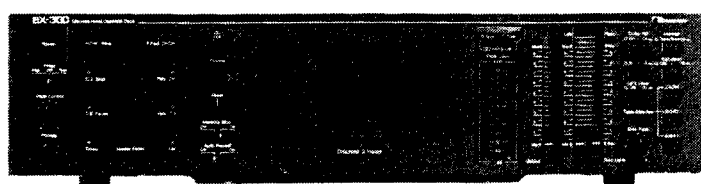




Service Manual

Nakamichi BX-300 BX-300E

Discrete Head Cassette Deck



CONTENTS

1.	General	2
2.	Test Tapes and Gauges	2
3.	Mechanical Adjustment	3
3. 1.	Record Head and Playback Head Tilt Adjustment	3
3. 2.	Head Base Stroke Check	3
3. 3.	Erase Head Stroke Adjustment and Tape Guide Height Check	3
3. 4.	Erase Head Height and Tilt Adjustment	4
3. 5.	Playback Head and Record Head Height Adjustment and Azimuth Alignment	4
3. 6.	Pressure Adjustment of Take-up Pressure Roller	5
3. 7.	Tape Travelling Check	5
3. 8.	Eject Damper Adjustment	5
3. 9.	Reel Motor Speed Adjustment in Play Mode	5
3. 10.	Tape Speed Adjustment	5
3. 11.	Lubrication	5
4.	Parts Location for Electrical Adjustment	6
5.	Electrical Adjustments	7
5. 1.	Adjustment Instructions	7
5. 2.	Playback Frequency Response	9
6.	Mechanism Ass'y and Parts List	10
6. 1.	Synthesis	10
6. 2.	Front Panel Ass'y (A01)	11
6. 3.	Synthesis Mechanism Ass'y (A02)	11
6. 4.	Front Chassis Ass'y (B01)	12
6. 5.	Cover Plate Ass'y (B02)	13
6. 6.	Mechanism Ass'y (B03)	14
6. 7.	Rear Panel Ass'y (B04)	15
7.	Mounting Diagrams and Parts List	15
7. 1.	Power Switch P.C.B. Ass'y	15
7. 2.	Shut-off P.C.B. Ass'y	15
7. 3.	Fuse P.C.B. Ass'y	16
7. 4.	Volume P.C.B. Ass'y	16
7. 5.	Input Amp. P.C.B. Ass'y	17
7. 6.	Meter Amp. P.C.B. Ass'y	17
7. 7.	Dolby NR Switch P.C.B. Ass'y	17
7. 8.	Control Switch P.C.B. Ass'y	18
7. 9.	Counter P.C.B. Ass'y	18
7. 10.	Tape Switch P.C.B. Ass'y	18
7. 11.	Main P.C.B. Ass'y	19
8.	Schematic Diagrams	23
8. 1.	IC Block Diagrams	23
8. 2.	Schematic Diagrams	24
9.	Timing Chart and Eq. Amp. Frequency Response	26
9. 1.	Timing Chart	26
9. 2.	Eq. Amp. Frequency Response	26
10.	Wiring Diagram	27
11.	Block Diagrams	28
11. 1.	Amplifier Section	28
11. 2.	Mechanism Control Section	29
12.	Specifications	30

1. GENERAL

1.1. Voltage Selector

Voltage selector is installed on the rear panel for Other version of the Nakamichi BX-300. This voltage selector can select either 120 V or 220—240 V at customer's disposal.

1.2. Packing Materials and Owner's Manual

<u>Part No.</u>	<u>Description</u>	<u>Q'ty</u>
0F03812A	Carton Box BX-300 (U.S.A., Canada, Australia & Others)	1
0F03821A	Carton Box BX-300 (Japan)	1
0F03813A	Carton Box BX-300E	1
0F03674C	Packing	2
DA03800A	Extension Cord	1
0D04450A	Owner's Manual BX-300 (U.S.A., Canada & Australia)	1
0D04451A	Owner's Manual BX-300 (Japan)	1
DA03801A	Owner's Manual BX-300E & BX-300 (Others)	1

2. TEST TAPES AND GAUGES

- (1) 400 Hz Level Tape (DA09005B)
- (2) 1 kHz Track Alignment B Tape (DA09087B)
- (3) 10 kHz PB Frequency Response Tape (DA09003B)
- (4) 15 kHz PB Frequency Response Tape (DA09002B)
- (5) 20 kHz PB Frequency Response Tape (DA09001B)
- (6) 15 kHz Azimuth Tape (DA09004B)
- (7) 3 kHz Speed and Wow/Flutter Tape (DA09006C)
- (8) Tape Travelling Cassette (DA09071A)
- (9) Reference EXII Tape (DA09066B)
- (10) Reference SX Tape (DA09025B)
- (11) Reference SX-E Tape (DA09086A)
- (12) Reference ZX Tape (DA09037B)
- (13) EH Tilt Check Gauge S (DA09088A)
- (14) Stroke Check Gauge S (DA09090A)
- (15) Tape Guide Height Check Gauge S (DA09091A)
- (16) Tilt Check Gauge S (DA09039B)

3. MECHANICAL ADJUSTMENT

3.1. Record Head and Playback Head Tilt Adjustment

Remove the Cover Plate Ass'y by loosening two screws. Refer to Fig. 3.1.

- (1) Remove the pad lifter from the playback head.
- (2) Load a Tilt Check Gauge S in the cassette deck.
- (3) Clip the grounding terminal of the Tilt Check Gauge with one end of the cord with clip, and the chassis of the cassette deck with the other end.
- (4) Remove both of the Height Gears.
- (5) Set the cassette deck in Play mode. Check to insure whether the Beacons Playback Head "Upper" or "Lower" and Record Head "Upper" or "Lower" are illuminating. In order not to give damages onto the head surfaces, push both of slide knobs of the Gauge to away from the heads, then return them to the original place to be in contact with record head and playback head surfaces after Play mode is securely locked.
- (6) Beacon Playback Head "Lower" will light on when height adjustment screw (PH) turned counterclockwise but Playback Head "Upper" when clockwise. Adjust so that both "Upper" and "Lower" will light on even when you move the slide knob away from the heads and then return it to the original place.
- (7) Same procedures will apply to the Beacons Record Head "Upper" and "Lower", except for the height adjustment screw (RH).
- (8) Set the cassette deck in Stop mode and fit both of the serrated Height Gears. Then set the cassette deck again in Play mode and insure all of the 4 Beacons are illuminating. If not, (4) through (7) will have to be repeated till satisfactory results are obtained.
- (9) Mount the pad lifter on the playback head.

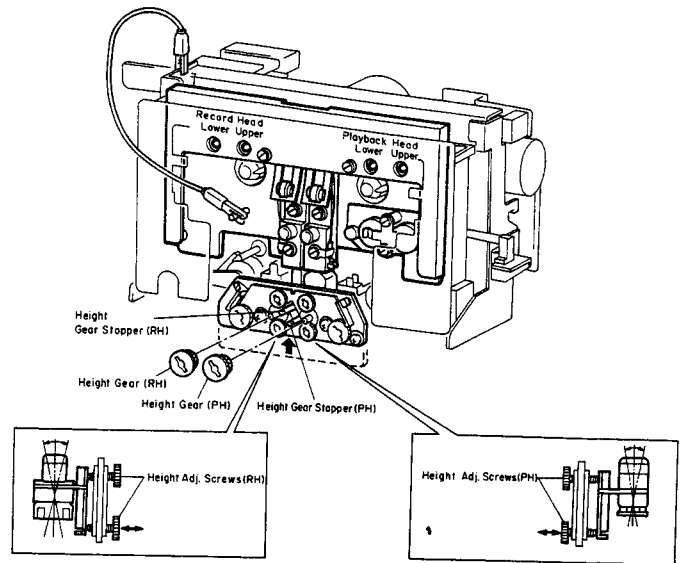


Fig. 3.1

3.2. Head Base Stroke Check

Remove the Cover Plate Ass'y.

Refer to Fig. 3.2.

Note: Before you conduct this adjustment, adjust with a "Tilt Check Gauge S" to insure freedom from tilt on the playback head and record head.

- (1) Load a Stroke Check Gauge S in the cassette deck.
- (2) Move Record Head Indicator and Playback Head Indicator to the direction of arrow mark "A" with your finger tip and then set the cassette deck in Play mode. Then slowly release the Indicators and insure whether each of the Indicators is in contact with record and playback heads.
- (3) Check to insure whether the line "P" on the Playback Head Indicator meets the central line on the Indicator Plate.
- (4) Check to insure whether the line "P" on the Playback Head Indicator locates between the 2 lines on the Record Head Indicator, thus check can be made on record head stroke.

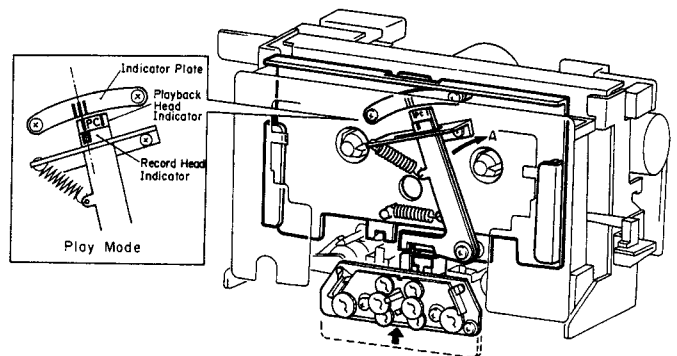


Fig. 3.2

3.3. Erase Head Stroke Adjustment and Tape Guide Height Check

Remove the Head Mount Base Ass'y and the Cover Plate Ass'y. Refer to Fig. 3.3.

- (1) Erase Head Stroke Adjustment
 - (a) Load a Tape Guide Height Check Gauge S in the cassette deck.
 - (b) Set the cassette deck in Play mode, thus check can be made on erase head stroke through the EH Stroke Indicator.
 - (c) Check to insure whether the erase head surface is aligned with red line on the EH Stroke Indicator. If not, adjust the erase head stroke by loosening screw A that assembles erase head with erase head plate.
 - (d) After completion of adjustment, screw A shall be locked with lock tight paint.
- (2) Supply Tape Guide Height Check
 - (a) Load a Tape Guide Height Check Gauge S in the cassette deck.
 - (b) Set the cassette deck in Play mode.
 - (c) Slide the Supply Tape Guide Check Bar down against the supply tape guide, and check to insure that the Supply Tape Guide Check Bar is accepted by the supply tape guide.
- (3) Take-up Tape Guide Height Check
 - (a) Load a Tape Guide Height Check Gauge S in the cassette deck.
 - (b) Set the cassette deck in Play mode.
 - (c) Slide the Take-up Tape Guide Check Bar down against the take-up tape guide, and check to insure that the Take-up Tape Guide Check Bar is accepted by the take-up tape guide.

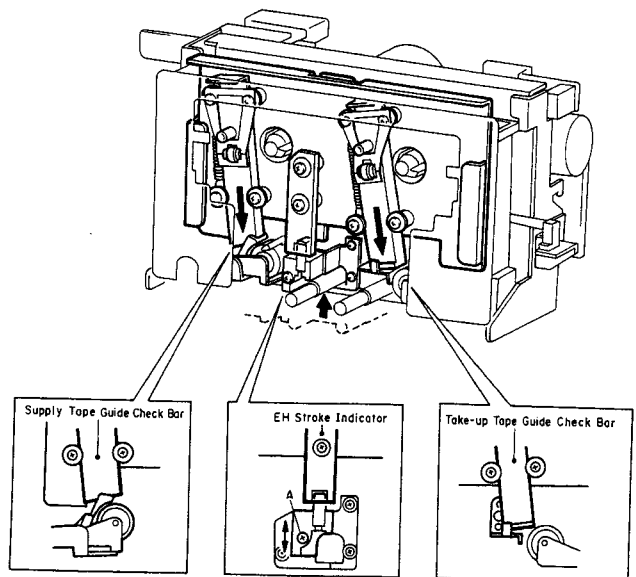


Fig. 3.3

3.4. Erase Head Height and Tilt Adjustment

Refer to Fig. 3.4.

- (1) Remove the Cassette Case Ass'y, Head Mount Base Ass'y and Cover Plate Ass'y.
- (2) Load an EH Tilt Check Gauge S in the cassette deck.
- (3) Set the cassette deck in Stop mode.
- (4) Check to insure whether one of the 3 Beacons is illuminating. Look down the mirror and slowly turn the Screw "Height" counterclockwise (or clockwise) so that the two horizontal lines on the mirror will become superposed on the line (in different color) of the erase head, and check to insure whether the first Beacon is illuminating.
- (5) Turn Screw "Tilt" counterclockwise (or clockwise) to light on the second Beacon. Excessive turning will cause the first

Beacon to light off. Adjustments of Screw "Tilt" will therefore be conducted till both of the first and the second Beacons illuminate.

- (6) Turn Screw "Azimuth" counterclockwise (or clockwise) to light on the third Beacon. Excessive turning will cause either the first or the second Beacon to light off, and therefore adjust Screw "Azimuth" until all of the 3 Beacons illuminate.
- (7) Check to insure whether the horizontal line on the mirror corresponds to that on the erase head. If not, (4) through (7) will have to be repeated till satisfactory results are obtained.
- (8) After completion of adjustment, 3 pcs. of screws shall be locked with lock tight paint.

Note: Before use of this gauge, check to insure freedom from dust or dirt, or overflow in the groove of the erase head surface.

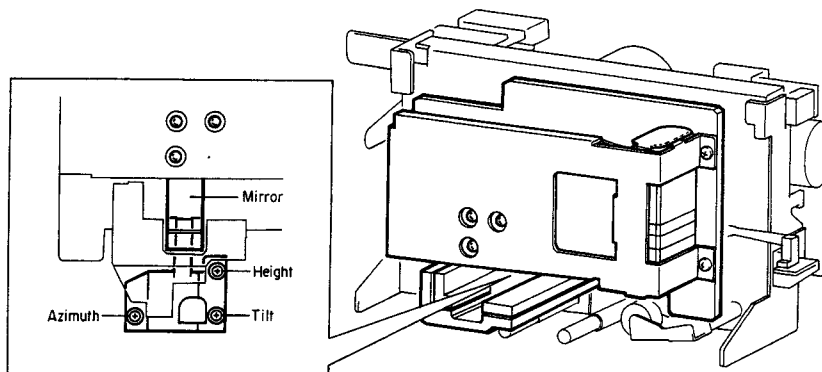


Fig. 3.4

3.5. Playback Head and Record Head Height Adjustment and Azimuth Alignment

Refer to Fig. 3.5.

- (1) Playback Head Height Adjustment and Azimuth Alignment
 - (a) Set the Monitor switch to Tape, then connect a VTVM to the Output Jacks.
 - (b) Load a 1 kHz Track Alignment Tape, then set the cassette deck in Play mode.
 - (c) Turn the PH Height Gear until the outputs of both channels become minimum.
 - (d) Load a 15 kHz Azimuth Tape, then set the cassette deck in Play mode.
 - (e) Turn the PH Azimuth Alignment Screw until the outputs of both channels become maximum.
 - (f) Repeat above steps (b) through (e) one or two times to obtain optimum performance.

(2) Record Head Height Adjustment and Azimuth Alignment

- (a) Set the cassette deck in Stop mode.
- (b) Set the Monitor switch to Tape, Eq. switch to 70 μ s and Tape Selector switch to ZX.
- (c) Load a reference ZX tape and connect a VTVM to Output Jacks.
- (d) Feed in 400 Hz (0 dB) to the Input Jacks.
- (e) Set the cassette deck in Record and Play mode and turn the RH Height Gear until the outputs of both channels become maximum.
- (f) Feed in 15 kHz (-20 dB) to the Input Jacks and turn the RH Azimuth Alignment Screw until the outputs of both channels become maximum.
- (g) Repeat (d) to (f) one or two times to obtain optimum performance.

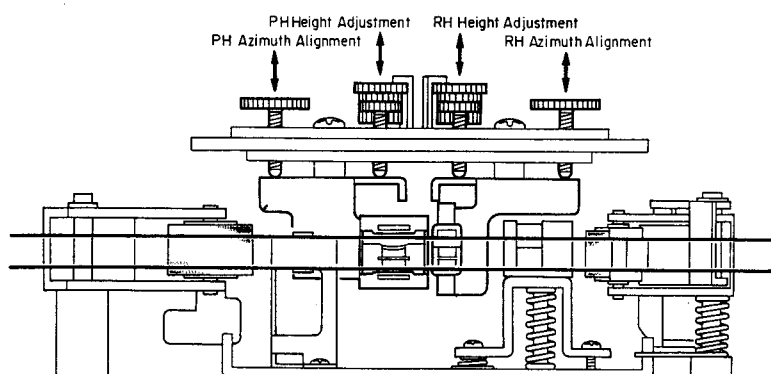


Fig. 3.5

3.6. Pressure Adjustment of Take-up Pressure Roller

Refer to Fig. 3.6.

