

JVC

SERVICE MANUAL

STEREO CASSETTE DECK

MODEL DD-VR7 A/B/C/E/J/U



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Safety Precautions

1. The design of this product contains special hardware. 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. Service should be performed by qualified personnel only.

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

3. Many electrical and mechanical parts in the product 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 (Δ) on the schematics and parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in 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/or the like to be separated from live parts, high temperature part, 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 they should be confirmed to be returned to normal, after re-assembling.

5. Leakage current check

(Safety for electrical shock hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, earphone 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 part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5 mA AC (r.m.s.).

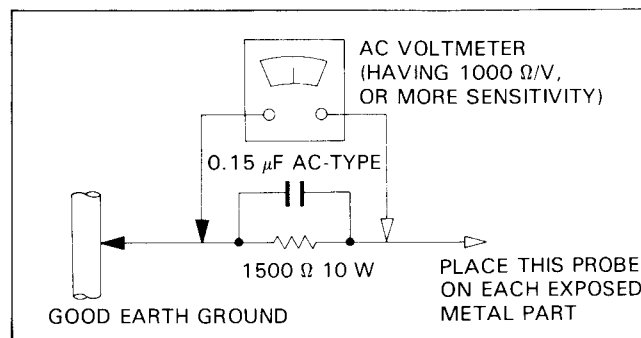
- Alternate check method.

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.)

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. Any voltage measured must not exceed 0.75 V AC (r.m.s.).

This corresponds to 0.5 mA AC (r.m.s.).



Features

1. FLIP REVERSE SYSTEM

- Rotary head reverse system with 3-piece diecast head assembly that assures the head axis in the best position in the forward or reverse direction.
- Jewel lock mechanism enables superb quality of head for longer service life.
- Quick reverse mechanism using infrared sensor.

2. Full logic mechanism with pulse-servo DD (Direct-Drive) motor

- 3-motor system: FG pulse-servo DD motor for the capstan and DC motors for the reels and mechanical drives.
- Silent mechanism.

3. Ceramic-clad SA head for recording/playback

4. DOLBY* B-C NR (Noise Reduction) system

- MPX (multiplex) filter switch provided.

5. 4-way digital counter

- Tape remaining time is displayed during recording/playback in either direction.
- Music scan mechanism permits tunes to be skipped up to 20 selections.

“Under license of Staar S.A., Brussels, Belgium.”

- Can serve as a stopwatch, showing the elapsed time in recording and playback.
- Normally serves as a 4-digit tape counter with 2-point memory for block repeat.

6. Microcomputer-controlled mechanisms

- Auto record muting
- Index scan and blank search
- Mechanism mode indicators

7. 2-color FL peak level meter with digital peak indicator

- Peak hold facility.

8. Timer start mechanism (with safety lock)

9. Remote control jack provided

10. Auto tape select mechanism

*Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

*“Dolby” and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Specifications

Type	: Stereo cassette deck	Heads	: Ceramic-clad SA head for record/ playback × 1
Track system	: 4-track, 2-channel		: 2-Gap ferrite head for erasing × 2
Tape speed	: 1-7/8 inch/sec (4.8 cm/sec)	Motor	: Pulse Servo DD Motor (for Capstan) × 1
Frequency response	: (−20 dB recording)		: DC Motor (for Reel) × 1
	Metal tape:		: DC Motor (for Mechanical drive) × 1
	30–17,000 Hz (±3 dB)	Fast forward/	
	20–19,000 Hz (DIN 45 500)	Rewind time	: Approx. 90 sec. with C-60 cassette
	CrO ₂ tape:	Input terminals	:
	30–17,000 Hz (±3 dB)	Input jack × 2	: Min. input level; 80 mV
	20–19,000 Hz (DIN 45 500)		: Input impedance; 80 kΩ
	Normal tape:	Output terminals	:
	30–16,000 Hz (±3 dB)	Output jack × 2	: Output level; 0–500 mV
	20–19,000 Hz (DIN 45 500)		: Output impedance; 5 kΩ
	(0 dB recording)	Phones jack × 1	: Output level;
	Metal tape:		: 0–0.6 mW/8 Ω
	30–12,500 Hz (±3 dB)		: Matching impedance;
	CrO ₂ tape:		: 8 Ω–1 kΩ
	30–8,000 Hz (±3 dB)	Other terminal	: Remote control × 1
	Normal tape:	Power requirement	: AC 240 V, 50 Hz (DD-VR7A)
	30–8,000 Hz (±3 dB)		: AC 240/220/120 V, 50/60 Hz (DD-VR7 B/E)
S/N ratio	: 58 dB (S = 1 kHz, K3 = 3%, N = A-weighted, Metal tape)		: AC 120 V, 60 Hz (DD-VR7 C/J)
	The S/N is improved by about 15 dB at 500 Hz and by max. 20 dB at 1 kHz ~ 10 kHz with DOLBY C NR on and improved by 5 dB at 1 kHz and by 10 dB at above 5 kHz with DOLBY B NR on.		: AC 240/220/120/100 V, 50/60 Hz (DD-VR7U)
Improvement of MOL	: 4 dB at 10 kHz with DOLBY C NR on.	Power consumption	: 27 W
Wow and flutter (Forward direction)	: 0.035% (WRMS)	Dimensions	: 17-1/8" (435 mm) W
	0.08% (DIN 45 500) (with MAXELL UD tape)		: 4-3/8" (110mm) H
Crosstalk	: 65 dB (1 kHz)		: 11-1/8" (282 mm) D (with feet, buttons, switches)
Harmonic distortion	: K3;05% THD; 1.0% (Metal tape, 1 kHz 0 VU)	Weight	: Approx. 12.8 lbs (5.8 kg)
Channel separation	: 40 dB (1 kHz)	Accessory	: Pin cord

Design and specifications subject to change without notice.

Names of Control

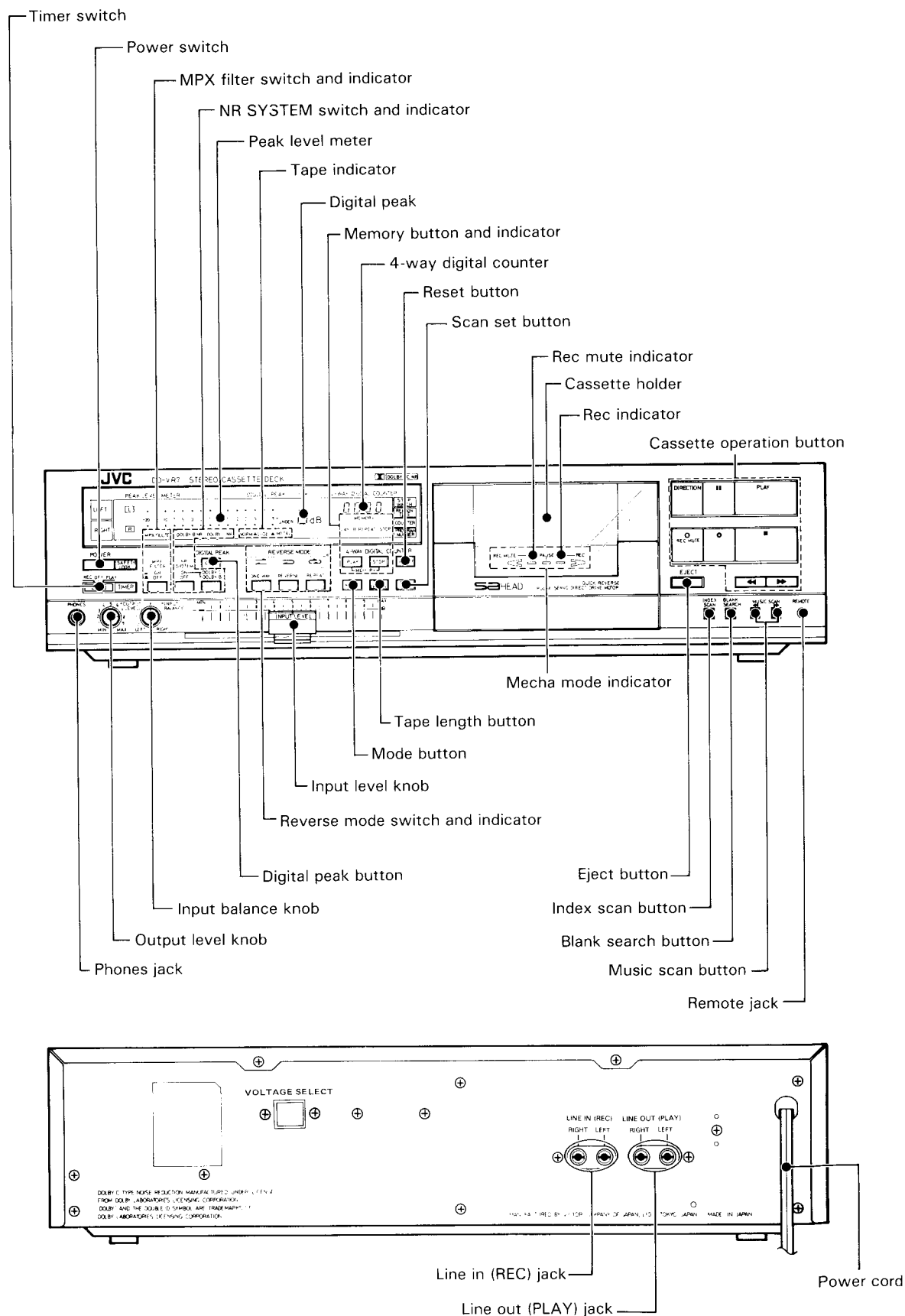


Fig. 1

Location of Main Parts

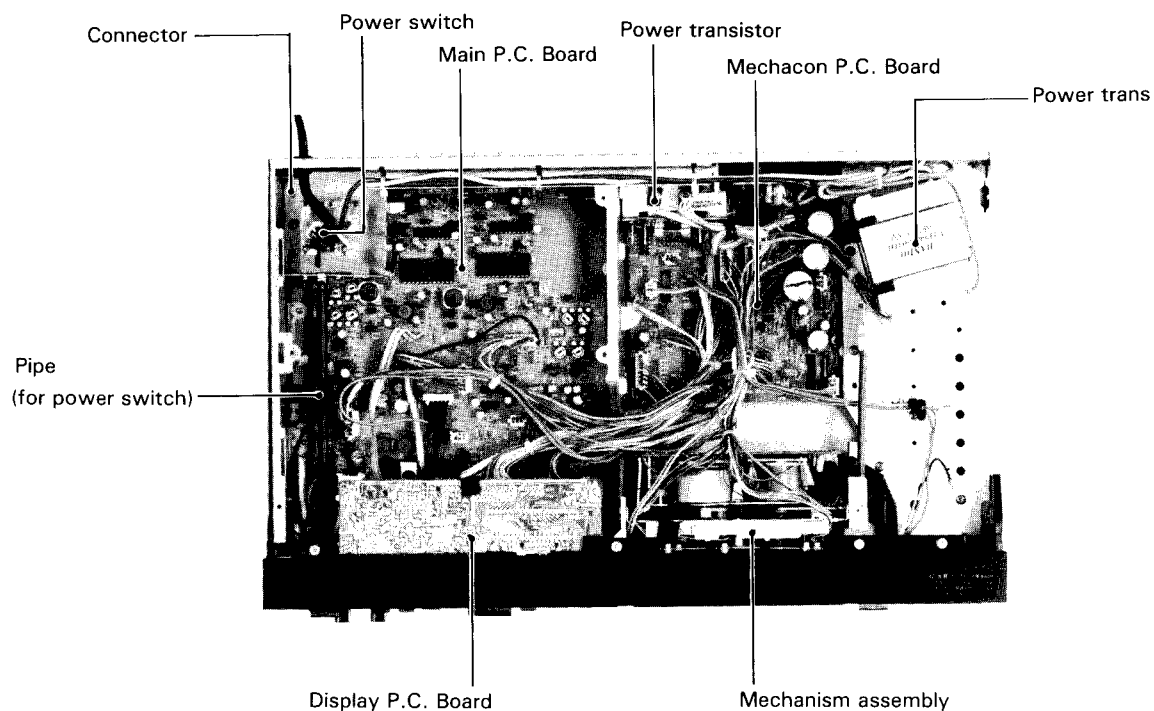


Fig. 2

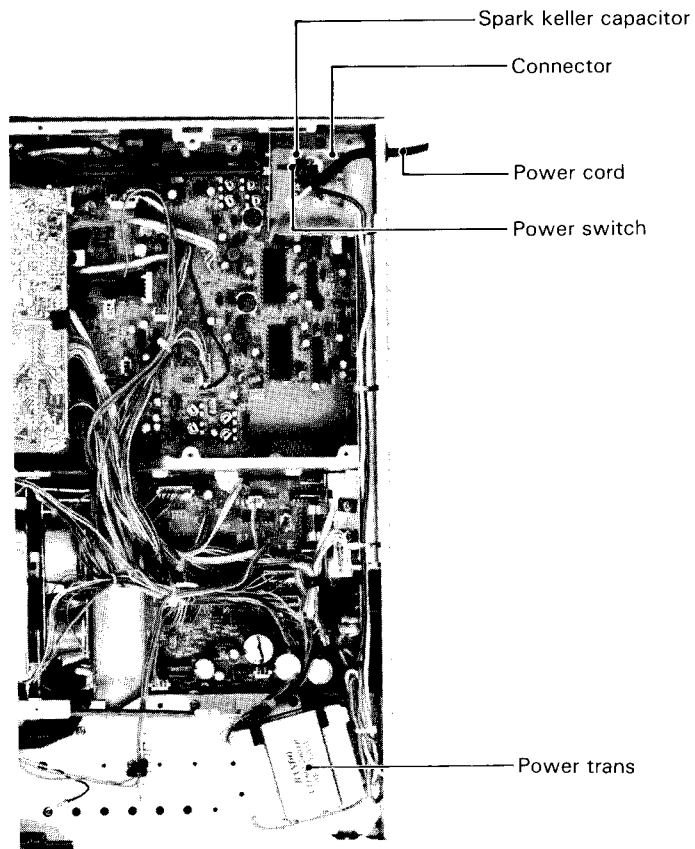


Fig. 3

Description of New Technology

Functions of the digital peak display

The digital peak display indicates peaks of the recording or playback signal as numerical values interlocked with the peak level meter which indicates peak levels using a bar graph.

