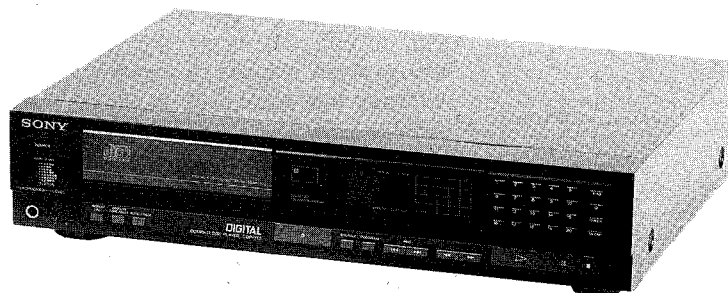


CDP-710

SERVICE MANUAL

US Model
Canadian Model



SPECIFICATIONS

System	Compact disc digital audio system
Laser output	Max. 0.4 mW This output is the value measured at a distance of about 1.6 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz – 20 kHz (± 0.3 dB)
Signal to noise ratio	More than 98 dB
Dynamic range	More than 93 dB
Harmonic distortion	Less than 0.004% (at 1 kHz)
Wow and flutter	Below measurable limit
Channel separation	More than 90 dB (at 1 kHz)
Outputs	LINE OUT (phono jacks) Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms HEADPHONES (stereo phone jack) Output level 28 mW (at 32 ohms)

General	
Power requirements	120VAC, 60Hz
Power consumption	14 W
Dimensions	Approx. 430 × 100 × 335 mm (w/h/d) (17 × 4 × 13 1/4 inches) including projecting parts and controls
Weight	Approx. 4.9 kg (10 lbs 13 oz), net

— Continued on page 2 —

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.



COMPACT DISC PLAYER
SONY®



REMOTE COMMANDER RM-D350A

Remote control system

Infrared control

Power requirements

3 V DC with two batteries size AA (R6P)

Dimensions

67 × 20 × 175 mm (w/h/d)

(2³/₄ × 1³/₁₆ × 7 inches)

Weight

145 g (5 oz)

including batteries

- Program play for playing up to 20 selections in a desired order.
- Shuffle play for playing the selections in a random order.
- Repeat function for a single selection, the whole disc, program play, or shuffle play. Or for a particular portion of a selection.
- Easy-to-read color display that shows the track number being played, elapsed playing time, or remaining time, and indicates the repeat play, shuffle play, auto space functions.
- Auto space function for creating a blank space of 3 seconds between each selection.
- Timer play for initiating disc play at a desired time (a commercially available timer is required).
- Index search function for quickly locating a desired part* (only with the remote commander).

* Example: a movement in a symphony. Index search can be used only for discs having index numbers. Such discs have a  mark.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

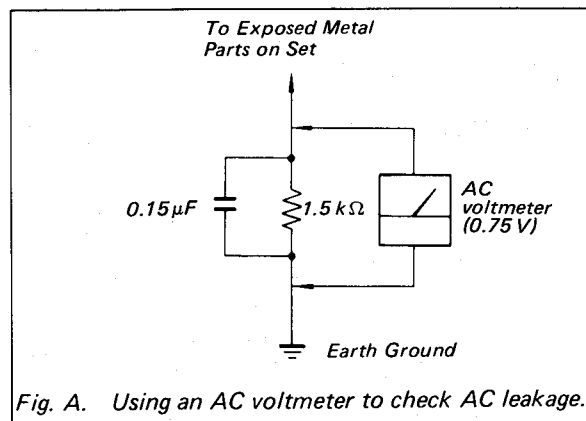


Fig. A. Using an AC voltmeter to check AC leakage.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING !!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

1. Laser Diode Properties

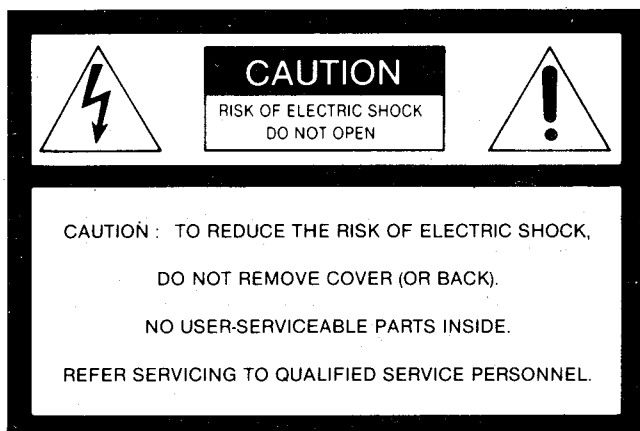
- Material: GaAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output: max. 0.4 mW*

* This output is the value measured at a distance of about 1.6 mm from the objective lens surface on the Optical Pick-up Block.

- Classification: Class IIIb

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna

Relocate the equipment with respect to the receiver

Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

For the customers in Canada

CAUTION:
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 30 cm fra den optiske pick-up.

1. Data for Laser Diode

- Materiale: Ga-As
- Bølgelængde: 780 nm
- Udstråling: Kontinuerlig
- Laser Output: max. 0.4 mW*
* målt i 1.6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.
- Klassifikation: Svarende til klasse IIb

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laser-dioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

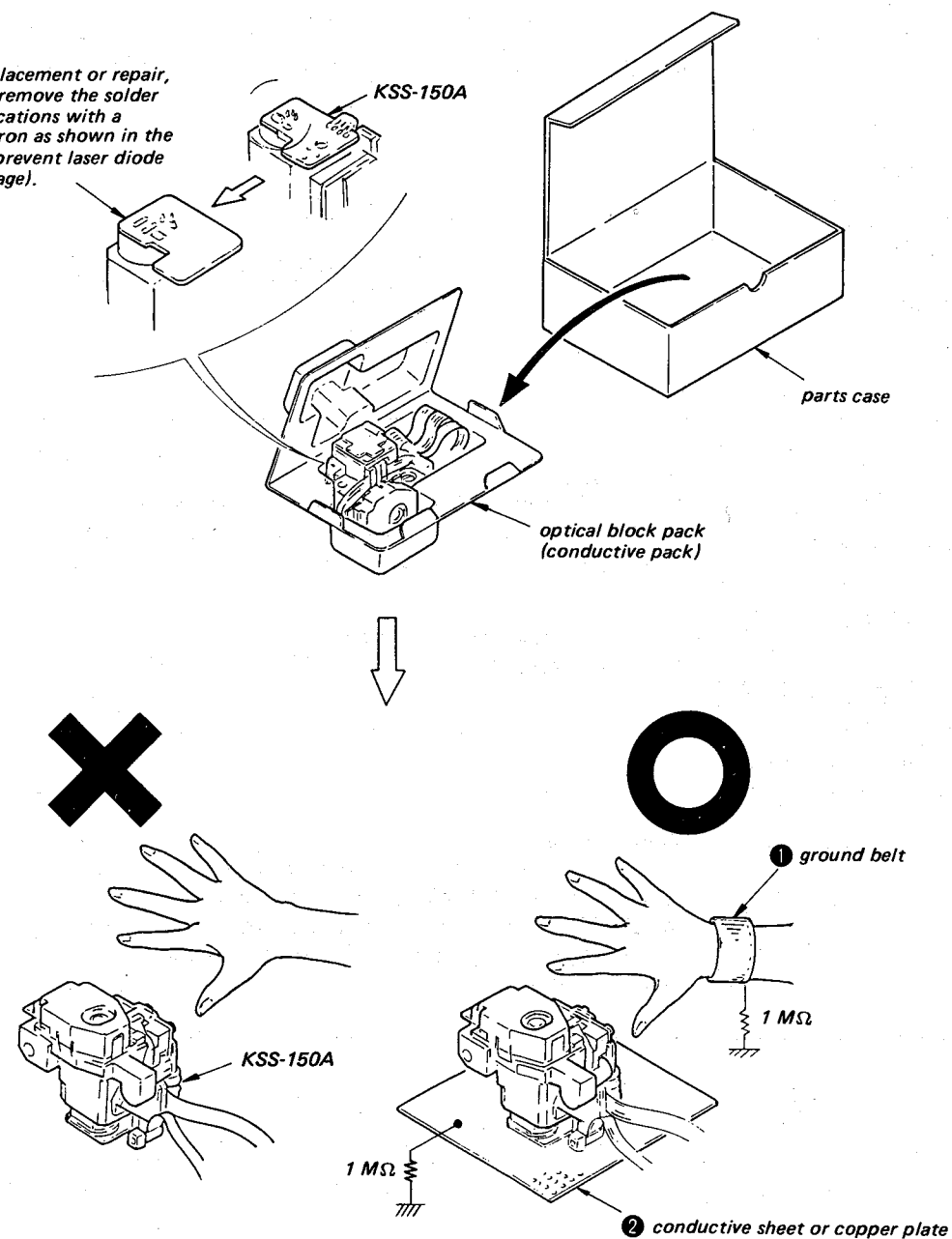
NOTES ON HANDLING THE OPTICAL BLOCK (KSS-150A)

The laser diode inside the optical block may be damaged by static electricity in clothes or the human body.

The following procedures are required when unpacking and repairing KSS-150A in order to avoid static electricity damage.

1. Body grounding
Be sure to wear a ground belt (less than $10^8 \Omega$) in order to release the static electricity stored in the body.
2. Workbench grounding
Place a conductive sheet (less than $10^9 \Omega$) or copper plate on the bench where KSS-150A is to be placed to ground it.
3. Static electricity in the clothing will not be released by the ground belt, so be careful not to let KSS-150A touch clothing.

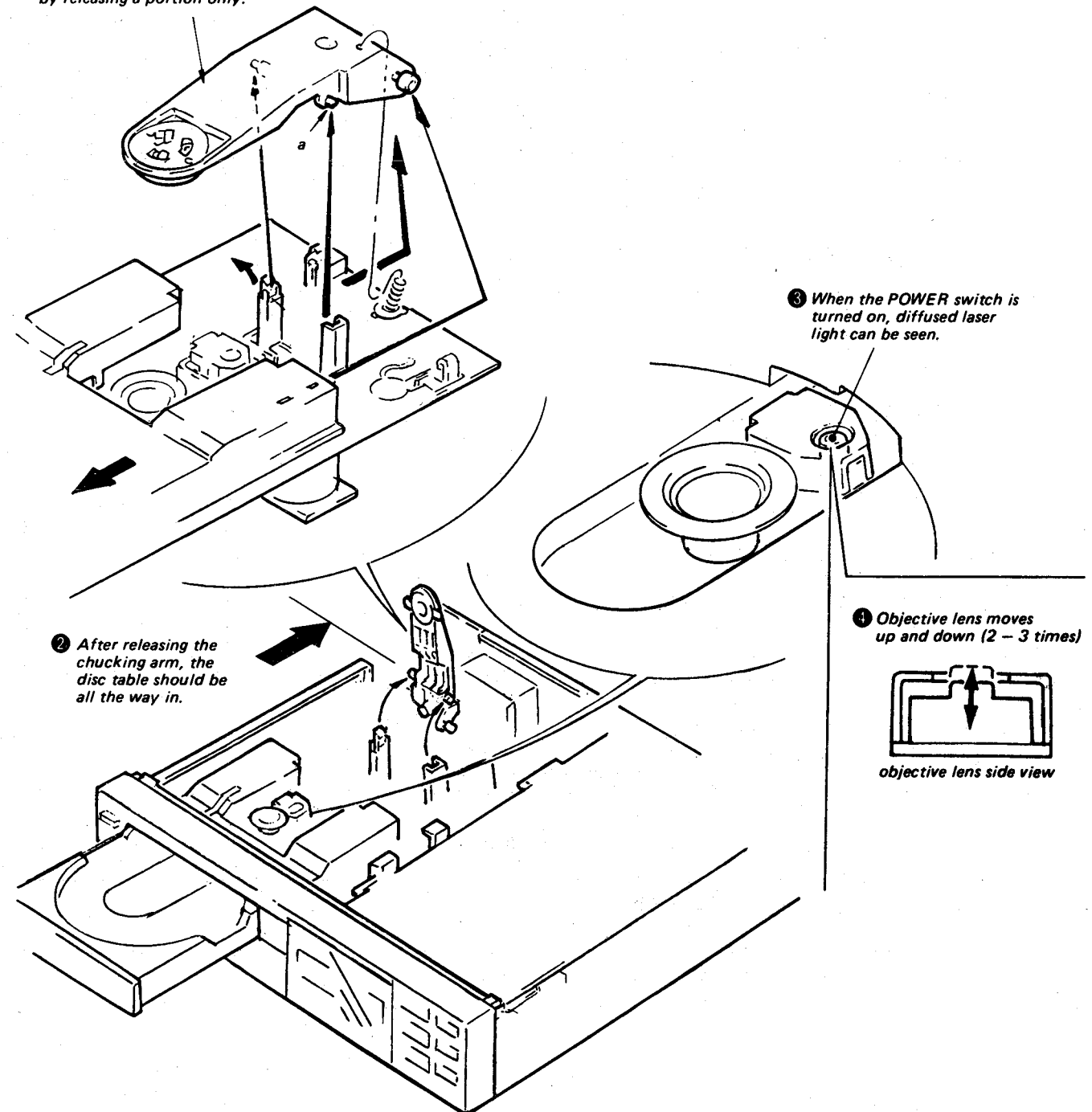
During replacement or repair, be sure to remove the solder at these locations with a soldering iron as shown in the figure (to prevent laser diode static damage).



NOTES ON CHECKING LASER DIODE LIGHT EMISSION

The laser beam on this set is converged by the objective lens in the optical block so that it focuses on the disc reflective surface. Therefore, when checking light emission of the laser diode, be sure to keep the eyes more than 30 cm away from the objective lens.

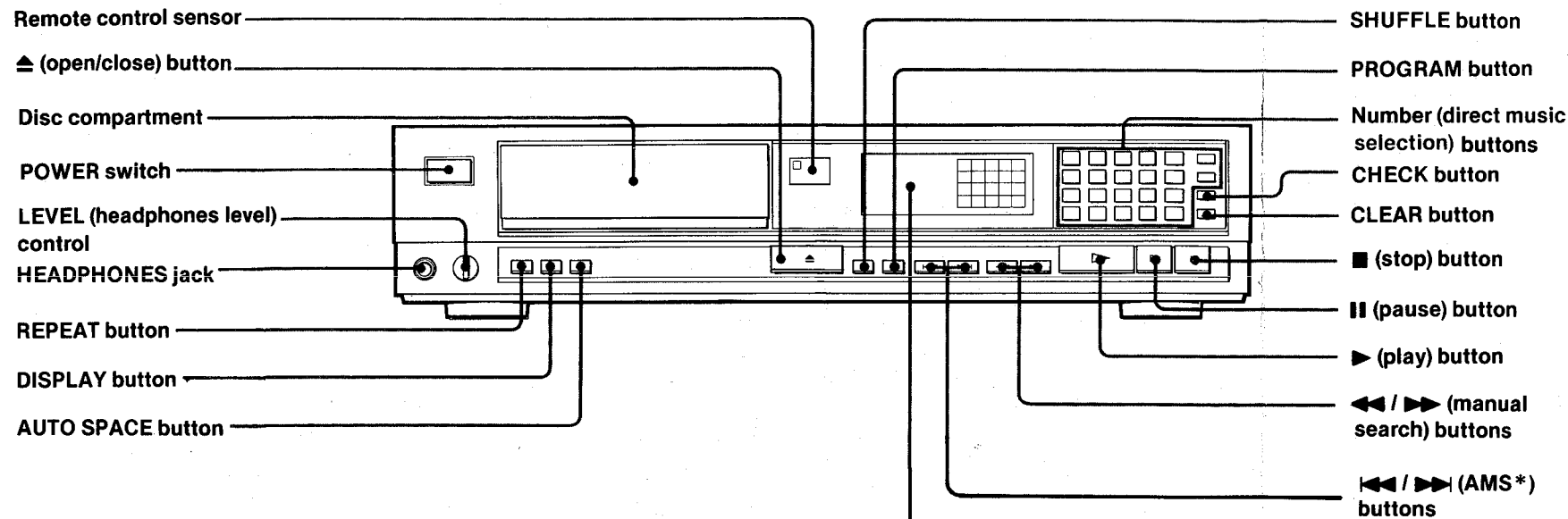
- 1 Release chucking arm.
This figure shows the entire chucking arm released, but checking can be done by releasing a portion only.