- (1) Set the cassette deck in Play mode.
- (2) Measure the torque of the Take-up Pressure Roller and check whether the torque is in a range of 320 ± 50 g-cm.
- (3) If torque is out of the range, correct it by changing the installation point of the Pressure Roller Spring.

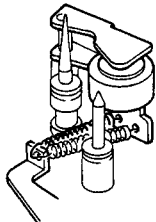


Fig. 3.6

3.7. Tape Travelling Check

Load and playback a Tape Travelling Cassette and check the following:

- (1) Tape is in contact with heads sufficiently.
- (2) Tape waving is small on the heads and pressure rollers.
- (3) Tape is free from waving or slippage from the tape guides.

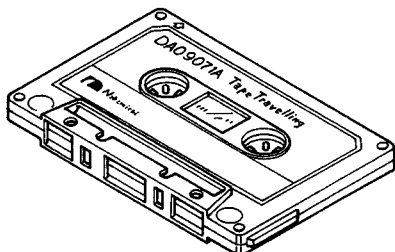


Fig. 3.7

3.8. Eject Damper Adjustment

Refer to Fig. 3.8. Load a cassette tape, and with opening the Cassette Case by pressing the Eject button and closing it by hand, adjust the speed of damper action by the Adjustment Screw.

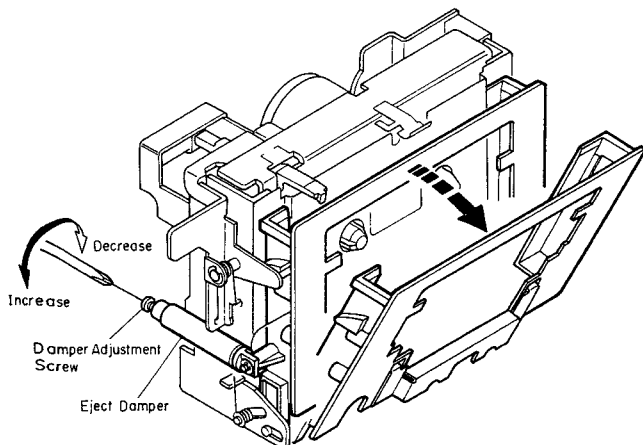


Fig. 3.8

3.9. Reel Motor Speed Adjustment in Play Mode

- (1) To warm-up the cassette deck, load a C-60 cassette tape and set the cassette deck in Play mode.
- (2) After more than four minutes, load a torque meter TW-211 (made by Sony) and set the cassette deck in Play mode.
- (3) Adjust VR601 on the Main P.C.B. Ass'y to obtain exactly 50 g-cm on the torque meter.

3.10. Tape Speed Adjustment

Refer to Fig. 3.9.

- (1) Set the Pitch Control Knob on the Front Panel to its mechanical center position.
- (2) Connect a frequency counter to the Output Jacks.
- (3) Load a 3 kHz Speed and Wow/Flutter Tape and play it back.
- (4) Adjust VR101 on the Motor P.C.B. Ass'y to obtain 3,000 Hz on the frequency counter.
CCW: Motor drives fast.
CW: Motor drives slowly.

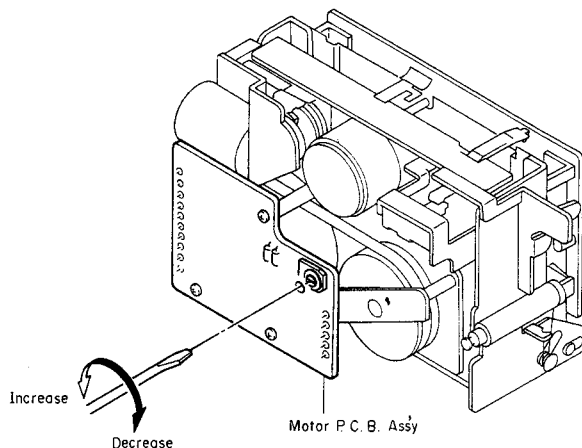


Fig. 3.9

3.11. Lubrication

The tape transport is of a lubrication-free type mechanism. When the following parts are replaced, apply the specified lubricant.

- (1) Molykote (R) Grease (X5-6020)
Cam Motor Pulley
Thrust portion on the Capstan Shaft
- (2) FLOIL GB-TS-1
Washer between Reel Hub Ass'y and Back Tension Spring
- (3) Diamond Oil (EP56)
Reel Hub Shaft
- (4) Anderol 456
Capstan Shaft

Note: We suggest that you use the above specified lubricant or equivalent type.

The company dealing in the above lubricant is as follows:

- (a) Molykote (R) Grease (X5-6020)
Dowcorning Co., Ltd., 1-15-1 Nishishinbashi, Minato-ku, Tokyo, Japan
- (b) FLOIL GB-TS-1
Kanto Chemicals Co., Ltd., 2-7 Kanda Sakuma-cho, Chiyoda-ku, Tokyo, Japan
- (c) Diamond Oil (EP-56)
Mitsubishi Oil Co., Ltd., 1-2-4 Toranomom, Minato-ku, Tokyo, Japan
- (d) Anderol 456
Toyo Kokusai Oil Co., Ltd., 3-3-5 Hatchobori, Chuo-ku, Tokyo, Japan

4. PARTS LOCATION FOR ELECTRICAL ADJUSTMENT

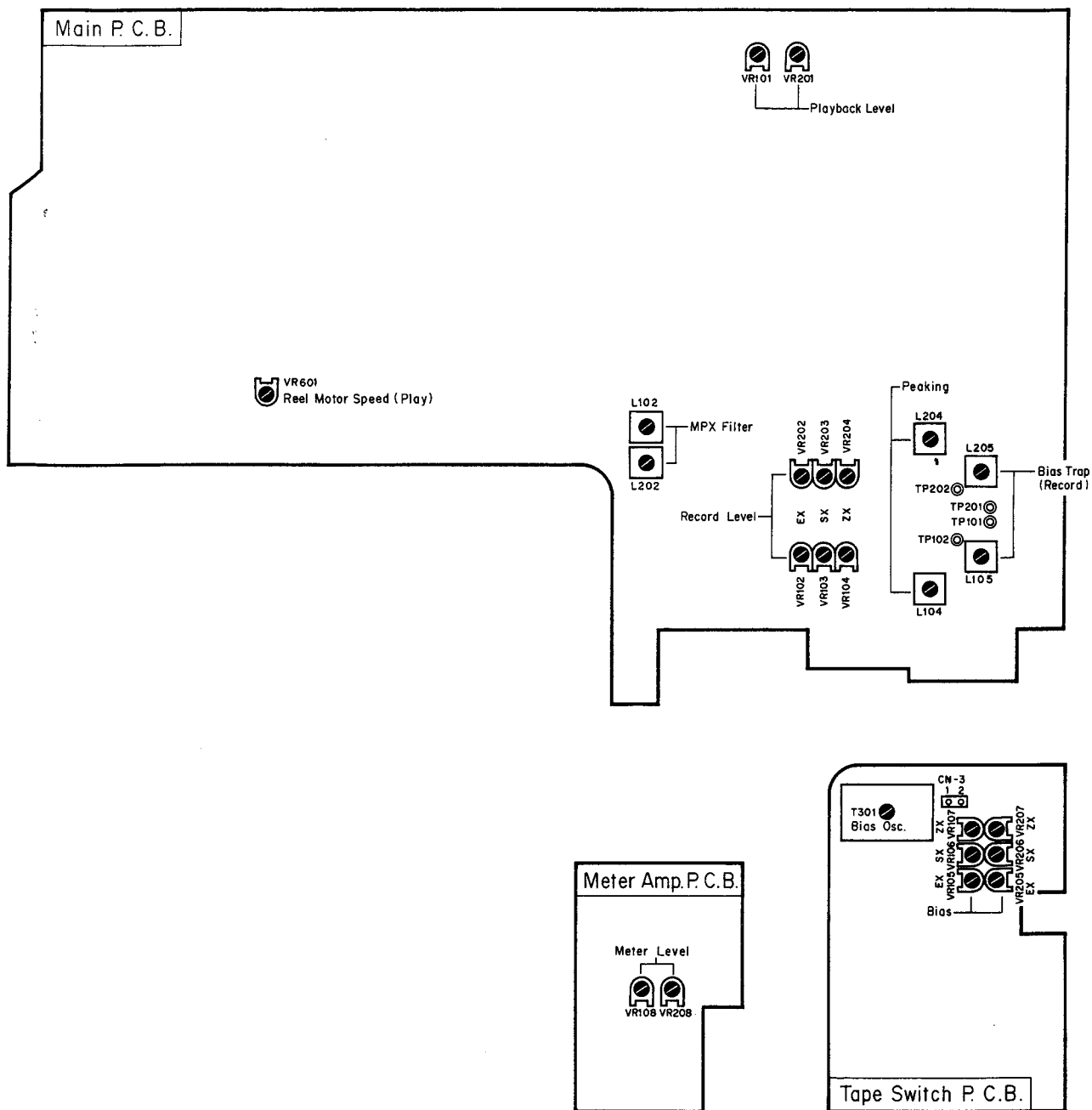


Fig. 4

5. ELECTRICAL ADJUSTMENTS

Notes: 1. Electrical adjustment should be performed after mechanical adjustment is completed.

2. Before adjustment, set the Bias Tune control and the Pitch control on the Front Panel to their mechanical center positions.

5.1. Adjustment Instructions

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
1	Tape Speed Adjustment	3 kHz Speed and Wow/Flutter Tape	Frequency Counter to Output Jacks	Playback Eq. SW — 70 μ s	Motor P.C.B. VR101	1. Set the Pitch Control to its mechanical center position. 2. Adjust VR101 to obtain 3 kHz $\pm$ 0.5% on the frequency counter.
2	Meter Level Calibration	400 Hz to Input Jacks	VTVM to Output Jacks	Monitor SW — Source	Meter Amp. P.C.B. VR108,VR208	1. Set the Output Level control to max. 2. Feed in 400 Hz, then adjust the Input Level controls to obtain 1.0 V —4 dB on the VTVM. 3. Adjust VR108 (VR208) so that the 0 dB segment of the level meter starts to illuminate. 4. Adjust the Input Level control to obtain 1.0 V +1 dB on the VTVM and check to insure that the upper segment of the 5. 0 dB segment starts to illuminate.
3	MPX Filter Adjustment	19 kHz $\pm$ 100 Hz to Input Jacks	VTVM to Output Jacks	Monitor SW — Source Dolby NR SW — OFF MPX SW — ON	Main P.C.B. L102,L202	1. Set the Output Level control to max. 2. Adjust the Input Level controls to obtain 1 V on the VTVM. 3. Set the MPX Filter switch to ON, then adjust L102 (L202) to obtain the minimum reading on the VTVM (the minimum reading will be less than —30 dB).
4	Playback Head Track Alignment	1 kHz Track Alignment B Tape	VTVM to Output Jacks	Playback Monitor SW — Tape Eq. SW — 70 μ s Dolby NR SW — OFF MPX SW — OFF	PH Height Gear	Adjust the PH Height Gear to obtain minimum readings for both channels on the VTVM. Refer to "Playback Head Height Adjustment and Azimuth Alignment" in item 3.5.
5	Playback Head Azimuth Alignment	15 kHz Azimuth Tape	VTVM to Output Jacks	Playback Monitor SW — Tape Eq. SW — 70 μ s Dolby NR SW — OFF MPX SW — OFF	Playback Head Azimuth Alignment Screw	Adjust the Playback Head Azimuth Alignment Screw to obtain maximum readings of both channels on the VTVM. Refer to "Playback Head Height Adjustment and Azimuth Alignment" in item 3.5. Note: Repeat steps 4 and 5 one or two times to obtain optimum performance.
6	Playback Level Calibration	400 Hz Level Tape	VTVM to Output Jacks	Same as above	Main P.C.B. VR101,VR201	1. Set the Output Level control to max. 2. Adjust VR101 (VR201) to obtain 1.0 V on the VTVM.
7	Playback Frequency Response Adjustment	400 Hz Level Tape 10 kHz PB Frequency Response Tape 15 kHz PB Frequency Response Tape 20 kHz PB Frequency Response Tape	VTVM to Output Jacks	Playback Monitor SW — Tape Tape SW — SX Eq. SW — 70 μ s Dolby NR SW — OFF MPX SW — OFF	Main P.C.B. R109,R209 R110,R210	1. Load a 400 Hz level tape and play it back. Adjust the Output Level control to a certain level (0 dB for example). 2. Load 10 kHz, 15 kHz and 20 kHz PB frequency response tapes and adjust the playback head azimuth to obtain maximum levels on the VTVM with each tape. Short R109 (R209) and/or R110 (R210) to obtain the following levels against the level for the 400 Hz level tape. 10 kHz: —20 dB —2 dB to +2 dB 15 kHz: —20 dB —2 dB to +3 dB 20 kHz: —20 dB —2 dB to +4 dB Refer to "Playback Frequency Response Adjustment" in item 5.2. 3. Conduct step 5 "Playback Head Azimuth Alignment".
8	Bias Oscillation Frequency and Erase Current Adjustment		VTVM across the additional 0.1 Ω resistor and Frequency Counter to CN3-1 on Tape Switch P.C.B.	Record, Pause Monitor SW — Source Tape SW — ZX Eq. SW — 70 μ s Dolby NR SW — OFF MPX SW — OFF	Tape Switch P.C.B. T301 R301,R302	1. Connect an additional 0.1 Ω resistor in series to the Erase Head, then connect a VTVM across the resistor. 2. Adjust T301 to obtain 105 kHz on the frequency counter. 3. Check the erase current by the VTVM. Erase current will be in a range of 310 mA to 400 mA (typically approx. 350 mA). If erase current is not sufficient, increase it by shoring either R301 or R302. 4. After completion of the erase current adjustment, re-check the bias oscillation frequency. 5. Remove the additional 0.1 Ω resistor.
9	Record Amplifier Equalizer Adjustment	23 kHz (—20 dB) to Input Jacks	VTVM to TP101, TP201 on Main P.C.B.	Same as above	Main P.C.B. L104,L204	1. Remove the bias-cut-jumper from the dip side of the Tape Switch P.C.B. Ass'y. 2. Adjust L104 (L204) to obtain approx. +16 dB at 23 kHz on the VTVM. 3. Re-solder the bias-cut-jumper.
10	Bias Trap Adjustment (Record Amp.)	Remove input signals	VTVM to TP102, TP202 on Main P.C.B.	Same as above	Main P.C.B. L105,L205	Adjust L105 (L205) to obtain minimum reading on the VTVM.

STEP	ITEM	SIGNAL SOURCE	OUTPUT CONNECTION	MODE	ADJUSTMENT	REMARKS
11	Record Head Height Adjustment	400 Hz (0 dB) to Input Jacks	VTVM to Output Jacks	Record, Playback Monitor SW — Tape Tape SW — ZX Eq. SW — 70 μ s Dolby NR SW — OFF MPX SW — OFF	RH Height Gear	Adjust the RH Height Gear to obtain maximum readings of both channels on the VTVM. Refer to "Record Head Height Adjustment and Azimuth Alignment" in item 3.5.
12	Record Head Azimuth Alignment	15 kHz (—20 dB) to Input Jacks	VTVM to Output Jacks	Same as above	Record Head Azimuth Alignment Screw	Adjust the Record Head Azimuth Alignment Screw to obtain maximum readings of both channels on the VTVM. Refer to "Record Head Height Adjustment and Azimuth Alignment" in item 3.5. Note: Repeat steps 11 and 12 one or two times to obtain optimum performance.
13	Record Level Calibration and Recording Bias Current Adjustment	400 Hz and 15 kHz and 10 kHz/20 kHz (—20 dB) to Input Jacks	VTVM and Distortion Meter to Output Jacks	Record, Playback Tone — 400 Hz/ 15 kHz Monitor SW — Source/ Tape Tape SW — ZX/SX/ EX Eq. SW — 70 μ s (ZX/SX) 120 μ s (EX) Dolby NR SW — C-Type/B-Type/ OFF MPX SW — OFF	Main P.C.B. (Level) ZX: VR104,VR204 SX: VR103,VR203 EX: VR102,VR202 Tape Switch P.C.B. (Bias) ZX: VR107,VR207 SX: VR106,VR206 EX: VR105,VR205	Adjustment should be made in the order of ZX, SX and EX. 1. Set the Monitor switch to Source and Dolby NR switch to C-Type. 2. Feed in 400 Hz, then set the Input Level controls to obtain 0 dB (1 V) on the VTVM. 3. Set the Monitor switch to Tape. 4. Load a reference ZX tape, reference SX or SX-E (for BX-300E) tape and reference EXII tape. 5. Adjust Record Cal. VR104 (VR204) for ZX, VR103 (VR203) for SX and VR102 (VR202) for EX to center position. 6. Feed in 400 Hz (0 dB), then record and play it back. Adjust Bias VR107 (VR207) for ZX, VR106 (VR206) for SX and VR105 (VR205) for EX to obtain the maximum readings on the VTVM. 7. Feed in 15 kHz (—20 dB), then adjust Bias VR107 (VR207), VR106 (VR206) and VR105 (VR205) to obtain the same readings as source monitor levels on the VTVM. 8. Feed in 400 Hz (0 dB), then adjust Record Cal. VR104 (VR204), VR103 (VR203) and VR102 (VR202) to obtain 0 dB on the VTVM. 9. Repeat above 7 and 8 two or three times to obtain optimum performance. 10. Set the Dolby NR switch to OFF. 11. Feed in 10 kHz (—20 dB) and 20 kHz (—20 dB), then record and play them back. Check to insure that the levels are within —20 dB $\pm$ 3 dB against the levels in Dolby NR C-Type. 12. Set the Dolby NR switch to B-Type. 13. Feed in 10 kHz (—20 dB) and 20 kHz (—20 dB), then record and play them back. Check to insure that the levels are within —20 dB $\pm$ 3 dB against the levels in Dolby NR OFF. 14. Check to insure whether the total harmonic distortion is less than 0.9% for ZX tape and 1.0% for SX/SX-E and EXII tapes. 15. If above is not sufficient, repeat 6 to 14 till satisfactory results are obtained.
14	Overall Frequency Response Adjustment	400 Hz (0 dB) and 20 Hz to 20 kHz (—20 dB) to Input Jacks	VTVM to Output Jacks	Record, Playback Monitor SW — Source/ Tape Tape SW — ZX/SX/EX Eq. SW — 70 μ s (ZX/SX) 120 μ s (EX) Dolby NR SW — OFF MPX SW — OFF	Main P.C.B. L104,L204	1. Set the Monitor switch to Source. 2. Feed in 400 Hz (0 dB) and adjust the Input Level controls to obtain 0 dB (1 V) on the VTVM. 3. Switch the Generator output level to —20 dB. 4. Set the Monitor switch to Tape, then record and play it back. 5. Feed in 20 Hz to 20 kHz (—20 dB), and check to insure whether the output levels are within —20 dB $\pm$ 3 dB. 6. If above is not sufficient, adjust L104 (L204) to obtain approx. —20 dB on the VTVM at 20 kHz. 7. Conduct step 13 "Record Level Calibration and Recording Bias Current Adjustment". 8. If above is not sufficient, precise re-adjustment of step 7 "Playback Frequency Response", replacement of Playback Head or Record Head, check on item 3.7 "Tape Travelling Check" will be required.

