fixed volumes on the CD P.C.B. Ass'y, remove the Front Panel Block and then carefully place it on the Unit. (See item 2.3.) 2. Disconnect the original 8P cable from the CD-ROM Test Unit. 3. Connect one end of the additional Test Unit Cable to the 8P connector of the CD-ROM Test Unit. 4. Connect the other end of the additional Test Unit Cable to the TP136 connector on the CD P.C.B. Ass'y. 5. Connect the Ground Wire with Clip of the CD-ROM Test Unit to the chassis of the Unit. 6. Connect +5V and GND wires of the CD-ROM Test Unit to a +5V DC power supply unit. 7. Supply +14.4V DC to the ACC and BATT lines of the Unit.
					
2	EFM Signal Adjustment	ABEX Test Disc TCD-784	Oscilloscope to RF Connector of the CD-ROM Test Unit	CD P.C.B. VR102	1. Set **SW1** of the CD-ROM Test Unit to **Tracking ON** position and **SW2** to **OFF (center)** position. 2. Play back the first track of the test disc (within 1 minute). 3. Adjust **VR102** until waveform amplitude becomes maximum and the waveform becomes clear (not thick) as shown below:  Oscilloscope Setting: AC Mode, 0.2 V/div, 0.5 µs/div  4. Stop the test disc.
	SW1: TRACKING ON SW2: OFF  Connecting Diagram				

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUST-MENT	REMARKS
3	E-F Balance Adjustment	ABEX Test Disc TCD-784	Tracking Offset Meter to E-F Connector of the CD-ROM Test Unit	CD P.C.B. VR101	1. Set **SW1** of the CD-ROM Test Unit to **Tracking ON** position and **SW2** to **OFF (center)** position. 2. Connect a tracking offset meter to the E-F connector of the CD-ROM Test Unit, and set the switches of the meter as follows: • Sensitivity switch: HIGH (right side) • Level switch: MEASURE (left side) • Center switch: MEASURE (center position) 3. Set **SW1** of the CD-ROM Test Unit to **Tracking OFF** position and play back the first track of the test disc. Then, within several seconds, adjust **VR101** to obtain **0V ± 50mV DC** on the meter located in the center of the Tracking Offset Meter. (After several seconds, the sound output will be stopped though the test disc turns.)  4. Set **SW1** of the CD-ROM Test Unit to **ON** position and repeat from step 3 until adjustment is completed. 5. After adjustment, perform "EFM Signal Adjustment" in step 2. 6. Stop the test disc.
	SW1: TRACKING ON SW2: OFF **CD-ROM Test Unit**  **Tracking Offset Meter LTM-9055 or LE-9055A**  Connecting Diagram				
4	Operation Check	ABEX Test Disc TCD-725A			Make sure that no noise nor track-jumping is found in the following programs of the test disc. To select the desired program, press **FWD. Skip (>>)** button or **REV. Skip (<<)** button of the Control Button Unit. • Interruption 600 µm: 4th program • Black dot 500 µm: 8th program • Simulated fingerprint: 13th program
5	Termination				1. Eject the test disc. 2. Perform the "Initialization" as follows: While pressing and holding the **DISC6** button, press the **RESET** button. (The firmware version will be displayed and then initialization begins.) **DISC6** + **RESET** Button (to be continued)

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUST-MENT	REMARKS
					3. Disconnect the ACC and BATT power lines in that order to set the Unit to the Standby state. • First, disconnect the ACC power line.  • Next, disconnect the BATT power line.  4. Before returning the Unit, insert the Clamp Arm Stopper to lock the Clamper Arm and fasten the U G Screws to lock the Traverse Ass'y. For details, see 1.5 "Shipping Procedure after Service Work" on page 3.



6. MECHANISM ASS'Y AND PARTS LIST

6.1. Synthesis

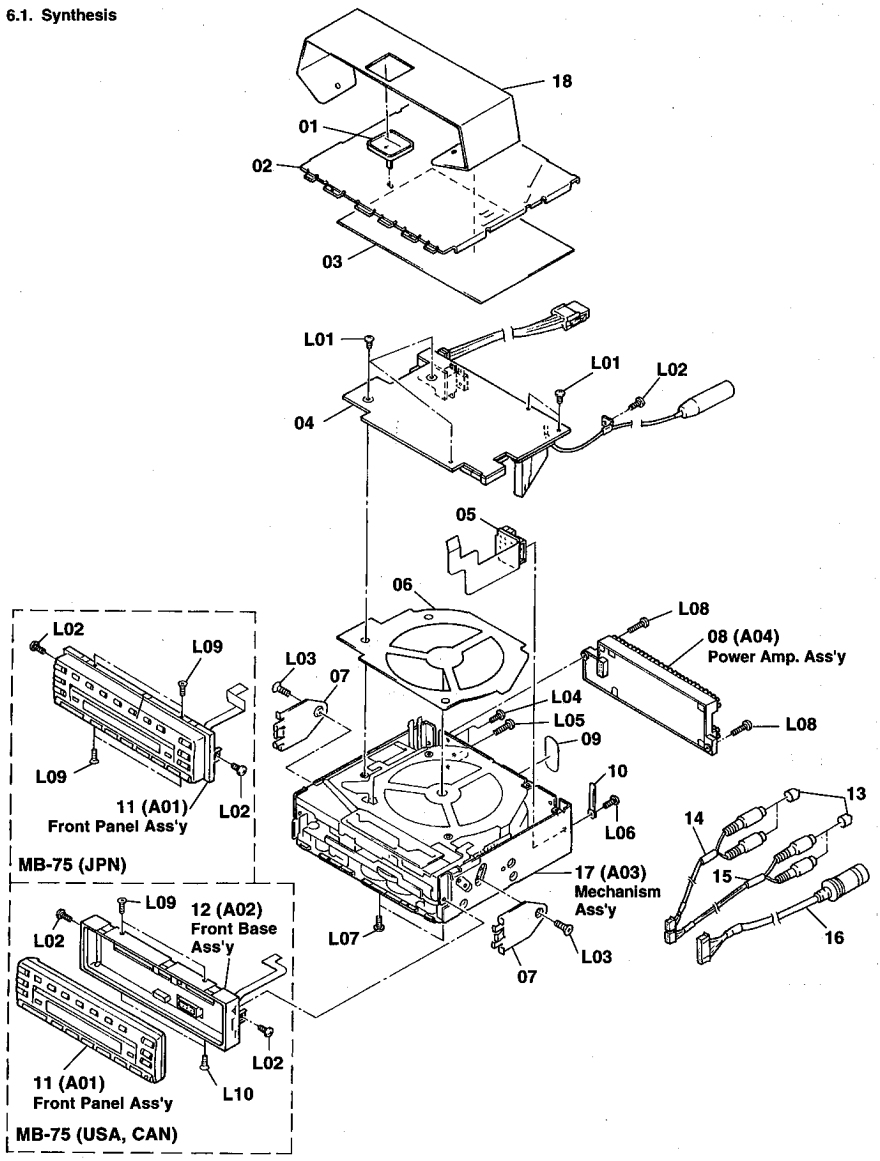


Fig. 6.1

6.2. Front Panel Ass'y (A01)

6.2.1. Front Panel Ass'y (USA, CAN)

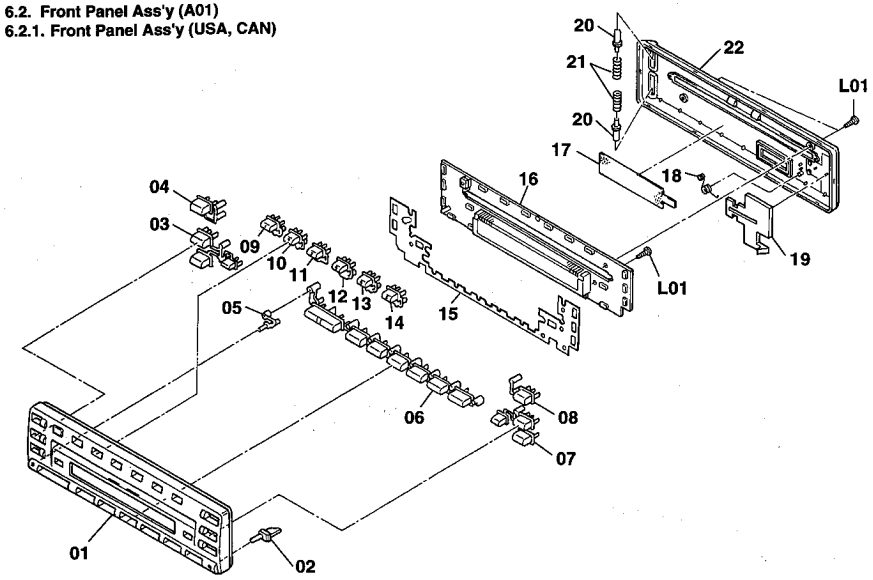


Fig. 6.2.1 For USA, CAN

6.1. Synthesis

Schematic Ref. No.	Part No.	Description	Q'ty
	—	**Synthesis**	
01	0C20480C	Clamp Arm Stopper	1
02	0C20365E	Top Cover	1
03	0J08184A	Insulator Main A	1
04	BA09853A	Main P.C.B. Ass'y (USA, CAN)	1
	BA09854A	Main P.C.B. Ass'y (JPN)	1
05	BA09859A	Connector FPC Ass'y	1
06	0J08185A	Insulator Main B	1
07	0J08124A	Lock Plate (USA, CAN)	2
08	HA07651A	Power Amp. Ass'y	1
09	0J08196A	Label Protector	1
10	0J06068A	Clip	1
11	HA07641A	Front Panel Ass'y (USA, CAN)	1
	HA07642A	Front Panel Ass'y (JPN)	1
12	HA07610A	Front Base Ass'y (USA, CAN)	1
13	0B84524A	Cap	4
14	0B84910A	RCA Ass'y Aux1	1
15	0B84911A	RCA Ass'y Aux2	1
16	0B84912A	13P DIN Ass'y	1
17	CA10130A	Mechanism Ass'y	1
18	0D07059B	Mecha Lock Caution	1
L01	0E04109A	M2x1.8 + Pan	5
L02	0E04047A	M3x3 + Binding	3
L03	0E04057A	M5x6 Countersunk (USA, CAN)	2
L04	0E04046A	M2.6x3 + Pan	2
L05	0E04036A	M2.6x8 + Pan	1
L06	0E03070A	M2.6x6 + Binding	1
L07	0C20447B	U G Screw	2
L08	0E00986A	M3x10 + Binding	2
L09	0E04053A	M1.4x3 Countersunk (Black Chromate) (USA, CAN)	2
	0E04053A	M1.4x3 Countersunk (Black Chromate) (JPN)	4
L10	0E04100A	M1.4x4 Countersunk (Black Chromate) (USA, CAN)	2

6.2.1. Front Panel Ass'y (A01) (USA, CAN)

Schematic Ref. No.	Part No.	Description	Q'ty
A01	**HA07641A**	**Front Panel Ass'y (USA, CAN)**	**1**
01	HA07779A	Front Panel Sub Ass'y	1
02	0H07802A	Release Knob	1
03	0H07792A	Up/Down Knob	1
04	0H07790A	Source Knob	1
05	0H07809A	Reset Knob	1
06	0H07797A	Preset Knob	1
07	0H07795A	TU/PA Knob	1
08	0H07793A	Eject Knob	1
09	0H07784D	Disc Select Knob 1	1
10	0H07785D	Disc Select Knob 2	1
11	0H07786D	Disc Select Knob 3	1
12	0H07787D	Disc Select Knob 4	1
13	0H07788D	Disc Select Knob 5	1
14	0H07789D	Disc Select Knob 6	1
15	0J08165A	LED Filter	1
16	BA09861A	Front P.C.B Ass'y	1
17	0J08194B	Conductor Sheet B	1
18	0J08120A	Release Spring	1
19	0J08160A	Lock Arm R	1
20	0J08161A	Lock Pin L	2
21	0J08162B	Lock Spring L	2
22	0H07749E	Rear Cover	1
L01	0E03814A	PT2x8 + Binding (Black Chromate)	3

6.2.2. Front Panel Ass'y (JPN)

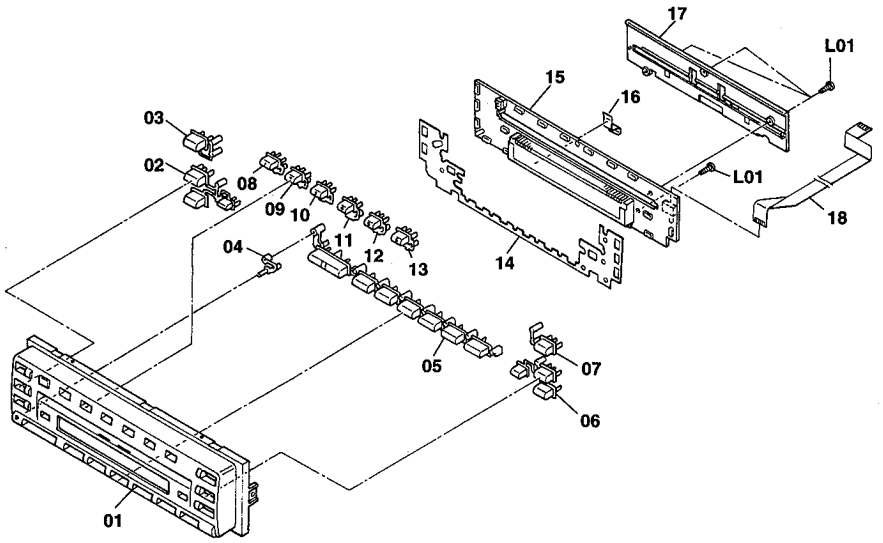


Fig. 6.2.2 For JPN

6.2.2. Front Panel Ass'y (A01) (JPN)

Schematic Ref. No.	Part No.	Description	Q'ty
A01	**HA07642A**	**Front Panel Ass'y (JPN)**	**1**
01	HA07780A	Front Panel Sub Ass'y	1
02	0H07792A	Up/Down Knob	1
03	0H07790A	Source Knob	1
04	0H07809A	Reset Knob	1
05	0H07797A	Preset Knob	1
06	0H07795A	TU/PA Knob	1
07	0H07793A	Eject Knob	1
08	0H07784D	Disc Select Knob 1	1
09	0H07785D	Disc Select Knob 2	1
10	0H07786D	Disc Select Knob 3	1
11	0H07787D	Disc Select Knob 4	1
12	0H07788D	Disc Select Knob 5	1
13	0H07789D	Disc Select Knob 6	1
14	0J08165A	LED Filter	1
15	BA09867A	Front P.C.B. Ass'y	1
16	0J08195B	Conductor Sheet C	1
17	HG07635B	Disc Guide Ass'y	1
18	0B84918A	Flexible Wire 14P	1
L01	0E03814A	PT2x8 + Binding (Black Chromate)	4

6.3. Front Base Ass'y (A02) (USA, CAN)

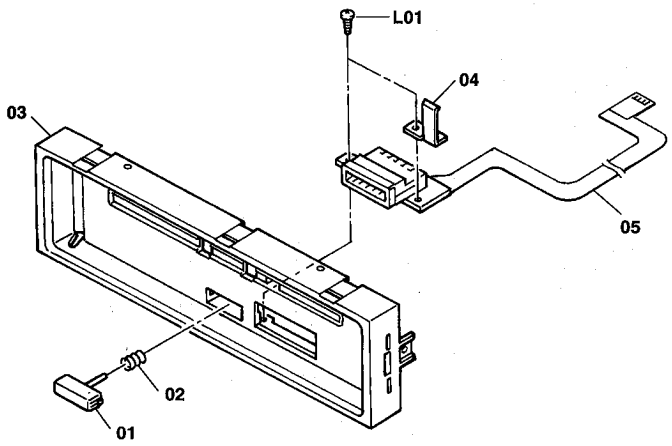


Fig. 6.3 For USA, CAN

6.3. Front Base Ass'y (A02) (USA, CAN)

Schematic Ref. No.	Part No.	Description	Q'ty
A02	**HA07610A**	**Front Base Ass'y (USA, CAN)**	**1**
01	0J07962A	Push Button	1
02	0J08164A	Push Button Spring	1
03	HG07634C	Front Base Sub Ass'y	1
04	0J08176A	FPC Fixing Plate	1
05	BA09865A	Front FPC Ass'y	1
L01	0E04048A	PT2x4 + Pan	2

6.4. Mechanism Ass'y (A03)

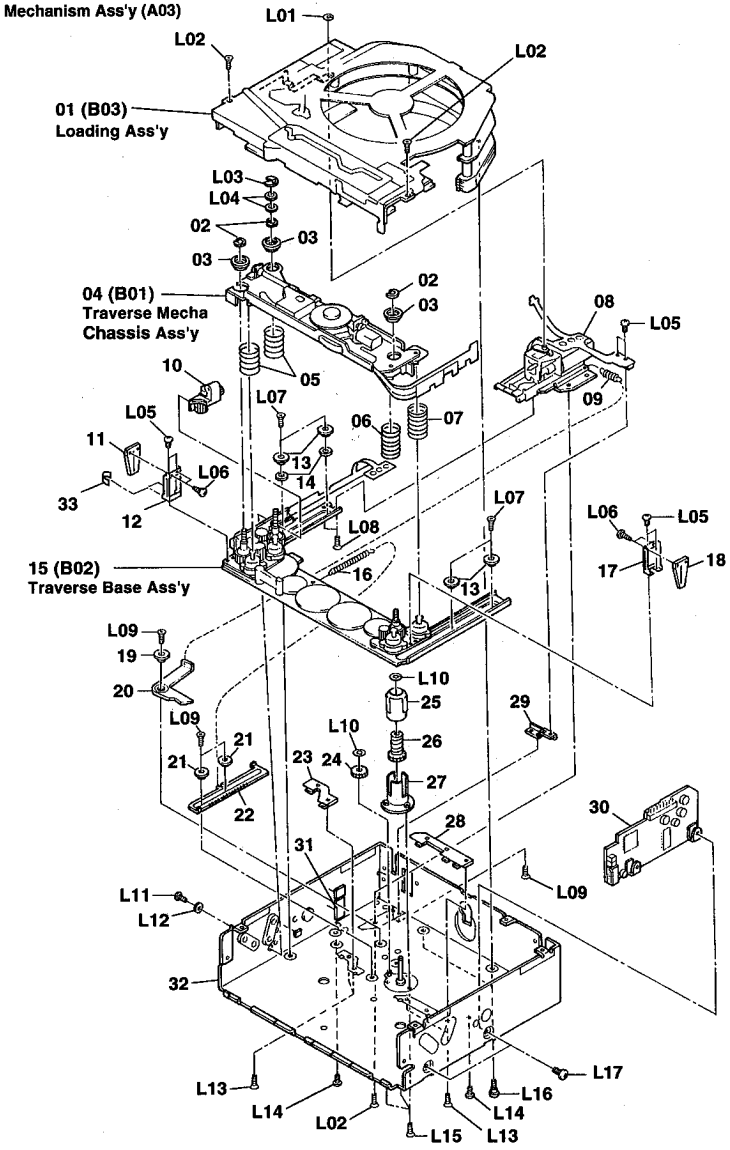


Fig. 6.4

6.5. Power Amp. Ass'y (A04)

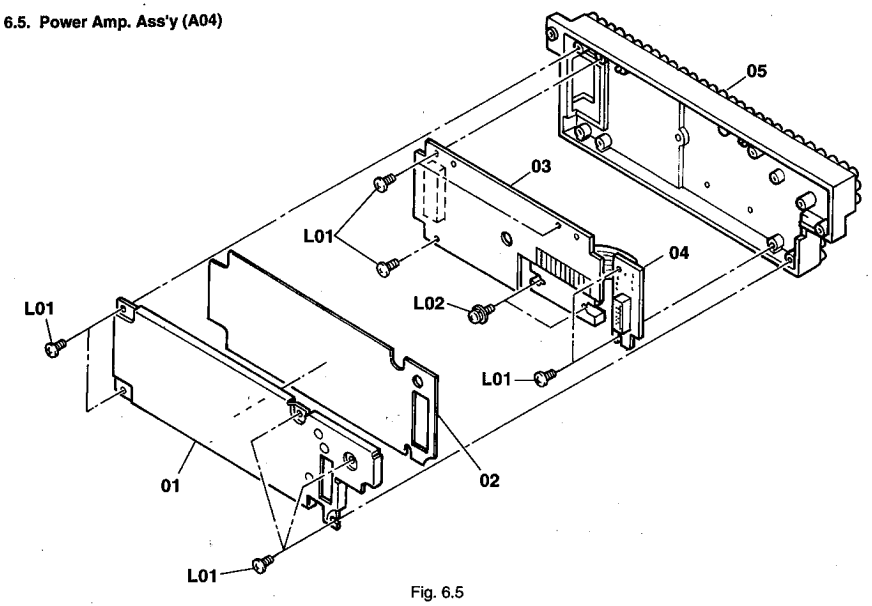


Fig. 6.5

6.4. Mechanism Ass'y (A03)

Schematic Ref. No.	Part No.	Description	Q'ty
A03	**CA10130A**	**Mechanism Ass'y**	**1**
01	CA10105A	Loading Ass'y	1
02	0C20357A	Thrust Ring	3
03	0C20170A	Lock Guide Top	3
04	CA10138A	Traverse Mecha Chassis Ass'y	1
05	0C20393A	Damper Spring B	2
06	0C20394B	Damper Spring C	1
07	0C20392B	Damper Spring A	1
08	CA10102A	Feed Motor Ass'y	1
09	0C20446A	Disc Lock Arm Spring	1
10	CA10144A	Bevel G Bracket Ass'y	1
11	0C20376A	Guide PL L	1
12	0C20374A	Guide Spring L	1
13	0C20104A	Traverse Base Collar	4
14	0C20352A	T P Roller	2
15	—	Traverse Base Ass'y	1
16	0C20444B	Disc Lock Spring	1
17	0C20372A	Guide Spring 2	1
18	0C20375A	Guide PL	1
19	0C20107A	Disc Lock Sensor Arm Shaft	1
20	0C20108C	Disc Lock Sensor Arm	1
21	0C20106A	Lock Plate Collar	2
22	0C20105B	Disc Lock Plate	1
23	0C20109A	Plate Holder A	1
24	0C20111A	Disc Lock Drive Gear	1
25	0C20116C	Disc Lock Sleeve	1
26	0C20114A	Disc Lock Cam	1
27	0C20115A	Disc Lock Base	1
28	0C20110A	Plate Holder B	1
29	0C20113A	Photo Sensor Bracket B	1
30	BA09857A	CD P.C.B. Ass'y	1
31	0C20477C	Feed Motor Spacer	1
32	CG10107D	Main Chassis IND Sub Ass'y	1
33	0C20486A	Guide Spring Sheet	2

Schematic Ref. No.	Part No.	Description	Q'ty
L01	0E04087A	Cut Washer 1.6x3.5x0.125	1
L02	0E03499A	M2x2 Countersunk (Black Chromate)	4
L03	0E04120A	C-Ring	1
L04	0E04124A	Washer 2.6x5x0.5	2
L05	0E04067A	M1.7x1.6 + Pan (Black Chromate)	6
L06	0E04060A	BT1.4x2 + Pan (Black Chromate)	4
L07	0E04081A	M2x2.8 Countersunk (Black Chromate)	4
L08	0E04095A	BT2x3.5 Countersunk (Black Chromate)	2
L09	0E04080A	M2x2.2 Countersunk (Black Chromate)	5
L10	0E04090A	Cut Washer 2.6x5x0.125	2
L11	0E04117A	BT2x3 + Pan	1
L12	0E00117A	Washer 2x4.3x0.4	1
L13	0E04078A	BT2x2.5 Countersunk (Black Chromate)	5
L14	0E00919A	M1.7x2 + Pan (Black Chromate)	2
L15	0E03447A	BT2x3 Countersunk (Black Chromate)	3
L16	0C20456A	M17 STC Lock Screw	2
L17	0E04076A	M2.6x3 + Pan (Black Chromate)	2

6.5. Power Amp. Ass'y (A04)

Schematic Ref. No.	Part No.	Description	Q'ty
A04	**HA07651A**	**Power Amp. Ass'y**	**1**
01	0H07769B	B. Cover	1
02	0J08186A	Insulator Amp.	1
03	BA09845A	Main P.C.B. Ass'y	1
04	BA09846A	Sub P.C.B. Ass'y	1
05	0H07826B	Heat Sink	1
L01	0E04044A	M2.6x5 + Pan	10
L02	0E04097A	M2.6x8 + Pan with Washer	2

6.6. Traverse Mecha Chassis Ass'y (B01)

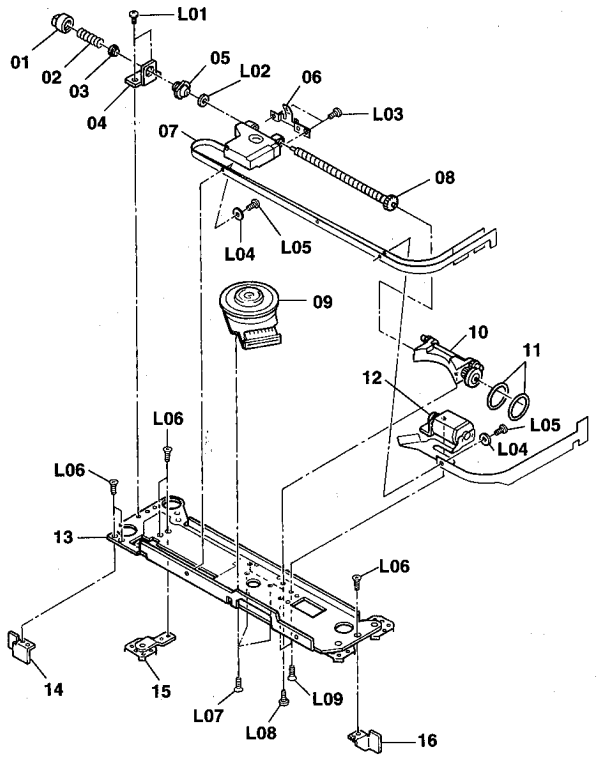


Fig. 6.6

6.6. Traverse Mecha Chassis Ass'y (B01)

Schematic Ref. No.	Part No.	Description	Q'ty
B01	**CA10138A**	**Traverse Mecha Chassis Ass'y**	**1**
01	0C20181B	Thrust Cap	1
02	0C20183A	Thrust Spring	1
03	0C20182A	Thrust Washer	1
04	0C20179B	Thrust Bracket	1
05	0C20180A	Thrust Body	1
06	0C20448E	Pickup Feed Spring	1
07	0B90789B	Pickup	1
08	CA10155A	Pickup Feed Shaft Ass'y	1
09	CA10152A	Spindle Motor Ass'y	1
10	CA10154A	Drive Shaft Guide Ass'y	1
11	0C20483A	Sled Belt	2
12	CA10156A	Sled Motor Ass'y	1
13	CG10139C	Traverse Mecha Chassis Sub Ass'y	1
14	0C20368B	Vertical Guide L	1
15	CG10114B	Damper Plate L Sub Ass'y	1
16	0C20369C	Vertical Guide R	1
L01	0E04064A	M1.4x1.4 + Pan (Black Chromate)	2
L02	0E04091A	Plastic Washer 1.6x3.5x0.5	1
L03	0E04067A	M1.7x1.6 + Pan (Black Chromate)	2
L04	0E03245A	Plastic Washer 1.3x3.3x0.3	2
L05	0E04049A	M1x1.5 + Pan (Black Chromate)	2
L06	0E04079A	M1.7x2 Countersunk (Black Chromate)	5
L07	0E03783A	M1.7x1.8 Countersunk (Black Chromate)	3
L08	0E04093A	BT2x2.8 Countersunk (Black Chromate)	2
L09	0E04129A	M2x1.8 Countersunk (Black Chromate)	2

6.7. Traverse Base Ass'y (B02)

Schematic Ref. No.	Part No.	Description	Q'ty
B02	**---**	**Traverse Base Ass'y**	**1**
01	0C20362B	Stocker Clutch Cam	1
02	BA09875A	Traverse Base FPC Ass'y	1
03	0C20172B	Traverse Move WPG	1
04	0C20173B	Traverse Move PG	1
05	0C20441B	Traverse Move PG Spring	1
06	0C20169E	Lock Guide Gear	3
07	CG10112B	L Guide Plate L Sub Ass'y	1
08	0C20163A	Traverse Damper	4
09	0C20317B	P Plate Sensor Block	1
10	0C20176A	Lock Plate Spacer B	2
11	0C20171B	Traverse Move Gear	2
12	0C20442B	Traverse Move Gear Spring	2

6.7. Traverse Base Ass'y (B02)

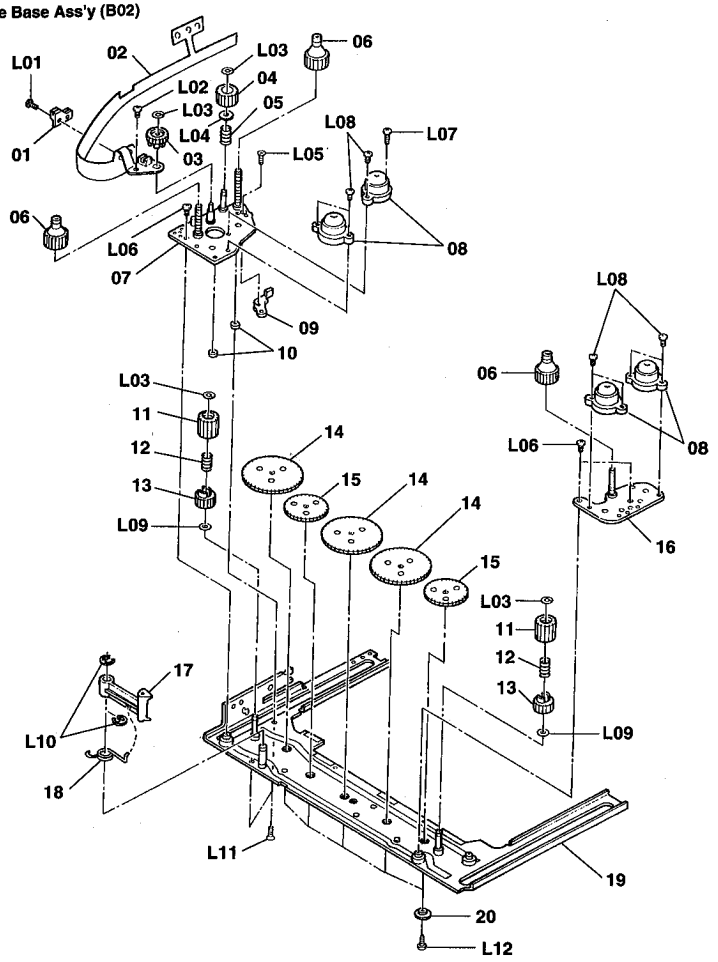


Fig. 6.7

Schematic Ref. No.	Part No.	Description	Q'ty
13	0C20380A	Traverse Move Gear A	2
14	0C20167B	Lock Gear L	3
15	0C20168B	Lock Gear S	2
16	CG10113B	L Guide Plate R Sub Ass'y	1
17	0C20174A	Disc Lock Arm	1
18	0C20364A	Disc Lock Arm Spring	1
19	CA10157A	Traverse Base Chassis Sub-1 Ass'y	1
20	0C20454A	Lock Gear Stopper	5
L01	0E04074A	M2x2.2 + Pan (Black Chromate)	1
L02	0E04072A	M2x1.8 + Pan (Black Chromate)	1
L03	0E04087A	Cut Washer 1.6x3.5x0.125	4
L04	0E03235A	Washer 2x5x0.25	1
L05	0E04077A	BT1.7x2.2 Countersunk (Black Chromate)	1
L06	0E00922A	M2x3 + Pan (Black Chromate)	3
L07	0E03943A	BT1.7x5 + Pan (Black Chromate)	1
L08	0E00887A	M1.7x4 + Pan (Black Chromate)	7
L09	0E04101A	Cut Washer 2.1x3.5x0.125	2
L10	0E00698A	E-Ring 2.5mm	2
L11	0E04082A	M2x3.5 Countersunk (Black Chromate)	2
L12	0E04096A	BT1.7x1.6 + Pan (Black Chromate)	5

