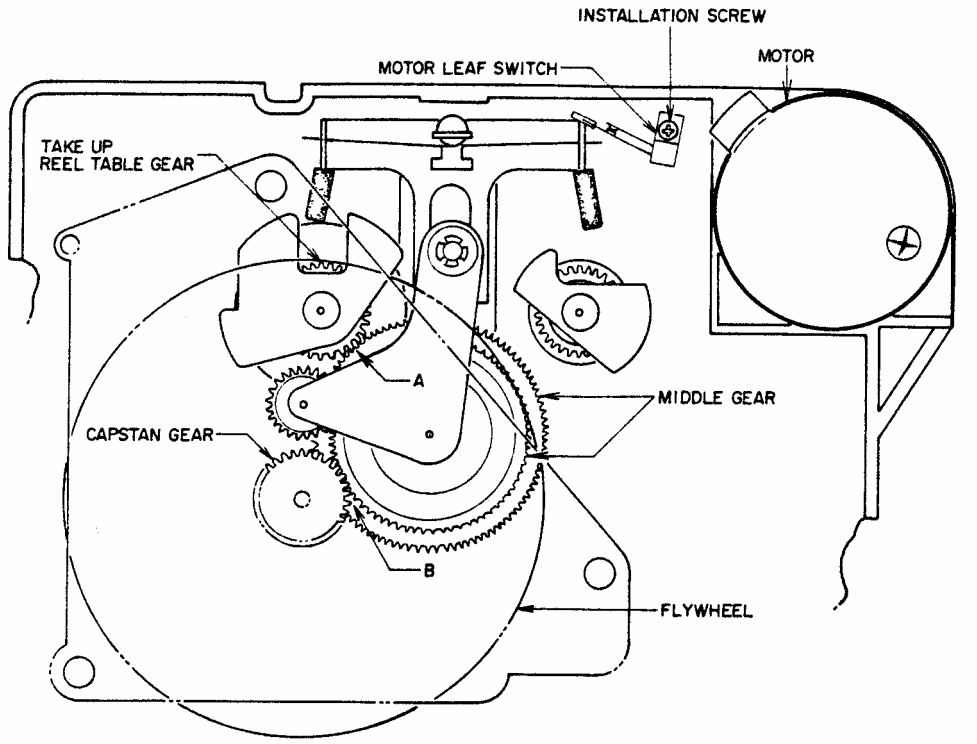


Fig. 17 Motor Leaf Switch Timing Adjustment

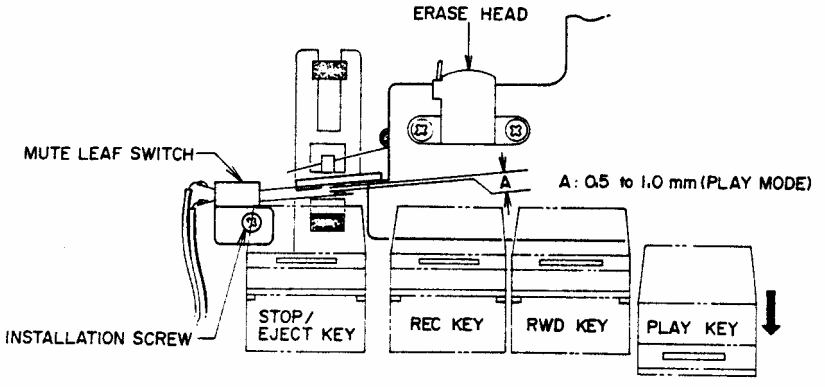


Fig. 18

1. MOTOR LEAF SWITCH TIMING ADJUSTMENT (Refer to Fig. 17)

The FF key has been depressed and when the capstan gear turns before points A and B gears are engaged, they screech because the middle gear which was engaged springs off. Adjust the timing of the motor revolutions to prevent this. Gently depress the FF key and adjust the installation position of the motor leaf switch until the motor's switch is activated after the points A and B gears have been engaged slightly.

2. MUTE LEAF SWITCH INSTALLATION POSITION ADJUSTMENT (Refer to Fig. 18)

When in the playback mode, the space A should be 0.5 to 1.0 mm as in Fig. 18. To adjust, turn the leaf switch installation screw.

Confirm the switch stays in the same position when the FF and PLAY or RWD and PLAY keys are depressed together.

