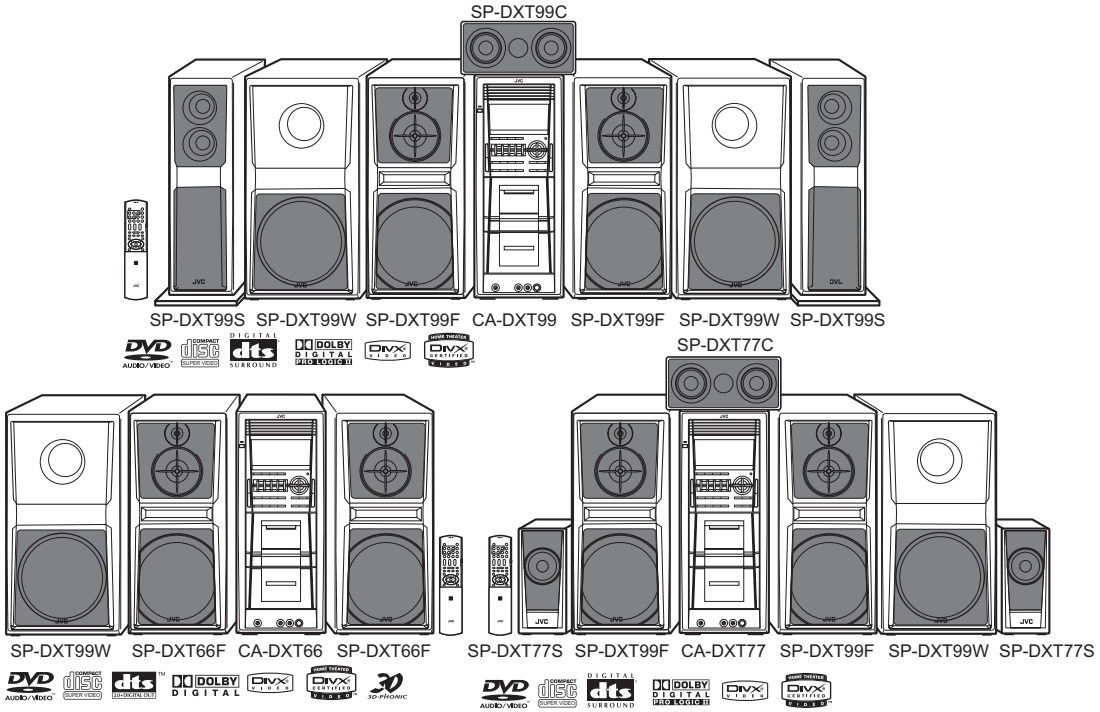
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

DX-T99A,DX-T99EE,DX-T99US,DX-T99UW,
DX-T99UX,DX-T99UG,DX-T99UN,
DX-T77EE,DX-T77US,DX-T77UW,DX-T77UX,
DX-T77UY,DX-T77UG,DX-T77UN,
DX-T66EE,DX-T66US,DX-T66UW,DX-T66UX,
DX-T66UY,DX-T66UG,DX-T66UN



Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

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No.MB531
2006/6

SPECIFICATION

DX-T99

Amplifier section	Output Power	FRONT SPEAKERS	150 W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion.
		CENTER SPEAKER	140 W per channel, min. RMS, driven into 6 Ω at 1 kHz with no more than 10% total harmonic distortion.
		SURROUND SPEAKERS	130 W per channel, min. RMS, driven into 6 Ω at 1 kHz with no more than 10% total harmonic distortion. (for austraria and russia) 140 W per channel, min. RMS, driven into 6 Ω at 1 kHz with no more than 10% total harmonic distortion. (for asia)
		SUBWOOFERS	150 W per channel, min. RMS, driven into 4 Ω at 63 Hz with no more than 10% total harmonic distortion. (for austraria and russia) 150 W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion. (for asia)
	Digital output	OPTICAL DIGITAL OUTPUT	-21 dBm to -15 dBm (660 nm ±30 nm)
	Audio input sensitivity/ Impedance*	AUX	300 mV/47 kΩ
		MIC 1/2	3.0 mV/50 kΩ
	VIDEO OUT	Color system	NTSC/PAL selectable
	VIDEO (composite)		1 V(p-p)/75 Ω
	S-VIDEO	Y (luminance)	1 V(p-p)/75 Ω
		C (chrominance, burst)	NTSC : 0.286 V(p-p)/75 Ω PAL : 0.3 V(p-p)/75 Ω
	COMPONENT (Interlace/Progressive)	(Y)	1 V(p-p)/75 Ω
		(PB/PR)	0.7 V(p-p)/75 Ω
	Speaker Terminals		4 Ω - 16 Ω (front speakers/subwoofers) 6 Ω - 16 Ω (surround/center speakers)
Tuner section	FM tuning range		87.50 MHz - 108.00 MHz
	AM (MW) tuning range		531 kHz - 1 710 kHz (for austraria) 531 kHz - 1 710 kHz (at 9 kHz) (for asia) 530 kHz - 1 710 kHz (at 10 kHz) (for asia) 522 kHz - 1 629 kHz (for russia)
Disc player section	Playable disc		DVD Video/DVD Audio/CD/VCD/SVCD CD-R/CD-RW (recorded in Audio CD/Video CD/Super Video CD formats and MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX files) DVD-R (recorded in DVD Video format) DVD-RW (recorded in DVD Video format or DVD-VR format)
	Dynamic range		80 dB
	Horizontal resolution		500 lines
	Wow and flutter		Immeasurable
Cassette deck section	Frequency response Normal (type I)		50 Hz - 14 000 Hz
	Wow and flutter		0.15% (WRMS)
General	Power requirement		AC 110 V / AC 127 V / AC 220 V / AC 230 V - AC 240 V , (adjustable with the voltage selector), 50 Hz / 60 Hz
	Power consumption		335 W (at operation) 29 W (on standby)
	Dimensions (W/H/D) (approx.)		185 mm × 460 mm × 361 mm
	Mass (approx.)		11.4 kg

DX-T77

Amplifier section	Output Power	FRONT SPEAKERS	150 W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion.
		CENTER SPEAKER	50 W per channel, min. RMS, driven into 6 Ω at 1 kHz with no more than 10% total harmonic distortion.
		SURROUND SPEAKERS	50 W per channel, min. RMS, driven into 6 Ω at 1 kHz with no more than 10% total harmonic distortion.
		SUBWOOFERS	150 W per channel, min. RMS, driven into 4 Ω at 1kHz with no more than 10% total harmonic distortion. (for asia) 150 W per channel, min. RMS, driven into 4 Ω at 63 Hz with no more than 10% total harmonic distortion. (for russia)
	Digital output	OPTICAL DIGITAL OUTPUT	-21 dBm to -15 dBm (660 nm ±30 nm)
	Audio input sensitivity/ Impedance*	AUX	300 mV/47 kΩ
		MIC 1/2	3.0 mV/50 kΩ
	VIDEO OUT	Color system	NTSC/PAL selectable
	VIDEO (composite)		1 V(p-p)/75 Ω
	S-VIDEO	Y (luminance)	1 V(p-p)/75 Ω
		C (chrominance, burst)	NTSC : 0.286 V(p-p)/75 Ω PAL : 0.3 V(p-p)/75 Ω
	COMPONENT (Interlace/Progressive)	(Y)	1 V(p-p)/75 Ω
		(PB/PR)	0.7 V(p-p)/75 Ω
	Speaker Terminals		4 Ω - 16 Ω (front speakers/subwoofers) 6 Ω - 16 Ω (surround/center speakers)
Tuner section	FM tuning range		87.50 MHz - 108.00 MHz
	AM (MW) tuning range		531 kHz - 1 710 kHz (at 9 kHz) (for asia) 530 kHz - 1 710 kHz (at 10 kHz) (for asia) 522 kHz - 1 629 kHz (for russia)
Disc player section	Playable disc		DVD Video/DVD Audio/CD/VCD/SVCD CD-R/CD-RW (recorded in Audio CD/Video CD/Super Video CD formats and MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX files) DVD-R (recorded in DVD Video format) DVD-RW (recorded in DVD Video format or DVD-VR format)
	Dynamic range		80 dB
	Horizontal resolution		500 lines
	Wow and flutter		Immeasurable
Cassette deck section	Frequency response Normal (type I)		50 Hz - 14 000 Hz
	Wow and flutter		0.15% (WRMS)
General	Power requirement		AC 110 V / AC 127 V / AC 220 V / AC 230 V - AC 240 V , (adjustable with the voltage selector), 50 Hz / 60 Hz
	Power consumption		270 W (at operation) 25 W (on standby)
	Dimensions (W/H/D) (approx.)		185 mm × 460 mm × 361 mm
	Mass (approx.)		11.4 kg

DX-T66

Amplifier section	Output Power	FRONT SPEAKERS	150 W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion.
		SUBWOOFERS	150 W per channel, min. RMS, driven into 4 Ω at 1kHz with no more than 10% total harmonic distortion. (for asia) 150 W per channel, min. RMS, driven into 4 Ω at 63 Hz with no more than 10% total harmonic distortion. (for russia)
	Digital output	OPTICAL DIGITAL OUTPUT	-21 dBm to -15 dBm (660 nm ±30 nm)
	Audio input sensitivity/ Impedance*	AUX	300 mV/47 kΩ
		MIC 1/2	3.0 mV/50 kΩ
	VIDEO OUT	Color system	NTSC/PAL selectable
	VIDEO (composite)		1 V(p-p)/75 Ω
	S-VIDEO	Y (luminance)	1 V(p-p)/75 Ω
		C (chrominance, burst)	NTSC : 0.286 V(p-p)/75 Ω PAL : 0.3 V(p-p)/75 Ω
	COMPONENT (Interlace/Progressive)	(Y)	1 V(p-p)/75 Ω
		(PB/PR)	0.7 V(p-p)/75 Ω
	Speaker Terminals		4 Ω - 16 Ω (front speakers/subwoofers) 6 Ω - 16 Ω (surround/center speakers)
Tuner section	FM tuning range		87.50 MHz - 108.00 MHz
	AM (MW) tuning range		531 kHz - 1 710 kHz (at 9 kHz) (for asia) 530 kHz - 1 710 kHz (at 10 kHz) (for asia) 522 kHz - 1 629 kHz (for russia)
Disc player section	Playable disc		DVD Video/DVD Audio/CD/VCD/SVCD CD-R/CD-RW (recorded in Audio CD/Video CD/Super Video CD formats and MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX files) DVD-R (recorded in DVD Video format) DVD-RW (recorded in DVD Video format or DVD-VR format)
	Dynamic range		80 dB
	Horizontal resolution		500 lines
	Wow and flutter		Immeasurable
Cassette deck section	Frequency response Normal (type I)		50 Hz - 14 000 Hz
	Wow and flutter		0.15% (WRMS)
General	Power requirement		AC 110 V / AC 127 V / AC 220 V / AC 230 V - AC 240 V , (adjustable with the voltage selector), 50 Hz / 60 Hz
	Power consumption		205 W (at operation) 23 W (on standby)
	Dimensions (W/H/D) (approx.)		185 mm × 460 mm × 361 mm
	Mass (approx.)		10.8 kg

Speaker section

Main Speakers	Type		3-Way 3-Speaker Bass Reflex (Magnetically-Shielded Type)
	Speaker systems	Woofer	18 cm cone × 1
		Mid	6.5 cm cone × 1
		Tweeter	2 cm dome × 1
	Power handling capacity		150 W
	Impedance		4 Ω
	Frequency range		35 Hz - 25 000 Hz
	Sound pressure level		85 dB/W·m
	Dimensions (W/H/D) (approx.)		204 mm × 460 mm × 273 mm
	Mass (approx.)		5.2 kg each
Subwoofer	Type		1-Way Bass-Reflex (Magnetically-Shielded Type)
	Speaker systems		20 cm cone × 1
	Power handling capacity		150 W
	Impedance		4 Ω
	Frequency range		35 Hz - 5 000 Hz
	Sound pressure level		88 dB/W·m
	Dimensions (W/H/D) (approx.)		238 mm × 460 mm × 273 mm
	Mass (approx.)		7.1 kg

* Measured at 1 kHz, with tape recording signal 300 mV

Design and specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 Safety Precautions

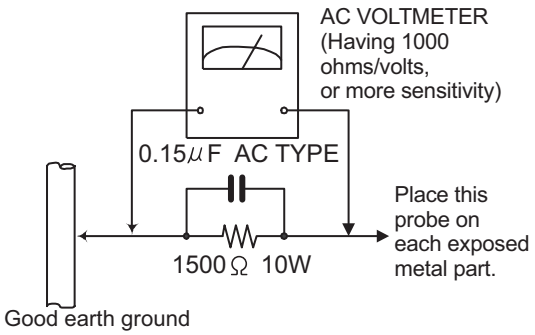
(1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturers warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.

(4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.

(5) Leakage shock hazard testing
After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.Do not use a line isolation transformer during this check.
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000Ω per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
Measure the AC voltage across the resistor with the AC voltmeter.
Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



1.2 Warning

(1) This equipment has been designed and manufactured to meet international safety standards.
(2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
(3) Repairs must be made in accordance with the relevant safety standards.
(4) It is essential that safety critical components are replaced by approved parts.
(5) If mains voltage selector is provided, check setting for local voltage.

1.3 Caution

Burrs formed during molding may be left over on some parts of the chassis.
Therefore, pay attention to such burrs in the case of preforming repair of this system.

1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▮) and ICP (●) or identified by the " ⚠ " mark nearby are critical for safety. When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer.
(This regulation dose not Except the J and C version)

1.5 Preventing static electricity

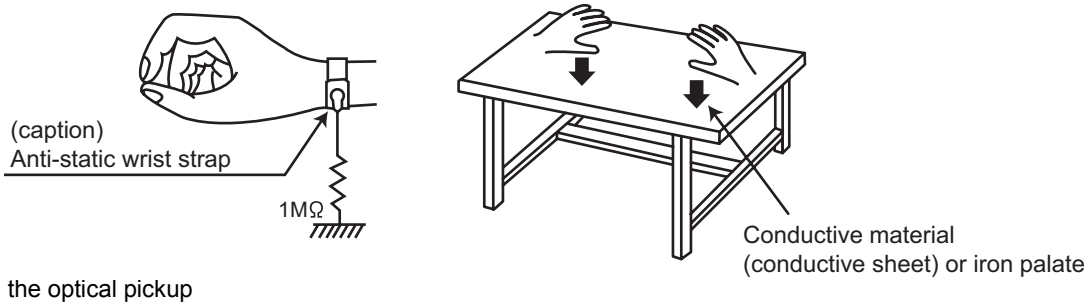
Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.5.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as laser products.
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench
Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself
Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup
- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

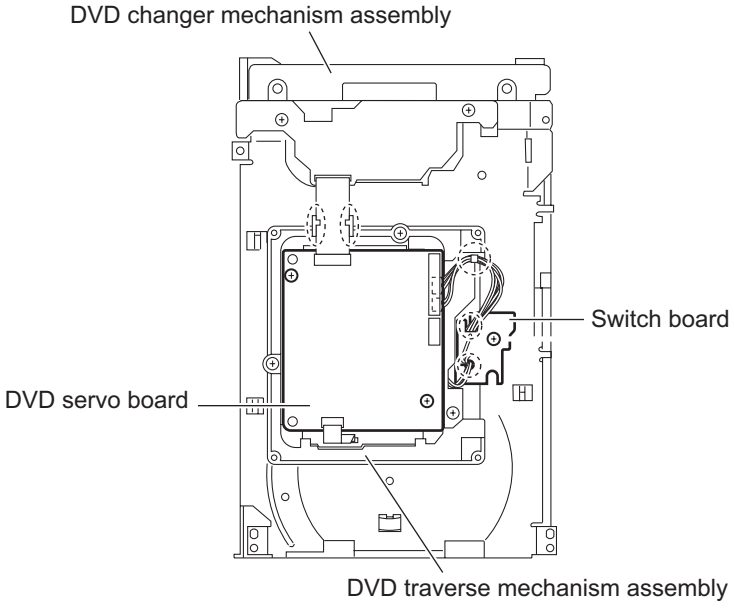
1.6 Handling the traverse unit (optical pickup)

(1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
(2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
(3) Handle the flexible cable carefully as it may break when subjected to strong force.
(4) I t is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

1.7 Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for the pickup unit.**

- Apply solder to the short land sections before the card wire is disconnected from the connecto on the servo board. (If the card wire is disconnected without applying solder, the pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land sections after connecting the card wire.



1.8 Important for laser products

1.CLASS 1 LASER PRODUCT

2.CAUTION :
(For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.
(Others) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

3.CAUTION : Visible and/or invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

4.CAUTION : This laser product uses visible and/or invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

(For U.S.A.)
CAUTION : Visible and/or invisible class II laser radiation when open. Do not stare into beam.
(Others)
CAUTION : Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments

ACHTUNG: Sichtbare und/oder unsichtbare Laserstrahlung der Klasse 1M bei offenen Abdeckungen. Nicht direkt mit optischen Instrumenten betrachten.

ATTENTION: Rayonnement laser visible et/ou invisible de classe 1M une fois ouvert. Ne pas regarder directement avec des instruments optiques.

VOORZICHTIG: Zichtbare en/of onzichtbare klasse 1M laserstralen indien geopend. Bekijk niet direct met optische instrumenten.

ATTENZIONE: Radiazione laser in classe 1M visibile e/o invisibile quando aperto. Non osservare direttamente con strumenti ottici.

VARNING: Synlig och/eller osynlig laserstrålning, klass 1M, när denna del är öppnad. Betrakta ej strålen med optiska instrument.

VARO!: Avattaessa olet alttiina nakyvalle ja/tai näkymättömälle luokan 1M lasersateilylle. Älä tarkastele sitä optisen laitteen läpi.

ADVARSEL: Synlig og/eller usynlig klasse 1M-laserstråling ved åbning. Se ikke direkte med optiske instrumenter.

AVISO: Radiación láser de clase 1M visible y/o invisible cuando está abierto. No mirar directamente con instrumental óptico.

PRECAUÇÃO: Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe directamente com instrumentos ópticos.

PRECAUÇÃO: Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos óticos.

ПРЕДУПРЕЖДЕНИЕ: В открытом состоянии происходит видимое и/или невидимое излучение лазера класса 1M. Не смотрите непосредственно в оптические инструменты.

UWAGA: Otwarcie spowoduje narażenie na widzialne i/lub niewidzialne promieniowanie lasera klasy 1M. Nie patrzeć bezpośrednio w przyrządy optyczne.

UPOZORNĚNÍ: Při otevření vydává viditelné popř. neviditelné laserové ozáření třídy 1M. Nedívejte se do otvoru přímo s optickými nástroji.

FIGYELMEZTETÉS: Látható és/vagy láthatatlan 1M osztályú sugárzás nyitott állapotban. Ne nézze közvetlenül optikai műszerekkel.

注意：打開蓋板可能會產生可見或不可見的 1M 級鐳射。
不要使用光學儀器直接進行窺視。

注意：打开盖板可能会产生可见或不可见的 1M 级镭射。
不要使用光学仪器直接进行窥视。

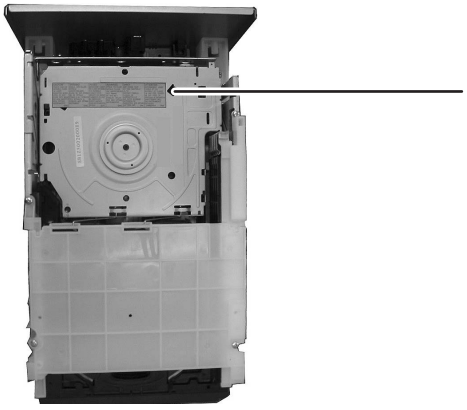
تنبيه: يوجد إشعاع ليزري مرئي و/أو غير مرئي من الفئة 1M عندما يكون الجهاز مفتوحا. تجنب النظر مباشرة داخل الجهاز باستخدام أدوات بصرية.

احتیاط: هنگامی که باز گردد، تشعشع مرئی و یا نامرئی کلاس 1M لیزر وجود دارد. با لوازم چشمی مستقیماً به آن نگاه نکنید.

주의: 개방하면 가시 및/또는 비가시 클래스 1M 레이저 방사선이 나옵니다. 광학 기구로 직접 들여다보지 마십시오.

REPRODUCTION AND POSITION OF LABELS and PRINT

WARNING LABEL and PRINT



CAUTION	ATTENTION	AVISO	VARNING	注意	CAUTION
VISIBLE AND/OR INVISIBLE CLASS 1M LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1:2001 (ENG)	RAYONNEMENT LASER VISIBLE ET/OU INVISIBLE DE CLASSE 1M UNE FOIS OUVERT. NE PAS REGARDER DIRECTEMENT AVEC DES INSTRUMENTS OPTIQUES. (FRA)	RADIACIÓN LÁSER DE CLASE 1M VISIBLE Y/O INVISIBLE CUANDO ESTÀ ABIERTO. NO MIRAR DIRECTAMENTE CON INSTRUMENTAL OPTICO. (ESP)	SYNLIG OCH/ELLER OSYNLIG LASERSTRÅLNING, KLASS 1M, NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT. (SWE)	ここを開くと可視及び/または不可視のクラス1M レーザー放射が出ます。光学装置で直接見ないでください。 (JPN)	VISIBLE AND/OR INVISIBLE CLASS II LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR (ENG) LV44603-003A

CAUTION VISIBLE AND/OR INVISIBLE CLASS 1M LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1:2001 (ENG)
ATTENTION RAYONNEMENT LASER VISIBLE ET/OU INVISIBLE DE CLASSE 1M UNE FOIS OUVERT. NE PAS REGARDER DIRECTEMENT AVEC DES INSTRUMENTS OPTIQUES. (FRA)
AVISO RADIACIÓN LÁSER DE CLASE 1M VISIBLE Y/O INVISIBLE CUANDO ESTÀ ABIERTO. NO MIRAR DIRECTAMENTE CON INSTRUMENTAL OPTICO. (ESP)
VARNING SYNLIG OCH/ELLER OSYNLIG LASERSTRÅLNING, KLASS 1M, NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT. (SWE)
注意 ここを開くと可視及び/または不可視のクラス1Mレーザー放射が出ます。光学装置で直接見ないでください。 (JPN)
CAUTION VISIBLE AND/OR INVISIBLE CLASS II LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. (ENG) FDA 21 CFR LV44603-004A

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

SECTION 3
DISASSEMBLY

3.1 Main body section

3.1.1 Removing the metal cover (See Fig.1, 2)

(1) From the both sides of the main body, remove the six screws **A** attaching the metal cover. (See Fig.1)
(2) From the back side of the main body, remove the eight screws **B** attaching the metal cover. (See Fig.2)
(3) Remove the metal cover from the main body while lifting the rear section of the metal cover in the direction of the arrow. (See Fig.1)

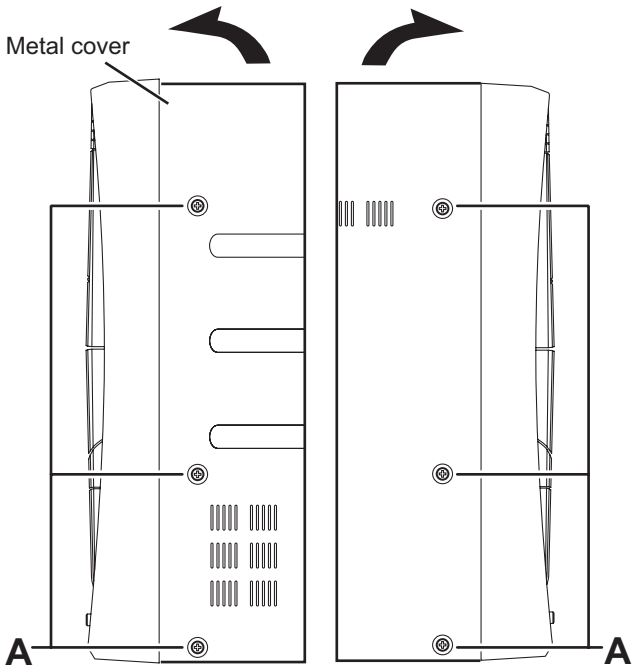


Fig.1

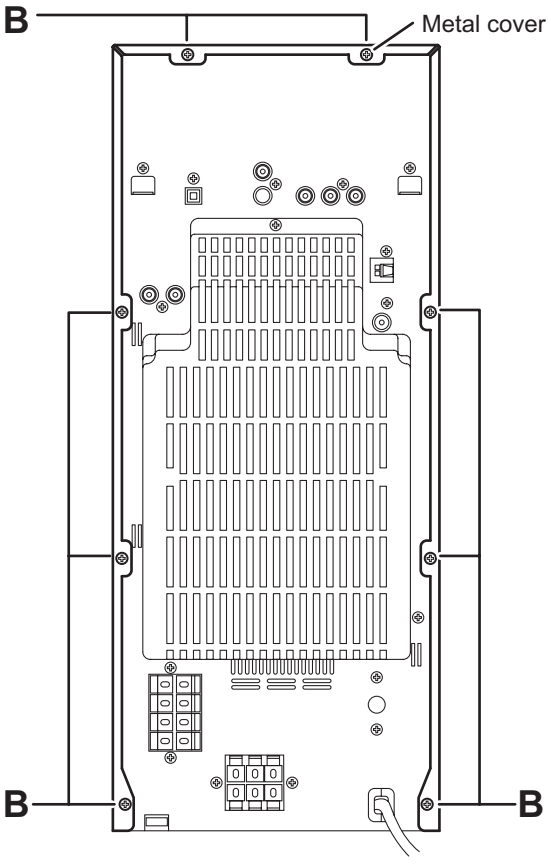


Fig.2

3.1.2 Removing the front panel assembly (See Fig.3 to 5)

- Remove the metal cover.
  (1) From the right side of the main body, disconnect the card wire from the connectors CN740 on the reverse side of the main board. (See Fig.3)
  (2) From the left side of main body, disconnect the card wires from the connectors (CN720, CN730) on the forward side of the main board. (See Fig.4)
  (3) Disconnect the parallel wire while releasing the lock of the connector CN105 on the primary board in the direction of the arrow. (See Fig.4)
  (4) From the both side of the main body, remove the two screws **C** attaching the front panel assembly to the main body. (See Fig.3, 4)
  (5) From the bottom side of the main body, remove the two screws **D** attaching the front panel assembly. (See Fig.5)
  (6) From the both side of main body, release the claws **a** and remove the front panel assembly from the main body in the direction of the arrow. (See Fig.3, 4)

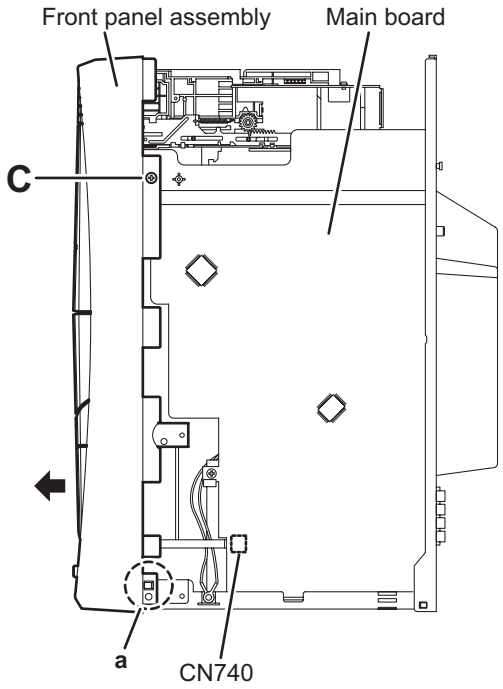


Fig.3

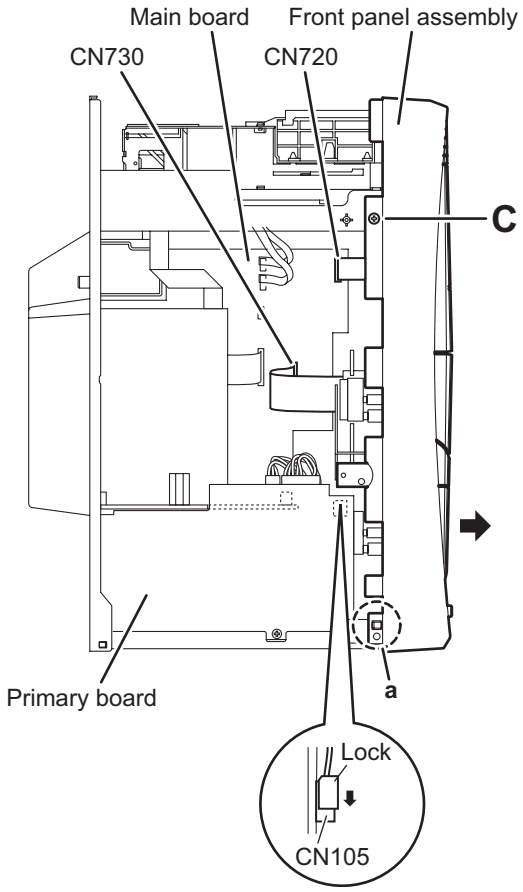


Fig.4

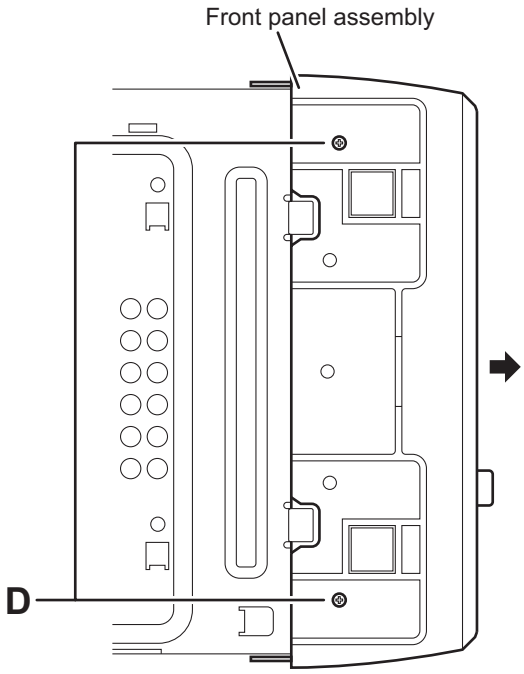


Fig.5

3.1.3 Removing the tuner (See Fig.6)

- Remove the metal cover.
  (1) From the back side of the main body, remove the two screws **E** attaching the tuner to the rear panel.
  (2) Take out the tuner from the main body and disconnect the card wire from the connector CN1 on the tuner.

