

SERVICE MANUAL

PARTS LIST

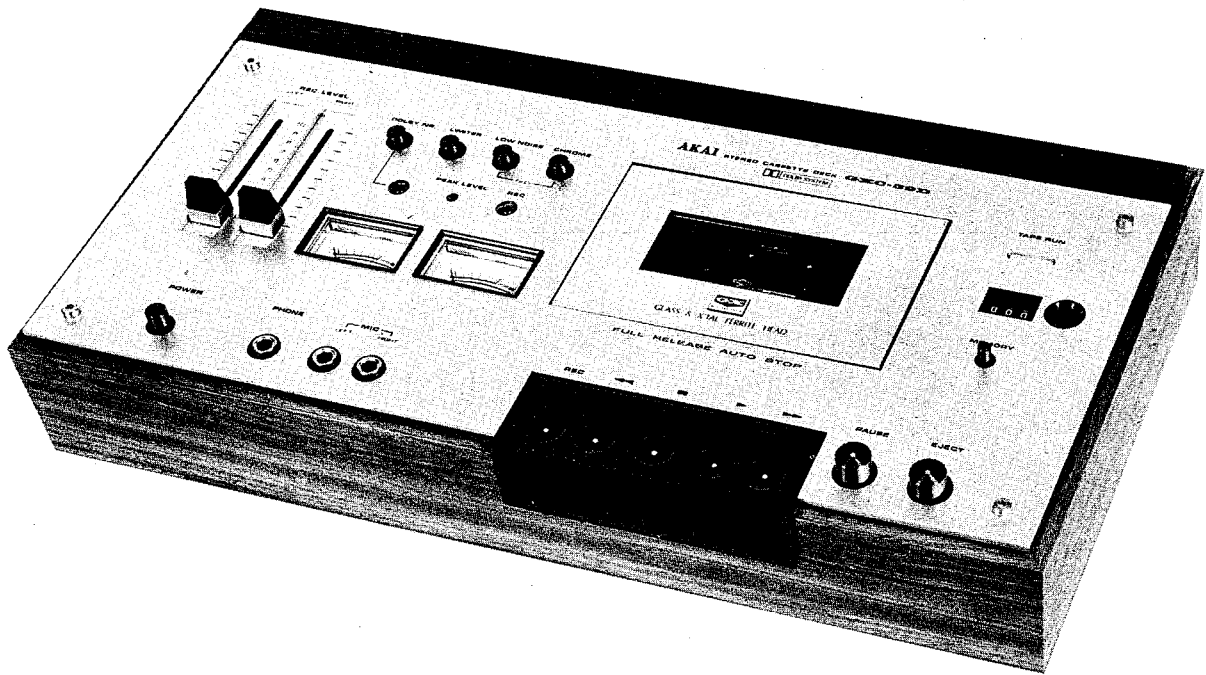


PRIDE IN QUALITY

AKAI CASSETTE TAPE DECK

MODEL GXC-39D

ALSO APPLICABLE TO MODEL GXC-39



CASSETTE TAPE DECK

MODEL GXC-39D

ALSO APPLICABLE TO MODEL GXC-39

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SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL OPERATING PRINCIPLES AND ADJUSTMENTS.

I. SPECIFICATIONS

An asterisk next to a figure indicates the minimum guaranteed performance.

TRACK SYSTEM	4 track, 2 channel stereo system
TAPE SPEED	1-7/8 ips. (4.75 cm/sec) $\pm 3\%$
WOW AND FLUTTER	Less than 0.08% W.R.M.S. *Less than 0.24% R.M.S.
TOTAL WOW AND FLUTTER	*Less than 0.3% R.M.S.
FREQUENCY RESPONSE	30 to 14,000 Hz ± 3 dB *50 to 13,000 Hz ± 4 dB
LOW NOISE TAPE	
CHROME TAPE	30 to 16,000 Hz ± 3 dB *50 to 14,000 Hz ± 4 dB
Fe-Cr TAPE	30 to 17,000 Hz ± 3 dB *50 to 14,000 Hz ± 4 dB
DISTORTION FACTOR	Less than 1.5% at 1,000 Hz "0" VU recording
TOTAL DISTORTION FACTOR	
LOW NOISE TAPE	*Less than 3% at 1,000 Hz "0" VU recording
CHROME/Fe-Cr TAPE	*Less than 5% at 1,000 Hz "0" VU recording
SIGNAL TO NOISE RATIO	Better than 47 dB *Better than 40 dB
TOTAL SIGNAL-TO-NOISE RATIO	*Better than 40 dB
RESIDUAL NOISE	Less than 10 mV at 8 ohm load
OUTPUT	
LINE OUTPUT	0.775V (*0 dBm ± 1.5 dB), using a 333 Hz "0" VU pre-recorded tape.
DIN OUTPUT	0.55V
HEADPHONE OUTPUT	30mV/8 ohm, using a 333 Hz "0" VU pre-recorded tape.
SPEAKER OUTPUT	4.5W at 8 ohm, each channel
INPUT/IMPEDANCE	
MIC	More than 0.3 mV/10 k ohm
LINE	More than 50 mV/430 k ohm
DIN	More than 3 mV/30 k ohm
RECORDING/PLAYBACK LEVEL	
LOW NOISE TAPE	0 dBm ± 2 dB, 1,000 Hz "0" VU recording
CHROME TAPE	-3 dBm ± 1.5 dB, 1,000 Hz "0" VU recording
CROSS TALK	Better than 25 dB, 1,000 Hz 3 VU recording
ERASE RATIO	Better than 70 dB, 1,000 Hz 3 VU recording
RECORDING BIAS FREQUENCY	65 ± 3 kHz
BIAS LEAK	Less than -20 VU
RECORDING TIME	90 min. stereo recording using a C-90 cassette tape.
FAST FORWARD AND REWIND TIME	90 sec. using a C-90 cassette tape
HEADS	
RECORDING/PLAYBACK HEAD	4 track, 2 channel GX recording/playback head Type: P4-341 Gap: 1.7 microns Impedance: 1,000 ohm $\pm 20\%$ at 1 kHz D.C. Resistance: 190 ohm
ERASE HEAD	2 track, 1 channel erase head Type: E4-100 Gap: 0.2 to 0.3 mm Impedance: 730 ohm $\pm 10\%$ at 100 kHz D.C. Resistance: 6.0 ohm

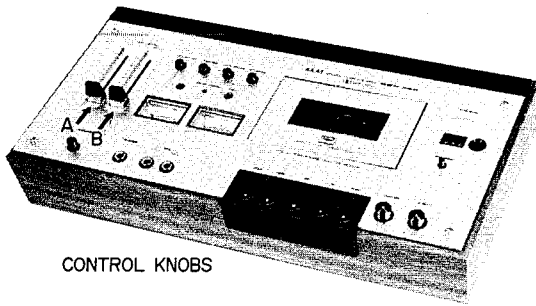
MOTOR	4-pole induction inner rotor motor Type: IB-440 Revolutions: 1,390 ±25 r.p.m./1,680 ±30 r.p.m. at 50/60 Hz
TRANSISTOR AND F.E.T.	2SA628(E)(F) . . . 4 (4) 2SC1449(K)(L)(M) . . . 1(1) 2SA640(E)(F) . . . 1(1) 2SC1647(R)(S)(E) . . . 18(18) 2SB511(D)(E) . . . 0(2) 2SC1648(E)(U) . . . 2(2) 2SC458LG(C)(D) . . . 4(4) 2SC1648(R)(S)(E) . . . 2(2) 2SC536(F)(G) . . . 0(2) 2SD360(D)(E) . . . 1(1) 2SC711(F)(G) . . . 1(1) 2SD325(D)(E) . . . 0(2) 2SC945L(K)(P)(Q)(R) . . . 2(2) 2SK34(D) . . . 2(2) 2SC1384 . . . 0(2)
DIODE	1N60 . . . 6(6) WZ085 . . . 1(1) 1N4001 . . . 5(5) WZ192 . . . 1(1) 1S2473VE . . . 11(11)
VARISTOR	VD1213 . . . 0(2)
THERMISTER	112203-2 . . . 0(2)
POWER REQUIREMENT	110 to 120V/220 to 240V A.C., 50/60 Hz for Universal Models 100V A.C., 50/60 Hz for JPN Models 220V A.C., 50 Hz for CEE, BSI Models 120V A.C., 60 Hz for CSA Models Notice: JPN, CEE, and BSI Models come in Model GXC-39D only
POWER CONSUMPTION	18W: GXC-39D 35W: GXC-39
DIMENSIONS	440(W) x 116(H) x 229(D) mm (17.3" x 4.6" x 9")
WEIGHT	6.3 kg. (13.9 lbs.)

- NOTES: 1. The Transistors, F.E.T., Diodes, Thermisters, and Varistors for Model GXC-39 are shown in parentheses.
 2. Specifications subject to change without notice.

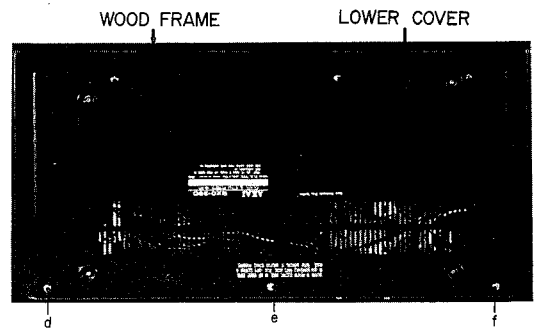
II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Reassemble in reverse order.

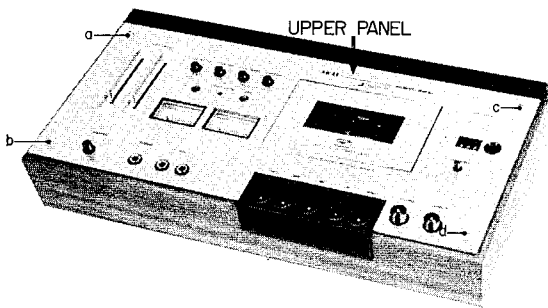
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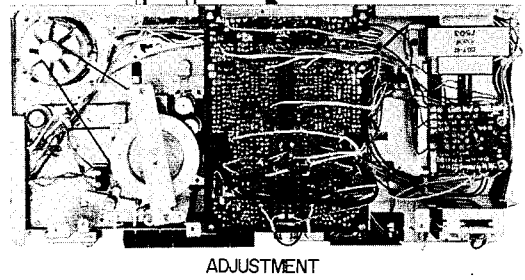
4



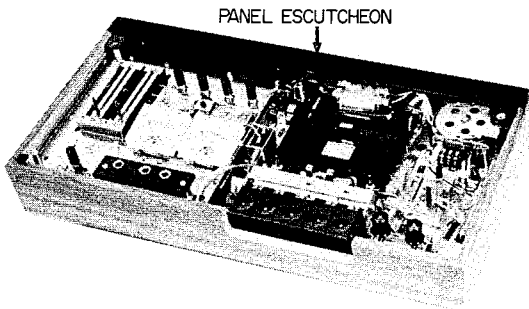
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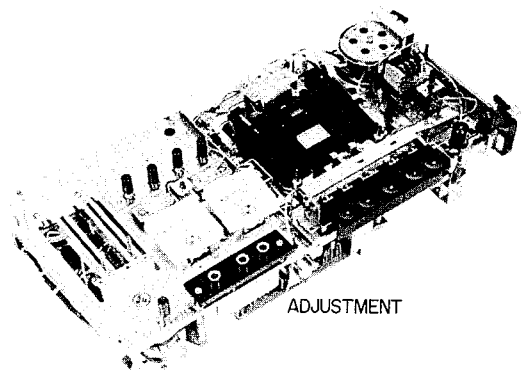
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3



