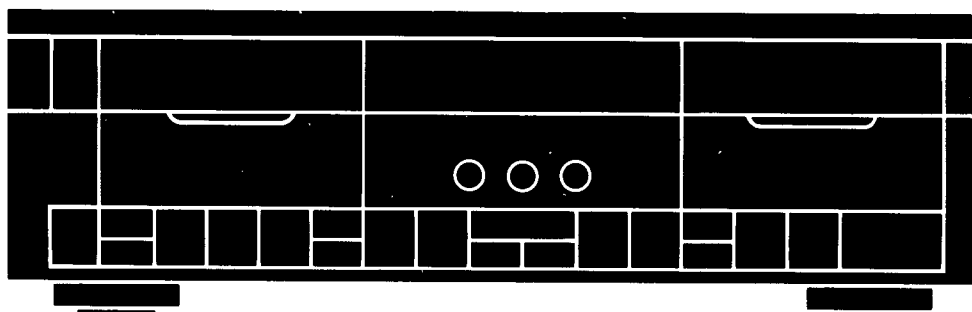


# The Harman Kardon Model DC5300 DUAL CASSETTE DECK

Manual 177A

## Technical Manual



The following marks found in the parts list of this manual identify the models as follows.

- BK** : North America area model Black version
- IB** : International model Black version
- BB** : Australia model Black version

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**harman/kardon**

Parts and Service Office  
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1112-0010A152 P-129109 2000 Printed in Japan

DC5300

**SPECIFICATIONS**

|                     |                          |       |
|---------------------|--------------------------|-------|
| Track Configuration | Nominal                  | Limit |
|                     | 4-track 2 Channel Stereo |       |
|                     | Cassette Deck            |       |

**• MECHANICAL SECTION**

|                            |             |                |  |
|----------------------------|-------------|----------------|--|
| Record/Playback Tape Speed |             |                |  |
| Drift 4.75 cm/sec.         | 0.2% ≤ 2.0% |                |  |
| Heads (Primary/Secondary)  | 2/1         |                |  |
| Wow and Flutter            | NAB         | 0.05% ≤ 0.1%   |  |
|                            | CCIR        | 0.08%          |  |
| Take Up Torque             | 50 gr.cm    | 35 – 70 gr.cm  |  |
| Back Tension               | 2 gr.cm     | 2 – 6 gr.cm    |  |
| F.FWD Torque               | 100 gr.cm   | 70 – 150 gr.cm |  |
| Rew Torque                 | 100 gr.cm   | 70 – 150 gr.cm |  |
| F.FWD/Rew Time (C-60 Tape) | 85 sec.     | ≤ 100 sec.     |  |

**• AMPLIFIER SECTION**

|                                       |                  |                |             |
|---------------------------------------|------------------|----------------|-------------|
| Record/Playback Frequency             |                  |                |             |
| Response (at -3 dB)                   | LN               | 20 – 18 kHz    | 20 – 17 kHz |
|                                       | CrO <sub>2</sub> | 20 – 18 kHz    | 20 – 17 kHz |
|                                       | Metal            | 20 – 18 kHz    | 20 – 17 kHz |
| Copy Mode Frequency                   |                  |                |             |
| Response                              | LN               | 40 – 16 kHz    | 40 – 15 kHz |
|                                       | CrO <sub>2</sub> | 40 – 16 kHz    | 40 – 15 kHz |
|                                       | Metal            | 40 – 16 kHz    | 40 – 15 kHz |
| Bias Frequency                        |                  | 105 kHz ±5 kHz |             |
| Playback Output                       |                  | 620 mV ±1.5 dB |             |
| Signal-to-Noise Ratio (at Line Input) |                  |                |             |
| (Input 1 kHz, 100 mV)                 |                  |                |             |
| IHF-A WTD (at Dolby level)            |                  |                |             |
| Dolby NR off                          | LN               | 51 dB          |             |
|                                       | CrO <sub>2</sub> | 54 dB          |             |
|                                       | Metal            | 54 dB          |             |
| Dolby B NR                            | LN               | 61 dB          |             |
|                                       | CrO <sub>2</sub> | 64 dB          | iv 60 dB    |
|                                       | Metal            | 64 dB          | iv 60 dB    |

|  |                  |       |
|--|------------------|-------|
| Dolby C NR                               | Nominal          | Limit |
|  | LN               | 66 dB |
|  | CrO <sub>2</sub> | 70 dB |
|  | Metal            | 70 dB |
| Channel Separation                       |                  |       |
| Crosstalk                                |                  |       |
| Record/Playback Distortion (Input 1 kHz) |                  |       |
|  | LN               | 0.9%  |
|  | CrO <sub>2</sub> | 1.3%  |
|  | Metal            | 1.1%  |

|                        |           |        |
|------------------------|-----------|--------|
| MPX Filter Attenuation |           |        |
|                        | at 15 kHz | 0.3 dB |
|                        | at 19 kHz | 35 dB  |

|                           |       |       |
|---------------------------|-------|-------|
| Erase Ratio (Input 80 Hz) |       |       |
|                           | LN    | 70 dB |
|                           | Metal | 61 dB |

|   |       |            |
|---|-------|------------|
| Input Sensitivity (Input 1 kHz) at Line Input | 43 mV | 30 – 80 mV |
| Input Impedance (Input 1 kHz) at Line Input   | 23 kΩ | 15 – 25 kΩ |

**• DIMENSIONS (WxHxD)** 17-3/8" x 5" x 12-5/8"  
(443 x 134 x 342) mm

**• WEIGHT** 17.2 lbs (7.8 kg)

**• POWER SUPPLY**

|                          |                       |
|--------------------------|-----------------------|
| U.S.A. and Canada models | AC120V, 60 Hz         |
| International model      | AC230V/240V, 50/60 Hz |

**• POWER CONSUMPTION**

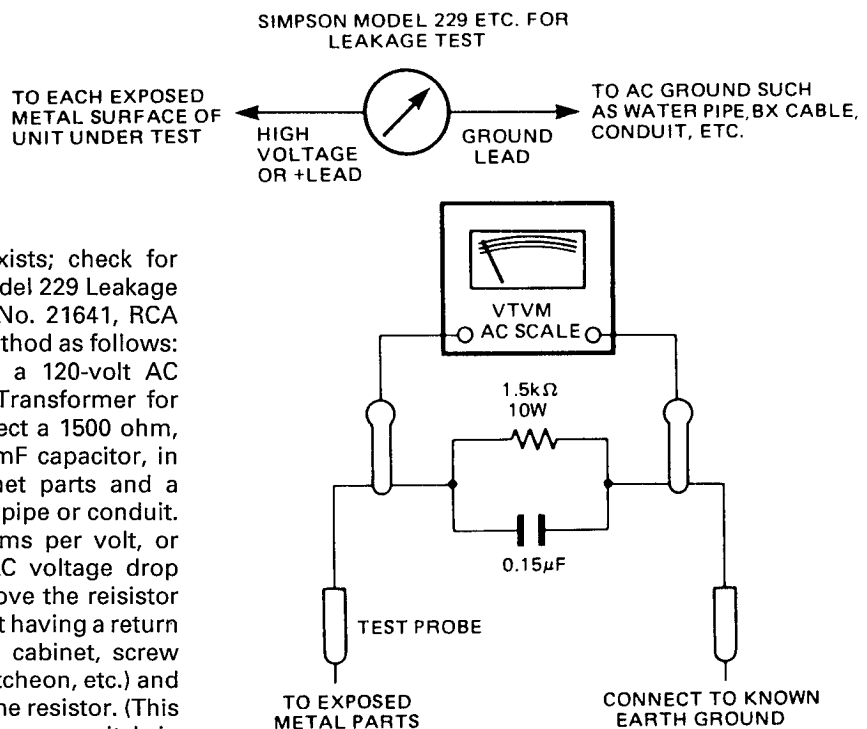
|                          |      |
|--------------------------|------|
| U.S.A. and Canada models | 29 W |
| International model      | 31 W |

These specifications are service target specs. Specifications and components are subject to change without notice. Overall performance will be maintained or improved.

**LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A)**

Before returning the unit to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
2. Replace all protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, or shields, isolation resistor/capacitor networks, mechanical insulators, etc.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows: Plug the AC line cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 ohm, 10-watt resistor paralleled by a 0.15mF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.)



A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.

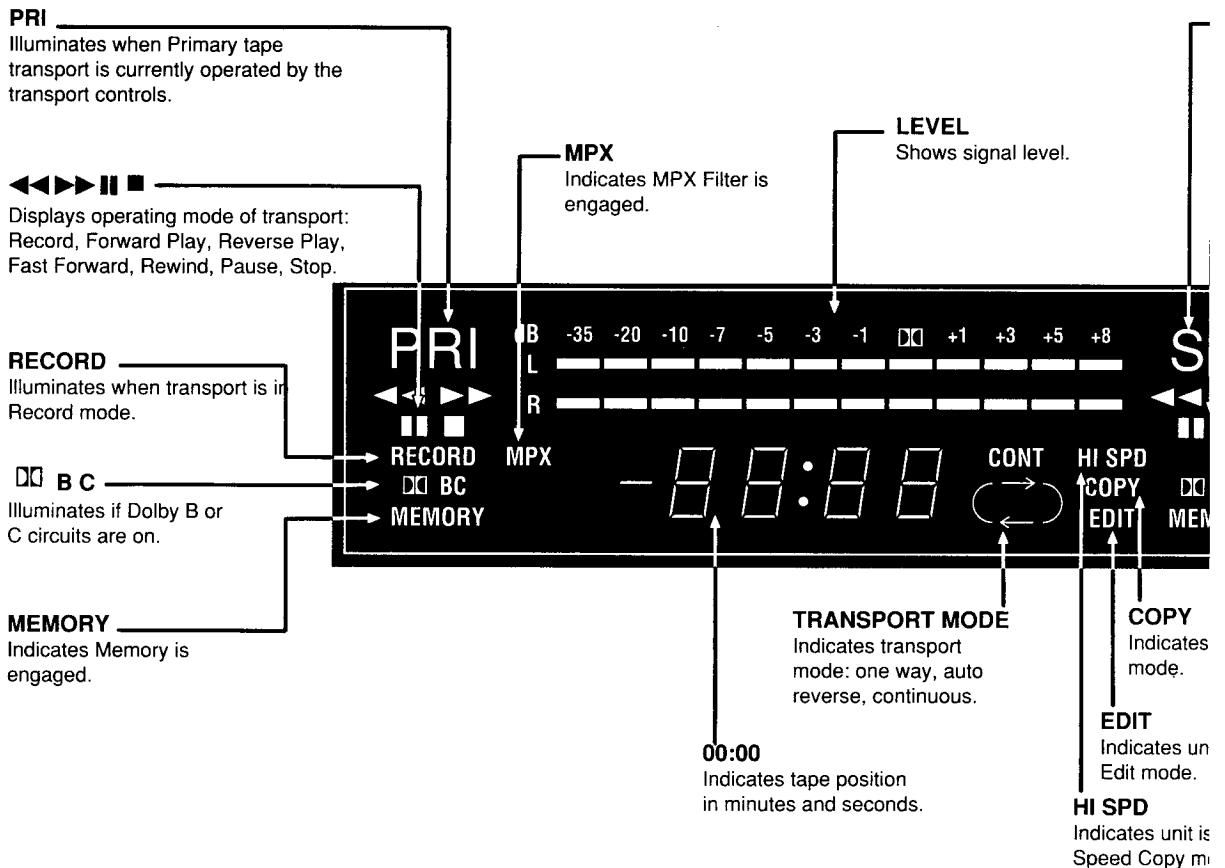
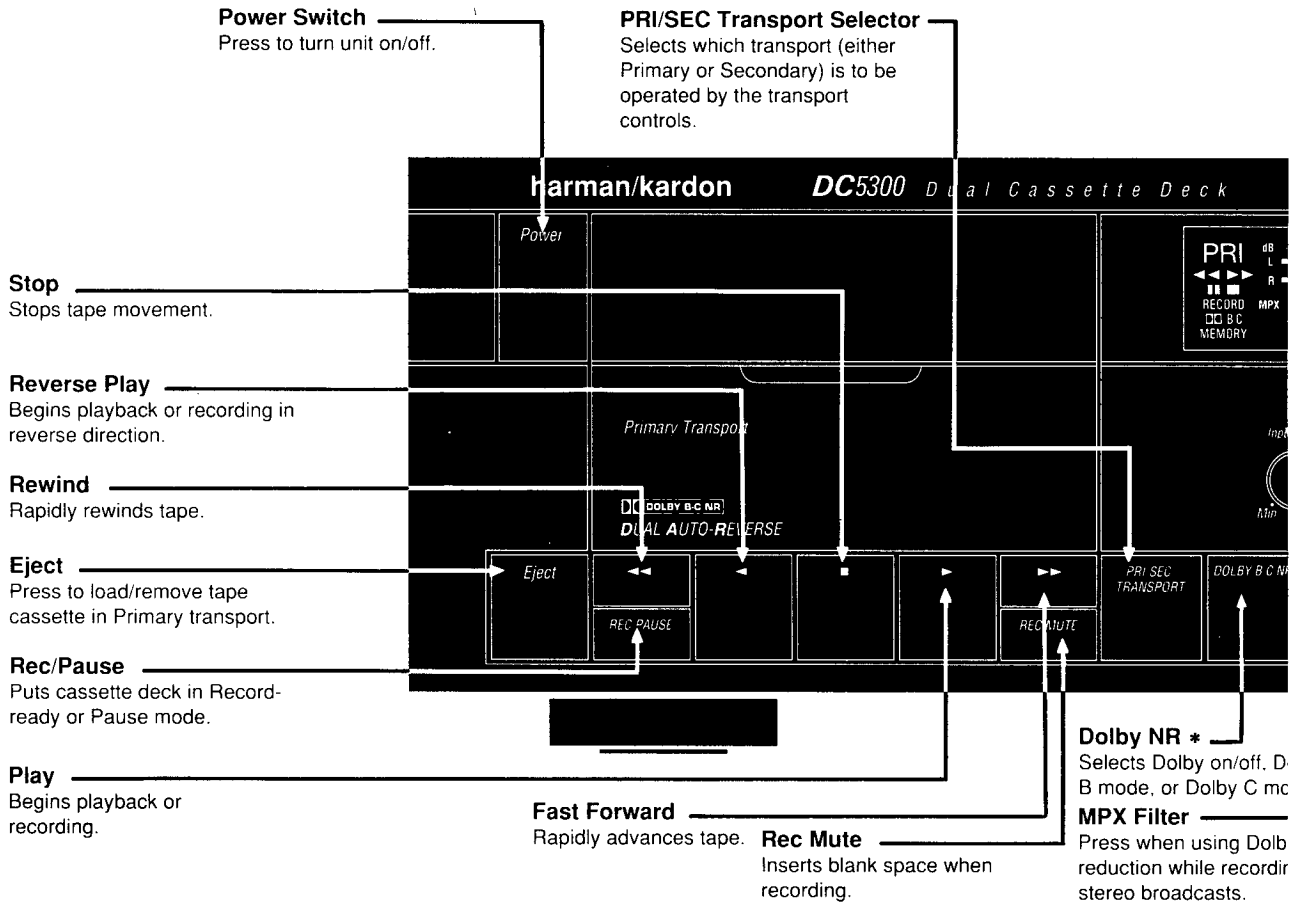
# CONTROLS AND FUNCTIONS