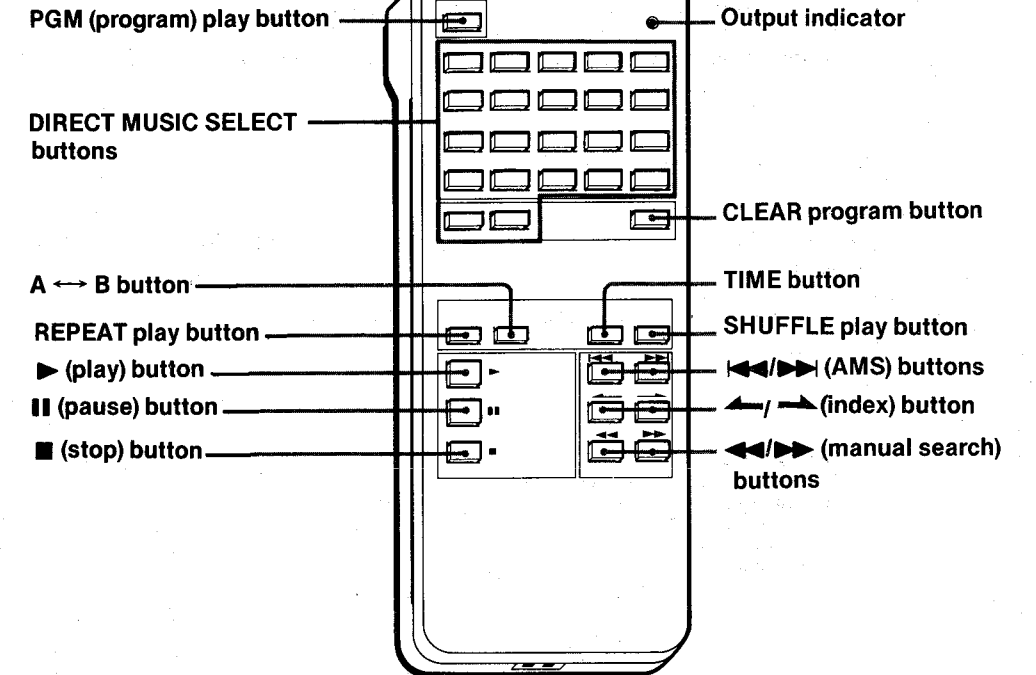
CHECKING LASER DIODE AND FOCUS SEARCH OPERATION

Check if the following operation is performed by looking at the objective lens after releasing the chucking arm and turning the POWER switch on. (Optical block should be at the innermost circumference when checking.)

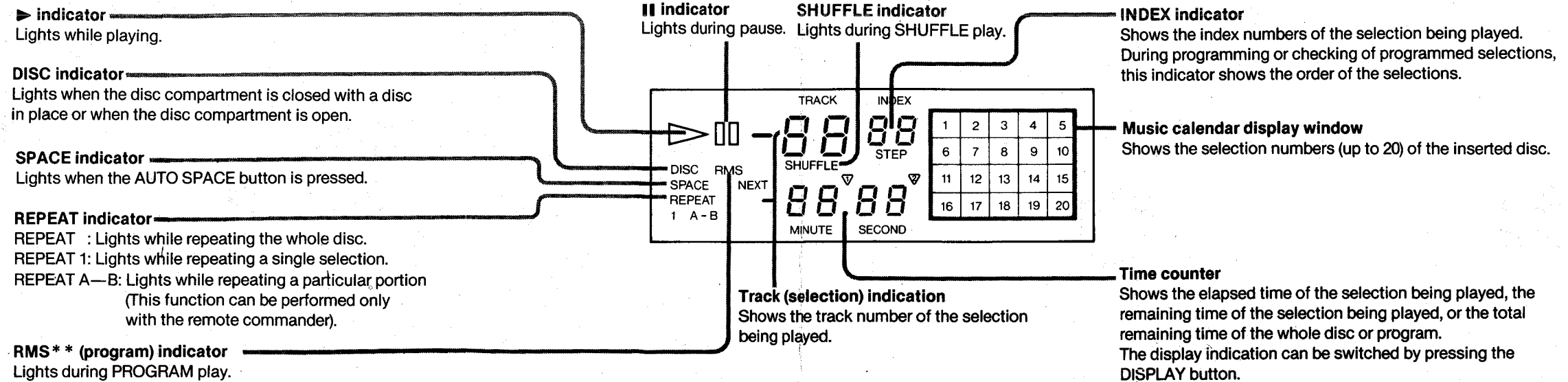
FRONT PANEL



REMOTE COMMANDER



DISPLAY WINDOW



* AMS is an abbreviation of Automatic Music Sensor.
** RMS is an abbreviation Random Music Sensor.

SECTION 1 ADJUSTMENTS

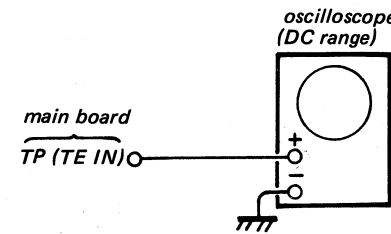
ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 disc unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.

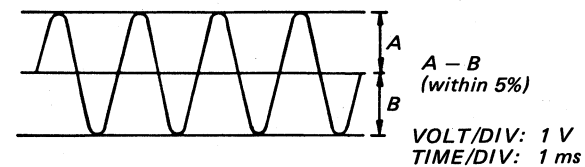
E-F Balance Adjustment

This adjustment should be made when replacing TOP (T-type Optical Pick-up).

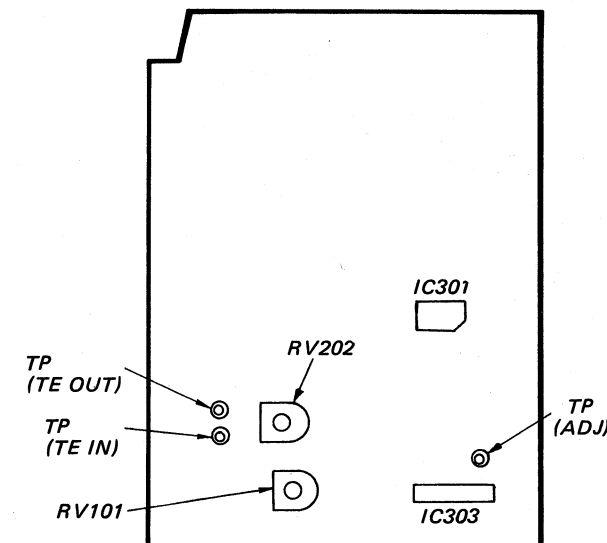
Procedure:



1. Connect test point TP (ADJ) and test point TP (TE OUT) to ground with lead wire.
2. Connect oscilloscope to test point TP (TE IN).
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and press ▷ button.
5. Adjust RV101 so that the traverse waveform is symmetrical above and below.
6. After adjustment, remove the lead wire connected in step 5.



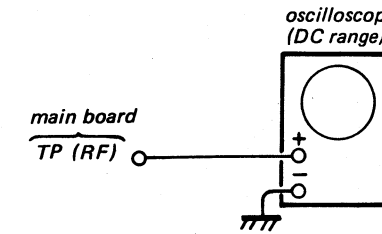
Adjustment Location: main board



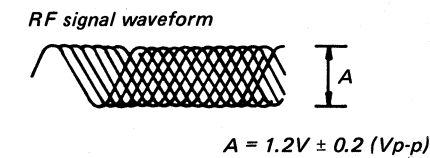
Focus Bias Adjustment

This adjustment should be made when replacing TOP (T-type Optical Pick-up).

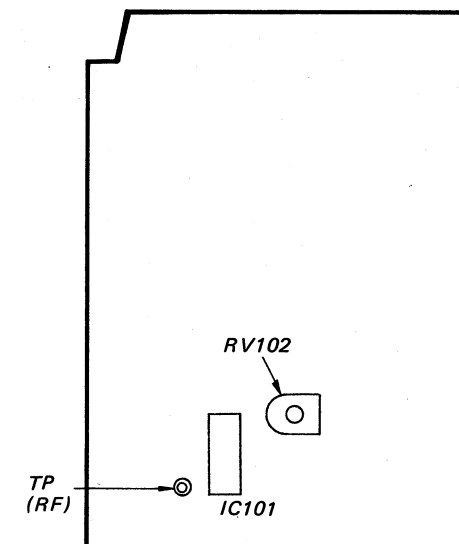
Procedure:



1. Connect oscilloscope to test points TP (RF).
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and press ▷ button.
4. Adjust RV102 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.

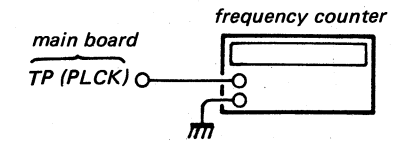


Adjustment Location: main board



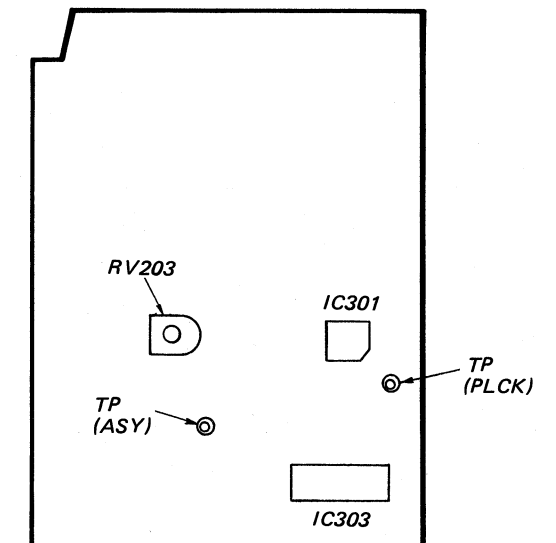
RF PLL Frequency Adjustment/Lock Frequency Check

Procedure:



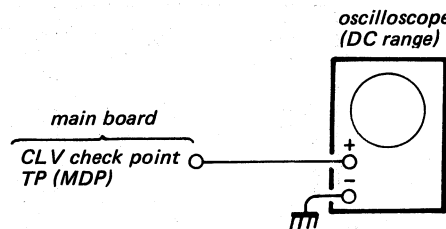
1. Connect test point TP (ASY) to ground with lead wire.
2. Turn POWER switch on.
3. Connect the frequency counter to test points TP (PLCK).
4. Adjust RV203 so that the reading on frequency counter is 4.3218 MHz ± 10 kHz. (RF PLL frequency adjustment)
5. Remove lead wire connecting TP (ASY) to ground.
6. Put disc (YEDS-18) in and press ▷ button.
7. Confirm that the reading on frequency counter is 4.3218 MHz.

Adjustment Location: main board

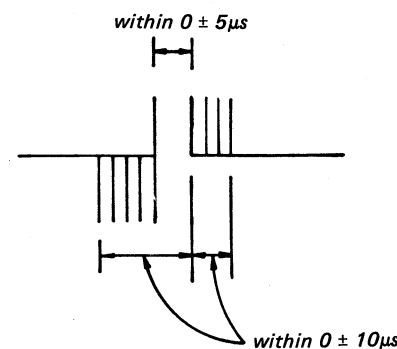


CLV Phase Lock Check

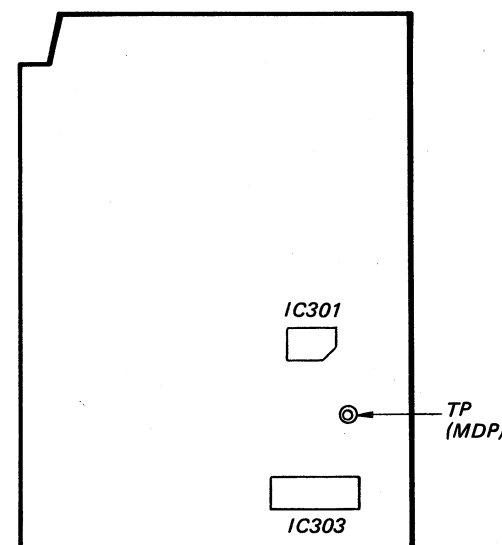
Procedure:



1. Connect oscilloscope to test point TP (MDP).
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and press ▷ button.
4. Check that the waveform is as shown in the figure below.



Adjustment Location: main board



REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

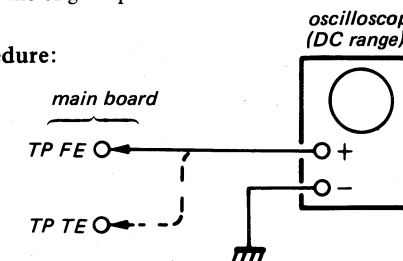
Symptoms \ Gain	Focus	Tracking
• The time until music starts becomes longer for STOP → ▷PLAY or automatic selection (◀▶ buttons pressed. (Normally takes about 2 seconds.))	low	low or high
• Music does not start and disc continues to rotate for STOP → ▷PLAY or automatic selection (◀▶ buttons pressed.)	—	low
• Disc table opens shortly after STOP → ▷PLAY.	low or high	—
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More poise during 2-axis device operation.	high	high

The following is a simple adjustment method.