Functions of the digital peak display are:

- 1) The bar graph display is a peak meter with peak hold. Unlike a conventional meter which holds peaks for 2 to 4 sec. before being reset, this meter holds peaks for 2 sec. However, if a signal higher than the level being displayed is input, the newly input peak level is held for 2 sec.
- 2) The digital peak display usually indicates the higher level of either the L or R channel signal and holds the peak value for 2 sec. just like a bar graph.
- 3) The digital peak display has a maximum value memory function. If the CALL switch is pressed, the maximum value flashes for 5 sec.
- 4) While the maximum value is flashing, pressing the CALL button again clears the maximum value memory.
- 5) The maximum value memory will not be cleared unless the CALL switch is depressed or power is switched off.
- 6) The indication range of the digital peak display is from 0 dB (= 0 VU) to +12 dB in 1 dB steps. Levels lower than 0 dB are indicated by 'UNDER 0 dB' while levels higher than +12 dB are indicated by 'OVER 12 dB'.
- 7) To facilitate adjustment, the peak hold of the bar graph display can be cleared.
- 8) It is possible to calibrate the recording volume level in dB.

How to use

- 1) Clear the maximum value memory.
- 2) Input the maximum level passage of a tune.
- 3) Depress the CALL switch, then read the maximum level.
- 4) Check to see if the level does not exceed the permissible recording level (indicated by ▲ marking below the bar graph) corresponding to the type of tape being used.
- 5) If the level is over or below the permissible recording level, raise or lower the level using the dB graduations of the recording volume level control.

Configuration

The bar graph display and digital peak circuits use a 4-bit microprocessor and have a simple configuration as shown in Fig. 4. The microprocessor used in this model is a 1-kbit ROM with an A/D converter and is capable of directly driving a fluorescent display tube. The grids are assigned for

- 1) Bar graph L
- 2) Bar graph R
- 3) Digital peak display. The microprocessor has a duty cycle of 1/3 and uses dynamic drive.

Since the microprocessor has an 8-bit D/A converter and comparator, it is possible to select the method of successive comparison, method of follow-up comparison, etc. using the program. However, although the method of successive comparison has a shorter program, eight comparisons are required, thereby making the conversion time longer. Since in the method of follow-up comparison, the conversion time varies depending on the level, it is impossible to keep the display duty cycle constant.

In this model, since the level should be divided into 23 levels, five comparisons will suffice as shown in Fig. 5.

Fig. 6 shows a flowchart of the internal processing.

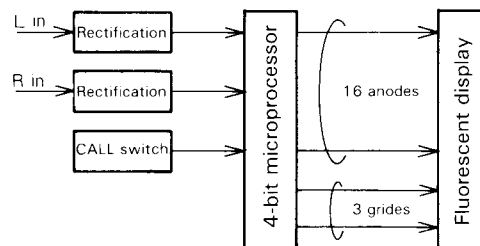


Fig. 4

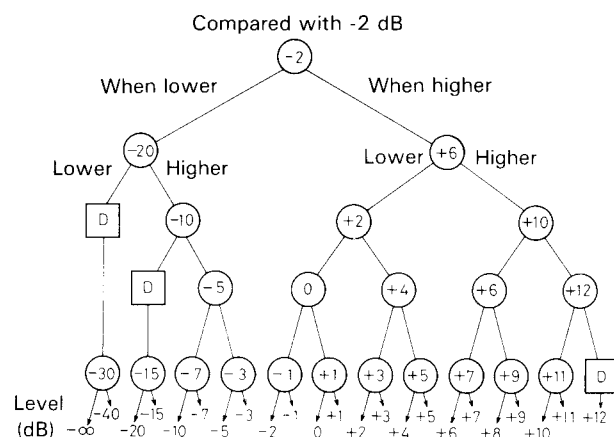


Fig. 5

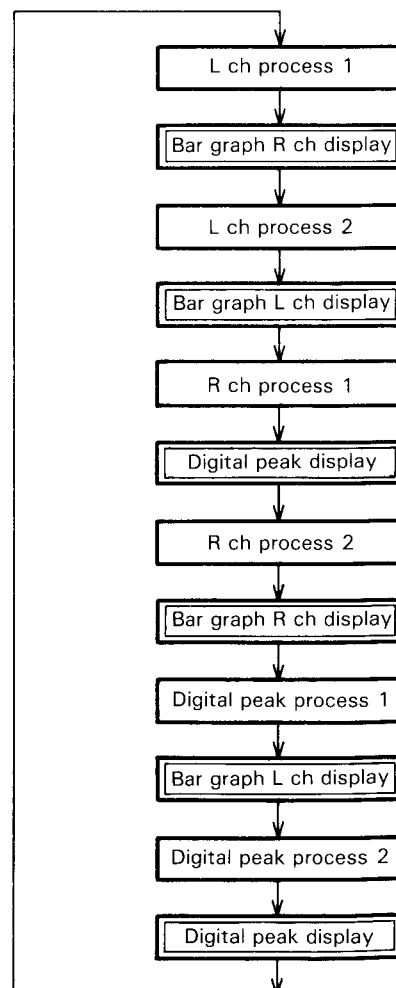


Fig. 6

Block Diagram

Main Amp. Section

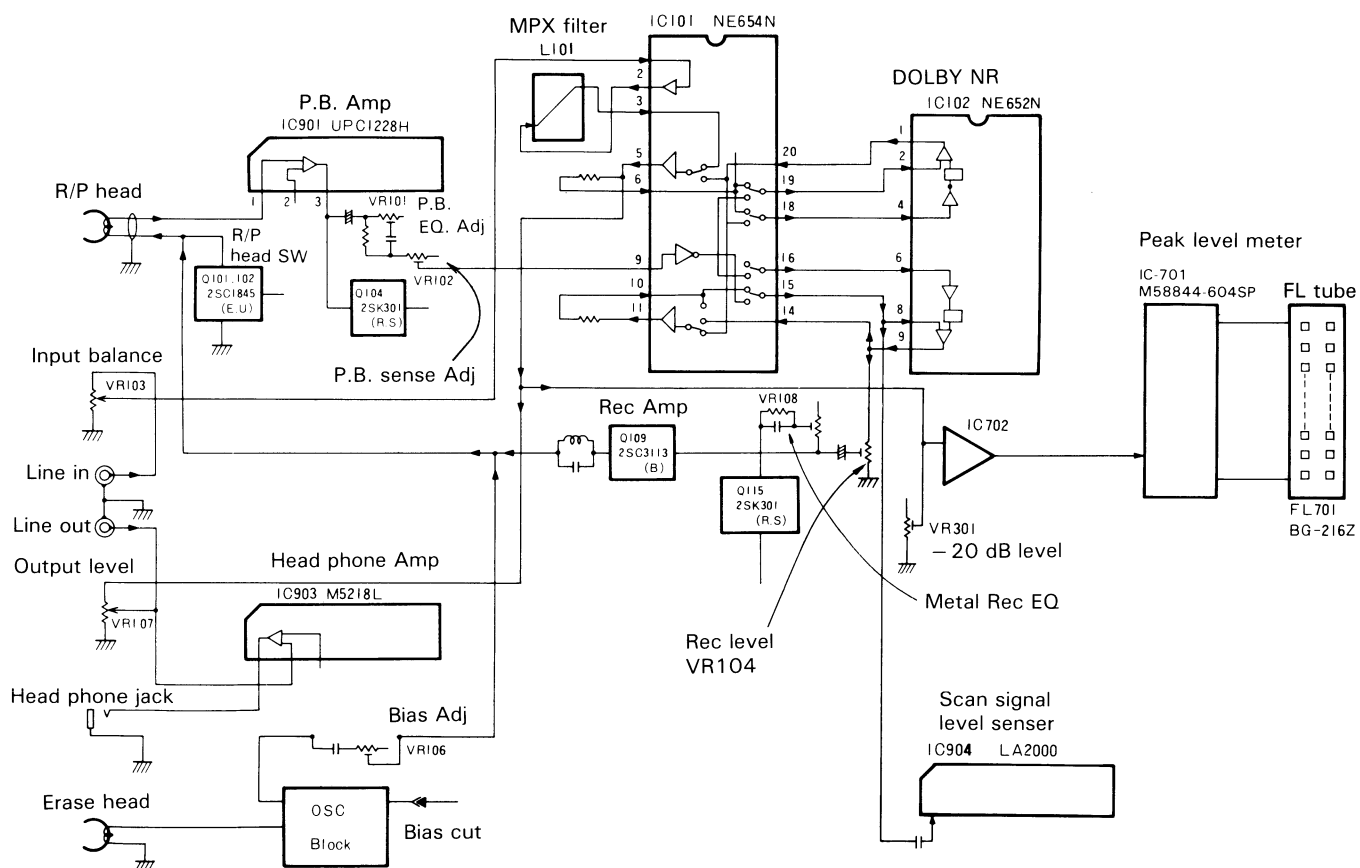


Fig. 7

Mechanism control block diagram is the same as DD-V7. Refer to the DD-V7 service manual (No. 4220).

Removal of Main Parts

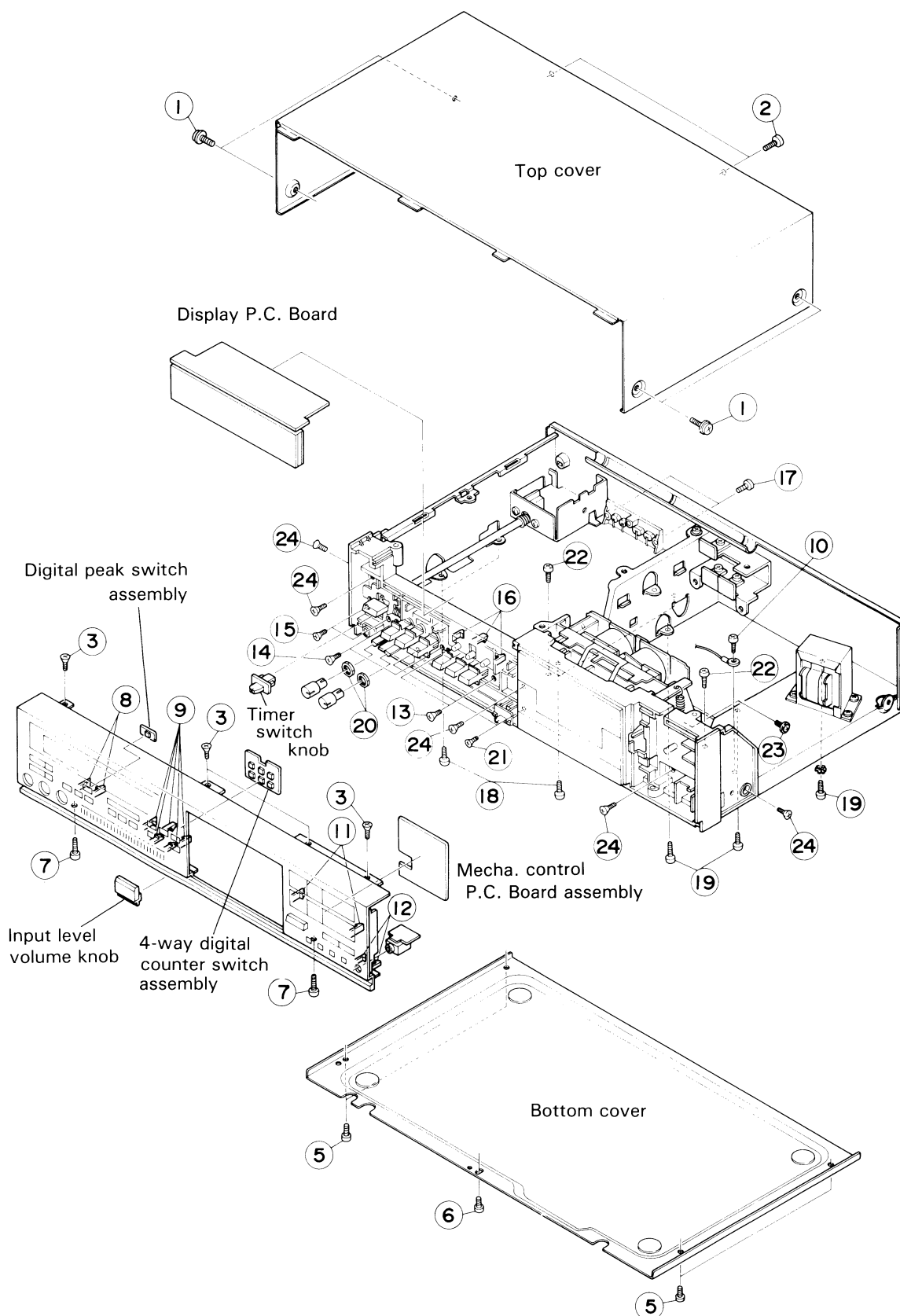


Fig. 8

Remove in Numerical Order

Refer to pages 22 and 23 for exploded view and parts list.