6.8. Loading Ass'y (B03)

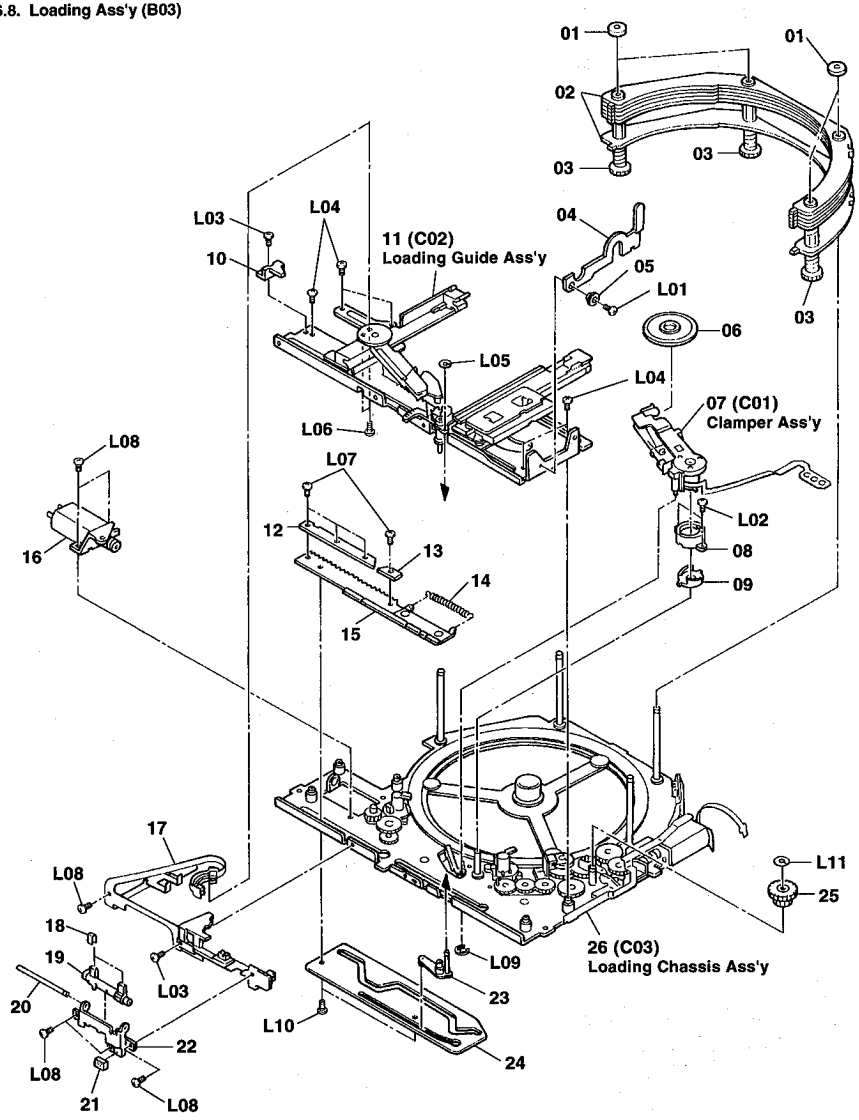


Fig. 6.8

6.9. Clamper Ass'y (C01)

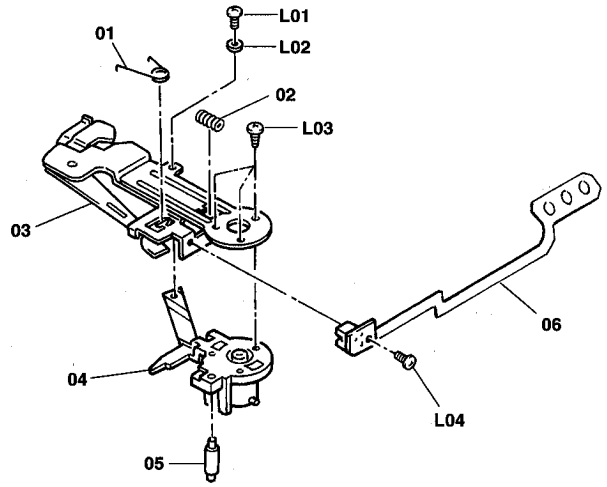


Fig. 6.9

6.8. Loading Ass'y (B03)

Schematic Ref. No.	Part No.	Description	Q'ty
B03	**CA10105A**	**Loading Ass'y**	**1**
01	0C20296C	Stocker Screw Top	4
02	CG10147A	Disc Holder Ass'y	6
03	0C20194B	Stocker Screw Gear	4
04	0C20360A	Stocker Clutch Plate	1
05	0C20361A	Stocker Clutch Shaft	1
06	CG10140B	Clamper Plate Sub Ass'y	1
07	CA10106A	Clamper Ass'y	1
08	0C20429A	Clamper Cam B	1
09	0C20428A	Clamper Cam A	1
10	0C20378E	P Arm Guide	1
11	—	Loading Guide Ass'y	1
12	0C20350D	Pre Arm Cam S	1
13	0C20349B	Pre Arm Cam	1
14	0C20293B	Spring L OP	1
15	CG10136C	Rack Loading Cam Sub Ass'y	1
16	CA10150A	Loading Motor Ass'y	1
17	BA09870A	Loading FPC Ass'y	1
18	0C10255A	Shutter Arm Cushion SL	2
19	0C20268B	Shut Arm	1
20	0C20269A	Shut Arm Shaft	1
21	0J08191A	Panel Spacer	1
22	0C20266D	Shut Arm Plate	1
23	CG10137A	Plate PLS Sub Ass'y	1
24	0C20401C	Loading Cam Plate	1
25	0C20218A	Gear TBL 2	1
26	—	Loading Chassis Ass'y	1
L01	0E04074A	M2x2.2 + Pan (Black Chromate)	1
L02	0E04066A	M1.4x1.8 + Pan (Black Chromate)	2
L03	0E04099A	M2x2.5 + Pan	2
L04	0E00922A	M2x3 + Pan (Black Chromate)	5
L05	0E04086A	Cut Washer 1.2x3x0.125	1
L06	0E04061A	BT1.4x2.5 + Pan (Black Chromate)	2
L07	0E04064A	M1.4x1.4 + Pan (Black Chromate)	4
L08	0E04072A	M2x1.8 + Pan (Black Chromate)	6
L09	0E00165A	E-Ring 1.2mm	1
L10	0E03215A	M1.4x2.5 + Pan (Black Chromate)	2
L11	0E04089A	Cut Washer 2.1x5x0.125	1

6.9. Clamper Ass'y (C01)

Schematic Ref. No.	Part No.	Description	Q'ty
C01	**CA10106A**	**Clamper Ass'y**	**1**
01	0C20439B	Clamp Lock Spring	1
02	0C20440B	Clamp Arm Spring	1
03	CG10141C	Clamp Arm Sub Ass'y	1
04	0C20430D	Clamp Cam M	1
05	0C20431A	Shaft LC	1
06	BA09874A	Clamp FPC Ass'y	1
L01	0E04049A	M1x1.5 + Pan (Black Chromate)	1
L02	0E04115A	Washer 1.1x2.5x0.2	1
L03	0E04127A	BT1.4x2.2 + Pan	3
L04	0E04064A	M1.4x1.4 + Pan (Black Chromate)	1

6.10. Loading Guide Ass'y (C02)

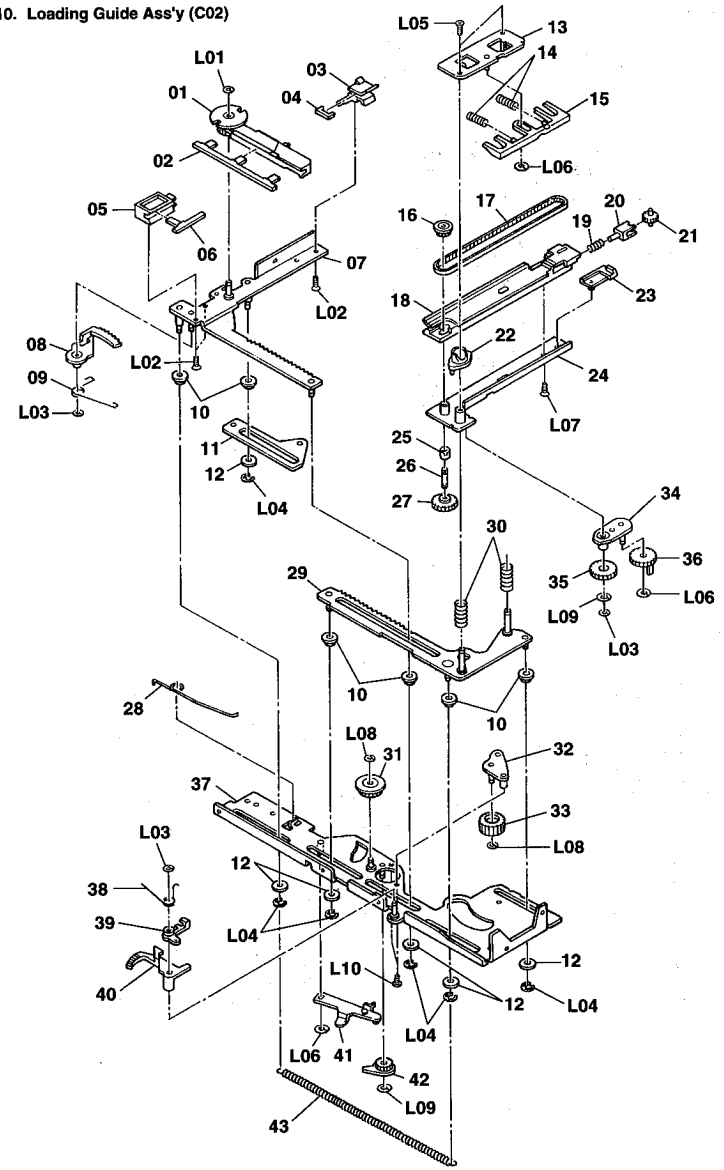


Fig. 6.10

6.10. Loading Guide Ass'y (C02)

Schematic Ref. No.	Part No.	Description	Q'ty
C02	—	**Loading Guide Ass'y**	**1**
01	0C20416D	Loading Guide R B	1
02	0C20420C	Guide Rubber D B	1
03	0C20417C	Loading Guide R C	1
04	0C20421B	Guide Rubber D C	1
05	0C20415B	Loading Guide R A	1
06	0C20419C	Guide Rubber D A	1
07	CG10119B	Loading Plate R Sub Ass'y	1
08	0C20273C	P Arm Gear	1
09	0C20422B	P Arm Spring	1
10	0C20237C	Loading Roller L	6
11	0C20402A	Plate LG R	1
12	0C20284A	Loading Roller LU	6
13	CG10118A	Lower Plate Sub Ass'y	1
14	0C20240B	Wedge Return Spring	2
15	0C20239E	Cam Wedge	1
16	0C20250A	Timing Gear	1
17	0C20249A	Timing Belt TN10-170	1
18	0C20245E	Loading Guide L	1
19	0C20414A	T Pulley Spring	1
20	0C20247A	Pulley Fork P	1
21	0C20246A	Timing Pulley P	1
22	0C20252C	Wedge Sleeve	1
23	0C20413A	Guide L Sub	1
24	CG10121D	Loading LM Plate Sub Ass'y	1
25	0C20283A	Journal TDR	1
26	0C20251A	Timing Gear Shaft	1
27	0C20253A	Timing Drive Gear	1
28	0C20423B	Pre Load Spring	1
29	CG10117B	Loading Plate STC Sub Ass'y	1
30	0C20359B	Spring L UD	2
31	0C20232A	Gear L CEN R	1
32	CG10120A	Gear CEN Plate Sub Ass'y	1
33	0C20233A	Gear L SEN L	1
34	CG10123C	TI Arm S Plate Sub Ass'y	1
35	0C20254A	Timing Idle Gear	1
36	0C20263A	Timing AM R Gear	1
37	CG10122C	Loading Guide Plate Sub Ass'y	1
38	0C20427A	Shut Arm Spring	1
39	0C20403B	Shut Sub Arm	1
40	0C20287E	Shut Arm Rack	1
41	0C20212D	Pre Load Arm	1
42	0C20371B	Pre Load Gear	1
43	0C20294B	Bias Spring	1
L01	0E04126A	Washer 1.6x3.5x0.2	1
L02	0E04078A	BT2x2.5 Countersunk (Black Chromate)	3
L03	0E04086A	Cut Washer 1.2x3x0.125	3
L04	0E00042A	E-Ring 1.5mm	6
L05	0E04073A	M2x2 + Pan (Black Chromate)	2
L06	0E04089A	Cut Washer 2.1x5x0.125	3
L07	0E03447A	BT2x3 Countersunk (Black Chromate)	1
L08	0E04087A	Cut Washer 1.6x3.5x0.125	2
L09	0E04090A	Cut Washer 2.6x5x0.125	2
L10	0E00919A	M1.7x2 + Pan (Black Chromate)	2

6.11. Loading Chassis Ass'y (C03)

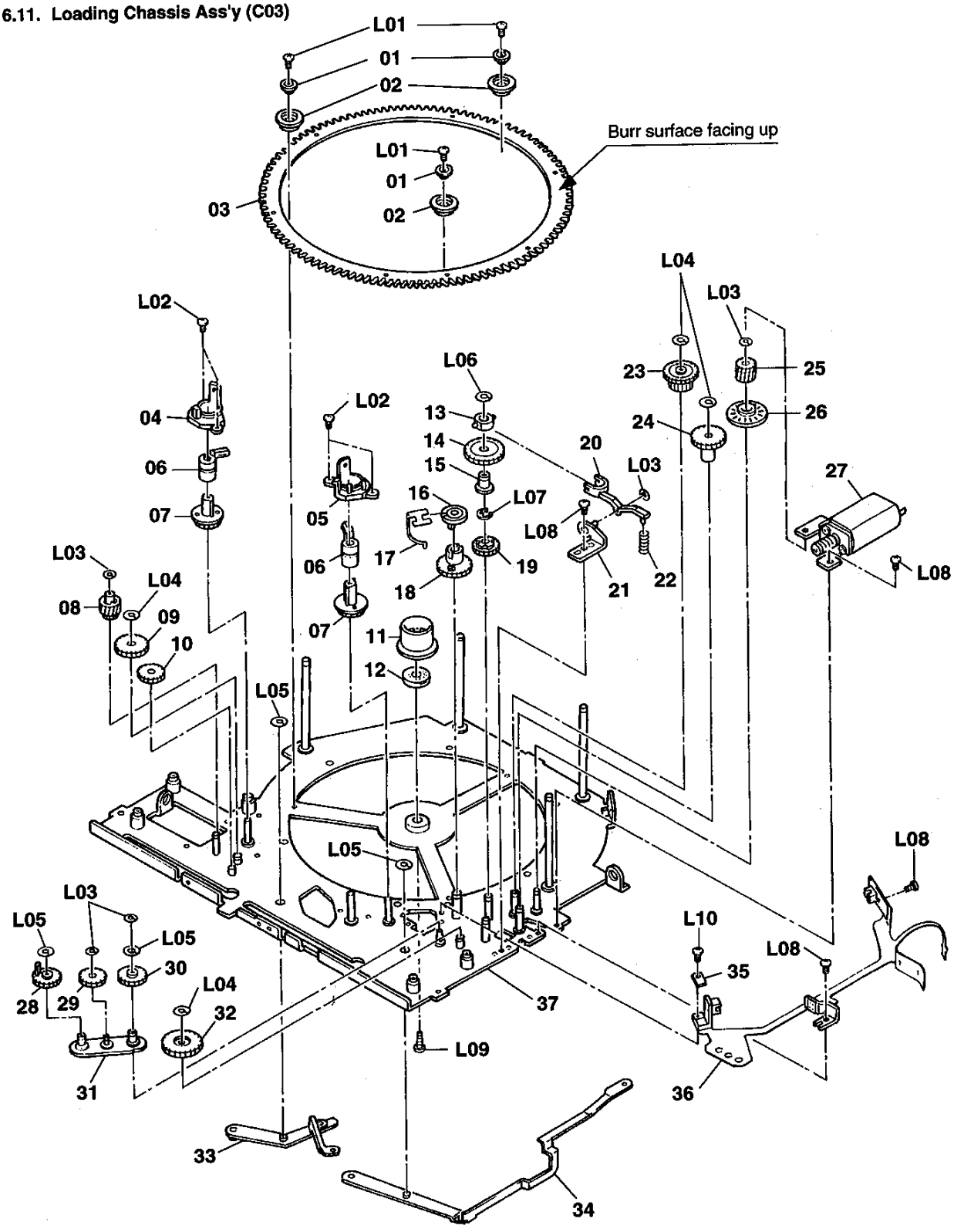


Fig. 6.11

6.11. Loading Chassis Ass'y (C03)

Schematic Ref. No.	Part No.	Description	Q'ty
C03	**—**	**Loading Chassis Ass'y**	**1**
01	0C20211A	Roller Collar	3
02	0C20210A	Gear Roller	3
03	0C20209B	Stocker Drive Gear	1
04	0C20407A	Disc L Cam R	1
05	0C20406A	Disc L Cam	1
06	0C20404A	Disc Hook	2
07	0C20405C	Disc Lock SG	2
08	0C20225B	Worm Wheel LDG	1
09	0C20226B	LDG Cam Gear S	1
10	0C20227F	LDC P Gear	1
11	0C20208A	Disc Lock Cap	1
12	0C10218A	Center Ring Cushion SL	1
13	0C20321B	Mold Gear STDL	1
14	0C20220C	Gear STDL 2L	1
15	0C20327B	Sleeve STDL 2	1
16	0C20286A	Disc Sensor STCD	1
17	0C20455B	Lock Spring STC	1
18	0C20221D	STCD Gear	1
19	0C20219B	Gear STDL 2	1
20	0C20319B	Gear STDL Arm	1
21	CG10134B	Plate STDL Sub Ass'y	1
22	0C20426A	Spring LDST CH	1
23	0C20216A	Gear STDL 1	1
24	0C20217A	Gear TBL 1	1
25	0C20214A	Worm Wheel STL	1
26	0C20215A	Gear PULS GW	1
27	CA10151A	W FF Motor Ass'y	1
28	0C20264A	Timing AM R2 Gear	1
29	0C20265A	Link Timing I Gear	1
30	0C20262A	Timing AM Gear	1
31	CG10124B	TI Arm Plate Sub Ass'y	1
32	0C20222A	Gear TBL 3	1
33	CG10125A	Link Clamper B Sub Ass'y	1
34	CG10135B	Switch Arm 1 Sub Ass'y	1
35	0C20476A	STC SEN Sheet	1
36	BA09871A	Stocker FPC Ass'y	1
37	CA10142A	Loading Stocker Chassis Sub Ass'y	1
L01	0E04066A	M1.4x1.8 + Pan (Black Chromate)	3
L02	0E04130A	M1.4x2.2 + Pan (Black Chromate)	4
L03	0E04087A	Cut Washer 1.6x3.5x0.125	5
L04	0E04089A	Cut Washer 2.1x5x0.125	4
L05	0E04090A	Cut Washer 2.6x5x0.125	4
L06	0E04102A	Cut Washer 3.3x5x0.125	1
L07	0E00222A	E-Ring 2.0mm	1
L08	0E04072A	M2x1.8 + Pan (Black Chromate)	4
L09	0E03737A	BT2.6x5 +Binding	1
L10	0E04104A	M1.7x2.5Countersunk	1

7. MOUNTING DIAGRAMS AND PARTS LIST

(+)
Polarity of Capacitor
(–)

7.1. Main P.C.B. Ass'y

7.1.1. Main P.C.B. Ass'y — Power Supply Section

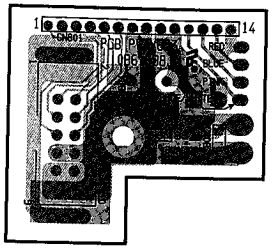


Fig. 7.1.1.1 Power Supply Section-Component Side View

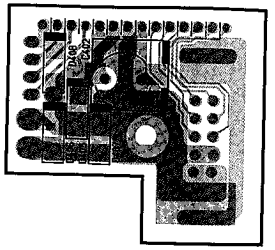


Fig. 7.1.1.2 Power Supply Section-Dip Side View

7.1.2. Main P.C.B. Ass'y — Tuner Section

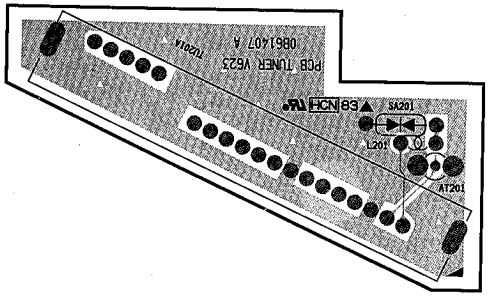


Fig. 7.1.2 Tuner Section-Component Side View

7.1.3. Main P.C.B. Ass'y — Main Section

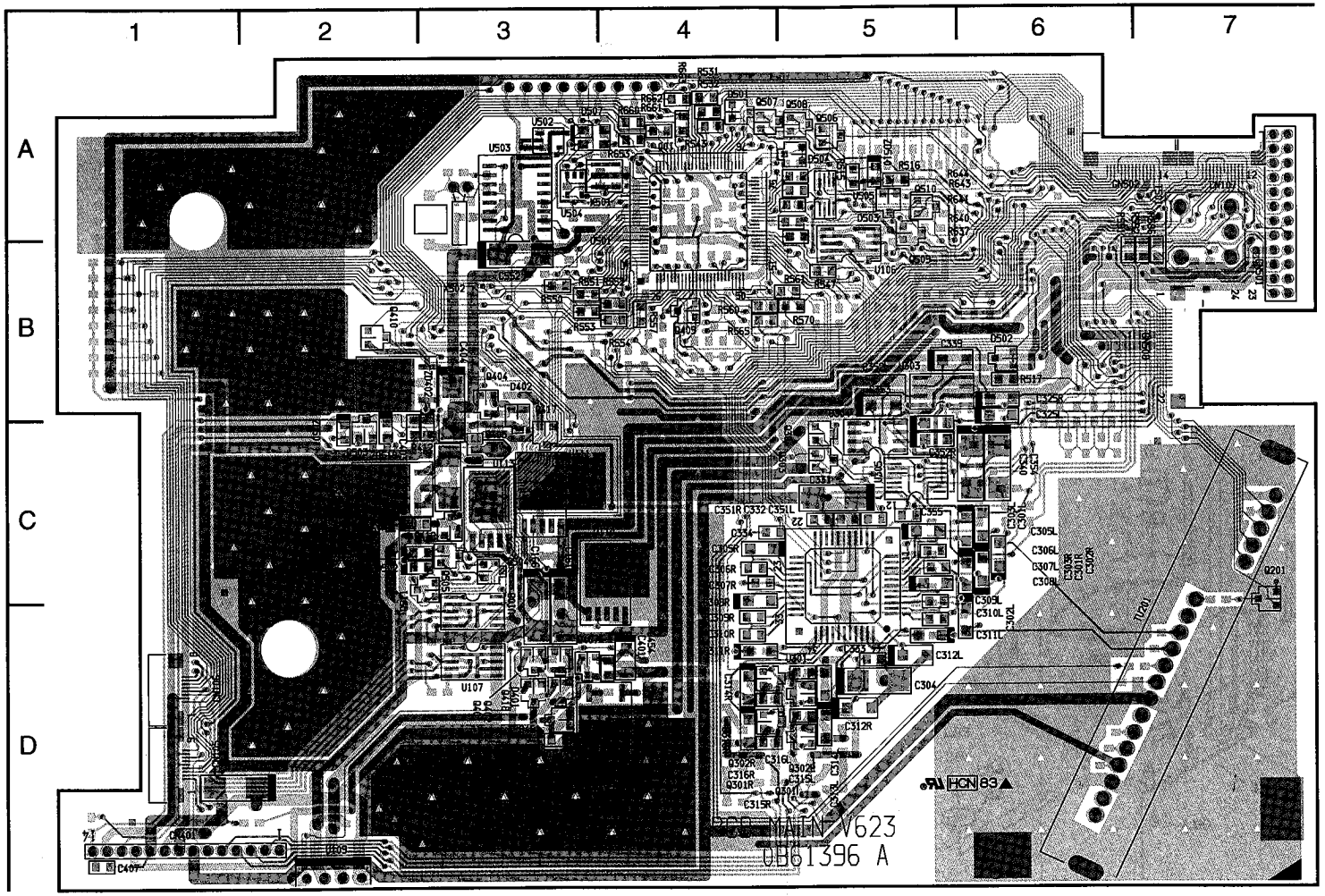


Fig. 7.1.3.1 Main Section-Component Side View

•Semiconductor Location

Ref. No.	Location	Ref. No.	Location
U106	B-5	Q410	B-2
U107	D-3	Q411	C-2
U108	D-3	Q412	C-2
U109	D-2	Q417	C-3
U110	C-3	Q418	D-3
U111	C-3	Q503	C-2
U113	C-3	Q504	C-3
U301	C-5	Q505	C-3
U303	B-5	Q506	A-6
U304	C-5	Q507	A-4
U305	C-5	Q508	A-5
U501	A-4	Q509	A-5
U502	A-3	Q510	A-5
U503	A-3	Q511	C-3
U505	A-5	ZD401	D-3
Q201	C-7	ZD402	B-3
Q301L	D-5	ZD403	C-2
Q301R	D-4	ZD501	C-2
Q302L	D-5	ZD502	C-2
Q302R	D-4	ZD503	C-2
Q303	C-5	ZD510	A-5
Q304	C-5	ZD518	C-2
Q401	D-3	D401	D-3
Q402	D-3	D402	B-3
Q403	C-3	D451	D-3
Q404	B-3	D501	A-4
Q405	D-3	D502	B-6
Q407	D-3	D503	A-5
Q408	B-2	D504	A-5
Q409	B-4	D507	A-3

