

DX-500

AIWA®S/M Code No. 87-011
DATE OF ISSUE 6/1987-F

SERVICE MANUAL

MODEL NO. DX-500

■ COMPACT DISC PLAYER

■ TYPE H. U. E. K

Free service manuals
Gratis schema's

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MODEL NO. DX-700

■ COMPACT DISC PLAYER

■ TYPE Y. YU



SPECIFICATIONS

AUDIO

Number of channels	2
Frequency response	20-20,000Hz ± 2dB
Signal-to-noise ratio	90dB
Harmonic distortion	0.008% (at 1kHz)
Separation	82dB (at 1kHz)
Wow/flutter	Unmeasurable

DISC USED

Playing time	Compact Disc Up to 75 minutes
Diameter	120mm

SIGNAL FORMAT

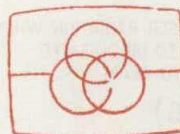
Sampling frequency	44.1kHz
Quantization number	16-bit linear/channel
Transmission bit rate	4.3218 Mb/sec.

PICK UP

System	Object lens drive system-optical pick-up
Object lens drive system	2-dimensional parallel drive
Optical source	Semiconductor laser
Wavelength	780 nm

GENERAL

Power requirements	DX-500H AC 110-120V/220-240V, 50/60Hz DX-500U AC 120V, 60Hz DX-500E AC 220V, 50/60Hz DX-500K AC 240V, 50/60Hz
Power consumption	12W
Dimensions (W×H×D)	13-1/16"×3-7/16"×12-1/32" 331×87×305mm

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- Design and specifications are subject to change without notice.

AIWA Co., Ltd.

Tokyo Japan

■ TO SERVICE PERSONNEL

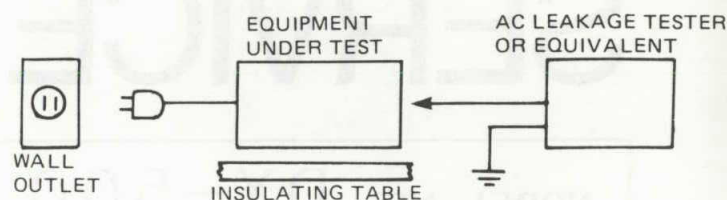
1. Critical Components Information.

Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.

2. Leakage Current Measurement (For 120V Model Only).

When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.

- Meter impedance should be equivalent to 1500 ohm shunted by $0.15\mu\text{F}$.
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



● CAUTION

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED IN THE MANUAL MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

WARNING

TO PREVENT FIRE OR SHOCK HAZARD.
DO NOT EXPOSE THIS APPLIANCE TO RAIN
OR MOISTURE

WARNING LABEL - HAZARD SYMBOL

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSAF- BRYDER ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.  (for E,K,Z,G,)
DANGER: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. AVOID DIRECT EXPOSURE TO BEAM. (for U,C)
Location: Adhesive label on the laser mechanism inside unit.

**"CLASS 1 LASER
PRODUCT"**

(for E,K,Z,G,)

PERFORMANCE SPECIFICATIONS

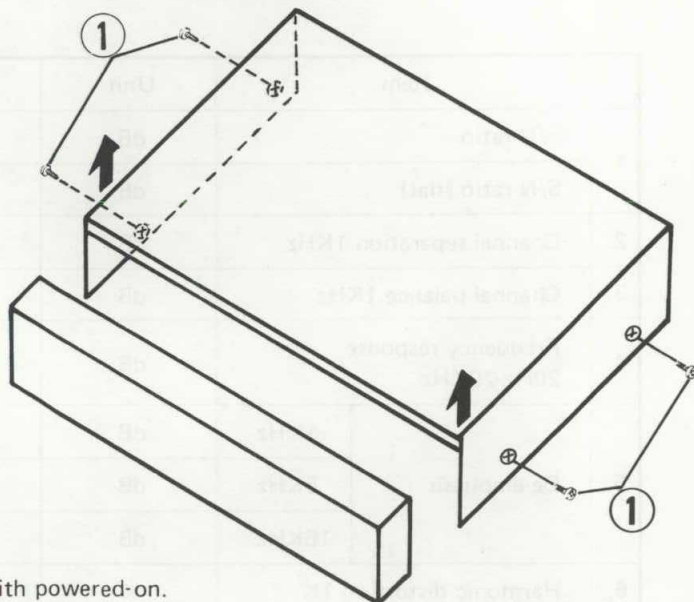
	Item		Unit	Nominal	Limit	Condition
1.	S/N ratio		dB	90	80	JIS-A
	S/N ratio (flat)		dB	85	75	Flat
2.	Channel separation 1KHz		dB	82	72	BPF
3.	Channel balance 1KHz		dB	—	<2	
4.	Frequency response 20Hz-20KHz		dB	±2	±3	0dB = 1KHz
5.	De-emphasis	1KHz	dB	−0.37	±1	
		5KHz	dB	−4.53	±2.5	
		16KHz	dB	−9.04	±2.5	
6.	Harmonic distortion 1K		%	0.01	0.03	
7.	Output voltage 1KHz		V	2.0	0.4	
8.	FF/FB mute level		dB	−12	—	
9.	Wow & flutter		%	—	—	

- Test disc : SONY YEDS-7 disc or equivalent.
- Power requirements : DX-500H AC 110-120V/220-240V ±2%, 50/60Hz
: DX-500U AC 120V ±2%, 60Hz
: DX-500E AC 220V ±2%, 50/60Hz
: DX-500K AC 240V ±2%, 50/60Hz
- All items are measured without pre-emphasis unless otherwise specified.

DISASSEMBLY INSTRUCTIONS

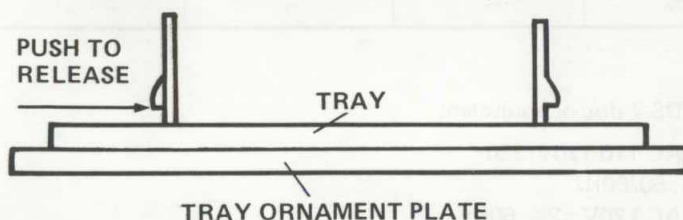
1. TOP COVER REMOVAL

Remove Screws ① (4 pcs) from the TOP COVER and lift it up (in the direction of the arrow).



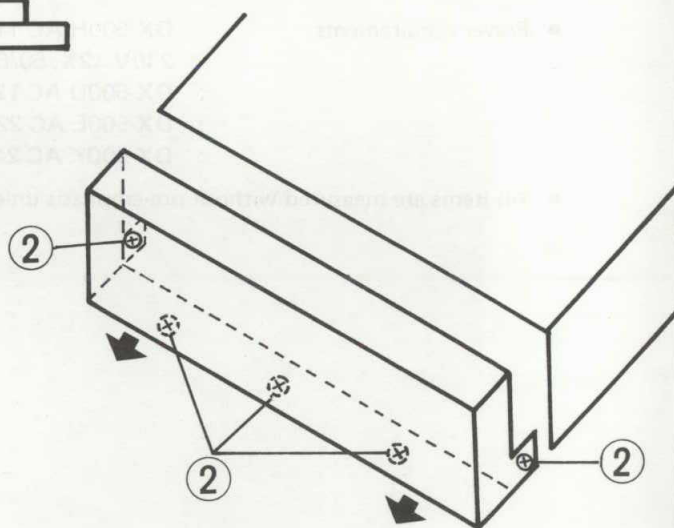
2. TRAY PANEL REMOVAL

- (1) Open the tray by pressing the open/close button with powered-on.
- (2) Turn unit over and put it on a soft cloth.
- (3) Push plastic tab to inner side and pull TRAY PANEL out.
- (4) Repeat step (3) for releasing the other side of plastic tab.



3. FRONT PANEL REMOVAL

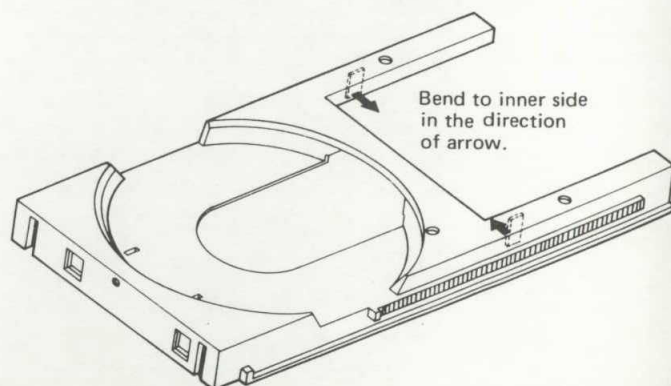
- (1) Following procedures of TOP COVER REMOVAL and TOP PANEL REMOVAL.
- (2) Remove screws ② (5 pcs) from the FRONT PANEL.
- (3) Pull FRONT PANEL out. (in the direction of arrow).



4. DISC TRAY REMOVAL

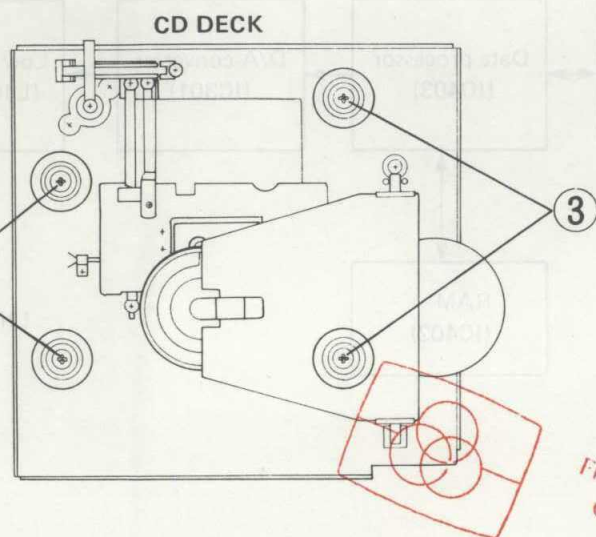
- (1) Following procedures of TOP COVER REMOVAL.
- (2) Open the tray by pressing the open/close button with powered-on.
- (3) Bend one plastic tab to inner side softly as to be released from the stopper and pull tray out.
- (4) Repeat step (3) for releasing the other side of plastic tab.

Note: Be sure not to bend each tab strongly because it will be easy to break off.



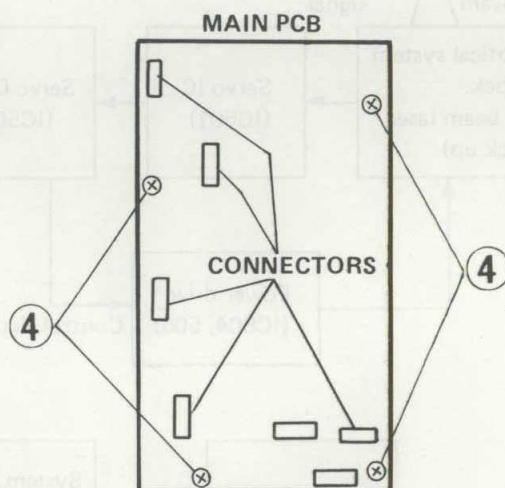
5. CD DECK PORTION REMOVAL

- (1) Following procedures of TOP COVER REMOVAL and DISC TRAY REMOVAL.
- (2) Remove screw ③ (4 pcs) from the CD DECK.
- (3) Remove Connector (4 pcs) from the MAIN PCB.
- (4) Pull CD DECK out carefully.



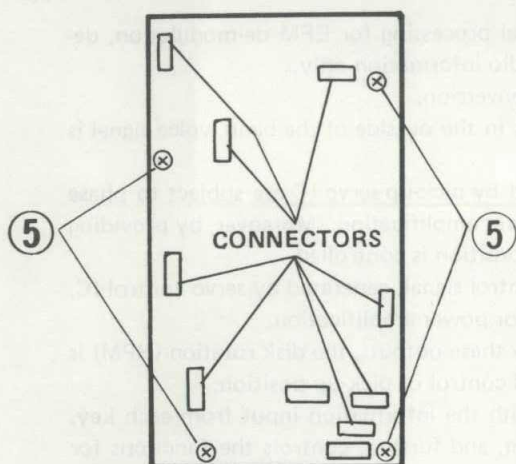
6-1. MAIN PCB REMOVAL (DX500 only)

- (1) Following procedure of TOP COVER REMOVAL.
- (2) Remove screw ④ (4 pcs) and connectors.
- (3) Pull MAIN PCB out carefully.



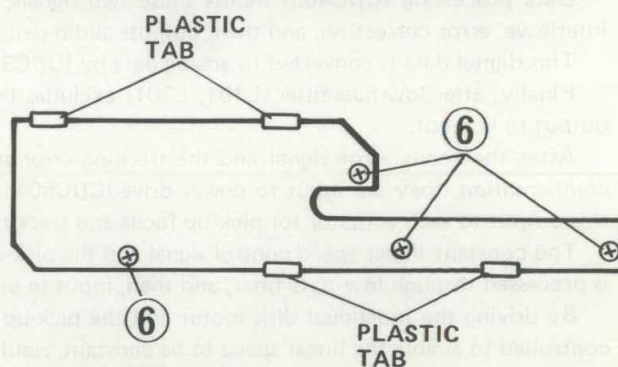
6-2. MAIN PCB REMOVAL (DX700 only)

- (1) Following procedure of TOP COVER REMOVAL.
- (2) Remove screw ⑤ (4 pcs) and connectors.
- (3) Pull MAIN PCB out carefully.



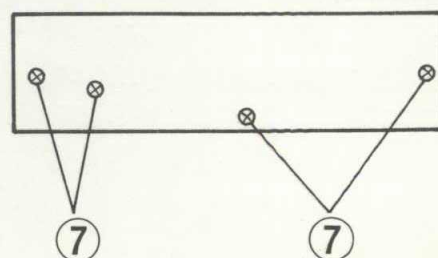
7. CONTROL PCB REMOVAL

- (1) Following procedure of TOP COVER REMOVAL.
- (2) Remove screws ⑥ (4 pcs) from the CONTROL PCB.
- (3) Release plastic tab (4 pcs) and pull CONTROL PCB out carefully.