6



IV. MECHANISM ADJUSTMENT

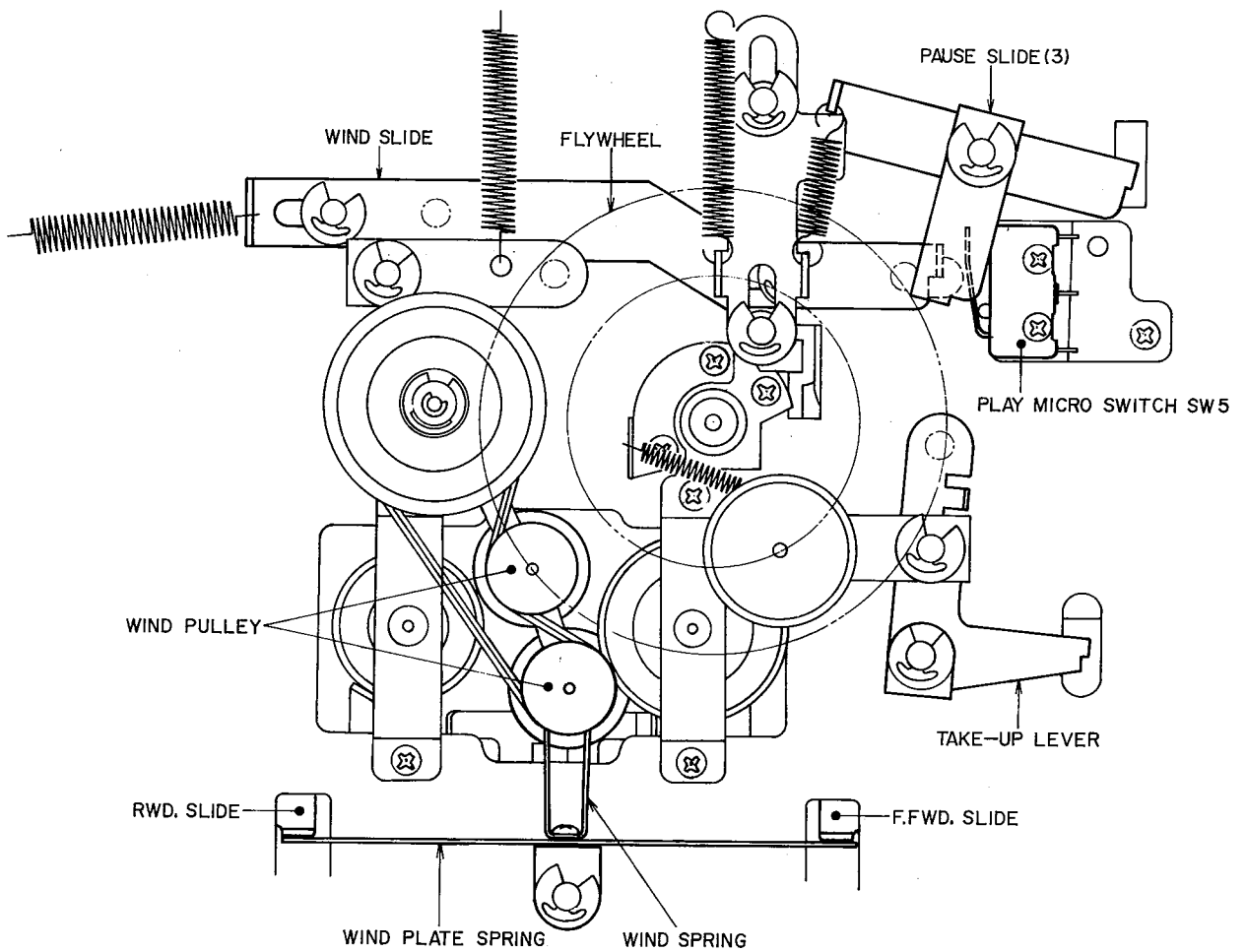


Fig. 1

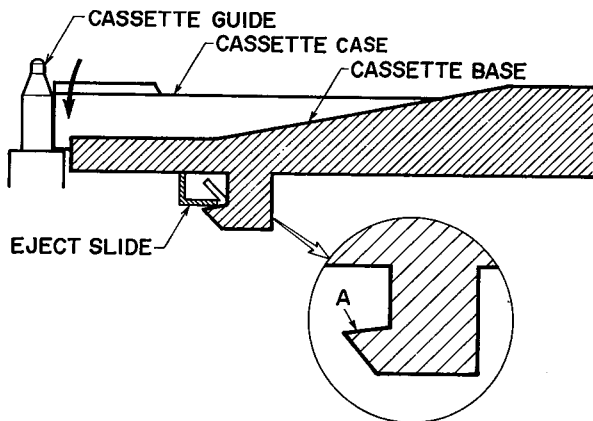


Fig. 2

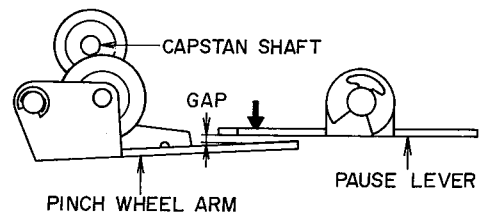


Fig. 3

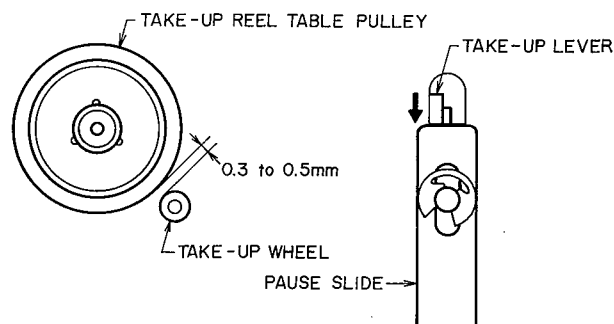
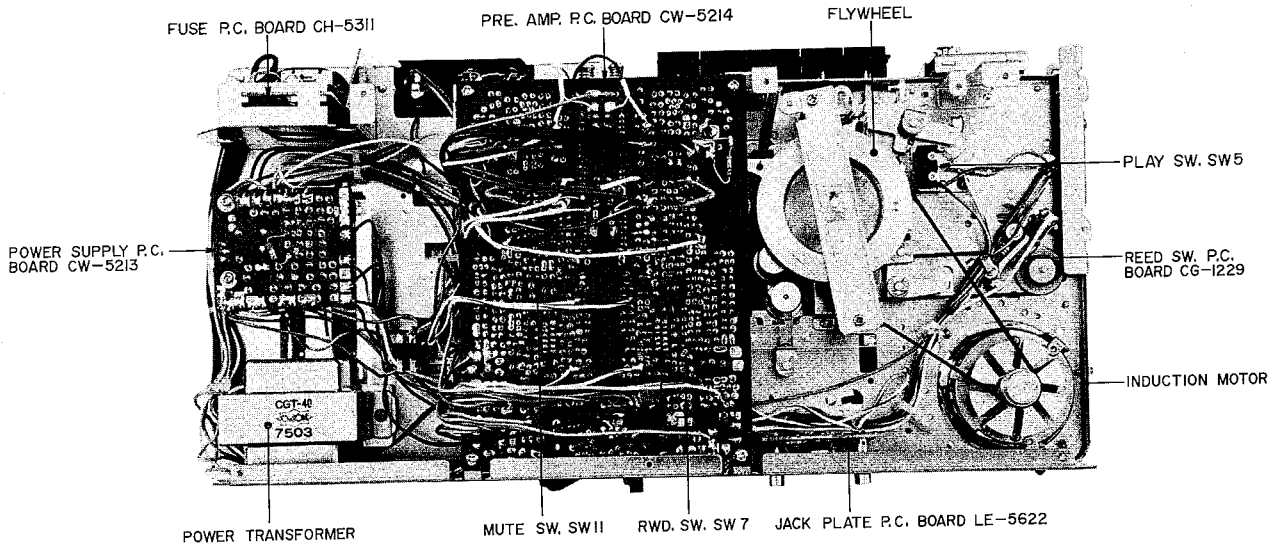
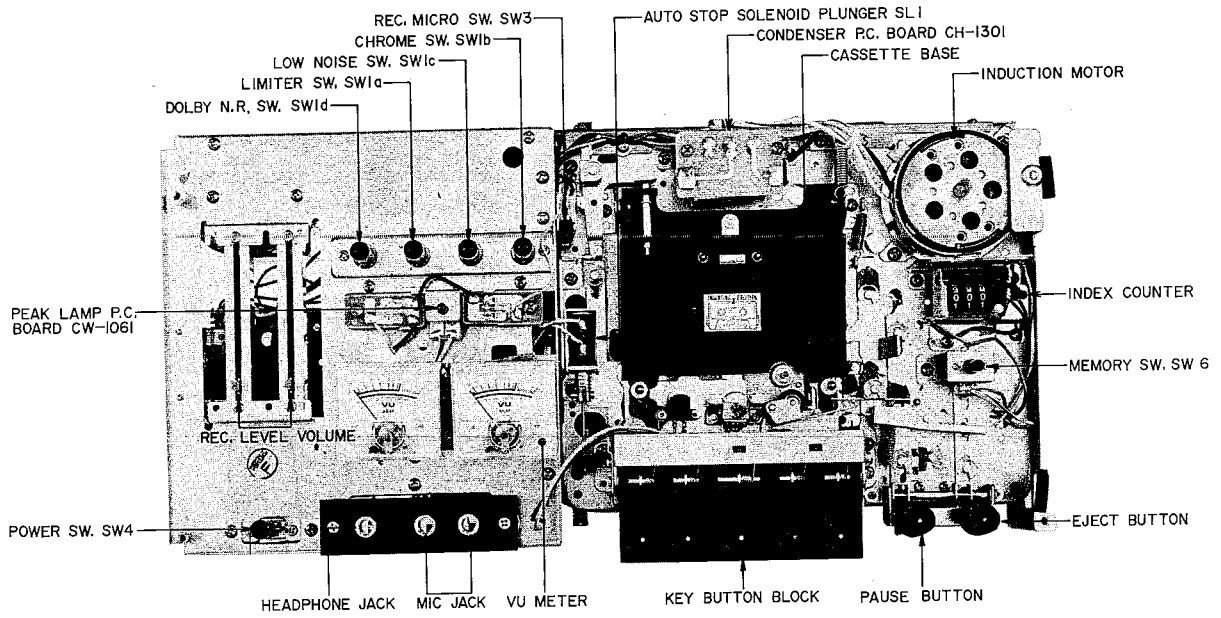
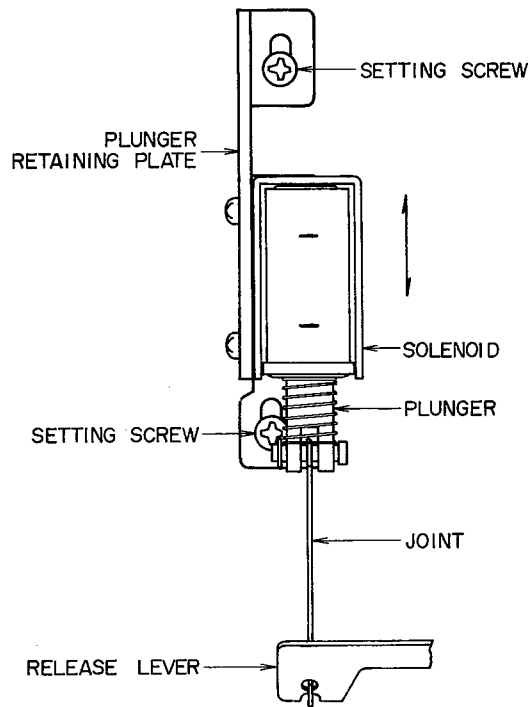
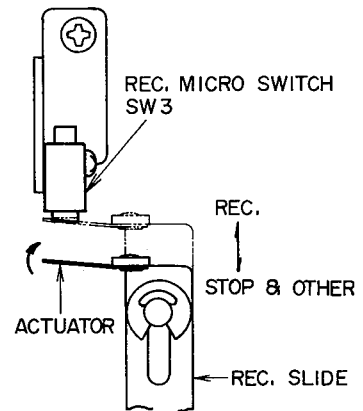
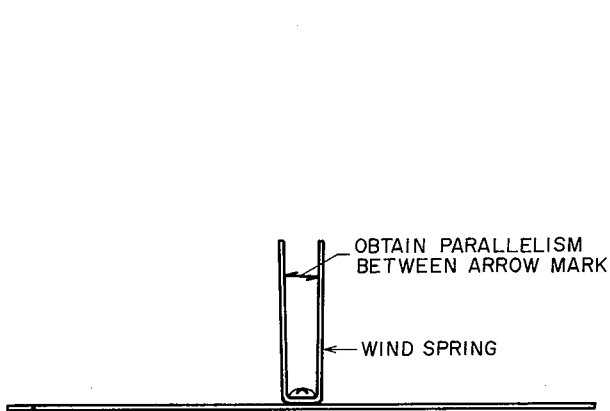
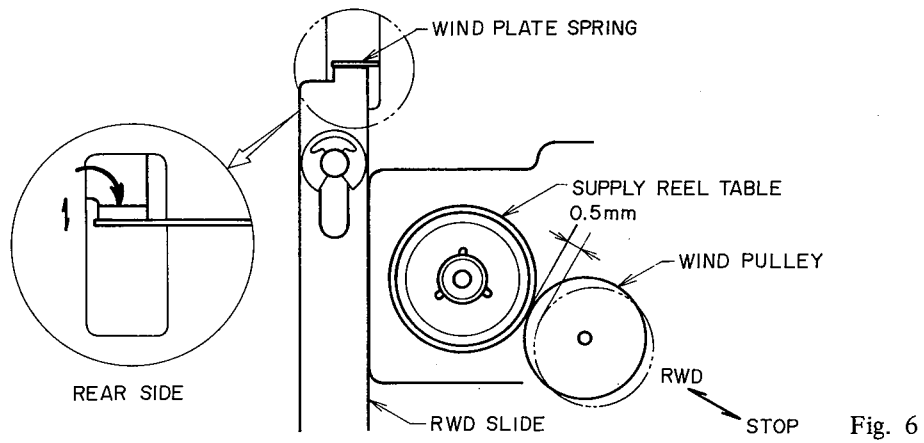


Fig. 4

III. ARRANGEMENT OF PRINCIPAL PARTS





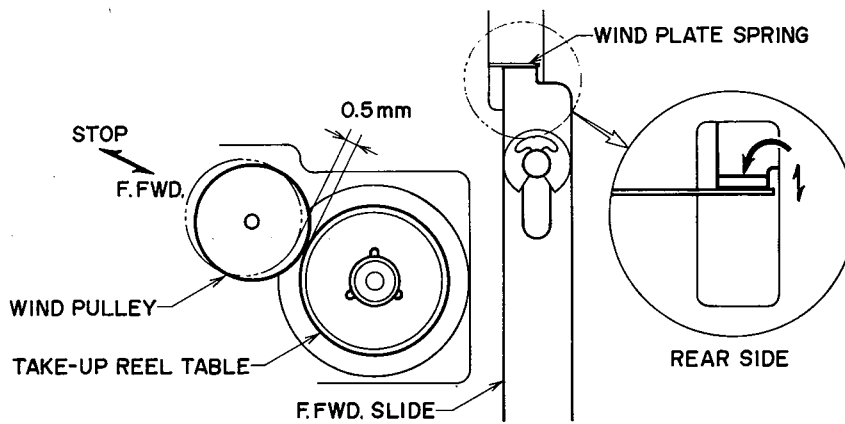


Fig. 5

1. EJECT, SLIDE, LOCK ADJUSTMENT (Refer to Fig. 2)

Confirm that the cassette case pushes the cassette guide and that when it reaches the perfectly lowered position, the cassette base is locked by the eject slide hook. If locking is not smooth or does not take place, adjust for perfect locking by filing off the uneven edges etc. of A surface of the cassette base.

2. PAUSE LEVER ADJUSTMENT (Refer to Fig. 3)

Bend the part of the pause lever indicated by the arrow mark in Fig. 3 so that when the machine is set to play mode, the gap between the pinch wheel arm and pause lever is more than 0.5mm.

Also confirm that when the machine is set to pause mode, the pinch wheel completely separates from the capstan shaft.

3. ADJUSTMENT OF GAP BETWEEN TAKE-UP REEL TABLE PULLEY AND TAKE-UP WHEEL (Refer to Fig. 4)

Adjust by bending the Take-up Lever in direction indicated by the arrow mark in Fig. 4 so that when the machine is set from playback to pause mode the take-up wheel completely separates from the Take-up Reel Table Pulley and further this gap is from 0.3 to 0.5 mm.

4. FAST FORWARD SLIDE POSITION ADJUSTMENT (Refer to Fig. 5)

Adjust bend of Fast Forward Slide so that when from Fast Forward mode, the Fast Forward and Stop Keys are gently released simultaneously, the wind pulley separates from the Take-Up Reel and this gap width is 0.5mm.

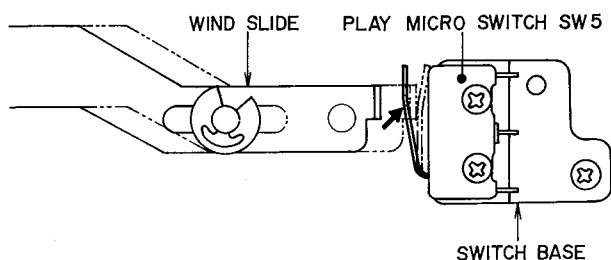


Fig. 10

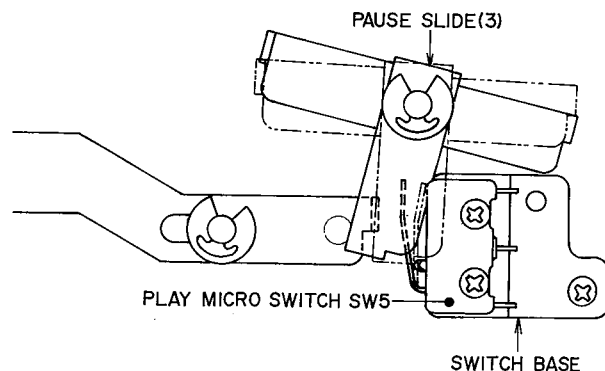


Fig. 11

5. REWIND SLIDE POSITION ADJUSTMENT (Refer to Fig. 6)

Adjust bend of Rewind Slide so that when from Rewind mode, the Rewind and Stop keys are gently released simultaneously, the wind pulley separates from the Supply Reel Table and this gap width is 0.5 mm.

NOTE: In the event that by bending the F.Fwd and Rewind Slides, a 0.5 mm gap on both cannot be attained, check the wind spring for parallelism. If it is not parallel, remove and bend wind spring by hand to attain parallelism.

6. RECORDING SLIDE POSITION ADJUSTMENT (Refer to Fig. 8)

At stop mode, adjust by bending the actuator (phosphor bronze plate) shown in Fig. 8 toward arrow so that when the machine is set to recording mode, the actuator on the recording slide pushes recording micro switch SW3 properly.

7. AUTO STOP PLUNGER SOLENOID POSITION ADJUSTMENT (Refer to Fig. 9)

- 1) Loosen setting screw and move solenoid as indicated by the arrow mark in the figure.
- 2) Set machine to Fast Forward mode and when the plunger has fully entered the center of the solenoid, fix solenoid setting screws at place at which the solenoid is moved to the rear, the keyboard release lever is drawn, and Fast Forward is released.

Reference: After Automatic Stop Plunger Solenoid position adjustment has been completed, supply a 10% lower voltage than specified power source and confirm that automatic stop functions perfectly from recording and playback modes.

8. PLAY MICRO SWITCH OPERATION ADJUSTMENT (Refer to Fig. 10 and 11)

- 1) Adjust by bending the actuator (phosphor bronze plate) as indicated by the arrow mark in the Fig. 10 so that when the machine is set to F.FWD or RWD mode, the wind slide pushes play micro switch properly.
- 2) Because at playback mode, this micro switch is pushed by pause slide (3), confirm that the micro switch is perfectly turned ON at playback mode also.

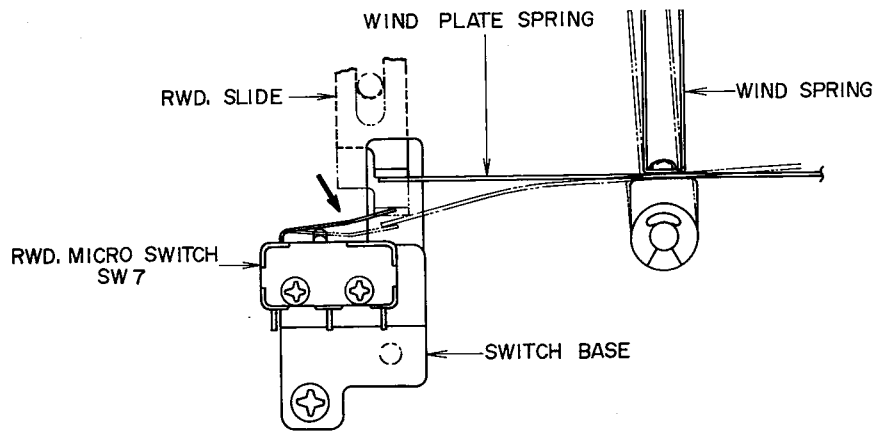


Fig. 12

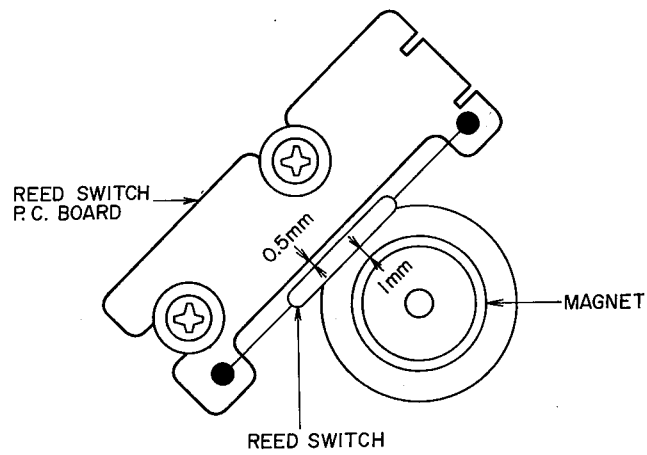


Fig. 13

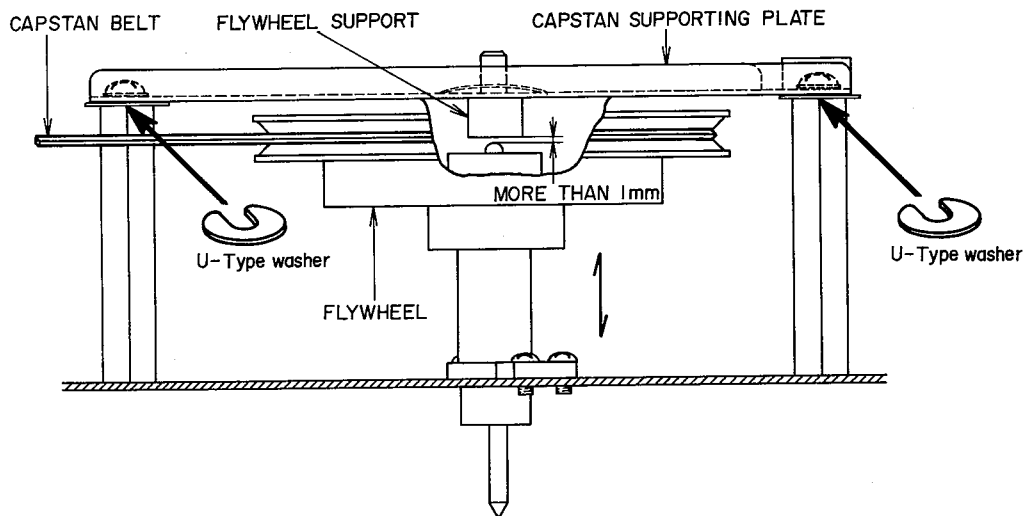


Fig. 14

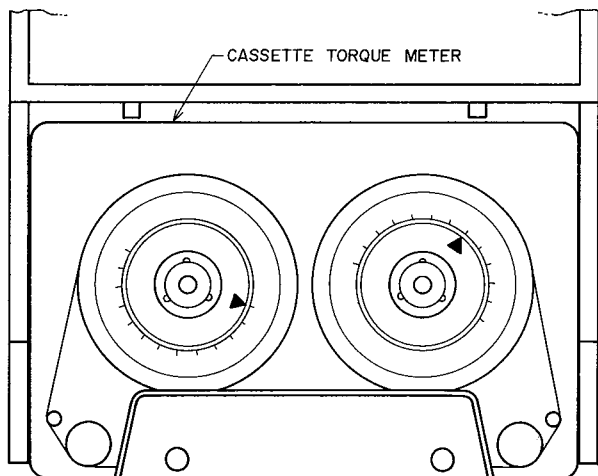


Fig. 15

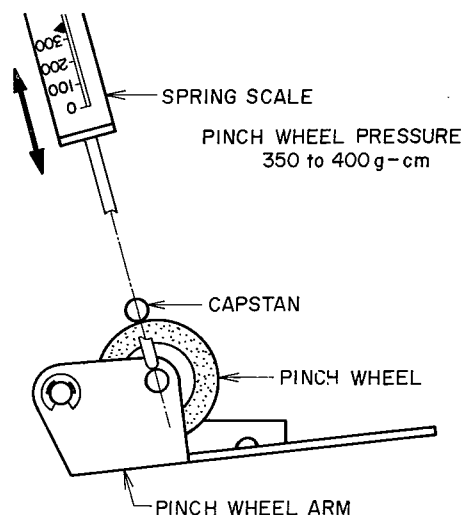


Fig. 16

9. REWIND MICRO SWITCH OPERATION ADJUSTMENT (Refer to Fig. 12)

Adjust by bending the actuator (phosphor bronze plate) as indicated by the arrow mark in the Fig. 12 so that when the machine is set to RWD mode, RWD slide pushes micro switch properly.