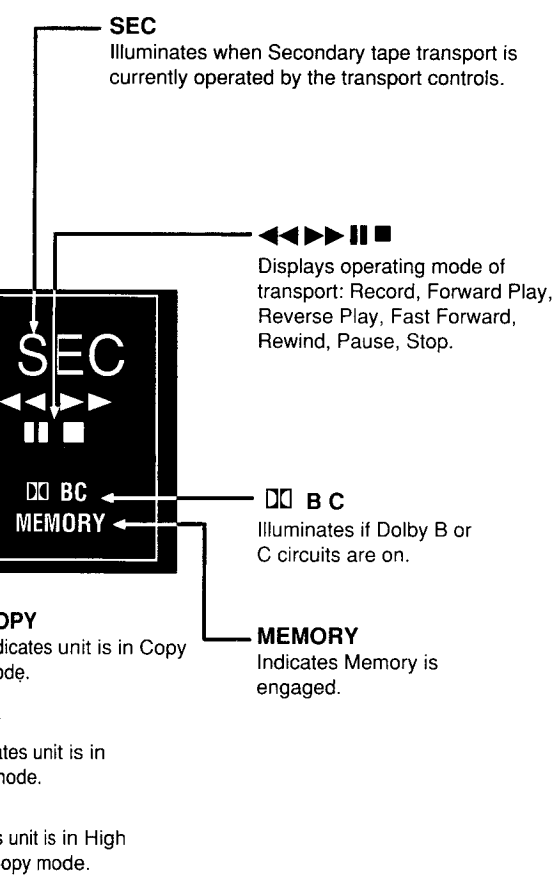
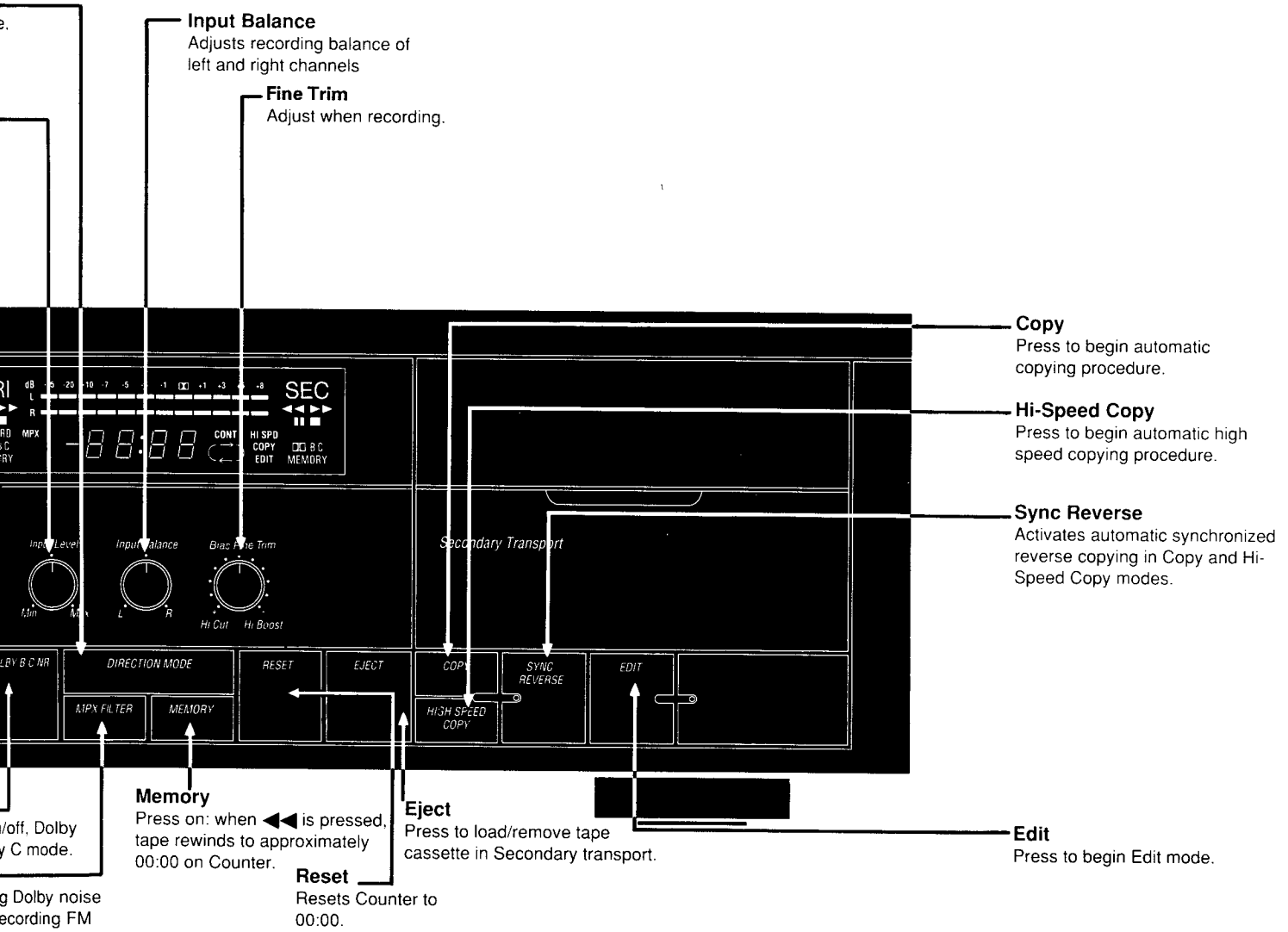
**Direction Mode** \_\_\_\_\_


Selects one way, reverse, or continuous transport mode.

**Input Level** \_\_\_\_\_

Adjusts recording level.





**\* NOTE**  
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

**DISASSEMBLY PROCEDURES (REFER TO PAGE 9, 10 and 11)****1 TOP COVER (133) REMOVAL**

Remove 4 screws (A) and 2 screws (B), and then remove the Top Cover (133).

**2 FRONT PANEL ASSEMBLY (AA) REMOVAL**

1. Remove the Top Cover (133).
2. Disconnect 1 connector (JL901) from (CN904) on the Main P. C. Board (PCB-1).
3. Remove 6 screws (C) and 3 screws (D), and then remove the Front Panel Assembly (AA).
4. If necessary, unsolder the lead wires.

**3 CASSETTE TAPE RECORDER MECHANISM ASSEMBLY (103) REMOVAL**

1. Remove the Front Panel Assembly (AA). (Refer to Step 2.)
2. Disconnect 4 connectors (LCN101/351, LCN801, LCN802 and LCN803) on the Primary Transport P. C. Board (103).
3. Remove 4 screws (E), and then the Cassette Tape Recorder Mechanism Assembly (103).

**4 CASSETTE TAPE PLAYER MECHANISM ASSEMBLY (104) REMOVAL**

1. Remove the Front Panel Assembly (AA). (Refer to Step 2.)
2. Disconnect 4 connectors (LCN151, LCN806, LCN807 and LCN808) on the Secondary Transport P. C. Board (104).
3. Remove 4 screws (F), and then the Cassette Tape Player Mechanism Assembly (104).

**5 MAIN P. C. BOARD (PCB-1) REMOVAL**

1. Remove the Front Panel Assembly (AA). (Refer to step 2).

2. Disconnect 4 connectors (LCN151, LCN806, LCN807 and LCN808) on the Secondary Transport P. C. Board (103).
3. Disconnect 4 connectors (LCN101/351, LCN801, LCN802 and LCN803) on the Primary Transport P. C. Board (104).
4. Disconnect 5 Jumper Leads (JL1, JL2, JL3, JL4 and JL5) from 5 connectors (CN805, CN804, CN803, CN802 and CN801) on the Power P. C. Board (PCB-4).
5. Remove 9 screws (G), 1 screw (H) and 2 screws (I) and then remove the Main P. C. Board (PCB-1).

**6 POWER P. C. BOARD (PCB-4) REMOVAL**

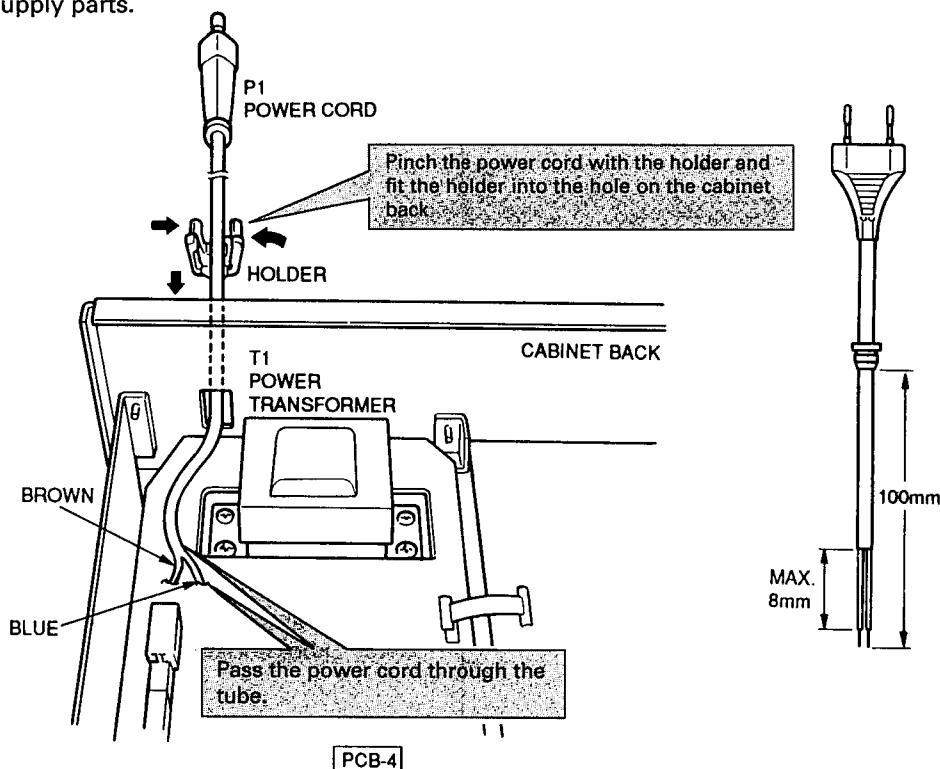
1. Remove the Front Panel Assembly (AA). (Refer to step 2).
2. Disconnect 5 Jumper Leads (JL1, JL2, JL3, JL4 and JL5) on the Power P. C. Board (PCB-4).
3. Disconnect 3 connectors (LCN801, LCN802 and LCN803) on the Primary Transport P. C. Board.
4. Remove 5 screws (J) and 4 screws (K), and then remove the Power P. C. Board (PCB-4).

**7 OTHER P.C. BOARDS REMOVAL**

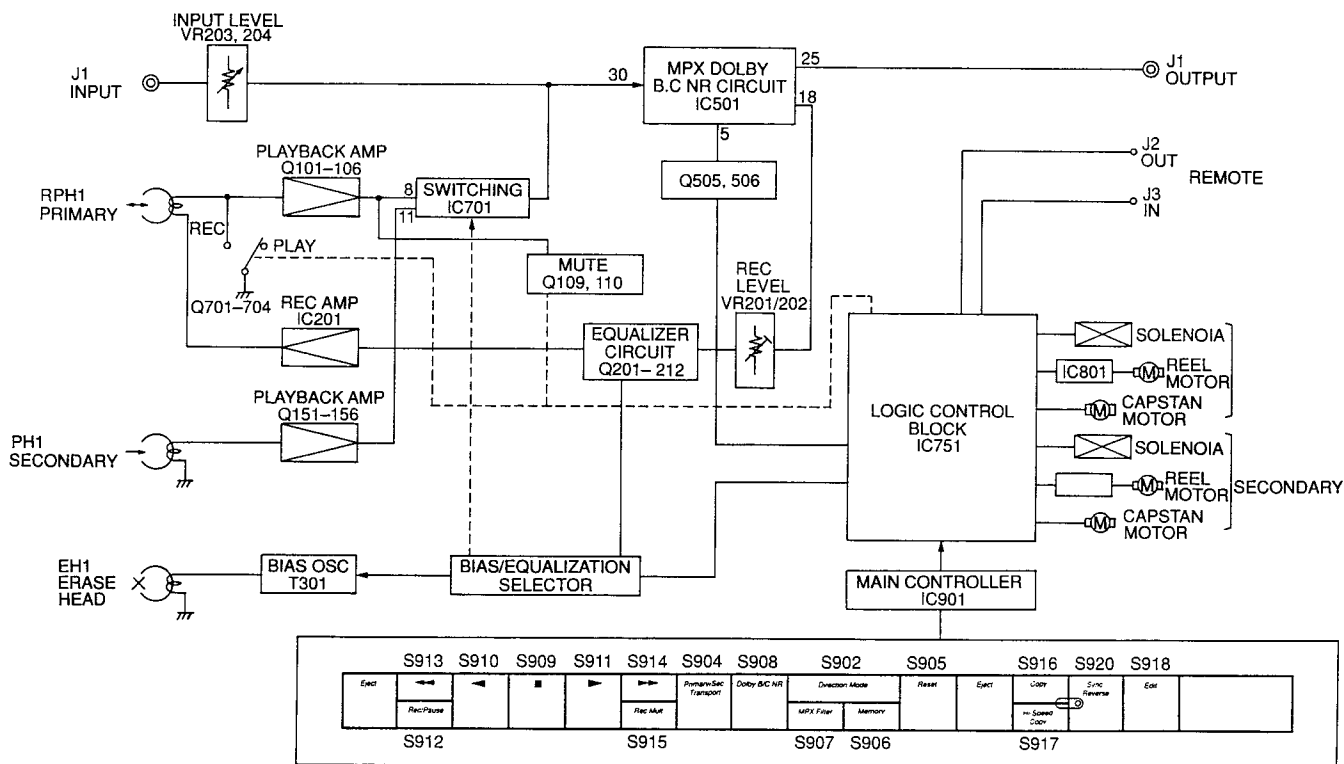
1. Remove the Front Panel Assembly (AA). (Refer to step 2).
2. Remove 4 screws (L), and then remove the Cont SW-L P. C. Board (PCB-7).
3. Remove 3 screws (M), and then remove the Cont SW-R P. C. Board (PCB-6).
4. Remove 3 Rotary Knobs (146) and 3 screws (N), and then remove the Volume P. C. Board (PCB-2).
5. Remove 7 screws (O), and then remove the Front P. C. Board (PCB-5).

**POWER CORD REPLACEMENT (FOR SERVICE ENGINEERS OTHER THAN NORTH AMERICA)**

In order to prevent fire shock hazard when replacing the power cord, follow the Procedure below to replace the part with the standard supply parts.



## BLOCK DIAGRAM



## CIRCUIT DESCRIPTION

### PLAYBACK SIGNAL

The signal from the playback head (Primary Transport) is amplified by the playback amplifier Q101, Q103 and Q105 (L ch.), and is applied to the pin 29 (L ch.) and 2 (R ch.) of the Dolby NR IC501 (B/C type) through the Switching IC701. Use the same signal for both the secondary transport and the primary transport. Switching of the playback signal from the record mode (external input signal) to the playback mode is performed inside IC501.

IC501 is usually switched to the playback mode. However, the control signal transmitted to the pin 5 of IC501 from IC751 through Q505 and Q506 switches IC501 from the record mode to the playback mode. The input signal to IC501 is output from the pins 25 (L ch.) and 6 (R ch.) and applied to the OUTPUT AMP.

### RECORD SIGNAL

The signal from the INPUT jack is controlled by the INPUT LEVEL control. It is applied to the pins 30 (L ch.) and 1 (R ch.) of the Dolby NR IC501 (B/C type). Switching of the record signal from the playback mode to the record mode is performed inside IC501. The control signal transmitted to the pin 5 of IC501 from IC751 through Q505 and Q506 switches IC501 from the playback mode to the record mode.

The input signal to the Dolby NR IC is output from the pins 28 (L ch.) and 3 (R ch.) of IC501 and passed through the MPX filter. Then it is input to the pins 27 (L ch.) and 4 (R ch.) and is output from the pins 24 (L ch.) and 7 (R ch.). The encoded signal is input to the pins 23 (L ch.) and 8 (R ch.) and then it is output from the pins 18 (L ch.) and 13 (R ch.). The signal output from IC501 passes through the record equalizer circuit and is amplified by the record amplifier of IC201. The amplified signal is then applied to the recording head after being synthesized by a bias signal.

### MUTING OPERATION

The signal that mutes the sound produced at switching to recording or playback is applied from IC751 of the logic control block.

When the "STOP" button is pressed, the mute signal output from the pin 22 of IC751 turns ON Q709 (L ch.) and Q710 (R ch.) to short-circuit the output signals of the playback amplifiers for muting. For the purpose of preventing generation of noise at power ON/OFF, the mute signal is output from Q51. The muting is done by short circuiting the output signal with Q709 (L ch.) and Q710 (R ch.) turned ON.

### LOGIC FOR RECORD MODE

When the "REC" button is pressed, the pin 11 of IC751 becomes high level and Q109 (L ch.) and Q110 (R ch.) turn ON. The input to the Dolby NR IC is muted. Also Q712 and Q713 turn ON and Q711 turns OFF. Therefore Q701, Q703 (L ch.) and Q702, Q704 (R ch.) turn OFF to release the muting of the outputs from the record amplifiers.

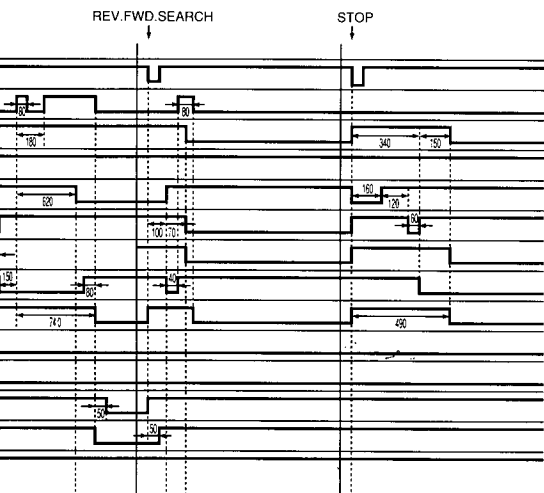
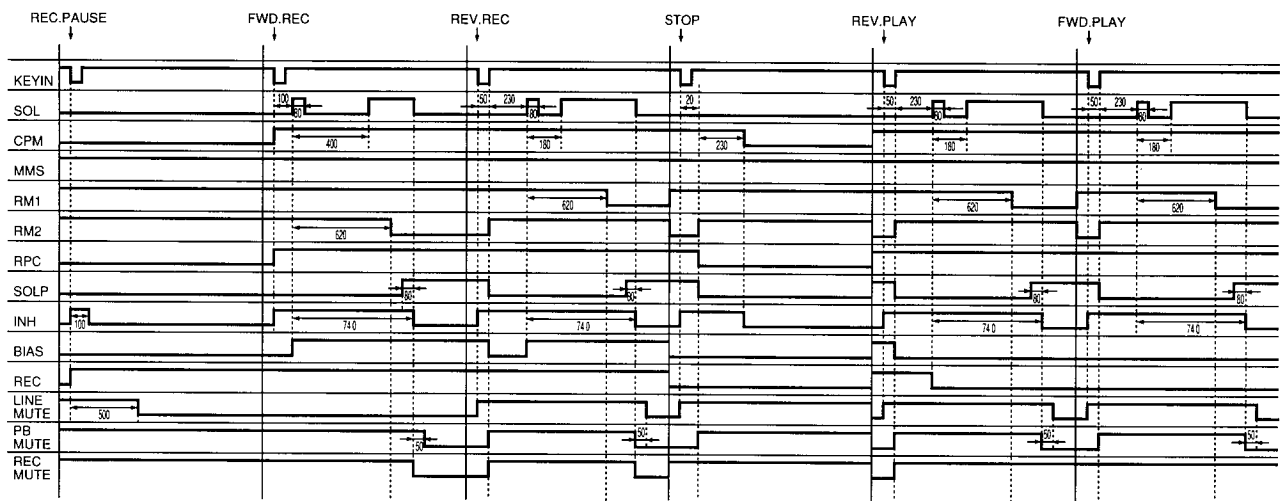
Also, Q505 turns ON and Q506 turns OFF to make the pin 5 of IC501 high level. Therefore the mode is switched to the record mode.