•Semiconductor Location

Ref. No.	Location
ZD504	A-3
ZD505	B-2
ZD506	B-2
ZD507	B-2
ZD508	B-2
ZD509	B-2

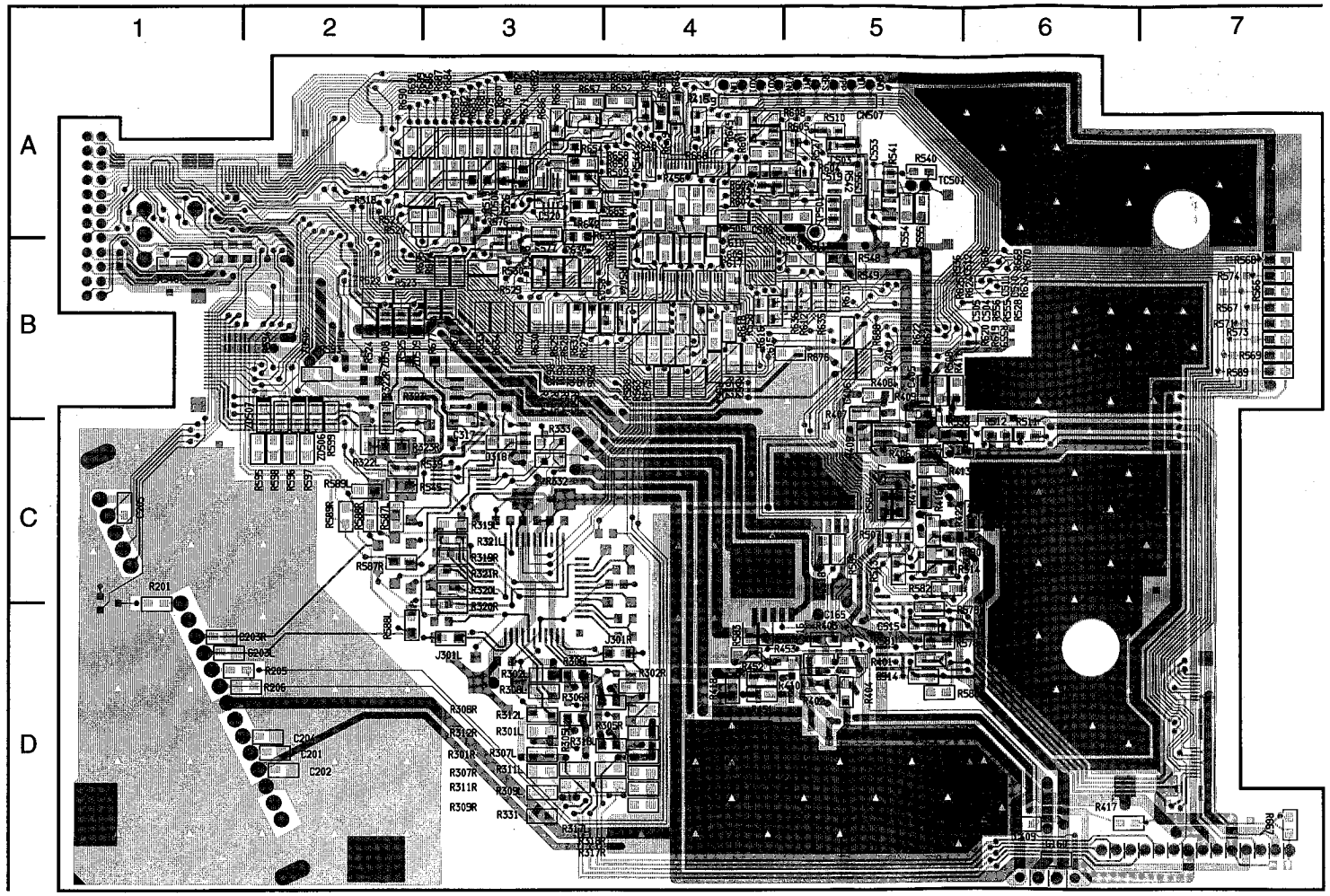


Fig. 7.1.3.2 Main Section-Dip Side View

7.2. Front P.C.B. Ass'y

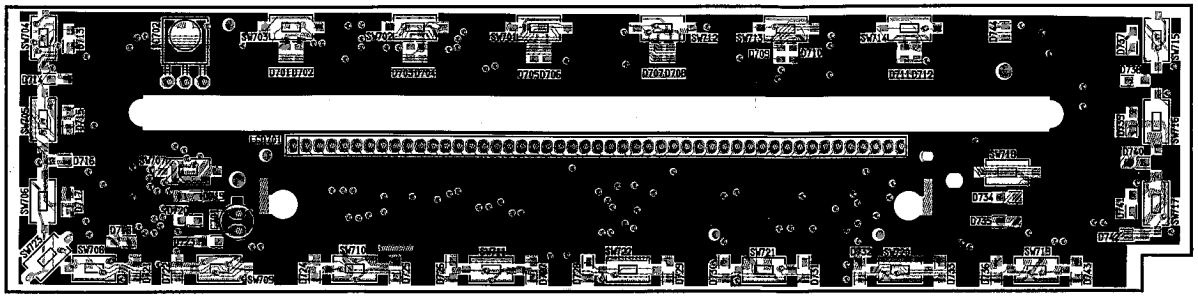


Fig. 7.2.1 Component Side View

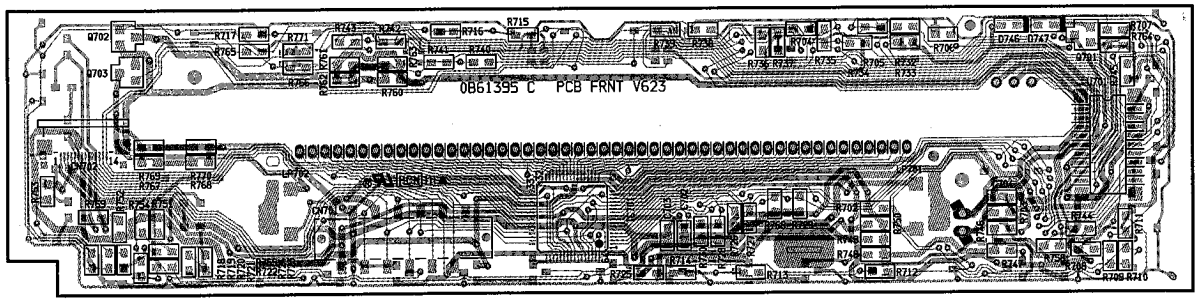


Fig. 7.2.2 Dip Side View

7.3. CD P.C.B. Ass'y

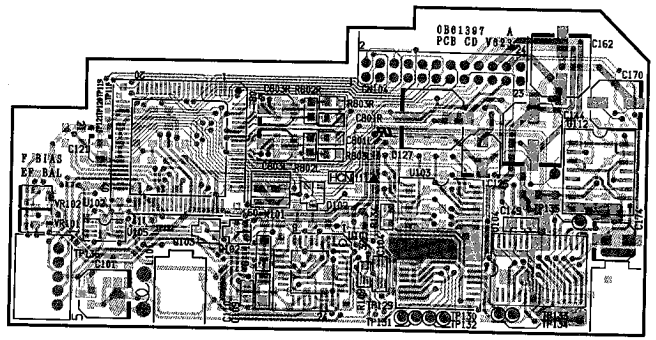


Fig. 7.3.1 Component Side View

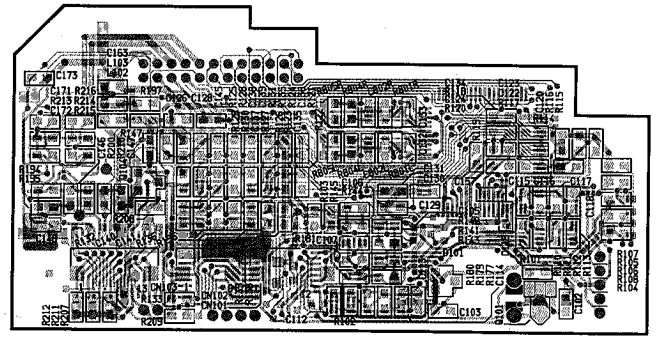


Fig. 7.3.2 PDip Side View

7.4. Power Amp. Main P.C.B. Ass'y

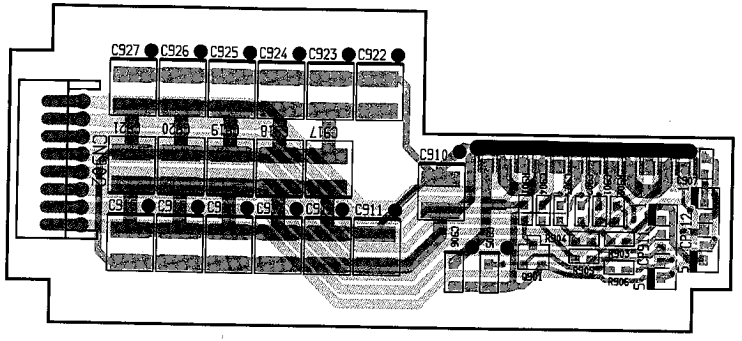


Fig. 7.4.1 Component Side View

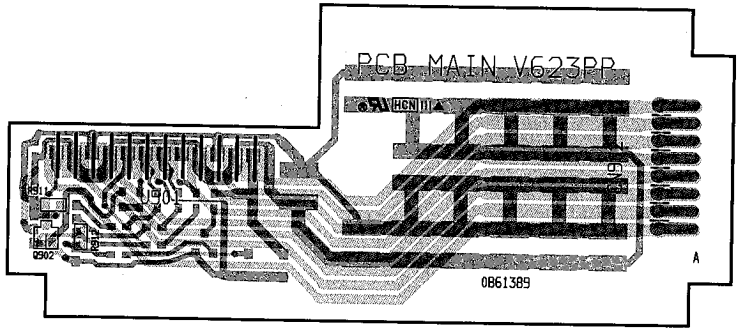


Fig. 7.4.2 Dip Side View

7.5. Power Amp. Sub P.C.B. Ass'y

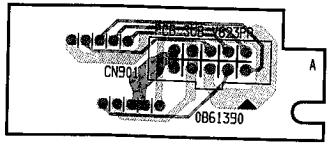


Fig. 7.5.1 Component Side View

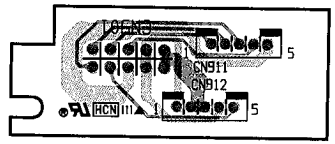


Fig. 7.5.2 Dip Side View

NOTES: 1. Abbreviations
TR – Transistor, SID – Silicon Diode, ZD – Zener Diode, Varicap – Variable Capacitance Diode
RK – Carbon Resistor, RM – Metal Film Resistor, RF – Fail Safe Type Resistor, RC – Cement Resistor
CE – Electrolytic Capacitor, CML – Mylar Capacitor, CC – Ceramic Capacitor, CPP – PP Capacitor,
CMM – Metalized Mylar Capacitor, CSP – Polystyrene Capacitor, C – Mica Capacitor,
CT – Tantalum Capacitor
2. Description of capacitor: 10 16V = 10μ 16V
3. Parts marked with* shows chip parts.

7.1. Main P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA09853A	**Main P.C.B. Ass'y (USA,CAN)**
	BA09854A	**Main P.C.B. Ass'y (JPN)**
	— Main —	
U106,107	0B10719A	IC TA8409F*
U108	0B10719A	IC TA8409F*
U109	0B10572A	IC PQ09RF2
U110,111	0B10951A	IC PQ05TZ11*
U113	0B10951A	IC PQ05TZ11*
U301	0B10919A	IC LC75372E*
U303,304	0B10905A	IC BA3121F*
U305	0B10952A	IC TC4066BFT*
U501	0B10949A	IC HD64F3437TF16*
U502	0B10907A	IC PST9142NR*
U503	0B10654A	IC TC4060AF*
U505	0B10973A	IC TC7W34FU*
Q201	0B10652A	TR DTC144TK*
Q301L,R	0B14205A	TR DTC314TK*
Q302L,R	0B14205A	TR DTC314TK*
Q303,304	0B10652A	TR DTC144TK*
Q401	0K10030A	TR 2SA1036K-R*
Q402	0B14011A	TR DTC114EK*
Q403	0B10731A	TR 2SB1132*
Q404	0B14011A	TR DTC114EK*
Q405	0B10792A	TR 2SB1182QR*
Q407	0B14167A	TR 2SC2412K*
Q408	0B10957A	TR 2SD2318F5 (U/V)*
Q409	0B14002A	TR DTA114EK*
Q410	0K10030A	TR 2SA1036K-R*
Q411	0B10792A	TR 2SB1182QR*
Q412	0B14167A	TR 2SC2412K*
Q417,418	0B14167A	TR 2SC2412K*
Q503,504	0B14167A	TR 2SC2412K*
Q505	0B14011A	TR DTC114EK*
Q506	0B14002A	TR DTA114EK*
Q507	0B14013A	TR DTC144EK*
Q508	0B14167A	TR 2SC2412K*
Q509	0B14013A	TR DTC144EK*
Q510	0B14002A	TR DTA114EK*
Q511	0K10030A	TR 2SA1036K-R*
ZD401	0B10478A	ZD RD4.7UJN1-T1*
ZD402	0B10485A	ZD RD5.6UJN2*
ZD403	0B10482A	ZD RD5.1UJN2-T1*
ZD501,502	0B10497A	ZD RD8.2UJN2*
ZD503	0B10960A	ZD RD16UJN2*
ZD504,505	0B10482A	ZD RD5.1UJN2-T1*
ZD506,507	0B10482A	ZD RD5.1UJN2-T1*
ZD508,509	0B10482A	ZD RD5.1UJN2-T1*
ZD510	0B10482A	ZD RD5.1UJN2-T1*
ZD518	0B10482A	ZD RD5.1UJN2-T1*
D401,402	0B10539A	SID MA152WK*
D451	0B10539A	SID MA152WK*
D501,502	0B10539A	SID MA152WK*
D503,504	0B10539A	SID MA152WK*
D507	0B10730A	DI MA159A*
X501	0B90795A	Resonator 16.00MHz* (USA, CAN)
	0B90801A	Resonator 15.10MHz* (JPN)

Schematic Ref. No.	Part No.	Description
X502	0B90693A	X'tal 32.768kHz
J301L,R	0B25612A	RK 0 1/10W J*
R201	0B25611A	RK 1M 1/10W J*
R205,206	0B25571A	RK 22K 1/10W J*
R301L,R	0B25531A	RK 470 1/10W J*
R302L,R	0B25531A	RK 470 1/10W J*
R305L,R	0B25579A	RK 47K 1/10W J*
R306L,R	0B25579A	RK 47K 1/10W J*
R307L,R	0B25532A	RK 510 1/10W*
R308L,R	0B25532A	RK 510 1/10W*
R309L,R	0B25611A	RK 1M 1/10W J*
R311L,R	0B25612A	RK 0 1/10W J*
R312L,R	0B25612A	RK 0 1/10W J*
R319L,R	0B25539A	RK 1K 1/10W J*
R320L,R	0B25539A	RK 1K 1/10W J*
R321L,R	0B25539A	RK 1K 1/10W J*
R322L,R	0B25587A	RK 100K 1/10W J*
R323L,R	0B25587A	RK 100K 1/10W J*
R331,332	0B25563A	RK 10K 1/10W J*
R333	0B25563A	RK 10K 1/10W J*
R401	0B25563A	RK 10K 1/10W J*
R402	0B21631A	RK 10 1/4W*
R403	0B25551A	RK 3.3K 1/10W J*
R404	0B25523A	RK 220 1/10W J*
R405	0B25563A	RK 10K 1/10W J*
R406	0B21632A	RK 3.3 1/2W*
R407	0B25551A	RK 3.3K 1/10W J*
R408	0B25515A	RK 100 1/10W J*
R409	0B25555A	RK 4.7K 1/10W J*
R410	0B25515A	RK 100 1/10W J*
R411	0B25563A	RK 10K 1/10W J*
R412	0B21633A	RK 3.3 1W*
R413	0B25563A	RK 10K 1/10W J*
R414	0B25515A	RK 100 1/10W J*
R415	0B25563A	RK 10K 1/10W J*
R416	0B25527A	RK 330 1/10W J*
R417	0B25555A	RK 4.7K 1/10W J*
R418	0B25587A	RK 100K 1/10W J*
R420	0B25587A	RK 100K 1/10W J*
R422	0B25587A	RK 100K 1/10W J*
R451	0B25563A	RK 10K 1/10W J*
R452	0B25539A	RK 1K 1/10W J*
R453	0B25525A	RK 270 1/10W J*
R454,455	0B25563A	RK 10K 1/10W J*
R456	0B25547A	RK 2.2K 1/10W J*
R501,502	0B25563A	RK 10K 1/10W J*
R503	0B25612A	RK 0 1/10W J*
R504	0B25612A	RK 0 (USA, CAN) 1/10W J*
R505,506	0B25547A	RK 2.2K 1/10W J*
R507,508	0B25587A	RK 100K 1/10W J*
R509	0B25611A	RK 1M 1/10W J*
R510	0B25587A	RK 100K 1/10W J*
R511	0B25579A	RK 47K 1/10W J*
R512	0B25587A	RK 100K 1/10W J*
R513	0B25579A	RK 47K 1/10W J*
R514	0B25587A	RK 100K 1/10W J*
R515	0B25603A	RK 470K 1/10W J*
R516	0B25587A	RK 100K 1/10W J*
R517,518	0B25515A	RK 100 1/10W J*
R519,520	0B25515A	RK 100 1/10W J*
R521	0B25515A	RK 100 1/10W J*

Schematic Ref. No.	Part No.	Description
R522,523	0B25539A	RK 1K 1/10W J*
R524,525	0B25587A	RK 100K 1/10W J*
R526	0B25563A	RK 10K 1/10W J*
R527	0B25539A	RK 1K 1/10W J*
R528	0B25563A	RK 10K 1/10W J*
R529,530	0B25539A	RK 1K 1/10W J*
R531,532	0B25539A	RK 1K 1/10W J*
R534,535	0B25563A	RK 10K 1/10W J*
R537	0B25587A	RK 100K 1/10W J*
R538	0B25547A	RK 2.2K 1/10W J*
R539	0B25539A	RK 1K 1/10W J*
R540	0B21444A	RM 10M 1/10W F*
R541	0B21445A	RM 180K 1/10W F*
R542	0B25563A	RK 10K 1/10W J*
R543	0B25539A	RK 1K 1/10W J*
R544	0B25563A	RK 10K 1/10W J*
R545	0B25539A	RK 1K 1/10W J*
R547,548	0B25563A	RK 10K 1/10W J*
R549,550	0B25563A	RK 10K 1/10W J*
R551,552	0B25563A	RK 10K 1/10W J*
R553,554	0B25563A	RK 10K 1/10W J*
R555,556	0B25563A	RK 10K 1/10W J*
R557,558	0B25563A	RK 10K 1/10W J*
R559,560	0B25563A	RK 10K 1/10W J*
R561	0B25563A	RK 10K 1/10W J*
R562,563	0B25579A	RK 47K 1/10W J*
R564,565	0B25579A	RK 47K 1/10W J*
R566,567	0B25579A	RK 47K 1/10W J*
R568,569	0B25579A	RK 47K 1/10W J*
R570,571	0B25579A	RK 47K 1/10W J*
R572,573	0B25579A	RK 47K 1/10W J*
R574,575	0B25579A	RK 47K 1/10W J*
R576,577	0B25587A	RK 100K 1/10W J*
R578,579	0B25587A	RK 100K 1/10W J*
R580,581	0B25587A	RK 100K 1/10W J*
R582	0B25579A	RK 47K 1/10W J*
R583,584	0B25587A	RK 100K 1/10W J*
R585,586	0B25587A	RK 100K 1/10W J*
R587L,R	0B25587A	RK 100K 1/10W J*
R588	0B25587A	RK 100K 1/10W J*
R588L,R	0B25587A	RK 100K 1/10W J*
R589	0B25579A	RK 47K 1/10W J*
R589L,R	0B25587A	RK 100K 1/10W J*
R590,591	0B25587A	RK 100K 1/10W J*
R592,593	0B25587A	RK 100K 1/10W J*
R594	0B25587A	RK 100K 1/10W J*
R595	0B25603A	RK 470K 1/10W J*
R596,597	0B25587A	RK 100K 1/10W J*
R598,599	0B25587A	RK 100K 1/10W J*
R601	0B25563A	RK 10K 1/10W J*
R605,606	0B25563A	RK 10K 1/10W J*
R607,608	0B25563A	RK 10K 1/10W J*
R609,610	0B25539A	RK 1K 1/10W J*
R611,612	0B25563A	RK 10K 1/10W J*
R613	0B25563A	RK 10K 1/10W J*
R614	0B25587A	RK 100K 1/10W J*
R615,616	0B25563A	RK 10K 1/10W J*
R617,618	0B25563A	RK 10K 1/10W J*
R619,620	0B25563A	RK 10K 1/10W J*
R621,622	0B25563A	RK 10K 1/10W J*
R623	0B25563A	RK 10K 1/10W J*
R624,625	0B25587A	RK 100K 1/10W J*

Schematic Ref. No.	Part No.	Description
R626	0B25587A	RK 100K 1/10W J*
R627,628	0B25563A	RK 10K 1/10W J*
R629,630	0B25563A	RK 10K 1/10W J*
R631,632	0B25563A	RK 10K 1/10W J*
R633	0B25563A	RK 10K 1/10W J*
R634	0B25539A	RK 1K 1/10W J*
R635,636	0B25563A	RK 10K 1/10W J*
R637,638	0B25563A	RK 10K 1/10W J*
R639	0B25539A	RK 1K 1/10W J*
R640,641	0B25563A	RK 10K 1/10W J*
R642,643	0B25563A	RK 10K 1/10W J*
R644,645	0B25563A	RK 10K 1/10W J*
R646,647	0B25539A	RK 1K 1/10W J*
R648,649	0B25539A	RK 1K 1/10W J*
R650,651	0B25539A	RK 1K 1/10W J*
R652	0B25539A	RK 1K 1/10W J*
R653	0B25563A	RK 10K 1/10W J*
R654,655	0B25539A	RK 1K 1/10W J*
R656,657	0B25539A	RK 1K 1/10W J*
R658,659	0B25539A	RK 1K 1/10W J*
R660,661	0B25563A	RK 10K 1/10W J*
R662,663	0B25563A	RK 10K 1/10W J*
R665,666	0B25563A	RK 10K 1/10W J*
R667,668	0B25563A	RK 10K 1/10W J*
R669,670	0B25587A	RK 100K 1/10W J*
R671,672	0B25587A	RK 100K 1/10W J*
R673,674	0B25587A	RK 100K 1/10W J*
R675,676	0B25587A	RK 100K 1/10W J*
R677,678	0B25587A	RK 100K 1/10W J*
R679,680	0B25587A	RK 100K 1/10W J*
R681,682	0B25587A	RK 100K 1/10W J*
R683,684	0B25587A	RK 100K 1/10W J*
R685,686	0B25587A	RK 100K 1/10W J*
R687,688	0B25587A	RK 100K 1/10W J*
R689,690	0B25587A	RK 100K 1/10W J*
R691,692	0B25587A	RK 100K 1/10W J*
TC501	0B42787A	Trimmer 10P*
C159	0B42814A	CE 33 25V*
C160	0B43064A	CC 0.01 50V J*
C161	0B42789A	CE 47 16V*
C166	0B42789A	CE 47 16V*
C201,202	0B43064A	CC 0.01 50V J*
C203L,R	0B42791A	CML 0.027 25V* (USA, CAN)
	0B43235A	CC 0.018 50V K* (JPN)
C204,205	0B43064A	CC 0.01 50V J*
C301L,R	0B42785A	CE 4.7 16V*
C302L,R	0B42785A	CE 4.7 16V*
C303L,R	0B42785A	CE 4.7 16V*
C304	0B42783A	CE 22 16V*
C305L,R	0B42785A	CE 4.7 16V*
C306L,R	0B43071A	CC 470P 50V J*
C307L,R	0B43238A	CML 0.068 50V*
C308L,R	0B42785A	CE 4.7 16V*
C309L,R	0B43079A	CC 3300P 50V K*
C310L,R	0B43083A	CC 0.022 50V K*
C311L,R	0B42780A	CE 1 35V*
C312L,R	0B42781A	CE 10 16V*
C313L,R	0B42785A	CE 4.7 16V*
C314L,R	0B42785A	CE 4.7 16V*
C315L,R	0B43080A	CC 4700P 50V K*
C316L,R	0B43080A	CC 4700P 50V K*
C317,318	0B43064A	CC 0.01 50V J*
C325L,R	0B42785A	CE 4.7 16V*
C331	0B42789A	CE 47 16V*
C332,333	0B43064A	CC 0.01 50V J*
C334	0B43064A	CC 0.01 50V J*
C339	0B42781A	CE 10 16V*
C340	0B42783A	CE 22 16V*
C351L,R	0B43063A	CC 1000P 50V J*
C352L,R	0B42785A	CE 4.7 16V*
C353	0B42781A	CE 10 16V*
C354	0B42783A	CE 22 16V*
C355	0B43064A	CC 0.01 50V J*
C401	0B43064A	CC 0.01 50V J*

Schematic Ref. No.	Part No.	Description
C403	0B43221A	CC 0.047 25V K*
C404	0B42790A	CE 100 6.3V*
C405	0B43064A	CC 0.01 50V J*
C406	0B43063A	CC 1000P 50V J*
C407	0B43092A	CC 0.1 25V Z*
C409	0B43092A	CC 0.1 25V Z*
C453,454	0B42781A	CE 10 16V*
C503	0B43064A	CC 0.01 50V J*
C504,505	0B43200A	CC 220P 50V J*
C506,507	0B43064A	CC 0.01 50V J*
C508	0B43064A	CC 0.01 50V J*
C510,511	0B43064A	CC 0.01 50V J*
C512,513	0B43064A	CC 0.01 50V J*
C514,515	0B43064A	CC 0.01 50V J*
C519,520	0B43064A	CC 0.01 50V J*
C552	0B42783A	CE 22 16V*
C553	0B43078A	CC 2200P 50V K*
C554	0B43117A	CC 39P 50V J*
C555	0B43115A	CC 5P 50V D*
C556	0B43064A	CC 0.01 50V J*
C557,558	0B42806A	CC 0.22 16V Z*
CN105	0B84906A	9P F Connector*
CN106	0B84902A	8P F Connector*
CN107	0B84903A	12P F Connector*
CN501	0B84871A	24P Connector Socket
CN502	0B84907A	14P F Connector*
CN508	0B84879A	22P F Connector*
	0J08175C	Heat Sink Power (1)
		— Tuner —
L201	0B51337A	Inductor 22uH
SA201	0B12655A	SID DSP-201M
TU201	0B90796A	Tuner Pack MX-A055 (USA, CAN)
	0B90797A	Tuner Pack MX-J055 (JPN)
	0B84892A	ANT Jack (1)
	0J08170A	Tuner P.C.B. Spacer (4)
		— Power Supply —
D403	0B10946A	SID 1SR154-400*
D406,407	0B10946A	SID 1SR154-400*
D408	0B10946A	SID 1SR154-400*
C402	0B42786A	CE 470 16V*
C408	0B43092A	CC 0.1 25V Z*
CN901	0B84924A	Connector Header 14P
CN904	0B84861A	BB Connector Plug 10P
	0B84885B	6P W Ass'y Plug (1)
	0E04046A	M2.6x3 + Pan (1)
	0J08129A	P.C.B. Holder C (1)
	0J08190A	P.C.B. Spacer Spring Out (1)

7.2. Front P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA09861A	**Front P.C.B Ass'y (USA, CAN)**
	BA09867A	**Front P.C.B. Ass'y (JPN)**
U701	0B10970A	IC NJU3715G*
IC701	0B10950A	IC LC75823W*
IC702	0B10856A	Remote Sensor SBX8035
Q701,702	0B10972A	TR 2SD1757K*
Q703	0B10972A	TR 2SD1757K*
D701	0B10956A	LED LT1E40A*
D702	0B10974A	LED LT1H40A*
D703	0B10956A	LED LT1E40A*
D704	0B10974A	LED LT1H40A*
D705	0B10956A	LED LT1E40A*
D706	0B10974A	LED LT1H40A*

Schematic Ref. No.	Part No.	Description
D707	0B10956A	LED LT1E40A*
D708	0B10974A	LED LT1H40A*
D709	0B10956A	LED LT1E40A*
D710	0B10974A	LED LT1H40A*
D711	0B10956A	LED LT1E40A*
D712,713	0B10974A	LED LT1H40A*
D714,715	0B10974A	LED LT1H40A*
D716,717	0B10974A	LED LT1H40A*
D718,719	0B10974A	LED LT1H40A*
D720,721	0B10974A	LED LT1H40A*
D722,723	0B10974A	LED LT1H40A*
D724,725	0B10974A	LED LT1H40A*
D726,727	0B10974A	LED LT1H40A*
D728,729	0B10974A	LED LT1H40A*
D730,731	0B10974A	LED LT1H40A*
D732,733	0B10974A	LED LT1H40A*
D734,735	0B10974A	LED LT1H40A*
D736,737	0B10974A	LED LT1H40A*
D738,739	0B10974A	LED LT1H40A*
D740,741	0B10974A	LED LT1H40A*
D742,743	0B10974A	LED LT1H40A*
D746,747	0B10971A	SID MA112*
R702	0B20671A	RK 1 1/10W J*
R703	0B25507A	RK 47 1/10W J*
R704,705	0B25523A	RK 220 1/10W J*
R706	0B25525A	RK 270 1/10W J*
R707	0B25529A	RK 390 1/10W J*
R708	0B25531A	RK 470 1/10W J*
R709	0B25535A	RK 680 1/10W J*
R710	0B25537A	RK 820 1/10W J*
R711	0B25541A	RK 1.2K 1/10W J*
R712	0B25547A	RK 2.2K 1/10W J*
R713	0B25553A	RK 3.9K 1/10W J*
R714	0B25567A	RK 15K 1/10W J*
R715,716	0B25523A	RK 220 1/10W J*
R717	0B25525A	RK 270 1/10W J*
R718	0B25529A	RK 390 1/10W J*
R719	0B25531A	RK 470 1/10W J*
R720	0B25535A	RK 680 1/10W J*
R721	0B25537A	RK 820 1/10W J*
R722	0B25541A	RK 1.2K 1/10W J*
R723	0B25547A	RK 2.2K 1/10W J*
R724	0B25553A	RK 3.9K 1/10W J*
R725	0B25567A	RK 15K 1/10W J*
R726,727	0B25579A	RK 47K 1/10W J*
R728,729	0B25579A	RK 47K 1/10W J*
R730	0B25579A	RK 47K 1/10W J*
R732,733	0B25519A	RK 150 1/10W J*
R734,735	0B25519A	RK 150 1/10W J*
R736,737	0B25519A	RK 150 1/10W J*
R738,739	0B25519A	RK 150 1/10W J*
R740,741	0B25519A	RK 150 1/10W J*
R742,743	0B25519A	RK 150 1/10W J*
R744,745	0B25524A	RK 240 1/10W J*
R746,747	0B25524A	RK 240 1/10W J*
R748,749	0B25524A	RK 240 1/10W J*
R750,751	0B25524A	RK 240 1/10W J*
R752,753	0B25524A	RK 240 1/10W J*
R754,755	0B25524A	RK 240 1/10W J*
R758,759	0B25525A	RK 270 1/10W J*
R760,761	0B25513A	RK 82 1/10W J*
R762,763	0B25513A	RK 82 1/10W J*
R764,765	0B25539A	RK 1K 1/10W J*
R767,768	0B25503A	RK 33 1/10W J*
R769,770	0B25503A	RK 33 1/10W J*
R771	0B25539A	RK 1K 1/10W J*
C701	0B40157A	CE 47 6.3V
C702	0B43063A	CC 1000P 50V J*
C703,704	0B43092A	CC 0.1 25V Z*
LCD701	0B90800A	LCD
LP701,702	0B90802A	Lamp 115mA 5V
CN701	0B84758A	12P Connector (USA, CAN)
CN702	0B84907A	14P F Connector* (JPN)

Schematic Ref. No.	Part No.	Description
SW701,702	0B70271A	Tact Switch
SW703,704	0B70271A	Tact Switch
SW705,706	0B70271A	Tact Switch
SW707,708	0B70271A	Tact Switch
SW709,710	0B70271A	Tact Switch
SW711,712	0B70271A	Tact Switch
SW713,714	0B70271A	Tact Switch
SW715,716	0B70271A	Tact Switch
SW717,718	0B70271A	Tact Switch
SW719,720	0B70271A	Tact Switch
SW721,722	0B70271A	Tact Switch
SW723	0B70271A	Tact Switch
	0J07985B	Illuminator Sheet (1)
	0J07986B	LCD Holder (1)
	0J07987B	LCD Lens (1)
	0J07988A	LCD Reflector (1)
	0J08171A	REM Cushion (1)
	0J08193A	Conductor Sheet A (1)
	0J08200A	LCD W Face (1)