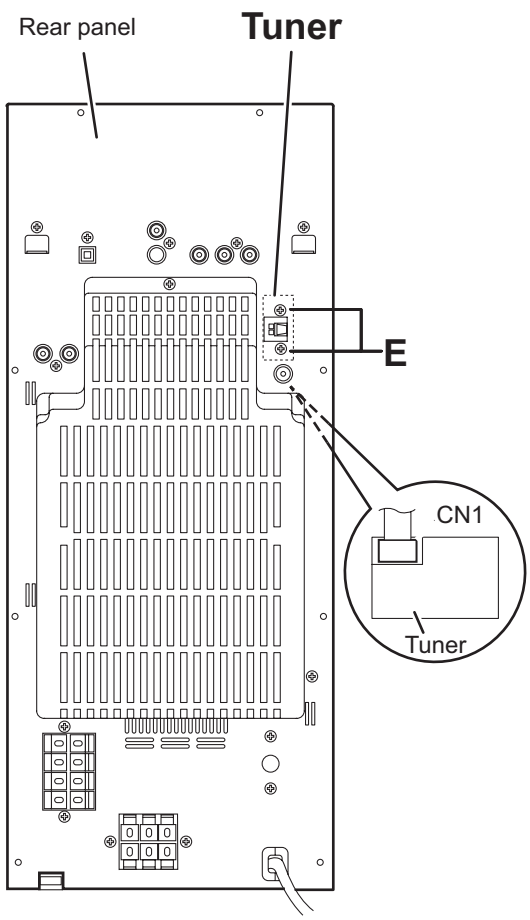


Fig.6

3.1.4 Removing the DVD changer mechanism assembly (See Fig.7 to 9)

- Remove the metal cover.
  (1) From the left side of the main body, disconnect the card wires from the connectors (CN800, CN810) on the main board. (See Fig.7) **[For DX-T99, DX-T77]**
  (2) Form the left side of the main body, disconnect the card wires from the connector on the CN800 on the main board. (See Fig.7) **[For DX-T66]**
  (3) From the top side of the main body, remove the two screws **F** attaching the DVD changer mechanism assembly on the mecha chassis. (See Fig.8)
  (4) Take out the DVD changer mechanism assembly from the main body and disconnect the card wire from the connector CN930 on the video board. (See Fig.8)

Reference:

When the resolution of the DVD changer mechanism assembly is done sequentially, release the claws **b** of the tray fitting and remove the five tray fitting from the DVD changer mechanism assembly. (See Fig.9)

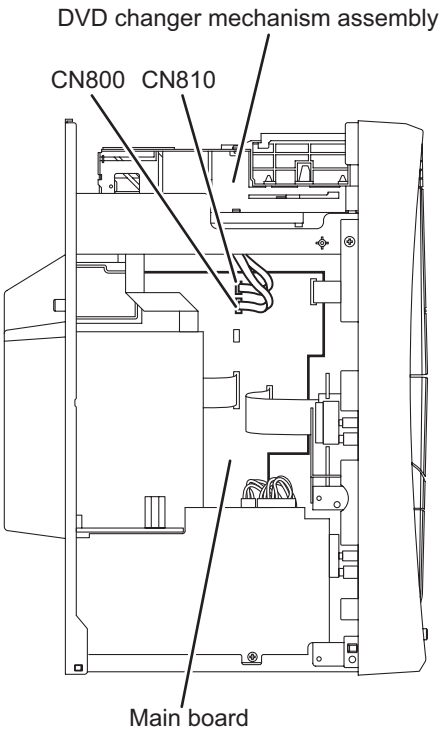


Fig.7

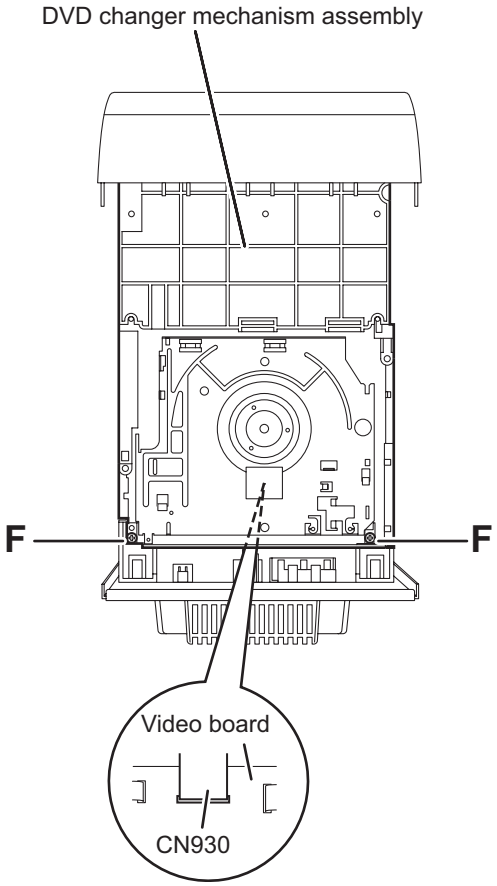


Fig.8

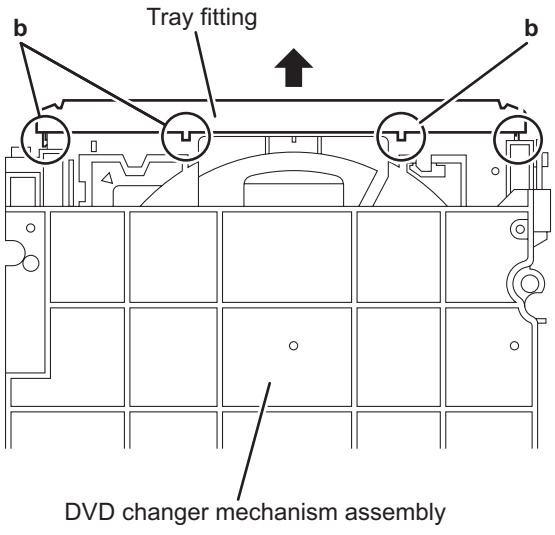


Fig.9

3.1.5 Removing the DVD changer mechanism assembly (See Fig.10, 11)

- Remove the metal cover and DVD changer mechanism assembly.
  (1) From the back side of the metal body, remove the three screws **G** attaching the video board to the rear panel. (See Fig.10)
  (2) From the top side of the main body, disconnect the card wires from the connectors (CN920, CN931) on the video board. (See Fig.11)
  (3) Take out the video board in the direction of the arrow while removing it from the sections **c** of the mecha chassis. (See Fig.11)

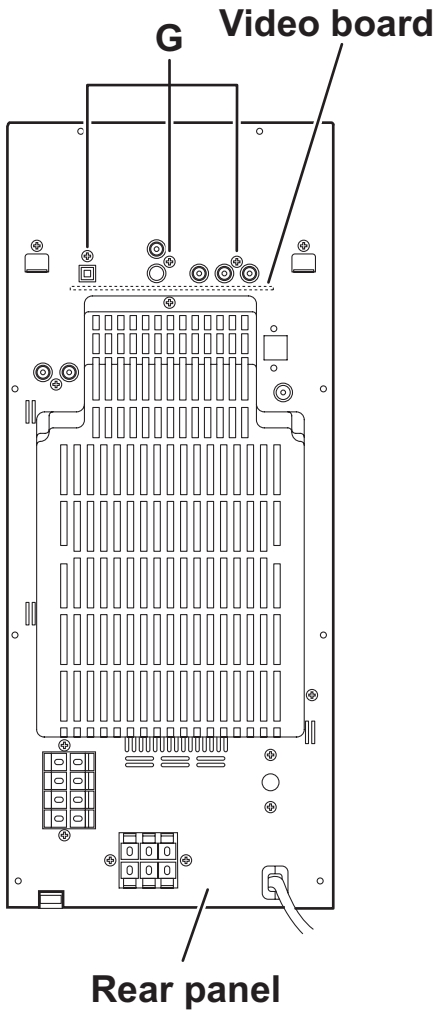


Fig.10

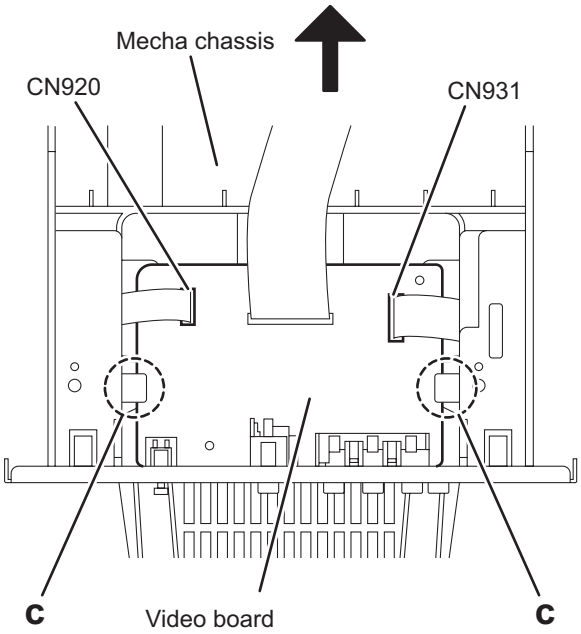


Fig.11

3.1.6 Removing the fan (See Fig.12, 13)

- Remove the metal cover.
  (1) From the back side of the main body, remove the screw **H** attaching the rear cover to the rear panel. (See Fig.12)
  (2) Remove the joints **d** and remove the rear cover. (See Fig.12) From the left side of the main body, disconnect the wire from the connector CN304 on the amplifier 2 board. (See Fig.13) **[DX-T99]**
  (3) Remove the joints **d** and remove the rear cover. (See Fig.12) From the left side of the main body, disconnect the wire from the connector CN604 on the amplifier 2 board. (See Fig.13) **[For DX-T66, DX-T77]**
  (4) Release the two joints **e** of the fan bracket in the direction of the arrow and take out the fan with the fan bracket. (See Fig.13)

Reference:
Remove the fan from the fan bracket as required.

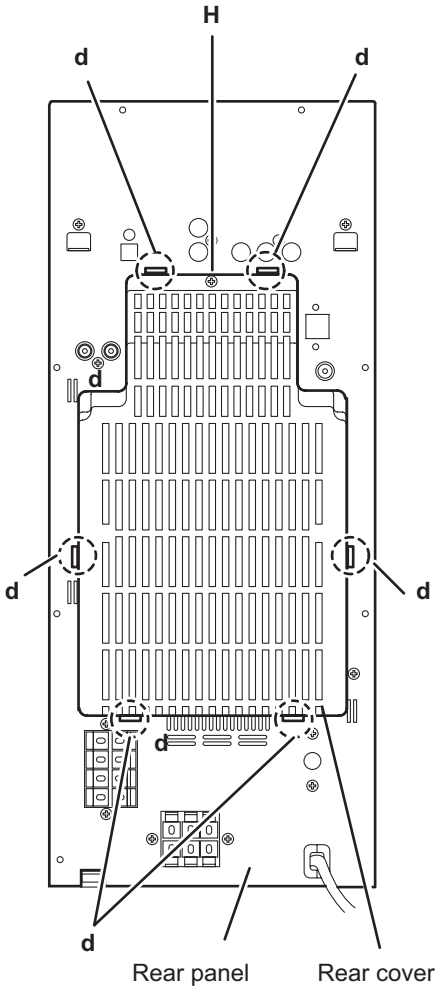


Fig.12

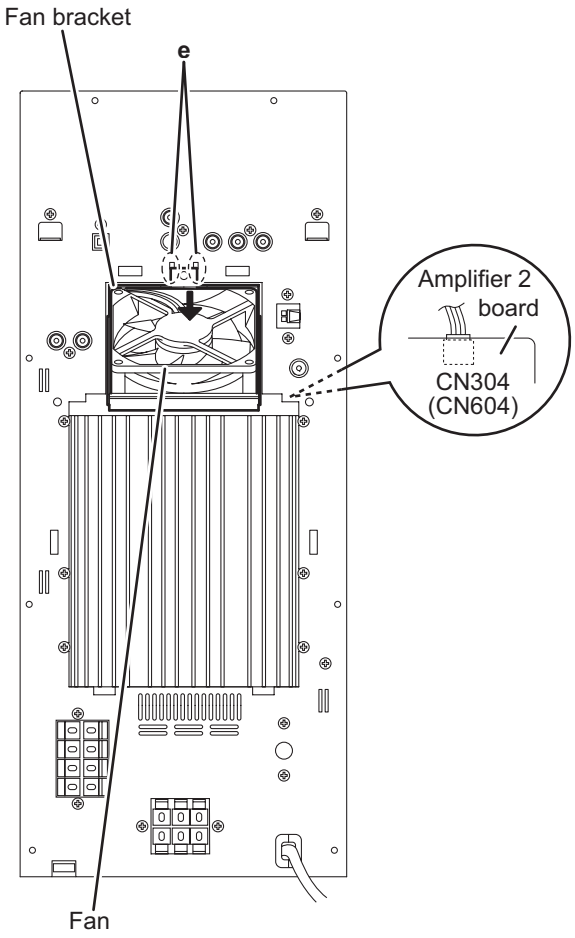


Fig.13

3.1.7 Removing the rear panel (See Fig.14)

- Remove the metal cover and fan.
  (1) Remove the two screws **J** and eleven screws **K** attaching the rear panel. **[For DX-T99, DX-T77]**
  (2) Remove the two screws **J** and ten screws **K** attaching the rear panel. **[For DX-T66]**
  (3) Release the section **f** of the rear panel and remove the joints **g** of the mecha chassis in the direction of the arrow.
  (4) Remove the rear panel from the main body.

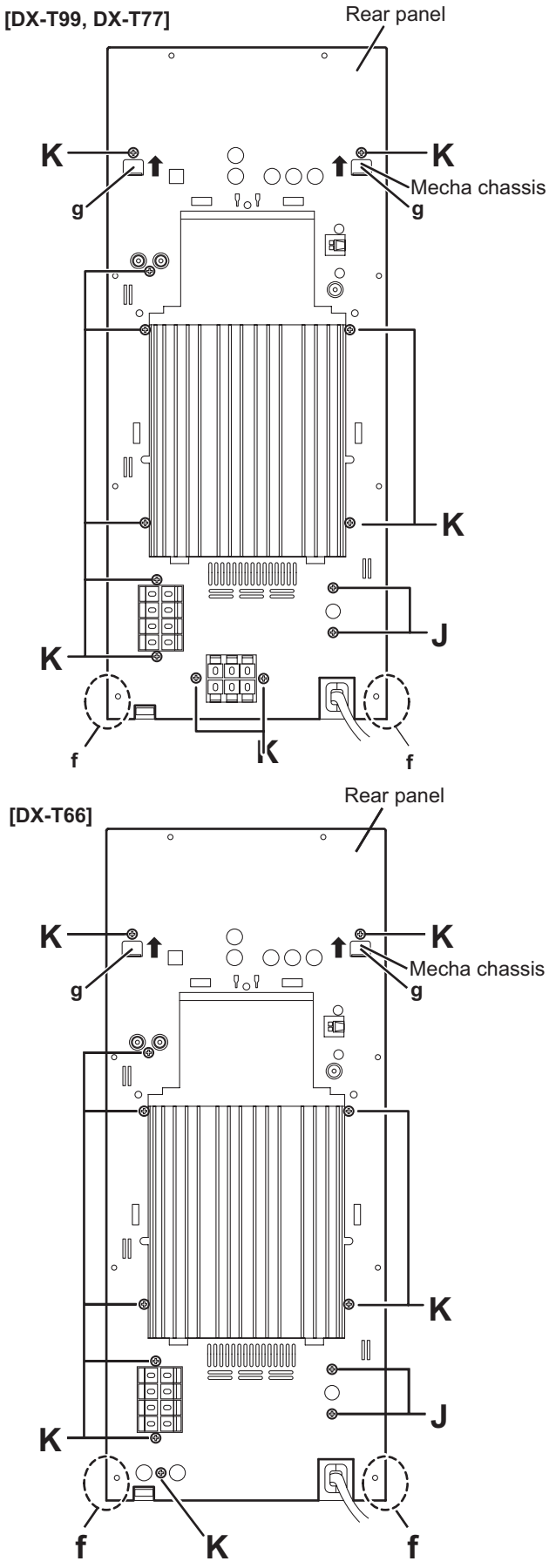


Fig.14

3.1.8 Removing the main board (See Fig.15)

- Remove the metal cover, tuner, fan and rear panel.
  (1) From the right side of the main body, remove the screw **L** and screw **M** attaching the main board.
  (2) From the inside of the main body, disconnect the card wires from the connectors (CN820, CN830) on the forward side of the main board.
  (3) Disconnect the main board from the bridge board toward this side while releasing the claw **h** of the connector CN850 on the main board.
  (4) Disconnect the main board from the surround terminal board in the direction of the arrow while releasing the claw **I** of the connector CN860 on the surround terminal board. **[For DX-T99, DX-T77]**

Note:
When releasing the claws (**h**, **j**) take care not to break them.

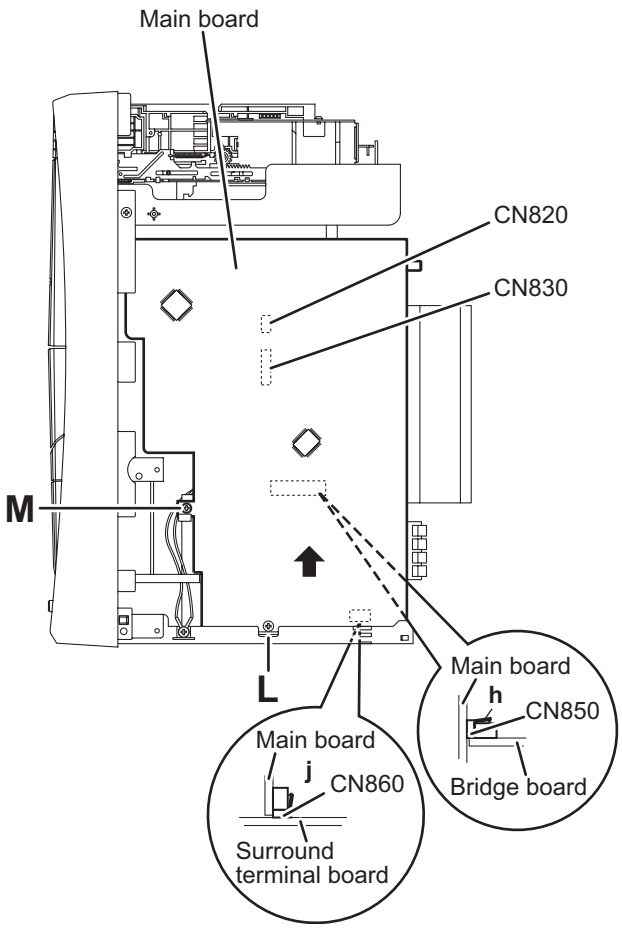


Fig.15

3.1.9 Removing the amplifier 1 and amplifier 2 boards (See Fig.16 to 18) [For DX-T99]

- Remove the metal cover, tuner, fan, rear panel and main board.
  (1) From the right side of the main body, remove the screw **N** attaching the earth wires to the bottom chassis. (See Fig.16)

  Reference:
  After reassembling, fix the earth wires with the spacer as before. (See Fig.16)
  (2) Disconnect the amplifier 2 board from the bridge board in the direction of the arrow while releasing the claw **k** of the connector CN200 on the bridge board. (See Fig.16)
  (3) Disconnect the amplifier 1 board from the bridge board in the direction of the arrow while releasing the claw **k** of the connector CN201 on the bridge board. (See Fig.17)

  Note:
  When releasing the claws (**k**, **l**), take care not to break them. (See Fig.17, 18)
  (4) Take out the amplifier 1 board and amplifier 2 board together from the main body.
  (5) Remove the two screws **P** and remove the leaf spring. (See Fig.18)
  (6) Remove the two screws **P** and remove the amplifier 1 board from the heat sink. (See Fig.18)
  (7) Remove the four screws **P** and remove the amplifier 2 board from the heat sink. (See Fig.18)

3.1.10 Removing the amplifier 1 and amplifier 2 boards (See Fig.16 to 18) [For DX-T77, DX-T66]

- Remove the metal cover, tuner, fan, rear panel and main board.
  (1) From the right side of the main body, remove the crew N attaching the earth wires to the bottom chassis. (See Fig.16)

  Reference:
  After reassembling, fix the earth wires with the spacer as before. (See Fig.16)
  (2) Disconnect the amplifier 2 board from the bridge board in the direction of the arrow while releasing the claw **k** of the connector CN200 on the bridge board. (See Fig.16)
  (3) Disconnect the amplifier 1 board from the bridge board in the direction of the arrow while releasing the claw **l** of the connector CN201 on the bridge board. (See Fig.17)

  Note:
  When releasing the claws (**k**, **l**), take care not to break them. (See Fig.16, 17)
  (4) Take out the amplifier 1 board and amplifier 2 board together from the main board.
  (5) Remove the two screws **P** and remove the leaf spring. (See Fig.18)
  (6) Remove the two screws **P** and remove the amplifier 1 board from the heat sink. (See Fig. 18) **[For DX-T77]**
  (7) Remove the three screws **P** and remove the amplifier 2 board from the heat sink. (See Fig.18)

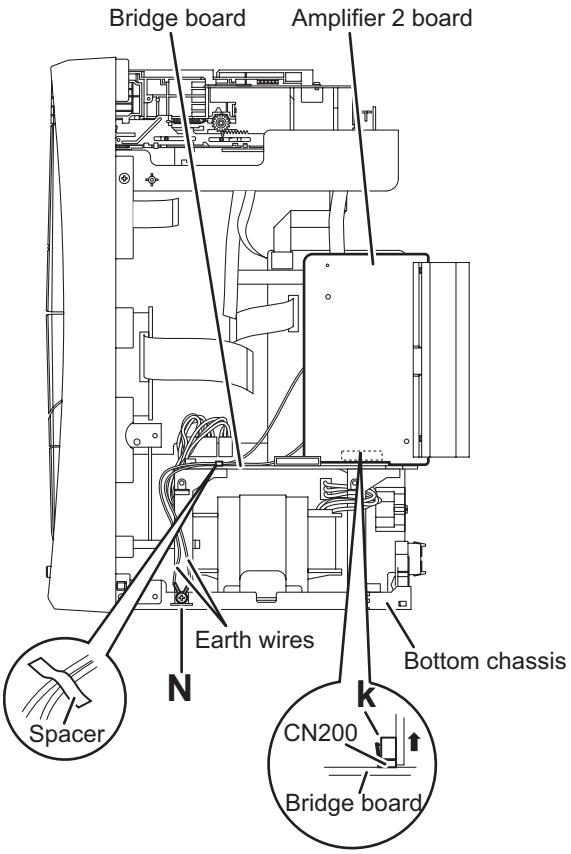


Fig.16

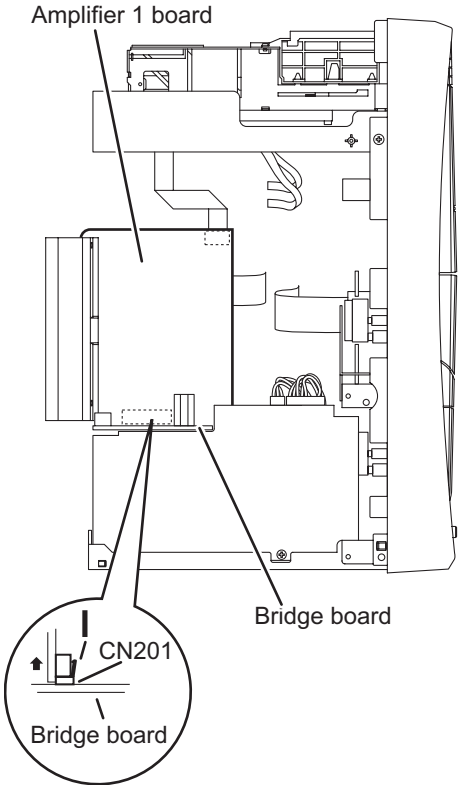
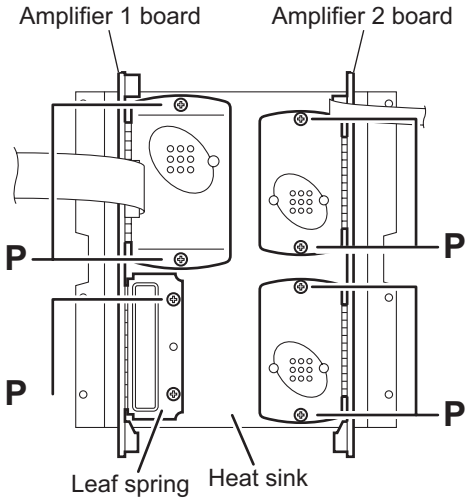
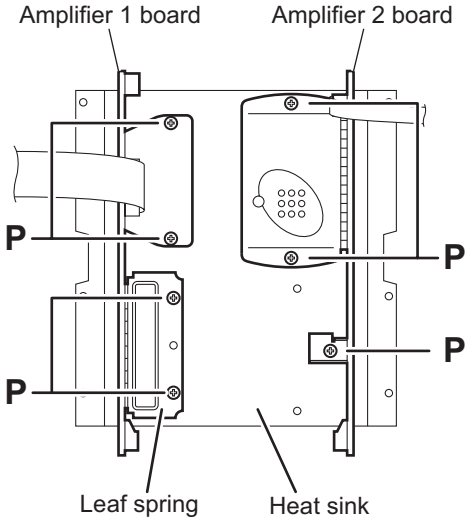


Fig.17

[DX-T99]



[DX-T77]



[DX-T66]

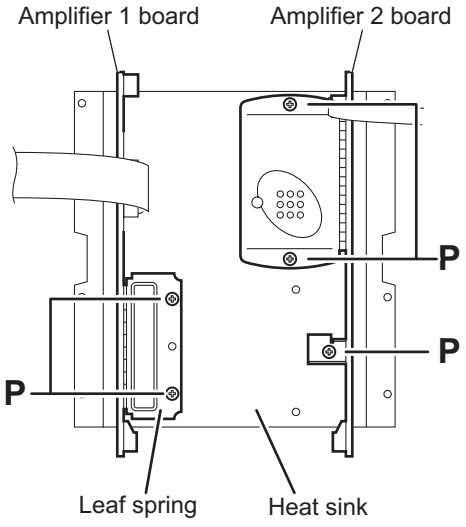


Fig.18

3.1.11 Removing the primary board (See Fig.19)

- Remove the metal cover, tuner, fan ,rear panel, main board, amplifier 1 board and amplifier 2 board.
  (1) From the left side of the main body, remove the screw **Q** attaching the primary board.
  (2) Disconnect the wires from the connectors (CN103, CN106) on the primary board.
  (3) Release the claw **m** of the connector CN104 on the primary board.

