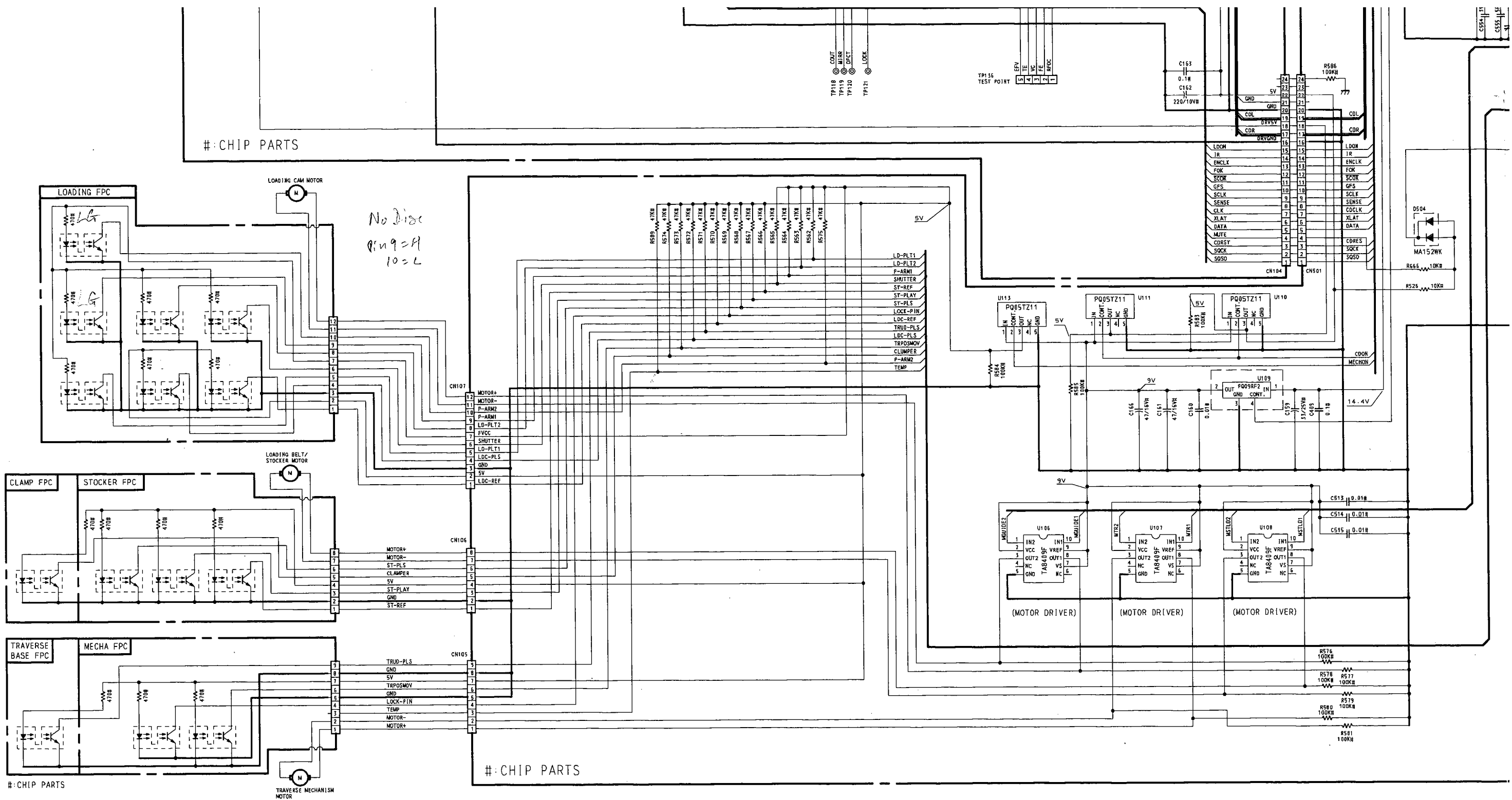
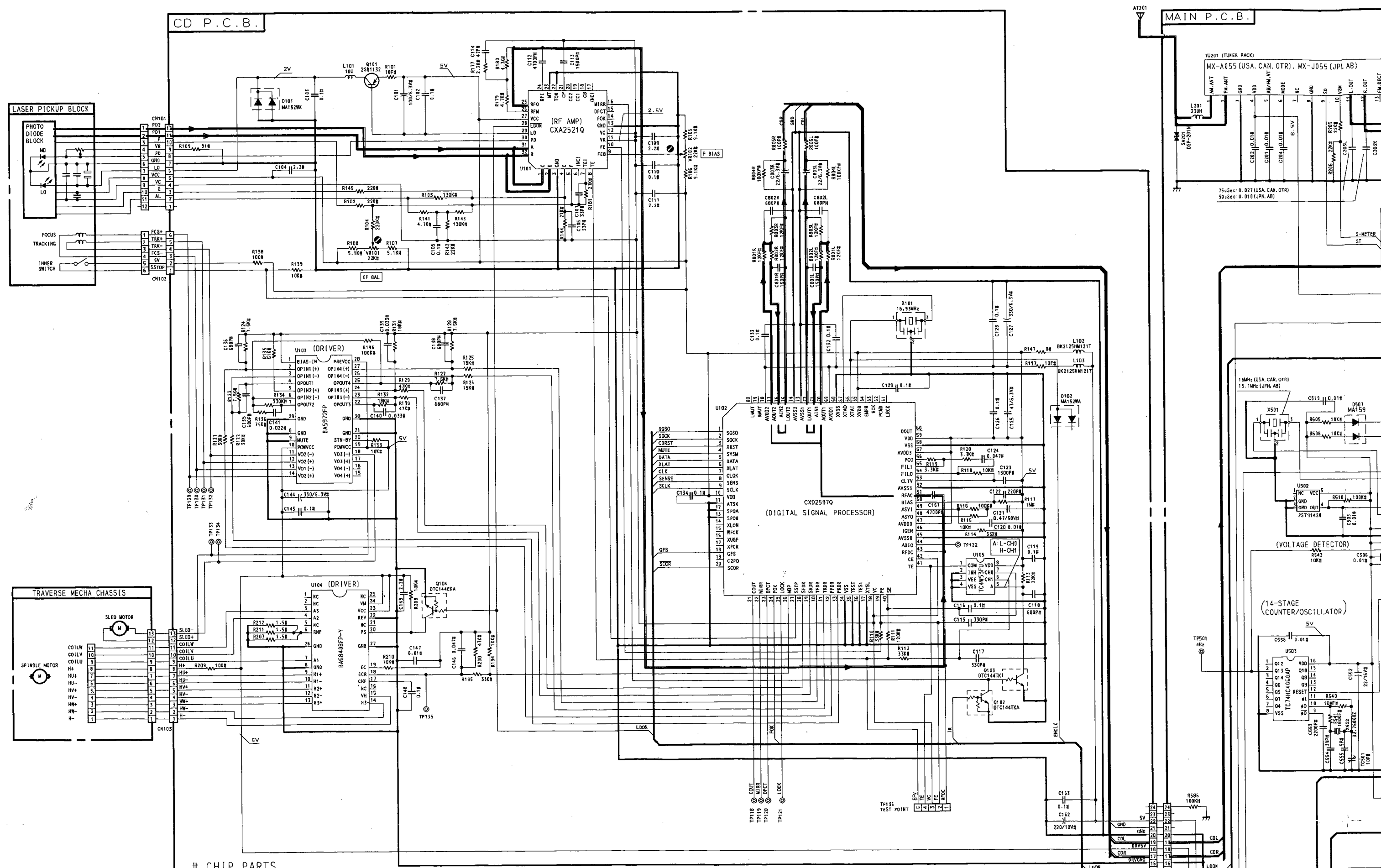


#:CHIP PARTS

FRONT P.C.B.

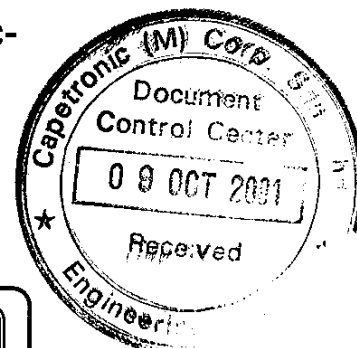
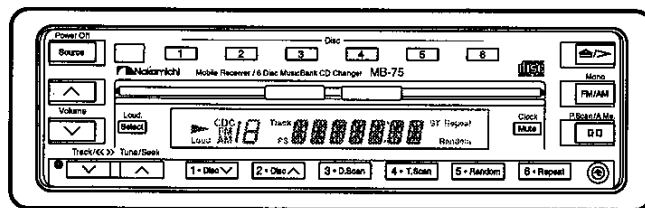




Service Manual

Mobile Receiver / 6 Disc Music-
Bank CD Changer

MB-75



 Nakamichi

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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 beskrivna i bruksanvisningen kan resultera i farlig laserstrålning. Justering eller reparation av denna kompaktskivspelare skall endast utföras av kvalificerad servicepersonal.

OBS!

Indstilling af knapper, omskiftere og øvrige kontrollknapper, som ikke følger den i brugsanvisningen beskrevne måde, kan resultere i farlig laserstrålning. Justering eller reparation af denne CD-afspiller må kun udføres af kvalificeret servicepersonale.

OBS!

Justering av ratt, brytare og kontroller andre enn de som er beskrevet her, kan resultere i farlig laserstrålning. Justering eller reparasjon av denne kompaktskivspilleren må bare utføres av kvalifiserte fagfolk.

HUOMAUTUS

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

ADVERSEL: USYNLIG LASERSTRÅLING VED ÅBNING.
UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARO: AVATTAESSA OLET ALTTIINA
NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.
ÄLÄ KATSO SÄTEESEEN.

VARNING — OSYNLIG LASERSTRÅLNING NÄR
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.

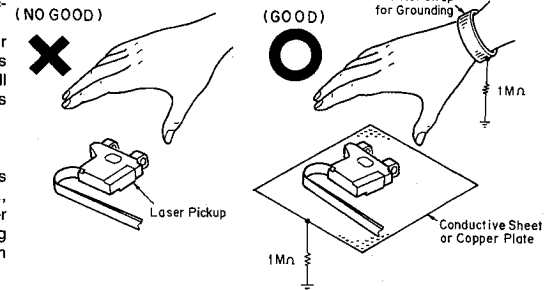
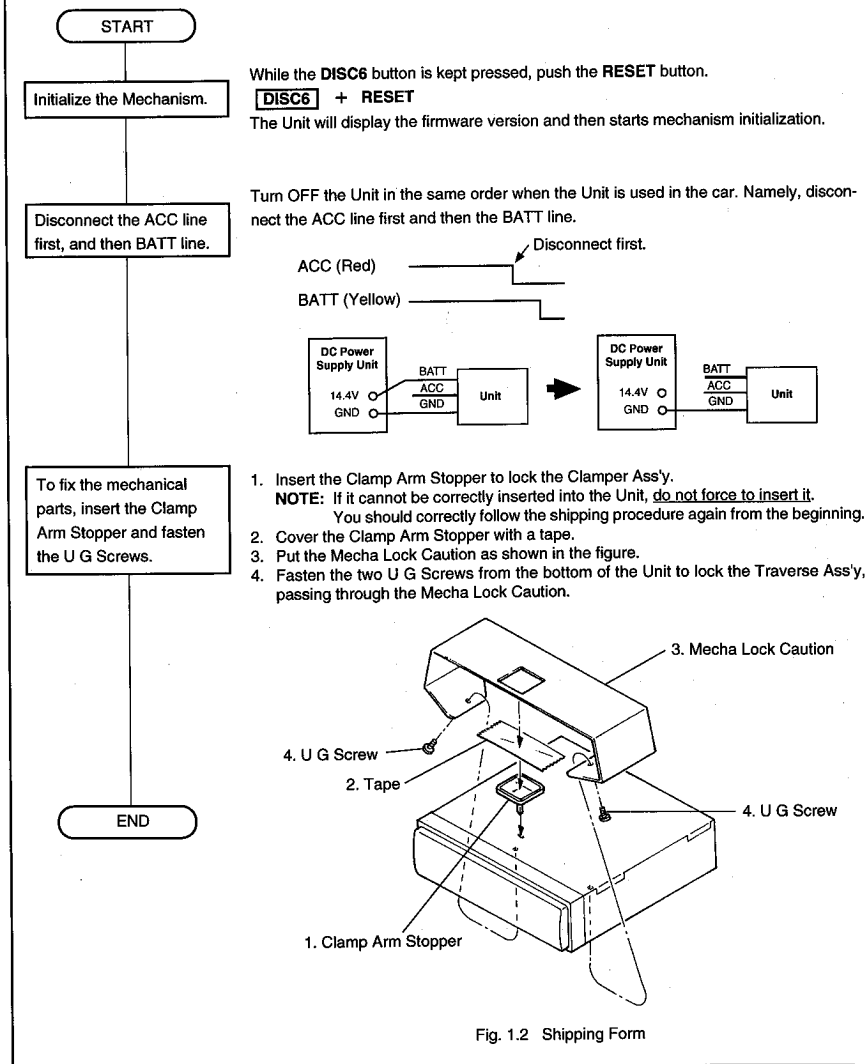


Fig. 1.1 Handling the Laser Pickup

1.5. Shipping Procedure after Service Work

Always follow the steps below before returning the Unit.



1.6. Handling the Laser Pickup

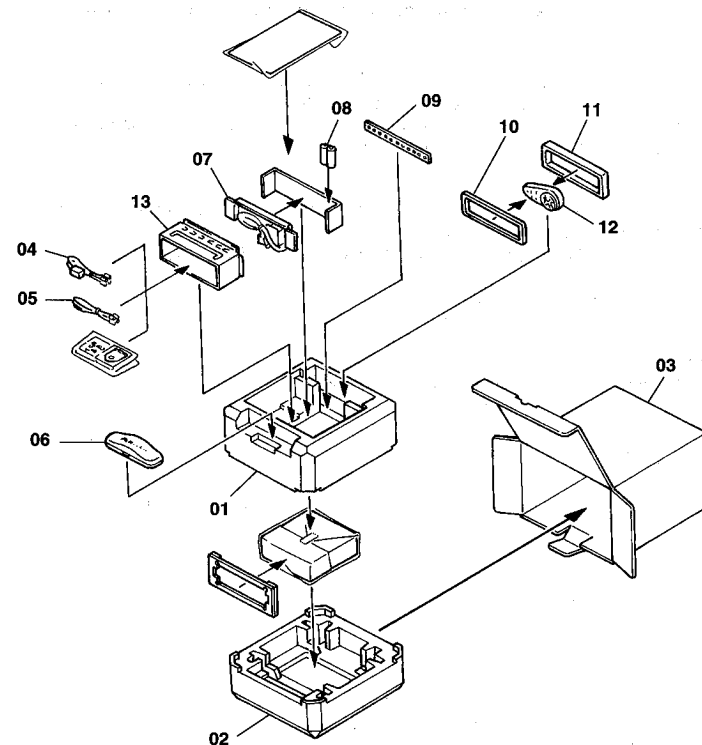


Fig. 1.3

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
		Package and Accessory Ass'y					
01	0F05345A	Package Top (USA, CAN)	1	—	0B90359A	Masking Tape	4
—	0F05359A	Package Top (JPN)	1	—	0B90520A	Fuse 250V 3A	1
02	0F05346A	Package Bottom (USA, CAN)	1	—	0B90525A	Fuse N8A 250V	1
—	0F05360A	Package Bottom (JPN)	1	—	0D06960A	Magic Tape A	1
03	0F05363A	Inner Carton (USA, CAN)	1	—	0D06961A	Magic Tape B	1
—	0F05361A	Inner Carton (JPN)	1	—	0D06962A	Magic Tape C	1
04	0B84883B	6P Wire Ass'y	1	—	0D07048A	Magic Tape BK A	2
05	0B84882C	8P SP Cable Ass'y	1	—	0D07049A	Magic Tape BK B	2
06	DA05321A	Carrying Case Ass'y (USA, CAN)	1	—	DG06271A	Screw Kit	1
07	HA07655A	Heat Sink Bracket Ass'y	1	—	JG04899A	Bolt Ass'y	1
08	0B90462A	Battery UM4x1	2	—	0J08221B	Connector Bracket	1
09	0J07417A	Metal Stay (USA, CAN)	1	—	0E00612A	M3x6 + Pan (2A)	1
10	0H07542A	Panel Frame (USA, CAN)	1	—	—	(for Connector Bracket)	
11	0H07771A	Panel Frame L (USA, CAN)	1	—	0J07428A	Rubber Cap (USA, CAN)	1
12	DA05247A	Remote Ass'y	1	—	0J07968B	Lock Plate (USA, CAN)	2
13	HG07456B	Sleeve Ass'y (USA, CAN)	1	—	DG04858A	Terminal Ass'y D (JPN)	1
—	0D07031C	Owner's Manual (English)	1				
—	0D07030B	Owner's Manual (Japanese)	1				
—	0F05381A	Soft Sheet (for Front Panel)	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.

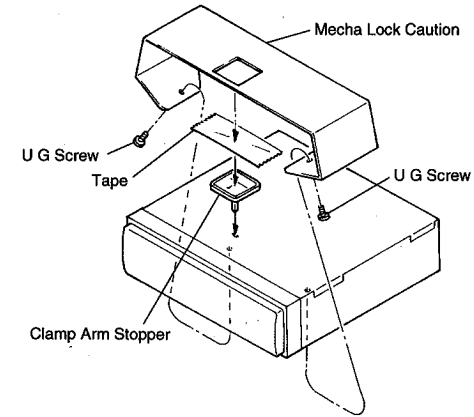


Fig. 2.1

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.

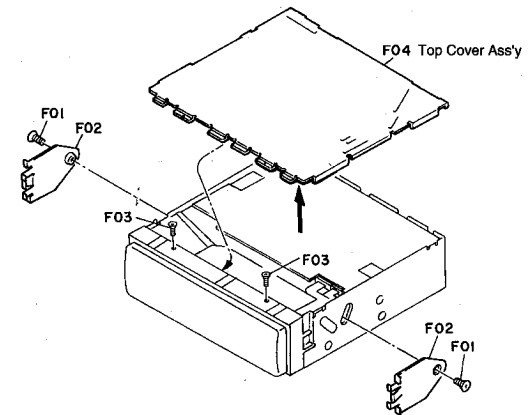


Fig. 2.2

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.

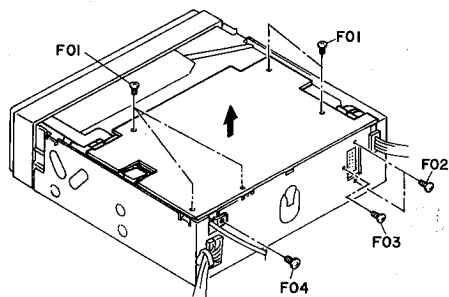
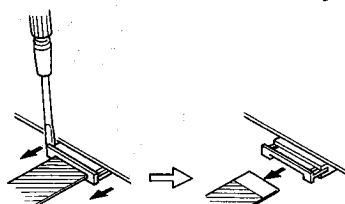


Fig. 2.3.1

- (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.

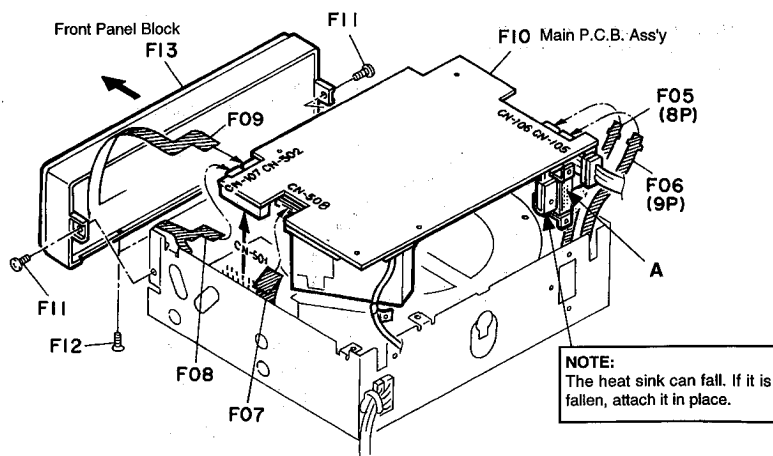


Fig. 2.3.2

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.

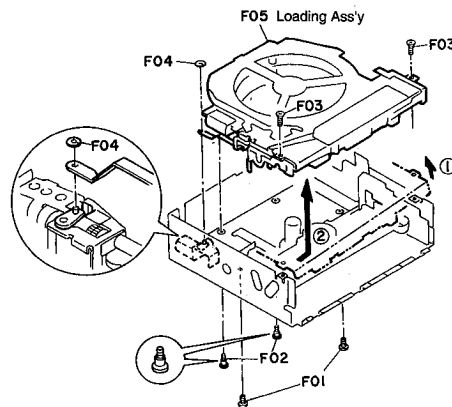
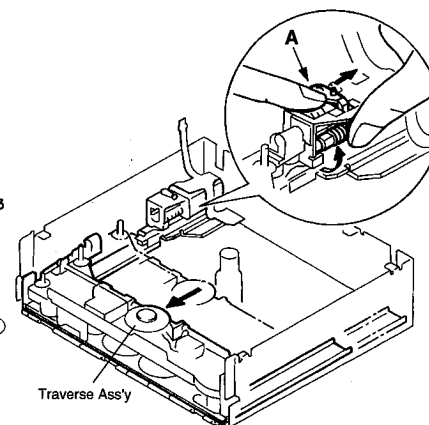


Fig. 2.4.1

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.

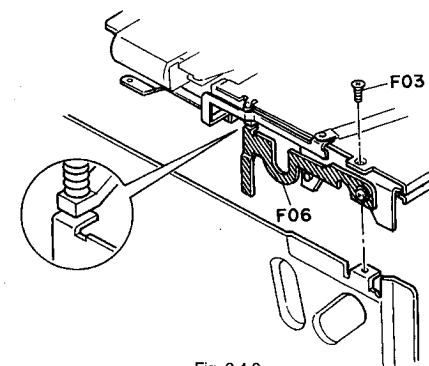


Fig. 2.4.2

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.

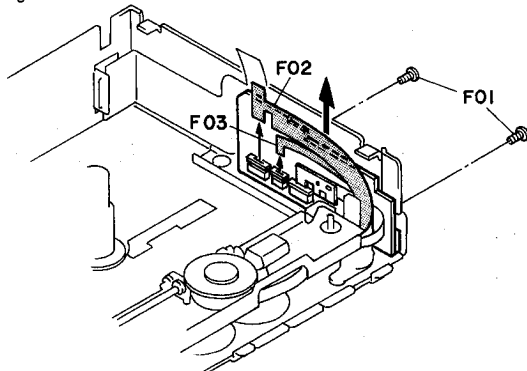


Fig. 2.5.1

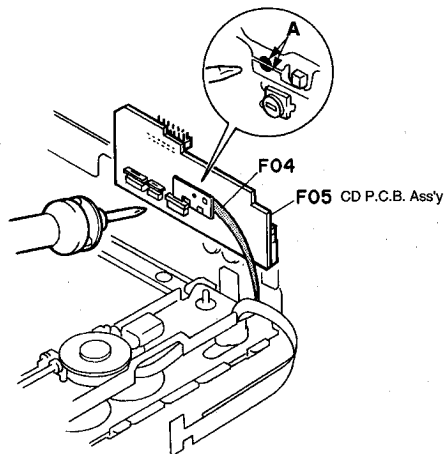


Fig. 2.5.2

- (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.

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 pc.), 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.

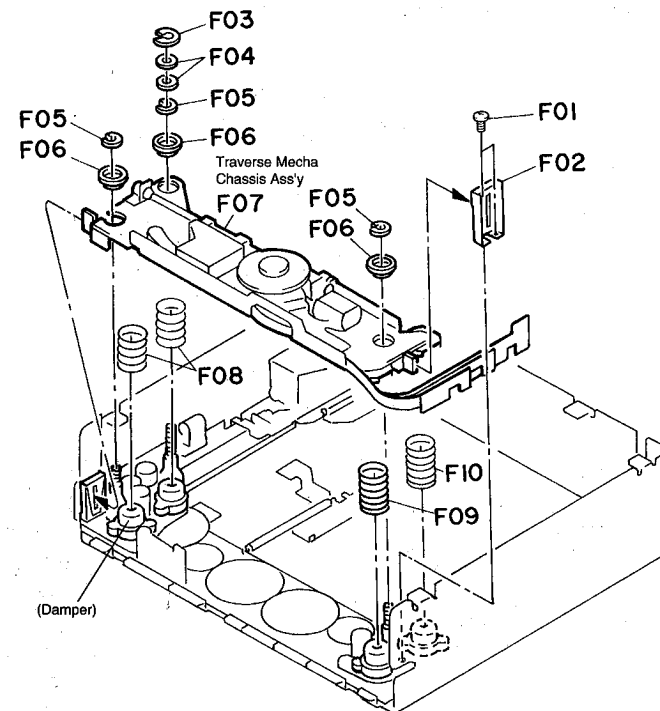


Fig. 2.6

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).

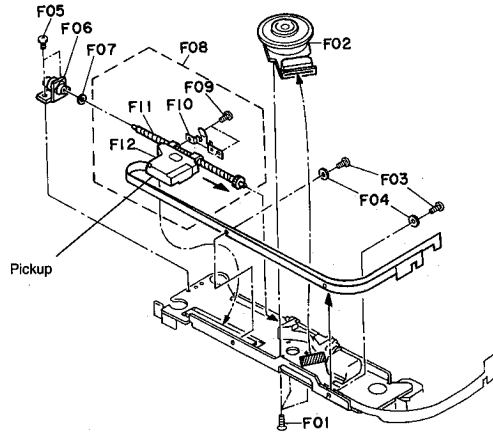


Fig. 2.7

- (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".

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 pc.), and the washer F05 (Plastic Washer 1.3x3.3x0.3).
- (4) Remove F06 (Sled Motor Ass'y) and F07 (Sled Belt, 2 pcs.).

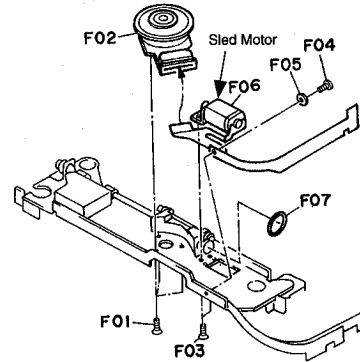


Fig. 2.8

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).

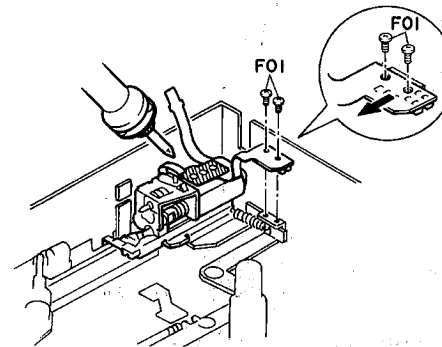


Fig. 2.9.1

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.

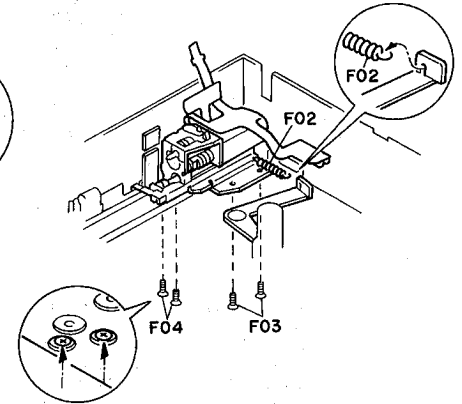


Fig. 2.9.2

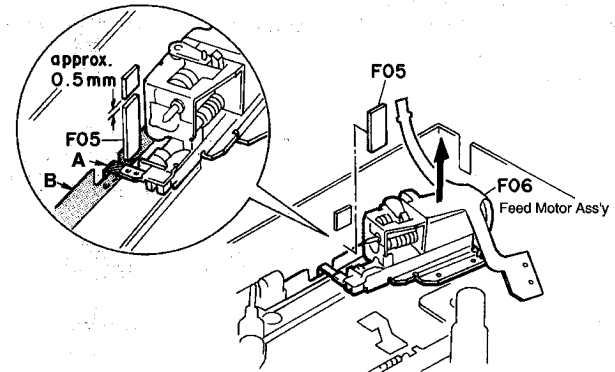
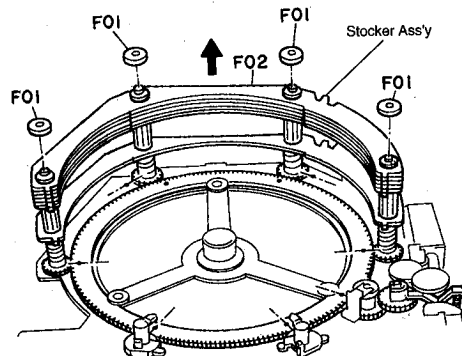


Fig. 2.9.3

2.10.1. Removing the Stocker Ass'y and Disc Holders

- (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.



- (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)

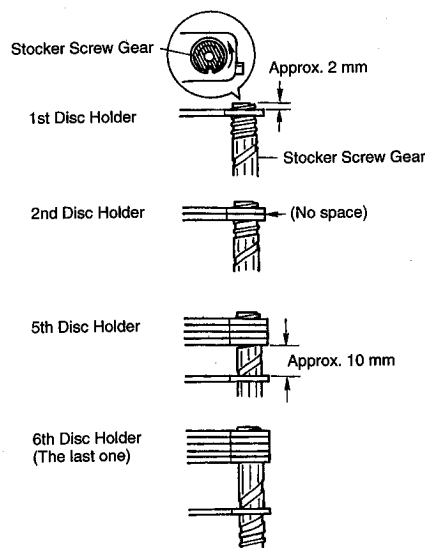


Fig. 2.10.2

- 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.

