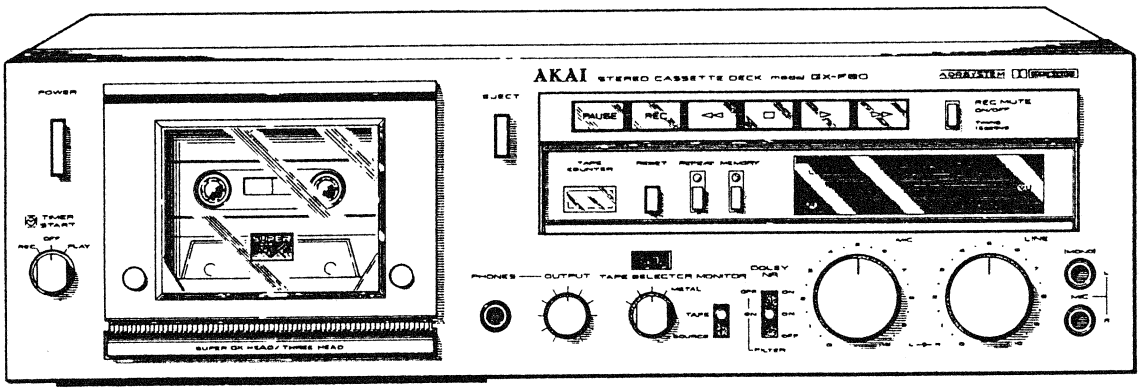
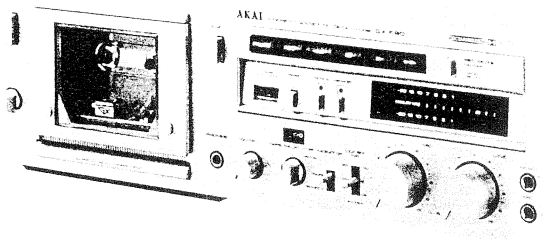
GX-F80

AKAI SERVICE MANUAL



STEREO CASSETTE DECK

MODEL **GX-F80**



STEREO CASSETTE DECK

MODEL **GX-F80**

ALSO APPLICABLE TO BLACK PANEL MODEL

I. TECHNICAL DATA

TRACK SYSTEM	4 track 2 channel stereo system
TAPE	Philips type cassette
TAPE SPEED	4.76 cm/s ± 1.0% (1-7/8 ips)
WOW & FLUTTER	Less than 0.035% WRMS, 0.09% (DIN 45500)
FREQUENCY RESPONSE	25 to 15,000 Hz ± 3 dB (−20 VU) LN tape 25 to 17,000 Hz ± 3 dB (−20 VU) LH tape 25 to 17,500 Hz ± 3 dB (−20 VU) CrO_2 (SA) tape 25 to 9,000 Hz ± 3 dB (0 VU) CrO_2 (SA) tape 25 to 21,000 Hz ± 3 dB (−20 VU) Metal tape 25 to 13,000 Hz ± 3 dB (0 VU) Metal tape
DISTORTION (1,000 Hz "0" VU)	Less than 0.8% using LN tape 0.8% using LH tape 0.7% using CrO_2 (SA) tape 0.6% using Metal tape
SIGNAL TO NOISE RATIO	Better than 58 dB using LN tape 60 dB using LH tape 61 dB using CrO_2 (SA) tape 62 dB using Metal tape (Measured via tape with peak recording level) Dolby NR switch ON: Improves up to 10 dB above 5 kHz
ERASE RATIO	Better than 70 dB
BIAS FREQUENCY	100 kHz
HEADS	(3): Super GX recording head, Super GX playback head and erase head
MOTORS	(2): One electronically speed controlled DC motor for capstan drive one DC motor for reel drive
F.F. & REWIND TIME	60 sec. using a C-60 cassette tape
OUTPUT JACKS	Line (2): 410 mV (0 VU) Required load impedance: more than 20 kohms Phone (1): 100 mV/8 ohms
INPUT JACKS	Microphone (2): 0.3 mV (Input impedance 4.7 kohms) Required microphone impedance: 600 ohms Line (2): 70 mV (Input impedance 100 kohms)
DIN JACK	Input: 2 mV (Input impedance 10 kohms) Output: 0.3 V
DIMENSIONS	440(W) x 135(H) x 340(D) mm (17.3 x 5.3 x 13.4")
WEIGHT	8.9 kg (19.6 lbs)
POWER REQUIREMENT	100V 50/60 Hz for JAPAN 120V 60 Hz for U.S.A. & Canada 110/120/220/240V switchable 50/60 Hz for the other countries
POWER CONSUMPTION	30 W for JPN Model 28 W for U/T, CEE, UK, CSA, AAL Models

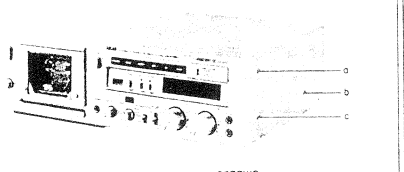
* For improvement purposes, specifications and design are subject to change without notice.

* "Dolby" and the Double D symbol are trademarks of Dolby Laboratories
(Manufactured under license from Dolby Laboratories)

II. DISMANTLING OF UNIT

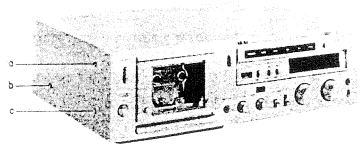
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the Photographs. Reassemble in reverse order.

1



SCREWS

2

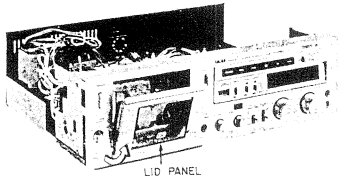


SCREWS

3

SCREWS

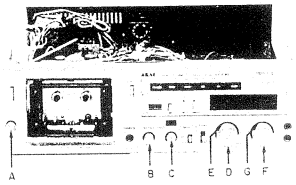
4



LID PANEL

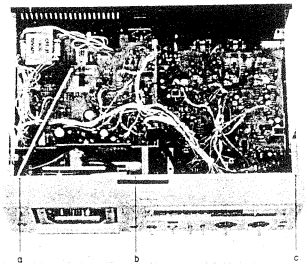
Pull toward you both lower-ends of holder

5



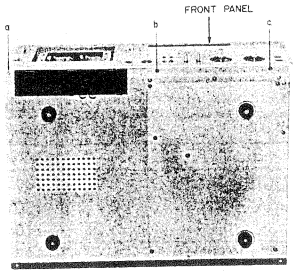
CONTROL KNOBS

6



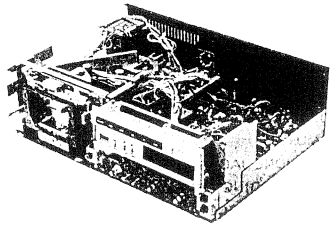
SCREWS

7

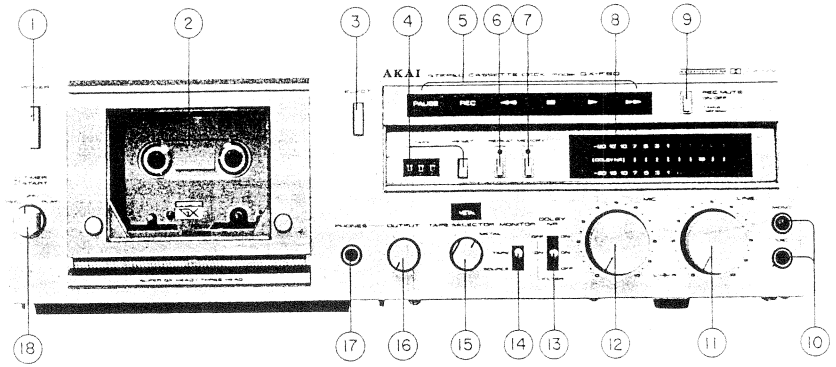


SCREWS

8



III. CONTROLS



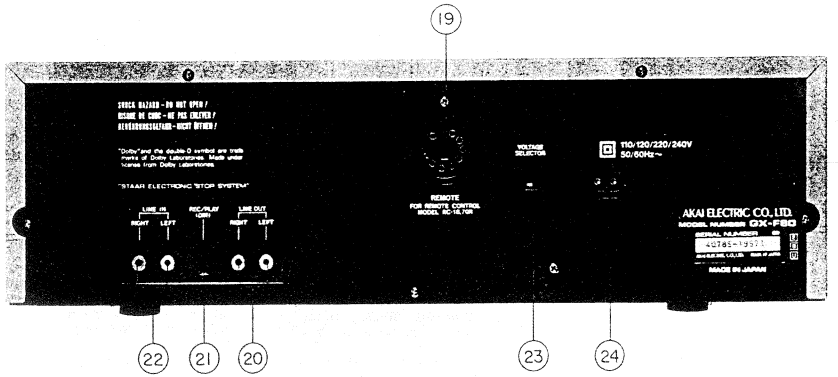


Fig. 1 Controls

1. POWER SWITCH
2. CASSETTE RECEPTACLE
3. EJECT BUTTON
4. INDEX COUNTER AND RESET BUTTON
5. MODE BUTTONS
6. REPEAT BUTTON
7. MEMORY REWIND BUTTON
8. FL DISPLAY BAR METERS
9. REC MUTE
10. MICROPHONE JACKS (Left and Right)
11. LINE RECORDING LEVEL CONTROLS (Left and Right)
12. MICROPHONE RECORDING LEVEL CONTROLS (Left and Right)
13. DOLBY NR AND FILTER SWITCH
14. TAPE MONITOR SWITCH
15. TAPE SELECTOR
16. OUTPUT LEVEL CONTROL
17. HEADPHONE JACK
18. TIMER START SWITCH
19. REMOTE CONTROL JACK
20. LINE OUTPUT JACKS (Left and Right)
21. DIN JACK (not on AAL, JPN Models)
22. LINE INPUT JACKS (Left and Right)
23. VOLTAGE SELECTOR SWITCH (U/T Models Only)

IV. PRINCIPAL PARTS LOCATION

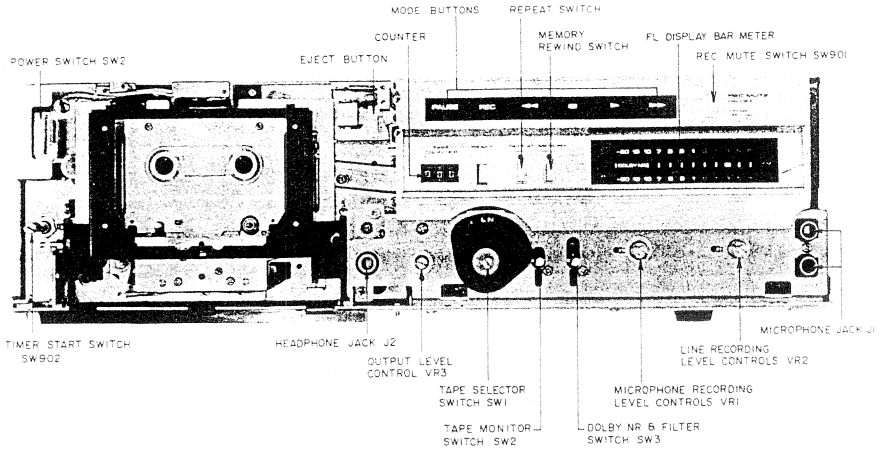


Fig. 2 Front View

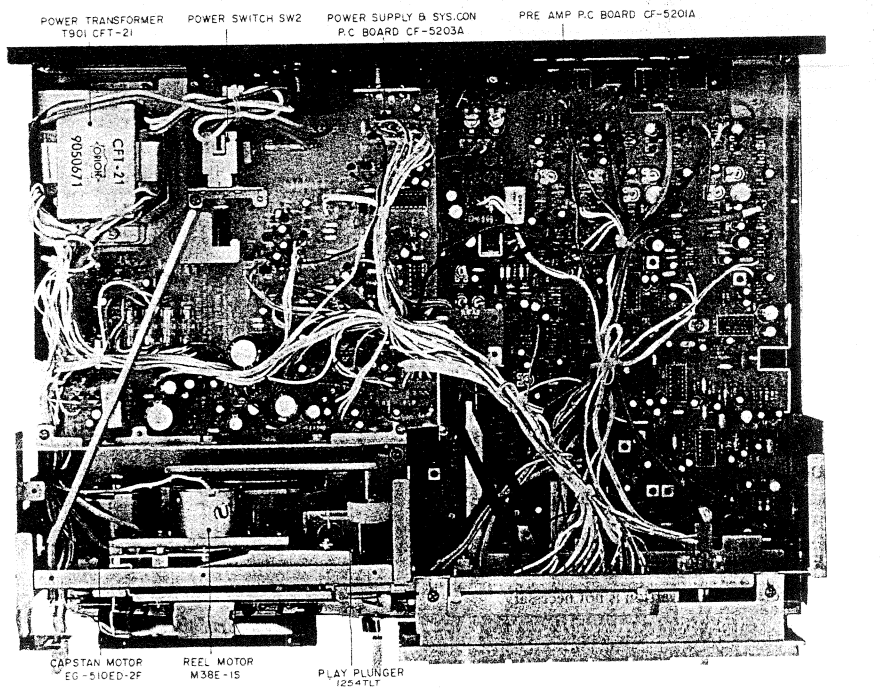


Fig. 3 Top View

V. VOLTAGE AND CYCLE CONVERSION

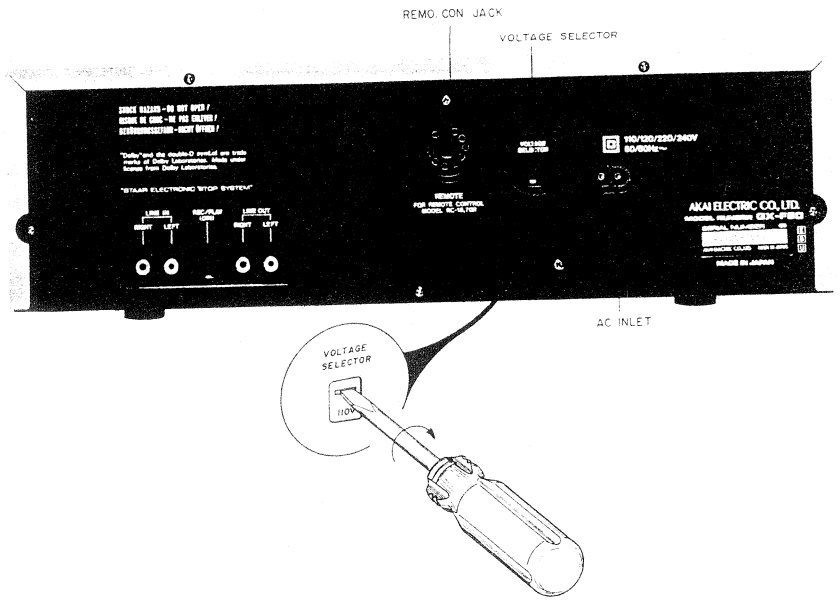


Fig. 4 Rear View (U/T, CEE, UK Model)

1. VOLTAGE CONVERSION

1) JPN, CSA, AAL Model
No voltage conversion.

2) U/T, CEE, UK Model (Refer to Fig. 4)
Turn the Voltage Selector on the rear panel to the right with a minus screwdriver, as shown in Fig. 4, to obtain 110V, 120V, 220V successively. All you have to do is match the voltage you want with the voltage indicated. Fuse change is not necessary.

CAUTION: When converting voltage turn off the power switch and unplug the power cord.

2. CYCLE CONVERSION

With DC motors, cycle conversion is not necessary.

VI. REEL TABLE DRIVE MECHANISM

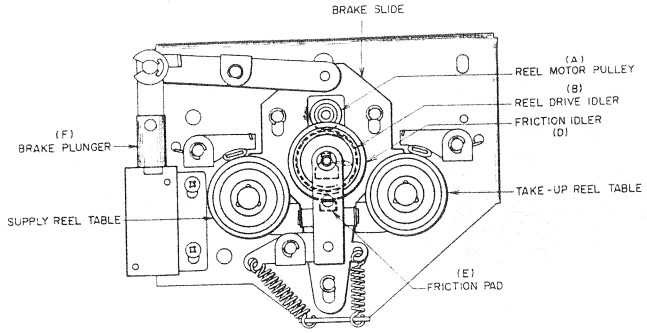


Fig. 5

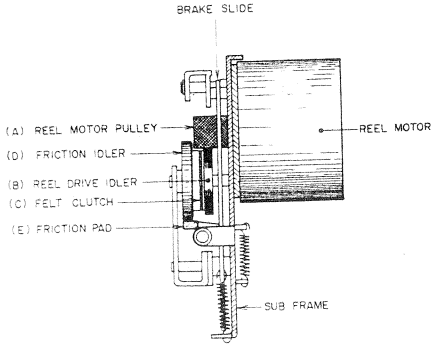


Fig. 6

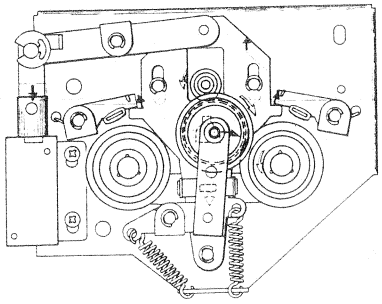


Fig. 7 PLAY, FF Mode

This mechanism employs the principle whereby the reel drive idler [Fig. 5 (B), Fig. 6 (B)] is regulated by the take-up side and the supply side depending on the direction of the reel motor pulley rotation. [Fig. 5 (A), Fig. 6 (A)]

To ensure this transition, a felt clutch [Fig. 6 (C)] has been placed between the reel drive idler and the friction idler on the same axis [Fig. 5 (D), Fig. 6 (D)], and a spring to pull the two idlers for friction.

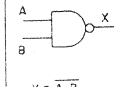
Damping force is applied only to the friction idler with the friction pad [Fig. 5 (E), Fig. 6 (E)] only when changing from the Stop Mode to the tape travel mode. This damping force is stopped just before the tape travel.

Brake Plunger [Fig. 5 (F)] is used for moving the mechanism to put the reel drive idler in contact with the reel table and for controlling the friction pad.