  Note:
  When releasing the claw **m**, take care not to break it.
  (4) Disconnect the wires from connectors (CN101, CN102) on the forward side of the primary board.
  (5) Disconnect the power cord from the connector CN100 on the primary board.
  (6) Take out the primary board from the main body.

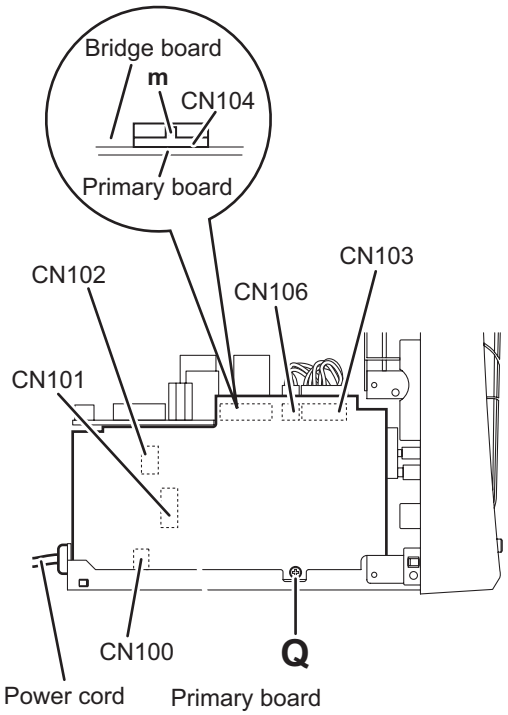


Fig.19

3.1.12 Removing the primary board (See Fig.20)

- Remove the metal cover, tuner, fan, rear panel, main board, amplifier 1 board, amplifier 2 board and primary board.
  (1) Remove the wire holders bundling the wires.

  References:
  After reassembling, bundle the wires with the wire holders as before.
  (2) Remove the screw **R** attaching the bridge board.
  (3) Take out the bridge board from the main body.

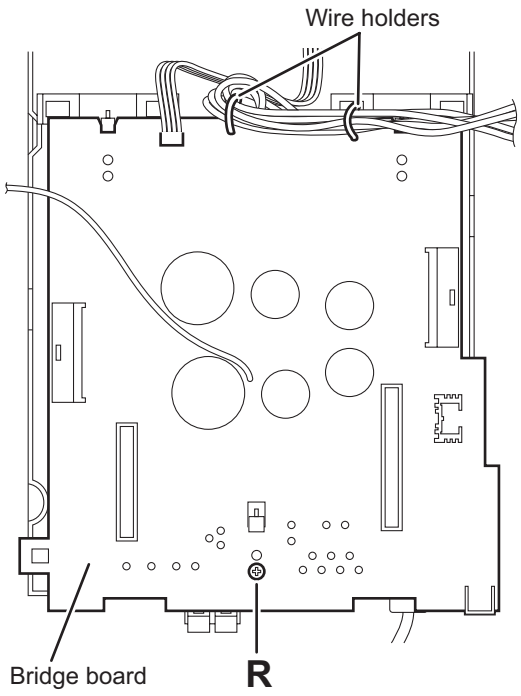


Fig.20

3.1.13 Removing the surround terminal board (See Fig.21) [For DX-T99, DX-T77]

- Remove the metal cover, tuner, fan, rear panel, main board, amplifier 1 board, amplifier 2 board, primary board and bridge board.
  (1) Remove the screw **S** attaching the surround terminal board on the bottom chassis.
  (2) Remove the surround terminal board from the section (**p**, q) of the bottom chassis.
  (3) Take out the surround terminal board from the main body.

3.1.14 Removing the power transformer (See Fig.21)

- Remove the metal cover, tuner, fan, rear panel, main board, amplifier 1 board, amplifier 2 board, primary board and bridge board.
  (1) Remove the four screws **T** attaching the power transformer.
  (2) Take out the power transformer from the main body.

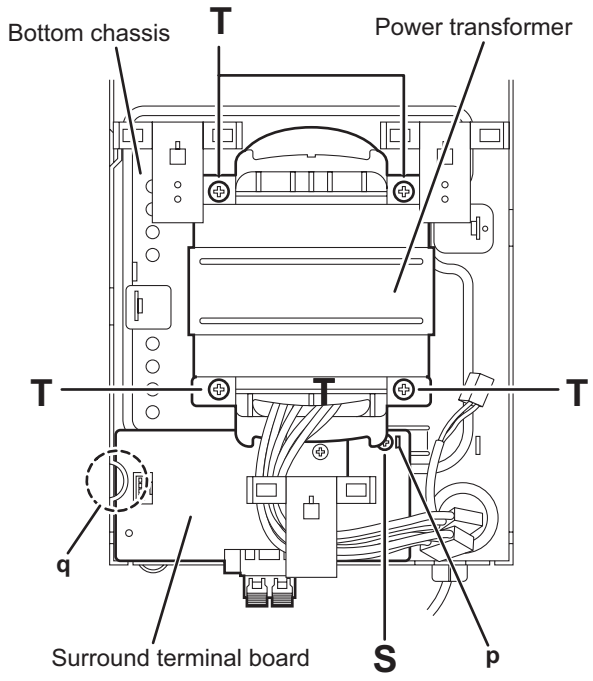


Fig.21

3.1.15 Removing the FL board (See Fig.22)

- Remove the metal cover and front panel assembly.
  (1) From the inside of the front panel assembly, remove the parallel wire from the wire holder.
  (2) Remove the eleven screws **U** and take out the FL board.

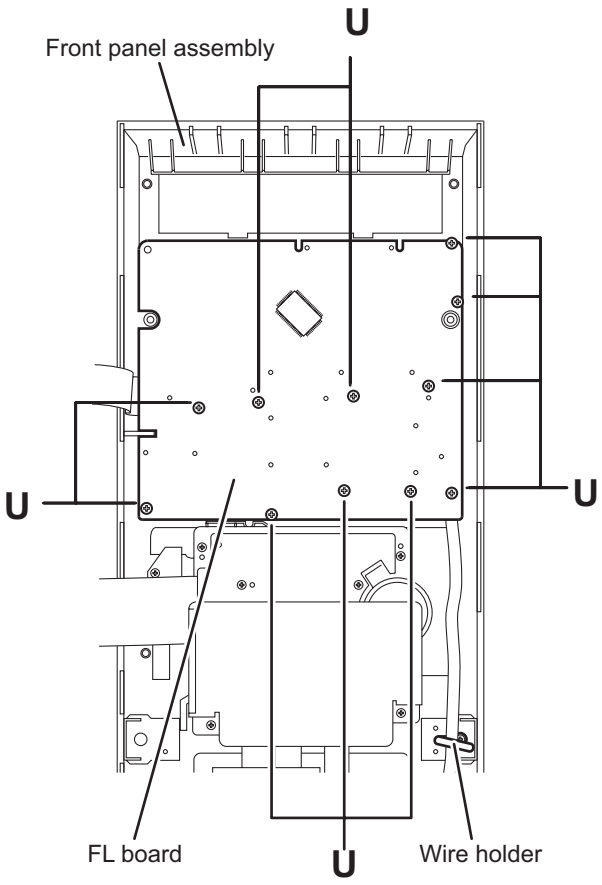


Fig.22

3.1.16 Removing the cassette A mechanism assembly (See Fig.23)

- Remove the metal cover and front panel assembly.
  (1) From the inside of the front panel assembly, remove the four screws **V** and **W** attaching the cassette A mechanism assembly.
  (2) Disconnect the card wires from the connectors (CN46, CN47) on the cassette A mechanism assembly.
  (3) Take out the cassette A mechanism assembly from the front panel assembly.

Reference:

Remove the trans shield as required.

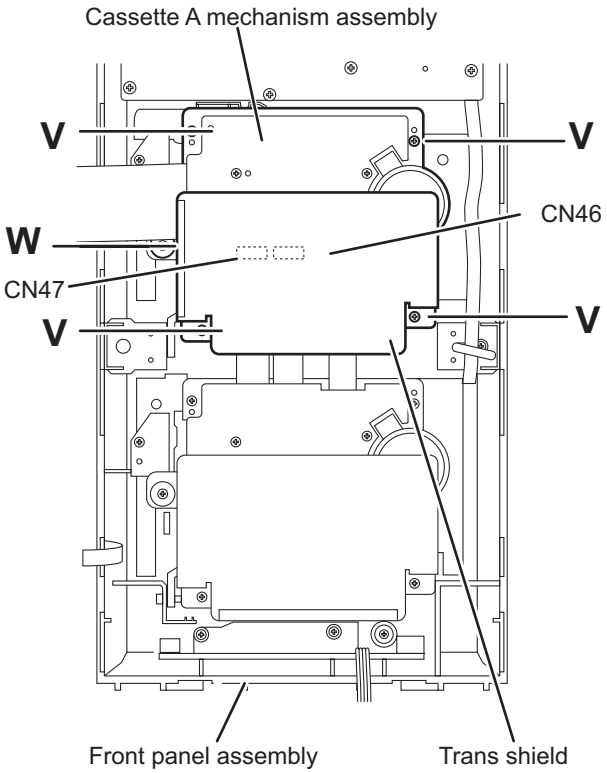


Fig.23

3.1.17 Removing the cassette B mechanism assembly (See Fig.24)

- Remove the metal cover and front panel assembly.
  (1) From the inside of the front panel assembly, remove the four screws **V** and screw **W** attaching the cassette B mechanism assembly.
  (2) Take out the cassette B mechanism assembly from the front panel assembly.

Reference:

Remove the trans shield as required.

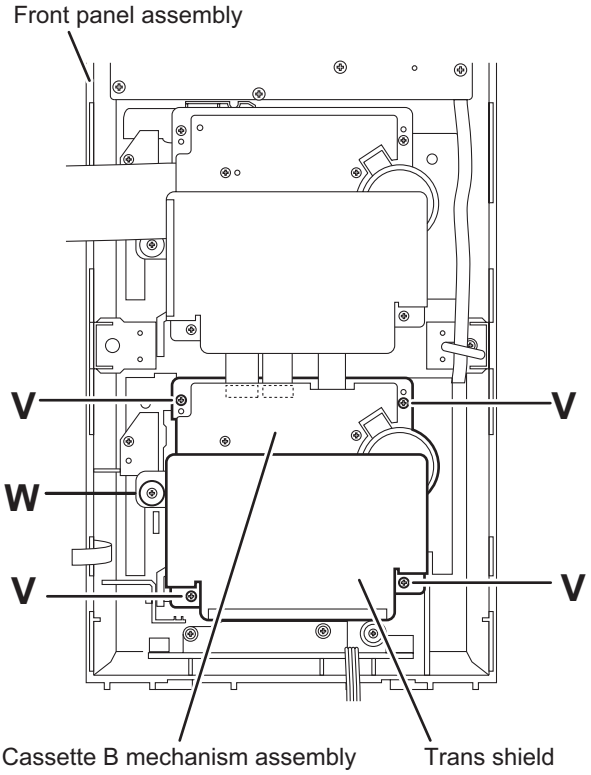


Fig.24

3.1.18 Removing the microphone amplifier board (See Fig.25, 26)

- Remove the metal cover, front panel assembly and cassette B mechanism assembly.
  (1) From the front side of the front panel assembly, pull out the microphone volume knob. (See Fig.25)
  (2) From the inside of the front panel assembly, remove the two screws **X** and remove the support 1 board. (See Fig.26)
  (3) Remove the screw **Y** and remove the support 2 board. (See Fig.26)
  (4) Take out the microphone amplifier board from the front panel assembly.

References:

After attaching the microphone amplifier board, fix the card wire the spacer as before.

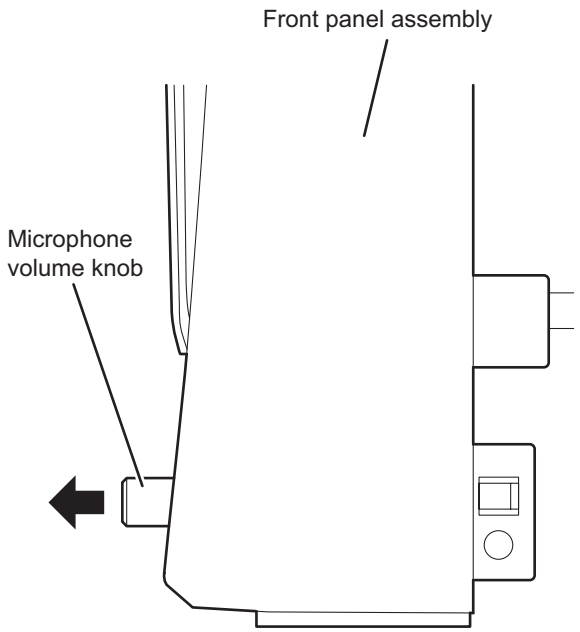


Fig.25

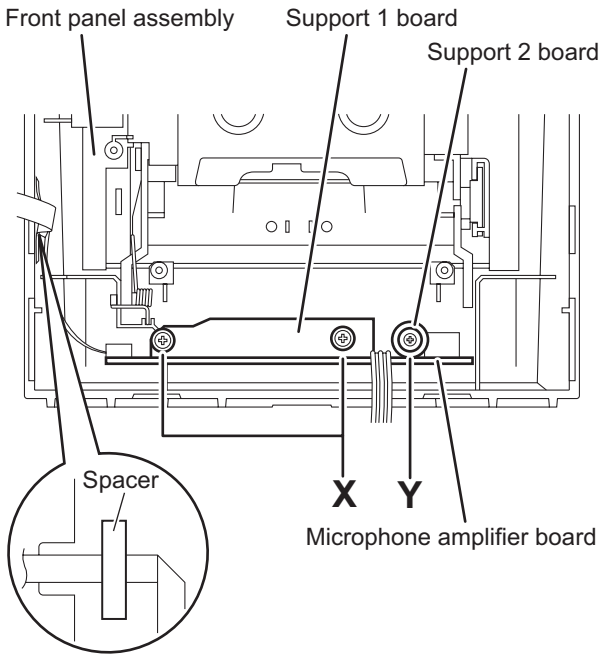


Fig.26

3.2 DVD changer mechanism assembly section (For DX-T99, DX-T77)

Remove the DVD changer mechanism assembly from the main body. (See "Removing the DVD changer mechanism assembly".)

3.2.1 Removing the tray assemblies (See Figs.1 to 5)

(1) From the top side of the main body, remove the two screws **A** from the top cover and release the two joints **a** on the both sides of the DVD changer mechanism assembly. (See Figs.1 and 2.)
(2) Remove the two rods from the top cover and remove the top cover from the lifter assembly. (See Figs.1 and 2.)
(3) Remove the open det. lever on the left side of the DVD changer mechanism assembly. (See Fig.3.)
(4) From the right side of the DVD changer mechanism assembly, draw out the tray assemblies toward the front while pushing the part **b** of the side (R) assembly. (See Figs.4 and 5.)

Note:
The tray can be locked if all tray assemblies are attached.

(5) From the topside of the DVD changer mechanism assembly, move the stopper tabs **c** in the direction of the arrow and release them. Pull out the tray assemblies from the DVD changer mechanism assembly. (See Fig. 5.)

Note:
Remove the tray assembly from top tray 5 in order.

Reference:
When reattaching the tray assembly, or when removing the disc remaining inside, refer to another section "3.3.15 Taking out the disc in the play mode".

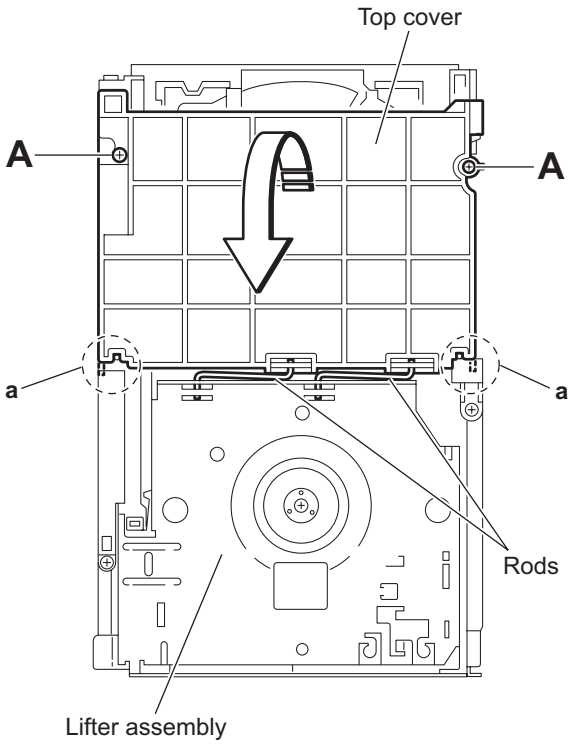


Fig.1

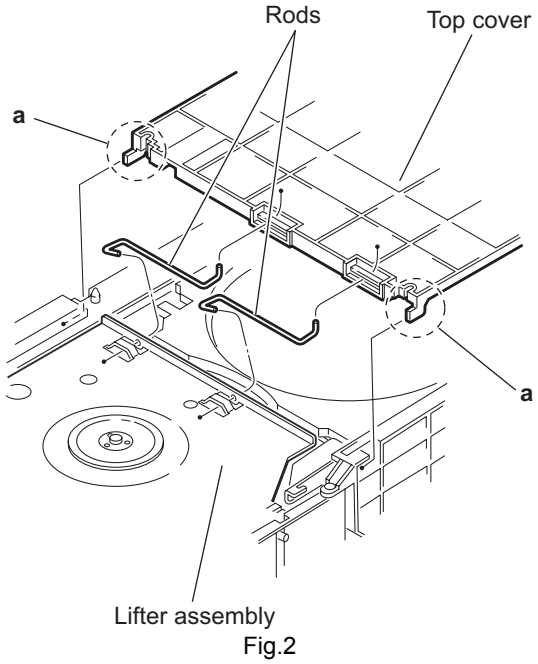


Fig.2

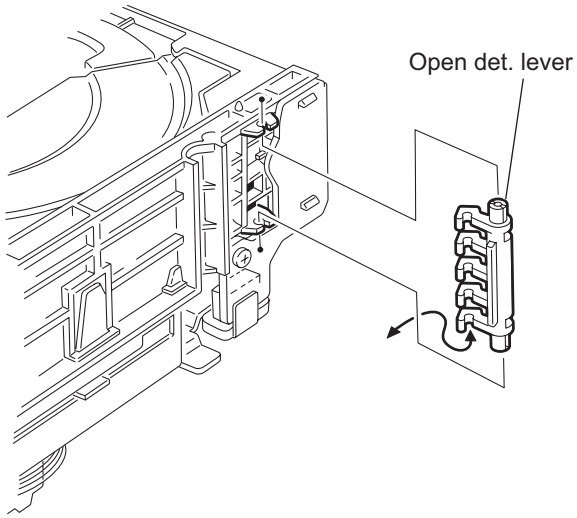


Fig.3

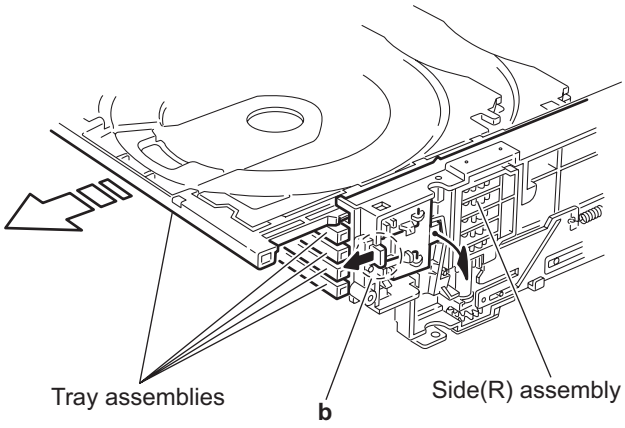


Fig.4

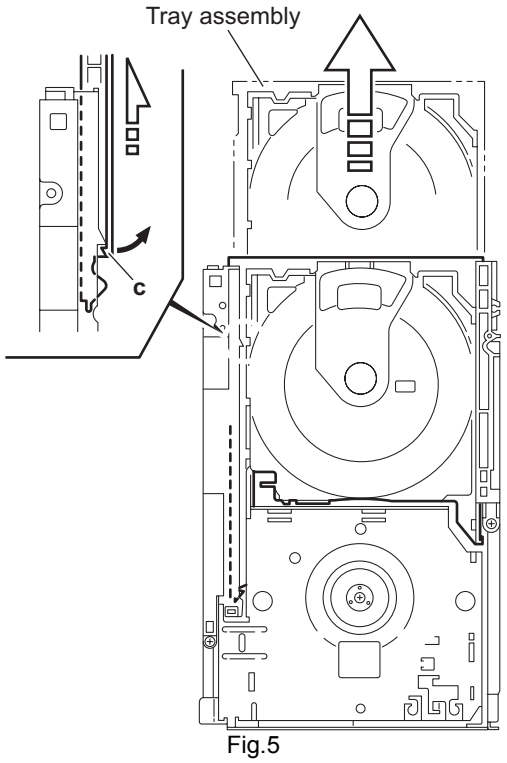


Fig.5

3.2.2 Removing the DVD servo board (See Figs.6 to 8)

Caution:

Solder the short land sections **d** on the DVD pickup before disconnecting the card wire extending from the DVD pickup. If you do not follow this instruction, the DVD pickup may be damaged.

(1) From the topside of the DVD changer mechanism assembly, solder the short land sections **d** on the DVD pick up. (See Fig.6.)

(2) From the bottom side of the DVD changer mechanism assembly, disconnect the card wire from the connectors (CN201, CN451) on the DVD servo board. (See Fig.7.)

Reference:

When connecting the card wire to the connector CN451, pass it through the sections **e** on the DVD traverse mechanism assembly. (See Fig.7.)

(3) Disconnect the wires from the connectors (CN452, CN453) on the DVD servo board. (See Fig.7.)

(4) Remove the two screws **B** attaching the DVD servo board. (See Fig.7.)

(5) From the reverse side of the DVD servo board, release the lock of the connector CN101 in the direction of the arrow and disconnect the card wire. (See Fig.8.)

Caution:

Unsolder the solders from the short land sections **d** after reassembling. (See Fig.6.)

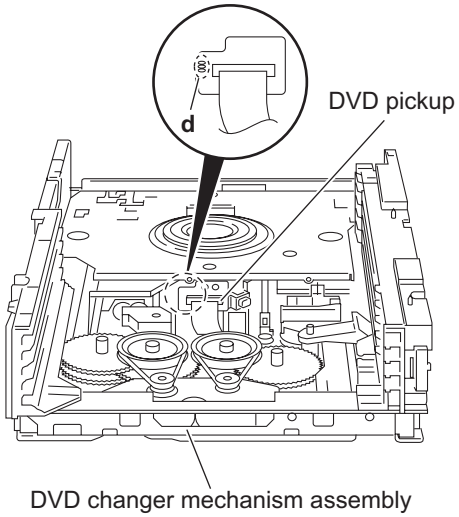


Fig.6

3.2.3 Removing the switch board (See Fig.7)

(1) From the bottom side of the DVD changer mechanism assembly, remove the screw **C** attaching the switch board on the DVD changer mechanism assembly.