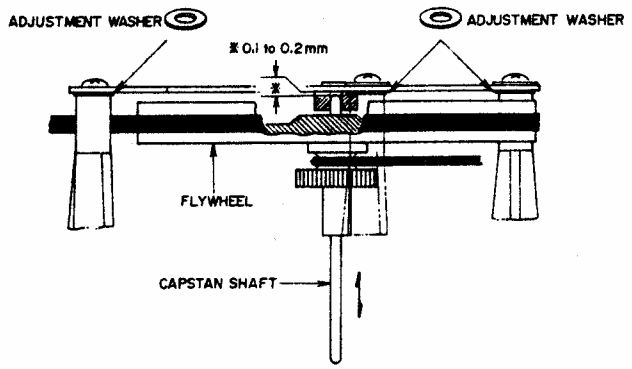


Fig. 19

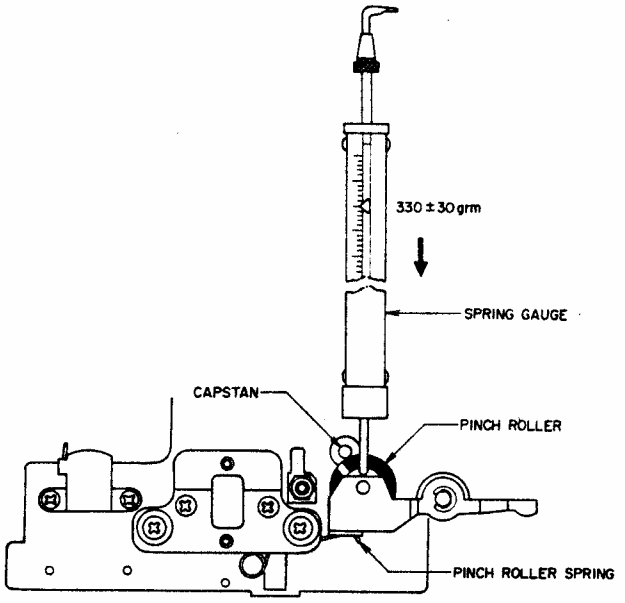


Fig. 20

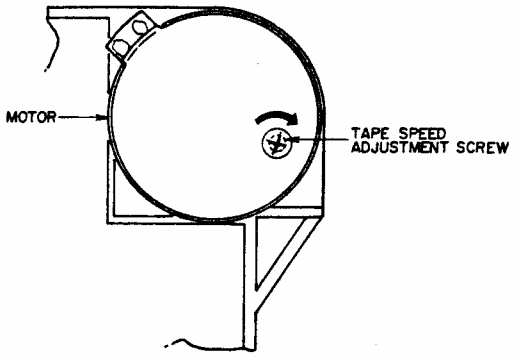


Fig. 21

3. FLYWHEEL LOOSE PLAY ADJUSTMENT (Refer to Fig. 19)

Insert the various washers in the three places between the prop and the flywheel hold plate and adjust to give 0.1 to 0.2 mm loose play when the flywheel is moved in the direction of the arrows.

4. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 20)

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 : 330 ± 30 grm

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

5. WINDING TORQUE MEASUREMENT IN EACH MODE

Insert cassette torque meter and measure in each mode.

For fast forward and rewind measure at the end of the tape when the tape has stopped running.

The specified torque is:

Playback : 35 to 60 g-cm

Fast Forward, Rewind : 80 to 120 g-cm

In case specified take-up torque cannot be attained.

Playback mode : Replace Take-up Reel Table Block.

Fast Forward of Rewind mode :

Replace Middle Gear Block.

6. TAPE SPEED ADJUSTMENT (Refer to Fig. 21)

Connect the frequency counter to the line output terminals. Playback a 1.000 Hz pre-recorded test tape and adjust tape speed adjustment screw to obtain a tape speed of 1,000 11z ± 1%.