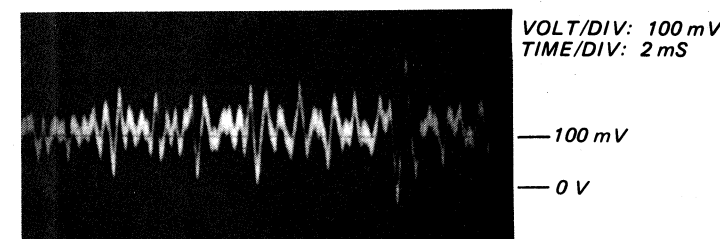
Simple Adjustment

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

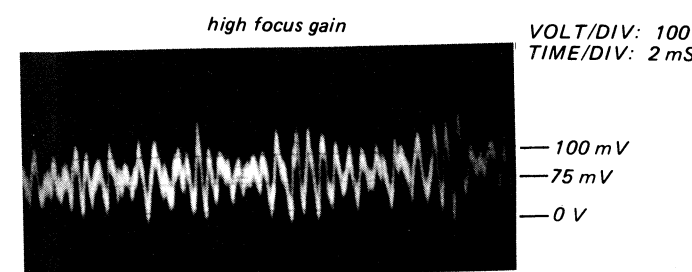
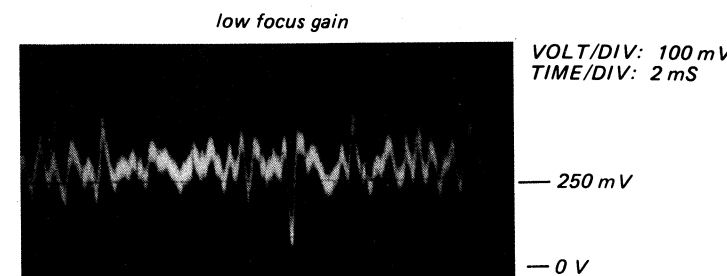
Procedure:



1. Keep the set horizontal.
(If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
2. Insert disc (YEDS-18) and press ▷PLAY button.
3. Connect oscilloscope to main amp board TP (FE IN).
4. Adjust RV201 so that the waveform is as shown in the figure below. (focus gain adjustment)

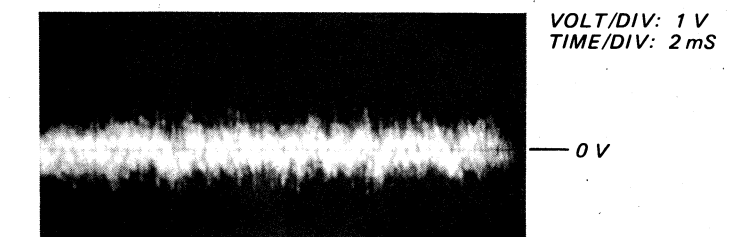


- Incorrect Examples (DC level changes more than on adjusted waveform)

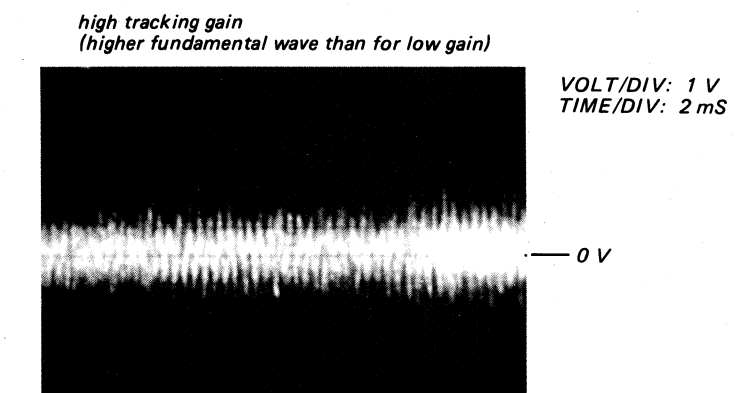
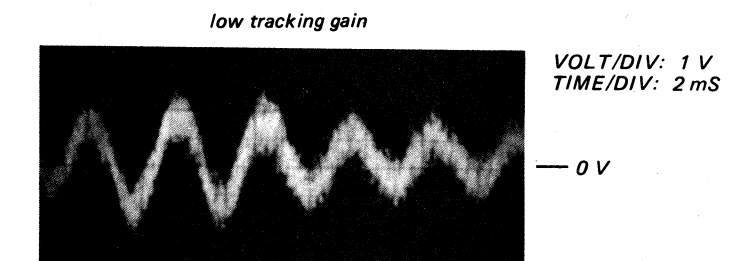


5. Connect oscilloscope to main board TP (TE IN).

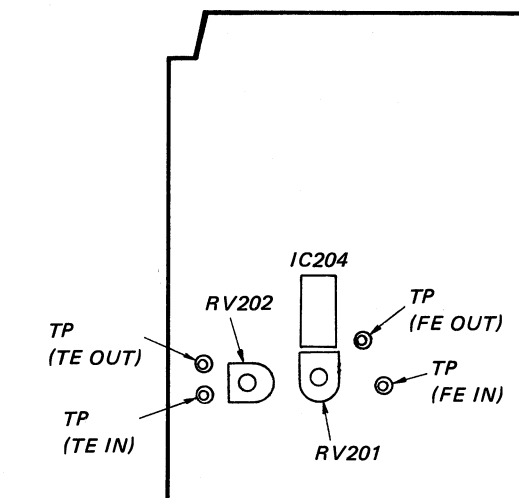
6. Adjust RV202 so that the waveform is as shown in the figure below. (tracking gain adjustment)



- Incorrect Examples (fundamental wave appears)

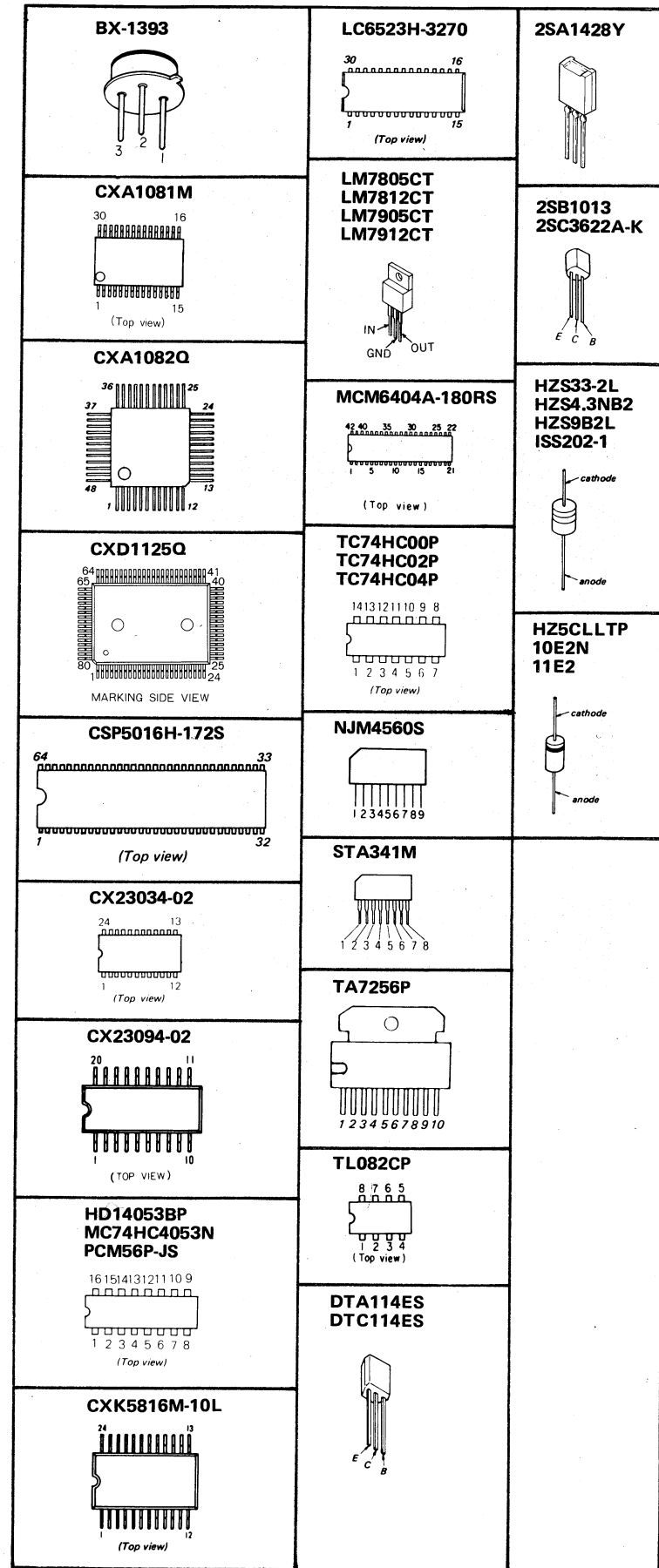


Adjustment Location: main board



SECTION 5 DIAGRAMS

Semiconductor Lead Layouts

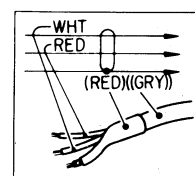


●SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D101	H-25	IC101	G-25
D301	F-25	IC201	F-22
D302	B-24	IC202	H-22
D303	B-24	IC203	H-21
D401	B-20	IC204	G-23
D501	D-19	IC301	C-22
D901	H-19	IC302	D-22
D902	H-19	IC303	C-25
D903	H-20	IC304	E-26
D904	H-20	IC305	C-26
D905	H-17	IC351	C-20
D906	H-18	IC391	F-10
D907	H-18	IC401	C-20
D908	H-18	IC402	C-19
D909	H-19	IC403	C-19
D910	H-19	IC451	E-14
D911	H-19	IC701	B-21
D912	H-19	IC801	C-10
D913	F-19	IC802	B-7
D914	E-19	IC901	F-19
D915	I-20	IC902	F-20
D916	H-20	IC903	F-18
D917	H-21	IC904	F-18
D918	H-21		
		Q101	G-26
		Q201	E-21
		Q202	F-21
		Q401	D-17
		Q501	D-17
		Q703	A-20
		Q704	F-17
		Q901	H-21

Note:

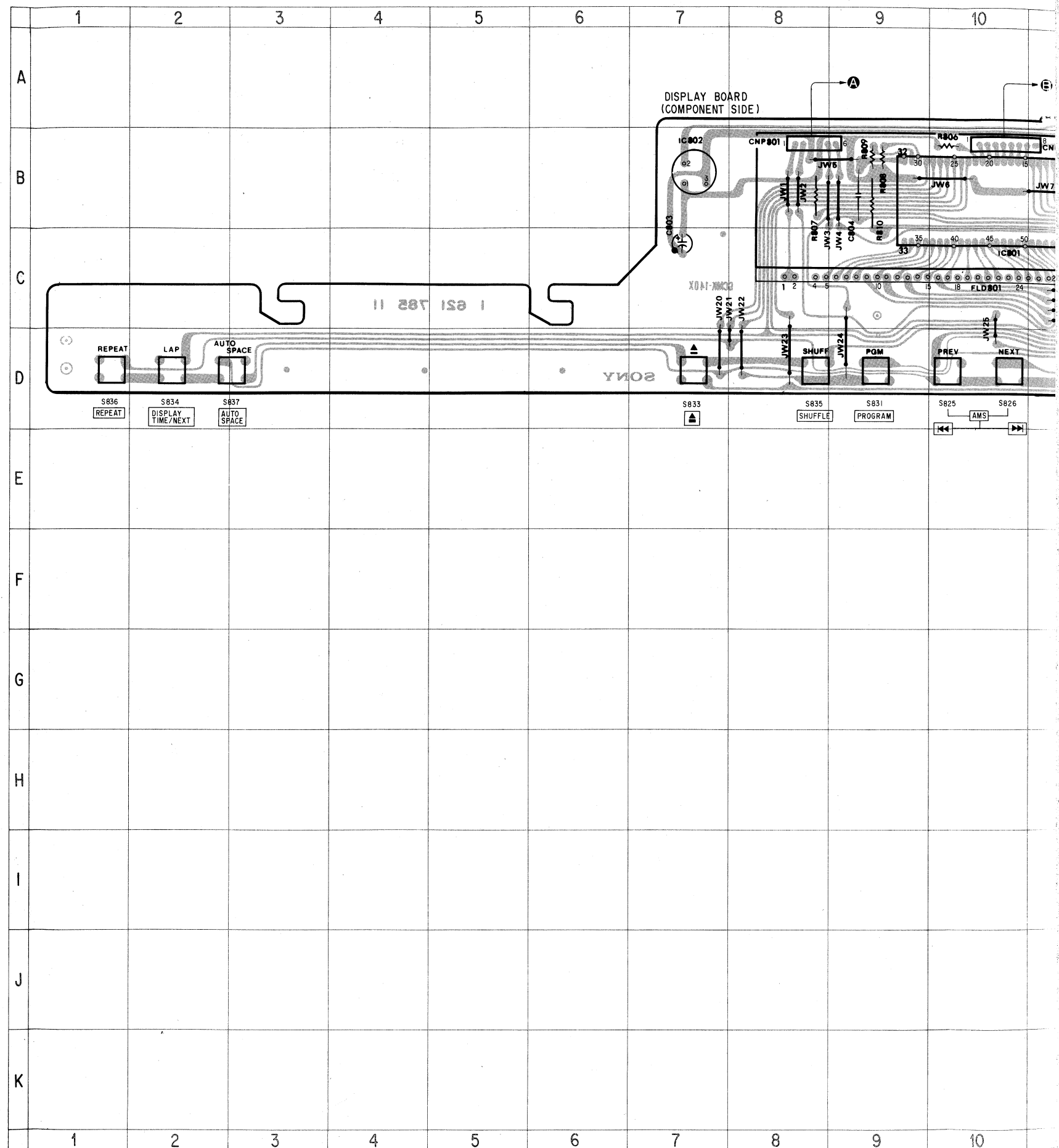
- Color code of sleeving over the end of the jacket.

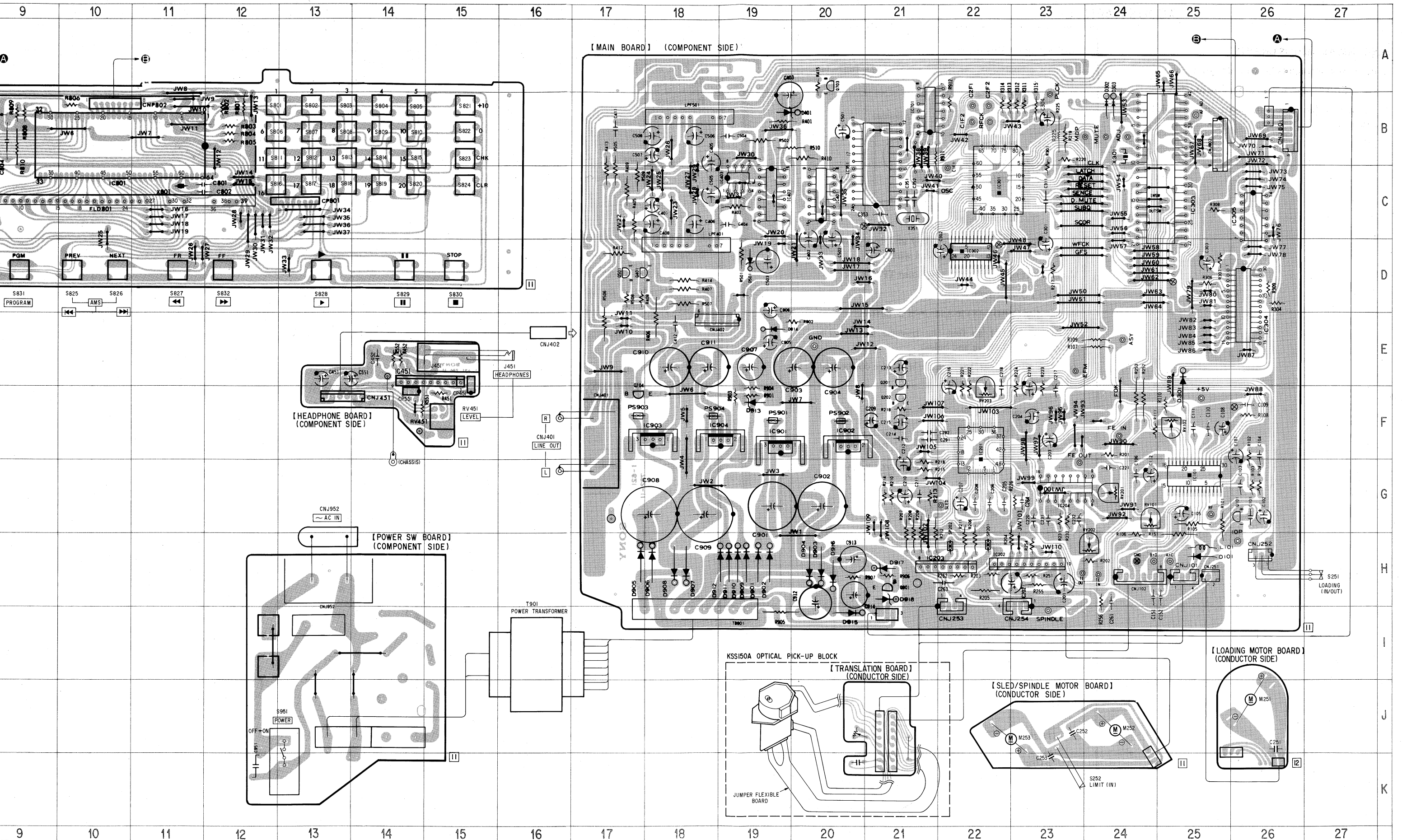


- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : part mounted on the conductor side.
- : indicates side identified with part number.
- ⊗ : Through hole