VII. CIRCUIT OPERATING PRINCIPLES

1. SYSTEM CONTROL OPERATION

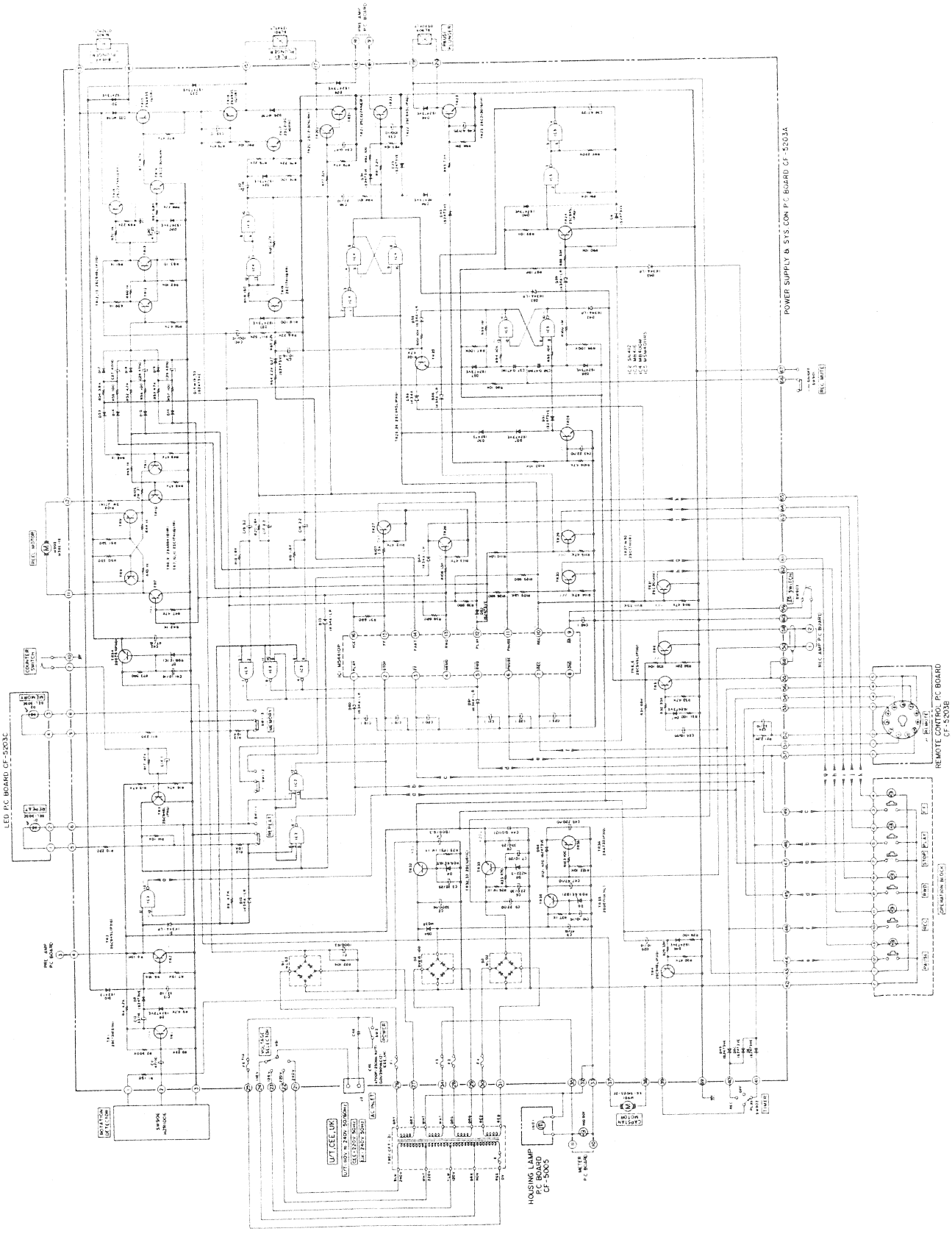
NAND CIRCUIT



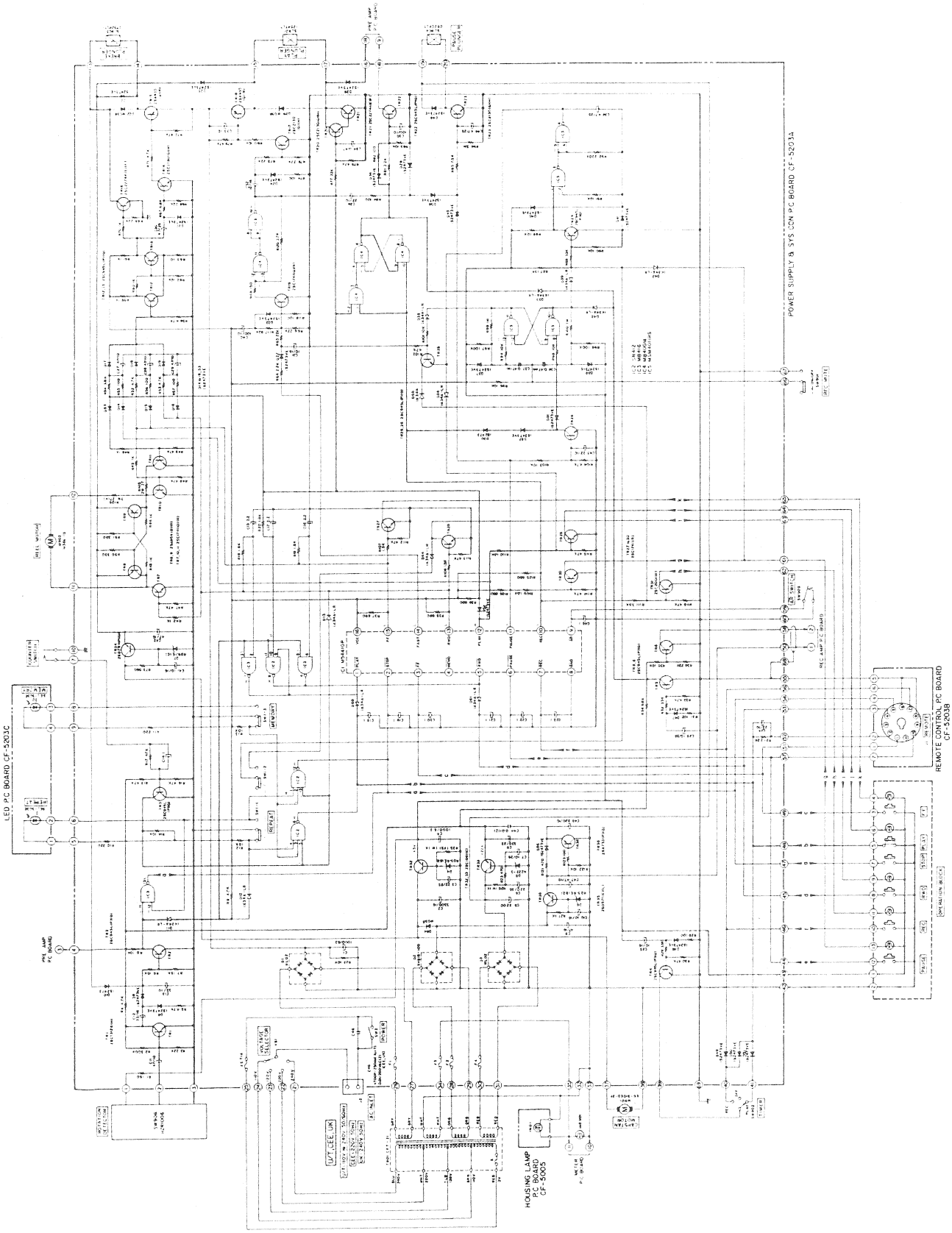
A	B	X
0	0	1
1	0	1
0	1	1
1	1	0

0 = LOW LEVEL
1 = HIGH LEVEL

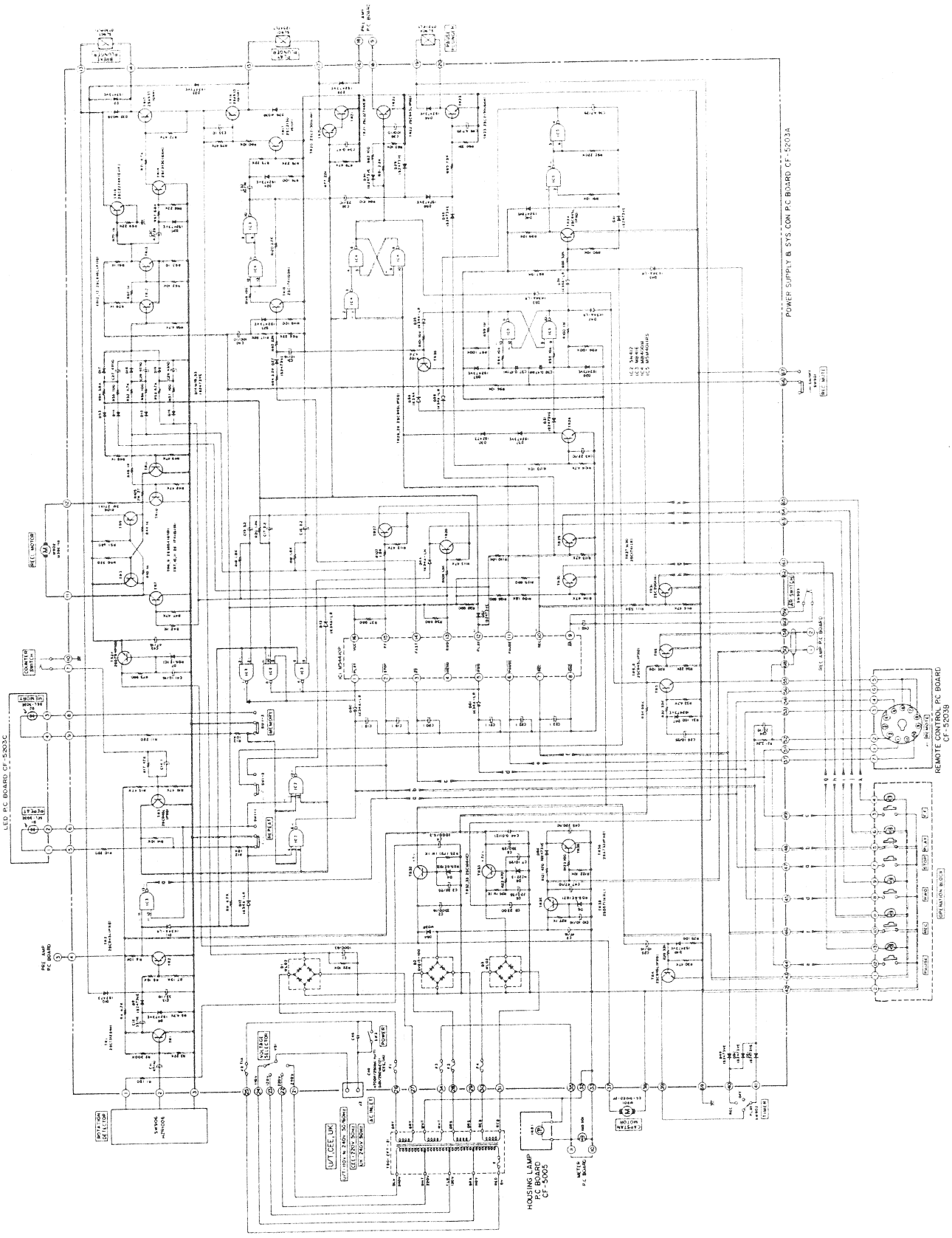
Chart-1



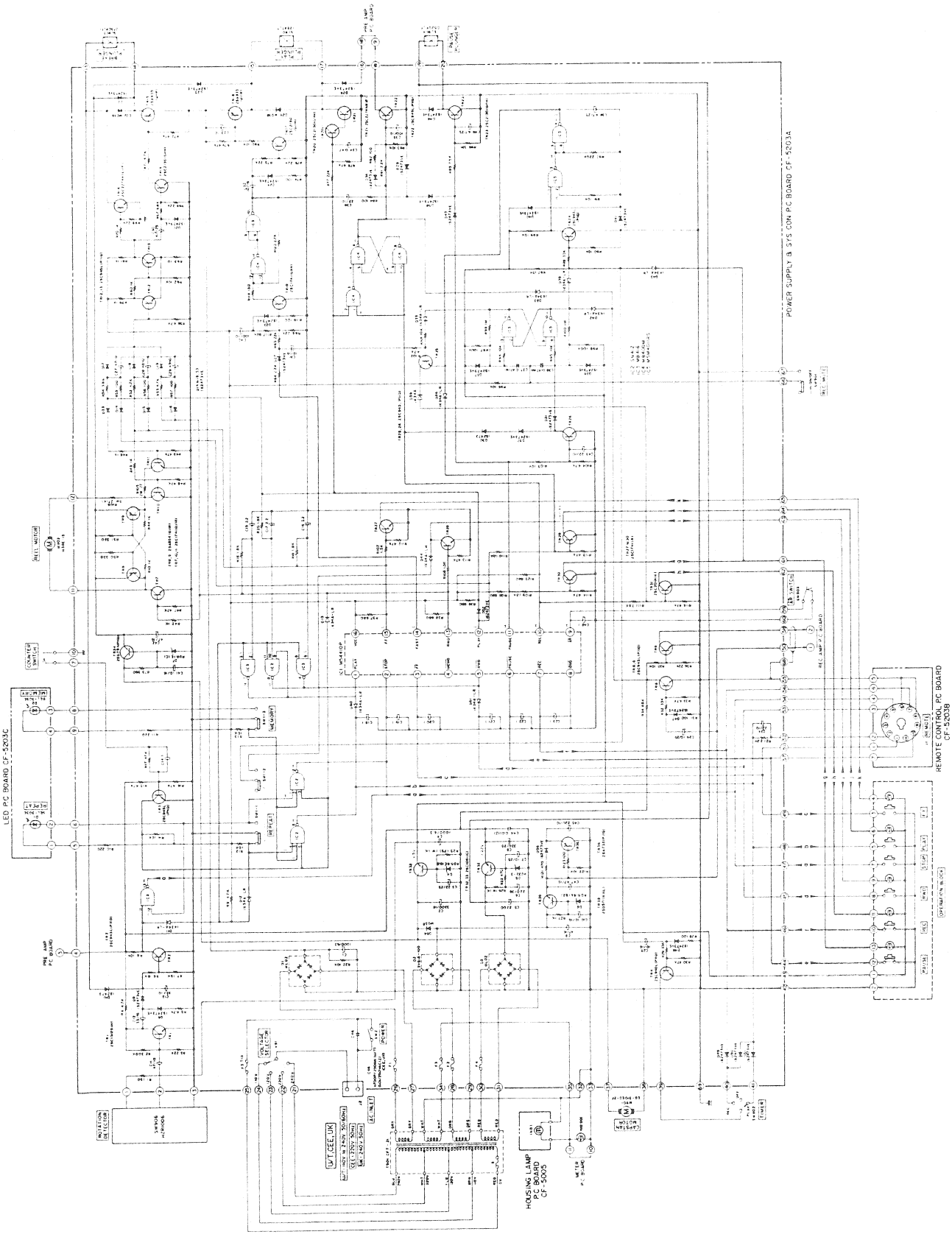
Schematic-1 STOP MODE



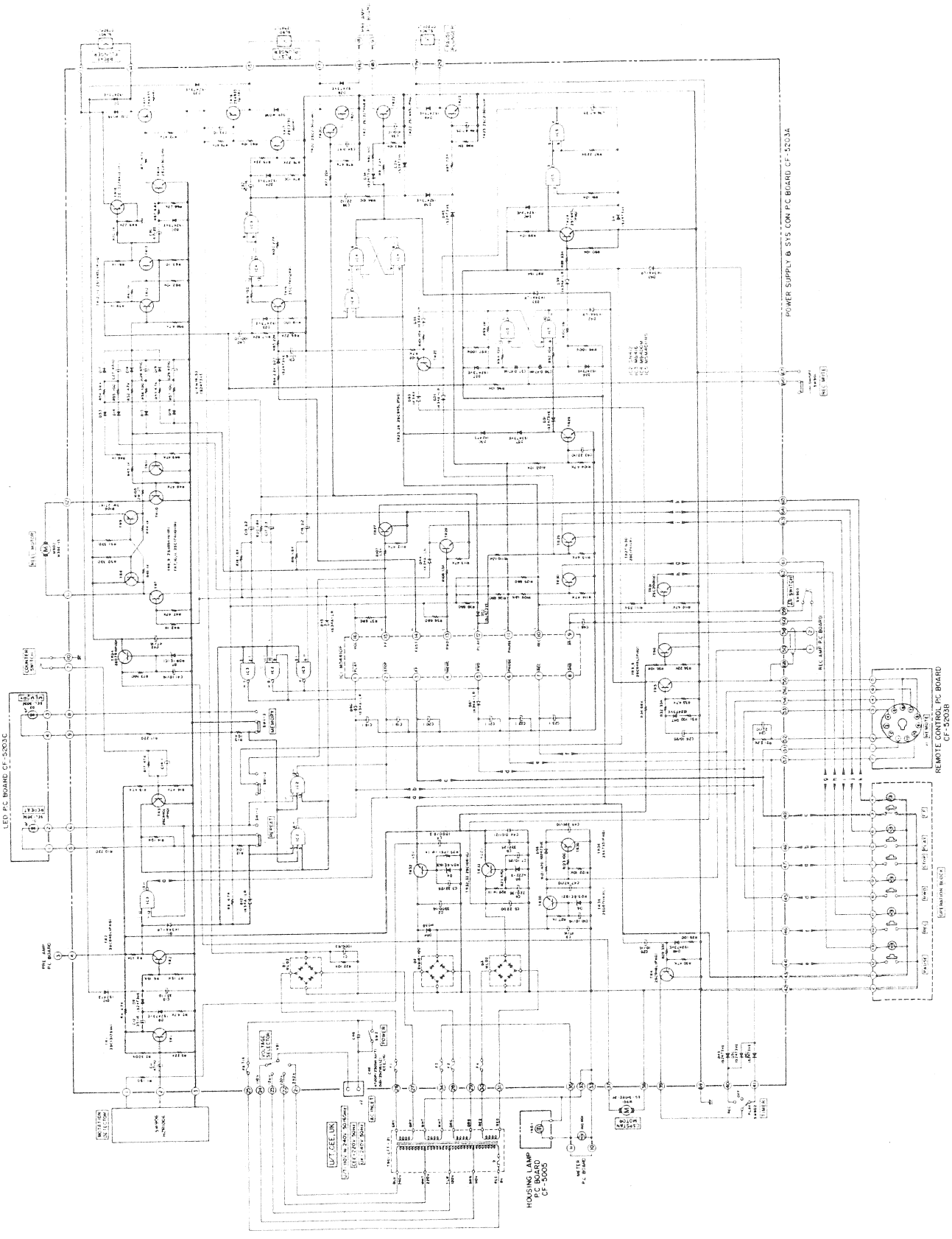
Schematic-2 PLAY MODE



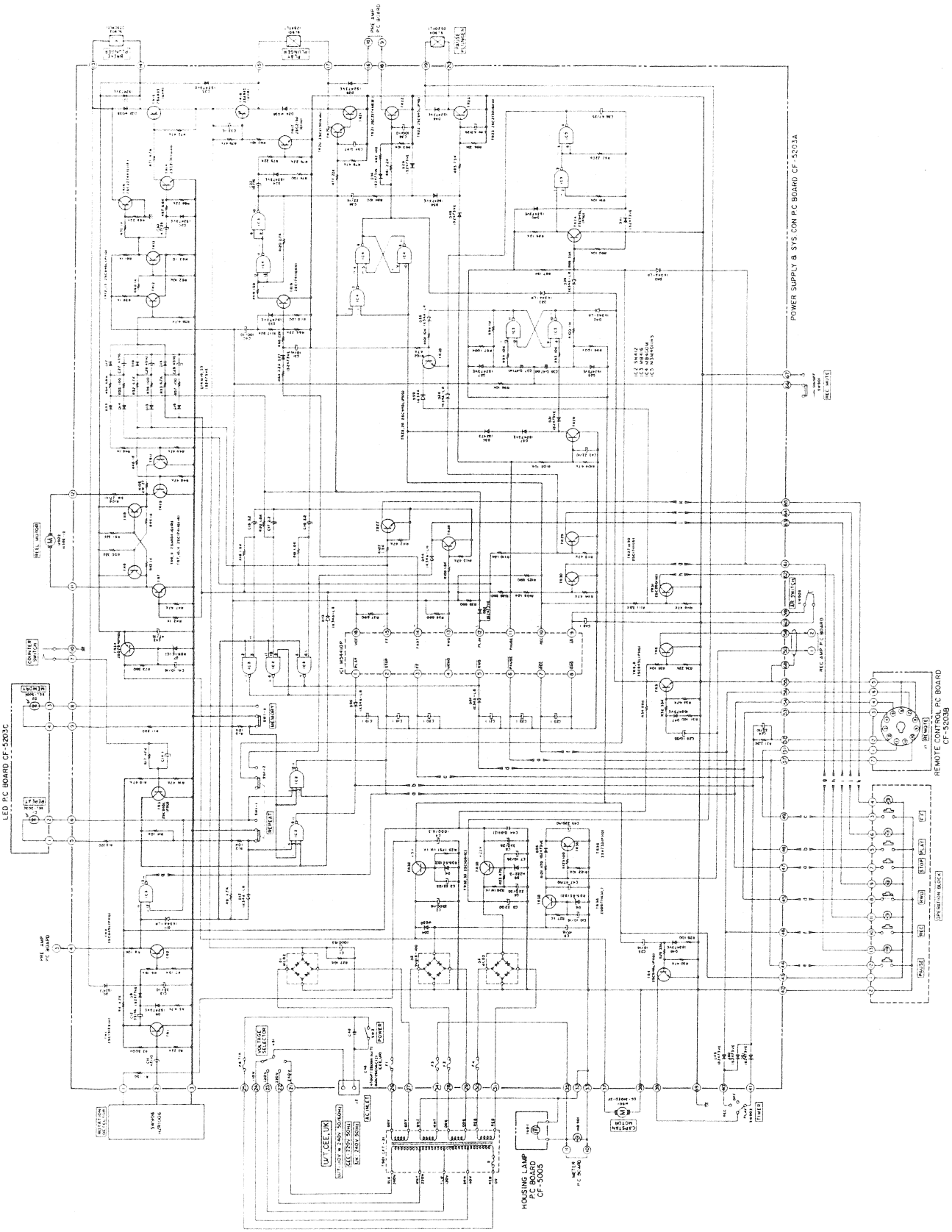
Schematic-3 REC/PLAY MODE



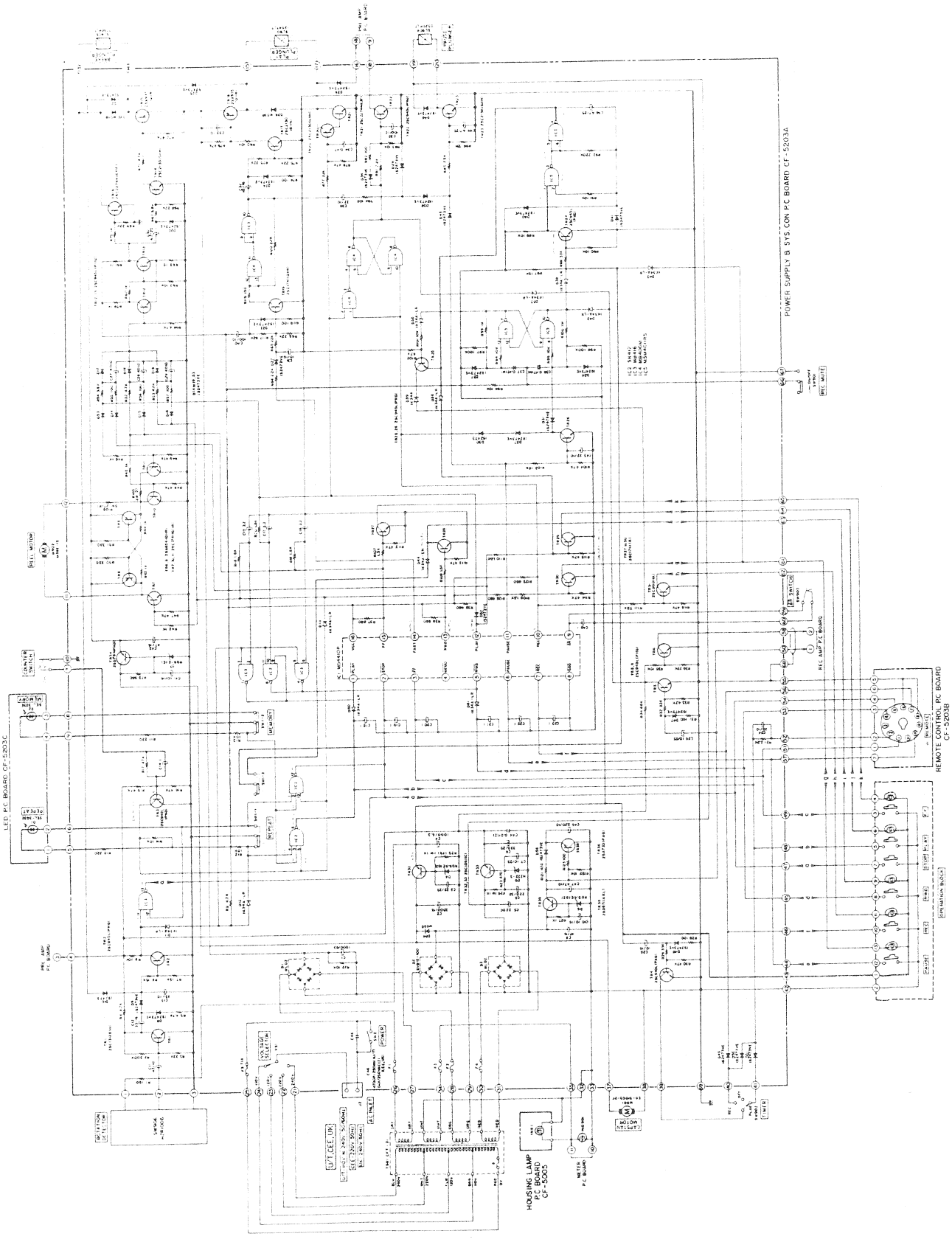
Schematic-4 REC/PAUSE MODE



Schematic-5 FF MODE



Schematic-6 RWD MODE



Schematic-7 RWD MODE → PLAY MODE
(Repeat and Memory Switch ON)

1-1. CIRCUIT CONSTRUCTION OF IC1 M54410P

This logic IC has been developed for an operation key that will maintain a High Level by even a momentary low level in the desired input terminal.