10. REED SWITCH POSITION ADJUSTMENT (Refer to Fig. 13)

Adjust position of reed switch to attain a 1 mm gap between the reed switch and rotary magnet.

11. FLYWHEEL VERTICAL LOOSE PLAY ADJUSTMENT (Refer to Fig. 14)

Adjust by inserting U type washers between the supporting plate and support to obtain about a 1.0 mm gap between the flywheel and capstan supporting plate as shown in Fig. 14.

12. TAKE-UP TORQUE AT VARIOUS MODES AND TORQUE MEASURING METHOD (Refer to Fig. 15)

As shown in Fig. 15, set a cassette torque meter to the cassette base. Take a reading of the ▲ mark indication at each respective mode (Fwd, F.FWD, and Rwd).

FWD MODE	50±10g-cm
F.FWD MODE	80g-cm
RWD MODE	80g-cm

NOTE: Take the torque meter indication value plus 10g-cm as recorder take-up torque.

13. PINCH WHEEL PRESSURE MEASURING METHOD (Refer to Fig. 16)

At playback made, press the pinch wheel arm toward the capstan shaft with a spring scale (500g maximum), and take a spring scale reading at the point at which the pinch wheel separates from the capstan.

V. HEAD ADJUSTMENT

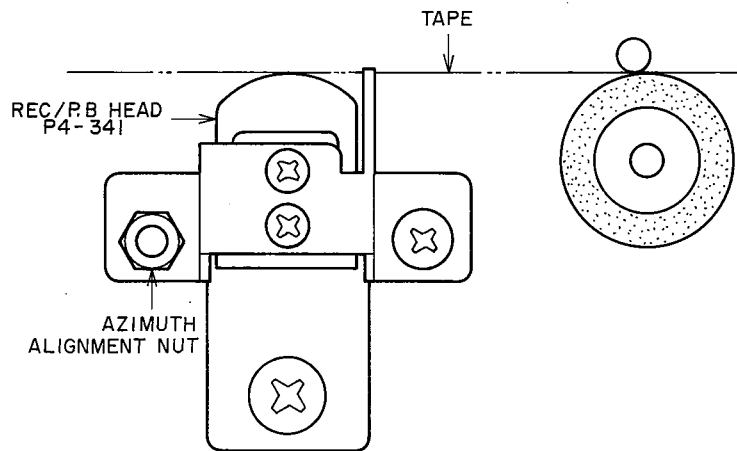


Fig. 17

RECORDING/PLAYBACK AZIMUTH ALIGNMENT ADJUSTMENT (Refer to Fig. 17)

Playback a 10 kHz pre-recorded test cassette tape and adjust azimuth alignment nut to obtain maximum line output on both channels.

NOTES:

- 1) As perfect head adjustment is vital in attaining top tape deck performance, please be sure that this adjustment is properly carried out.
- 2) Be careful not to use a magnetized screw driver or other magnetized tools in the vicinity of the heads.
- 3) Use only new tape, as level variation is likely to occur when using old tape.
- 4) Demagnetize heads with a Head Demagnetizer, before and after head adjustment.

VI. AMPLIFIER ADJUSTMENT

LEFT CH.

RIGHT CH.

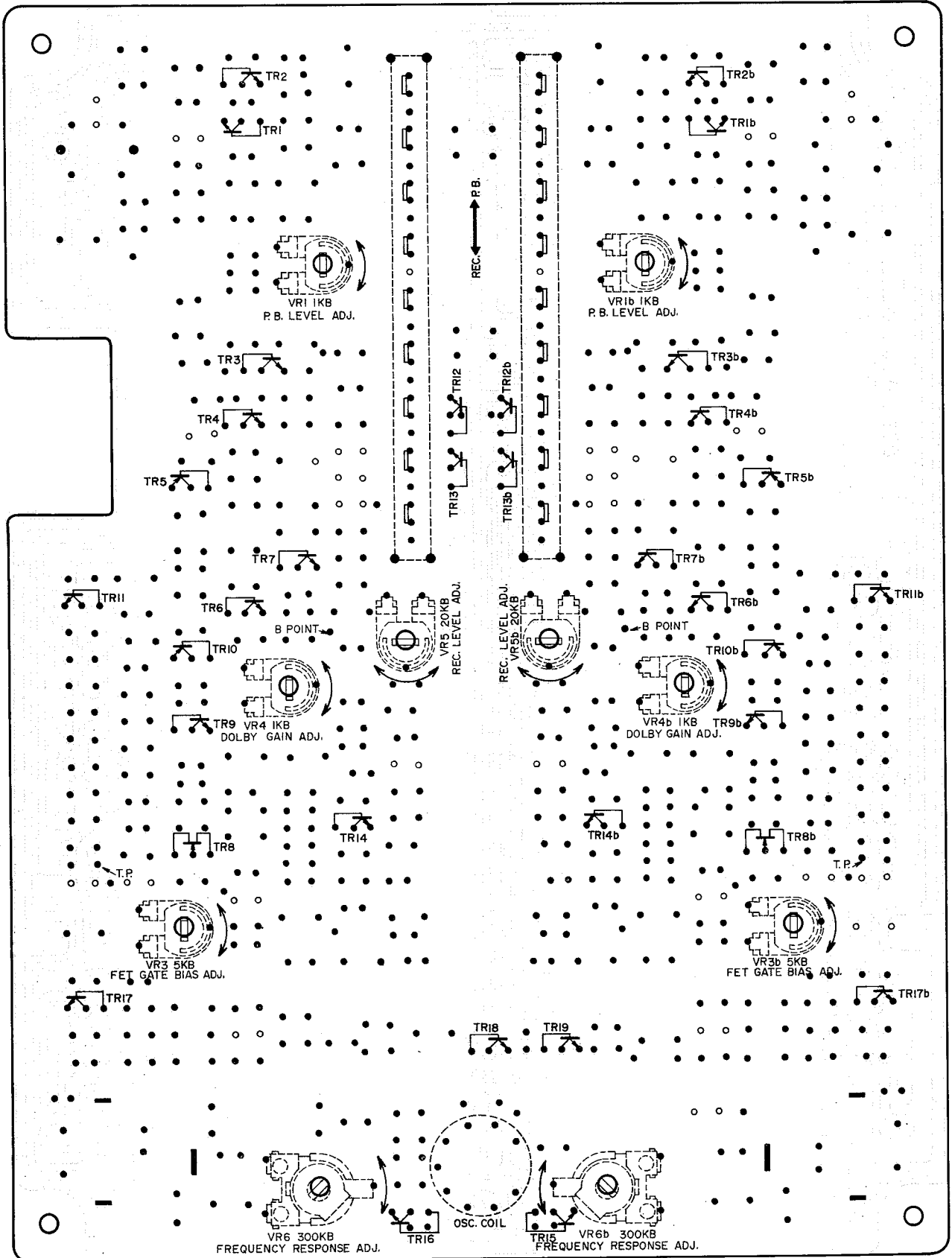


Fig. 18

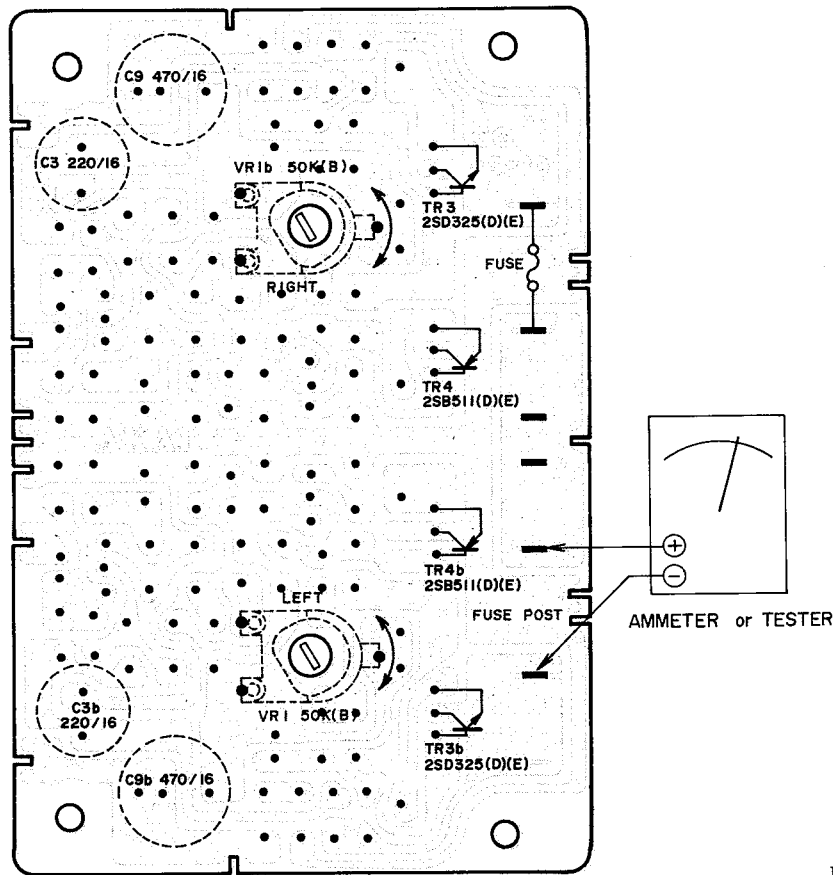


Fig. 19

Step	Adjustment Item	Test Tape, Supply Signal	Mode	Adjustment Point	Result	Remarks
1	Playback Level Adjustment	333 Hz "0" VU Test Tape	Play	VR-1 1 k(B) (CW-5214)	0 ±1.5 dBm	
2	Recording Level Adjustment (Low Noise Tape)	Low Noise Blank Tape, 1,000 Hz "0" VU recording	Rec. and Play	VR-5 20 k(B) (CW-5214)	0 ±2 dBm	Set Tape Selector to LOW NOISE
3	Recording Level Adjustment (Chrome Tape)	Chrome Blank Tape, 1,000 Hz "0" VU recording	Rec. and Play	None	-3 ±1.5 dBm	Set Tape Selector to CHROME
4	Frequency Response Adjustment	Low Noise Blank Tape, 1,000 Hz, 10,000 Hz -20 VU recording	Rec. and Play	VR6 300 k(B) (CW-5214)	10,000 Hz 0 ±1.5 dB in relation to 1,000 Hz	
5	Main Amp Idling Current Adjustment		Stop	VR-1 30 k(B) (CG-5810)	30 mA	

NOTES:

1. Set Tape Selector to LOW NOISE.
2. Set Dolby N.R. Switch to OFF position.
3. Use new test tape.
4. The letter b following an adjustment parts number indicates "right channel".

VII. DOLBY N.R. CIRCUIT ADJUSTMENT

Adjust Dolby N.R. Circuit carefully, following procedures in Chart 2.

Connecting Method:

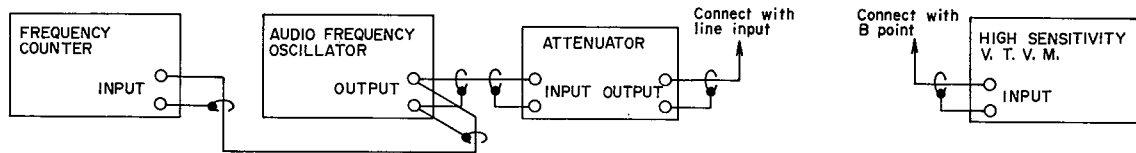


Fig. 20

Item	Supply Signal	Mode	Dolby Switch	T.P.	Adjustment Part	Result; B point Level	Remarks
19 kHz Filter	19 kHz Line Input	REC	ON		L2 23 mH	Minimum Level	
Recording Dolby Adjustment	5 kHz Line Input	REC	OFF	GND	External Attenuator	+2 dBm	Keep Rec. Level Volume at maximum
	5 kHz Line Input	REC	OFF	GND	Reduce Input 30.5 dBm	-28.5 dBm	
	5 kHz Line Input	REC	ON	GND	VR-4 1 kB CW-5214	-18.5 dBm	
	5 kHz Line Input	REC	ON	Disconnect from GND	VR-3 5 kB CW-5214	-20.5 dBm 2 dBm decrease	
Playback Dolby Confirmation	5 kHz -28.5 dBm recorded Test Tape	PLAY	OFF			or Line Out -28.5 dBm	Keep Rec. Level Volume at maximum
	5 kHz -28.5 dBm recorded Test Tape	PLAY	ON			or Line Out -38.5 dBm	

Chart 2

- NOTES:
1. Since crucial frequency and level etc. is determined by Dolby N.R. Circuit adjustment, be sure to use only correctly calibrated measuring instruments.
 2. Level deviation must be within ± 0.5 dBm.
 3. Paint lock all semi-fixed resistors following adjustments.
 4. Because adjustment error will occur from recording bias leakage, be sure to disconnect power supply lead wire from Oscillator circuit prior to Dolby N.R. Circuit adjustment.
 5. Refer to Fig. 18.

VIII. D.C. RESISTANCE OF VARIOUS COILS

Part	Designation	D.C. Resistance
MOTOR	IB-440	Between WHT/BLK-BLK 1 k ohm Between WHT/ORG-ORG 800 ohm
STOP SOLENOID	0730 THT 1	15 ohm
HEADPHONE OUTPUT TRANSFORMER	S14-123S	Primary: 296 ohm Secondary: 2.2 ohm
OSCILLATOR COIL	OT-903	Between 1-3 8.9 ohm Between 4-6 1.3 ohm Between 7-9 0.4 ohm
ERASE HEAD	E4-100	6.0 ohm
REC./P.B. HEAD	P4-341	190 ohm

Chart 3

NOTE: The resistance values shown in this chart are average values.