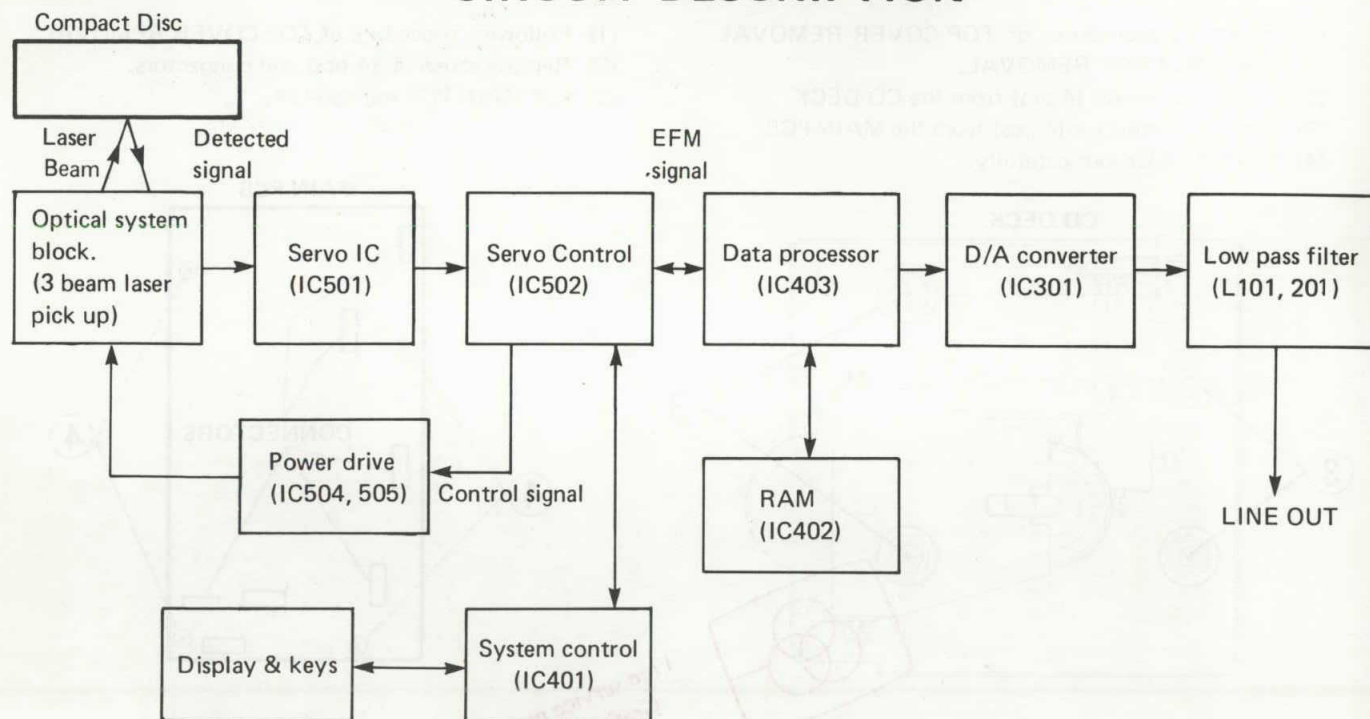


8. REAR PANEL REMOVAL

- (1) Following procedure of TOP COVER REMOVAL.
- (2) Remove screws ⑦ (4 pcs) and pull REAR PANEL out.



CIRCUIT DESCRIPTION



The system configuration of this CD player is shown in the above figure. The general description of the operation in the state of play for this system is represented as follows;

At first, the signal, detected from the disk with a three-beam laser pick-up is input to pick-up servo IC (IC501), wherein, analog addition/subtractions processing is executed to output EFM (Eight to Fourteen Modulation) signal containing audio information along with synchronous clock, focus error signal, and tracking error signal. Then, servo control IC (IC502) inputs EFM signal so as to output data for phase corrections. Further, it outputs synchronous clock extracted from EFM signal.

Data processing IC (IC403) inputs these two signals, executes digital processing for EFM de-modulation, de-interleave, error correction, and then, outputs audio data containing audio information only.

This digital data is converted to analog data by IC (IC301) for D/A conversion.

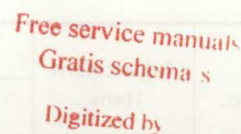
Finally, after low-pass filter (L101, L201) excludes the components in the outside of the band, voice signal is output to line-out.

After the focus error signal and the tracking error signal, generated by pick-up servo IC are subject to phase compensation, they are input to power drive IC (IC504, IC505) for power amplification. Moreover, by providing this output to each actuator for pick-up focus and tracking, laser beam position is controlled.

The constant linear speed control signal and the pick-up position control signal, generated by servo control IC, is processed through low-pass filter, and then, input to power drive IC for power amplification.

By driving the individual disk motor and the pick-up feed motor by these outputs, the disk rotation (RPM) is controlled to enable the linear speed to be constant, resulting in ensured control of pick-up position.

Meanwhile, IC401, being of system control, controls CD player with the information input from each key. In other words, it processes open/close of tray and melody detection, and further, controls the functions for forward/reverse quick feed motion, play/pause, single melody/all melodies repeated performance, and programmable performance. In addition, at this time, CD player status and track/in-process time are indicated on the display.

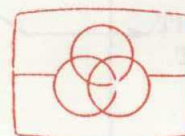


ADJUSTMENT PROCEDURE

No.	Adjustment Item	Test Point		Adjust point	Adjustment	Measuring instrument, jig, etc.
		Input	Output		Adjust method	
1	FOCUS DC OFFSET ADJ.	TEST DISC (YEDS-1)	TP3 (VREF) TP10 (FEI)	SR503	(1) Set the Test Disc with powered-on and put unit in STOP state. (2) Observe output voltage of TP10 with oscilloscope, and adjust SR503 so that the center value of waveform will be -50mV against Vref.	○ 40 MHz Oscilloscope ○ Connection: HOT pin to TP10. GND pin to TP3.
2	EF BALANCE ADJ.	TEST DISC (YEDS-1)	TP3 (VREF) TP2 (E:TSO)	SR501	(1) Play Test Disc YEDS-1. (2) Observe a waveform at TP2 with oscilloscope, adjust SR501 to make "+" and "-" waveforms symmetrical (Waveform center at Vref.) (Refer to Fig. 1)	○ 40 MHz Oscilloscope ○ Connection: HOT pin to TP2. GND pin to TP3.
3	FOCUS SERVO GAIN ADJ.	[Focus/Tracking-Gain Adjustment] A servo-analyzer is required for accurate adjustment. However, there will be no problem in normal operation even in case of a minor drift from precise adjustment because the gain has an allowable margin. Therefore, do not apply this adjustment. The Focus/Tracking-gain determines the tracking property of the pickup against the mechanical noise and mechanical shock during the operation.				
4	TRACKING SERVO GAIN ADJ.	However, since these two conflict with each other, the tracking gain is adjusted at a point where both conditions will be satisfied. If the gain is not adjusted properly, the symptoms given below will arise. *When the gain is raised, the noise during the operation will increase. *When the gain is lowered, it will become weak against mechanical shock and track jumping will more likely to occur.				

* If the focus servo gain and tracking servo gain adjustment is required, see the service manual of DX-770 and follow its adjustment procedure.

EQUIPMENT CONNECTIONS



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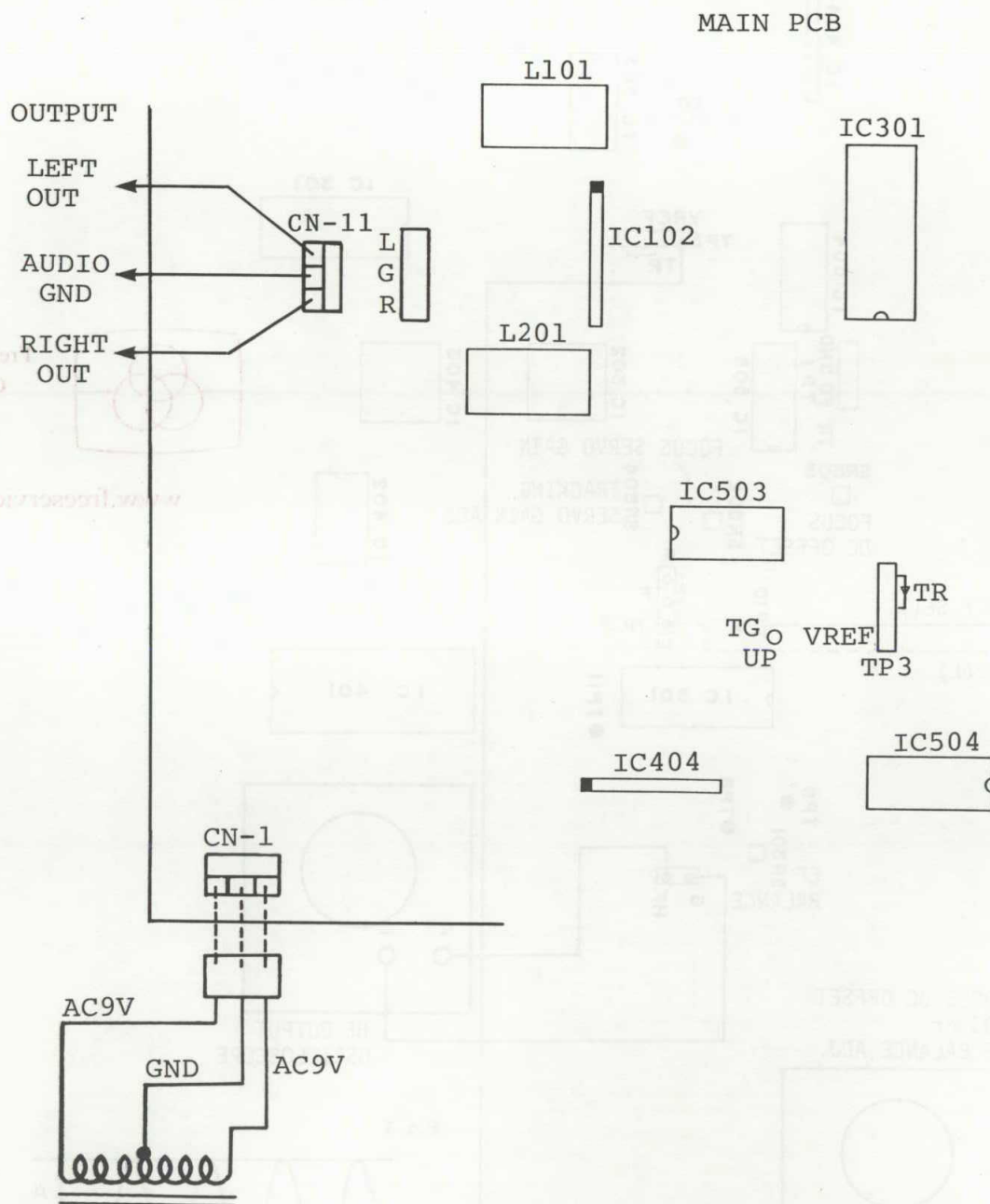
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NOTICE WHEN SERVICING

SERVICE POWER SUPPLY (for DX700)

CD-700 has no power supply itself by A.C. mains.

When servicing, use CX-770 or connect the regulated A.C. power supply as shown below.



PRECAUTIONS FOR CHECKING BEAM EMISSION OF LASER DIODE

The laser beam of this unit is focused on the reflecting surface of the objective lens in the optical system block. Therefore, keep your eyes at least 30cm away from the objective lens when the laser diode is ON.

[Operation Check Method for Laser Diode and Focus Search Function]

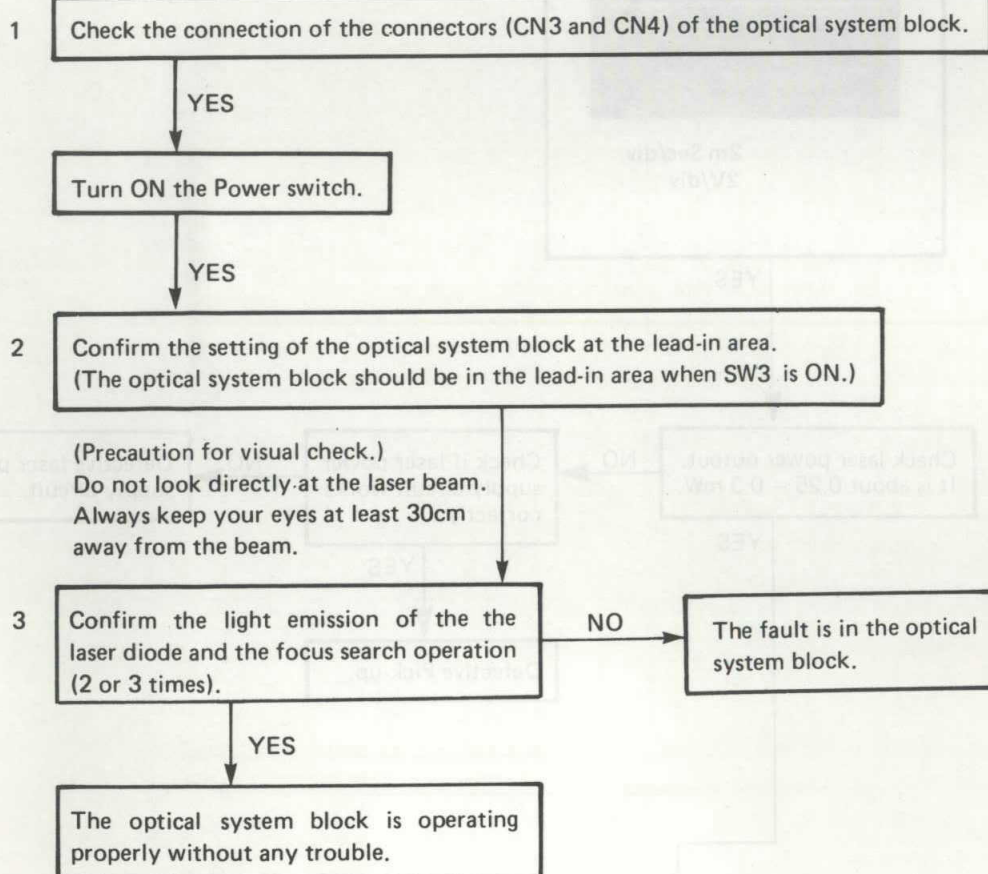
When the POWER switch is turned ON after the chucking arm is removed, observe the objective lens and confirm that the following operations are performed properly.