1) Block Diagram

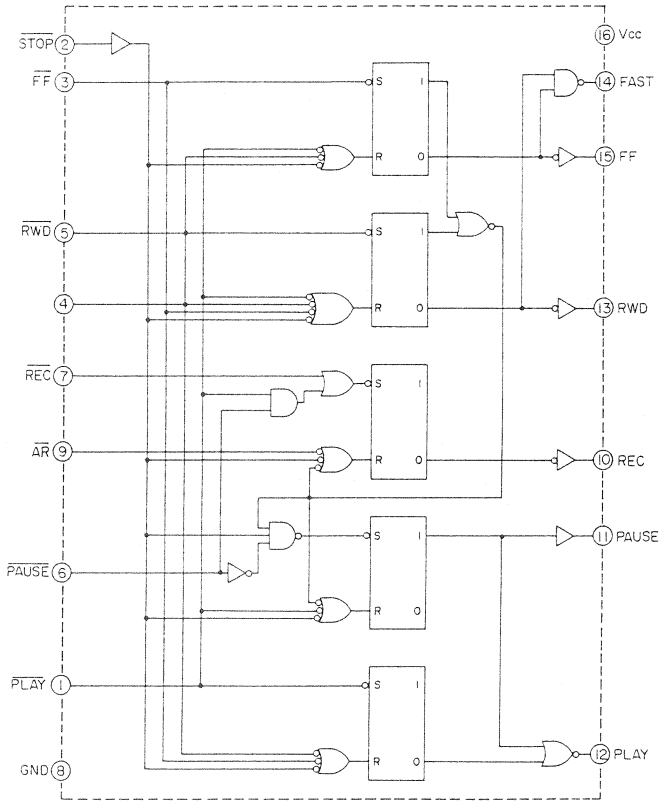


Fig. 8 M54410P

2) Terminals and their functions

	Terminal Name	Terminal Function
Operation input terminals	$\overline{\text{STOP}}$	Input terminal for stopping operation
	$\overline{\text{FF}}$	Input terminal for fast forward
	$\overline{\text{RWD}}$	Input terminal for rewind
	$\overline{\text{REC}}$	Input terminal for recording
	$\overline{\text{PAUSE}}$	Input terminal for pause
	$\overline{\text{PLAY}}$	Input terminal for playback
Control input terminal AR		Input terminal for preventing recording
Output terminals	FAST	Terminal with "H" signal output during fast forward or rewind mode
	FF	Terminal with "H" signal output during fast forward mode
	RWD	Terminal with "H" signal output during rewind mode
	REC	Terminal with "H" signal output during REC/PLAY or REC/PAUSE mode
	PAUSE	Terminal with "H" signal output during pause mode
	PLAY	Terminal with "H" signal output during playback mode

Chart-2

3) Operation activated by each input

Input Signal	Output						Output Mode
	FAST	FF	RWD	REC	PAUSE	PLAY	
$\overline{\text{STOP}}$	L	L	L	L	L	L	STOP Mode
$\overline{\text{FF}}$	H	H	L	L	L	L	FF Mode
$\overline{\text{RWD}}$	H	L	H	L	L	L	RWD Mode
$\overline{\text{PLAY}}$	L	L	L	L	L	H	PLAY Mode
$\overline{\text{PAUSE}}$	L	L	L	L	H	L	PAUSE Mode
$\overline{\text{REC}}/\overline{\text{PLAY}}$	L	L	L	H	L	H	REC/PLAY Mode
$\overline{\text{REC}}/\overline{\text{PAUSE}}$	L	L	L	H	H	L	REC/PAUSE Mode

Chart-3

NOTES: 1. The input signal is activated by the fall of ⌐¯|_
2. The output is maintained until the next input signal.
3. $\overline{\text{AR}}$ is a control input terminal and the REC output is not "H" when $\overline{\text{AR}}$ = "L".
4. When $\overline{\text{AR}}$ = "L" signal is supplied during the REC output is "H", REC output becomes "L".
5. At the moment the power is on, all output will be "L" and the Stop mode will be effected.

1-2. TRANSISTOR AND PLUNGER ACTUATED FOR EACH OPERATION

(Refer to Power Supply & Sys. Con Schematic Diagram)

	TR21	TR18	PLAY PLUNGER	TR16	TR15	BRAKE PLUNGER	TR23	PAUSE PLUNGER	TR22 (BIAS OSC)	1 SEC OSC
PLAY	○	△	○	○	△	○	△	△		
REC/PLAY	○	△	○	○	△	○	△	△	○	
PLAY/PAUSE							○	○		○
REC/PAUSE							○	○	○	○
FF				○	△	○				
RWD				○	△	○				

○: Operating △: Momentary Operation

Chart-4

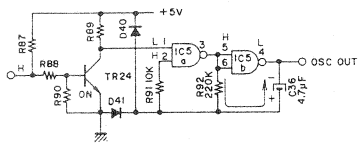


Fig. 9 Oscillation Stopped

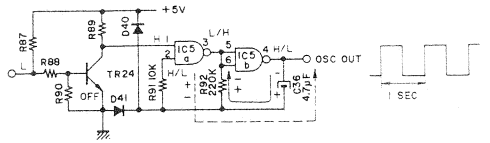


Fig. 10 Oscillation

1-3. OSCILLATION CIRCUIT USED TO MAKE THE PLAY OR REC LAMPS FLASH

(Refer to Figs. 9, 10)

This circuit is an Astable Multivibrator circuit. It makes the PLAY or REC indicator lamps flash at one second intervals during REC/PAUSE, PLAY/PAUSE, REC MUTE or RWD (Repeat Switch ON).

During modes other than those listed above, TR24 is ON because base electric potential is supplied to it as shown in Fig. 9.

As a result, IC5a's input terminal ① becomes Low Level as does the IC5b output terminal ④ and oscillation stops. At this point, C36 is discharged as shown in Fig. 9. IC5a's input terminal ② is High Level according to C36's electric potential.

Now, if in the modes mentioned above (eg. PLAY/PAUSE) TR24 goes OFF because it is no longer being supplied with base electric potential.

Therefore, because IC5a's input terminal ① becomes High Level, output terminal ③ Low Level results in IC5b's output terminal becoming High Level. When IC5b's input terminal becomes Low Level, the electrical charge of C36 is discharged through R92 as shown by the solid line in Fig. 10.

According to this discharging time (the time constant of C36 and R92), there is a drop in voltage at both R92 terminals, so IC5a's input terminal ② is High Level. Once C36 has finished discharging, R92's voltage drop becomes zero so that IC5a's input terminal ② becomes Low Level. When the IC5a input terminal ② becomes Low Level, the output terminal ③ High Level results in IC5b output terminal ④ becoming Low Level and this time, the discharge current flows from IC5a's output terminal ③ through R92 to C36 as shown by the dotted line in Fig. 10.

IC5a's input terminal ② is kept at Low Level due to the R92's drop in voltage for the discharging time only. when C36 has finished discharging, R92's drop in voltage becomes zero so IC5a's input terminal ② becomes High Level and output terminal ③ Low Level results in IC5b's output terminal ④ becoming High Level.

The above is repeated and in the oscillation output, square waves appear.

VIII. MECHANISM ADJUSTMENT

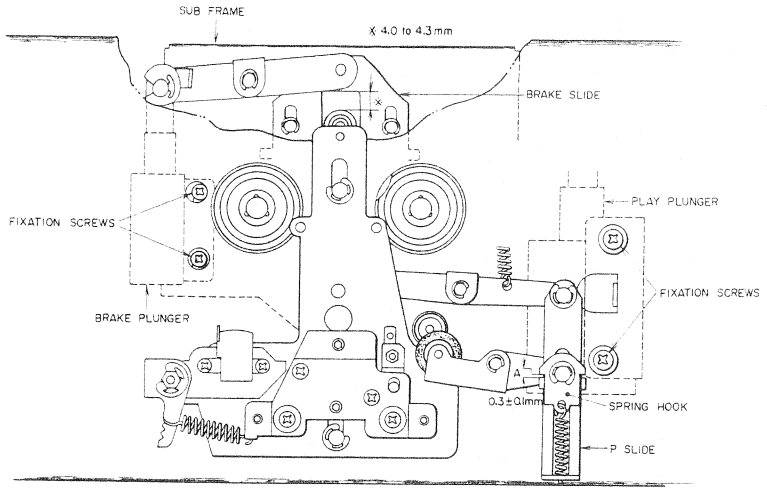


Fig. 11

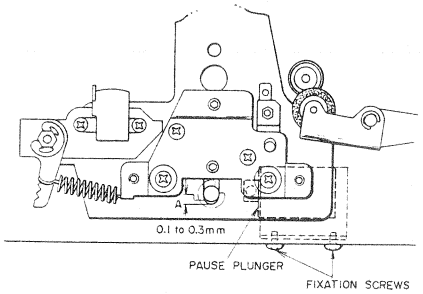


Fig. 12

1. PLAY PLUNGER INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 11)

Put in Play Mode. Adjust by turning the two screws holding the Play Plunger so that there is a gap (A) of 0.3 ± 0.1 mm between the bendable part of the P slide and the Spring Hook.

2. BRAKE PLUNGER INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 11)

Put in a mode where the brake is off (For example RWD).

Adjust by turning the 2 screws which hold the brake plunger so that there is a gap (B) of 4.0 to 4.3 mm between the tip of the brake slide and the sub frame.

3. PAUSE PLUNGER INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 12)

Adjust by turning the two screws holding the Pause Plunger so that there is a head base fall leeway of 0.1 to 0.3 mm when going into the Pause mode from the Play Mode. (In Fig. 12 the specified distance is A).

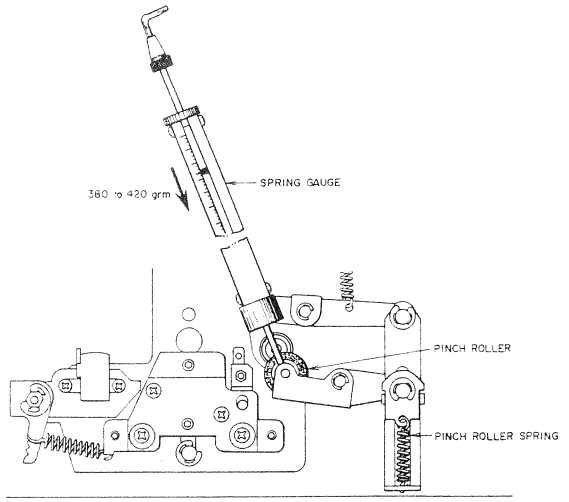


Fig. 13 Pinch Roller Pressure Measurement

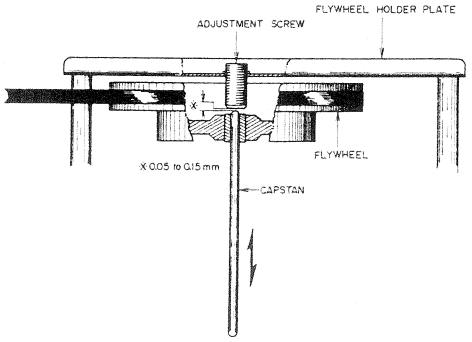


Fig. 14 Flywheel Loose Play Adjustment

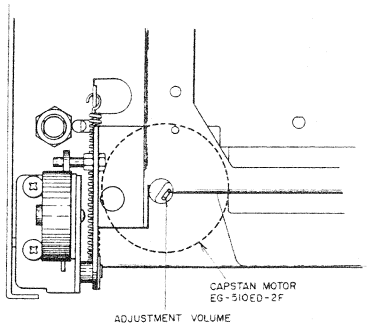


Fig. 15 Tape Speed Adjustment

4. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 13)

At playback mode, push the pinch roller with a spring gauge until the pinch roller separates from the capstan by about 1 mm to 2 mm and then gently return. Take a reading of the spring gauge indication at the moment the pinch roller touches the capstan and begins to rotate.

Specified Pinch Roller Pressure: 380 to 420 grm

In case specified pressure cannot be attained, replace the pinch roller spring.

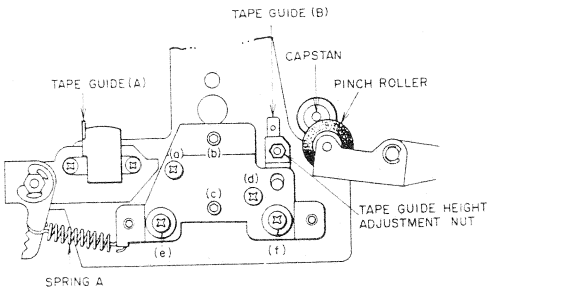
5. FLYWHEEL LOOSE PLAY ADJUSTMENT (Refer to Fig. 14)

Adjust by turning flywheel loose play adjustment screw to obtain a 0.05 to 0.15 mm of loose play when the flywheel is moved as indicated by the arrow mark. Paint lock the adjustment screw after adjustment.

6. TAPE SPEED ADJUSTMENT (Refer to Fig. 15)

Connect the frequency counter to the line output terminals. Playback a 1,000 Hz prerecorded test tape and adjust tape speed adjustment volume to obtain a tape speed of 1,000 Hz ± 1%.

IX. HEAD ADJUSTMENT



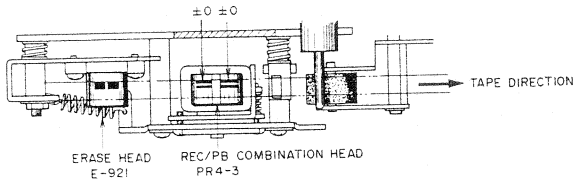


Fig. 16

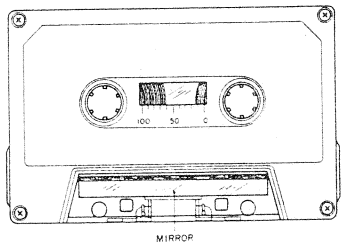


Fig. 17

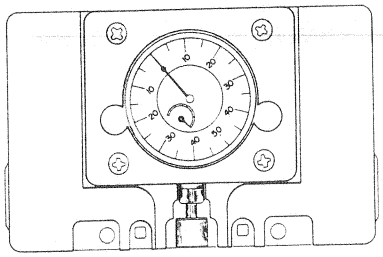


Fig. 18

1. TAPE GUIDE HEIGHT ADJUSTMENT (Refer to Figs. 16, 17)

1) When using an ordinary cassette, the tape guides and heads, etc. are not visible. As shown in Fig. 17 use a cassette tape from which part of the cassette case has been cut out and a mirror installed for *easy visibility of the head area when making tape* guide height adjustment.
2) At playback mode, adjust tape guide A and tape *guide B height with tape guide height adjustment* nuts so that the tape runs smoothly and does not catch on the tape guides.

2. HEIGHT ADJUSTMENT OF RECORDING/PLAYBACK COMBINATION HEAD (Refer to Fig. 16)

1) Utilize the cassette tape used in Tape Guide Height Adjustment above, and playback the leader tape part of cassette tape.
2) As shown in Fig. 16 adjustment head height with screws (a), (b), (c) and (d) until the upper edge of the left channel REC/PB combination head core.

3. AZIMUTH ALIGNMENT ADJUSTMENT OF RECORDING/PLAYBACK COMBINATION HEAD (Refer to Fig. 16)

1) The cores of recording and playback heads are mounted in a single head holder to from the recording/playback combination head otherwise known as the Super GX Head. Both recording and playback head cores move when azimuth alignment is adjusted. To obtain optimum playback head core azimuth alignment, follow the instructions 2) – 5) carefully.
2) Playback a 10 kHz azimuth alignment adjustment test tape and adjust the adjustment screw (a) until the output levels of both channels are at maximum.
3) Invert cassette and see whether there is an output level difference from the above. If there is a difference, repeat 2) and adjust.
4) Record a 10 kHz, −20 VU signal from the audio frequency oscillator.
5) Rewind and check for any fluctuation in the output level at playback.

4. RECORDING/PLAYBACK COMBINATION HEAD PROJECTION ADJUSTMENT (Refer to Figs. 16, 18)

Set the AKAI Head Projection Gauge (Fig. 18) and adjust screws (e) and (f) so that it reads 3.1 ± 0.1 mm in the Play Mode.

NOTES: 1. Be sure to clean the heads prior to head adjustment.
2. Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
3. Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.
4. When a mirror installed cassette test tape as shown in Fig. 17 is required, it can be ordered from AKAI Electric Co.
5. The position where spring (A) meets the tape guide base is adjusted at the place of manufacture and readjustment is unnecessary.

X. AMPLIFIER ADJUSTMENT

Fig. 19 Pre Amp P.C Board (CF-5201A)

VR5	50 kB	Playback Level Adj.
VR6	5 kB	VU Meter Sensitivity Adj.
VR4	5 kB	Playback Equalizer Adj.
VR10	100 kB	LN Position Frequency Response Adj.
VR7	20 kB	LH Position Frequency Response Adj.
VR8	20 kB	CrO_2 Position Frequency Response Adj.
VR9	10 kB	Metal Position Frequency Response Adj.
VR11	20 kB	Recording Level Adj.
FL3, 4	D07-003	Bias Filter Adj.
FL2	D07-001	19 kHz Filter Adj.

* The letter "b" following an adjustment parts number indicates "RIGHT CHANNEL".