- 1. Top Cover**
 - 1) Remove four fixing screws ① from both sides.
 - 2) Remove two fixing screws ② from the rear.
- 2. Front plate Ass'y and bottom cover**
 - 1) Remove four screws ③ securing the front plate from the top.
 - 2) Unscrew four screws ⑤ and screw ⑥ securing the bottom cover.
 - 3) Remove two screws ⑦ securing the front plate from the bottom.
 - 4) Disengage the input level volume knob.
 - 5) Slightly pull out the front plate, the disengage snap tabs ⑧ securing the digital peak (CALL) switch Ass'y.
 - 6) Disengage snap tabs ⑨ securing the 4-way digital counter switch Ass'y.
 - 7) Disconnect connector CNP01 from the power supply P.C. Board.
(Connector for the mechanism operation switch)
 - 8) Remove screw ⑩ holding the ground wire.
- 3. Mechanism operation switch Ass'y and remote jack Ass'y.**
 - 1) Disengage snap tabs ⑪ securing the mechanism operation switch P.C. Board.
 - 2) Disengage snap tabs ⑫ securing the jack P.C. Board.
- 4. Display P.C. Board Ass'y**
For removal, pull out the Ass'y towards you.
- 5. Headphone jack Ass'y**
For removal, press this downwards.
- 6. Reverse mode switch Ass'y**
Unscrew two screws ⑬ securing the switch.
- 7. MPX NR switch Ass'y**
Remove two screws ⑭ securing the switch.
- 8. Timer switch Ass'y**
 - 1) Disengage the switch knob.
 - 2) Slide the timer bracket, then remove two screws ⑮.
- 9. LED Ass'y**
Widen snap tabs ⑯ securing the LED Ass'y from the interior of the front panel to remove the LED Ass'y.
- 10. Main P.C. Board**
 - 1) Remove two screws ⑰ securing the pin jack.
 - 2) Unscrew four screws ⑱ securing the P.C. Board from the bottom.
- 11. Power supply P.C. Board
(Mechanism control P.C. Board)**
Remove three screws ⑲ securing the P.C. Board.
- 12. Volume P.C. Board**
 - 1) Disengage the output volume knob and input balance knob, then remove nuts ⑳ securing these controls.
 - 2) Remove two screws ㉑ fixing the input controls.
- 13. Gear damper**
Unscrew screw ㉒ securing the damper holder.
- 14. Removal of the whole mechanism section**
Remove two screws ㉓ securing the mechanism section to the chassis.
- 15. Front panel**
Remove five screws ㉔ securing the front panel.

Removal of Mechanical Parts

1. Pinch roller (left) (Fig. 9).

- 1) Unscrew adjusting screw ④: VKS4513-001 securing the pinch roller arm Ass'y.
- 2) Pull out the pinch roller together with the torsion spring from the shaft.

2. Pinch roller (right) (Fig. 9)

- 1) Unscrew adjusting screw ④: VKS4513-001 securing the pinch roller arm Ass'y.
- 2) Pull out the pinch roller together with the torsion spring from the shaft.

3. Replacing the head Ass'y (Fig. 9)

1. Remove screw ① securing the spring plate.
 2. Remove screw ③ securing the spring plate.
 3. Unscrew two screws ② holding the slide base.
 4. Remove pinch roller adjusting screws ④. (Height adjustment of the pinch roller requires fine-adjustment.)
- * Replacing the head Ass'y without removing the pinch roller.
1. Perform procedures 1 through 3 above. (Fig. 9)
 2. Remove screws ⑤ fixing the guide lever, then remove the guide lever from the pinch roller guide. (Fig. 10)

4. Reel disk Assemblies (Fig. 14)

1. Pull out reel stoppers ① and ②.
 2. Withdraw the reel disks from the shafts.
- * Replace the reel stoppers with new ones once they have been removed.

5. Removing the DD motor (Fig. 11)

Unscrew four screws ⑥ securing the DD motor.

6. Cam motor and reel motor (Fig. 12)

1. Remove two screws ⑦ and five screws ⑧ securing the reel base.
 2. Unscrew four screw securing the motor. (In the case of the reel motor, disengage the belt as well.)
 3. Withdraw the motor pulley which is engaged.
- * Reassembling the cam gear (Fig. 13)

Mesh the gears so that the marking provided on cam gear (1) is aligned with the marking on the main cam switch.

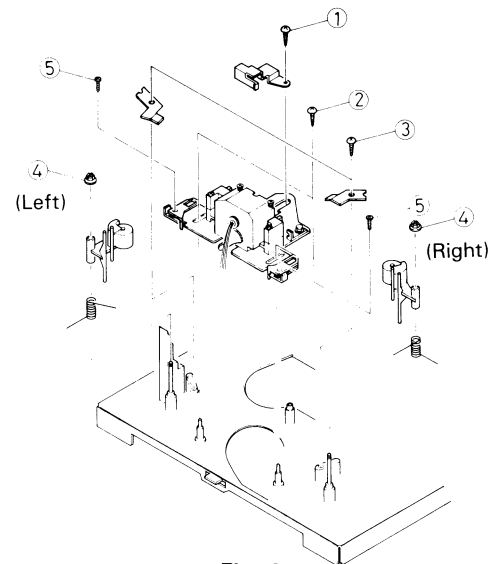


Fig. 9

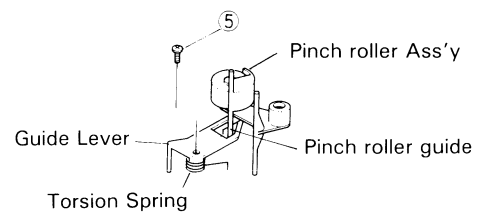


Fig. 10

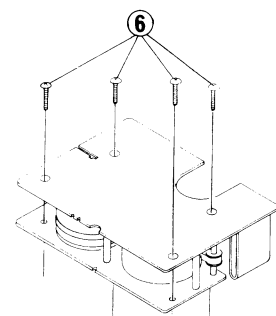


Fig. 11

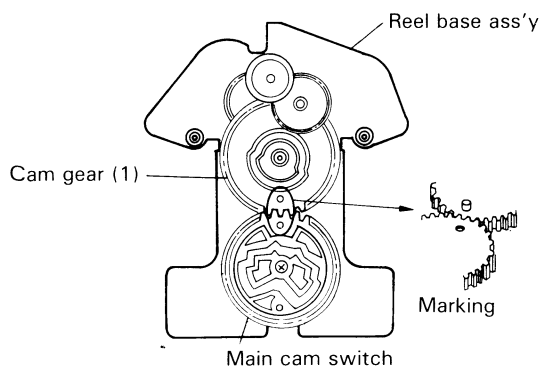


Fig. 13

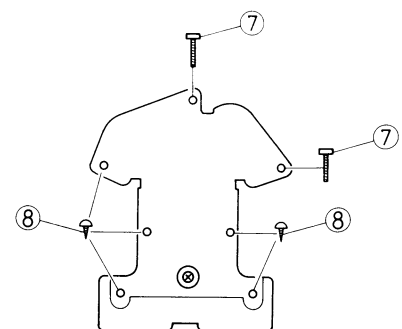


Fig. 12

Main Adjustments

[I] Equipment and Measuring Instruments used for Adjustment

1. Electrical adjustment

- 1) Electronic voltmeter
- 2) Audio frequency oscillator
(range: 50–20 kHz and output 0 dB with impedance 600 Ω)
- 3) Attenuator
- 4) Standard tapes for REC/PB

Maxell UD — Normal tape (TS-5)	}	or equivalent
TDK SA — Chrome tape (TS-6)		
JVC ME — Metal tape (TS-7)		

- 5) Reference tapes for playback (JVC Test Tape)
 - VTT-658 (for head azimuth adj.)
 - VTT-656A-A (for motor speed, wow flutter adj.)
 - VTT-664 (for Reference Level 1 kHz)
 - TTT-675N (for playback frequency response)
 - TMT-6447 (for music scanning)
 - TMT-6448 (for music scanning)

- 6) Resistors
 - 600 Ω (for attenuator matching)

2. Mechanical adjustment

- 1) Torque testing cassette gauge. (CTG-N)
- 2) Blank tape (C-120) for tape running checker.

[II] Mechanical part of Adjustment and Replacement

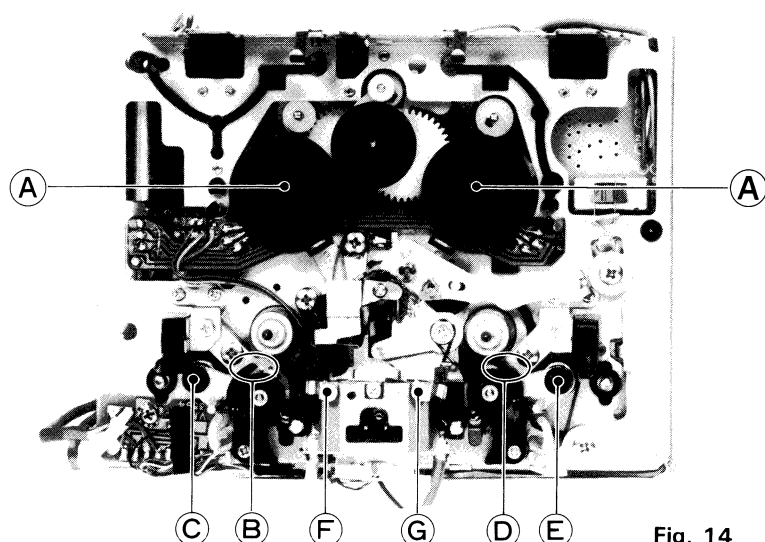


Fig. 14

Tape run adjustment

- 1) Put the mechanism into the PAUSE mode, then adjust the height of right and left tape guides (B) and (D) to that of the REC/PB head tape guide with adjustment screws (C) and (E).

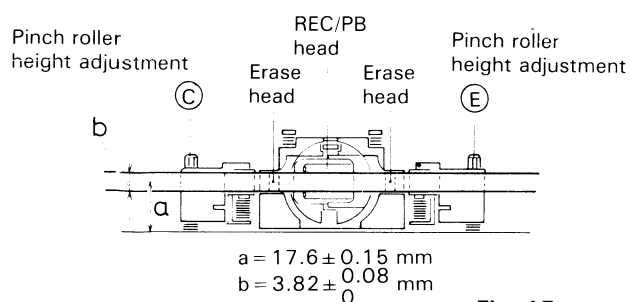


Fig. 15

- 2) Check the erasing coefficient of TS-7 (metal tape) by listening in the forward and reverse modes.
 - **checking method** —
 - Erase the tape on which a 400 Hz or 1 kHz input of 0 VU + 20 dB is recorded, then check that no sound is heard.
- 3) After adjustment, protect screws (C) and (E) against loosening by painting screw locking compound.

REC/PB head azimuth adjustment

- 1) Connect an electronic voltmeter to LINE OUT and a low frequency oscillator and an attenuator to LINE IN.
- 2) Forward play back VTT-658 with side A towards you, then adjust screw (F) so that the output is maximized.
- 3) Forward record 12.5 kHz input of -20 dB on TS-5 with side A towards you, rewind it and check the output level.
- 4) Set side B of TS-5 towards you, reverse play back the section recorded in 3), and adjust screw (G) so that the output is maximized.
- 5) After adjustment, protect screws (F) and (G) against loosening by painting screw locking compound.

— when replacing the head —

In the rotary head section for auto reverse, its tilt, azimuth, height, etc. are adjusted precisely. Therefore, when the REC/PB head alone has been replaced, they must be readjusted. In this place, replace the head block.