(The optical system block should be at the lead-in area position when it is checked at this time.)

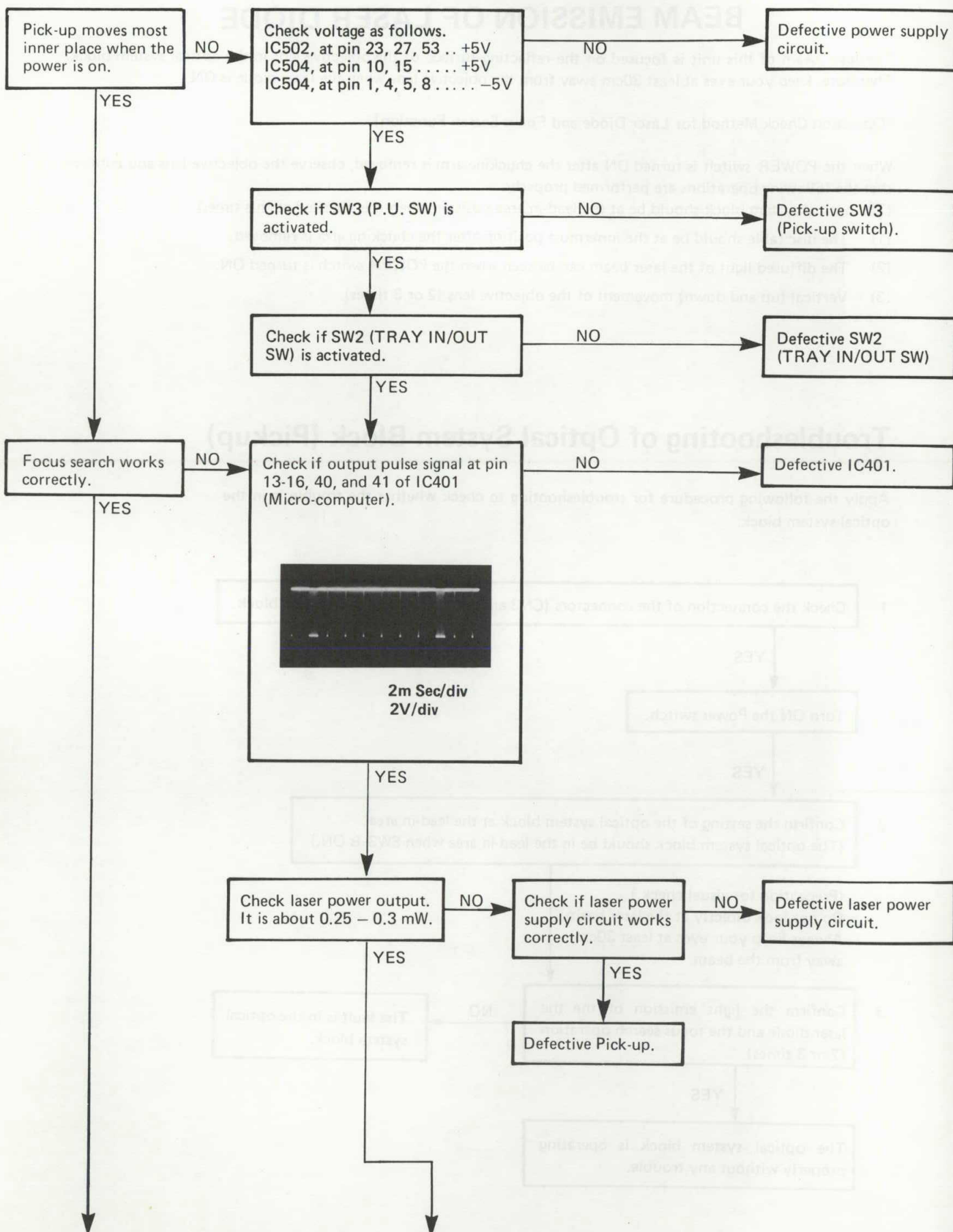
- (1) The disc table should be at the innermost position after the chucking arm is removed.
- (2) The diffused light of the laser beam can be seen when the POWER switch is turned ON.
- (3) Vertical (up and down) movement of the objective lens (2 or 3 times).

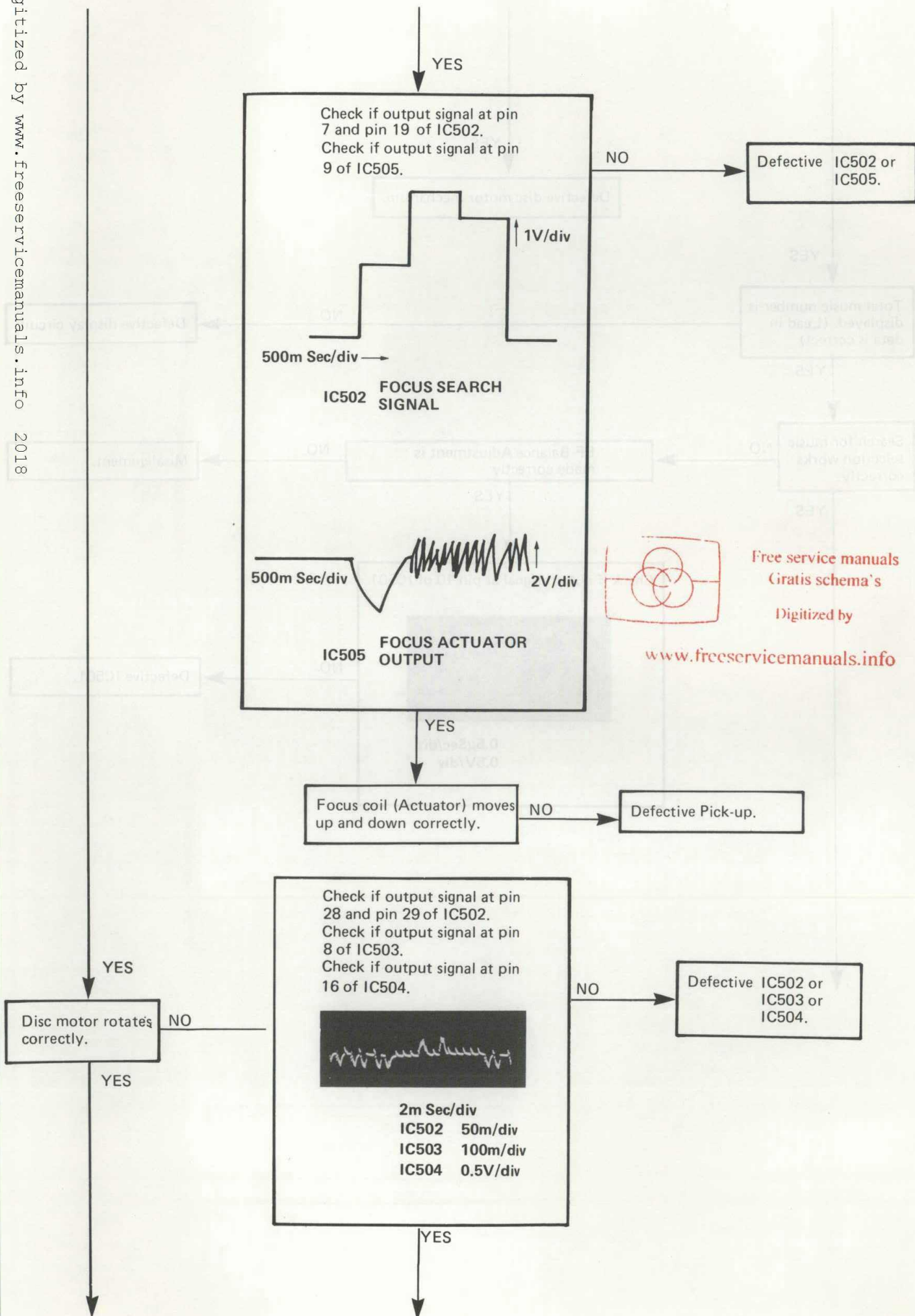
Troubleshooting of Optical System Block (Pickup)

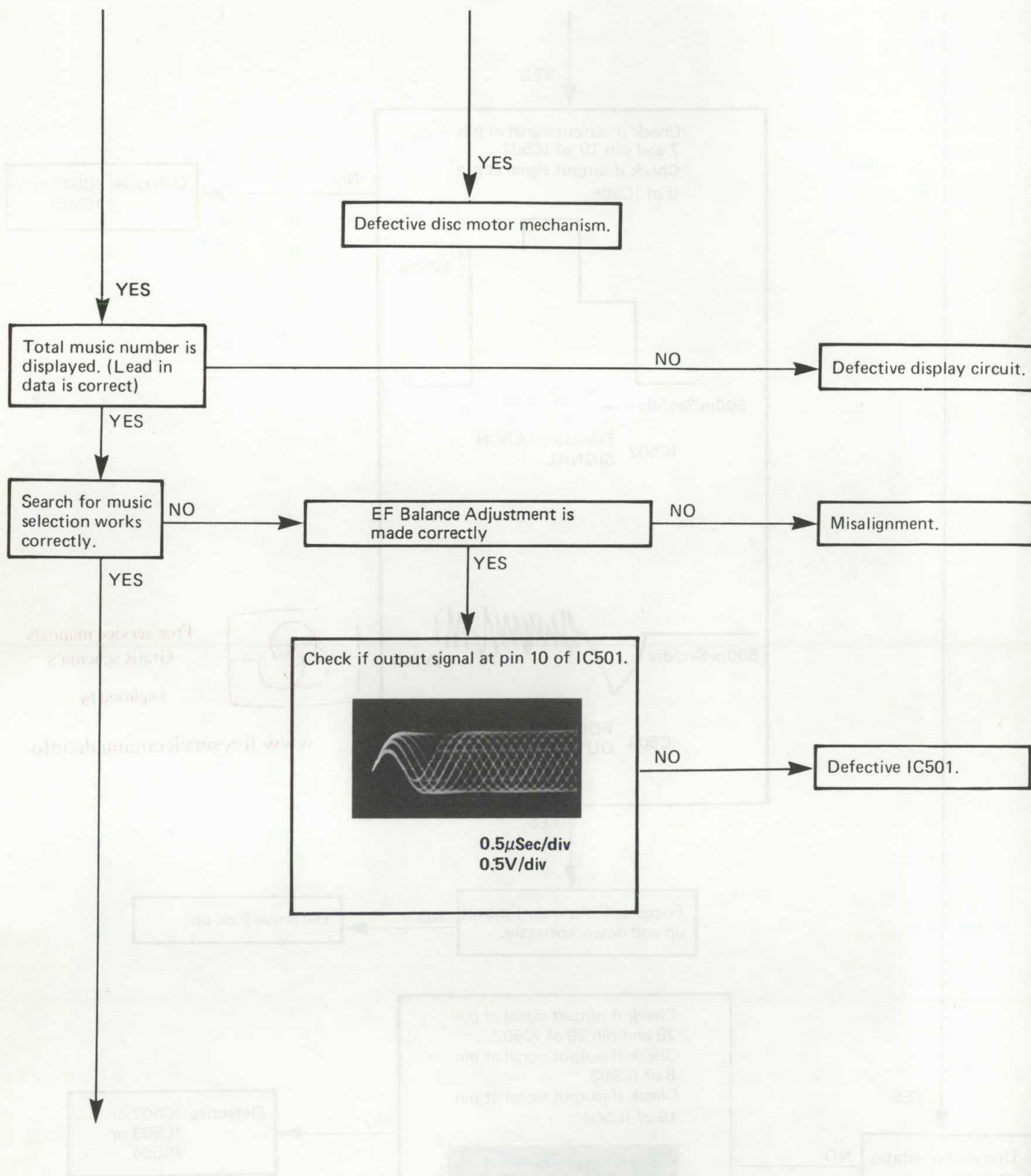
Apply the following procedure for troubleshooting to check whether the trouble is in the optical system block.