### LOGIC FOR RECORD TO PLAYBACK MODE

When the "STOP", "PAUSE" or "PLAY" button is pressed, the pin 12 of IC751 becomes high level. Q219 turns ON and Q213 (L ch.), Q214 (R ch.) turn ON to mute the inputs to the record amplifiers. Also, Q712 and Q713 turn OFF and Q711 turns ON to turn ON Q701, Q703 (L ch.) and Q702, Q704 (R ch.). Therefore the outputs from the record amplifiers are muted.

Also, Q505 turns OFF and Q506 turns ON to make the pin 5 of IC501 low level. Therefore the mode is switched to the playback mode.







## ALIGNMENT PROCEDURES (REFER TO PAGES 11, 12, 23, 24 AND 25)

### CASSETTE MECHANISM CONFIRMATION

Make sure to confirm conditions of the cassette mechanism as follows before adjustment.

#### 1. Confirmation of erase prevention function

- The switch should turn ON when a tape with erroneous erase preventive pawl is inserted. (Use a tape which is 0.2 mm smaller than the minimum size of 62.9 mm or a MAZ-0184-C gauge one.)
- When the switch arm is moved back gradually from the ON position, the switch turn OFF.

#### 2. Confirmation of cassette pack detection function

- The switch should turn ON when a tape is inserted. (Use a tape whose minimum size is 63.5 mm or a MAZ-0184-C gauge one.)
- When the switch arm is moved back gradually from the ON position, the switch should turn OFF.

#### 3. Confirmation of eject function

- The cassette compartment opens smoothly and no abnormal noise should be heard while opening and closing.
- The eject lever opens smoothly without contacting the chassis and damper.
- The eject button can not be pressed during playback.

#### 4. Confirmation of playback, fast forward and rewind functions

- The torque used in each of the playback, fast forward and rewind modes should be within specification.
 

|                    |                      |
|--------------------|----------------------|
| Playback .....     | 35 gr.cm – 70 gr.cm  |
| Fast Forward ..... | 70 gr.cm – 150 gr.cm |
| Rewind .....       | 70 gr.cm – 150 gr.cm |
- No abnormal noise should be heard during operation in any mode. The solenoid switching sound should not be considered as a noise.

#### 5. Confirmation of positions of record/playback head and playback head

- Head height
  - a) Set the M-300 head gauge.
  - b) Set the unit in the playback mode and place the adjustment chip on the head gauge as shown in the Fig. 1.
  - c) The adjustment chip should not contact the tape guide of both record/playback head and playback head.

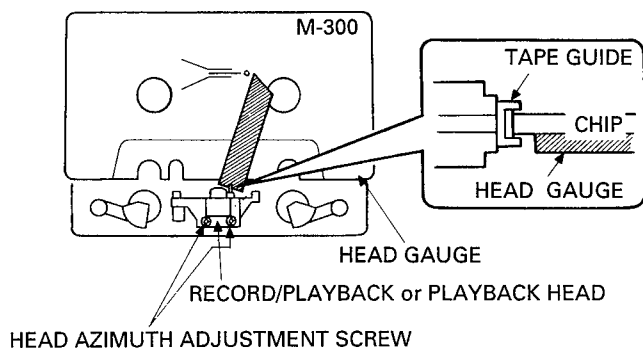


Fig. 1

- Head position

- a) Set the M-300 head gauge.
- b) Set the unit in the playback mode and place the adjustment chip on the head gauge as shown in the Fig. 2.
- c) With both record/playback head and playback head, the adjustment chip should be between MIN and MAX of the M-300 head gauge.

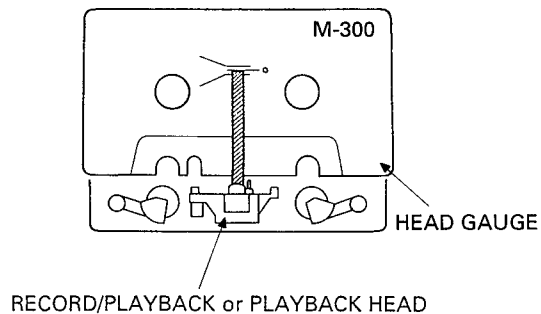


Fig. 2

## ELECTRICAL ADJUSTMENT AND CONFIRMATION

### 1. Before adjustment

- Before electrical adjustment, make sure that confirmations of the cassette mechanism are all completed.
- After the power switch is pushed on, wait for 10 minutes before measuring to be sure of the most stable operation.
- Since head magnetization, dust accumulations, etc. are likely to introduce errors in the various characteristics, it is very important that the heads are properly demagnetized and cleaned before commencing any adjustment, particularly frequency response and head azimuth adjustment.

### 2. Instruments required

- Low frequency oscillator
- AC VTVM or dual channel AC VTVM
- Oscilloscope
- Wow/flutter meter
- Frequency counter
- Distortion meter

### 3. Test tapes

- Azimuth adjustment ..... MTT-114 or TCC-153
- Tape speed adjustment .... MTT-111DN or TCC-112
- Playback output level adjustment .....  
MTT-150 or TCC-130
- Playback frequency characteristic confirmation  
..... TCC-1216 or TCC-162C and TCC-262C
- Reference tapes  
LN ..... SCC-502  
CrO<sub>2</sub> ..... SCC-1360  
METAL ..... SCC-565

### Note:

C-90 differs with C-60 in the thickness and bias is of unequal, so adjust with the tape whose bias is in of Specified Value.

### 4. General conditions (unless otherwise noted)

| Controls and Switches | Settings |
|-----------------------|----------|
| Dolby NR              | Off      |
| Input Level           | Maximum  |
| MPX Filter            | Off      |
| Bias Fine Trim        | Center   |
| Input Balance         | Center   |

### Azimuth Adjustment

When the maximum level point of R channel does not equal that L channel, connect the oscilloscope as shown in Fig. 3 and proceed with azimuth adjustment so that L and R channels are in phase.

- Connect L channel tape out to "X (or V)" and R channel to "Y (or H)". Observe the lissajous waveform.
- Set L and R channels to monaural. Adjust vertical and horizontal gain so that the waveform becomes 45 degree.
- Adjust azimuth so that the measurement of "a" becomes maximum and the measurement of "b" becomes minimum against the 45 degree line.

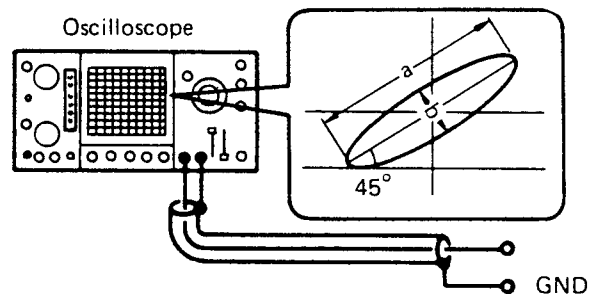
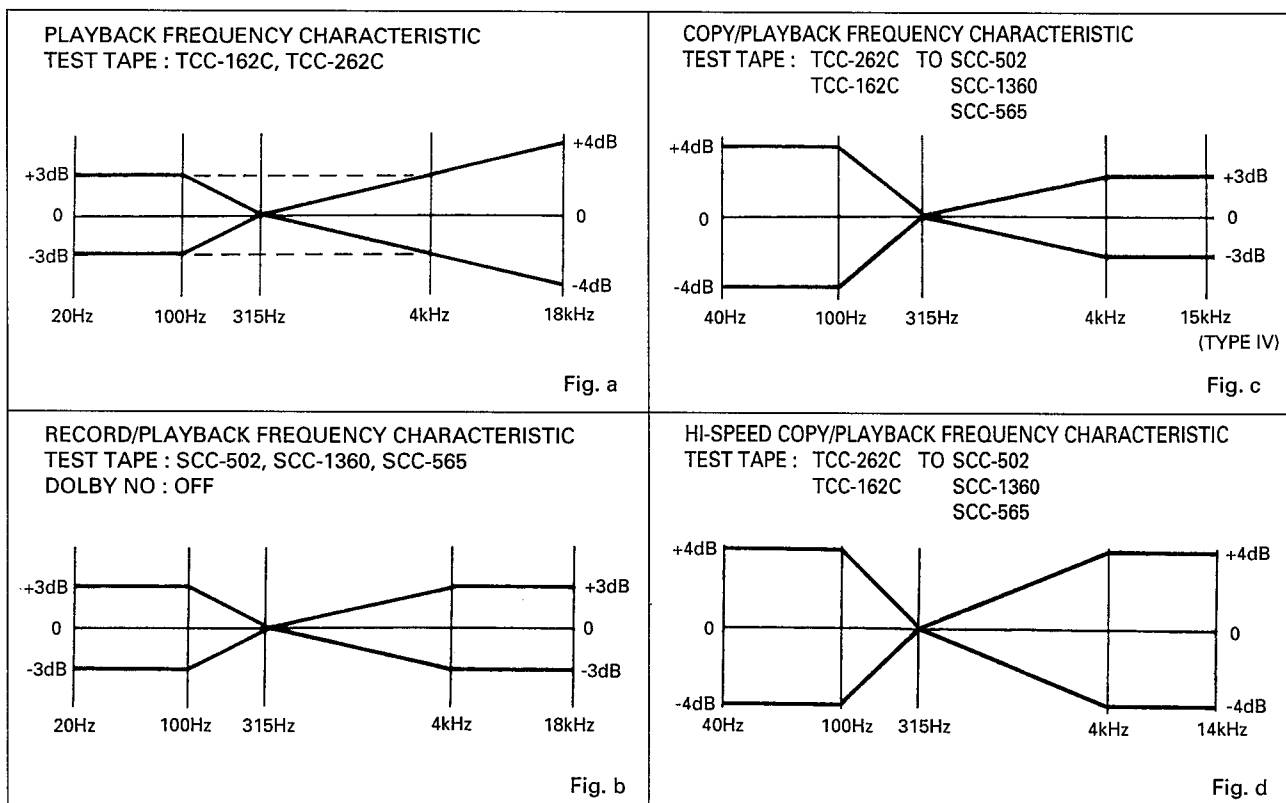


Fig. 3



| Step | Alignment   | Instrument Required  | Input Signal  |  |
|------|---|--|---|--|
| 1    | Primary Deck<br>Quick sensor  | VTVM<br>Black tape with leader tape  |   |  |
| 2    | Secondary Deck<br>Quick sensor                                      | VTVM<br>Black tape with leader tape  |   |  |
| 3    | Azimuth   | VTVM<br>Oscilloscope<br>Test tape (MTT-114 or TCC-153)   |   |  |
| 4    | Primary Deck<br>Tape speed (Hi-speed)                               | Frequency counter<br>Test tape (MTT-111DN or TCC-112)  |   |  |
| 5    | Primary Deck<br>Tape speed (Normal speed)                           | Frequency counter<br>Test tape (MTT-111DN or TCC-112)  |   |  |
| 6    | Secondary Deck<br>Tape speed (Hi-speed)                             | Frequency counter<br>Test tape (MTT-111DN or TCC-112)  |   |  |
| 7    | Secondary Deck<br>Tape speed (Normal speed)                         | Frequency counter<br>Test tape (MTT-111DN or TCC-112)  |   |  |
| 8    | Primary Deck<br>Playback output level                               | VTVM<br>Test tape (MTT-150 or TCC-130)   |   |  |
| 9    | Secondary Deck<br>Playback output level                             | VTVM<br>Test tape (MTT-150 or TCC-130)   |   |  |
| 10   | Primary Deck<br>Playback frequency<br>characteristic confirmation   | VTVM<br>Test tape (TCC-1216 or TCC-162C<br>and TCC-262C)   |   |  |
| 11   | Secondary Deck<br>Playback frequency<br>characteristic confirmation | VTVM<br>Test tape (TCC-1216 or TCC-162C<br>and TCC-262C)   |   |  |
| 12   | Bias frequency<br>confirmation                                      | Frequency counter  |   |  |
| 13   | Bias trap   | VTVM   |   |  |
| 14   | 1   | Bias level (pre-adjustment)  | VTVM  |  |
|      | 2   |  |   |  |
|      | 3   |  |   |  |
| 15   | Record level<br>(pre-adjustment)                                    | VTVM<br>Blank tapes<br>METAL SCC-565<br>CrO <sub>2</sub> SCC-1360<br>Normal SCC-502                          | Apply 1 kHz signal to INPUT jack. Set INPUT LEVEL so that TP501 and TP502 to GND voltage is 560 mV REC-PAUSE mode.    |  |
| 16   | 1   | Record/playback<br>frequency characteristic  | VTVM<br>Blank tapes<br>CrO <sub>2</sub> SCC-1360<br>METAL SCC-565<br>Normal SCC-502                                   | Apply 1 kHz signal to INPUT jack. The output at TP1 and TP502 are Dolby level -25 dB. Then adjust with a 20 Hz to 30 kHz sweep signal. |
|      | 2   |  |   |  |
|      | 3   |  |   |  |
| 17   | Record level  | VTVM<br>Blank tapes<br>CrO <sub>2</sub> SCC-1360<br>METAL SCC-565<br>Normal SCC-502                          | Set INPUT LEVEL knob so that TP501 and TP502 to voltage is 560 mV (1 kHz) in REC-PAUSE mode.                          |  |
| 18   | High speed copy<br>frequency characteristic                         | VTVM<br>Blank tapes<br>CrO <sub>2</sub> SCC-1360<br>METAL SCC-565<br>Normal SCC-502<br>Test tape<br>TCC-185C |   |  |
| 19   | High speed copy<br>frequency characteristic                         | VTVM<br>Blank tapes<br>CrO <sub>2</sub> SCC-1360<br>METAL SCC-565<br>Normal SCC-502<br>Test tape<br>TCC-285C |   |  |
| 20   | Meter level   | VTVM   | Apply 1 kHz signal to INPUT jack. Set INPUT LEVEL so that TP501 and TP502 to GND voltage is 1.5 dB b 775 mV.          |  |
| 21   | MPX filter characteristic<br>confirmation                           | VTVM   | Apply 19 kHz, 15 kHz and 1 kHz signal to INPUT jack Set INPUT LEVEL knob so that TP501 and TP502 to voltage is 775mV. |  |