Electrical Adjustment Point

Display P.C. Board

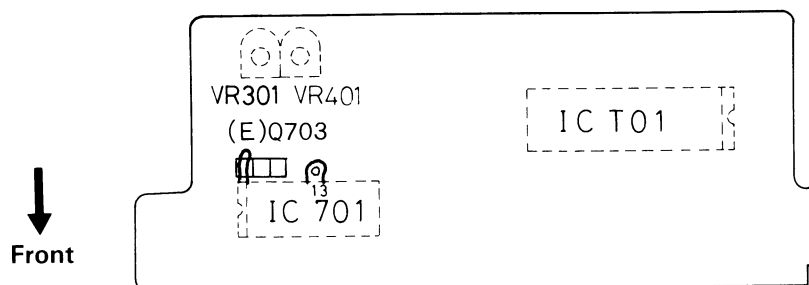


Fig. 16

Adjustment of the Digital Peak Meter

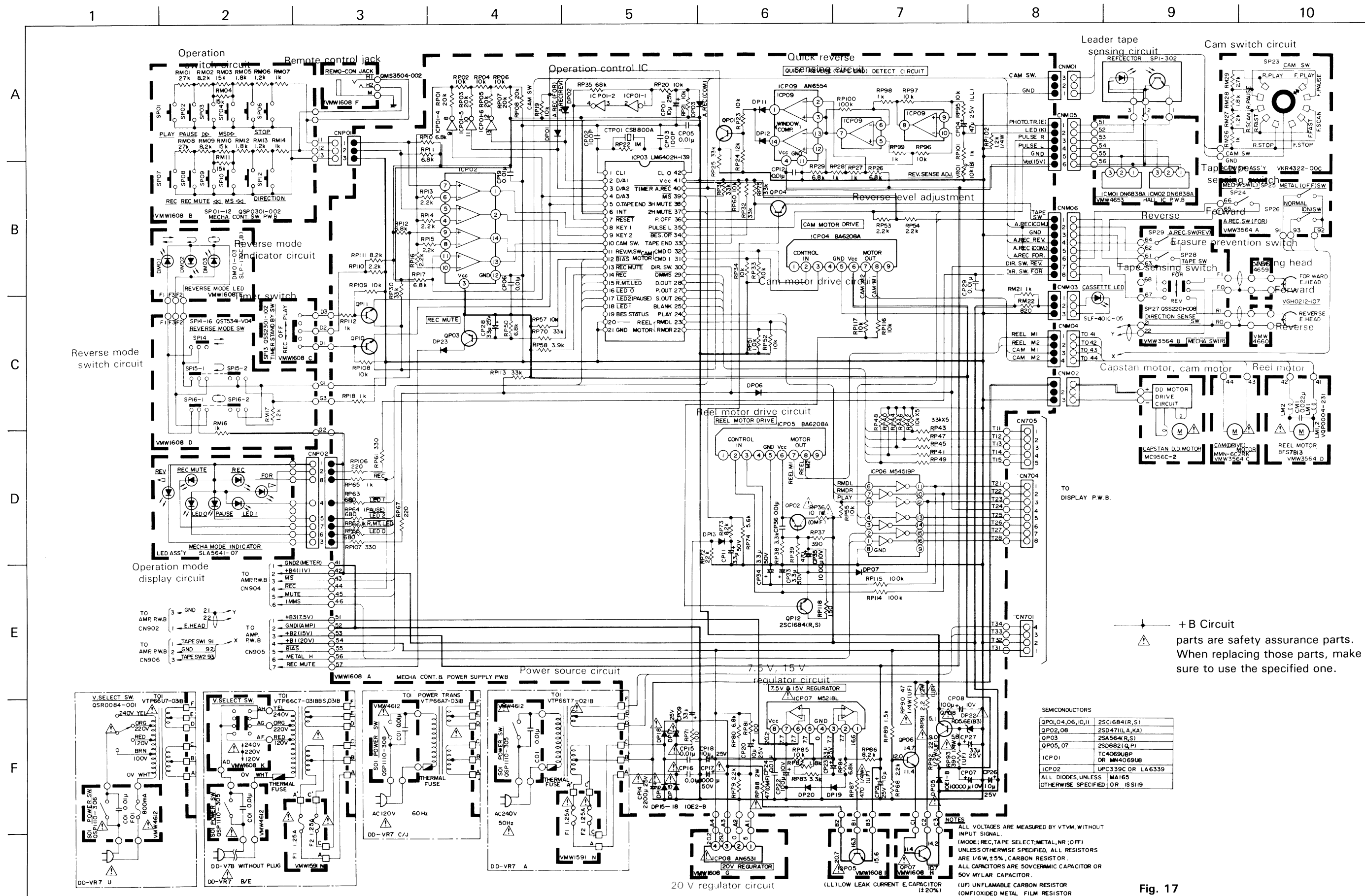
Item	Adjustment method	Adjusting point	Standard value	Remarks
Adjustment of the peak meter	1) Set the unit in the recording mode. 2) Set the output level control to maximum. 3) Input a signal to LINE IN, then adjust the attenuator so that the 0 dB indicator lights when the level at LINE OUT is -4 dBs. 4) Using the attenuator, reduce the level by 20 dB, then adjust VR301 and VR401 so that the -20 dB indicator lights. 5) Check the 0 dB level again.	VR301 VR401 (Display PCB)		To clear the peak hold, shortcircuit between the emitter of Q703 and pin 13 of IC701. See Fig. 16.
Bias Frequency checking			81 kHz	

Adjustment of the Tape End Detection Level

Using the leader tape portion of the TS-5, adjust VR501 so that the output level at test point TP-P1 on the mechanism control PCB is 0.23 V.

Adjustment is the same as the model DD-V7 when servicing DD-VR7, please refer to the service manual for the model DD-VR7 (No. 4220).

Standard Schematic Diagram of DD-VR7 (Mechanism Control Circuit)



Standard Schematic Diagram of DD-VR7 (Main Circuit)

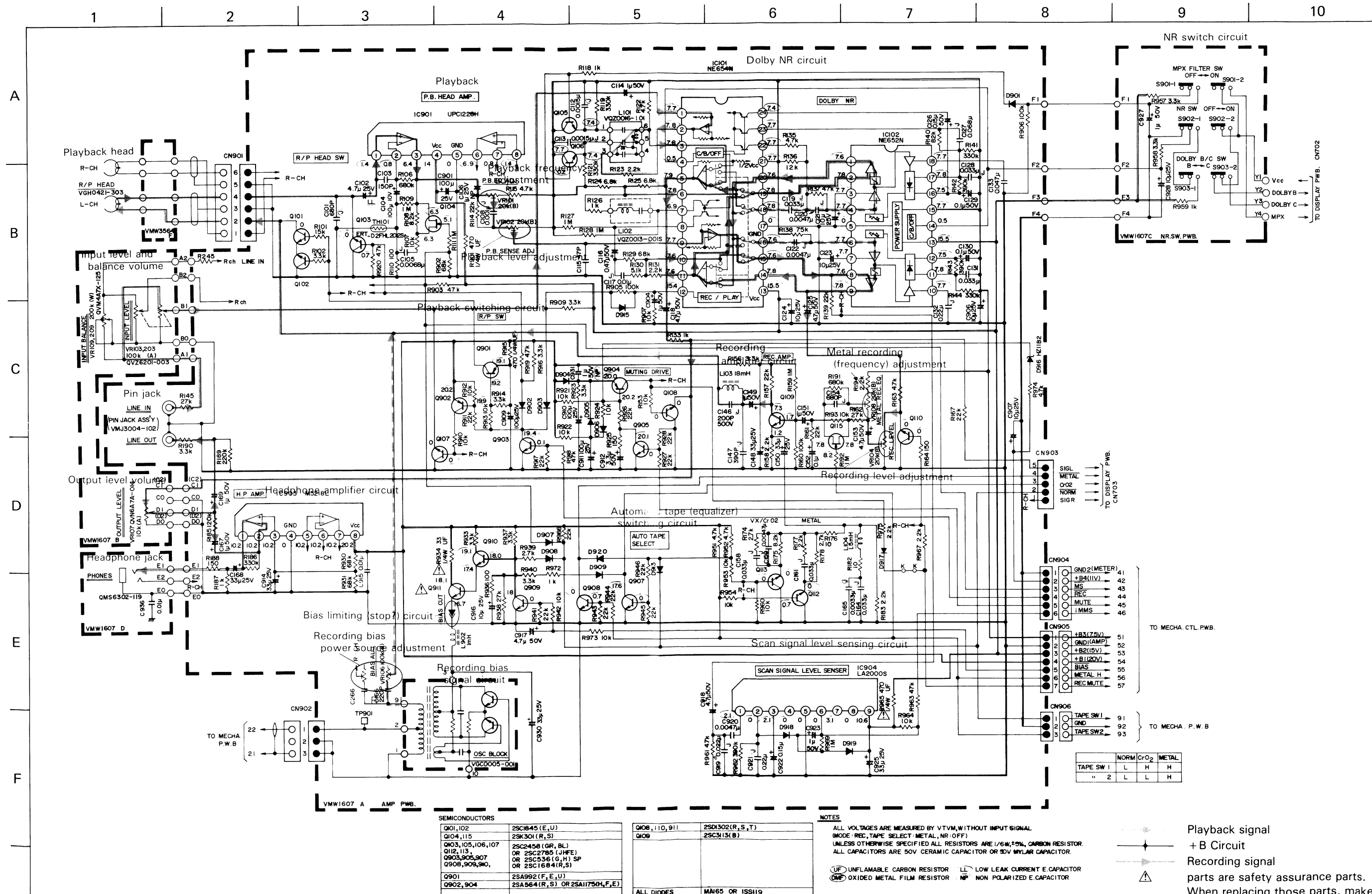
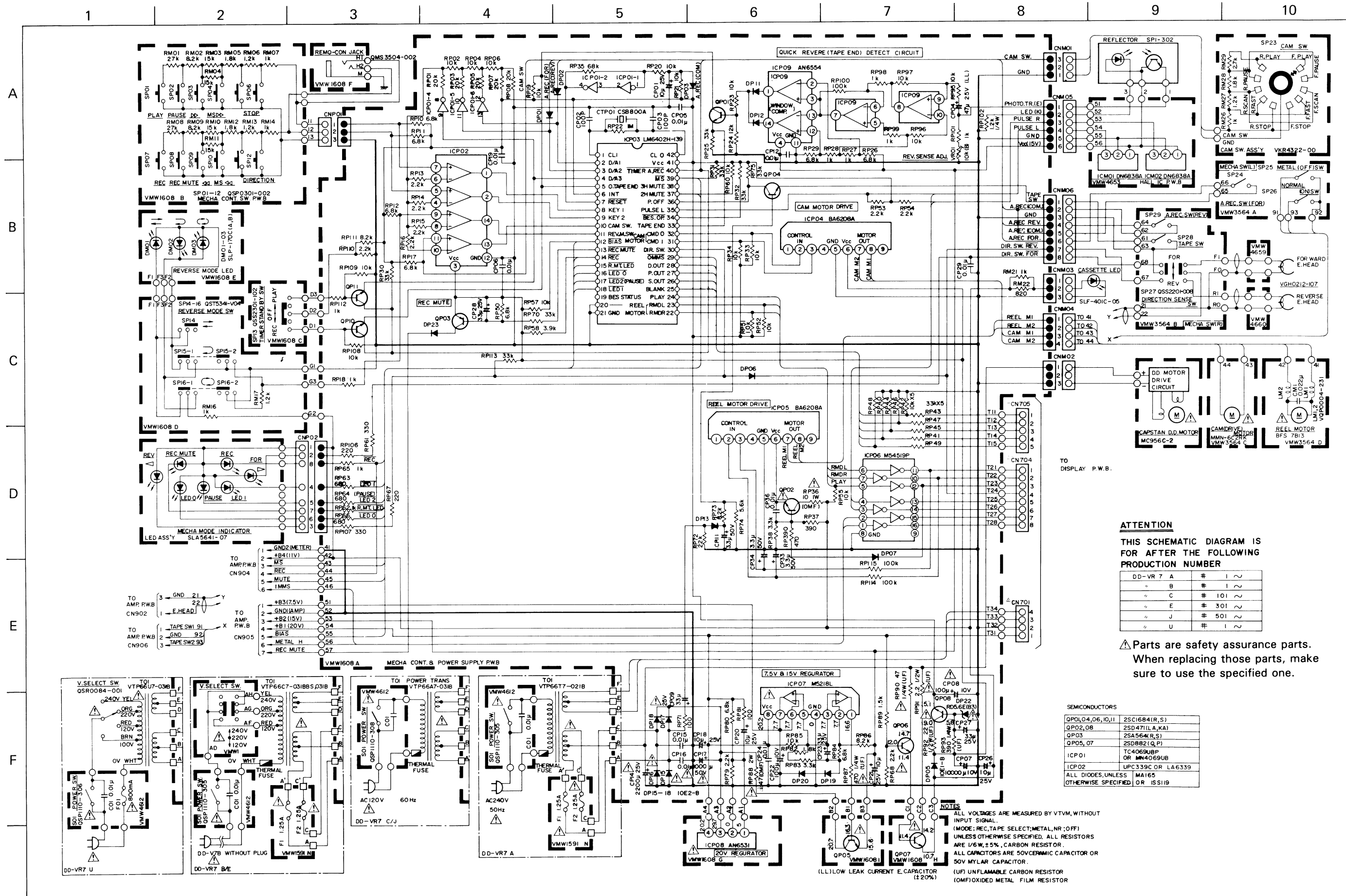
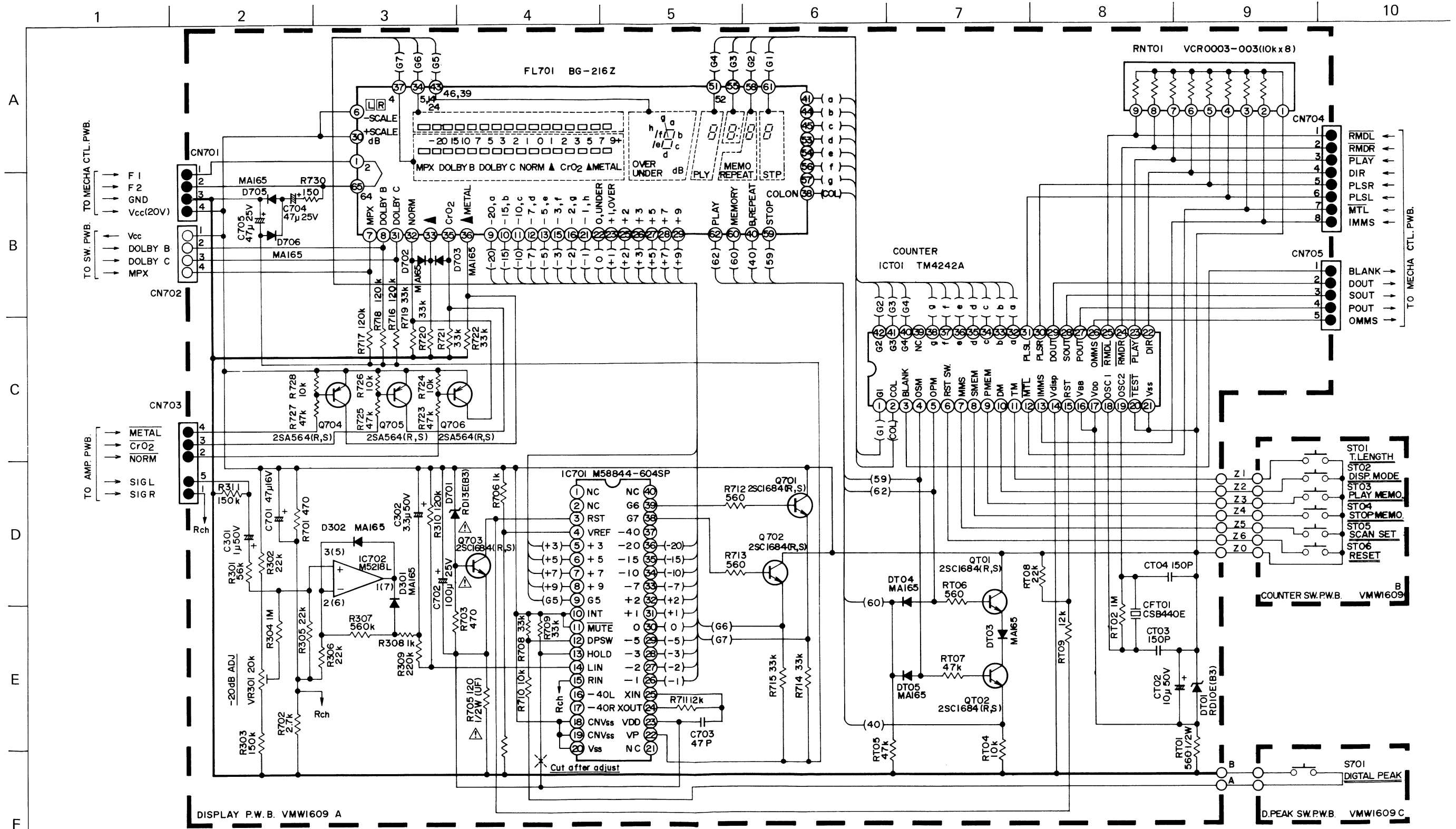