(2) Disconnect the wires from the connectors (CN452, CN453) on the DVD servo board.

(3) Release the wires from the section **f** and remove the switch board.

(4) Release the wires from the sections **g** and remove the switch board.

Reference:

When reassembling, pass the wires through the sections (**f**, **g**) as before.

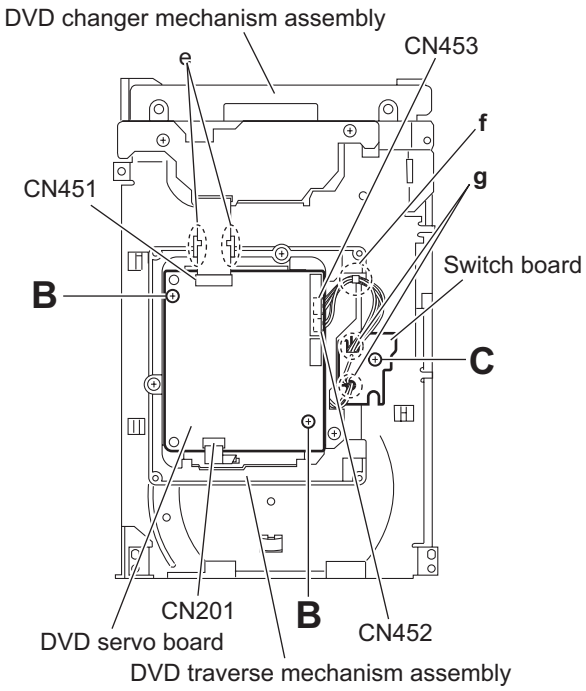


Fig.7

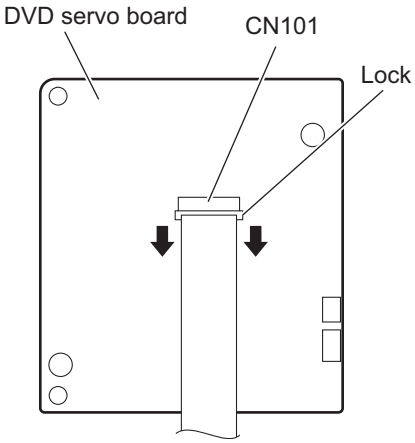


Fig.8

3.2.4 Removing the motor board (See Figs.9 and 10)

(1) From the top side of the DVD changer mechanism assembly, remove the two belts from the motor pulleys. (See Fig.9.)

Note:
Take care not to attach grease on the belt.

(2) Remove the two screws **D** attaching the motors to the loader assembly. (See Fig.9.)

(3) From the bottom side of the DVD changer mechanism assembly, remove the two screws **E**. (See Fig.10.)

(4) Disconnect the connector CN2 on the motor board from the tray switch board and remove the motor board. (See Fig.10.)

(5) Disconnect the card wire from the connector CN1 on the forward side of the motor board. (See Fig.10.)

Note:
When connecting the card wire, let the card wire through the slots **h** of the motor board. (See Fig.10.)

Reference:
You need not to remove the tray assemblies, and in such case, move it.

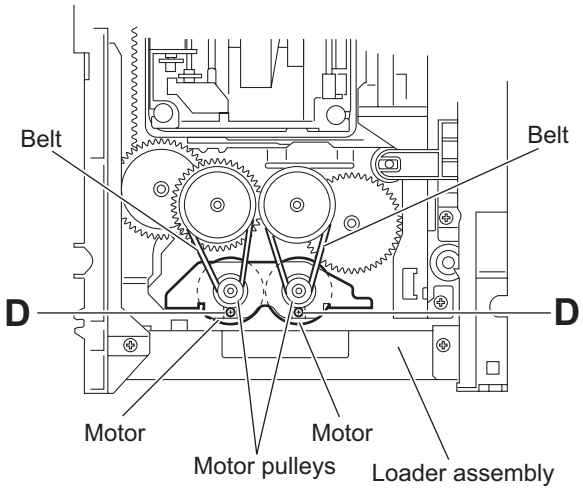


Fig.9

3.2.5 Removing the motor (See Fig. 10)

• Remove the motor board.

(1) From the reverse side of the motor board, unsolder the four soldered sections **i** on the motor board.

(2) From the forward side of the motor board, remove the motors.

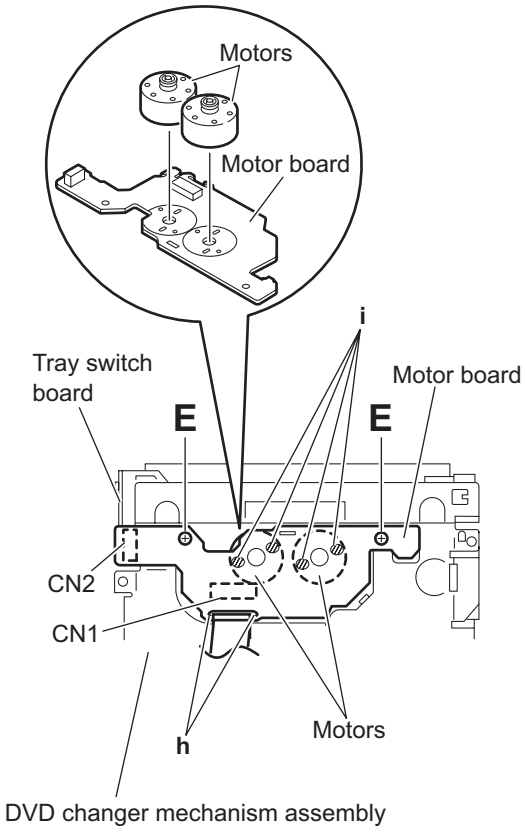


Fig.10

3.2.6 Removing the DVD traverse mechanism assembly (See Fig.11)

- Remove the tray assemblies and DVD servo board.
  (1) From the bottom side of the DVD changer mechanism assembly, remove the three screws **F** attaching the DVD traverse mechanism assembly.
  (2) Remove the wires from the section **j**.
  (3) Take out the DVD traverse mechanism assembly from the DVD changer mechanism assembly.

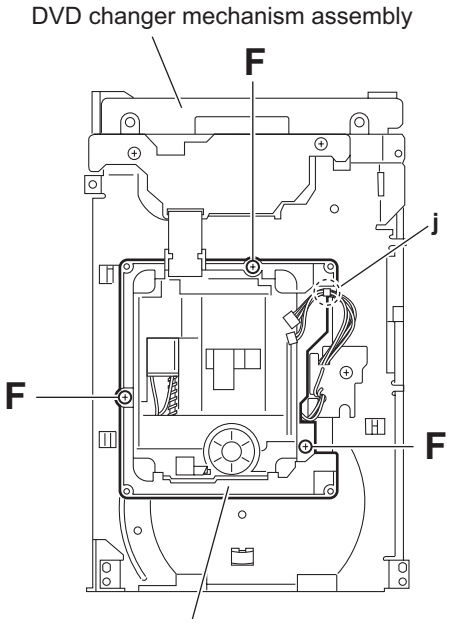


Fig.11

3.2.7 Removing the DVD pickup (See Figs.12 to 14)

- Remove the tray assemblies, DVD servo board and DVD traverse mechanism assembly.
  (1) From the top side of the DVD traverse mechanism assembly, release the lock of the connector on the DVD pickup and disconnect the card wire in the direction of the arrow. (See Fig.12.)
  (2) Turn the screw shaft gear in the direction of the arrow 1 to move the DVD pickup in the direction of the arrow 2. (See Fig.12.)
  (3) Remove the screw **G** attaching the feed bracket and remove the feed bracket from the sections **k**. (See Fig.12.)
  (4) Release the claw **m** of the thrust spring in the direction of the arrow and remove the thrust spring. (See Fig.12.)
  (5) Remove the guide shaft from the sections (**n**, **p**) on the C.TM chassis. (See Fig.13.)
  (6) Remove the section **q** of the DVD pickup. (See Fig.13.)
  (7) Remove the two screws **H** attaching the rack arm spring and rack arm. (See Fig.14.)
  (8) Pull the guide shaft from the DVD pickup in the direction of the arrow. (See Fig.14.)

3.2.8 Attaching the DVD pickup (See Figs.12 to 14)

(1) Attach the guide shaft to the DVD pickup and attach the rack arm spring and rack arm with the screws **H**. (See Fig.14.)
(2) Attach the section **q** of the DVD pickup to the C.TM chassis first and attach the guide shaft to the sections (**n**, **p**). (See Fig.13.)

Reference:

When attaching the guide shaft to the section **p**, attach it under the rod spring. (See Fig.13.)

(3) Attach the thrust spring and feed bracket with the screw **G**. (See Fig.12.)
(4) Turn the screw shaft gear in the direction of the arrow 1 to move the DVD pickup in the direction of the arrow 2. (See Fig.15.)
(5) Connect the card wire to the connector on the DVD pickup. (See Fig.15.)

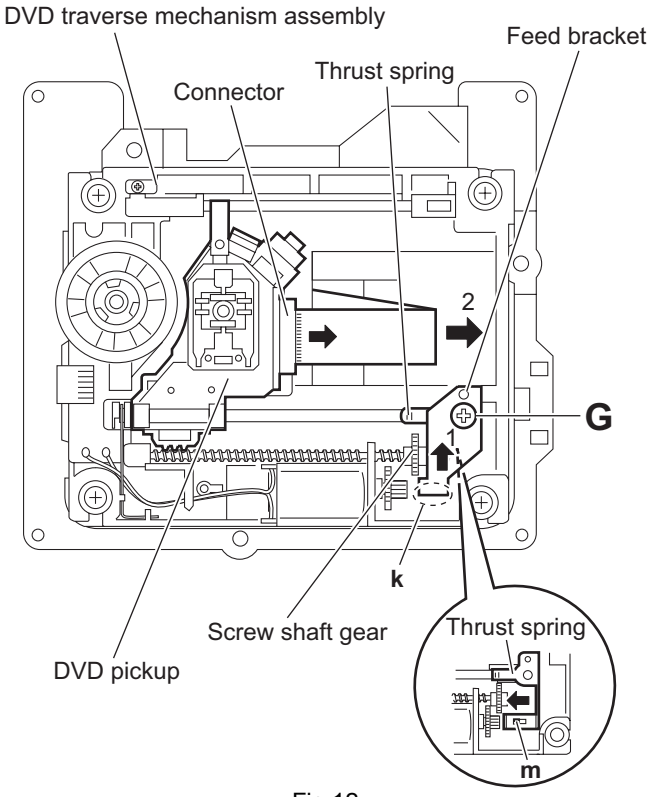


Fig.12

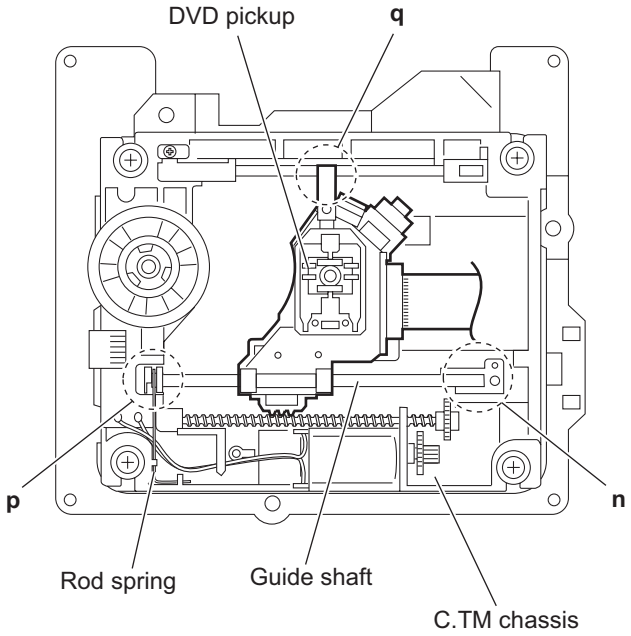


Fig.13

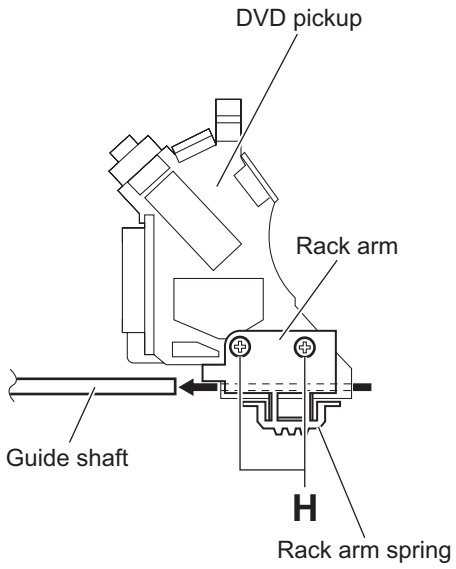

DVD pickup
Rack arm
Guide shaft
H
Rack arm spring

Fig.14

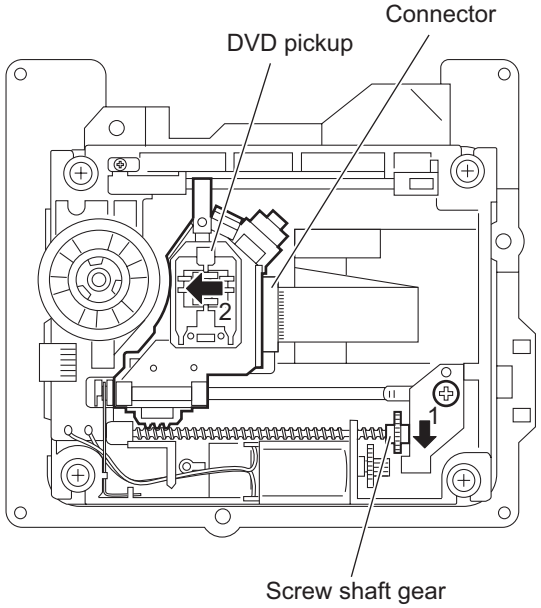

Connector
DVD pickup
2
1
Screw shaft gear

Fig.15

3.2.9 Removing the spindle motor board (See Figs.16 and 17)

- Remove the tray assemblies, DVD servo board and DVD traverse mechanism assembly.
  (1) From the top side of the DVD traverse mechanism assembly, remove the wires from the soldered sections **r** on the spindle motor board. (See Fig.16.)
  (2) From the bottom side of the DVD traverse mechanism assembly, remove the three screws **J** attaching the spindle motor board. (See Fig.17.)

Reference:

When attaching the spindle motor board, let the card wire through the hole **s** on the C.TM chassis. (See Fig.17.)

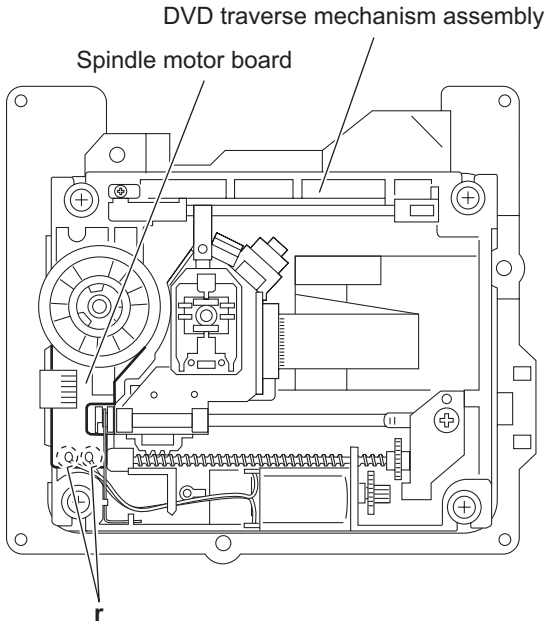


Fig.16

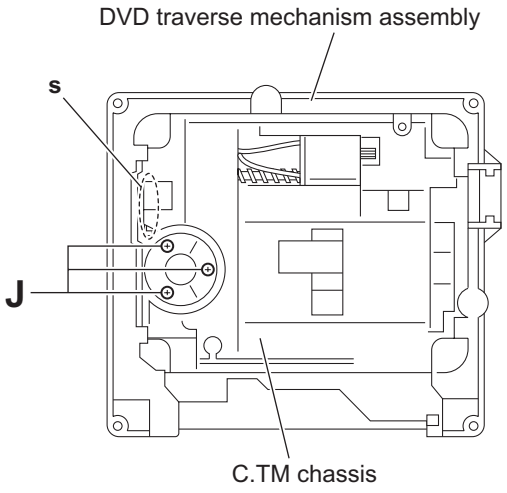


Fig.17

3.2.10 Removing the feed motor (See Figs.18 and 19)

- Remove the tray assemblies and DVD traverse mechanism assembly.
  (1) From the top side of the DVD traverse mechanism assembly, remove the screw **K** attaching the feed bracket and remove the feed bracket from the sections **t**. (See Fig.18.)
  (2) Release the claw **u** of the thrust spring in the direction of the arrow and remove the thrust spring. (See Fig.18.)
  (3) Remove the screw shaft from the section **v** and remove it in the direction of the arrow. (See Fig.19.)
  (4) Remove the middle gear. (See Fig.19.)
  (5) Remove the screw **L** attaching the feed motor to the C.TM chassis. (See Fig.19.)
  (6) Remove the wires from the soldered sections **w** on the spindle motor board. (See Fig.19.)
  (7) Take out the feed motor from the motor base.

Reference:

After attaching the feed motor, pass the wires through the sections **x** on the C.TM chassis as before. (See Fig.19.)

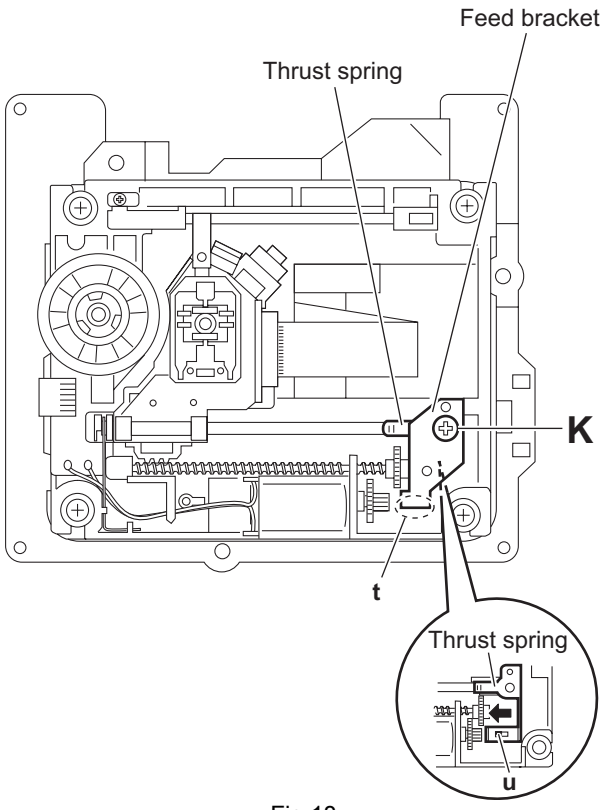


Fig.18

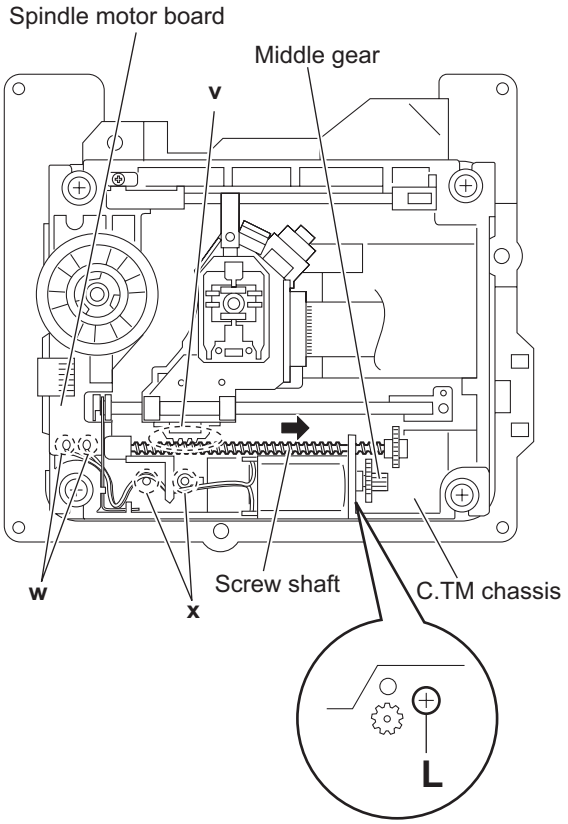


Fig.19

3.2.11 Removing the side (L) and tray switch board (See Figs.20 to 22)

- Remove the tray assemblies.
  (1) From the topside of the DVD changer mechanism assembly, remove the two screws **M** attaching the side (L). (See Fig.20.)
  (2) From the left side of the DVD changer mechanism assembly, disconnect the connector CN3 on the tray switch board from the motor board and detach the side (L) in an upward direction. (See Fig.21.)
  (3) Remove the screw **N** attaching the tray switch board to the side (L). (See Fig.22.)
  (4) Release the joint tab **y** of the side (L) in the direction of the arrow 1 and release the joint tab **z** while removing the tray switch board in the direction of the arrow 2. (See Fig.22.)

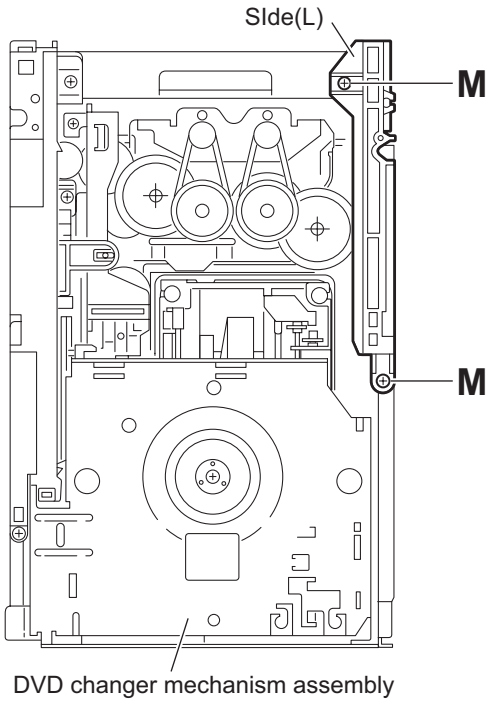


Fig.20

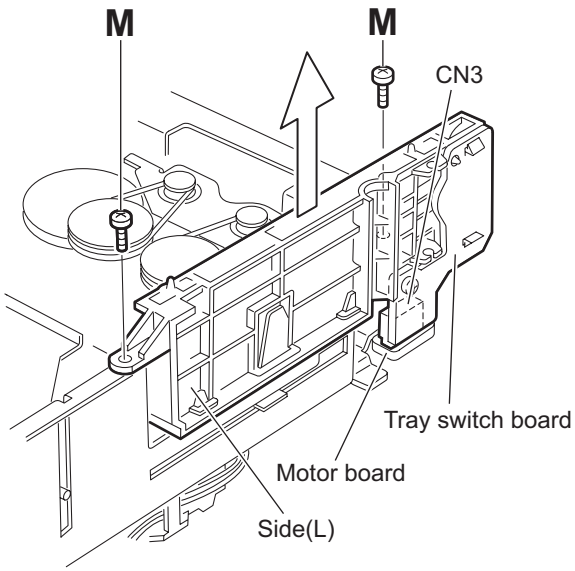


Fig.21

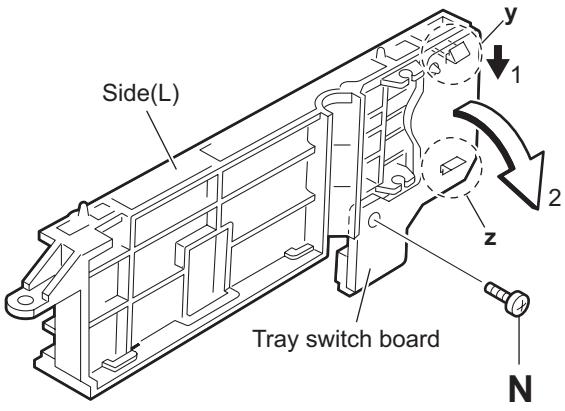


Fig.22

3.2.12 Removing the side (R) assembly (See Fig.23 to 27)

- Remove the tray assemblies and DVD servo board.
  (1) From the inside of the side (R) assembly, release the two tabs **aa** of the gear cover and remove the gear cover outward. (See Figs.23 and 24.)
  (2) From the right side of the DVD changer mechanism assembly, remove the elevator spring attached to the hook **ab** of the loader assembly. (See Figs.24 and 25.)
  (3) From the top side of the DVD changer mechanism assembly, turn the gear 1 clockwise to move the elevator cam rearward. (See Fig.25.)
  (4) Move the two slots **ac** and joint **ad** of the elevator cam and remove the elevator cam outward. (See Fig.25.)
  (5) Remove the three screws **P** and detaches the side (R) assembly upward. (See Figs.26 and 27.)

Note:

When reattaching the side (R) assembly, make sure to fit the shaft (part **ae**) into the slot of the select lever. (See Fig.26.)