5.2. Playback Frequency Response Adjustment

Figs. 5.1 and 5.2 show the playback amp. circuit for adjustment and the playback equalization curve. This adjustment will be required if playback level is not sufficient during playing back a 20 kHz PB frequency response tape.

The peaking portion of the equalization curve compensates the gap loss of the playback head. Peaking level is varied by the short circuit of R109 (R209) and/or R110 (R210) on the Main P.C.B. Ass'y.

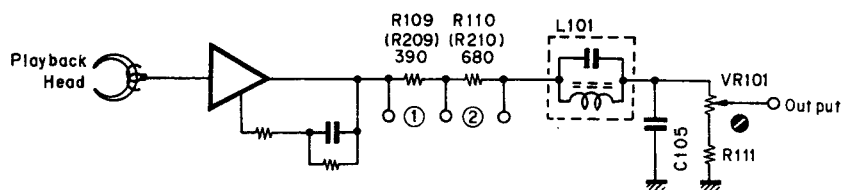


Fig. 5.1

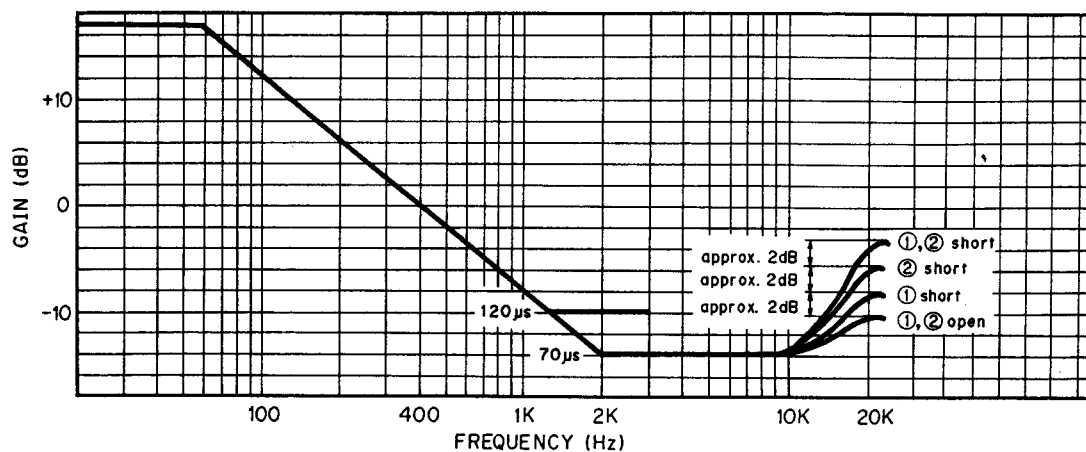


Fig. 5.2

6. MECHANISM ASS'Y AND PARTS LIST

6.1. Synthesis

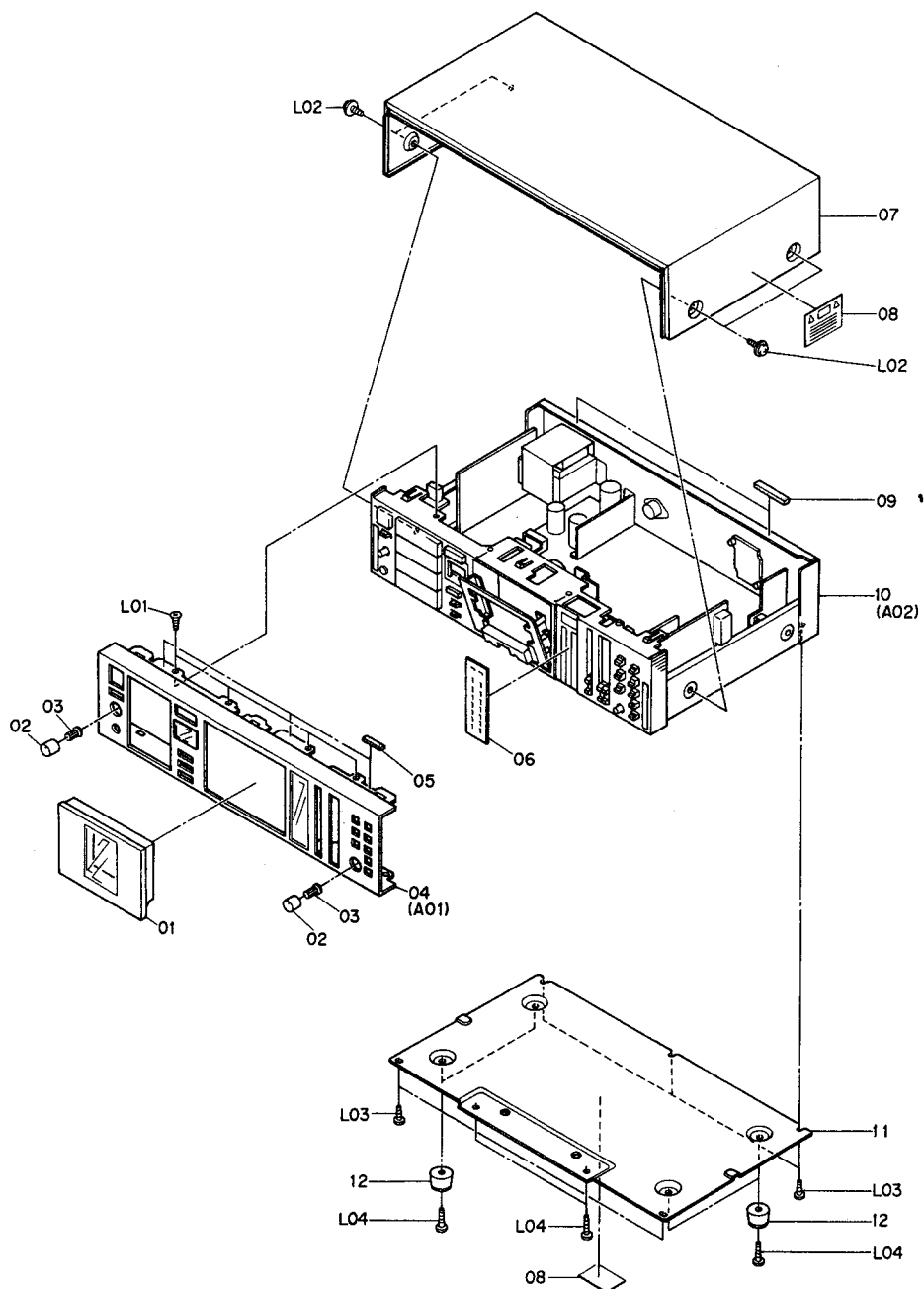


Fig. 6.1

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
01	HA04645A	Synthesis Serial No.: A12701001 -	1	05	QJ04628A	Top Cover Cushion (Front)	3
		06		OH04427A	Meter Scale	1	
		07		OH04156B	Top Cover	1	
		08		OM04377B	Caution Label	2	
		09		QJ04629A	Top Cover Cushion (Back)	2	
	HA04644A	Cassette Case Cover Ass'y BX-300 (U.S.A., Canada, Australia & Others) & BX-303E	1	10		Synthesis Mechanism Ass'y	1
		11		QJ04762A	Bottom Cover	1	
		12		QJ03564A	Leg TH	4	
		L01		OE03054A	BT 3x8 @ Countersunk	4	
		L02		OE03032A	BT 4x8 @ Pan Washer-faced	4	
02	OH04342A	Volume Knob	2	L03	OE00868A	BT 3x8 @ Binding	5
03	OH03737A	Volume Knob Base	2	L04	OE00865A	BT 3x10 @ Binding	4
04	HA04662A	Front Panel Ass'y BX-300E	1				
	HA04660A	Front Panel Ass'y BX-300 (U.S.A., Canada, Australia & Others)	1				
	HA04661A	Front Panel Ass'y BX-300 (Japan)	1				

6.2 Front Panel Ass'y (A01)

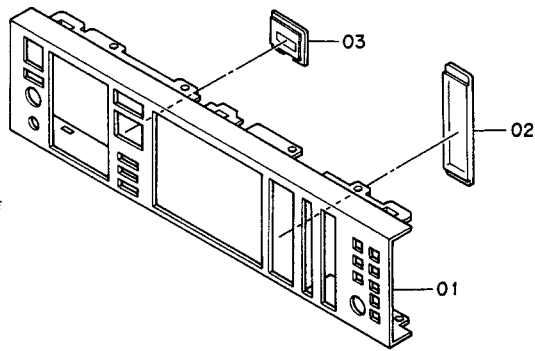


Fig. 6.2

Schematic Ref. No.	Part No.	Description	Qty
A01	HA04660A	Front Panel Ass'y BX-300 (U.S.A., Canada, Australia & Others)	1
	HA04661A	Front Panel Ass'y BX-300 (Japan)	1
	HA04662A	Front Panel Ass'y BX-300E Serial No.: A12701001 -	1
01	OH04420A	Front Panel BX-300 (U.S.A., Canada, Australia & Others)	1
	OH04447A	Front Panel BX-300 (Japan)	1
	OH04421A	Front Panel BX-300E	1
02	OH04251C	Meter Cover	1
03	OH04241A	Counter Cover	1