7.3. CD P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA09857A	**CD P.C.B. Ass'y**
U101	0B10691A	IC CXA2521Q*
U102	0B10948A	IC CXD2587Q*
U103	0B10947A	IC BA5972FP*
U104	0B10942A	IC BA6840BFP-Y*
U105	0B10953A	IC TC4W53FU*
Q101	0B10731A	TR 2SB1132*
Q102	0B10882A	TR DTC114TKA*
Q103	0B10652A	TR DTC144TK*
Q104	0B14013A	TR DTC144EK*
D101	0B10539A	SID MA152WK*
D102	0B10540A	SID MA152WA*
L101	0B51300A	Inductor 10uH
L102,103	0B50287A	Coil 120uH*
X101	0B90794A	Resonator* 16.93MHz
VR101,102	0B30212A	Semi VR 22K*
R101	0B21321A	RM 10 1/10W F*
R102	0B25571A	RK 22K 1/10W J*
R103	0B25590A	RK 130K 1/10W J*
R104	0B25595A	RK 220K 1/10W J*
R105,106	0B25562A	RK 9.1K 1/10W J*
R107,108	0B25556A	RK 5.1K 1/10W J*
R109	0B25514A	RK 91 1/10W J*
R110	0B25575A	RK 33K 1/10W J*
R111	0B25589A	RK 120K 1/10W J*
R112	0B25575A	RK 33K 1/10W J*
R113	0B25571A	RK 22K 1/10W J*
R114	0B25575A	RK 33K 1/10W J*
R115	0B25563A	RK 10K 1/10W J*
R116	0B25587A	RK 100K 1/10W J*
R117	0B25611A	RK 1M 1/10W J*
R118	0B25563A	RK 10K 1/10W J*
R119,120	0B25551A	RK 3.3K 1/10W J*
R121,122	0B25574A	RK 30K 1/10W J*
R123,124	0B25560A	RK 7.5K 1/10W J*
R125,126	0B25567A	RK 15K 1/10W J*
R127,128	0B25560A	RK 7.5K 1/10W J*
R129,130	0B25579A	RK 47K 1/10W J*
R131,132	0B25569A	RK 18K 1/10W J*
R133	0B25563A	RK 10K 1/10W J*
R134	0B25599A	RK 330K 1/10W J*
R135	0B25580A	RK 51K 1/10W J*
R136	0B25584A	RK 75K 1/10W J*
R138	0B25515A	RK 100 1/10W J*
R139	0B25563A	RK 10K 1/10W J*
R141	0B25555A	RK 4.7K 1/10W J*
R142	0B25571A	RK 22K 1/10W J*
R143	0B25590A	RK 130K 1/10W J*
R144	0B25573A	RK 27K 1/10W J*

Schematic Ref. No.	Part No.	Description
R145	0B25571A	RK 22K 1/10W J*
R147	0B25612A	RK 0 1/10W J*
R177	0B25547A	RK 2.2K 1/10W J*
R179,180	0B25555A	RK 4.7K 1/10W J*
R181	0B25573A	RK 27K 1/10W J*
R194	0B25563A	RK 10K 1/10W J*
R195	0B25575A	RK 33K 1/10W J*
R196	0B25587A	RK 100K 1/10W J*
R197	0B21321A	RM 10 1/10W F*
R200	0B25579A	RK 47K 1/10W J*
R207	0B20673A	RK 1.5 1/10W*
R208	0B25563A	RK 10K 1/10W J*
R209	0B25515A	RK 100 1/10W J*
R210	0B25563A	RK 10K 1/10W J*
R211,212	0B20673A	RK 1.5 1/10W*
R801L,R	0B26153A	RM 12K 1/10W F*
R802L,R	0B26153A	RM 12K 1/10W F*
R803L,R	0B26153A	RM 12K 1/10W F*
R804L,R	0B26175A	RM 100K 1/8W F*
R805L,R	0B26103A	RM 100 1/8W F*
C101	0B42794A	CE 100 6.3V*
C102,103	0B43092A	CC 0.1 25V Z*
C104	0B42500A	CC 2.2 16V*
C105	0B43092A	CC 0.1 25V Z*
C106,107	0B43066A	CC 33P 50V J*
C109	0B42622A	CC 2.2 16V J*
C110	0B43092A	CC 0.1 25V Z*
C111	0B42622A	CC 2.2 16V J*
C112	0B43080A	CC 4700P 50V K*
C113	0B43224A	CC 1500P 50V K*
C114	0B43090A	CC 47P 50V J*
C115	0B43216A	CC 330P 50V J*
C116	0B43092A	CC 0.1 25V Z*
C117	0B43216A	CC 330P 50V J*
C118	0B43207A	CC 680P 50V J*
C119	0B43092A	CC 0.1 25V Z*
C120	0B43064A	CC 0.01 50V J*
C121	0B42793A	CE 0.47 50V*
C122	0B43200A	CC 220P 50V J*
C123	0B43224A	CC 1500P 50V K*
C124	0B43221A	CC 0.047 25V K*
C125	0B42792A	CE 47 6.3V*
C126	0B43092A	CC 0.1 25V Z*
C127	0B42798A	CE 330 6.3V*
C128,129	0B43092A	CC 0.1 25V Z*
C132,133	0B43092A	CC 0.1 25V Z*
C134	0B43092A	CC 0.1 25V Z*
C135,136	0B43207A	CC 680P 50V J*
C137,138	0B43207A	CC 680P 50V J*
C139,140	0B43084A	CC 0.033 50V K*
C141	0B43083A	CC 0.022 50V K*
C144	0B42798A	CE 330 6.3V*
C145	0B43092A	CC 0.1 25V Z*
C146	0B43221A	CC 0.047 25V K*
C147	0B43064A	CC 0.01 50V J*
C148	0B43092A	CC 0.1 25V Z*
C149	0B42500A	CC 2.2 16V*
C157	0B43080A	CC 4700P 50V K*
C162	0B42796A	CE 220 10V*
C163	0B43092A	CC 0.1 25V Z*
C801L,R	0B43196A	CC 150P 50V J*
C802L,R	0B43207A	CC 680P 50V J*
C803L,R	0B42795A	CE 22 6.3V*
CN101	0B84872A	12P F Connector*
CN102	0B84874A	6P F Connector*
CN103	0B84908A	13P F Connector*
CN104	0B84870A	24P Connector Header
TP136	0B81469A	5P S-Post
	0E04046A	M2.6x3 + Pan (2)
	0J08127B	P.C.B. Holder A (2)

[Power Amp. Ass'y]

7.4. Power Amp. — Main P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA09845A	**Main P.C.B. Ass'y**
U901	0B17086A	IC TA8260H
R902,903	0B25539A	RK 1K 1/10W J*
R904,905	0B25539A	RK 1K 1/10W J*
R911	0B25539A	RK 1K 1/10W J*
C901,902	0B43240A	CC 0.22 25V Z*
C903,904	0B43240A	CC 0.22 25V Z*
C905	0B42781A	CE 10 16V*
C906	0B42780A	CE 1 35V*
C907	0B43092A	CC 0.1 25V Z*
C910	0B42815A	CE 47 20V*
C911	0B43064A	CC 0.01 50V J*
CN902	0B84867A	Post-S 8P XH (White)
	0B84904A	5P Ribbon Cable A (1)
	0B84905A	5P Ribbon Cable B (1)

7.5. Sub P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA09846A	**Sub P.C.B. Ass'y**
R930	0B25491A	RK 10 1/10W J*
C930	0B43064A	CC 0.01 50V J*
CN901	0B84860A	BB Connector Socket 10P

8. IC BLOCK DIAGRAMS

U501 HD64F3437TF16 (System Control MPU)

Pin No.	Pin Name	Signal Name	I/O	Function
1	$\overline{RES}$	$\overline{RESET}$	I	System reset signal.
2	XTAL	XTAL	—	System clock (16 MHz).
3	EXTAL	EXTAL	—	System clock (16 MHz).
4	VCCB	VCCB	—	+5V.
5	MD1	MD1	I	MPU mode select signal-1.
6	MD0	MD0	I	MPU mode select signal-2.
7	CLOCK	CLOCK	I	Clock pulse for counting the "Clock".
8	FVPP/$\overline{ST}$	FVPP/$\overline{ST}$	I	VPP (+5V) signal.
9	VCC	VCC	—	+5V.
10	LOCK-PIN	LOCK-PIN	I	Disc lock pin position (up/down) detecting signal. H: Up position (disc locked)
11	TRPOSMOV	TRPOSMOV	I	Traverse position (front/rear) detecting signal. H: Rear position.
12	CLKIN	CLKIN	I	Clock pulse from CDC.
13	DATAIN	DATAIN	I	Data signal from CDC.
14	CLR	CLR	O	Reset signal to clock IC.
15	VSS	VSS	—	GND.
16	MTR1	MTR1	O	Traverse mechanism motor drive signal-1.
17	P96	P96	I	(Not used.)
18	MSTLD1	MSTLD1	O	Loading belt/stocker motor drive signal-1.
19	MSTLD2	MSTLD2	O	Loading belt/stocker motor drive signal-2.
20	ST-PLAY	ST-PLAY	I	Stocker play position signal.
21	ST-REF	ST-REF	I	Stocker home position signal. H: Home position.
22	MTR2	MTR2	O	Traverse mechanism motor drive signal-2.
23	$\overline{BSENS}$	$\overline{BSENS}$	I	Battery voltage sensing signal.
24	ASENS	ASENS	I	ACC voltage sensing signal.
25	SCOR	$\overline{SCOR}$	I	Sub-Q interrupt signal from DSP (Digital Signal Processor) IC.
26	CLAMPER	CLAMPER	I	Clamper plate clamping signal. H: Clamping
27	TEMP	TEMP	I	(Not used.)
28	REMIN	REMIN	I	Remote control signal.
29	ST-PLS	ST-PLS	I	Stocker pulse.
30	LD-PLT1	LD-PLT1	I	Loading cam plate position signal-1.
31	LD-PLT2	LD-PLT2	I	Loading cam plate position signal-2.
32	TRUD-PLS	TRUD-PLS	I	Traverse up/down pulse.
33	LDC-PLS	LDC-PLS	I	Loading belt/stocker motor turning pulse.
34	P-ARM1	P-ARM1	I	Loading guide position signal-1.
35	P-ARM2	P-ARM2	I	Loading guide position signal-2. L: No disc
36	AVREF	AVREF	—	+5V.
37	AVCC	AVCC	—	+5V.
38	KI0	KI0	I	Key input signal-0. (Analog port)
39	KI1	KI1	I	Key input signal-1. (Analog port)

Pin No.	Pin Name	Signal Name	I/O	Function
40	AREA	AREA	I	Area setting signal. (Analog port)
41	MODEL	MODEL	I	Model setting signal. (Analog port)
42	S-METER	S-METER	I	Reception signal level. (Analog port)
43	TE	TE	I	(Not used.)
44	DA0	DA0	I	(Not used.)
45	DA1	DA1	I	(Not used)
46	AVSS	AVSS	—	GND.
47	SHUTTER	SHUTTER	I	Shutter ON/OFF signal.
48	LDC-REF	LDC-REF	I	Loading cam reference position detecting pulse.
49	AD-REF	AD-REF	O	+5V ON/OFF signal for A/D conversion circuit.
50	BEEP	BEEP	O	Beep sound signal.
51	VRCE	VRCE	O	Chip enable signal for electronic volume IC.
52	$\overline{CDC}$/AUX	$\overline{CDC}$/AUX	O	CDC/AUX source select signal.
53	$\overline{ST}$	$\overline{ST}$	I	Stereo signal from tuner circuit.
54	DATAI	DATAI	I	Serial data from tuner circuit.
55	$\overline{ST}$/MONO	$\overline{ST}$/MONO	O	Forcible monaural signal.
56	TCE	TCE	O	Chip enable signal for tuner circuit.
57	CLK	CLK	O	Clock to tuner, electronic volume and display circuits.
58	DATAO	DATAO	O	Serial data to tuner, electronic volume and display circuits.
59	VCC	VCC	—	+5V.
60	MGUIDE1	MGUIDE1	O	Loading cam motor drive signal-1.
61	MGUIDE2	MGUIDE2	O	Loading cam motor drive signal-2.
62	CDC	CDC	O	CD changer mute enable signal.
63	ACCCONT	ACCCONT	O	ACC control signal.
64	DSPSEL	DSPSEL	O	DSP IC select signal.
65	CDCRST	CDCRST	I/O	CDC reset signal.
66	CLKOUT	CLKOUT	O	Clock to CDC.
67	DATAOUT	DATAOUT	O	Serial data to CDC.
68	MUTE	MUTE	O	Audio mute signal.
69	AMP-ON	AMP-ON	O	Power amp. ON/OFF control signal.
70	VSS	VSS	—	GND.
71	VSS	VSS	—	GND.
72	LDON	LDON	O	Laser ON signal.
73	ENCLK	ENCLK	O	DSP IC enable clock.
74	IR	IR	O	IR ON signal.
75	FOK	FOK	I	Focus OK signal.
76	SCLK	SCLK	O	Clock to read servo parameter from DSP IC.
77	GFS	GFS	I	GFS OK signal from DSP IC.
78	LSICLK	CDCLK	O	Clock for reading DSP command.
79	FVCC	FVCC	O	+5V ON/OFF signal for front panel circuit.

Pin No.	Pin Name	Signal Name	I/O	Function
80	LSISENS	SENSE	I	DSP IC sensing signal.
81	LSIDATA	DATA	O	DSP command data.
82	LSIXLT	XLAT	O	DSP command latch pulse.
83	CDRST	CDRES	O	DSP IC reset signal.
84	SQSO	SQSO	I	Sub-Q data from DSP IC.
85	SQCK	SQCK	O	Sub-Q clock to DSP IC.
86	ICE	ICE	O	Chip enable signal for LED driver IC.
87	INH	INH	O	LCD display inhibit signal.
88	LCE	LCE	O	Chip enable signal for LCD driver IC.
89	SYNC	SYNC	I/O	Synchronous operation control signal.
90	P.ON	P.ON	O	Amp. circuit/driver circuit power ON/OFF control signal.
91	LAMP	LAMP	O	Front panel lamp power ON/OFF control signal.
92	VSS	VSS	—	GND.
93	CDON	CDON	O	CD Servo circuit power ON/OFF control signal.
94	MECHON	MECHON	O	Mechanism sensor circuit power ON/OFF control signal.
95	REMOTE	REMOTE	O	Power amp. remote control signal.
96	P.ANT	P.ANT	O	Power antenna control signal.
97	TXD1	TXD1	I	(Not used.)
98	RXD1	RXD1	I	(Not used.)
99	SCK1	SCK1	I	(Not used.)
100	$\overline{\text{RESO}}$	$\overline{\text{RESO}}$	—	(Not used.)

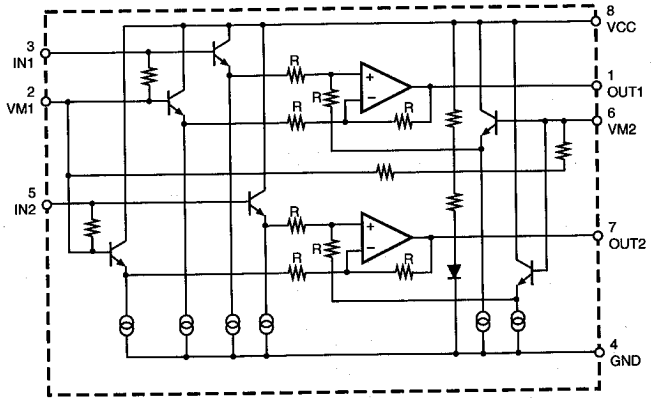


Fig. 8.1 Ground Isolation Amp. BA3121F (U303, 304)

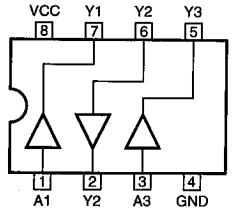


Fig. 8.2 Buffer TC7W34FU (U505)

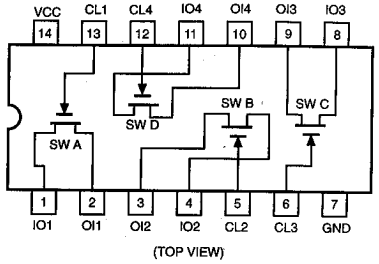


Fig. 8.3 Analog Switch TC4066BFT (U305)

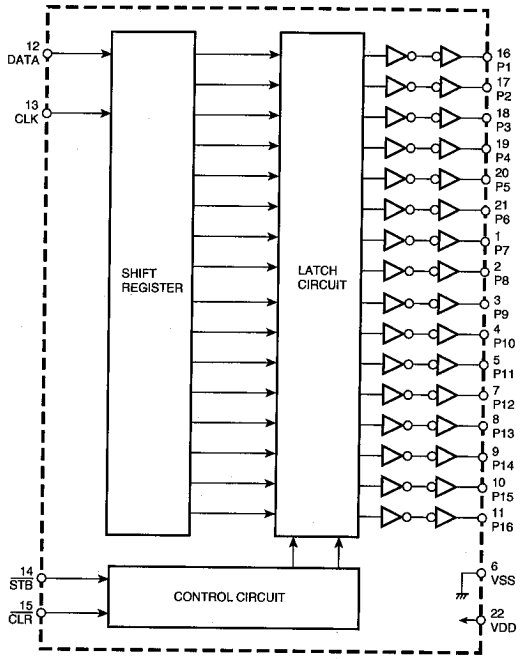


Fig. 8.4 LED Driver NJU3715G (U701)

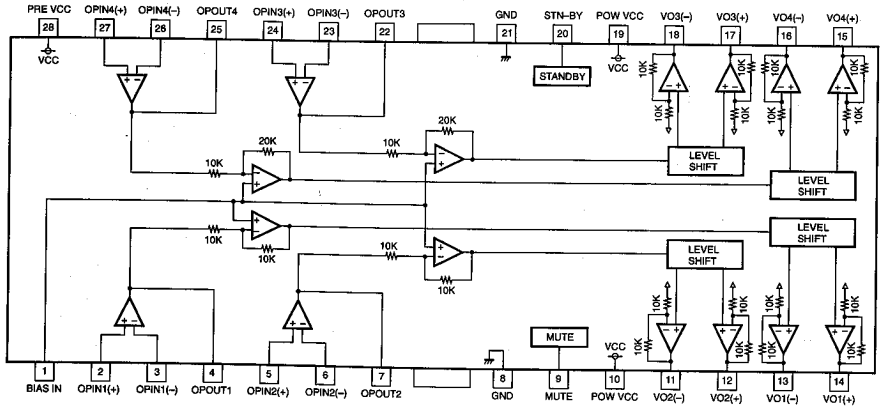


Fig. 8.5 Driver BA5972FP (U103)

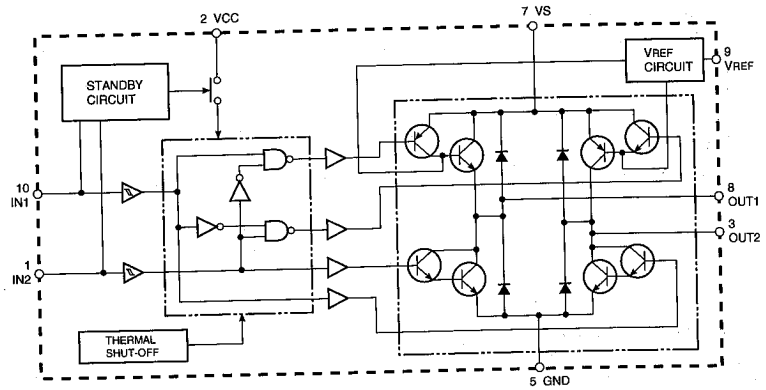


Fig. 8.6 Motor Driver TA8409F (U106, 107, 108)

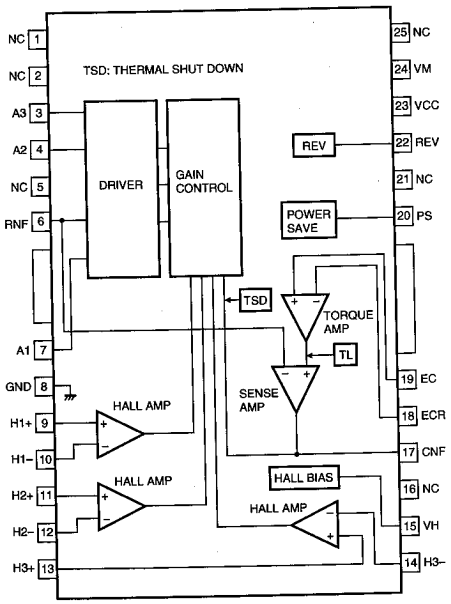


Fig. 8.7 Motor Driver BA6840BFP (U104)

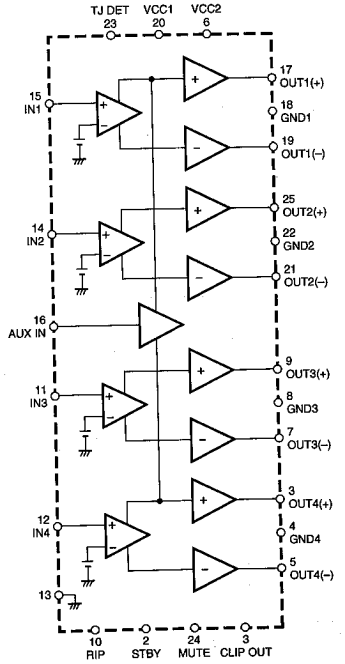


Fig. 8.8 BTL x 4 Channel Power Amp. TA8260H (U901)

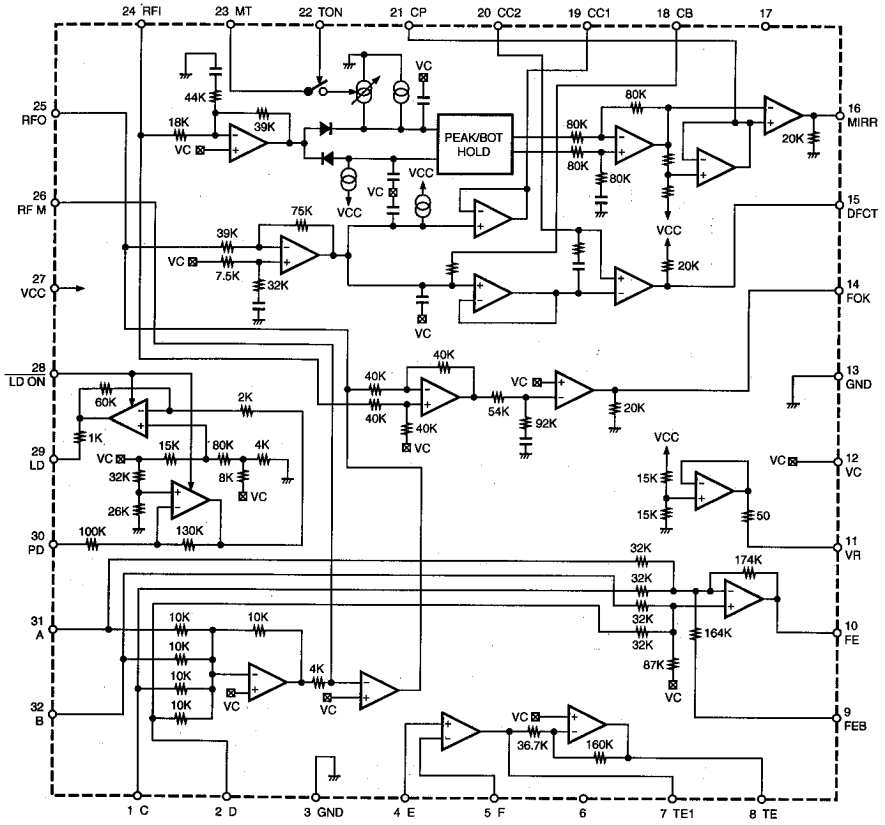
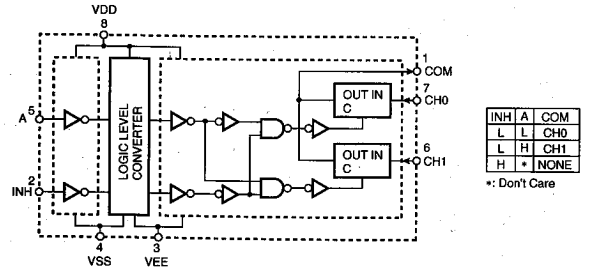


Fig. 8.9 RF Amp. CXA2521Q (U101)



INH	A	COM
L	L	CH0
L	H	CH1
H	*	NONE

*: Don't Care

Fig. 8.10 Selector TC4W53FU (U105)

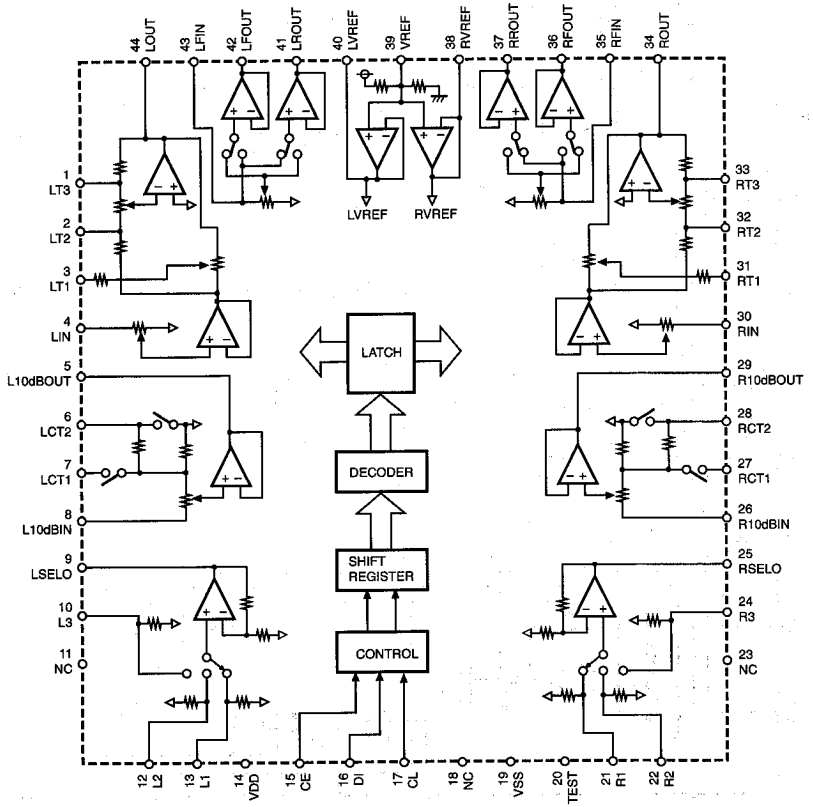


Fig. 8.11 Electronic Volume IC LC75372E (U301)

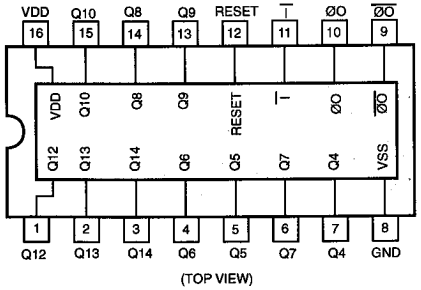


Fig. 8.12 14-Stage Counter/Oscillator TC4060AF (U503)

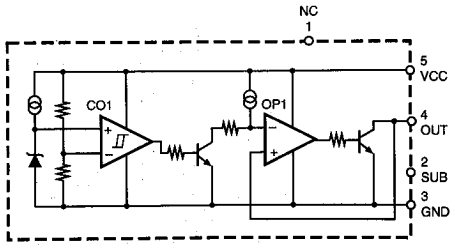


Fig. 8.13 Voltage Detector PST9142NR (U502)

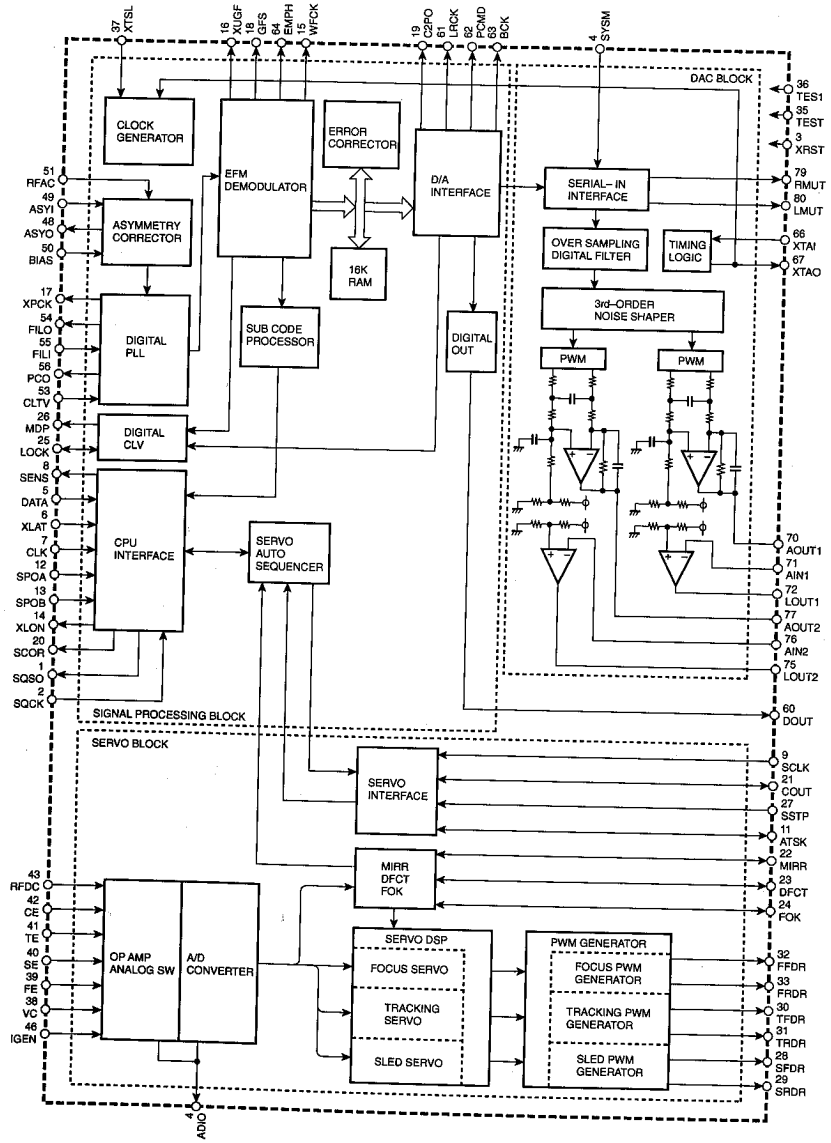


Fig. 8.14 Digital Signal Processor CXD2587Q (U102)