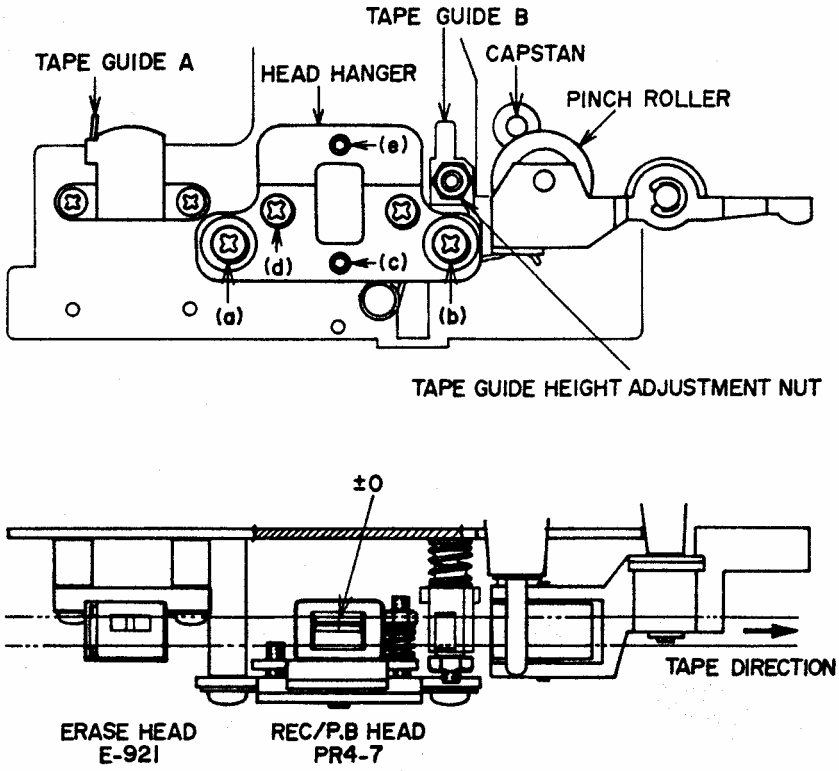


Fig. 22 Head Adjustment

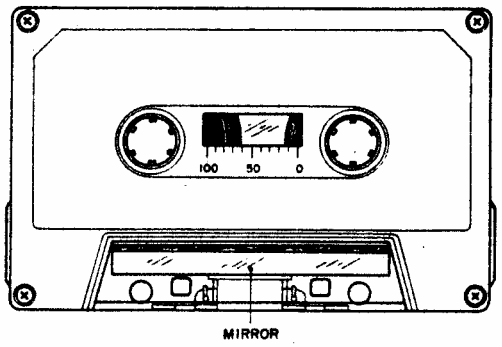


Fig. 23 Mirror Cassette

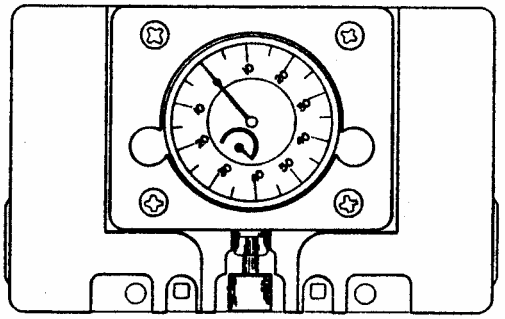


Fig. 24 AKAI Head Projection Gauge

1. TAPE GUIDE HEIGHT ADJUSTMENT
(Refer to Figs. 22, 23)

1) When using an ordinary cassette, the tape guides and heads, etc. are not visible. As shown in Fig. 23 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, using the tape guide (A) shown in Fig. 22 as standard for height, adjust tape guide (B) height with tape guide height adjustment nut so that the tape runs smoothly and does not catch on the tape guides.

2. REC/PB HEAD PROJECTION ADJUSTMENT

Set the AKAI Head Projection Gauge (Fig. 24) and adjust (a) and (b) screws (Fig. 22) so that it reads: 1.9 to 2.2 mm in the WLS Mode, 3.55 ± 0.1 mm in the Play Mode.

NOTE: Raise or lower by exactly the same amount the head hanger's left and right and adjust so that the head does not lean to the left or right.

3. RECORDING/PLAYBACK HEAD HEIGHT ADJUSTMENT (Refer to Figs. 22, 23)

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. 22, adjust head height with screws (c), (d) and (c) until the upper edge of the tape is the same height as the upper edge of the left channel REC/PB head core.
3) After completing adjustment step 2), playback the Head Height Adjustment tape (4 track, 1,000 Hz) and adjust Head Height Adjustment screws (c), (d), (e) to put the output power from both channels to maximum.

4. RECORDING/PLAYBACK HEAD AZIMUTH ALIGNMENT ADJUSTMENT (Refer to Fig. 22)

1) Playback a 10 kHz pre-recorded cassette azimuth alignment test tape and adjust screw (d) shown in Fig. 22 to obtain maximum output on both channels.
2) Invert cassette and confirm that the output level does not change from that obtained in Item 4-1) above. If the output level differs, adjust in the same way as in Item 4-1) above until both sides of the test tape display equal output.
3) After adjustment, better to check again head height and azimuth alignment.