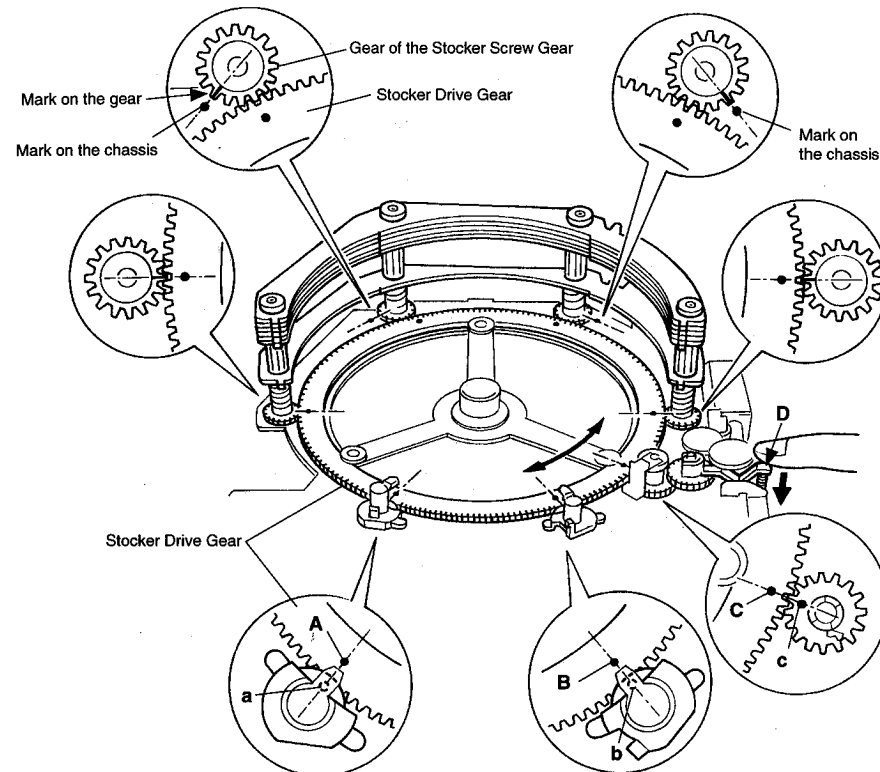


Fig. 2.10.3

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.)

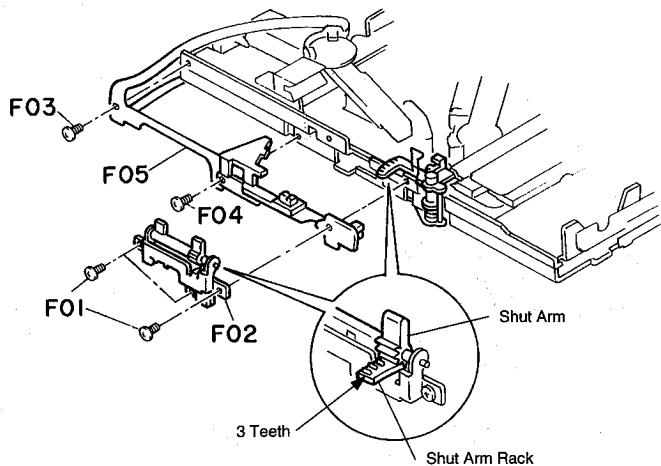


Fig. 2.11

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).

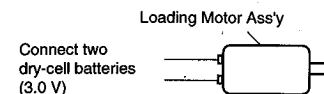
2.12. Loading Guide Ass'y

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]

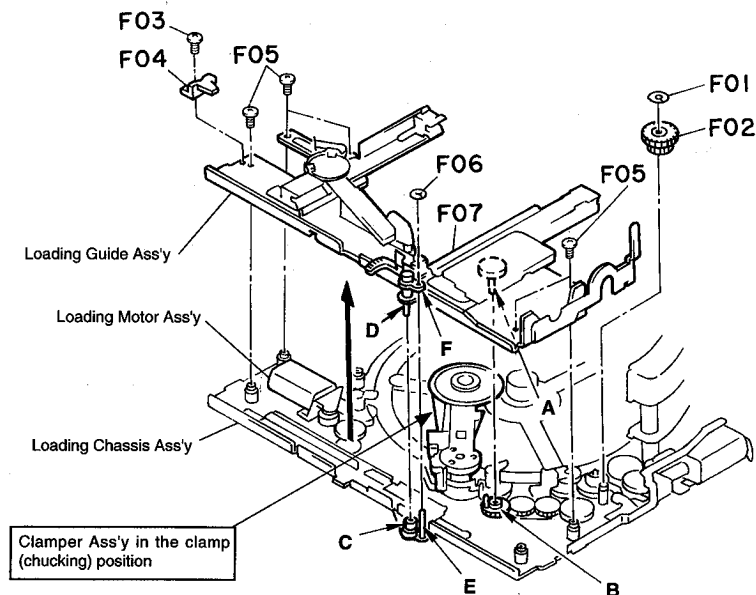


Fig. 2.12.1

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.

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.

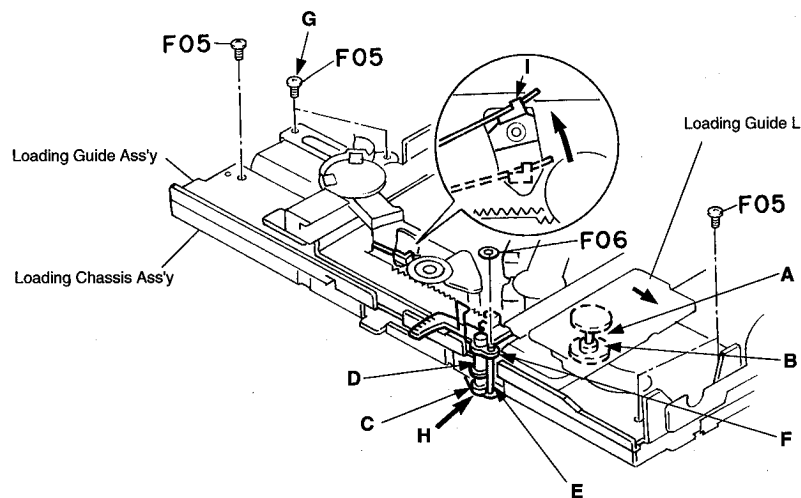


Fig. 2.12.2

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".

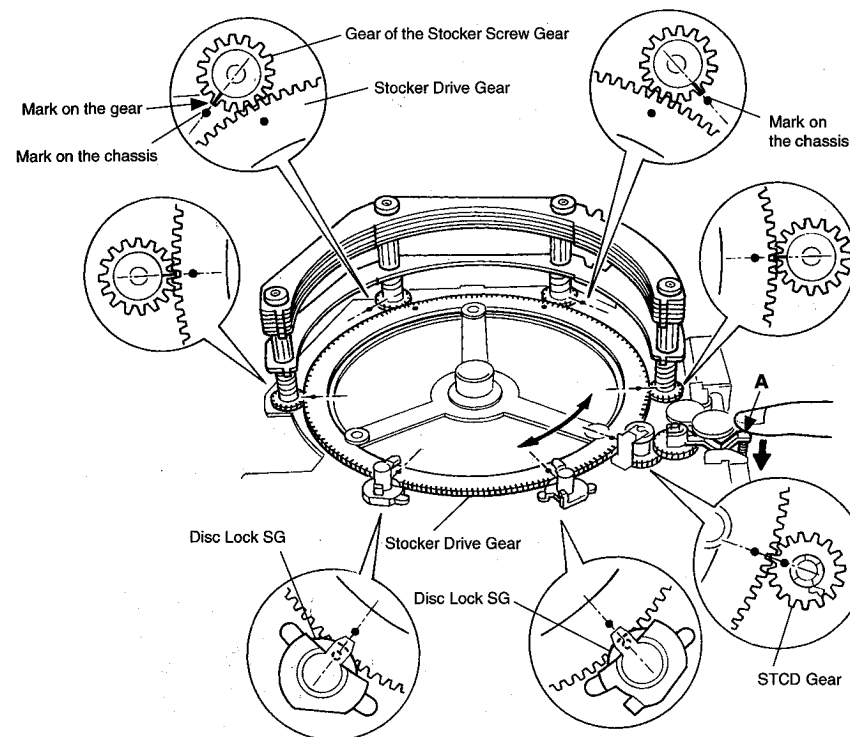


Fig. 3.1

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.

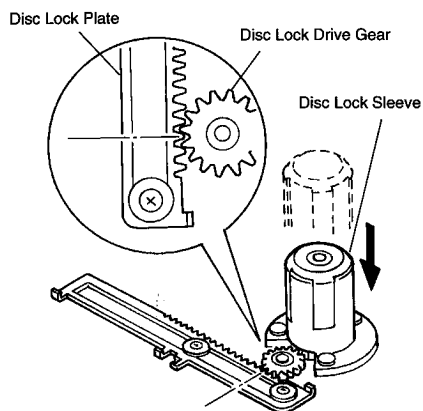


Fig. 3.2

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.

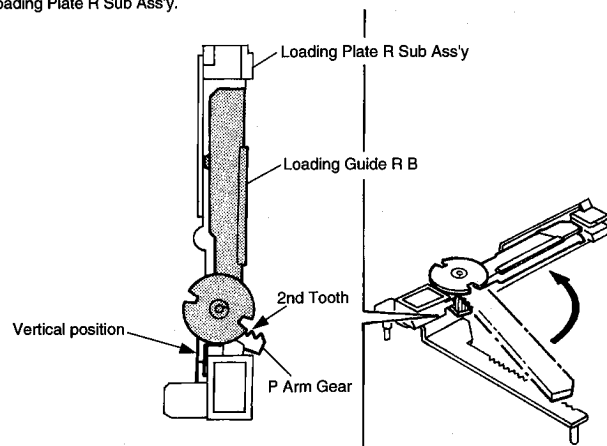


Fig. 3.3

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.)

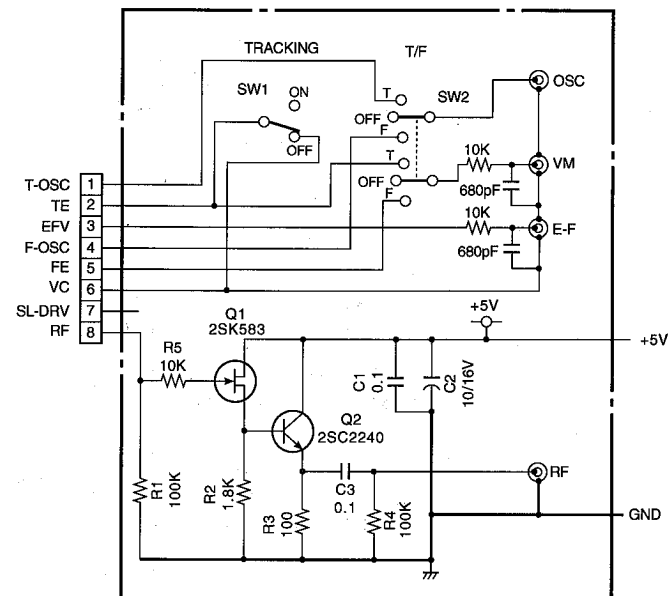


Fig. 4.1 CD-ROM Test Unit

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.

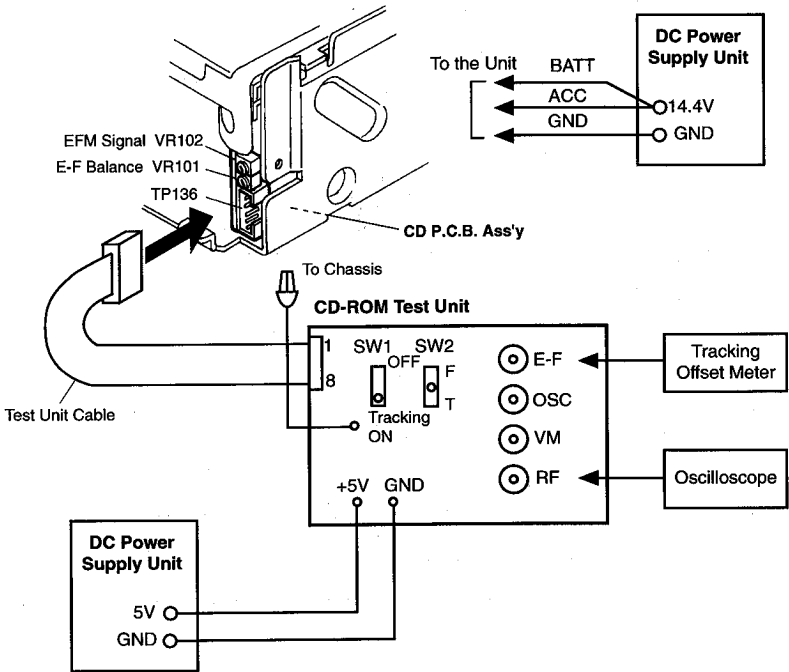
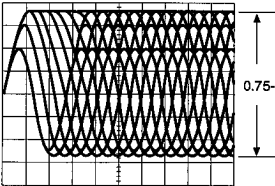
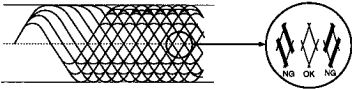
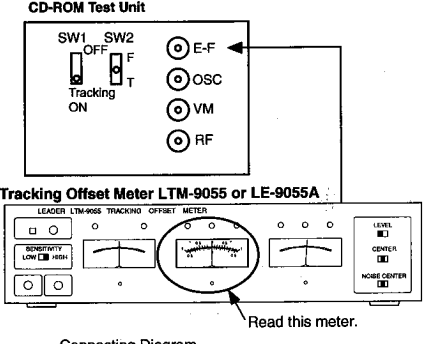
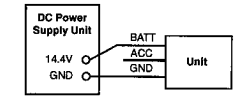
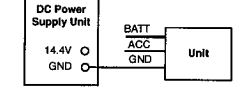
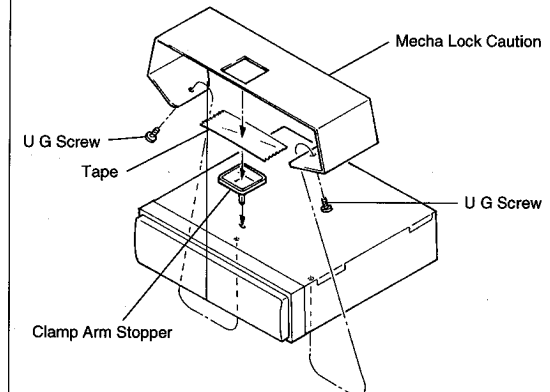


Fig. 5.1 Measurement Instrument Connecting Diagram

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

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUSTMENT	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	<p>1. Set SW1 of the CD-ROM Test Unit to Tracking ON position and SW2 to OFF (center) position.</p> <p>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:</p> <ul style="list-style-type: none"> • Sensitivity switch: HIGH (right side) • Level switch: MEASURE (left side) • Center switch: MEASURE (center position) <p>3. Set SW1 of the CD-ROM Test Unit to Tracking OFF position and play back the first track of the test disc.</p> <p>Then, within several seconds, adjust VR101 to obtain $0V \pm 50mV$ DC on the meter located in the center of the Tracking Offset Meter.</p> <p>(After several seconds, the sound output will be stopped though the test disc turns.)</p>  <p>Connecting Diagram</p> <p>4. Set SW1 of the CD-ROM Test Unit to ON position and repeat from step 3 until adjustment is completed.</p> <p>5. After adjustment, perform "EFM Signal Adjustment" in step 2.</p> <p>6. Stop the test disc.</p>
4	Operation Check	ABEX Test Disc TCD-725A			<p>Make sure that no noise nor track-jumping is found in the following programs of the test disc.</p> <p>To select the desired program, press FWD. Skip (>>) button or REV. Skip (<<) button of the Control Button Unit.</p> <ul style="list-style-type: none"> • Interruption 600 μm: 4th program • Black dot 500 μm: 8th program • Simulated fingerprint: 13th program
5	Termination				<p>1. Eject the test disc.</p> <p>2. Perform the "Initialization" as follows:</p> <p>While pressing and holding the DISC6 button, press the RESET button.</p> <p>(The firmware version will be displayed and then initialization begins.)</p> <p>DISC6 + RESET Button</p> <p>(to be continued)</p>

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	ADJUSTMENT	REMARKS
					<p>3. Disconnect the ACC and BATT power lines in that order to set the Unit to the Standby state.</p> <ul style="list-style-type: none"> • First, disconnect the ACC power line.  <p>↓</p> <ul style="list-style-type: none"> • Next, disconnect the BATT power line.  <p>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.</p> 

6. MECHANISM ASS'Y AND PARTS LIST

6.1. Synthesis

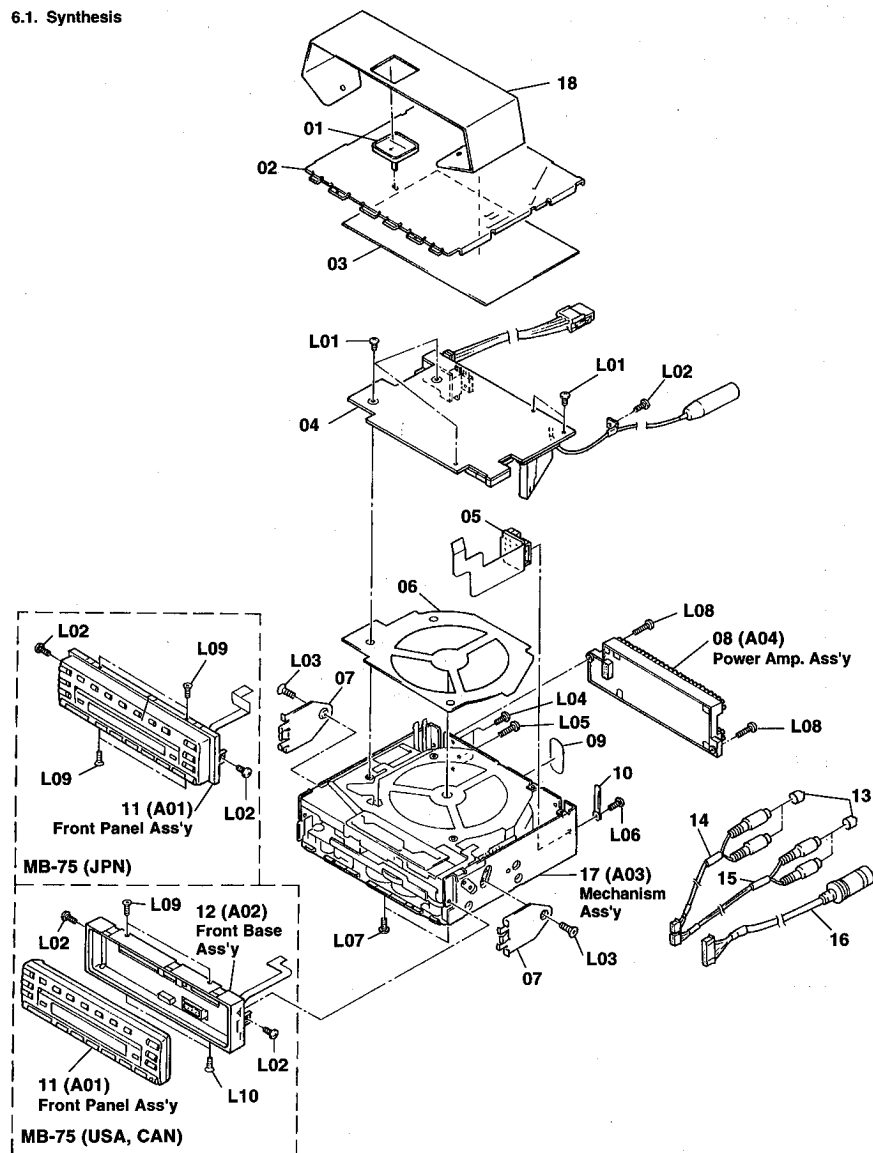


Fig. 6.1

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

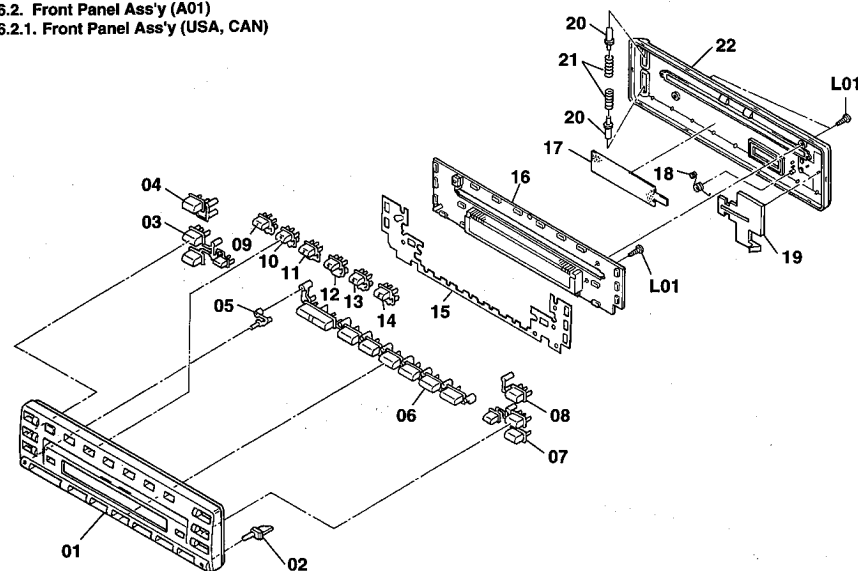


Fig. 6.2.1 For USA, CAN

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
05	BA09854A	Main P.C.B. Ass'y (JPN)	1
06	BA09859A	Connector FPC Ass'y	1
07	0J08185A	Insulator Main B	1
08	0J08124A	Lock Plate (USA, CAN)	2
09	HA07651A	Power Amp. Ass'y	1
10	0J08196A	Label Protector	1
11	0J06068A	Clip	1
12	HA07641A	Front Panel Ass'y (USA, CAN)	1
13	HA07642A	Front Panel Ass'y (JPN)	1
14	HA07610A	Front Base Ass'y (USA, CAN)	1
15	0B84524A	Cap	4
16	0B84910A	RCA Ass'y Aux1	1
17	0B84911A	RCA Ass'y Aux2	1
18	0B84912A	13P DIN Ass'y	1
19	CA10130A	Mechanism Ass'y	1
20	0D07059B	Mecha Lock Caution	1
21	0E04109A	M2x1.8 + Pan	5
22	0E04047A	M3x3 + Binding	3
23	0E04057A	M5x6 Countersunk (USA, CAN)	2
24	0E04046A	M2.6x3 + Pan	2
25	0E04036A	M2.6x8 + Pan	1
26	0E03070A	M2.6x6 + Binding	1
27	0C20447B	U G Screw	2
28	0E00986A	M3x10 + Binding	2
29	0E04053A	M1.4x3 Countersunk (Black Chromate) (USA, CAN)	2
30	0E04053A	M1.4x3 Countersunk (Black Chromate) (JPN)	4

Schematic Ref. No.	Part No.	Description	Q'ty
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			
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	0H07799E	Rear Cover	1
L01	0E03814A	PT2x8 + Binding (Black Chromate)	3

6.2.2. Front Panel Ass'y (JPN)

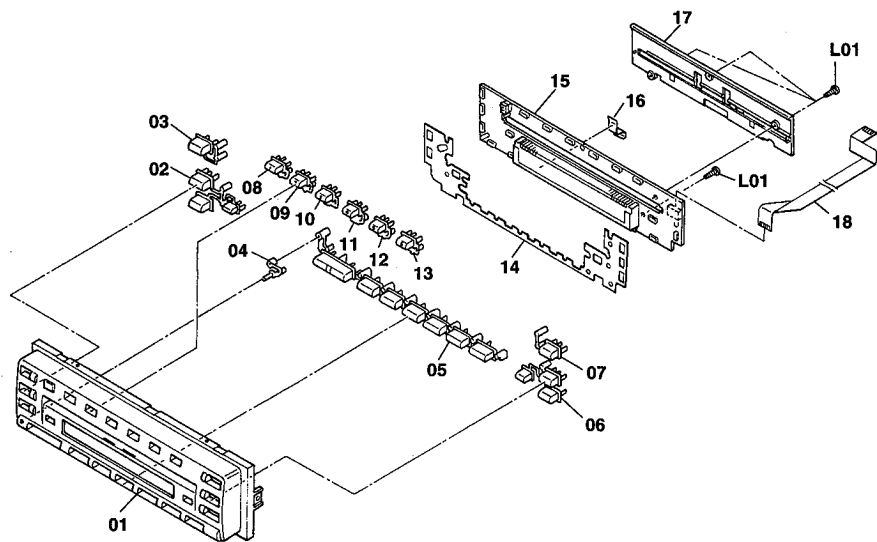


Fig. 6.2.2 For JPN

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	0H07782A	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)

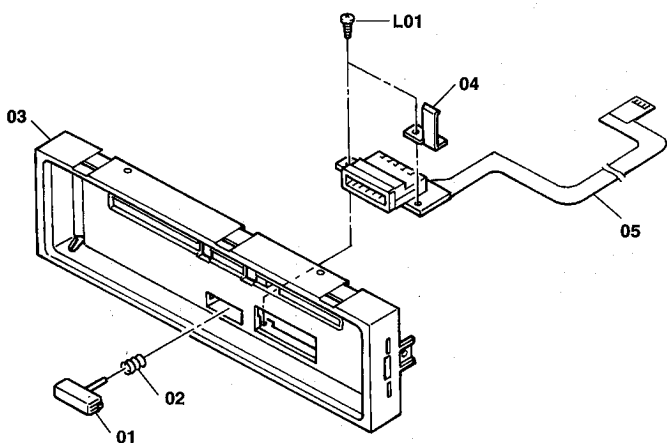


Fig. 6.3 For USA, CAN

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)

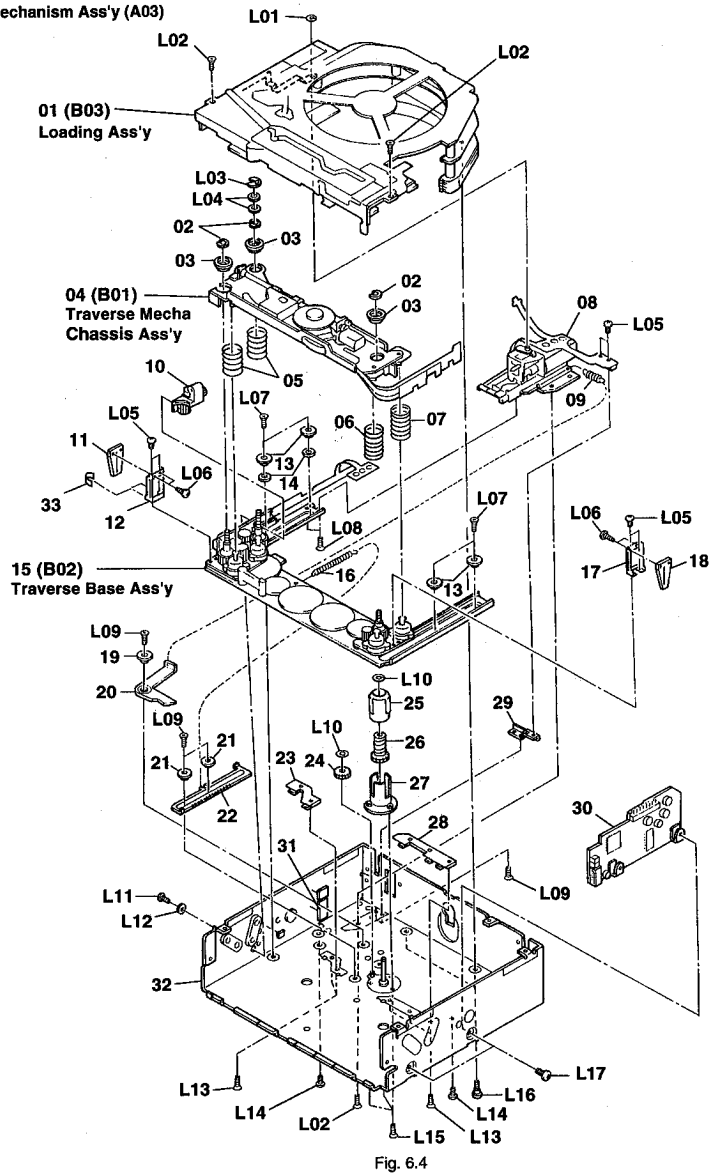


Fig. 6.4

6.5. Power Amp. Ass'y (A04)

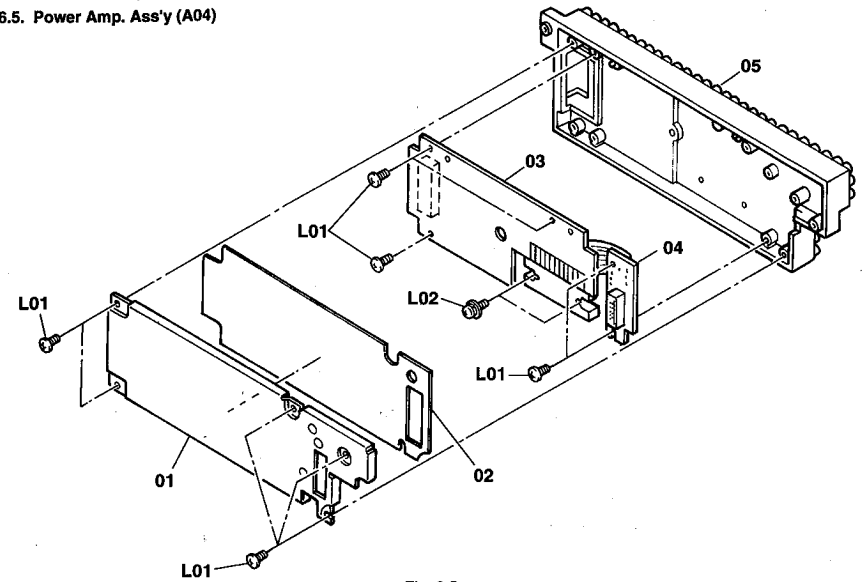


Fig. 6.5

6.4. Mechanism Ass'y (A03)

Schematic Ref. No.	Part No.	Description	Qty
A03	CA10130A	Mechanism Ass'y	1
01	CA10105A	Loading Ass'y	1
02	OC20357A	Thrust Ring	3
03	OC20170A	Lock Guide Top	1
04	CA10138A	Traverse Mecha Chassis Ass'y	1
05	OC20393A	Damper Spring B	2
06	OC20394B	Damper Spring C	1
07	OC20392B	Damper Spring A	1
08	CA10102A	Feed Motor Ass'y	1
09	OC20446A	Disc Lock Arm Spring	1
10	CA10144A	Bevel G Bracket Ass'y	1
11	OC20376A	Guide PL L	1
12	OC20374A	Guide Spring L	1
13	OC20104A	Traverse Base Collar	4
14	OC20352A	T P Roller	2
15		Traverse Base Ass'y	1
16	OC20444B	Disc Lock Spring	1
17	OC20372A	Guide Spring 2	1
18	OC20375A	Guide PL	1
19	OC20107A	Disc Lock Sensor Arm Shaft	1
20	OC20108C	Disc Lock Sensor Arm	1
21	OC20106A	Lock Plate Collar	2
22	OC20105B	Disc Lock Plate	1
23	OC20109A	Plate Holder A	1
24	OC20111A	Disc Lock Drive Gear	1
25	OC20116C	Disc Lock Sleeve	1
26	OC20114A	Disc Lock Cam	1
27	OC20115A	Disc Lock Base	1
28	OC20110A	Plate Holder B	1
29	OC20113A	Photo Sensor Bracket B	1
30	BA09857A	CD P.C.B. Ass'y	1
31	OC20477C	Feed Motor Spacer	1
32	CG10107D	Main Chassis IND Sub Ass'y	1
33	OC20486A	Guide Spring Sheet	2