9. BLOCK DIAGRAM

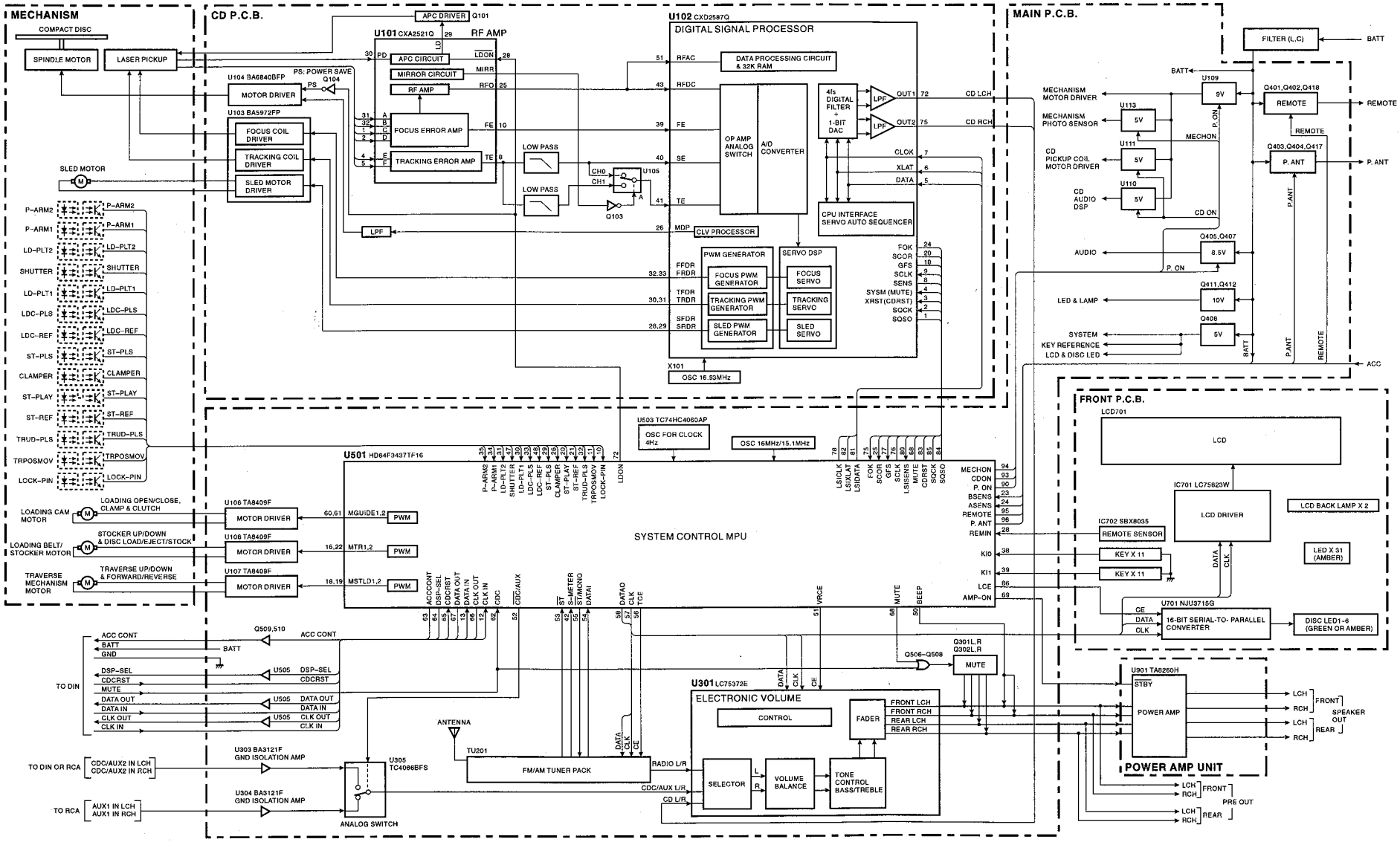
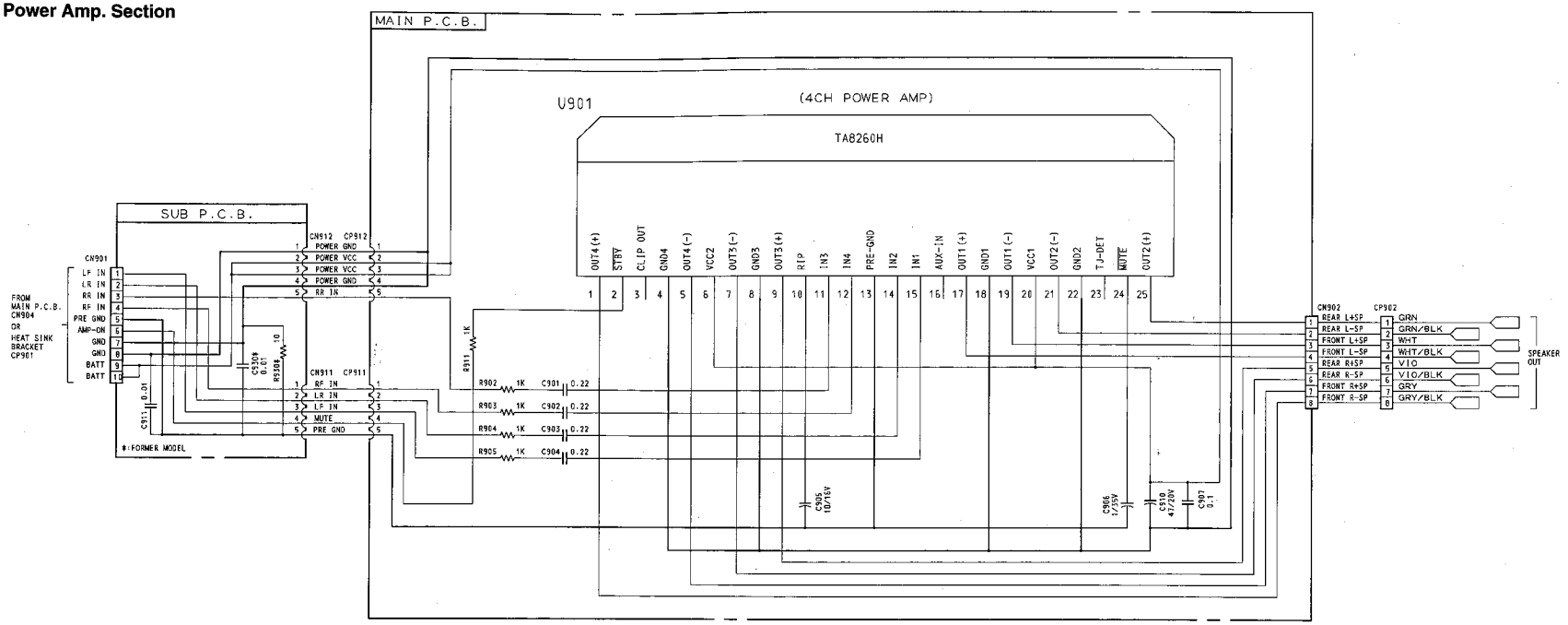


Fig. 9

10. SCHEMATIC DIAGRAMS

See the attached schematic diagram for the head unit (Receiver/6-Disc MusicBank CD Changer).

● Power Amp. Section



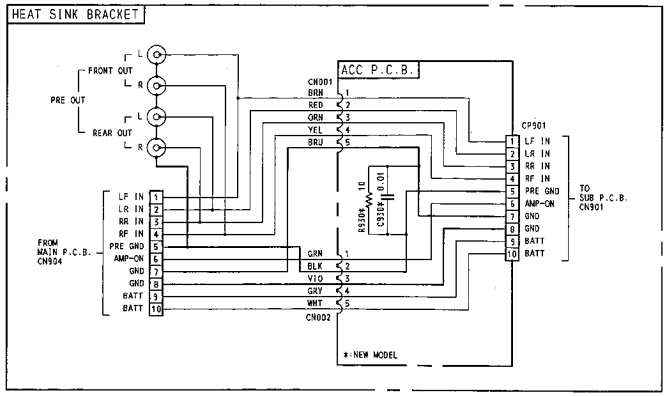


Fig. 10

NOTE: Description of electrolytic capacitor: 100/16V = 100μ 16V

SPECIFICATIONS

• Amplifier Section

Maximum Power Output	40W x 4 (4 ohms)
Frequency Response	15 - 30,000 Hz ±1 dB
Total Harmonic Distortion	0.1% (4 ohms, 1 kHz, 5W x 4)
CDC Input Level/Impedance	0.5 V/10 kohms
Output Level	1.0 V
Tone Controls	
Bass	20 Hz ±12 dB
Treble	20 kHz ±12 dB
Loudness	20 Hz +12 dB (Volume level 30)

• FM Tuner Section

Frequency Range	
U.S.A. and Canada	87.5 - 107.9 MHz in 200-kHz steps
Other Area	87.5 - 108.0 MHz in 50-kHz steps
Sensitivity	15 dBf (IHF)
Signal-to-Noise Ratio	60 dB (Mono)
Stereo Separation	35 dB
Antenna Input	75 ohms (Unbalanced)

• AM Tuner Section

Frequency Range	
U.S.A. and Canada	530 - 1,710 kHz in 10-kHz steps
Other Area	531 - 1,602 kHz in 9-kHz steps
Sensitivity	32 dBμ
Signal-to-Noise Ratio	45 dB

• CD Player Section

Changer principle	6-disc MusicBank system
System	Compact Disc digital audio
Error Correction	CIRC Principle
Sampling Frequency	44.1 kHz
D/A Converter Type	1-bit D/A converter with 8-times oversampling digital filter
Frequency Response	20 - 20,000 Hz
Signal-to-Noise Ratio	Better than 85 dB
Dynamic Range	Better than 70 dB
Total Harmonic Distortion	0.03% (1 kHz)

• General

Power Source	14.4 VDC, negative ground (10.8 - 15.6 V allowable)
Current Consumption	7.0A (At rated power output)
Installation Dimensions (W x H x D)	
Without amp. block	178 (W) x 50 (H) x 159.5 (D) mmm
	7 (W) x 1-15/16 (H) x 6-1/4 (D) inches
With amp. block	178 (W) x 50 (H) x 179.5 (D) mm
	7 (W) x 1-15/16 (H) x 7-1/16 (D) inches

Outer Dimensions* (W x H x D)

Without amp. block	178 (W) x 46 (H) x 178 (D) mm
	7 (W) x 1-13/16 (H) x 7 (D) inches
With amp. block	178 (W) x 46 (H) x 198 (D) mm
	7 (W) x 1-13/16 (H) x 7-13/16 (D) inches

Mass

Main Unit	Approx. 1.4 kg/3 lbs. 1 oz.
Amp. block	Approx. 0 .2 kg/7 oz.

• Remote Control Unit

Principle	Infrared pulse system
Power Supply	3 VDC (1.5 V x 2)
Dimensions*	49 (W) x 26 (H) x 110 (D) mm
	1-15/16 (W) x 1 (H) x 4-5/16 (D) inches
Mass	Approx. 60 g/2 oz. (including batteries)

- Dimensions do not include protruding parts. Height is the panel height.
- Specifications and design are subject to change for further improvement without notice.
- MusicBank is a registered trademark of Nakamichi Corporation.

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Nakamichi America Corporation 955 Francisco St., Torrance, CA 90502 Phone: (310) 538-8150
Nakamichi Canada 276 South West, Marine Drive, Vancouver, B.C. V5X 2R4 Phone: (604) 324-7535

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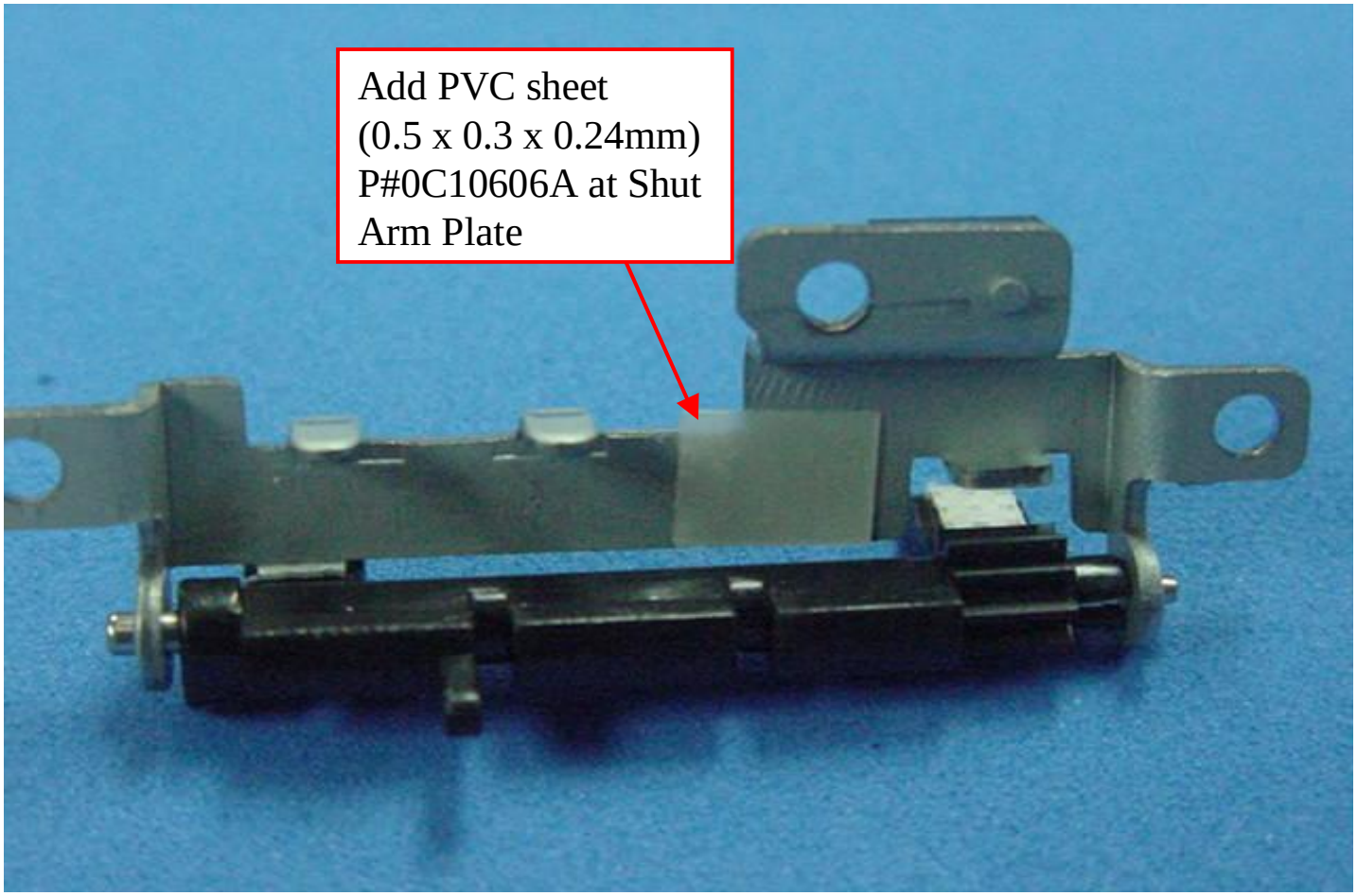
Nakamichi

Improvements of 6 Disc & CD-700 / CD-700II Mechanism

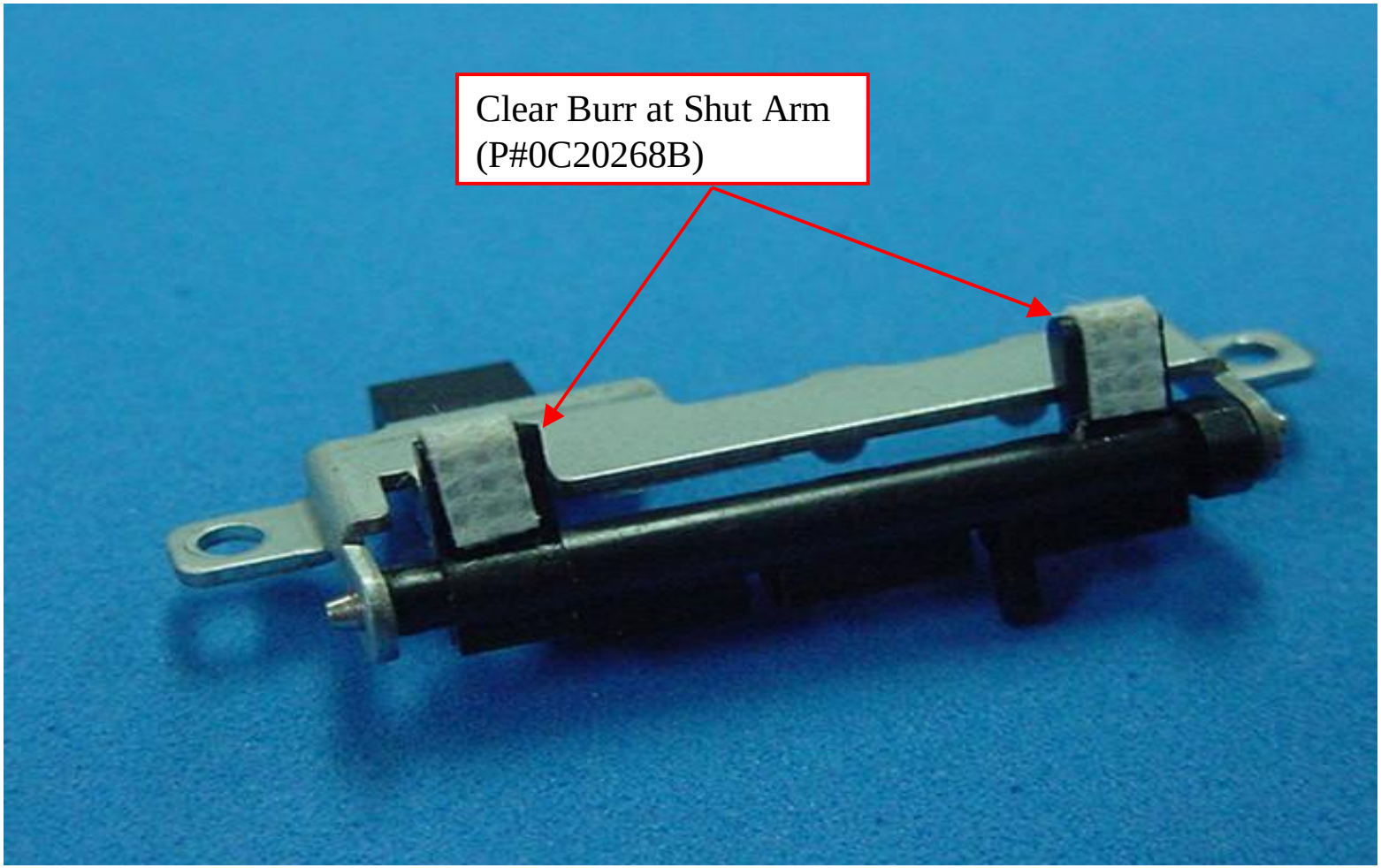
Nakamichi

1(i) Prevent CD Auto Eject: Shutter sensor is not activated properly (Loading Ass'y)



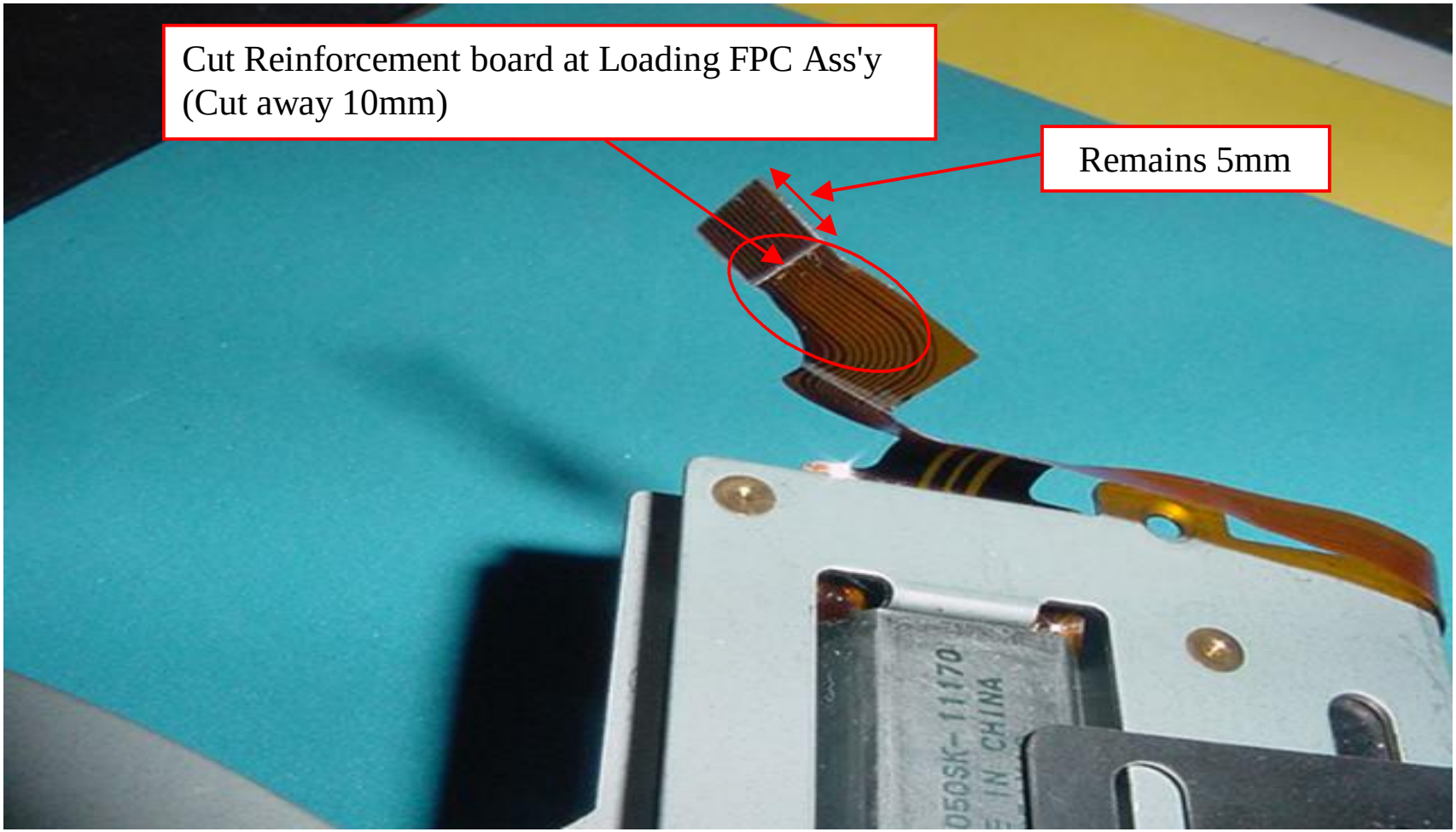
Nakamichi

1(ii) Prevent CD Auto Eject: Shutter sensor is not activated properly (Loading Ass'y)

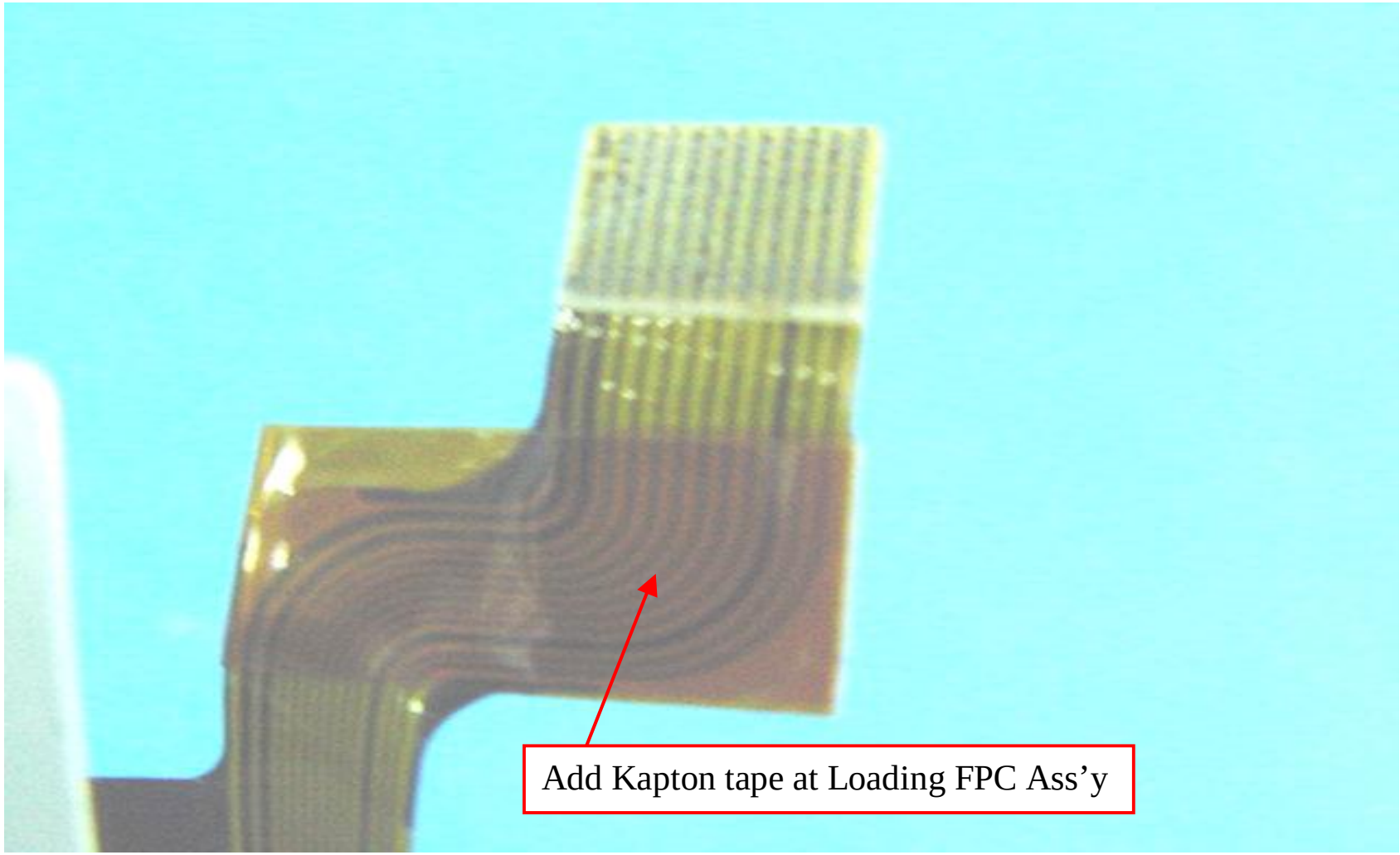


2(i) Prevent E-mecha: bad solder joint due to insertion force at CN107 (Main PCB Ass'y)

Resolder or replace CN107 for repair



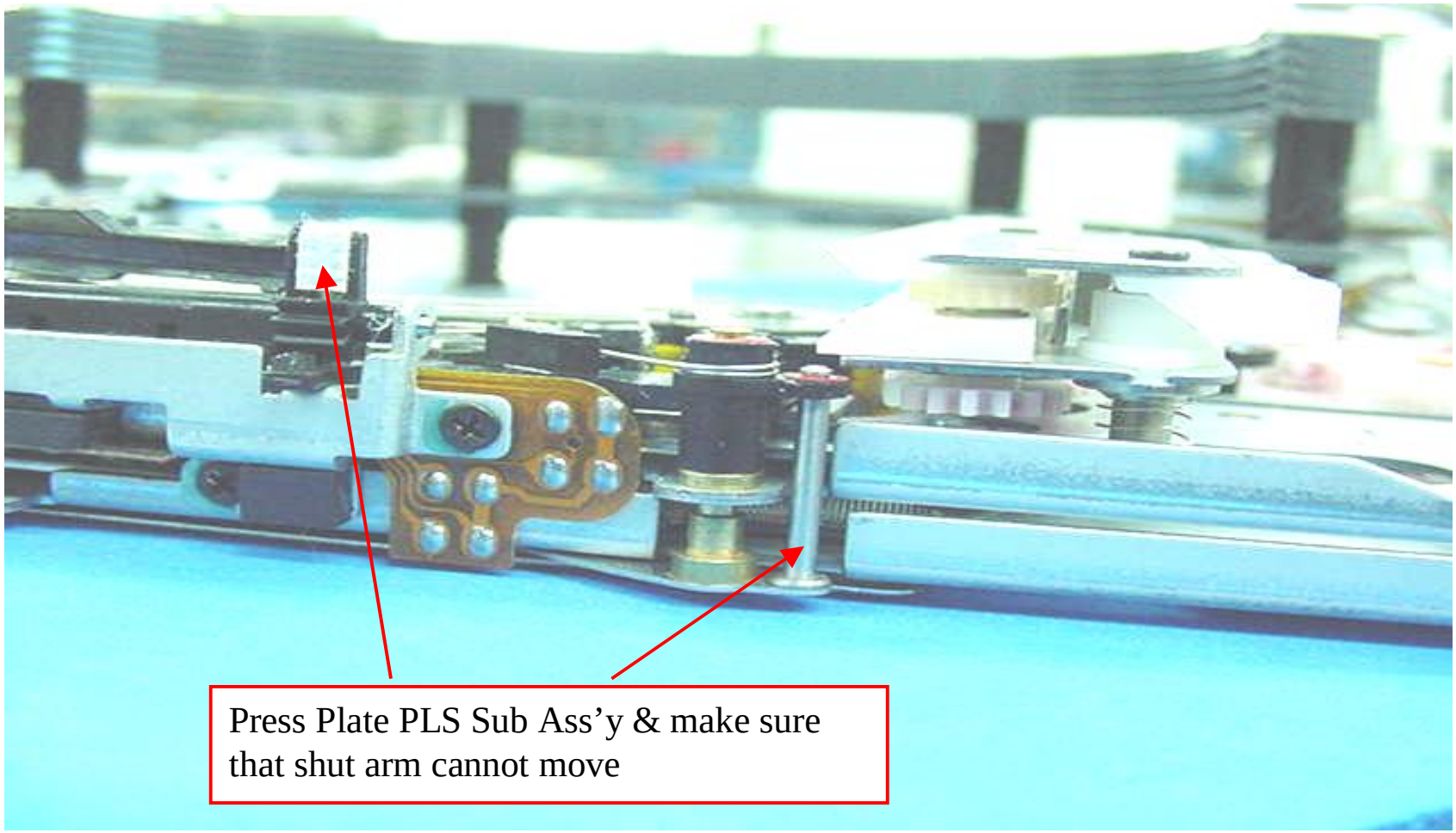
2(ii) Strengthen Loading FPC Ass'y (Loading Ass'y)



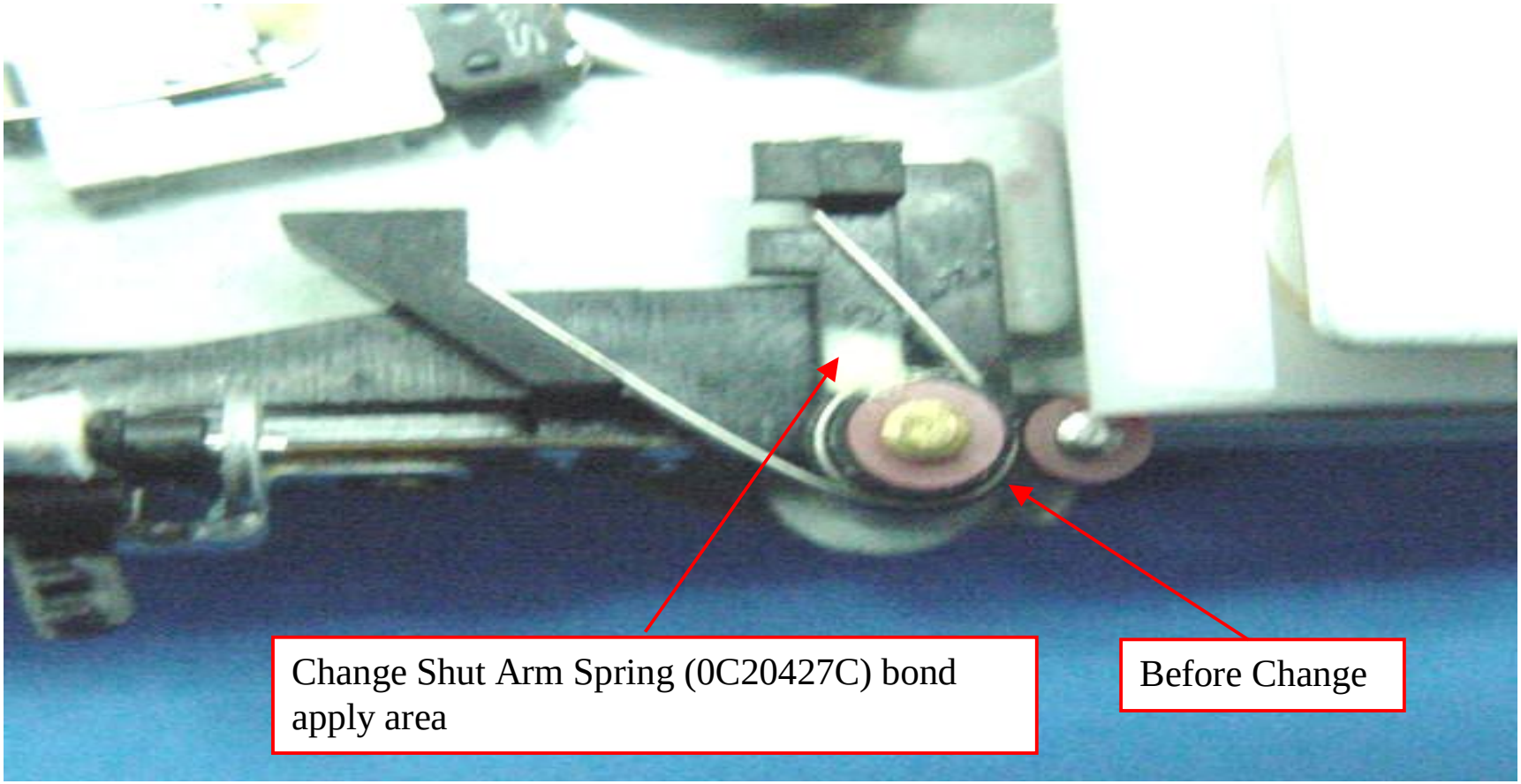
3(i) Prevent E-mecha: loading CAM Mechanism jamming (Loading Ass'y)

If it moves, check if the 3 teeth of the shut arm rack comes out when shut arm is in vertical position.