Fig. 18

Standard Schematic Diagram of DD-VR7 (Mechanism Control Circuit)



Standard Schematic Diagram of DD-VR7 (Display Circuit)



ATTENTION

THIS SCHEMATIC DIAGRAM IS FOR AFTER THE FOLLOWING PRODUCTION NUMBER

DD-VR7A	#	101
DD-VR7B	#	301
DD-VR7C	#	501
DD-VR7E	#	
DD-VR7J	#	
DD-VR7U	#	

REF.NO	BEFORE ALTERATION	AFTER ALTERATION
IC701	M58844-603SP	M58844-604SP
C703	33P	47P
Q707	2SK30(R,S)	DELETED
R729	1M	DELETED

NOTES

UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/6W, ±5%, CARBON RESISTOR, ALL CAPACITORS ARE 50V FIXED CERAMIC CAPACITOR.
(UF) UNFLAMMABLE CARBON RESISTOR

Parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

Playback signal
+ B Circuit

Wiring Connections (Mechanism Section)

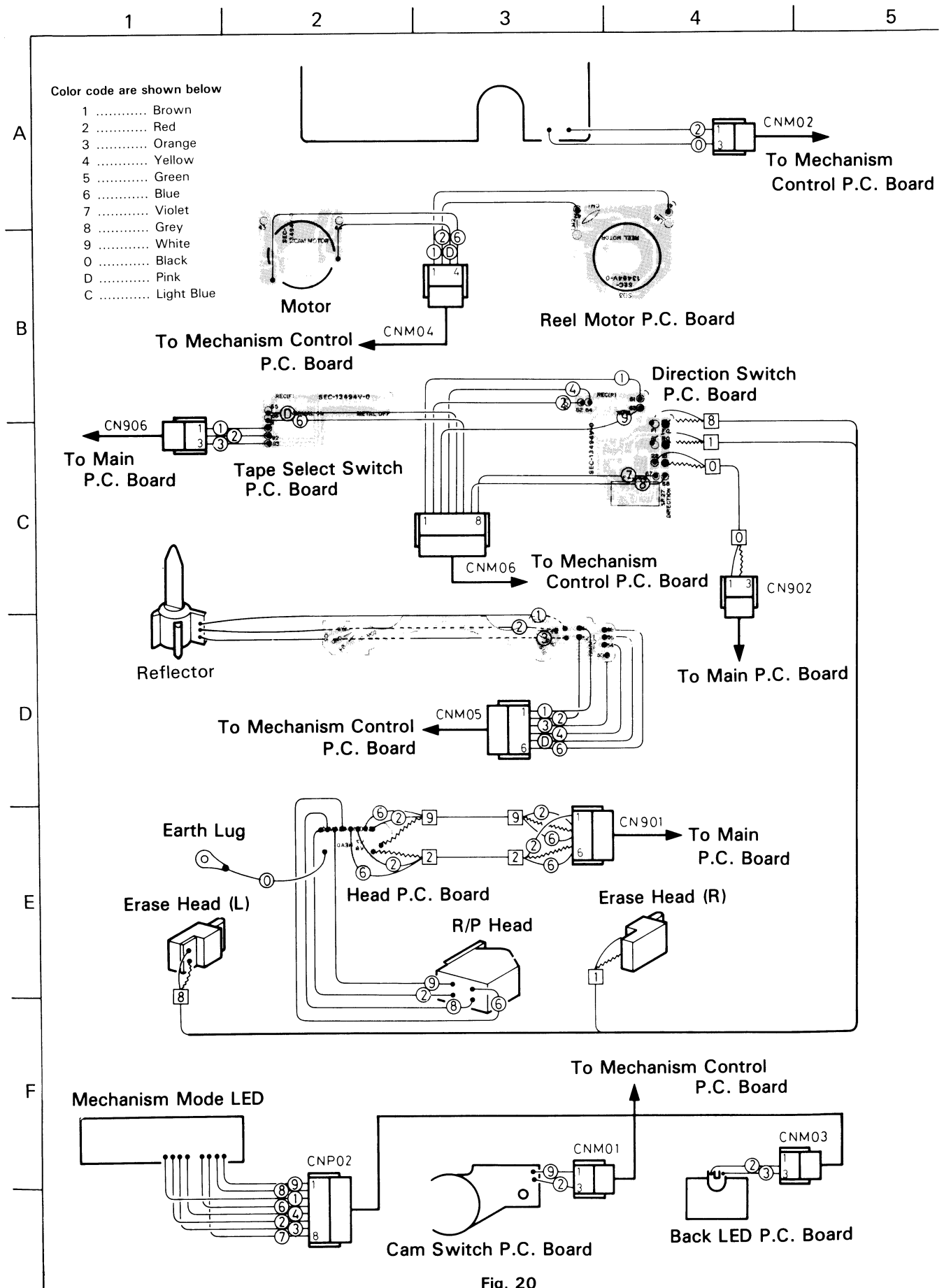


Fig. 20

Wiring Connections (Main Section)