IX. CLASSIFICATION OF VARIOUS P.C. BOARDS

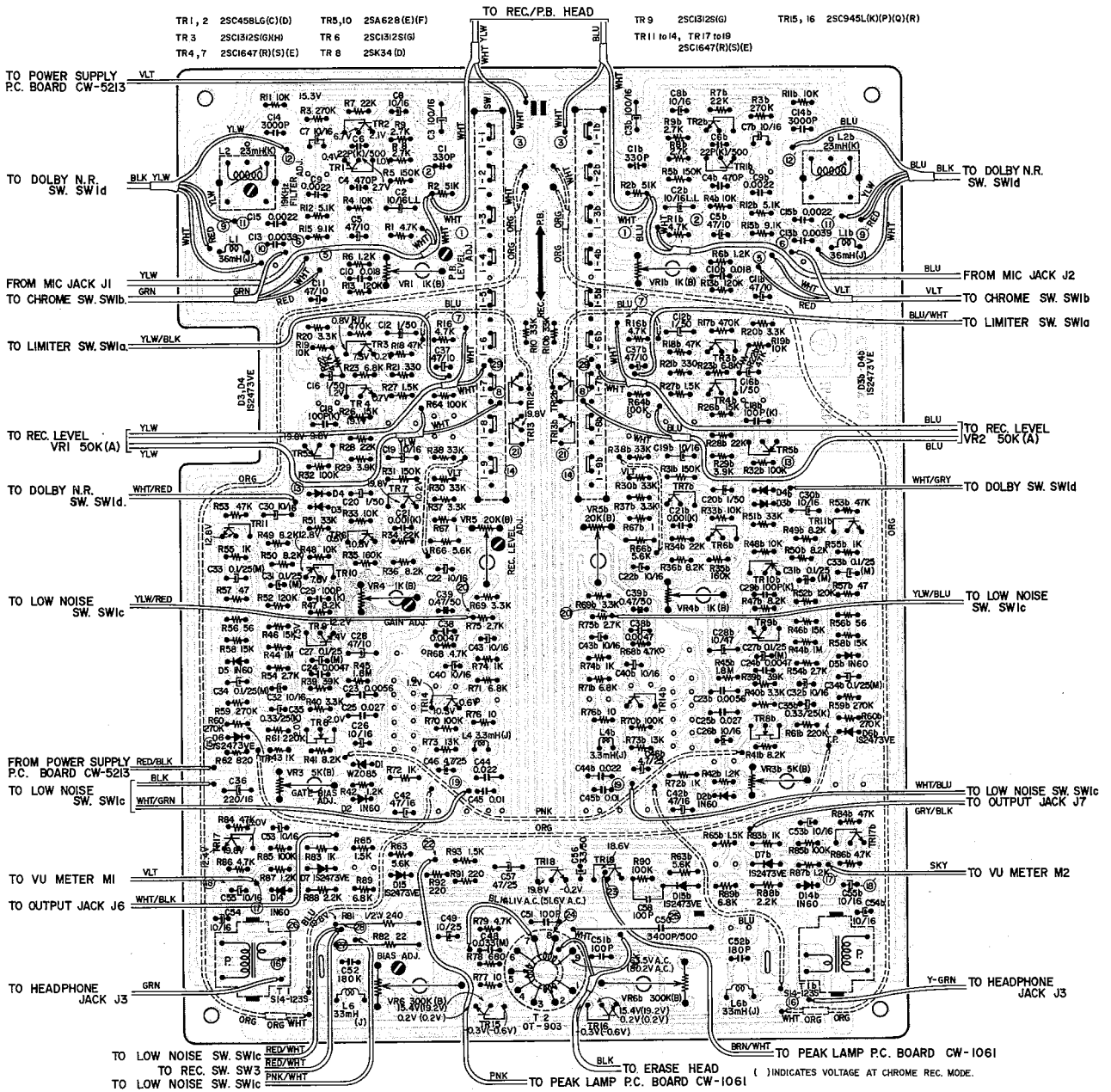
1. P.C. BOARD INTERCHANGEABILITY CHART

P.C. BOARD	GXC-39	GXC-39D
PEAK LAMP P.C. BOARD	CW-1061 2ED	CW-1061 2ED
POWER SUPPLY P.C. BOARD	CW-5213	CW-5213
PRE. AMP. P.C. BOARD	CW-5214*	CW-5214*
REED SWITCH P.C. BOARD	CG-1229 2ED	CG-1229 2ED
MAIN AMP. P.C. BOARD	CG-5810	
CONDENCER P.C. BOARD	CH-1301	CH-1301
FUSE P.C. BOARD	CH-5311	CH-5311
JACK PLATE P.C. BOARD	LE-5622	LE-5622

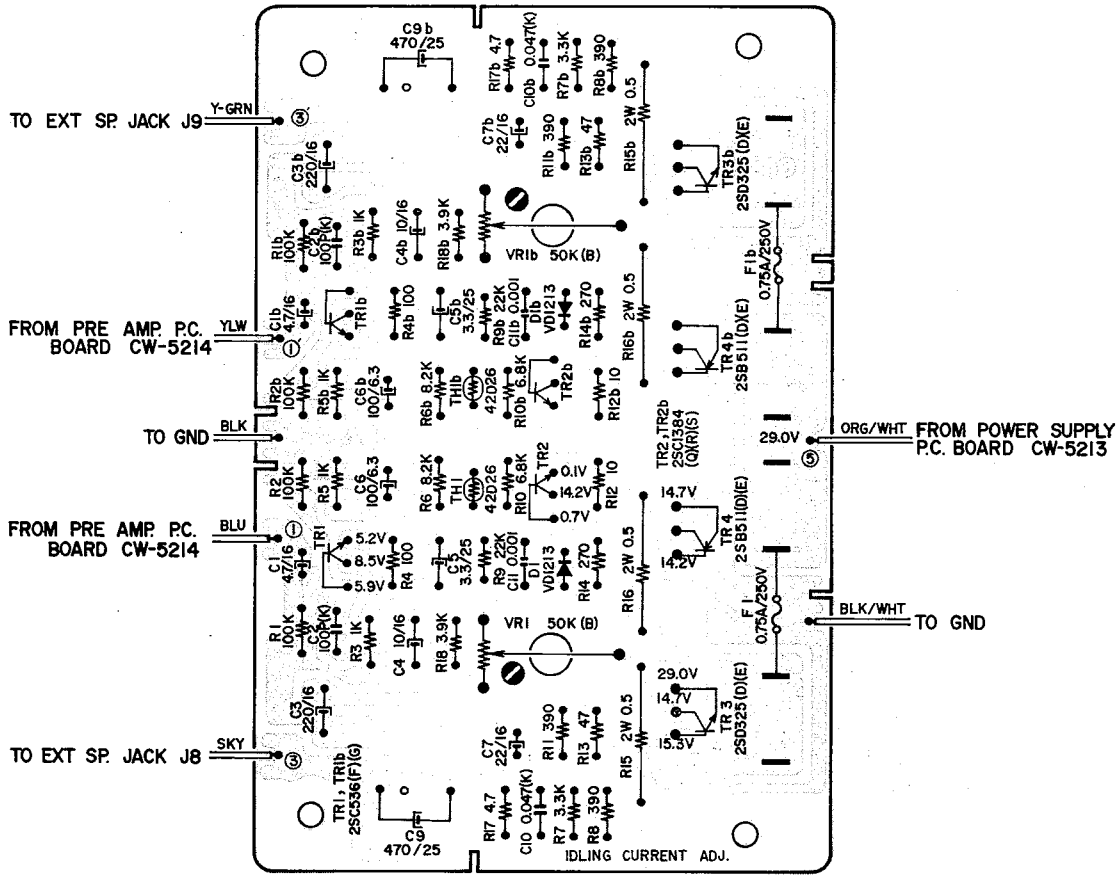
* Not interchangeable

2. COMPOSITE VIEWS OF COMPONENTS

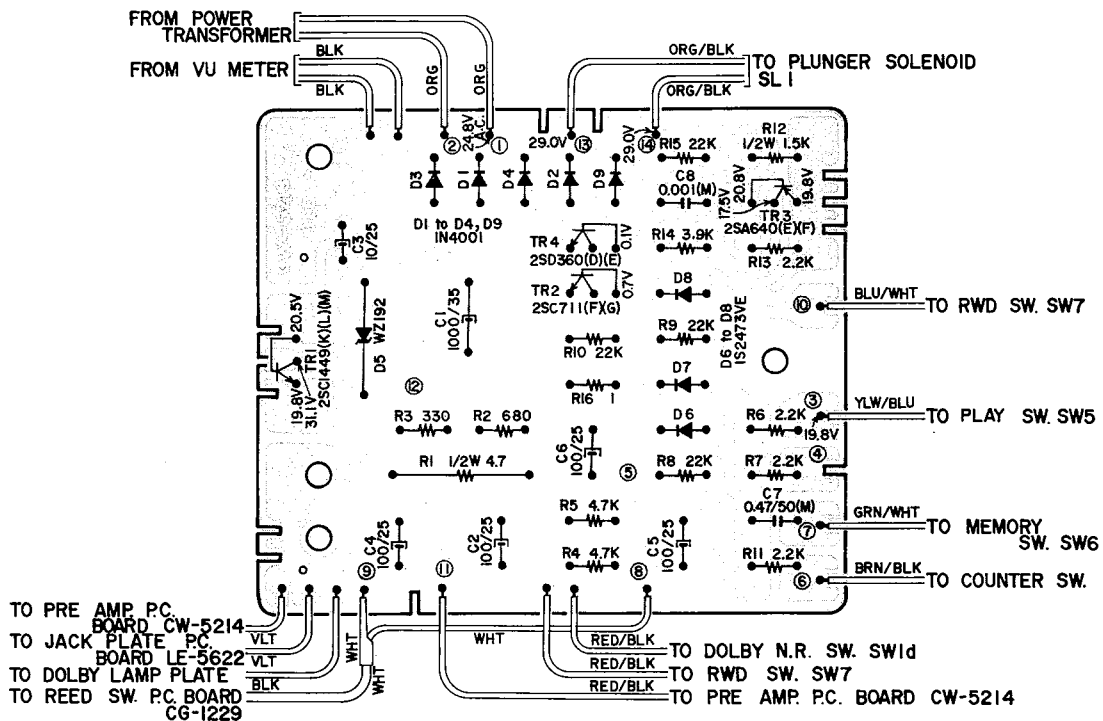
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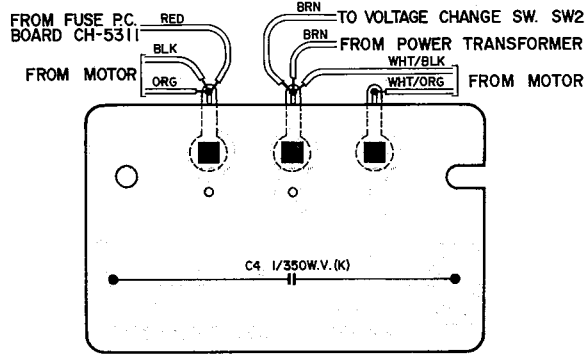
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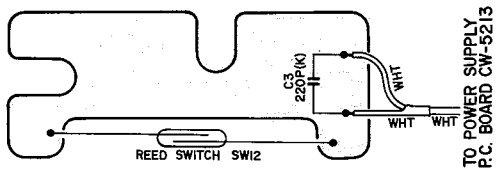
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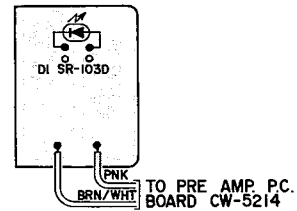
4) CONDENSER P.C. BOARD CH-1301



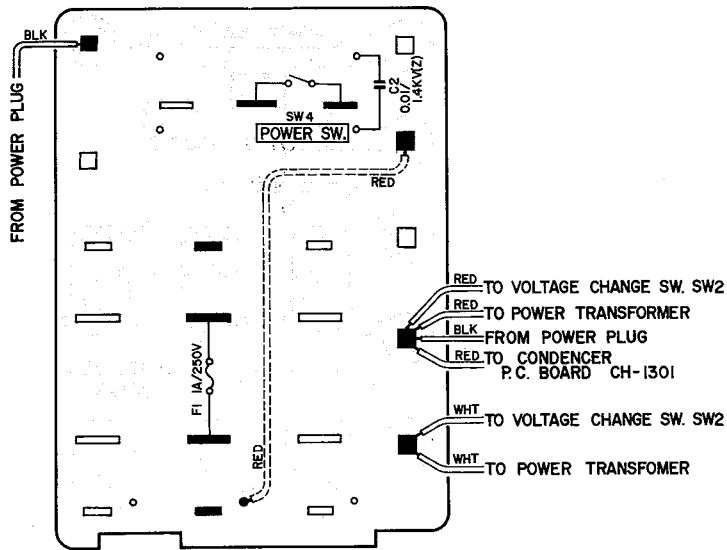
5) REED SWITCH P.C. BOARD CG-1229



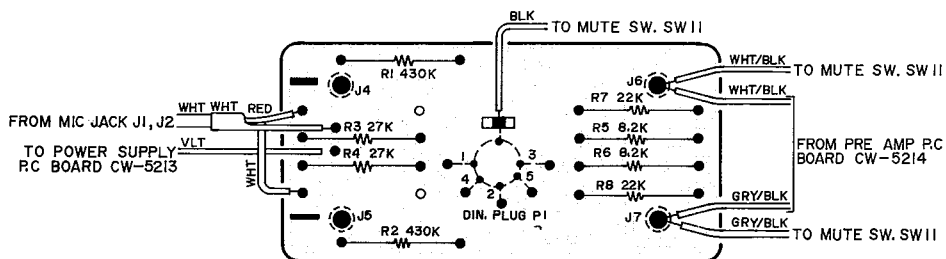
6) PEAK LAMP P.C. BOARD CW-1061



7) FUSE P.C. BOARD CH-5311



8) JACK PLATE P.C. BOARD LE-5622



X. PEAK LEVEL INDICATOR OPERATION

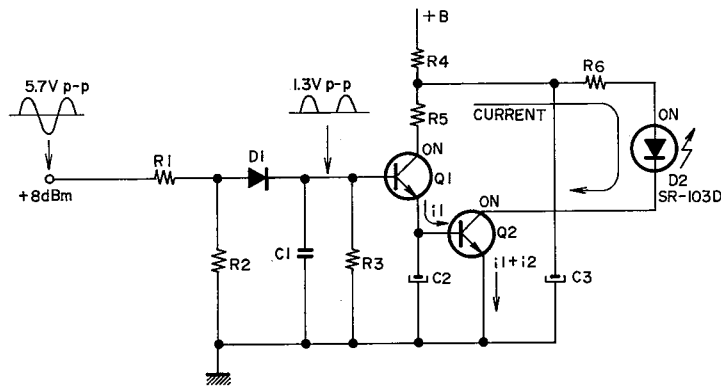


Fig. 21

The Peak Level Indicator is for the purpose of maintaining a recording signal amplitude (VU) range of within +8 dB in order not to exceed the saturation point of the tape during recording. With line level volume VR2 at maximum when there is a signal exceeding +8 dBm at the line output terminal, this peaking indicator lamp will light. The peaking circuit is comprised of attenuator (R_1, R_2), rectifier (D_1, C_1, R_3), switching (Q_1, Q_2, R_5, C_2, C_3) and luminous diode (R_6, D_2). When the recording signal reaches 8 dBm a 1.3 Vp-p D.C. half-wave rectifying current is supplied to the base of Q_1 and Q_1 lead-through is effected (Q_1 is turned ON). Then operating current i_1 flows to the base of Q_2 from Q_1 emitter and Q_2 lead-through is also effected.

In other words, the switching circuit is turned "ON" current i_2 from +B flow to $R_4 \rightarrow R_6 \rightarrow D_2 \rightarrow Q_2$ (collector \rightarrow emitter) and D_2 (SR-103D) is activated.

Q_1 is turned "OFF" at +6 dBm recording input signal, and switching takes place at +7 dBm.

However, because of the slight variation in luminous diode lead-through current, there is a ± 1 dBm switching point deviation.

Caution: Because the Limiter Circuit functions at +3 dB(3VU), when the peaking level facility is being used, set Limiter Switch to OFF position.

SECTION 2

PARTS LIST

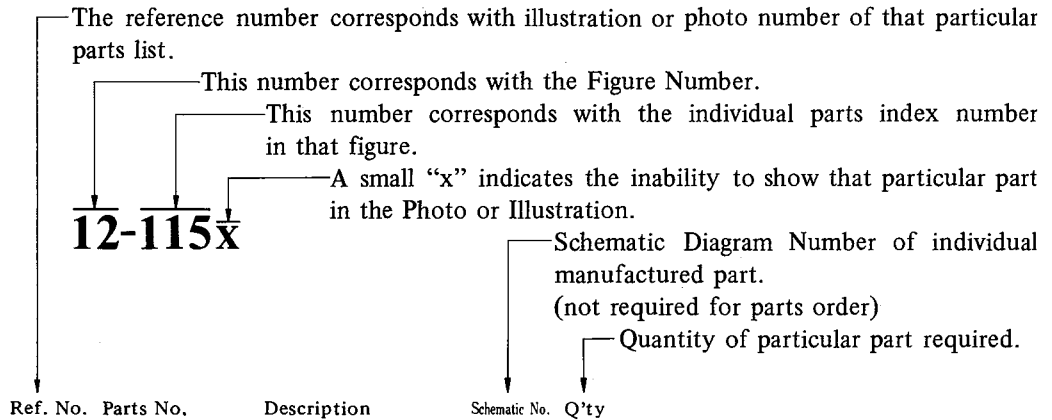
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Some of the parts in this parts list are only available as a complete assembly, and can not be supplied as individual parts.

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.