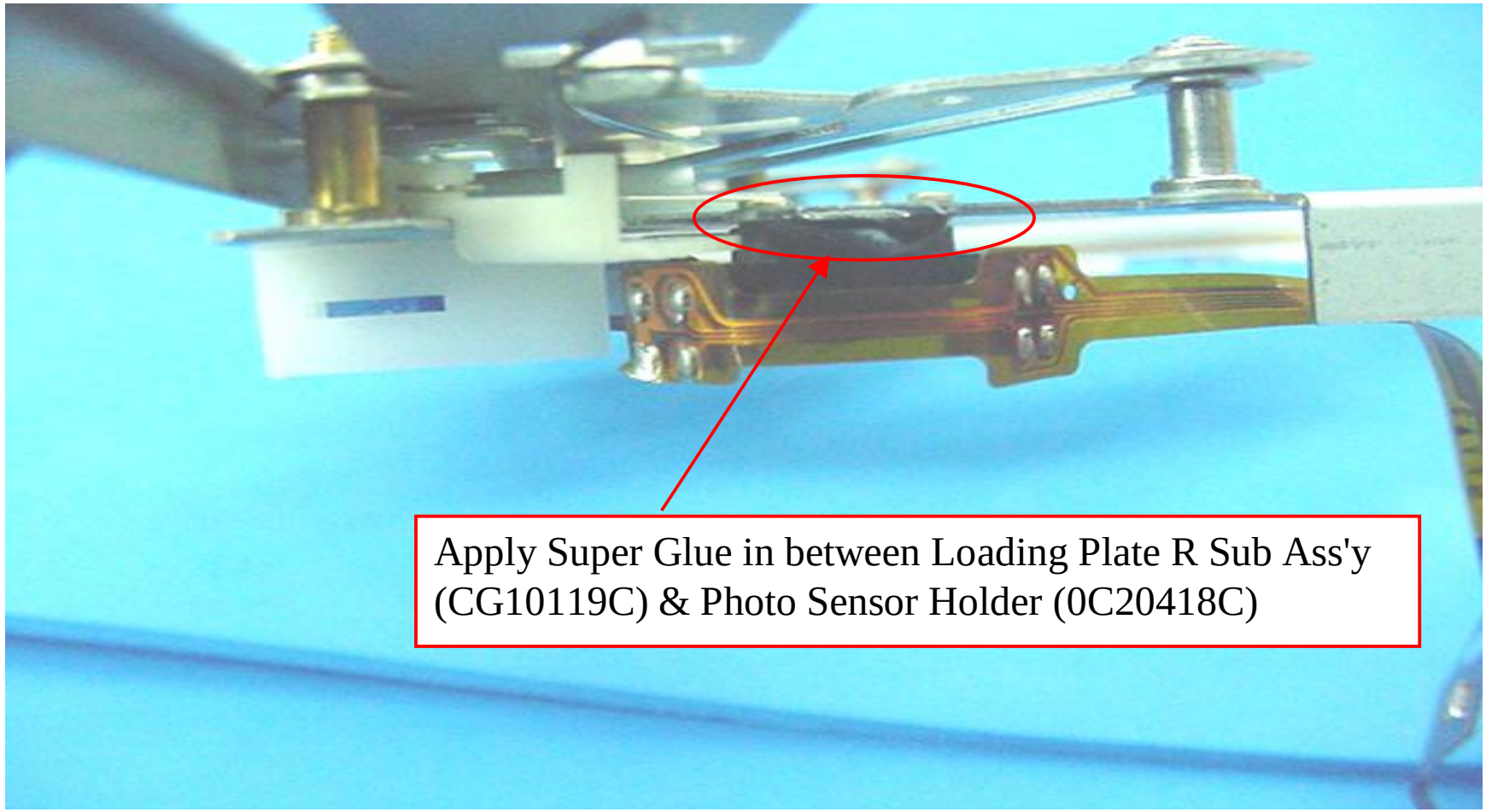
If no, re-adjust the shut arm.



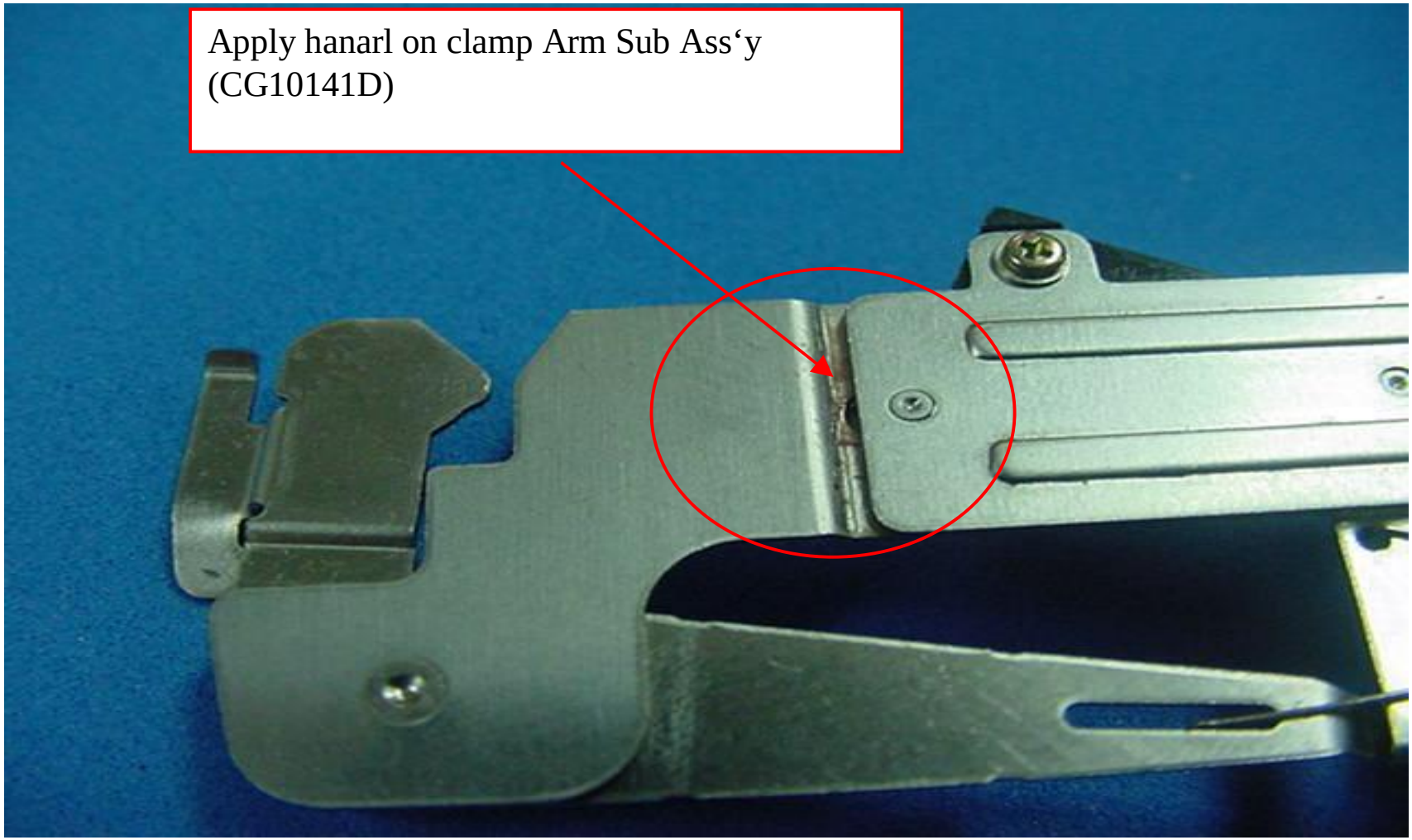
3(ii) Prevent E-mecha: shut arm movement not smooth (Loading Ass'y)



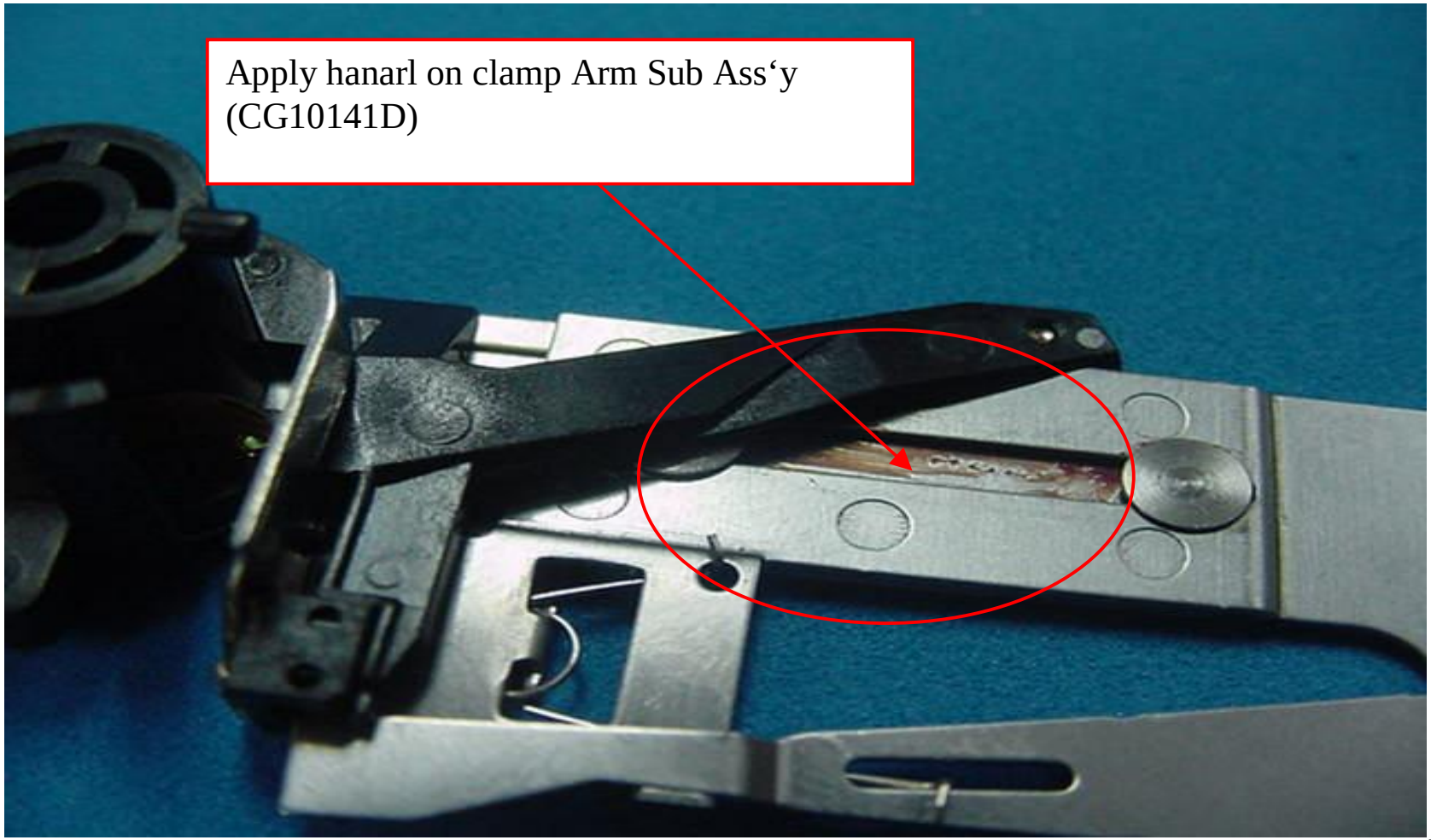
3(iii) Prevent E-mecha: loading CAM Mechanism jamming (Loading Ass'y) (6 Disc Mechanism)



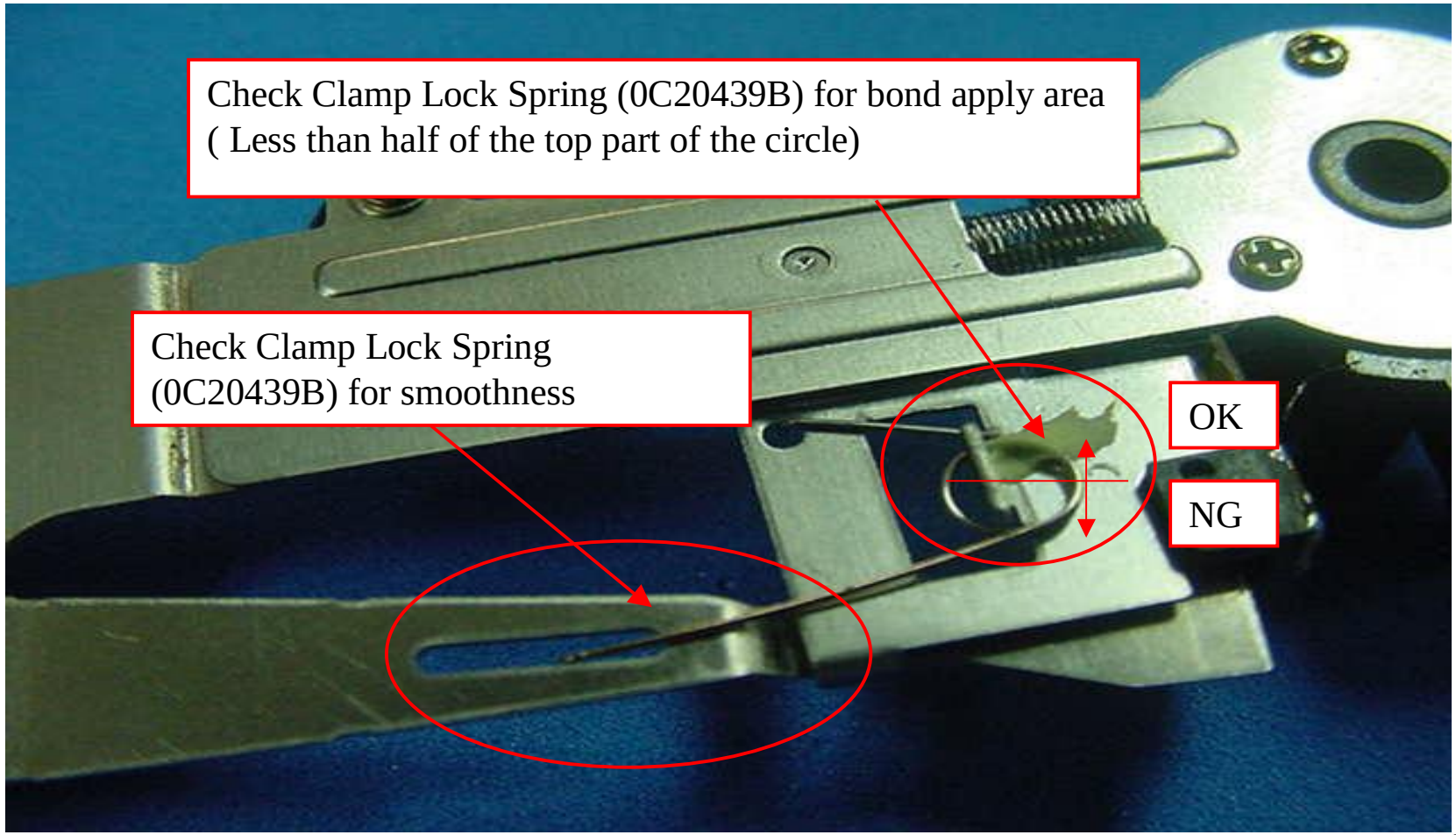
4(i) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)



4(ii) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)

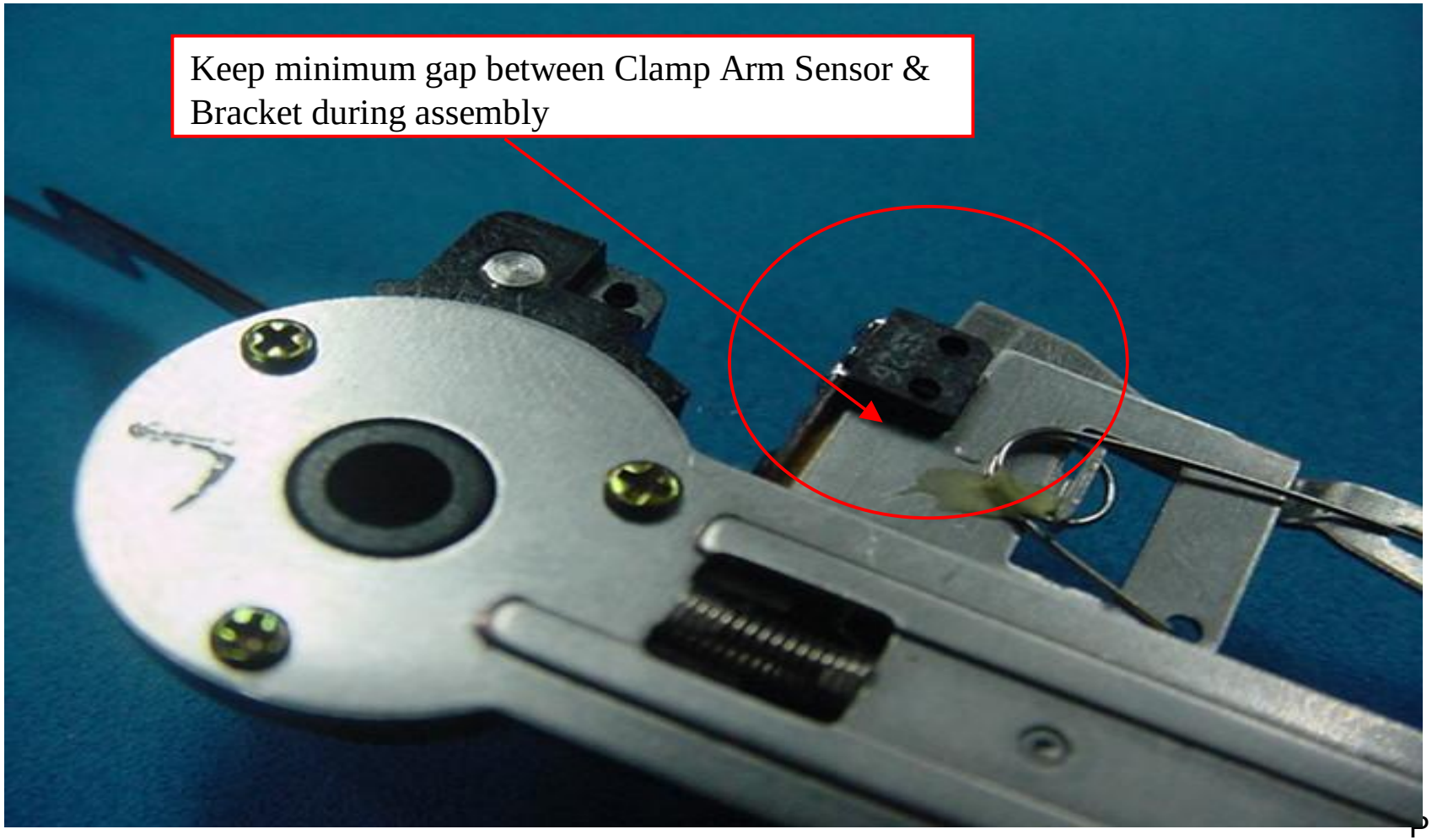


4(iii) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)

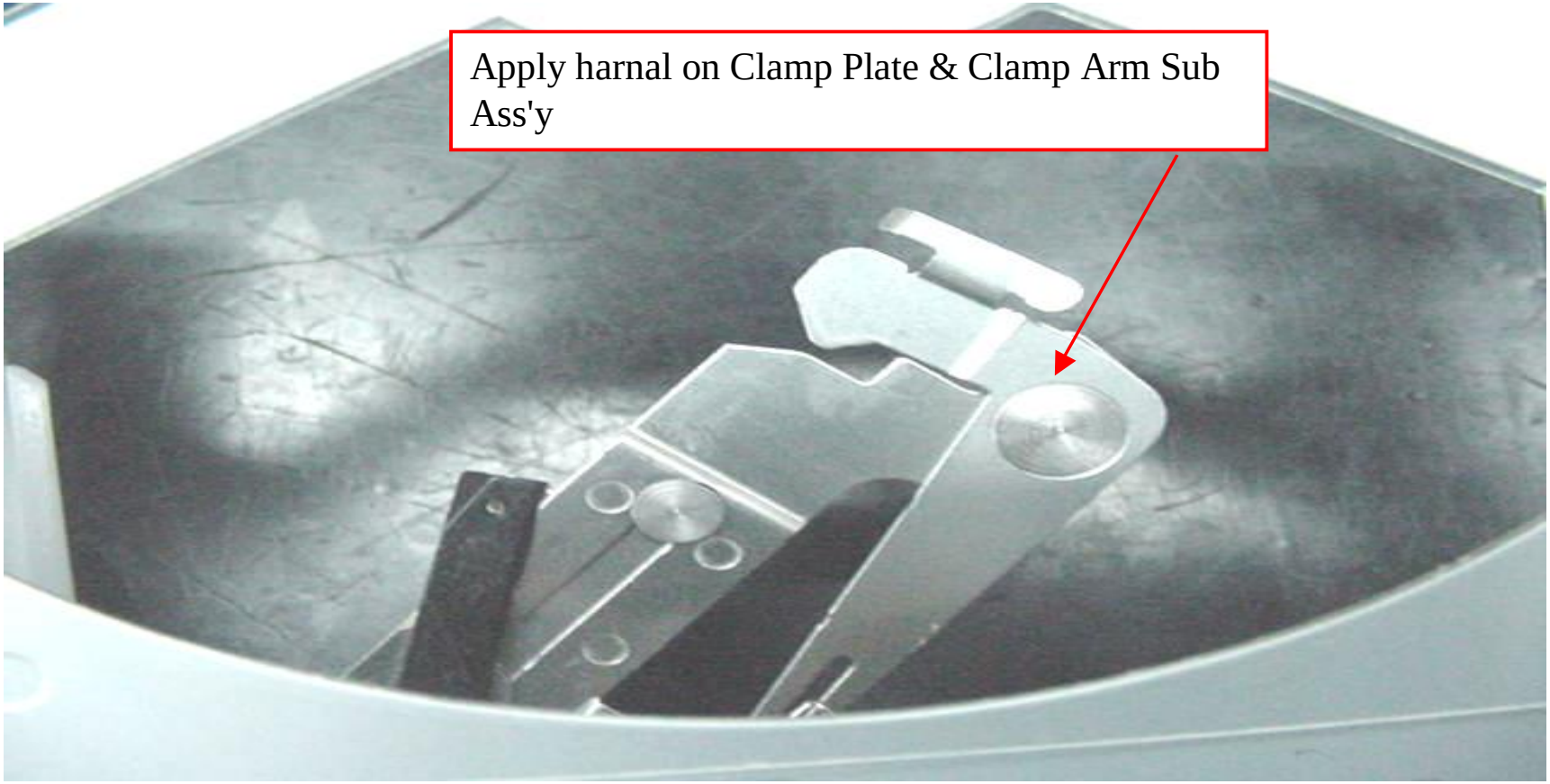


4(iv) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)

Change clamp arm sensor if the gap is too big.



4(v) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)

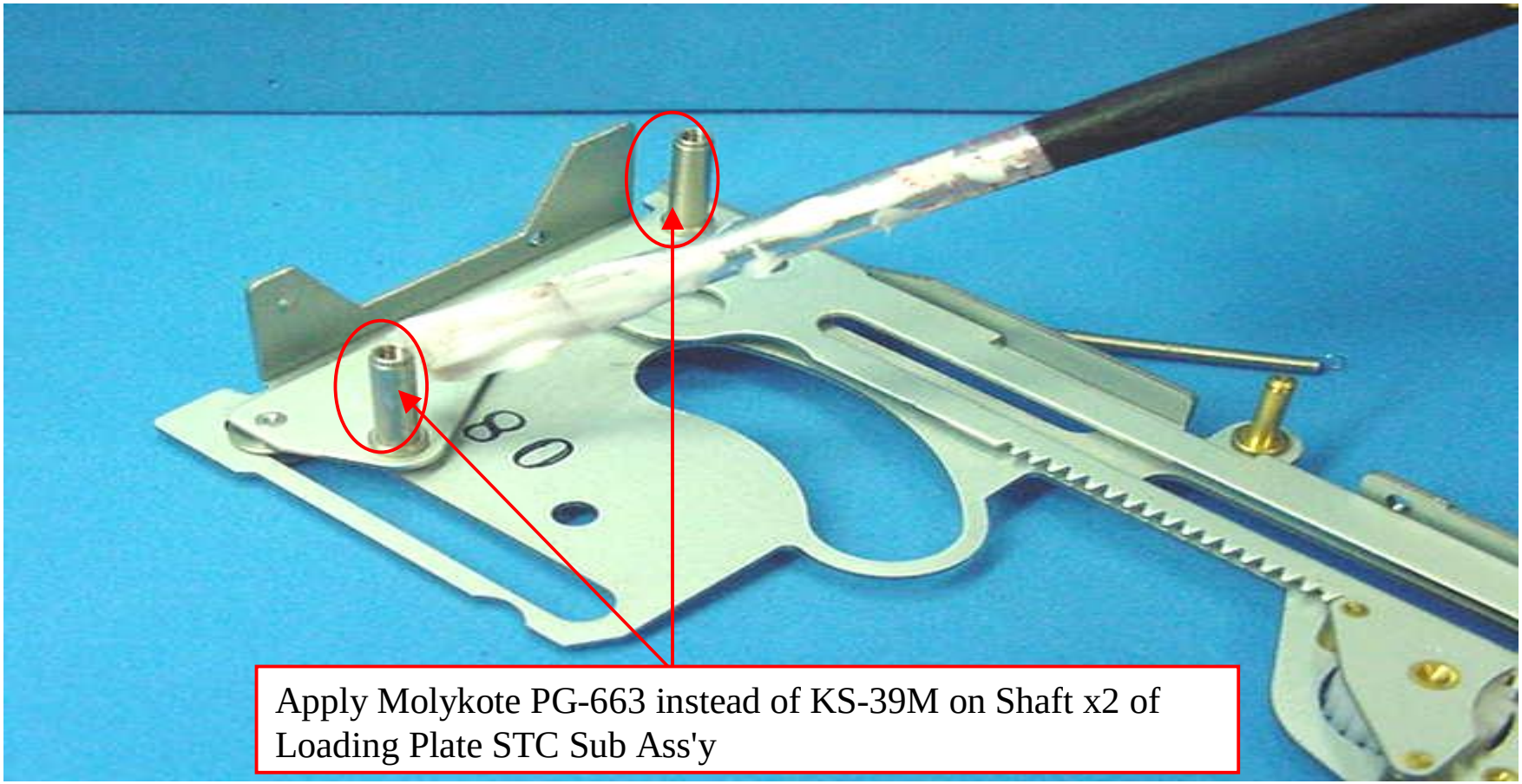


4(vi) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)