|                            | Mode                          | Test Point   | Adjustment                                  | For   |
|----------------------------|-------------------------------|--|---|---|
|                            | PB (Primary)                  | TP809  | VR803                                       | Adjust VR803 so the voltage at the test point is 0.62V when the leader tape is running and 200 mV or less in the middle of tape.  |
|                            | PB (Secondary)                | TP859  | VR853                                       | Adjust VR853 so the voltage at the test point is 0.62V when the leader tape is running and 200 mV or less in the middle of tape.  |
|                            | PB                            | TP501 (L ch), GND<br>TP502 (R ch), GND<br>or OUTPUT jack | Azimuth screw                               | Maximum output<br>Refer to "Azimuth Adjustment" on page 6.  |
|                            | PB                            | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR801                                       | 6020 Hz $\pm$ 20 Hz (TP806 : GND connection)<br>Adjust at the center of test tape.  |
|                            | PB                            | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR802                                       | 3010 Hz $\pm$ 10 Hz<br>Adjust at the center of test tape.   |
|                            | PB                            | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR851                                       | 6020 Hz $\pm$ 20 Hz (TP856 : GND connection)<br>Adjust at the center of test tape.  |
|                            | PB                            | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR852                                       | 3010 Hz $\pm$ 10 Hz<br>Adjust at the center of test tape.   |
|                            | PB (Primary)                  | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR101 (L ch)<br>VR102 (R ch)                | 775 mV<br>Tape selector is Normal position.<br>Adjust at Dolby NR off.  |
|                            | PB (Secondary)                | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR157 (L ch)<br>VR158 (R ch)                | 775 mV<br>Tape selector is Normal position.<br>Adjust at Dolby NR off.  |
|                            | PB (Primary)                  | TP501 (L ch), GND<br>TP502 (R ch), GND<br>or OUTPUT jack | VR103<br>VR104                              | Adjust VR103 and VR104 so the playback frequency response (1 kHz/18 kHz) is +0.6 ~ 0.7 dB.<br>Refer to Fig. a   |
|                            | PB (Secondary)                | TP501 (L ch), GND<br>TP502 (R ch), GND<br>or OUTPUT jack | VR153<br>VR154                              | Adjust VR153 and VR154 so the playback frequency response (1 kHz/18 kHz) is +0.6 ~ 0.7 dB.<br>Refer to Fig. a   |
|                            | REC/PB (Primary)              | TP101 (L ch), GND<br>TP102 (R ch), GND                   | T301  | 105 kHz $\pm$ 3 kHz<br>Use METAL tape.  |
|                            | REC/PB (Primary)              | TP201 (L ch), GND<br>TP202 (R ch), GND                   | LC201, LC202                                | Minimum output<br>Use METAL tape.<br>INPUT VR. minimum  |
|                            | REC/PB (Primary)              | TP101 (L ch), GND<br>TP102 (R ch), GND                   | VR351<br>VR352                              | 35 mV<br>Test tape is METAL blank tape.   |
|                            | REC/PB (Primary)              | TP101 (L ch), GND<br>TP102 (R ch), GND                   | VR353                                       | 20 mV<br>Test tape is CrO <sub>2</sub> blank tape.  |
|                            | REC/PB (Primary)              | TP101 (L ch), GND<br>TP102 (R ch), GND                   | VR354                                       | 13 mV<br>Test tape is Normal blank tape.  |
| LEVEL knob<br>50 mV in     | REC/PB (Primary)              | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR201, VR202<br>VR351, VR352                | 560 mV<br>Tape selector is METAL position.<br>Adjust VR351 and VR352 so that the distortion becomes 1.0% - 1.4%   |
|                            | REC/PB (Primary)              | TP501 (L ch), GND<br>TP502 (R ch), GND                   | VR353 (CrO <sub>2</sub> )<br>VR354 (Normal) | 560 mV<br>Adjust VR353 so that the distortion becomes 1.3% (CrO <sub>2</sub> ).<br>Adjust VR354 so that the distortion becomes 1.0% (Normal).<br>This confirmation should be at each tape selector position.  |
| at TP501<br>Normal.        | REC/PB                        | OUTPUT jack  | VR353<br>L201, L202<br>(VR351, VR352)       | So that the record/playback frequency response is flat (at least within the range in Fig. b.)<br>Tape selector is CrO <sub>2</sub> position.  |
|                            | REC/PB                        | OUTPUT jack  | VR351<br>VR352                              | So that the record/playback frequency response is flat (at least within the range in Fig. b.)<br>Tape selector is METAL position.   |
|                            | REC/PB                        | OUTPUT jack  | VR354<br>L201, L202<br>(VR351, VR352)       | So that the record/playback frequency response is flat (at least within the range in Fig. b.)<br>Tape selector is Normal position.  |
| 502 to GND<br>e.           | REC/PB                        | TP501 (L ch), GND<br>TP502 (R ch), GND                   |   | 560 mV<br>Perform adjustment using CrO <sub>2</sub> .<br>Perform checking only for Normal and METAL tapes.  |
|                            | High Speed Copy Play          | OUTPUT   | L203, L204                                  | Load TCC-185C in SEC DECK and SCC-565 in PRI DECK and execute high-speed copying, then play the tape in the PRI DECK. Check that the frequency response of the 14 kHz signal is within $\pm$ 3 dB of that of the 1 kHz signal.<br>If this specification cannot be satisfied, adjust L203 and L204. After adjustment is confirmed, also use the SCC-502 and SCC-1360 tapes to check. |
|                            | High Speed Copy Play          | OUTPUT   | L203, L204                                  | Load TCC-285C in SEC DECK and SCC-565 in PRI DECK and execute high-speed copying, then play the tape in the PRI DECK. Check that the frequency response of the 14 kHz signal is within $\pm$ 3 dB of that of the 1 kHz signal.<br>If this specification cannot be satisfied, adjust L203 and L204. After adjustment is confirmed, also use the SCC-502 and SCC-1360 tapes to check. |
| LEVEL knob<br>dB below     | REC/PAUSE                     | PEAK LEVEL METER   | VR401<br>VR402                              | Adjust so the -1 dB segments light.   |
| OUTPUT jack.<br>502 to GND | REC/PAUSE<br>MPX filter<br>ON | TP501 (L ch), GND<br>TP502 (R ch), GND<br>or OUTPUT jack | LC501<br>LC502                              | Adjust for -0.3 dB at 15 kHz and > 35 dB at 19 kHz  |

A B C D E

**GENERAL UNIT  
EXPLODED VIEW**

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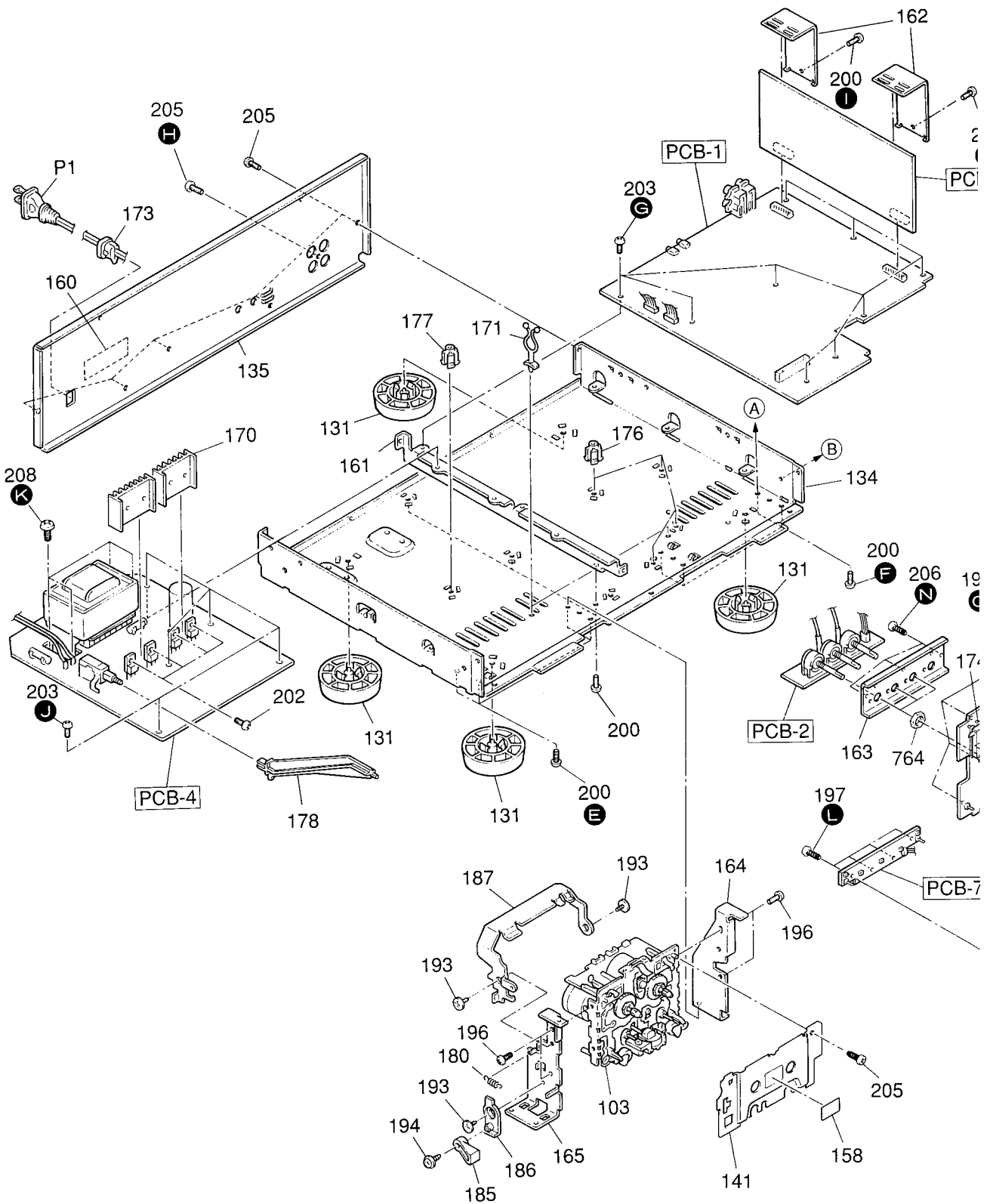
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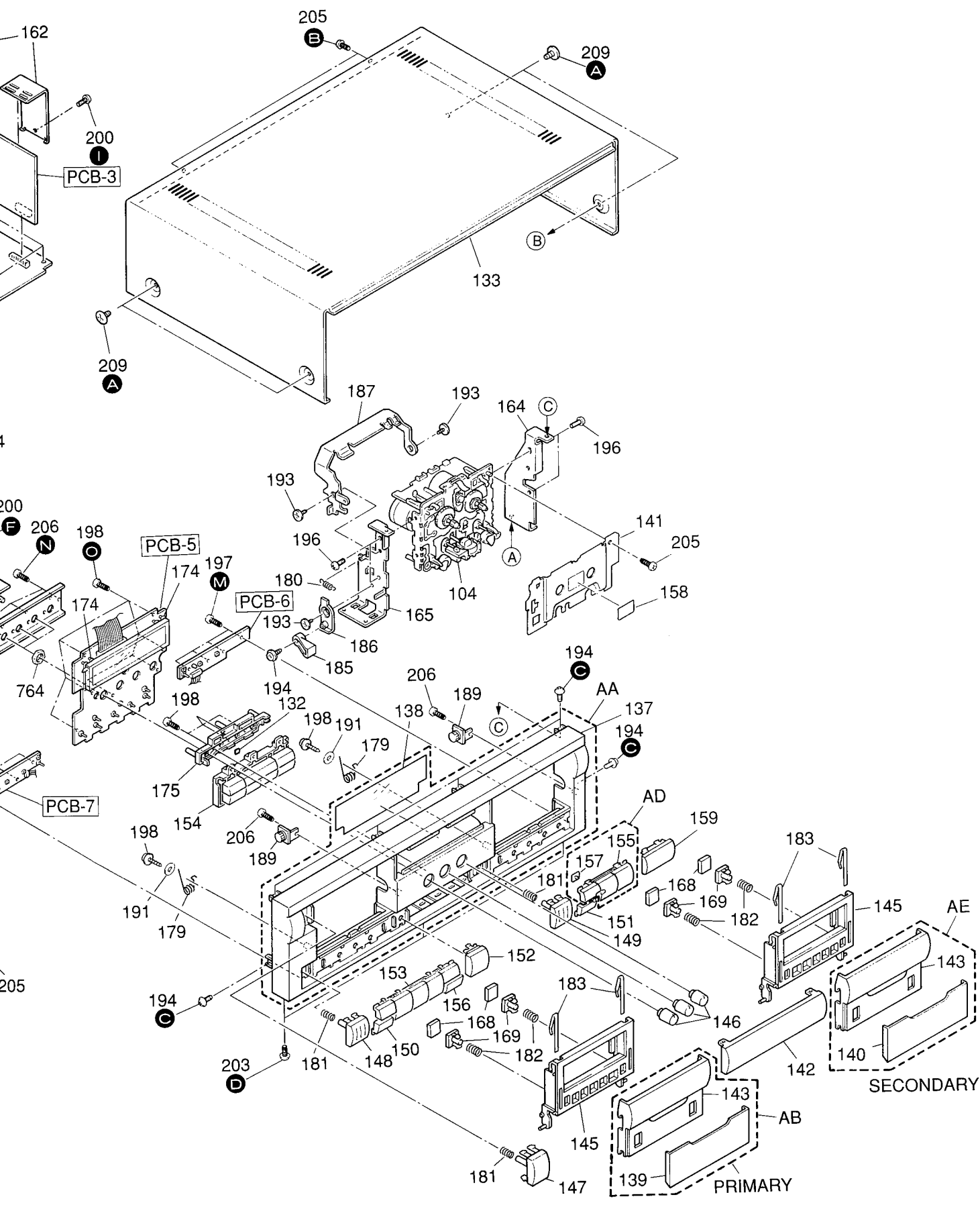
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## GENERAL UNIT PARTS LIST

| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>            | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>             |
|-----------------|-----------------|-------------------------------|-----------------|-----------------|--------------------------------|
| AA              | A442-DC5300B    | FRONT PANEL ASSEMBLY          | 167             | 2216-7197       | SHIELD PLATE                   |
| AB              | A532-DC5300B    | WINDOW ASSEMBLY, PRI          | 168             | 2114-87143      | BUSHING (x6)                   |
| AD              | A662-DC5300B    | PUSH BUTTON ASSEMBLY          | 169             | 2240-7371       | HOLDER (x4)                    |
| AE              | A532-DC5300F    | WINDOW ASSEMBLY, SEC          | 170             | 2222-7281       | HEAT SINK (x2)                 |
| 103             | 3112-15903      | REC BLOCK ASSEMBLY, PRI       | 171             | 2240-7050       | HOLDER (x2)                    |
| 104             | 3112-15904      | REC BLOCK ASSEMBLY, SEC       | 172             | 2240-R0101      | HOLDER (x5)                    |
| 131             | 1319-03301      | LEG (x4)                      | 173             | 2240-364        | HOLDER                         |
| 132             | 1751-19702      | LABEL                         | 174             | 2240-7387       | HOLDER (x2)                    |
| 133             | 1414-16701      | TOP COVER                     | 175             | 2240-7391       | HOLDER                         |
| 134             | 1424-34201      | CABINET BOTTOM                | 176             | 2360-7022       | BOSS, SPE (x4)                 |
| 135             | 1424-34301      | CABI BACK <b>BK</b>           | 177             | 2360-7063       | BOSS, SPE                      |
| 135             | 1424-34304      | CABI BACK <b>IB</b> <b>BB</b> | 178             | 2601-7199       | SHAFT                          |
| 136             | 1751-22201      | LABEL, WINDOW                 | 179             | 2651-059        | SPRING (x2)                    |
| 137             | 1442-26801      | PANEL, FRONT                  | 180             | 2651-11212      | SPRING (x2)                    |
| 138             | 1511-22101      | PLATE, DISPLAY                | 181             | 2651-2101732    | SPRING (x3)                    |
| 139             | 1512-07501      | PLATE, CASS. LID (PRI)        | 182             | 2651-2101735    | SPRING (x4)                    |
| 140             | 1512-07502      | PLATE, CASS. LID (SEC)        | 183             | 2652-105        | LEAF SPRING (x4)               |
| 141             | 1514-23501      | PLATE, MECHA (x2)             | 185             | 2672-7051       | LEVER (x2)                     |
| 142             | 1532-20901      | WINDOW, DISPLAY               | 186             | 2672-7052       | LEVER (x2)                     |
| 143             | 1532-21001      | WINDOW, CASS. LID (x2)        | 187             | 2672-7053       | LEVER (x2)                     |
| 145             | 1612-07801      | CASS. LID (x2)                | 189             | 2692-015        | DAMPER (x2)                    |
| 146             | 1632-20401      | ROTARY KNOB (x3)              | 191             | 2401-0216       | WASHER, METAL (x2)             |
| 147             | 1662-58401      | PUSH BUTTON, POWER            | 193             | 2320-044        | SCREW, SPF+ (x6)               |
| 148             | 1662-65001      | PUSH BUTTON, EJECT L          | 194             | 2340-7009       | SCREW, SPF T+ (x8)             |
| 149             | 1662-65101      | PUSH BUTTON, EJECT R          | 196             | 2347-260527     | SCREW, BND T+ (2.6x5mm) (x8)   |
| 150             | 1662-65201      | PUSH BUTTON, REC/PAUSE        | 197             | 2347-260626     | SCREW, BND T+ (2.6x6mm) (x8)   |
| 151             | 1662-65301      | PUSH BUTTON, HIGH SPEED COPY  | 198             | 2347-R0126122   | SCREW, BND T+ (2.6x12mm) (x13) |
| 152             | 1662-65401      | PUSH BUTTON, TRANSPORT        | 200             | 2347-R0130062   | SCREW, BND T+ (3x6mm) (x13)    |
| 153             | 1662-65501      | PUSH BUTTON, CASS. L          | 202             | 2347-R0130082   | SCREW, BND T(+) (3x8mm) (x4)   |
| 154             | 1662-65601      | PUSH BUTTON, CENTER           | 203             | 2347-R0130082   | SCREW, BND T(+) (3x8mm) (x17)  |
| 155             | 1662-65701      | PUSH BUTTON, CASS. R          | 205             | 2347-R0130084   | SCREW, BND T(+) (3x8mm) (x10)  |
| 156             | 1662-66301      | PUSH BUTTON, REC MUTE         | 206             | 2347-R0130122   | SCREW, BND T(+) (3x12mm) (x5)  |
| 157             | 1732-08201      | INDICATOR                     | 208             | 2347-R0140062   | SCREW, BND T(+) (4x6mm) (x4)   |
| 158             | 1741-01601      | ORNAMENT (x2)                 | 209             | 2347-R0140064   | SCREW, BND T(+) (4x6mm) (x4)   |
| 159             | 1742-08101      | ORNAMENT, CASS. R             | 764             | 2440-62         | NUT, SPE (x3)                  |
| 160             | 1756-CSA        | LABEL <b>BK</b>               | △ P1            | 4161-71151      | CORD W/PLUG <b>BK</b>          |
| 161             | 2219-8293       | METAL FITTG, CENTER PCB       | △ P1            | 4161-7256       | CORD W/PLUG <b>IB</b>          |
| 162             | 2219-8323       | METAL FITTG, DOLBY PCB (x2)   | △ P1            | 4161-04100      | CORD W/PLUG <b>BB</b>          |
| 163             | 2219-8324       | METAL FITTG, VR HOLD          |                 |                 |                                |
| 164             | 2219-8325       | METAL FITTG, MECHA R (x2)     |                 |                 |                                |
| 165             | 2210-8326       | METAL FITTG, MECHA L (x2)     |                 |                 |                                |

### NOTE:

△ SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.