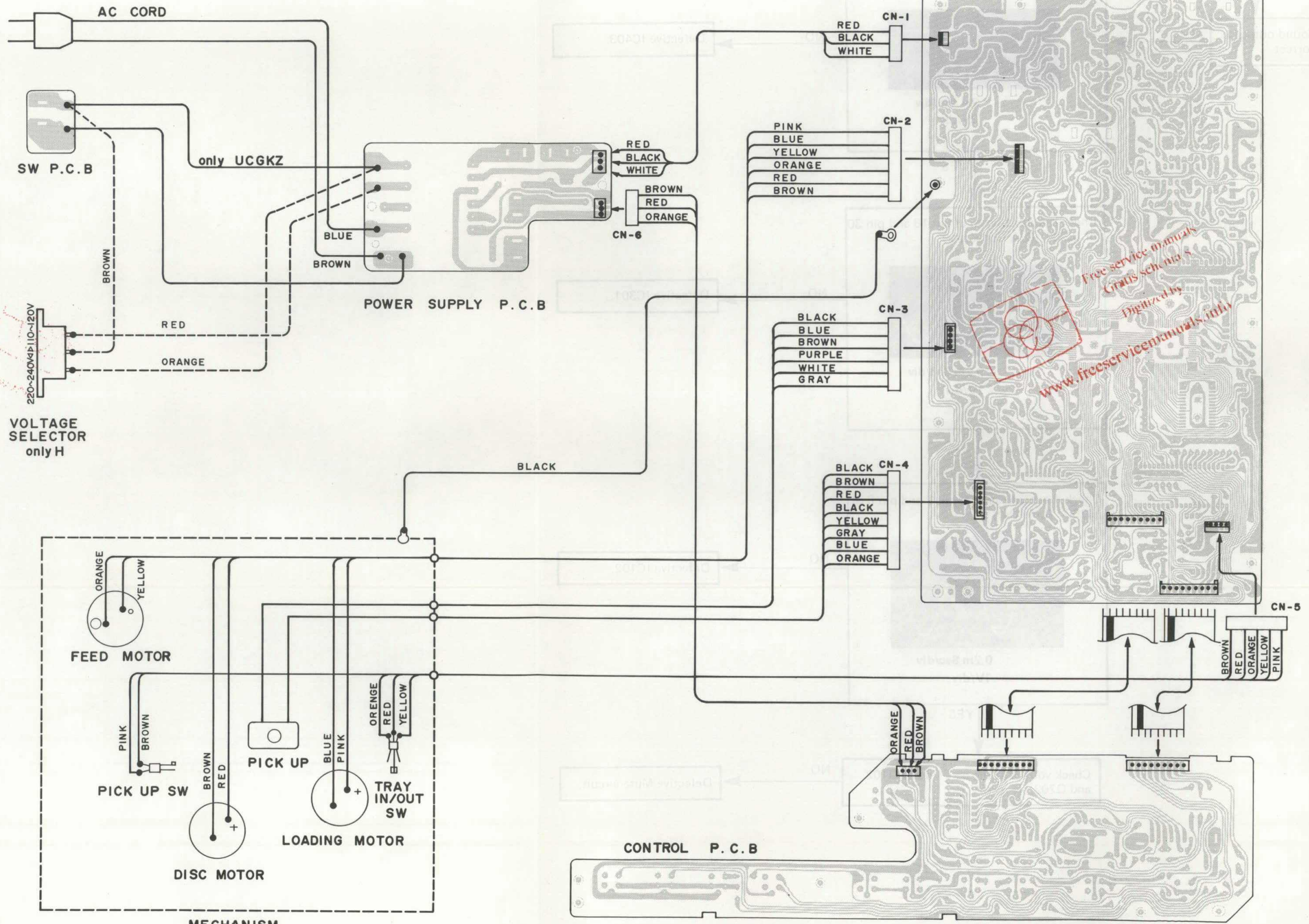
TROUBLE SHOOTING GUIDES

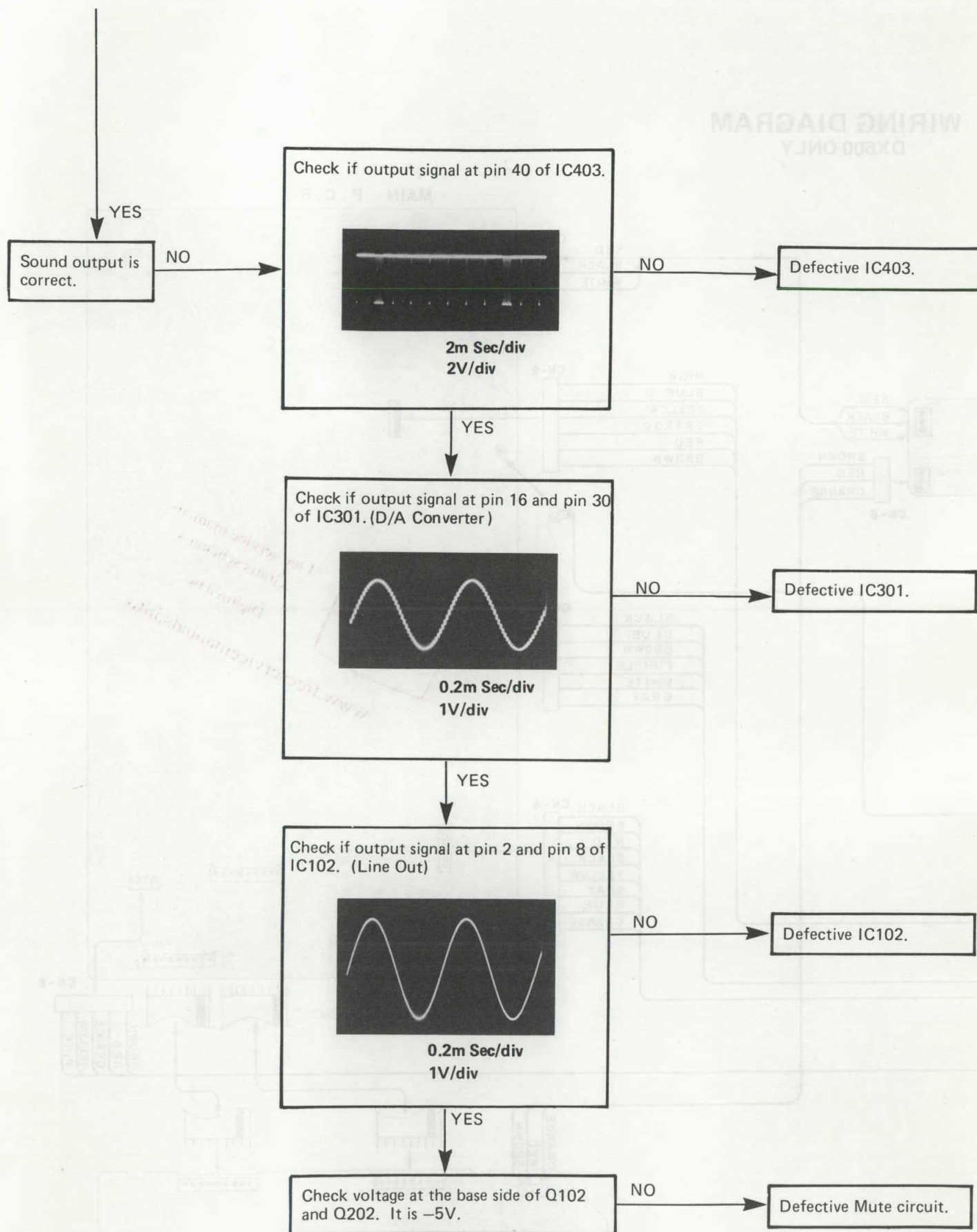




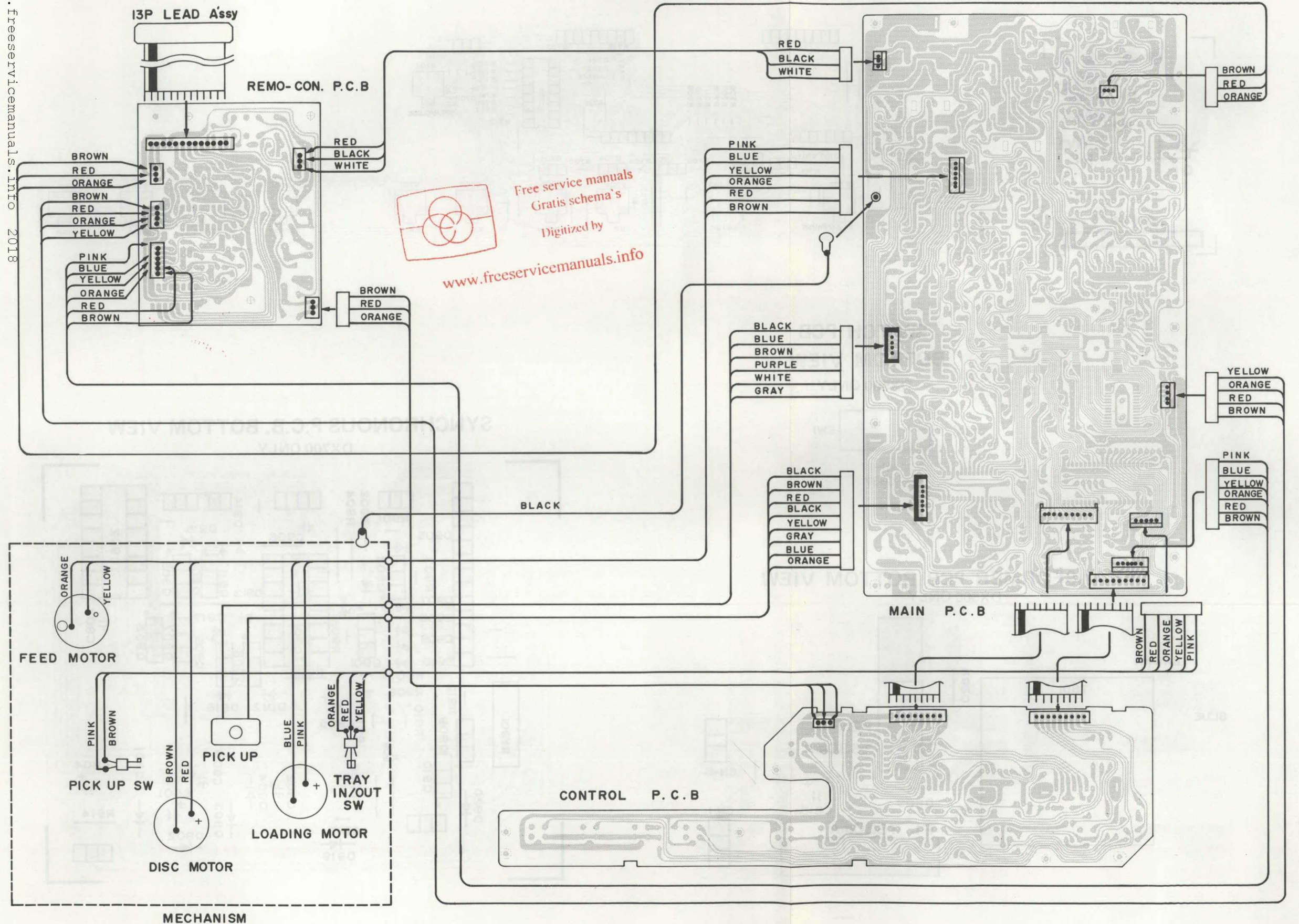


WIRING DIAGRAM DX500 ONLY

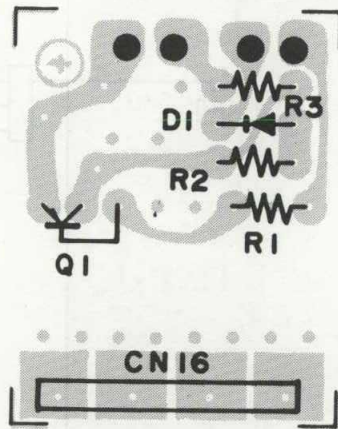




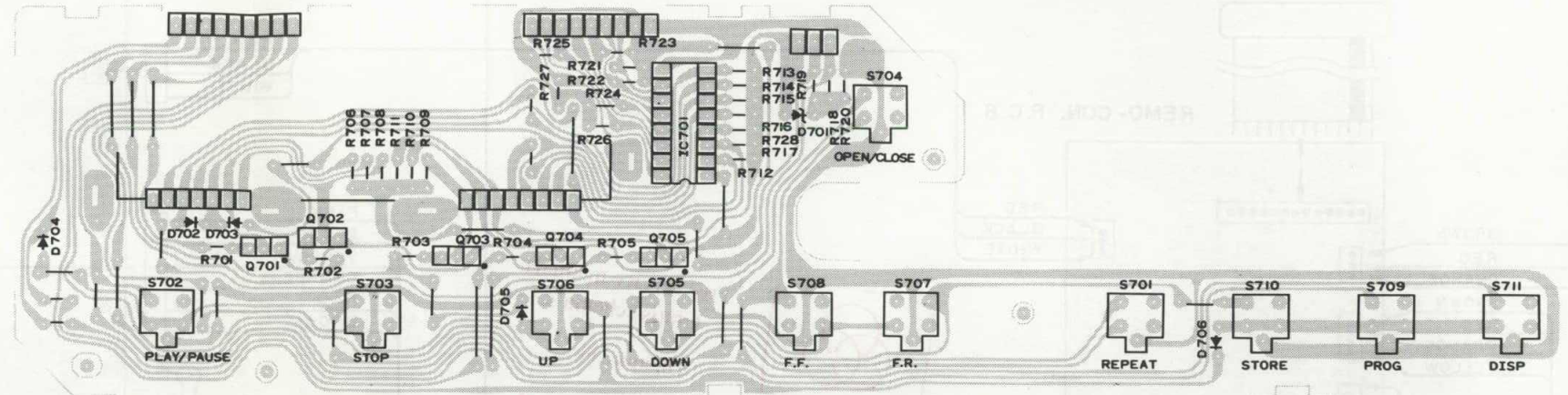
WIRING DIAGRAM DX700 ONLY



SUBSIDIARY PCB
BOTTOM VIEW

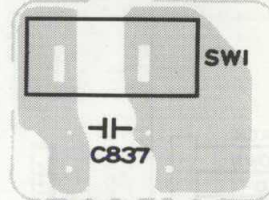


CONTROL P.C.B. BOTTOM VIEW