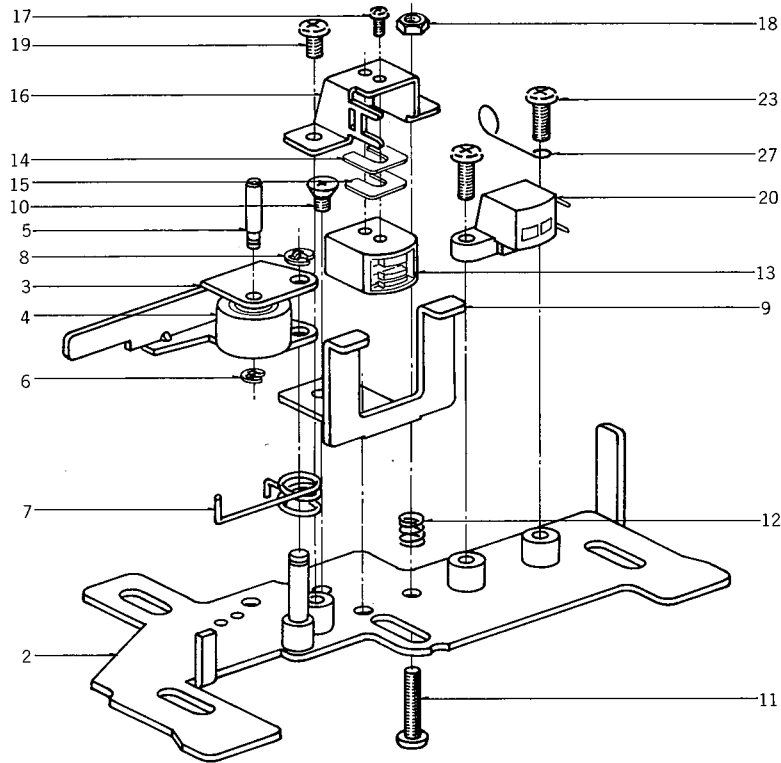


FLYWHEEL BLOCK #13

12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. Please utilize separate "Common List for Service Parts" for Resistor parts orders.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

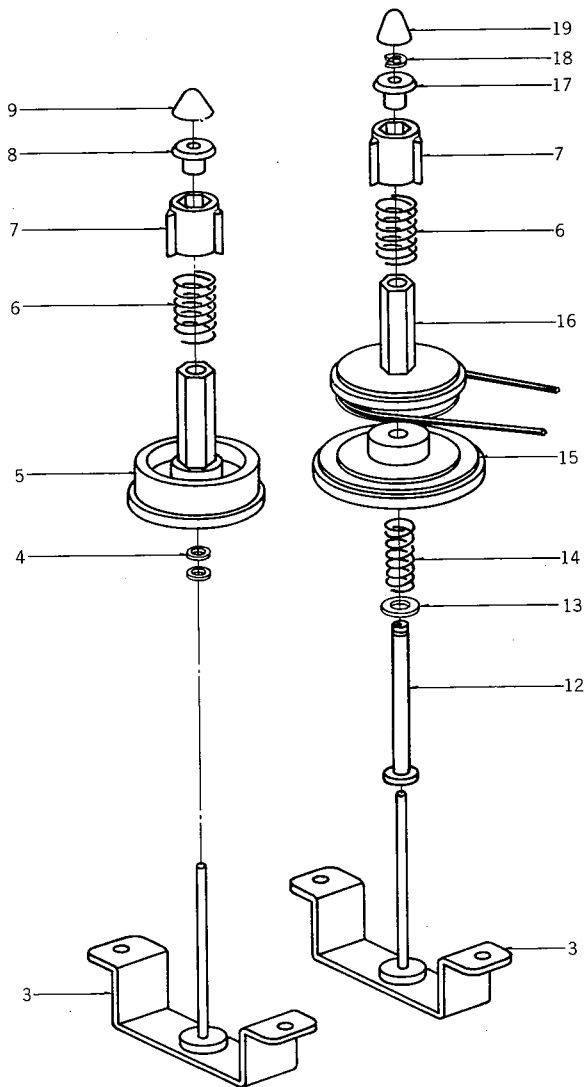
1. ILLUSTRATION OF HEAD BLOCK



HEAD BLOCK

Ref No.	Parts No.	Description	Schematic No.	Q'ty
1-1x	BH517847	Head Base Block Comp.	CG8	1
1-2	HZ457323	Head Base	CG-0001	1
1-3	HL457391	Pinch Roller Arm	CG-0010	1
1-4	MP468292	Pinch Roller CG D=13	CT-0032	1
1-5	MS389981	Pinch Roller Shaft	CS-0011	1
1-6	ZW391397	'E' Ring 1.2M	6-1-9	1
1-7	ZG457380	Pinch Roller Spring	CG-0009	1
1-8	ZW270088	'E' Ring 1.9M	6-1-9	1
1-9	HZ457367	Cassette Stop Base	CG-0007	1
1-10	ZS444330	ISO Screw, countersunk head 3x4		2
1-11	ZS462947	Screw, pan head 2.3x12		1
1-12	ZG465636	Angle Adjust Spring	CG-0029	1
1-13	HP564085	REC/P.B HEAD P4-341		1
1-14	ZW414235	Height Adjust Washer A	CS-0025	1
1-15	ZW414246	Height Adjust Washer B	CS-0025	1
1-16	MS366625	PC Tape Guide	RCC-1012	1
1-17	ZS461395	Screw, round head 2x3		1
1-18	ZW273688	Nut M2.3		1
1-19	ZS417161	Screw, pan head 2.3x4		1
1-20	HE364318	ERASE HEAD E4-100		1
1-21x	HE656098	ERASE HEAD HF213853 (New Type)	37-2-2	1
1-22x	ZW316800	Earth Lug M2.6		1
1-23	ZS375118	Screw, binding head 2.3x6		2
1-24x	ZS201407	Screw, pan head 2.3x3		1
1-25x	ZS432674	Screw, pan head 3x3		1
1-26x	ZW413256	Washer (SPC) D3.4x7.8x0.5t		1
1-27	TC399071	Head Wiring Hook	CS-0021	1

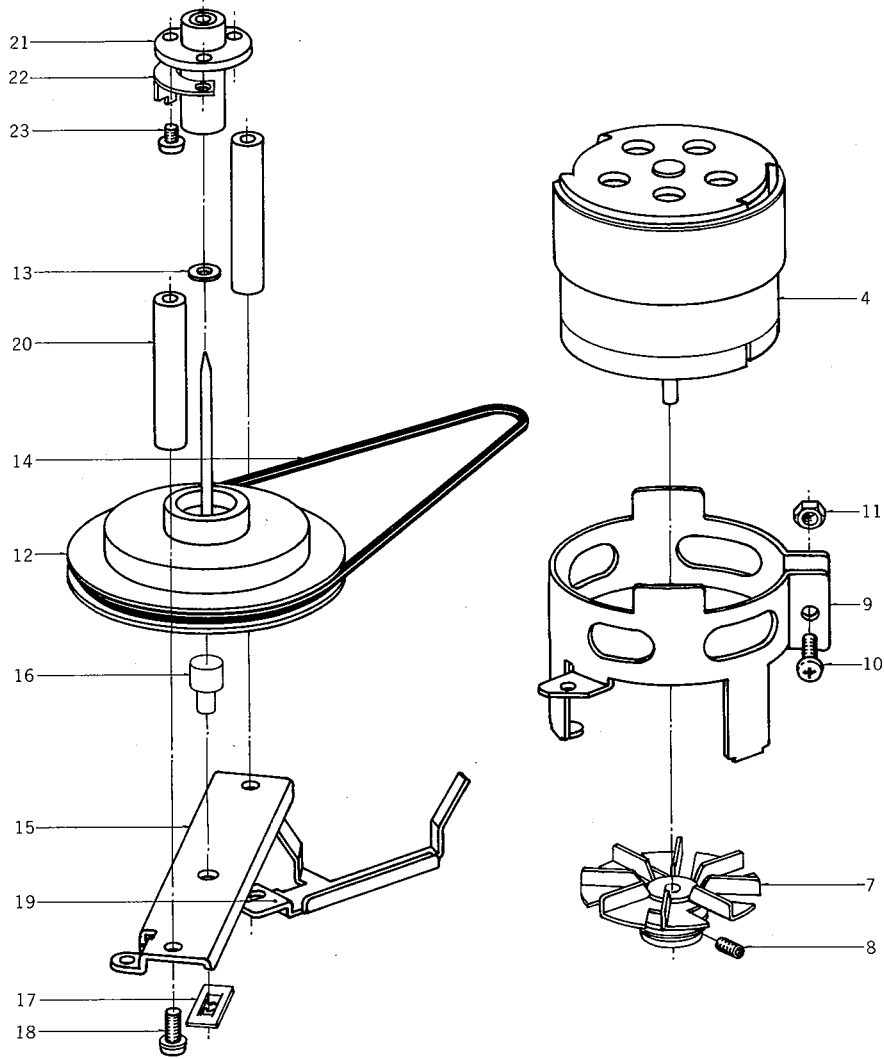
2. ILLUSTRATION OF REEL TABLE BLOCK



REEL TABLE BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
2-1x	BR451697	Supply Reel Table Block Comp.	CG. CT. CJ	1
2-2x	BR451686	Take-up Reel Table Block Comp.	CG. CT. CJ	1
2-3	MT457312	Reel Table Bracket, w/shaft	CG-2001	1
2-4	ZW364342	Washer (Polyslider) D1.7x3.2x0.25t		2
2-5	TC389790	Supply Reel Table Comp.	CS-2016B	1
2-6	ZG385075	Reel Table Spring	GS-2014	1
2-7	MT370361	C Type Reel Table Blade	RCC-1345	1
2-8	MT370348	C Type Reel Table Bush	RCC-1343	1
2-9	MT370372	C Type Reel Shaft Cap	RCC-1346	1
2-10x	ZW601751	Washer D6.1x10x0.12t		1
2-11x	ZW601762	Washer D3.1x8x0.12t		1
2-12	MS387573	Take-up Reel Table Shaft	CS-2007	1
2-13	ZW355307	Washer (BSP) D2.6x6.9x0.5t		1
2-14	ZG387584	Clutch Spring	CS-2008	1
2-15	MR387606	Take-up Reel Table Pulley Comp.	CS-2009B	1
2-16	MT387630	Take-up Reel Table Comp.	CS-2012B	1
2-17	MT387641	Take-up Reel Table Bush	CS-2015	1
2-18	ZW270088	'E' Ring 1.9M	6-1-9	1
2-19	MT394200	Take-up Reel Cap	CS-2105	1

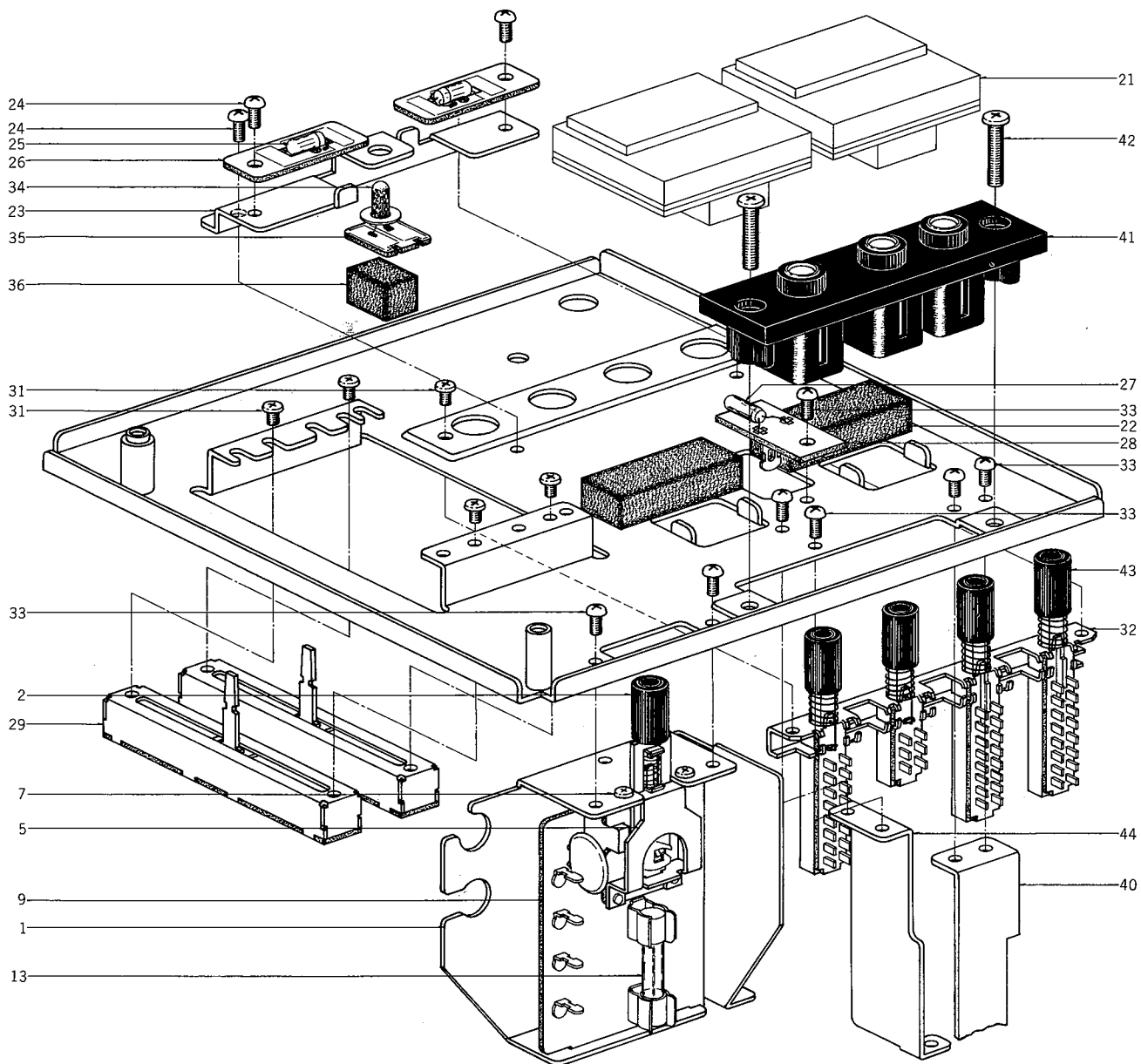
3. ILLUSTRATION OF MOTOR BLOCK



MOTOR BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
3-1x	BM510107	Motor Block (IB-440) Block Comp.	CG8	1	3-12	MI456658	Flywheel	CG-1021	1
3-2x	BM637176	Motor Block (IB-440) Block Comp. (CSA)	CG8	1	3-13	ZW461272	Washer (Polyslider) D3x5x0.13t		1
3-3x	BM637198	Motor Block (IB-440) Block Comp. (39-CSA)	CG8	1	3-14	MB456660	Capstan Belt D106x1.4x1.4	CG-1023	1
3-4	BM557673	Motor IB-440	9-2-3	1	3-15	TC456682	Capstan Supporting Plate	CG-1022	1
3-5x	BM646222	Motor IB-440Z (CSA)	9-2-5	1	3-16	TC387268	Flywheel Support	CS-1115	1
3-6x	BM557673	Motor IB-440 (39-CSA)	9-2-3	1	3-17	ZW478991	Speed Nut M4 (P Type)	6-3-7	1
3-7	MZ510017	Motor Fan, w/pulley B	CG-7308	1	3-18	ZS322626	ISO Screw, binding head w/washer		2
3-8	ZS356804	Set Screw, hexagon Socket 3x4 (Cup/p.)		2	3-19	TC627603	Belt Stopper 2	CH-1307	1
3-9	TC516306	Motor Mt. Metal B	CG-1234	1	3-20	TC456671	Capstan Supporting Prop	CT-1016	2
3-10	ZS417148	Screw, binding head 3x15		1	3-21	MV610514	Capstan Metal Case B	CP-1156	1
3-11	ZW273756	Nut M3		1	3-22	TC494987	Take-up Spring Hook	CT-1101	1
					3-23	ZS464692	Screw, binding head 2.3x6		3

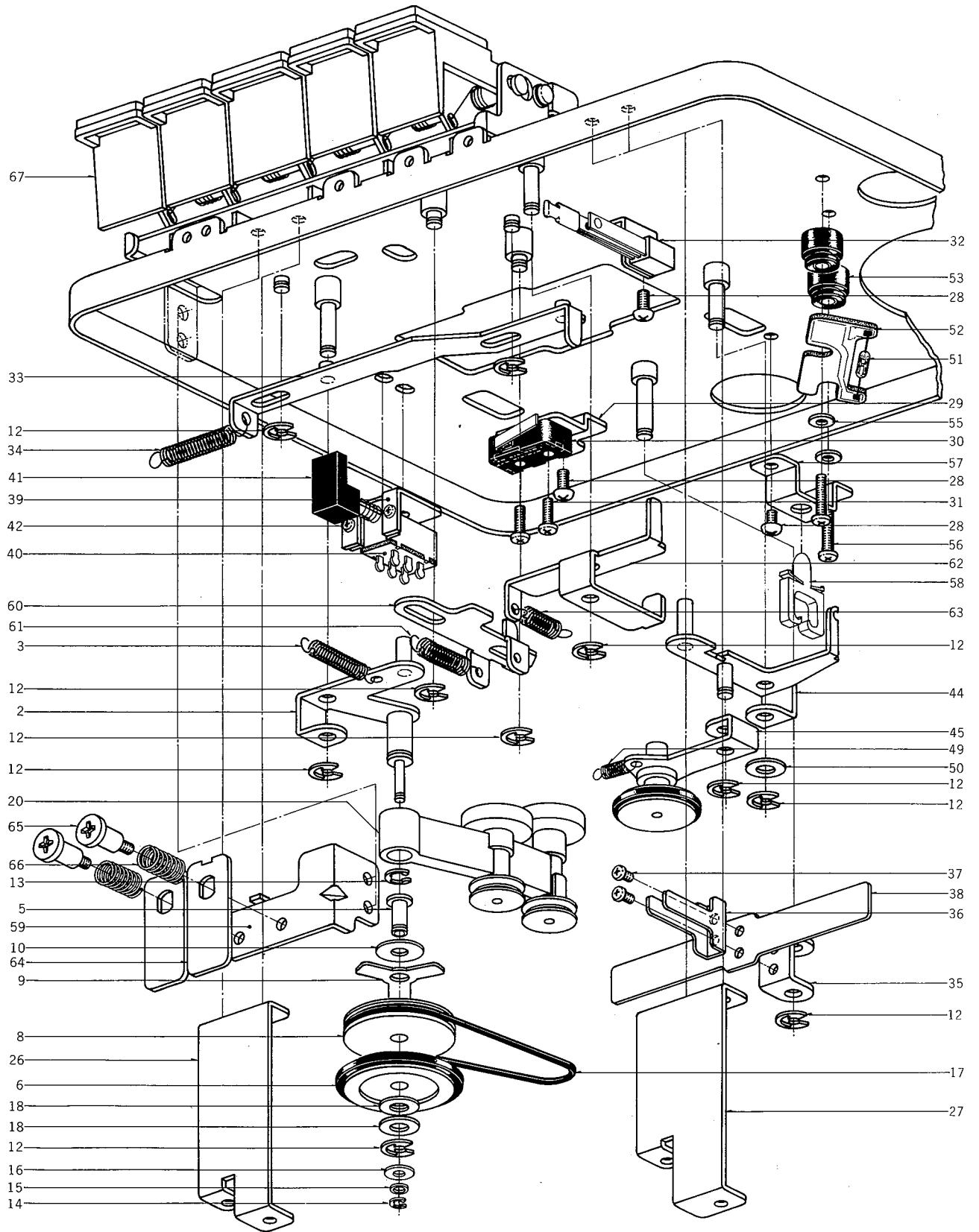
4. ILLUSTRATION OF SW. BOX/AMP. CHASSIS BLOCK