Step	Adjustment Item	Test Tape Supply Signal	Mode	Adjustment Point	Result	Remarks
1	Playback Level adjustment	333 Hz, 0 VU Test Tape	PLAY	VR 5 50 kB	−5.5 ± 0.5 dBm (410 mV)	
2	VU Meter sensitivity adjustment	333 Hz, 0 VU Test Tape	PLAY	VR 6 5 kB	0 VU indication	
3	Playback equalizer adjustment	10 kHz Test Tape	PLAY	VR 4 5 kB	−19.5 ± 0.5 dBm	
4	LN Position frequency response adjustment	Low Noise Blank tape 1,000 Hz, 10,000 Hz, −25.5 dBm recording	REC/PLAY	VR 10 100 kB	1,000 Hz to 10,000 Hz flat response	
5	LH Position frequency response adjustment	LH Blank tape, 1,000 Hz 10,000 Hz −25.5 dBm recording	REC/PLAY	VR 7 20 kB	1,000 Hz to 10,000 Hz flat response	Set tape selector to LH. (Refer to NOTE 6)
6	CrO_2 Position frequency response adjustment	CrO_2 Blank tape 1,000 Hz, 10,000 Hz, −25.5 dBm recording	REC/PLAY	VR 8 20 kB	1,000 Hz to 10,000 Hz flat response	Set tape selector to CrO_2. (Refer to NOTE 6)
7	Metal Position frequency adjustment	Metal Blank tape 1,000 Hz, 10,000 Hz, −25.5 dBm recording	REC/PLAY	VR 9 10 kB	1,000 Hz to 10,000 Hz flat response	Set tape selector to Metal. (Refer to NOTE 6)
8	Recording Level adjustment	Low Noise Blank tape 1,000 Hz −5.5 dBm recording	REC/PLAY	VR 11 20 kB	−5.5 ± 0.5 dBm (410 mV)	
9	Distortion Factor Confirmation	1,000 Hz −5.5 dBm recording	REC/PLAY	LN: Less than 0.8% LH: Less than 0.8% CrO_2: Less than 0.7% Metal: Less than 0.6%		(Refer to NOTE 7)
10	Bias Filter adjustment	No signal Input	REC	FL 3, FL 4 D07-002 (BLU)	Minimum AC Voltmeter indication	Recording volume to Maximum. (Refer to NOTE 9)
11	19 kHz Filter adjustment	19 kHz from an oscillator	REC	FL 2 D07-001 (BLK)	Minimum AC Voltmeter indication	Filter to ON, DOLBY NR Switch to ON. (Refer to NOTES 8, 9)

Chart-5

NOTES:
1. Output Level Control should be at maximum.
2. Because each of these adjustments are vital to perfect Dolby N.R. circuit operation, be sure that they are carried out with as little error as possible.
3. Except for Steps 5 thru 7 and 9 set tape selector to Low Noise position.
4. Except for Step 11, set Dolby N.R. switch to OFF position.
5. Use the following cassette measuring tapes:
   LN Tape: TDK LN2 C-60
   LH Tape: Maxell UD C-60
   CrO_2 Tape: TDK SA C-60
   Metal Tape: TDK MA-C C-60
6. If a flat characteristic cannot be obtained from 1,000 Hz to 10,000 Hz at LH, CrO_2, or Metal positions, fine adjust at VR 7 (LH), VR 8 (CrO_2), or VR 9 (Metal) respectively.
7. If it does not comply with the specifications, repeat Steps 4 to 8 and re-adjust.
8. Adjust the oscillator's frequency to give a frequency counter reading of 19.00 kHz.
9. Unless the core is moved intentionally this adjustment is not necessary.

XI. DC RESISTANCE OF VARIOUS COILS

Parts	Designation	DC Resistance
Recording/Playback Head	PR4-3	Playback: 250 ohms ± 10% Recording: 22.5 ohms
Erase Head	E-921	1.6 ohms ± 20%
Play Plunger Solenoid	1254TLT	120 ohms ± 10%
Pause Plunger Solenoid	0520FLT	600 ohms ± 10%
Brake Plunger Solenoid	0730PLT1	200 ohms ± 10%

Chart-6

XII. CLASSIFICATION OF VARIOUS P.C BOARDS

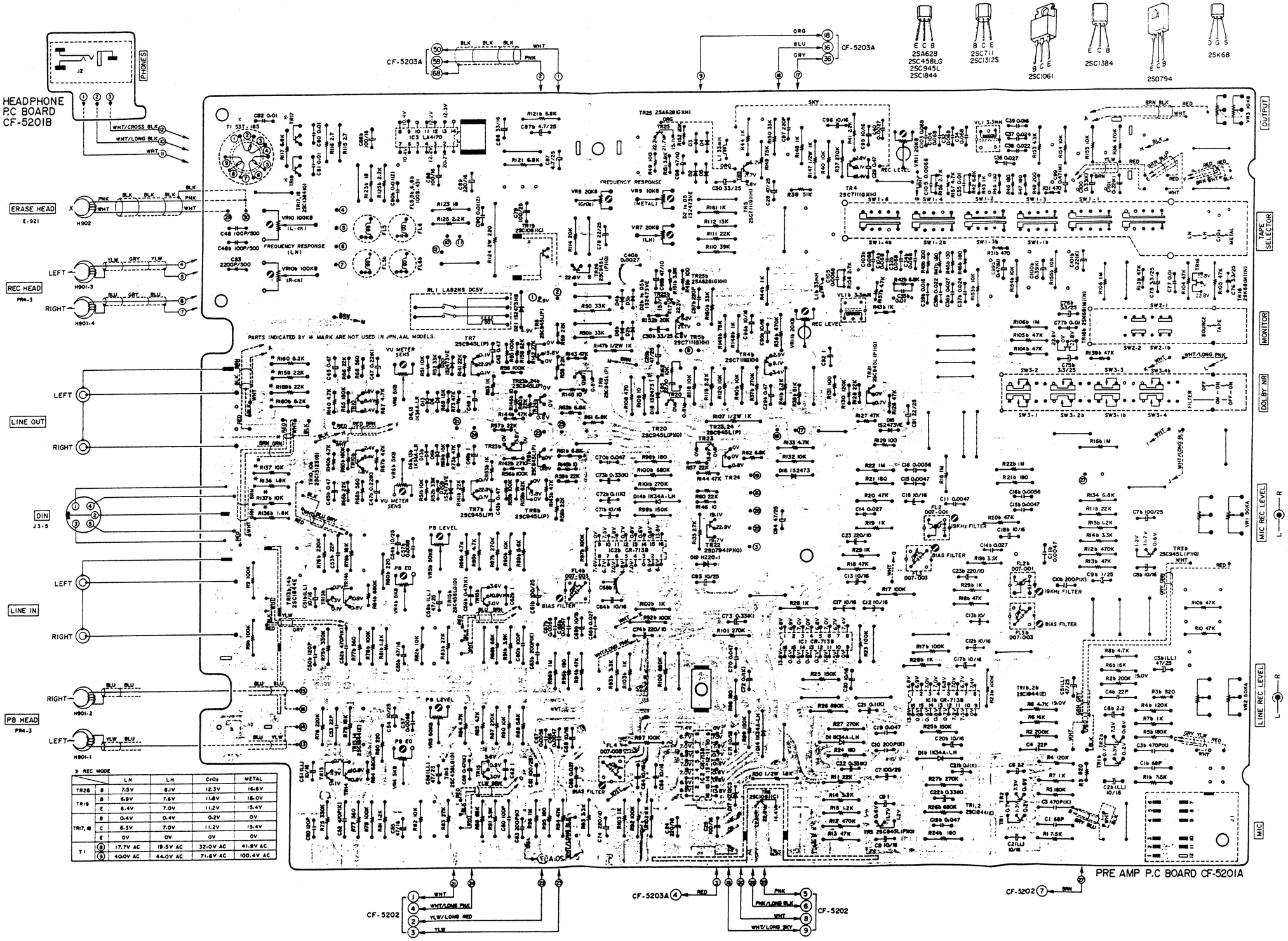
1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

P.C Boards Title	P.C Board Number
Pre Amp P.C Board	CF-5201A
Head Phone P.C Board	CF-5201B
Meter P.C Board	CF-5202
Power Supply & Sys. Con P.C Board	CF-5203A
Remote Control P.C Board	CF-5203B
LED P.C Board	CF-5203C
Housing Lamp P.C Board	CF-5005

Chart-7

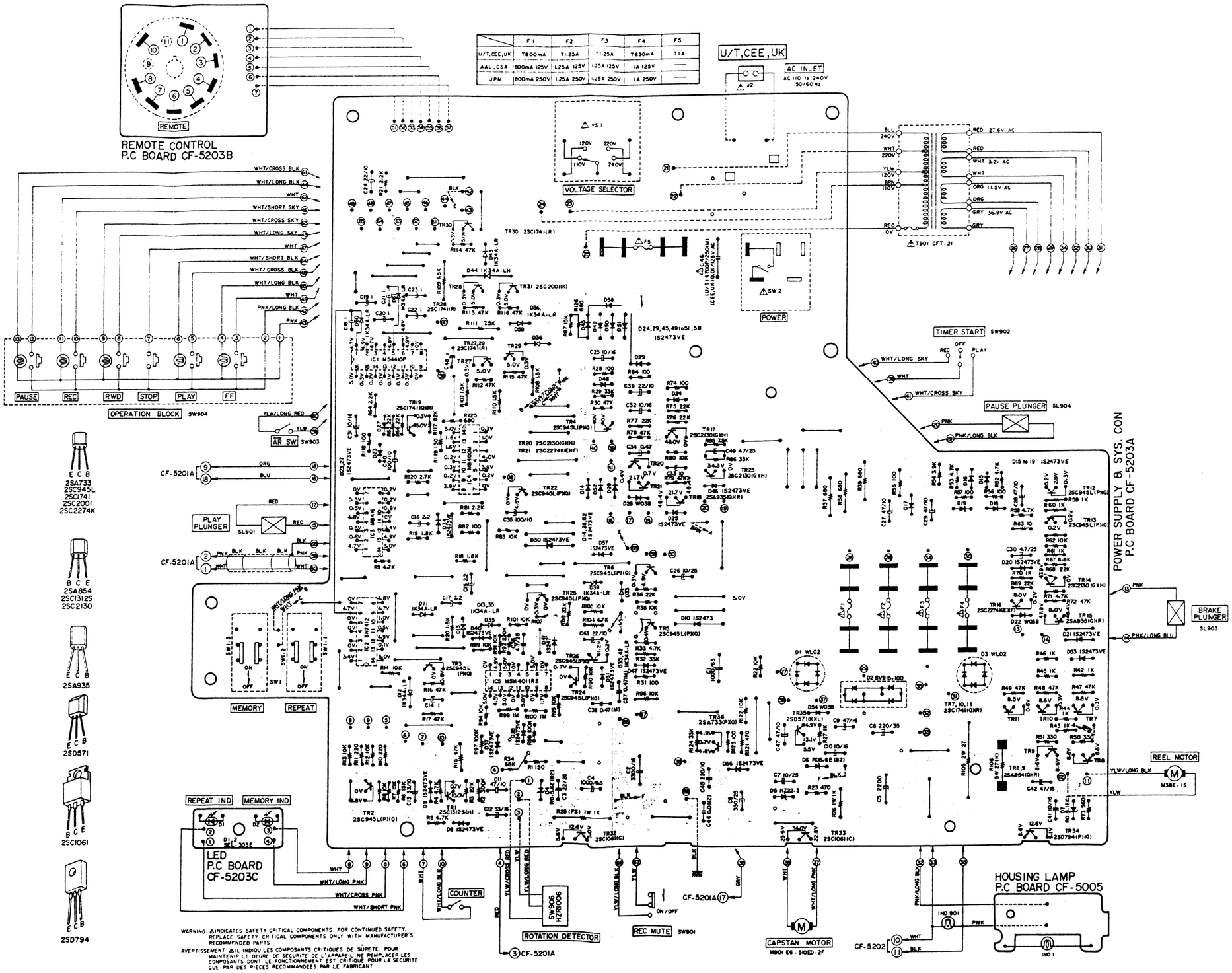
2. COMPOSITION OF VARIOUS P.C BOARDS

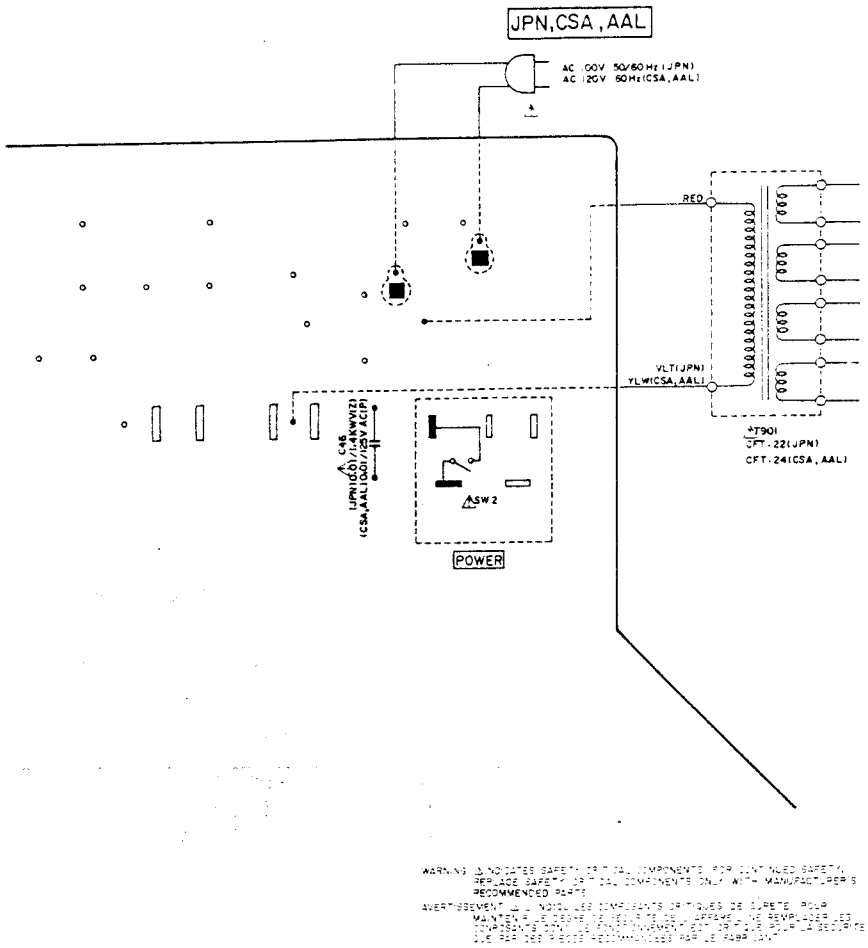
1) PRE AMP P.C BOARD CF-5201A (4ED) and HEAD PHONE P.C BOARD CF-5201B



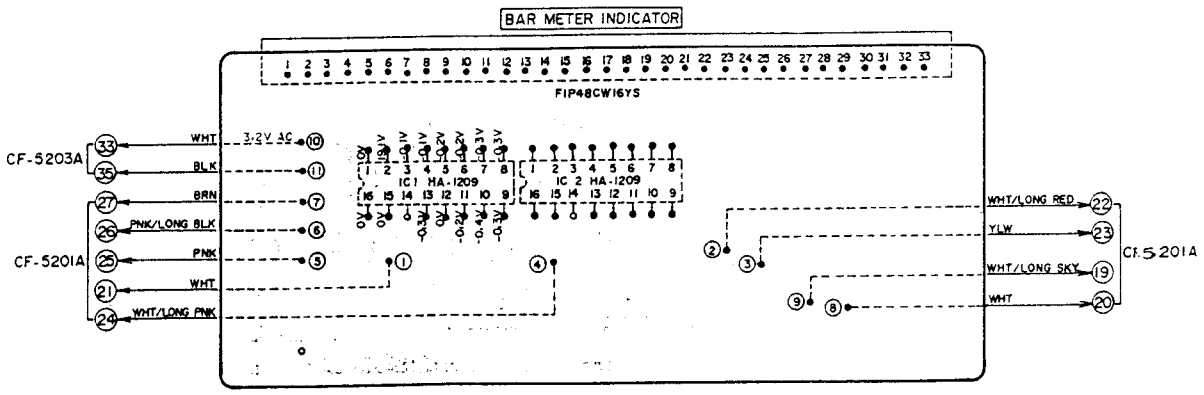
REC MODE		LN	LH	CrO2	METAL
TR26	B	7.5V	8.1V	12.3V	16.6V
TR19	B	6.8V	7.6V	11.8V	16.0V
	E	6.4V	7.0V	11.2V	15.4V
TR17, 18	B	0.4V	0.4V	0.2V	0V
	C	6.3V	7.0V	11.2V	15.4V
	E	0V	0V	0V	0V
T1	⑧	17.7V AC	19.5V AC	32.0V AC	41.8V AC
	⑨	40.0V AC	44.0V AC	71.6V AC	100.4V AC

2) POWER SUPPLY & SYS. CON P.C BOARD CF-5203A, LED P.C BOARD CF-5203C, HOUSING LAMP P.C BOARD CF-5005 and REMOTE CONTROL P.C BOARD CF-5203B





3) METER P.C BOARD CF-5202



SECTION 2

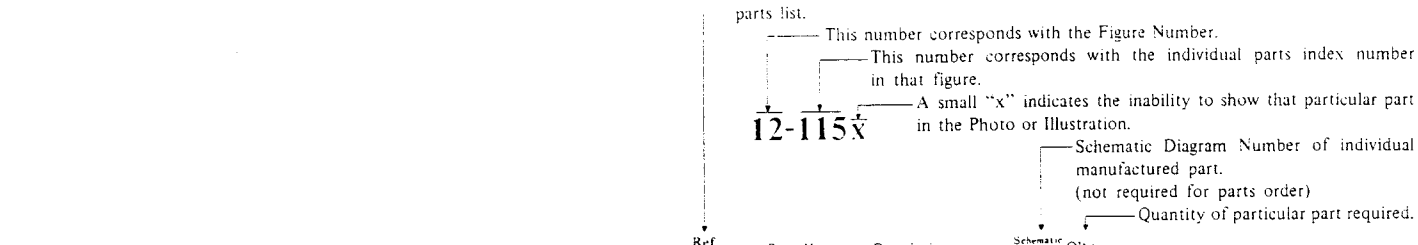
PARTS LIST

TABLE OF CONTENTS

Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE 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



Ref. No.	Parts No.	Description	Schematic No.	Q'ty
		FLYWHEEL BLOCK =13		
12-115x	800425	Flywheel Block Assy. Comp.	RD-=13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-235	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.

CAUTION:
1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Service Manual (Basic Parts List) may be partially changed, please use this parts list for all future reference.

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

AC INLET SYSTEM

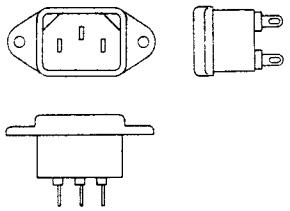
This model is equipped with an AC INLET SYSTEM. Please refer to the AC INLET SYSTEM CHART below for the specific type. By the AC INLET SYSTEM, AC (mains) cord can be connected to and disconnected from the model because the model is provided with socket exclusively for AC (mains) cord on its main body.
Please note, however, that certain models are not equipped with this system and has a built-in AC (mains) cord as before.

AC INLET SYSTEM CHART

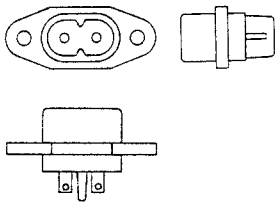
CLASS I

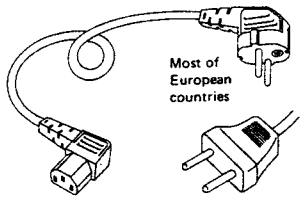
CLASS II

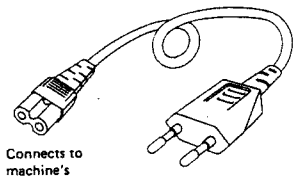
⧧ This mark indicating double insulation will be attached to machine's rear panel



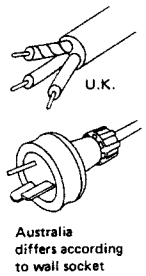
Picture 1
AC INLET to be installed on machines

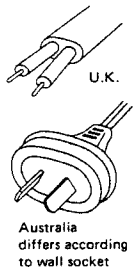






Picture 2
AC (mains) cord





Parts List for AC (mains) Cord Set

Standard		Description	Type of AC Inlet	Parts No.
Class I	CEE	Cord Set CEE (3 cores)	3P	EW302993
	BEAB	Cord Set BEAB (3 cores)	3P	EW302994
	SAA	Cord Set SAA (3 cores)	3P	EW302996
	U/T	Cord Set U/T (3 cores)	3P	EW302646
Class II	CEE	Cord Set CEE (2 cores)	2P	EW638144
	BEAB	Cord Set BEAB (2 cores)	2P	EW302995
	SAA	Cord Set SAA (2 cores)	2P	EW302991
	U/T	Cord Set U/T (2 cores)	2P	EW302899

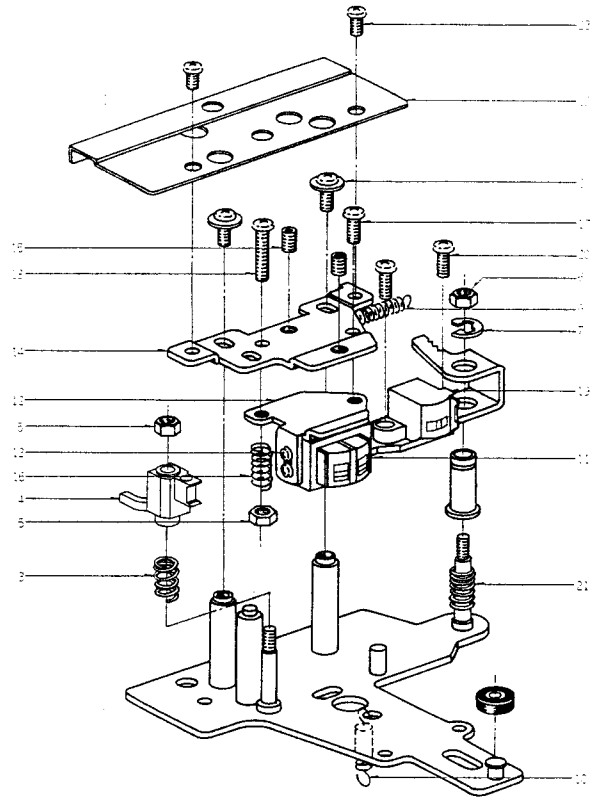
1. RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