# WIRING DIAGRAM

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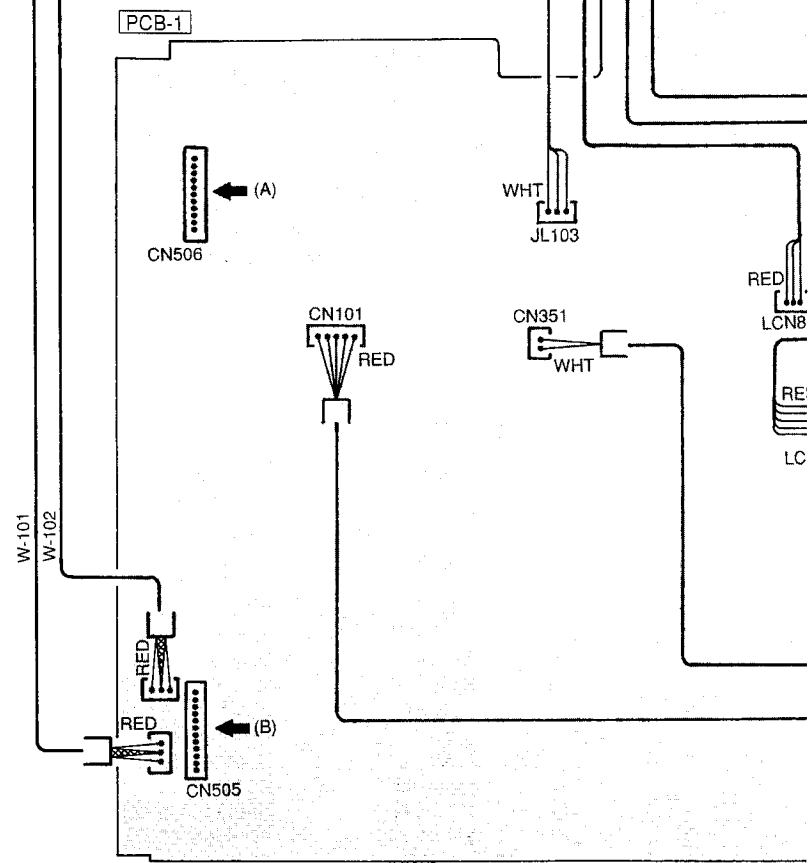
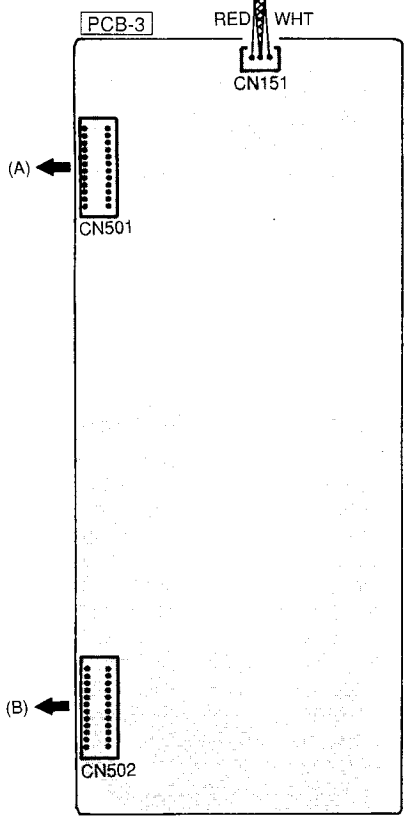
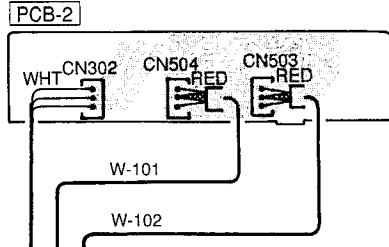
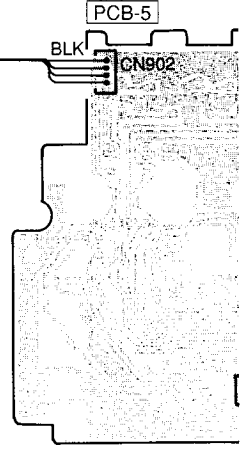
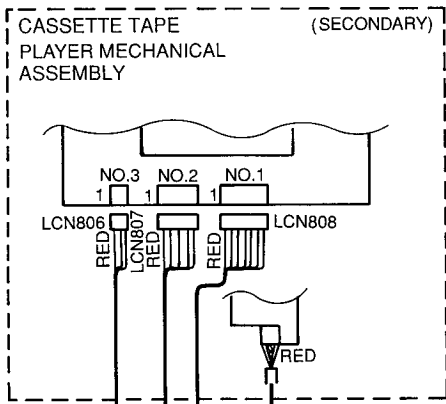
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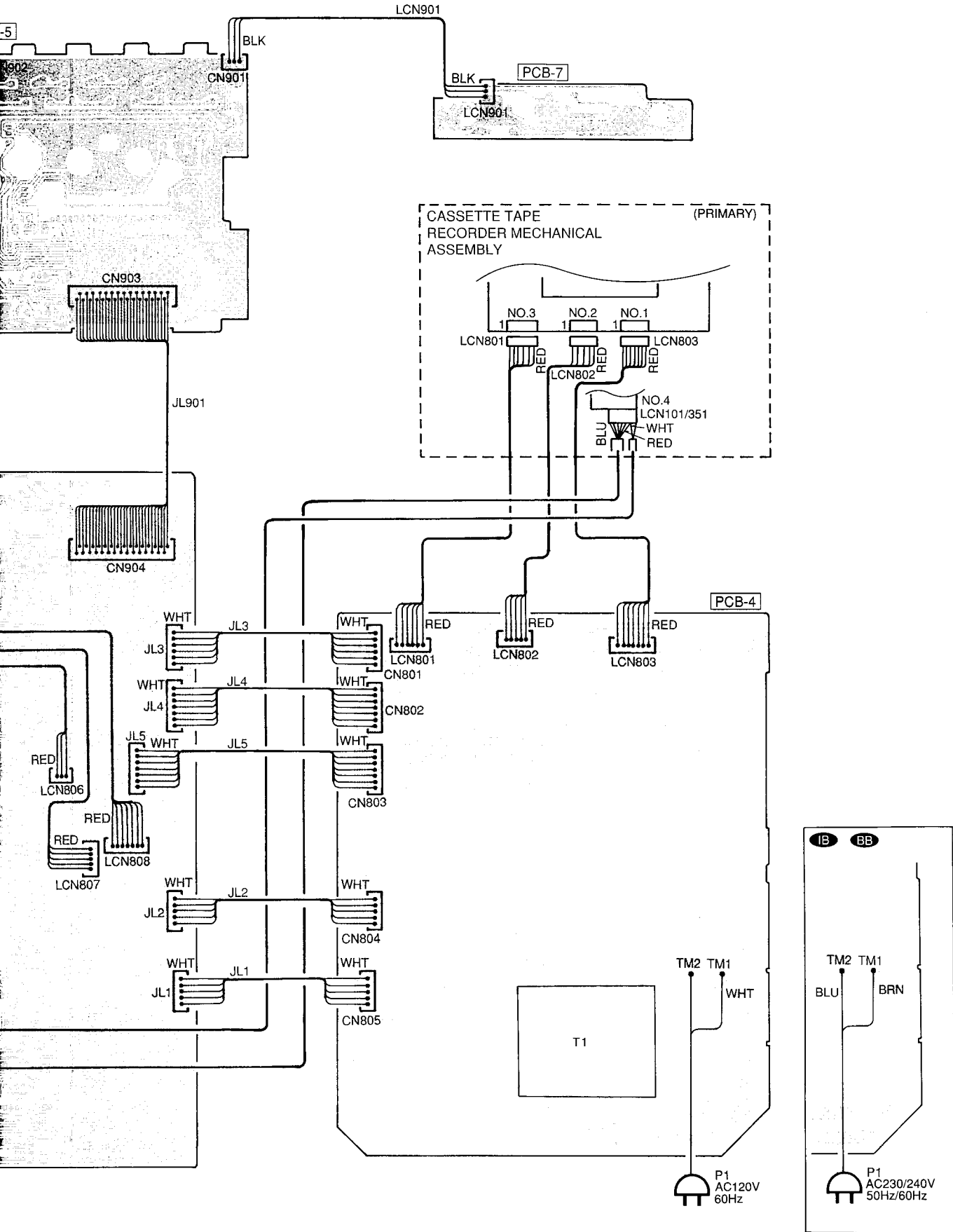
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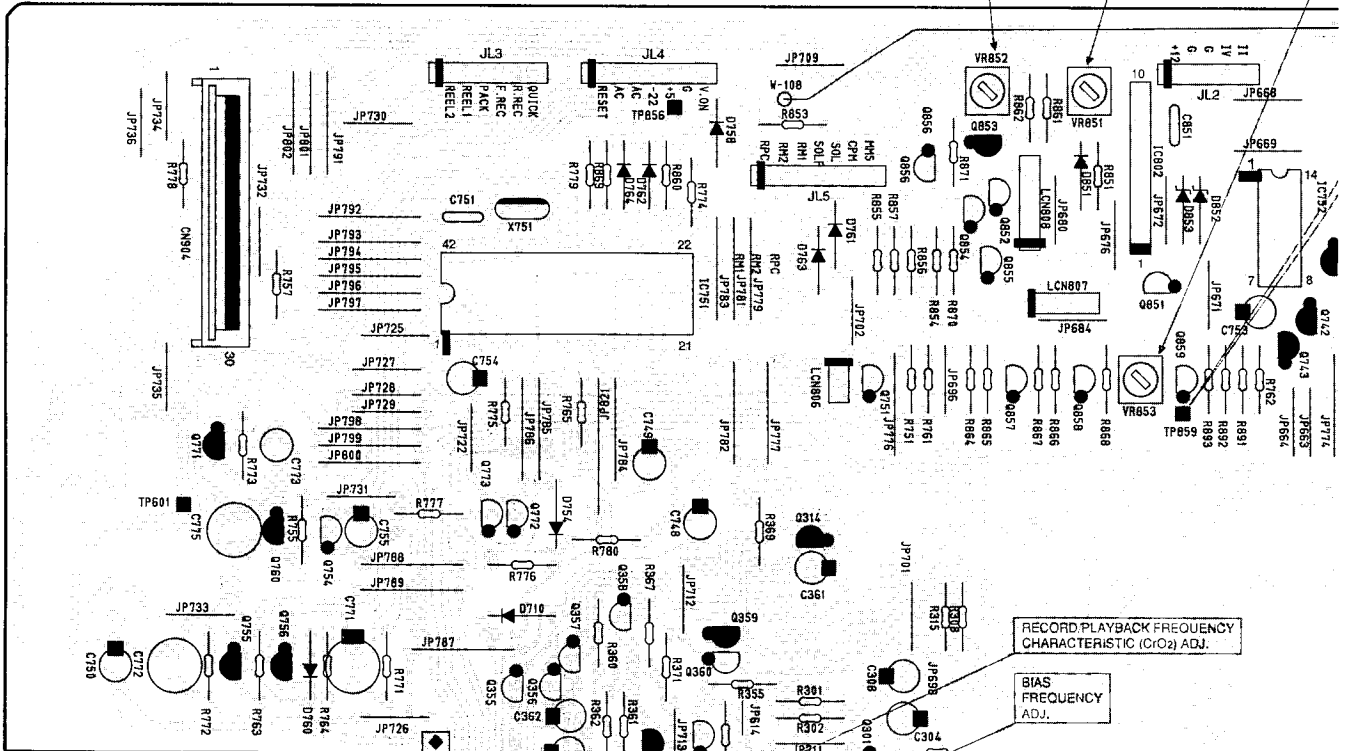




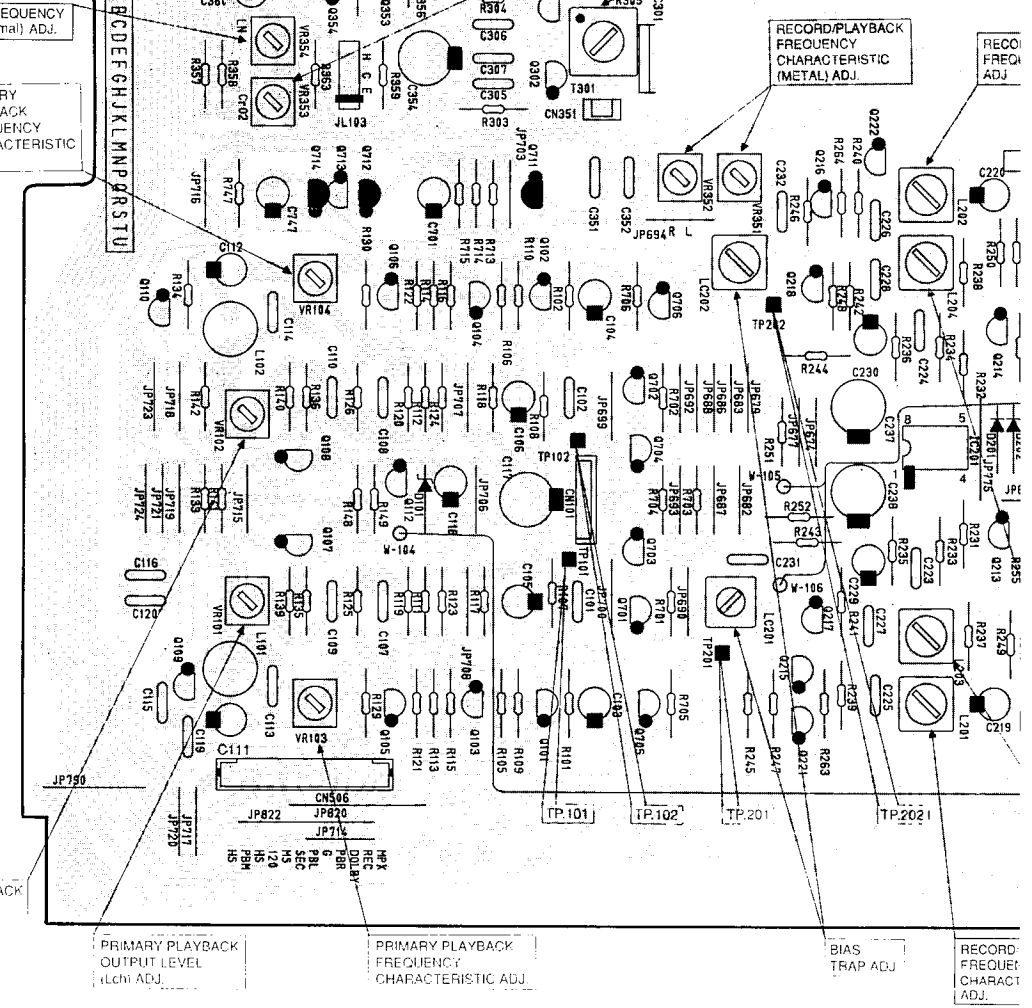
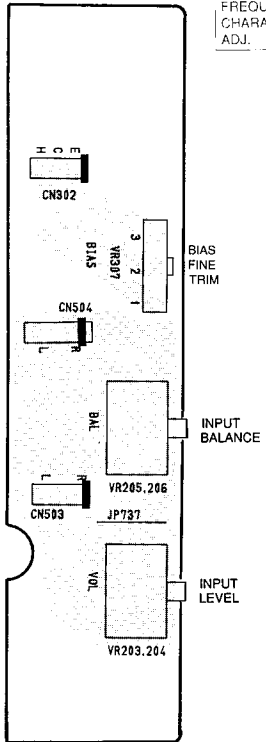
- WIRE COLOR ABBREVIATIONS**
- |              |              |
|--------------|--------------|
| REC : Red    | YEL : Yellow |
| ORG : Orange | PUP : Purple |
| BLU : Blue   | PIK : Pink   |
| WHT : White  | BRN : Brown  |
| BLK : Black  |              |

# P. C. BOARD (1)

PCB-1 Main P. C. Board



PCB-2 VR P. C. Board



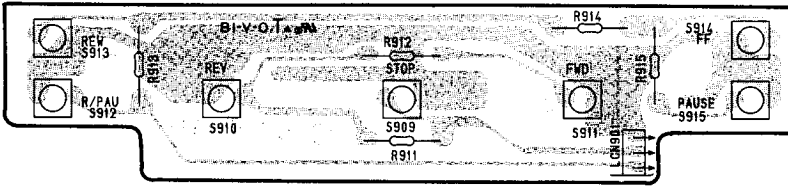


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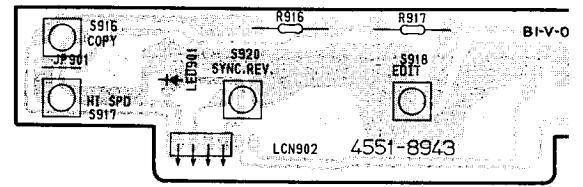
### P. C. BOARD (2)