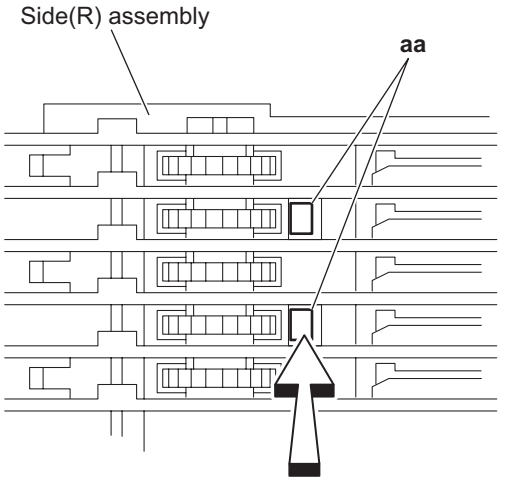


Fig.23

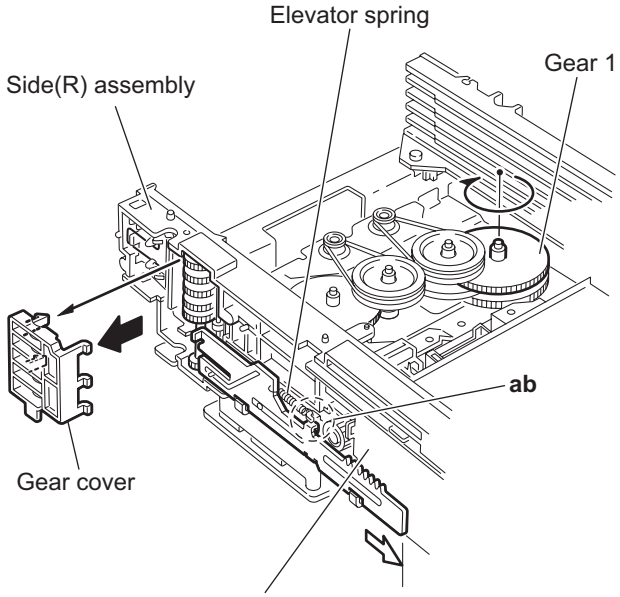


Fig.24

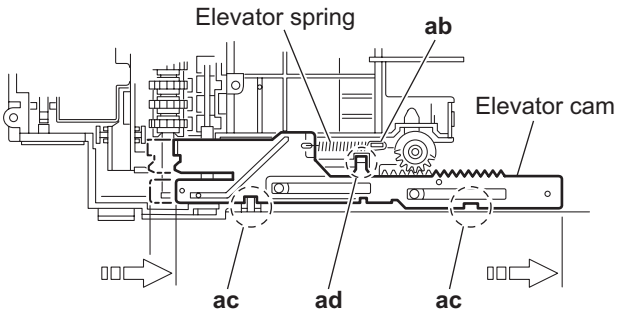


Fig.25

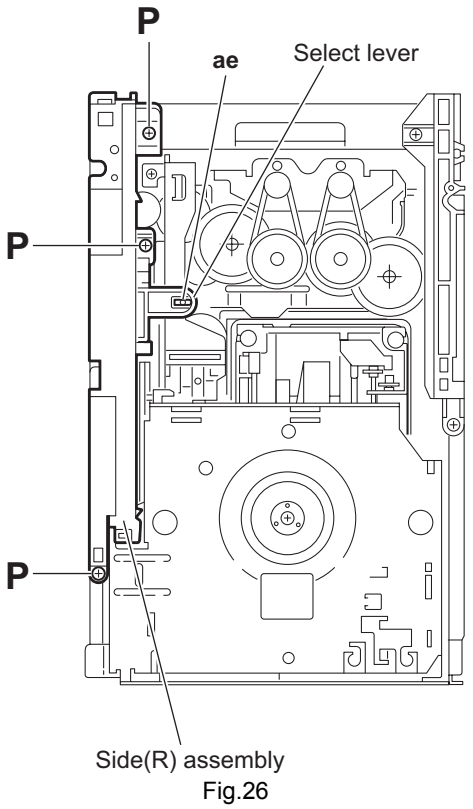


Fig.26

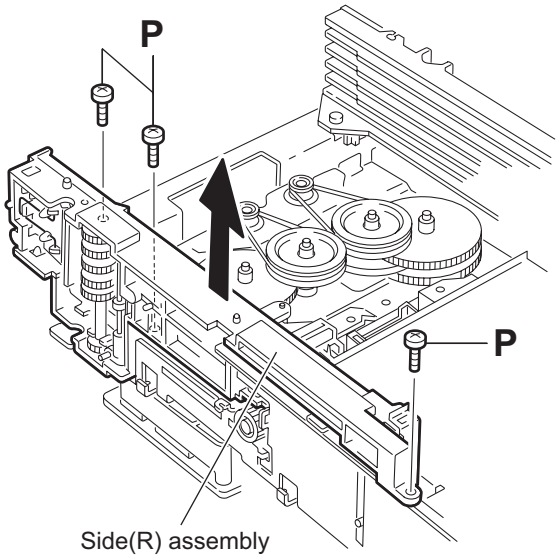


Fig.27

3.2.13 Removing the lifter assembly (See Figs.28 to 32)

- Remove the tray assemblies, DVD servo board, side (L) and side (R) assembly.
  (1) From the top side of the DVD changer mechanism assembly, turn the gear 1 clockwise to move the lifter assembly upward. (See Figs.28 and 29.)
  (2) Turn the gear 2 clockwise to move the hook toward the front until it stops. (See Figs.28 and 29.)
  (3) Move the hook stopper in the direction of the arrow 2 while pushing the tab **af** of the hook stopper to unlock it in the direction of the arrow 1 and release four joints **ag** to detach from the rack holder. (See Fig.30.)
  (4) Release the rod (L) from part **ah**. (See Fig.30.)
  (5) Turn the gear 1 clockwise again to move the lifter assembly upward. (See Fig.31.)
  (6) Remove the lifter assembly from the DVD changer mechanism assembly upward at the positions ai where the four pins on the both sides of the lifter assembly fit to the notches of the loader assembly. (See Fig.31.)
  (7) Move the lifter assembly in the direction of the arrow and release it from the hook. (See Fig.32.)

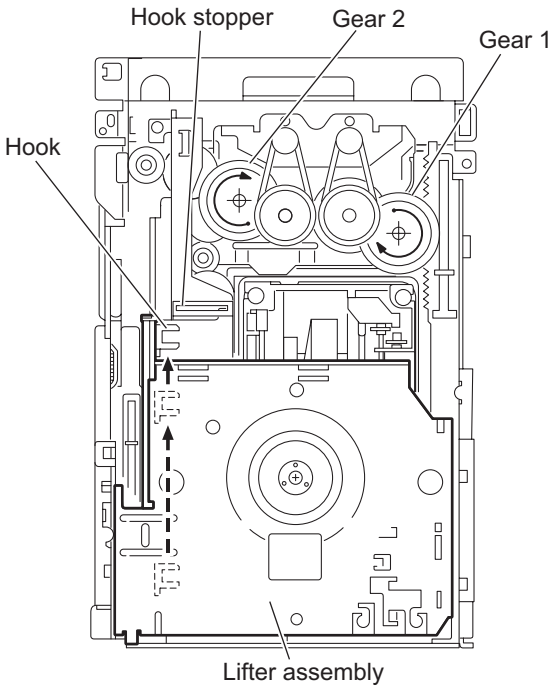


Fig.28

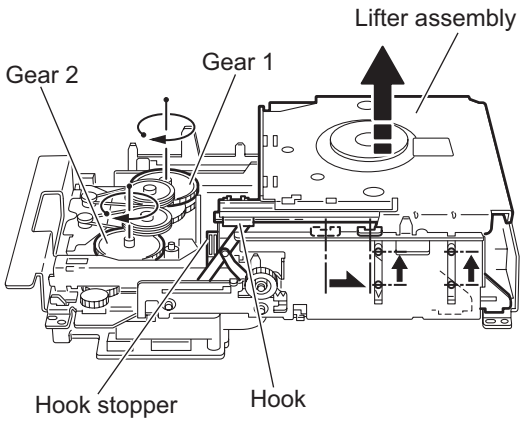


Fig.29

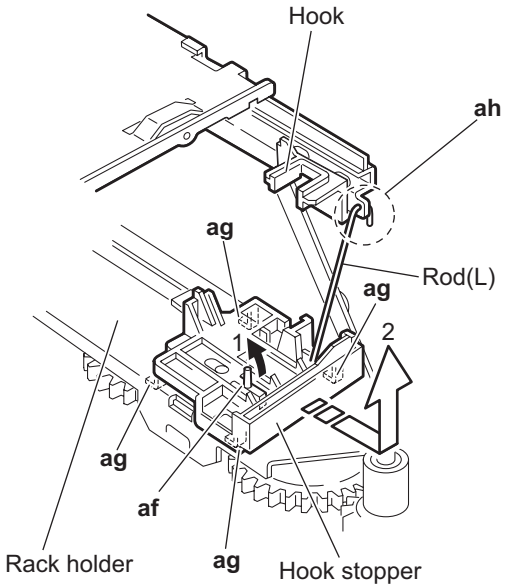


Fig.30

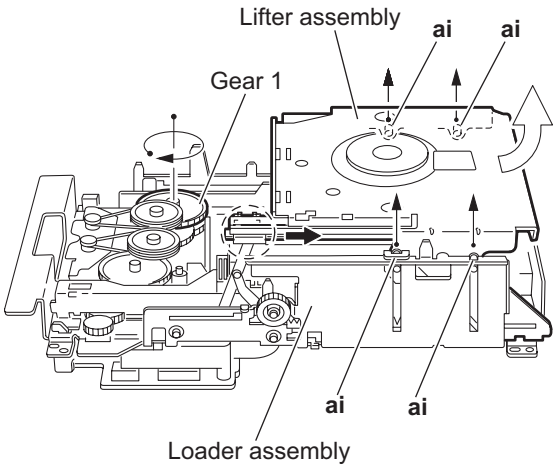


Fig.31

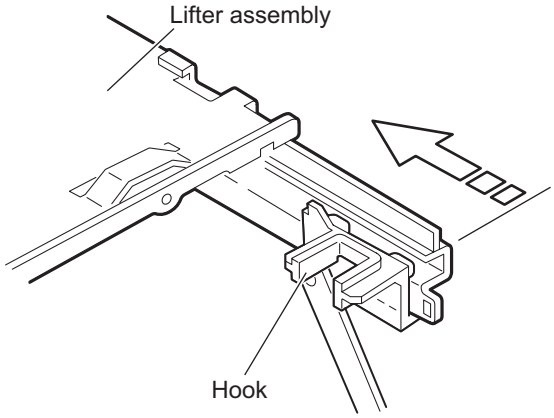


Fig.32

3.2.14 Removing the sensor board and SV resistor (See Fig.33)

- Remove the tray assemblies, side (L), side (R) assembly and lifter assembly.
  (1) Remove the solders from the soldered sections **aj** on the sensor board and remove the wires.
  (2) Remove the two screws **Q** and take out the sensor board with the SV resistor.

Reference:

- Remove the soldered section **ap** on the sensor board as required.
- When reassembling, pass the wires through the slot **ak** of the sensor board as before.

Note:

When reattaching the SV. resister, fit the projection am on the bottom of the SV. resister into slot **an** of the sensor slider.

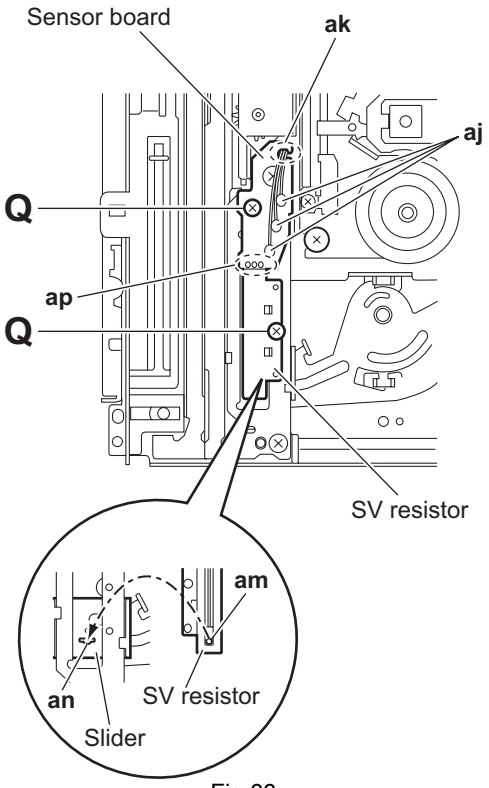


Fig.33

3.2.15 Taking out the disc in the play mode (See Fig.34 to 37)

Reference:

Refer to "3.3.1 Removing the tray assemblies".

(1) From the top side of the DVD changer mechanism assembly, remove the top cover.
(2) Unlock the tray assemblies and draw out the tray assemblies toward the front.
(3) From the top side of the DVD changer mechanism assembly, turn the gear 1 clockwise to move the lifter assembly upward. (See Fig.34.)
(4) Turn the gear 2 clockwise to move the sub tray remaining inside the lifter assembly toward the front, then pull out. (See Fig.34.)
(5) Take out the disc on the sub tray. (See Fig.35.)
(6) After clearing away the disc, insert the sub tray into the main tray. (See Fig.36.)

Note:

When reattaching the sub tray, move the tray stopper on the bottom of the main tray in the direction of the arrow to lock the sub tray certainly. (See Figs.36 and 37.)

(7) Push the tray assembly toward the DVD changer mechanism assembly and reattach.

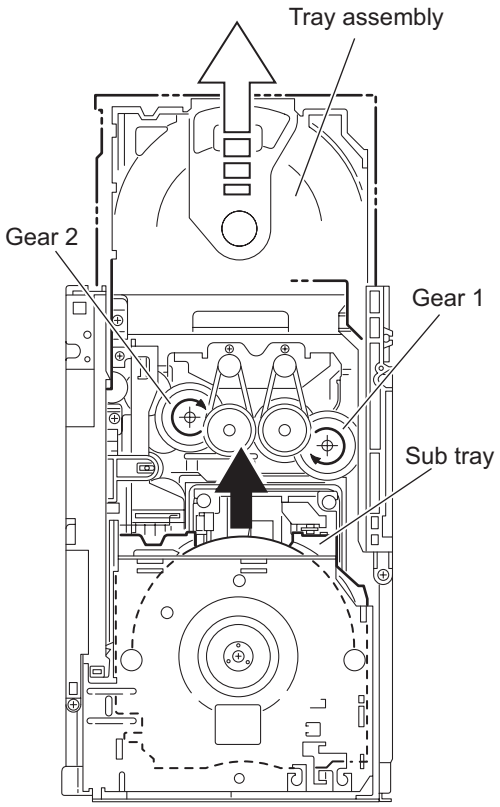


Fig.34

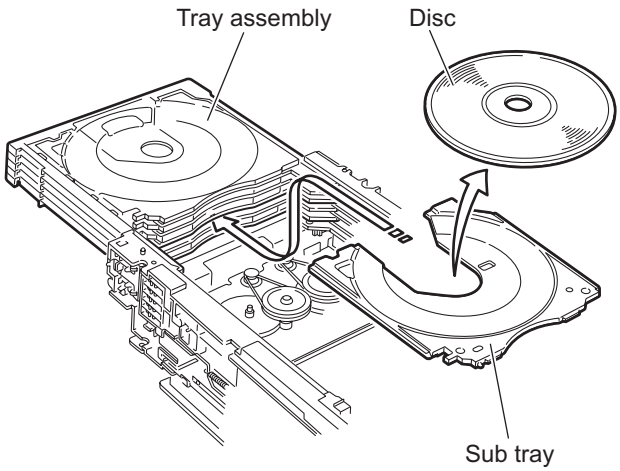


Fig.35

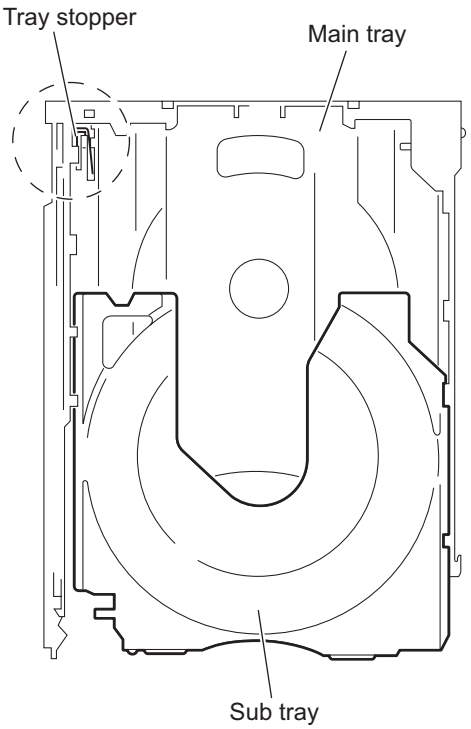


Fig.36

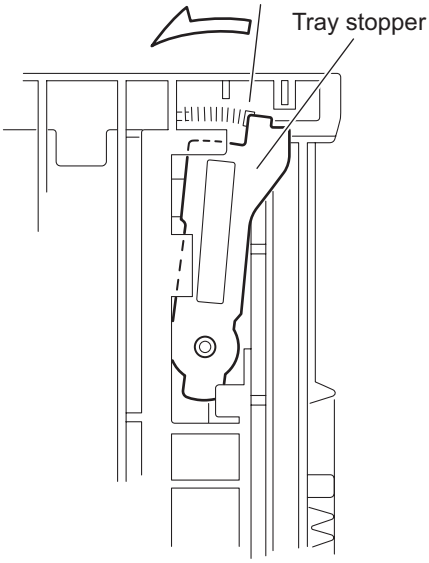


Fig.37

3.3 DVD changer mechanism assembly section (For DX-T66)

Remove the DVD changer mechanism assembly from the main body. (See "Removing the DVD changer mechanism assembly".)

3.3.1 Removing the tray assemblies (See Figs.1 to 5)

(1) From the top side of the main body, remove the two screws **A** from the top cover and release the two joints **a** on the both sides of the DVD changer mechanism assembly. (See Figs.1 and 2.)
(2) Remove the two rods from the top cover and remove the top cover from the lifter assembly. (See Figs.1 and 2.)
(3) Remove the open det. lever on the left side of the DVD changer mechanism assembly. (See Fig.3.)
(4) From the right side of the DVD changer mechanism assembly, draw out the tray assemblies toward the front while pushing the part **b** of the side (R) assembly. (See Figs.4 and 5.)

Note:
The tray can be locked if all tray assemblies are attached.

(5) From the topside of the DVD changer mechanism assembly, move the stopper tabs **c** in the direction of the arrow and release them. Pull out the tray assemblies from the DVD changer mechanism assembly. (See Fig. 5.)

Note:
Remove the tray assembly from top tray 5 in order.

Reference:
When reattaching the tray assembly, or when removing the disc remaining inside, refer to another section "3.3.15 Taking out the disc in the play mode".

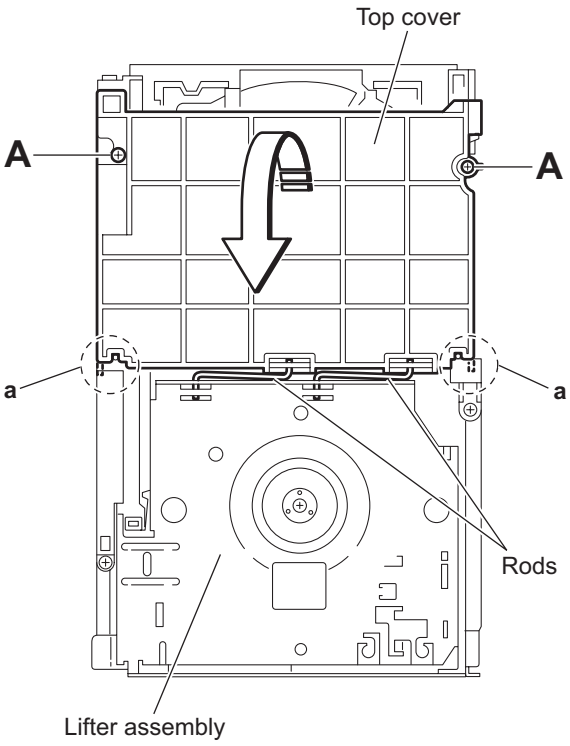


Fig.1

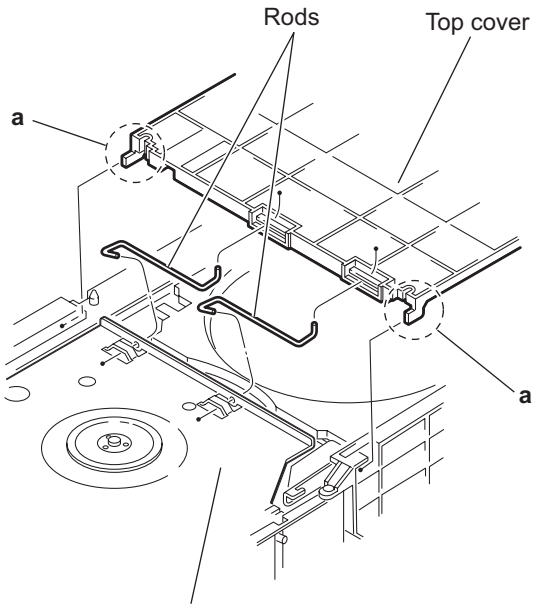


Fig.2

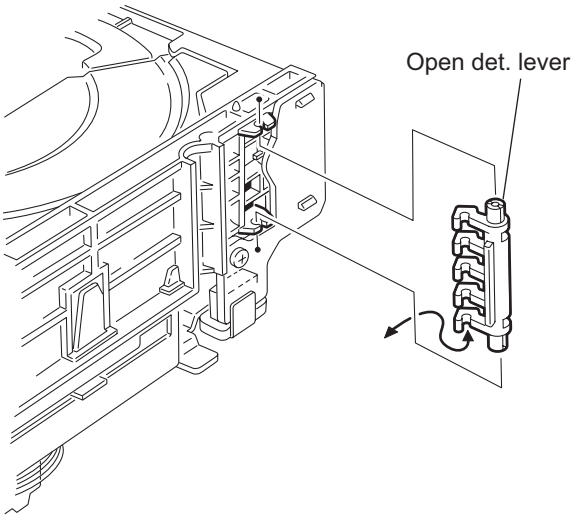


Fig.3

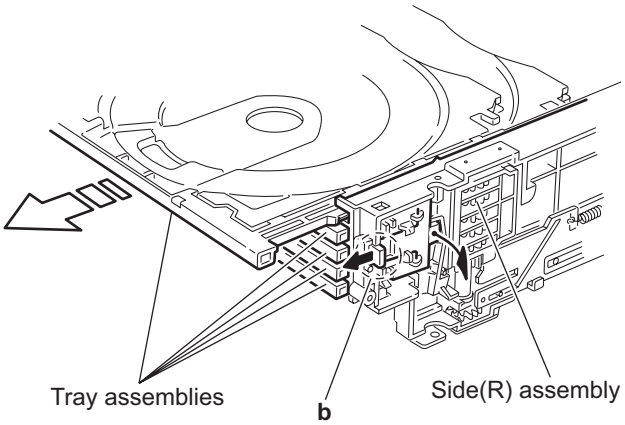


Fig.4

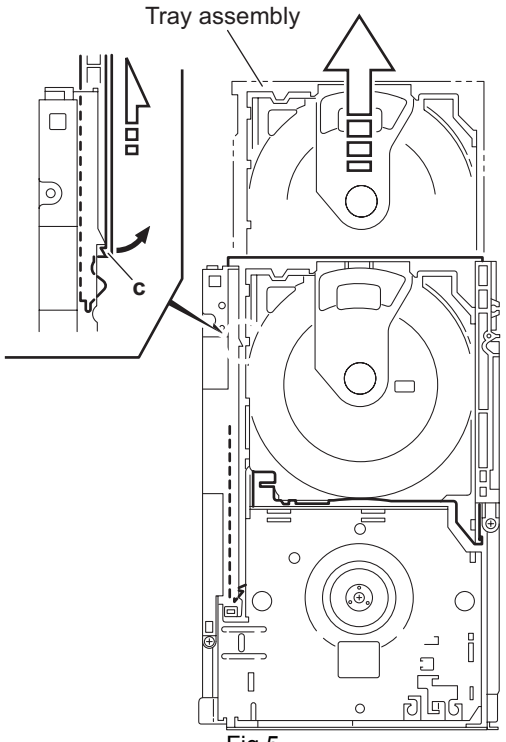


Fig.5

3.3.2 Removing the DVD servo board (See Figs.6 to 8)

Caution:

Solder the short land sections **d** on the DVD pickup before disconnecting the card wire extending from the DVD pickup. If you do not follow this instruction, the DVD pickup may be damaged.

(1) From the topside of the DVD changer mechanism assembly, solder the short land sections **d** on the DVD pick up. (See Fig.6.)

(2) From the bottom side of the DVD changer mechanism assembly, disconnect the card wire from the connectors (CN201, CN451) on the DVD servo board. (See Fig.7.)

Reference:

When connecting the card wire to the connector CN451, pass it through the sections **e** on the DVD traverse mechanism assembly. (See Fig.7.)

(3) Disconnect the wires from the connectors (CN452, CN453) on the DVD servo board. (See Fig.7.)

(4) Remove the two screws **B** attaching the DVD servo board. (See Fig.7.)

(5) From the reverse side of the DVD servo board, release the lock of the connector CN101 in the direction of the arrow and disconnect the card wire. (See Fig.8.)

Caution:

Unsolder the solders from the short land sections **d** after reassembling. (See Fig.6.)

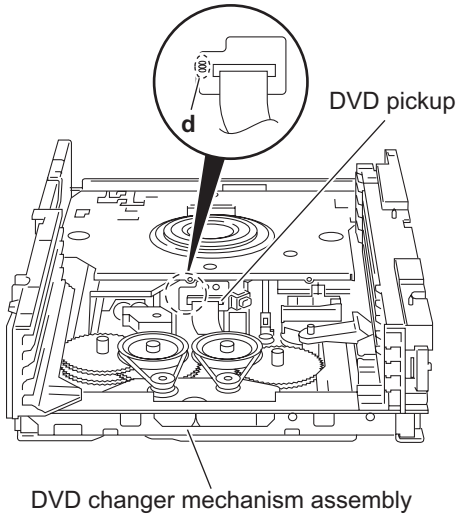


Fig.6

3.3.3 Removing the switch board (See Fig.7)

(1) From the bottom side of the DVD changer mechanism assembly, remove the screw **C** attaching the switch board on the DVD changer mechanism assembly.

(2) Disconnect the wires from the connectors (CN452, CN453) on the DVD servo board.

(3) Release the wires from the section **f** and remove the switch board.

(4) Release the wires from the sections **g** and remove the switch board.

Reference:

When reassembling, pass the wires through the sections (**f**, **g**) as before.

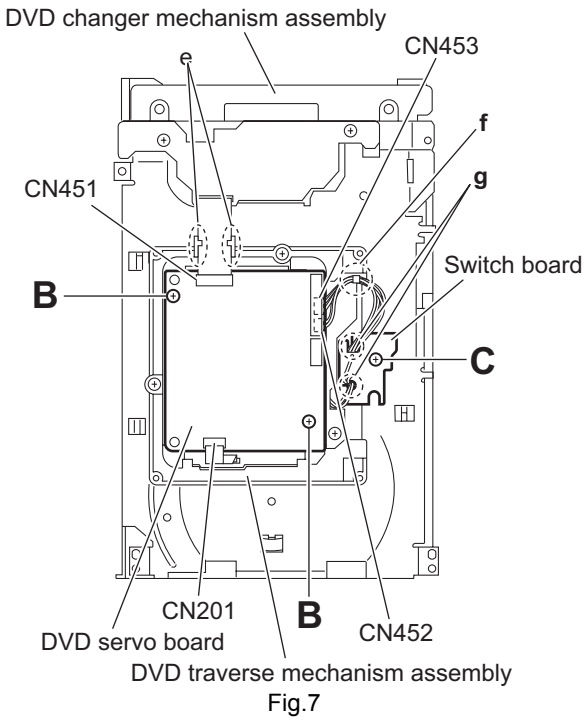


Fig.7

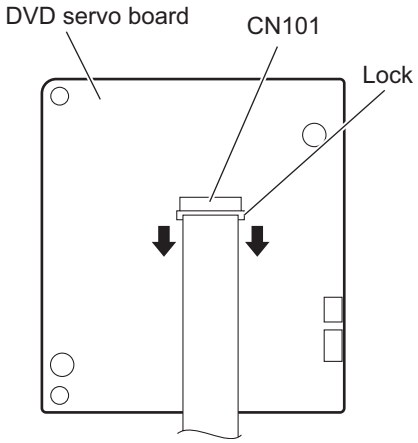


Fig.8

3.3.4 Removing the motor board (See Figs.9 and 10)

(1) From the top side of the DVD changer mechanism assembly, remove the two belts from the motor pulleys. (See Fig.9.)