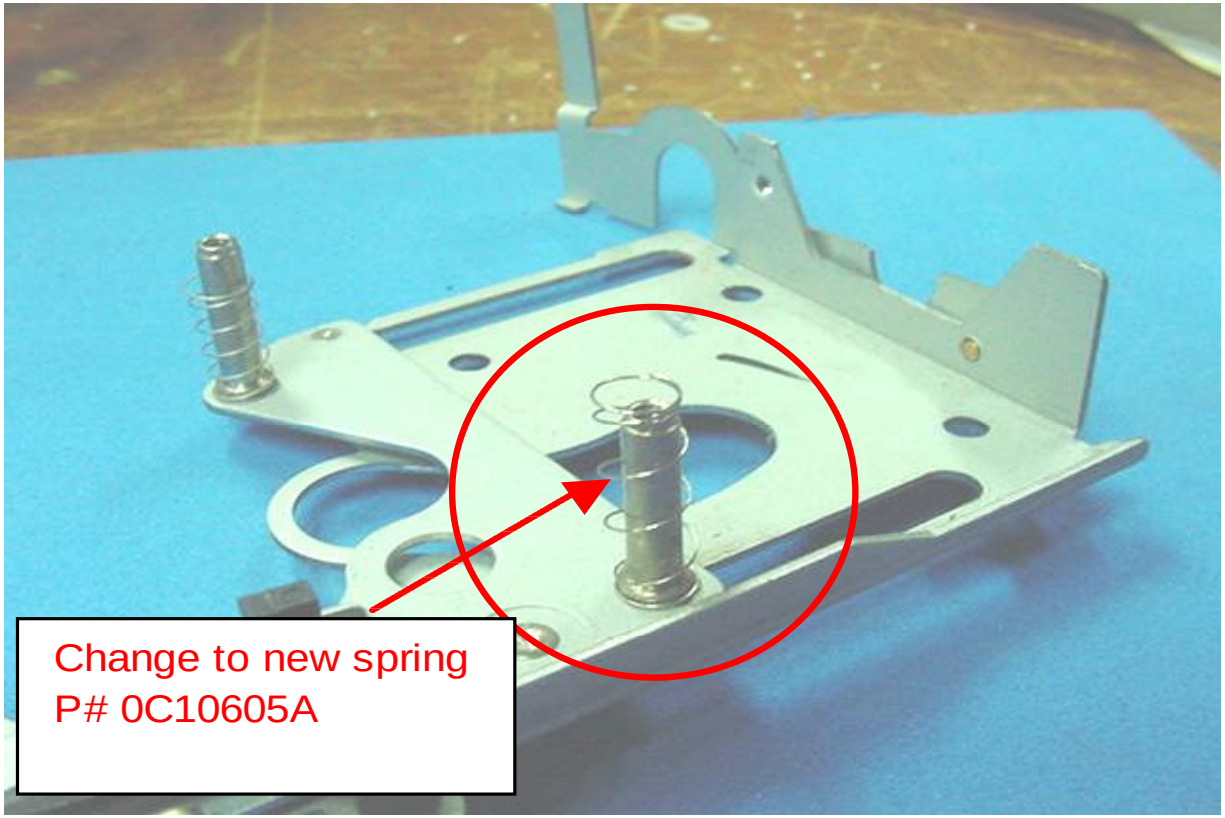
4(vii) Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y)

5(i) Prevent E-mecha: loading guides does not hold disc correctly when closed
(Loading guide Ass'y)

5(ii) Prevent E-mecha: loading guides does not hold disc correctly when closed
(Loading guide Ass'y)

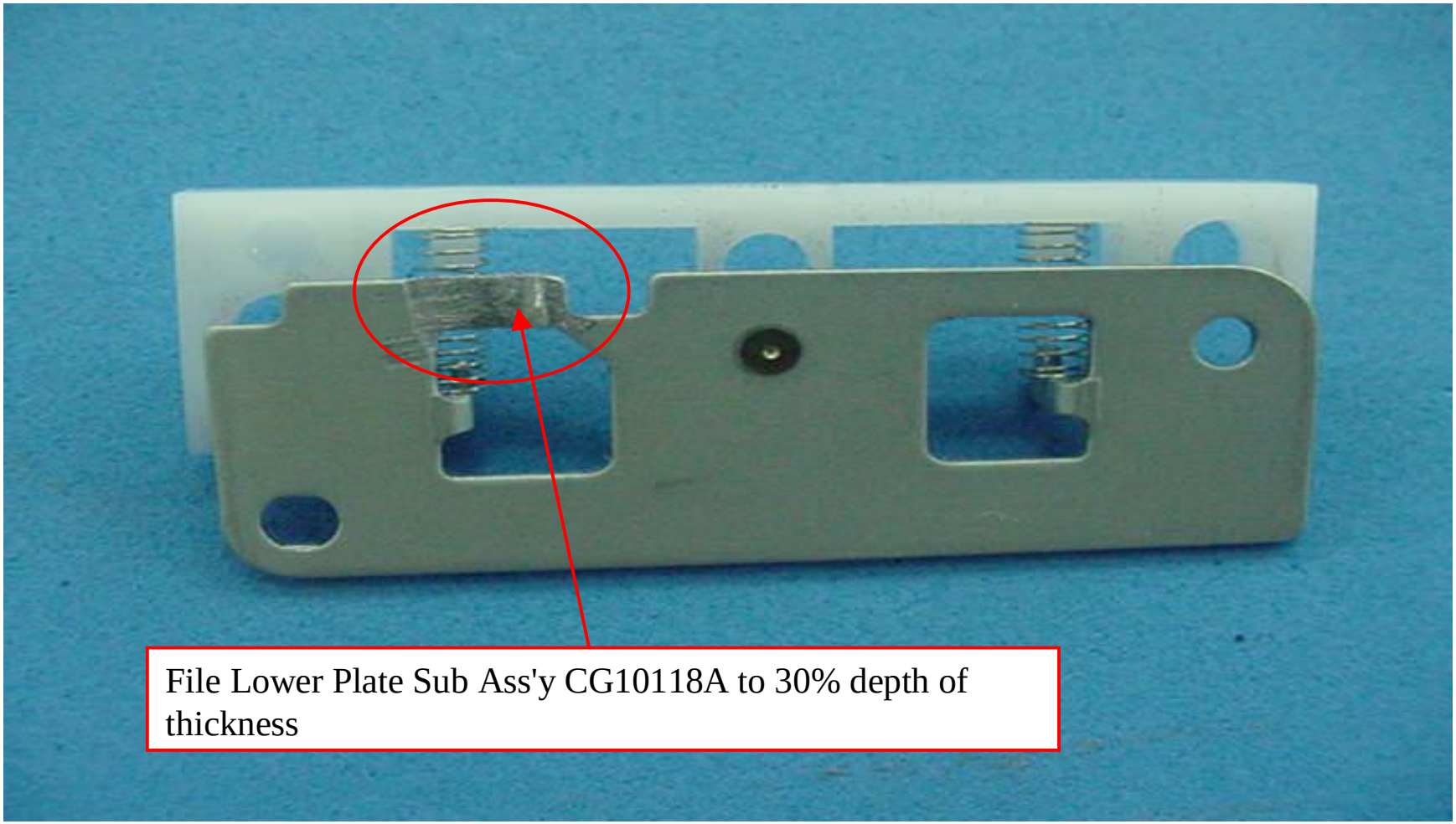


5(iii) Prevent E-mecha: loading guides does not hold disc correctly when closed
(Loading guide Ass'y)

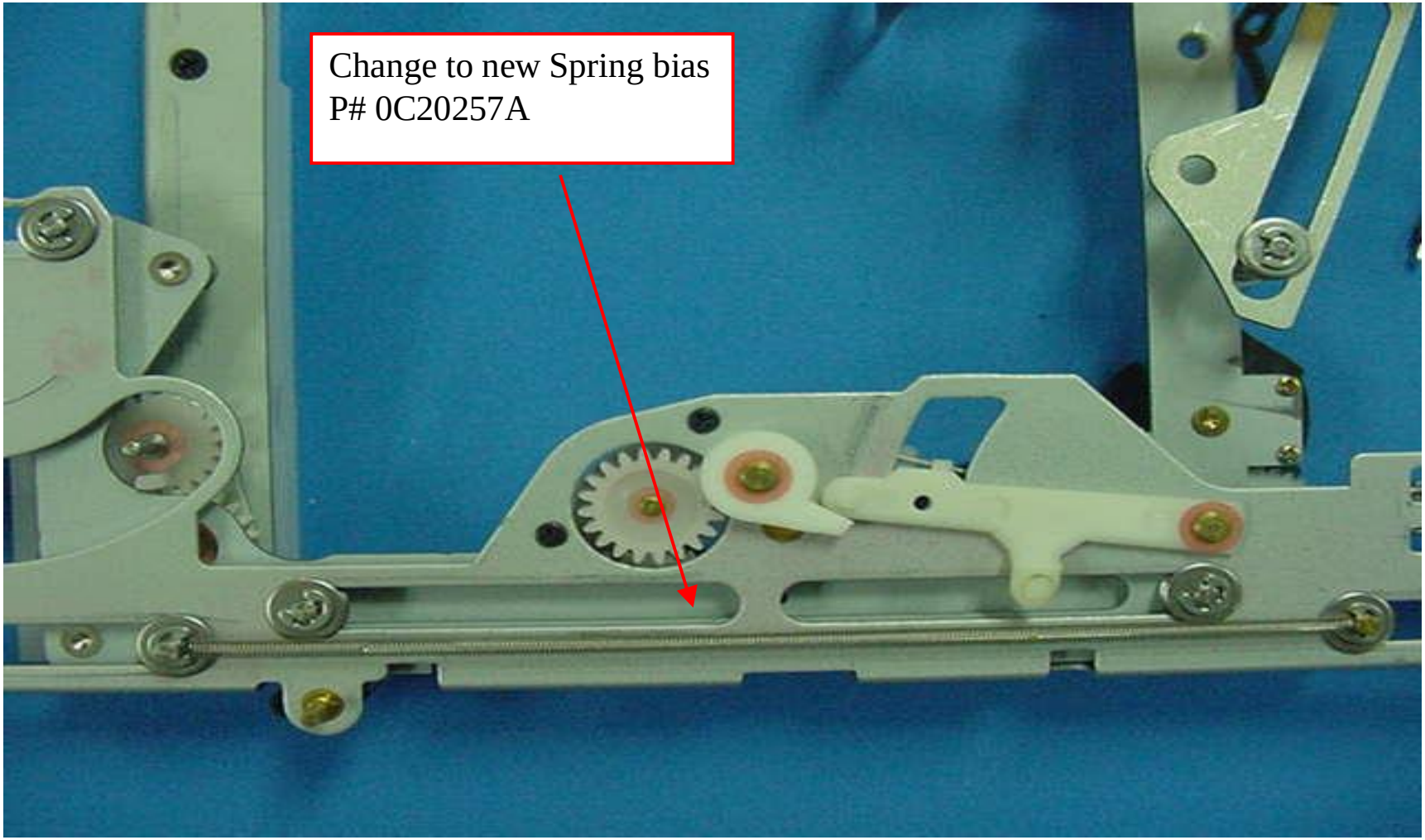


5(iv) Prevent E-mecha: lower plate sub ass'y may touch to traverse vertical screw during disc change (Loading guide Ass'y)

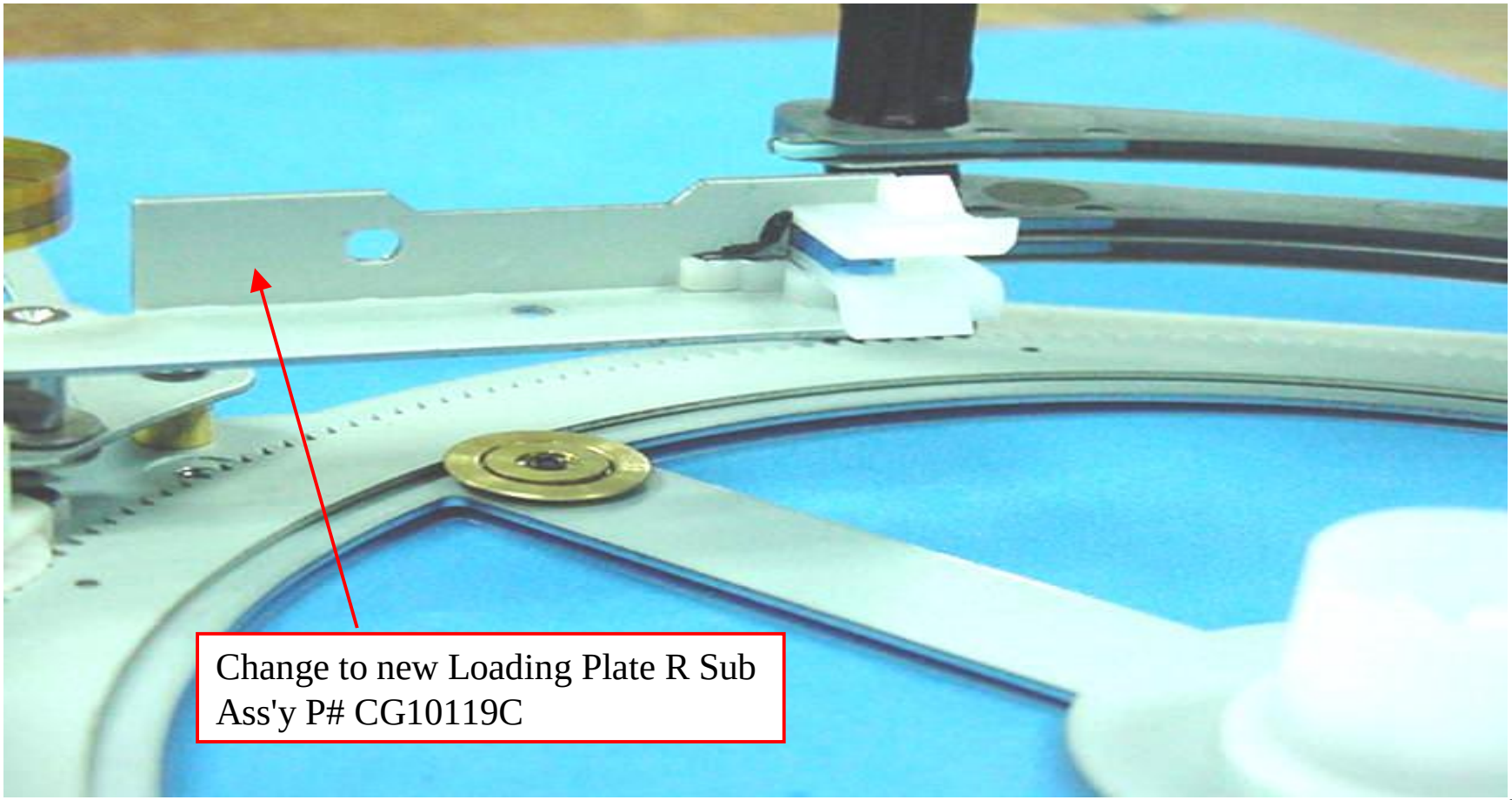
Change to modified spare part



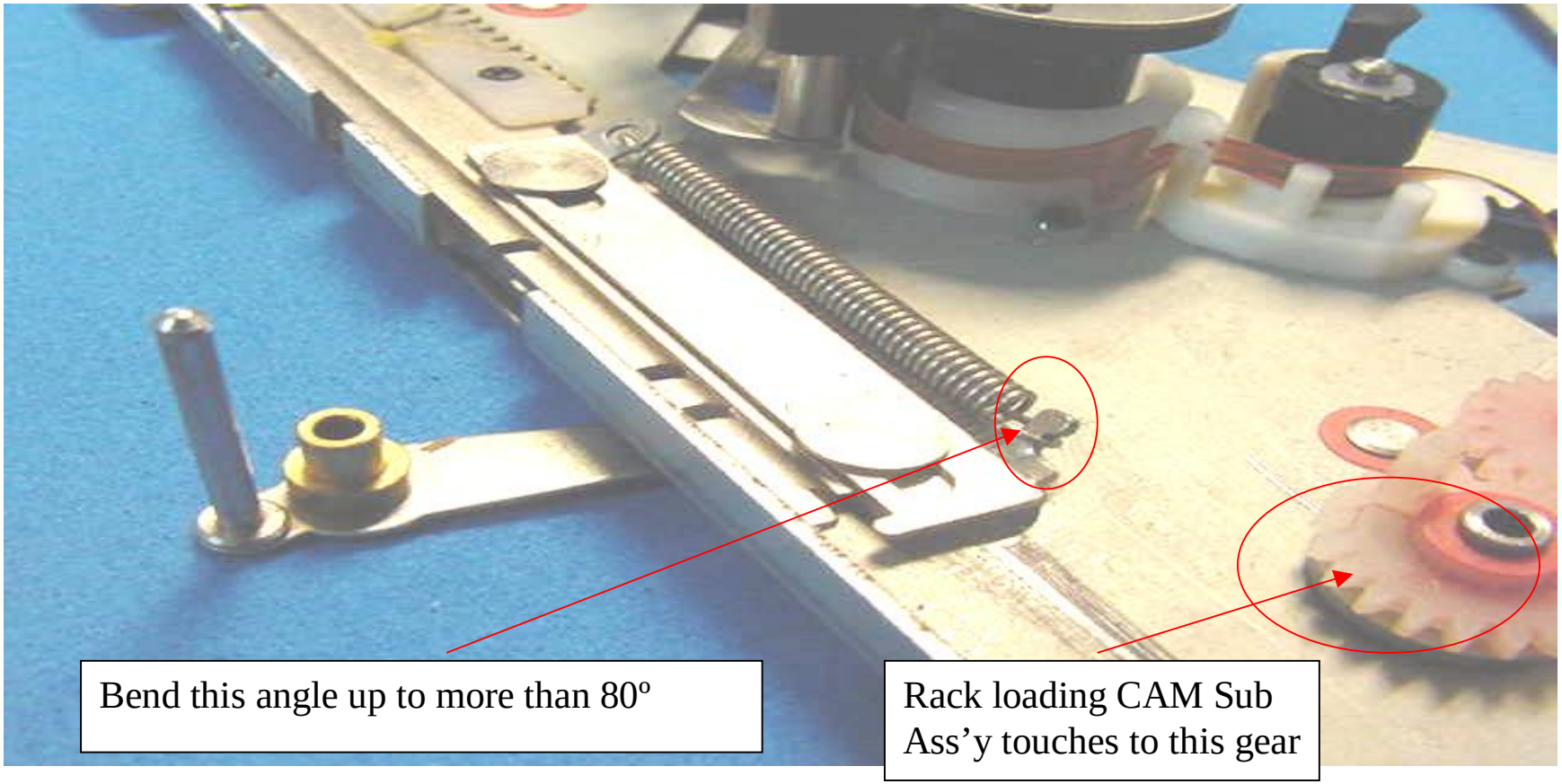
6 Improve 8cm Disc Eject: 8cm Disc does not eject (Loading guide Ass'y)



7 Prevent E-mecha: loading guide R touches to lock guide top (Loading Guide Ass'y)

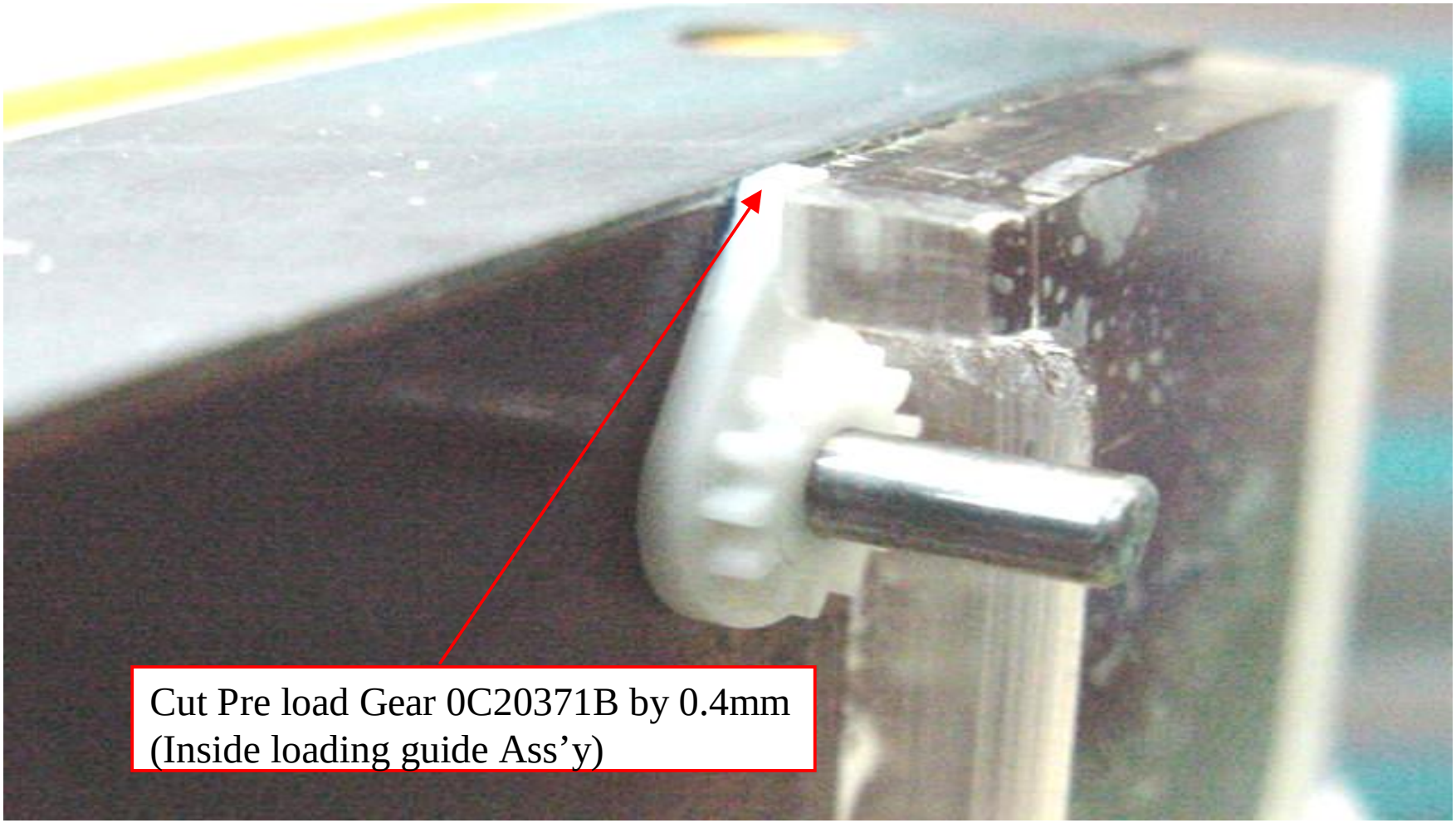


8 Prevent E-mecha: loading guide jamming (Loading Guide Ass'y)

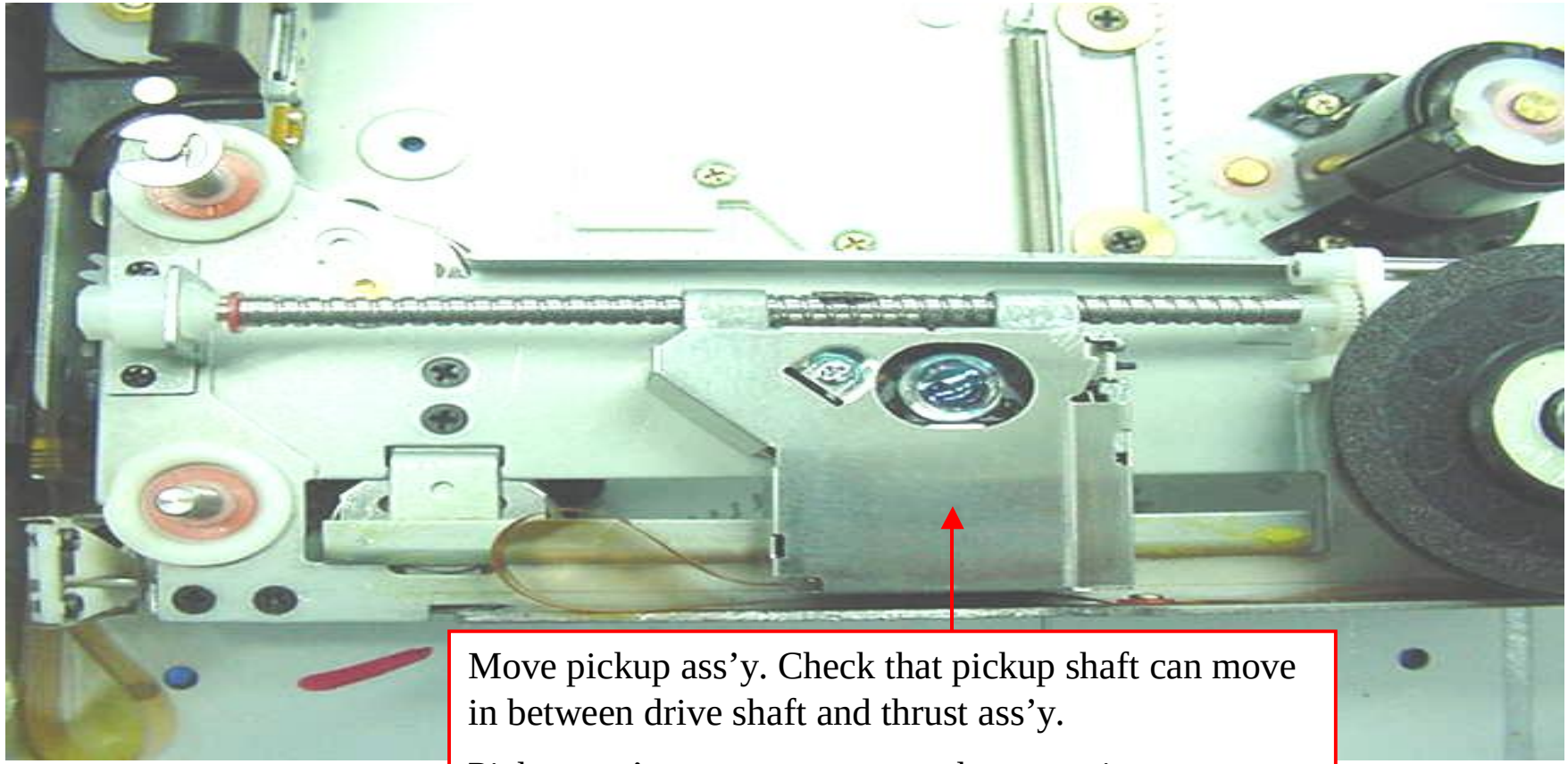


9 Prevent E-mecha: eject jamming (Loading Guide Ass'y)

Change to modified spare part



10(i) Prevent CD skip: CD skip (Traverse Mecha Chassis Ass'y)
Change traverse mecha chassis ass'y if pickup ass'y moves



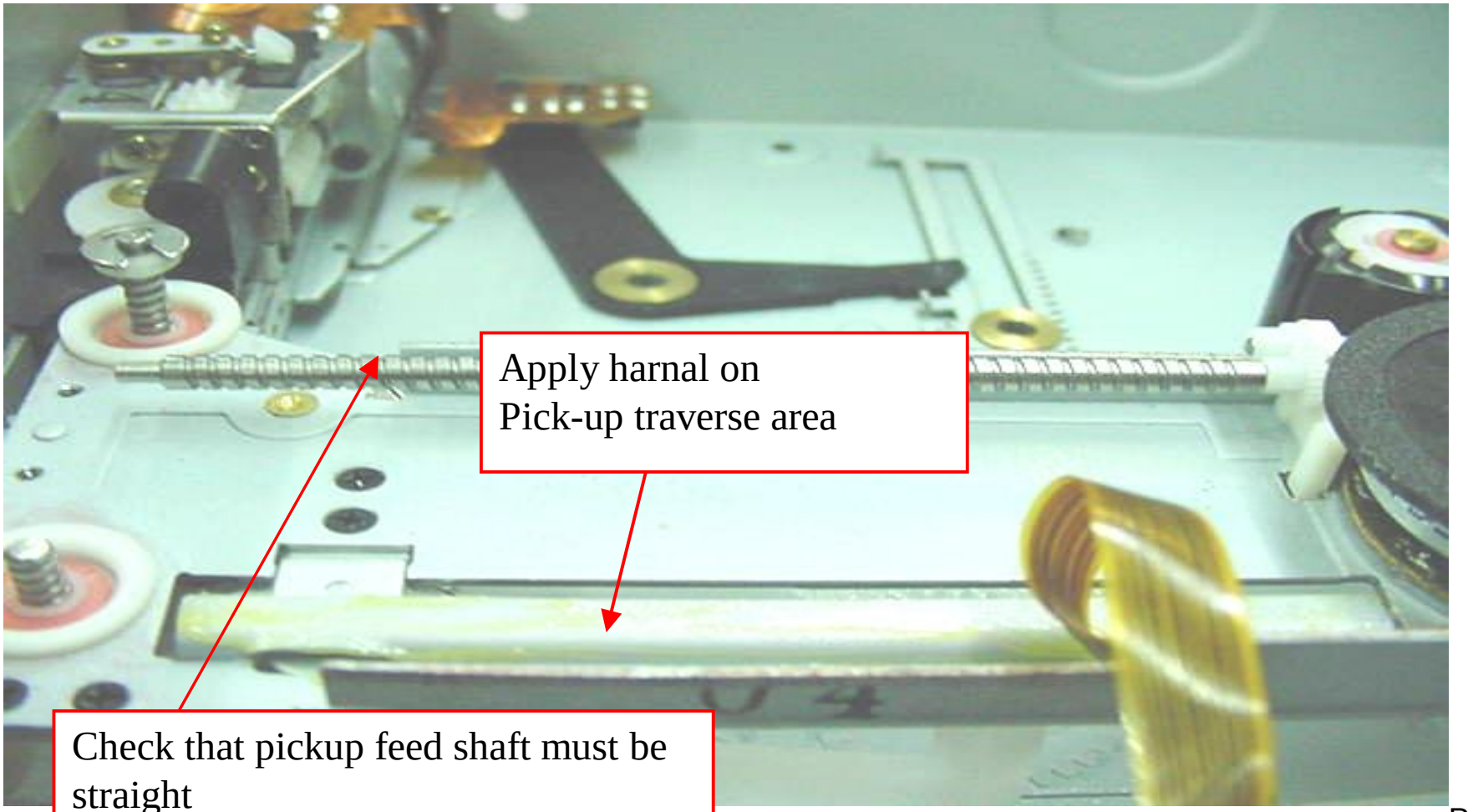
Move pickup ass'y. Check that pickup shaft can move in between drive shaft and thrust ass'y.