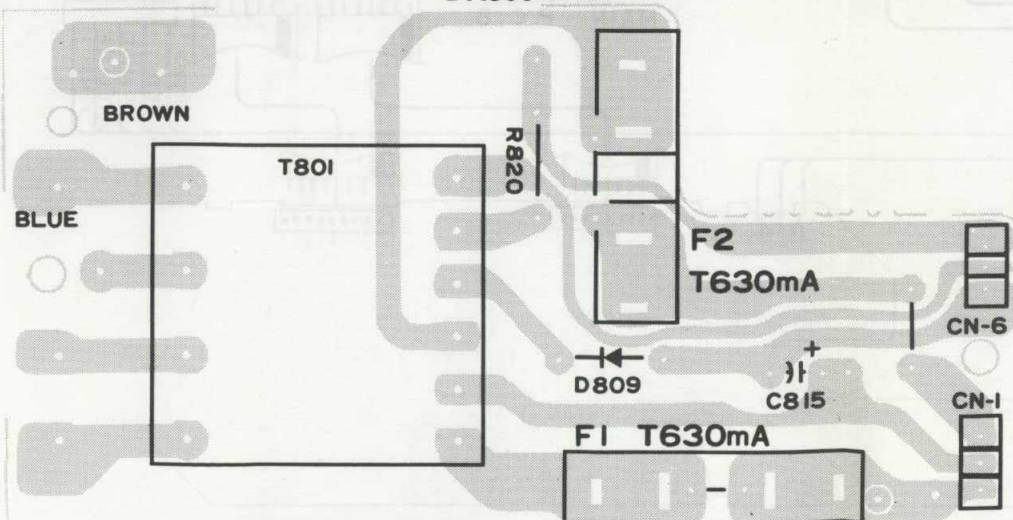


SWITCH PCB
BOTTOM VIEW

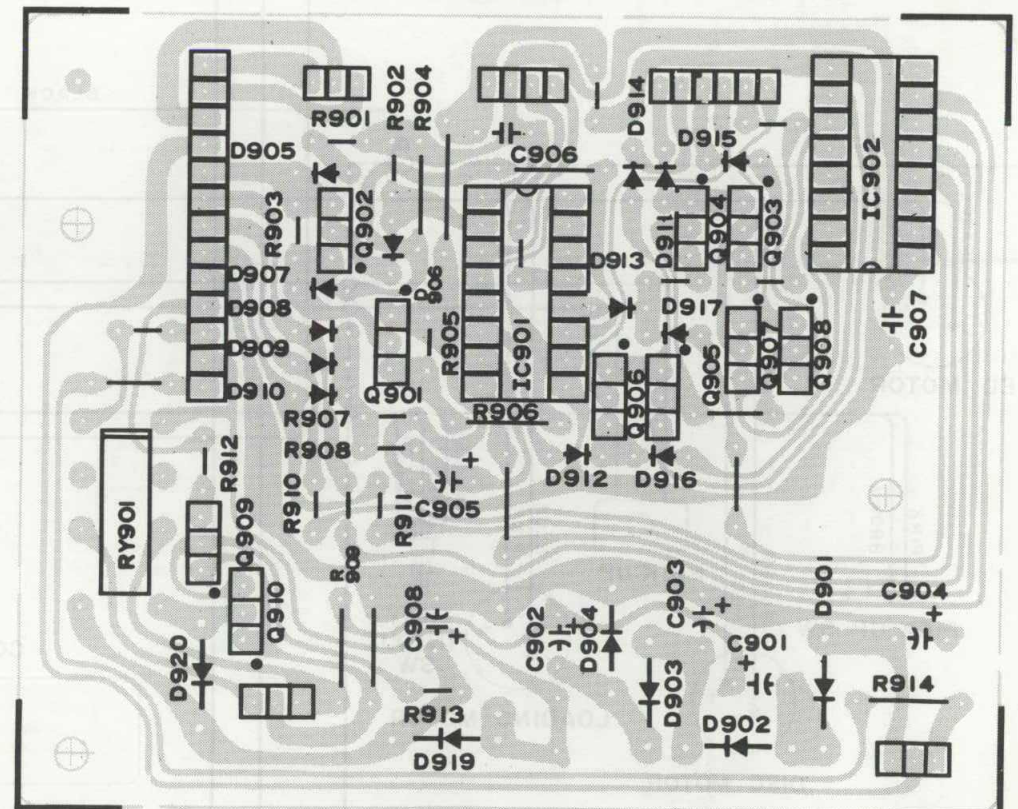
DX500 ONLY



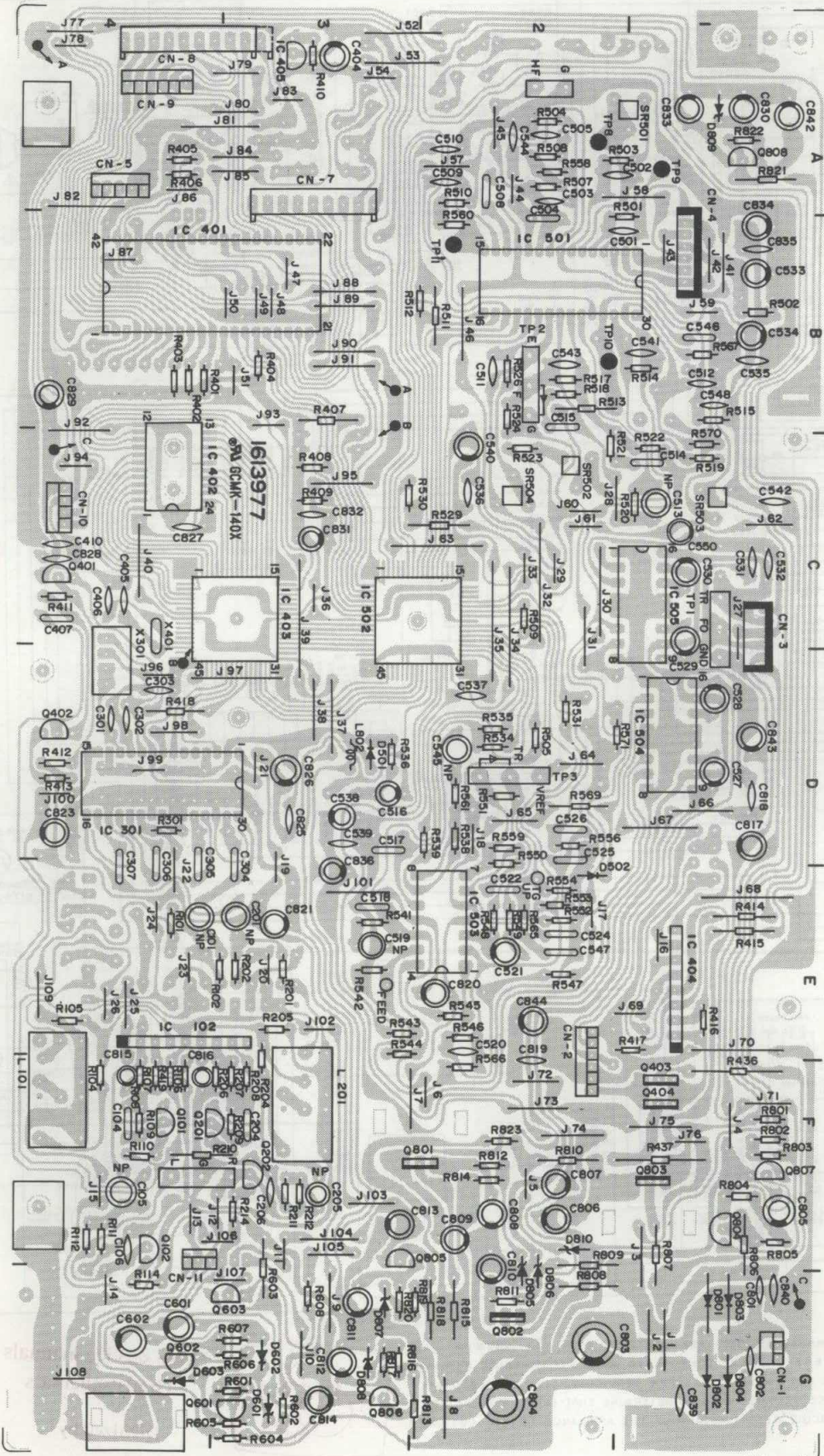
TRANSFORMER PCB BOTTOM VIEW
DX500 ONLY



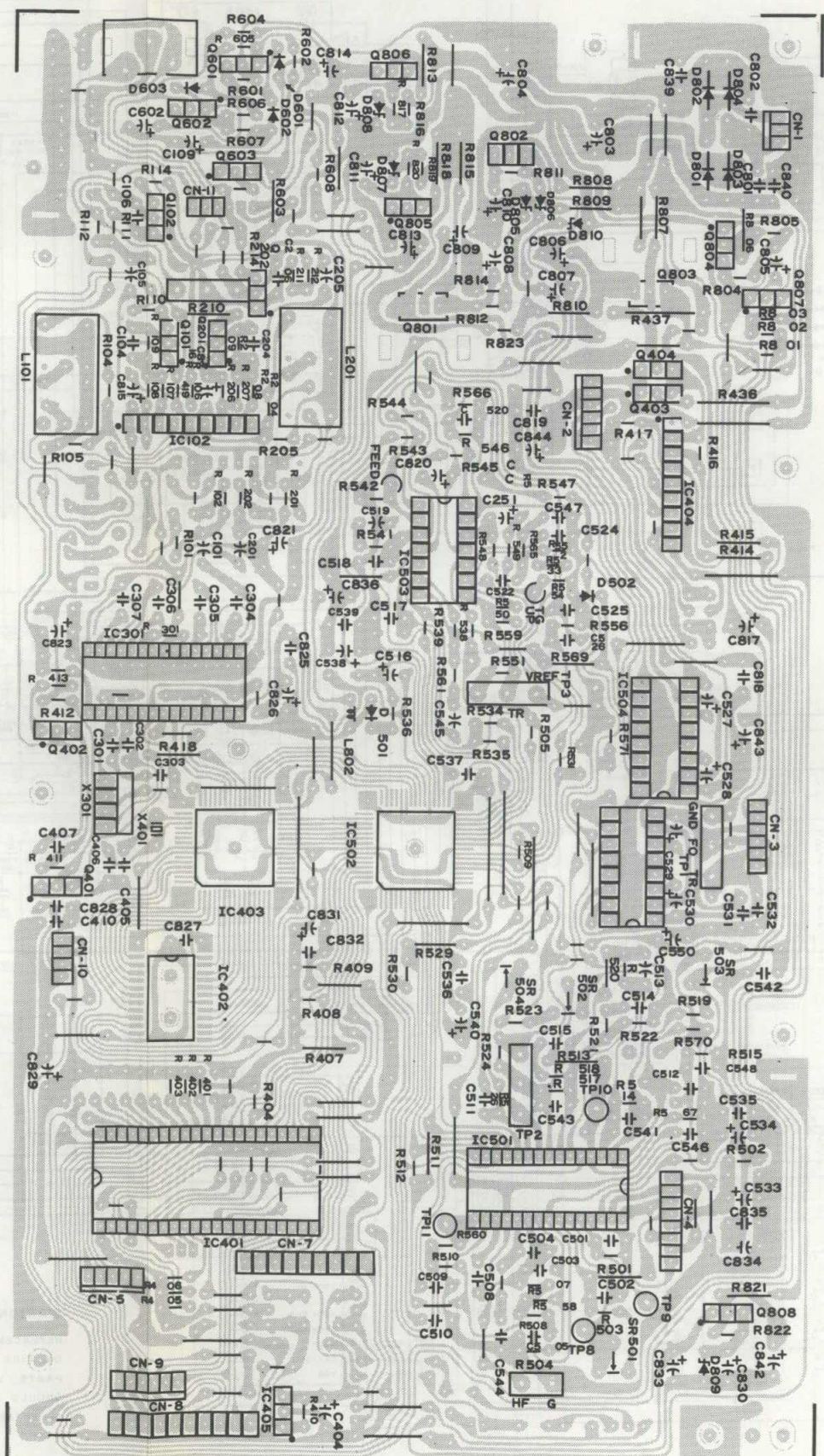
SYNCHRONOUS P.C.B. BOTTOM VIEW
DX700 ONLY



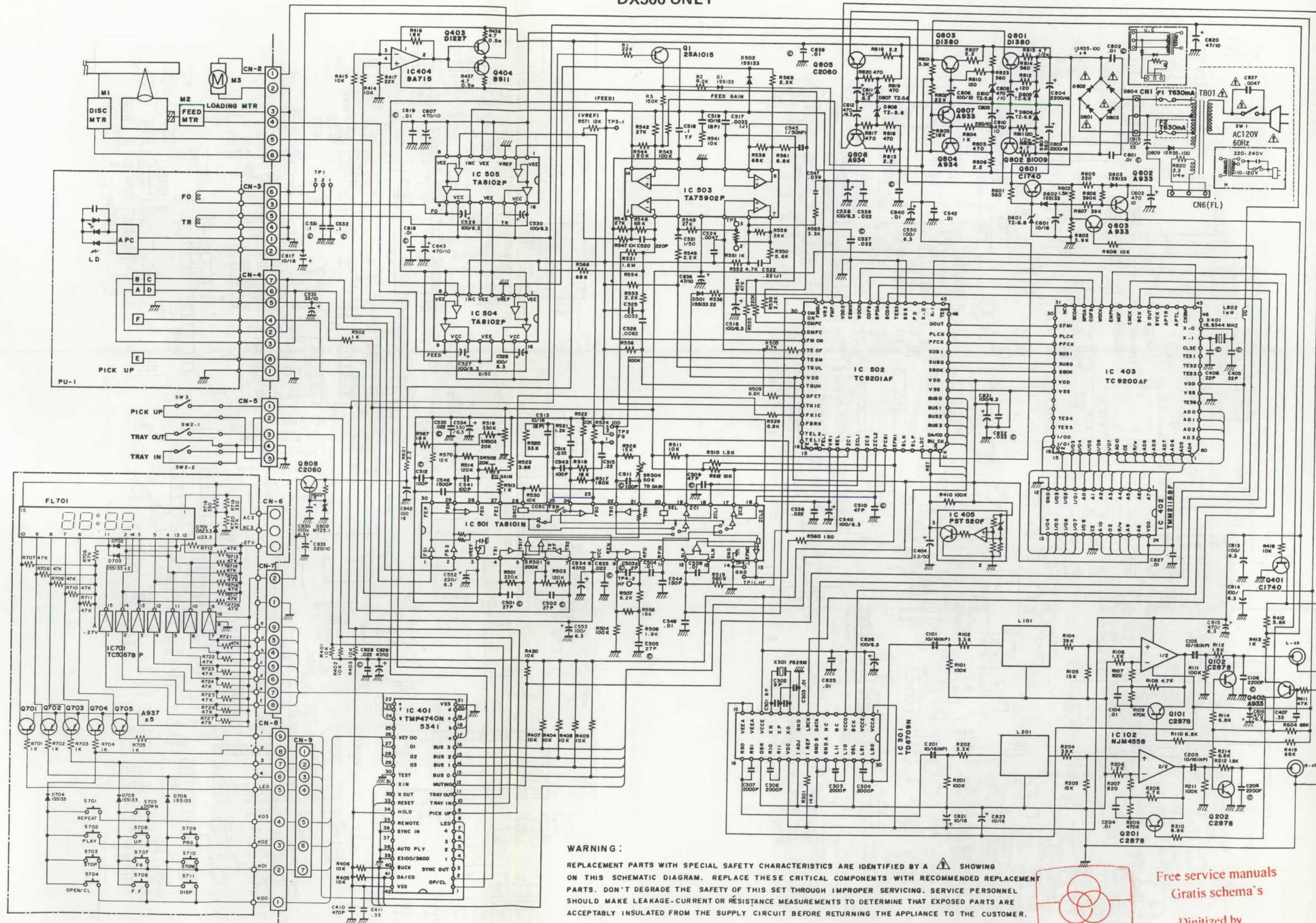
MAIN PCB TOP VIEW



MAIN PCB BOTTOM VIEW



SCHEMATIC DIAGRAM

DX500 ONLY

WARNING:

REPLACEMENT PARTS WITH SPECIAL SAFETY CHARACTERISTICS ARE IDENTIFIED BY A  SHOWING ON THIS SCHEMATIC DIAGRAM. REPLACE THESE CRITICAL COMPONENTS WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING. SERVICE PERSONNEL SHOULD MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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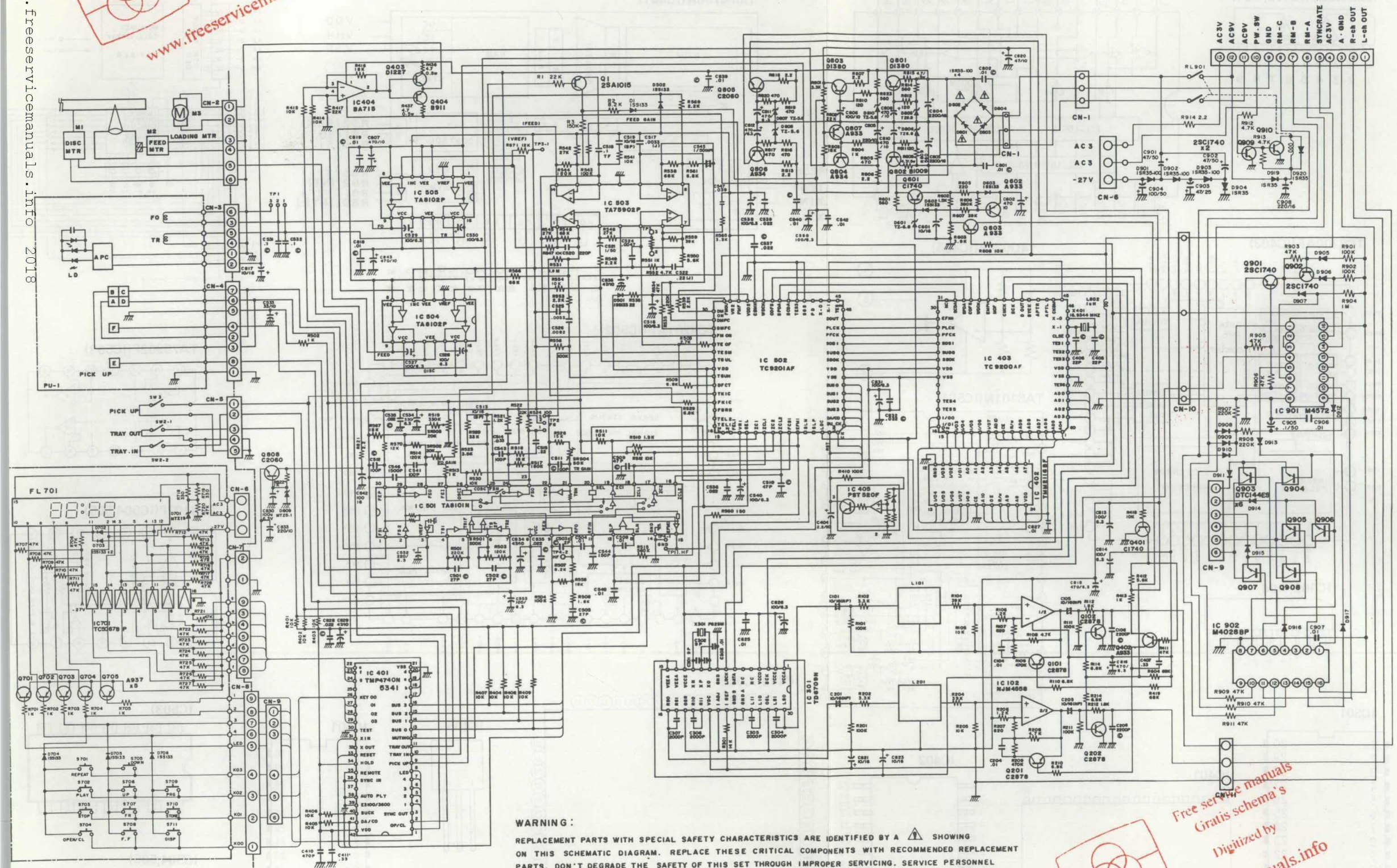
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Not for sale!

SCHEMATIC DIAGRAM

DX700 ONLY



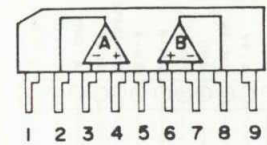
WARNING :

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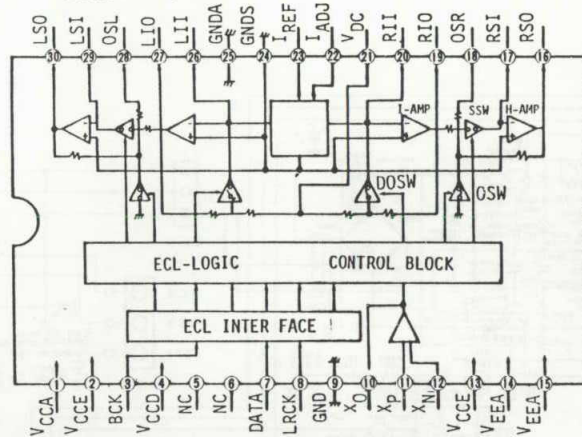
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IC INTERNAL DIAGRAM

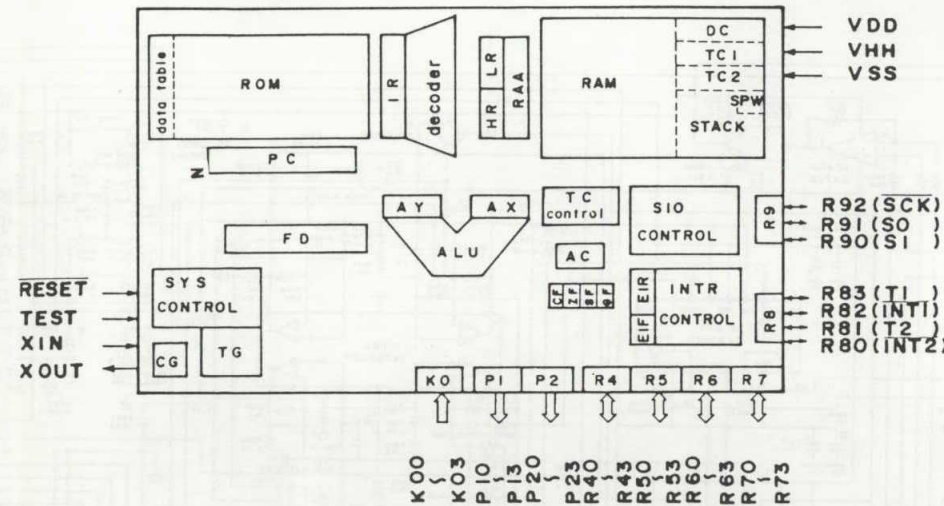
NJM4558S(IC102, 404)



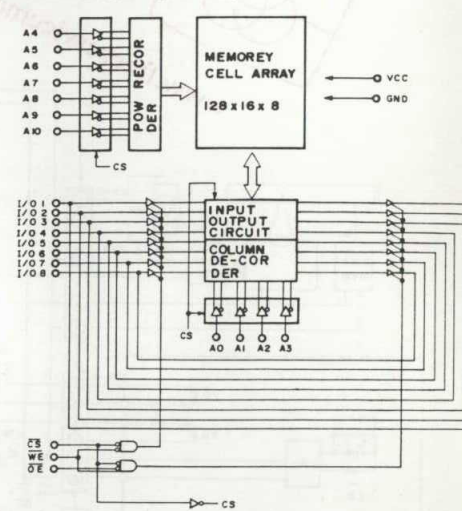
TD6709N(IC301)



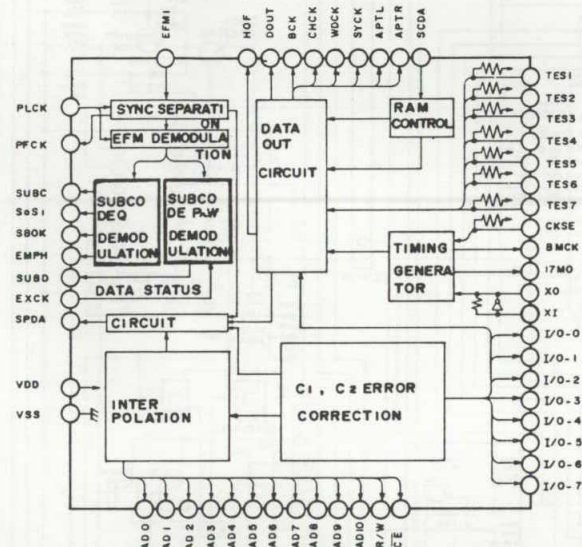
TMP4740N(IC401)



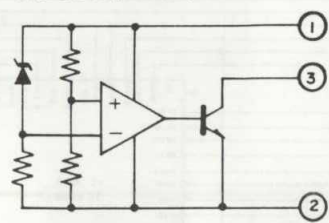
TMM211BF(IC402)



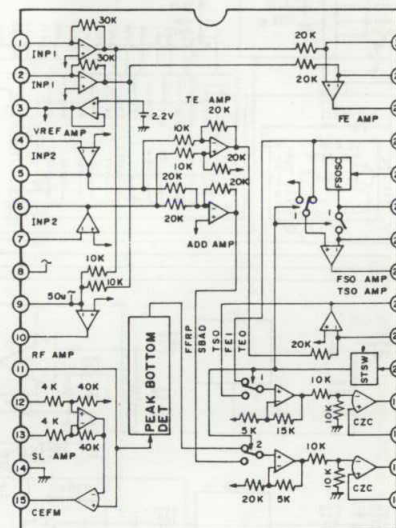
TC9200AF(IC403)



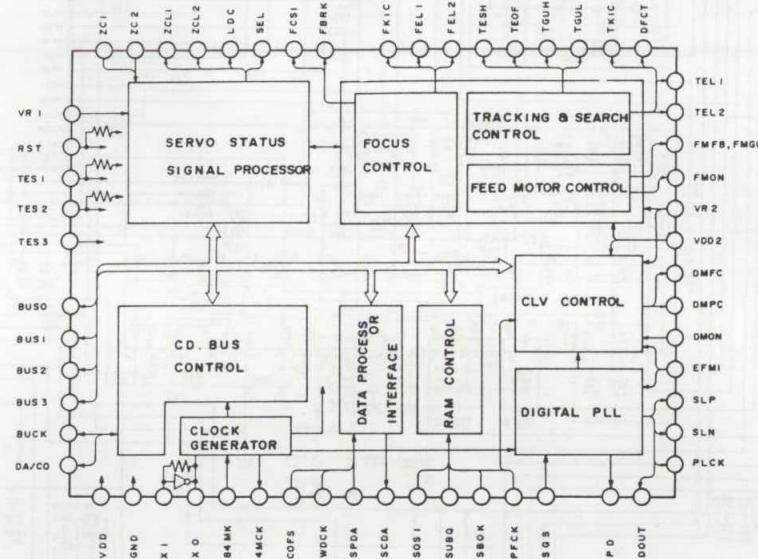
14D0249(IC405)



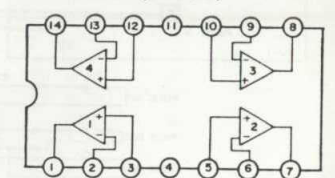
TA8101N(IC501)



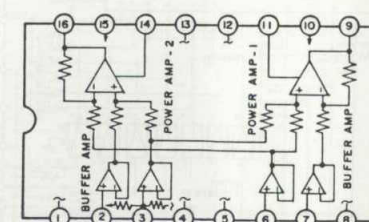
TC9201AF(IC502)



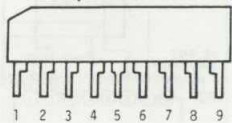
TA75902P(IC503)



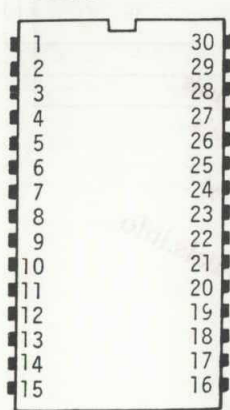
TA8102P(IC504,505)



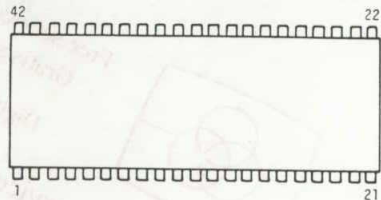
IC102, 404



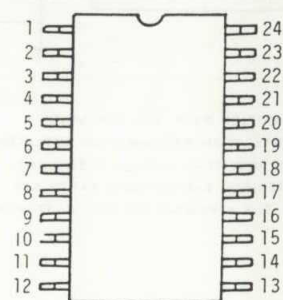
IC301



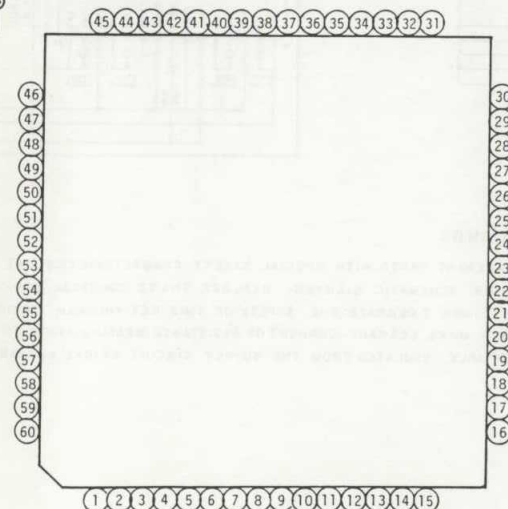
IC401



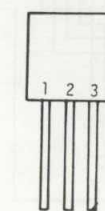
IC402



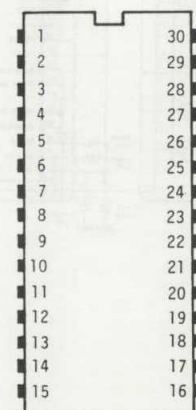
IC403,IC502



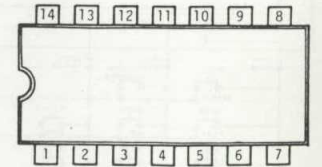
IC405



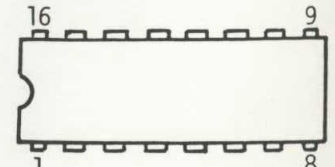
IC501



IC503)