SW. BOX/AMP. CHASSIS BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
SW. BOX BLOCK				
4-1	TC631484	Power Supply SW. Table	CG-5803	1
4-2	SB614428	Power Button B	A5-5021	1
4-3	BZ631980	Fuse Plate A Block Assay B.	CW-5033	1
4-4x	BJ618805	Lug (W. calking)	32-1-56	4
4-5	ES469541	Push SW. TV-3 JB52	25-5-60	1
4-6x	ES499972	Push SW. JS-09 (CEE)	25-5-67	1
4-7	ZS422076	Screw, pan head 3x5		2
4-8	EC551160	Ceramic/C. NB821 YZ 0.01 μ F(Z) 1.4 kWV	24-5-55	1
4-9	EA612178	Puse P.C. Board	CH-5311	1
4-10x	EA614788	Fuse P.C. Board B (CEE)	CH-5318	1
4-11x	EJ514822	Fuse Holder, P.C. Board S-N5051	40-1-28	2
4-12x	EJ514822	Fuse Holder, P.C. Board S-N5051(CSA,JPN)	40-1-28	4
4-13	EF563681	Fuse 1A 250V	39-1-50	1
4-14x	EF511626	Fuse ULMF61M 250V 0.8A (CSA)	39-1-45	1
4-15x	EF575932	Fuse 0.8A 250V (JPN)	39-1-50	1
4-16x	EF375647	Fuse (T Type) 500MAT(CEE)		2
4-17x	EF550618	Fuse ULMF61M 250V 1.5A (CSA)	39-1-45	1
4-18x	EF563692	Fuse 1.5A 250V (JPN)	39-1-50	1
4-19x	EF563670	Fuse 0.5A 250V	39-1-50	1
4-20x	EJ621415	Fuse Clip (CEE)	40-1-57	6
AMP. CHASSIS BLOCK				
4-21	EM631822	VU Meter D19A74R	46-1-99	2
4-22	SZ650935	VU Mat	CG-5820	2
4-23	TC631473	Lamp Table	CG-5802	1
4-24	ZS325495	Tapping Screw #2 3x6		12
4-25	EL603268	Lamp 24V 35MA	28-2-39	2
4-26	EZ255317	Lamp Holder	LD-533	2
4-27	EL621167	Pilot Lamp 5.5V 60MA	28-2-36	1
4-28	TC612112	Lamp Plate (1)	CH-5302	1
4-29	EV453396	Slide Vol. LD14A003 kA (L=20M/M)	36-16-3	2
4-30x	EV453420	Slide Vol. (2-throw) MD14A003 100 kBx2 (39)	36-27-1	1
4-31	ZS422076	Screw, pan head 3x5		4
4-32	ES631833	Push SW. 4FT-003-CT1320	25-5-174	1
4-33	ZS379350	ISO Screw, pan head 3x6		2
4-34	ED522887	Luminous Diode SL-103	45-15-2	1
4-35	EA614158	Peak Lamp P.C. Board	CW-1061	1
4-36	TC613776	Lamp Mat	CW-5026	1
4-37x	EJ510333	Wire Clip 220-JD481610-0104 (Nylon)	2-7-17	2
4-38x	EJ514607	Wire Clip 220-JD485210-01 (Nylon)	2-7-18	1
4-39x	ER419040	Carbon/R. RD1/4 1M(J) (Stop. Type)	35-10-1	2
4-40	TC648437	Retaining Table C	CG-5819	1
4-41	EJ555794	Jack, 3-throw S-G0911	31-2-43	1
4-42	ZW559135	Tapping Screw # 2 4x18 (pan)		2
4-43	SK607127	Push Knob A	A5-5022	4
4-44	TC631495	P.C. Board Mt. Plate	CG-5804	1
4-45x	EC348704	Elect./C. 2200 μ F 35WV (Lug Type) (39)	24-10-63	1
4-46x	TC612066	Trans. Table (39-CSA)	CH-5308	1
4-47x	BT631890	Power Trans. CGT-42 (39-CSA)	38-4-333	1
4-48x	TC516598	Trans. Retainer (39-CSA)	CS-5337	2
4-49x	TC631506	Shield Plate (CSA)	CG-5806	1

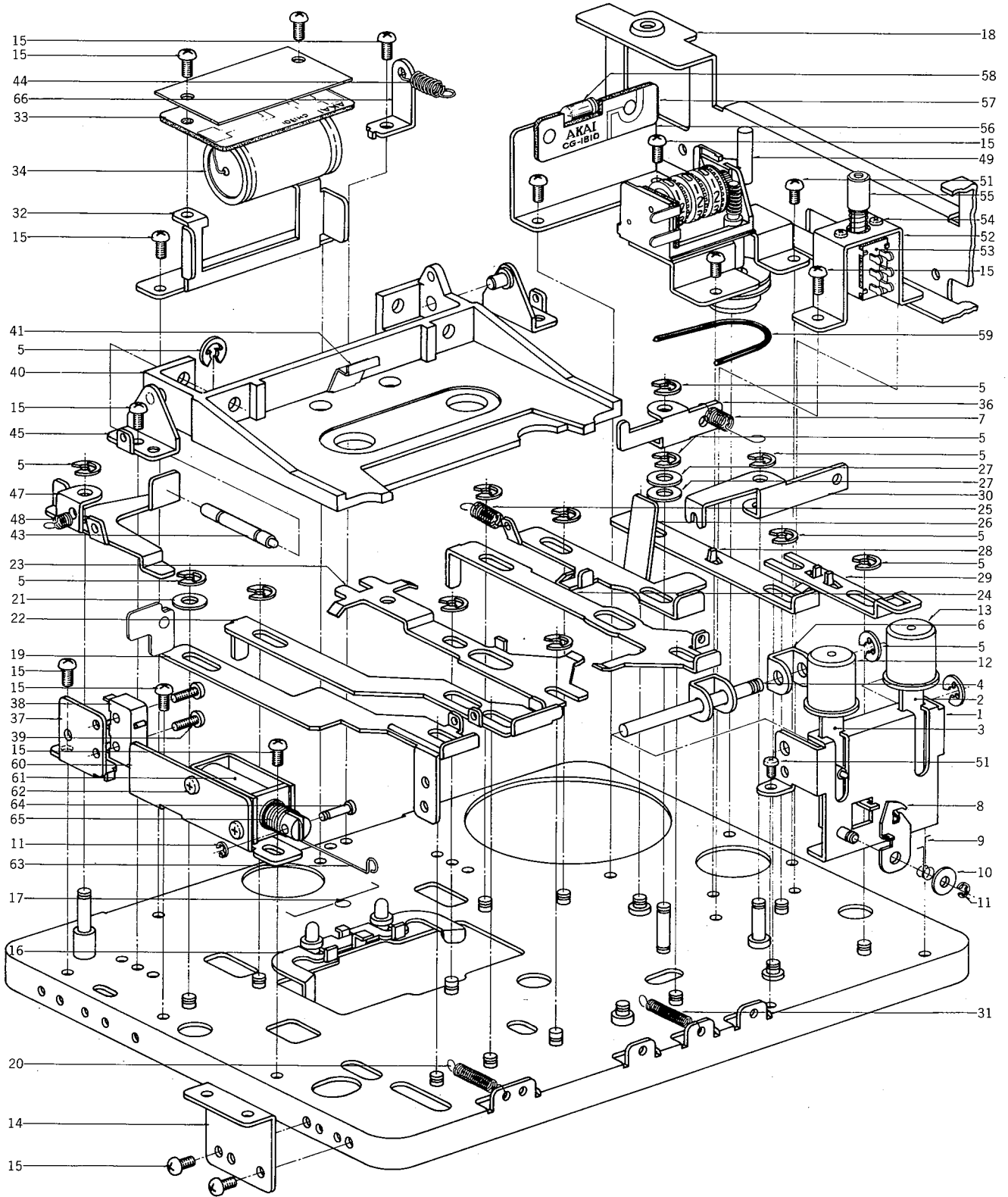
5. ILLUSTRATION OF MECH. FRAME BLOCK (1)



MECH. FRAME BLOCK (1)

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
WIND IDLER BLOCK					5-57	TC518117	Retaining Plate	CG-1404	2
5-1x	BZ459966	Wind Idler Block Comp.	CG, CT, CH	1	5-58	EJ510333	Wire Clip 220JD481610-0104 (Nylon)	2-7-17	3
5-2	ML456783	Wind Lever (1), w/shaft	CG-2009	1	5-59	MZ668351	REC. Bracket A	CG-1824	1
5-3	ZG392804	Auto. Change Lever E			5-60	ML629932	Play Lever	CG-1804	1
		Return Spring	CS-2566	1	5-61	ZG227452	Spring D	900-118	1
5-4x	MI462690	Wind wheel Sub Block Comp.	CG	1	5-62	ML629943	Pause Lever	CG-1805	1
5-5	TC461878	Wheel Collar	CG-2026	1	5-63	ZG369112	Head Base Return Spring	RCC-1035	1
5-6	TC467752	Wind Wheel 1, w/ring	CG-2023	1	5-64	MZ659790	Recording Plate A	CG-1823	1
5-7x	TC461586	Clutch Felt	CG-2025	1	5-65	ZS478697	Graduated Screw, CG	CG-1093	2
5-8	MI461891	Wind Wheel 2	CG-2024	1	5-66	ZG494381	REC. Cramp Spring B	CG-1218	2
5-9	ZG459224	Clutch Spring	CG-2021	1	5-67	ES644242	Keyboard Switch D	25-5-178	1
5-10	ZW259795	Washer (SUP) D4.3x11x0.13t		1	5-68x	ZW273767	Earth Lug D3x20L		1
5-11x	ZW421007	Washer (SUP) D4.3x11x0.25t		1					
5-12	ZW290283	'U' Ring 2.85M	6-1-1	10					
5-13x	ZW270123	'E' Ring 4M	6-1-9	1					
5-14	ZW391397	'E' Ring 1.2M	6-1-9	1					
5-15	ZW474581	Washer (Teflon) D2.05x3.5x0.2t		1					
5-16	ZW474592	Washer (Teflon) D2.05x7x0.2t		1					
5-17	MB456895	Wind Belt D40x1.4x1.4	CG-1035	1					
5-18	ZW474603	Washer (Teflon) D4.1x13x0.2t		1					
WIND PULLEY BLOCK									
5-19	BZ592154	Wind Pulley Block Comp.	CG, CT, CJ	1					
5-20x	ML456827	Wind Lever 2, w/metal	CG-2015	1					
5-21x	MS456851	Wind Pulley Shaft 1	CG-2018	1					
5-22x	MR456838	Wind Pulley 1	CG-2016	2					
5-23x	MR456840	Wind Pulley 2	CG-2017	2					
5-24x	ZW381644	Washer (Polyslider) D2.1x4.0x0.13t		4					
5-25x	MS456862	Wind Pulley Shaft 2	CG-2018	1					
MECH. FRAME BLOCK									
5-26	SZ629921	Mt. Foot A	CG-1802	1					
5-27	TC631416	Mt. Foot B	CG-1814	1					
5-28	ZS325495	Tapping Screw #2 3x6		22					
5-29	MZ631350	SW. Retaining Table	CG-1806	1					
5-30	ES477966	Micro SW. SS-5GL	25-1-23	1					
5-31	ZS461261	Screw, binding head 2.3x8		2					
5-32	ES659643	Leaf SW. BSW-18B	25-10-24	1					
5-33	TC456996	Wind Slide, w/pin	CG-1046	1					
5-34	ZG224796	New Spring D	MH-142	1					
5-35	MZ595675	Wind Plate	CH-1049	1					
5-36	ZG456985	Wind Spring	CG-1045	1					
5-37	ZS417273	Screw, binding head 2.3x4		2					
5-38	ZG460484	Wind Plate Spring	CG-1083	1					
5-39	TC498892	SW. Holder	CG-3304	1					
5-40	ES539043	Push SW. SPJ-10108	25-5-92	1					
5-41	SB499195	SW. Button	CG-3305	1					
5-42	ZS464703	Screw, binding head 2x4		2					
5-43x	ZS442585	Screw, binding head 2.6x4		2					
5-44	ML456693	Take-up Lever 1, w/shaft	CG-1024	1					
5-45	ML630448	Take-up Lever 2	CJ-2031	1					
5-46	MI456750	Take-up Wheel	CG-1031	1					
5-47x	ZW474581	Washer (Teflon) D2.05x3.5x0.2t		1					
5-48	MR456761	Take-up Pulley	CG-1032	1					
5-49	ZG469315	Take-up Lever Spring	CG-1091	1					
5-50	ZW461248	Washer (PBP) D4.3x11x0.35t		1					
5-51	ES516036	Lead SW. ORD-225	25-11-1	1					
5-52	EA516047	Lead SW. P.C. Board	CG-1229	1					
5-53	TC515518	SW. Table Cushion	CG-1228	2					
5-54	EC290564	VFM/C. 220PF(K) 50WV	24-6-2	1					
5-55	ZW516251	Washer (SPC) D2.4x5.8x0.4t		2					
5-56	ZS462881	Screw, binding head 2.3x12		2					

6. ILLUSTRATION OF MECH. FRAME BLOCK (2)



MECH. FRAME BLOCK (2)

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
OPERATION BUTTON BLOCK				
6-1	TC457402	Operation Button Holder, w/shaft	CG-2003	1
6-2	SB457413	Operation Button A	CG-2006	1
6-3	SB461406	Operation Button B, w/pin	CG-2006	1
6-4	MS457435	Button Shaft	CG-2004	1
6-5	ZW290283	'U' Ring 2.85M	6-1-1	22
6-6	ML457424	Button Lever	CG-2005	2
6-7	ZG639720	Pause Lever Spring	CJ-1047	1
6-8	TC515575	SW. Lock Cam B	CG-2301	1
6-9	ZG514440	Button Lock Spring B	CG-2303	1
6-10	ZW452373	Washer (SPC) D3x8x0.5t		1
6-11	ZW270088	'E' Ring 1.9M	6-1-9	2
6-12	SB613495	Push Button A (Orange)	CW-2014	1
6-13	SB613506	Push Button B (Blue)	CW-2014	1
MECH. FRAME BLOCK				
6-14	MZ629998	Mt. Table	CG-1803	2
6-15	ZS325495	Tapping Screw #2 3x6		24
6-16	TC456928	Brake Shoe	CG-1039	1
6-17	ZG456930	Brake Spring	CG-1040	1
6-18	MZ631631	Panel Support	CT-1808	1
6-19	TC498947	REC. Operation Plate	CG-3306	1
6-20	ZG456186	Lock Lever Spring	CC-1119	1
6-21	ZW259986	Washer (Nylon) D5.1x10.3x1t		3
6-22	TC456963	Rewind Slide	CG-1043	1
6-23	TC456941	Brake Slide	CG-1041	1
6-24	TC456952	F.FWD Slide	CG-1042	1
6-25	ZG516418	Eject Spring	CG-1238	1
6-26	ML631451	Eject Slide A	CG-1818	1
6-27	ZW259885	Washer (PBP) D5.1x10.3x0.1t		2
6-28	TC457097	Pause Slide	CG-1058	1
6-29	ML632182	Eject Slide 3	CG-1821	1
6-30	ML457132	Eject Lever	CG-1062	1
6-31	ZG514697	Read Return Spring	CG-1308	1
6-32	TC631438	Capacitor Mt. Table	CG-1816	1
6-33	EA612180	Condenser P.C. Board	CH-1301	1
6-34	EC514743	MP/C. 1 μ F(K) 350WV DC (Tub. Type)	24-9-68	1
6-35 x	EZ638965	Cord Support	2-7-50	3
6-36	ML457110	Pause Lever	CG-1060	1
6-37	TC457075	SW. Plate	CG-1056	1
6-38	ES389700	Micro SW. SS-5	25-1-19	1
6-39	ZS461261	Screw, binding head 2.3x8		2
6-40	TC457233	Cassette Base	CG-1073	1
6-41	ZG627513	Cassette Retaining Spring A	CG-1074	1
6-42 x	SM477358	Cassette Insert Name Plate	CG-1098	1
6-43	MH457255	REC. Safety Pin	CG-1075	1
6-44	ZG367301	Click Spring	RCC-1259	1
6-45	TC457200	Cassette Base Bracket, w/pin	CG-1063	2
6-46 x	ZW562476	Earth Lug M3		1
6-47	ML483906	REC. Safety Lever	CT-1003	1
6-48	ZG387821	Rewind Spring	CS-2033	1
6-49	MC631844	Counter SMP-390-59	9-1-40	1
6-50	MZ631405	Counter Base	CG-1813	1
6-51	ZS483456	Screw, countersunk head 2.3x4		2
6-52	MZ631361	Memory SW. Mt. Plate	CG-1807	1
6-53	ES619053	Push SW. SPJ-10114B	25-5-144	1
6-54	ZS460440	Screw, pan head 2x4		2
6-55	SB613618	Memory Button	CW-5007	1
6-56	MZ631372	Lamp Mt. Table	CG-1809	1
6-57	EA631383	Tape Run P.C. Board	CG-1810	1
6-58	EL603268	Lamp 24V 35MA	28-2-39	1
6-59	MB613258	Counter Belt D=80x1x1	CW-1045	1
6-60	MZ631427	Plunger Mt. Plate	CG-1815	1
6-61	EP494425	Plunger Solenoid 0730THT1	44-1-48	1
6-62	ZS481645	Screw, binding head 2.6x3		2
6-63	EJ631462	Joint B	CG-1819	1
6-64	MH494414	Joint Pin	CG-1206	1
6-65	ZG494403	Return Spring	CG-1204	1
6-66	TC457266	Spring Hook	CG-1077	1