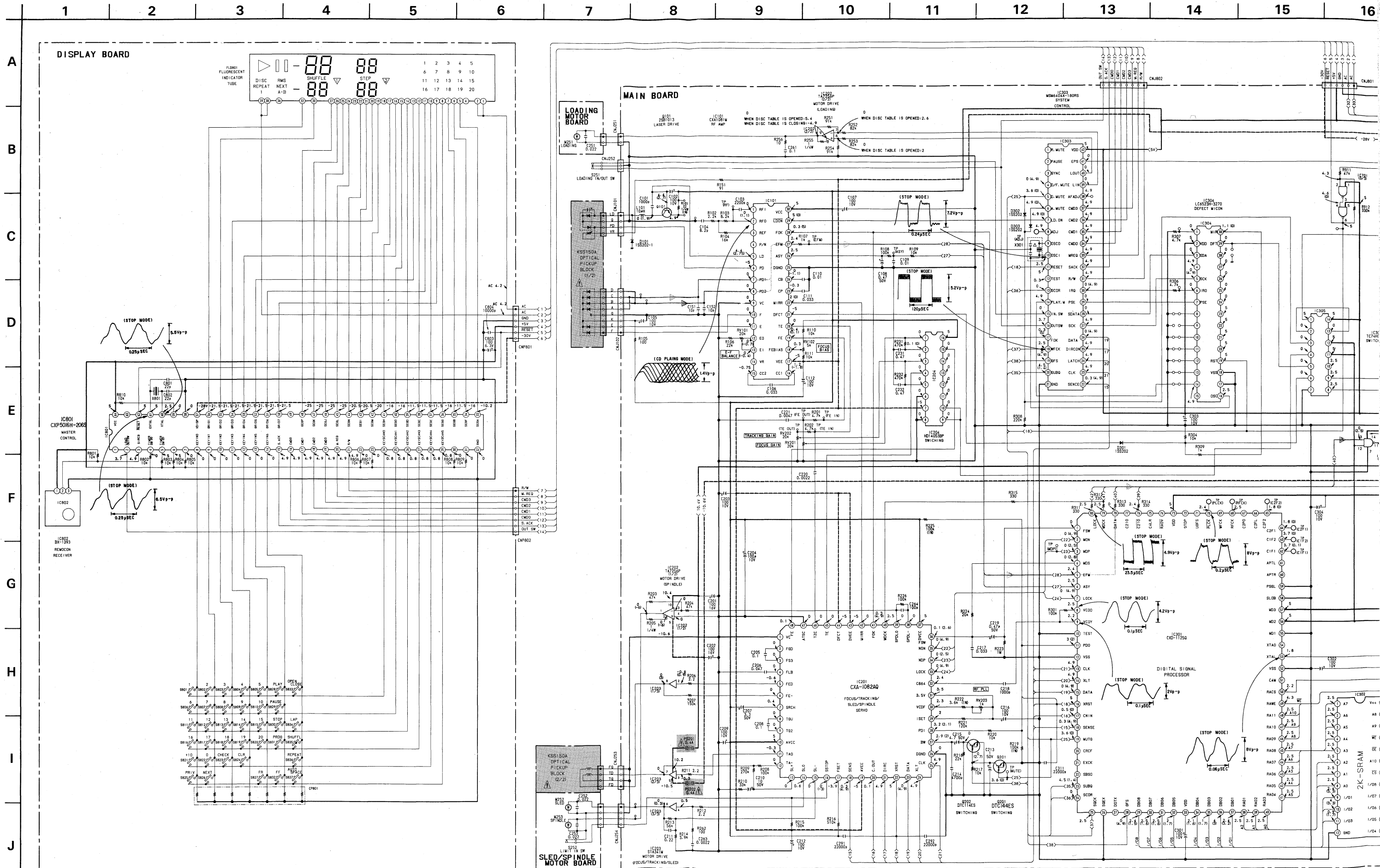
This mark shows the portion where component side pattern is connector with conductor side pattern.

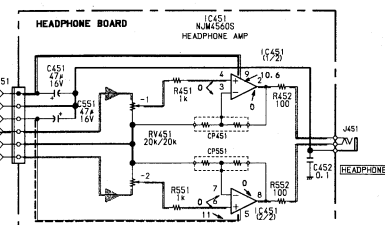
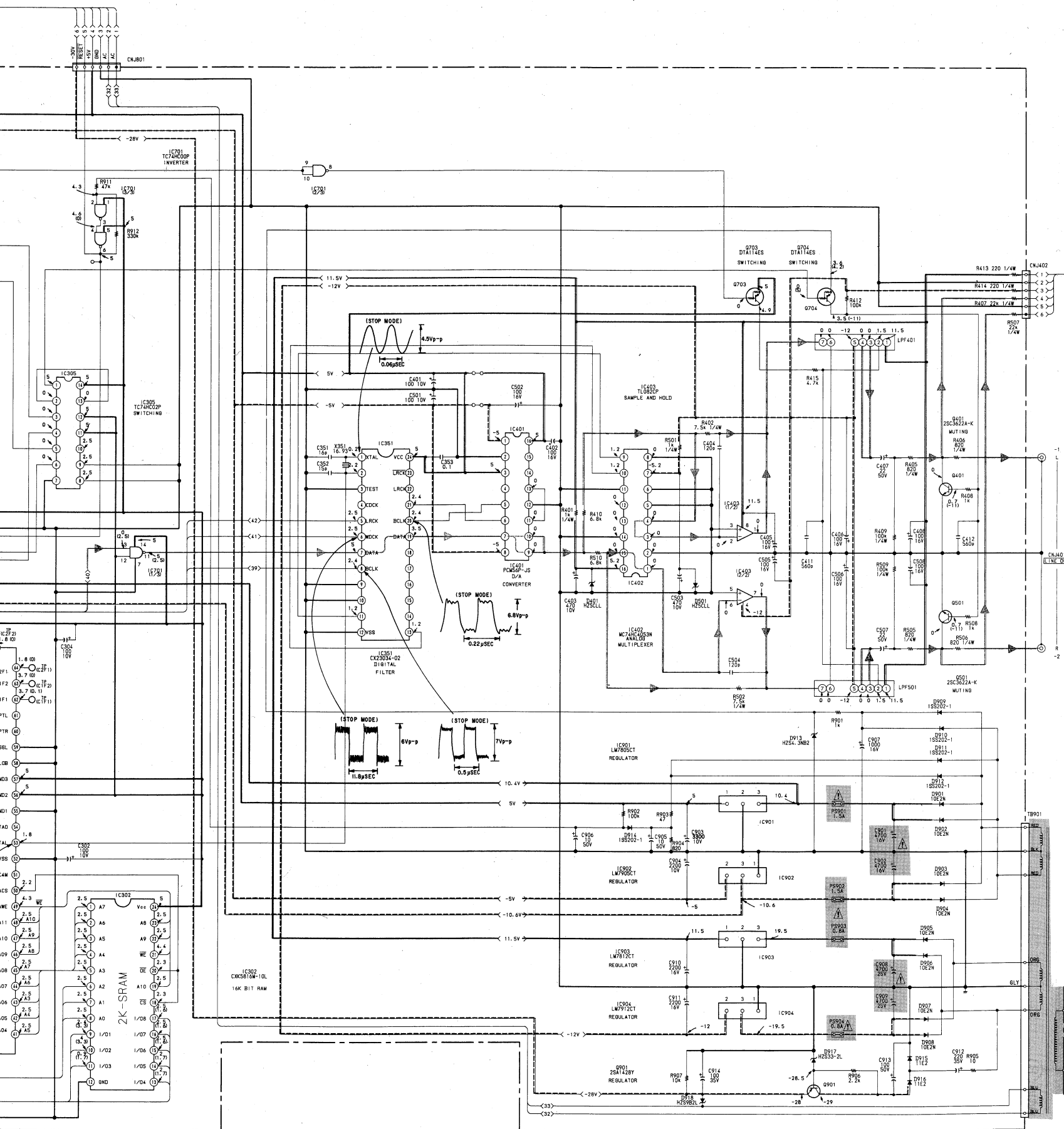
MOUNTING DIAGRAM





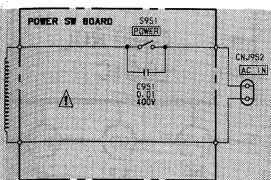
SCHEMATIC DIAGRAM





Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



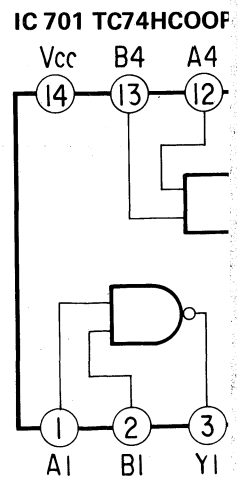
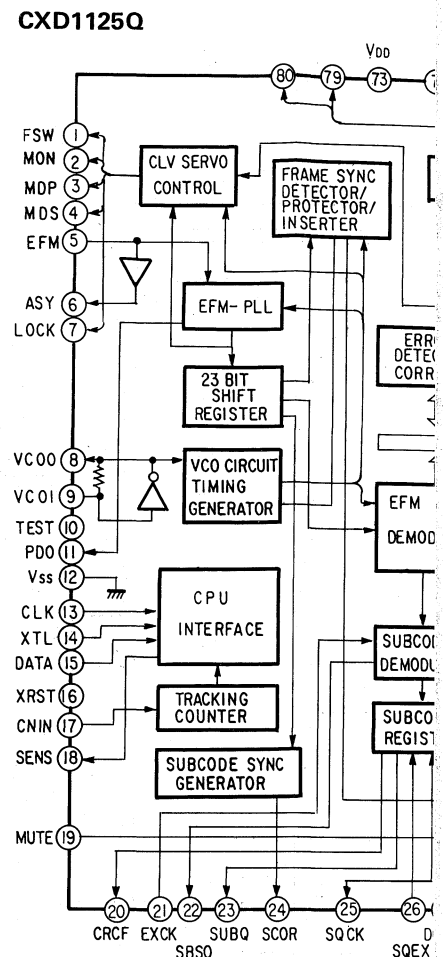
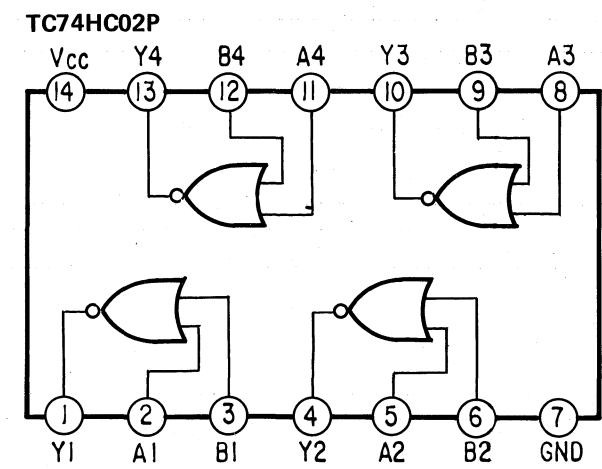
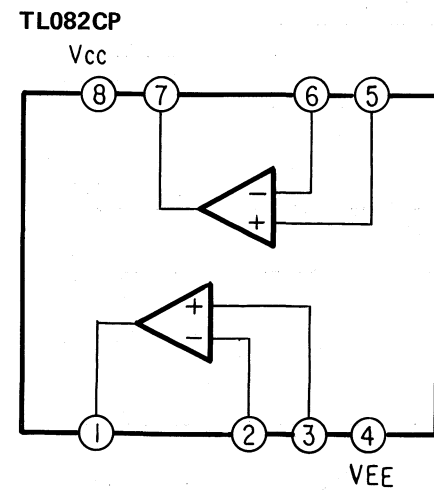
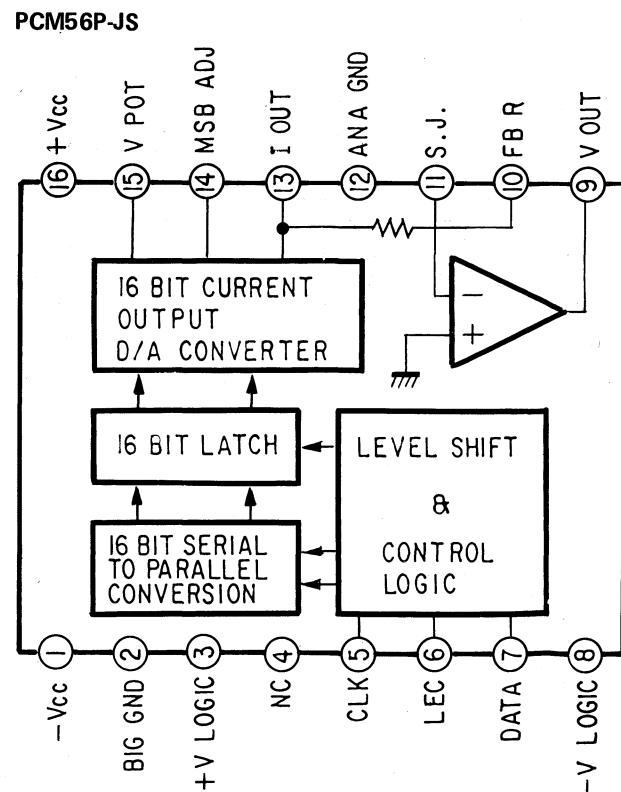
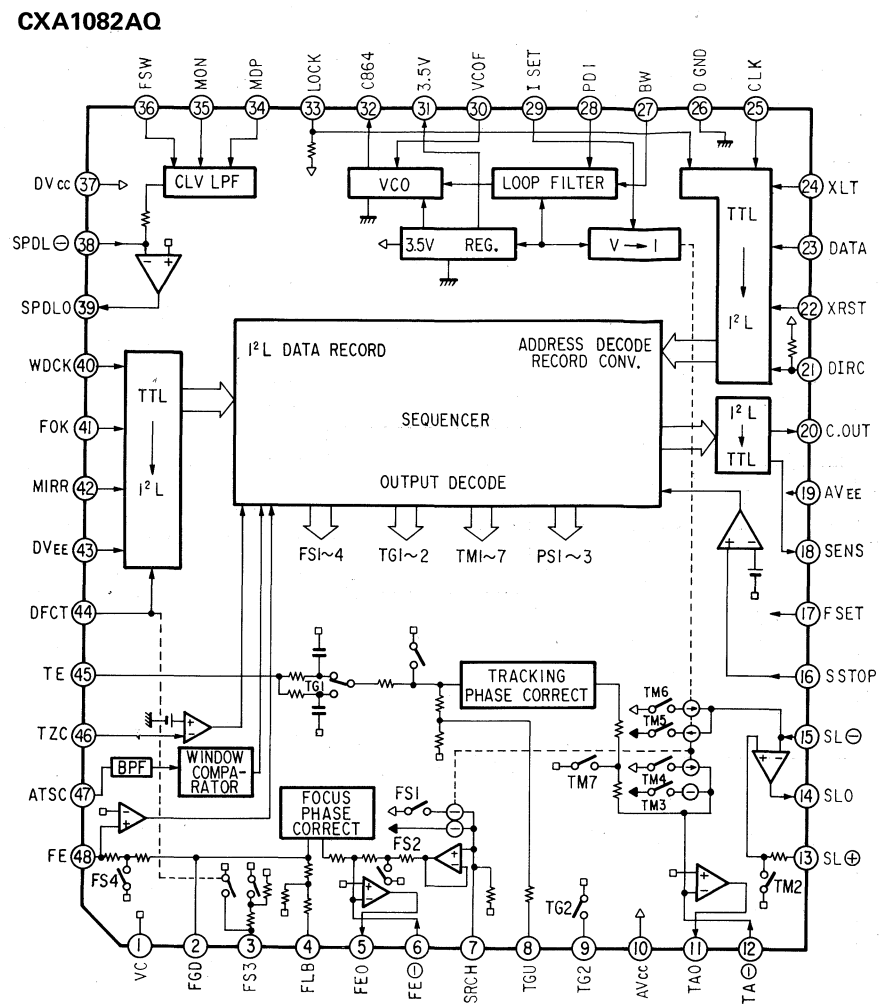
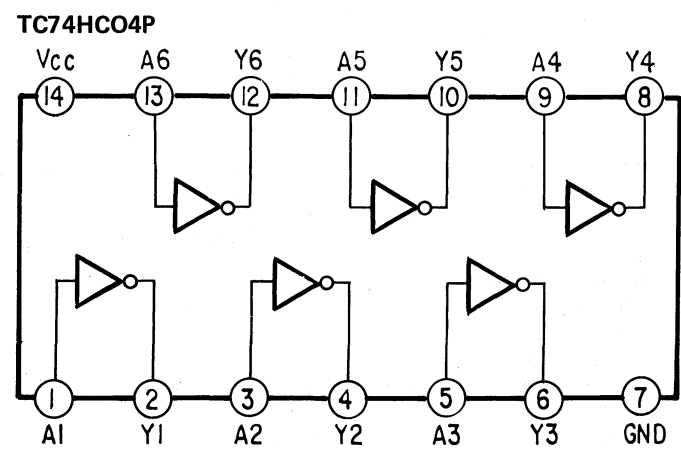
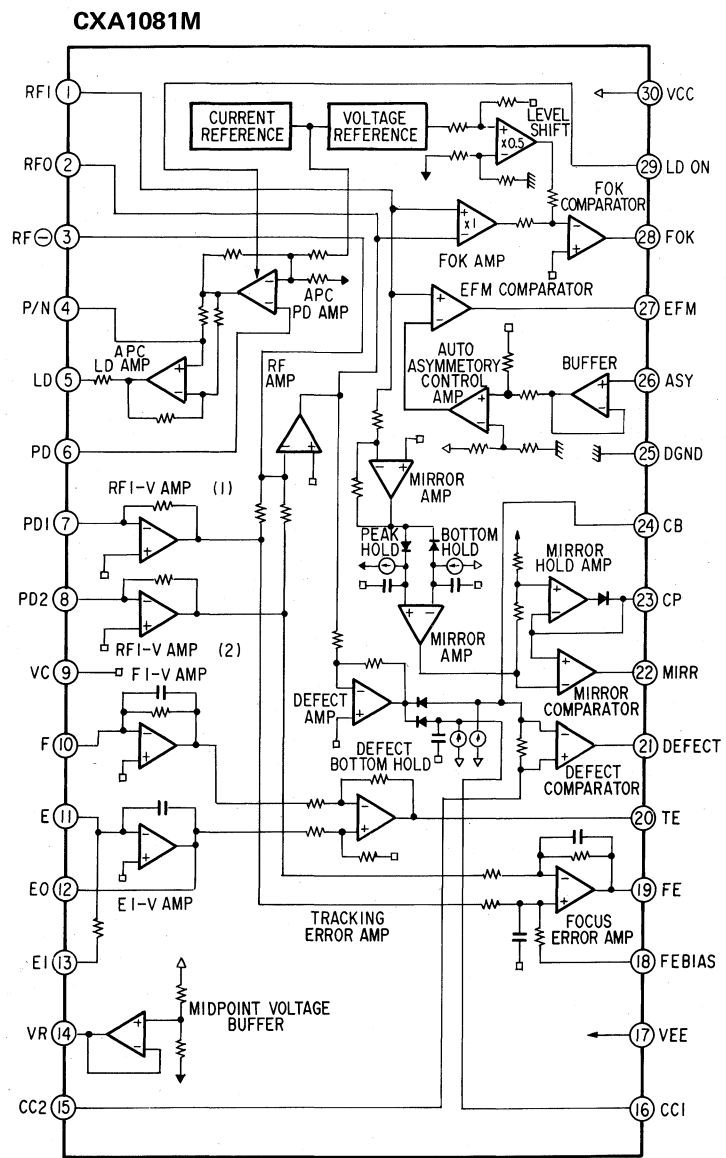
Note:

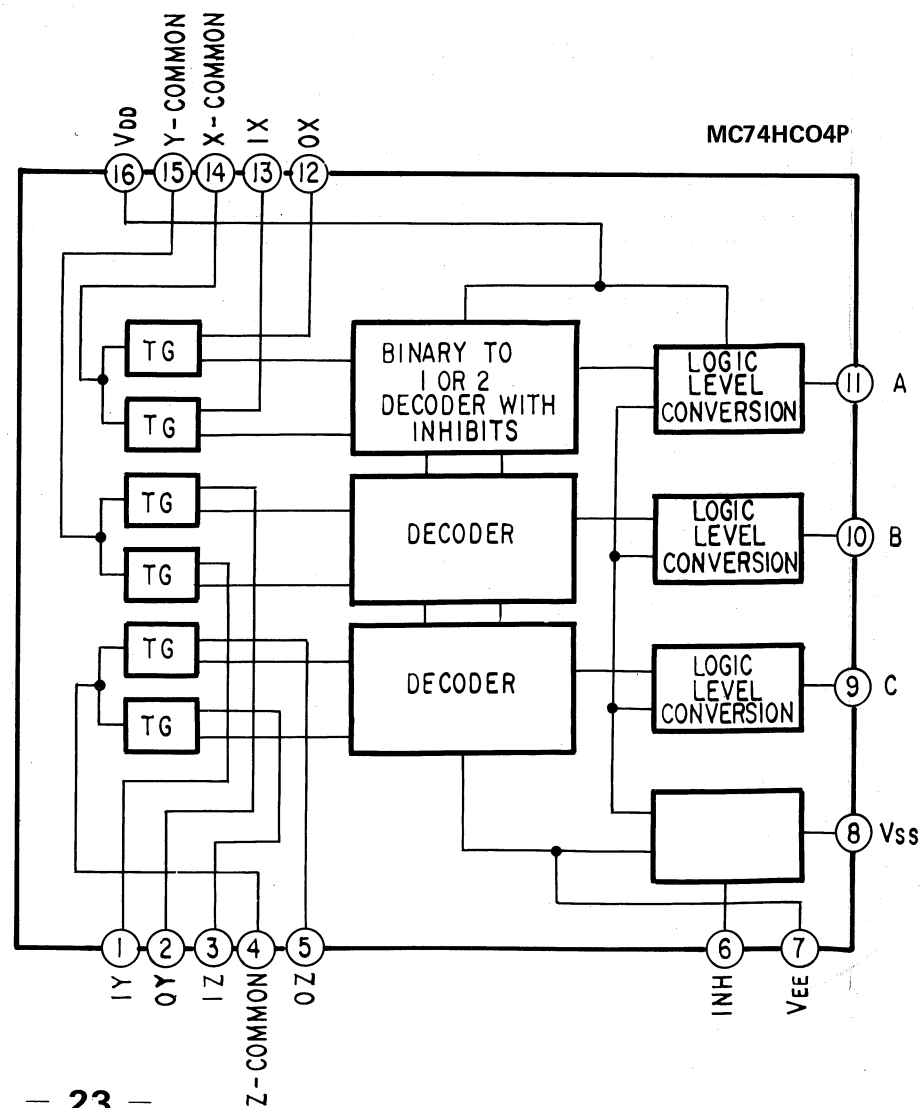
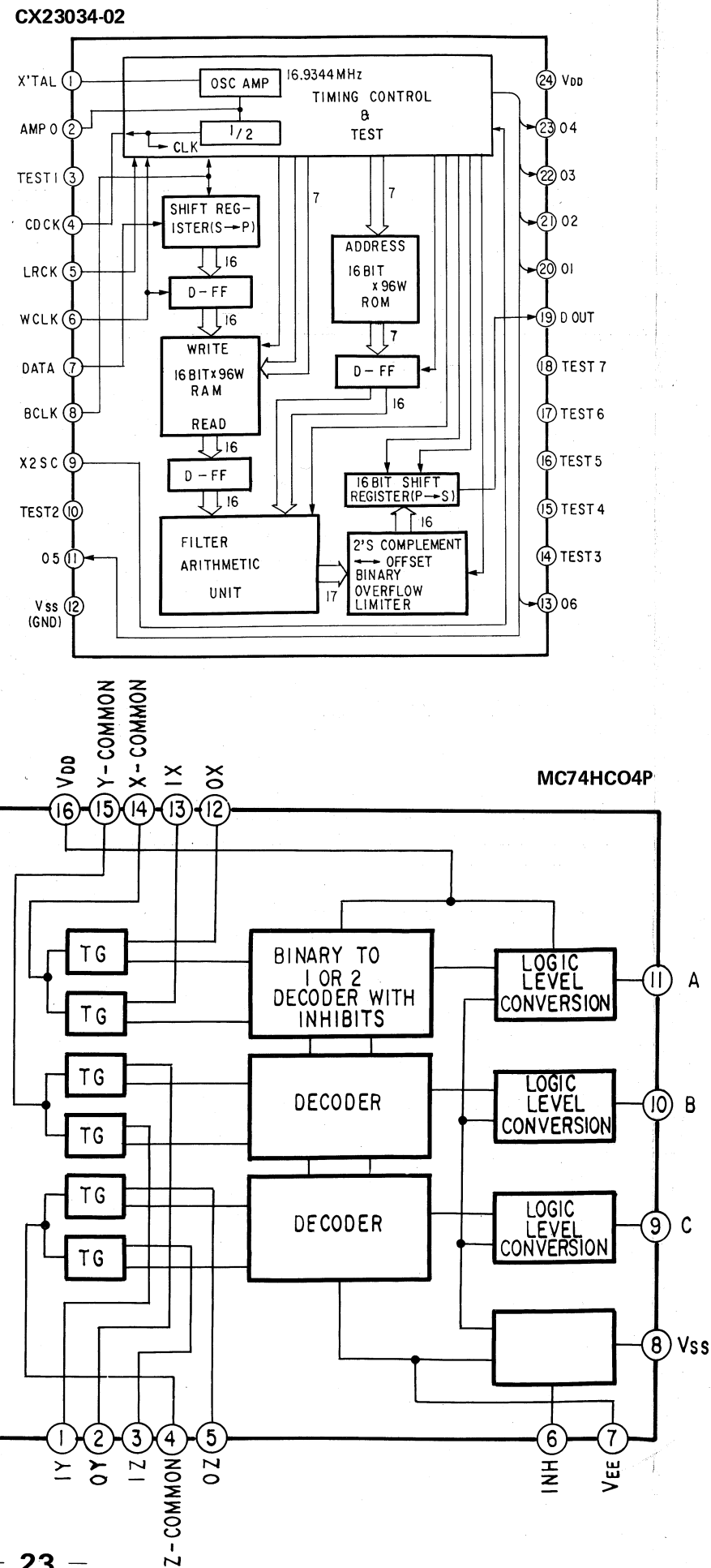
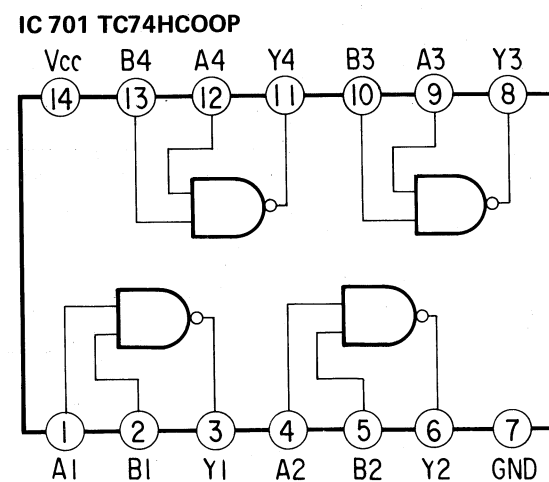
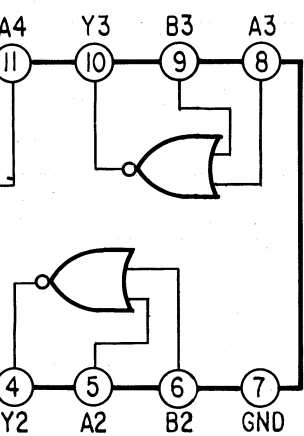
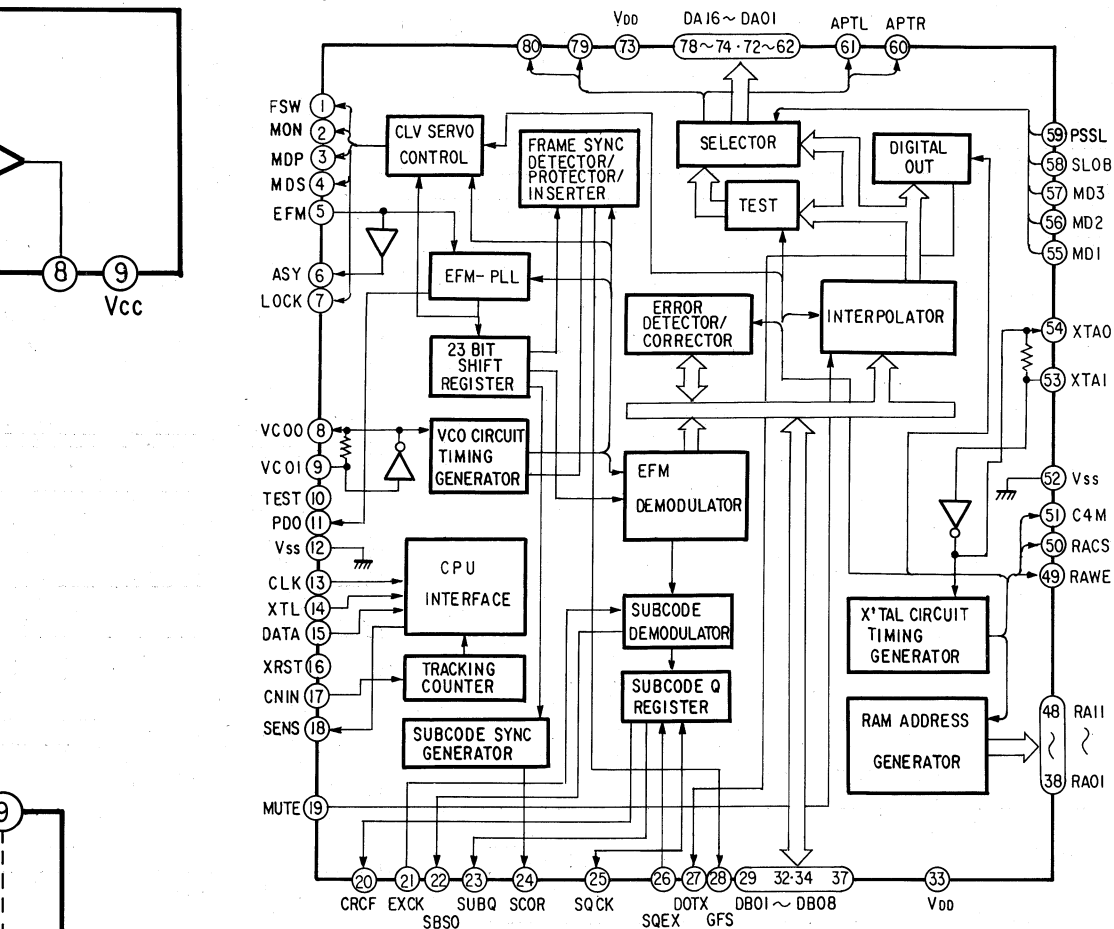
- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
-  : signal path.
- % indicates tolerances.

Switches

Ref. No.	Switch	Position
S251	LOADING	IN
S252	LIMIT	ON
S801	1	OFF
S802	2	OFF
S803	3	OFF
S804	4	OFF
S805	5	OFF
S806	6	OFF
S807	7	OFF
S808	8	OFF
S809	9	OFF
S810	10	OFF
S811	11	OFF
S812	12	OFF
S813	13	OFF
S814	14	OFF
S815	15	OFF
S816	16	OFF
S817	17	OFF
S818	18	OFF
S819	19	OFF
S820	20	OFF
S821	+10	OFF
S822	0	OFF
S823	CHECK	OFF
S824	CLEAR	OFF
S825		OFF
S826		OFF
S827		OFF
S828		OFF
S829		OFF
S830		OFF
S831	PROGRAM	OFF
S832		OFF
S833		OFF
S834		OFF
S835	SHUFFLE	OFF
S836	REPEAT I/ALL	OFF
S837	AUTO SPACE	OFF
S951	POWER	OFF

-  : B+ bus.
-  : B- bus.
-  : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 k Ω /V).
- no mark: STOP mode
- () : CD playing mode
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken to ground in STOP mode by using oscilloscope.
- Voltage variations may be noted due to normal production tolerances.