IC504,505)



IC AND TRANSISTOR VOLTAGE CHART

VOLTAGE (IC) unit in V

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC102	4.9	0	0	0	-4.9	0	0	4.7												
IC301	4.7	4.6	2.2	4.6	0	0	0.02	2.3	0.01	3.0	1.6	1.6	4.7	-4.9	-4.9	-0.1	0	0	-0.5	0
IC401	0.1	0.1	0.1	3.8	3.8	3.8	3.8	3.8	0	0	3.7	0.1	4.5	0.2	4.6	0.1	1.8	1.8	1.9	1.9
IC402	0.4	1	1	1	1	2.9	2.4	2.3	2.5	1.7	2.8	0	2.6	2.7	1.7	1.7	1.4	0	2.5	3.7
IC403	0.9	0.9	0.9	2.4	2.6	2.4	4.4	3.7	2.5	1.4	1.7	1.7	2.7	2.6	2.7	1.7	2.5	4.6	4.6	0
IC404	7.4	0.02	0.09	0.08	-8.1	0	0	0	7.4											
IC405	4.7	0	4.7																	
IC501	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.7	2.1	0.8	2.1	2.1	2.1	0	0.4	0.4	2.1	1.1	1.7	4.6
IC502	1	4.6	0.3	2.0	1.7	1.2	2.4	0.4	2.2	1.1	1.7	4.6	2.1	2.1	2.1	0	0	0	2.4	1.9
IC503	2.2	2.2	2.1	4.7	2.1	2.1	2.1	2.1	2.1	0	2.1	2.1	2.2							
IC504	-5.6	2.1	0	-5.6	-5.6	2.1	2.2	-5.6	-0.2	5.7	5.6	-5.6	-5.6	5.6	5.7	0				
IC505	-5.6	2.1	0	-5.6	-5.6	2.1	2.1	-5.6	0	5.7	5.6	-5.6	-5.6	5.6	5.7	0				

PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
IC102																				
IC301	4.7	0	-3.7	0	0	0	-0.7	0	0	0										
IC401	0	2.4	1.9	1.9	0.1	4.7	4.7	4.5	4.5	0	1	1.4	4.7	4.8	0	0	0.1	0	0	4.5
IC402	4.5	2.5	2.5	4.7																
IC403	0.5	0	4.7	0	1	0	2.1	2.4	2.4	0	0	3.8	3.4	1.5	2.3	0	4.6	2.3	2.2	0
IC404																				
IC405																				
IC501	2.1	2.1	2.1	2.1	2.1	2.4	2.1	2.1	2.1	2.1										
IC502	0	2.1	4.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.6	0	2.3	1.5	3.4	3.8	0
IC503																				
IC504																				
IC505																				

PIN NO.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
IC102																				
IC301																				
IC401	0.1	4.8																		
IC402																				
IC403	2.3	1.1	1.1	2.2	2.2	0	2.2	2.2	2.2	4.6	4.6	4.6	4.6	0	4.6	2.3	2.3	2.7	0.9	
IC404																				
IC405																				
IC501																				
IC502	0	0.8	2.2	2.2	4.6	4.6	2.4	2.4	2.1	0	1	0	4.7	0	4.5	0.2	4.6	0.1	0.1	
IC503																				
IC504																				
IC505																				

VOLTAGE (TRANSISTOR) unit in V

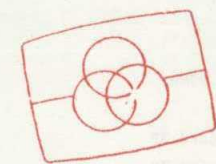
SYMBOL	Q101	Q102	Q201	Q202	Q401	Q402	Q403	Q404	Q601	Q602	Q603	Q801	Q802	Q803	Q804	Q805	Q806	Q807	Q808
BASE	-4.8	0.7	4.8	0.7	0.02	4.7	0.02	0.02	6.8	6.0	2.6	6.4	-6.3	5.4	-2.3	5.3	-5.5	-0.6	4.6
COLLECTOR	0	0	0	0	4.7	-4.8	7.4	-8.1	7.4	3.2	3.2	7.3	-8.0	6.9	-8.0	7.3	-8.0	-2.3	7.3
EMITTER	0.01	0	0.01	0	0	4.7	0	0	6.7	6.0	3.2	5.7	-5.7	4.7	-1.7	4.7	-4.9	0	3.9

SYMBOL	Q1
BASE	1.51
COLLECTOR	2.13
EMITTER	2.14

TERMINAL DESCRIPTION

(IC401, 14DW 305)

Pin No.	I/O	Pin Designation	Function
1 – 2	OUT	OP/CL	Disc tray opening and closing.
4 – 7	OUT	(1) – (4)	Control key output.
8	OUT	LED	LED display, driver voltage.
9	IN	PICK SW	Pickup switch.
10	IN	TRAY IN	Tray-in data input.
11	IN	TRAY OUT	Tray-out data input.
12	OUT	MUTE	Muting output.
13 – 16	I/O	BUS0 – BUS3	I/O BUS line for command & data (output for command & data at 1st step of BUCK to TC9201AF)
17 – 20	OUT	a – d	LED display segment driver output.
21	–	VSS	Power supply input pin (0V).
22 – 24	OUT	e – g	LED display segment driver output.
26 – 29	IN	KEY 00 KEY 03	Control key input.
30	–	TEST	Testing terminal.
31	IN	XIN	Clock input terminal (from TC9201AF, 4.23MHz)
33	IN	RESET	Reset, initialization signal input.
34	–	VHH	Power supply input pin for memory (+5V).
40	I/O	BUCK	Clock out terminal for command & data (be "high" position when no transmission of Command & Data to TC9201AF).
41	I/O	DA/CO	Control I/O for command & data (output of "L" signal when 1st word of the command be transmitted and the "L" signal be introduced from TC9201AF as ACK signal when the command/data be accepted correctly.
42	–	VDD	Power supply input pin (+5V).



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ELECTRICAL PARTS LIST

Please order the all parts for this model to Japan.

Ref.	Description	Part No.	Q'ty	Ref.	Description	Part No.	Q'ty
MAIN PCB SECTION				CONTROL PCB SECTION			
	<u>COILS</u>			D701	Diode, UZ3.3BT	SU-Z33-BT0-000	1
L101,201	*Low-pass Filter	S1-812-142-000	2	D702,703	Diode, ISS133	87-020-465-010	5
L802	*Coil, Axial 1uH	S2-168-109-000	1	704,705			
	<u>DIODES</u>			FL-1	Display, Fluorescent	S1-833-037-000	1
D501,502,602,603	Diode, ISS133	87-020-465-010	4	IC701	IC, TC5067BP	ST-C50-67B-P00	1
D601	Diode, MTZ6.8CT	SM-TZ6-8CT-000	1				
D801,802,803,804	Diode, 1SR35-100HS	S1-SR3-510-OHS	4	Q701,702	TR, 2SA937	S2-SA9-370-000	5
D805,806	Diode, MTZ6.8AT	SM-TZ6-8AT-000	2	703,704			
D807,808	Diode, MTZ5.6BT	SM-TZ5-6BT-000	3	S701	Switch, Tact, Repeat	S1-622-964-000	1
810				S702	Switch, Tact, Play/Pause	S1-622-964-000	1
D809	Diode, MTZ5.1BT	SM-TZ5-1BT-000	1	S703	Switch, Tact, Stop	S1-622-964-000	1
	<u>ICS</u>			S704	Switch, Tact, Open/Close	S1-622-964-000	1
IC102,404	IC, NJM4558S	87-027-939-010	2	S705	Switch, Tact, Down	S1-622-964-000	1
IC301	IC, TD6709N	ST-D67-09N-000	1	S706	Switch, Tact, Up	S1-622-964-000	1
IC401	IC, 14DW305	S1-4DW-305-000	1	S707	Switch, Tact, Fast Reverse	S1-622-964-000	1
IC402	IC, TMM2116BF	ST-MM2-116-BF0	1	S708	Switch, Tact, Fast Forward	S1-622-964-000	1
IC403	IC, TC9200AF	ST-C92-00A-F00	1	S709	Switch, Tact, Program	S1-622-964-000	1
IC405	IC, 14D0249	S1-4D0-249-000	1	S710	Switch, Tact, Memory	S1-622-964-000	1
IC501	IC, TA8101N	ST-A81-01N-000	1	S711	Switch, Tact, Display (Track/Time)	S1-622-964-000	1
IC502	IC, TC9201AF	ST-C92-01A-F00	1				
IC503	IC, TA75902P	ST-A75-902-P00	1	SUBSIDIARY PCB SECTION			
IC504,505	IC, TA8102P	ST-A81-02P-000	2	D1	Diode, ISS133	87-020-465-010	1
	<u>POTENTIOMETERS</u>			Q1	TR, 2SA1015	89-110-155-010	1
SR501	*Potentiometer,200K ohm	S2-38N-049-000	1				
SR502,503	*Potentiometer,20K ohm	S1-38N-782-000	2				
SR504	*Potentiometer,50K ohm	S1-38N-784-000	1				
	<u>TRANSISTORS</u>			POWER SUPPLY PCB SECTION (ONLY FOR DX-500)			
Q101,102	TR, 2SC2878	89-328-785-010	4	△C837	*Spark Killer, 4700pF/400V	S1-220-277-000	1
201,202				△SW1	Switch, Power	S1-622-845-000	1
Q401,601	TR, 2SC1740	89-317-409-010	2	△T801	Power Transformer (for H)	S1-150-532-000	1
Q402,602	TR, 2SA933	89-109-332-010	4		(110-120V/220-240V, 50/60Hz)		
603,807					Power Transformer (for U, C)	S1-150-533-000	1
Q403	TR, 2SD1227M	S2-SD1-227-M00	1		(120V, 60Hz)		
Q404	TR, 2SB911M	S2-SB9-11M-000	1		Power Transformer (for E, Z)	S1-150-534-000	1
Q801,803	TR, 2SD1380	S2-SD1-380-000	2		(220V, 50/60HZ)		
Q802	TR, 2SB1009	S2-SB1-009-000	1		Power Transformer (for K)	S1-150-535-000	1
Q804,806	TR, 2SA934	S2-SA9-340-000	2		(240V, 50/60Hz)		
Q805,808	TR, 2SC2060	S2-SC2-060-000	2		Power Transformer (for G)	S1-150-536-000	1
	<u>OTHERS</u>				(240V, 50/60Hz)		
X301	*SAW Filter	SF-62S-M00-000	1				
X401	*Crystal 16.93MHz	S1-811-201-000	1				
TP1,2,3,5	*Terminal Board 3P	S1-770-029-000	4				
TP4	*Terminal Board 2P	S1-770-028-000	1	△	*AC Cord (for U, C)	S1-750-829-000	1
				△	*AC Cord (for E, Z, H)	S1-750-585-000	1
				△	*AC Cord (for K)	S1-750-790-000	1
				△	*AC Cord (for G)	S1-750-554-000	1

ELECTRICAL PARTS LIST

Please order the all parts for this model to Japan.

Ref.	Description	Part No.	Q'ty
MISCELLANEOUS			
PU1	Pick-up, SF-86	S1-540-011-A00	1
M1(B0-32)	Motor, Disc (W/Chassis)	S2-1W8-114-X00	1
M2	Motor, Feed	S1-640-233-000	1
M3	Motor, Loading	S1-640-264-000	1
SW2	Switch, Leaf	S1-624-150-000	1
SW3	Switch, Leaf	S1-624-118-000	1
J101	*2P Jack, RCA type	S1-630-282-000	1
	*Stopper, Cord	S1-790-173-000	1
△F801, 802	Fuse, 630mA (for E, Z, K, G, H)	S1-790-479-000	2
△	*AC Connector Plug (for H)	S1-74C-889-000	1
△SW4	Switch, Voltage Selector(for H)	S1-621-607-000	1
SYNCHRONOUS PCB SECTION (ONLY FOR DX-700)			
D901,902	Diode, 1SR35-100HR	S1-SR3-510-OHR	6
903,904			
919,920			
D905,906	Diode, 1SS133	87-020-465-010	13
907,908			
909,910			
911,912			
913,914			
915,916			
917			
IC901	IC, M4572BP	87-020-679-010	1
IC902	IC, TC4028BP	87-027-657-010	1
Q901,902	TR, 2SC1740Z	S2-SC1-740-Z00	4
909,910			
Q903,904	TR, DTC144ES	SD-TC1-44E-S00	6
905,906			
907,908			
RL901	Relay	S1-686-100-000	1

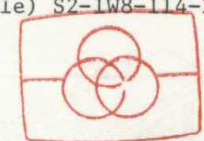
EXPLODED VIEW (DECK)

EXPLODED VIEW (CABINET)
ONLY

REPLACEMENT PARTS LIST MECHANICAL PARTS LIST (CD DECK)

Please order the all parts for this model to Japan.