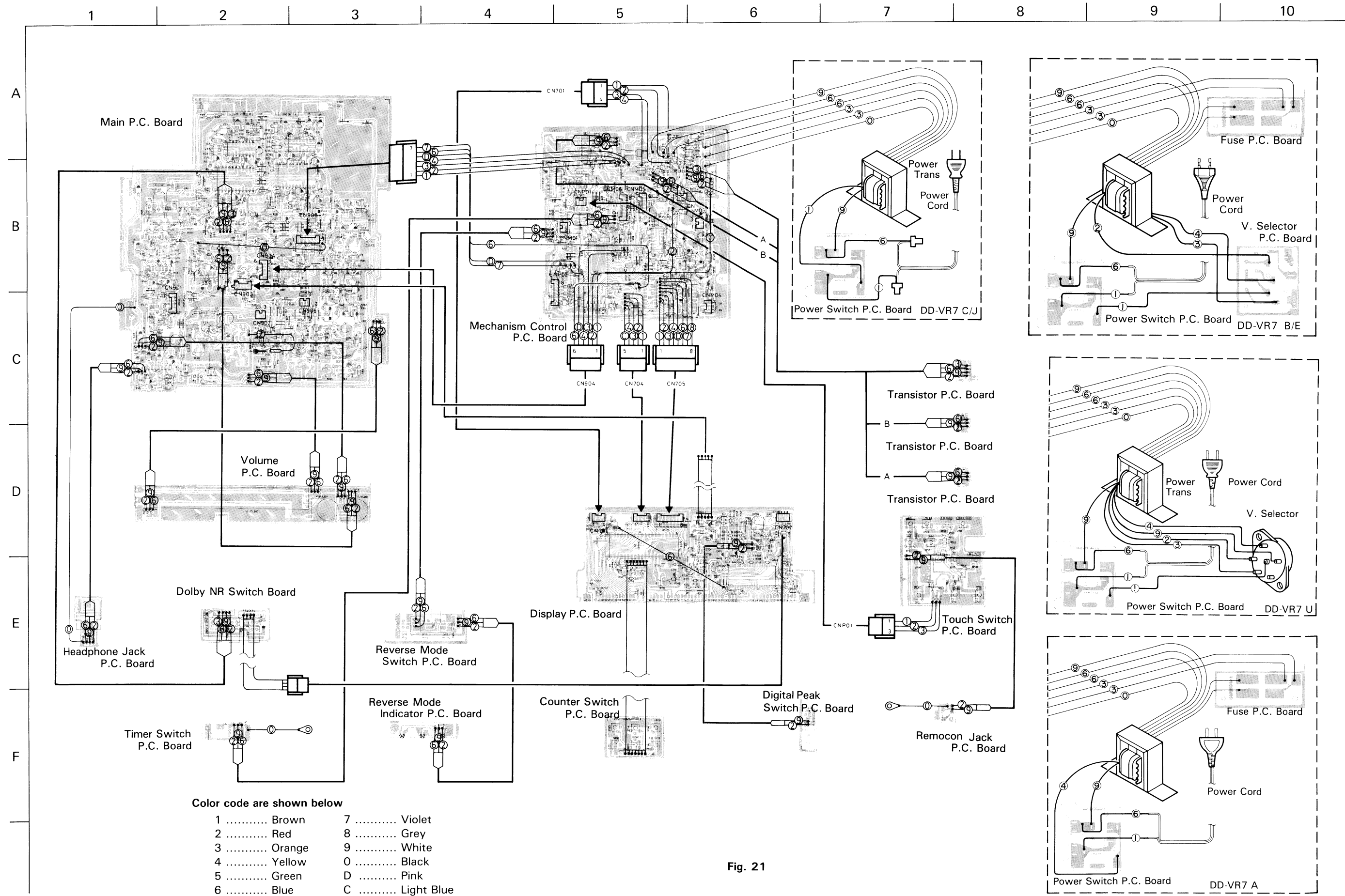


Fig. 21

Main P.C. Board Parts

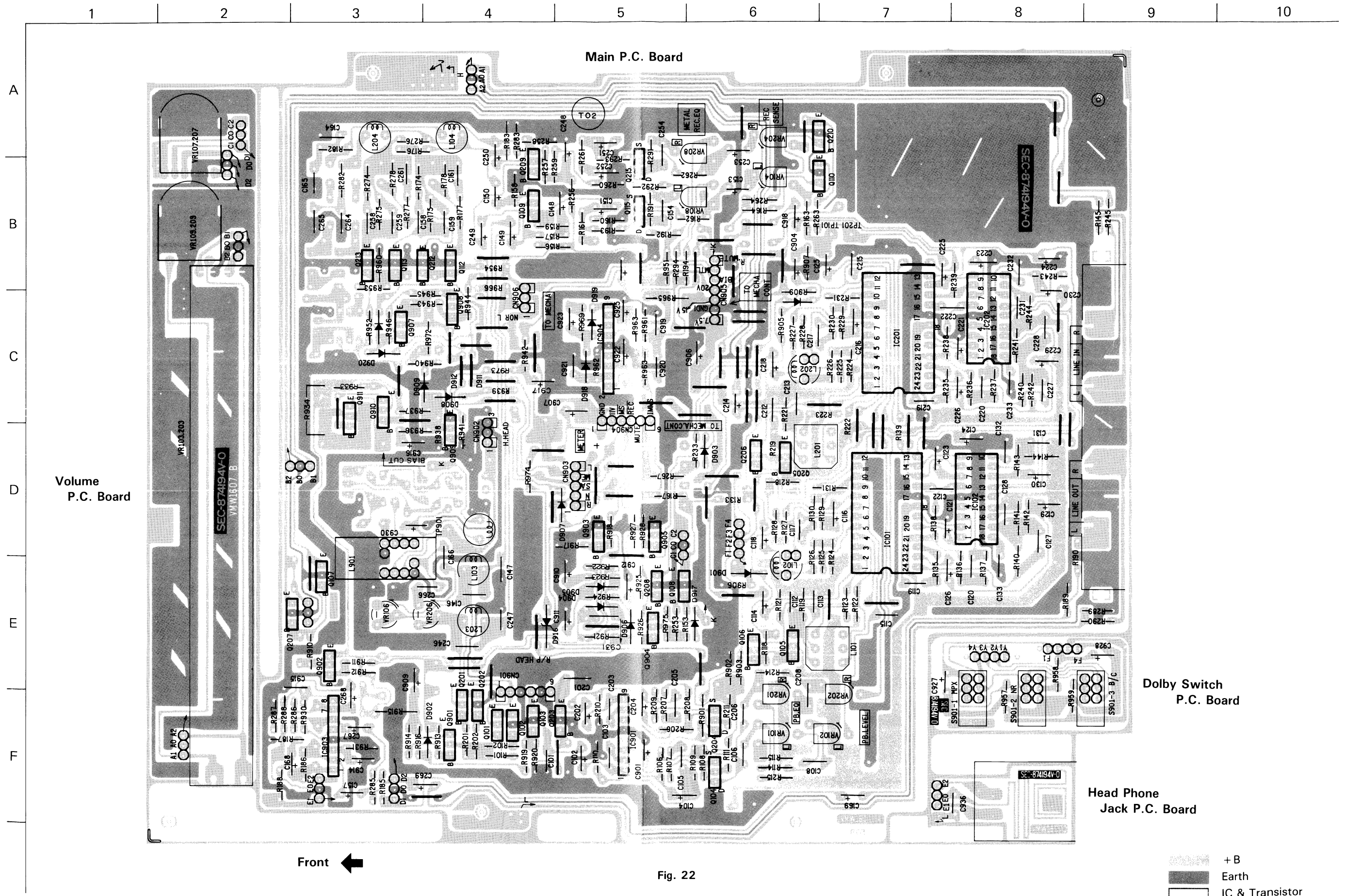


Fig. 22

Main P.C. Board
Parts List

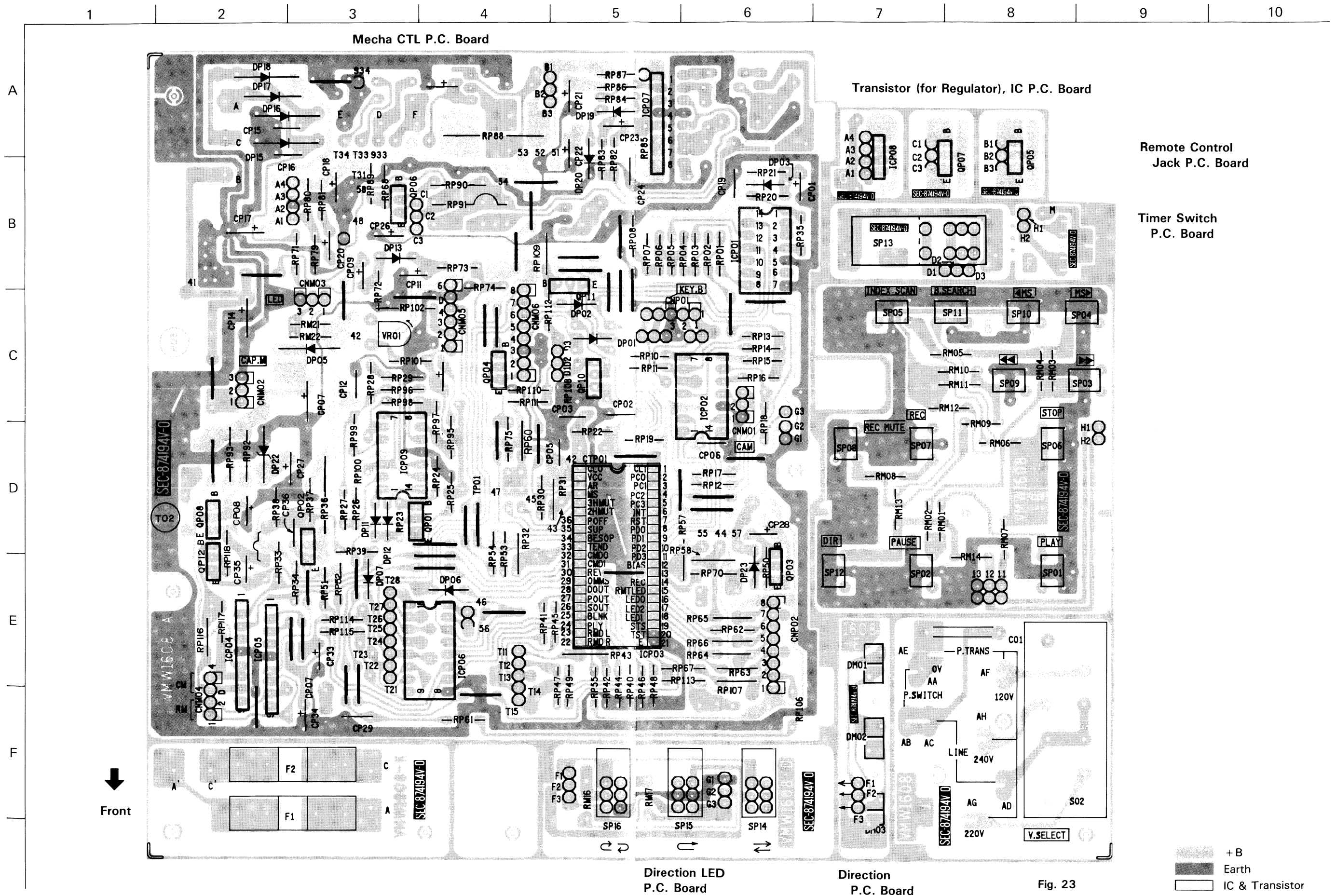
△ parts are safety assurance parts.
When replacing those parts, make
sure to use the specified one.

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	IC01,202	VMW1607-102	Main P.C. Board		1
	IC101,201	NE652N	IC	DOLBY	2
	IC904	NE654N	"	"	2
	IC903	LA2000S	"	"	2
	IC901	M5218L	"	"	1
		UPC1228H	"	P.B. EQ	1
	Q902,904	2SA564(R,S)TA	Transistor		2
	Q901	2SA992(F,E,U)	"		1
	Q103,105	2SC1684(RS)TA	"		18
	106,107				
	112,113				
	203,205				
	206,207				
	212,213				
	903,905				
	907 ~ 910				
	Q101,102	2SC1845(E,U)	"		4
	201,202				
	Q109,209	2SC3113(B)E4	"		2
△	Q108,110	2SD1302(R,S,T)TA	"		5
	208,210				
	911				
	Q104,115	2SK301(R,S)TA	F.E. Transistor		4
	204,215				
	D901 ~ 913	1SS99	Si. Diode	or MA165	15
	915				
	917 ~ 920				
	D916	HZ11EB	Z. Diode		1
	VR109,209	QVM4A7X-125	V. Resistor	Input Balans	2
	VR107,207	QVN6A7A-014	"	Output	2
	VR101,102	QVP8A0B-024	"		6
	104,108				
	201,202				
	VR106,206	QVZ3501-104	"		2
	VR103,203	QVZ6201-003	"		2
	L101,201	VQZ0016-101	Filter		2
	L102,202	VQZ0013-001S	"		2
	L103,203	VQP0001-183S	Inductor		2
	L104,204	VQP0001-152S	"		2
	L901	VGC0005-001	OSC Block		1
	L902	VQP0001-102S	Inductor		1
	TH101,201	ERT-D2FHL202S	Thermistor		2
	CN901	QMV5005-006	Plug Ass'y	R/P Head	1
	CN902	" -003	Connector	E Head	1
	CN903	E04365-005	"	Meter	1
	CN904	QMV5005-006	Plug Ass'y	Mecha. CTL	1
	CN905	" -007	Connector	"	1
	CN906	" -003	"	Mecha.	1
		QMS6302-119	Jack Ass'y	Phones	1
		VMJ3004-102	"	Line	1
		QST5341-V03	Push SW. Ass'y	MPX-NR-B/C	1
△	R956	QRD121J-102	C. Resistor		1
	R901,915	QRD149J-	"		4
	934,965				
	R101,102	QRD161J-	"		183
	106 ~ 111				
	114 ~ 119				
	121 ~ 131				
	133				
	135 ~ 145				
	153				
	156 ~ 164				
	167				
	174 ~ 178				
	182,183				
	185 ~ 194				
	201,202				
	206 ~ 211				
	214 ~ 219				
	221 ~ 231				

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	R233				
	235 ~ 245				
	253				
	R256 ~ 264				
	267				
	274 ~ 278				
	282 ~ 283				
	285 ~ 294				
	902,903				
	905,907				
	909 ~ 914				
	916 ~ 928				
	930,931				
	933				
	936 ~ 946				
	951 ~ 954				
△	957 ~ 964				
	966 ~ 967				
	969				
	972 ~ 975				
	C915,936	QCF11HP-103	C. Capacitor		2
	C101,103	QCF11HJ-	"		12
	115,147				
	154,166				
	201,203				
	215,247				
	254,266				
	C146,247	QCS12HJ-201	"		2
	C102,202	QEB41EM-475	E. Capacitor		2
	C106,206	QEN41HA-105	"		3
	931				
	C104,204	QET41AR-107	"		2
	C121,123	QET41ER-	"		23
	124,148				
	150,168				
	221,223				
	224,248				
	250,268				
	901,906				
	907,909				
	910,911				
	914,925				
	930				
	C114,116	QET41HR-	"		33
	118,125				
	126,129				
	130,149				
	151,152				
	153,167				
	169,214				
	216,218				
	225,226				
	229,230				
	249,251				
	252,253				
	267,269				
	904,912				
	917,918				
	922,923				
	927				
	C105,108	QFN41HJ-	M. Capacitor		17
	112,113				
	120,122				
	159,165				
	205,208				
	212,213				
	220,222				
	259,265				
	920				
	C117,119	QFV41HJ-	T.F. Capacitor		22
	127,128				
	C131,132				

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	C133,158				
	161,164				
	217,219				
	227,228				
	231,232				
	233,258				
	261,264				
	919,921				
		SDSF3008N	Screw	Pin Jack	2
		SDST3006N	"	Heat Sink	2
		SDST3006Z	"	Main PWB × 4	7
				Mecha. CTL	
		SSSP2606Z	"	PWB × 3	4
				Input VR × 2	
				Timer SW × 2	
		SSSP3006Z	Screw	S901(MPX-NR)	4
				× 2	
				Rev. Modw	
				SW. × 2	
		WBS3000N	Washer	Earth	1
		WNS3000Z	"		1
		VKL5509-002	Heat Sink	Heat Sink	1
		DPSP3008Z	Screw		3
		VMA4199-001	Sheld Board		1
		VKW3001-077	Spring		1
		VKL5490-002	Timer Bracket		1
		VKL3143-001	Board in Tab		1
		VMZ0015-001	Post Pin		1

Mechanism Control P.C. Board Parts



Mechanism Control

P.C. Board Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make
sure to use the specified one.

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		VMW1608-102	Mecha. CTL P.C. Board		1
	ICP01	TC4069UBP	IC	or MN4069UB	1
	ICP02	UPC339C	"	or LA6339	1
	ICP03	LM6402H-139	"		1
	ICP04,P05	BA6208A	"		2
	ICP06	M54519P	"		1
△	ICP07	M5218L	"		1
△	ICP08	AN6531	"		1
	ICP09	AN6554	"		1
	QP01,P04 P06 P10 ~ P12	2SC1684(R,S)	Transistor		6
△	QP02,P08	2SD471(LA,KA)	"		2
	QP03	2SA564(R,S)	"		1
△	QP05,P07	2SD882(Q,P)	"		2
	DP01 ~ P03	1SS199	Si. Diode	or MA165	11
△	P06,P07 P11 ~ P13 P19,P20 P23				
	DP05	10E1-B	"		1
△	DP15 ~ P18	10E2-B	"		4
△	DP22	RD5.6E(B3)	Z. Diode		1
	DM01 ~ M03	SLR-55URC50F124	L.E. Diode	Rev. Mode	3
	VR01	QVP8A0B-014	V. Resistor		1
△	RP91,P92	QRD129J-	C. Resistor		2
	RP102	QRD141J-122	"		1
△	RP87,P90 P93	QRD149J-	"		3
	RP01 ~ P08 P10 ~ P35 P37 ~ P55 P57,P58 P60 ~ P68 P70 ~ P75 P79 ~ P86 P89 P95 ~ P101 P106 ~ P118 M01 ~ M14 M16,M17 M21,M22	QRD161J-	C. Resistor		117
△	RP36	QRG019J-100	OMF Resistor		1
	RP88	QRG029J-470	"		1
	CP05,P06 P12,P15 P16,P19 P24,P29 P36	QCF11HP-103	C. Capacitor		9
△	CP02,P03 CP04	QCS11HJ-101	"		2
	CP07,P08 P22,P35	QEB31EM-476	E. Capacitor		1
△	CP01,P09 P14,P18 P20,P21 P23 P26 ~ P28	QET41AR-	"		4
△	CP11,P17 P33,P34	QET41ER-	"		11
		QET41HR-	"		4
	CNP01	QMV5005-003	Connector		1
	CNP02	" -008	"		1
	CNM01 ~ M03	" -003	"		3
	CNM04	" -004	"		1
	CNM05	" -005	"		1
	CNM06	" -008	"		1
	SP01 ~ P12 SP13	QSP0301-002 QSS2301-102	Tact Switch Slide Switch	Timer	12 1