SECTION 3

EXPLODED VIEWS AND PARTS LIST

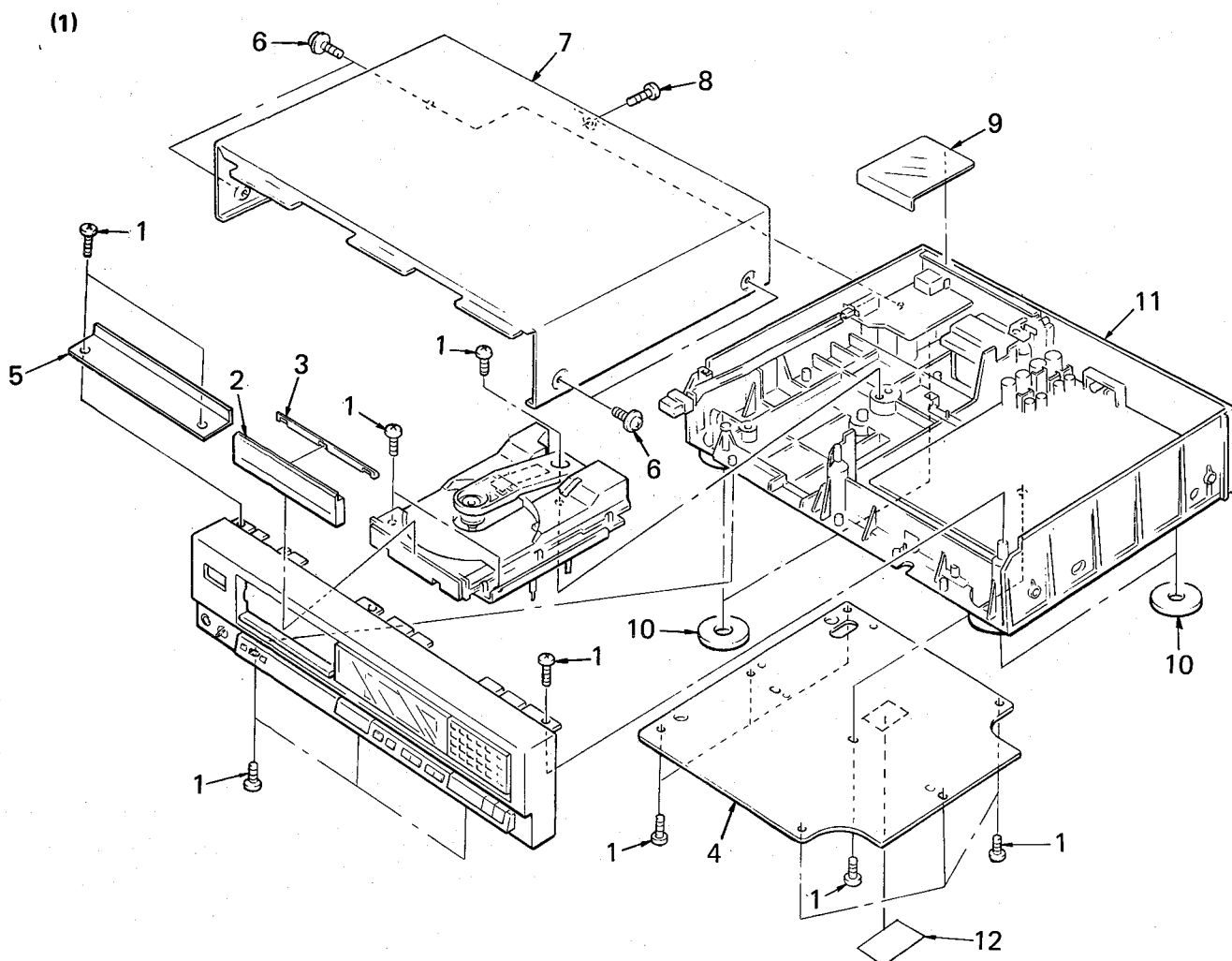
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

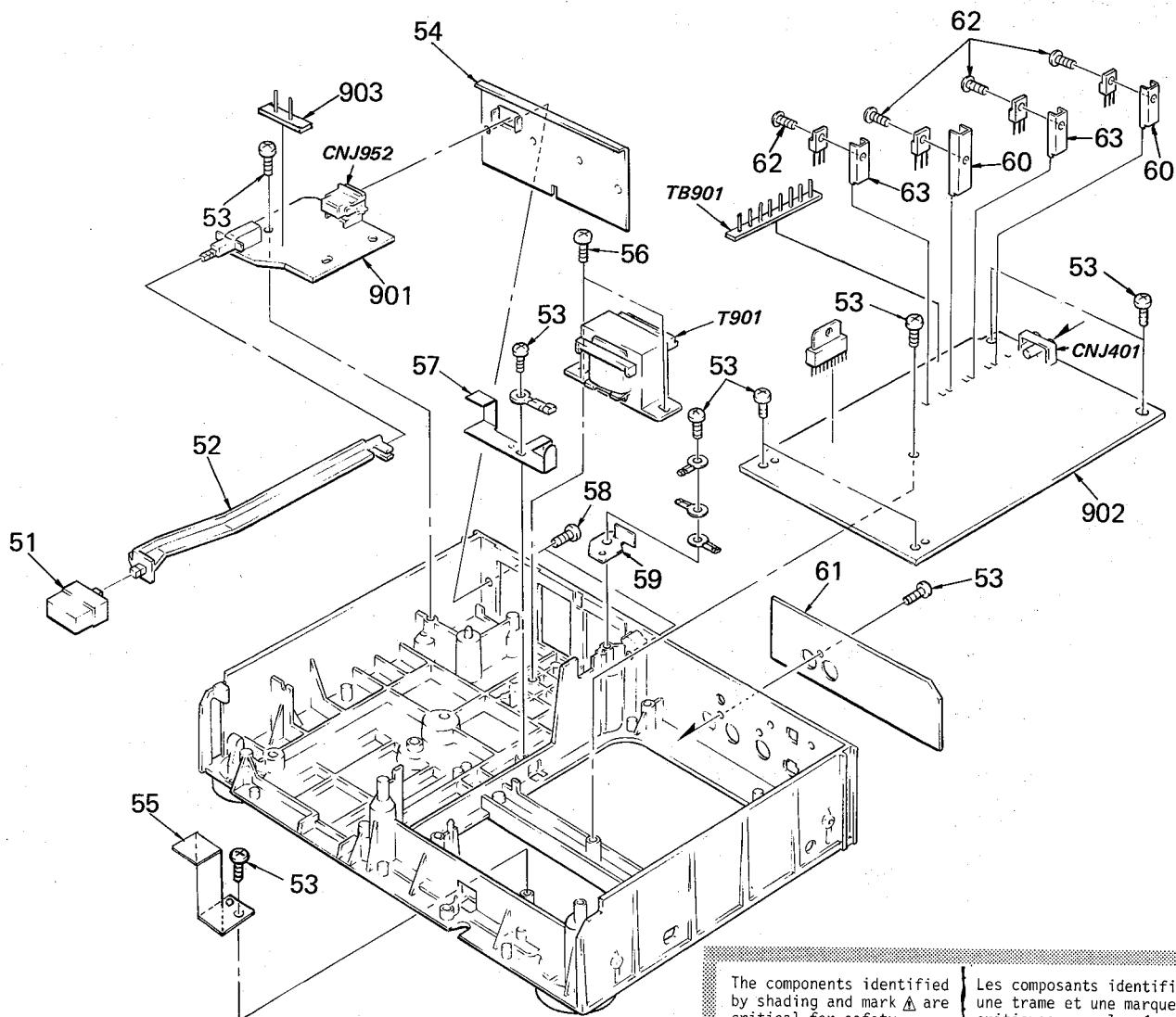
Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description
1	7-685-647-14	SCREW +BVTP 3X10 TYPE2 N-S
2	4-912-932-11	PANEL, LOADING
3	4-912-933-01	ESCUTCHEON, LOADING PANEL
4	*4-912-912-21	PLATE, BOTTOM
5	4-918-131-01	REINFORCEMENT (C)
6	3-703-135-31	SCREW, TAPPING.

No.	Part No.	Description	Remarks
7	4-912-939-01	CASE	
8	3-703-473-11	SCREW, TERMINAL	
9	*4-912-931-01	COVER, POWER	
10	4-912-919-01	FOOT	
11	*4-912-938-11	CHASSIS	
12	3-703-680-00	(US)...LABEL, CAUTION, SUB, NEW UL	

(2)

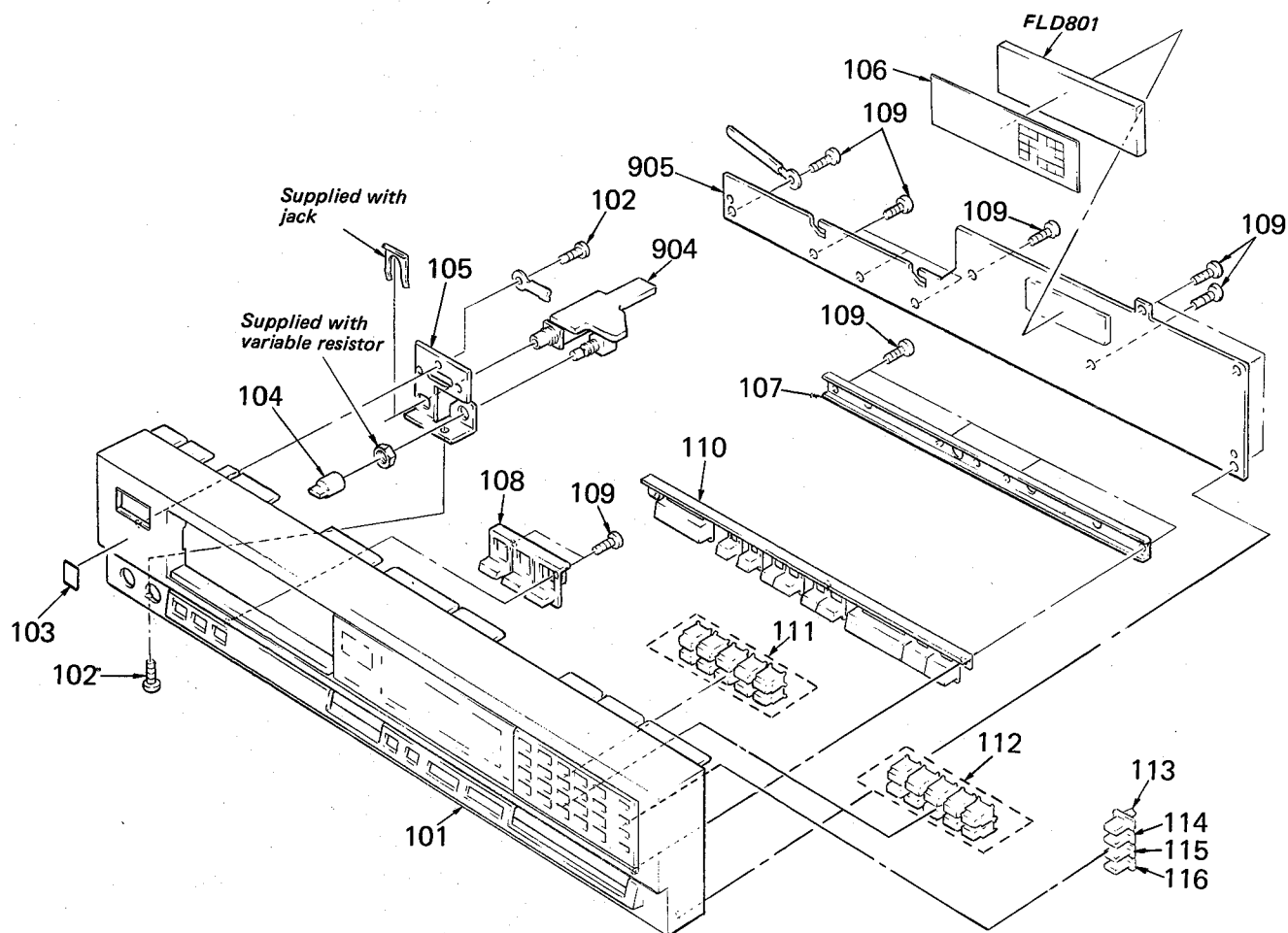


The components identified by shading and mark A are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	4-917-460-01	KNOB, POWER		61	*4-912-930-51	PLATE, ORNAMENTAL, JACK	
52	*4-911-063-01	LEVER, POWER SWITCH		62	2-259-121-00	SCREW, TR	
53	7-685-647-14	SCREW +BVTP 3X10 TYPE2 N-S		63	*3-309-144-01	HEAT SINK	
54	*4-918-118-01	(US).....PLATE, JACK		64	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
	*4-918-118-11	(Canadian)...PLATE, JACK		901	1-621-783-11	PC BOARD, POWER SW	
55	4-918-130-01	REINFORCEMENT (B)		902	*A-4651-112-A	MOUNTED PCB, MAIN	
56	7-685-660-11	SCREW +BVTP 4X10 TYPE2 N-S		903	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P	
57	*4-912-923-01	PLATE (A), GROUND		CNJ401*1-562-999-21	JACK, PIN 2P		
58	7-685-772-09	SCREW +BVTT 3X8 (S)		CNJ952A1-526-930-11	INLET, AC		
59	*4-912-924-01	PLATE (B), GROUND		T901 A1-448-828-11	TRANSFORMER, POWER		
60	*4-886-555-00	HEAT SINK		TB901 *1-535-121-00	TERMINAL		

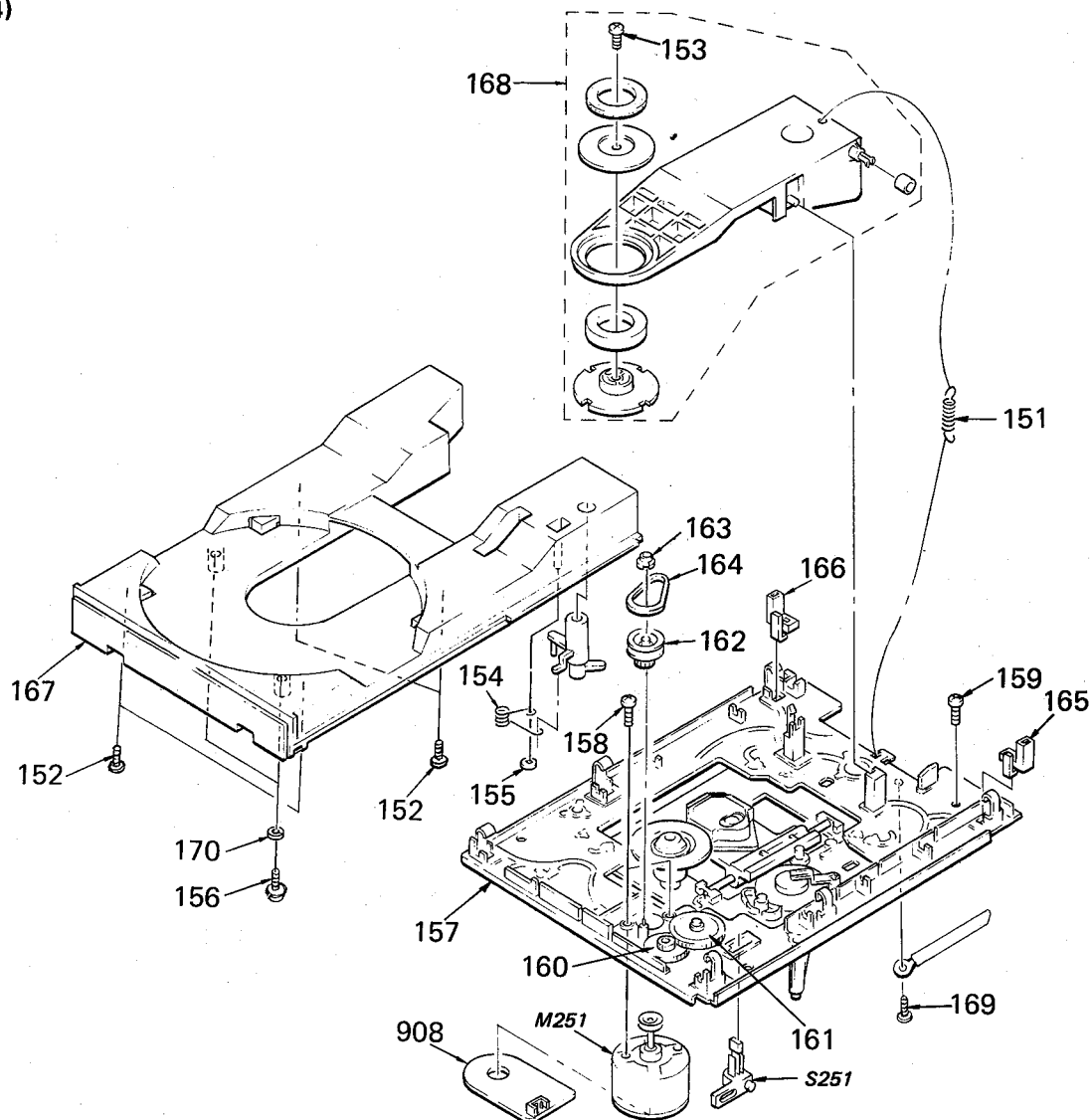
(3)