Schematic Ref. No.	Part No.	Description	Qty
L01	OE04087A	Cut Washer 1.6x3.5x0.125	1
L02	OE03499A	M2x2 Countersunk (Black Chromate)	4
L03	OE04120A	C-Ring	1
L04	OE04124A	Washer 2.6x5x0.5	2
L05	OE04067A	M1.7x1.6 + Pan (Black Chromate)	6
L06	OE04060A	BT1.4x2 + Pan (Black Chromate)	4
L07	OE04081A	M2x2.8 Countersunk (Black Chromate)	4
L08	OE04085A	BT2x3.5 Countersunk (Black Chromate)	4
L09	OE04080A	M2x2.2 Countersunk (Black Chromate)	5
L10	OE04090A	Cut Washer 2.6x5x0.125	2
L11	OE04117A	BT2x3 + Pan	1
L12	OE00117A	Washer 2x4.3x0.4	1
L13	OE04078A	BT2x2.5 Countersunk (Black Chromate)	5
L14	OE00919A	M1.7x2 + Pan (Black Chromate)	2
L15	OE03447A	BT2x3 Countersunk (Black Chromate)	3
L16	OC20456A	M17 STC Lock Screw	2
L17	OE04076A	M2.6x3 + Pan (Black Chromate)	2

6.5. Power Amp. Ass'y (A04)

Schematic Ref. No.	Part No.	Description	Qty
A04	HA07651A	Power Amp. Ass'y	1
01	OH07769B	B. Cover	1
02	OU08186A	Insulator Amp.	1
03	BA09846A	Main P.C.B. Ass'y	1
04	BA09846A	Sub P.C.B. Ass'y	1
05	OH07826B	Heat Sink	1
L01	OE04044A	M2.6x5 + Pan	10
L02	OE04097A	M2.6x8 + Pan with Washer	2

6.6. Traverse Mecha Chassis Ass'y (B01)

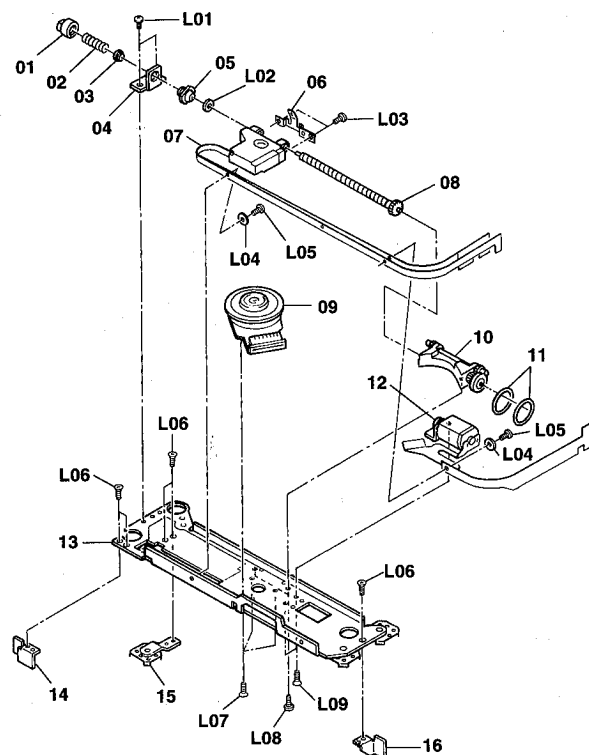


Fig. 6.6

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	OC20181B	Thrust Cap	1
02	OC20183A	Thrust Spring	1
03	OC20182A	Thrust Washer	1
04	OC20179B	Thrust Bracket	1
05	OC20180A	Thrust Body	1
06	OC20448E	Pickup Feed Spring	1
07	OB90789B	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	OC20483A	Sted Belt	2
12	CA10156A	Stad Motor Ass'y	1
13	CG10139C	Traverse Mecha Chassis Sub Ass'y	1
14	OC20368B	Vertical Guide L	1
15	CG10114B	Damper Plate L Sub Ass'y	1
16	OC20369C	Vertical Guide R	1
L01	OE04064A	M1.4x1.4 + Pan (Black Chromate)	2
L02	OE04091A	Plastic Washer 1.6x3.5x0.5	1
L03	OE04067A	M1.7x1.6 + Pan (Black Chromate)	2
L04	OE03245A	Plastic Washer 1.3x3.3x0.3	2
L05	OE04049A	M1x1.5 + Pan (Black Chromate)	2
L06	OE04079A	M1.7x2 Countersunk (Black Chromate)	5

Schematic Ref. No.	Part No.	Description	Q'ty
L07	OE03783A	M1.7x1.8 Countersunk (Black Chromate)	3
L08	OE04093A	BT2x2.8 Countersunk (Black Chromate)	2
L09	OE04129A	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	OC20382B	Stocker Clutch Cam	1
02	BA09875A	Traverse Base FPC Ass'y	1
03	OC20172B	Traverse Move WPG	1
04	OC20173B	Traverse Move PG	1
05	OC20441B	Traverse Move PG Spring	1
06	OC20169E	Lock Guide Gear	3
07	CG10112B	L Guide Plate L Sub Ass'y	1
08	OC20163A	Traverse Damper	4
09	OC20317B	P Plate Sensor Block	1
10	OC20176A	Lock Plate Spacer B	2
11	OC20171B	Traverse Move Gear	2
12	OC20442B	Traverse Move Gear Spring	2

6.7. Traverse Base Ass'y (B02)

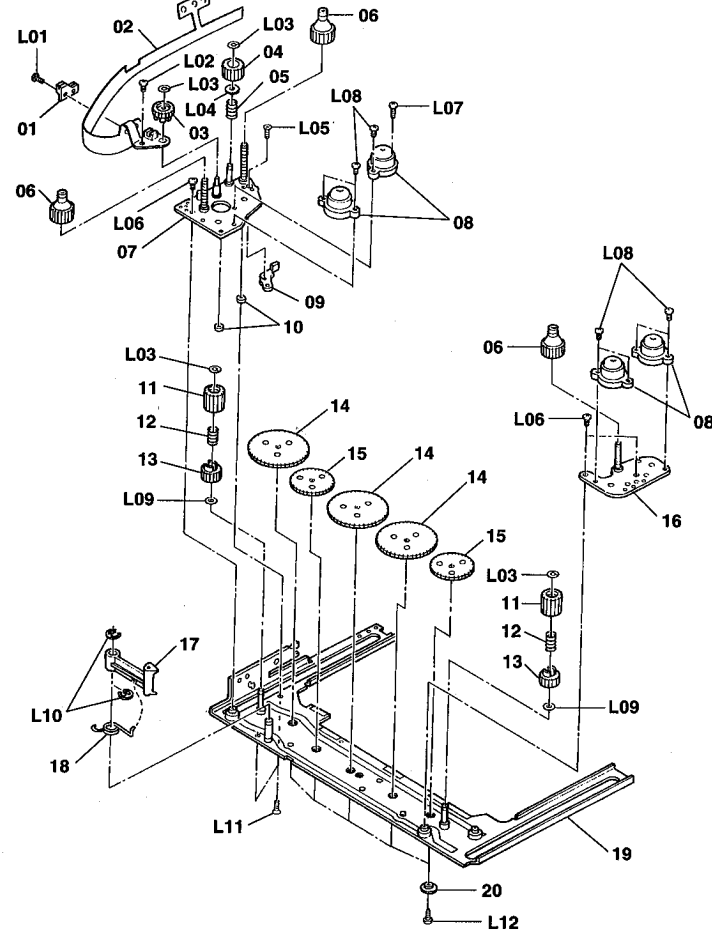


Fig. 6.7

Schematic Ref. No.	Part No.	Description	Q'ty
13	OC20380A	Traverse Move Gear A	2
14	OC20167B	Lock Gear L	3
15	OC20168B	Lock Gear S	2
16	CG10113B	L Guide Plate R Sub Ass'y	1
17	OC20174A	Disc Lock Arm	1
18	OC20364A	Disc Lock Arm Spring	1
19	CA10157A	Traverse Base Chassis Sub-1 Ass'y	1
20	OC20454A	Lock Gear Stopper	5
L01	OE04074A	M2x2.2 + Pan (Black Chromate)	1
L02	OE04072A	M2x1.8 + Pan (Black Chromate)	1
L03	OE04087A	Cut Washer 1.6x3.5x0.125	4

Schematic Ref. No.	Part No.	Description	Q'ty
L04	OE03235A	Washer 2x5x0.25	1
L05	OE04077A	BT1.7x2.2 Countersunk (Black Chromate)	1
L06	OE00922A	M2x3 + Pan (Black Chromate)	3
L07	OE03943A	BT1.7x5 + Pan (Black Chromate)	1
L08	OE00887A	M1.7x4 + Pan (Black Chromate)	7
L09	OE04101A	Cut Washer 2.1x3.5x0.125	2
L10	OE00698A	E-Ring 2.5mm	2
L11	OE04082A	M2x3.5 Countersunk (Black Chromate)	2
L12	OE04096A	BT1.7x1.6 + Pan (Black Chromate)	5

6.8. Loading Ass'y (B03)

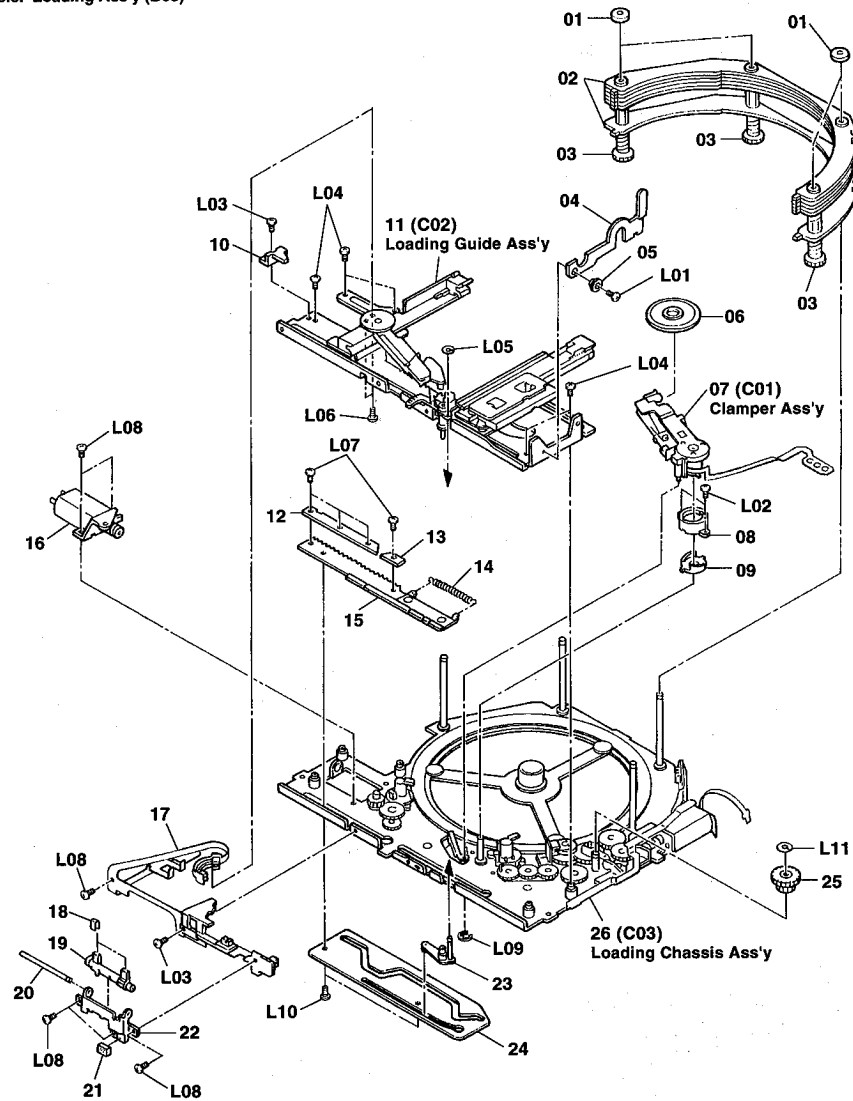


Fig. 6.8

6.9. Clamper Ass'y (C01)

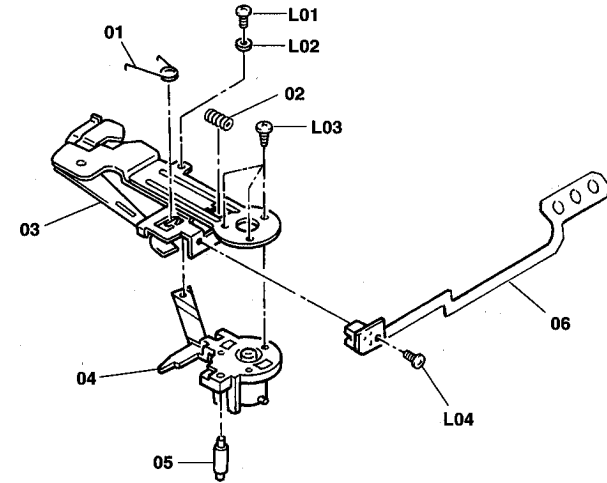


Fig. 6.9

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

Schematic Ref. No.	Part No.	Description	Q'ty
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)

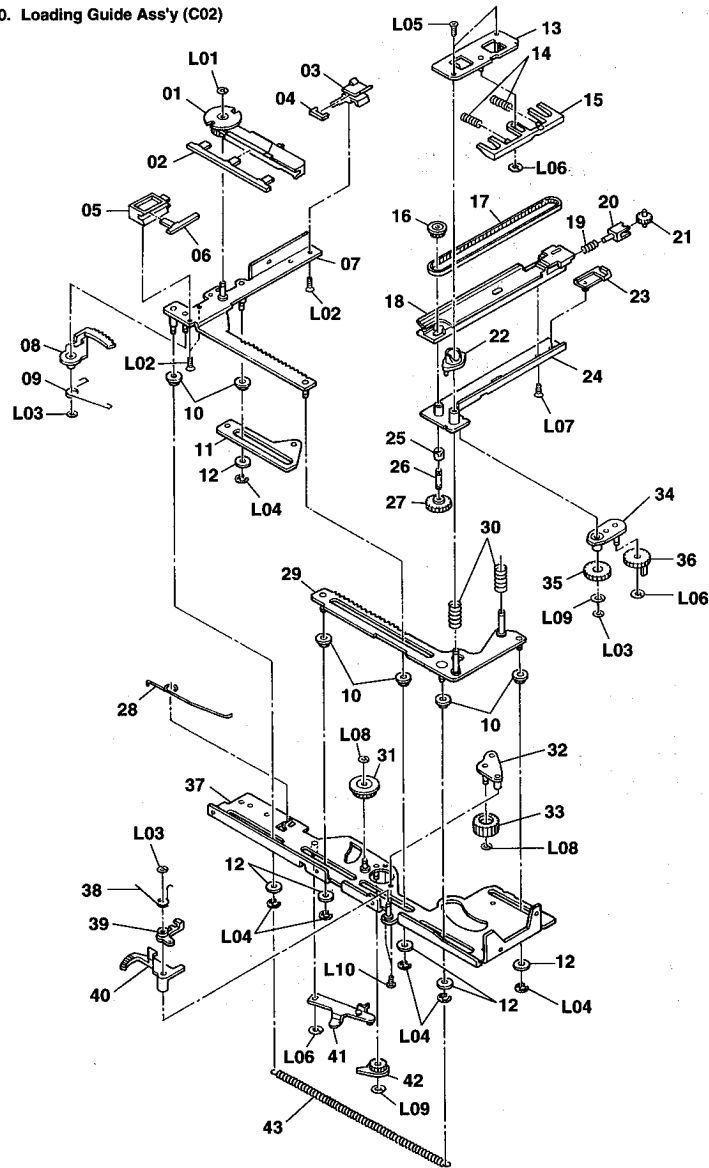


Fig. 6.10

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 L G 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	T1 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)

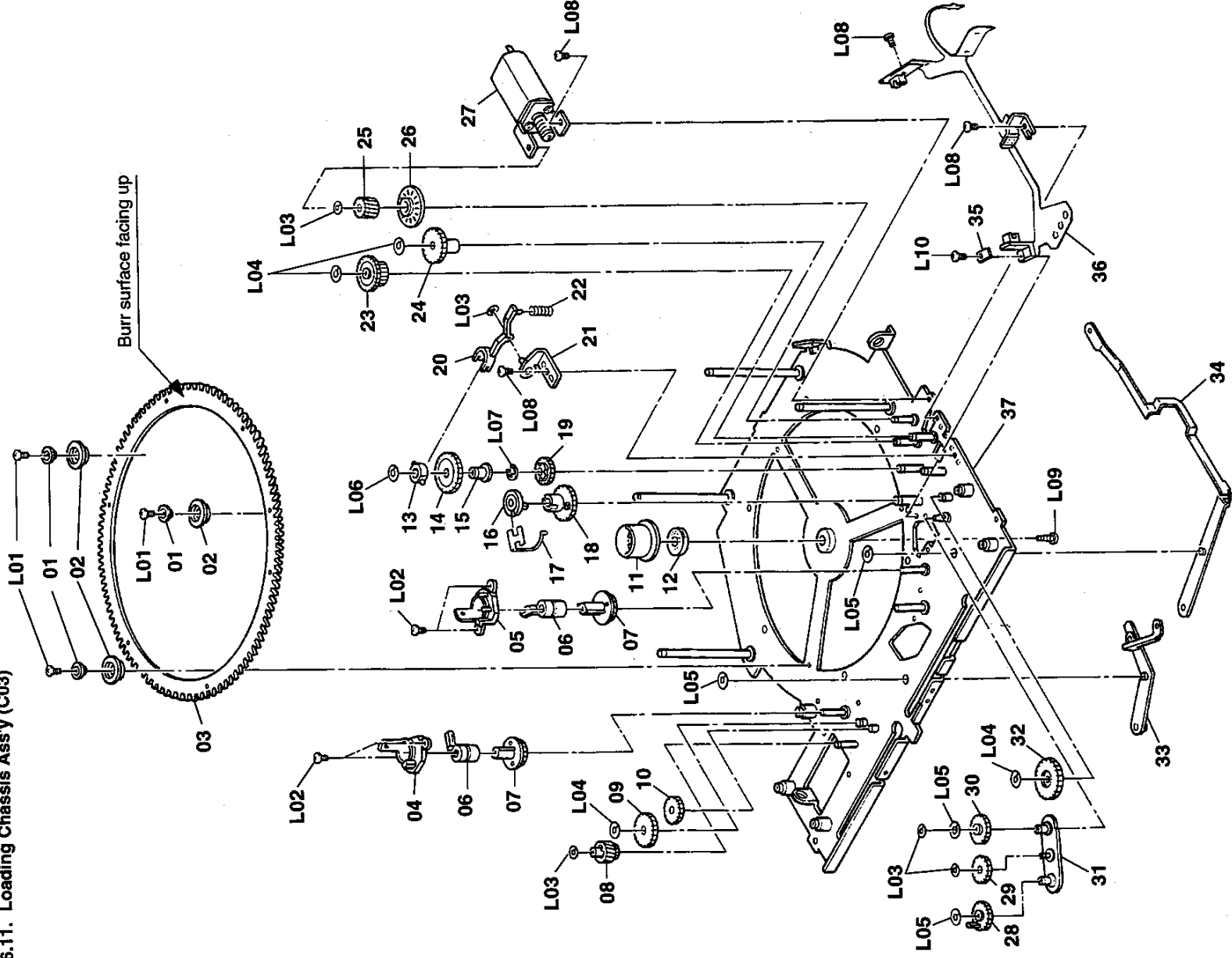
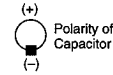


Fig. 6.11

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 STD L	1
14	0C20220C	Gear STD L 2L	1
15	0C20327B	Sleeve STD L 2	1
16	0C20286A	Disc Sensor STCD	1
17	0C20455B	Lock Spring STC	1
18	0C20221D	STCD Gear	1
19	0C20219B	Gear STD L 2	1
20	0C20319B	Gear STD L Arm	1
21	CG10134B	Plate STD L Sub Ass'y	1
22	0C20426A	Spring LDST CH	1
23	0C20216A	Gear STD L 1	1
24	0C20217A	Gear TBL 1	1
25	0C20214A	Worm Wheel STL	1
26	0C20215A	Gear PULS GW	1
27	CA10151A	WFF 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



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

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

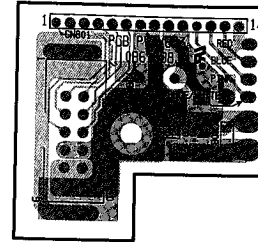


Fig. 7.1.1.1 Power Supply Section-Component Side View

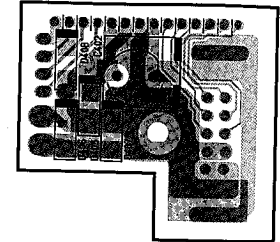


Fig. 7.1.1.2 Power Supply Section-Dip Side View

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

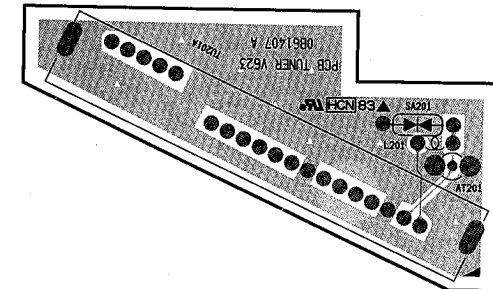
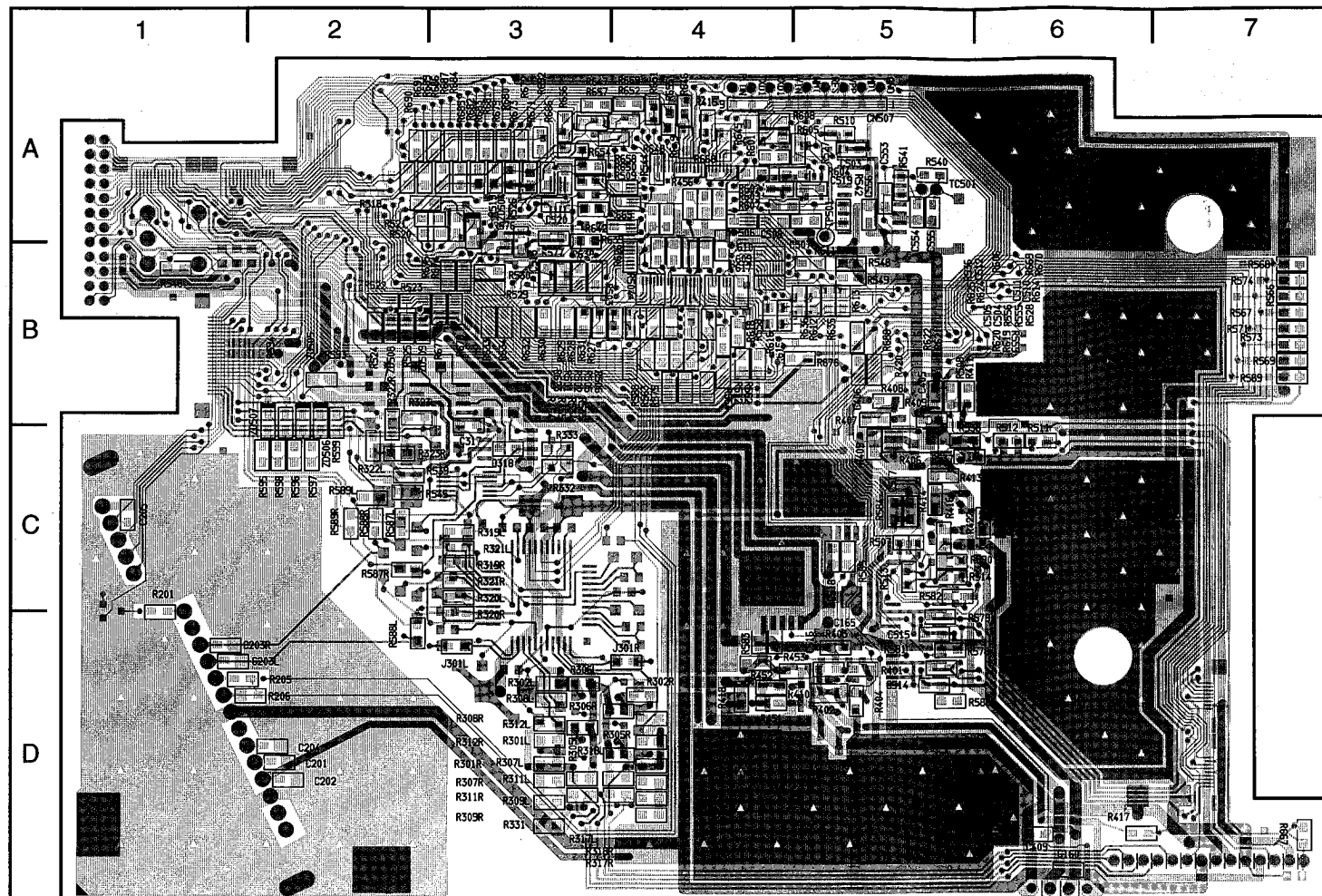


Fig. 7.1.2 Tuner Section-Component Side View

Fig. 7.1.3.1 Main Section-Component Side View

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

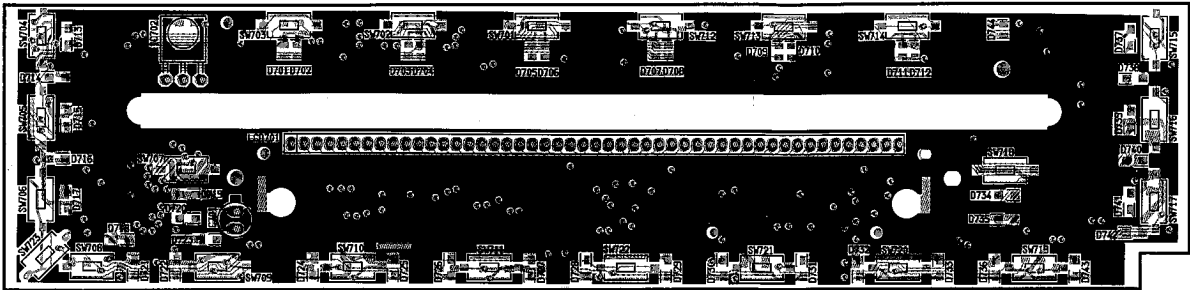


Fig. 7.2.1 Component Side View

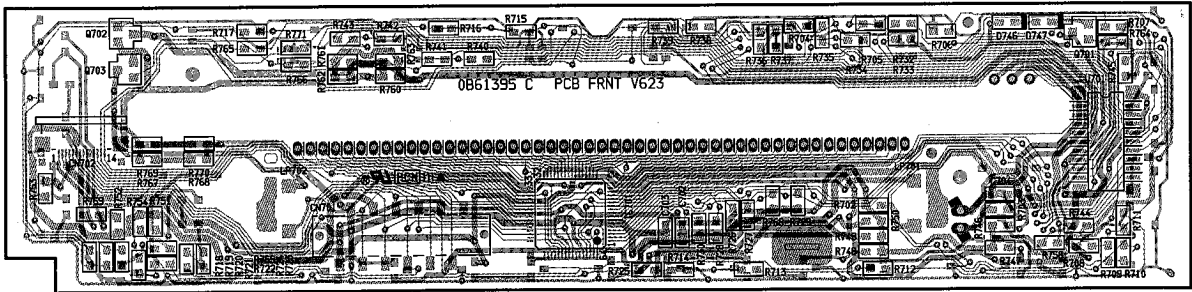


Fig. 7.2.2 Dip Side View

PCB MAIN V623PP

0861389

Diagram of a 16-pin connector. The top row of pins is labeled '10FAS'. The bottom row of pins is labeled '5'. The connector is labeled 'CN811' and 'CN812'.