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PCB-7 Cont SW-L P. C. Board

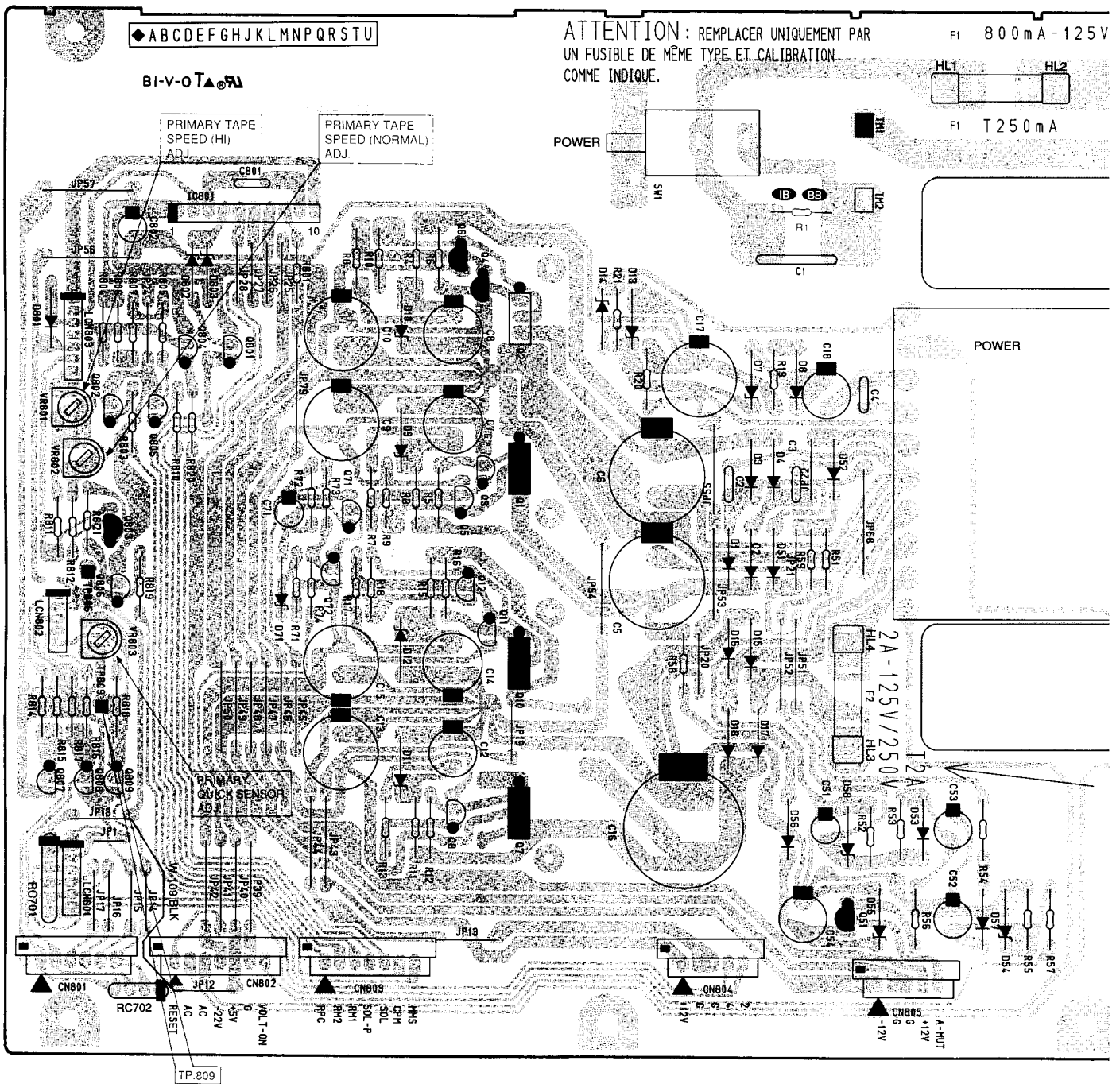


PCB-6 Cont SW-R P. C. Board



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PCB-4 Power P. C. Board



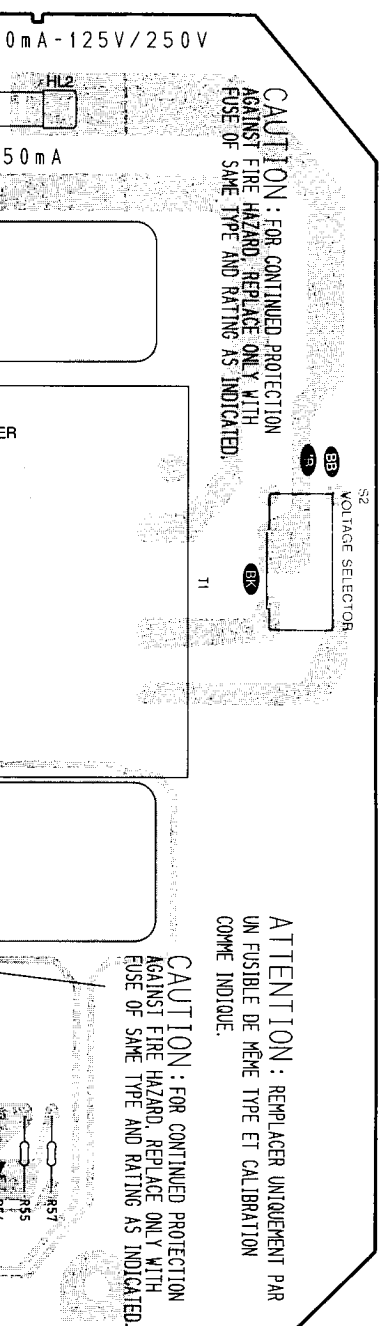
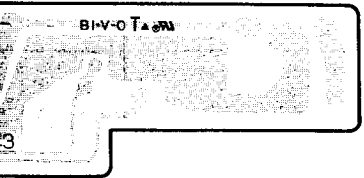
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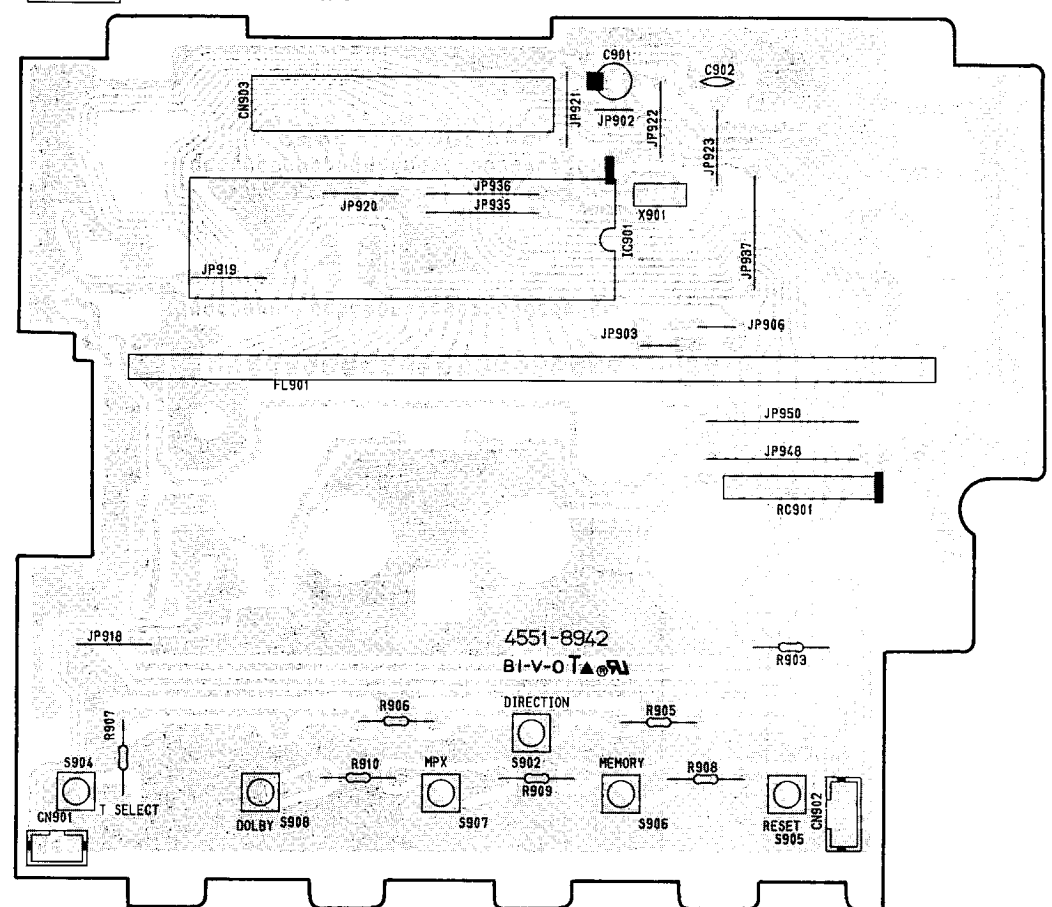
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PCB-5 Front P. C. Board



## ELECTRICAL PARTS LIST

| Ser. No.                      | Ref. No. | Part No.      | Description            | Ser. No. | Ref. No. | Part No.      | Description            |
|-------------------------------|----------|---------------|------------------------|----------|----------|---------------|------------------------|
| <b>PCB-1 MAIN P. C. BOARD</b> |          |               |                        | 724      | C407     | 5345-475F041  | CAP, MINI ELE 4.7μ/50V |
| <b>CAPACITORS</b>             |          |               |                        | 724      | C408     | 5345-475F041  | CAP, MINI ELE 4.7μ/50V |
| 323                           | C101     | 5353-101534   | CAP, MCA 100P          | 725      | C409     | 5345-476D041  | CAP, MINI ELE 47μ/25V  |
| 323                           | C102     | 5353-101534   | CAP, MCA 100P          | 680      | C701     | 5345-106E041  | CAP, MINI ELE 10μ/35V  |
| 315                           | C103     | 5345-106C0951 | CAP, MINI ELE 10μ/16V  | 685      | C747     | 5345-107C041  | CAP, MINI ELE 100μ/16V |
| 315                           | C104     | 5345-106C0951 | CAP, MINI ELE 10μ/16V  | 683      | C748     | 5345-226D041  | CAP, MINI ELE 22μ/25V  |
| 316                           | C105     | 5345-227B0952 | CAP, MINI ELE 220μ/10V | 680      | C749     | 5345-106E041  | CAP, MINI ELE 10μ/35V  |
| 316                           | C106     | 5345-227B0952 | CAP, MINI ELE 220μ/10V | 680      | C750     | 5345-106E041  | CAP, MINI ELE 10μ/35V  |
| 324                           | C107     | 5359-6825851  | CAP, PPP 6800P         | 689      | C751     | 5359-S010J103 | CAP, PPP .01μ          |
| 324                           | C108     | 5359-6825851  | CAP, PPP 6800P         | 680      | C753     | 5345-106E041  | CAP, MINI ELE 10μ/35V  |
| 324                           | C109     | 5359-6825851  | CAP, PPP 6800P         | 686      | C754     | 5345-106F0951 | CAP, MINI ELE 10μ/50V  |
| 324                           | C110     | 5359-6825851  | CAP, PPP 6800P         | 680      | C755     | 5345-106E041  | CAP, MINI ELE 10μ/35V  |
| 315                           | C111     | 5345-106C0951 | CAP, MINI ELE 10μ/16V  | 687      | C761     | 5345-476D041  | CAP, MINI ELE 47μ/25V  |
| 315                           | C112     | 5345-106C0951 | CAP, MINI ELE 10μ/16V  | 684      | C762     | 5345-107C041  | CAP, MINI ELE 100μ/16V |
| 325                           | C113     | 5359-S010J682 | CAP, PPP 6800P         | 684      | C763     | 5345-107C041  | CAP, MINI ELE 100μ/16V |
| 325                           | C114     | 5359-S010J682 | CAP, PPP 6800P         | 685      | C764     | 5345-107C041  | CAP, MINI ELE 100μ/16V |
| 326                           | C115     | 5359-S010J102 | CAP, PPP 1000P         | 680      | C771     | 5345-106E041  | CAP, MINI ELE 10μ/35V  |
| 326                           | C116     | 5359-S010J102 | CAP, PPP 1000P         | 682      | C772     | 5342-476C041  | CAP, ELE BP 47μ/16V    |
| 318                           | C117     | 5345-477C041  | CAP, MINI ELE 470μ/16V | 681      | C773     | 5342-106D041  | CAP, ELE BP 10μ/25V    |
| 317                           | C118     | 5345-336C041  | CAP, MINI ELE 33μ/16V  | 681      | C775     | 5342-106D041  | CAP, ELE BP 10μ/25V    |
| 445                           | C201     | 5359-S010J152 | CAP, PPP 1500P         | 914      | C851     | 5359-S010J103 | CAP, PPP .01μ          |
| 445                           | C202     | 5359-S010J152 | CAP, PPP 1500P         |          |          |               |                        |
| 446                           | C203     | 5359-S010J821 | CAP, PPP 820P          |          |          |               |                        |
| 446                           | C204     | 5359-S010J821 | CAP, PPP 820P          | 331      | R101     | 5135-470522   | RES, CBN 1/2P 47       |
| 447                           | C205     | 5359-S010J103 | CAP, PPP .01μ          | 331      | R102     | 5135-470522   | RES, CBN 1/2P 47       |
| 447                           | C206     | 5359-S010J103 | CAP, PPP .01μ          | 333      | R105     | 5174-S010F223 | RES, MTL 1/4P 22K      |
| 444                           | C207     | 5359-S010J562 | CAP, PPP 5600P         | 333      | R106     | 5174-S010F223 | RES, MTL 1/4P 22K      |
| 444                           | C208     | 5359-S010J562 | CAP, PPP 5600P         | 334      | R107     | 5174-S010F331 | RES, MTL 1/4P 330      |
| 448                           | C209     | 5359-S010J822 | CAP, PPP 8200P         | 334      | R108     | 5174-S010F331 | RES, MTL 1/4P 330      |
| 448                           | C210     | 5359-S010J822 | CAP, PPP 8200P         | 335      | R109     | 5135-224522   | RES, CBN 1/2P 220K     |
| 457                           | C211     | 5359-S010J122 | CAP, PPP 1200P         | 335      | R110     | 5135-224522   | RES, CBN 1/2P 220K     |
| 457                           | C212     | 5359-S010J122 | CAP, PPP 1200P         | 336      | R111     | 5135-332522   | RES, CBN 1/2P 3.3K     |
| 456                           | C213     | 5359-S010J682 | CAP, PPP 6800P         | 336      | R112     | 5135-332522   | RES, CBN 1/2P 3.3K     |
| 456                           | C214     | 5359-S010J682 | CAP, PPP 6800P         | 337      | R113     | 5135-562522   | RES, CBN 1/2P 5.6K     |
| 451                           | C215     | 5359-S010J152 | CAP, PPP 1500P         | 337      | R114     | 5135-562522   | RES, CBN 1/2P 5.6K     |
| 451                           | C216     | 5359-S010J152 | CAP, PPP 1500P         | 331      | R115     | 5135-470522   | RES, CBN 1/2P 47       |
| 452                           | C217     | 5359-S010J561 | CAP, PPP 560P          | 331      | R116     | 5135-470522   | RES, CBN 1/2P 47       |
| 452                           | C218     | 5359-S010J561 | CAP, PPP 560P          | 340      | R117     | 5135-681522   | RES, CBN 1/2P 680      |
| 439                           | C219     | 5345-105F0951 | CAP, MINI ELE 1μ/50V   | 340      | R118     | 5135-681522   | RES, CBN 1/2P 680      |
| 439                           | C220     | 5345-105F0951 | CAP, MINI ELE 1μ/50V   | 341      | R119     | 5135-684522   | RES, CBN 1/2P 680K     |
| 458                           | C223     | 5354-124593   | CAP, MYL .12μ          | 341      | R120     | 5135-684522   | RES, CBN 1/2P 680K     |
| 458                           | C224     | 5354-124593   | CAP, MYL .12μ          | 342      | R121     | 5135-101522   | RES, CBN 1/2P 100      |
| 453                           | C225     | 5359-S010J103 | CAP, PPP .01μ          | 342      | R122     | 5135-101522   | RES, CBN 1/2P 100      |
| 453                           | C226     | 5359-S010J103 | CAP, PPP .01μ          | 343      | R123     | 5135-102522   | RES, CBN 1/2P 1K       |
| 454                           | C227     | 5359-S010J472 | CAP, PPP 4700P         | 343      | R124     | 5135-102522   | RES, CBN 1/2P 1K       |
| 454                           | C228     | 5359-S010J472 | CAP, PPP 4700P         | 344      | R125     | 5135-822522   | RES, CBN 1/2P 8.2K     |
| 440                           | C229     | 5345-225F0951 | CAP, MINI ELE 2.2μ/50V | 344      | R126     | 5135-822522   | RES, CBN 1/2P 8.2K     |
| 440                           | C230     | 5345-225F0951 | CAP, MINI ELE 2.2μ/50V | 346      | R129     | 5135-151522   | RES, CBN 1/2P 150      |
| 443                           | C231     | 5361-4710423  | CAP, CER 470P          | 346      | R130     | 5135-151522   | RES, CBN 1/2P 150      |
| 443                           | C232     | 5361-4710423  | CAP, CER 470P          | 348      | R133     | 5135-103522   | RES, CBN 1/2P 10K      |
| 442                           | C237     | 5345-227C041  | CAP, MINI ELE 220μ/16V | 348      | R134     | 5135-103522   | RES, CBN 1/2P 10K      |
| 442                           | C238     | 5345-227C041  | CAP, MINI ELE 220μ/16V | 349      | R135     | 5135-392522   | RES, CBN 1/2P 3.9K     |
| 455                           | C241     | 5359-S010J391 | CAP, PPP 390P          | 349      | R136     | 5135-392522   | RES, CBN 1/2P 3.9K     |
| 455                           | C242     | 5359-S010J391 | CAP, PPP 390P          | 351      | R139     | 5135-183522   | RES, CBN 1/2P 18K      |
| 449                           | C245     | 5359-S010J182 | CAP, PPP 1800P         | 351      | R140     | 5135-183522   | RES, CBN 1/2P 18K      |
| 449                           | C246     | 5359-S010J182 | CAP, PPP 1800P         | 352      | R141     | 5135-104522   | RES, CBN 1/2P 100K     |
| 450                           | C247     | 5359-S010J332 | CAP, PPP 3300P         | 352      | R142     | 5135-104522   | RES, CBN 1/2P 100K     |
| 450                           | C248     | 5359-S010J332 | CAP, PPP 3300P         | 345      | R148     | 5135-101522   | RES, CBN 1/2P 100      |
| 520                           | C301     | 5354-S070K153 | CAP MYL .015μ          | 343      | R149     | 5135-102522   | RES, CBN 1/2P 1K       |
| 511                           | C304     | 5345-106E041  | CAP, MINI ELE 10μ/35V  | 459      | R201     | 5135-152522   | RES, CBN 1/2P 1.5K     |
| 522                           | C305     | 5359-S010J682 | CAP, PPP 6800P         | 459      | R202     | 5135-152522   | RES, CBN 1/2P 1.5K     |
| 522                           | C306     | 5359-S010J682 | CAP, PPP 6800P         | 460      | R203     | 5135-222522   | RES, CBN 1/2P 2.2K     |
| 523                           | C307     | 5359-S010J223 | CAP, PPP .022μ         | 460      | R204     | 5135-222522   | RES, CBN 1/2P 2.2K     |
| 511                           | C308     | 5345-106E041  | CAP, MINI ELE 10μ/35V  | 471      | R205     | 5135-154522   | RES, CBN 1/2P 150K     |
| 521                           | C351     | 5361-1010423  | CAP, CER 100P          | 471      | R206     | 5135-154522   | RES, CBN 1/2P 150K     |
| 521                           | C352     | 5361-1010423  | CAP, CER 100P          | 462      | R207     | 5135-223522   | RES, CBN 1/2P 22K      |
| 512                           | C354     | 5345-105F041  | CAP, MINI ELE 1μ/50V   | 462      | R208     | 5135-223522   | RES, CBN 1/2P 22K      |
| 511                           | C360     | 5345-227B041  | CAP, MINI ELE 220μ/10V | 464      | R209     | 5135-822522   | RES, CBN 1/2P 8.2K     |
| 513                           | C361     | 5345-226D041  | CAP, MINI ELE 22μ/25V  | 464      | R210     | 5135-822522   | RES, CBN 1/2P 8.2K     |
| 515                           | C362     | 5345-476D041  | CAP, MINI ELE 47μ/25V  | 464      | R211     | 5135-912522   | RES, CBN 1/2P 9.1K     |
| 725                           | C403     | 5345-476D041  | CAP, MINI ELE 47μ/25V  | 494      | R212     | 5135-912522   | RES, CBN 1/2P 9.1K     |
| 725                           | C404     | 5345-476D041  | CAP, MINI ELE 47μ/25V  | 464      | R213     | 5135-822522   | RES, CBN 1/2P 8.2K     |
| 724                           | C405     | 5345-475F041  | CAP, MINI ELE 4.7μ/50V | 494      | R214     | 5135-822522   | RES, CBN 1/2P 8.2K     |
| 724                           | C406     | 5345-475F041  | CAP, MINI ELE 4.7μ/50V | 470      | R215     | 5135-332522   | RES, CBN 1/2P 3.3K     |
|                               |          |               |                        | 470      | R216     | 5135-332522   | RES, CBN 1/2P 3.3K     |