6.3 Synthesis Mechanism Ass'y (A02)

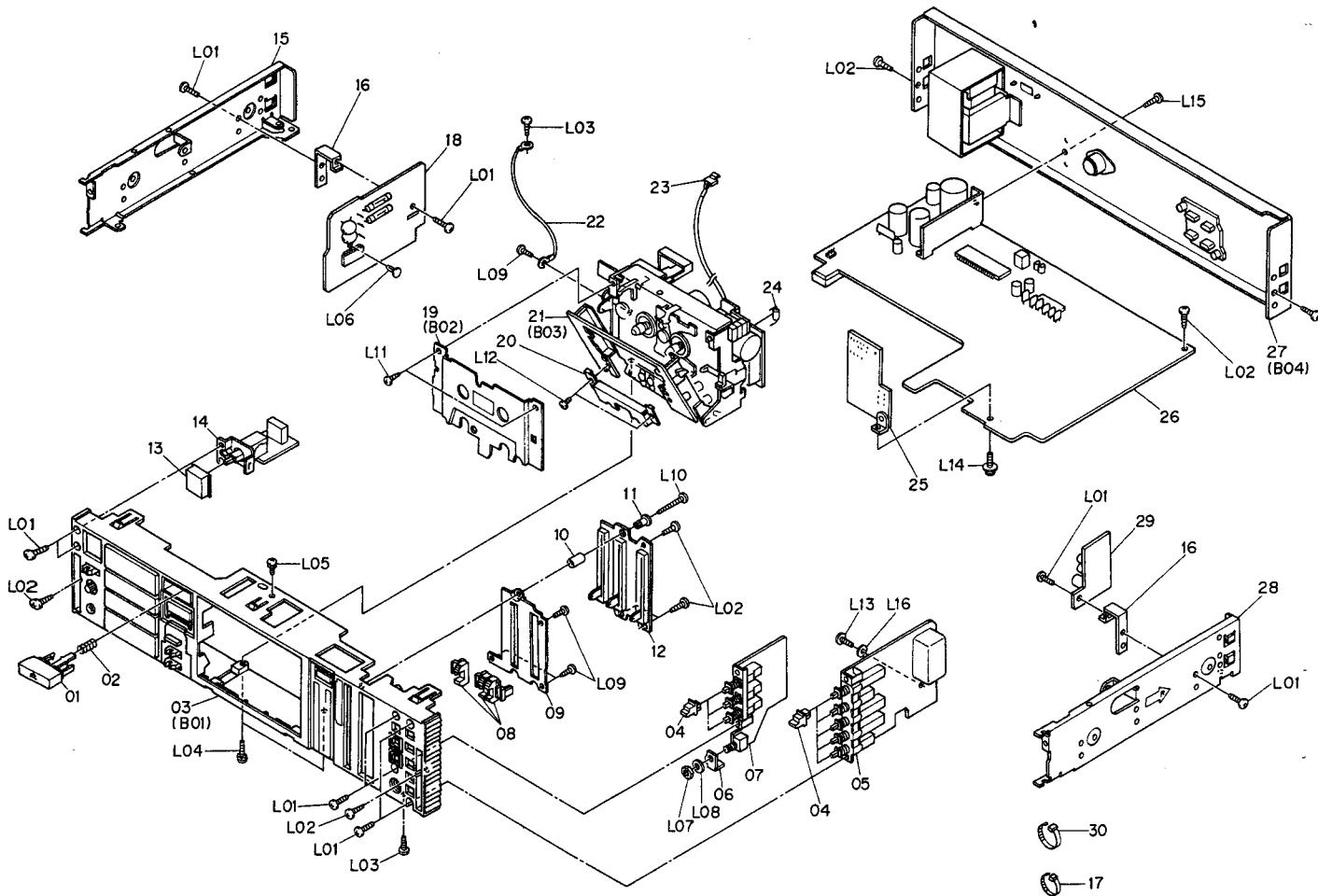


Fig. 6.3

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
A02	—	Synthesis Mechanism Ass'y Serial No.: A12701001 -		L13	OE03217A	BT 4x8 @ Binding	1
01	HA04570A	Eject Button Ass'y	1	L14	OE00607A	M3x8 @ Pan (3A)	1
02	OJ04765A	Spring	1	L15	OE00921A	BT 3x8 @ Binding (Black Chromate)	1
03	HA04632A	Front Chassis Ass'y	1	L16	OE03238A	Fiber Washer 4x10x1	1
04	OH04248A	Push Switch Button	8	Note 1: The old type Main P.C.B. Ass'y is not available as a spare part. If replacement is necessary, please order Input Amp. P.C.B. Ass'y (BA0-5499A) and P.C.B. Holder (OJ04839A) (for mounting Input Amp. P.C.B. Ass'y) together with the new type Main P.C.B. Ass'y (BA05353B/BA05353B-E).			
05	BA05366A	Tape Switch P.C.B. Ass'y	1				
06	OJ04768A	Earth Plate	1				
07	BA05365A	Dolby NR Switch P.C.B. Ass'y	1				
08	OH04247B	Slide Volume Knob	3				
09	OH04286B	Slide Volume Plate	1				
10	OJ04703A	P.C.B. Spacer A	1				
11	OJ04704A	P.C.B. Spacer B	1				
12	BA05392A	Volume P.C.B. Ass'y	1				
13	OH04243A	Power Switch Button	1				
14	BA05389A	Power Switch P.C.B. Ass'y BX-300 (Australia & Others) & BX-300E	1	B01	HA04632A	Front Chassis Ass'y Serial No.: A12701001 -	1
	BA05388A	Power Switch P.C.B. Ass'y BX-300 (U.S.A. & Canada)	1	01	HA04615A	Front Chassis Sub Ass'y	1
	BA05387A	Power Switch P.C.B. Ass'y BX-300 (Japan)	1	02	OB08511A	Headphone Jack	1
15	OJ04841A	Side Chassis (L)	1	03	OJ04611A	Headphone Plate	1
16	OJ04839A	P.C.B. Holder (Serial No.: A12702001 -)	2	04	BA05440A	Pitch Controller Ass'y	1
17	OB08515A	Insu-Lock	13	05	BA05390A	Control Switch P.C.B. Ass'y	1
18	BA05428A	Fuse P.C.B. Ass'y (Not including fuses)	1	06	OH04242A	Slide Switch Knob	3
19	HA04631A	Cover Plate Ass'y	1	07	BA05391A	Counter P.C.B. Ass'y	1
20	OH04415A	Head Mount Cover	1	08	BA05399A	Indicator Ass'y	1
21	CA08650A	Mechanism Ass'y	1	L01	OE00868A	BT 3x8 @ Binding	5
22	BA05400A	Earth Wire Ass'y	1	L02	OE00857A	BT 3x6 @ Binding	8
23	OB82311A	3P-H Connector	1				
24	OB09685A	Carbon Resistor 2.2K 1/6W J	1				
25	BA05361A	Meter Amp. P.C.B. Ass'y	1				
26	BA05353B	Main P.C.B. Ass'y BX-300 (Serial No.: A12702001 -)	1				
	BA05353B-E	Main P.C.B. Ass'y BX-300E (Serial No.: A12702001 -)	1				
	BA05353A	Main P.C.B. Ass'y BX-300 (Note 1) (Serial Nos.: A12701001 - 02000)	1				
	BA05353A-E	Main P.C.B. Ass'y BX-300E (Note 1) (Serial Nos.: A12701001 - 02000)	1				
27	HA04622A	Rear Panel Ass'y BX-300E (UK)	1				
	HA04623A	Rear Panel Ass'y BX-300 (U.S.A. & Canada)	1				
	HA04624A	Rear Panel Ass'y BX-300 (Japan)	1				
	HA04625A	Rear Panel Ass'y BX-300 (Others)	1				
	HA04626A	Rear Panel Ass'y BX-300 (Australia)	1				
	HA04627A	Rear Panel Ass'y BX-300E (220V Class 2)	1				
28	OJ04773A	Side Chassis (R)	1				
29	BA05499A	Input Amp. P.C.B. Ass'y (Serial No.: A12702001 -)	1				
30	OB90012A	Insu-Lock 140mm	3				
—	OB02240A	Fuse T1.25A BX-300E & BX-300 (Australia)	2				
—	OM04391A	Fuse Label T1.25A BX-300E & BX-300 (Australia)	1				
—	OB08349B	Fuse Clip BX-300E & BX-300 (Australia)	4				
—	OB08962A	Fuse 2.5A BX-300 (U.S.A., Canada & Others)	2				
—	OB08961A	Fuse 2.5A BX-300 (Japan)	2				
—	OM04595A	Fuse Caution BX-300 (U.S.A. & Canada)	1				
L01	OE00766A	M3x8 @ Binding	10				
L02	OE00868A	BT 3x8 @ Binding	8				
L03	OE00857A	BT 3x6 @ Binding	2				
L04	OE03074A	BT 2.6x8 @ Binding with Toothed-lock Washer	2				
L05	OE03212A	BT 2.6x6 @ Binding with Toothed-lock Washer	1				
L06	OB08583A	Plastic Rivet	1				
L07	—	Nut	(1)				
L08	—	Washer	(1)				
L09	OE03072A	M2.6x6 @ Binding	4				
L10	OE00835A	BT 3x25 @ Pan	1				
L11	OE00824A	BT 2.6x6 @ Pan (Black Chromate)	2				
L12	OE03202A	M2.6x3 @ Binding (Black Chromate)	2				

6.4. Front Chassis Ass'y (B01)

Fig. 6.4

6.4. Front Chassis Ass'y (B01)

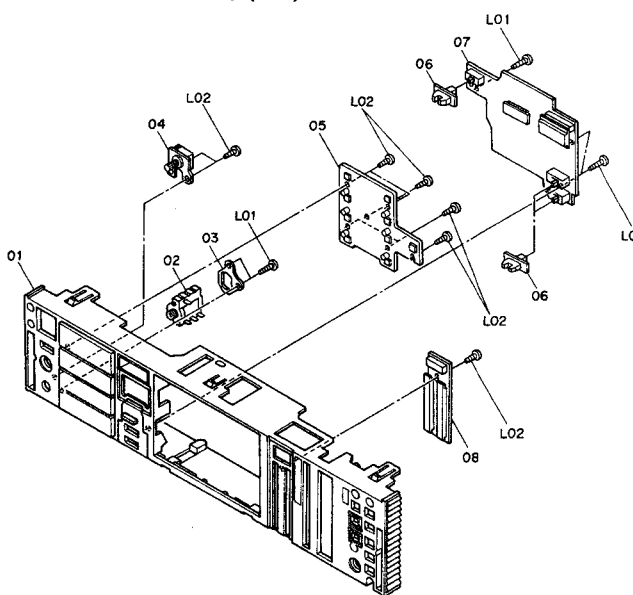


Fig. 6.4

6.5. Cover Plate Ass'y (B02)

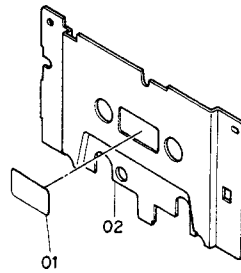


Fig. 6.5

Schematic Ref. No.	Part No.	Description	Q'ty	Schematic Ref. No.	Part No.	Description	Q'ty
B02	HA04631A	Cover Plate Ass'y Serial No.: A12701001 -	1	60	OC80017A	Record Protect Lever	1
01	OM04392A	Cassette Label Gold	1	61	OC80627A	Mechanism Chassis	1
02	OH04437B	Cover Plate	1	62	OC80022A	Cassette Hold Spring	1
B03	CA08650A	Mechanism Ass'y Serial No.: A12701001 -	1	63	CA80011A	Shut-off P.C.B. Ass'y	1
01	CA80206A	D.D. Motor Ass'y	1	64	OC80012A	Eject Sensor	1
02	OC80026A	Cam	1	65	CA80204A	Brake Ass'y	1
03	OC80028A	Control Motor Holder	1	66	OC80628B	Brake Spring B	1
04	CA80007A	Control Motor Ass'y	1	67	OC80630A	Brake Arm Collar	1
05	CA80200A	Cassette Case Ass'y	1	68	OC80629A	Brake Arm	1
06	OC08762A	Head Height Adjustment Gear	2	69	OC80030A	Reel Motor Holder	1
07	OC08761A	Head Height Adjustment Screw	4	70	CA80205A	Reel Motor Ass'y	1
08	OC08763A	Azimuth Alignment Screw	2	71	OC80631A	5P-H Connector	1
09	OC80605A	Wire Clamper	1	72	OC80632A	9P-H Connector	1
10	CA08637A	Head Mount Base Sub Ass'y	1	73	OC80037A	Insu-Lock	3
11	CA08659B	R-3L Record Head Ass'y	1	74	OC80635A	Idler Pulley	1
12	OC08776A	Head Plate Spring (L)	1		OC80634A	Capstan Belt	1
13	OC80606A	4P-H Connector	1	L01	OE03044A	FT 2.5x20 @ Pan	1
14	CA08658B	P2H-L Playback Head Ass'y	1	L02	OE00976A	M2x5 @ Pan	5
15	OC08775A	Head Plate Spring (R)	1	L03	OE00025A	Spring Washer 2mm	2
16	OC80607A	4P-H Connector	1	L04	OE00117A	Washer 2.2x4.3x0.4	5
17	OC80003A	Head Base Hold Plate	1	L05	OE00866A	M2.6x4 @ Binding	1
18	OC80004A	Steel Ball 3mm	1	L06	OC08774A	Plate Washer L	1
19	GA02201A	E-4F Erase Head	1	L07	OC08773A	Plate Washer R	1
20	OC80608A	2P-H Connector	1	L08	OE03228A	FT 3x4 @ Pan	1
21	OC08768A	E.H. Hold Plate	1	L09	OE03232A	M1.7x7 @ Pan	1
22	OC08889A	E.H. Hold Plate Tapering Spring	2	L10	OE03222A	Washer 1.8x3.8x0.3	1
23	OC08886A	E.H. Hold Plate Spring	1	L11	OE00691A	M2x3 @ Pan (Chromate)	2
24	OC08771A	Tape Guide Plate	1	L12	OE03234A	M2x3 @ Pan (Nickel)	2
25	CA08638A	Head Base Sub Ass'y	1	L13	OE00222A	E-Ring 2mm	2
26	OC80007A	Steel Ball 2mm	3	L14	OE03035A	TP 2x3.2 Truss	1
27	CA80005A	T. Pressure Roller Arm Ass'y	1	L15	OE03049A	Washer 1.8x3.2x0.5	2
28	OC80609A	T. Pressure Roller Arm Spring	1	L16	OE03226A	Washer 2.1x4.5x0.1	3
29	OC80027A	Mode Switch	1	L17	OE00224A	M2x3 Cup Point	1
30	OC80010A	Cassette Case Holder R	1	L18	OE03043A	FT 2.5x10 @ Pan	2
31	OC80610A	Cassette Case Spring	1	L19	OE03225A	Washer 1.8x3.2x0.5	1
32	CA80611A	Head Base Spring	1	L20	OE00181A	E-Ring 3mm	1
33	OC80201A	T. Reel Hub Ass'y	1	L21	OE03235A	Plastic Washer 2x5x0.25	2
34	OC80612A	Spring Holder	2	L22	OE03052A	CS Stopper Ring 2.4mm	1
35	OC80613A	T. Reel Hub Spring	1	L23	OE03229A	FT 2.5x6 @ Pan	13
36	CA80202A	S. Reel Hub Ass'y	1	L24	OE03236A	M2x5 @ Pan (2A)	4
37	OC80614A	S. Reel Hub Spring	1	L25	OE03227A	Washer 2.7x5x0.5	2
38	OC80615A	Pressure Roller Plate	1	L26	OE03231A	M2x30 @ Pan	2
39	CA80203A	S. Pressure Roller Arm Ass'y	1	L27	OE03041A	FT 2.5x4 @ Pan	2
40	OC80616A	S. Pressure Roller Arm Spring	1	L28	OE03237A	Nut Hex. M2.6	1
41	OC80013A	Lock Lever Spring	1	L29	OE03233A	Washer 2.6x8x1	1
42	OC80014A	Lock Lever Collar	1	L30	OE03230A	ST 2.6x12 @ Pan	1
43	OC80015A	Lock Lever	1	L31	OE03045A	M2.6x3 @ Binding	2
44	OC80617A	Back Tension Arm Spring	1	L32	OE00694A	Nut Hex. M2	1
45	OC80618A	Back Tension Arm Collar	1	L33	OE03245A	Mylar Washer 1.3x3.3x0.3	1
46	OC80619A	Back Tension Arm	1				
47	OC80620A	Back Tension Pulley	1				
48	OC80621A	Back Tension Belt	1				
49	OC80021A	Eject Lever	1				
50	OC80020A	Eject Lever Spring	1				
51	OC80011A	Eject Sensor Holder	1				
52	CA80006A	Pneumatic Damper Ass'y	1				
53	OC80019A	Eject Spring	1				
54	OC80018A	Cassette Case Holder L	1				
55	OC80622A	Switch Hold Plate	1				
56	OC80623A	Switch Plate	2				
57	OC80624A	Switch Collar A	2				
58	OC80626A	Leaf Switch	1				
59	OC80625A	Switch Collar B	2				

6.6. Mechanism Assy (B03)

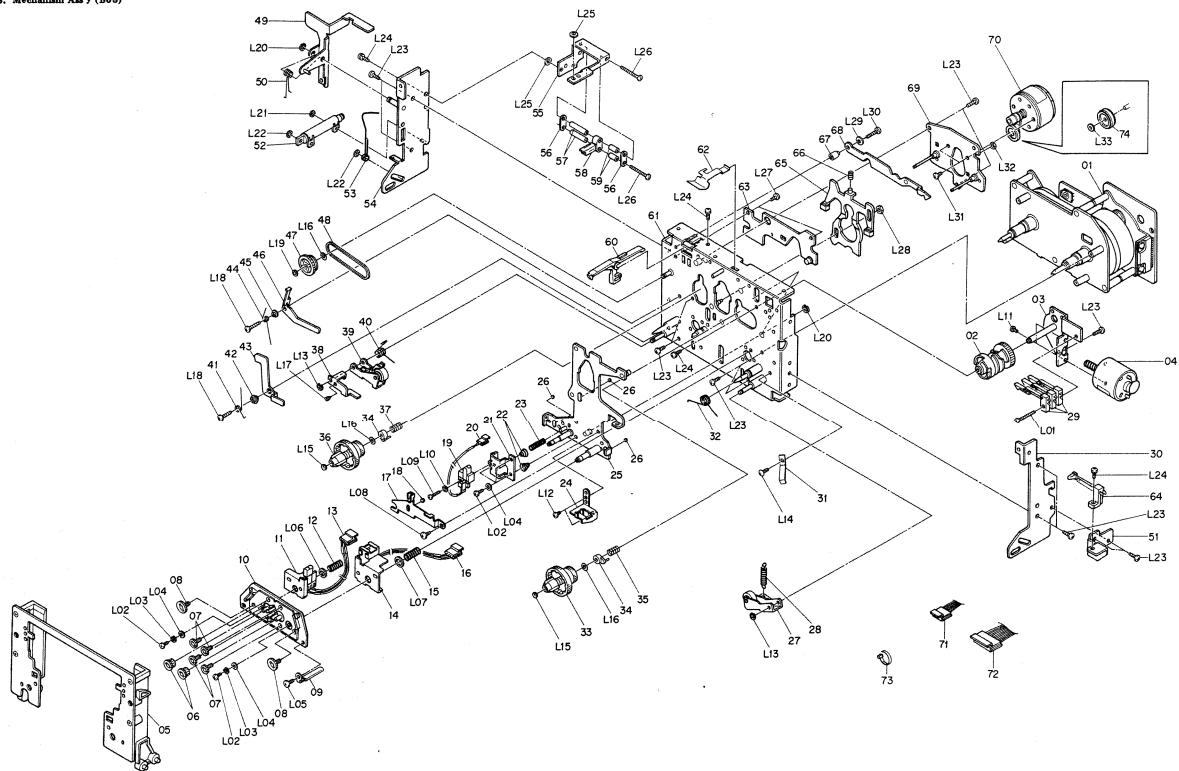


Fig. 6.6

6.7. Rear Panel Assy (B04)

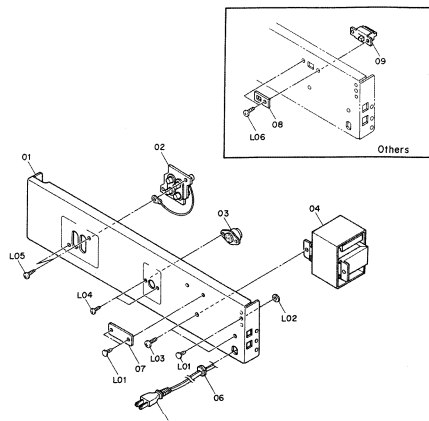


Fig. 6.7

7. MOUNTING DIAGRAMS AND PARTS LIST

Notes: 1. Mounting diagram shows a dip side view of the printed circuit board.