Ref.	Description	Part No.	Q'ty
DECK SECTION			
B0-2	*Pulley	S2-1W8-079-000	1
B0-3	*Cam Gear	S2-1W8-077-000	1
B0-4	*Warm Gear	S2-1W8-074-000	1
B0-5	*Warm Wheel	S2-1W8-075-000	1
B0-6	*Chuck Disc	S2-1W8-081-000	1
B0-7	*Disc Holder	S2-1W8-110-000	1
B0-11	*Chuck Arm Ass'y	S2-1W8-083-X00	1
B0-12	*Shaft, 3mm dia.	S2-5W8-914-000	1
B0-13	*Spring	S2-3X9-366-000	1
B0-14	*Cam Lever	S2-3X9-319-000	1
B0-15	*Spring	S2-6W8-023-000	1
B0-17	*Rack Gear	S2-1W8-100-000	1
B0-18	*Guide Shaft	S2-5W8-885-000	1
B0-19	*Tray	S2-1W8-076-000	1
B0-21	Belt	S2-1V7-131-000	1
B0-22	*Pulley, Small	S2-1W8-027-000	1
B0-23	*PU Bracket A Ass'y	S2-1W8-031-FX0	1
B0-26	*Cushion A	S2-1W8-039-000	4
B0-29	*Bracket	S2-3X9-352-000	1
B0-30	*Damper Screw	S2-3X9-209-000	4
B0-31	*Chuck Arm Spring	S2-6W8-037-A00	1
B0-32	* Chassis Ass'y (W/MOTOR & T.Table)	S2-1W8-114-X00	1
Consists of following			
B0-1	* Turn Table A		
B0-9	* Chassis Ass'y		
L0-1	* VS +2-5		
M-1	* MOTOR, DISC		
L0-2	*VFT + 3 - 8	87-511-095-210	6
L0-3	*VS + 2.6 - 5	87-481-072-210	3
L0-4	*VS + 2.6 - 6	87-481-073-210	4
L0-6	*VS + 3 - 6	87-481-094-210	1
L0-7	*Spacer	SG-OM4-010-000	1
L0-8	*QTI + 3 - 8	87-321-095-210	1
L0-10	*VFT + 3 - 8	87-511-095-210	1
L0-12	*W 3.3 x 13 x 0.8	87-410-318-010	1



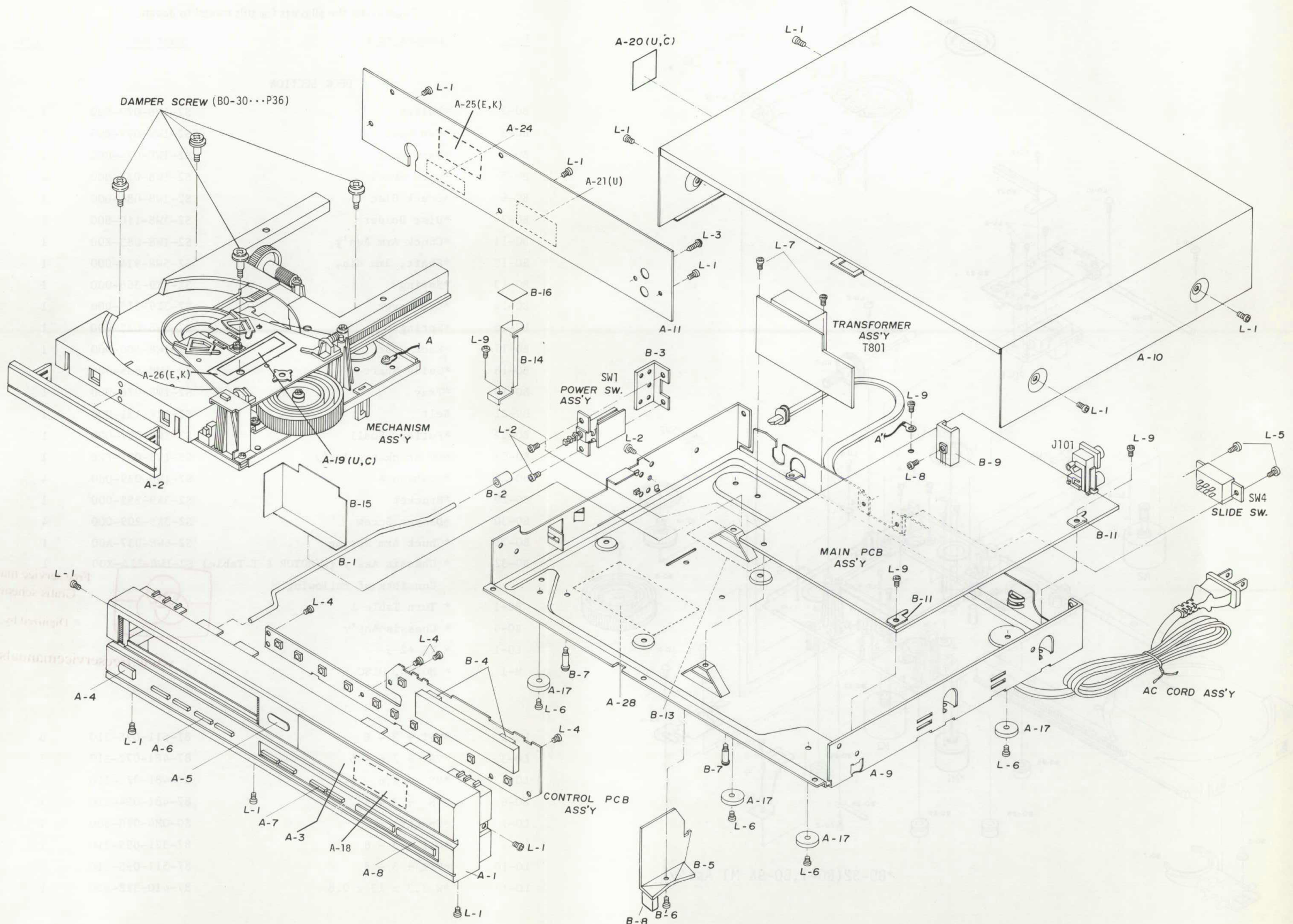
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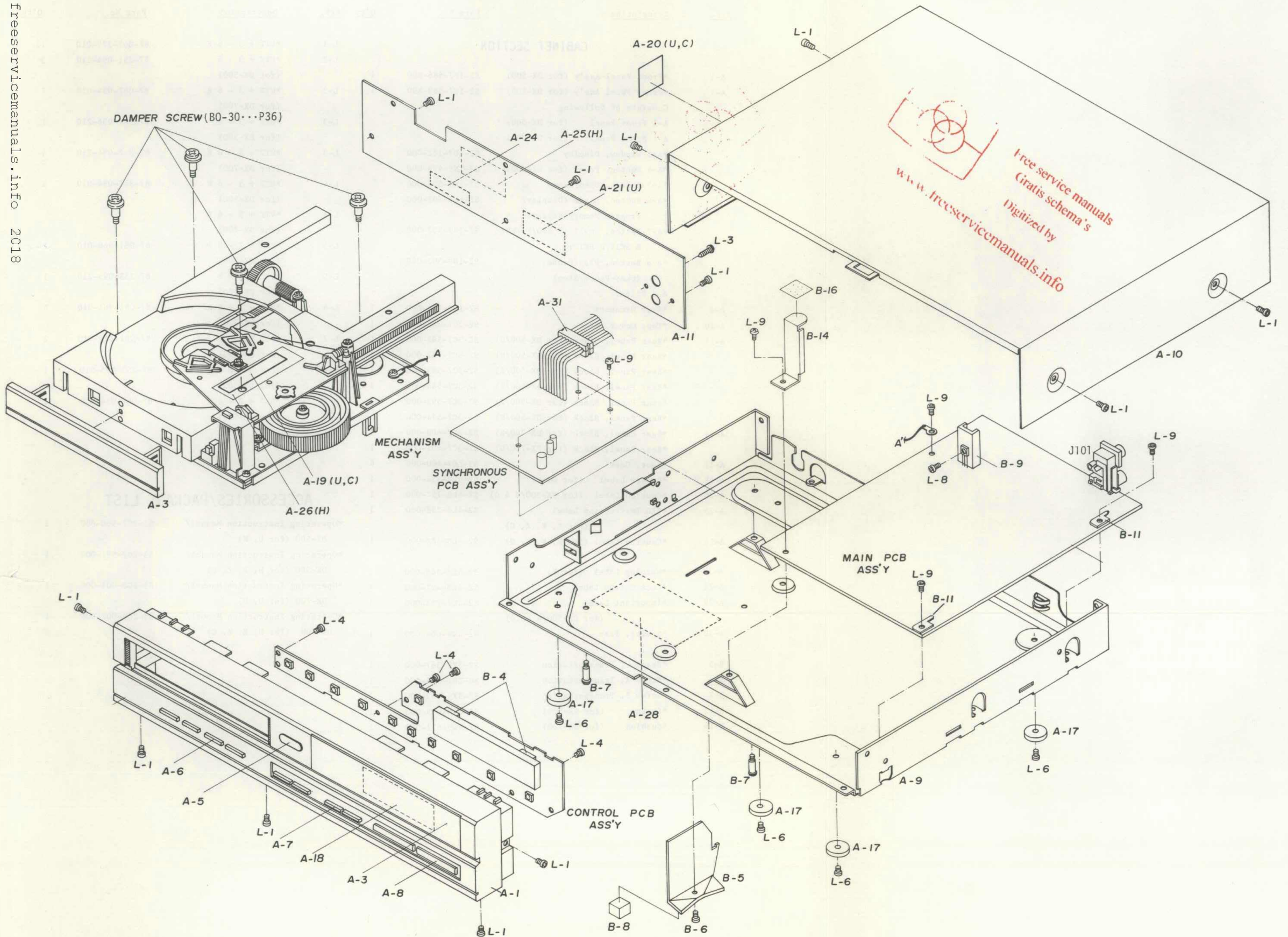
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*B0-32(B0-1,B0-9& M1 Ass'y)

EXPLODED VIEW (CABINET) DX500 ONLY



EXPLODED VIEW (CABINET) DX700 ONLY



MECHANICAL PARTS LIST (CABINET)

Please order the all parts for this model to Japan.

Ref.	Description	Part No.	Q'ty	Ref.	Description	Part No.	Q'ty
CABINET SECTION				L-1	*UTT + 3 - 6 B	87-067-277-010	12
A-1	*Front Panel Ass'y (for DX-500)	S2-1F7-586-X00	1	L-2	*UTT + 3 - 6	87-251-094-210	3
A-1	*Front Panel Ass'y (for DX-700)	S2-1F7-589-X00	1		(for DX-500)		
	Consists of following			L-2	*UTT + 3 - 6 R	87-067-054-010	7
	A-1 Front Panel (for DX-500)				(for DX-700)		
	A-1 Front Panel (for DX-700)			L-3	*UT2 + 3 - 10	87-342-096-210	1
	*A-3 Window, Display	S2-4D7-282-000			(for DX-500)		
	*A-4 Button, Power (for DX-500)	S2-1N9-499-000		L-3	*UT2 + 3 - 6 R	87-342-094-210	4
	*A-5 Button, Open/Close	S2-1N9-500-000			(for DX-700)		
	*A-6 Button, Large (Display/ Program/Memory/Repeat)	S2-1N9-501-000		L-4	*UT2 + 3 - 6 R	87-342-094-010	4
	*A-7 Button, Small (F BWD/F FWD/ B SKIP/F SKIP)	S2-1N9-502-000			(for DX-500)		
	*A-8 Button, Play/Pause (Pkay-Pause/Stop)	S2-1N9-503-000		L-4	*VTT + 3 - 6 B		
	A-8 Filter				(for DX-700)		
A-2	*Tray Ornament	S2-1D7-478-000	1	L-5	*UTT + 3 - 8 B	87-081-968-010	2
A-10	*Top, Cover, Black	S2-3C7-580-000	1		(for DX-500)		
A-11	*Rear Panel, Black (for DX-500/U)	S2-3C7-581-000	1	L-5	*U + 3 - 8	87-253-095-210	1
	*Rear Panel, Black (for DX-500/H)	S2-3C7-582-000	1		(for DX-700)		
	*Rear Panel, Black (for DX-500/E)	S2-3C7-583-000	1	L-6	*VTT + 3 - 6 B	87-081-941-010	4
	*Rear Panel, Black (for DX-500/K)	S2-3C7-584-000	1		(for DX-500)		
	*Rear Panel, Black (for DX-500/Z)	S2-3C7-593-000	1	L-7	*UTT + 3 - 5	87-081-919-010	2
	*Rear Panel, Black (for DX-500/G)	S2-3C7-594-000	1		(for DX-500)		
A-11	*Rear Panel, Black (for DX-700/H)	S2-3C7-600-000	1	L-8	*U + 3 - 8	87-253-095-210	1
	*Rear Panel, Black (for DX-700/U)	S2-3C7-601-000	1		(for DX-500)		
A-17	*Foot, Case	ST-L07-400-000	4	L-9	*UTT + 3 - 6 R	87-067-054-010	4
A-19	*Danger Label (for U, C)	S2-4L8-354-000	1		(for DX-500)		
A-20	*Caution Label (for DX-500/U & C)	S2-4L8-157-000	1	ACCESSORIES/PACKAGE LIST			
A-25	*IEC Instruction Label	S2-4L8-258-000	1	*Operating Instruction Manual/ DX-500 (for U, K)	S3-2G7-980-000		1
	(for E, K, Z, G)			*Operating Instruction Manual/ DX-500 (for H, E, Z, C)	S3-2G7-991-000		1
A-26	*Caution Label (for E, K, Z, G)	S2-4L8-382-000	1	*Operating Instruction Manual/ DX-700 (for U, K)	S3-2G8-001-000		1
A-27	*Warning Label (for K)	S2-4L8-345-000	1	*Operating Instruction Manual/ DX-700 (for H, E, Z, C)	S3-2G8-002-000		1
A-28	*Lock Bottom Label	S2-4L8-421-000	1				
A-29	*Important Label	S2-4L7-733-000	1				
	(for DX-500/K only)						
A-30	*Spacer, Tray	S2-4W9-606-000	1				
B-5	*Bracket, Transportation	S2-3X9-367-000	1				
B-6	*Screw A, Transportation	SG-ZR1-306-000	1				
B-7	*Screw B, Transportation	S2-3X9-362-000	2				
B-12	*Spring (for DX-500)	S2-6W8-039-000	1				
B-16	*Cushion (for DX-700)	S2-4W9-621-000	1				