Parts No.	Description	Notes
BA314440	Power & Sys. Con. P.C Board Comp. GX-F80 (JPN)	JPN
BA314439	Power & Sys. Con. P.C Board Comp. GX-F80 (U/T)	U/T, CEE, UK, SAA
BA314441	Power & Sys. Con. P.C Board Comp. GX-F80 (CSA)	CSA, AAL
BA314474	Pre Amp P.C Board Comp. GX-F80 (JPN)	JPN, AAL
BA314469	Pre Amp P.C Board Comp. GX-F80 (U/T)	U/T, CSA, CEE, UK, SAA
BF314477	Flywheel (A-3) Part GX-F80	
BH314197	Head Base Block Comp. GX-F80	
BK314363	Operation Key Assy GX-F80	
BM314214	Motor Block Comp. w/Pulley GXC-715D	Reel Motor
BM314215	Motor Block Comp. w/Pulley GXC-715D	Capstan Motor
BT315873	⚠ Power Trans. CFT-21	U/T, CEE, UK, SAA
BT315874	⚠ Power Trans. CFT-22	JPN
BT315875	⚠ Power Trans. CFT-24	CSA, AAL
ED308953	Germanium Diode 1K34A-LH	
ED308952	Germanium Diode 1K34A-LR	
ED645996	LED SEL-303E	
ED315960	Silicon Diode WL02	
ED306109	Silicon Diode W03B	
ED560913	Silicon Diode 1S2473 VE	
ED316143	Silicon Diode 1S2473HS	
ED306983	Zener Diode HZ12C-3	
ED316540	Zener Diode HZ20-1	
ED313623	Zener Diode HZ22-3	
ED315998	Zener Diode RD-9.1E (C)	
ED309340	Zener Diode RD5.6E (B2)	
EF309392	⚠ Fuse 1.25A 125V	CSA, AAL
EF306949	⚠ Fuse 1.25A 250V	JPN
EF310229	⚠ Fuse 1A 125V	CSA, AAL
EF309387	⚠ Fuse 1A 250V	JPN
EF309391	⚠ Fuse 800MA 125V	CSA, AAL
EF309388	⚠ Fuse 800MA 250V	JPN
EF602550	⚠ Fuse (Semko T Type) 1.25AT 250V	U/T, CEE, UK, SAA
EF623103	⚠ Fuse (Semko T Type) 1AT	U/T, CEE, UK, SAA
EF601942	⚠ Fuse (Semko T Type) 630MAT	U/T, CEE, UK, SAA
EF258344	⚠ Fuse (Semko T Type) 800MAT	U/T, CEE, UK, SAA
EI301463	IC CR-713B	
EI315799	IC HA12019	
EI306141	IC LA4170	
EI304165	IC MB400M	
EI315957	IC MB416	
EI315956	IC MSM4011	
EI308936	IC M54410P	
EI315955	IC SN7412	
EJ310567	⚠ Inlet, Board Type	
EJ313580	Headphone Jack HLJ0305-01A	
EJ315746	Mic Jack HLJ0278-01-030	
EL315798	Lamp (Fuse Type) 3.5V 400MA	
EM315859	Bar Meter FIP48CW16YS	
EP309396	Plunger 0520FLT	
EP315866	Plunger 1254TLT2	

Parts No.	Description	Notes
EP322437	Relay LAB2NS DC5V	
ES315159	⚠ Push SW. SDG1P (JPN)	JPN
ES310839	⚠ Push SW. SDG1P-E 5A/80A 250V	U/T, CEE, UK, SAA
ES665875	⚠ Push SW. SDG1P-J TV-3 UL/CSA	CSA, AAL
ES315879	⚠ Volt Change SW. HXW0144	
ES309393	Leaf SW. MSW-0046U	
ES315747	Lever SW. 42388	
ES315748	Lever SW. 83157	
ES315954	Push SW. SUF22	
ES302508	Revolution SW. HZR1006	
ES315749	Rotary Slide SW. SRZ-V124S	
ES315867	Rotary SW. SRN1013S	
ET301464	FET 2SK68 (M) (N)	
ET317418	Transistor 2SA628 (G) (H)	
ET554657	Transistor 2SA733 (P) (Q)	
ET315958	Transistor 2SA854 (Q) (R)	
ET309356	Transistor 2SA935 (Q) (R)	
ET402682	Transistor 2SC1061 (C)	
ET663243	Transistor 2SC1312S (G)	
ET242684	Transistor 2SC1312S (H)	
ET241334	Transistor 2SC1384 (Q)	
ET309352	Transistor 2SC1741 (Q) (R)	
ET309337	Transistor 2SC1741 (R)	
ET311832	Transistor 2SC1844 (E)	
ET308937	Transistor 2SC2130 (G) (H)	
ET309353	Transistor 2SC2274 (E) (F)	
ET352146	Transistor 2SC458LG (D)	
ET563905	Transistor 2SC711 (G) (H)	
ET638504	Transistor 2SC945L (P)	
ET639437	Transistor 2SC945L (Q) (P)	
ET666404	Transistor 2SD571 (K) (L)	
ET307349	Transistor 2SD794 (P) (Q)	
EV315751	Double-Axial 2-Throw/Vol. DM20R 50KA×2	
EV314968	Semi-Fixed/Vol. D10 Axial 100KB	
EV315414	Semi-Fixed/Vol. D8 Axial 20KB	
EV315412	Semi-Fixed/Vol. D8 Axial 5KB	
EV315413	Semi-Fixed/Vol. D8 Axial 50KB	
EV315750	Single-Axial 2-Throw/Vol. GN20R 10KB×2	
HE315742	Erase Head E-921	
HR314483	REC/PB Head PR4-3	
MB282104	Brake Rubber	
MB309185	Capstan Belt	
MB315653	Counter Belt	
MB309197	Revolution SW. Belt	
MC314475	Counter Assy SMP-390-228	BL
MC314494	Counter Assy SMP-390-229	
MI309414	Idler Part	
ML308406	Idler Lever Part	
ML308411	Pinch Roller Lever Part	
MT305793	Reel Cap	
MT312122	Reel Table Part GXC-715D	
TC314203	Oil Damper Assy GX-F80	
ZG309171	Pinch Roller Spring	

2. HEAD BASE BLOCK

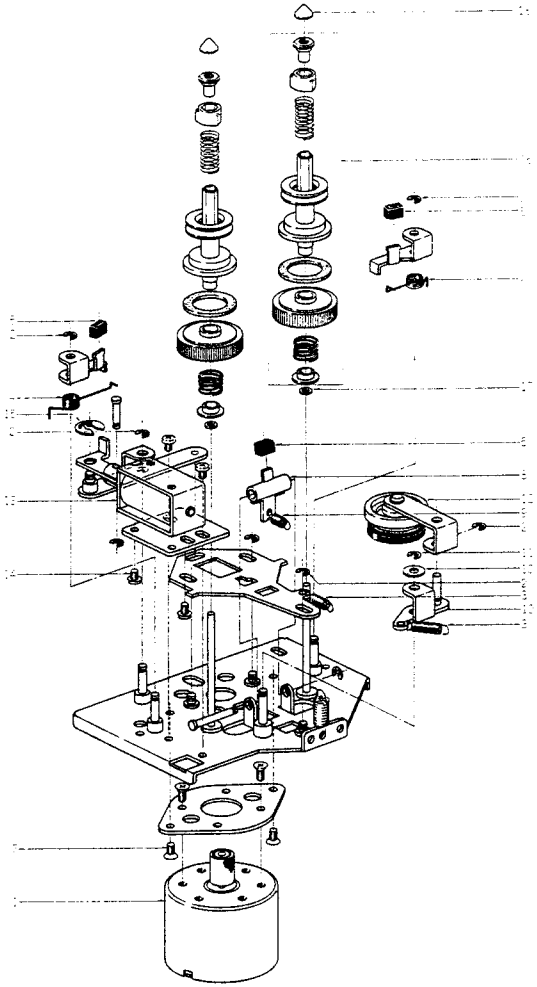


HEAD BASE BLOCK

Ref. No.	Parts No.	Description	Schematic No.
2-1x	BH314197	Head Base Block Comp. GX-F80	
2-2	ZS321030	Screw, Pan 2.6x6 (W=7.5)	
2-3	ZG289236	Tape Guide Spring	CM-0005
2-4	HZ309128	Tape Guide	CF-0006
2-5	ZW273688	Nut M2.3 #1	
2-6	ZW609322	Nut M2.6 #1	
2-7	ZW270123	'E' Ring 4M	6-1-9
2-8x	ZS356782	Screw, Pan 2.3x4	
2-9	ZG315738	Clamp Spring	CF-0221
2-10	ZG595506	Stop Spring	CH-3007
2-11	HR314483	REC/PB Head PR4-3	
2-12	HA315625	Head Angle	CF-0207
2-13	ZS300626	Screw, Pan Head 2x2.5 (Camera Standard)	
2-14	HZ315626	Head Fixation Plate	CF-0208
2-15	ZS356804	Set Screw, Hexagon Socket 3x4 (Cup/P.)	
2-16	ZG465636	Angle Adjust Spring	CG-0029
2-17	ZS356848	Screw, Pan 2.3x6	
2-18	ZS391408	Screw, Pan 2.3x12	
2-19	HE315742	Erase Head E-921	37-2-25
2-20	ZS375118	Screw, Bind 2.3x6	
2-21	ZG313187	Coil Spring	
2-22	TC315696	Head Decorative Plate	CF-6218
2-23	ZS356782	Screw, Pan 2.3x4	

When ordering parts, please describe Parts Number, Description, and Model Number in detail.

3. SUB FRAME BLOCK

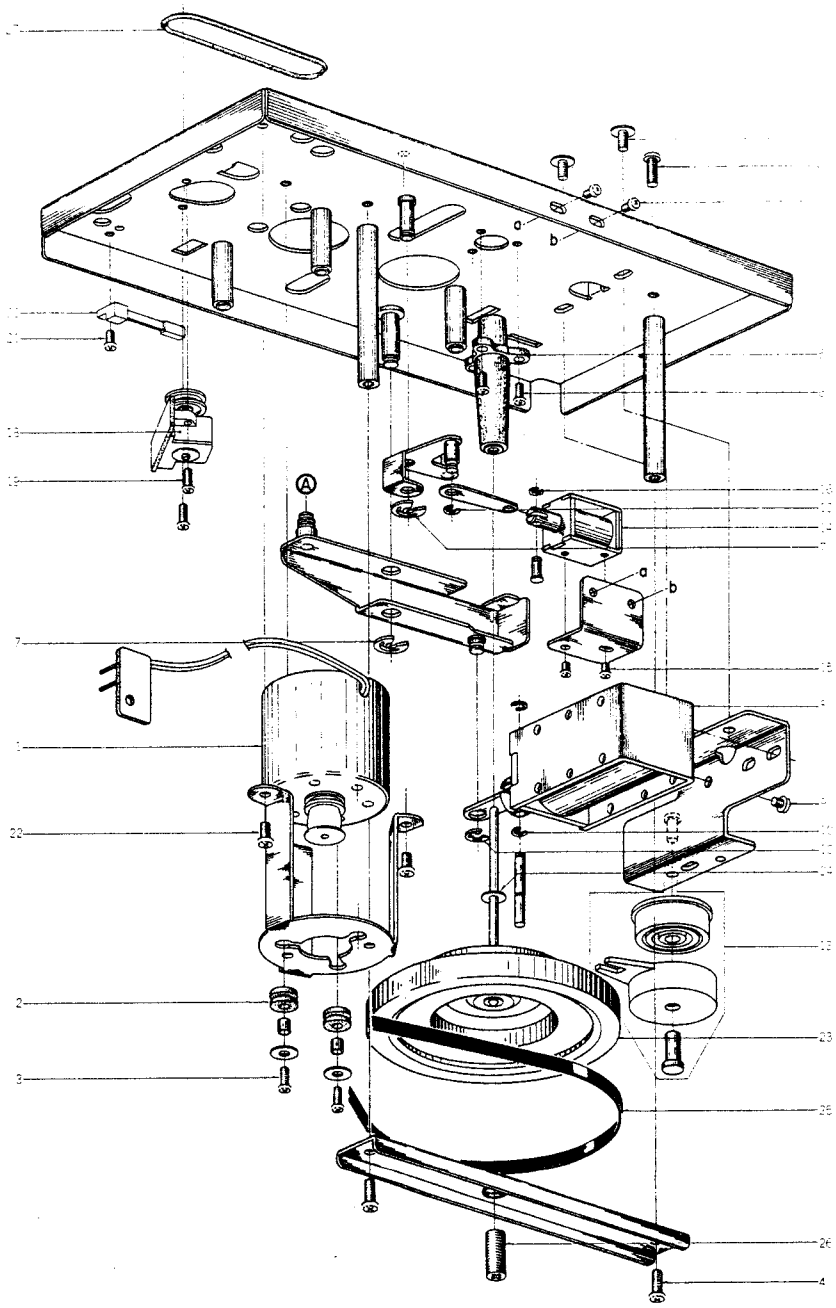


SUB FRAME BLOCK

Ref. No.	Parts No.	Description	Schematic No.
	MOTOR BLOCK		
3-1	RM314214	Motor Block Comp. w/Pully GXC-715D	CF-7203
	SUB FRAME BLOCK		
3-2	ZW270088	'E' Ring 1.9M	6-1-9
3-3	ZG365433	Idler Tension Spring	RCC-1365
3-4	ZG309225	Brake Spring (L)	CF-2022
3-5	MB282104	Brake Rubber	CN-1020
3-6	ZG309226	Brake Spring (R)	CF-2023
3-7	ZS430413	Screw, Countersunk Head 2.6×4	
3-8	ML309229	Pad Lever	CF-2035
3-9	ZG469315	Take-up Lever Spring	CG-1091
3-10	ML308406	Idler Lever Part	CF-2024
3-11	ZW432753	Washer (PBP) D3.1×8×0.2t	
3-12	MI309414	Idler Part	13-2-42
3-13	EP313497	Plunger 0730 PLTI	44-1-108
3-14	ZS592378	Screw, Pan 2.6×3	
3-15	ZW290283	'U' Ring 2.85M	6-1-1
3-16	MT312122	Reel Table Part GXC-715D	13-2-41
3-17	ZW381644	Washer (Polyslider) D2.1×4×0.13t	
3-18	MT305793	Reel Cap	CF-2039

When ordering parts, please describe Parts Number, Description, and Model Number in detail.

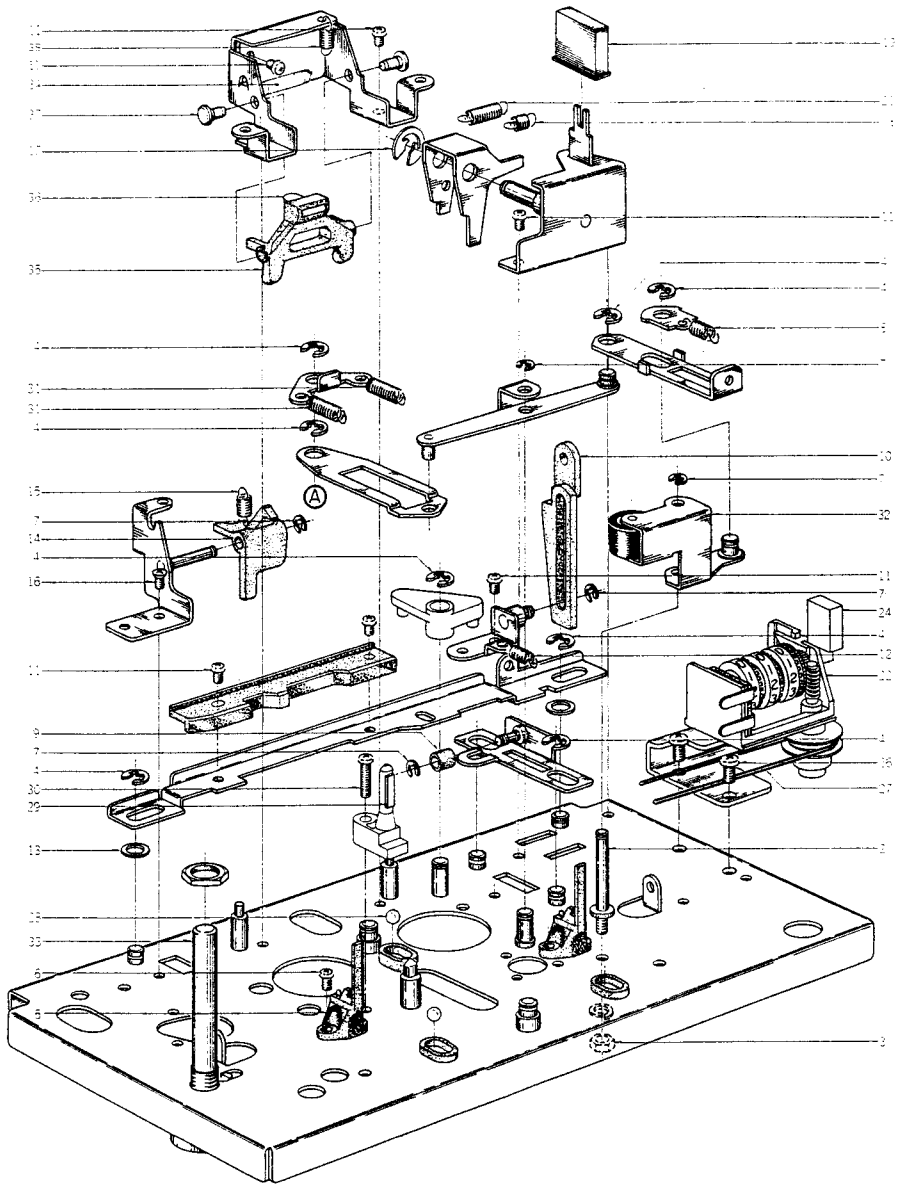
4. MECHA ASSEMBLY BLOCK (1)



MECHA ASSEMBLY BLOCK (1)

Ref. No.	Parts No.	Description	Schematic No.
	MOTOR BLOCK		
4-1	BM314215	Motor Block Comp. w/Pully GXC-715D	CF-7202
4-2	MB282778	Rubber Bush	CN-7003
4-3	ZS321030	Screw, Pan 2.6×6 (W=7.5)	
	MECHA ASSEMBLY BLOCK		
4-4	ZS421806	Screw, Pan 3×8	
4-5	MV309146	Main Case	CY-1042
4-6	ZS479474	Screw, Pan 2.6×5	
4-7	ZW290283	'U' Ring 2.85M	6-1-1
4-8	EP315866	Plunger 1254 TLT2	44-1-114
4-9	ZS417216	Screw, Pan 3×4	
4-10	ZW270088	'E' Ring 1.9M	6-1-9
4-11	ZS608321	Screw, Pan 3×6 W=8	
4-12	ZW270101	'E' Ring 3M	6-1-9
4-13	TC314203	Oil Damper Assy GX-F80	CF-1215
4-14	EP309396	Plunger 0520FLT	44-1-98
4-15	ZS477876	Screw, Pan 2×3	
4-16	ZW356657	'E' Ring 1.5M	6-1-9
4-17	ZS442585	Screw, Bind 2.6×4	
4-18	ES302508	Revolution SW. HZR1006	25-9-5
4-19	ZS608106	Screw, Pan 2×6	
4-20	ES309393	Leaf SW. MSW-0046U	25-10-32
4-21	ZS460440	Screw, Pan Head 2×4	
4-22	ZS422076	Screw, Pan 3×5	
4-23	BF314477	Flywheel (A-3) Part GX-F80	CF-1050
4-24	ZW309295	Thrust Washer	CY-1037
4-25	MB309185	Capstan Belt	CF-1051
4-26	ZS302318	Hold Screw	CI-1258
4-27	MB309197	Revolution SW. Belt	CF-1062

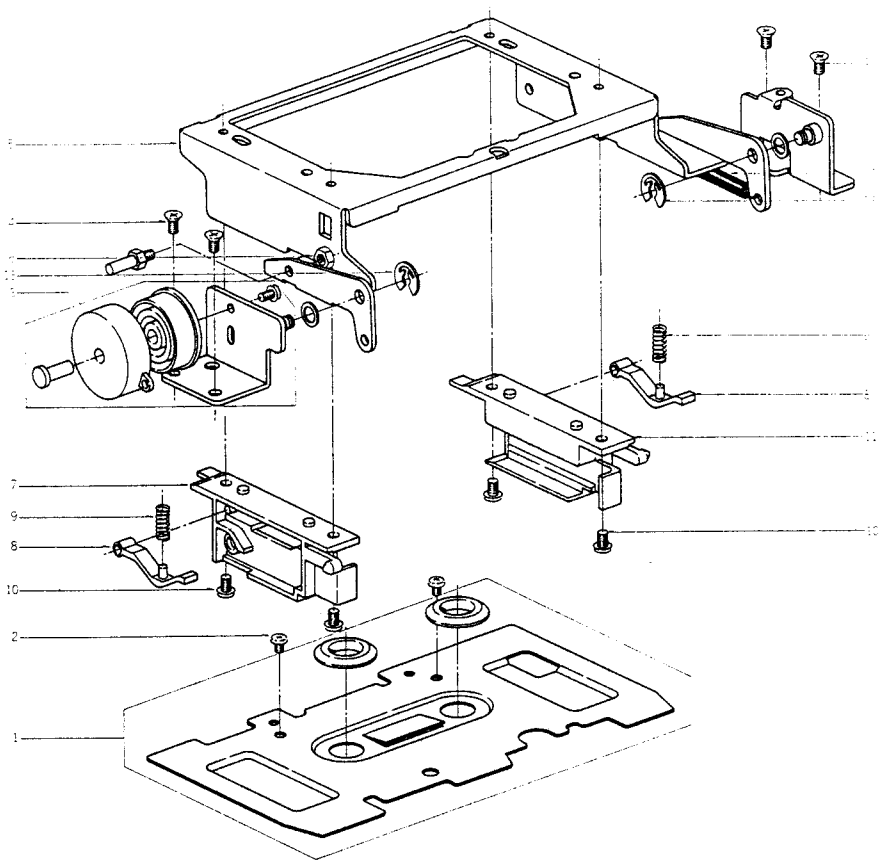
5. MECHA ASSEMBLY BLOCK (2)