2. Diode is 1SS53, 1S1555, or 1SS176 unless otherwise specified.

3. Following transistors are interchangeable with each other.

a. 2SA733, 2SA608SP, 2SA1048, 2SA1175

b. 2SC945, 2SC536SP, 2SC2458, 2SC2785

4. Abbreviation for part name:

TR — Transistor, SiD — Silicon Diode, GD — Germanium Diode, ZD — Zener Diode

RK — Carbon Resistor, RM — Metal Film Resistor, RF — Fail Safe Type Resistor

CE — Electrolytic Capacitor, CM — Mylar Capacitor, CC — Ceramic Capacitor, CP — PP Capacitor,

CT — Tantalum Capacitor, CF — Film Capacitor, C — Mica Capacitor

7.1. Power Switch P.C.B. Assy

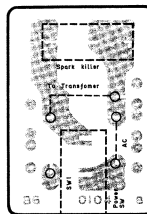


Fig. 7.1

7.2. Shut-off P.C.B. Assy

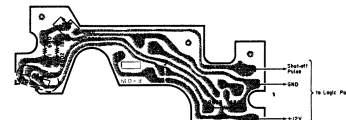
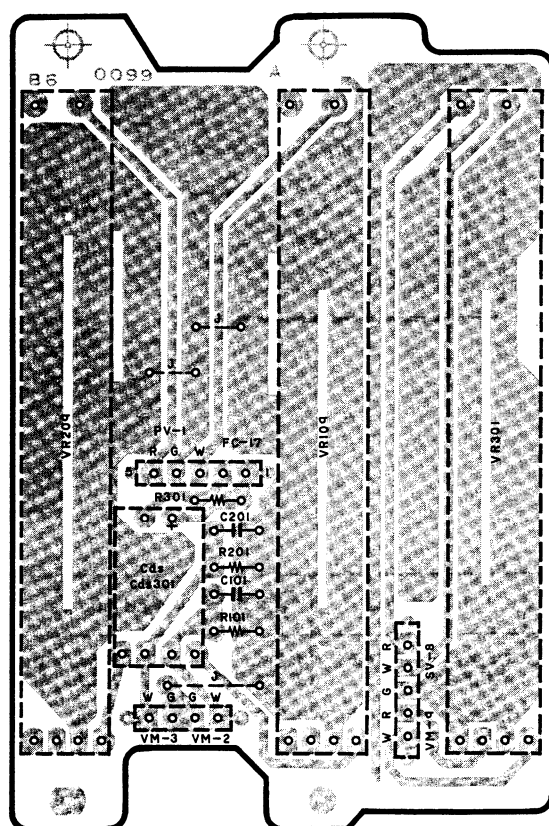


Fig. 7.2

Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty	Schematic Ref. No.	Part No.	Description	Qty								
B04	HA04622A	Rear Panel Assy BX-300E (UK)	1	07	QJ04601B	Switch Cover BX-300 (U.S.A., Canada, Japan & Australia) & BX-300E	1	BA05372B	P.C.B. Assy BX-300 (U.S.A., Canada & Others)	BA05371B-E	F.C.B. Assy BX-300E	BA05389A	Power Switch P.C.B. Assy BX-300 (Australia & Others)	BA05388A	Power Switch P.C.B. Assy BX-300 (U.S.A. & Canada)								
	HA04623A	Rear Panel Assy BX-300 (U.S.A. & Canada)	1		08	OM03948A	Voltage Lock Plate BX-300 (Others)		1		BA05373B		P.C.B. Assy BX-300 (Japan)		BA05389B-E	Set-A P.C.B. Assy BX-300E (consists of the following)	BA05387A	Power Switch P.C.B. Assy BX-300 (U.S.A. & Canada)					
	HA04624A	Rear Panel Assy BX-300 (Japan)	1		09	OB07092U	Voltage Selector BX-300 (Others)		1		BA05495B		P.C.B. Assy BX-300 (Australia)		BA05361A	Meter Amp. P.C.B. Assy	BA05387A	Power Switch P.C.B. Assy BX-300 (Japan)					
	HA04625A	Rear Panel Assy BX-300 (Others)	1		L01	OB08583A	Plastic Rivet		1		BA05374B		Set-A P.C.B. Assy BX-300 (consists of the following)		BA05366A	Tape Switch P.C.B. Assy	BA05387A	Power Switch P.C.B. Assy BX-300 (U.S.A. & Canada)					
	HA04626A	Rear Panel Assy BX-300 (Australia)	1		L02	OE00637A	Washer 3.2x7x0.5		2		BA05353B		Main P.C.B. Assy BX-300		BA05382A	Volume P.C.B. Assy	BA05387A	Power Switch P.C.B. Assy BX-300 (U.S.A. & Canada)					
	HA04627A	Rear Panel Assy BX-300E (220V Class 2) Serial No.: A12701001 -	1		L03	OE00907A	ST 4x8 8 Binding (Black Chromate)		2		BA05361A		Meter Amp. P.C.B. Assy		BA05375A	Set-B P.C.B. Assy (consists of the following)	BA05387A	Power Switch P.C.B. Assy BX-300 (U.S.A. & Canada)					
	01	OH04425A	Rear Panel BX-300E		1	L04	OE03072A		M2.5x8 8 Binding (Black Chromate)		2		BA05361A		Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)	
OH04424A		Rear Panel BX-300 (U.S.A., Canada, Australia & Others)	1	L05	OE00921A		BT 3x8 8 Binding (Black Chromate)	2	BA05353B	Main P.C.B. Assy BX-300	BA05390A	Control Switch P.C.B. Assy		0B08445A	Spark Killer BX-300 (U.S.A. & Canada)								
OH04448A		Rear Panel BX-300 (Japan)	1	L06	OE00818A		M3x8 8 Binding (Black Chromate)	2	BA05361A	Meter Amp. P.C.B. Assy	BA05390A	Control Switch P.C.B. Assy		0B08445A	Spark Killer BX-300 (U.S.A. & Canada)								
02	OB81001A	4P Din Socket Assy (Consisting of the following)	1	04	OB85844A	SP Din Socket	(1)	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85844A	SP Din Socket	(1)		OB85344A	SP Din Connector	(1)		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
03	OB85344A	SP Din Connector	(1)	05	OB50029A	Power Transformer BX-300 (Australia) & BX-300E	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB50029A	Power Transformer BX-300 (U.S.A. & Canada)	1		OB50030A	Power Transformer BX-300 (Japan)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB50030A	Power Transformer BX-300 (U.S.A. & Canada)	1		OB50031A	Power Transformer BX-300 (Others)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)				
	OB50031A	Power Transformer BX-300 (Japan)	1		OB50032A	Power Transformer BX-300 (Others)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB50032A	Power Transformer BX-300 (Others)	1		OB8348A	Power Cord BX-300E (UK)	1		OB8533A		Power Cord BX-300 (U.S.A., Canada & Others)		1	OB85219B	Power Cord BX-300 (Japan)	1	OB50029A	Power Transformer BX-300 (Australia) & BX-300E	1	OB85351A	Cord Bushing 4K-4 BX-300E (UK)	1	OB85093U
05	OB8348A	Power Cord BX-300E (UK)	1	06	OB85241A	Power Cord BX-300 (Australia)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB8533A	Power Cord BX-300 (U.S.A., Canada & Others)	1		OB85093U	Power Cord BX-300 (Australia)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85219B	Power Cord BX-300 (Japan)	1		OB85351A	Cord Bushing 4K-4 BX-300E (UK)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)				
	OB50029A	Power Transformer BX-300 (Australia) & BX-300E	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
06	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	08	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
08	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	09	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
09	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	10	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
10	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	11	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
11	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	12	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
12	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	13	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
13	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	14	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
14	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	15	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
15	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	16	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1	BA05375A	Ass'y Tape Switch P.C.B. Assy	BA05365A	Dolby NR Switch P.C.B. Assy	SW1	BA05382A	Volume P.C.B. Assy	0B08445A	Spark Killer BX-300 (Australia & Others)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05382A		Volume P.C.B. Assy		BA05390A	Control Switch P.C.B. Assy	0B08445A	Spark Killer BX-300 (U.S.A. & Canada)							
	OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		OB85351A	Cord Bushing BX-300 & BX-300E (220V Class 2)	1		BA05375A		Ass'y Tape Switch P.C.B. Assy		BA										

7.4. Volume P.C.B. Ass'y



Schematic Ref. No.	Part No.	Description
	BA05428A	Fuse P.C.B. Assy
IC750	OB60107B	Fuse P.C.B.
IC751	OB06369A	IC TA7612AP
Q750	OB11031A	IC TL092
ZD750,751	OB06013A	TR 2SA733
D750,751	OB06191A	ZD 2.7V RD2.7E
D752,753	OB06181A	SID 1SS53
754,755	OB06398A	SID 1SS176
R750	OB09695A	RK 5.6K 1/6W J
R751,764	OB09677A	RK 1K 1/6W J
R752,767	OB09701A	RK 10K 1/6W J
R753-762	OB09681A	RK 1.5K 1/6W J
		(10)
R763	OB09709A	RK 22K 1/6W J
R765,768	OB09725A	RK 100K 1/6W J
769,772		
776,777		
R766	OB09685A	RK 2.2K 1/6W J
R770	OB09717A	RK 47K 1/6W J
R771	OB09713A	RK 33K 1/6W J
R773,774	OB09737A	RK 330K 1/6W J
R775	OB09749A	RK 1M 1/6W J
R780	OB09651A	RK 82 1/6W J
C401,402	OB09292A	CC 0.1μ 50V Z
C750	OB09281A	CC 150P 50V K
C751	OB09163A	CE 10μ 16V (BP)
C752	OB09868A	CF 0.1μ 50V J
FC3	OB02350A	JP Connector 5P
FC16, 17,23	OB02349A	JP Connector 4P
FC18,19	OB02356A	JP Connector 12P
FC20	OB81163A	Wire Trap 2P S
	BA05392A	Volume P.C.B. Assy
Cds301	OB60099A	Volume P.C.B.
	OB06325B	Photocoupler
VR109,209	OB31002A	MCD7214F
		Slide Volume 100K
VR301	OB31001A	(A)
		Slide Volume 10K
		(A)x2
R101,201	OB09719A	RK 56K 1/6W J
R301	OB09695A	RK 5.6K 1/6W J
C101,201	OB41386A	CP 100P 100V J
VM2,3	OB81011A	Dip Mate 4P
PV1,VM9	OB81012A	Dip Mate 5P

7.5. Input Amp. P.C.B. Ass'y

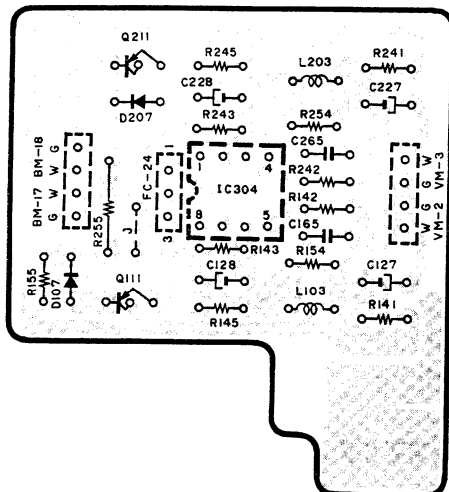


Fig. 7.5 Serial No.: A12702001 —

7.6. Meter Amp. P.C.B. Ass'y

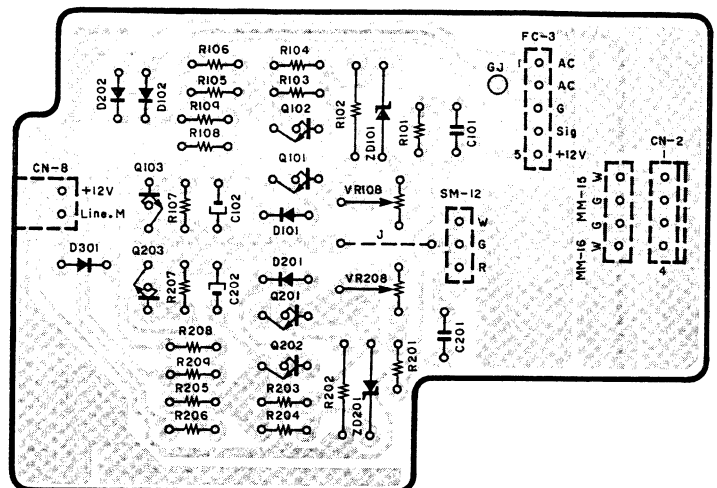


Fig. 7.6

7.7. Dolby NR Switch P.C.B. Ass'y

Schematic Ref. No.	Part No.	Description
	BA05499A	Input Amp. P.C.B. Ass'y Serial No.: A12702001 -
IC304	OB60125A	Input Amp. P.C.B.
Q111,211	OB06146A	IC 4558DD
D107,207	OB06013A	TR 2SA733 (P,Q)
L103,203	OB06398A	SiD 1SS176
R141,241	OB06676B	Inductor 36mH G
R142,242	OB09733A	RK 220K 1/6W J
R143,243	OB09653A	RK 100 1/6W J
R145,245	OB22426A	RM 53.6K 1/6W F
R154,254	OB22313A	RM 5.49K 1/6W F
R155	OB22396A	RM 30.1K 1/6W F
R255	OB09701A	RK 10K 1/6W J
C127,227	OB10888A	RK 10K 1/4W J
C128,228	OB09814A	CE 1 μ 50V (LN)
C165,265	OB09932A	CE 22 μ 16V (LN)
FC24	OB09409A	CP 1800P 100V G
	OB81010A	Dip Mate 3P
	OB81011A	Dip Mate 4P (2)
	BA05361A	Meter Amp. P.C.B. Ass'y
Q101,102	OB60108B	Meter Amp. P.C.B.
201,202	OB10039A	TR 2SC1740S
Q103,203	OB01872A	TR 2SC945L (P,Q)
ZD101,201	OB12101A	ZD 5V 5C-1
D101,102	OB06398A	SiD 1SS176
201,202		
301		
VR108,208	OB32026A	Semi-fixed VR 220K
R101,201	OB09717A	RK 47K 1/6W J
R102,202	OB01889A	RK 100K 1/4W J
R103,203	OB09747A	RK 820K 1/6W J
R104,204	OB09723A	RK 82K 1/6W J
R105,106	OB09725A	RK 100K 1/6W J
108,109		
205,206		
208,209		
R107,207	OB09719A	RK 56K 1/6W J
C101,201	OB09868A	CF 0.1 μ 50V J
C102,202	OB09148A	CE 10 μ 25V (LN)
CN2	OB02242A	4P-T Post
CN8	OB81175A	B-B Connector 2P
SM12	OB81010A	Dip Mate 3P
MM15,16	OB81011A	Dip Mate 4P
FC3	OB81012A	Dip Mate 5P
	OJ04790A	P.C.B. Holder (1)
	OE00607A	M3x8 $\oplus$ Pan (3A) (1)

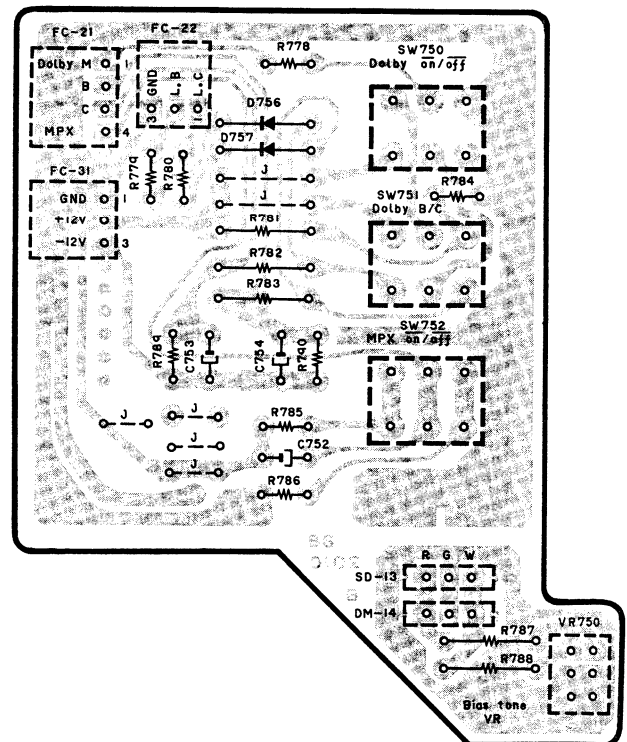


Fig. 7.7

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
D756,757 VR750 R778 R779,780 R781 R782,783 R784	BA05365A	Dolby NR Switch P.C.B. Ass'y	R785 R786,789 790	0B09695A 0B09701A	RK 5.6K 1/6W J RK 10K 1/6W J
	0B60102B	Dolby NR Switch P.C.B.	R787,788 C752	0B01887A 0B01412A	RK 5.6K 1/4W J CE 10μ 16V
	0B06181A	SID 1SS53	C753,754	0B01405A 0B81011A	CE 1μ 50V Dip Mate 4P
	0B30016A	Semi-fixed VR 100Kx2	FC21 FC22,31	0B81153A 0B81010A	Wire Trap 3P R Dip Mate 3P
	0B09697A	RK 6.8K 1/6W J	SD13,DM14	0J04768B 0B70024A	Earth Plate A (1) Push Switch 3-Key (1)
	0B09677A	RK 1K 1/6W J			
	0B09391A	RK 91K 1/4W J			
	0B05575A	RK 560 1/4W J			
	0B09713A	RK 33K 1/6W J			

Schematic Ref. No.	Part No.	Description
	BA05390A	Control Switch P.C.B. Ass'y
	OB60100A	Control Switch P.C.B.
Q701	OB10030A	TR 2SC1740S
Q702	OB10007A	TR 2SC3399
Q703	OB10003A	TR 2SA1345
Q704	OB10026A	TR 2SA938S
LED701	OB06334A	LED TLG124A (GRN)
703,704	OB06333A	LED FLR124A (RED)
LED702	OB06181A	SID 1SS53
705,706	OB06398A	SID 1SS176
D701,703	OB05795A	RK 150 1/4W J
D702,704	OB09657A	RK 150 1/6W J
705	OB09657A	RK 390 1/6W J
R701	OB09653A	RK 270 1/6W J
R702	OB09701A	RK 10K 1/6W J
R703	OB09677A	RK 1K 1/6W J
R704	OB09677A	RK 1K 1/6W J
R705,707	OB09683A	RK 4.7K 1/6W J
R716	OB70044A	Touch Switch 4.8mm
SW701-709	QJ04744A	LED Reflector (6)
	BA05391A	Counter P.C.B. Ass'y
	OB60101B	Counter P.C.B.
IC701	OB06368A	IC LM6418E-106
Q701,702	OB10026A	TR 2SA938S
703,704		
LED701	OB12098A	Counter LED
R701,702	OB0625A	RK 220K 1/4W J
715		
R703	OB09701A	RK 10K 1/6W J
R704,705	OB09687A	RK 2.7K 1/6W J
706,707		
716		
R708,709	OB09661A	RK 220 1/6W J
710,711		
712,713		
714		
R717	OB01846A	RK 4.7K 1/4W J
C701	OB02822A	CC 100P 50V K
C702	OB05557A	CM 0.015u 50V J
C703	OB05685A	CE 100u 10V
SW701,702	OB70010A	Slide Switch 2-2
SW703	OB07437A	Slide Switch 2-3
	OB81016A	8P Socket
	OB81017A	11P Socket