No.	Part No.	Description	Remarks
101	X-4918-107-1	PANEL (1) ASSY, FRONT	
102	7-685-751-09	SCREW +BYTT 3X6 (S)	
103	3-703-710-41	STICKER, SONY SYMBOL (12)	
104	4-901-708-11	KNOB, LOV	
105	*4-912-922-01	BRACKET, HEADPHONE	
106	*4-918-119-01	FILTER	
107	*4-918-122-01	HOLDER, CONTROL BUTTON	
108	4-918-121-01	BUTTON, 3 GANG	
109	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
110	4-918-125-01	BUTTON, CONTROL	

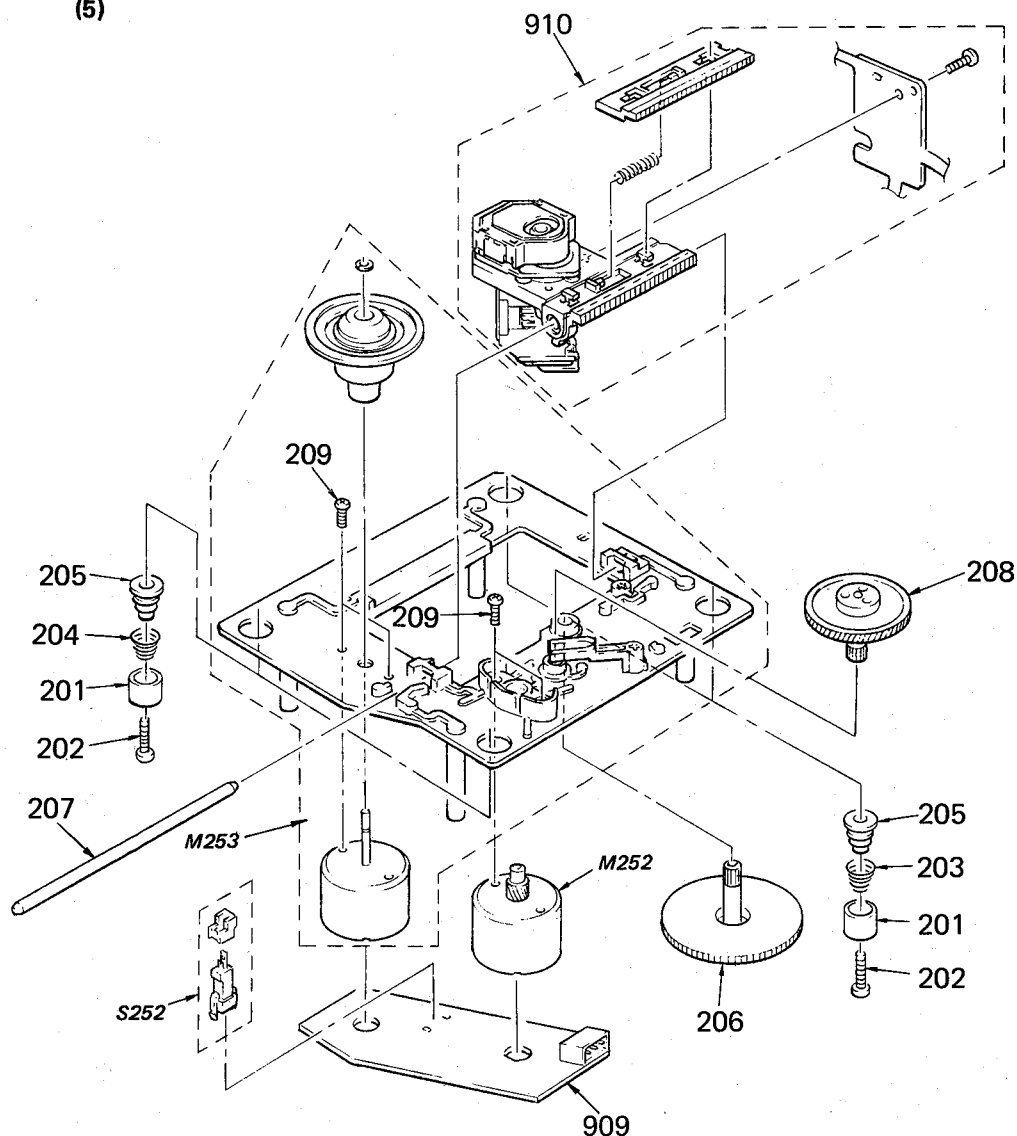
No.	Part No.	Description	Remarks
111	4-918-123-01	BUTTON, 10 GANG (1-10)	
112	4-918-123-11	BUTTON, 10 GANG (1-20)	
113	4-918-124-11	PUSH BUTTON	
114	4-918-124-01	PUSH BUTTON	
115	4-918-124-31	PUSH BUTTON	
116	4-918-124-21	PUSH BUTTON	
904	*1-621-786-11	PC BOARD, HEADPHONE	
905	1-621-785-11	PC BOARD, DISPLAY	
FLD801	1-519-411-11	INDICATOR TUBE, FLUORESCENT	

(4)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	4-917-551-01	SPRING (ARM), TENSION		161	4-917-550-01	GEAR (A), LOADING	
152	7-687-203-11	+PTPWH 2X5		162	4-917-546-01	PULLEY (A), LOADING	
153	7-685-132-19	SCREW +BTP 2.6X5 TYPE2 N-S		163	4-910-418-01	BUSHING (DIA. 4)	
154	4-917-552-01	SPRING		164	4-917-548-01	BELT, DRIVING	
155	7-624-190-81	STOP RING 2, TYPE-CS		165	*4-918-613-01	CUSHION (RIGHT)	
156	7-685-103-14	SCREW (2X5), + PTP		166	*4-918-612-01	CUSHION (LEFT)	
157	4-917-561-11	CHASSIS (OUTSERT), LOADING		167	A-4665-013-A	TABLE ASSY, DISK	
158	7-621-775-40	SCREW +B 2.6X8		168	A-4681-006-A	ARM ASSY, CHUCKING	
159	7-685-793-04	SCREW +BVTT 2.6X8 (S)		169	7-685-860-01	SCREW +BVTT 2.6X4	
160	4-910-402-01	GEAR (2), LOADING		908	*1-620-098-11	PC BOARD, LOADING MOTOR	
				M251	A-4608-320-A	MOTOR ASSY, L	
				S251	1-570-203-11	SWITCH, LEAF	

(5)



No.	Part No.	Description	Remarks
201	4-917-508-01	HOLDER, SP	
202	7-685-535-19	SCREW +BTP 2.6X10 TYPE2 N-S	
203	4-917-507-01	SPRING (H)	
204	4-917-541-01	SPRING (B)	
205	4-917-562-01	INSULATOR	
206	4-917-564-11	GEAR (P)	
207	4-917-565-01	SHAFT, SLED	

No.	Part No.	Description	Remarks
208	4-917-567-01	GEAR (M)	
209	7-621-255-15	SCREW +P 2X3	
909	*1-620-097-11	PC BOARD, SL/SP MOTOR	
910	△ 8-848-062-01	DEVICE, OPTICS (KSS-150A)	
M253	X-4917-505-1	ASSY, MOTOR (SPINDLE)	
M252	X-4917-504-1	ASSY, MOTOR (SLED)	
S252	1-570-822-11	SWITCH, LEAF	

The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **△** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 4 ELECTRICAL PARTS LIST

NOTE:

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:

UA.... : μA...., UPA.... : μPA...., UPC.... : μPC,
UPD.... : μPD....

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	1-621-783-11	PC BOARD, POWER SW			
902	*A-4651-112-A	MOUNTED PCB, MAIN			
903	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P			
904	*1-621-786-11	PC BOARD, HEADPHONE			
905	1-621-785-11	PC BOARD, DISPLAY			
908	*1-620-098-11	PC BOARD, LOADING MOTOR			
909	*1-620-097-11	PC BOARD, SL/SP MOTOR			
910	A-8-848-062-01	DEVICE OPTICS (KSS-150A)			
C101	1-162-294-31	CERAMIC	0.001MF	10%	50V
C102	1-124-443-00	ELECT	100MF	20%	10V
C103	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C104	1-162-198-31	CERAMIC	8.2PF	10%	50V
C105	1-124-443-00	ELECT	100MF	20%	10V
C106	1-130-489-00	MYLAR	0.033MF	5%	50V
C107	1-124-443-00	ELECT	100MF	20%	10V
C108	1-124-902-00	ELECT	0.47MF	20%	50V
C109	1-130-483-00	MYLAR	0.01MF	5%	50V
C110	1-130-483-00	MYLAR	0.01MF	5%	50V
C111	1-130-489-00	MYLAR	0.033MF	5%	50V
C112	1-124-443-00	ELECT	100MF	20%	10V
C151	1-162-199-31	CERAMIC	10PF	5%	50V
C152	1-162-199-31	CERAMIC	10PF	5%	50V
C201	1-124-445-00	ELECT	100MF	20%	16V
C202	1-124-445-00	ELECT	100MF	20%	16V
C203	1-124-443-00	ELECT	100MF	20%	10V
C204	1-124-443-00	ELECT	100MF	20%	10V
C205	1-130-768-00	FILM	0.1MF	10%	63V
C206	1-130-491-00	MYLAR	0.047MF	5%	50V
C207	1-124-905-11	ELECT	3.3MF	20%	50V
C208	1-130-768-00	FILM	0.1MF	10%	63V
C209	1-124-443-00	ELECT	100MF	20%	10V
C210	1-124-907-00	ELECT	10MF	20%	50V
C211	1-136-169-00	FILM	0.22MF	5%	50V
C212	1-124-443-00	ELECT	100MF	20%	10V
C213	1-124-791-11	ELECT	1MF	20%	50V
C214	1-130-479-00	MYLAR	0.0047MF	5%	50V
C215	1-124-927-11	ELECT	4.7MF	20%	50V
C216	1-124-443-00	ELECT	100MF	20%	10V
C217	1-130-489-00	MYLAR	0.033MF	5%	50V
C218	1-162-294-31	CERAMIC	0.001MF	10%	50V
C219	1-124-902-00	ELECT	0.47MF	20%	50V
C220	1-130-475-00	MYLAR	0.0022MF	5%	50V
C221	1-130-479-00	MYLAR	0.0047MF	5%	50V
C231	1-136-173-00	FILM	0.47MF	5%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C232	1-136-173-00	FILM	0.47MF	5%	50V
C251	1-101-005-00	CERAMIC	0.022MF		50V
C252	1-106-180-00	FILM	0.022MF	5%	50V
C253	1-106-180-00	FILM	0.022MF	5%	50V
C261	1-130-768-00	FILM	0.1MF	10%	63V
C263	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C264	1-161-282-31	CERAMIC	100PF	10%	50V
C291	1-161-494-00	CERAMIC	0.022MF		25V
C292	1-161-494-00	CERAMIC	0.022MF		25V
C301	1-124-443-00	ELECT	100MF	20%	10V
C302	1-124-443-00	ELECT	100MF	20%	10V
C303	1-124-443-00	ELECT	100MF	20%	10V
C304	1-124-443-00	ELECT	100MF	20%	10V
C311	1-161-494-00	CERAMIC	0.022MF		25V
C351	1-162-204-31	CERAMIC	16PF	5%	50V
C352	1-162-203-31	CERAMIC	15PF	5%	50V
C353	1-161-063-00	CERAMIC	0.1MF	20%	16V
C401	1-124-994-11	ELECT	100MF	20%	10V
C402	1-126-009-11	ELECT	100MF	20%	16V
C403	1-124-997-11	ELECT	470MF	20%	10V
C404	1-104-280-11	POLYSTYRENE	120PF	5%	50V
C405	1-126-009-11	ELECT	100MF	20%	16V
C406	1-126-009-11	ELECT	100MF	20%	16V
C407	1-126-049-00	ELECT	22MF	20%	50V
C408	1-126-009-11	ELECT	100MF	20%	16V
C411	1-162-291-31	CERAMIC	560PF	10%	50V
C412	1-162-291-31	CERAMIC	560PF	10%	50V
C451	1-124-236-00	ELECT	47MF	20%	16V
C452	1-161-063-00	CERAMIC	0.1MF	20%	16V
C501	1-124-994-11	ELECT	100MF	20%	10V
C502	1-126-009-11	ELECT	100MF	20%	16V
C503	1-124-997-11	ELECT	470MF	20%	10V
C505	1-126-009-11	ELECT	100MF	20%	16V
C506	1-126-009-11	ELECT	100MF	20%	16V
C508	1-126-009-11	ELECT	100MF	20%	16V
C801	1-162-207-31	CERAMIC	22PF	5%	50V
C802	1-162-207-31	CERAMIC	22PF	5%	50V
C803	1-123-661-00	ELECT	100MF	20%	6.3V
C804	1-161-379-00	CERAMIC	0.01MF	20%	16V
C901	A-1-124-898-11	ELECT	4700MF	20%	16V
C902	A-1-124-898-11	ELECT	4700MF	20%	16V
C903	1-124-585-11	ELECT	3300MF	20%	10V
C904	1-124-893-11	ELECT	2200MF	20%	10V
C905	1-124-907-00	ELECT	10MF	20%	50V
C906	1-124-907-00	ELECT	10MF	20%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C907	1-124-555-00	ELECT 1000MF 20% 16V
C908	1-126-030-11	ELECT 4700MF 20% 25V
C909	1-126-030-11	ELECT 4700MF 20% 25V
C910	1-126-014-11	ELECT 2200MF 20% 16V
C911	1-126-014-11	ELECT 2200MF 20% 16V
C912	1-124-484-11	ELECT 220MF 20% 35V
C913	1-124-122-11	ELECT 100MF 20% 50V
C914	1-124-121-00	ELECT 100MF 20% 35V
C951	1-161-744-00	CERAMIC 0.01MF 400V
CNJ101	1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P
CNJ102	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P
CNJ251	1-564-336-00	PIN, CONNECTOR 2P
CNJ252	1-564-337-00	PIN, CONNECTOR 3P
CNJ253	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CNJ254	1-564-706-41	PIN, CONNECTOR (SMALL TYPE) 4P
CNJ401	1-562-999-21	JACK, PIN 2P
CNJ402	1-564-509-11	PLUG, CONNECTOR 6P
CNJ451	1-564-509-11	PLUG, CONNECTOR 6P
CNJ801	1-564-340-00	PIN, CONNECTOR 6P
CNJ802	1-564-342-11	PIN, CONNECTOR 8P
CNJ952	1-526-930-11	INLET, AC
CP451	1-233-080-11	COMPOSITION CIRCUIT BLOCK
CP551	1-233-080-11	COMPOSITION CIRCUIT BLOCK
CP801	1-233-081-11	COMPOSITION CIRCUIT BLOCK
D101	8-719-107-94	DIODE 1SS202-1
D301	8-719-107-94	DIODE 1SS202-1
D302	8-719-107-94	DIODE 1SS202-1
D303	8-719-107-94	DIODE 1SS202-1
D401	8-719-995-13	DIODE HZ5CLL
D501	8-719-995-13	DIODE HZ5CLL
D901	8-719-200-77	DIODE 10E2N
D902	8-719-200-77	DIODE 10E2N
D903	8-719-200-77	DIODE 10E2N
D904	8-719-200-77	DIODE 10E2N
D905	8-719-200-77	DIODE 10E2N
D906	8-719-200-77	DIODE 10E2N
D907	8-719-200-77	DIODE 10E2N
D908	8-719-200-77	DIODE 10E2N
D909	8-719-107-94	DIODE 1SS202-1
D910	8-719-107-94	DIODE 1SS202-1
D911	8-719-107-94	DIODE 1SS202-1
D912	8-719-107-94	DIODE 1SS202-1
D913	8-719-929-07	DIODE HZS4.3NB2
D914	8-719-107-94	DIODE 1SS202-1
D915	8-719-200-23	DIODE 11E2
D916	8-719-200-23	DIODE 11E2
D917	8-719-934-26	DIODE HZS33-2L
D918	8-719-933-57	DIODE HZS9B2L
FLD801	1-519-411-11	INDICATOR TUBE, FLUORESCENT
IC101	8-752-030-93	IC CXA1081M
IC201	8-752-031-65	IC CXA1082AQ
IC202	8-759-202-01	IC TA7256P
IC203	8-759-303-90	IC STA341M
IC204	8-759-340-53	IC HD14053BP
IC301	8-752-322-04	IC CXD1125Q