7. PRE-AMP. P.C. BOARD (CW-5214) BLOCK

Symbol No.	Parts No.	Description	Q'ty	Symbol No.	Parts No.	Description	Q'ty
7-1	BA635488	Pre Amp. P.C. Boare Comp. (CW-5214)	1	7-C36	EC321208	Elect. 220 μ F 16WV	1
7-2	BA636456	Pre Amp. P.C. Board Comp. (CW-5214)(39)	1	7-C37	EC493637	Elect. 47 μ F 10WV	2
7-3	BA661037	Pre Amp. P.C. Board Comp. (CW-5214)(39)	1	7-C38	EC337500	Mylar 0.0047 μ F(J) 50WV	2
7-4	BA661048	Pre Amp. P.C. Board Comp. (CW-5214) (39-New)	1	7-C39	EC487157	NP 0.47 μ F(M) 50WV	2
7-TR1,2	ET391768	Transistor 2SC458LG(C)(D)	4	7-C40	EC320051	Elect. 10 μ F 16WV	2
7-TR3	ET603257	Transistor 2SC1312S(G)(H)	2	7-C42	EC320040	Elect. 47 μ F 16WV	2
7-TR4	ET623733	Transistor 2SC1647(R)(S)(E)	2	7-C43	EC320051	Elect. 10 μ F 16WV	2
7-TR5	ET557976	Transistor 2SA628(E)(F)	2	7-C44	EC368335	Mylar 0.022 μ F(J) 50WV	2
7-TR6	ET663243	Transisotr 2SC1312S(G)	2	7-C45	EC250841	Mylar 0.01 μ F(J) 50WV	2
7-TR7	ET623733	Transistor 2SC1647(R)(S)(E)	2	7-C46	EC450527	Elect. 4.7 μ F 25WV	2
7-TR8	ET603270	FET Transistor 2SK34(D)	2	7-C48	EC423595	Mylar 0.033 μ F(M) 50WV	1
7-TR9	ET663243	Transistor 2SC1312S(G)	2	7-C49	EC220994	Elect. 10 μ F 25WV	1
7-TR10	ET557976	Transistor 2SA628(E)(F)	2	7-C50	EC520468	Styrol 3300PF(J) 500WV (Tub. Type)	1
7-TR11to14	ET623733	Transistor 2SC1647(R)(S)(E)	8	7-C50	EC664874	Styrol 3400PF(J) 500WV (Tub. Type) (New Type)	1
7-TR15,16	ET635218	Transistor 2SC945L(K)(P)(Q)(R)	2	7-C51	EC290531	VFM 100PF(K) 50WV	2
7-TR17to19	ET623733	Transistor 2SC1647(R)(S)(E)	4	7-C52	EC637075	Styrol 180PF(J) 50WV	2
7-D1	ED491130	Zener Diode WZ-085	1	7-C53to55	EC320051	Elect. 10 μ F 16WV	6
7-D2	ED619784	Germanium Diode 1N60	2	7-C56	EC539943	Elect. 3.3 μ F 50WV	1
7-D3,4	ED560913	Silicon Diode 1S2473 VE	4	7-C57	EC220678	Elect. 47 μ F 25WV	1
7-D5	ED619784	Germanium Diode 1N60	2	7-C58	EC250604	Mylar 0.001 μ F(K) 50WV	1
7-D6	ED560913	Silicon Diode 1S2473 VE	2	7-C60	EC362125	Mylar 0.0056 μ F(K) 50WV (39)	2
7-D7	ED619784	Germanium Diode 1N60	2			Carbon Resistor Omitted	
7-D14	ED619784	Germanium Diode 1N60	2				
7-D15	ED560913	Silicon Diode 1S2473 VE	2				
7-L1	EO496350	Inductor 146LY 36 MH(J)	2				
7-L2	EO624857	Inductor GE6070A 23MH	2				
7-L4	EO243988	Ferri Inductor FL7H 3.3MH(J)	2				
7-L6	EO368403	Ferri Inductor FL9H 33MH(J)	2				
7-VR1	EV479686	Semi-fixed/Vol. V8K4-1 1 kB	2				
7-VR3	EV464207	Semi-fixed/Vol. V8K4-1 5 kB	2				
7-VR4	EV478686	Semi-fixed/Vol. V8K4-1 1 kB	2				
7-VR5	EV522797	Semi-fixed/Vol. V8K4-1 20kB	2				
7-VR6	EV499882	Semi-fixed/Vol. V10K8-4-2 300 kB	2				
7-T1	BT620392	Headphone Trans. S14-1235	2				
7-T2	EO496844	OSC. Coil OT-903	1				
7-SW1	ES494076	Slide SW. CL-109B	2				
		Capacitor, Vertical Type					
7-C1	EC513990	Styrol 330PF(J) 50WV	2				
7-C2	EC432810	Elect. 10 μ F 16WV NL	2				
7-C3	EC220127	Elect. 100 μ F 16WV	2				
7-C4	EC405898	Styrol 470PF(J) 50WV	2				
7-C5	EC493637	Elect. 47 μ F 10WV	2				
7-C6	EC556525	FM 22PF(K) 500WV	2				
7-C7,8	EC320051	Elect. 10 μ F 16WV	4				
7-C9	EC250683	Mylar 0.0022 μ F(J) 50WV	2				
7-C10	EC389485	Mylar 0.018 μ F(J) 50WV	2				
7-C11	EC493637	Elect. 47 μ F 10WV	2				
7-C12	EC313108	Elect. 1 μ F 50WV	2				
7-C13	EC379787	Mylar 0.0039 μ F(J) 50WV	2				
7-C14	EC495865	Styrol 3000PF(J) 50WV	2				
7-C15	EC250683	Mylar 0.0022 μ F(J) 50WV	2				
7-C16	EC313108	Elect. 1 μ F 50WV	2				
7-C18	EC290531	VFM 100PF(K) 50WV	2				
7-C19	EC320051	Elect. 10 μ F 16WV	2				
7-C20	EC313108	Elect. 1 μ F 50WV	2				
7-C21	EC250604	Mylar 0.001 μ F(K) 50WV	2				
7-C22	EC320051	Elect. 10 μ F 16WV	2				
7-C23	EC329883	Mylar 0.0056 μ F(J) 50WV	2				
7-C24	EC337500	Mylar 0.0047 μ F(J) 50WV	2				
7-C25	EC329861	Mylar 0.027 μ F(J) 50WV	2				
7-C26	EC320051	Elect. 10 μ F 16WV	2				
7-C27	EC523282	Solid Aluminium 0.1 μ F (M) 25WV	2				
7-C28	EC493637	Elect. 47 μ F 10WV	2				
7-C29	EC290531	VFM 100 PF(K) 50WV	2				
7-C30	EC320051	Elect. 10 μ F 16WV	2				
7-C31	EC523282	Solid Aluminium 0.1 μ F(M) 25WV	2				
7-C32	EC320051	Elect. 10 μ F 16WV	2				
7-C33,34	EC523282	Solid Aluminum 0.1 μ F(M)25WV	4				
7-C35	EC604102	Solid Aluminum 0.33 μ F(K)25WV	2				

8. POWER SUPPLY P.C. BOARD (CW-5213) BLOCK

Symbol No.	Parts No.	Description	Q'ty
8-1	BA636928	Power Supply P.C. Board Comp. (CW-5213)	1
8-TR1	ET635815	Transistor 2SC1449(K)(L)(M)	1
8-TR2	ET399870	Transistor 2SC711(G)	1
8-TR3	ET623790	Transistor 2SA640(E)(F)	1
8-TR4	ET517375	Transistor 2SD360(D)(E)	1
8-D1to4	ED511097	Silicon Diode 1N4001	4
8-D5	ED498150	Zener Diode WZ-192	1
8-D6to8	ED560913	Silicon Diode 1S2473 VE	3
8-D9	ED511097	Silicon Diode 1N4001	1
8-2	EZ627625	Heat-sink Plate B	1
8-3	ZS558101	Screw, pna head 3x6 w/washer	2
8-4	ZS608332	Screw, pan head 3x8, w/washer	1
Capacitor, Vertical Type			
8-C1	EC432652	Elect. 1000 μ F 35WV	1
8-C2	EC220151	Elect. 100 μ F 25WV	1
8-C3	EC220994	Elect. 10 μ F 25WV	1
8-C4to6	EC220151	Elect. 100 μ F 25WV	3
8-C7	EC487157	NP 0.47 μ F(M) 50WV	1
8-C8	EC383501	Mylar 0.001 μ F(M) 50WV	1

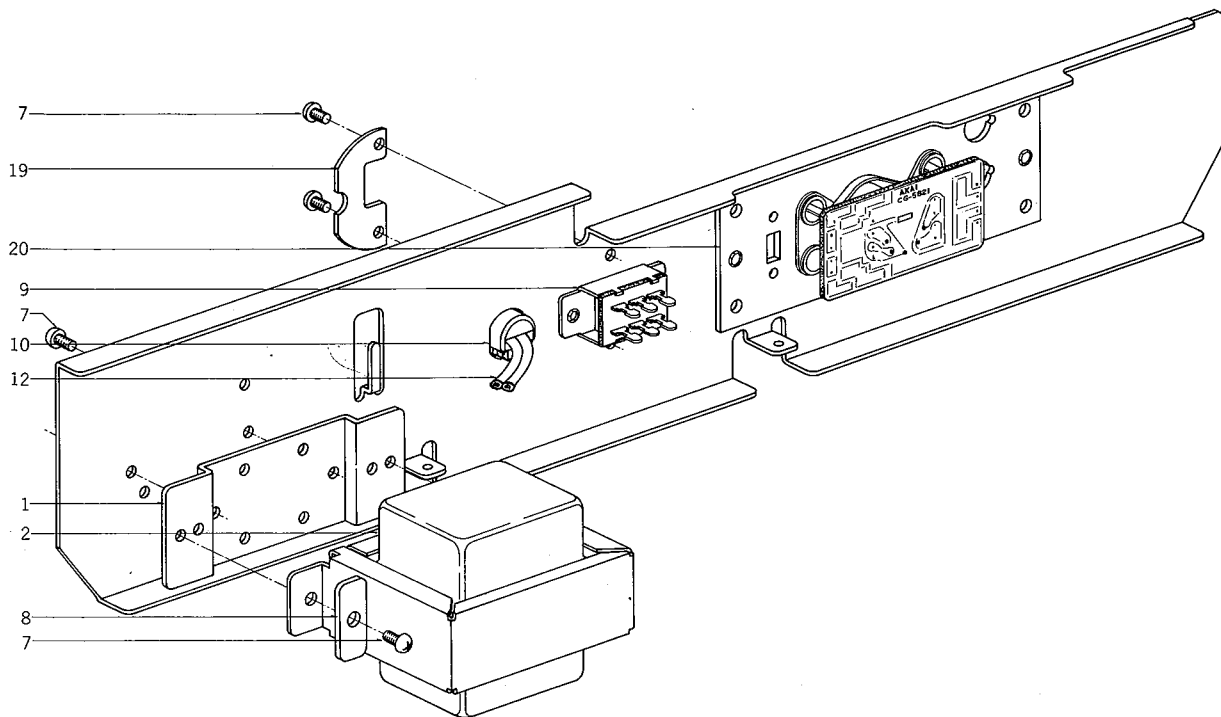
Carbon Resistor Omitted

9. MAIN AMP. P.C. BOARD (CG-5810) BLOCK

Symbol No.	Parts No.	Description	Q'ty
9-1	BA635477	Main Amp. P.C. Board Comp. (CG-5810)	1
9-TR1	ET635231	Transistor 2SC536(F)(G)	2
9-TR2	ET623801	Transistor 2SC1384(Q)(R)(S)	2
9-TR3	ET631855	Transistor 2SD325(D)(E)	2
9-TR4	ET631866	Transistor 2SB511(D)(E)	2
9-TH1	ED453655	Thermister 42D26	2
9-D1	ED635242	Verister VD1213	2
9-VR1	EV650891	Semi-fixed/Vol. V 10k8-4-2 B50K	2
9-F1	EF389575	Fuse ST-4 0.7A	2
9-2	ZS421806	Screw, pan head 3x8	4
9-3	ZW273756	Nut M3	4
9-4	EJ514822	Fuse Holder, P.C. Board S-N5051	4
9-5	EZ631440	Heat-sink Plate	1
9-6	ZS325495	Tapping Screw #2 3x6	2
Capacitor, Vertical Type			
9-C1	EC350706	Elect. 4.7 μ F 16WV	2
9-C2	EC290531	VFM 100PF(K) 50WV	2
9-C3	EC321208	Elect. 220 μ F 16WV	2
9-C4	EC320051	Elect. 10 μ F 16WV	2
9-C5	EC331828	Elect. 3.3 μ F 25WV	2
9-C6	EC220364	Elect. 100 μ F 6.3WV	2
9-C7	EC331705	Elect. 22 μ F 16WV	2
9-C9	EC331817	Elect. 470 μ F 25WV	2
9-C10	EC362158	Mylar 0.0047 μ F(K) 50WV	2
9-C11	EC302264	Mylar 0.001 μ F(K) 50WV	2

Carbon Resistor Omitted

10. ILLUSTRATION OF REAR CHASSIS BLOCK



REAR CHASSIS BLOCK

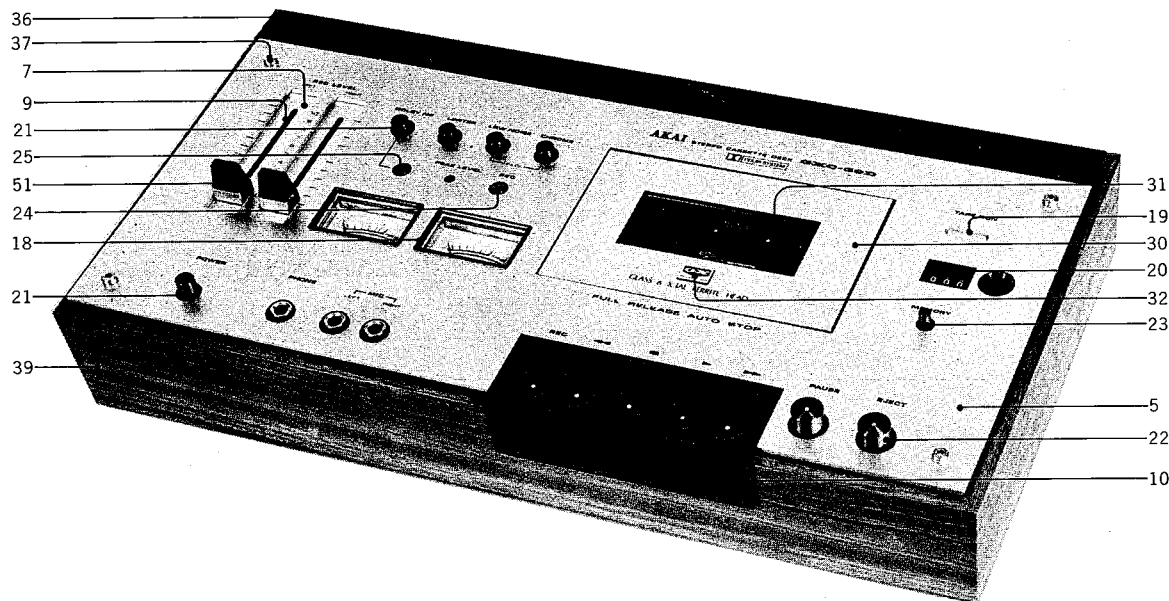
Ref. No.	Parts No.	Description	Schematic No.	Q'ty
REAR CHASSIS BLOCK				
10-1	TC612066	Trans. Table	CH-5308	1
10-2	BT631934	Power Trans. CGT-40	38-4-330	1
10-3x	BT631888	Power Trans. CGT-41 (39,39-3 core)	38-4-332	1
10-4x	BT631912	Power Trans. CGT-38 (CSA)	38-4-328	1
10-5x	BT631923	Power Trans. CGT-39 (CEE)	38-4-329	1
10-6x	BT631901	Power Trans. CGT-37 (JPN)	38-4-327	1
10-7	ZS325495	Tapping Screw #2 3x6		4
10-8	TC516598	Trans. Retainer	CS-5337	2
10-9	ES479507	Slide SW. S-3	25-3-68	1
10-10	EJ631945	Strain Relief SR-4N-4	2-7-49	1
10-11x	EZ246936	Strain Relief SR-6W-1 (3 core, CEE)	2-7-8	1
10-12	EW374894	AC Cord U/L 3M	26-3-19	1
10-13x	EW524845	AC Cord 2.5M (JPN)	26-3-31	1
10-14x	EW315448	Australia Cord (3 core)	26-3-11	1
10-15x	EW496855	AC Cord VM-0099 (CEE)	26-3-27	1
10-16x	EW604585	Power Cord BSI	26-3-37	1
10-17x	ZW273881	Earth Lug M4 (3 ore)		1
10-18x	EZ639990	Lamp Shield B	CW-1214	1
10-19	TC613697	Volt Indication Plate	CW-5018	1
JACK PLATE BLOCK				
10-20	BJ636445	Jack Plate Block Comp.		1
10-21x	BJ636434	Jack Plate Block Comp. (39)		1
10-22x	EJ624104	Jack Plate J-2	31-5-121	1
10-23x	EJ639011	Jack Plate H-4 (39)	31-5-122	1
10-24x	EA659687	P.C. Board, Jack	CG-5821	1

12. LIST OF INTERCHANGEABLE SEMICONDUCTORS

As far as service is concerned, in case the original parts cannot be obtained, the interchangeable parts listed below can be substituted.