| Ser. No. | Ref. No. | Part No.     | Description        | Ser. No. | Ref. No. | Part No.      | Description        |
|----------|----------|--------------|--------------------|----------|----------|---------------|--------------------|
| 466      | R217     | 5135-272522  | RES, CBN 1/2P 2.7K | 736      | R417     | 5135-104522   | RES, CBN 1/2P 100K |
| 466      | R218     | 5135-272522  | RES, CBN 1/2P 2.7K | 736      | R418     | 5135-104522   | RES, CBN 1/2P 100K |
| 467      | R219     | 5135-183522  | RES, CBN 1/2P 18K  | 693      | R523     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 467      | R220     | 5135-183522  | RES, CBN 1/2P 18K  | 693      | R524     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 468      | R221     | 5135-333522  | RES, CBN 1/2P 33K  | 691      | R701     | 5135-103522   | RES, CBN 1/2P 10K  |
| 468      | R222     | 5135-333522  | RES, CBN 1/2P 33K  | 691      | R702     | 5135-103522   | RES, CBN 1/2P 10K  |
| 469      | R223     | 5135-333522  | RES, CBN 1/2P 33K  | 692      | R703     | 5135-392522   | RES, CBN 1/2P 3.9K |
| 469      | R224     | 5135-333522  | RES, CBN 1/2P 33K  | 692      | R704     | 5135-392522   | RES, CBN 1/2P 3.9K |
| 463      | R225     | 5135-272522  | RES, CBN 1/2P 2.7K | 691      | R705     | 5135-103522   | RES, CBN 1/2P 10K  |
| 463      | R226     | 5135-272522  | RES, CBN 1/2P 2.7K | 691      | R706     | 5135-103522   | RES, CBN 1/2P 10K  |
| 465      | R227     | 5135-563522  | RES, CBN 1/2P 56K  | 694      | R711     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 465      | R228     | 5135-563522  | RES, CBN 1/2P 56K  | 694      | R712     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 472      | R229     | 5135-472522  | RES, CBN 1/2P 4.7K | 694      | R713     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 472      | R230     | 5135-472522  | RES, CBN 1/2P 4.7K | 695      | R714     | 5135-103522   | RES, CBN 1/2P 10K  |
| 461      | R231     | 5135-104522  | RES, CBN 1/2P 100K | 695      | R715     | 5135-103522   | RES, CBN 1/2P 10K  |
| 461      | R232     | 5135-104522  | RES, CBN 1/2P 100K | 694      | R727     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 473      | R233     | 5135-273522  | RES, CBN 1/2P 27K  | 694      | R728     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 473      | R234     | 5135-273522  | RES, CBN 1/2P 27K  | 715      | R740     | 5135-473522   | RES, CBN 1/2P 47K  |
| 461      | R235     | 5135-563522  | RES, CBN 1/2P 56K  | 697      | R747     | 5135-102522   | RES, CBN 1/2P 1K   |
| 461      | R236     | 5135-563522  | RES, CBN 1/2P 56K  | 698      | R751     | 5135-223522   | RES, CBN 1/2P 22K  |
| 460      | R237     | 5135-222522  | RES, CBN 1/2P 2.2K | 699      | R755     | 5135-472522   | RES, CBN 1/2P 4.7K |
| 460      | R238     | 5135-222522  | RES, CBN 1/2P 2.2K | 698      | R757     | 5135-223522   | RES, CBN 1/2P 22K  |
| 474      | R239     | 5135-151522  | RES, CBN 1/2P 150  | 715      | R761     | 5135-473522   | RES, CBN 1/2P 47K  |
| 474      | R240     | 5135-151522  | RES, CBN 1/2P 150  | 715      | R762     | 5135-473522   | RES, CBN 1/2P 47K  |
| 479      | R241     | 5135-561522  | RES, CBN 1/2P 560  | 697      | R763     | 5135-102522   | RES, CBN 1/2P 1K   |
| 479      | R242     | 5135-561522  | RES, CBN 1/2P 560  | 697      | R764     | 5135-102522   | RES, CBN 1/2P 1K   |
| 463      | R243     | 5135-103522  | RES, CBN 1/2P 10K  | 697      | R765     | 5135-102522   | RES, CBN 1/2P 1K   |
| 463      | R244     | 5135-103522  | RES, CBN 1/2P 10K  | 700      | R766     | 5135-331522   | RES, CBN 1/2P 330  |
| 463      | R245     | 5135-103522  | RES, CBN 1/2P 10K  | 697      | R771     | 5135-102522   | RES, CBN 1/2P 1K   |
| 463      | R246     | 5135-103522  | RES, CBN 1/2P 10K  | 697      | R772     | 5135-102522   | RES, CBN 1/2P 1K   |
| 463      | R247     | 5135-103522  | RES, CBN 1/2P 10K  | 697      | R773     | 5135-102522   | RES, CBN 1/2P 1K   |
| 463      | R248     | 5135-103522  | RES, CBN 1/2P 10K  | 697      | R774     | 5135-102522   | RES, CBN 1/2P 1K   |
| 460      | R249     | 5135-222522  | RES, CBN 1/2P 2.2K | 697      | R775     | 5135-102522   | RES, CBN 1/2P 1K   |
| 460      | R250     | 5135-222522  | RES, CBN 1/2P 2.2K | 697      | R776     | 5135-102522   | RES, CBN 1/2P 1K   |
| 475      | R251     | 5135-331522  | RES, CBN 1/2P 330  | 696      | R777     | 5135-562522   | RES, CBN 1/2P 5.6K |
| 475      | R252     | 5135-331522  | RES, CBN 1/2P 330  | 697      | R778     | 5135-102522   | RES, CBN 1/2P 1K   |
| 476      | R253     | 5135-472522  | RES, CBN 1/2P 4.7K | 697      | R779     | 5135-102522   | RES, CBN 1/2P 1K   |
| 476      | R254     | 5135-472522  | RES, CBN 1/2P 4.7K | 696      | R780     | 5135-562522   | RES, CBN 1/2P 5.6K |
| 463      | R255     | 5135-103522  | RES, CBN 1/2P 10K  | 918      | △ R851   | 5102-1005116  | RES, FUSE 10       |
| 463      | R256     | 5135-103522  | RES, CBN 1/2P 10K  | 920      | R853     | 5135-103522   | RES, CBN 1/2P 10K  |
| 477      | R259     | 5135-823522  | RES, CBN 1/2P 82K  | 921      | R854     | 5135-150522   | RES, CBN 1/2P 15   |
| 477      | R260     | 5135-823522  | RES, CBN 1/2P 82K  | 921      | R855     | 5135-150522   | RES, CBN 1/2P 15   |
| 478      | R263     | 5135-680522  | RES, CBN 1/2P 68   | 921      | R856     | 5135-150522   | RES, CBN 1/2P 15   |
| 478      | R264     | 5135-680522  | RES, CBN 1/2P 68   | 921      | R857     | 5135-150522   | RES, CBN 1/2P 15   |
| 526      | R301     | 5135-6R8522  | RES, CBN 1/2P 6.8  | 920      | R860     | 5135-103522   | RES, CBN 1/2P 10K  |
| 526      | R302     | 5135-6R8522  | RES, CBN 1/2P 6.8  | 923      | R861     | 5174-S010F243 | RES, MTL 1/4P 24K  |
| 527      | R303     | 5135-393522  | RES, CBN 1/2P 39K  | 919      | R862     | 5174-S010F113 | RES, MTL 1/4P 11K  |
| 527      | R304     | 5135-393522  | RES, CBN 1/2P 39K  | 922      | R864     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 528      | R308     | 5135-820522  | RES, CBN 1/2P 82   | 924      | R865     | 5135-223522   | RES, CBN 1/2P 22K  |
| 528      | R315     | 5135-820522  | RES, CBN 1/2P 82   | 922      | R866     | 5135-222522   | RES, CBN 1/2P 2.2K |
| 529      | △ R355   | 5102-1005116 | RES, FUSE 10       | 924      | R867     | 5135-223522   | RES, CBN 1/2P 22K  |
| 530      | R356     | 5135-184522  | RES, CBN 1/2P 180K | 925      | R868     | 5135-471522   | RES, CBN 1/2P 470  |
| 532      | R357     | 5135-271522  | RES, CBN 1/2P 270  | 920      | R869     | 5135-103522   | RES, CBN 1/2P 10K  |
| 531      | R358     | 5135-102522  | RES, CBN 1/2P 1K   | 920      | R870     | 5135-103522   | RES, CBN 1/2P 10K  |
| 531      | R359     | 5135-102522  | RES, CBN 1/2P 1K   | 927      | R871     | 5135-224522   | RES, CBN 1/2P 220K |
| 533      | R360     | 5135-153522  | RES, CBN 1/2P 15K  | 890      | R881     | 5135-392522   | RES, CBN 1/2P 3.9K |
| 534      | R361     | 5135-564522  | RES, CBN 1/2P 560K | 889      | R882     | 5135-470522   | RES, CBN 1/2P 47   |
| 536      | R362     | 5135-221522  | RES, CBN 1/2P 220  | 892      | R883     | 5135-271522   | RES, CBN 1/2P 270  |
| 533      | R363     | 5135-153522  | RES, CBN 1/2P 15K  | 891      | R884     | 5135-473522   | RES, CBN 1/2P 47K  |
| 535      | R367     | 5135-101522  | RES, CBN 1/2P 100  | 926      | R891     | 5135-473522   | RES, CBN 1/2P 47K  |
| 538      | R369     | 5135-222522  | RES, CBN 1/2P 2.2K | 926      | R892     | 5135-473522   | RES, CBN 1/2P 47K  |
| 537      | R371     | 5135-103522  | RES, CBN 1/2P 10K  | 926      | R893     | 5135-473522   | RES, CBN 1/2P 47K  |
| 730      | R401     | 5135-102522  | RES, CBN 1/2P 1K   |          |          |               |                    |
| 730      | R402     | 5135-102522  | RES, CBN 1/2P 1K   |          |          |               |                    |
| 731      | R403     | 5135-222522  | RES, CBN 1/2P 2.2K | 421      | IC201    | 5653-UPC4570C | IC, LINEAR         |
| 731      | R404     | 5135-222522  | RES, CBN 1/2P 2.2K | 721      | IC401    | 5652-NJM4558D | IC, MONO           |
| 732      | R405     | 5135-102522  | RES, CBN 1/2P 1K   | 722      | IC402    | 5653-BA6138   | IC, LINEAR         |
| 732      | R406     | 5135-102522  | RES, CBN 1/2P 1K   | 851      | IC751    | 5654-MN15542  | IC, DIGITAL        |
| 733      | R407     | 5135-331522  | RES, CBN 1/2P 330  | 663      | IC752    | 5654-TC4011BP | IC, DIGITAL        |
| 733      | R408     | 5135-331522  | RES, CBN 1/2P 330  | 662      | IC753    | 5654-TC4051BP | IC, DIGITAL        |
| 734      | R409     | 5135-334522  | RES, CBN 1/2P 330K | 901      | IC802    | 5653-BA6229   | IC, LINEAR         |
| 734      | R410     | 5135-334522  | RES, CBN 1/2P 330K |          |          |               |                    |
| 733      | R411     | 5135-331522  | RES, CBN 1/2P 330  |          |          |               |                    |
| 735      | R415     | 5135-103522  | RES, CBN 1/2P 10K  | 301      | Q101     | 5613-1775(F)  | XISTOR, NPN R      |
| 735      | R416     | 5135-103522  | RES, CBN 1/2P 10K  | 301      | Q102     | 5613-1775(F)  | XISTOR, NPN R      |

**INTEGRATED CIRCUITS**

|     |       |               |             |
|-----|-------|---------------|-------------|
| 421 | IC201 | 5653-UPC4570C | IC, LINEAR  |
| 721 | IC401 | 5652-NJM4558D | IC, MONO    |
| 722 | IC402 | 5653-BA6138   | IC, LINEAR  |
| 851 | IC751 | 5654-MN15542  | IC, DIGITAL |
| 663 | IC752 | 5654-TC4011BP | IC, DIGITAL |
| 662 | IC753 | 5654-TC4051BP | IC, DIGITAL |
| 901 | IC802 | 5653-BA6229   | IC, LINEAR  |