Note:
Take care not to attach grease on the belt.

(2) Remove the two screws **D** attaching the motors to the loader assembly. (See Fig.9.)

(3) From the bottom side of the DVD changer mechanism assembly, remove the two screws **E**. (See Fig.10.)

(4) Disconnect the connector CN2 on the motor board from the tray switch board and remove the motor board. (See Fig.10.)

(5) Disconnect the card wire from the connector CN1 on the forward side of the motor board. (See Fig.10.)

Note:
When connecting the card wire, let the card wire through the slots **h** of the motor board. (See Fig.10.)

Reference:
You need not to remove the tray assemblies, and in such case, move it.

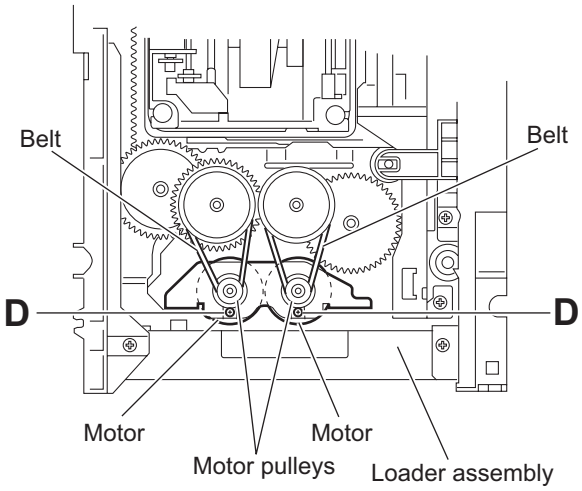


Fig.9

3.3.5 Removing the motor (See Fig. 10)

• Remove the motor board.

(1) From the reverse side of the motor board, unsolder the four soldered sections **i** on the motor board.

(2) From the forward side of the motor board, remove the motors.

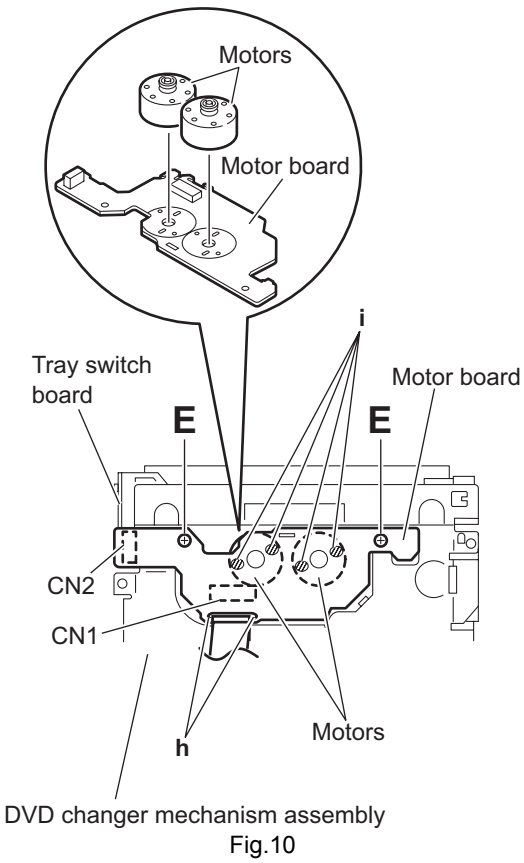


Fig.10

3.3.6 Removing the DVD traverse mechanism assembly (See Fig.11)

- Remove the tray assemblies and DVD servo board.
  (1) From the bottom side of the DVD changer mechanism assembly, remove the three screws **F** attaching the DVD traverse mechanism assembly.
  (2) Remove the wires from the section **j**.
  (3) Take out the DVD traverse mechanism assembly from the DVD changer mechanism assembly.

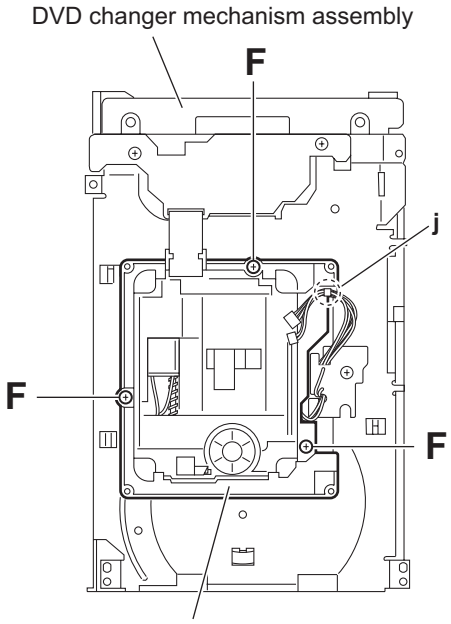


Fig.11

3.3.7 Removing the DVD pickup (See Figs.12 to 14)

- Remove the tray assemblies, DVD servo board and DVD traverse mechanism assembly.
  (1) From the top side of the DVD traverse mechanism assembly, release the lock of the connector on the DVD pickup and disconnect the card wire in the direction of the arrow. (See Fig.12.)
  (2) Turn the screw shaft gear in the direction of the arrow 1 to move the DVD pickup in the direction of the arrow 2. (See Fig.12.)
  (3) Remove the screw **G** attaching the feed bracket and remove the feed bracket from the sections **k**. (See Fig.12.)
  (4) Release the claw **m** of the thrust spring in the direction of the arrow and remove the thrust spring. (See Fig.12.)
  (5) Remove the guide shaft from the sections (**n**, **p**) on the C.TM chassis. (See Fig.13.)
  (6) Remove the section **q** of the DVD pickup. (See Fig.13.)
  (7) Remove the two screws **H** attaching the rack arm spring and rack arm. (See Fig.14.)
  (8) Pull the guide shaft from the DVD pickup in the direction of the arrow. (See Fig.14.)

3.3.8 Attaching the DVD pickup (See Figs.12 to 14)

(1) Attach the guide shaft to the DVD pickup and attach the rack arm spring and rack arm with the screws **H**. (See Fig.14.)
(2) Attach the section **q** of the DVD pickup to the C.TM chassis first and attach the guide shaft to the sections (**n**, **p**). (See Fig.13.)

Reference:

When attaching the guide shaft to the section **p**, attach it under the rod spring. (See Fig.13.)

(3) Attach the thrust spring and feed bracket with the screw **G**. (See Fig.12.)
(4) Turn the screw shaft gear in the direction of the arrow 1 to move the DVD pickup in the direction of the arrow 2. (See Fig.15.)
(5) Connect the card wire to the connector on the DVD pickup. (See Fig.15.)

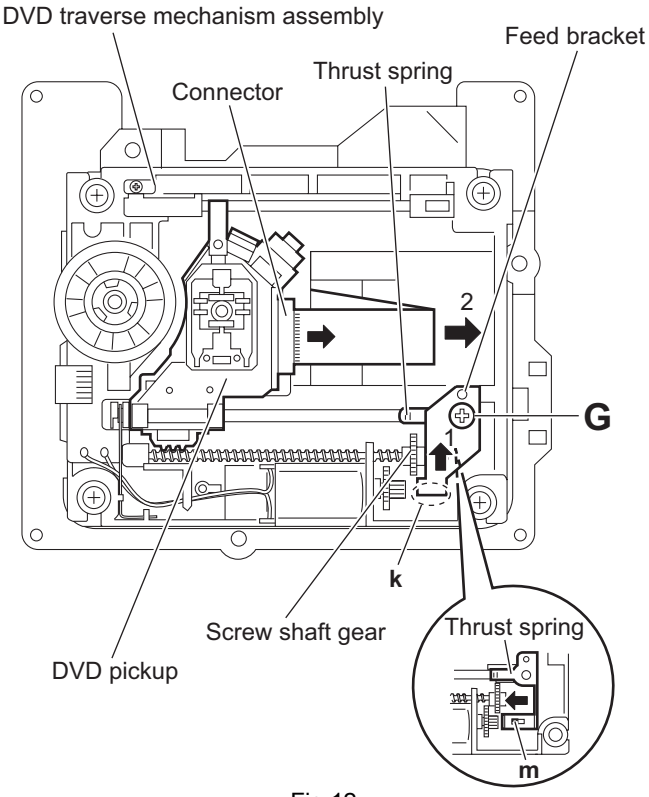


Fig.12

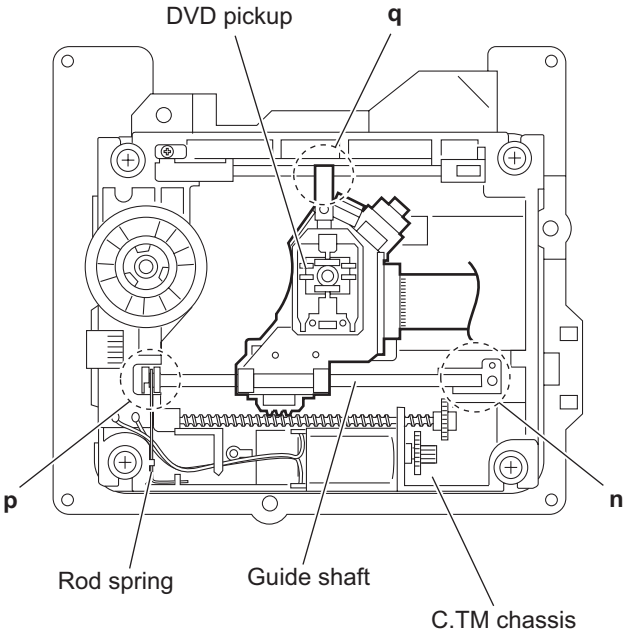


Fig.13

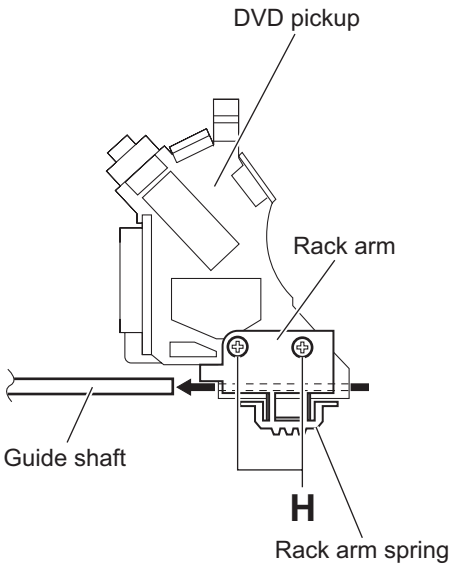

DVD pickup
Rack arm
Guide shaft
H
Rack arm spring

Fig.14

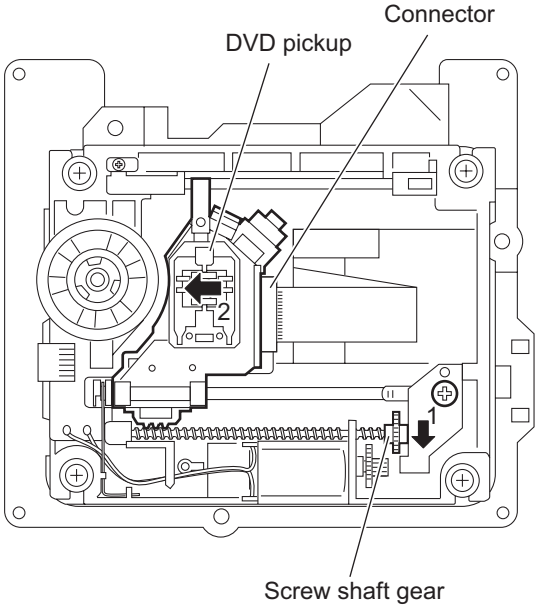

Connector
DVD pickup
2
1
Screw shaft gear

Fig.15

3.3.9 Removing the spindle motor board (See Figs.16 and 17)

- Remove the tray assemblies, DVD servo board and DVD traverse mechanism assembly.
  (1) From the top side of the DVD traverse mechanism assembly, remove the wires from the soldered sections **r** on the spindle motor board. (See Fig.16.)
  (2) From the bottom side of the DVD traverse mechanism assembly, remove the three screws **J** attaching the spindle motor board. (See Fig.17.)

Reference:

When attaching the spindle motor board, let the card wire through the hole **s** on the C.TM chassis. (See Fig.17.)

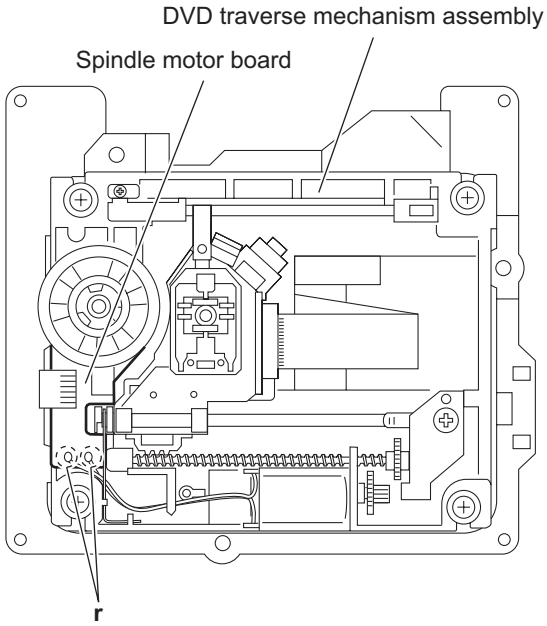


Fig.16

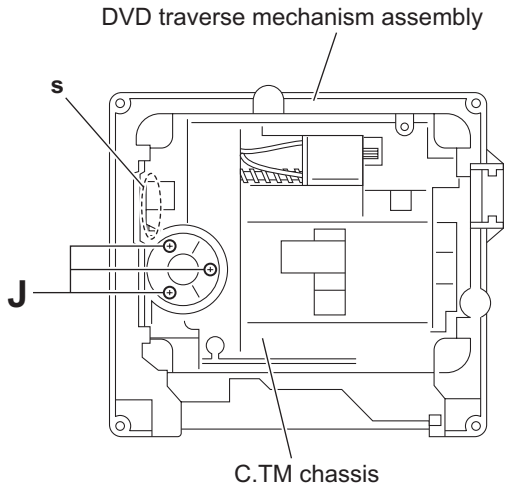


Fig.17

3.3.10 Removing the feed motor (See Figs.18 and 19)

- Remove the tray assemblies and DVD traverse mechanism assembly.
  (1) From the top side of the DVD traverse mechanism assembly, remove the screw **K** attaching the feed bracket and remove the feed bracket from the sections **t**. (See Fig.18.)
  (2) Release the claw **u** of the thrust spring in the direction of the arrow and remove the thrust spring. (See Fig.18.)
  (3) Remove the screw shaft from the section **v** and remove it in the direction of the arrow. (See Fig.19.)
  (4) Remove the middle gear. (See Fig.19.)
  (5) Remove the screw **L** attaching the feed motor to the C.TM chassis. (See Fig.19.)
  (6) Remove the wires from the soldered sections **w** on the spindle motor board. (See Fig.19.)
  (7) Take out the feed motor from the motor base.

Reference:

After attaching the feed motor, pass the wires through the sections **x** on the C.TM chassis as before. (See Fig.19.)

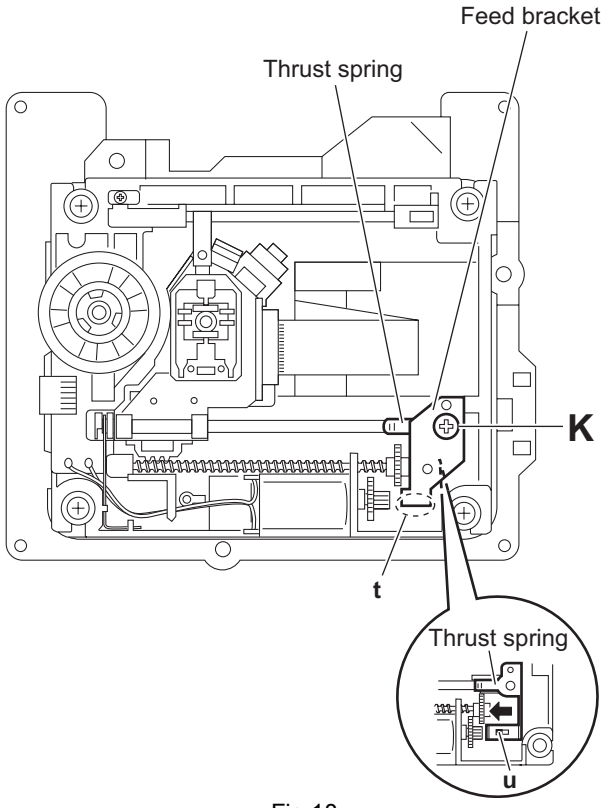


Fig.18

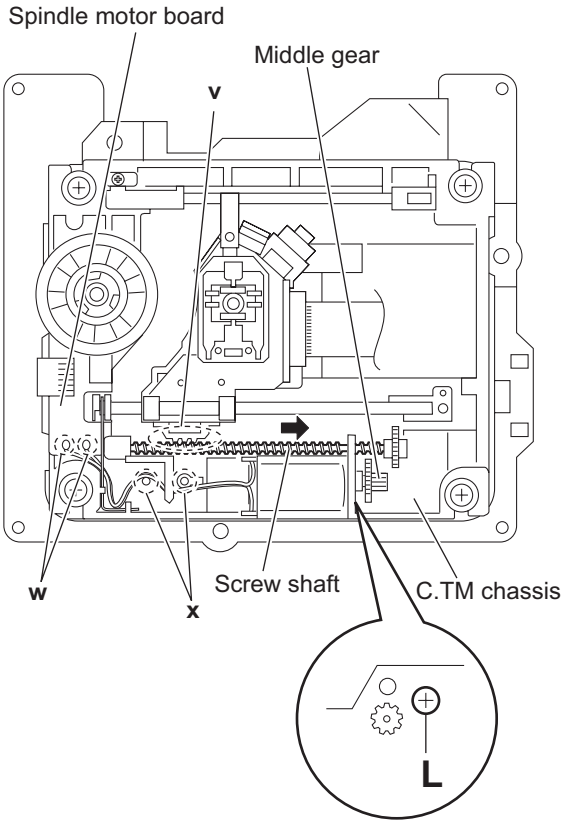


Fig.19

3.3.11 Removing the side (L) and tray switch board (See Figs.20 to 22)

- Remove the tray assemblies.
  (1) From the topside of the DVD changer mechanism assembly, remove the two screws **M** attaching the side (L). (See Fig.20.)
  (2) From the left side of the DVD changer mechanism assembly, disconnect the connector CN3 on the tray switch board from the motor board and detach the side (L) in an upward direction. (See Fig.21.)
  (3) Remove the screw **N** attaching the tray switch board to the side (L). (See Fig.22.)
  (4) Release the joint tab **y** of the side (L) in the direction of the arrow 1 and release the joint tab **z** while removing the tray switch board in the direction of the arrow 2. (See Fig.22.)

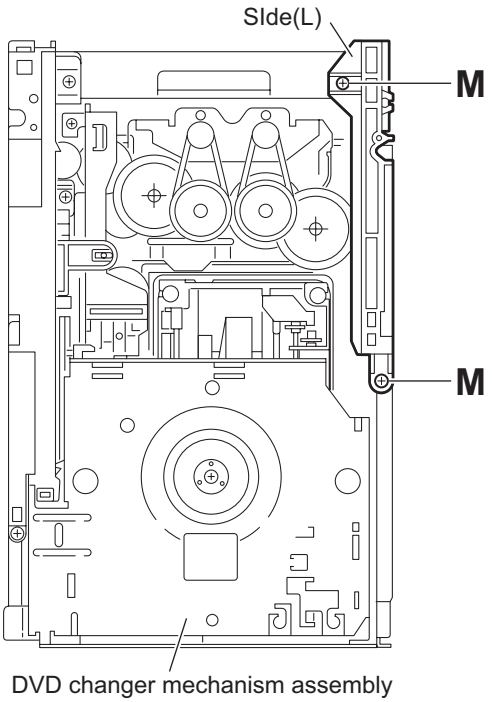


Fig.20

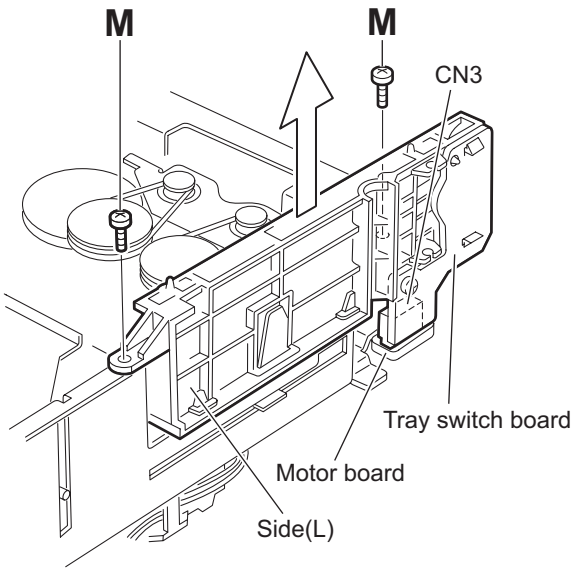


Fig.21

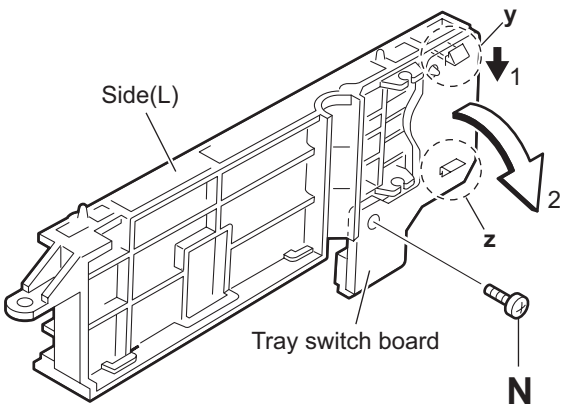


Fig.22

3.3.12 Removing the side (R) assembly (See Fig.23 to 27)

- Remove the tray assemblies and DVD servo board.
  (1) From the inside of the side (R) assembly, release the two tabs **aa** of the gear cover and remove the gear cover outward. (See Figs.23 and 24.)
  (2) From the right side of the DVD changer mechanism assembly, remove the elevator spring attached to the hook **ab** of the loader assembly. (See Figs.24 and 25.)
  (3) From the top side of the DVD changer mechanism assembly, turn the gear 1 clockwise to move the elevator cam rearward. (See Fig.25.)
  (4) Move the two slots **ac** and joint **ad** of the elevator cam and remove the elevator cam outward. (See Fig.25.)
  (5) Remove the three screws **P** and detaches the side (R) assembly upward. (See Figs.26 and 27.)

Note:

When reattaching the side (R) assembly, make sure to fit the shaft (part **ae**) into the slot of the select lever. (See Fig.26.)