Display P.C. Board Parts

Counter Switch P.C. Board

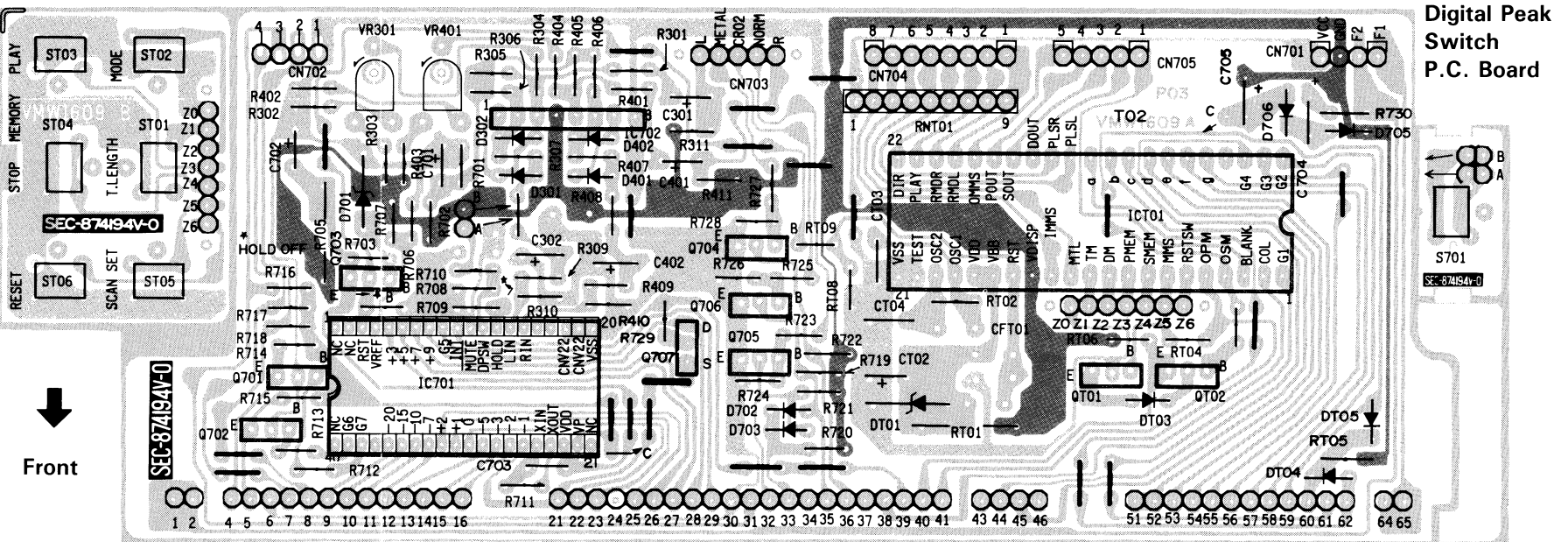






Fig. 24

 +B
 Earth
 IC & Transistor

Display P.C. Board Parts List

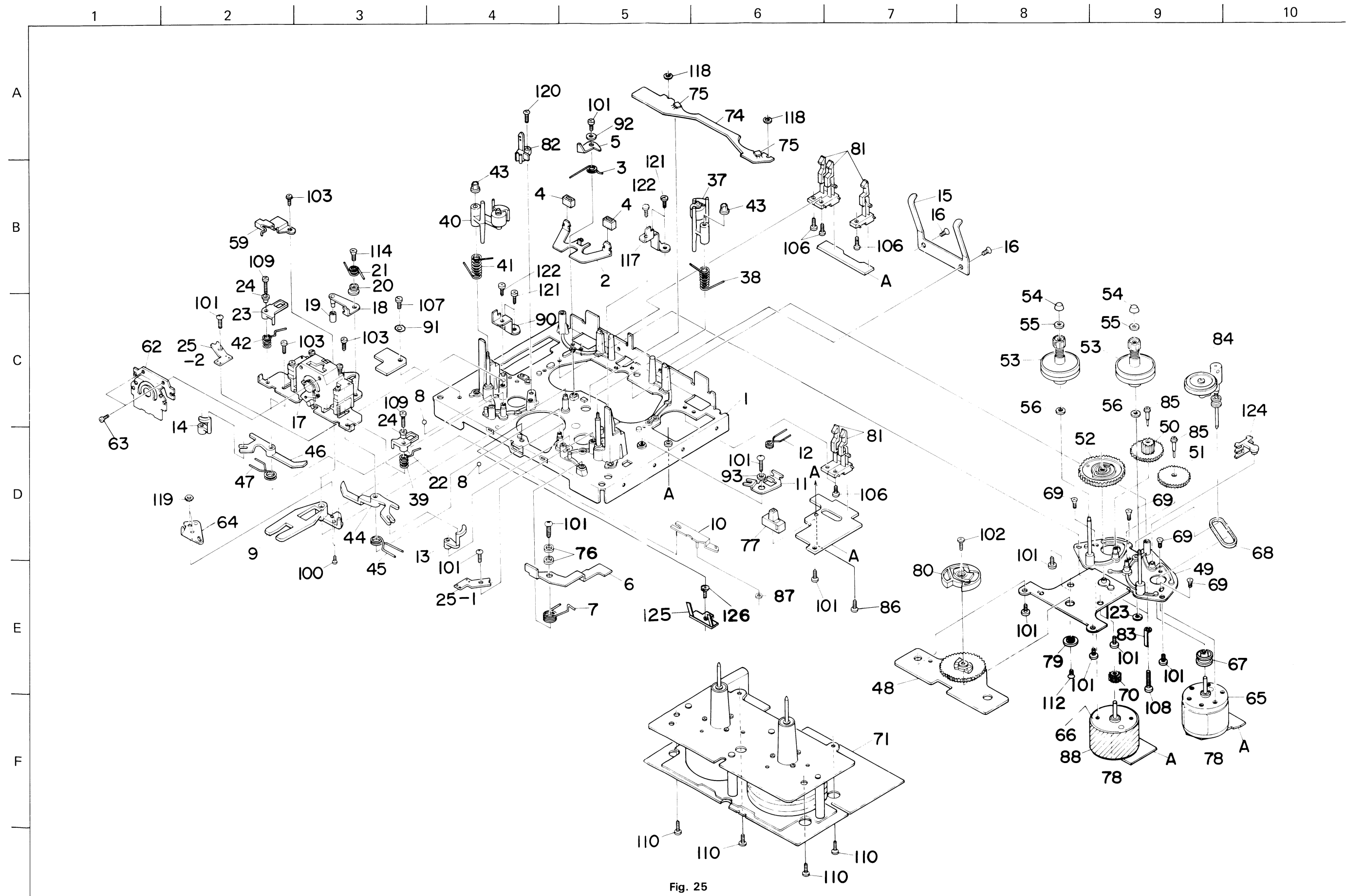
 parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		VMW1609-102	Display P.C. Board		1
	IC 701	M58844-604SP	IC		1
	ICT01	TM4242A	"		1
	Q701 ~ 703	2SC1684(R,S)	Transistor		3
	Q704 ~ 706	2SA564(R,S)	"		3
	D701	RD13E(B3)	Z. Diode		1
	D301,302 401,402 702 ~ 706	1SS199	Si. Diode	or MA165	8
	R705	QRD129J-121	C. Resistor		1
	R701 ~ 703 706 ~ 728 730 301 ~ 311 401 ~ 411	QRD161J-	"		50
	VR301,401 C703	QVZ1802-223 QCS11HJ-470	V. Resistor C. Capacitor	- 20 DB ADJ.	2 1
	C704, 705 C701, 702	QET41CR-476 QET41ER-	E. Capacitor "		2 2

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	C301,302 401,402	QET41HR-	E. Capacitor		4
	S701	QSP0301-002	Tact Switch	Digital Peak	1
	CN701	QMV5005-004	Connector		1
	CN702	VMC0007-004	"	MPX/NR/BC	1
	CN704	QMV5005-008	Plug Ass'y		1
	CN705	" -005	"		1
	ICT01	TM4242A	IC		1
	QT01,T02	2SC1684(R,S)	Transistor		2
	DT01	RD10E(B3)	Z. Diode		1
	DT03 ~ T05	1SS99	Si. Diode	or MA165	3
	RT01	QRD129J-561	C. Resistor	Not Burn	1
	RT02	QRD161J-	"		7
	T04 ~ T09				
	CT02	QET41HR-106	E. Capacitor		1
	CT03,T04	QCS11HJ-151	C. Capacitor		2
	ST01 ~ T06	QSP0301-002	Tact Switch	Counter Switch	6
	CFT01	CSB440E	Cera. Lock		1
	RNT01	VCR0003-003	Net Work		1

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	SP14 ~ P16	QST5341-V04	Push Switch Ass'y	Rev. Mode	3
	CTP01	CSB800A	Cera. Lock		1
Voltage Select P.C. Board					
△	TP-P1	QSS2325-203BS	Slide Switch	DD-VR7B	1
△		" -203	"	DD-VR7E	1
△		QSR0084-001	Voltage Selector Switch	DD-VR7U	1
		VKL3143-001	Board in Tab		1

Exploded View of Mechanism Assembly



Mechanism Assembly Parts List

⚠ Parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1	VKL1221-00L	Chassis Basse Ass'y		1
	2	VKL5347-002	Brake Bar		1
	3	VKW4391-001	Brake Bar Spring		1
	4	VKZ4129-001	Rubber Tire		1
	5	VKL5409-003	Connecting Lever		1
	6	VKL5350-004	Safety Lever		1
	7	VKW4388-001	Spring		1
	8	T41615-004	Steel Ball		2
	9	VKS3164-003	Reverse Lever		1
	10	VKS4517-002	Connecting Arm		1
	11	VKL5349-004	Switch Lever		1
	12	VKW4379-001	Spring		1
	13	VKS4539-001	Kick Lever	Right	1
	14	VKS4539-003	"	Left	1
	15	VKY4282-001	Pack Spring		1
	16	VKZ4128-001	Special Screw		2
	17	VDG2118-001MA1	Head Mount Base Unit Ass'y		1
	18	VKL5390-00C	Cam Lever Ass'y		1
	19	VKH3000-072	Collar		1
	20	VKH4421-004	"		1
	21	VKW4431-001	Spring		1
	22	VKS4515-007	Guide Lever	Right	1
	23	VKS4515-008	"	Left	1
	24	VKH3000-059	Collar		2
	25-1	VKY4281-005	Spring Plate		1
	25-2	VKY4281-004	"		1
	37	VKP4132-00J	Pinch Roller Arm Ass'y	Right	1
	38	VKW3006-067	Torsion Spring		1
	39	VKW4384-002	Spring		1
	40	VKP4132-00K	Pinch Roller Arm Ass'y	Left	1
	41	VKW4407-001	Spring		1
	42	VKW4390-002	"		1
	43	VKS4513-001	Adjust Screw	Pinch Roller	2
	44	VKZ4192-001	Pinch Roller Lever	Right	1
	45	VKW4385-002	Sping	"	1
	46	VKZ4197-003	Pinch Roller Lever	Left	1
	47	VKW4386-002	Spring	"	1
	48	VKR4322-00F	Cam Switch Ass'y		1
	49	VKL3429-00A	Reel Base Ass'y		1
	50	VKR3001-003	Gear (2)		1
	51	" -004	"		1
	52	VKR3203-001	Cam Gear (1)		1
	53	VKR4281-00E	Reel Disk Ass'y		2
	54	VKS4131-001	Reel Stopper		2
	55	VKR4170-001	Ring		2
	56	VKZ4003-003	Cluch Felt		2
	59	VKY4294-005	Spring Plate		1
	62	VKZ4242-001	Head Wire Clamp		1
	63	VKZ4204-001	Screw		1
	64	VKL5466-00B	Reverse Bracket Ass'y		1
⚠	65	BFS7B13	Reel Motor		1
⚠	66	MMN-6C2RK	Motor Ass'y		1
	67	VKS4607-002	Motor Pulley		2
	68	VKB3000-077	Belt		1
	69	VKZ4128-001	Special Screw		4
⚠	70	VKR4326-001	Motor Gear		1
	71	MC956C-2	DD Motor Ass'y		1
	74	—	Hole IC P.C. Board Ass'y		1
	75	DN6838A	Hole IC		2
	76	Q03093-622	Washer		2
	77	QSS2201-008	Slide Switch		1
	78	VQP0004-231	Indicator		2

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	79	VKH4430-001	Collar		1
	80	VKR3107-003	Main Cam		1
	81	VSH1133-002	Leaf Swtich		5
⚠	82	SPI-302	Replector		1
	83	VKY4298-001	Earth Plate		1
	84	VKS4323-00D	Idler System		1
	85	VKS4533-001	Lock Bush		2
	86	VKZ4128-001	Special Screw		1
	87	VKH3000-060	Collar	Reverse Bracket Ass'y	1
	88	FE-ZMS409	Shield Core		2
	90	VKL5464-003	Guide Bracket		1
	91	WBS2600N	Washer		1
	92	Q03091-154	"		1
	93	Q03091-150	"		1
	100	SSSK2050N	Screw	Reverse Bracket Ass'y	2
	101	SDSF2606Z	"	Brake Bar × 1 Safety Lever × 1 Switch Lever × 1 Spring Plate × 2 Real Base Ass'y × 5 Slide Switch × 1	11
	102	SDSP2003Z	"	Main Cam	1
	103	SPSP2003Z	"	Spring Plate × 1	3
	106	SDSP2004Z	"	Pinch Roller Lever × 2	
	107	SPSP2605Z	"	Leaf Switch	5
				P.C. Board	1
	108	SDSP2612Z	"	Reel Base Ass'y	1
	109	SPSP2006Z	"	Guide Lever	2
	110	SDSP2618Z	"	Motor Ass'y	4
	111	Q03093-622	Washer	Safety Lever	2
	112	SSSP2603Z	Screw	Collar	1
	114	SSSP2005Z	"		1
	117	VKL5464-004	Guide Bracket		1
	118	Q03093-522	Washer	Hole IC P.C. Board Ass'y	2
	119	NTB2000	Nut	Reverse Bracket Ass'y	2
	120	SDSF2608Z	Screw		2
	121	SPSK2028Z	"	Guide Bracket	4
	122	VKZ4194-001	Special Screw	"	2
	123	VKZ4004-004	Special Washer		1
	124	VKS4608-002	Belt Guide		1
	125	VKY4319-001	Spring Plate		1
	126	LPSP2604Z	Screw		1