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. 24 is required, it can be ordered from AKAI Electric Co.

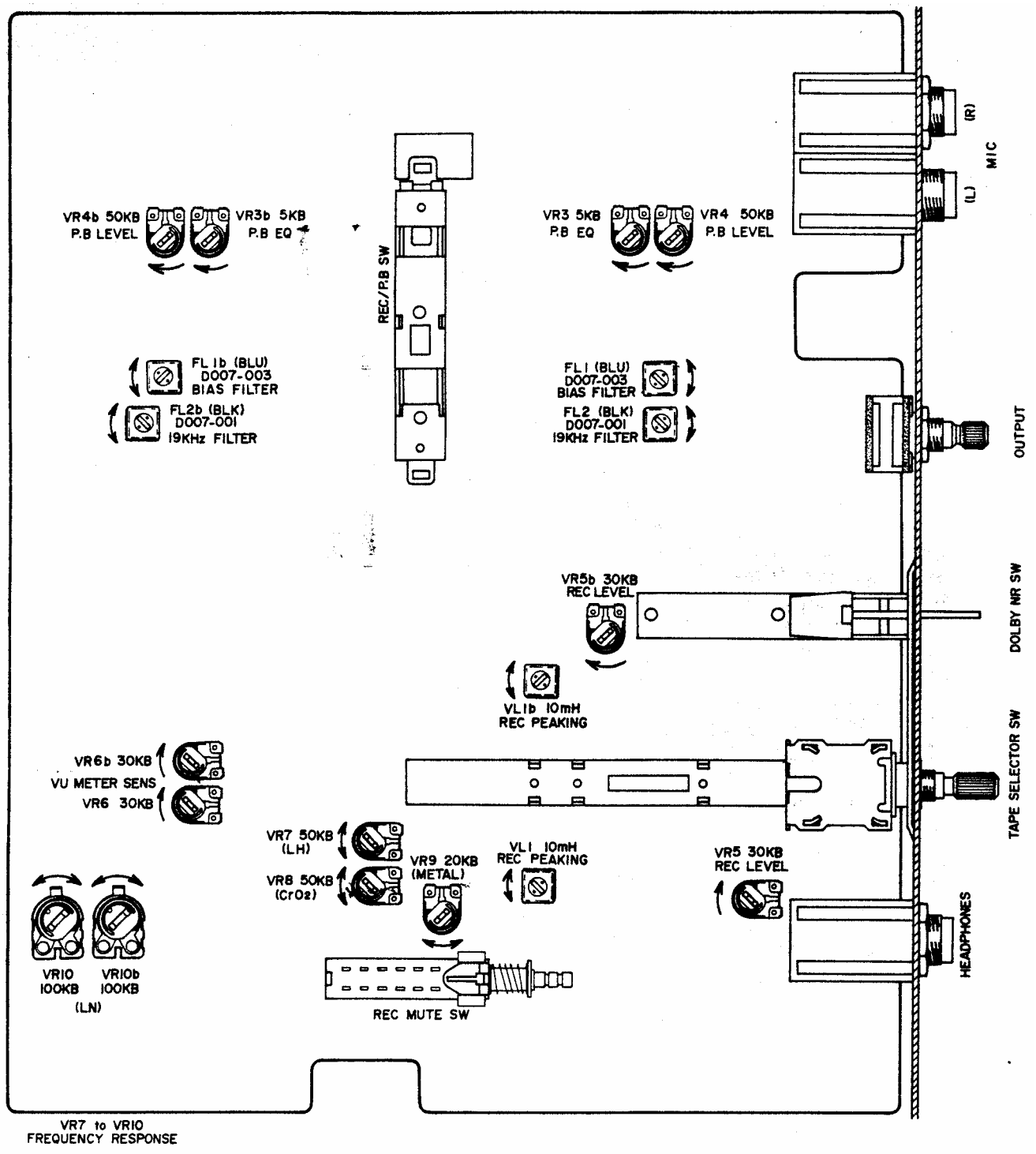


Fig. 25 Pre Amp P.C Board CE-5201A

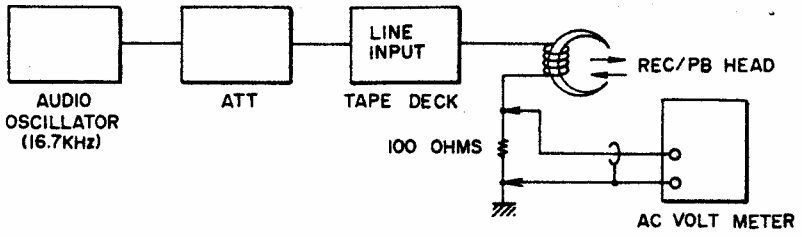
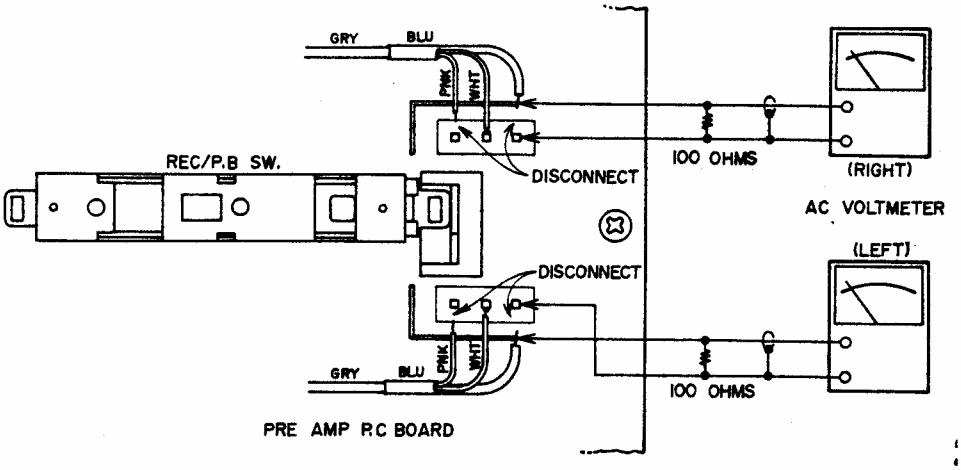