7.8. Control Switch P.C.B. Ass'y

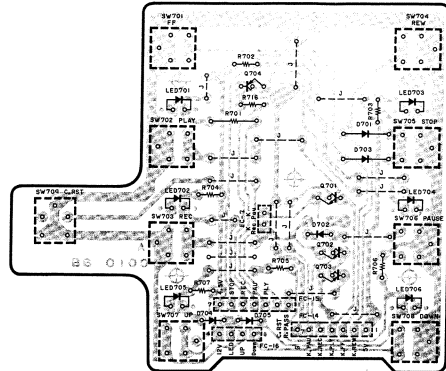


Fig. 7.8

7.9. Counter P.C.B. Ass'y

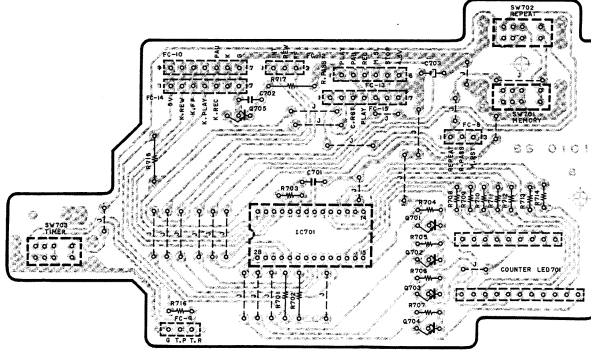


Fig. 7.9

7.10. Tape Switch P.C.B. Ass'y

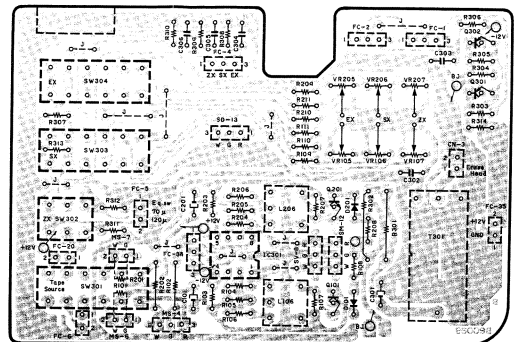


Fig. 7.10

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
	BA05396A	Tape Switch P.C.B. Ass'y			
	— Line Amp. —				
IC301	OB06443A	IC NJM082D	C304,305	OB05691A	CM 0.01u 50V J
Q101,201	OB01872A	TR 2SC945L (P,Q)	CN3	OB81051A	2P-S Post
L106,206	OB06991A	L-C Block		OB81164A	Wire Trap 3P (1)
D101,201	OB06398A	SID 1SS176		OB81010A	Dip Mate 3P (7)
R101,102	OB09725A	RK 100K 1/6W J		OB81002A	Dip Mate 2P (4)
R103,203	OB09733A	RK 220K 1/6W J		OB70030A	Push Switch 5-Key (1)
R104,204	OB22342A	RM 0.76K 1/6W F			
R105,205	OB22308A	RM 4.99K 1/6W F			
R106,206	OB09677A	RK 1K 1/6W J			
R107,207	OB09749A	RK 1M 1/6W J			
R108,208	OB09701A	RK 10K 1/6W J			
C101,201	OB09814A	CE 1u 50V (LN)			
C107,207	OB09270A	CP 470P 100V J			
	— Miscellaneous —				
	OB60098B	Tape Switch P.C.B.			
Q301	OB01426A	TR 2SA562 (O,Y)			
Q302	OB06013A	TR 2SA733 (P,Q)			
T301	OB51047A	Bias Osc.			
VR105,205	OB32010A	Semi-fixed VR 47K			
VR106,206	OB32009A	Semi-fixed VR 22K			
VR107,207	OB32008A	Semi-fixed VR 10K			
R109,209	OB08705A	RK 15K 1/6W J			
R110,210	OB08697A	RK 6.8K 1/6W J			
R111,211	OB09653A	RK 100 1/6W J			
R301	OB09936A	RF 10 1/2W J			
R302	OB09988A	RF 22 1W J			
R303	OB09685A	RK 2.2K 1/6W J			
R304	OB09721A	RK 68K 1/6W J			
R305,306	OB09701A	RK 10K 1/6W J			
313	OB09717A	RK 47K 1/6W J			
R307	OB09725A	RK 100K 1/6W J			
R308,309					
310,311					
312					
R314	OB09659A	RK 470 1/6W J			
C301	OB01493A	CE 47u 15V			
C302	OB09538A	CP 0.018u 100V J			
C303	OB09644A	CF 1000P 50V J			

7.11. Main P.C.B. Ass'y

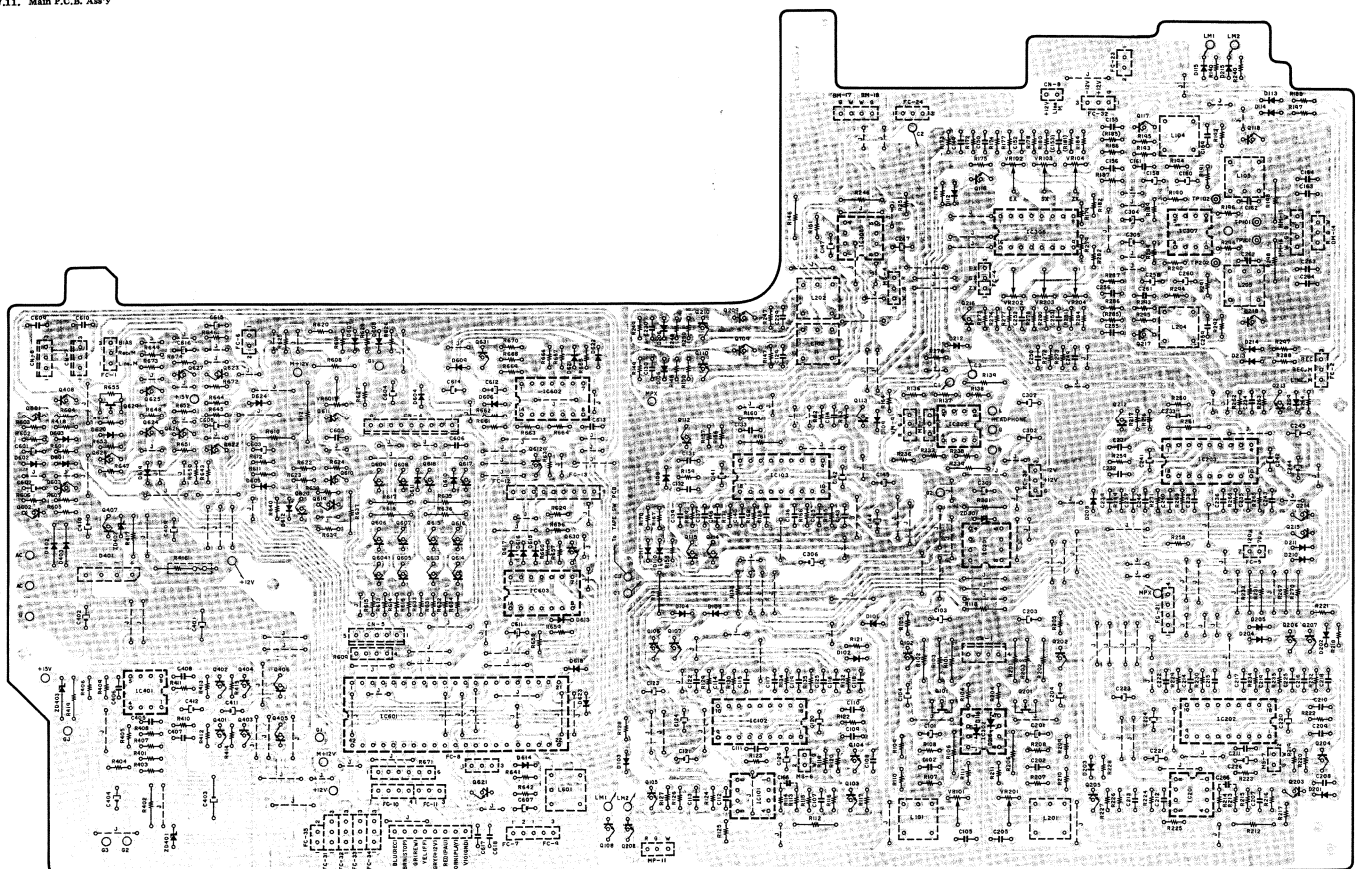


Fig. 7.11.1 Serial No.: A12702001 -

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
BA05353B	Main P.C.B. Assy BX-300 Serial No.: A12702001 -		IC401	— DC Supply —	R605,611 612,653 657,662	OB09725A	RR 100K 1/6W J	C132,232 C132,233 C134,234 C135,140 C136,138 C137,237 C138,239 C141,142 C241,242 C242	OB06562A OB09191A OB09045A OB09862A OB09868A OB09870A OB09869A OB09872A OB01400A OB09864A	CM 4700P 50V J CF 4700P 100V G CM 0.027µ 50V J CF 0.033µ 50V J CF 0.1µ 50V J CF 0.15µ 50V J CF 0.068µ 50V J CF 0.22µ 50V J CF 100µ 16V CF 0.047µ 50V J	— Miscellaneous —			
IC301	OB06370A	IC 4556D	IC402	OB06216A	IC µPC4556C	OB09707A	RR 18K 1/6W J	OB09877A	RR 1K 1/6W J	OB09877A	RR 1K 1/6W J	OB09877A	RR 1K 1/6W J	OB09877A
IC302	OB11005A	IC NJM072DE	IC403	OB01872A	TR 2SC945L (P,Q)	OB09869A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
Q101,201	OB06375A	FET 2SK170 (GR)	IC404	OB06322A	TR 2SC2002 (K,L)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
Q102,202	OB06142A	TR 2SC2240 (BL)	IC405	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
ZD301	OB12122A	ZD 5.1V RD6.5SB2	IC406	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
D116,216	OB06398A	SID 15S176	IC407	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
L101,201	OB06717A	Trap Unit	IC408	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
VR101,201	OB32008A	Semi-fixed VR 10K	IC409	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R101,201	OB01889A	RR 100K 1/4W J	IC410	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R102,202	OB09707A	RR 1.54K 1/4W F	IC411	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R103,203	OB09891A	RR 80K 1/4W F	IC412	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R104,204	OB09741A	RR 470K 1/6W J	IC413	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R105,205	OB09708A	RR 22K 1/6W J	IC414	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R106,206	OB22548A	RR 47M 1/4W J	IC415	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R107,207	OB22515A	RR 316K 1/6W J	IC416	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R108,208	OB22535A	RR 12.4K 1/6W F	IC417	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R109,209	OB09667A	RR 80K 1/6W J	IC418	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R110,210	OB09673A	RR 68K 1/6W J	IC419	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R111,211	OB09697A	RR 6.8K 1/6W J	IC420	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R101	OB01887A	RR 1K 1/4W J	IC421	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
IC101,201	OB09814A	CF 1µ 50V (LN)	IC422	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C102,202	OB09591A	CP 0.01µ 100V J	IC423	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C103,104	OB09816A	CE 10µ 16V (LN)	IC424	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
303,204	OB01804A	CM 3900P 50V J	IC425	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C104,205	OB01400A	CE 100µ 16V	IC426	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C801	OB02242A	4P7 Post	IC427	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
— Rec. Eq. Amp. —			IC428	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
IC307	OB06387A	IC 2043DD	IC429	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
Q117,118	OB06298A	TR 2SC2878	IC430	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
D113,114	OB06398A	SID 15S176	IC431	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
Q124,224	OB01045A	L-C Block	IC432	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
L104,204	OB06398A	SID 15S176	IC433	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R188,288	OB09707A	RR 18K 1/6W J	IC434	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R189,191	OB09731A	RR 180K 1/6W J	IC435	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
289,291	OB06677A	RR 1K 1/6W J	IC436	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R192,292	OB09715A	RR 39K 1/6W J	IC437	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R193,293	OB09691A	RR 9.9K 1/6W J	IC438	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R194,294	OB09708A	RR 15K 1/6W J	IC439	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R195,295	OB09673A	RR 68K 1/6W J	IC440	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R196,296	OB22247A	RR 1.5K 1/6W F	IC441	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R197,297	OB09701A	RR 10K 1/6W J	IC442	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
R198,298	OB09696A	RR 10K 1/4W J	IC443	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C158,258	OB09814A	CF 1µ 50V (LN)	IC444	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C159,259	OB01780A	CM 0.1µ 50V J	IC445	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C160,260	OB09832A	CE 22µ 16V (LN)	IC446	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C161,261	OB09652A	CM 4700P 50V J	IC447	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C162,262	OB09834A	CP 2200P 100V J	IC448	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C163,263	OB09270A	CP 470P 100V J	IC449	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C164,264	OB09325A	CP 330P 100V J	IC450	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
C804,305	OB09816A	CE 10µ 16V	IC451	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
OB02348A	JP Connector 3P		IC452	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
— Rec. Cal. —			IC453	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
IC308	OB11027A	IC TC9145P	IC454	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
Q116,216	OB01878A	TR 2SC945L (P,Q)	IC455	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
D112,212	OB06398A	SID 15S176	IC456	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
VR102,202	OB32008A	Semi-fixed VR 10K	IC457	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1/6W J	OB09877A
VR104,204	OB32009A	Semi-fixed VR 22K	IC458	OB06109A	TR 2SC2240 (BL)	OB09923A	RR 5.6K 1/6W J	OB09877A	RR 5.6K 1					

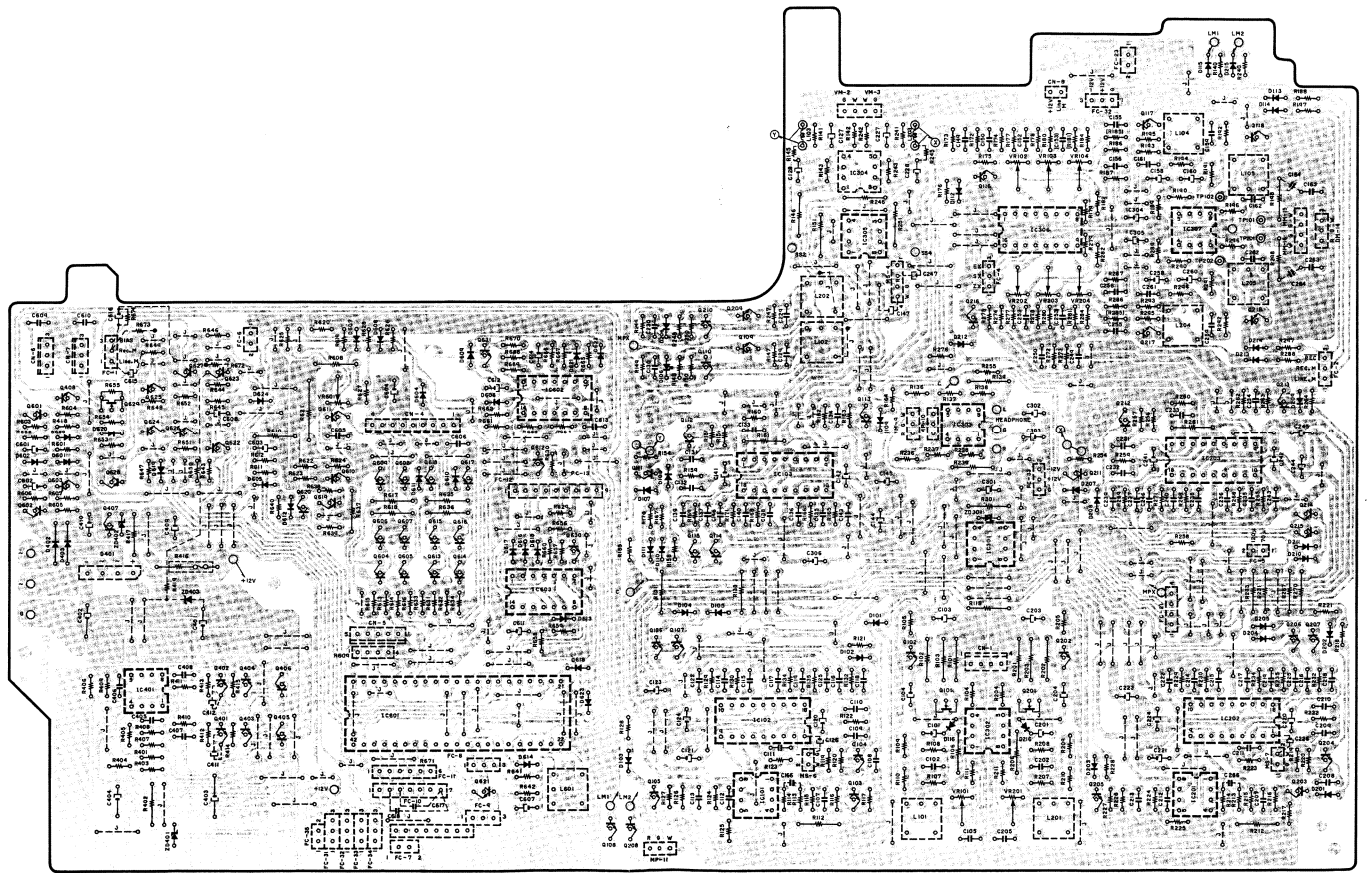
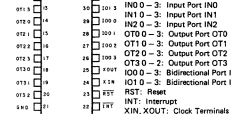
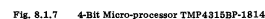
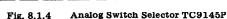
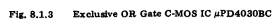
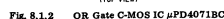
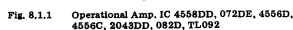