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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

7.1. Main P.C.B. Assy														
Schematic Ref. No.	Part No.	Description	Main P.C.B. Assy (USA,CAN)	Main P.C.B. Assy (JPN)	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description				
U106,107 U108 U109 U110,111 U113 U301 U303,304 U305	BA09853A BA09854A — Main —	Main P.C.B. Assy (USA,CAN) Main P.C.B. Assy (JPN)	Main P.C.B. Assy (USA,CAN) Main P.C.B. Assy (JPN)	Main P.C.B. Assy (JPN)	X502	OB90693A	X'tal 32.768kHz	R522,523	OB25539A	RK 1K	1/10W J*			
					J301L,R	OB25612A	RK 0 1/10W J*	R524,525	OB25587A	RK 100K	1/10W J*			
					R201	OB25611A	RK 1M	1/10W J*	R526	OB25563A	RK 10K	1/10W J*		
					R205,206	OB25571A	RK 22K	1/10W J*	R527	OB25539A	RK 1K	1/10W J*		
					R301L,R	OB25531A	RK 470	1/10W J*	R528	OB25563A	RK 10K	1/10W J*		
					R302L,R	OB25531A	RK 470	1/10W J*	R529,530	OB25539A	RK 1K	1/10W J*		
					R306L,R	OB25579A	RK 47K	1/10W J*	R531,532	OB25539A	RK 1K	1/10W J*		
					R306L,R	OB25579A	RK 47K	1/10W J*	R534,535	OB25563A	RK 10K	1/10W J*		
					R307L,R	OB25532A	RK 510	1/10W*	R537	OB25587A	RK 100K	1/10W J*		
					R308L,R	OB25532A	RK 510	1/10W*	R538	OB25547A	RK 2.2K	1/10W J*		
R309L,R	OB25611A	RK 1M	1/10W J*	R539	OB25539A	RK 1K	1/10W J*							
R311L,R	OB25612A	RK 0	0 1/10W J*	R540	OB21444A	RM 10M	1/10W F*							
R312L,R	OB25612A	RK 0	0 1/10W J*	R541	OB21445A	RM 180K	1/10W F*							
R319L,R	OB25539A	RK 1K	1/10W J*	R542	OB25563A	RK 10K	1/10W J*							
R320L,R	OB25539A	RK 1K	1/10W J*	R543	OB25539A	RK 10K	1/10W J*							
R321L,R	OB25539A	RK 1K	1/10W J*	R544	OB25563A	RK 10K	1/10W J*							
R322L,R	OB25587A	RK 100K	1/10W J*	R545	OB25539A	RK 1K	1/10W J*							
R323L,R	OB25587A	RK 100K	1/10W J*	R547,548	OB25563A	RK 10K	1/10W J*							
R331,332	OB25563A	RK 10K	1/10W J*	R549,550	OB25563A	RK 10K	1/10W J*							
R333	OB25563A	RK 10K	1/10W J*	R551,552	OB25563A	RK 10K	1/10W J*							
R401	OB25563A	RK 10K	1/10W J*	R553,554	OB25563A	RK 10K	1/10W J*							
R402	OB21631A	RK 10	1/4W*	R555,556	OB25563A	RK 10K	1/10W J*							
R403	OB25551A	RK 3.3K	1/10W J*	R557,558	OB25563A	RK 10K	1/10W J*							
R404	OB25523A	RK 220	1/10W J*	R559,560	OB25563A	RK 10K	1/10W J*							
R405	OB25563A	RK 10K	1/10W J*	R561	OB25563A	RK 10K	1/10W J*							
R406	OB21632A	RK 3.3	1/2W*	R562,563	OB25579A	RK 47K	1/10W J*							
R407	OB2551A	RK 3.3K	1/10W J*	R564,565	OB25579A	RK 47K	1/10W J*							
R408	OB25515A	RK 100	1/10W J*	R566,567	OB25579A	RK 47K	1/10W J*							
R409	OB25555A	RK 4.7K	1/10W J*	R568,569	OB25579A	RK 47K	1/10W J*							
R410	OB25515A	RK 100	1/10W J*	R570,571	OB25579A	RK 47K	1/10W J*							
R411	OB25563A	RK 10K	1/10W J*	R572,573	OB25579A	RK 47K	1/10W J*							
R412	OB21633A	RK 3.3	1W*	R574,575	OB25579A	RK 47K	1/10W J*							
R413	OB25563A	RK 10K	1/10W J*	R576,577	OB25579A	RK 100K	1/10W J*							
R414	OB25515A	RK 100	1/10W J*	R578,579	OB25587A	RK 100K	1/10W J*							
R415	OB25563A	RK 10K	1/10W J*	R580,581	OB25587A	RK 100K	1/10W J*							
R416	OB25527A	RK 330	1/10W J*	R582	OB25579A	RK 47K	1/10W J*							
R417	OB25555A	RK 4.7K	1/10W J*	R583,584	OB25587A	RK 100K	1/10W J*							
R418	OB25587A	RK 100K	1/10W J*	R585,586	OB25587A	RK 100K	1/10W J*							
R420	OB25587A	RK 100K	1/10W J*	R587L,R	OB25587A	RK 100K	1/10W J*							
R422	OB25587A	RK 100K	1/10W J*	R588	OB25587A	RK 100K	1/10W J*							
R451	OB25563A	RK 1K	1/10W J*	R589	OB25579A	RK 47K	1/10W J*							
R452	OB25563A	RK 10K	1/10W J*	R588L,R	OB25587A	RK 100K	1/10W J*							
R453	OB25525A	RK 270	1/10W J*	R589L,R	OB25587A	RK 100K	1/10W J*							
R454,455	OB25563A	RK 10K	1/10W J*	R590,591	OB25587A	RK 100K	1/10W J*							
R456	OB25547A	RK 2.2K	1/10W J*	R592,593	OB25587A	RK 100K	1/10W J*							
R501,502	OB25563A	RK 10K	1/10W J*	R594	OB25587A	RK 100K	1/10W J*							
R503	OB25612A	RK 0	1/10W J*	R595	OB25603A	RK 470K	1/10W J*							
R504	OB25612A	RK 0	1/10W J*	R596,597	OB25587A	RK 100K	1/10W J*							
		(USA, CAN)		R598,599	OB25587A	RK 100K	1/10W J*							
R505,506	OB25547A	RK 2.2K	1/10W J*	R601	OB25563A	RK 10K	1/10W J*							
R507,508	OB25587A	RK 100K	1/10W J*	R605,606	OB25563A	RK 10K	1/10W J*							
R509	OB25611A	RK 1M	1/10W J*	R607,608	OB25563A	RK 10K	1/10W J*							
R510	OB25587A	RK 100K	1/10W J*	R609,610	OB25539A	RK 1K	1/10W J*							
R511	OB25579A	RK 47K	1/10W J*	R611,612	OB25563A	RK 10K	1/10W J*							
R512	OB25587A	RK 100K	1/10W J*	R613	OB25563A	RK 10K	1/10W J*							
R513	OB25579A	RK 47K	1/10W J*	R614	OB25587A	RK 100K	1/10W J*							
R514	OB25587A	RK 100K	1/10W J*	R615,616	OB25563A	RK 10K	1/10W J*							
R515	OB25603A	RK 470K	1/10W J*	R617,618	OB25563A	RK 10K	1/10W J*							
R516	OB25587A	RK 100K	1/10W J*	R619,620	OB25563A	RK 10K	1/10W J*							
R517,518	OB25515A	RK 100	1/10W J*	R621,622	OB25563A	RK 10K	1/10W J*							
R519,520	OB25515A	RK 100	1/10W J*	R623	OB25563A	RK 10K	1/10W J*							
R521	OB25515A	RK 100	1/10W J*	R624,625	OB25587A	RK 100K	1/10W J*							

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
R626	0B25587A	RK 100K 1/10W J*	C403	0B43221A	CC 0.047 25V K*
R627,628	0B25563A	RK 10K 1/10W J*	C404	0B42790A	CE 100 6.3V*
R629,630	0B25563A	RK 10K 1/10W J*	C405	0B43064A	CC 0.01 50V J*
R631,632	0B25563A	RK 10K 1/10W J*	C406	0B43063A	CC 1000P 50V J*
R633	0B25563A	RK 10K 1/10W J*	C407	0B43092A	CC 0.1 25V Z*
R634	0B25539A	RK 1K 1/10W J*	C409	0B43092A	CC 0.1 25V Z*
R635,636	0B25563A	RK 10K 1/10W J*	C453,454	0B42781A	CE 10 16V*
R637,638	0B25563A	RK 10K 1/10W J*	C503	0B43064A	CC 0.01 50V J*
R639	0B25539A	RK 1K 1/10W J*	C504,505	0B43200A	CC 220P 50V J*
R640,641	0B25563A	RK 10K 1/10W J*	C506,507	0B43064A	CC 0.01 50V J*
R642,643	0B25563A	RK 10K 1/10W J*	C508	0B43064A	CC 0.01 50V J*
R644,645	0B25563A	RK 10K 1/10W J*	C510,511	0B43064A	CC 0.01 50V J*
R646,647	0B25539A	RK 1K 1/10W J*	C512,513	0B43064A	CC 0.01 50V J*
R648,649	0B25539A	RK 1K 1/10W J*	C514,515	0B43064A	CC 0.01 50V J*
R650,651	0B25539A	RK 1K 1/10W J*	C519,520	0B43064A	CC 0.01 50V J*
R652	0B25539A	RK 1K 1/10W J*	C552	0B42783A	CE 22 16V*
R653	0B25563A	RK 10K 1/10W J*	C553	0B43078A	CC 2200P 50V K*
R654,655	0B25539A	RK 1K 1/10W J*	C554	0B43117A	CC 39P 50V J*
R656,657	0B25539A	RK 1K 1/10W J*	C555	0B43115A	CC 5P 50V D*
R658,659	0B25539A	RK 1K 1/10W J*	C556	0B43064A	CC 0.01 50V J*
R660,661	0B25563A	RK 10K 1/10W J*	C557,558	0B42806A	CC 0.22 16V Z*
R662,663	0B25563A	RK 10K 1/10W J*	CN105	0B84906A	9P F Connector*
R665,666	0B25563A	RK 10K 1/10W J*	CN106	0B84902A	8P F Connector*
R667,668	0B25563A	RK 10K 1/10W J*	CN107	0B84903A	12P F Connector*
R669,670	0B25587A	RK 100K 1/10W J*	CN501	0B84871A	24P Connector Socket
R671,672	0B25587A	RK 100K 1/10W J*	CN502	0B84907A	14P F Connector*
R673,674	0B25587A	RK 100K 1/10W J*	CN508	0B84879A	22P F Connector*
R675,676	0B25587A	RK 100K 1/10W J*		QJ08175C	Heat Sink Power (1)
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*	L201	0B51337A	Inductor 22uH
R685,686	0B25587A	RK 100K 1/10W J*	SA201	0B12655A	SID DSP-201M
R687,688	0B25587A	RK 100K 1/10W J*	TU201	0B90796A	Tuner Pack MX-A055 (USA, CAN)
R689,690	0B25587A	RK 100K 1/10W J*		0B90797A	Tuner Pack MX-J055 (JPN)
R691,692	0B25587A	RK 100K 1/10W J*		0B48892A	ANT Jack (1)
TC501	0B42787A	Trimmer 10P*		QJ08170A	Tuner P.C.B. Spacer (4)
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*			
C203,R	0B42791A	CML 0.027 25V* (USA, CAN)	D403	0B10946A	SID 1SR154-400*
			D406,407	0B10946A	SID 1SR154-400*
			D408	0B10946A	SID 1SR154-400*
C204,205	0B43235A	CC 0.018 50V K* (JPN)	C402	0B42786A	CE 470 16V*
C301L,R	0B42785A	CE 4.7 16V*	C408	0B43092A	CC 0.1 25V Z*
C302L,R	0B42785A	CE 4.7 16V*	CN901	0B84924A	Connector Header 14P
C303L,R	0B42785A	CE 4.7 16V*	CN904	0B84861A	BB Connector Plug 10P
C304	0B42785A	CE 22 16V*		0B84885B	6P W Ass'y Plug (1)
C305L,R	0B42785A	CE 4.7 16V*		0E04046A	M2.6x3 + Pan (1)
C306L,R	0B43071A	CC 470P 50V J*		QJ08129A	P.C.B. Holder C (1)
C307L,R	0B43238A	CML 0.068 50V*		QJ08190A	P.C.B. Spacer Spring Out (1)
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*			

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 NUJ3715G*
	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	0B25536A	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	0B25536A	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*
LC0701	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
	QJ07985B	Illuminator Sheet (1)
	QJ07986B	LCD Holder (1)
	QJ07987B	LCD Lens (1)
	QJ07989A	LCD Reflector (1)
	QJ08171A	REM Cushion (1)
	QJ08193A	Conductor Sheet A (1)
	QJ08200A	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*
U101	0B10731A	TR 2SB1132*
Q102	0B10882A	TR DTC114TKA*
Q103	0B10652A	TR DTC144TK*
Q104	0B14013A	TR DTC144EK*
D101	0B10953A	SID MA152WK*
D102	0B10640A	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	0B25561A	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	0B25553A	RK 4.7K 1/10W J*
R181	0B25575A	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	0B20873A	RK 1.5 1/10W*
R208	0B25563A	RK 10K 1/10W J*
R209	0B25515A	RK 10K 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	0B43292A	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 47 50V*
C122	0B43200A	CC 220P 50V J*
C123	0B43224A	CC 1500P 50V K*
C124	0B43221A	CC 0.04 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 0.04 25V K*
C147	0B43094A	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	0B42795A	CE 220 10V*
C163	0B43092A	CC 0.1 25V Z*
C801L,R	0B43195A	CC 150P 50V J*
C802L,R	0B43207A	CC 680P 50V J*
C803L,R	0B42795A	CE 22 6.3V*
PN101	0B84872A	12P F Connector*
PN102	0B84874A	6P F Connector*
PN103	0B84908A	13P F Connector*
PN104	0B84870A	24P Connector Header
PT136	0B81469A	5P S-Post
EO04046E	M2.6x3 + Pan (2)	
JO08127B	P.C.B. Holder A (2)	

8. IC BLOCK DIAGRAMS

U501 HD64F3437TF16 (System Control MPU)

Pin No.	Pin Name	Signal Name	I/O	Function
1	RES	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/ST	FVPP/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	BSENS	BSENS	I	Battery voltage sensing signal.
24	ASENS	ASENS	I	ACC voltage sensing signal.
25	SCOR	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	CDC/AUX	CDC/AUX	O	CDC/AUX source select signal.
53	ST	ST	I	Stereo signal from tuner circuit.
54	DATAI	DATAI	I	Serial data from tuner circuit.
55	ST/MONO	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	RESO	RESO	—	(Not used.)

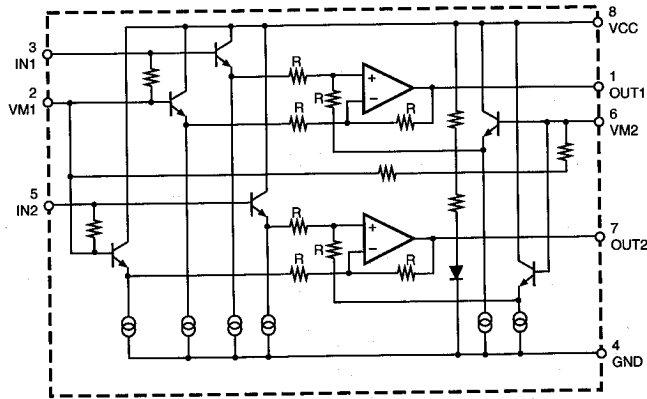


Fig. 8.1 Ground Isolation Amp. BA3121F (U303, 304)

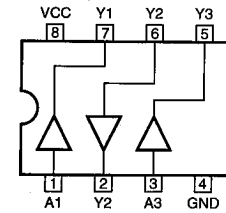


Fig. 8.2 Buffer TC7W34FU (U505)

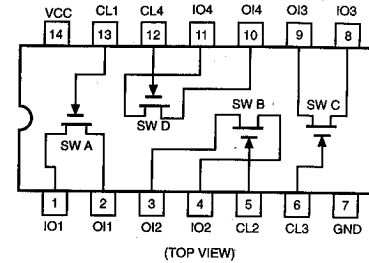


Fig. 8.3 Analog Switch TC4066BFT (U305)

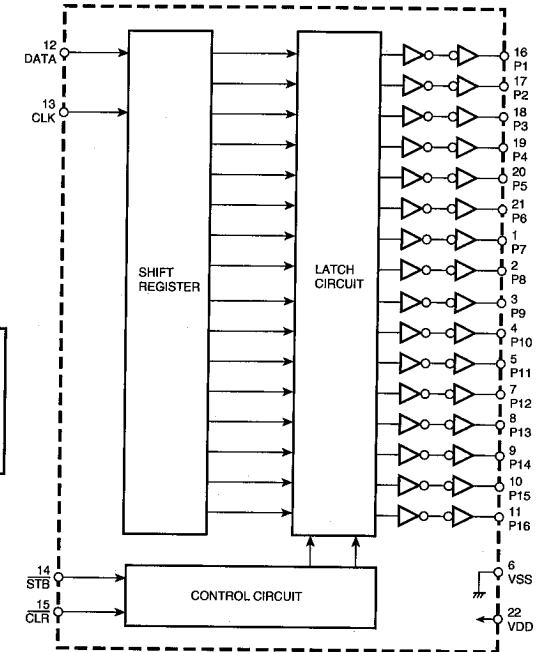


Fig. 8.4 LED Driver NJU3715G (U701)

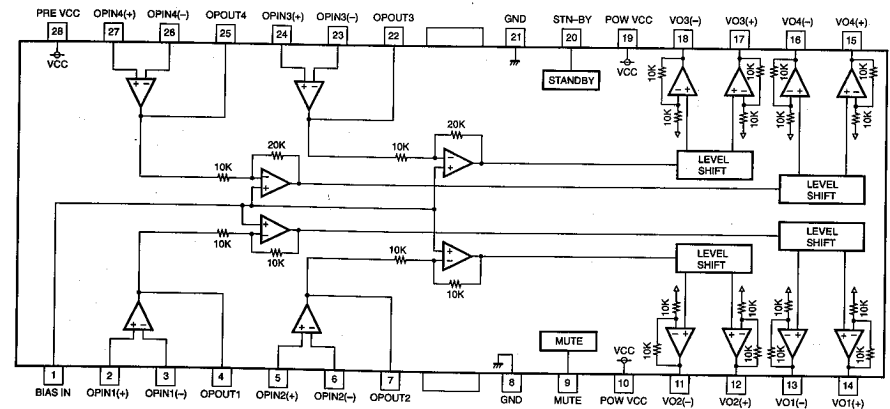


Fig. 8.5 Driver BA5972FP (U103)

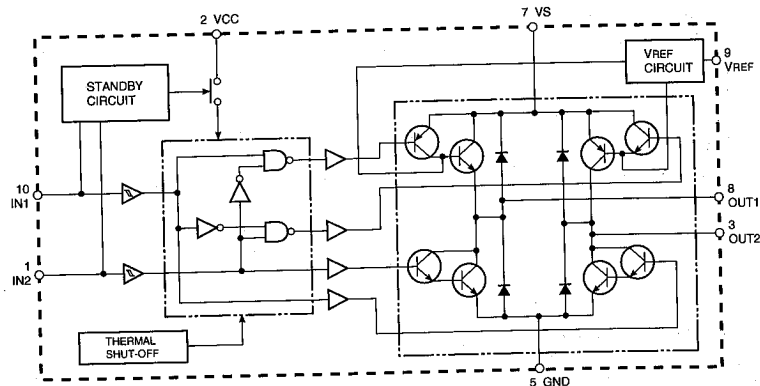


Fig. 8.6 Motor Driver TA8409F (U106, 107, 108)

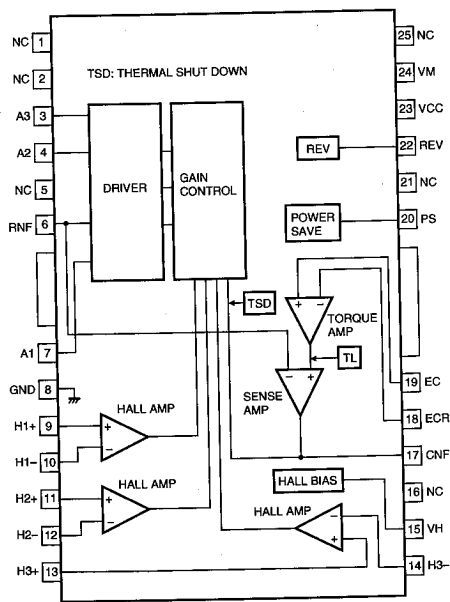


Fig. 8.7 Motor Driver BA6840BFP (U104)

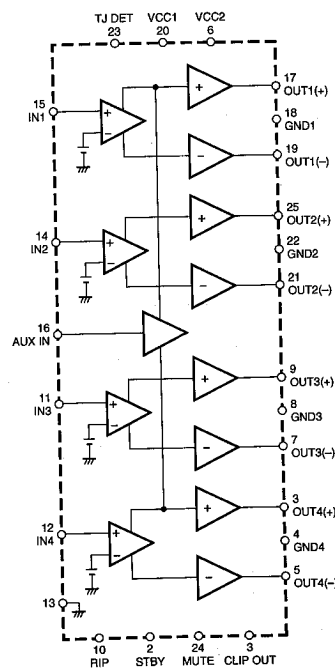


Fig. 8.8 BTL x 4 Channel Power Amp. TA8260H (U901)

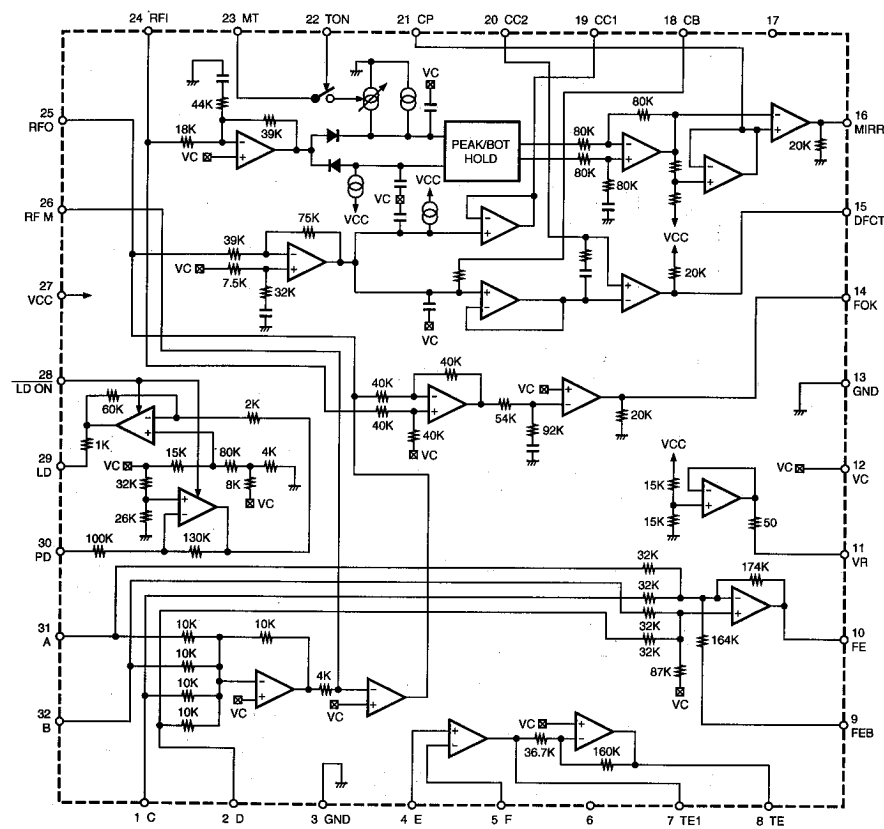


Fig. 8.9 RF Amp. CXA2521Q (U101)

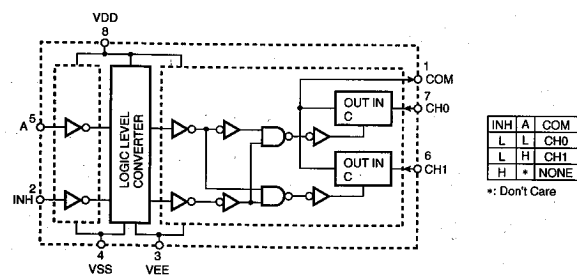


Fig. 8.10 Selector TC4W53FU (U105)

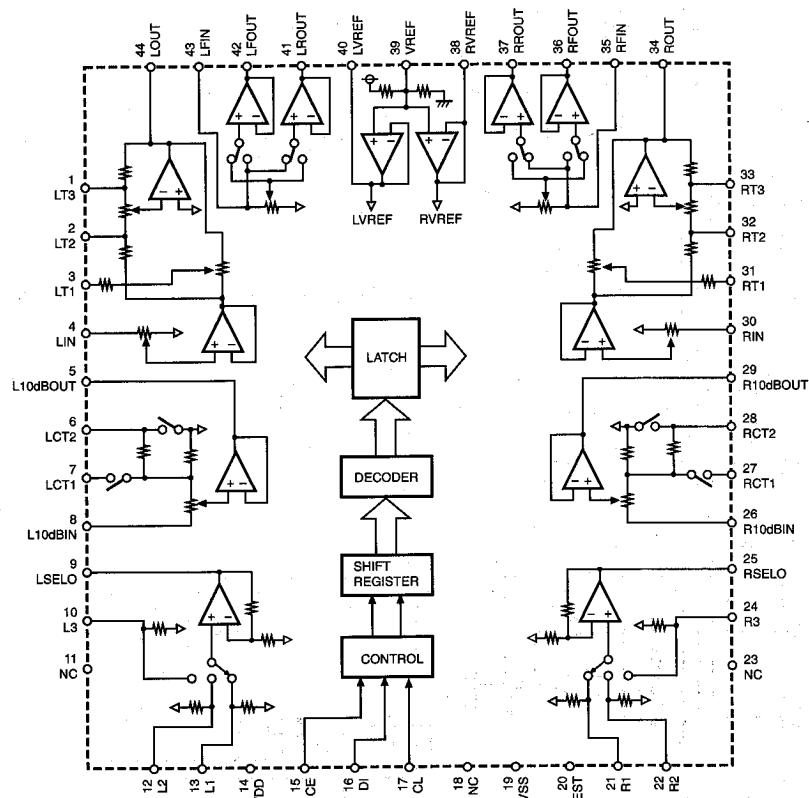


Fig. 8.11 Electronic Volume IC LC75372E (U301)

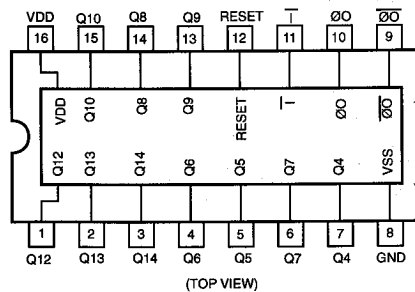


Fig. 8.12 14-Stage Counter/Oscillator TC4060AF (U503)

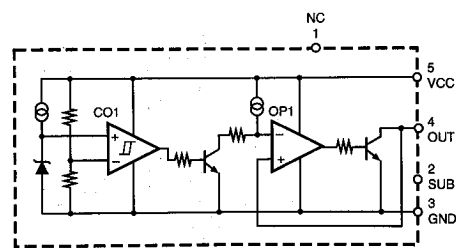


Fig. 8.13 Voltage Detector PST9142NR (U502)

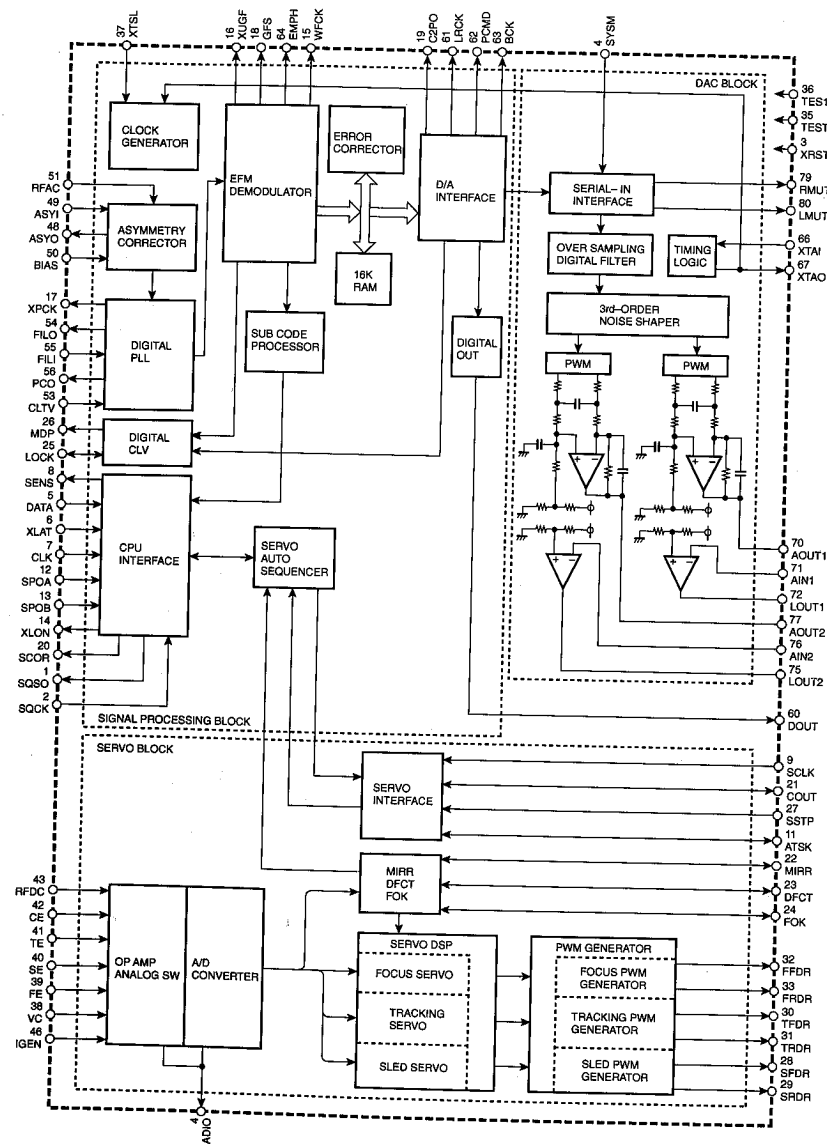


Fig. 8.14 Digital Signal Processor CXD2587Q (U102)

The diagram illustrates the internal circuitry of a CD player, organized into several main sections:

- MECHANISM:** Includes the SPINDLE MOTOR, LASER PICKUP, SLED MOTOR, and various sensors (P-ARM, LD-PLT, SHUTTER, LDC-PLS, LDC-REF, ST-PLS, CLAMPER, ST-PLAY, ST-REF, TRUD-PLS, TRPOS MOV, LOCK-PIN).
- CD P.C.B. (Compact Disc Player Circuit Board):** Contains the MOTOR DRIVER (U104, U103), FOCUS COIL DRIVER, TRACKING COIL DRIVER, SLED MOTOR DRIVER, and various control ICs (U101, U102, U103, U104, U105, U106, U107, U108, U109).
- MAIN P.C.B. (Main Circuit Board):** Houses the DIGITAL SIGNAL PROCESSOR (U102), SYSTEM CONTROL MPU (U501), and various control ICs (U101, U102, U103, U104, U105, U106, U107, U108, U109).
- SYSTEM CONTROL MPU (U501):** The central processing unit that coordinates the operation of the CD player, including motor control, data processing, and system management.
- FRONT P.C.B. (Front Panel Circuit Board):** Includes the LCD (LCD701), LCD DRIVER (IC701), REMOTE SENSOR (IC702), KEY X 11, and various control ICs (U701, U702, U703, U704, U705, U706, U707, U708, U709, U710, U711, U712, U713, U714, U715, U716, U717, U718, U719, U720, U721, U722, U723, U724, U725, U726, U727, U728, U729, U730, U731, U732, U733, U734, U735, U736, U737, U738, U739, U740, U741, U742, U743, U744, U745, U746, U747, U748, U749, U750, U751, U752, U753, U754, U755, U756, U757, U758, U759, U760, U761, U762, U763, U764, U765, U766, U767, U768, U769, U770, U771, U772, U773, U774, U775, U776, U777, U778, U779, U780, U781, U782, U783, U784, U785, U786, U787, U788, U789, U790, U791, U792, U793, U794, U795, U796, U797, U798, U799, U800, U801, U802, U803, U804, U805, U806, U807, U808, U809, U810, U811, U812, U813, U814, U815, U816, U817, U818, U819, U820, U821, U822, U823, U824, U825, U826, U827, U828, U829, U830, U831, U832, U833, U834, U835, U836, U837, U838, U839, U840, U841, U842, U843, U844, U845, U846, U847, U848, U849, U850, U851, U852, U853, U854, U855, U856, U857, U858, U859, U860, U861, U862, U863, U864, U865, U866, U867, U868, U869, U870, U871, U872, U873, U874, U875, U876, U877, U878, U879, U880, U881, U882, U883, U884, U885, U886, U887, U888, U889, U890, U891, U892, U893, U894, U895, U896, U897, U898, U899, U900, U901, U902, U903, U904, U905, U906, U907, U908, U909, U910, U911, U912, U913, U914, U915, U916, U917, U918, U919, U920, U921, U922, U923, U924, U925, U926, U927, U928, U929, U930, U931, U932, U933, U934, U935, U936, U937, U938, U939, U940, U941, U942, U943, U944, U945, U946, U947, U948, U949, U950, U951, U952, U953, U954, U955, U956, U957, U958, U959, U960, U961, U962, U963, U964, U965, U966, U967, U968, U969, U970, U971, U972, U973, U974, U975, U976, U977, U978, U979, U980, U981, U982, U983, U984, U985, U986, U987, U988, U989, U990, U991, U992, U993, U994, U995, U996, U997, U998, U999, U1000).
- POWER AMP UNIT:** Includes the POWER AMP (U901), SPEAKER OUT (LCH, RCH), and various control ICs (U901, U902, U903, U904, U905, U906, U907, U908, U909, U910, U911, U912, U913, U914, U915, U916, U917, U918, U919, U920, U921, U922, U923, U924, U925, U926, U927, U928, U929, U930, U931, U932, U933, U934, U935, U936, U937, U938, U939, U940, U941, U942, U943, U944, U945, U946, U947, U948, U949, U950, U951, U952, U953, U954, U955, U956, U957, U958, U959, U960, U961, U962, U963, U964, U965, U966, U967, U968, U969, U970, U971, U972, U973, U974, U975, U976, U977, U978, U979, U980, U981, U982, U983, U984, U985, U986, U987, U988, U989, U990, U991, U992, U993, U994, U995, U996, U997, U998, U999, U1000).