Fig. 26 Instruments Connection



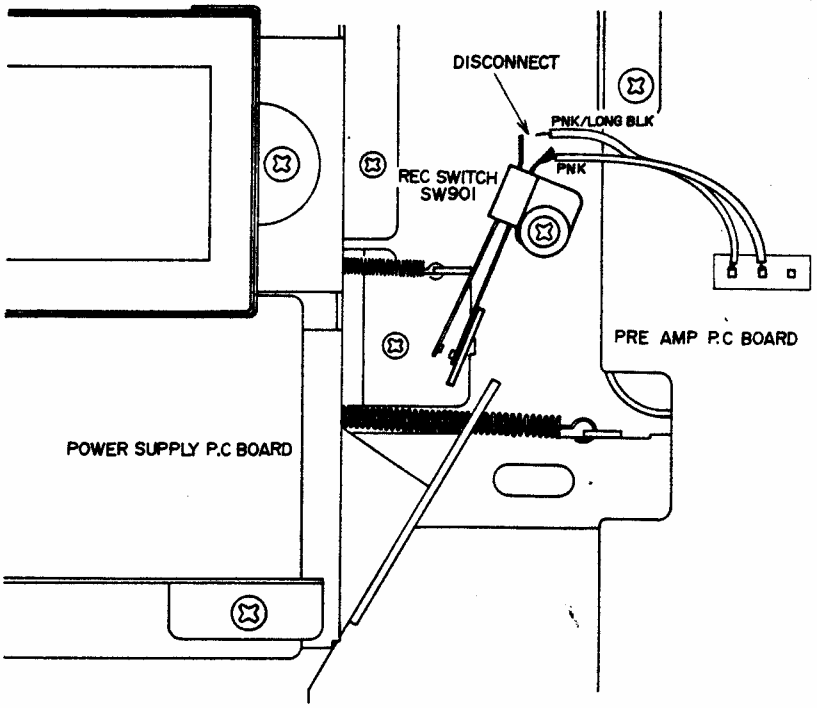


Fig. 27 Rec Peaking Adjustment

Step	Adjustment Item	Test Tape Supply Signal	Mode	Adjustment Point	Results	Remarks
1	Playback Level	333 Hz, 0 VU Test Tape	PB	VR4 50 kB	-5.5 ± 0.5 dBm (410 mV)	
2	Bar Meter Sensitivity	1,000 Hz -5,5 dBm from oscillator	REC	VR6 30 kB	0 VU indication	
3	Playback Equalizer	10 kHz Test Tape	PB	VR3 5 kB	-19.0 ± 0.5 dBm	
4	Rec Peaking adjustment	16.7 kHz -25.5 dBm from oscillator	REC	VL 1 10 mH	AC Voltmeter indicates to maximum	Tape selector to LN. See the Figs. 25, 26, 27. NOTES 7, 10
5	LN Position Frequency Response	Low Noise Blank tape. 1,000 Hz 10,000 Hz - 25.5 dBm recording	RECIPB	VR 10 100 kB	1,000 Hz to 10,000 Hz flat	
6	W Position Frequency Response	LH Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR 7 50 kB	1,000 Hz to 10,000 Hz flat	Set tape selector to LH Position
7	$Cr0_2$ Position Frequency Response	CrO2 Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR 8 50 kB	1,000 Hz to 10,000 Hz flat	Set tape selector to Cr02 Position
8	Metal Position Frequency Response	Metal Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording	REC/PB	VR 9 20 kB	1.000 Hz to 10,000 Hz flat	Set tape selector to Metal Position
9	Recording Level	LN Blank tape 1,000 Hz -5.5 dBm recording	REC/PB	VR 5 30 kB	-5.5 ± 0.5 dBm	Set the Mic Volume to Minimum
10	Distortion Factor Confirmation	1,000 Hz -5.5 dBm recording	REC/PB		LN < 0.8% W < 0.8% CrO2 < 0,7% Metal < 0.6%	NOTE 8
11	Bias Filter	No signal input	REC	FL 1 D07-003	AC Voltmeter indicates to minimum	Set tape selector to Metal Position Set REC Volume to Maximum. NOTE 10
12	19 kHz Filter adjustment	19 kHz from oscillator	REC	FL 2 D07-001	AC Voltmeter indicates to minimum	Set Dolby NR Switch to ON, filter ON Position. NOTES 9, 10

Chart-3

NOTES:
1. The Output Level Control should be at maximum.