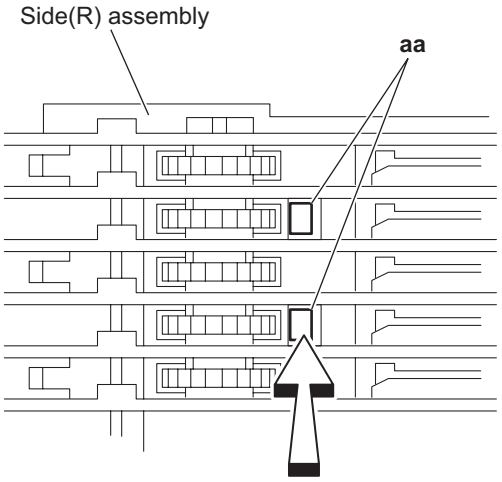


Fig.23

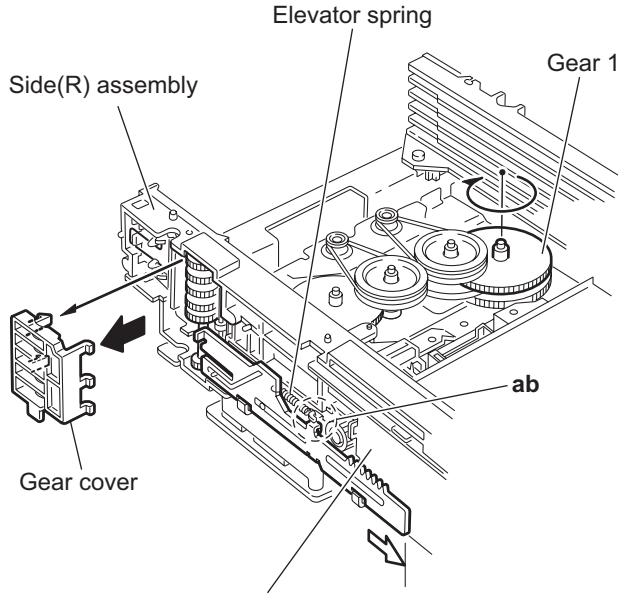


Fig.24

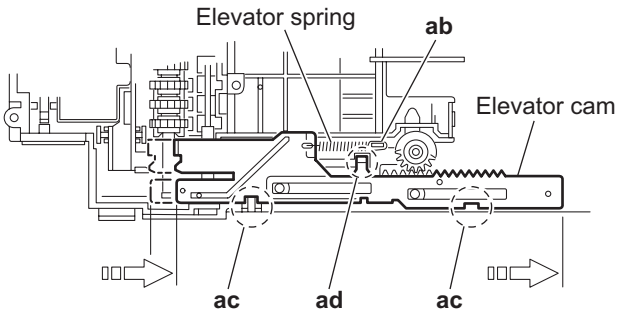


Fig.25

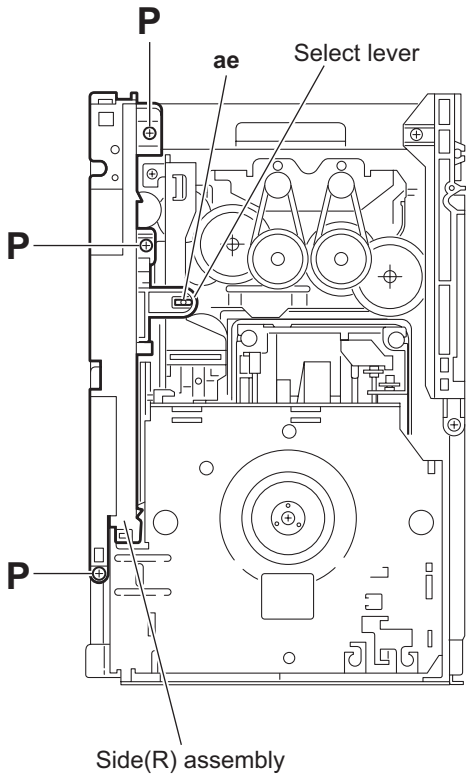


Fig.26

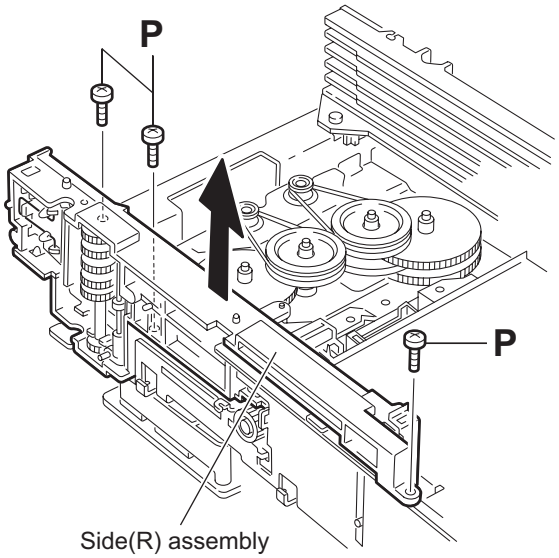


Fig.27

3.3.13 Removing the lifter assembly (See Figs.28 to 32)

- Remove the tray assemblies, DVD servo board, side (L) and side (R) assembly.
  (1) (1) From the top side of the DVD changer mechanism assembly, turn the gear 1 clockwise to move the lifter assembly upward. (See Figs.28 and 29.)
  (2) Turn the gear 2 clockwise to move the hook toward the front until it stops. (See Figs.28 and 29.)
  (3) Move the hook stopper in the direction of the arrow 2 while pushing the tab **af** of the hook stopper to unlock it in the direction of the arrow 1 and release four joints **ag** to detach from the rack holder. (See Fig.30.)
  (4) Release the rod (L) from part **ah**. (See Fig.30.)
  (5) Turn the gear 1 clockwise again to move the lifter assembly upward. (See Fig.31.)
  (6) Remove the lifter assembly from the DVD changer mechanism assembly upward at the positions ai where the four pins on the both sides of the lifter assembly fit to the notches of the loader assembly. (See Fig.31.)
  (7) Move the lifter assembly in the direction of the arrow and release it from the hook. (See Fig.32.)

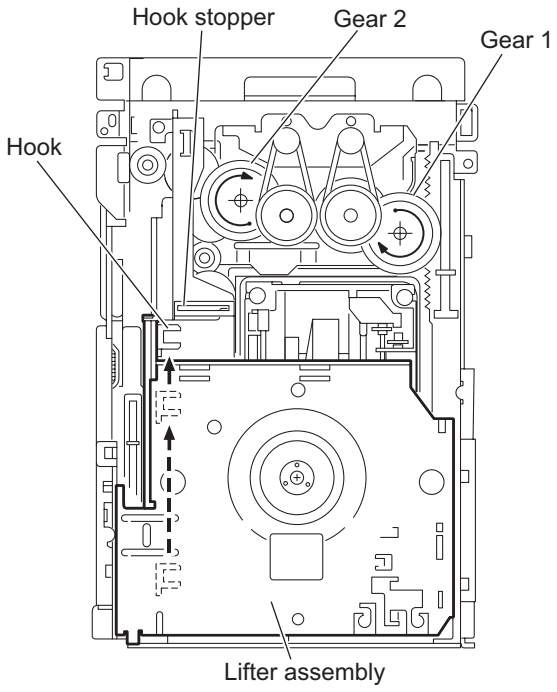


Fig.28

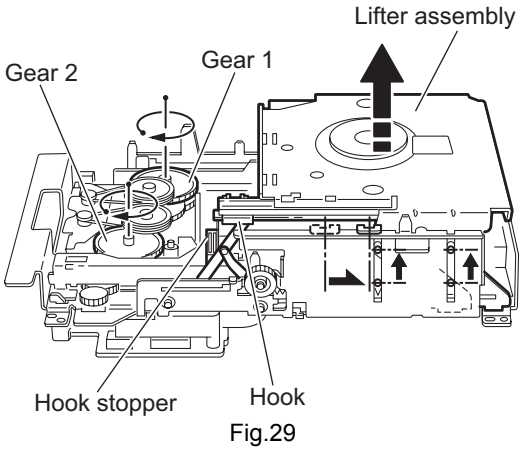


Fig.29

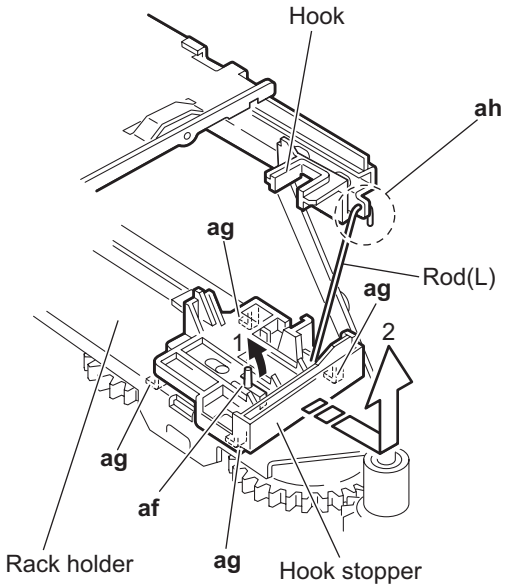


Fig.30

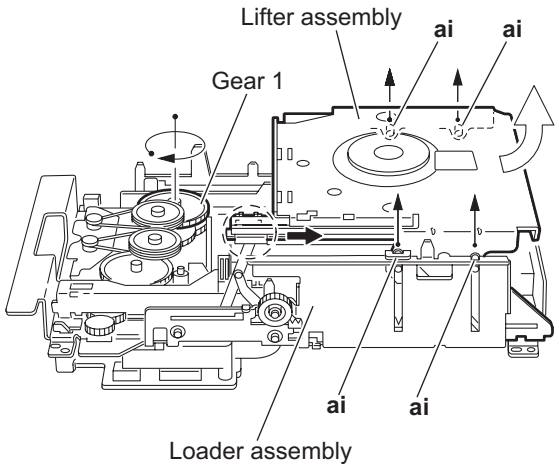


Fig.31

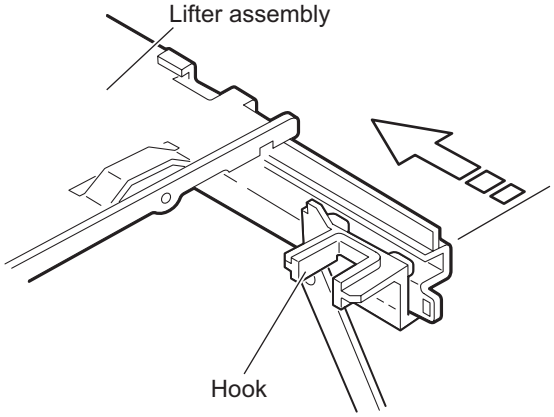


Fig.32

3.3.14 Removing the sensor board and SV resistor (See Fig.33)

- Remove the tray assemblies, side (L), side (R) assembly and lifter assembly.
  (1) Remove the solders from the soldered sections **aj** on the sensor board and remove the wires.
  (2) Remove the two screws **Q** and take out the sensor board with the SV resistor.

Reference:

- Remove the soldered section **ap** on the sensor board as required.
- When reassembling, pass the wires through the slot **ak** of the sensor board as before.

Note:

When reattaching the SV. resister, fit the projection am on the bottom of the SV. resister into slot **an** of the sensor slider.

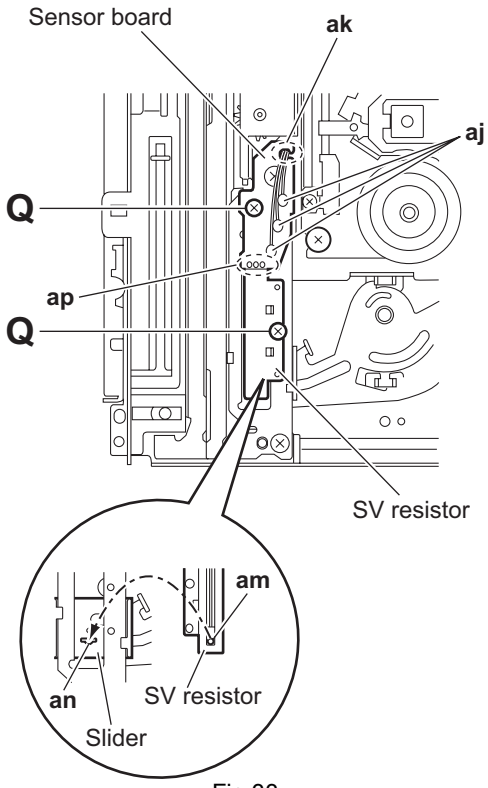


Fig.33

3.3.15 Taking out the disc in the play mode (See Fig.34 to 37)

Reference:

Refer to "3.3.1 Removing the tray assemblies".

(1) From the top side of the DVD changer mechanism assembly, remove the top cover.
(2) Unlock the tray assemblies and draw out the tray assemblies toward the front.
(3) From the top side of the DVD changer mechanism assembly, turn the gear 1 clockwise to move the lifter assembly upward. (See Fig.34.)
(4) Turn the gear 2 clockwise to move the sub tray remaining inside the lifter assembly toward the front, then pull out. (See Fig.34.)
(5) Take out the disc on the sub tray. (See Fig.35.)
(6) After clearing away the disc, insert the sub tray into the main tray. (See Fig.36.)

Note:

When reattaching the sub tray, move the tray stopper on the bottom of the main tray in the direction of the arrow to lock the sub tray certainly. (See Figs.36 and 37.)

(7) Push the tray assembly toward the DVD changer mechanism assembly and reattach.

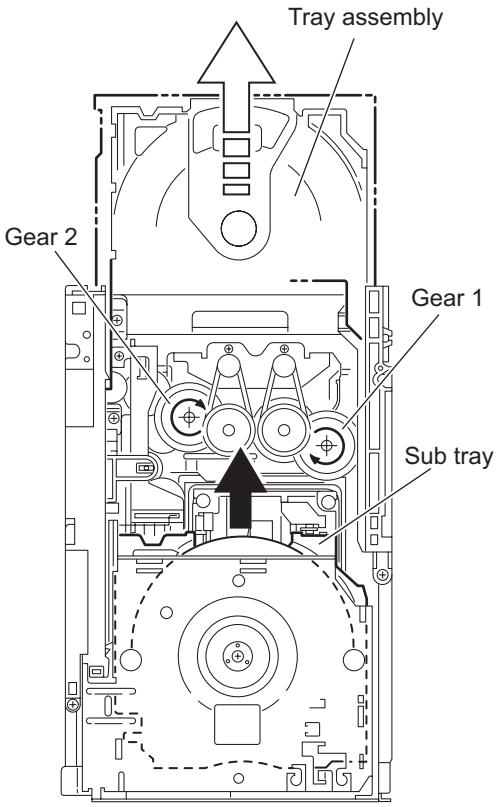


Fig.34

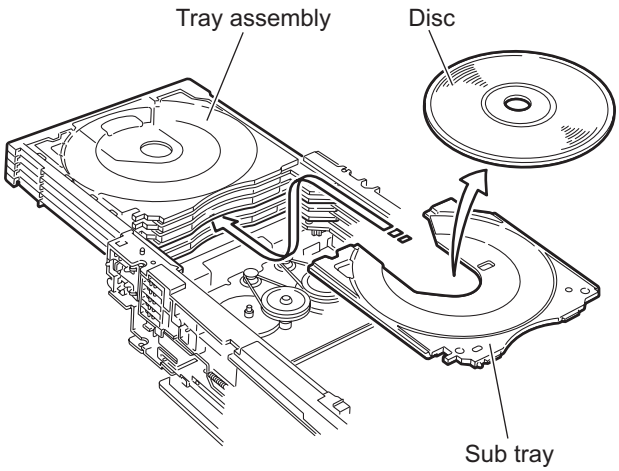


Fig.35

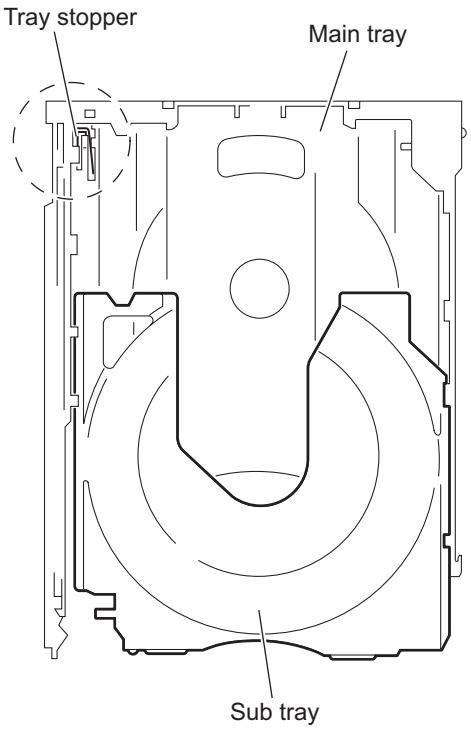


Fig.36

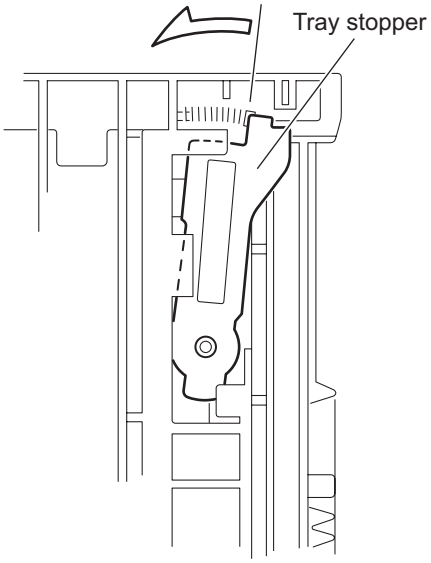


Fig.37

3.4 Cassette mechanism assembly (For cassette A)

3.4.1 Removing the Play head (See Fig.1 to 3)

(1) While moving the trigger arm on the right side of the head mount in the direction of the arrow, turn the flywheel R counterclockwise until the head mount comes ahead and clicks.
(2) The head turns counterclockwise as you turn the flywheel R counterclockwise (See Fig.2 and 3).
(3) Disconnect the flexible wire from connector CN48 on the head amplifier board.
(4) Remove the spring from the back of the head.
(5) Loosen the azimuth screw for reversing attaching the head.
(6) Remove the head on the front side of the head mount.

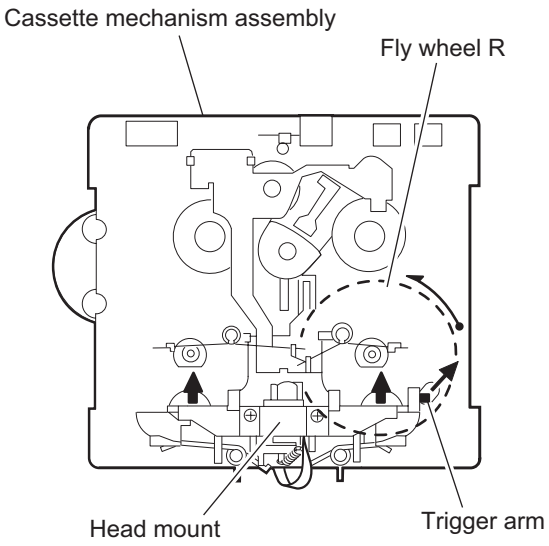


Fig.1

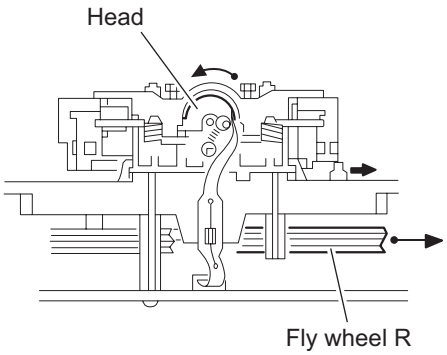


Fig.2

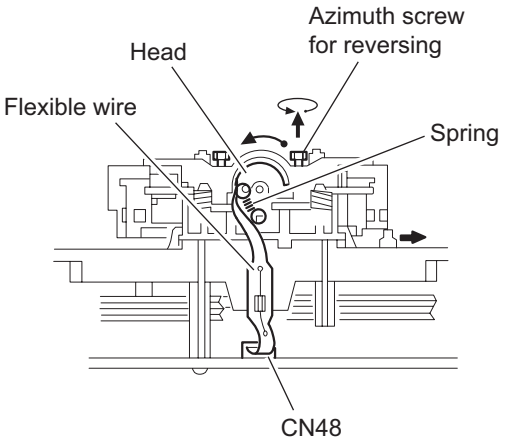


Fig.3

3.4.2 Removing the head amplifier board (See Fig.4)

(1) Turn over the cassette mechanism assembly and remove the three screws **A** attaching the head amplifier board.
(2) Disconnect the flexible wire from connector CN8 on the head amplifier board.
(3) Disconnect connector CN41 of the head amplifier board from connector CN1 on the cassette switch board.

Reference:

If necessary, unsolder the 4-pin wire soldered to the main motor.

3.4.3 Removing the main motor (See Fig.4 to 7)

(1) Remove the two screws **B**.
(2) Half raise the motor and remove the capstan belt from the motor pulley.

Attention:

Be careful to keep the capstan belt from grease. When reassembling, refer to Fig.6 and 7 for attaching the capstan belt.

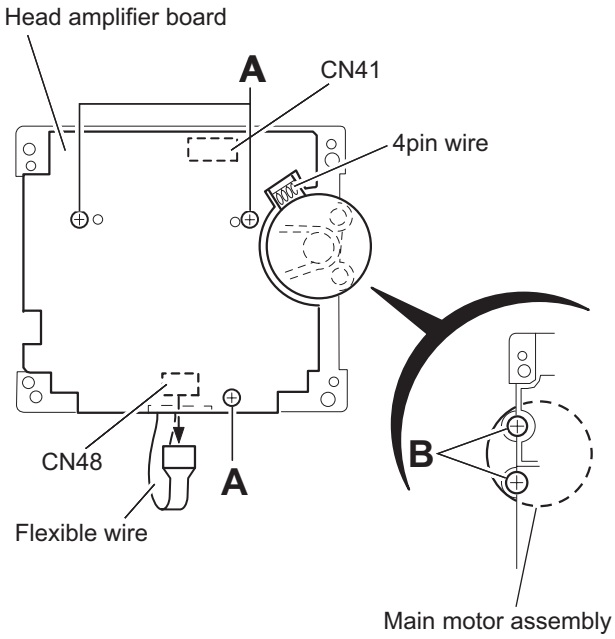


Fig.4

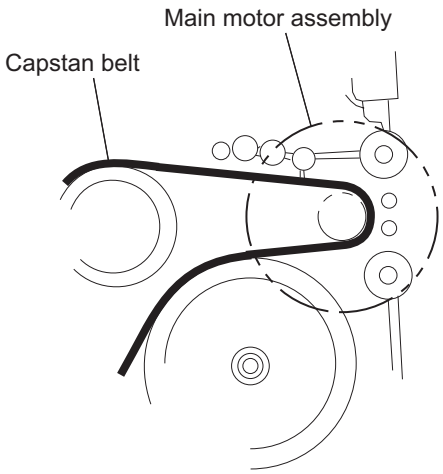


Fig.5

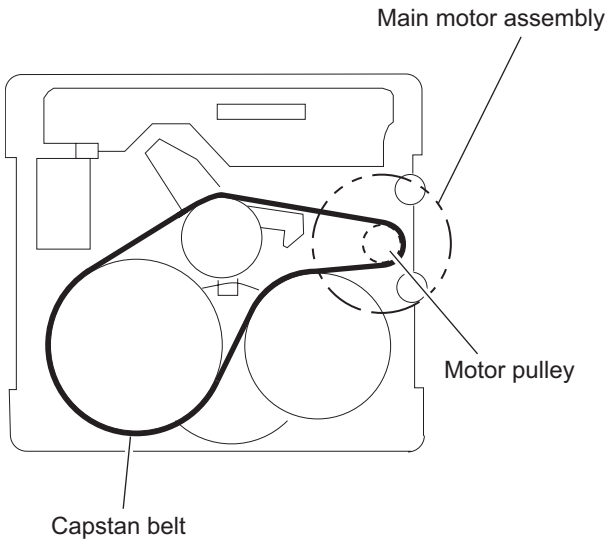


Fig.6

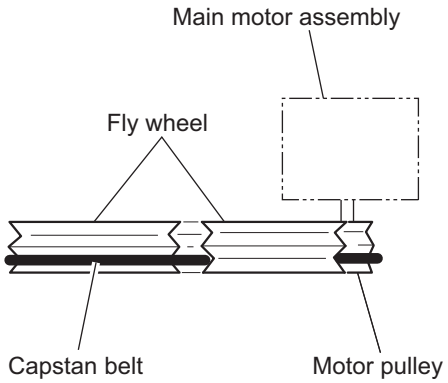


Fig.7

3.4.4 Removing the flywheel (See Fig.8, 9)

- Prior to performing the following procedure, remove the head amplifier board and the main motor assembly.
  (1) From the front side of the cassette mechanism, remove the slit washers attaching the capstan shaft L and R.
  (2) Pull out the flywheels backward.

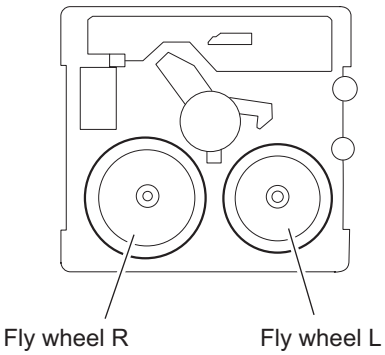


Fig.8

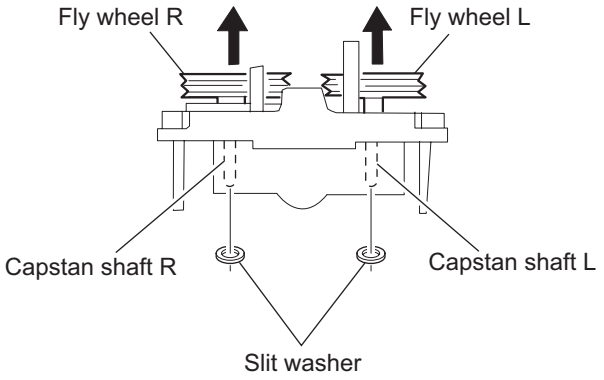


Fig.9

3.4.5 Removing the cassette switch board and solenoid (See Fig.10)

- Prior to performing the following procedure, remove the head amplifier board.
  (1) Remove the screw **C**.
  (2) Release the tab a, b, c, d and e retaining the cassette switch board.
  (3) Release the tab f and g attaching the solenoid on the cassette switch board.
  (4) The cassette switch board and solenoid come off.

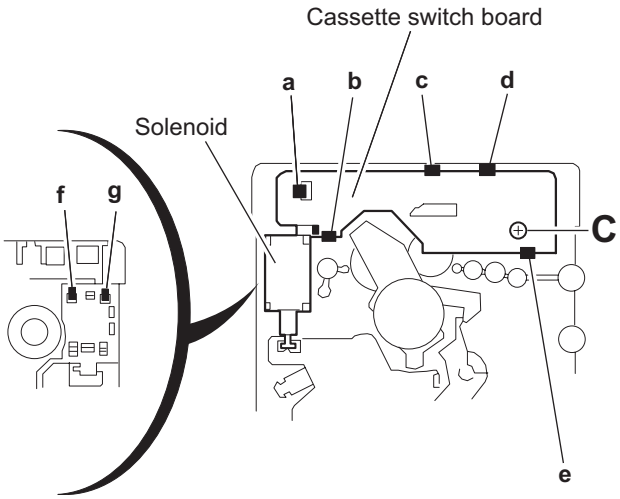


Fig.10

3.4.6 Reattaching the Play head (See Fig.11 to 13)

(1) Reattaching the head mount assembly.
   a) Change front of the direction cover of the head mount assembly to the left (Turn the head forward).
   b) Fit the bosses **O'**, **P'**, **Q'**, **U'** and **V'** on the head mount assembly to the holes **P** and **V**, the slots **O**, **U** and **Q** of the mechanism sub assembly (See Fig.11 to 13).

(2) Tighten the azimuth screw for reversing.

(3) Reattach the spring from the back of the Play head.

(4) Connect the flexible wire to connector CN48 on the head amplifier board.