Exploded View of Enclosure Assembly

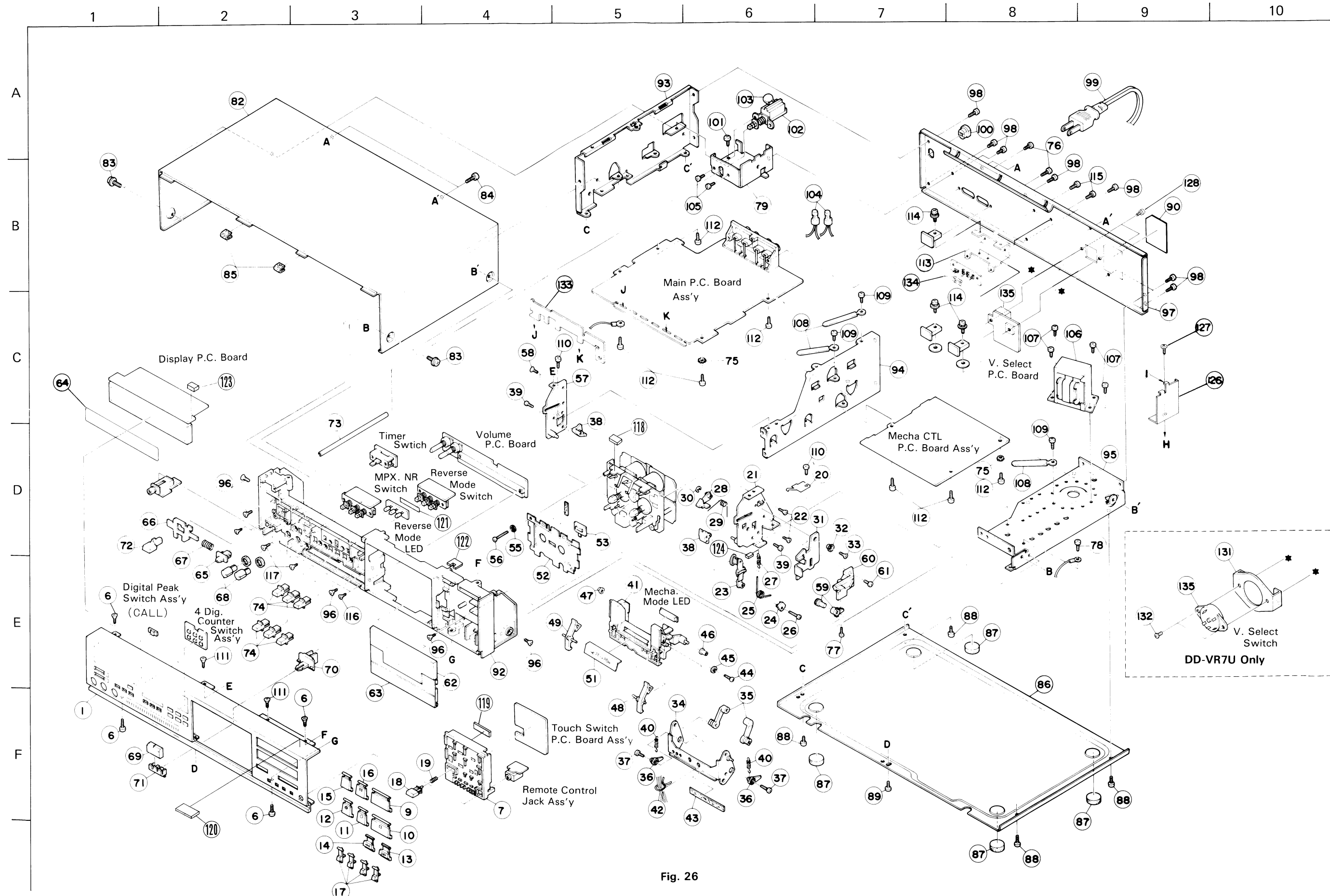


Fig. 26

Enclosure Assembly Parts List

⚠ Parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		ZCDDVR7Y-CBF	Front Plate Ass'y		
	6	SSSF3008Z	Screw	F. Panel + F. Plate	4
	7	VJD2210-001	Button Case		1
	9	VXP3098-001	Push Button	Play	1
	10	" -002	"	Stop	1
	11	VXP3099-001	"	Rec	1
	12	" -002	"	Rec Mute	1
	13	VXP3100-002	"	FF	1
	14	" -001	"	REW	1
	15	VXP3101-001	"	Direction	1
	16	" -002	"	Pause	1
	17	VXP4348-001	"	I.S, B.S,M.S	4
	18	VXP4349-00A	Push Button Ass'y	Eject	1
	19	VKW3001-063	C. Spring		1
	20	VKY4297-002	Spring		1
	21	VKL5352-00D	Mecha. Bracket (R) Ass'y		1
	22	VKZ4143-002	Special Screw	Mecha. Bracket (R) Ass'y	2
	23	VKS4522-003	Eject Arm		1
	24	VKS4377-001	Arm Holder		1
	25	VKW3006-093	Torsion Spring		1
	26	SDST2614Z	Screw		1
	27	VKW4454-005	Tension Spring		1
	28	VKS4378-004	Lock Arm		1
	29	VKW3006-070	Torsion Spring		1
	30	REE2500	E. Washer	Lock Arm	1
	31	VKL5489-001	Eject Lever		1
	32	VKH3013-004	Flange Collar		1
	33	SSST2606Z	Screw	Eject Lever	1
	34	VKL3490-00A	Holder Bracket Ass'y		1
	35	VKS4594-001	Lift Arm		2
	36	VKS4595-001	Slide Plate		2
	37	SDSF2606Z	Screw		2
	38	VKS4596-001	Slide Shaft		2
	39	SDSF2606Z	Screw		2
	40	VKW4454-001	Tension Spring		2
	41	VJT2080-004	Cassette Holder		1
	42	V44743-001	Monohira		1
	43	VYSA1R4-066	Spacer		1
	44	SDSF2608R	Screw		1
	45	Q03091-201	Washer		1
	46	VKS4380-002	Collar		1
	47	" -001	"		1
	48	VKS4379-001	Pressure Lever		1
	49	" -002	"		1
	51	VJD4661-003	L.E.D. Plate		1
	52	VJD3383-005	Mecha Plate		1
	53	SLF-401C-05	L.E.D.		1
	54	VYSA1R4-024	Spacer		1
	55	WAS2600N	Washer		1
	56	SPSP2618R	Screw		1
	57	VKL5353-00B	Mecha Bracket (L) Ass'y		1
	58	VKZ4143-002	Special Screw	Mecha Bracket + Mecha Chassis Black	1
	59	VYH4054-00F	Damp Gear Ass'y		1
	60	VKS3187-002	Damp Holder		1
	61	SDST3006Z	Screw		1
	62 ~ 63	ZCDDVR7Y-CCA	Cassette Lid Ass'y		1
	62	VJT3121-002	Cassette Lid		1
	63	VJT4083-001	Lid Plate		1
	64	VJD4615-004	Filter		1
	65	VXS4041-005	Slide Knob	Timer	1

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	66	VKL5490-002	Timer Bracket		1
	67	VKW3001-077	Spring		1
	68	VXL4181-005	Knob	Output, Balance	2
	69	VXS4116-001	Slide Knob	Input	1
	70	VKS3183-001	Volume Lever		1
	71	VKS3184-001	Slide Lever		1
	72	VXP4345-001	Push Button	Power	1
	73	VKS4003-008	Pipe		1
	74	VXP4346-001	Push Button	NR, MPX, R Mode	6
	75	WNS3000Z	Washer		1
	76	SDSF3008N	Screw	Pin Jack	2
	77	SDSF3008Z	"	Damp Holder	1
	78	SDST3006Z	"	Lug Wire	1
	79	VKL3258-002	Power Bracket		1
	82	VJC2101-002	Top Cover		1
	83	VKZ3001-006	Special Screw		4
	84	SDST3006N	Screw		2
	85	VYSA1R8-027	Spacer	Top Cover	2
	86	VJC1195-004	Bottom Cover		1
	87	VJF4003-002	Foot		4
	88	SDST3006Z	Screw		4
	89	SBSF3010Z	"		1
	90	VYN2118-003PA	Name Plate	DD-VR7A	1
	"	" -002PA	"	DD-VR7B	1
	"	" -004PK	"	DD-VR7C	1
	"	" -005PA	"	DD-VR7E	1
	"	" -006PA	"	DD-VR7J	1
	"	" -007PA	"	DD-VR7U	1
	91	VND4006-017	Caution Label		1
	92	VJC1320-001	Front Panel		1
	93	VKL2180-002	Amp Chassis (Left)		1
	94	VKL2179-004	" (Center)		1
	95	VKL2178-001	" (Right)		1
	96	SSST3006Z	Screw	Front Panel	5
	97	VJC1261-010	Rear Panel	DD-VR7A/C/J	1
	"	" -011	"	DD-VR7B	1
△	98	SDST3006N	Screw	Rear Panel	8
△	99	QMP2560-200	Power Cord	DD-VR7A	1
△	"	QMP9017-008BS	"	DD-VR7B	1
△	"	QMP1200-200	"	DD-VR7C/J	1
△	"	QMP3900-200	"	DD-VR7E	1
△	"	QMP7600-200	"	DD-VR7U	1
△	100	QHS3876-162	Strain Relief	DD-VR7A/C/E/J/U	1
△	"	" -162BS	"	DD-VR7B	1
	101	SDST3006Z	Screw	Power Bracket	1
△	102	QSP1110-305	Power Switch	DD-VR7A/E	1
△	"	" -305BS	"	DD-VR7B	1
△	"	" -308	"	DD-VR7C/J	1
△	"	" -306	"	DD-VR7U	1
	103	QFZ9010-103	M.P. Capacitor	DD-VR7A/B/E	1
	"	QCZ9014-103	C. Capacitor	DD-VR7C/J	1
	"	QCZ9015-103	"	DD-VR7U	1
△	104	TAW000504-01	Connector		1
	105	LPSP3006Z	Screw	Power Switch	1
△	106	VTP66T7-021B	Power Trans	DD-VR7A	1
△	"	VTP66C7-031BBS	"	DD-VR7B	1
△	"	VTP66A7-031B	"	DD-VR7C/J	1
△	"	VTP66C7-031B	"	DD-VR7E	1
△	"	VTP66U7-031B	"	DD-VR7U	1
	107	SDST3006Z	Screw	Power Trans	4
	108	VKZ4001-001	Wire Holder		2
	109	SDST3006Z	Screw		2

△	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	110	SDST3006C	Screw	Mecha + Chassis	2
	111	SSST3006C	"	Mecha + F. Plate	2
	112	SDST3006Z	Screw	Main P.C. Board, Mecha CTL, P.C. Board	7
	113	VKL5509-002	Heat Sink		1
	114	DPSP3008Z	Screw	Transistor	3
	115	SDST3006N	"	Heat Sink	2
	116	SSSP2606Z	"	Trimer SW., Input VR.	4
	117	SSSP3006Z	"	S901(MPX-NR), REV. Mode SW	4
	118	VYSR103-015	Spacer		1
	121	VYSA1R4-070	Spacer		1
	122	T47818-001	"		1
	123	VYSR104-007	"		1
	125	VYSR105-004	"		1
	126	VKL5584-001	Bracket		1
	127	SDST3006Z	Screw		1
	128	SDSP3006R	"	V.S. Switch DD-VR7B/E/U	1
	129	WBS3000Z	Washer	Earth	1
	130	SLA-5641-07	LED Ass'y		1
	131	VKL4275-001	Bracket	DD-VR7U	1
	132	LPSP3006Z	Screw	V.S. Switch DD-VR7U	1
	133	VMA4199-001	Shield Board		1
	134	QMF51A2-1R25BS	Fuse		2
		V44743-001	Monohira	(Wire Baint)	

Accessories



△ parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

△	Parts No.	Parts Name	Remarks	Q'ty
	VMP0039-00A	Pin Cord Ass'y		2
	VNN0134-901	Instruction Book	DD-VR7A/C/J/U	1
	" -301	"	DD-VR7B/E	1
	BT20029C	Warranty Card	DD-VR7A	1
	BT20060	Guaranty Card	DD-VR7B	1
	BT20066	"	DD-VR7B	1
			DD-VR7E (JED)	
	BT20025H	Warranty Card	DD-VR7C	1
	BT20047A	"	DD-VR7J/E (PX)	1
			DD-VR7U (PX, EES)	
	BT20064	"	DD-VR7E (JED)	1
	VNC1200-002	Copyright Law Warning	DD-VR7C	1
	BT20071	SVC Center List	"	1
	BT20044D	Safety Instruction	DD-VR7J	1
	VNC5311-201	Caution Card	DD-VR7U (EES)	1
	" -202	"	DD-VR7E/U (PX)	1
	TJL000420-01	Label	DD-VR7B	1
	OZL1002-003	Warning Label	"	1
	VND4113-001	G. Caution	DD-VR7B/J	1
	VNC5004-001	Mark Sticker	DD-VR7B/E	1
	T44362-001	CSA Label	DD-VR7C	1
	VND4037-002	F. Mark	DD-VR7E	1
	BT20046B	Special Reply	DD-VR7J/E (PX)	1
			DD-VR7U (PX, EES)	
	V04062-001	Siemens Plug	DD-VR7U/E (PX)	1

Packing

Positions of controls and switch knobs at renewed packing

Power switch	: OFF
Timer stand-by switch	: OFF
MPX, NR switch	: OFF
Reverse mode switch	: 
Output level control	: MAX
Input level control	: MIN
Input level balance	: Center
Mecha mode indicator	: 
Operation button	: OFF

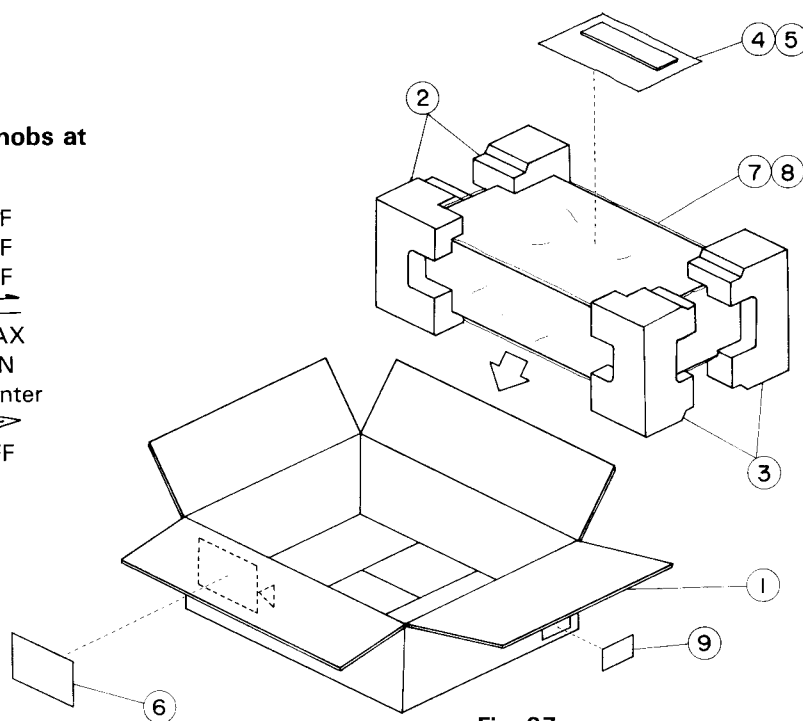




Fig. 27

Packing Parts List

 parts are safety assurance parts.

When replacing those parts, make sure to use the specified one.

	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1	VDG2118-J03	Packing Case	DD-VR7A	1
		" -J02	"	DD-VR7B	1
		" -J04	"	DD-VR7C	1
		" -J05	"	DD-VR7E	1
		" -J06	"	DD-VR7J	1
		" -J07	"	DD-VR7U	1
	2	VPH3125-001	Left Cushion		1
	3	VPH3126-001	Right Cushion		1
	4	VPE3004-001	Envelope	or VPE3004-007	1
	5	AP4056A-036	"	DD-VR7A/C/J/U	1
	6	E66416-003	"	DD-VR7J/E (PX)	1
				DD-VR7U (PX, ESS)	
	7	VPE3004-026	"		1
	8	VPK4002-006	Sheet		1
	9	VPZ4001-001	Serial Ticket	DD-VR7A/B/E/U	1
		" -001	"	DD-VR7C/J	2
		Q04141H	Vinil Tie		1

JVC

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