2. Input selector switch to LINE. (The JPN, AAL Models do not have this facility.)
3. Because each of these adjustments is vital to perfect Dolby NR circuit operation, ensure that they are carried out with as few errors as possible.
4. Except for Step 6 thru 8 and 10, set Tape Selector to LN Position.
5. Except for Step 12, set Dolby NR switch to OFF Position.
6. Use the following cassette measuring tapes:
   LN tape TDK LN2 C-60
   LH tape Maxell UD C-60
   $Cr0_2$ tape : TDK SA C-60
   Metal tape : TDK MA-C C-60
7. Stop the recording bias oscillator while making record peaking adjustment (Refer to Fig. 27).
8. If it does not comply with the specifications, repeat Steps 5 to 9 and readjust.
9. Adjust the oscillator's frequency to give a frequency counter reading of 19.00 kHz.
10. Unless the core is moved unintentionally this adjustment is not necessary.

GX-M10

JPN, AAL MODEL

PRE AMP P.C BOARD CE-5201A

METER P.C BOARD CE-5209

SYSTEM CONTROL P.C BOARD CE-5206A

PROGRAM LED P.C BOARD CE-5206B

VOLUME P.C BOARD 1/2 CE-5201C

VOLUME P.C BOARD 2/2 CE-5201C

2SA733
2SC945L
2SC1844
2SC2274K

2SC1312S

2SK68

2SD571

2SD794

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 SECURITÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

CSA, AAL POWER SUPPLY P.C BOARD CE-5204

JPN POWER SUPPLY P.C BOARD CE-5205

UK CEE SAA POWER SUPPLY P.C BOARD CE-5203

U/T POWER SUPPLY P.C BOARD CE-5202

LAMP P.C BOARD CE-1078

S	U/T JPN	CSA AAL	CEE, SAA UK
F1	250mA 250V	250mA 125V	1200mA
F2	800mA 250V	800mA 125V	1500mA
F3	1.25A 250V	1.25V	1630mA

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (Ω, KΩ, MΩ)
ALL CAPACITORS IN μF, 50V(U.)
(FS)= FAIL SAFE RESISTOR
(L,L)=LOW LEAKAGE CAPACITORS
⊣⊢ MARK INDICATES NON POLAR CAPACITORS
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

GX-M10
SCHEMATIC DIAGRAM
NO. 1582252A