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

[illegible]

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

Fig. 10

SPECIFICATIONS

• Amplifier Section

Maximum Power Output	40W x 4 (4 ohms)
Frequency Response	15 - 30,000 Hz \pm 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 \pm 12 dB
Treble	20 kHz \pm 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 dB μ
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

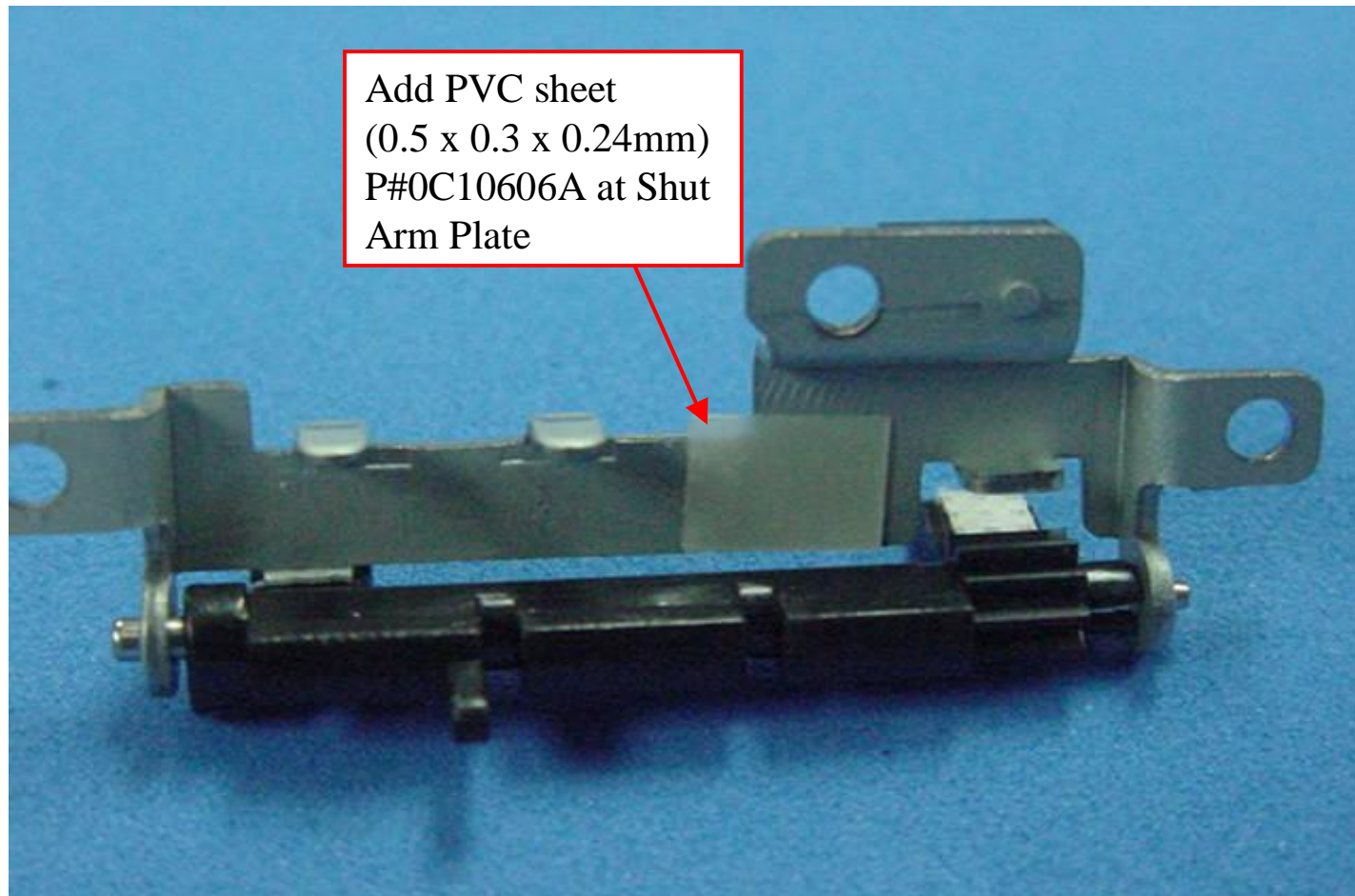
Principle	Infrared pulse system
Power Supply	3 VDC (1.5 V x 2)
Dimensions*	49 (W) x 26 (H) x 110 (D) mm
	1-15/16 (W) x 1 (H) x 4-5/16 (D) inches
Mass	Approx. 60 g/2 oz. (including batteries)

- 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.

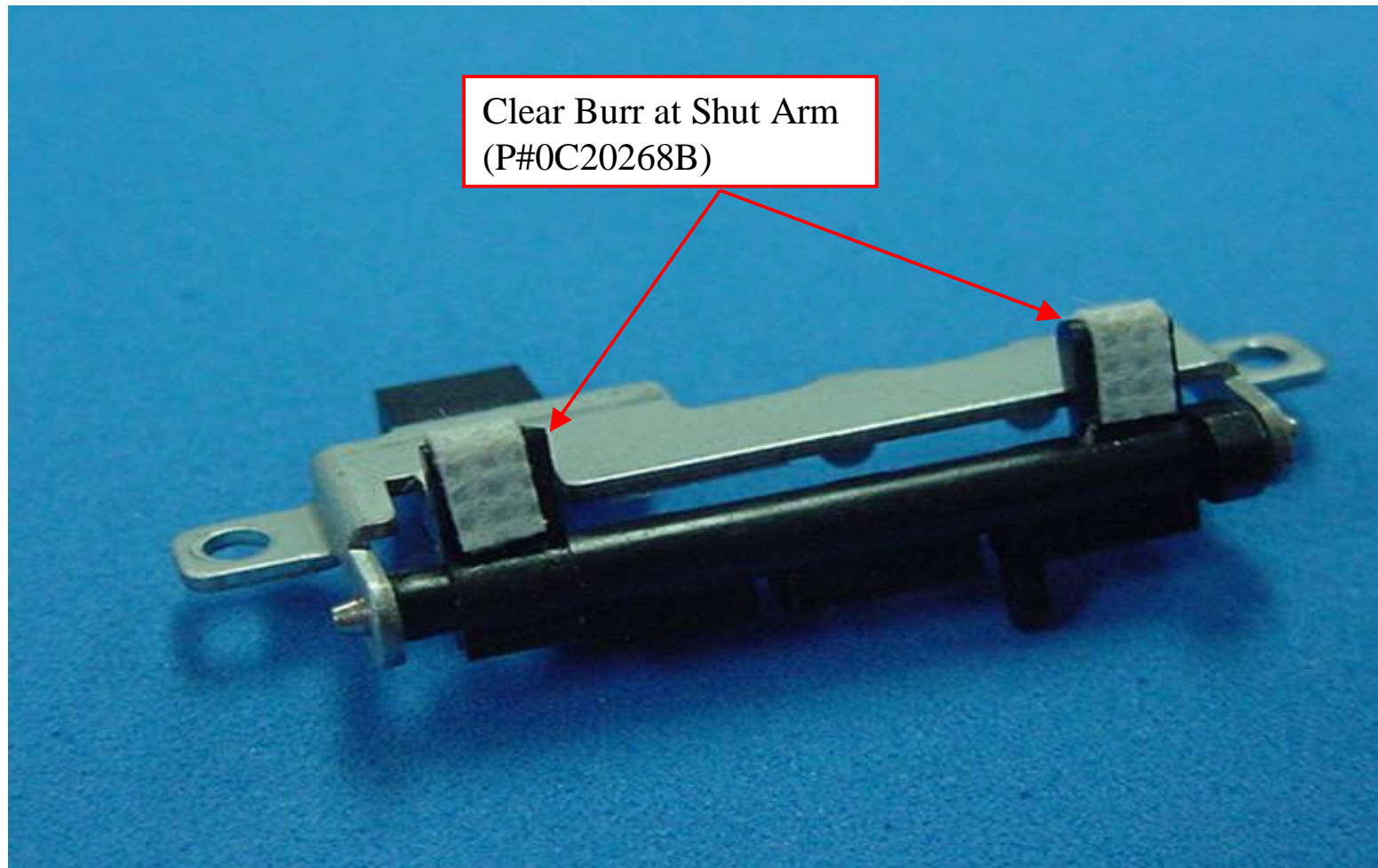
Nakamichi Corporation	1-153 Suzukicho, Kodaira, Tokyo 187
Nakamichi America Corporation	955 Francisco St., Torrance, CA. 90502 Phone: (310) 538-8150
Nakamichi Canada	276 South West, Marine Drive, Vancouver, B.C. V5X 2R4 Phone: (604) 324-7535

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

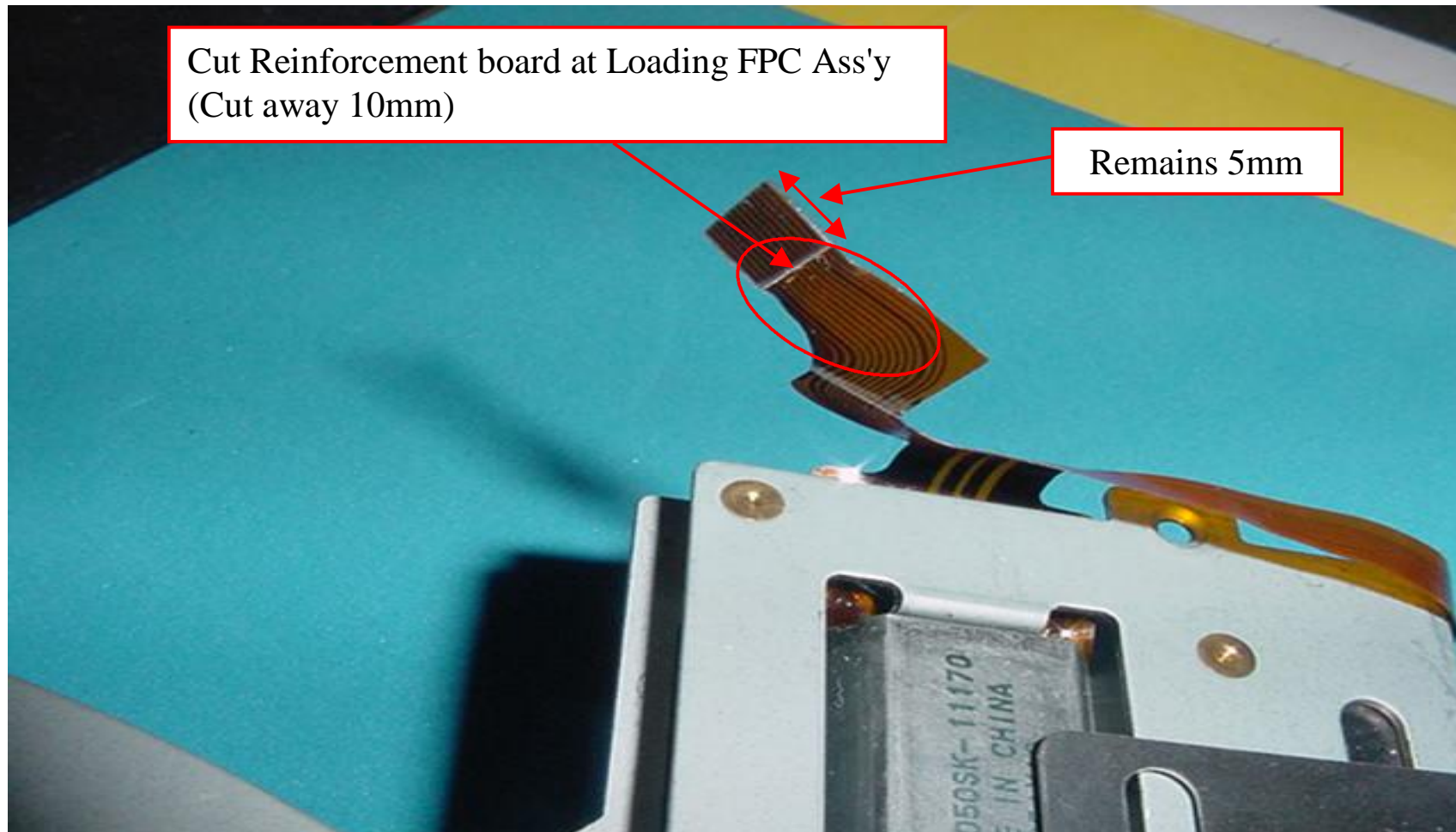
1(i) Prevent CD Auto Eject: Shutter sensor is not activated properly
(Loading Ass'y)



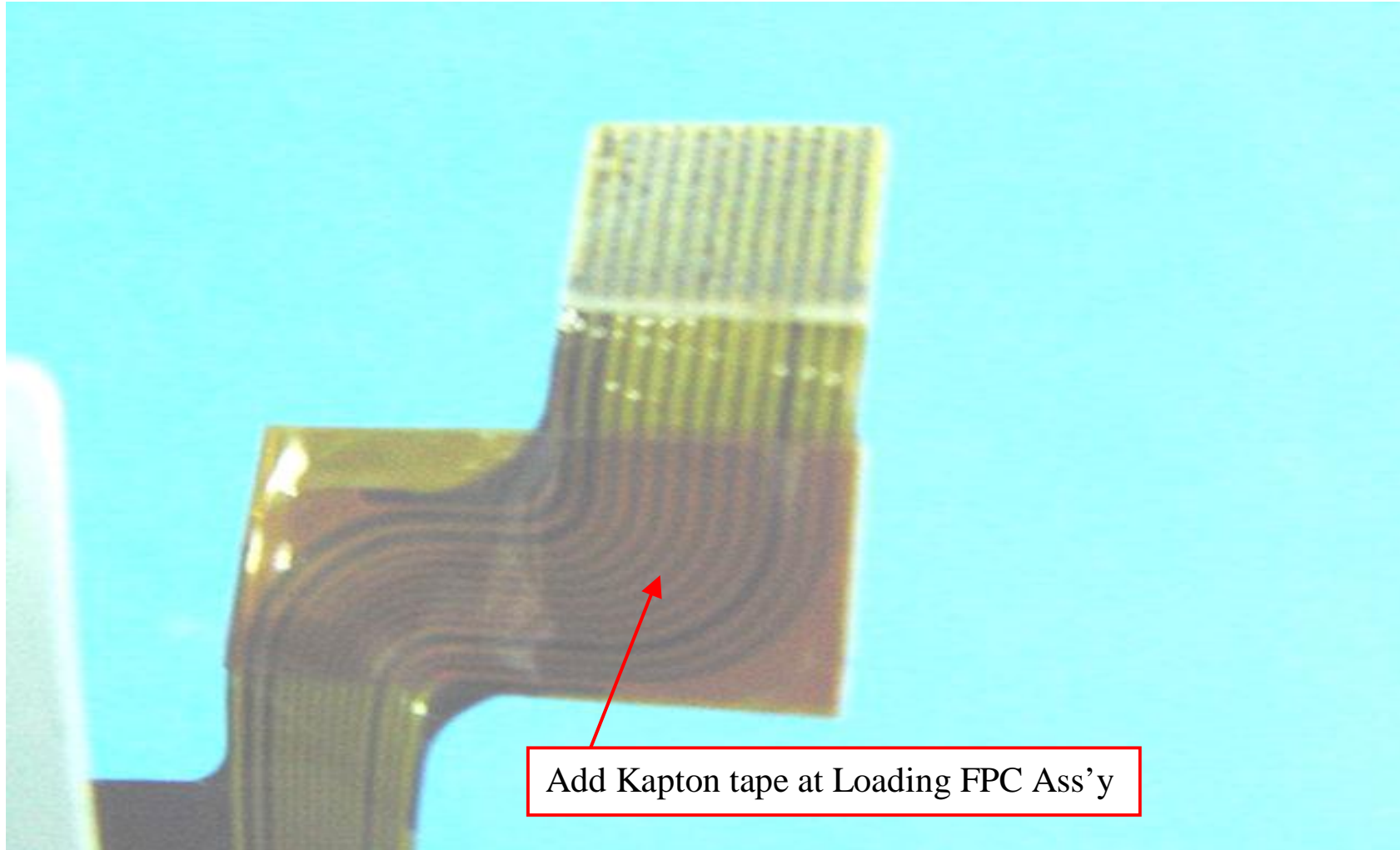
1(ii) Prevent CD Auto Eject: Shutter sensor is not activated properly
(Loading Ass'y)



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



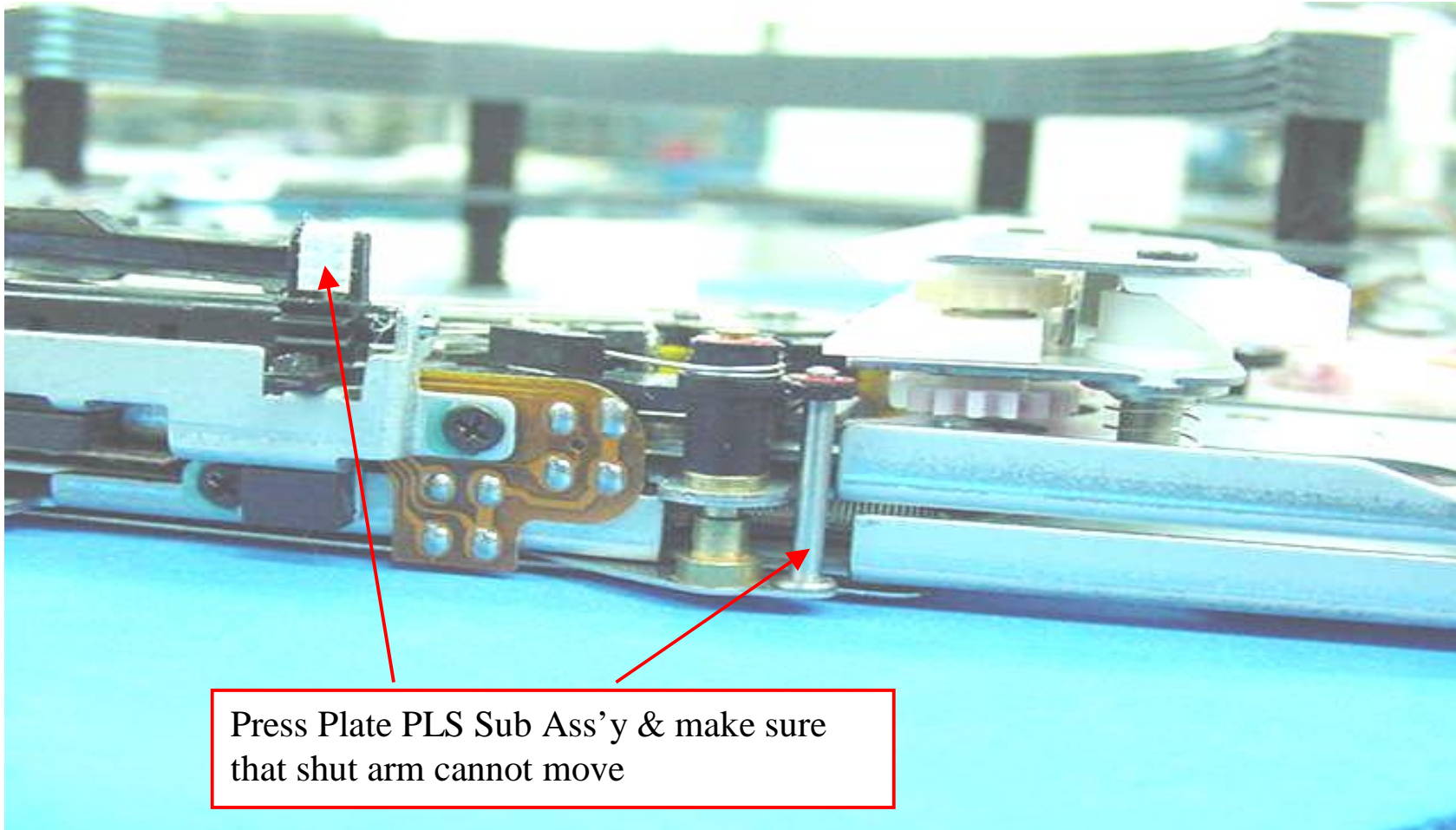
2(ii) Strengthen Loading FPC Ass'y (Loading Ass'y)



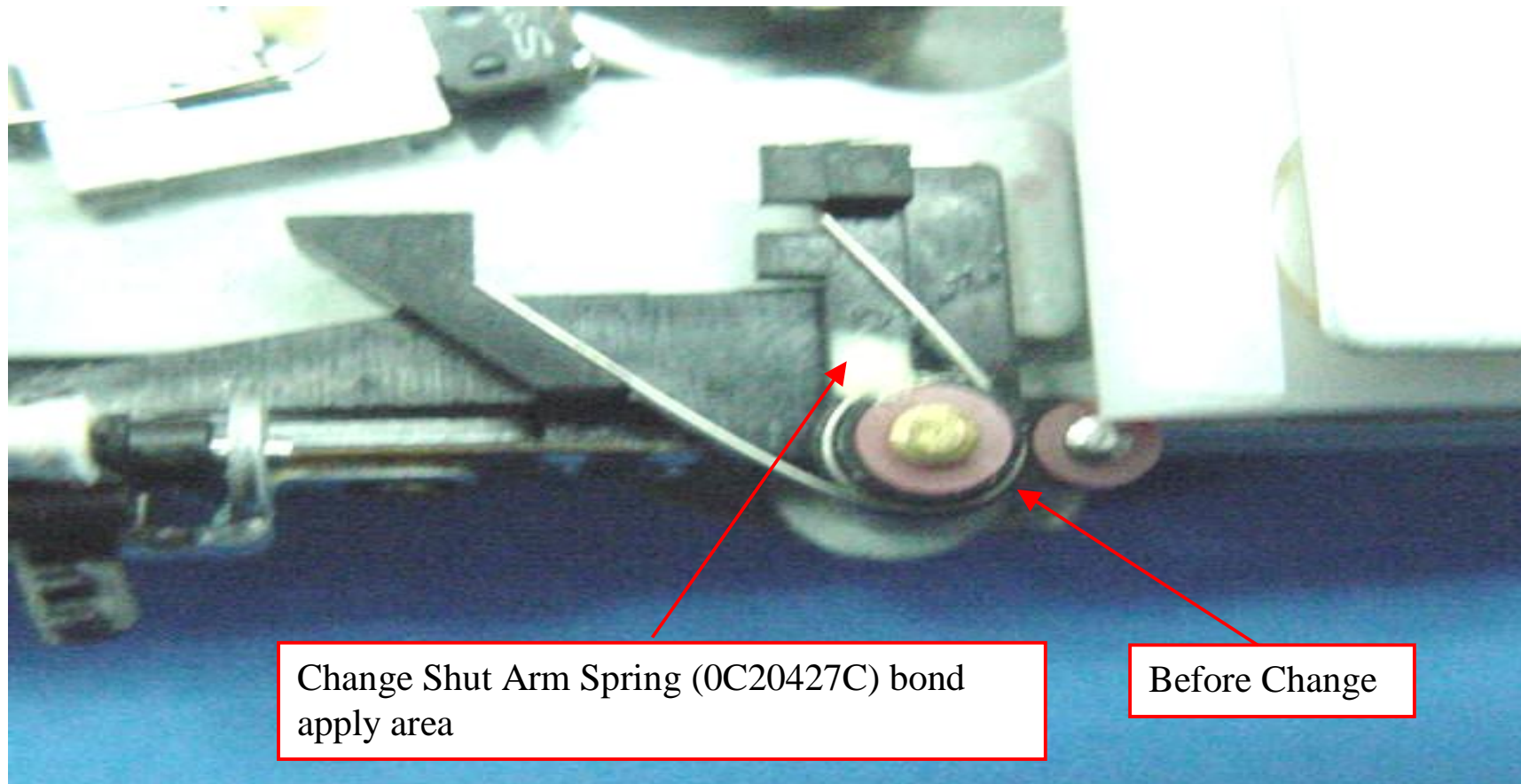
3(i) Prevent E-mecha: loading CAM Mechanism jamming (Loading Ass'y)

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

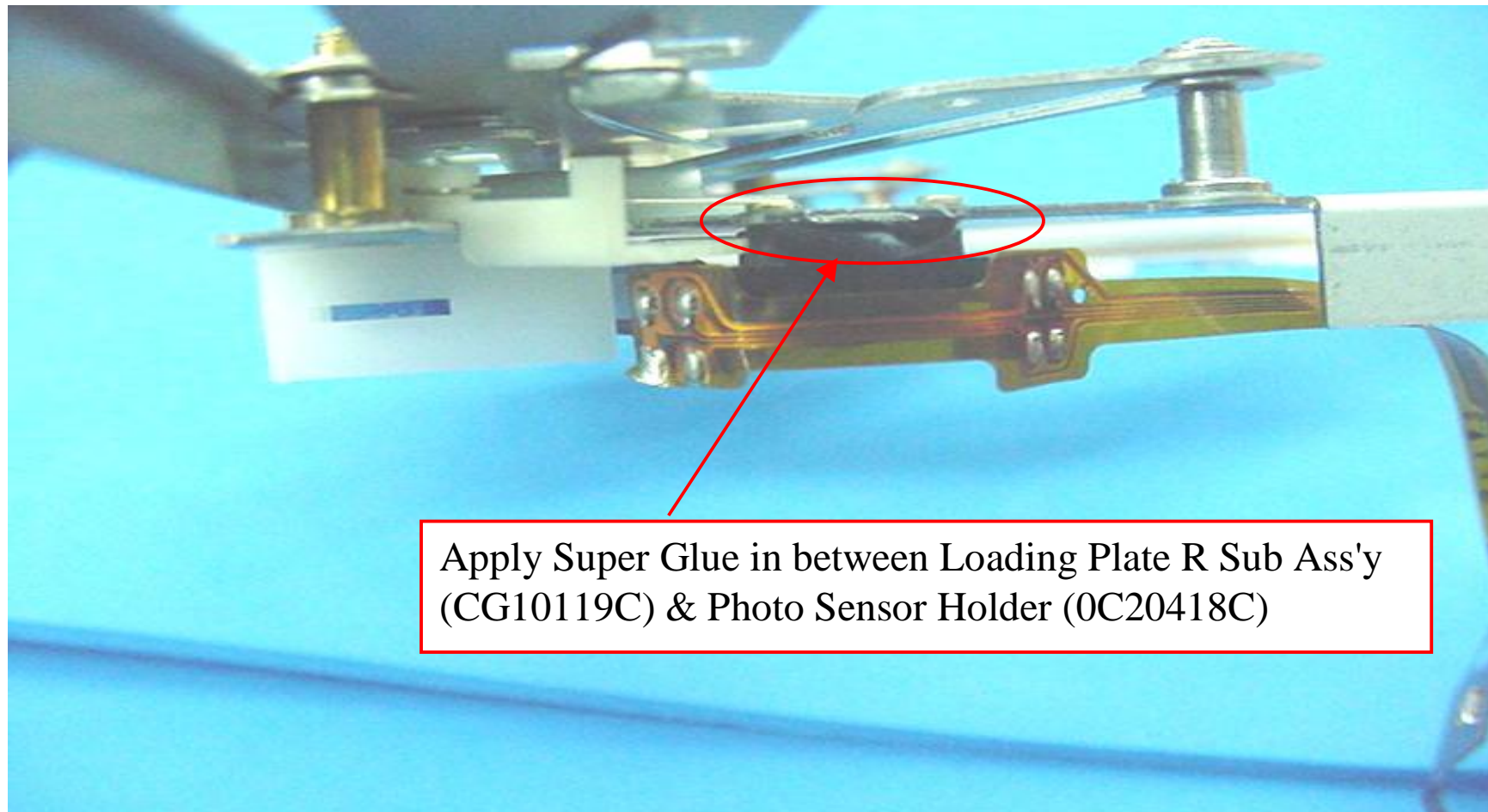
If no, re-adjust the shut arm.