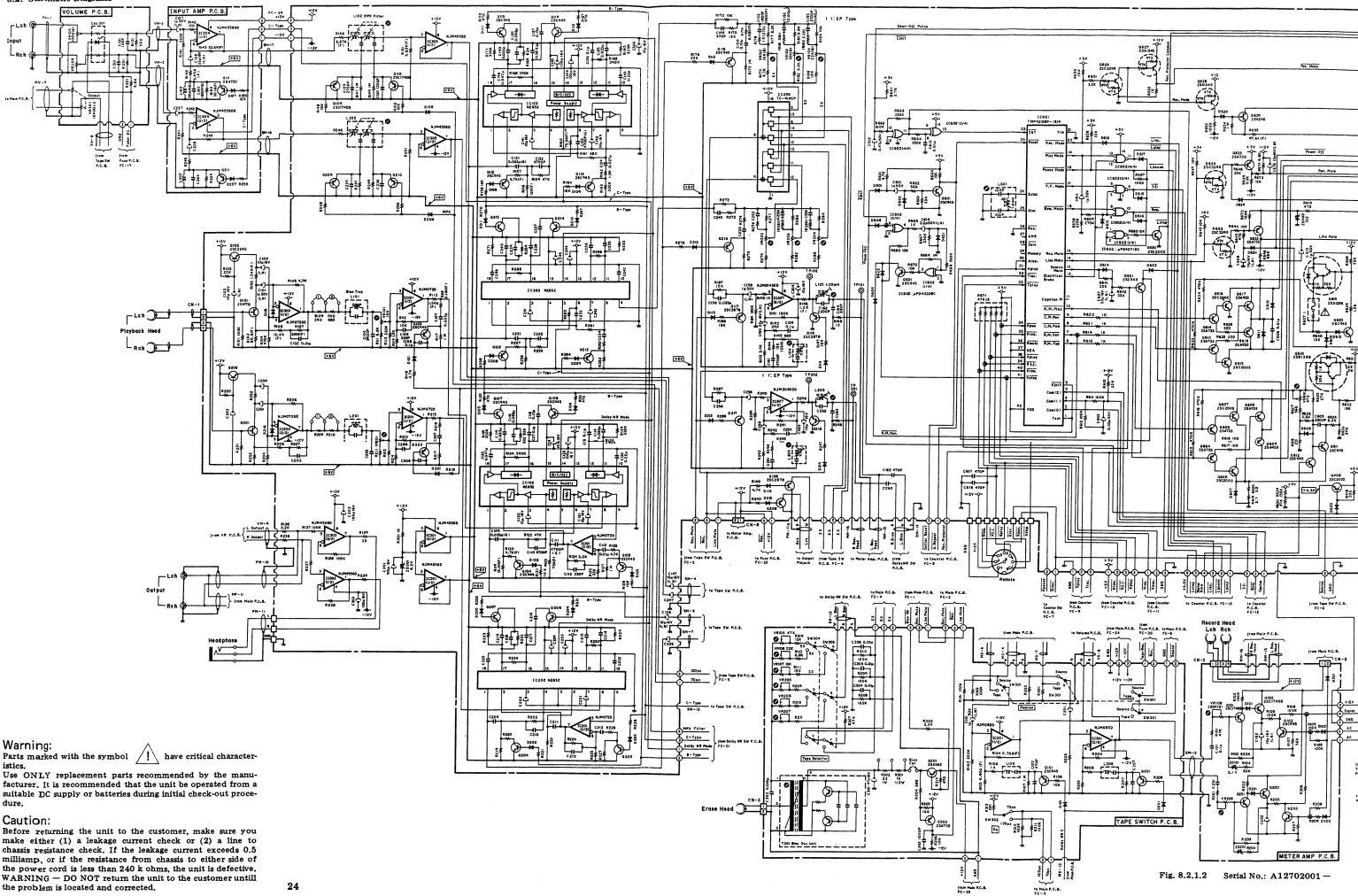
Fig. 7.11.2 Serial Nos. A12701001 - 02000

Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description	Schematic Ref. No.	Part No.	Description
BA05353A	Main F.C.B. Assy EX-300 Serial No.: A12701001 - 02000		IC401	OB06218A	IC µPC4556C	Q629	OB10022A	FET 2SK246	R159,167	OB09717A	RK 47K 1/6W J	R137,138	OB09725A	RK 100K 1/6W J
— FB Eq. Amp. —			Q401,402	OB01372A	TR 2SC945L (P.Q)	D601,624	OB06388A	SID 1SS176	170,258			R137,238		
IC301	OB06370A	IC 4556D	Q402,404	OB06013A	TR 2SA733 (P.Q)	R501	OB06889A	L-C Block (B.L.K)	R160,260			OB09210A	RF 33 1/4W J	
Q101,201	OB06378A	FET 2SK170 (GR)	Q407,408	OB06322A	TE 2SC2002 (K.L)	R602	OB06207A	Semifixed VR 470	R161,261			OB09683A	RK 4.7K 1/6W J	
Q102,202	OB06142A	TR 2SC2240 (BL)	ZD401	OB12121A	ZD 5.1V RD5.1SBS2	R603,641	OB09682A	RK 4.7K 1/6W J	R162,262			OB09683A	RK 1.8K 1/6W J	
ZD301	OB12122A	ZD 6.2V RD6.2SBS2	ZD402	OB12122A	ZD 5.6V RD5.6SBS2	642,648	OB09713A	RK 39K 1/6W J	171,253			OB09737A	RK 330K 1/6W J	
D18,216	OB06388A	SID 1SS176	D401	OB06282A	Diode Bridge DBA10	R604,640			265,271					
L101,201	OB06717A	Trap 15uH	D402,403	OB06109A	SID QP058	643,644			266,268					
R101,201	OB06200A	Semifixed VR 10K	R401	OB22357A	RM 13.7K 1/6W J	647,650			R166,168					
R102,202	OB09757A	RM 1.54K 1/4W F	R402	OB09203A	RM 10K 1/4W F	656,660			R167,270					
R103,203	OB09681A	RE 80.6 1/4W F	R403,404	OB22347A	RM 11K 1/6W F	665,670			OB0641A	RK 47K 1/4W J				
R104,204	OB09741A	RK 470K 1/6W J	R405,406	OB09685A	RE 5.6K 1/6W J	R605,611			C132,232	CM 4700P 50V J				
R105,205	OB09709A	RK 22K 1/6W J	R407	OB09749A	RK 1M 1/6W J	612,653			C133,233	CM 4700P 100V G	Q405			
R106,206	OB22348A	RM 4.7M 1/4W J	R410,411	OB09701A	RK 10K 1/6W J	657,662			C134,234	CM 0.033u 50V J	Q406			
R107,207	OB22312A	RM 316K 1/6W F	R412,413	OB09683A	RK 4.7K 1/6W J	672			C135,140	CF 0.033u 50V J				
R108,208	OB22353A	RM 12.4K 1/6W F	R414,415	OB4007A	RF 22 2W J	R606,622			C136,138	CF 0.1u 50V J				
R109,209	OB09687A	RK 390 1/6W J	R416	OB08715A	R Fuse 129	R607,626			C137,237	CF 0.068u 50V J				
R110,210	OB09673A	RK 680 1/6W J	R417	OB24006A	RE 560 1W J	R608			C141,142	CF 10u 16V				
R111,211	OB09687A	CE 1u 50V (LN)	R418	OB09665A	RK 330 1/6W J	R609			OB09868A	CF 0.1u 50V J				
R301	OB01857A	RK 1K 1/4W J	C401	OB05576A	RK 470 1/4W J	R610			OB09870A	CF 0.15u 50V J				
C101,201	OB09614A	CE 10u 16V (LN)	C402	OB40197A	CF 4700u 25V	R611,614			OB09866A	CF 0.068u 50V J				
C102,202	OB09691A	CF 0.01u 100V J	C403	OB01401A	CE 470u 25V	631,632			OB01412A	CF 10u 16V				
C103,104	OB09616A	CF 10u 16V (LN)	C404	OB09393A	CC 68P 50V J	R612,616			OB09872A	CF 0.22u 50V J				
C301	OB01804A	CM 3900P 50V J	C405,406	OB0632A	CM 4700P 50V J	R619			OB09864A	CF 0.047u 50V J				
CN1	OB01400A	CF 10u 16V	C407,408	OB40079A	CE 220u 16V	R620								
CN1	OB02242A	4P-T	C410	OB01403A	CE 47u 16V	R621								
			C411,412	OB02172A	CE 100u 25V	R622								
				OE0857A	Bt 3K & Binding	R623								
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						R740								

8.1. IC Block Diagrams



8.2. Schematic Diagrams



Warning: Parts marked with the symbol  have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer. It is recommended that the unit be operated from a suitable DC supply or batteries during initial check-out procedure.

Caution:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamp, or if the resistance from chassis to either side of the power cord is less than 240 k ohms, the unit is defective. **WARNING — DO NOT** return the unit to the customer until the problem is located and corrected.

Fig. 8.2.1.2 Serial No.: A12702001 —

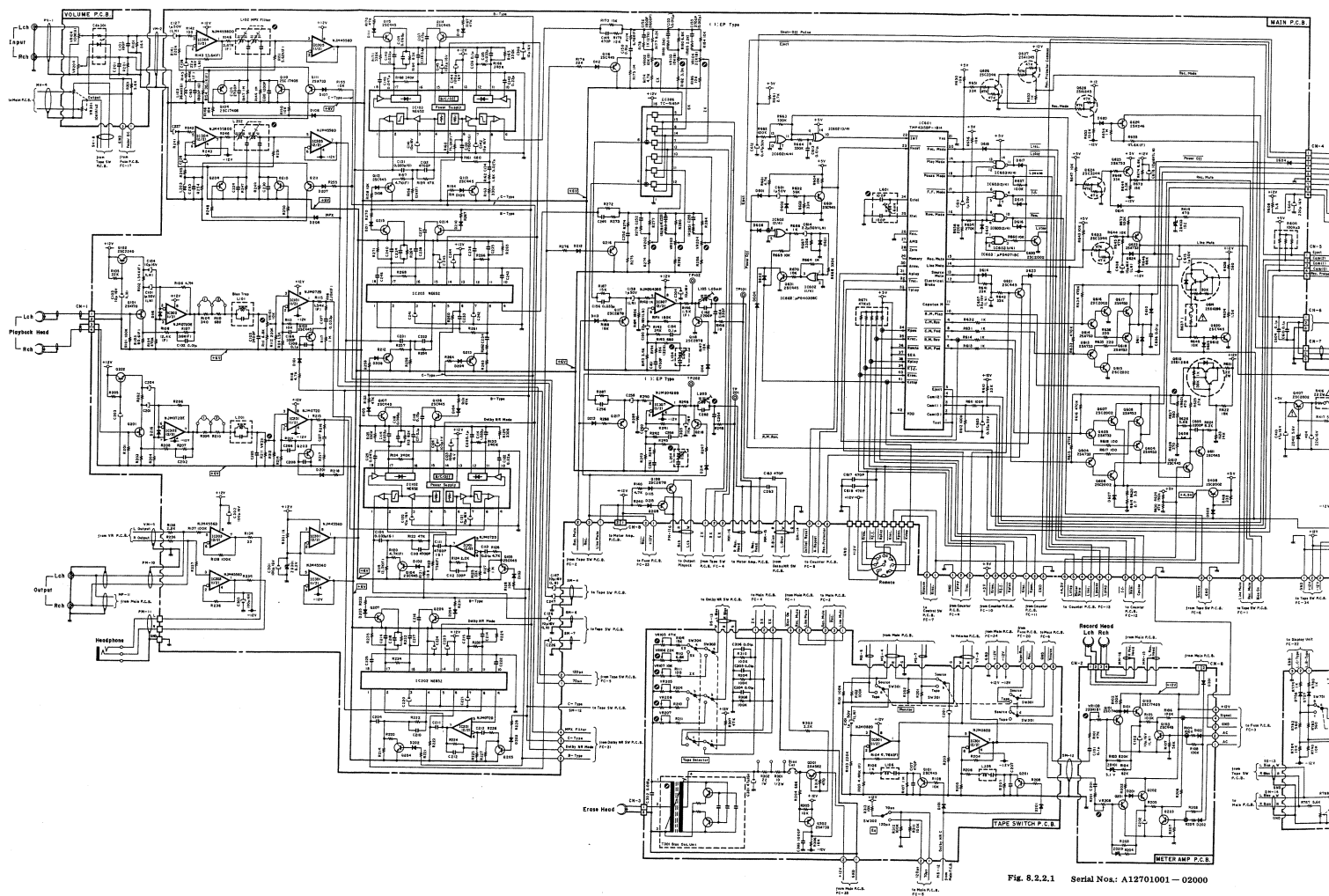
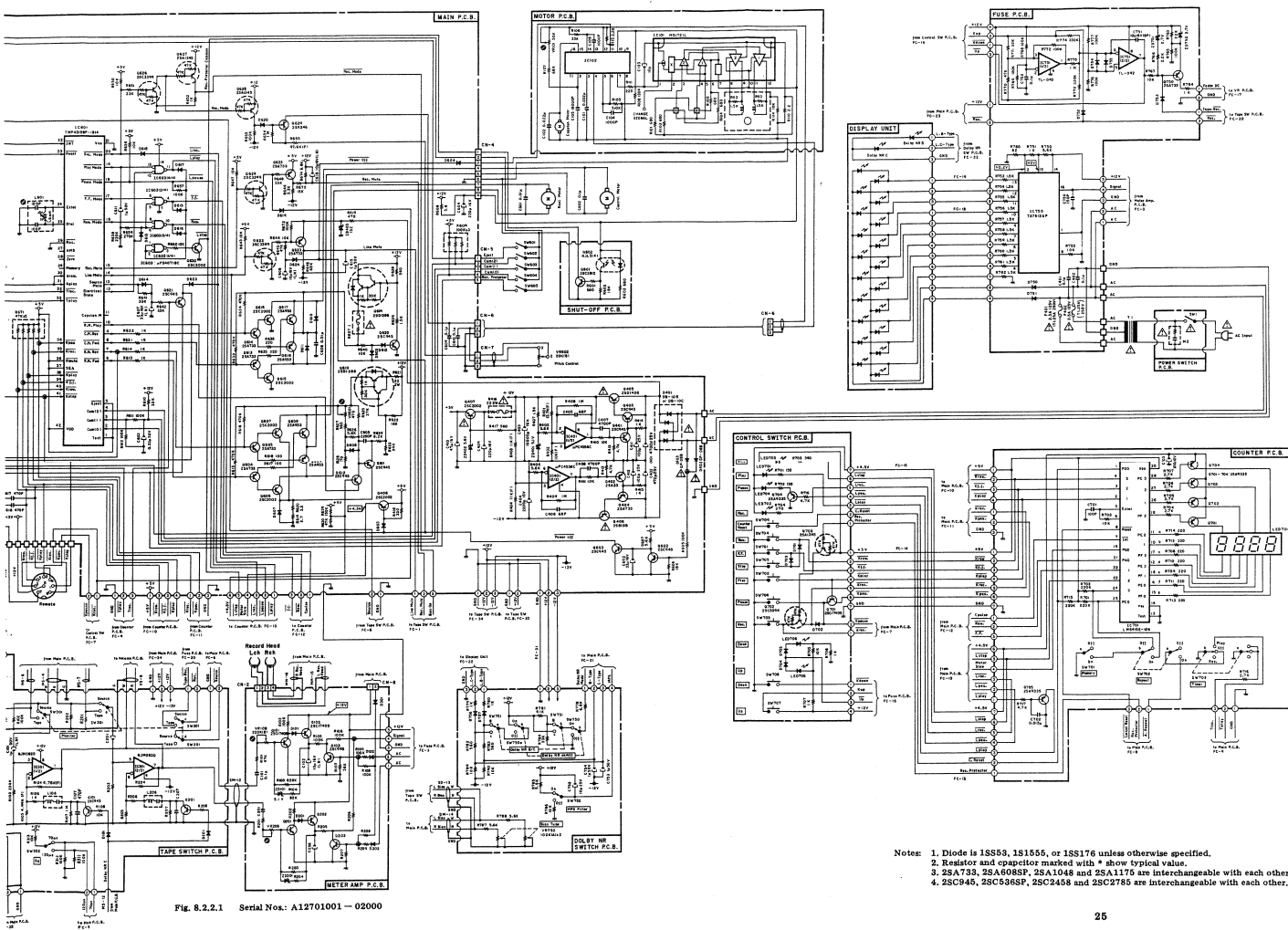


Fig. 8.2.2.1 Serial No.: A12701001 - 02000



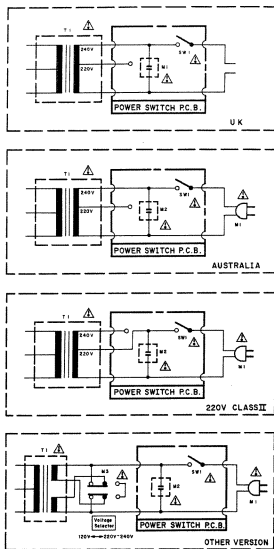


Fig. 8.2.2.2

Warning:
Parts marked with the symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer. It is recommended that the unit be operated from a suitable DC supply or batteries during initial check-out procedure.