Pickup ass'y must not move at the same time

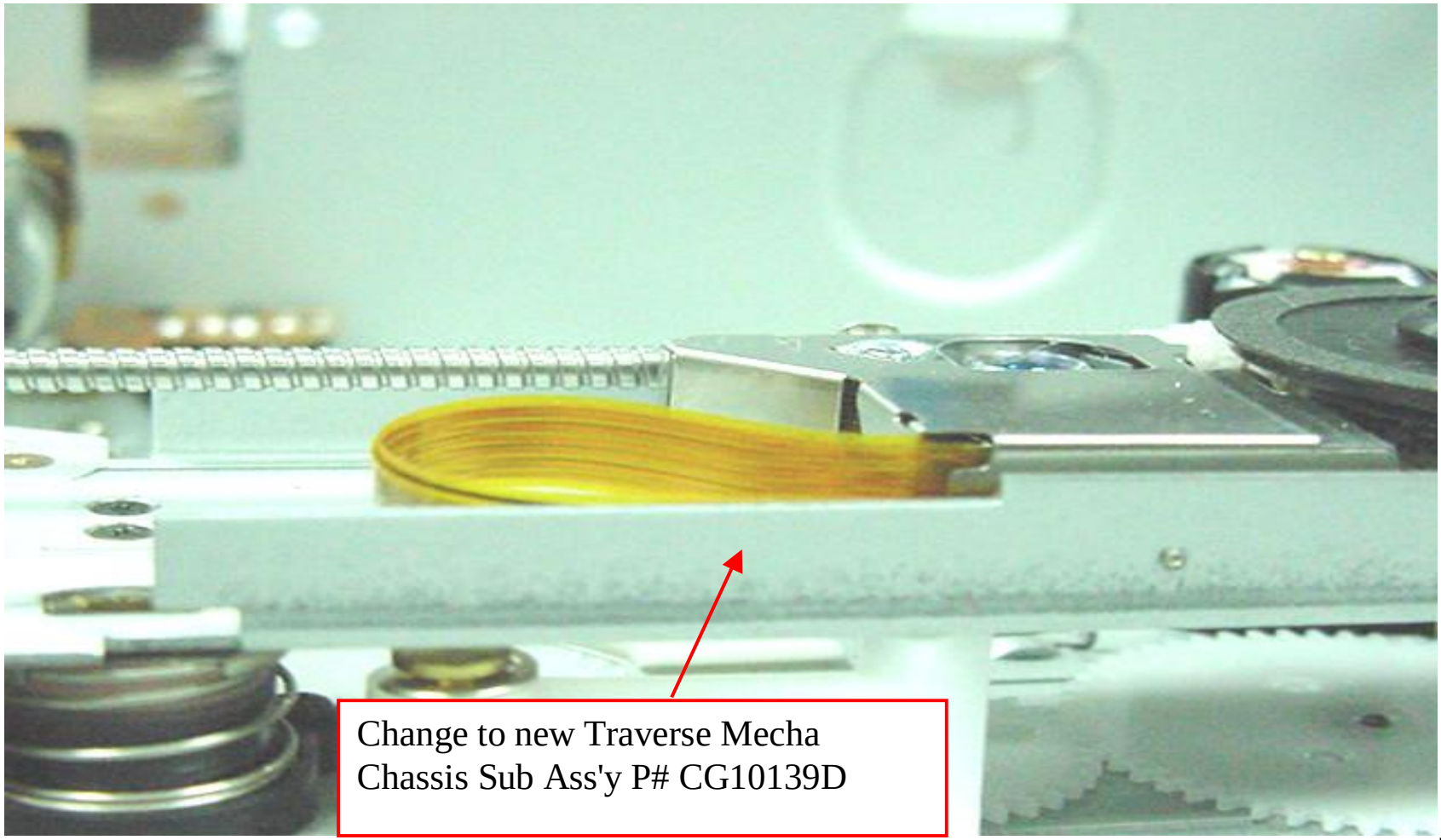
10(ii) Prevent CD skip: CD skip at low temperature
(Traverse Mecha Chassis Ass’y)
When fixing Pickup Feed Shaft into Drive Shaft Guide Ass'y, make sure the Pickup feed shaft must be straight

10(iii) Prevent CD skip: CD skip at low temperature
(Traverse Mecha Chassis Ass’y)
Apply “Harnal” on the top & bottom of Traverse Mecha Sub Ass'y (pick up traverse area)

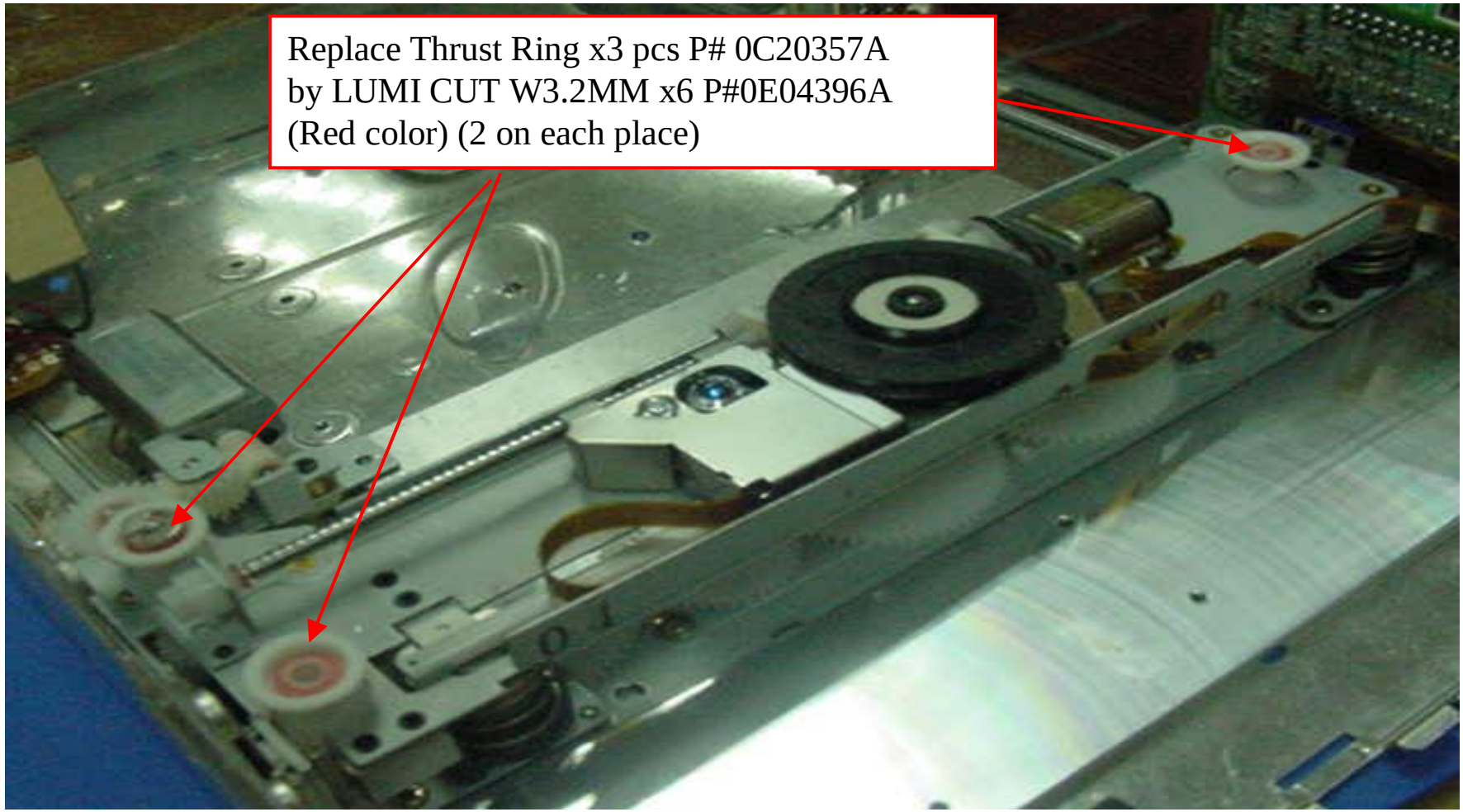
10(ii) & 10(iii) Prevent CD skip: CD skip at low temperature (Traverse Mecha Chassis Ass'y)



11 Prevent E-mecha: loading guide L touches to traverse mecha chassis ass'y (Traverse Mecha Chassis Ass'y)

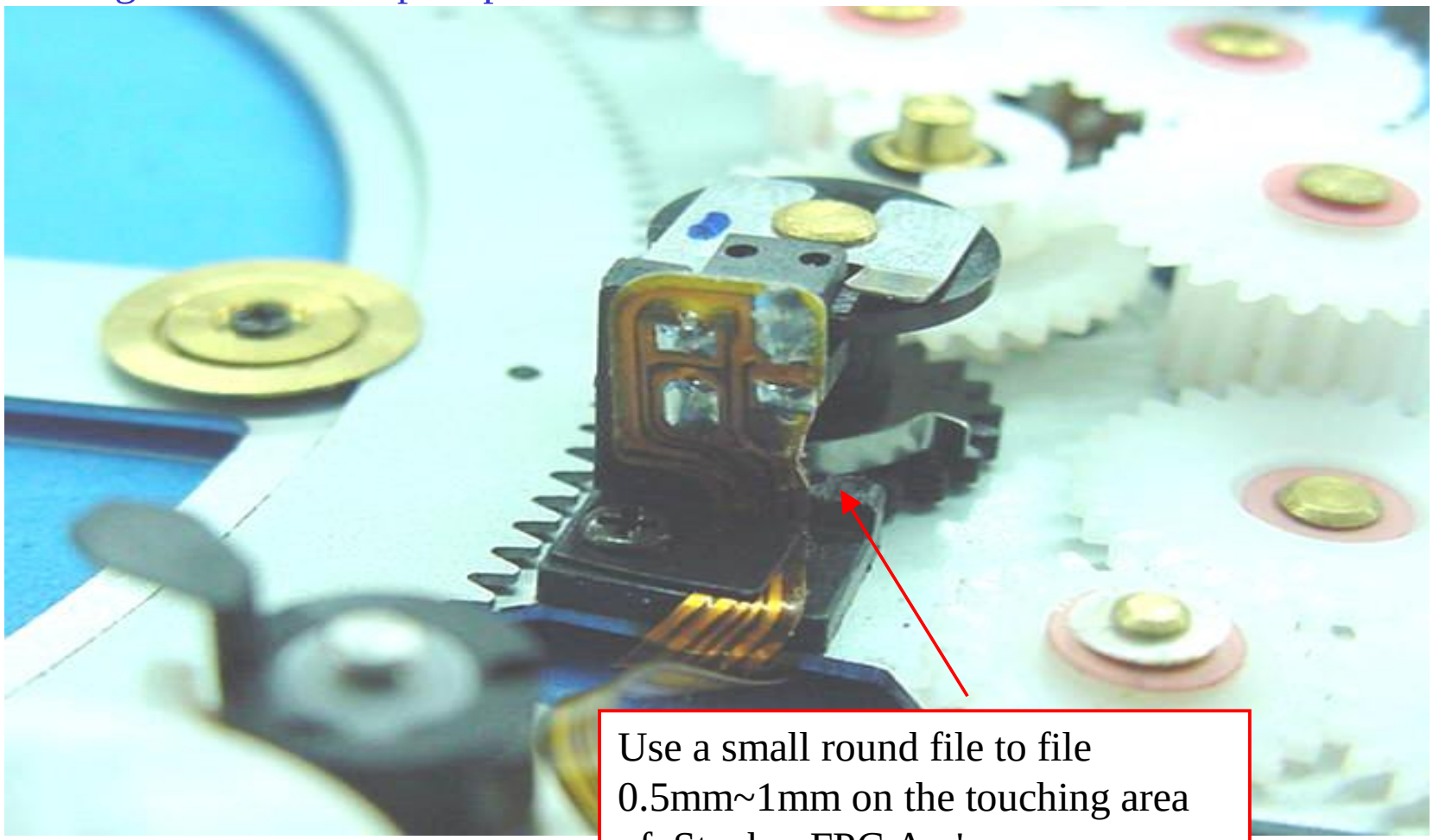


12 Prevent E-mecha: Thrust ring comes out when traverse mechanism moves up & down (Traverse Mecha Chassis Ass'y)

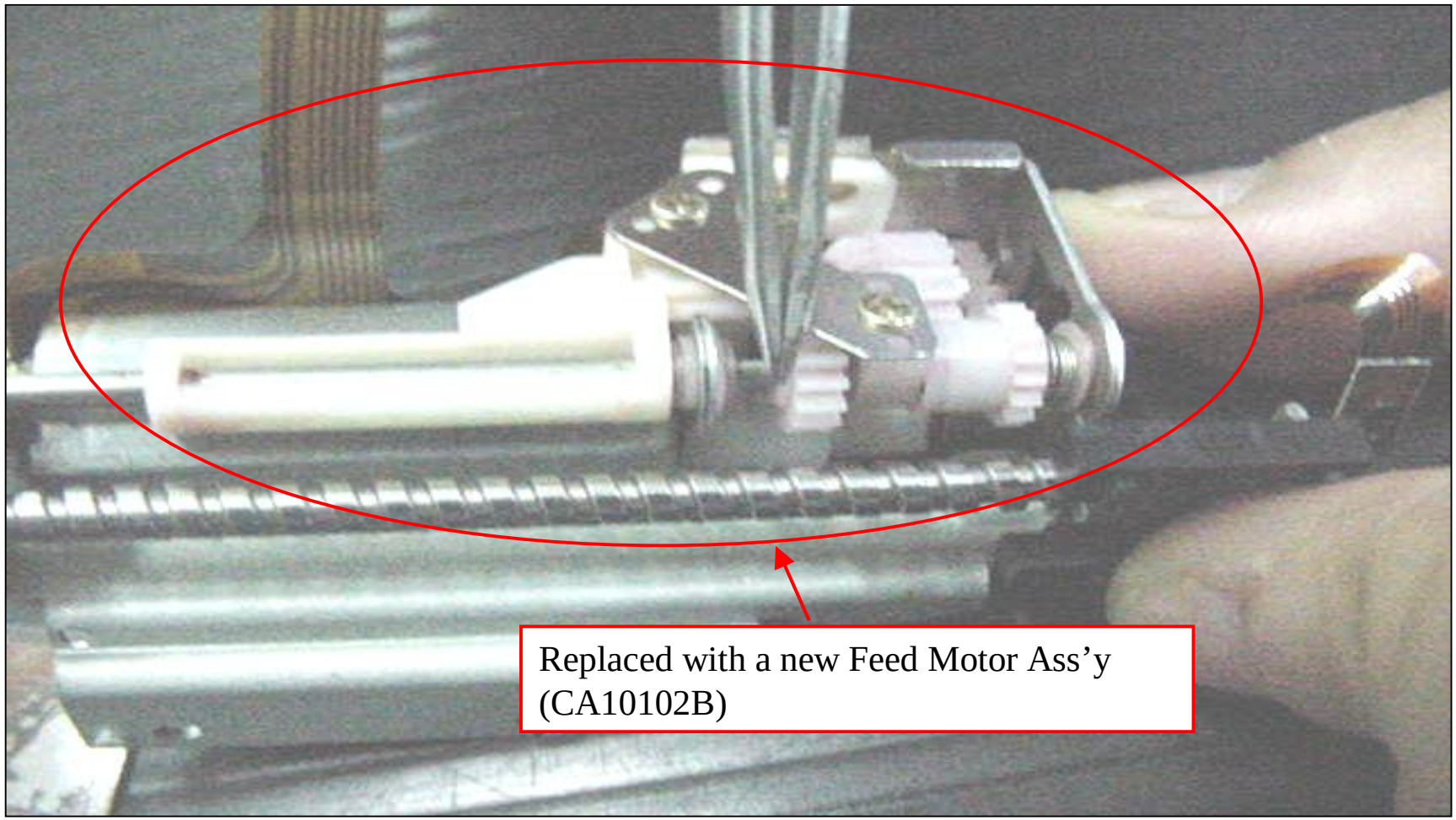


13 Prevent E-mecha: stocker FPC ass'y touches with loading roller guide ass'y (Loading Chassis Ass'y)
(6 Disc mechanism only)

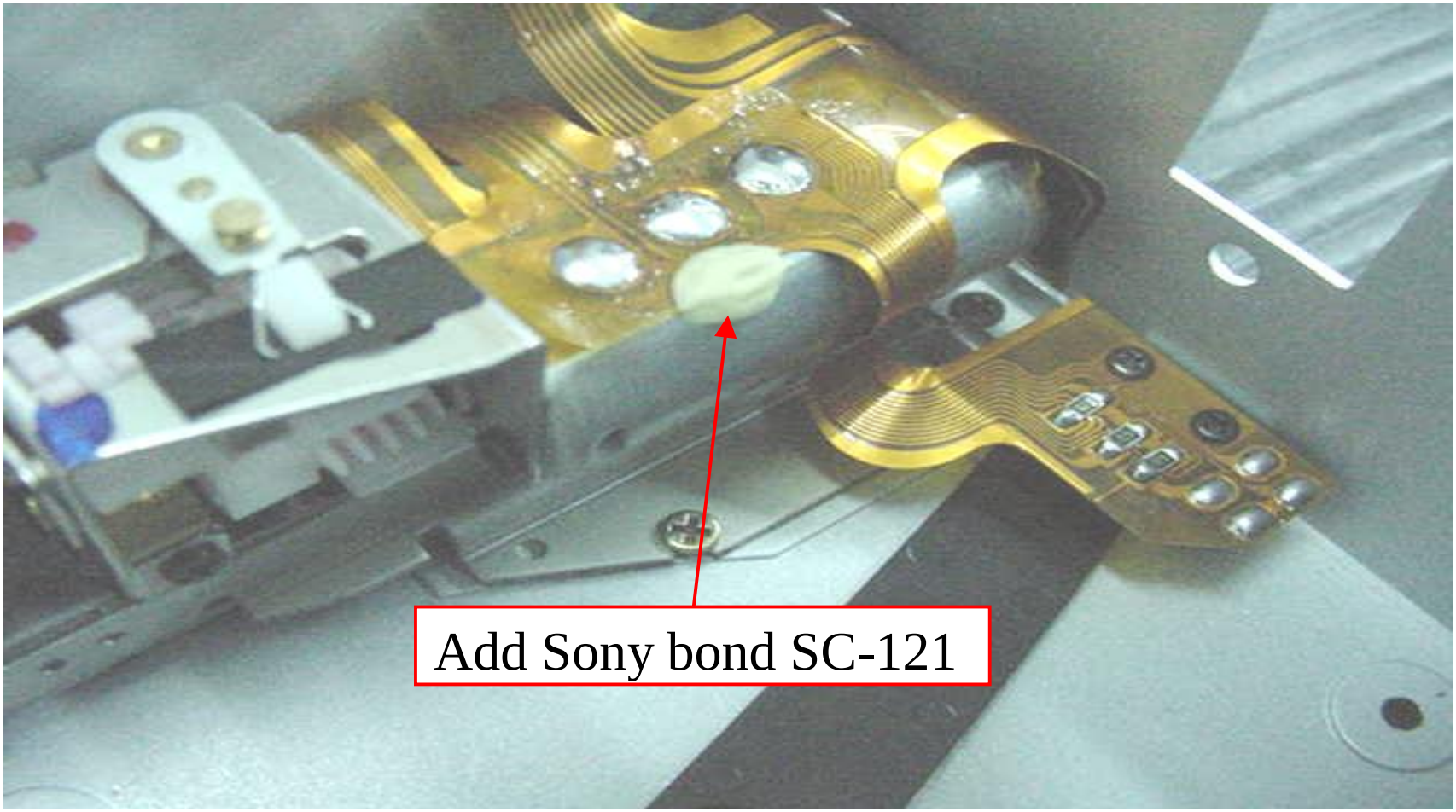
Change to modified spare part



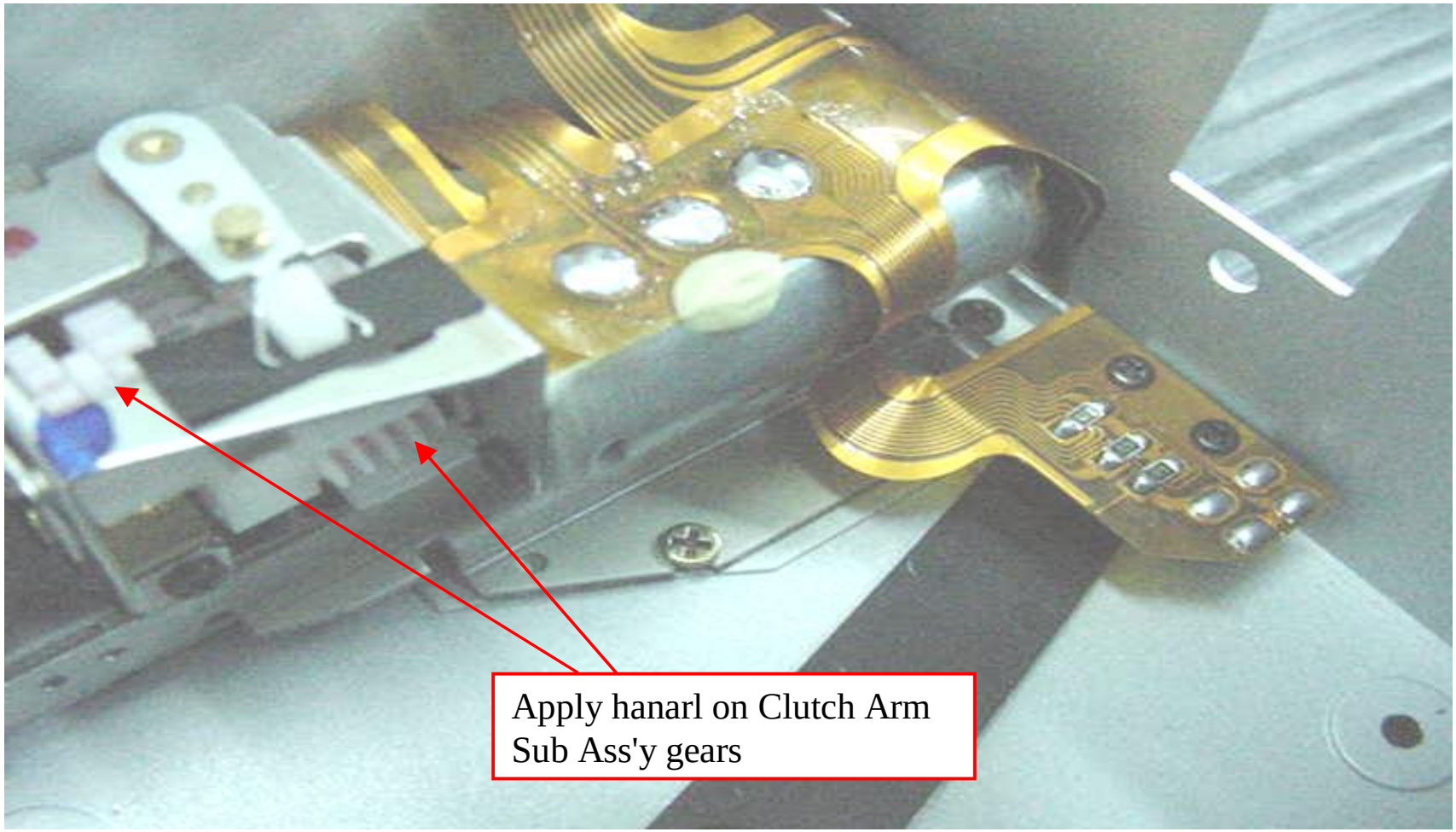
14(i) Prevent E-mecha: Gear damage (Feed motor Ass'y) (6 Disc mechanism only)



14(ii) Prevent E-mecha: Gear damage (Feed motor Ass'y) (6 Disc mechanism only)



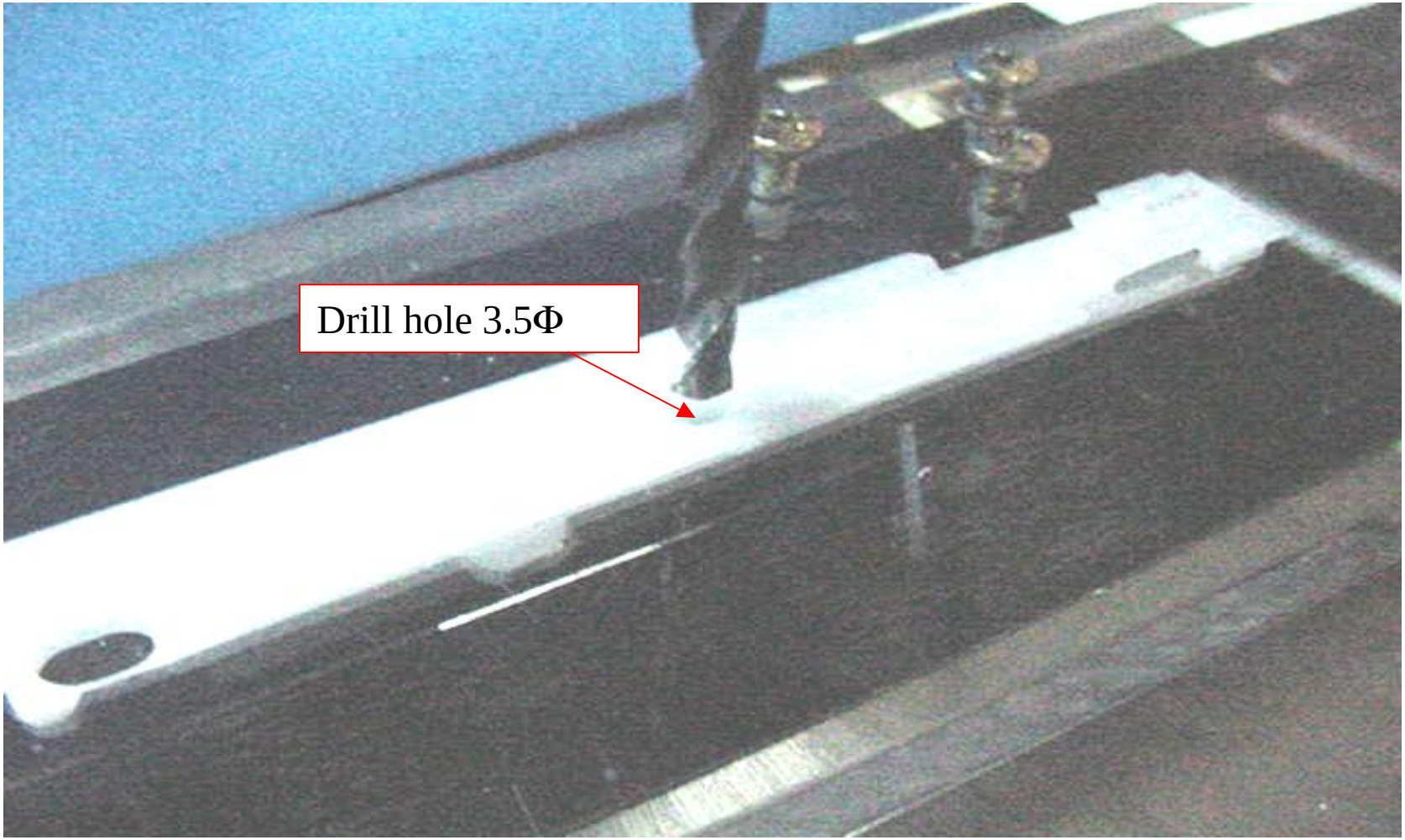
15 Prevent E-mecha: clamper arm does not catch clamp plate (Clamper Ass'y) (6 Disc mechanism only)



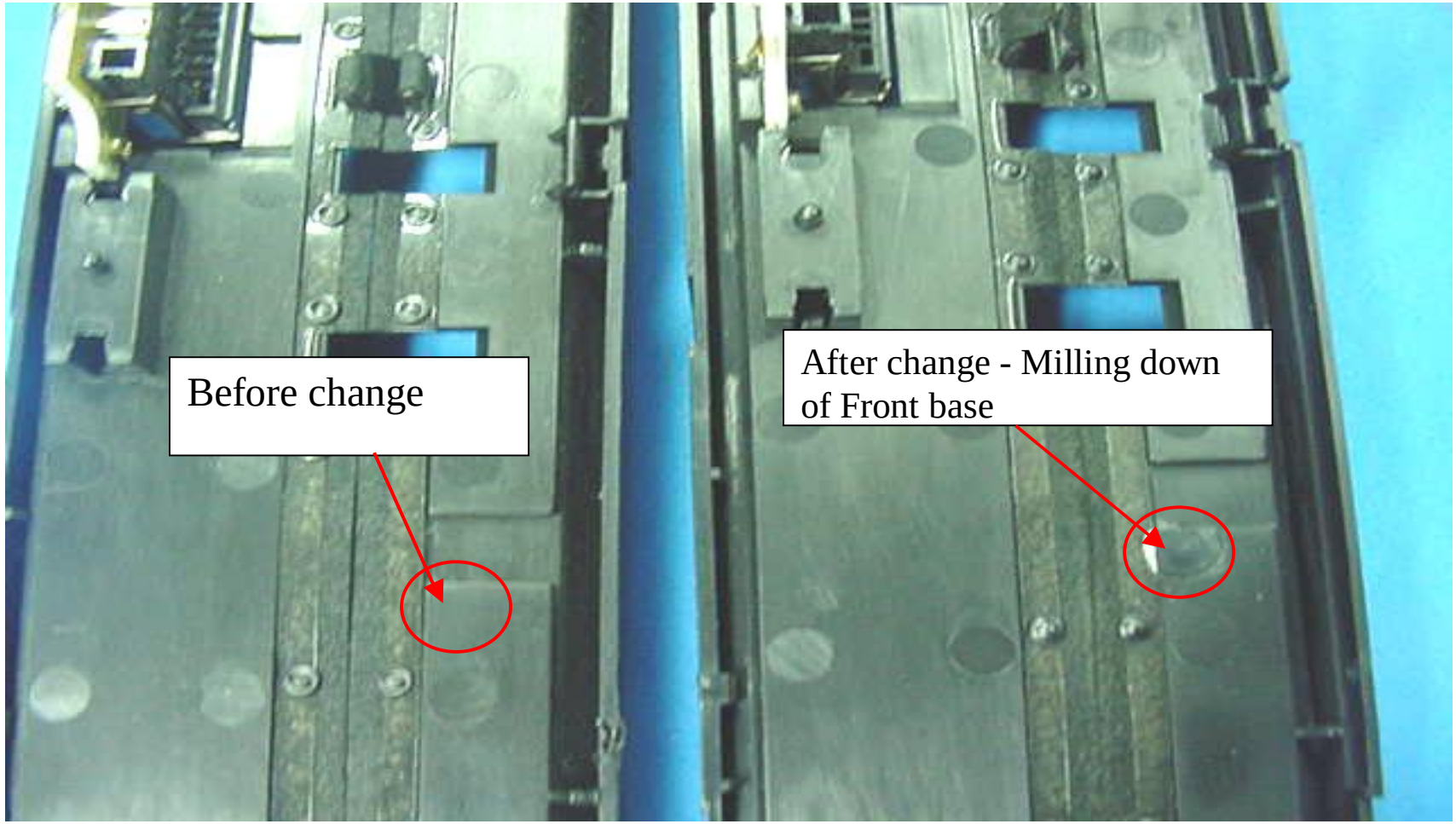
16 Prevent E-mecha: loading guides does not hold disc correctly when closed

(Loading guide Ass'y)

Change to modified part



17 Prevent CD cannot insert: Plate PLS Sub Ass'y touches to Front Base (Front Base Ass'y)
Change to modified part



Summary

- Most of the improvements are in the Loading Assembly (Part # CA10105).
- Traverse Mecha Chassis Assy.
- Feed Motor Assy
- Front Base Assy