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

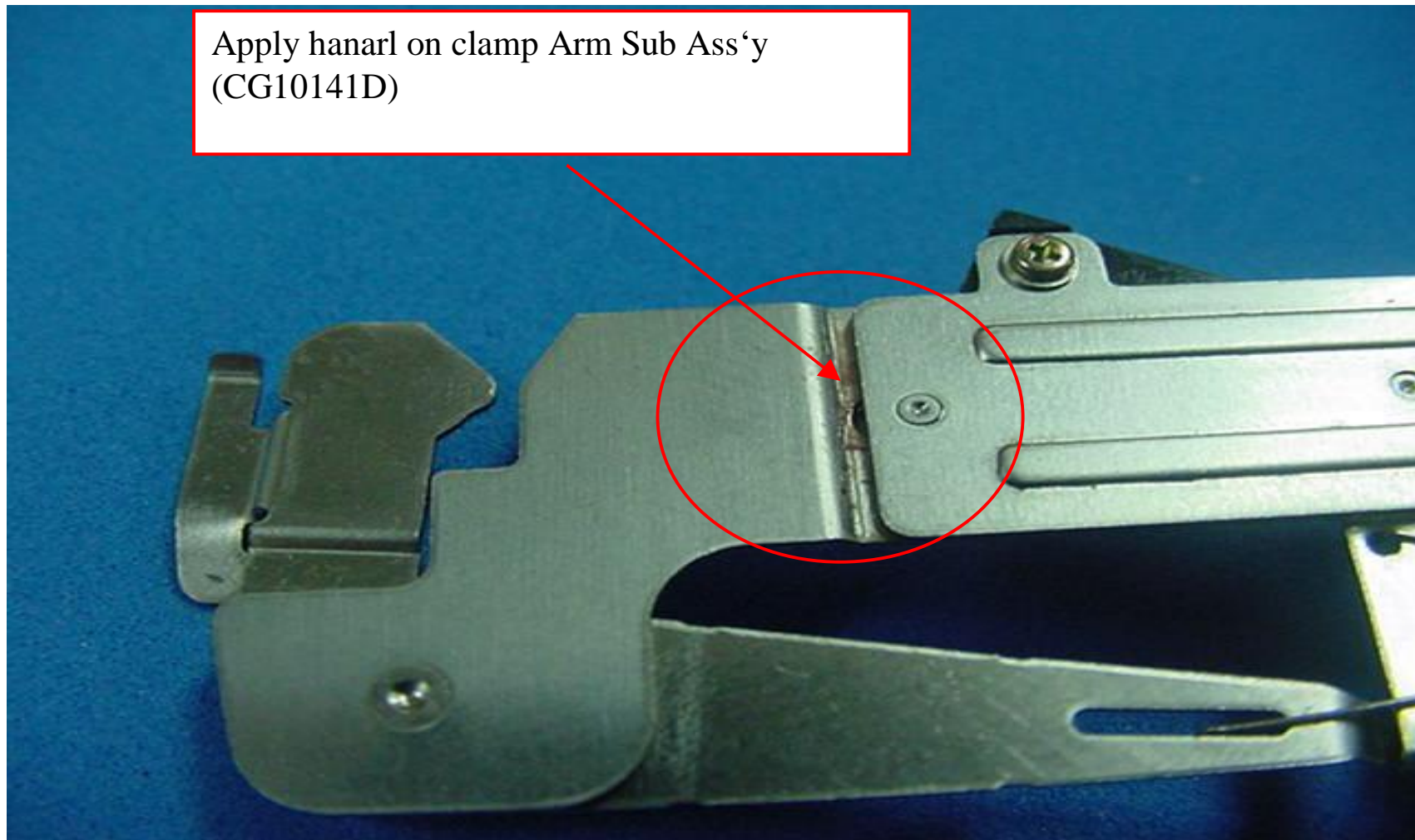


3(iii) Prevent E-mecha: loading CAM Mechanism jamming
(Loading Ass'y)
(6 Disc Mechanism)

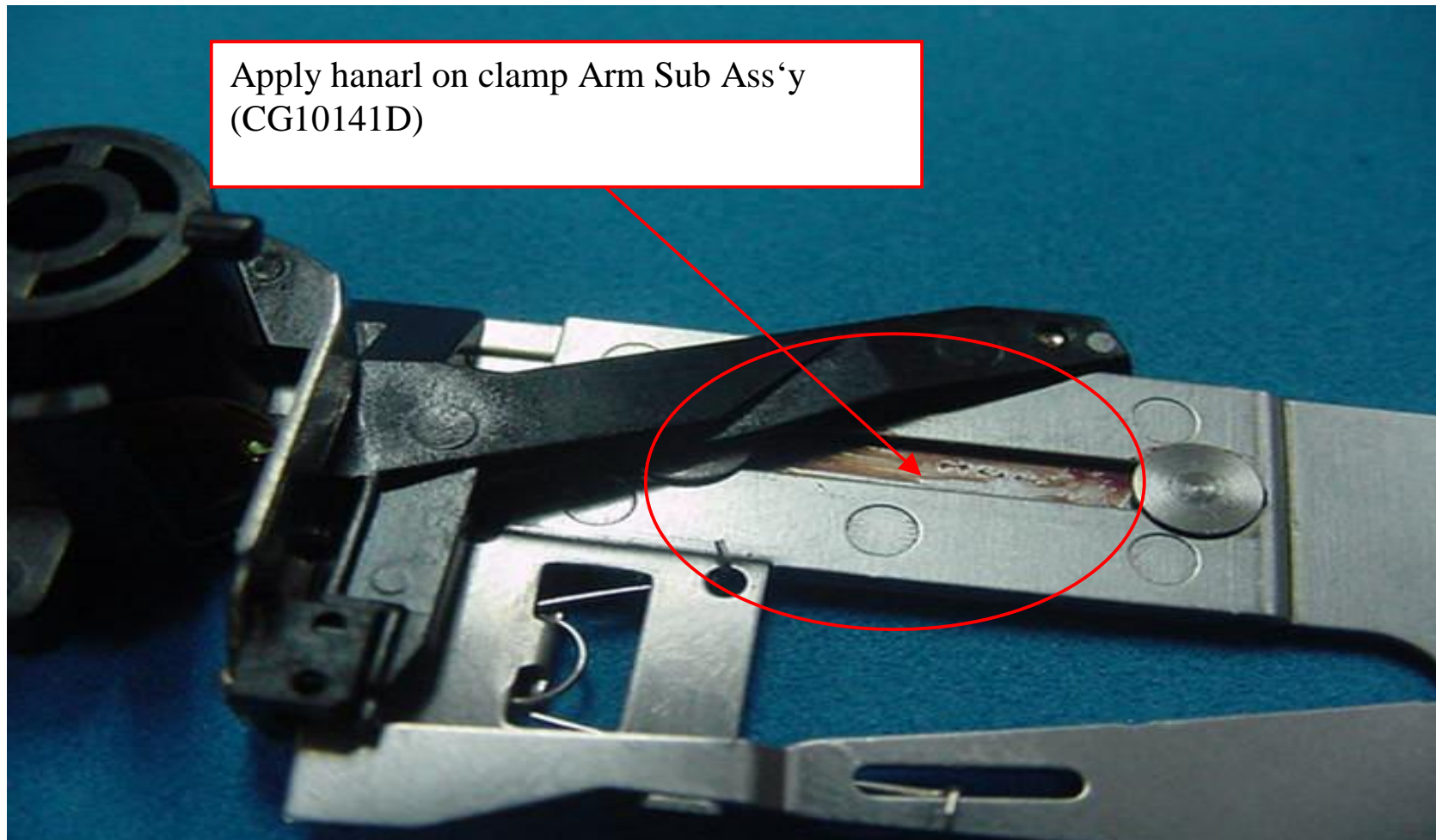


Apply Super Glue in between Loading Plate R Sub Ass'y
(CG10119C) & Photo Sensor Holder (0C20418C)

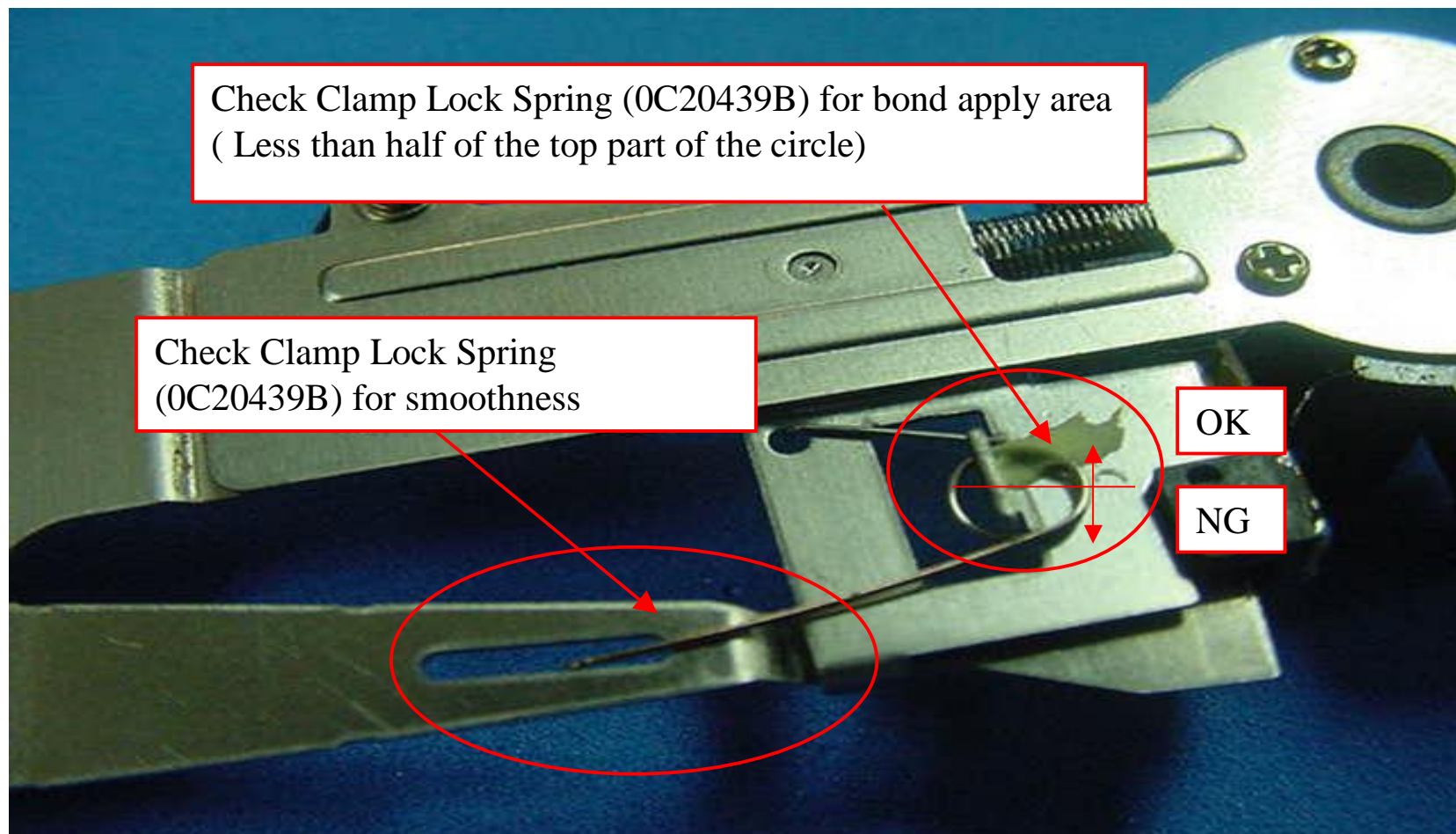
4(i) Prevent E-mecha: clamper arm does not catch clamp plate
(Clamper Ass'y)



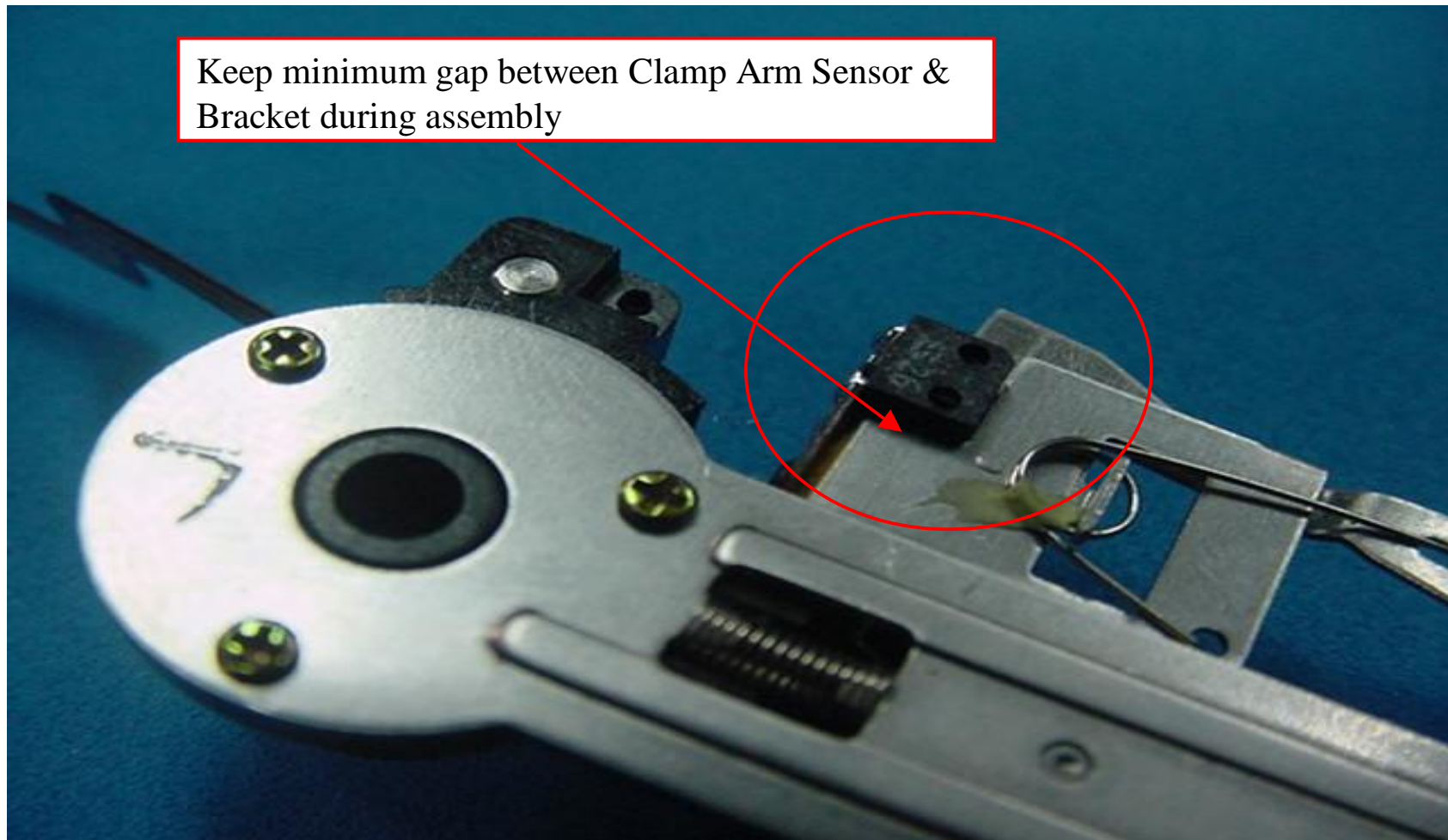
4(ii) Prevent E-mecha: clamper arm does not catch clamp plate
(Clamper Ass'y)



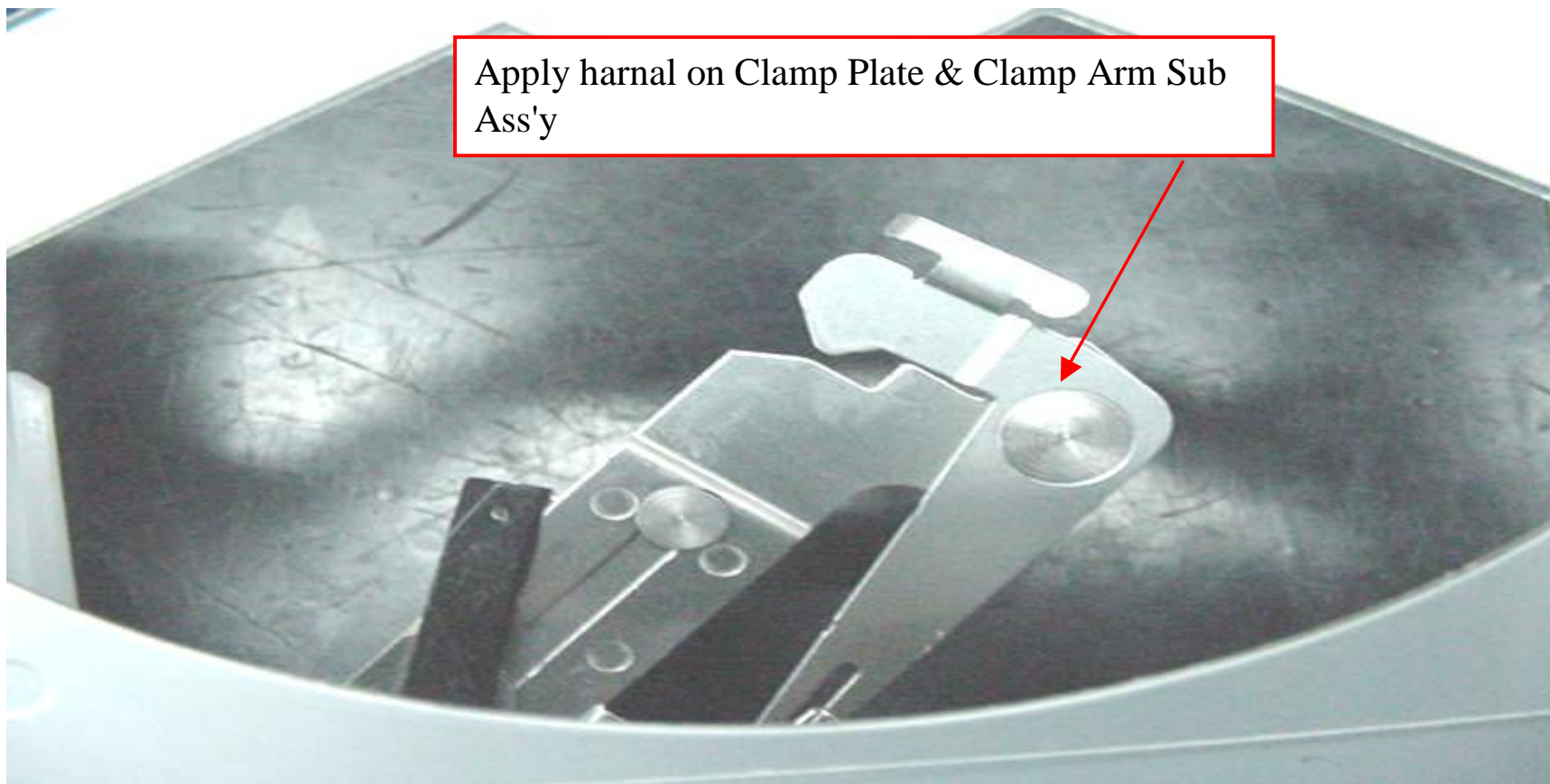
4(iii) Prevent E-mecha: clamper arm does not catch clamp plate
(Clamper Ass'y)



- 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)



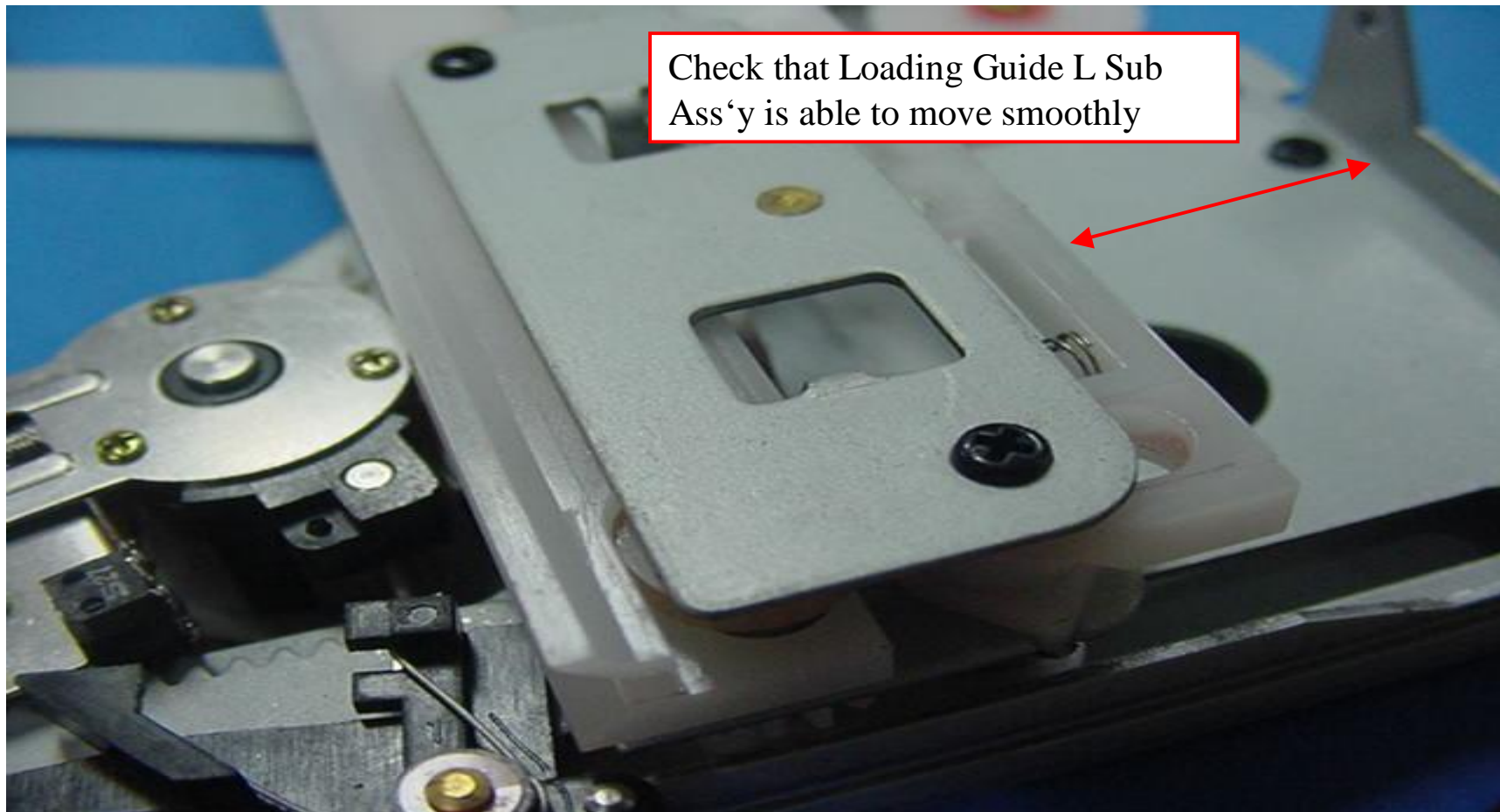
4(vi) Prevent E-mecha: clamper arm does not catch clamp plate
(Clamper Ass'y)



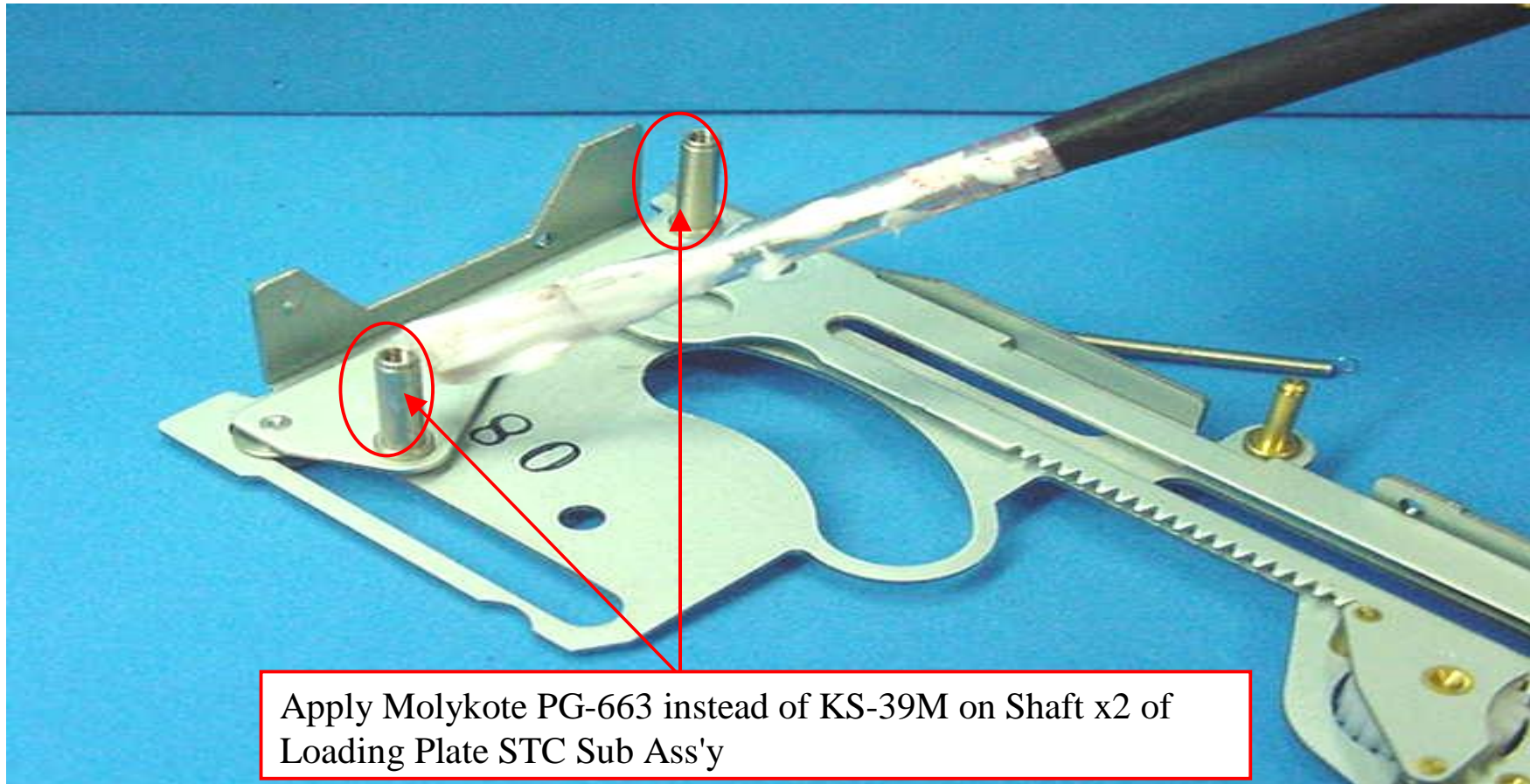
4(vii) Prevent E-mecha: clamper arm does not catch clamp plate
(Clamper Ass'y)