MECHA ASSEMBLY BLOCK (2)

Ref. No.	Parts No.	Description	Schematic No.
5-1x	ZS325495	Tapping Screw, #2 BR 3x6	
5-2	MS309141	Pinch Roller Lever Shaft	CF-1011
5-3	ZW273756	Nut, #1 M3	
5-4	ZW270101	'E' Ring 3M	6-1-9
5-5	TC309145	Cassette Guide	CF-1015
5-6	ZS479474	Screw, Pan 2.6x5	
5-7	ZW270088	'E' Ring 1.9M	6-1-9
5-8	ZG309171	Pinch Roller Spring	CF-1039
5-9	MR309189	Eject Roller	CF-1055
5-10	ML309193	Eject Stopper	CF-1059
5-11	ZS592378	Screw, Pan 2.6x3	
5-12	ZG309174	P Joint Return Spring	CF-1041
5-13	ZW601075	Washer (PBP) D4.1x7x0.1t	
5-14	ML309151	REC. Safety Lever	CF-1020
5-15	ZG309212	Lever Spring (B)	CF-1079
5-16	ZS430413	Screw, Countersunk Head 2.6x4	
5-17	ZW290283	'U' Ring 2.85M	6-1-1
5-18	ZG309152	Lever Spring (A)	CF-1021
5-19	SB315699	Button (C)	CF-6221
5-20x	SB315700	Button (C-BL)	CF-6221
5-21	ZG309161	Slide Return Spring	CF-1030
5-22	MC314494	Counter Assy SMP390-229	9-1-73
5-23x	MC314475	Counter Assy SMP390-228 (BL)	9-1-74
5-24	SK315655	Push Button Cap	CF-1210
5-25x	SK315656	Push Button Cap (BL)	CF-1210
5-26	ZS422076	Screw, Pan 3x5	
5-27	MB315653	Counter Belt	CF-1208
5-28	MV269965	Steel Ball D4	
5-29	TC315648	Pad	CF-1204
5-30	ZS659046	Screw, Pan Head 2.6x10	
5-31	ZG314312	P Lever Spring	CF-1228
5-32	ML308411	Pinch Roller Lever Part	
5-33	ES315867	Rotary SW. SRN1013S	25-6-176
5-34	EL315798	Lamp (Fuse Type) 3.5V 400MA	28-2-77
5-35	TC309145	Cassette Holder	CF-1023
5-36	TC315597	Friction Rubber	CX-1102
5-37	MS309155	Cassette Holder Shaft	CF-1024
5-38	ZG309156	Cassette Holder Spring	CF-1025

6. MECHA ASSEMBLY BLOCK (3)



MECHA ASSEMBLY BLOCK (3)

Ref. No.	Parts No.	Description	Schematic No.
6-1	TC314492	Decorative Plate Assy GX-F80	CF-1224
6-2	ZS608174	Screw, Pan 2.6x3	
6-3	TC314495	Hinge Stay (L) Assy GX-F80	CF-1216
6-4	ZS327835	Screw, Countersunk 3x5	
6-5	TC309203	Lid Frame	CF-1068
6-6	ZW273756	Nut, #1 M3	
6-7	TC309204	Cassette Holder (L)	CF-1070
6-8	TC309206	Setting Shoe	CF-1072
6-9	ZG309207	Setting Spring	CF-1073
6-10	ZS432843	Screw, Pan 2.6x4	
6-11	TC309205	Cassette Holder (R)	CF-1071
6-12	ZG359515	FF Slide Lever Spring	PX-134
6-13	ZW290283	'U' Ring 2.85M	6-1-1
6-14x	ZS608488	Screw, Pan 3x5 (Black)	

7. PRE AMP P.C BOARD (CF-5201A) BLOCK

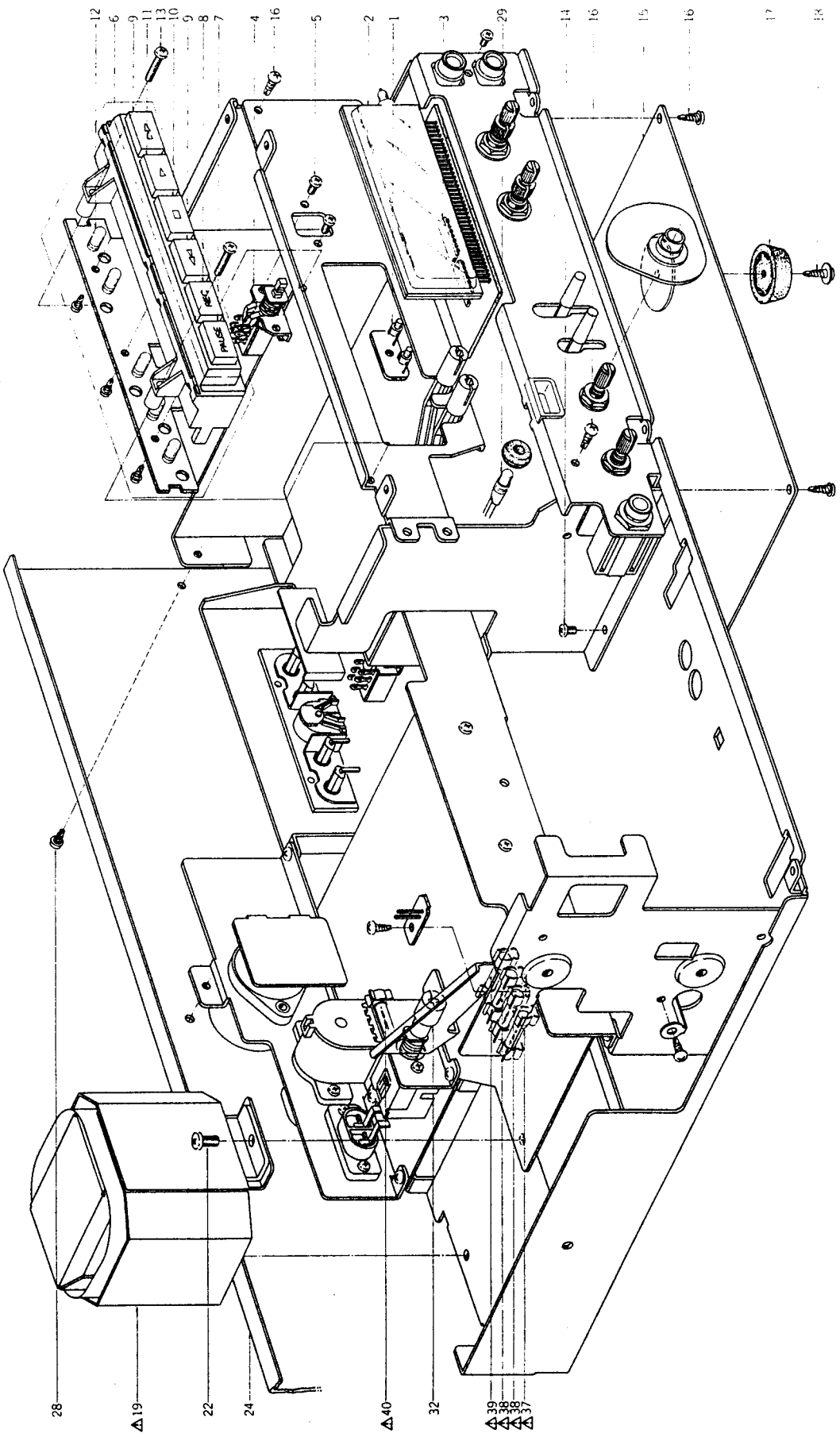
Symbol No.	Parts No.	Description	Schematic No.
7-1	BA314469	Pre Amp P.C Board Comp. GX-F80 (U/T) (U/T,CEE,UK,CSA,SAA)	CF-5201A
7-2	BA314474	Pre Amp P.C Board Comp. GX-F80 (JPN) (JPN, AAL)	CF-5201A
7-IC1,2	EI301463	IC CR-713B	45-8-225
7-IC3	EI306141	IC LA4170	45-8-305
7-TR1,2	ET311832	Transistor 2SC1844(E)	45-1-327
7-TR3	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
7-TR4,5	ET563905	Transistor 2SC711(G)(H)	45-1-67
7-TR6	ET402682	Transistor 2SC1061(C)	45-1-96
7-TR7to9	ET638504	Transistor 2SC945L(P)	45-1-85
7-TR10	ET663243	Transistor 2SC1312S(G)	45-1-182
7-TR13,14	ET311832	Transistor 2SC1844(E)	45-1-327
7-TR15	ET352146	Transistor 2SC458LG(D)	45-1-29
7-TR16	ET301464	FET 2SK68(M)(N)	45-12-14
7-TR17,18	ET241334	Transistor 2SC1384(Q)	45-1-173
7-TR19	ET402682	Transistor 2SC1061(C)	45-1-96
7-TR20,21	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
7-TR22	ET307349	Transistor 2SD794(P)(Q)	45-1-334
7-TR23,24	ET638504	Transistor 2SC945L(P)	45-1-85
7-TR25	ET317418	Transistor 2SA628(G)(H)	45-1-94
7-TR26	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
7-D1	ED308953	Germanium Diode 1K34A-LH	45-3-46
7-D2to5	ED560913	Silicon Diode 1S2473 VE	45-3-23
7-D6	ED308952	Germanium Diode 1K34A-LR	45-3-47
7-D13	ED308952	Germanium Diode 1K34A-LR	45-3-47
7-D14	ED308953	Germanium Diode 1K34A-LH	45-3-46
7-D15	ED560913	Silicon Diode 1S2473 VE	45-3-23
7-D16	ED316143	Silicon Diode 1S2473-HS	45-3-53
7-D17	ED306983	Zener Diode HZ12C-3	45-6-80
7-D18	ED316143	Silicon Diode 1S2473-HS	45-3-53
7-D19	ED316540	Zener Diode HZ20-1	45-6-80
7-D20	ED560913	Silicon Diode 1S2473 VE	45-3-23
7-D21	ED316143	Silicon Diode 1S2473-HS	45-3-53
7-FL2	ER309119	Dolby Filter D07-001	53-1-143
7-FL3,4	ER309120	Dolby Filter D07-003	53-1-143
7-FL5,6	EO315758	Trap Coil 100S-431	23-1-331
7-L1	EO315757	Ferri Inductor RC-875 33MH(J)	23-1-335
7-T1	EO315756	OSC Coil 53T-033-165	23-4-53
7-RL1	EP322437	Relay LAB2NS DC5V	47-2-30
7-VL1	EO310608	Ferri Inductor FE-001 3.3MH	23-1-304
7-FR1	ER561216	Fuse/R. 1/4W 100 ohms(K) 200MA	35-14-9
7-J1	EJ315746	Mic Jack HLJ0278-01-030	31-2-107
7-J2	EJ313580	Headphone Jack HLJ0305-01A	31-2-101
7-SW1	ES315749	Rotary Slide SW. SRZ-V124S	25-6-175
7-SW2	ES315747	Lever SW. 42388	25-12-61
7-SW3	ES315748	Lever SW. 83157	25-12-62
7-VR1,2	EV315751	Double-Axial 2-Throw/Vol. DM20R 50KAx2	36-18-16
7-VR3	EV315750	Single-Axial 2-Throw/Vol. GN20R 10KBx2	36-7-15
7-VR4	EV315412	Semi-Fixed/Vol. D8 Axial 5KB	36-10-280
7-VR5	EV315413	Semi-Fixed/Vol. D8 Axial 50KB	36-10-280
7-VR6	EV315412	Semi-Fixed/Vol. D8 Axial 5KB	36-10-280
7-VR7to9	EV315414	Semi-Fixed/Vol. D8 Axial 20KB	36-10-280
7-VR10	EV314968	Semi-Fixed/Vol. D10 Axial 100KB	36-10-281
7-VR11	EV315414	Semi-Fixed/Vol. D8 Axial 20KB	36-10-280
7-R124	ER305722	Metal Oxide Film/R. 2W 220 ohms(J)	35-11-22
7-C2	EC307167	Elect./C.(LL) 10μF 16WV	24-20-18
7-C5	EC476965	Elect./C. (Vert. Type) 47μF 25WV NL	24-20-4
7-C51	EC307167	Elect./C.(LL) 10μF 16WV	24-20-18
7-C58	EC308964	Elect./C.(LL) 47μF 25WV	24-20-18
7-C63	EC305677	Styrol/C. (Homing Type) 200PF(K) 50WV	24-11-14
7-C83	EC315797	Styrol/C. 2200PF(J) 500WV	24-11-16
7-C97	EC306980	Styrol/C. 220PF(J) 50WV	24-11-14
7-3	ZS325495	Tapping Screw, #2 BR 3x6	
7-4	ZS325495	Tapping Screw, #2 BR 3x6	
7-5	EJ314466	Jack Plate Assy (U/T,CEE,UK,CSA,SAA)	
7-6	EJ314476	Jack Plate Assy (JPN, AAL)	
7-7	ZW263946	Nylon Rivet 4x5	2-7-57
7-8	ZS325495	Tapping Screw, #2 BR 3x6	
7-9	ZS422076	Screw, Pan 3x5	

8. POWER & SYS. CON P.C BOARD (CF-5203A) BLOCK

Symbol No.	Parts No.	Description	Schematic No.
8-1	BA314439	Power & Sys. Con. P.C Board Comp. GX-F80 (U/T) (U/T,CEE,UK,SAA)	CF-5203A
8-2	BA314440	Power & Sys. Con. P.C Board Comp. GX-F80 (JPN)	CF-5203A
8-3	BA314441	Power & Sys. Con. P.C Board Comp. GX-F80 (CSA) (CSA, AAL)	CF-5203A
8-IC1	EI308936	IC M54410P	45-8-304
8-IC2	EI315955	IC SN7412	45-8-367
8-IC3	EI315957	IC MB416	45-8-377
8-IC4	EI304165	IC MB400M	45-8-252
8-IC5	EI315956	IC MSM4011	45-8-368
8-TR1	ET242684	Transistor 2SC1312S(H)	45-1-182
8-TR2to6	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
8-TR7	ET309552	Transistor 2SC1741(Q)(R)	45-1-325
8-TR8,9	ET315958	Transistor 2SA854(Q)(R)	45-1-326
8-TR10,11	ET309352	Transistor 2SC1741(Q)(R)	45-1-325
8-TR12,13	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
8-TR14	ET308937	Transistor 2SC2130(G)(H)	45-1-317
8-TR15	ET309356	Transistor 2SA935(Q)(R)	45-1-336
8-TR16	ET309353	Transistor 2SC2274(E)(F)	45-1-335
8-TR17	ET308937	Transistor 2SC2130(G)(H)	45-1-317
8-TR18	ET309356	Transistor 2SA935(Q)(R)	45-1-336
8-TR19	ET309352	Transistor 2SC1741(Q)(R)	45-1-325
8-TR20	ET308937	Transistor 2SC2130(G)(H)	45-1-317
8-TR21	ET309353	Transistor 2SC2274(E)(F)	45-1-335
8-TR22	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
8-TR23	ET308937	Transistor 2SC2130(G)(H)	45-1-317
8-TR24to26	ET639437	Transistor 2SC945L(Q)(P)	45-1-85
8-TR27to30	ET309337	Transistor 2SC1741(R)	45-1-325
8-TR31	ET302502	Transistor 2SC2001(K)	45-1-272
8-TR32,33	ET402682	Transistor 2SC1061(C)	45-1-96
8-TR34	ET307349	Transistor 2SD794(P)(Q)	45-1-334
8-TR35	ET666404	Transistor 2SD571(K)(L)	45-1-218
8-TR36	ET554657	Transistor 2SA733(P)(Q)	45-1-124
8-D1	ED315960	Silicon Diode WL02	45-2-93
8-D2	ED309357	Silicon Diode SVB15-100	45-2-83
8-D3	ED315960	Silicon Diode WL02	45-2-93
8-D4	ED309340	Zener Diode RD5.6E(B2)	45-6-83
8-D5	ED313623	Zener Diode HZ22-3	45-6-80
8-D6	ED309340	Zener Diode RD5.6E(B2)	45-6-83
8-D7	ED315998	Zener Diode RD-9.1E(C)	45-6-72
8-D8,9	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D10	ED624903	Silicon Diode 1S2473	45-3-28
8-D11to13	ED308952	Germanium Diode 1K34A-LR	45-3-47
8-D14to21	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D22	ED306109	Silicon Diode W03B	45-2-78
8-D23to25	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D26	ED306109	Silicon Diode W03B	45-2-78
8-D27to29	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D30	ED624903	Silicon Diode 1S2473	45-3-28
8-D31	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D33	ED308952	Germanium Diode 1K34A-LR	45-3-47
8-D34	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D35,36	ED308952	Germanium Diode 1K34A-LR	45-3-47
8-D37,38	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D39	ED308952	Germanium Diode 1K34A-LR	45-3-47
8-D40,41	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D42,43	ED308952	Germanium Diode 1K34A-LR	45-3-47
8-D44	ED308953	Germanium Diode 1K34A-LH	45-3-46
8-D45to53	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D54	ED306109	Silicon Diode W03B	45-2-78
8-D56to58	ED560913	Silicon Diode 1S2473 VE	45-3-23
8-D59to61	ED308952	Germanium Diode 1K34A-LR	45-3-47
8-SW1	ES315954	Push SW. SUF22	25-5-327
8-SW2	ES310839	⚠ Push SW. SDG1P-E 5A/80A 250V (U/T, CEE, UK, SAA)	25-5-310
8-SW2	ES315159	⚠ Push SW. SDG1P(JPN)	25-5-330
8-SW2	ES665875	⚠ Push SW. SDG1P-J TV-3 UL/CSA(CSA,AAL)	25-5-199
8-R25	ER318430	Metal Oxide Film/R. 1W 1K(J)	35-11-21
8-R26	ER309417	Metal Oxide Film/R 1W 1K(J)	35-15-10
8-R105	ER315961	Metal Oxide Film/R. 2W 27 ohms	35-11-22
8-R106	ER315997	Cement/R. 5W 27ohms(J)	35-16-80
8-C1	EC315964	Elect./C. (Vert.) 1000μF 63WV	24-12-46
8-C2	EC315966	Elect./C. (Vert.) 3300μF 16WV	24-12-46
8-C5	EC318429	Elect./C. (Vert.) 2200μF 50WV	24-12-59
8-C37,38	EC308940	NP/C. 0.47μF(M) 50WV	24-17-31
8-C46	EC301320	⚠ MP/C. 4700PF(M) 250WV (U/T, CEE, UK, SAA)	24-9-122
8-C46	EC321302	⚠ Ceramic/C. E 0.01μF(Z) 250VAC (JPN)	24-5-90
8-C46	EC314688	⚠ Ceramic/C. DE7150 FZ 0.01μF(P) 125WV (CSA, AAL)	24-5-87
8-4	ZS447840	Tapping Screw, #2 BR 3x8	
8-5	ZS421806	Screw, Pan 3x8	
8-6	ZW273756	Nut, #1 M3	
8-7	ZS422076	Screw, Pan 3x5	
8-J1	EJ312374	Sub Magnale Socket 9P	31-1-240
8-J2	EJ310567	⚠ Inlet, Board Type	31-1-234
8-VS1	ES315879	⚠ Volt Change SW. HXW0144	25-6-184
8-8	ZS308895	S-Tight Screw, Pan 3x8	
8-9	ZS421740	Screw, Pan 3x8 (Black)	
8-10	EJ315880	Mini Connection 3094-07A	42-1-124

When ordering parts, please describe Parts Number, Description, and Model Number in detail.