Original Parts			Interchangeable Parts	
Description	Parts No.	Utilizing P.C Board	Description	Parts No.
2SA628 (E)(F)	ET557976	CW-5214	2SA564 (Q)(R) 2SA733 (Q)(R) 2SA640 (E)(F)	ET538154 ET538378 ET623790
2SA640 (E)(F)	ET623790	CW-5213	2SA733 (P)(Q) 2SA628 (E)(F)(G)	ET554657 ET619738
2SC458LG(C)(D)	ET391768	CW-5214	2SC693U (F) 2SC1312S (G)(H)	ET315472 ET603257
2SC536(F)(G)	ET635231	CG-5810	2SC711 (G)(F) 2SC945L (K)(P)	ET398777 ET635220
2SC711 (G)	ET399870	CW-5213	2SC945L(K)(P)	ET635220
2SC1384 (Q)(R)(S)	ET623801	CG-5810	2SC971 (2)(3)	ET304255
2SC1449 (K)(L)(M)	ET635815	CW-5213	2SD360 (D)(E) 2SD325 (E)(E)	ET517375 ET631855
2SC1647 (R)(S)(E)	ET623733	CW-5214	2SC945L (K)(P)(Q) 2SC536 (F)(G)(H)	ET632204 ET632215
2SC1648 (E)(U) 2SC1648 (R)(S)(E)		CW-5214	2SC1312S (G)	ET663243
2SD360 (D)(E)	ET517375	CW-5213	2SD325 (D)(E)	ET631855
2SD325 (D)(E)	ET631855	CG-5810	2SC1098 (K)(L)	ET465208
2SB511 (D)(E)	ET631866	CG-5810	2SA636 (K)(L)	ET465265
1N4001	ED511097	CW-5213	10D05	ED494583
1S2473VE	ED560913	CW-5213	WG599 WG713	ED514721 ED515790

11. PHOTO OF FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty	Ref. No.	Parts No.	Description	Schematic No.	Q'ty
UPPER CASE BLOCK					ASSEMBLY BLOCK				
11-1x	BC635387	Upper Case Block Comp.	CG8	1	11-36	SP631708	Upper Panel (Black)	CG-6809	1
11-2x	BC635400	Upper Case Block Comp. (CSA)	CG8	1	11-37	ZS613901	Panel Screw	CW-6031	4
11-3x	BC635376	Upper Case Block Comp. (39)	CG8	1	11-38x	ZW273767	Earth Lug D3x20L		1
11-4x	BC635398	Upper Case Block Comp. (39-CSA)	CG8	1	11-39	BC631776	Wood Frame	CG-6810	1
11-5	SP631754	Front Panel A	CG-6801	1	11-40x	BC631787	Lower Case	CG-6811	1
11-6x	SP631765	Front Panel B (39)	CG-6801	1	11-41x	ZS325495	Tapping Screw #2 3x6		11
11-7	SP631528	Volume Panel A	CG-6804	2	11-42x	SZ641610	Panel Cutchion	CG-6825	1
11-8x	SP631563	Volume Panel B (39)	CG-6812	1	11-43x	SM631686	Rear Name Plate E	CG-5808	1
11-9	SE631596	Volume Mask	CG-6815	1	11-44x	SM631642	Rear Name Plate A (CEE)	CG-5808	1
11-10	SE631743	Panel Escutcheon	CG-6805	1	11-45x	SM631653	Rear Name Plate B (JPN)	CG-5808	1
11-11x	SP631710	Lid Cover Base, w/spring	CG-6806	1	11-46x	SM631664	Rear Name Plate C (CSA)	CG-5808	1
11-12x	TC631541	Lid Bracket R, w/pin	CG-6808	1	11-47x	SM631697	Rear Name Plate F (39)	CG-5808	1
11-13x	ZS417216	Screw, pan head 3x4		2	11-48x	SM631675	Rear Name Plate D (39-CSA)	CG-5808	1
11-14x	TC631552	Lid Bracket L, w/pin	CG-6808	1	11-49x	TC457266	Spring Hook	CG-1077	1
11-15x	ZG632171	Return Spring B	CG-6818	1	11-50x	SE614070	Jack Plate Escutcheon	CW-6024	1
11-16x	TC631620	Cassette Table Stopper	CG-6817	1	11-51	SK569237	Slide Knob, w/ring	CP-6024	2
11-17x	SZ638392	Lid Cover Support	CG-6824	2	11-52x	SK569237	Slide Knob, w/ring (39)	CP-6024	3
11-18	SE631530	Meter Escutcheon	CG-6807	2	11-53x	SM639066	Rear Name Plate GXC-39D	CG-6510	1
11-19	SE631574	Tape Run Escutcheon (Yellow)	CG-6813	1	11-54x	SM638954	Rear Name Plate GXC-39	CG-6510	1
11-20	SE630156	Counter Escutcheon	CJ-6007	1					
11-21	SE613888	Button Escutcheon A	CW-6021	5					
11-22	SE613866	Button Escutcheon C	CW-6016	2					
11-23	SE631585	Button Escutcheon D	CG-6814	1					
11-24	SE612055	Lamp Lens A (Red)	CH-6314	1					
11-25	SE628064	Lamp Lens C (Green)	CH-6314	1					
11-26x	TC648426	Lamp Mat	CG-6826	1					
11-27x	MZ613844	Stopper	CW-6012	1					
11-28x	ZW290283	'U' Ring 2.85M	6-1-1	1					
11-29x	ZG664683	Rock Stopper Spring	CW-6044	1					
11-30	SP613855	Lid Cover Panel	CW-6014	1					
11-31	TC614068	Case Lid	CW-6013	1					
11-32	SM518310	Name Plate (GX) B	CG-6411	1					
11-33x	SE613923	Mask B	CW-6032	2					
11-34x	SE631607	Mask C	CG-6816	1					
11-35x	SE631618	Mask D	CG-6816	1					

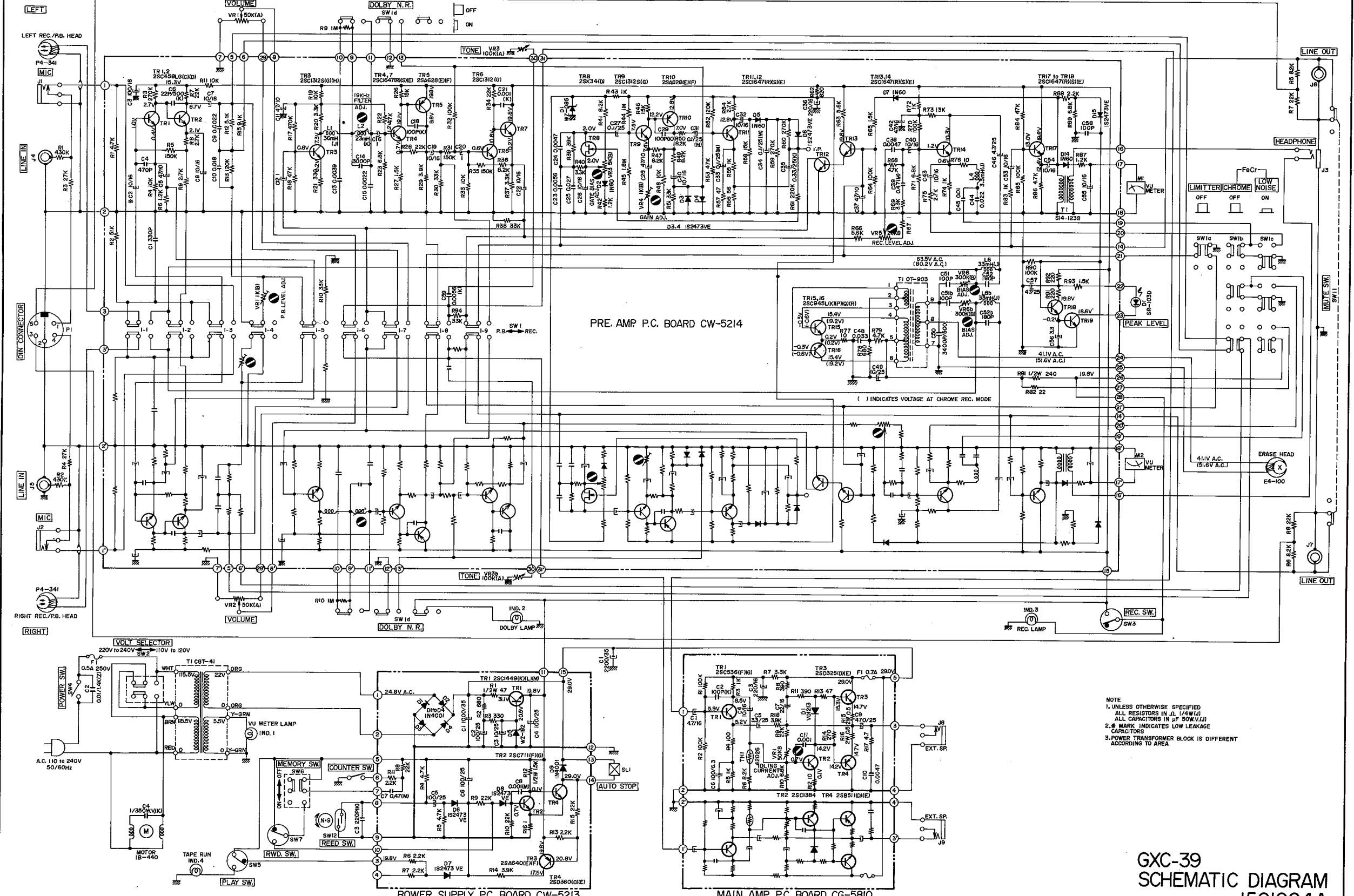
INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
ZS417216	11-13x	ZS608332	8-4	ZW364342	2-4	ZW601762	2-11x		
ZS417273	5-37	ZS613901	11-37	ZW381644	5-24x				
ZS421806	9-2	ZW259795	5-10	ZW391397	1-6				
ZS422076	4-7	ZW259885	6-27	ZW391397	5-14				
ZS422076	4-31	ZW259986	6-21	ZW413256	1-26x				
ZS432674	1-25x	ZW270088	1-8	ZW414235	1-14				
ZS442585	5-43x	ZW270088	2-18	ZW414246	1-15				
ZS444330	1-10	ZW270088	6-11	ZW421007	5-11x				
ZS460440	6-54	ZW270123	5-13x	ZW452373	6-10				
ZS461261	5-31	ZW273688	1-18	ZW461248	5-50				
ZS461261	6-39	ZW273756	3-11	ZW461272	3-13				
ZS461395	1-17	ZW273756	9-3	ZW474581	5-15				
ZS462881	5-56	ZW273767	5-68x	ZW474581	5-47x				
ZS462947	1-11	ZW273767	11-38x	ZW474592	5-16				
ZS464692	3-23	ZW273881	10-17x	ZW474603	5-18				
ZS464703	5-42	ZW290283	5-12	ZW478991	3-17				
ZS478697	5-65	ZW290283	6-5	ZW516251	5-55				
ZS481645	6-62	ZW290283	11-28x	ZW559135	4-42				
ZS483456	6-51	ZW316800	1-22x	ZW562476	6-46x				
ZS558101	8-3	ZW355307	2-13	ZW601751	2-10x				

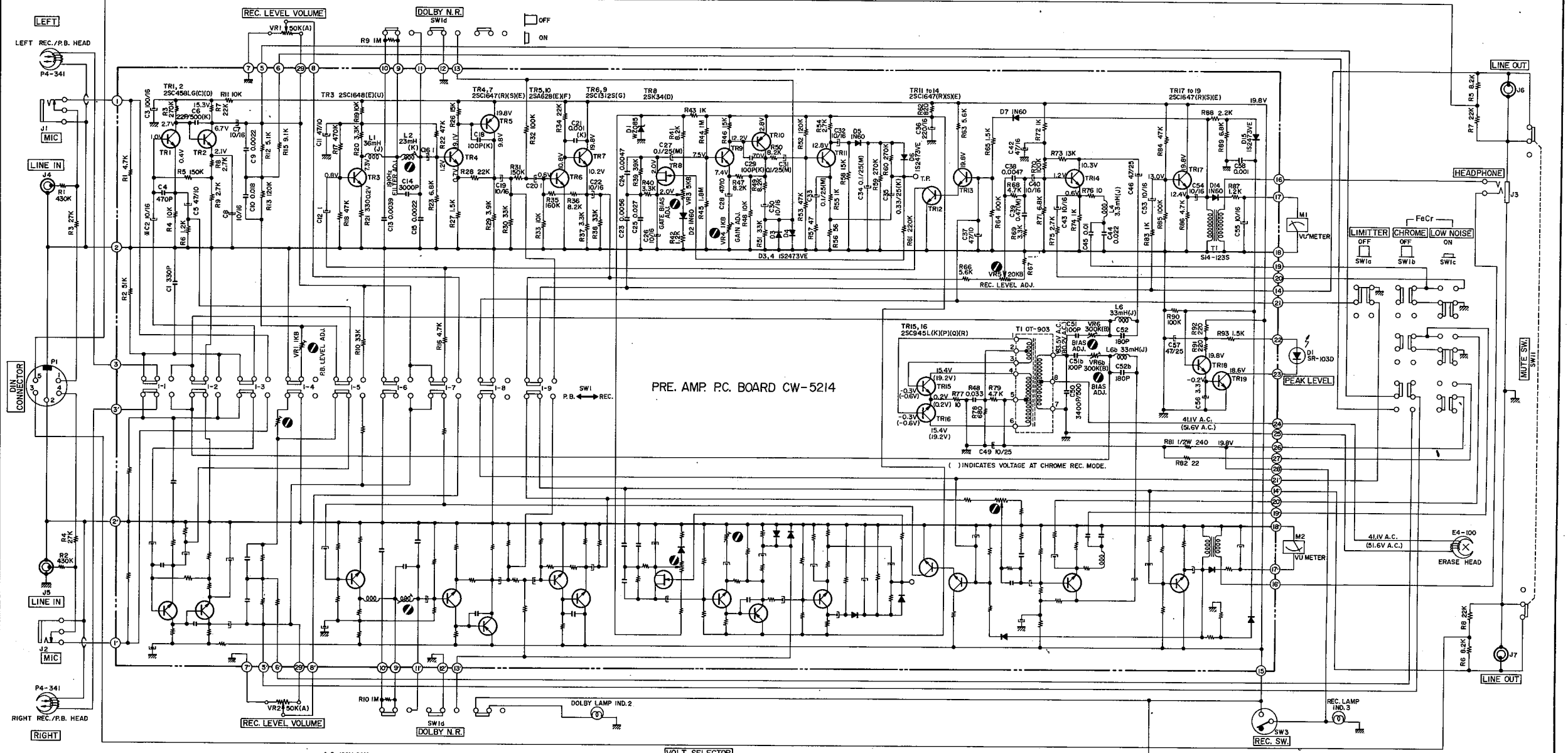
SECTION 3

SCHEMATIC DIAGRAM

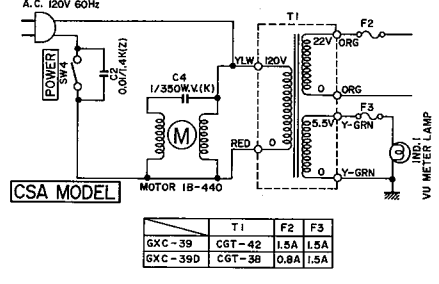
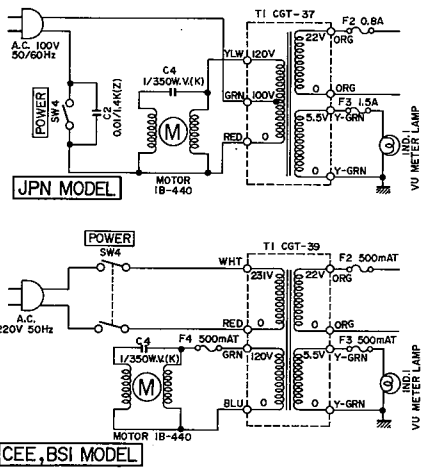
1. GXC-39D SCHEMATIC DIAGRAM
2. GXC-39 SCHEMATIC DIAGRAM



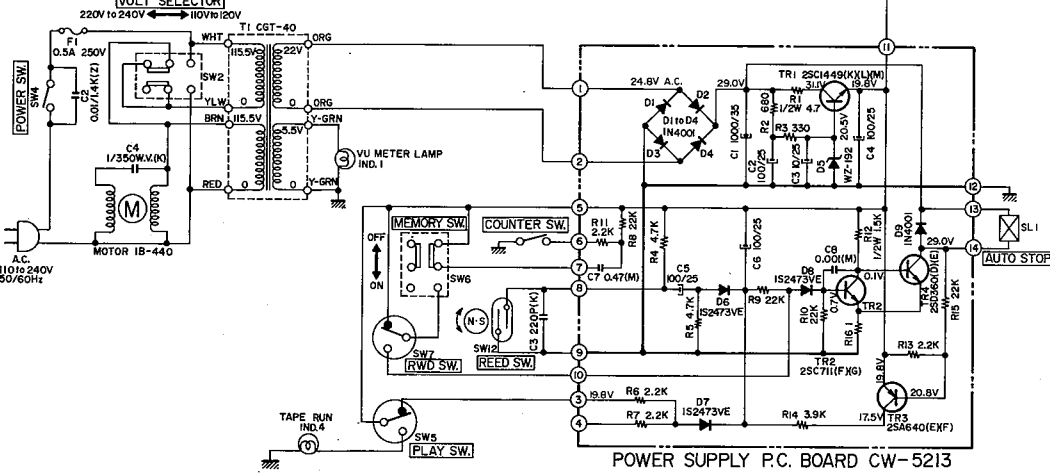
NOTE
 1. UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS IN Ω, 1/4W/1%
 ALL CAPACITORS IN μF 50WV/1%
 2. * MARK INDICATES LOW LEAKAGE
 CAPACITORS
 3. POWER TRANSFORMER BLOCK IS DIFFERENT
 ACCORDING TO AREA



PRE. AMP. P.C. BOARD CW-5214



	T1	F2	F3
GXC-39	CGT-42	1.5A	1.5A
GXC-39D	CGT-38	0.8A	1.5A



- NOTE
- UNLESS OTHERWISE SPECIFIED ALL RESISTORS IN Ω (K/M/G)
 - ∅ MARK INDICATES LOW LEAKAGE CAPACITORS
 - POWER TRANSFORMER BLOCK IS DIFFERENT ACCORDING TO AREA

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