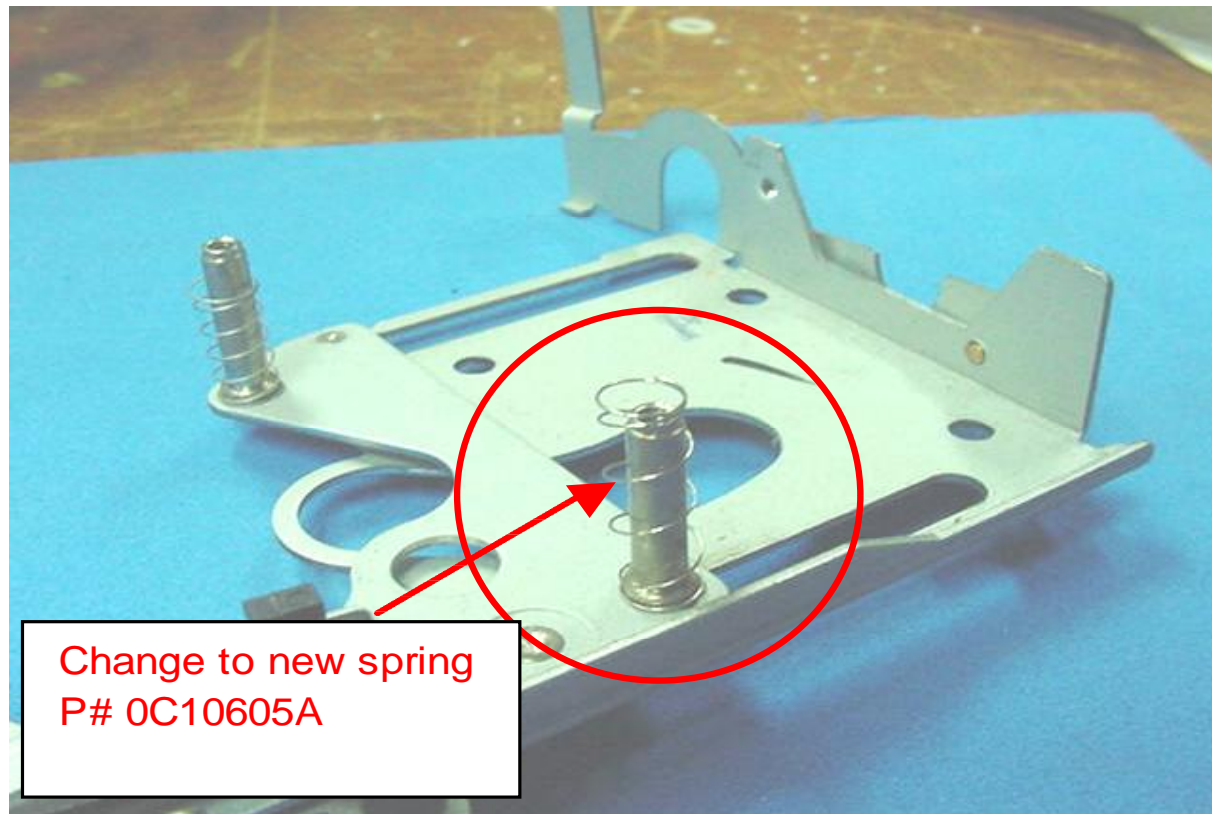
5(i) Prevent E-mecha: loading guides does not hold disc correctly when closed
(Loading guide Ass'y)



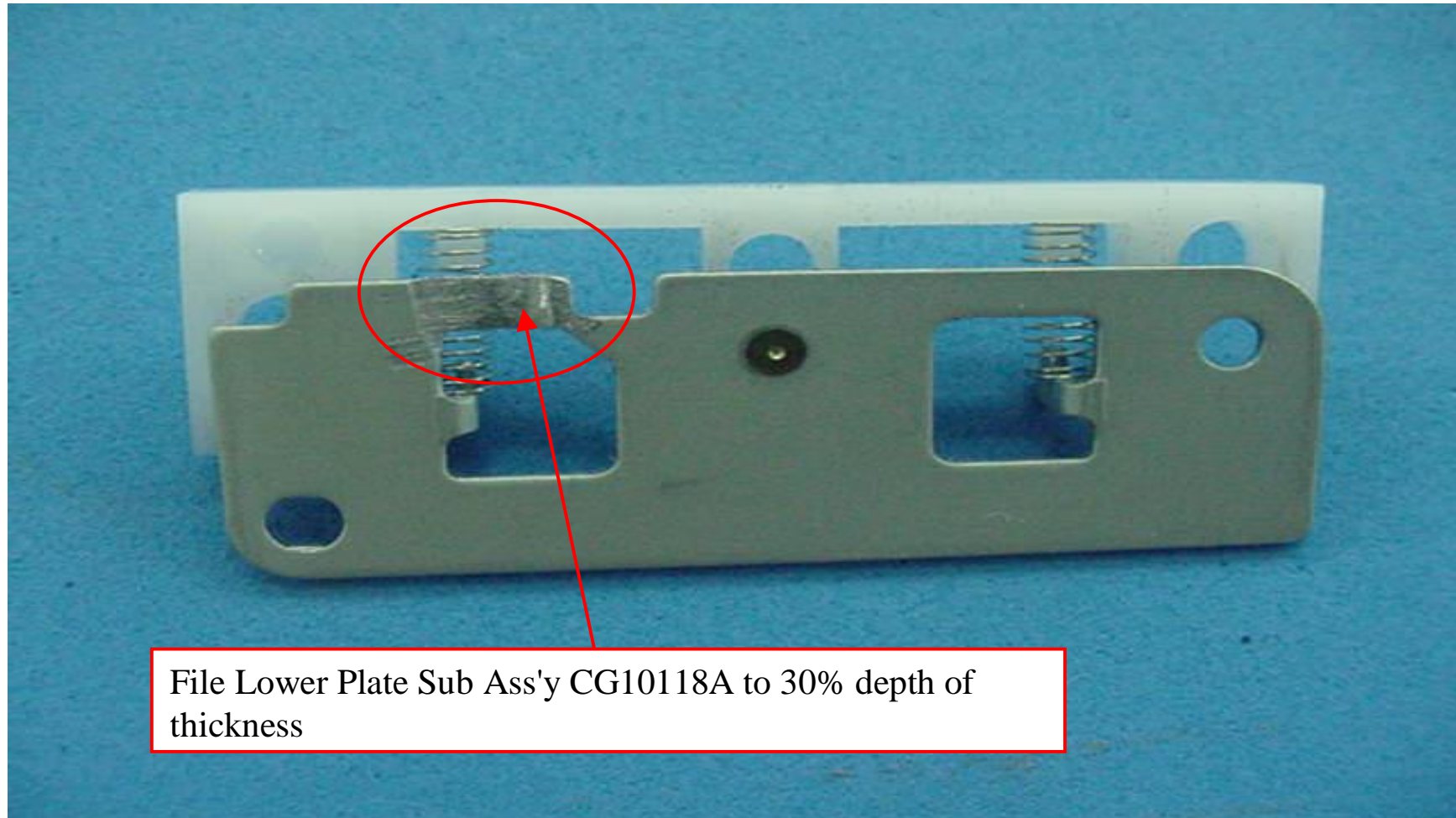
5(ii) Prevent E-mecha: loading guides does not hold disc correctly when closed
(Loading guide Ass'y)



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

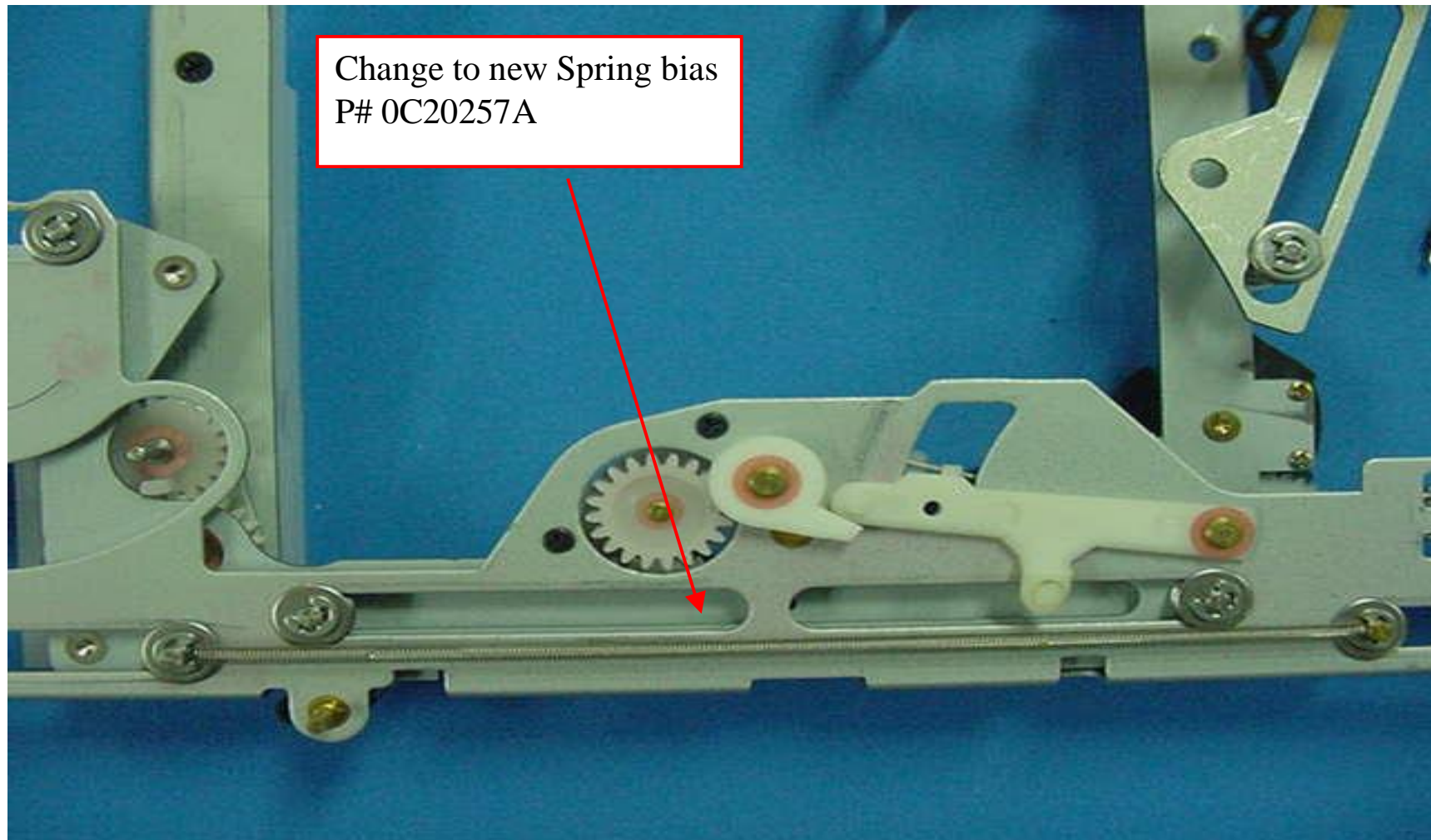


5(iv) Prevent E-mecha: lower plate sub ass'y may touch to traverse vertical screw during disc change (Loading guide Ass'y)
Change to modified spare part

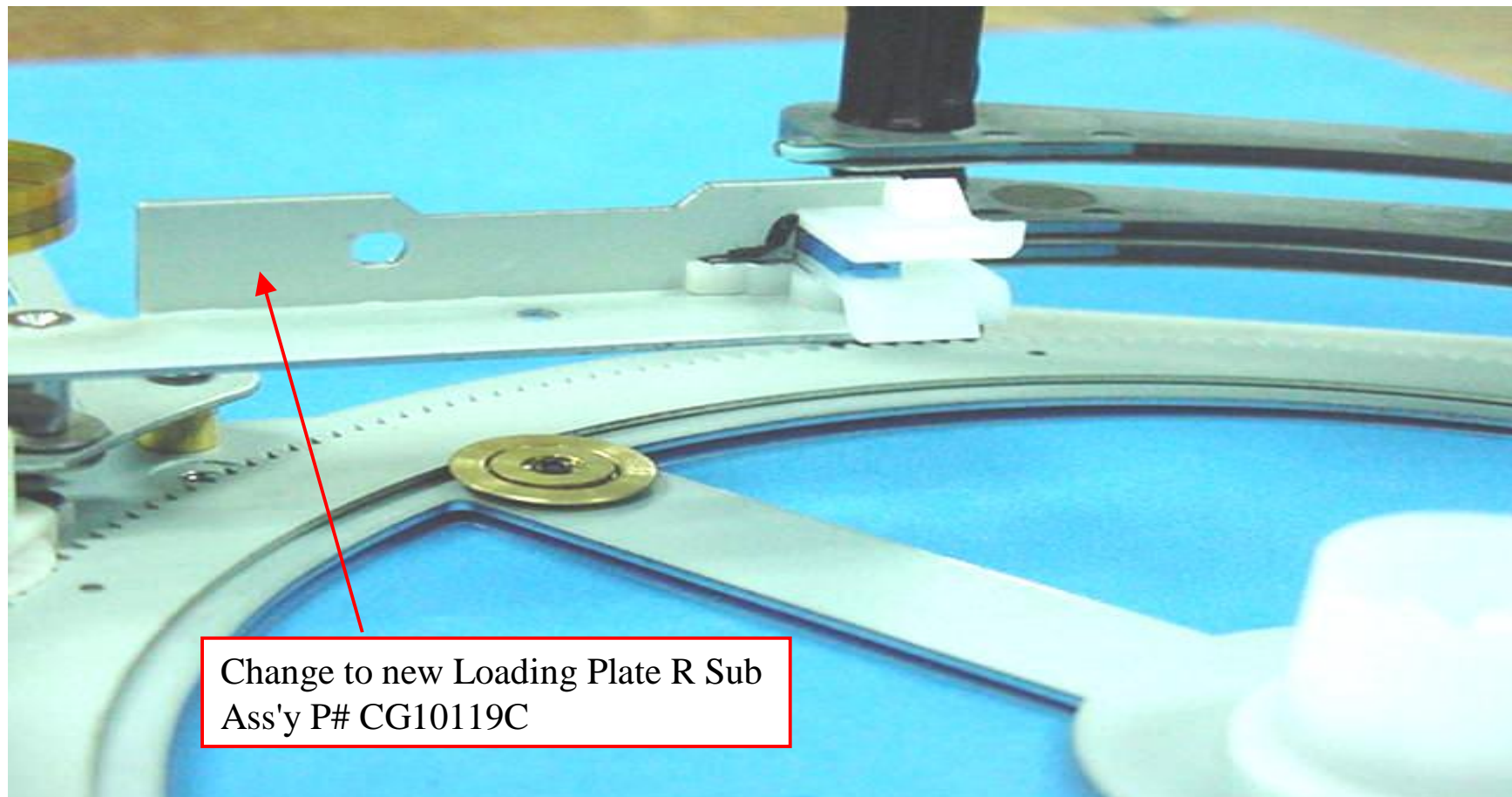


File Lower Plate Sub Ass'y CG10118A to 30% depth of thickness

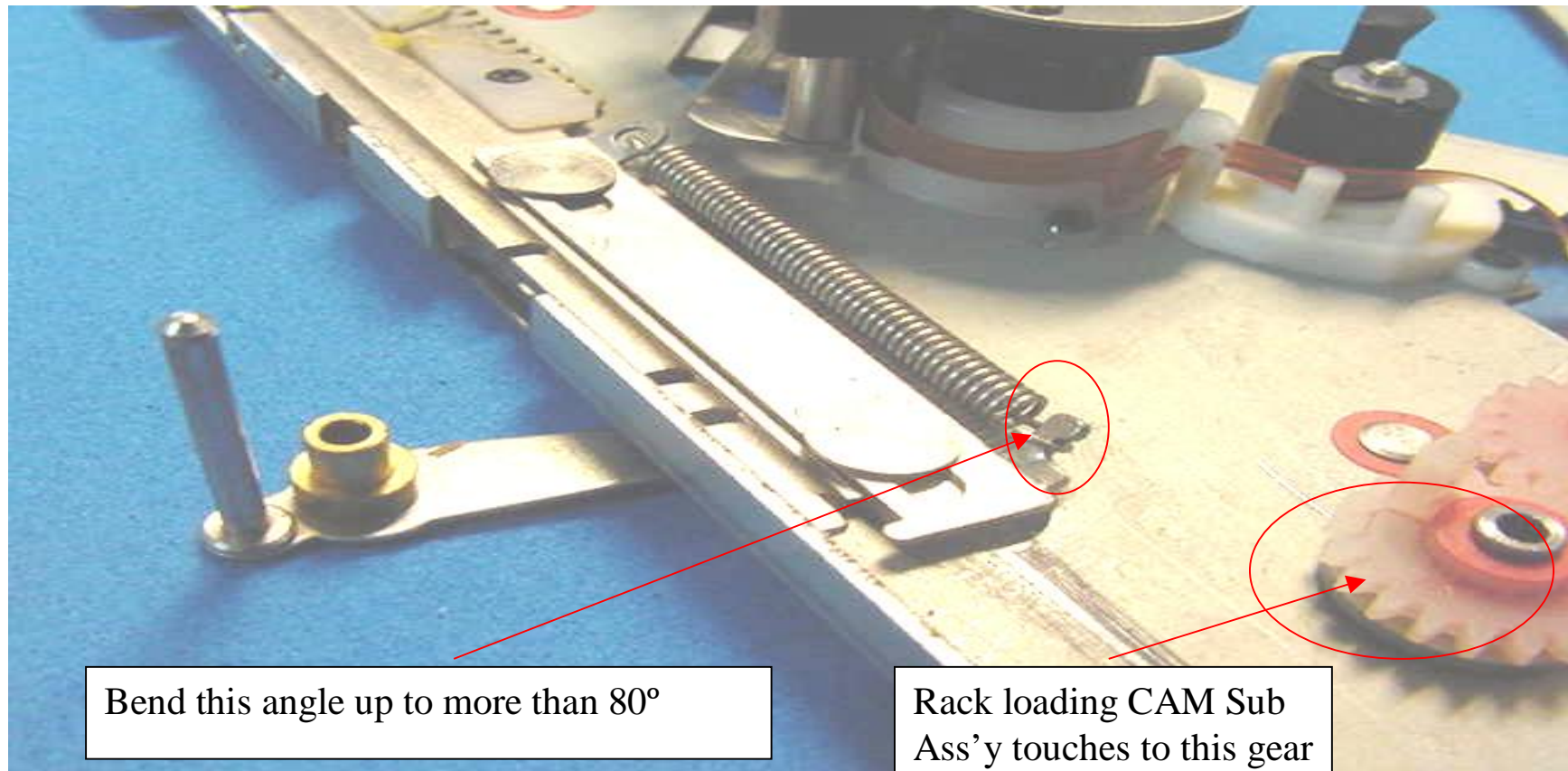
6 Improve 8cm Disc Eject: 8cm Disc does not eject
(Loading guide Ass'y)



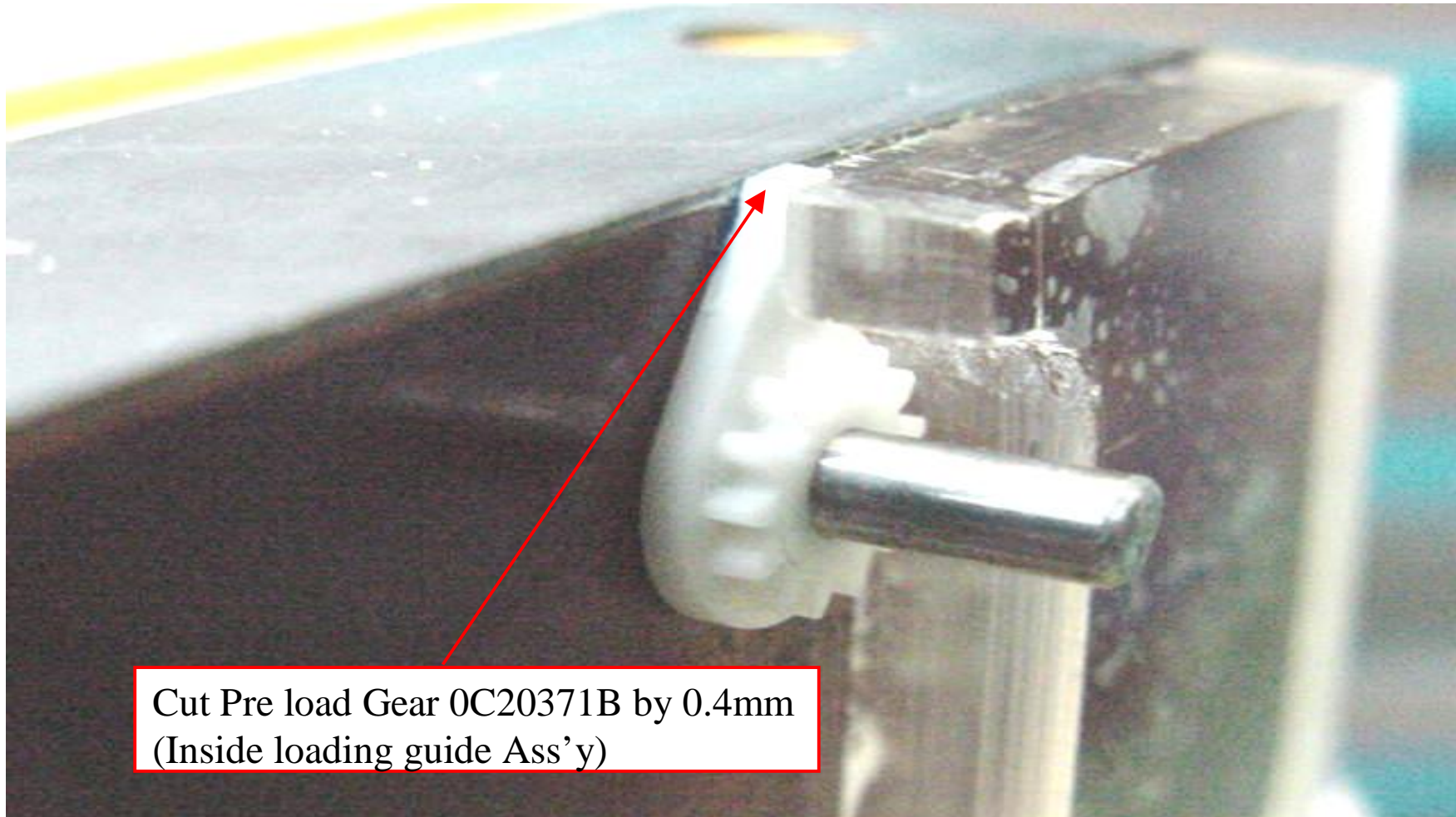
7 Prevent E-mecha: loading guide R touches to lock guide top
(Loading Guide Ass'y)



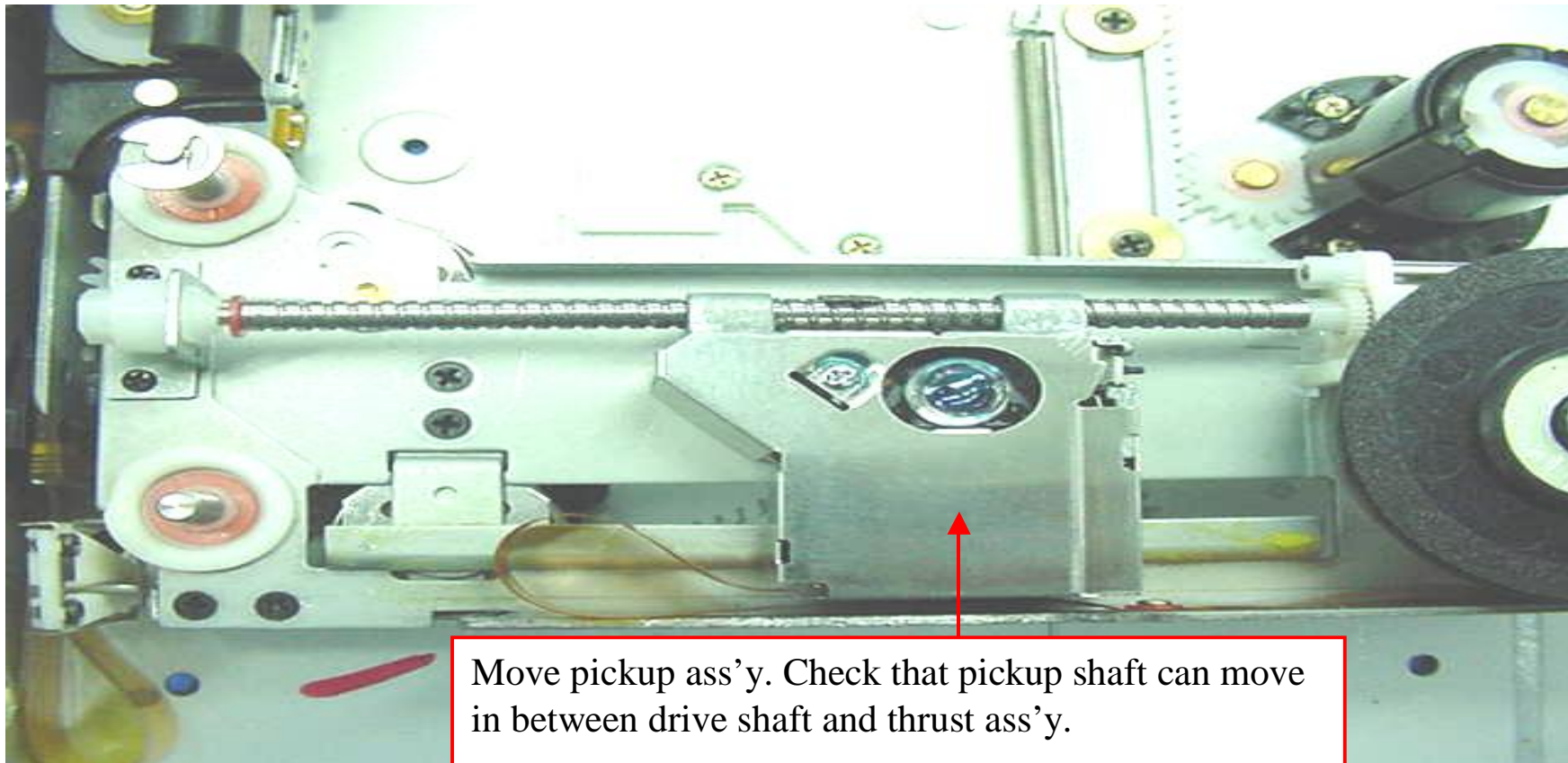
8 Prevent E-mecha: loading guide jamming (Loading Guide Ass'y)



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)

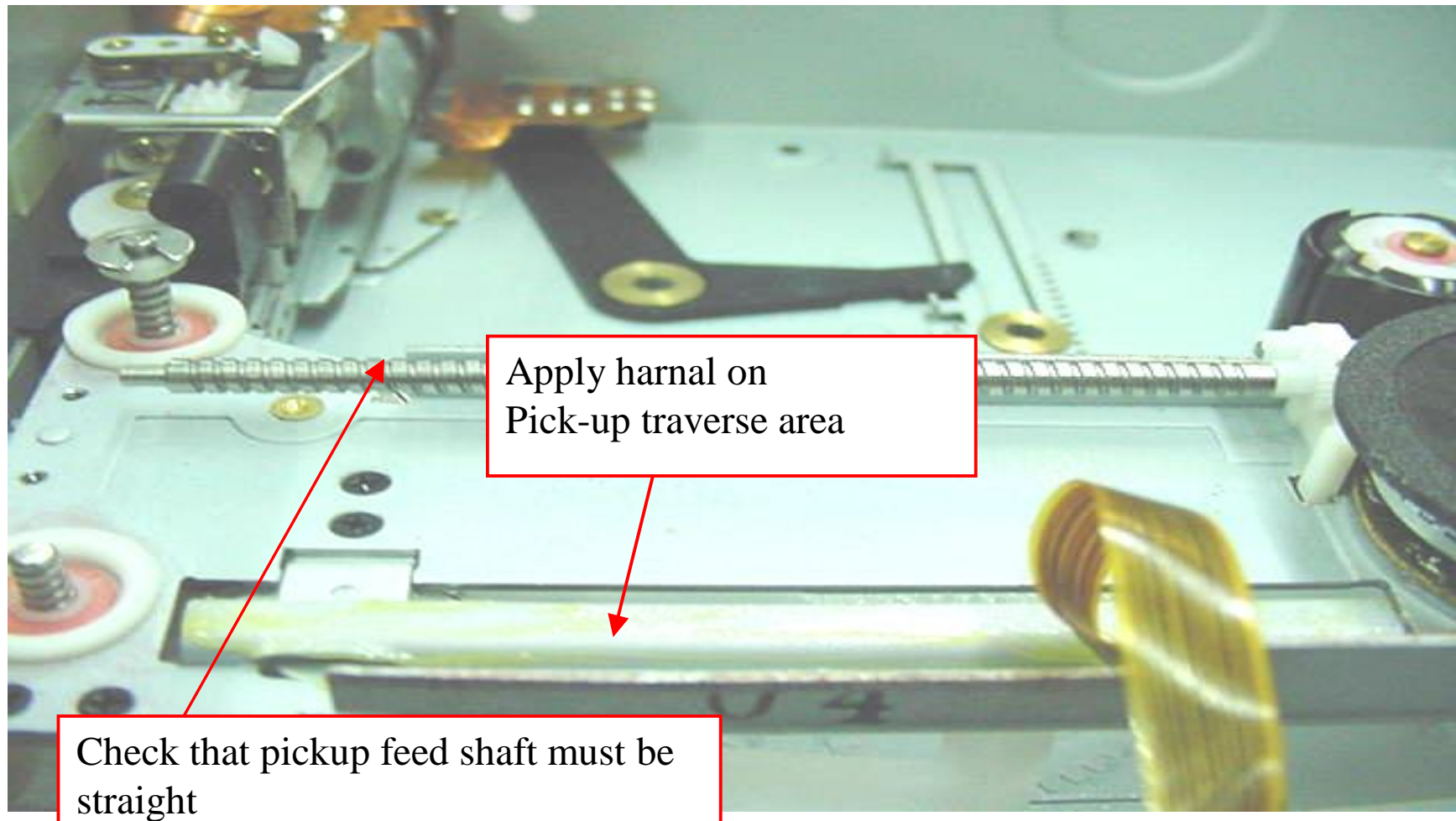
When fixing Pickup Feed Shaft into Drive Shaft Guide Ass'y, make sure the Pickup feed shaft must be straight