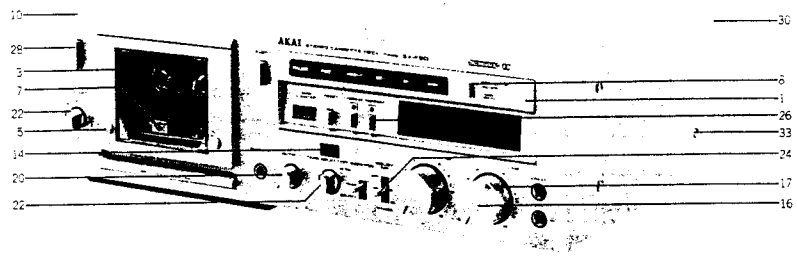
9. FINAL ASSEMBLY BLOCK (1)



FINAL ASSEMBLY BLOCK (1)

Ref. No.	Parts No.	Description	Schematic No.
		LED P.C BOARD BLOCK	
9-1	ED645996	LED SEL-303E	45-15-6
		BAR METER P.C BOARD BLOCK	
9-2	EM315859	Bar Meter FIP48CW16YS	53-1-175
9-3	EI315799	IC HA12019	45-8-366
		FRONT CHASSIS (B) BLOCK	
9-4	ES315857	Push SW. SUF12	25-5-328
9-5	ZS200384	Screw, Countersunk 3x6	
9-6	BK314363	Operation Key Assy GX-F80	25-5-333
9-7	SB315852	Operation Button (Pause)	25-5-333
9-8	SB315853	Operation Button (REC)	25-5-333
9-9	SB315854	Operation Button (FF, REW)	25-5-333
9-10	SB315855	Operation Button (Stop)	25-5-333
9-11	SB315856	Operation Button (FWD)	25-5-333
9-12	EL309310	Lamp 145MA 5.5V	25-5-290
9-13	ZS593201	Screw, Pan 3x16	
9-14x	ZS447840	Tapping Screw, #2 BR 3x8	
		FINAL ASSEMBLY BLOCK	
9-15	SP315695	Bottom Plate	CF-6217
9-16	ZS325495	Tapping Screw, #2 BR 3x6	
9-17	SA306240	Rubber Foot (B)	LE-6740
9-18	ZS313490	S-Tight Screw, Pan 3x6 w/Washer	
9-19	BT315873	⚠ Power Trans. CFT-21 (U/T, CEE, UK, SAA)	38-4-751
9-20x	BT315874	⚠ Power Trans. CFT-22 (JPN)	38-4-752
9-21x	BT315875	⚠ Power Trans. CFT-24 (CSA, AAL)	38-4-753
9-22	ZS302937	S-Tight Screw, Pan 4x12	
9-23x	ZS306021	S-Tight Screw, Pan 3x6	
9-24	SP315692	Rear Panel (U/T, CEE, UK) (U/T, CEE, UK, SAA)	CF-6212
9-25x	SP315690	Rear Panel (JPN)	CF-6213
9-26x	SP-315693	Rear Panel (CSA)	CF-6214
9-27x	SP315691	Rear Panel (AAL)	CF-6214
9-28	ZS447761	Tapping Screw, #2 BR 3x6 (Black)	
9-29	EL315877	Lamp (Cord Type) 3V 400MA	28-2-78
9-30x	ZG314036	Lamp Spring (A)	CF-0222
9-31x	ZG314037	Clamp Spring (B)	CF-0222
9-32	TC289484	SW. Joint	CM-6015
9-33x	EW306152	AC Cord Set U/T Type 2 (U/T)	26-3-71
9-34x	EW315767	AC Cord Set CEE 2 Cores (CEE)	26-3-72
9-35x	EW322400	AC Cord Set BASEC 2 Cores (UK)	26-3-73
9-36x	EW322401	AC Cord Set SAA 2 Cores (SAA)	26-3-77
9-37	EF258344	⚠ Fuse (Semko T-Type) 800MAT (U/T, CEE, UK, SAA)	39-1-53
9-38	EF602550	⚠ Fuse (Semko T-Type) 1.25AT 250V (U/T, CEE, UK, SAA)	39-1-53
9-39	EF601942	⚠ Fuse (Semko T-Type) 600MAT (U/T, CEE, UK, SAA)	39-1-53
9-40	EF623103	⚠ Fuse (Semko T-Type) 1AT (U/T, CEE, UK, SAA)	39-1-53
9-41x	EF309388	⚠ Fuse 800MA 250V (JPN)	39-1-64
9-42x	EF306949	⚠ Fuse 1.25A 250V (JPN)	39-1-64
9-43x	EF309387	⚠ Fuse 1A 250V (JPN)	39-1-64
9-44x	EF309391	⚠ Fuse 800MA 125V (CSA, AAL)	39-1-65
9-45x	EF309392	⚠ Fuse 1.25A 125V (CSA, AAL)	39-1-65
9-46x	EF310229	⚠ Fuse 1A 125V (CSA, AAL)	39-1-65
9-47x	EZ631945	Strain Relief SR-4N-4 (JPN, CSA, AAL)	2-7-49
9-48x	EW306427	AC Cord (JPN)	26-3-63
9-49x	EW305691	AC Cord CUL (CSA, AAL)	26-3-65

10. FINAL ASSEMBLY BLOCK (2)



FINAL ASSEMBLY BLOCK (2)

Ref. No.	Parts No.	Description	Schematic No.
		METER PANEL BLOCK	
10-1	SP314479	Meter Panel Part GX-F80	CF-5223
10-2x	SP314480	Meter Panel (BL) Part GX-F80-BL	CF-5223
		LID PANEL BLOCK	
10-3	SZ315684	Lid Cover	CF-6209
10-4x	SZ321044	Lid Cover (BL)	CF-6209
10-5	ZS315685	Decoration Screw (BL)	CF-6210
10-6x	ZS315686	Decoration Screw (BL)	CF-6210
10-7	SM315737	Super GX Name Plate	CF-6236
		FRONT CHASSIS (B) BLOCK	
10-8	SB315669	Button (A)	CF-5213
10-9x	SB315670	Button (A-BL)	CF-5213
		FINAL ASSEMBLY BLOCK	
10-10	SP315676	Front Panel GX-F80	CF-6201,6202
10-11x	SP315677	Front Panel GX-F80-BL	CF-6201,6202
10-12x	SE315678	Panel Escutcheon	CF-6203
10-13x	SE315679	Panel Escutcheon (BL)	CF-6203
10-14	TC315680	Selector Window	CF-6206
10-15x	ZS490228	Tapping Screw, #2 Bind 3x8	

Ref. No.	Parts No.	Description	Schematic No.
10-16	SK315708	Double Knob (Upper)	CF-6226
10-17	SK315710	Double Knob (Lower)	CF-6227
10-18x	SK315709	Double Knob (Upper-BL)	CF-6226
10-19x	SK315711	Double Knob (Lower-BL)	CF-6227
10-20	SK315703	Knob (A)	CF-6223
10-21x	SK315704	Knob (A-BL)	CF-6223
10-22	SK315701	Knob (B)	CF-6222
10-23x	SK315702	Knob (B-BL)	CF-6222
10-24	SK324832	Lever Knob Part GX-F80	CF-6224
10-25x	SK324833	Lever Knob (BL) Part GX-F80-BL	CF-6224
10-26	SB315713	Button (D)	CF-6230
10-27x	SB315714	Button (D-BL)	CF-6230
10-28	SB315697	Button (B)	CF-6220
10-29x	SB315698	Button (B-BL)	CF-6220
10-30	BC315687	Upper Cover (A) (Except AAL)	CF-6211
10-31x	BC315736	Upper Cover (B) (AAL)	CF-6211
10-32x	BC315688	Upper Cover (A-BL)	CF-6211
10-33	ZS315878	S-Tight Screw, Bind 4x8 (Except AAL)	
10-34x	ZS310588	S-Tight Screw, Bind 4x8 (Black) (AAL, BL)	

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.
BA314439	8-1	EF602550	9-38	ET639437	7-TR20,21	SP315677	10-11x	ZS447840	8-4
BA314440	8-2	EF623103	9-40	ET639437	7-TR26	SP315690	9-25x	ZS447840	9-14x
BA314441	8-3	EI301463	7-IC1,2	ET639437	8-TR2to6	SP315691	9-27x	ZS460440	4-21
BA314469	7-1	EI304165	8-IC4	ET639437	8-TR12,13	SP315692	9-24	ZS477876	4-15
BA314474	7-2	EI306141	7-IC3	ET639437	8-TR22	SP315693	9-26x	ZS479474	4-6
BC315687	10-30	EI308936	8-IC1	ET639437	8-TR24to26	SP315695	9-15	ZS479474	5-6
BC315688	10-32x	EI315799	9-3	ET663243	7-TR10	SZ315684	10-3	ZS490228	10-15x
BC315736	10-31x	EI315955	8-IC2	ET666404	8-TR35	SZ321044	10-4x	ZS592378	3-14
BF314477	4-23	EI315956	8-IC5	EV314968	7-VR10	TC289484	9-32	ZS592378	5-11
BH314197	2-1x	EI315957	8-IC3	EV315412	7-VR4	TC309145	5-5	ZS593201	9-13
BK314363	9-6	EJ310567	8-J2	EV315412	7-VR6	TC309154	5-35	ZS608106	4-19
BM314214	3-1	EJ312374	8-J1	EV315413	7-VR5	TC309203	6-5	ZS608174	6-2
BM314215	4-1	EJ313580	7-J2	EV315414	7-VR7to9	TC309204	6-7	ZS608321	4-11
BT315873	9-19	EJ314466	7-5	EV315414	7-VR11	TC309205	6-11	ZS608488	6-14x
BT315874	9-20x	EJ314476	7-6	EV315750	7-VR3	TC309206	6-8	ZS659046	5-30
BT315875	9-21x	EJ315746	7-J1	EV315751	7-VR1,2	TC314203	4-13	ZW263946	7-7
EC301320	8-C46	EJ315880	8-10	EW305691	9-49x	TC314492	6-1	ZW270088	3-2
EC305677	7-C63	EL309310	9-12	EW306152	9-33x	TC314495	6-3	ZW270088	4-10
EC306980	7-C97	EL315798	5-34	EW306427	9-48x	TC315597	5-36	ZW270088	5-7
EC307167	7-C2	EL315877	9-29	EW315767	9-34x	TC315648	5-29	ZW270101	4-12
EC307167	7-C51	EM315859	9-2	EW322400	9-35x	TC315680	10-14	ZW270101	5-4
EC308940	8-C37,38	EO310608	7-VL1	EW322401	9-36x	TC315696	2-22	ZW270123	2-7
EC308964	7-C58	EO315756	7-T1	EZ631945	9-47x	ZG289236	2-3	ZW273688	2-5
EC314688	8-C46	EO315757	7-L1	HA315625	2-12	ZG309152	5-18	ZW273756	5-3
EC315797	7-C83	EO315758	7-FL5,6	HE315742	2-19	ZG309156	5-38	ZW273756	6-6
EC315964	8-C1	EP309396	4-14	HR314483	2-11	ZG309161	5-21	ZW273756	8-6
EC315966	8-C2	EP313497	3-13	HZ309128	2-4	ZG309171	5-8	ZW290283	3-15
EC318429	8-C5	EP315866	4-8	HZ315626	2-14	ZG309174	5-12	ZW290283	4-7
EC321302	8-C46	EP322437	7-RL1	MB282104	3-5	ZG309207	6-9	ZW290283	5-17
EC476965	7-C5	ER305722	7-R124	MB282778	4-2	ZG309212	5-15	ZW290283	6-13
ED306109	8-D22	ER309119	7-FL2	MB309185	4-25	ZG309225	3-4	ZW309295	4-24
ED306109	8-D26	ER309120	7-FL3,4	MB309197	4-27	ZG309226	3-6	ZW356657	4-16
ED306109	8-D54	ER309417	8-R26	MB315653	5-27	ZG313187	2-21	ZW381644	3-17
ED306983	7-D17	ER315961	8-R105	MC314475	5-23x	ZG314036	9-30x	ZW432753	3-11
ED308952	7-D6	ER315997	8-R106	MC314494	5-22	ZG314037	9-31x	ZW601075	5-13
ED308952	7-D13	ER318430	8-R25	MI309414	3-12	ZG314312	5-31	ZW609322	2-6
ED308952	8-D11to13	ER561216	7-FR1	ML308406	3-10	ZG315738	2-9		
ED308952	8-D33	ES302508	4-18	ML308411	5-32	ZG359515	6-12		
ED308952	8-D35,36	ES309393	4-20	ML309151	5-14	ZG365433	3-3		
ED308952	8-D39	ES310839	8-SW2	ML309193	5-10	ZG465636	2-16		
ED308952	8-D42,43	ES315159	8-SW2	ML309229	3-8	ZG469315	3-9		
ED308952	8-D59to61	ES315747	7-SW2	MR309189	5-9	ZG595506	2-10		
ED308953	7-D1	ES315748	7-SW3	MS309141	5-2	ZS200384	9-5		
ED308953	7-D14	ES315749	7-SW1	MS309155	5-37	ZS300626	2-13		
ED308953	8-D44	ES315857	9-4	MT305793	3-18	ZS302318	4-26		
ED309340	8-D4	ES315867	5-33	MT312122	3-16	ZS302937	9-22		
ED309340	8-D6	ES315879	8-VS1	MV269965	5-28	ZS306021	9-23x		
ED309357	8-D2	ES315954	8-SW1	MV309146	4-5	ZS308895	8-8		
ED313623	8-D5	ES665875	8-SW2	SA306240	9-17	ZS310588	10-34x		
ED315960	8-D1	ET241334	7-TR17,18	SB315669	10-8	ZS313490	9-18		
ED315960	8-D3	ET242684	8-TR1	SB315670	10-9x	ZS315685	10-5		
ED315998	8-D7	ET301464	7-TR16	SB315697	10-28	ZS315686	10-6x		
ED316143	7-D16	ET302502	8-TR31	SB315698	10-29x	ZS315878	10-33		
ED316143	7-D18	ET307349	7-TR22	SB315699	5-19	ZS321030	2-2		
ED316143	7-D21	ET307349	8-TR34	SB315700	5-20x	ZS321030	4-3		
ED316540	7-D19	ET308937	8-TR14	SB315713	10-26	ZS325495	5-1x		
ED560913	7-D2to5	ET308937	8-TR17	SB315714	10-27x	ZS325495	7-3		
ED560913	7-D15	ET308937	8-TR20	SB315852	9-7	ZS325495	7-4		
ED560913	7-D20	ET308937	8-TR23	SB315853	9-8	ZS325495	7-8		
ED560913	8-D8,9	ET309337	8-TR27to30	SB315854	9-9	ZS325495	9-16		
ED560913	8-D14to21	ET309352	8-TR7	SB315855	9-10	ZS327835	6-4		
ED560913	8-D23to25	ET309352	8-TR10,11	SB315856	9-11	ZS356782	2-8x		
ED560913	8-D27to29	ET309352	8-TR19	SE315678	10-12x	ZS356782	2-23		
ED560913	8-D31	ET309353	8-TR16	SE315679	10-13x	ZS356804	2-15		
ED560913	8-D34	ET309353	8-TR21	SK315655	5-24	ZS356848	2-17		
ED560913	8-D37,38	ET309356	8-TR15	SK315656	5-25x	ZS375118	2-20		
ED560913	8-D40,41	ET309356	8-TR18	SK315701	10-22	ZS391408	2-18		
ED560913	8-D45to53	ET311832	7-TR1,2	SK315702	10-23x	ZS417216	4-9		
ED560913	8-D56to58	ET311832	7-TR13,14	SK315703	10-20	ZS421740	8-9		
ED624903	8-D10	ET315958	8-TR8,9	SK315704	10-21x	ZS421806	4-4		
ED624903	8-D30	ET317418	7-TR25	SK315708	10-16	ZS421806	8-5		
ED645996	9-1	ET352146	7-TR15	SK315709	10-18x	ZS422076	4-22		
EF258344	9-37	ET402682	7-TR6	SK315710	10-17	ZS422076	5-26		
EF306949	9-42x	ET402682	7-TR19	SK315711	10-19x	ZS422076	7-9		
EF309387	9-43x	ET402682	8-TR32,33	SK324832	10-24	ZS422076	8-7		
EF309388	9-41x	ET554657	8-TR36	SK324833	10-25x	ZS430413	3-7		
EF309391	9-44x	ET563905	7-TR4,5	SM315737	10-7	ZS430413	5-16		
EF309392	9-45x	ET638504	7-TR7to9	SP314479	10-1	ZS432843	6-10		
EF310229	9-46x	ET638504	7-TR23,24	SP314480	10-2x	ZS442585	4-17		
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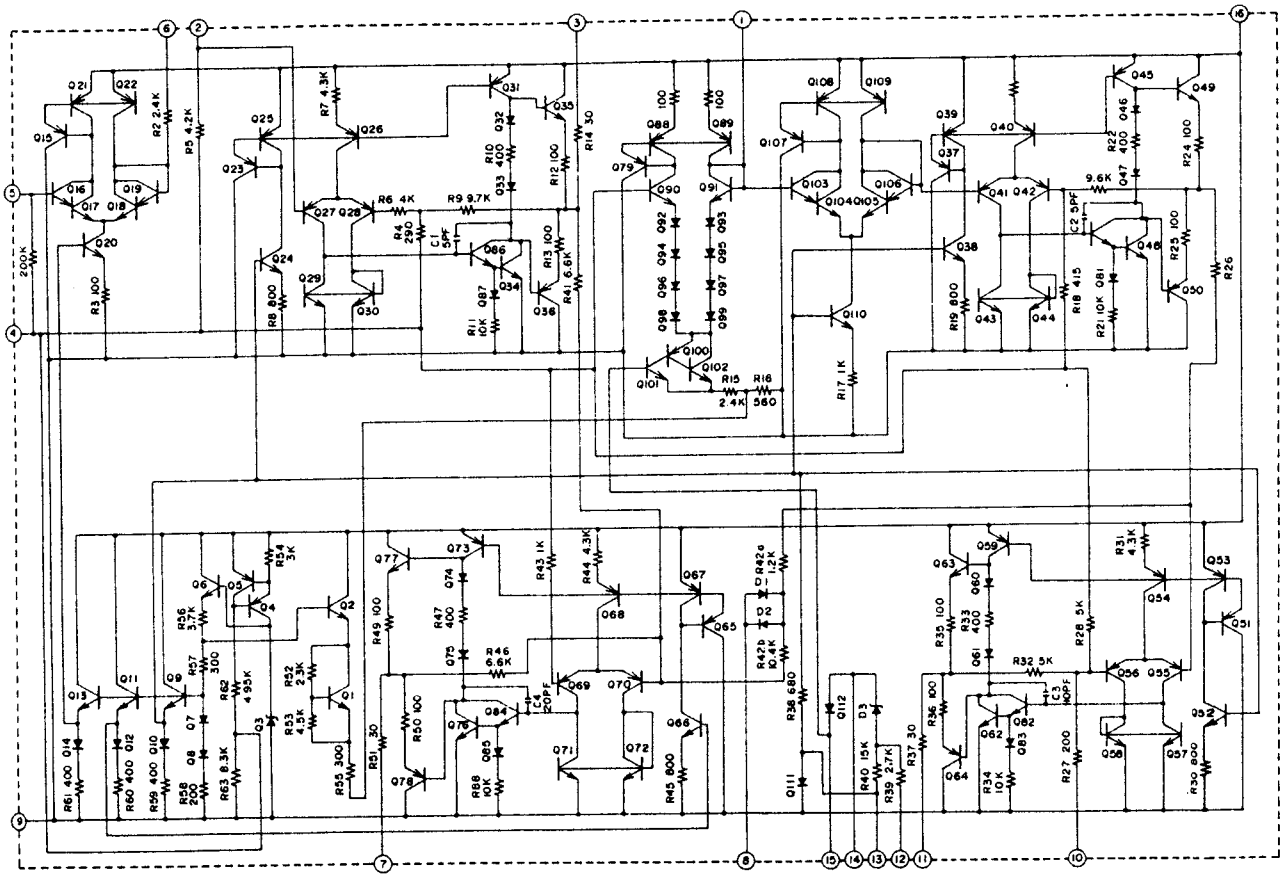
SECTION 3

SCHEMATIC DIAGRAM

1. SCHEMATIC DIAGRAM OF ICs
2. GX-F80 NO. 2-1 1582016A SCHEMATIC DIAGRAM
3. GX-F80 NO. 2-2 1582017A SCHEMATIC DIAGRAM

CR-713B



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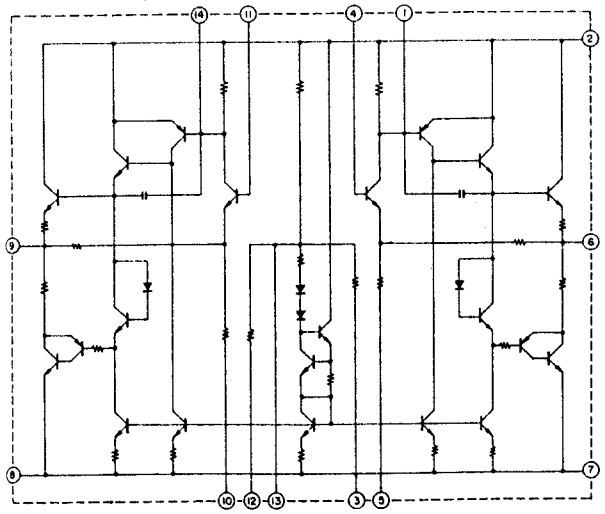

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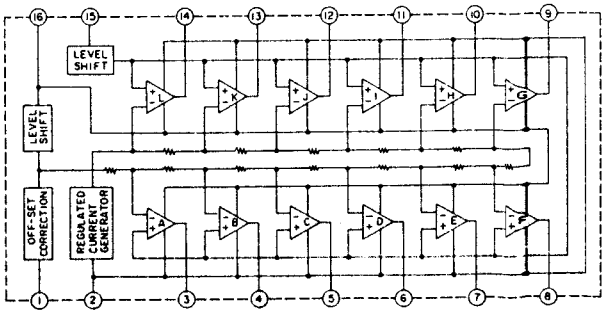