Caution:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamp, or if the resistance from chassis to either side of the power cord is less than 240 k ohms, the unit is defective. **WARNING — DO NOT** return the unit to the customer until the problem is located and corrected.

9. TIMING CHART AND EQ. AMP. FREQUENCY RESPONSE

9.1. Timing Chart

(1) Overall Timing Chart

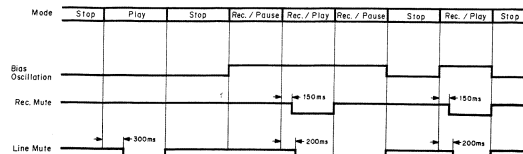


Fig. 9.1.1

(2) Mechanism Control Timing Chart

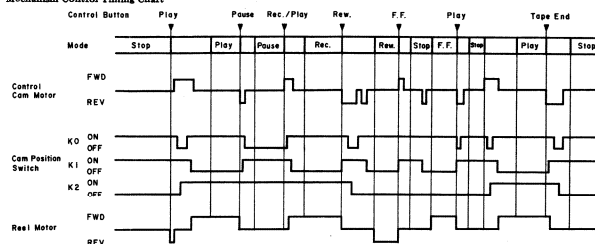


Fig. 9.1.2

9.2. Eq. Amp. Frequency Response

(1) Playback Frequency Response

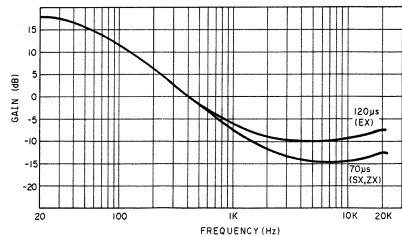


Fig. 9.2.1

(2) Record Current Frequency Response

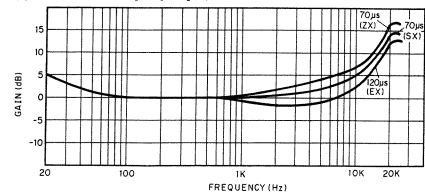


Fig. 9.2.2

10. WIRING DIAGRAM

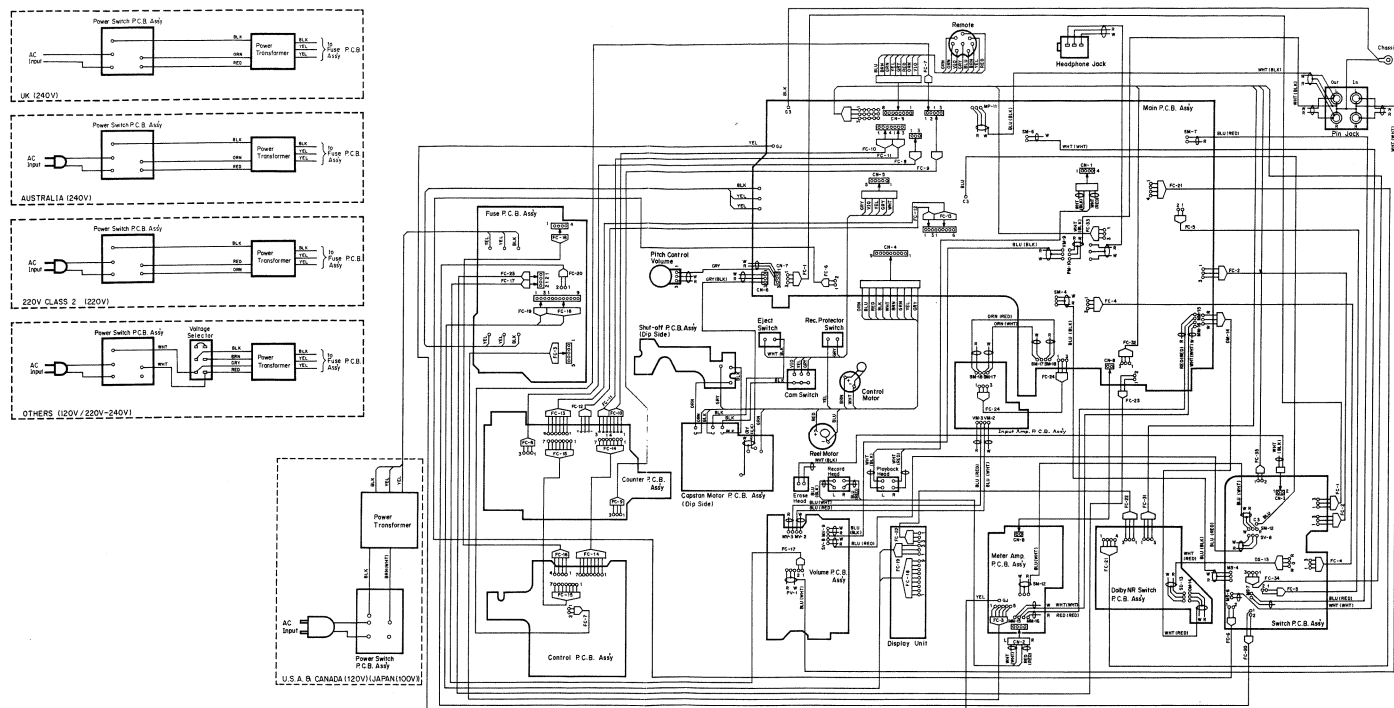
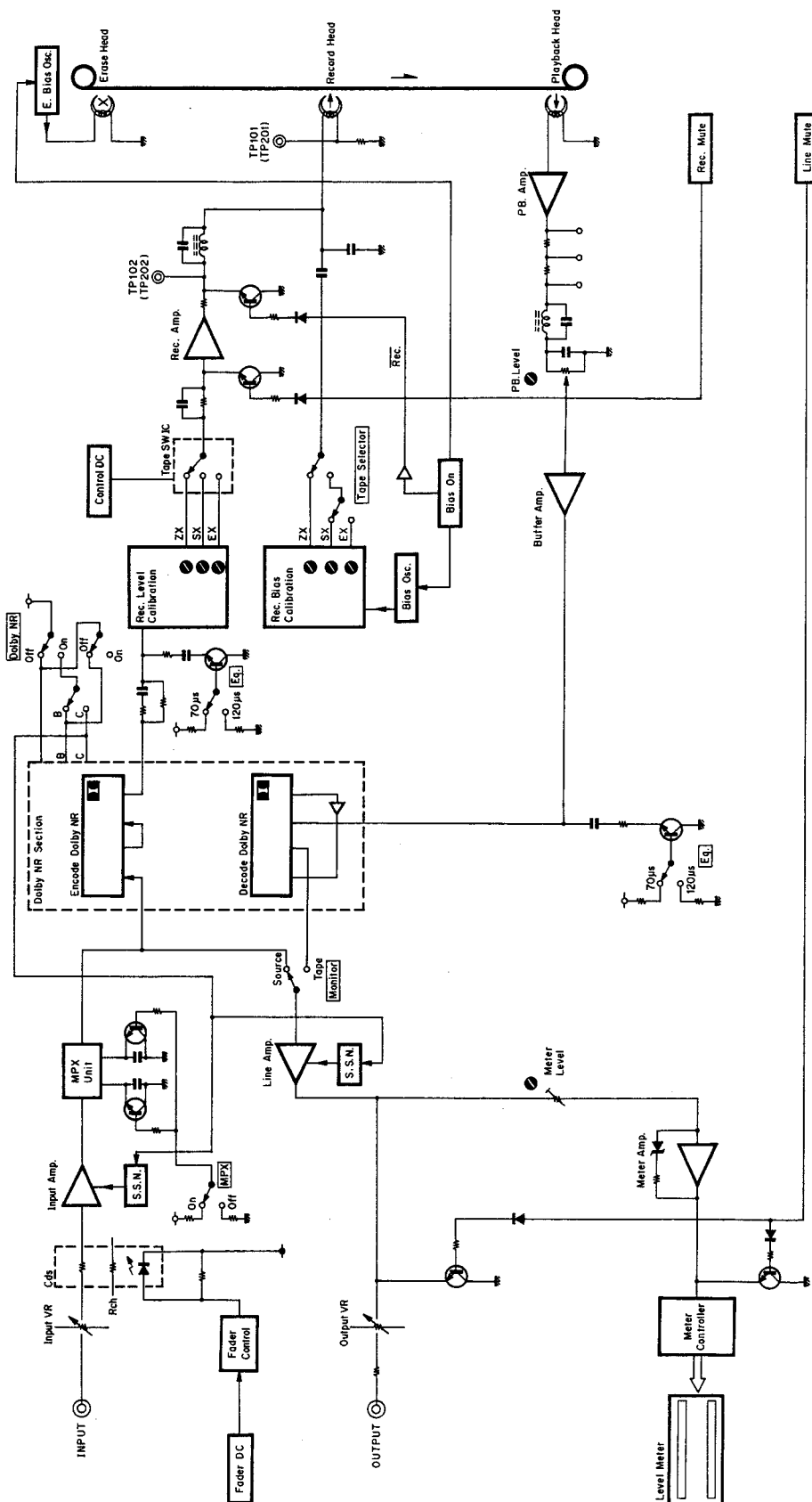


Fig. 10

- Notes: 1. Table of wire colors
- | | |
|--------------|--------------|
| BRN - Brown | BLU - Blue |
| RED - Red | VIO - Violet |
| ORN - Orange | GRY - Gray |
| YEL - Yellow | WHT - White |
| GRN - Green | BLK - Black |
2. Component side view of the P.C.B. is illustrated unless otherwise specified.
3. Wire tube color is shown in ().

11.1. Amplifier Section



11.2. Mechanism Control Section

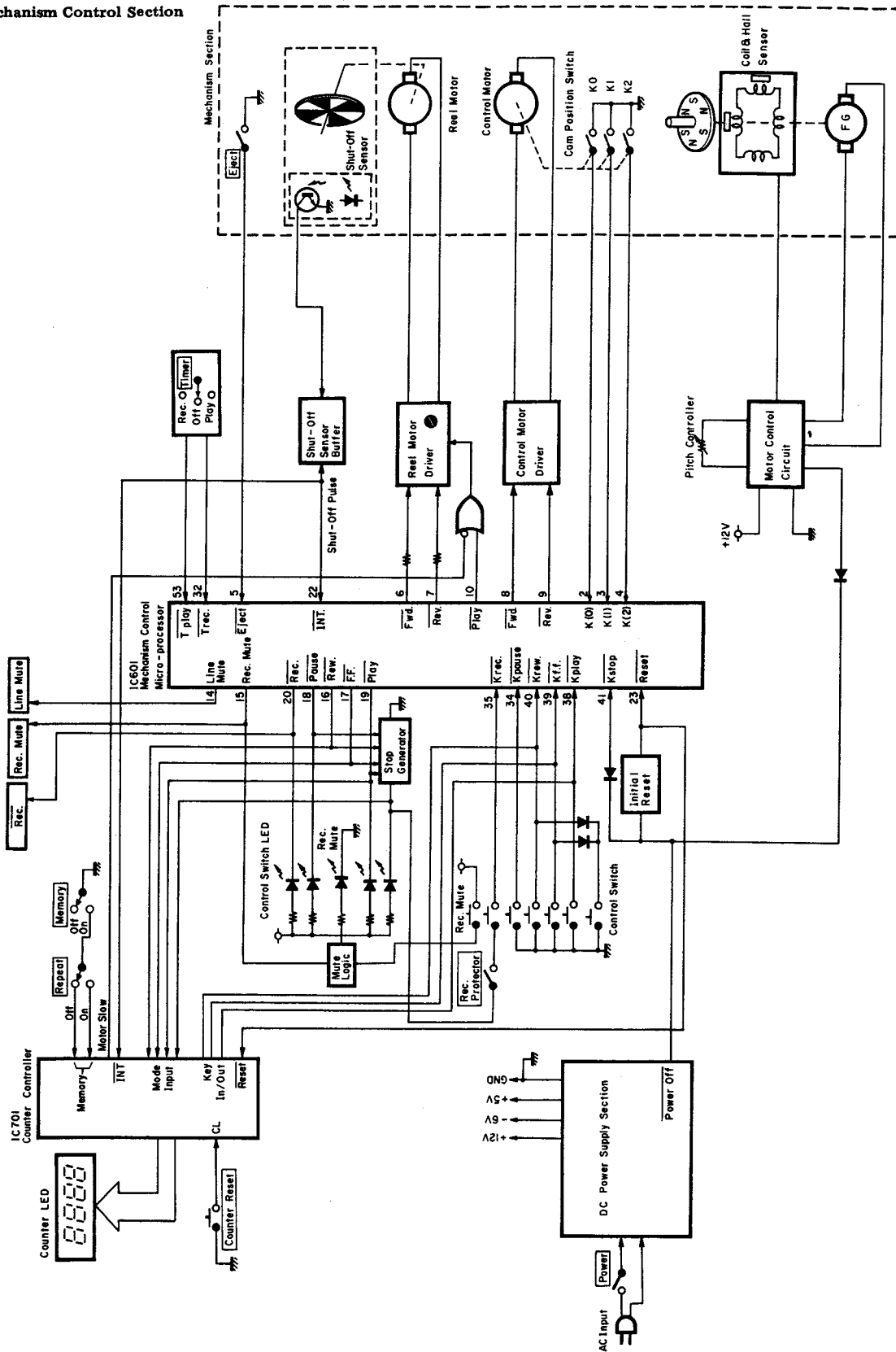


Fig. 11.2

12. SPECIFICATIONS

Track Configuration	4 tracks/2-channel stereo
Heads	3 (Erase Head x 1, Record Head x 1, Playback Head x 1)
Motors	<Tape Transport> FG Servo Brushless, Slotless, Coreless, DD Motor (Capstan Drive) x 1 DC Motor (Reel Drive) x 1 <Mechanism> DC Motor (Cam Drive) x 1
Power Source	100, 120, 120/220-240, 220 or 240 V AC, 50/60 Hz (According to country of sale)
Power Consumption	27 W max.
Tape Speed	1-7/8 ips. (4.8 cm/sec.) $\pm 0.5\%$
Wow and Flutter	Less than $\pm 0.048\%$ WTD Peak Less than 0.027% WTD RMS
Frequency Response	20 Hz–20,000 Hz ± 3 dB (recording level –20 dB)
Signal to Noise Ratio	Dolby C-Type NR on <70 μ s, ZX tape> Better than 70 dB (400 Hz, 3% THD, IHF A-WTD RMS) Dolby B-Type NR on <70 μ s, ZX tape> Better than 64 dB (400 Hz, 3% THD, IHF A-WTD RMS)
Total Harmonic Distortion	Less than 0.9% (400 Hz, 0 dB, ZX tape) Less than 1.0% (400 Hz, 0 dB, SX, EXII tape)
Erasure	Better than 60 dB (100 Hz, 0 dB)
Separation	Better than 36 dB (1 kHz, 0 dB)
Crosstalk	Better than 60 dB (1 kHz, 0 dB)
Bias Frequency	105 kHz
Input (Line)	50 mV/30 k Ω
Output (Line)	1.0 V (400 Hz, 0 dB, output level control at max.)/2.2 k Ω
(Headphones)	5 mW into 8 Ω (400 Hz, 0 dB, output level control at max.)
Fast Wind Time	Approx. 80 seconds (with C-60 cassette)
Dimensions	430 (W) x 100 (H) x 250 (D) millimeters 16-15/16 (W) x 3-15/16 (H) x 9-7/8 (D) inches
Approximate Weight	5.6 kg 12 lb. 6 oz

- Specifications and design are subject to change for further improvement without notice.
- Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
- The word "DOLBY" and the Double-D-Symbol are trademarks of Dolby Laboratories Licensing Corporation.