10(iii) Prevent CD skip: CD skip at low temperature

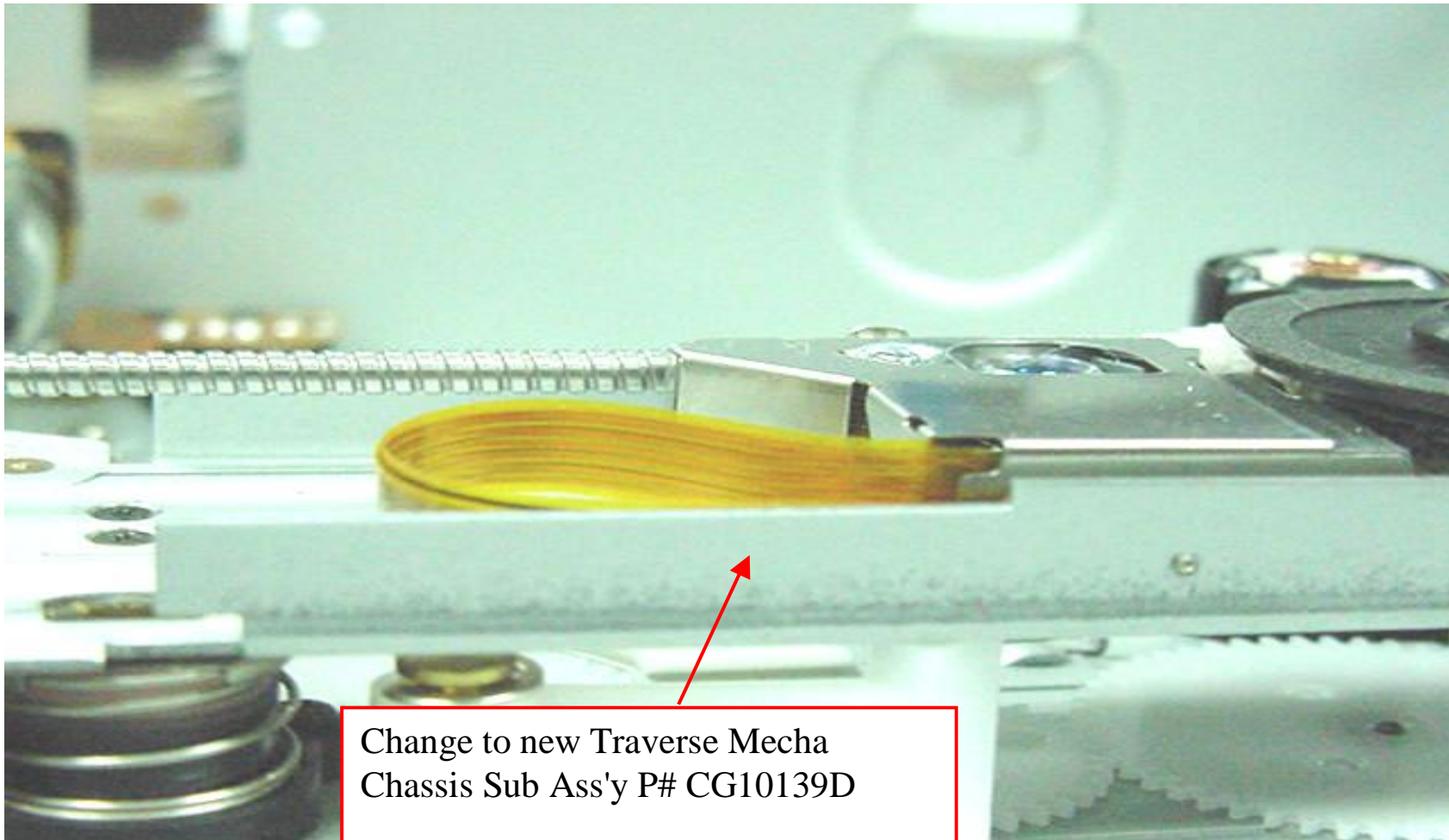
(Traverse Mecha Chassis Ass'y)

Apply “Harnal” on the top & bottom of Traverse Mecha Sub Ass'y (pick up traverse area)

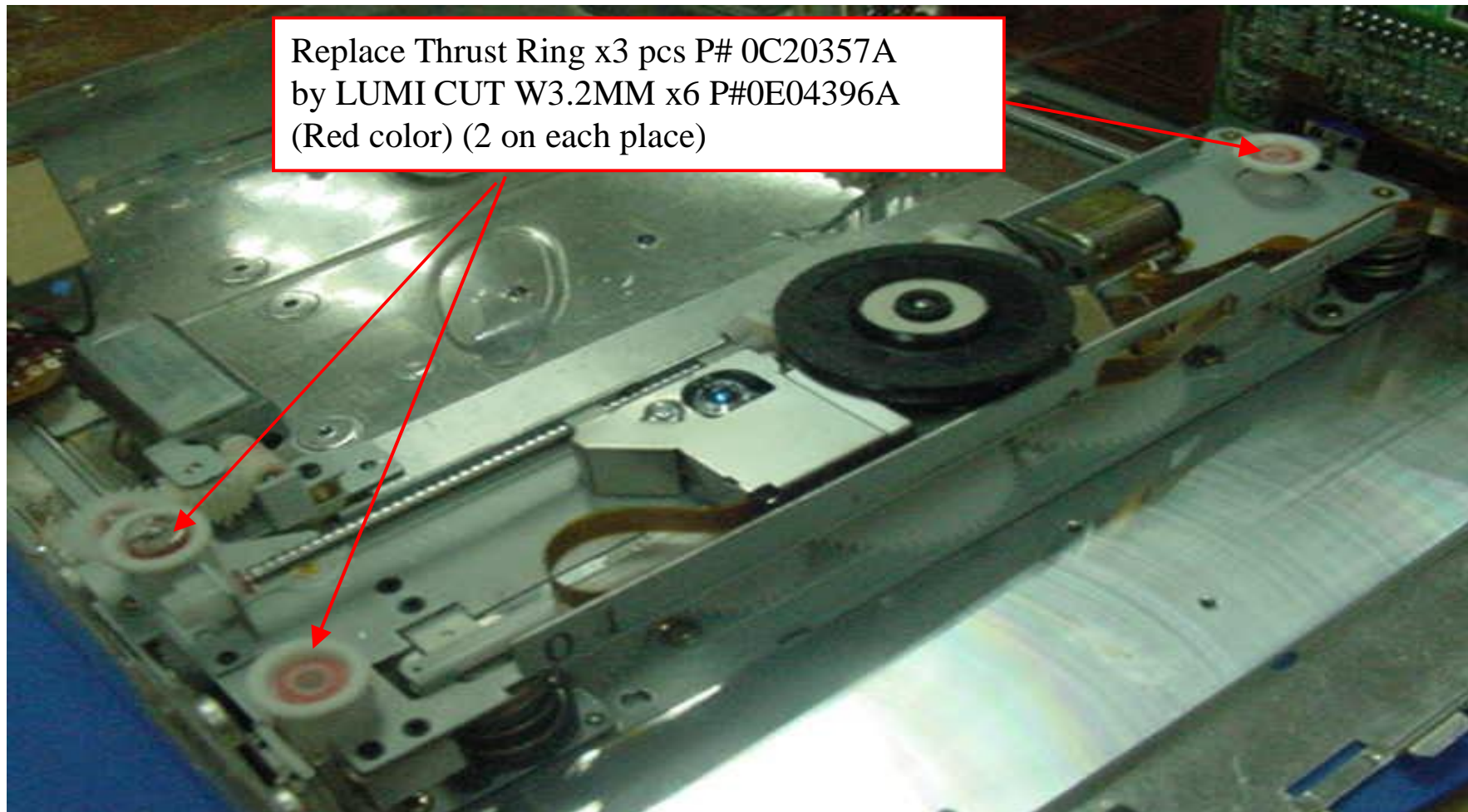
10(ii) & 10(iii) Prevent CD skip: CD skip at low temperature
(Traverse Mecha Chassis Ass'y)



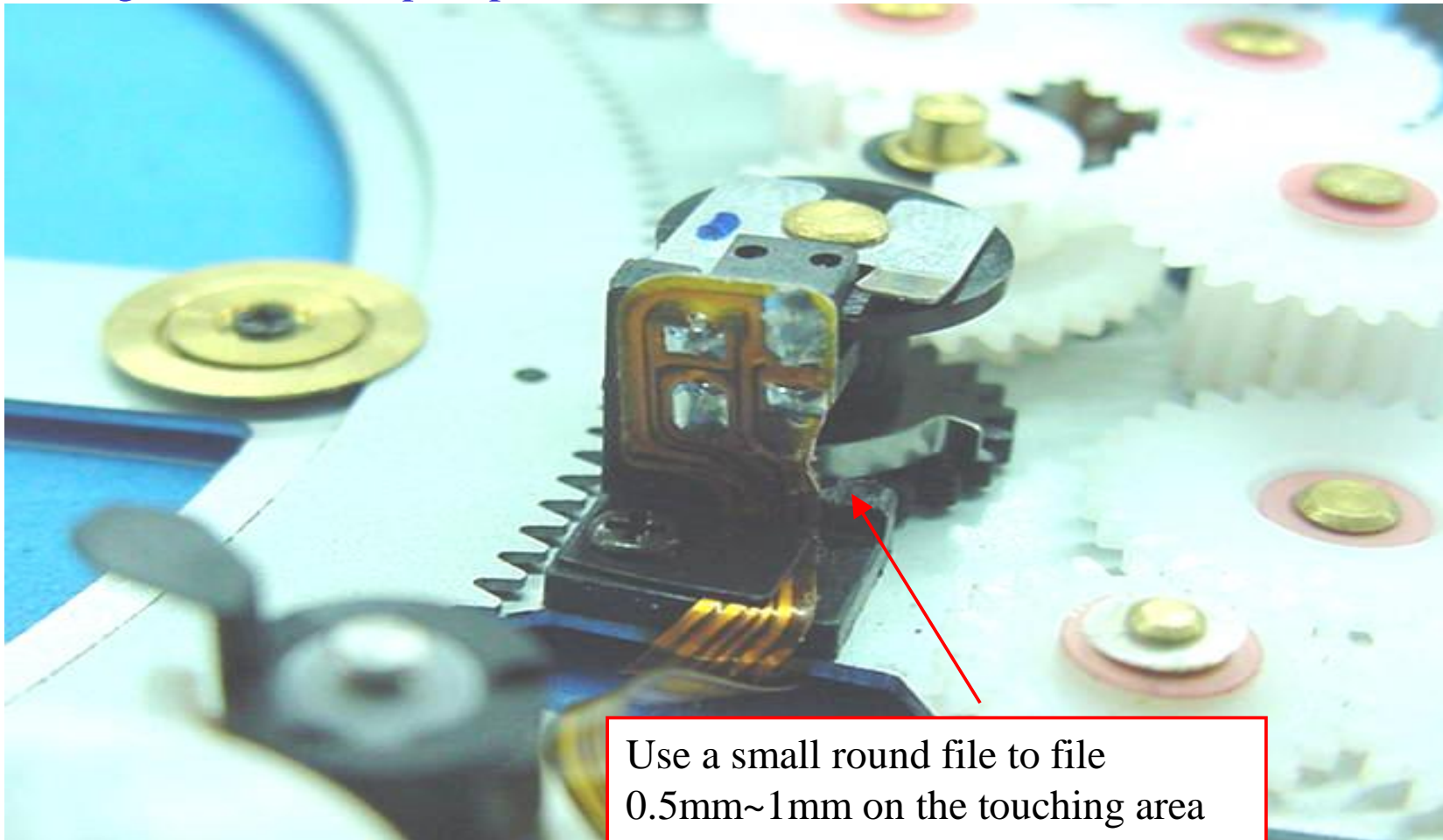
11 Prevent E-mecha: loading guide L touches to traverse mecha chassis ass'y (Traverse Mecha Chassis Ass'y)



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

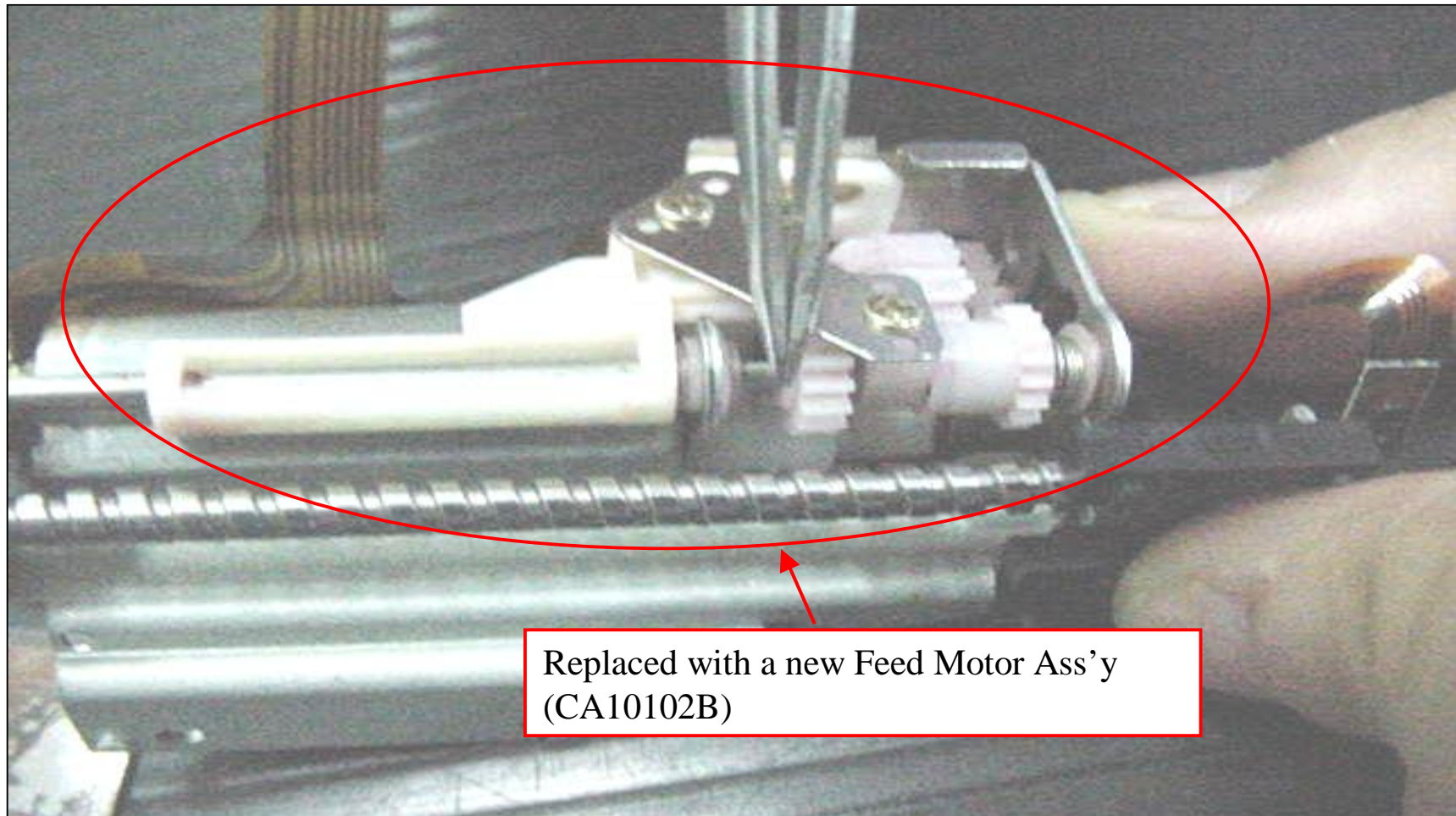


13 Prevent E-mecha: stocker FPC ass'y touches with loading roller guide
ass'y (Loading Chassis Ass'y)
(6 Disc mechanism only)
Change to modified spare part

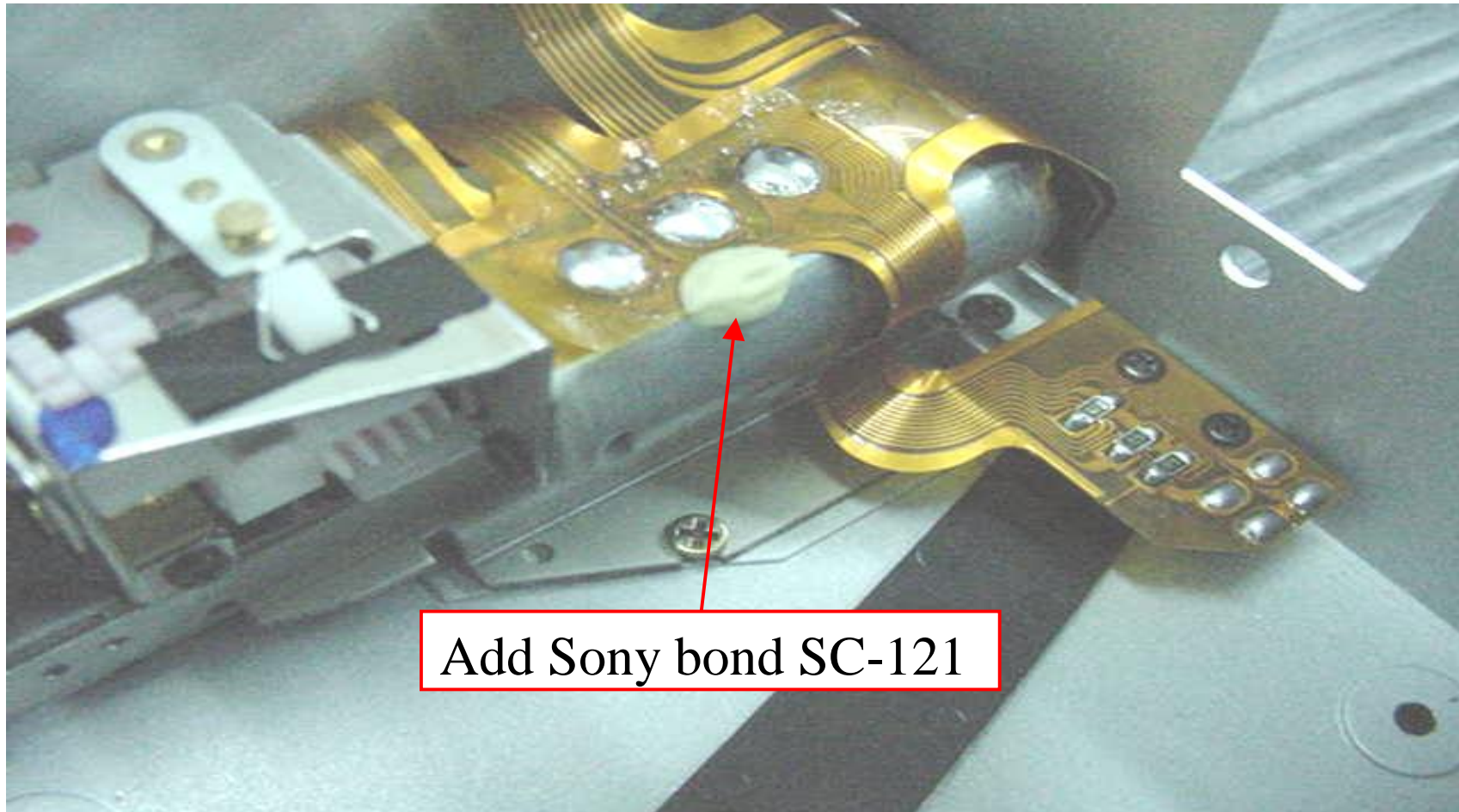


Use a small round file to file
0.5mm~1mm on the touching area
of Stocker FPC Ass'y

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

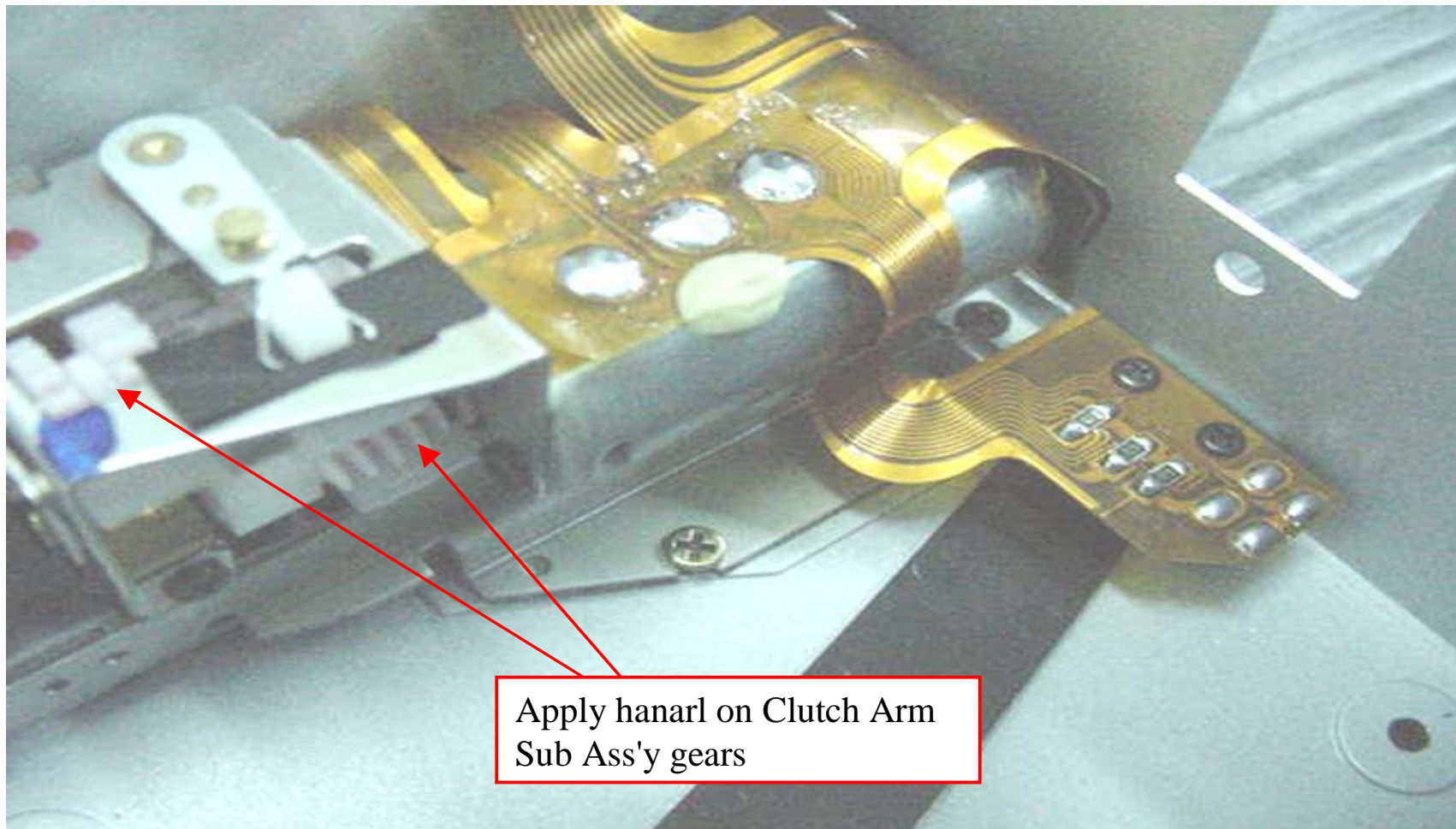


14(ii) Prevent E-mecha: Gear damage (Feed motor Ass'y)
(6 Disc mechanism only)

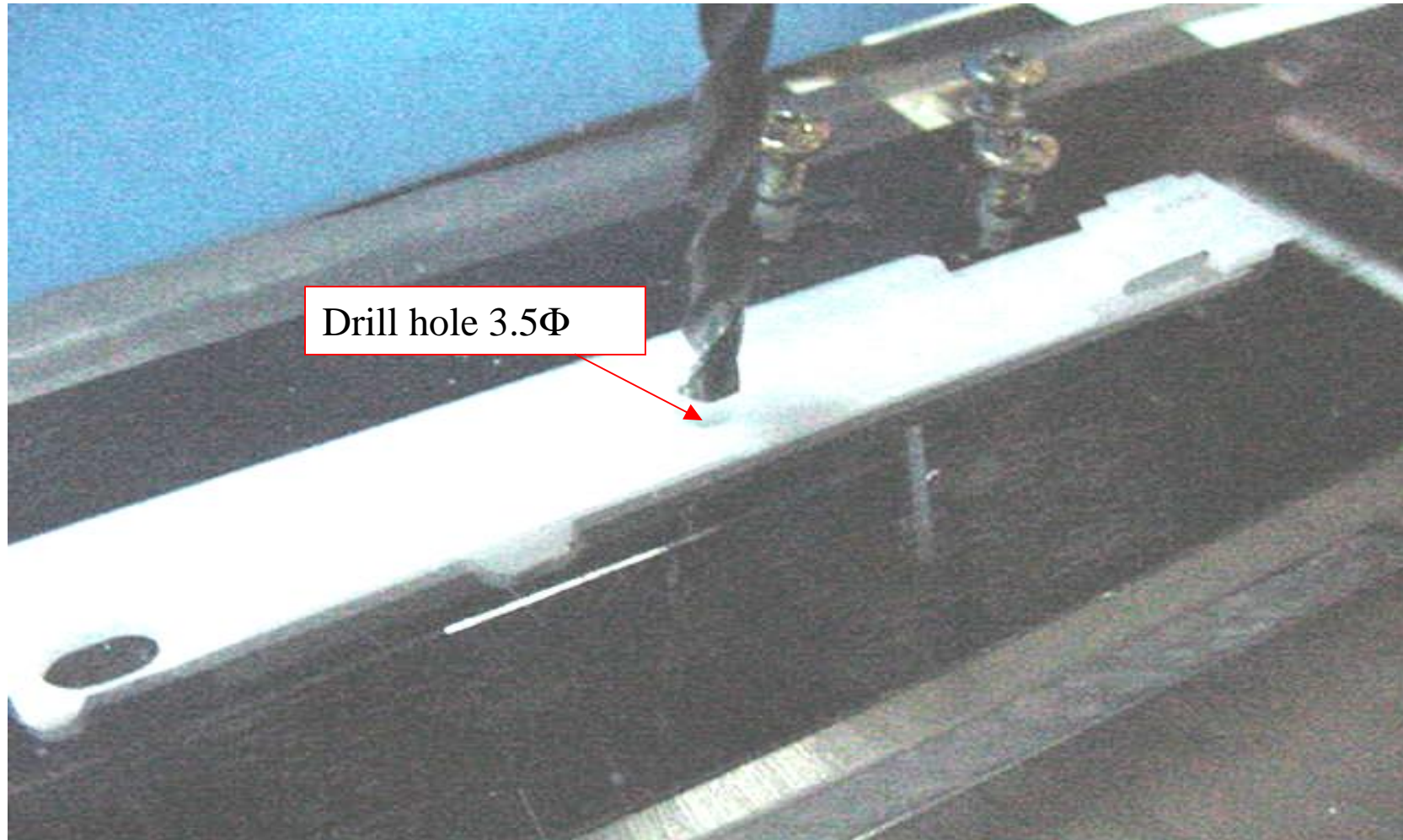


Add Sony bond SC-121

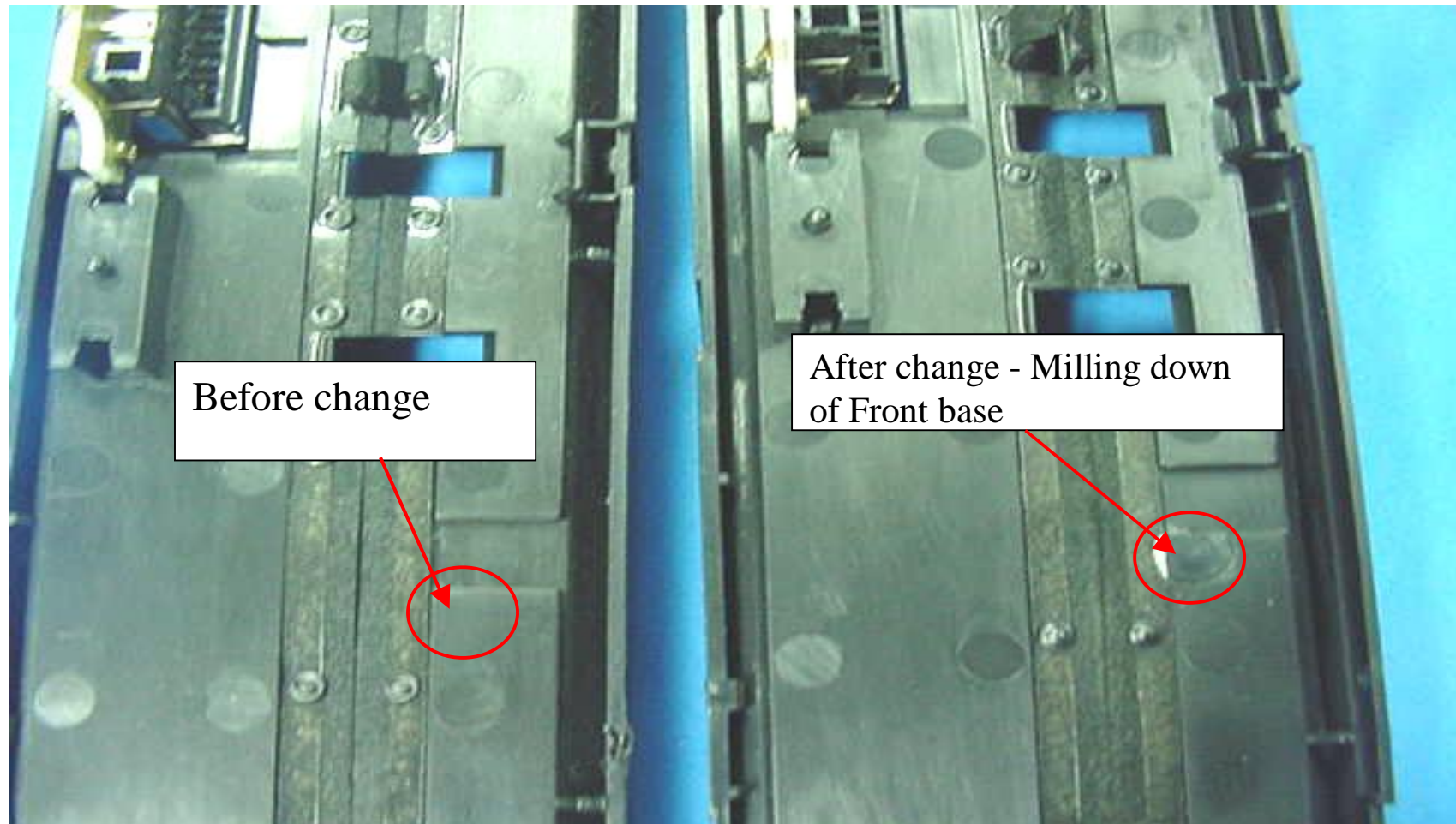
15 Prevent E-mecha: clamper arm does not catch clamp plate
(Clamper Ass'y)
(6 Disc mechanism only)



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