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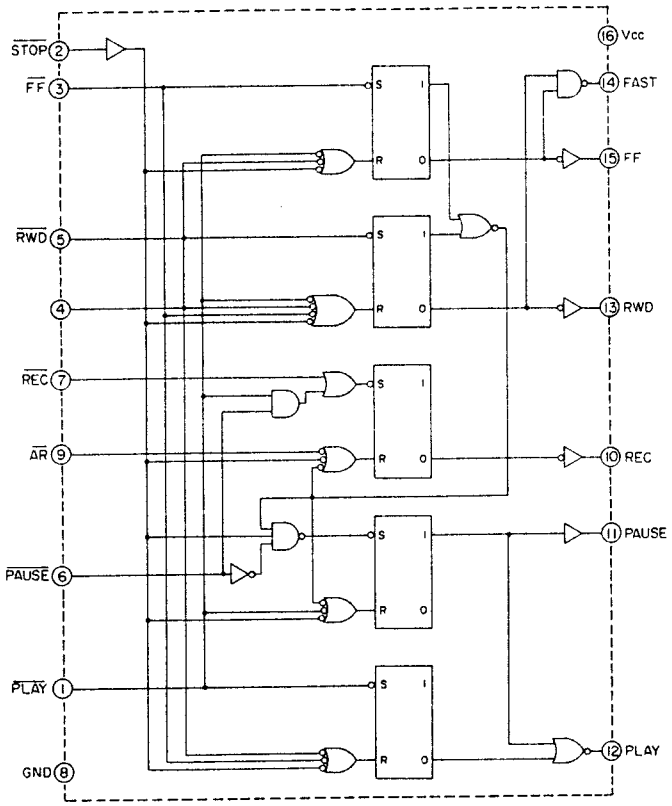
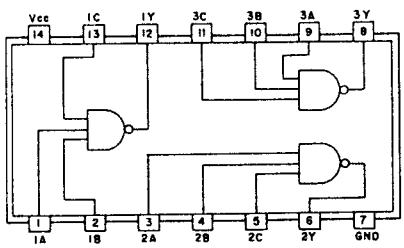
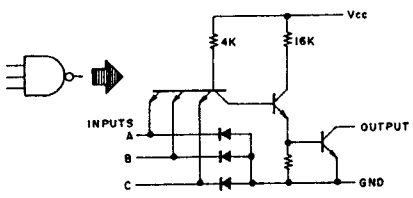


SN7412





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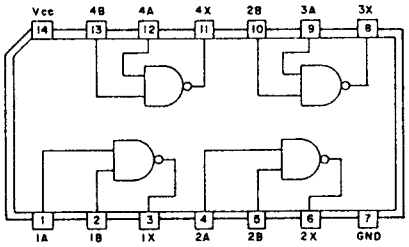

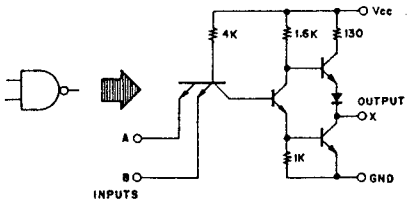

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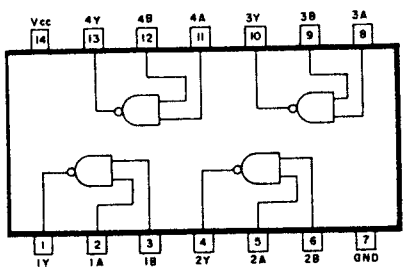

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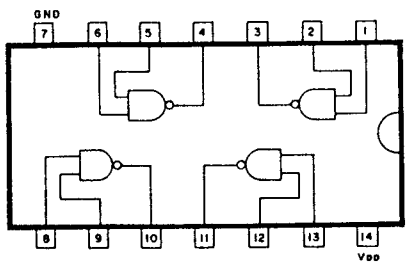


GX-F80

	F1	F2	F3	F4
U/T, CEE, UK	T800mA	T1.25A	T1.25A	T630mA
AAL, CSA	800mA/125V	T1.25A/125V	T1.25A/125V	1A/125V
JPN	800mA/250V	T1.25A/250V	T1.25A/250V	1A/250V

LED P.C BOARD CF-5203C

PRE AMP P.C BOARD

ROTATION DETECTOR

SW906 HZR1006

COUNTER SWITCH

REEL MOTOR

M902 M38E-1S

REPEAT

MEMORY

SW1-1

SW1-2

SW1-3

VOLTAGE SELECTOR

U/T, CEE, UK

U/T: 110V to 240V 50/60Hz

CEE: 220V 50Hz

UK: 240V 50Hz

AC INLET

POWER

SW2

T901 CFT-21

HOUSING LAMP P.C BOARD CF-5005

METER P.C BOARD

CAPSTAN MOTOR

M901 EG-9010-2F

TIMER

SW902

JPN

100V 50/60Hz

T902 CFT-22

AAL CSA

120V 60Hz

T901 CFT-24

IC1 M54410P

REC AMP P.C BOARD

AR SWITCH

SW903

OPERATION BLOCK

PAUSE REC RWD STOP PLAY F.F

REMOTE CONTROL P.C BOARD CF-5203B

J1 REMOTE

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

0010387

F G H I J K

F-5203C

COUNTER SWITCH

REEL MOTOR

M902 M3RE-1S

2SA733 2SC945L 2SC1741 2SC2001 2SC2274K | 2SA854 2SC1312S 2SC2130 | 2SA935 | 2SD571 | 2SC1061 | 2SD794

TR34 2SD794(HIGH)

TR8,9 2SA854(Q1HR)
TR7,10,11 2SC1741(Q1R)

TR12,13 2SC945L(PHIQ)

TR16 2SC2274K(E11F)

TR14 2SC2130(G1HH)

TR15 2SA935 (Q1HR)

TR18 2SA935 (Q1R)

TR17 2SC2130 (G1H)

TR19 2SC1741(Q1RR)

TR20 2SC2130(G1HH)

TR21 2SC2274K(E11F)

TR22 2SC945L(PHQ)

TR23 2SC2130(G1HH)

TR24 2SC945L (PHQ)

TR25,26 2SC945L(PHQ)

TR27 to 30 2SC1741(R)

TR3,6 2SC945L(PHQ)

TR31 2SC2001(K)

D14 to 19,53 1S2473VE

IC1 MS5410P

IC2 SN412
IC3 MB416
IC4 MB400M
IC5 MSM4011RS

SW1-3 MEMORY

BRAKE PLUNGER

PLAY PLUNGER

PAUSE PLUNGER

PRE AMP P.C BOARD

AR SWITCH SW903

REC AMP P.C BOARD

ON/OFF SW901

REC MUTE

J1 REMOTE

REMOTE CONTROL P.C BOARD CF-5203B

POWER SUPPLY & SYS.CON P.C BOARD CF-5203A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (1/4W)
ALL CAPACITORS IN uF 50WV(U)
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA
(FS) FAIL SAFE RESISTOR
(-||-) NON POLAR CAPACITOR
x POWER TRANSFORMER INCLUDES TEMPERATUR FUSE
FUSE CAN NOT BE REPLACED SEPARATELY

GX-F80
SCHEMATIC DIAGRAM
NO.2-1 1582016A
2C

GX-F80

LEFT

RIGHT

PRE AMP P.C BOARD CF-5201A

IC1 CR-7138

IC2 CR7138

IC3 LA4170

%REC MODE		LN	LH	CrO2	METAL
TR26	B	7.5V	8.1V	12.3V	16.6V
TR19	B	6.9V	7.6V	11.8V	16.0V
	C	6.4V	7.0V	11.2V	15.4V
TR17,18	B	0.4V	0.4V	0.2V	0V
	C	6.3V	7.0V	11.2V	15.4V
	E	0V	0V	0V	0V
T1	ⓐ	17.7VAC	19.5VAC	32.0VAC	41.9VAC
	ⓑ	40.0VAC	44.0VAC	71.6VAC	100.4VAC

2SA628
2SC458LG
2SC945L
2SC1844

2SC711
2SC1312S

2SC1061

2SC1384

2SD794

2SK68

SYSCON P.C BOARD

SYSCON P.C BOARD

001039E

F G H I J K

TAPE SELECTOR

SYSCON P.C BOARD

REC H901-3

ERASE H902 E-921

SYSCON P.C BOARD

PHONES

HEADPHONE P.C BOARD CF-52018

REC H901-4

SYSCON P.C BOARD

BAR METER INDI FIP48CW16YS

ICI HAI2019 (L-ch)

IC2 HAI2019 (R-ch)

METER P.C BOARD CF-5202

SYSCON P.C BOARD

SYSCON P.C BOARD

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)
(LL) = LOW LEAKAGE CAPACITORS

GX-F80
SCHEMATIC DIAGRAM
NO.2-2 1582017A
2C

GX-F80

	F1	F2	F3	F4
U/T, CEE, UK	T800mA	T1.25A	T1.25A	T630mA
AAL, CSA	800mA 125V	L25A 125V	1.25A 125V	1A 125V
JPN	800mA 250V	1.25A 250V	L25A 250V	1A 250V

LED P.C BOARD CF-5203C

PRE AMP P.C BOARD

ROTATION DETECTOR

SW906 HZR1006

VOLTAGE SELECTOR

U/T, CEE, UK

U/T: 110V to 240V 50/60Hz

CEE: 220V 50Hz

UK: 240V 50Hz

AC INLET

POWER

HOUSING LAMP P.C BOARD CF-5005

METER P.C BOARD

CAPSTAN MOTOR

TIMER

JPN

100V 50/60Hz

AAL CSA

120V 60Hz

REPEAT

MEMORY

COUNTER SWITCH

IC1 M54410P

PLAY

STOP

FF

FAST

REW

MEMO

PAUSE

REC

AR SWITCH SW803

REC AMP P.C BOARD

OPERATION BLOCK

REMOTE CONTROL P.C BOARD CF-5203B

J1 REMOTE

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

0010387

F G H I J K

2SA733 2SC945L 2SC1741 2SC2001 2SC2274K

2SA854 2SC1312S 2SC2130

2SA935

2SD571

2SC1061

2SD794

COUNTER SWITCH

REEL MOTOR

BRAKE PLUNGER

PLAY PLUNGER

PAUSE PLUNGER

PRE AMP P.C BOARD

IC1 M54410P

IC2 SN412
IC3 M8416
IC4 M8400M
IC5 MSM4011RS

AR SWITCH SW903

REC AMP P.C BOARD

ON/OFF SW901

REC MUTE

POWER SUPPLY & SYS.CON P.C BOARD CF-5203A

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W ±5%
ALL CAPACITORS IN μF 50WV ±10%
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA
(FS) FAIL SAFE RESISTOR
(⊣⊢) NON POLAR CAPACITOR
x POWER TRANSFORMER INCLUDES TEMPERATUR FUSE
FUSE CAN NOT BE REPLACED SEPARATELY

GX-F80
SCHEMATIC DIAGRAM
NO.2-1 1582016A
2C

GX-F80

PRE AMP P.C BOARD CF-5201A

*REC MODE

		LN	LH	CrO2	METAL
TR26	B	7.5V	8.1V	12.3V	16.6V
TR19	B	6.9V	7.6V	11.8V	16.0V
	E	6.4V	7.0V	11.2V	15.4V
TR17,18	B	0.4V	0.4V	0.2V	0V
	C	6.3V	7.0V	11.2V	15.4V
	E	0V	0V	0V	0V
T1	B	17.7VAC	19.5VAC	32.0VAC	41.8VAC
	D	40.0VAC	44.0VAC	71.8VAC	100.4VAC

2SA628
2SC458LG
2SC945L
2SC1844

2SC711
2SC1312S

2SC1061

2SC1384

2SD794

2SK68

SYSCON P.C BOARD

00H039E

F G H I J K

TAPE SELECTOR

SYSCON P.C BOARD

REC H901-3

ERASE H902 E-921

SYSCON P.C BOARD

PHONES

HEADPHONE P.C BOARD CF-5201B

REC H901-4

SYSCON P.C BOARD

BAR METER IND! FIP48CW16YS

IC1 HAI2019 (L-ch)

IC2 HAI2019 (R-ch)

METER P.C BOARD CF-5202

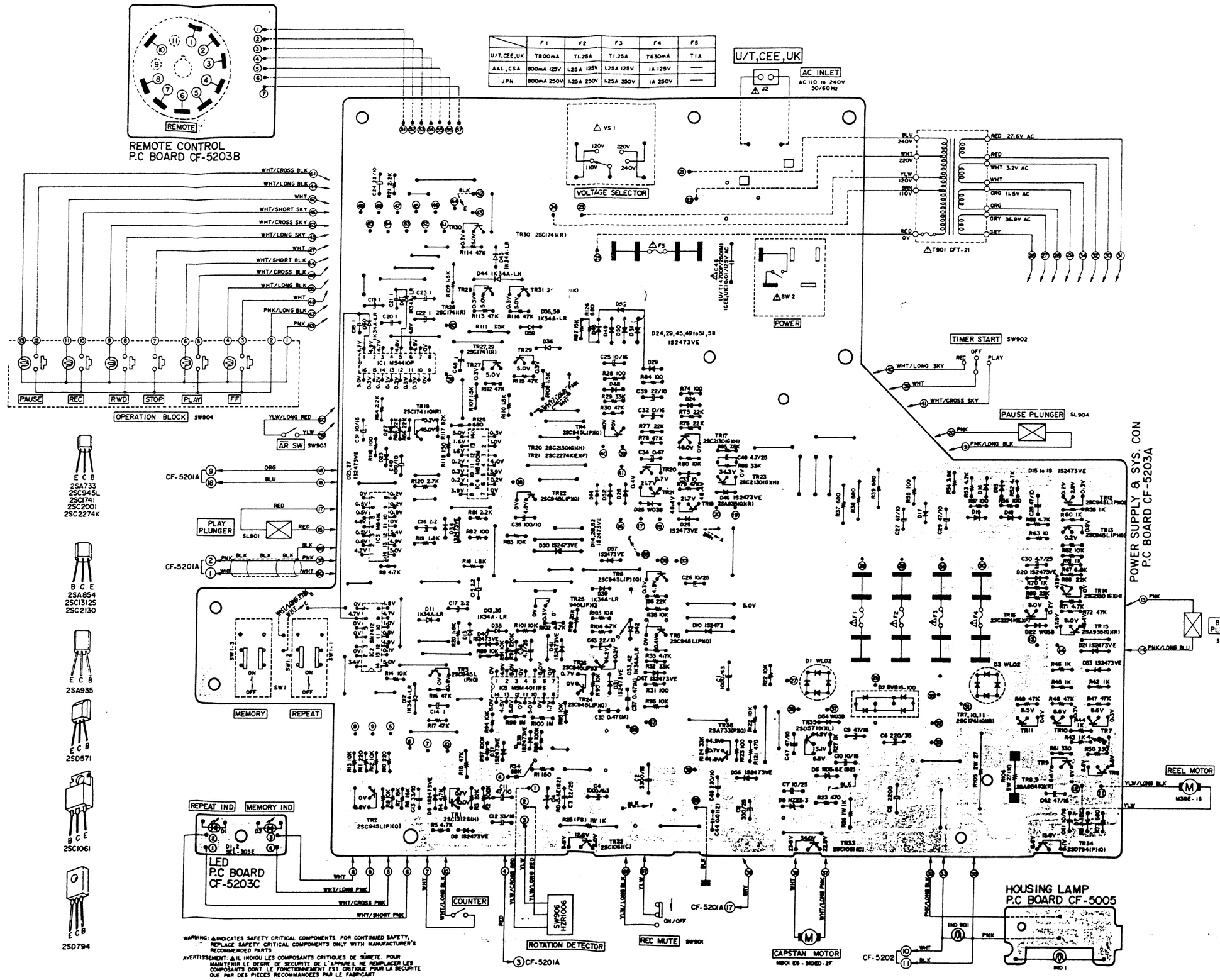
SYSCON P.C BOARD

SYSCON P.C BOARD

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (J)
(LL) = LOW LEAKAGE CAPACITORS

GX-F80
SCHEMATIC DIAGRAM
NO.2-2 1582017A
2C

POWER SUPPLY & SYS. CON P.C BOARD CF-5203A, LED P.C BOARD CF-5203C, HOUSING LAMP P.C BOARD CF-5005 and REMOTE CONTROL P.C BOARD CF-5203B

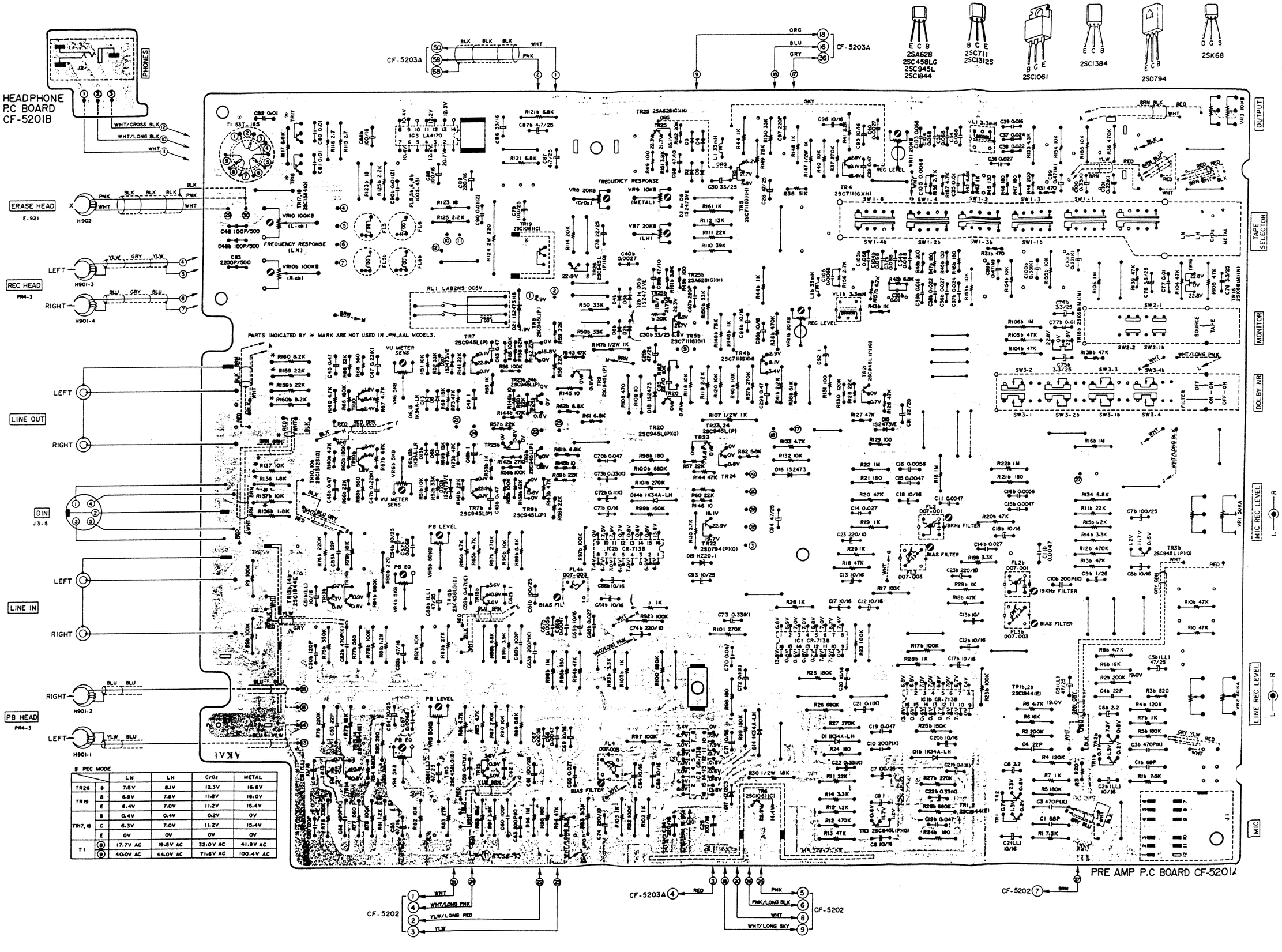


	F1	F2	F3	F4	F5
U/T,CEE,UK	T800mA	T1.25A	T1.25A	T630mA	T1A
AAL,CSA	800mA 125V	1.25A 125V	1.25A 125V	1A 125V	—
JPN	800mA 250V	1.25A 250V	1.25A 250V	1A 250V	—

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQU LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SECURITÉ DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

PRE AMP P.C BOARD CF-5201A (4ED) and HEAD PHONE P.C BOARD CF-5201B



		LN	LH	CrO2	METAL
TR26	B	7.5V	8.1V	12.3V	16.6V
TR19	B	6.9V	7.6V	11.8V	16.0V
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TR17, 18	B	0.4V	0.4V	0.2V	0V
	C	6.3V	7.0V	11.2V	15.4V
	E	0V	0V	0V	0V
T1	⑧	17.7V AC	19.5V AC	32.0V AC	41.9V AC
	⑨	40.0V AC	44.0V AC	71.6V AC	100.4V AC

$ REC MODE

METER P.C BOARD CF-5202