ELECTRICAL PARTS

Ref.No.	Part No.	Description
IC302	8-752-320-44	IC CXK5816M-10L
IC303	8-759-940-62	IC MSM6404A-180RS
IC304	8-759-804-47	IC LC6523H-3270
IC305	8-759-202-12	IC TC74HC02P
IC351	8-759-939-64	IC CX23034-02
IC401	8-759-938-46	IC PCM56P-JS
IC402	8-759-007-21	IC MC74HC4053N
IC403	8-759-990-82	IC TL082CP
IC451	8-759-700-40	IC NJM4560S
IC701	8-759-202-11	IC TC74HC00P
IC801	8-752-802-24	IC CXP5016H-206S
IC802	8-749-900-36	IC BX-1393
IC901	8-759-924-12	IC LM7805CT
IC902	8-759-929-64	IC LM7905CT
IC903	8-759-929-62	IC LM7812CT
IC904	8-759-929-65	IC LM7912CT
J451	1-563-485-21	JACK, LARGE TYPE
L101	1-408-563-00	MICRO INDUCTOR 10UH
LPF401	1-464-730-11	FILTER UNIT, LOW PASS
LPF501	1-464-730-11	FILTER UNIT, LOW PASS
M251	A-4608-320-A	MOTOR ASSY, L
M252	X-4917-504-1	ASSY, MOTOR (SLED)
M253	X-4917-505-1	ASSY, MOTOR (SPINDLE)
PS201	1-532-605-00	LINK, IC
PS202	1-532-605-00	LINK, IC
PS901	1-532-675-00	LINK, IC
PS902	1-532-675-00	LINK, IC
PS903	1-532-685-00	LINK, IC
PS904	1-532-685-00	LINK, IC
Q101	8-729-801-83	TRANSISTOR 2SB1013
Q201	8-729-900-89	TRANSISTOR DTC144ES
Q202	8-729-900-80	TRANSISTOR DTC114ES
Q401	8-729-107-99	TRANSISTOR 2SC3622A-K
Q501	8-729-107-99	TRANSISTOR 2SC3622A-K
Q703	8-729-900-61	TRANSISTOR DTA114ES
Q704	8-729-900-61	TRANSISTOR DTA114ES
Q901	8-729-205-95	TRANSISTOR 2SA1428Y
R101	1-214-092-00	METAL 22 1% 1/4W
R102	1-249-421-11	CARBON 2.2K 5% 1/6W
R103	1-249-428-11	CARBON 8.2K 5% 1/6W
R104	1-215-450-00	CARBON 16K 5% 1/6W
R105	1-249-405-11	CARBON 100 5% 1/6W
R106	1-249-433-11	CARBON 22K 5% 1/6W
R107	1-249-417-11	CARBON 1K 5% 1/6W
R108	1-249-441-11	CARBON 100K 5% 1/6W
R109	1-249-429-11	CARBON 10K 5% 1/6W
R110	1-249-429-11	CARBON 10K 5% 1/6W
R111	1-249-429-11	CARBON 10K 5% 1/6W
R151	1-215-396-00	CARBON 91 5% 1/6W
R201	1-249-425-11	CARBON 4.7K 5% 1/6W
R202	1-249-425-11	CARBON 4.7K 5% 1/6W
R203	1-249-437-11	CARBON 47K 5% 1/6W
R204	1-249-437-11	CARBON 47K 5% 1/6W
R205	1-249-447-11	CARBON 1 5% 1/4W
R206	1-249-385-11	CARBON 2.2 5% 1/6W

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R207	1-215-473-00	CARBON	150K	5%	1/6W
R208	1-249-441-11	CARBON	100K	5%	1/6W
R209	1-215-479-00	CARBON	270K	5%	1/6W
R210	1-249-435-11	CARBON	33K	5%	1/6W
R211	1-249-385-11	CARBON	2.2	5%	1/6W
R212	1-249-385-11	CARBON	2.2	5%	1/6W
R213	1-249-438-11	CARBON	56K	5%	1/6W
R214	1-249-424-11	CARBON	3.9K	5%	1/6W
R215	1-249-441-11	CARBON	100K	5%	1/6W
R216	1-215-486-00	CARBON	510K	5%	1/6W
R217	1-249-429-11	CARBON	10K	5%	1/6W
R218	1-249-433-11	CARBON	22K	5%	1/6W
R219	1-215-469-00	METAL	100K	1%	1/6W
R220	1-249-429-11	CARBON	10K	5%	1/6W
R221	1-215-471-00	CARBON	120K	5%	1/6W
R222	1-215-434-00	METAL	3.6K	1%	1/6W
R223	1-215-493-00	CARBON	1M	5%	1/6W
R224	1-215-452-00	CARBON	20K	5%	1/6W
R225	1-215-469-00	METAL	100K	1%	1/6W
R226	1-249-441-11	CARBON	100K	5%	1/6W
R231	1-215-485-00	CARBON	470K	5%	1/6W
R232	1-215-485-00	CARBON	470K	5%	1/6W
R251	1-215-468-00	CARBON	91K	5%	1/6W
R252	1-249-440-11	CARBON	82K	5%	1/6W
R253	1-249-440-11	CARBON	82K	5%	1/6W
R254	1-215-468-00	CARBON	91K	5%	1/6W
R255	1-249-447-11	CARBON	1	5%	1/4W
R256	1-249-393-11	CARBON	10	5%	1/6W
R262	1-249-405-11	CARBON	100	5%	1/6W
R301	1-249-441-11	CARBON	100K	5%	1/6W
R304	1-249-429-11	CARBON	10K	5%	1/6W
R306	1-249-425-11	CARBON	4.7K	5%	1/6W
R307	1-249-425-11	CARBON	4.7K	5%	1/6W
R308	1-215-477-00	CARBON	220K	5%	1/6W
R309	1-249-417-11	CARBON	1K	5%	1/6W
R311	1-249-411-11	CARBON	330	5%	1/6W
R312	1-249-411-11	CARBON	330	5%	1/6W
R313	1-249-411-11	CARBON	330	5%	1/6W
R314	1-249-411-11	CARBON	330	5%	1/6W
R315	1-249-411-11	CARBON	330	5%	1/6W
R401	1-247-713-11	CARBON	1K	1/4W	
R402	1-247-152-00	CARBON	7.5K	1/4W	
R405	1-247-712-11	CARBON	820	1/4W	
R406	1-247-712-11	CARBON	820	1/4W	
R407	1-249-462-11	CARBON	22K	1/4W	
R408	1-249-417-11	CARBON	1K	5%	1/6W
R409	1-249-469-11	CARBON	100K	1/4W	
R410	1-247-723-11	CARBON	6.8K	1/4W	
R412	1-249-441-11	CARBON	100K	5%	1/6W
R413	1-247-704-11	CARBON	220	1/4W	
R414	1-247-704-11	CARBON	220	1/4W	
R415	1-249-425-11	CARBON	4.7K	5%	1/6W
R451	1-249-417-11	CARBON	1K	5%	1/6W
R452	1-249-405-11	CARBON	100	5%	1/6W
R501	1-247-713-11	CARBON	1K	1/4W	
R510	1-247-723-11	CARBON	6.8K	1/4W	
R801	1-249-429-11	CARBON	10K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R802	1-249-429-11	CARBON	10K	5%	1/6W
R803	1-249-429-11	CARBON	10K	5%	1/6W
R804	1-249-429-11	CARBON	10K	5%	1/6W
R805	1-249-429-11	CARBON	10K	5%	1/6W
R806	1-249-429-11	CARBON	10K	5%	1/6W
R807	1-249-429-11	CARBON	10K	5%	1/6W
R808	1-249-429-11	CARBON	10K	5%	1/6W
R809	1-249-429-11	CARBON	10K	5%	1/6W
R810	1-249-429-11	CARBON	10K	5%	1/6W
R901	1-249-417-11	CARBON	1K	5%	1/6W
R902	1-249-441-11	CARBON	100K	5%	1/6W
R903	1-247-799-00	CARBON	47	5%	1/6W
R904	1-247-829-11	CARBON	820	5%	1/6W
R905	1-249-393-11	CARBON	10	5%	1/6W
R906	1-249-421-11	CARBON	2.2K	5%	1/6W
R907	1-249-429-11	CARBON	10K	5%	1/6W
R911	1-249-437-11	CARBON	47K	5%	1/6W
R912	1-215-481-00	CARBON	330K	5%	1/6W
RV101	1-237-194-11	RES, ADJ, CARBON 20K (E-F BALANCE)			
RV102	1-237-192-11	RES, ADJ, CARBON 5K (FOCUS BIAS)			
RV201	1-237-194-11	RES, ADJ, CARBON 20K (FOCUS GAIN)			
RV202	1-237-194-11	RES, ADJ, CARBON 20K (TRACKING GAIN)			
RV203	1-228-990-00	RES, ADJ, METAL GLAZE 1K (RF PLL)			
RV451	1-237-438-11	RES, VAR, CARBON 20K/20K (HEADPHONES LEVEL)			
S251	1-570-203-11	SWITCH, LEAF			
S252	1-570-822-11	SWITCH, LEAF			
S801	1-554-303-21	SWITCH, KEY BOARD (1)			
S802	1-554-303-21	SWITCH, KEY BOARD (2)			
S803	1-554-303-21	SWITCH, KEY BOARD (3)			
S804	1-554-303-21	SWITCH, KEY BOARD (4)			
S805	1-554-303-21	SWITCH, KEY BOARD (5)			
S806	1-554-303-21	SWITCH, KEY BOARD (6)			
S807	1-554-303-21	SWITCH, KEY BOARD (7)			
S808	1-554-303-21	SWITCH, KEY BOARD (8)			
S809	1-554-303-21	SWITCH, KEY BOARD (9)			
S810	1-554-303-21	SWITCH, KEY BOARD (10)			
S811	1-554-303-21	SWITCH, KEY BOARD (11)			
S812	1-554-303-21	SWITCH, KEY BOARD (12)			
S813	1-554-303-21	SWITCH, KEY BOARD (13)			
S814	1-554-303-21	SWITCH, KEY BOARD (14)			
S815	1-554-303-21	SWITCH, KEY BOARD (15)			
S816	1-554-303-21	SWITCH, KEY BOARD (16)			
S817	1-554-303-21	SWITCH, KEY BOARD (17)			
S818	1-554-303-21	SWITCH, KEY BOARD (18)			
S819	1-554-303-21	SWITCH, KEY BOARD (19)			
S820	1-554-303-21	SWITCH, KEY BOARD (20)			
S821	1-554-303-21	SWITCH, KEY BOARD (+10)			
S822	1-554-303-21	SWITCH, KEY BOARD (0)			
S823	1-554-303-21	SWITCH, KEY BOARD (CHECK)			
S824	1-554-303-21	SWITCH, KEY BOARD (CLEAR)			
S825	1-554-303-21	SWITCH, KEY BOARD (AMS)(PREV)			
S826	1-554-303-21	SWITCH, KEY BOARD (AMS)(NEXT)			
S827	1-554-303-21	SWITCH, KEY BOARD (FR)			
S828	1-554-303-21	SWITCH, KEY BOARD (PLAY)			
S829	1-554-303-21	SWITCH, KEY BOARD (PAUSE)			
S830	1-554-303-21	SWITCH, KEY BOARD (STOP)			

ELECTRICAL PARTS

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>
S831	1-554-303-21	SWITCH, KEY BOARD (PROGRAM)
S832	1-554-303-21	SWITCH, KEY BOARD (FF)
S833	1-554-303-21	SWITCH, KEY BOARD (OPEN,CLOSE)
S834	1-554-303-21	SWITCH, KEY BOARD (DISPLAY TIME/NEXT)
S835	1-554-303-21	SWITCH, KEY BOARD (SHUFFLE)
S836	1-554-303-21	SWITCH, KEY BOARD (REPEAT 1/ALL)
S837	1-554-303-21	SWITCH, KEY BOARD (AUTO SPACE)
S951	A 1-553-318-00	SWITCH, PUSH (AC POWER)(1 KEY)
T901	A 1-448-828-11	TRANSFORMER, POWER
TB901	*1-535-121-00	TERMINAL
X301	1-567-686-11	OSCILLATOR, CERAMIC
X351	1-567-741-11	VIBRATOR, CRYSTAL
X801	1-567-192-11	OSCILLATOR, CERAMIC

ACCESSORY & PACKING MATERIAL

<u>Part No.</u>	<u>Description</u>
1-463-817-11	REMOTE COMMANDER (RM-D350A)
1-558-787-11	CORD, CONNECTION
A 1-558-834-11	CORD, POWER
3-304-973-00	SHEET, PROTECTION
3-701-630-00	BAG, POLYETHYLENE
3-703-390-01	INSTRUCTION
3-765-893-21	MANUAL, INSTRUCTION
3-765-893-31	(Canadian)...MANUAL, INSTRUCTION
4-912-944-01	CUSHION
4-913-941-01	HOLDER, COMMANDER
4-913-951-00	SHEET, PROTECTION
4-917-494-01	LID BATTERY CASE (FOR RM-D350A)
4-918-115-21	(US).....INDIVIDUAL CARTON
4-918-115-31	(Canadian)...INDIVIDUAL CARTON

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TROUBLESHOOTING

The following checks will assist in the correction of most problems which you may encounter with your unit. Before going through the check list below, first refer back to the connection and operating procedures.

Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Symptom	Cause	Countermeasures
Play does not begin.	The disc is incorrectly inserted.	Insert the disc correctly.
	The disc is extremely dirty.	Clean the disc.
	The disc is inserted upside down.	Insert the disc correctly.
	The button has been pressed.	Press the button again to release pause.
	Moisture condensation.	Leave the player turned on for about an hour.
No audio from one or both channels.	Incorrect connections.	Connect properly.