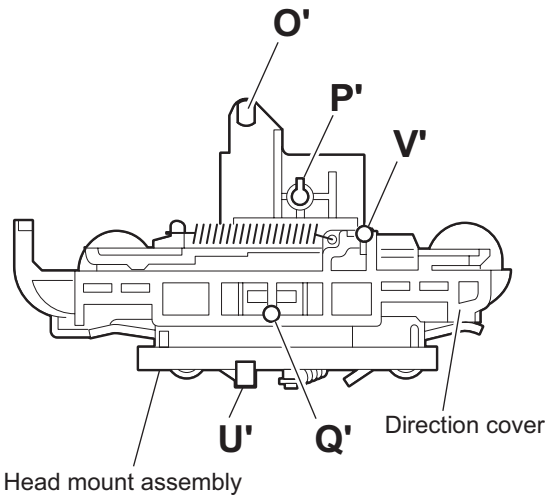


Fig.11

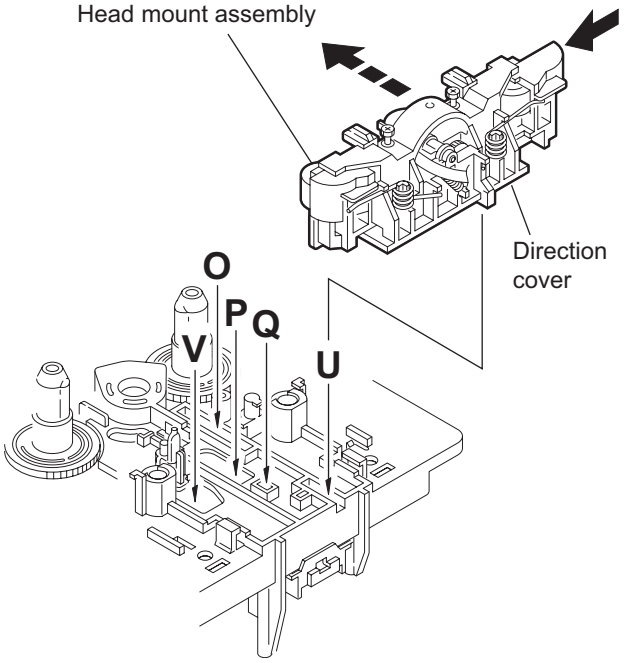


Fig.12

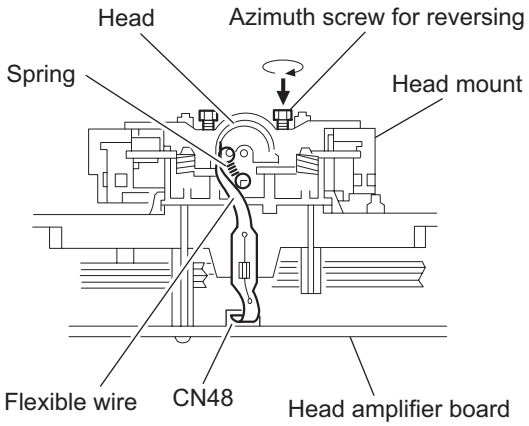


Fig.13

3.5 Cassette mechanism assembly (For cassette B)

3.5.1 Removing the Play/Record & Clear head (See Fig.1~3)

(1) While moving the trigger arm on the right side of the head mount in the direction of the arrow, turn the flywheel R counterclockwise until the head mount comes ahead and clicks.
(2) The head turns counterclockwise as you turn the flywheel R counterclockwise (See Fig.2 and 3).
(3) Disconnect the flexible wire from connector CN31 on the head amplifier & mechanism control board.
(4) Remove the spring from the back of the head.
(5) Loosen the azimuth screw for reversing attaching the head.
(6) Remove the head on the front side of the head mount.

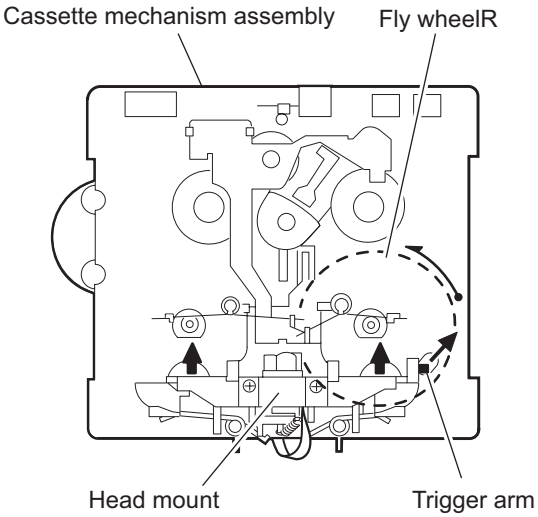


Fig.1

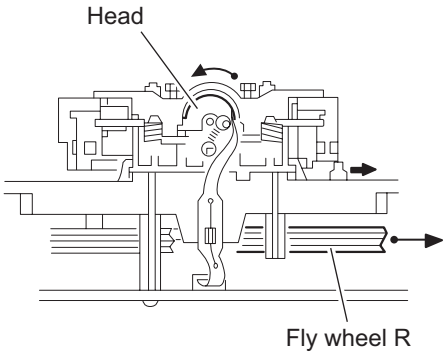


Fig.2

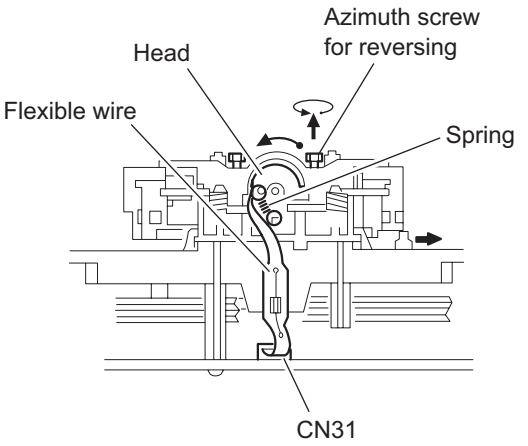


Fig.3

3.5.2 Removing the head amplifier & mechanism control board (See Fig.4)

(1) Turn over the cassette mechanism assembly and remove the three screws **A** attaching the head amplifier & mechanism control board.
(2) Disconnect the flexible wire from connector CN31 on the head amplifier & mechanism control board.
(3) Disconnect connector CN32 of the head amplifier & mechanism control board from connector CN1 on the reel pulse board.REFERENCE: If necessary, unsolder the 4-pin wire soldered to the main motor.

3.5.3 Removing the main motor (See Fig.4~7)

(1) Remove the two screws **B** .
(2) Half raise the motor and remove the capstan belt from the motor pulley.

ATTENTION:

Be careful to keep the capstan belt from grease. When reassembling, refer to Fig.6 and 7 for attaching the capstan belt.

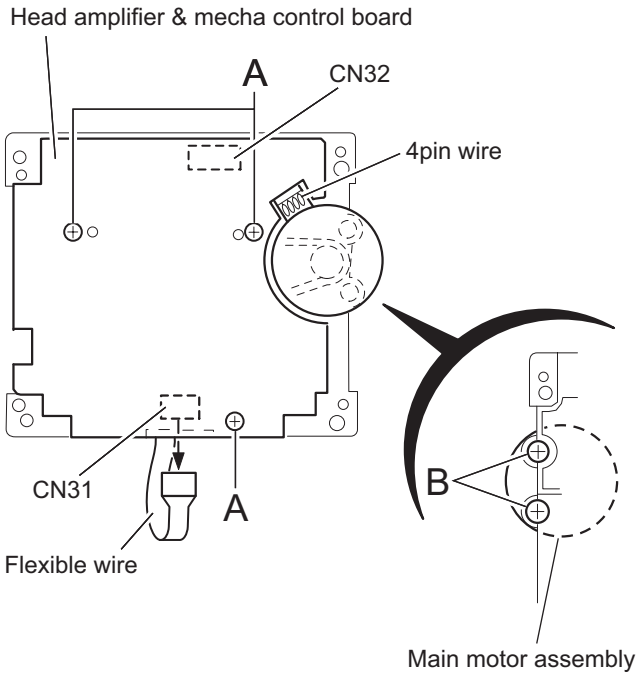


Fig.4

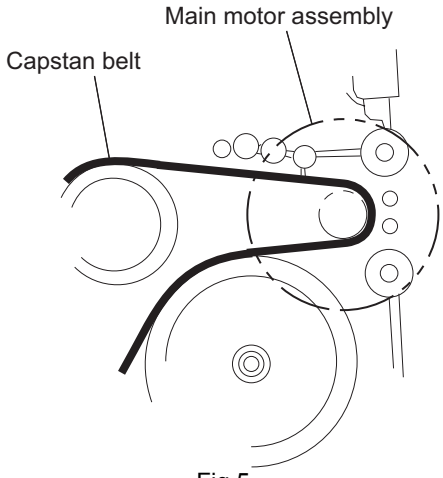


Fig.5

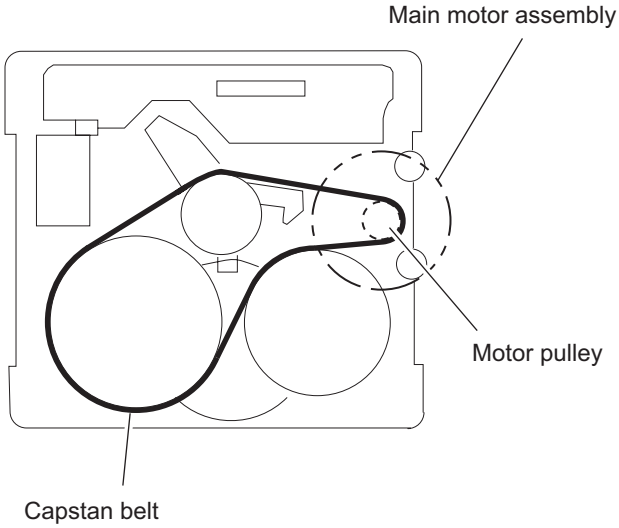


Fig.6

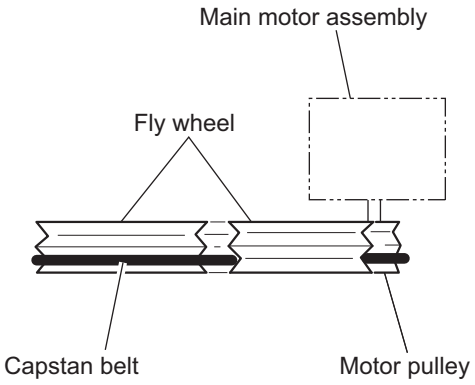


Fig.7

3.5.4 Removing the flywheel
(See Fig.8, 9)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board and the main motor assembly.
  (1) From the front side of the cassette mechanism, remove the slit washers attaching the capstan shaft **L** and **R**. Pull out the flywheels backward.

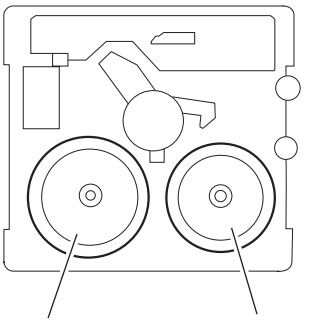


Fig.8

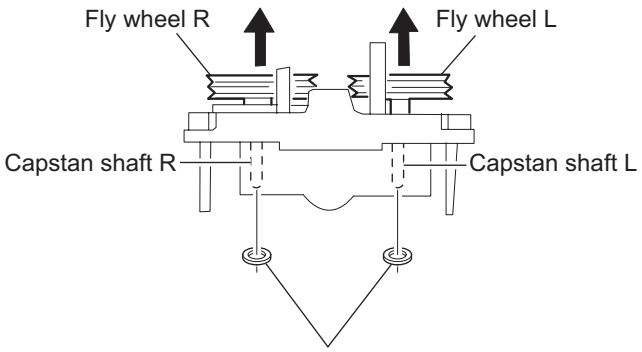


Fig.9

3.5.5 Removing the reel pulse board and solenoid
(See Fig.10)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board.
  (1) Remove the screw **C**.
  (2) Release the tab **a**, **b**, **c**, **d** and **e** retaining the reel pulse board.
  (3) Release the tab **f** and **g** attaching the solenoid on the reel pulse board.
  (4) The reel pulse board and the solenoid come off.

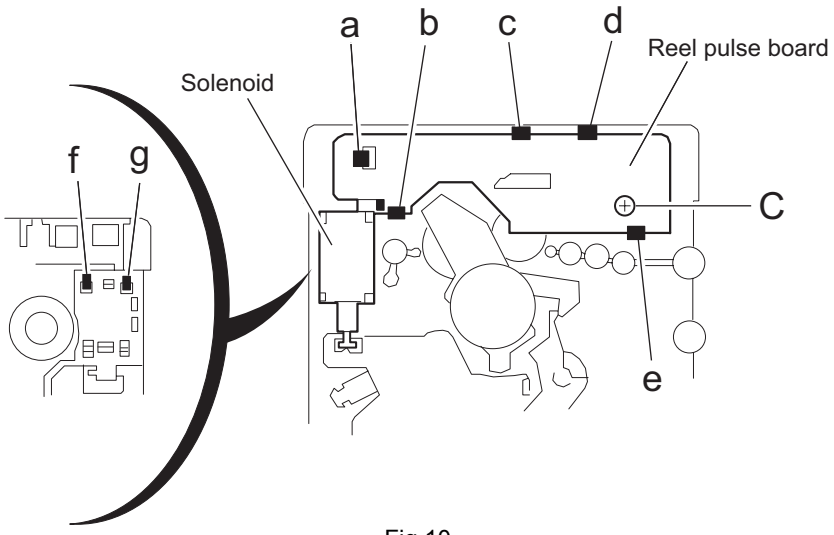


Fig.10

3.5.6 Reattaching the Play/ Record & Clear head (See Fig.11~13)

(1) Reattaching the head mount assembly.
   a) Change front of the direction cover of the head mount assembly to the left (Turn the head forward).
   b) Fit the bosses **O'**, **P'**, **Q'**, **U'** and **V'** on the head mount assembly to the holes **P** and **V**, the slots **O**, **U** and **Q** of the mechanism sub assembly (See Fig.11 to 13).

CAUTION:

To remove the head mount assembly, turn the direction cover to the left to disengage the gear. If the gear can not be disengaged easily, push up the boss **Q'** slightly and raise the rear side of the head mounts slightly to return the direction lever to the reversing side.

(2) Tighten the azimuth screw for reversing.
(3) Reattach the spring from the back of the Play/ Record & Clear head.
(4) Connect the flexible wire to connector CN31 on the head amplifier & mechanism control board.

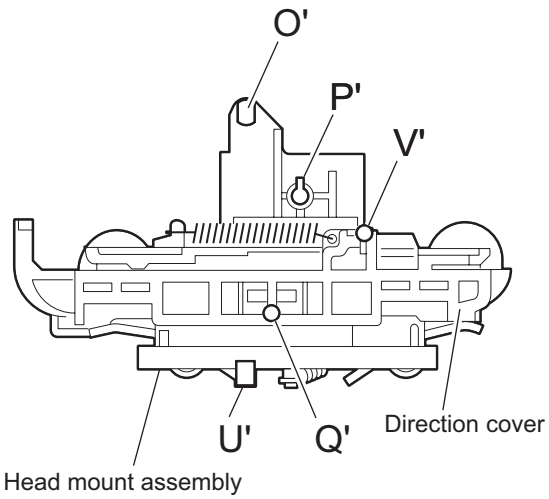


Fig.11

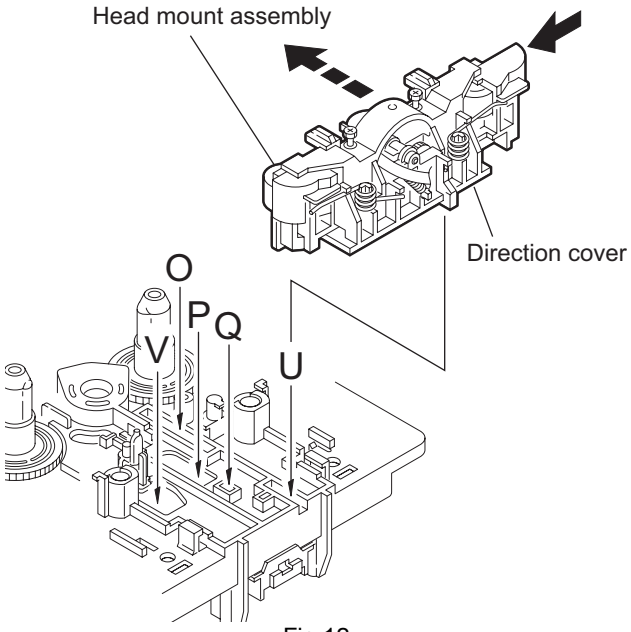


Fig.12

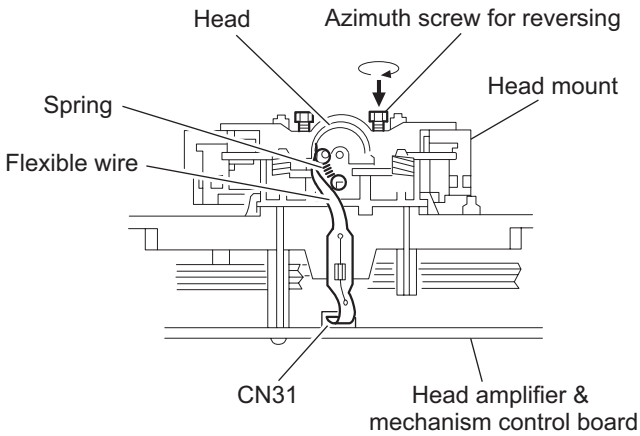


Fig.13

SECTION 4
ADJUSTMENT

4.1 ATTENTION IN SERVICE OF DVD SECTION

(1) When pickup, Flash ROM, DVD module board were changed, initialize EEPROM by all means.
(2) When full initialization was executed, execute learning with a DVD test disc by all means.
Test disc : VT-501, VT-502
Learning method : It is adjusted automatically by normal playback of a DVD disc.

4.2 TEST MODE

ITEM	OPERATION	MANAGEMENT
TUNER AM switch to 9kHz step	(During STANDBY MODE) STOP [key] + ◀◀ (Only source TUNER)	AM frequency change to 9kHz at U-version.
TUNER AM switch to 10kHz step	(During STANDBY MODE) STOP [key] + ▶▶ (Only source TUNER)	AM frequency change to 10kHz at U-version.
Tray lock	STOP [key] + DISC 1 EJECT (Only during Standby mode)	Loader-mecha is locked. EJECT processing isn't done by pushing EJECT key at tray lock on state. Then display to LOCKED / UNLOCKED. EJECT 1 is pushed, pushing STOP again, tray lock is off. Back up to tray locked ON/OFF.
Cold start	[Remocon Key] STANDBY/ON + ENTER + 0	Cold start processing. After cold start is activated, LCD 8 Segment temporary display COLD' for 2 seconds. Then return to previous display. To activate cold start AC OFF system, then AC ON again.
CLOCK FAST FORWARDING	[Remocon Key] STANDBY/ON + ENTER + 2	Fast Forward clock (Increase clock counter speed) Can only be activated after SYSTEM clock is set to exit this TEST mode, AC OFF the system, then AC ON again.
FAN ON/OFF setting	STOP [key] + DISC 2 EJECT (During STANDBY MODE)	Toggle between FAN switch ON and OFF. (FAN-CTL : L -> H TOGGLE) This test mode is only effective during STANDBY MODE. Test mode exit when system STANDBY -> P.ON
VOLUME LARGE STEP CHANGE	[Remocon key] STANDBY/ON + ENTER + 3	VOLUME change Volume step MAX (31) -> Volume step CENTER (15) toggle Normal operation TEST mode. System returns to normal operation after performing VOLUME CHANGE.
MICON VERSION DISPLAY	[Remocon key] STANDBY/ON + ENTER + SET	TEMPORARY DISPLAY FOR MICON VERSION (5SEC) After 5 seconds, return to previous display. Each key press will toggle temporary display for the following: SYSCON VERSION -> DVD LSI (BE) VERSION) -> DVD MECHA VERSION * DVD LSI (BE & FE) version can only been display during system power on in DVD mode (When DVD LSI P.ON) * IF there is no information feedback, sys-con will display "WAIT" blinking 0.5sec ON & OFF
LCD ALL SEGMENT BLINKING	[Remocon key] STANDBY/ON + ENTER + 10	LCD all segment blinking (0.5sec : ON/0.5sec : OFF) Each key press will toggle this TEST mode ON/OFF.

ITEM	OPERATION	MANAGEMENT
TUNER version Test key code	[Remocon key] STANDBY/ON + ENTER +1	Each key pressed will display the current Sys-con Tuner Version for 5 second and then changed back to previous display. U1 - 9KHz Display " 0 V U S N E 9 K " U1 - 10KHz Display " 0 V U S N E 1 0 K " U2 - 9KHz Display " 1 V U W 9 K " U2 - 10KHz Display " 1 V U W 1 0 K " U3 - 9KHz Display " 2 V U X 9 K " U3 - 10KHz Display " 2 V U X 1 0 K " U4 - 9KHz Display " 3 V E E 9 K " U5 - 10KHz Display " 4 V J C 1 0 K "
DVD test mode	STOP [key] + DISC 5 EJECT (Hold during AC In)	Enters DVD-TEST mode. DVD-TEST mode specification based on DVD-MODULE spec. To exit DVD-TEST mode, AC OFF the system, then AC ON again. For region rewrite and DVD-AUDIO device key writing, refer to region rewrite and device key writing section below for exit procedure.
DVD initialize	PAUSE [key] during DVD test mode	DVD module initialized. Display will return to DVD test mode area display (" T xxy vw ") Press Power key to exit this TEST mode.
DVD region confirm mode	STOP + EJECT4 [key]	Into the DVD region confirm mode. * DVD region check can only been display during system power on in DVD mode (when DVD LSI P.ON) Temporary display region code on LCD for 5 seconds. * If there is no information feedback, sys-con will display "WAIT" blinking 0.5SEC ON & OFF. * LCD will display "AREA xxRY" where "AREAxx" is the DESTINATION INFO & R is the REGION INFO. After 5 seconds, return to previous display.

4.3 Other test mode's operation

4.3.1 To enter DVD TEST mode

a. AC power off.
b. Press and hold STOP + DVD5 EJECT/CLOSE keys.
c. AC power On while holding STOP + DVD5 EJECT/CLOSE keys.
d. DVD mecha will start in TEST MODE, LCD will display:

	T		x	x	y		v	w	

xx is the received DESTINATION information. Display as follows;
xx = JC/1U/D/E/2U/3U/UB/UT/4U/UY/EE/UF
y = region number
v = study state information from MECHA-CON (Display Byte3 when Byte7 is "0x09)
w = initialization state from MECHA-CON (Display Byte4 when Byte7 is "0x09". Display blank when Byte4 is "0xFF".)

4.3.2 To exit DVD TEST mode

a. During TEST MODE (except for Device key write & DVD Region Re-write), press POWER key and wait until "POFF OK" is displayed for 5sec, then system goes into Standby Mode & Backlight LED is off.
This means that System now successfully exit the DVD Test Mode & back to normal mode.

4.3.3 EEPROM initialization

(1) Normal initialization
a. During DVD TEST MODE, press 3D PHONIC key on remote control to start NORMAL EEPROM INITIALIZATION.
b. Mecha will feedback the following information after finish INITIALIZATION;
Status: Byte 0 = 0x00 (NORMAL), Byte 7 = 0x09, Byte 4 = initialization state
c. When received status, LCD will display;

	T		x	x	y		v	w	

w = initialization state from MECHA-CON (Display Byte4 when Byte7 is "0x09. Display blank when Byte4 is "0xFF".)

(2) Full initialization
a. During DVD TEST MODE, press >>| key on set 2 seconds control to start FULL INITIALIZATION.
b. Mecha will feedback the following information after finish INITIALIZATION;
Status: Byte 0 = 0x00 (NORMAL), Byte 7 = 0x09, Byte 4 = initialization state
c. When received status, LCD will display;

	T		x	x	y		v	w	

w = initialization state from MECHA-CON (Display Byte4 when Byte7 is "0x09. Display blank when Byte4 is "0xFF".)

4.3.4 DVD check modes

Press MENU key again to enter CHECK MODE. (TEST MODE, MODE STATE, CHECK MODE)
LCD display

		C	H	E	C	K			

Press "1" key on remote control to start playback.
LCD display

	P	L	A	Y	B	A	C	K	

Press "2" key on remote control to perform SEARCH TNO+1
LCD display

	W	O	B	B	L	E				(2 seconds)

Status: 00 (NORMAL) XX XX cc cc jj jj

	c	c	c	c	j	j	j	j		cccc: Byte 0 = 0x00, Byte 7 = 0x00, Byte 3,4 -> DISPLAY j j j j: Byte 0 = 0x00, Byte 7 = 0x00, Byte 5,6 -> DISPLAY

Press "3" key on remote control to perform SEARCH TNO+1
LCD display

		C	H	E	C	K			

Press "4" key on remote control to light up CD_LD and display laser current.
LCD display

	C	D	L	D		L	S	R		(2 seconds)

Status: 00 (NORMAL) XX XX cc cc jj jj

	c	c	c	c	j	j	j	j		(Static) cccc: Byte 0 = 0x00, Byte 7 = 0x00, Byte 3,4 -> DISPLAY j j j j: Byte 0 = 0x00, Byte 7 = 0x00, Byte 5,6 -> DISPLAY

Press "5" key on remote control to light up DVD_LD and display laser current.
LCD display

	D	V	D	L	D	L	S	R		(2 seconds)

Status: 00 (NORMAL) XX XX cc cc jj jj

	c	c	c	c	j	j	j	j		(Static) cccc: Byte 0 = 0x00, Byte 7 = 0x00, Byte 3,4 -> DISPLAY j j j j: Byte 0 = 0x00, Byte 7 = 0x00, Byte 5,6 -> DISPLAY

Press "6" key on remote control to enter DVD x 2 jitter measurement mode
LCD display

	J	I	T	X	1					(2 seconds)

Status: 00 (NORMAL) XX XX cc cc jj jj

	c	c	c	c	j	j	j	j		(Static) cccc: Byte 0 = 0x00, Byte 7 = 0x00, Byte 3,4 -> DISPLAY j j j j: Byte 0 = 0x00, Byte 7 = 0x00, Byte 5,6 -> DISPLAY

Press "9" key on remote control to perform SEARCH DVD_SL DESIGNATED POSITION and JITTER MEASUREMENT
LCD display

	D	V	D		S	L				(2 seconds)

Status: 00 (NORMAL) XX XX cc cc jj jj

	c	c	c	c	j	j	j	j		(Static) cccc: Byte 0 = 0x00, Byte 7 = 0x00, Byte 3,4 -> DISPLAY j j j j: Byte 0 = 0x00, Byte 7 = 0x00, Byte 5,6 -> DISPLAY

Press "+10" key to INITIALIZE EEPROM (MECHA)
LCD display

	I	N	I	T					

Press PLAY key on remote control to start PLAYING and obtain LASER CURRENT and JITTER value.
LCD display

	L	S	R		J	I	T			(2 seconds)

Status: 00 (NORMAL) XX XX cc cc jj jj

	c	c	c	c	j	j	j	j		(Static) cccc: Byte 0 = 0x00, Byte 7 = 0x00, Byte 3,4 -> DISPLAY j j j j: Byte 0 = 0x00, Byte 7 = 0x00, Byte 5,6 -> DISPLAY

Press STOP key on remote control to stop JITTER measurement.
LCD display

		C	H	E	C	K				(Static)

During CHECK mode, at any time press MENU key to exit CHECK mode and return to starting screen of DVD TEST MODE.

* During TEST mode, at press POWER key send POWER OFF command to MECHA-CON and if power off permit flag is 1, display "POFF OK"

	P	O	F	F		O	K		

SECTION 5
TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.

JVC
Victor Company of Japan, Limited
Audio/Video Systems Category 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

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