**TRANSISTORS**

|     |      |              |               |
|-----|------|--------------|---------------|
| 301 | Q101 | 5613-1775(F) | XISTOR, NPN R |
| 301 | Q102 | 5613-1775(F) | XISTOR, NPN R |





| Ser. No.                       | Ref. No.      | Part No.      | Description                  | Ser. No. | Ref. No. | Part No.      | Description        |
|--------------------------------|---------------|---------------|------------------------------|----------|----------|---------------|--------------------|
| 784                            | TP501         | 4214-132      | TERMINAL                     | 393      | R156     | 5174-S010F223 | RES, MTL 1/4P 22K  |
| 784                            | TP502         | 4214-132      | TERMINAL                     | 394      | R157     | 5174-S010F331 | RES, MTL 1/4P 330  |
| 784                            | TP856         | 4214-132      | TERMINAL                     | 394      | R158     | 5174-S010F331 | RES, MTL 1/4P 330  |
| 784                            | TP859         | 4214-132      | TERMINAL                     | 395      | R159     | 5135-224522   | RES, CBN 1/2P 220K |
| 929                            | X751          | 5693-CST4MGW  | OSC, CER                     | 395      | R160     | 5135-224522   | RES, CBN 1/2P 220K |
| <b>PCB-2 VR P. C. BOARD</b>    |               |               |                              |          |          |               |                    |
| <b>CONTROLS</b>                |               |               |                              |          |          |               |                    |
| 763                            | VR203/<br>204 | 5113-S1102503 | RES, V CBN 16 50K            | 396      | R161     | 5135-332522   | RES, CBN 1/2P 3.3K |
| 766                            | VR205/<br>206 | 5113-S1103104 | RES, V CBN 16 100K           | 396      | R162     | 5135-332522   | RES, CBN 1/2P 3.3K |
| 768                            | VR307         | 5113-S1104502 | RES, V CBN 16 5K             | 397      | R163     | 5135-562522   | RES, CBN 1/2P 5.6K |
| <b>MISCELLANEOUS</b>           |               |               |                              |          |          |               |                    |
| 799                            | CN302         | 4443-030185   | CONNECTOR                    | 397      | R164     | 5135-562522   | RES, CBN 1/2P 5.6K |
| 799                            | CN503         | 4443-030185   | CONNECTOR                    | 391      | R165     | 5135-470522   | RES, CBN 1/2P 47   |
| 799                            | CN504         | 4443-030185   | CONNECTOR                    | 391      | R166     | 5135-470522   | RES, CBN 1/2P 47   |
| 815                            | JL103         | 4242-R0503141 | JUMPER LEAD                  | 399      | R167     | 5135-681522   | RES, CBN 1/2P 680  |
| <b>PCB-3 DOLBY P. C. BOARD</b> |               |               |                              |          |          |               |                    |
| <b>CAPACITORS</b>              |               |               |                              |          |          |               |                    |
| 383                            | C147          | 5353-101534   | CAP, MCA 100P                | 399      | R168     | 5135-681522   | RES, CBN 1/2P 680  |
| 383                            | C148          | 5353-101534   | CAP, MCA 100P                | 400      | R169     | 5135-684522   | RES, CBN 1/2P 680K |
| 375                            | C153          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 400      | R170     | 5135-684522   | RES, CBN 1/2P 680K |
| 375                            | C154          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 401      | R171     | 5135-101522   | RES, CBN 1/2P 100  |
| 376                            | C155          | 5345-227B0952 | CAP, MINI ELE 220 $\mu$ /10V | 401      | R172     | 5135-101522   | RES, CBN 1/2P 100  |
| 376                            | C156          | 5345-227B0952 | CAP, MINI ELE 220 $\mu$ /10V | 402      | R173     | 5135-102522   | RES, CBN 1/2P 1K   |
| 384                            | C157          | 5359-8225851  | CAP, PPP 8200P               | 402      | R174     | 5135-102522   | RES, CBN 1/2P 1K   |
| 384                            | C158          | 5359-8225851  | CAP, PPP 8200P               | 403      | R175     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 386                            | C159          | 5359-8225851  | CAP, PPP 8200P               | 403      | R176     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 386                            | C160          | 5359-8225851  | CAP, PPP 8200P               | 403      | R176     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 375                            | C161          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 405      | R179     | 5135-151522   | RES, CBN 1/2P 150  |
| 375                            | C162          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 405      | R180     | 5135-151522   | RES, CBN 1/2P 150  |
| 387                            | C163          | 5359-S010J392 | CAP, PPP 3900P               | 407      | R183     | 5135-103522   | RES, CBN 1/2P 10K  |
| 387                            | C164          | 5359-S010J392 | CAP, PPP 3900P               | 407      | R184     | 5135-103522   | RES, CBN 1/2P 10K  |
| 385                            | C165          | 5359-S010J332 | CAP, PPP 3300P               | 408      | R185     | 5135-332522   | RES, CBN 1/2P 3.3K |
| 385                            | C166          | 5359-S010J332 | CAP, PPP 3300P               | 408      | R186     | 5135-332522   | RES, CBN 1/2P 3.3K |
| 388                            | C167          | 5359-S010J682 | CAP, PPP 6800P               | 410      | R189     | 5135-183522   | RES, CBN 1/2P 18K  |
| 388                            | C168          | 5359-S010J682 | CAP, PPP 6800P               | 410      | R190     | 5135-183522   | RES, CBN 1/2P 18K  |
| 389                            | C169          | 5359-S010J821 | CAP, PPP 820P                | 411      | R191     | 5135-104522   | RES, CBN 1/2P 100K |
| 389                            | C170          | 5359-S010J821 | CAP, PPP 820P                | 411      | R192     | 5135-104522   | RES, CBN 1/2P 100K |
| 378                            | C173          | 5345-477C041  | CAP, MINI ELE 470 $\mu$ /16V | 409      | R193     | 5135-102522   | RES, CBN 1/2P 1K   |
| 377                            | C174          | 5345-336C041  | CAP, MINI ELE 33 $\mu$ /16V  | 409      | R193     | 5135-102522   | RES, CBN 1/2P 1K   |
| 640                            | C501          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 404      | R198     | 5135-4R7522   | RES, CBN 1/2P 4.7  |
| 640                            | C502          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 402      | R199     | 5135-102522   | RES, CBN 1/2P 1K   |
| 640                            | C503          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 654      | R503     | 5135-332522   | RES, CBN 1/2P 3.3K |
| 640                            | C504          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 654      | R504     | 5135-332522   | RES, CBN 1/2P 3.3K |
| 641                            | C505          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 647      | R505     | 5135-822522   | RES, CBN 1/2P 8.2K |
| 641                            | C506          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 647      | R506     | 5135-822522   | RES, CBN 1/2P 8.2K |
| 645                            | C507          | 5359-S010J222 | CAP, PPP 2200P               | 650      | R507     | 5135-243522   | RES, CBN 1/2P 24K  |
| 645                            | C508          | 5359-S010J222 | CAP, PPP 2200P               | 650      | R508     | 5135-243522   | RES, CBN 1/2P 24K  |
| 645                            | C509          | 5359-S010J222 | CAP, PPP 2200P               | 651      | R509     | 5135-561522   | RES, CBN 1/2P 560  |
| 645                            | C510          | 5359-S010J222 | CAP, PPP 2200P               | 651      | R510     | 5135-561522   | RES, CBN 1/2P 560  |
| 643                            | C511          | 5354-564593   | CAP, MYL .56 $\mu$           | 652      | R511     | 5135-102522   | RES, CBN 1/2P 1K   |
| 643                            | C512          | 5354-564593   | CAP, MYL .56 $\mu$           | 653      | R512     | 5135-273522   | RES, CBN 1/2P 27K  |
| 644                            | C513          | 5354-334593   | CAP, MYL .33 $\mu$           | 658      | R513     | 5135-105522   | RES, CBN 1/2P 1M   |
| 644                            | C514          | 5354-334593   | CAP, MYL .33 $\mu$           | 658      | R514     | 5135-105522   | RES, CBN 1/2P 1M   |
| 641                            | C515          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 658      | R515     | 5135-105522   | RES, CBN 1/2P 1M   |
| 641                            | C516          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 658      | R516     | 5135-105522   | RES, CBN 1/2P 1M   |
| 646                            | C519          | 5359-S010J182 | CAP, PPP 1800P               | 657      | R517     | 5135-223522   | RES, CBN 1/2P 22K  |
| 646                            | C520          | 5359-S010J182 | CAP, PPP 1800P               | 649      | R519     | 5135-392522   | RES, CBN 1/2P 3.9K |
| 645                            | C521          | 5359-S010J222 | CAP, PPP 2200P               | 649      | R520     | 5135-392522   | RES, CBN 1/2P 3.9K |
| 645                            | C522          | 5359-S010J222 | CAP, PPP 2200P               | 648      | R521     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 642                            | C531          | 5345-227B041  | CAP, MINI ELE 220 $\mu$ /10  | 648      | R522     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 642                            | C532          | 5345-227B041  | CAP, MINI ELE 220 $\mu$ /10  | 656      | R525     | 5135-101522   | RES, CBN 1/2P 100  |
| 641                            | C533          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 656      | R526     | 5135-101522   | RES, CBN 1/2P 100  |
| 641                            | C534          | 5345-106C0951 | CAP, MINI ELE 10 $\mu$ /16V  | 657      | R529     | 5135-223522   | RES, CBN 1/2P 22K  |
| <b>RESISTORS</b>               |               |               |                              |          |          |               |                    |
| 391                            | R151          | 5135-470522   | RES, CBN 1/2P 47             | 652      | R531     | 5135-102522   | RES, CBN 1/2P 1K   |
| 391                            | R152          | 5135-470522   | RES, CBN 1/2P 47             | 652      | R532     | 5135-102522   | RES, CBN 1/2P 1K   |
| 393                            | R155          | 5174-S010F223 | RES, MTL 1/4P 22K            | 659      | R533     | 5135-104522   | RES, CBN 1/2P 100K |
| <b>INTEGRATED CIRCUITS</b>     |               |               |                              |          |          |               |                    |
| 631                            | IC501         | 5653-CXA1330S | IC, LINEAR                   | 659      | R534     | 5135-104522   | RES, CBN 1/2P 100K |
| 661                            | IC701         | 5654-TC4066BP | IC, DIGITAL                  | 652      | R535     | 5135-102522   | RES, CBN 1/2P 1K   |

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| <b>TRANSISTORS</b>             |          |               |                         | <b>RESISTORS</b>          |          |               |  |
| 361                            | Q151     | 5613-1775(F)  | XISTOR, NPN R           | 866                       | C801     | 5359-S010J103 | CAP, PPP .01μ                          |
| 361                            | Q152     | 5613-1775(F)  | XISTOR, NPN R           | 865                       | C802     | 5345-106E041  | CAP, MINI ELE 10μ/35V                  |
| 361                            | Q153     | 5613-1775(F)  | XISTOR, NPN R           |                           |          |               |  |
| 361                            | Q154     | 5613-1775(F)  | XISTOR, NPN R           | 042B                      | △ R1     | 5135-335522   | RES, CBN 1/2P 3.3M <b>IB</b> <b>BB</b> |
| 362                            | Q155     | 5613-2320L(F) | XISTOR, NPN R           | 595                       | R3       | 5135-152522   | RES, CBN 1/2P 1.5K                     |
| 362                            | Q156     | 5613-2320L(F) | XISTOR, NPN R           | 595                       | R4       | 5135-152522   | RES, CBN 1/2P 1.5K                     |
| 363                            | Q157     | 5613-C114TS   | XISTOR, NPN R           | 596                       | R5       | 5135-471522   | RES, CBN 1/2P 470                      |
| 363                            | Q158     | 5613-C114TS   | XISTOR, NPN R           | 596                       | R6       | 5135-471522   | RES, CBN 1/2P 470                      |
| 367                            | Q159     | 5613-2878(B)  | XISTOR, NPN R           | 597                       | R7       | 5135-101522   | RES, CBN 1/2P 100                      |
| 367                            | Q160     | 5613-2878(B)  | XISTOR, NPN R           | 597                       | R8       | 5135-101522   | RES, CBN 1/2P 100                      |
| 363                            | Q161     | 5613-C114TS   | XISTOR, NPN R           | 598                       | R9       | 5135-2R7522   | RES, CBN 1/2P 2.7                      |
| 363                            | Q162     | 5613-C114TS   | XISTOR, NPN R           | 598                       | R10      | 5135-2R7522   | RES, CBN 1/2P 2.7                      |
| 368                            | Q163     | 5613-C114YS   | XISTOR, NPN R           | 595                       | R11      | 5135-152522   | RES, CBN 1/2P 1.5K                     |
| 368                            | Q164     | 5613-C114YS   | XISTOR, NPN R           | 596                       | R12      | 5135-471522   | RES, CBN 1/2P 470                      |
| 362                            | Q165     | 5613-2320L(F) | XISTOR, NPN R           | 597                       | R13      | 5135-101522   | RES, CBN 1/2P 100                      |
| 634                            | Q501     | 5613-C114YS   | XISTOR, NPN R           | 595                       | R15      | 5135-152522   | RES, CBN 1/2P 1.5K                     |
| 634                            | Q502     | 5613-C114YS   | XISTOR, NPN R           | 596                       | R16      | 5135-471522   | RES, CBN 1/2P 470                      |
| 634                            | Q503     | 5613-C114YS   | XISTOR, NPN R           | 597                       | R17      | 5135-101522   | RES, CBN 1/2P 100                      |
| 634                            | Q504     | 5613-C114YS   | XISTOR, NPN R           | 598                       | R18      | 5135-2R7522   | RES, CBN 1/2P 2.7                      |
| 634                            | Q505     | 5613-C114YS   | XISTOR, NPN R           | 599                       | R19      | 5135-221522   | RES, CBN 1/2P 220                      |
| 633                            | Q506     | 5611-A114YS   | XISTOR, PNP R           | 600                       | R20      | 5135-223522   | RES, CBN 1/2P 22K                      |
| 634                            | Q507     | 5613-C114YS   | XISTOR, NPN R           | 600                       | R21      | 5135-223522   | RES, CBN 1/2P 22K                      |
| 635                            | Q509     | 5613-2120(Y)  | XISTOR, NPN R           | 607                       | R51      | 5135-331522   | RES, CBN 1/2P 330                      |
| 632                            | Q510     | 5611-950(Y)   | XISTOR, PNP R           | 608                       | R52      | 5135-562522   | RES, CBN 1/2P 5.6K                     |
| 636                            | Q531     | 5613-2320L(F) | XISTOR, NPN R           | 609                       | R53      | 5135-154522   | RES, CBN 1/2P 150K                     |
| 636                            | Q532     | 5613-2320L(F) | XISTOR, NPN R           | 610                       | R54      | 5135-102522   | RES, CBN 1/2P 1K                       |
| 671                            | Q722     | 5611-A114YS   | XISTOR, PNP R           | 610                       | R55      | 5135-102522   | RES, CBN 1/2P 1K                       |
| 667                            | Q724     | 5613-C114YS   | XISTOR, NPN R           | 611                       | R56      | 5135-104522   | RES, CBN 1/2P 100K                     |
| <b>DIODES</b>                  |          |               |                         | 612                       | R57      | 5135-103522   | RES, CBN 1/2P 10K                      |
| 370                            | D151     | 5635-HZ11B2L  | DIODE, ZENER            | 613                       | R58      | 5135-182522   | RES, CBN 1/2P 1.8K                     |
| 637                            | D501     | 5631-1S2473   | DIODE, DET              | 607                       | R59      | 5135-331522   | RES, CBN 1/2P 330                      |
| <b>COILS</b>                   |          |               |                         | 610                       | R71      | 5135-102522   | RES, CBN 1/2P 1K                       |
| 371                            | L151     | 5995-S160J472 | COIL W/CORE             | 614                       | R72      | 5135-471522   | RES, CBN 1/2P 470                      |
| 371                            | L152     | 5995-S160J472 | COIL W/CORE             | 612                       | R73      | 5135-103522   | RES, CBN 1/2P 10K                      |
| <b>CONTROLS</b>                |          |               |                         | 610                       | R74      | 5135-102522   | RES, CBN 1/2P 1K                       |
| 372                            | VR151    | 5101-S0801203 | RES, SEMI FIX 20K       | 874                       | △ R801   | 5102-1005116  | RES, FUSE 10                           |
| 372                            | VR152    | 5101-S0801203 | RES, SEMI FIX 20K       | 878                       | R803     | 5135-103522   | RES, CBN 1/2P 10K                      |
| 373                            | VR153    | 5101-S0801501 | RES, SEMI FIX 500       | 879                       | R804     | 5135-150522   | RES, CBN 1/2P 15                       |
| 373                            | VR154    | 5101-S0801501 | RES, SEMI FIX 500       | 879                       | R805     | 5135-150522   | RES, CBN 1/2P 15                       |
| <b>MISCELLANEOUS</b>           |          |               |                         | 879                       | R806     | 5135-150522   | RES, CBN 1/2P 15                       |
| 793                            | CN151    | 4443-03201003 | CONNECTOR               | 879                       | R807     | 5135-150522   | RES, CBN 1/2P 15                       |
| 826                            | CN501    | 4443-01701012 | CONNECTOR               | 878                       | R810     | 5135-103522   | RES, CBN 1/2P 10K                      |
| 827                            | CN502    | 4443-01701012 | CONNECTOR               | 881                       | R811     | 5174-S010F243 | RES, MTL 1/4P 24K                      |
| 638                            | LC501    | 5214-13701    | LC COMPOSITE            | 877                       | R812     | 5174-S010F113 | RES, MTL 1/4P 11K                      |
| 638                            | LC502    | 5214-13701    | LC COMPOSITE            | 880                       | R814     | 5135-222522   | RES, CBN 1/2P 2.2K                     |
| <b>PCB-4 POWER P. C. BOARD</b> |          |               |                         | 882                       | R815     | 5135-223522   | RES, CBN 1/2P 22K                      |
| <b>CAPACITORS</b>              |          |               |                         | 880                       | R816     | 5135-222522   | RES, CBN 1/2P 2.2K                     |
| 593                            | △ C1     | 5352-S010M103 | CAP, MTL .01μ           | 882                       | R817     | 5135-223522   | RES, CBN 1/2P 22K                      |
| 594                            | C2       | 5352-S060K104 | CAP, MTL .1μ            | 883                       | R818     | 5135-471522   | RES, CBN 1/2P 470                      |
| 594                            | C3       | 5352-S060K104 | CAP, MTL .1μ            | 878                       | R819     | 5135-103522   | RES, CBN 1/2P 10K                      |
| 594                            | C4       | 5352-S060K104 | CAP, MTL .1μ            | 878                       | R820     | 5135-103522   | RES, CBN 1/2P 10K                      |
| 571                            | C5       | 5345-228D041  | CAP, MINI ELE 2200μ/25V | 884                       | R821     | 5135-224522   | RES, CBN 1/2P 220K                     |
| 571                            | C6       | 5345-228D041  | CAP, MINI ELE 2200μ/25V | <b>INTEGRATED CIRCUIT</b> |          |               |  |
| 572                            | C7       | 5345-227C041  | CAP, MINI ELE 220μ/16V  | 852                       | IC801    | 5653-BA6229   | IC, LINEAR                             |
| 572                            | C8       | 5345-227C041  | CAP, MINI ELE 220μ/16V  | <b>TRANSISTORS</b>        |          |               |  |
| 573                            | C9       | 5345-108C041  | CAP, MINI ELE 1000μ/16V | 541                       | Q1       | 5612-1375     | XISTOR, PNP A                          |
| 573                            | C10      | 5345-108C041  | CAP, MINI ELE 1000μ/16V | 542                       | Q2       | 5614-2012     | XISTOR, NPN A                          |
| 575                            | C12      | 5345-477C041  | CAP, MINI ELE 470μ/16V  | 544                       | Q3       | 5613-2320(F)  | XISTOR, NPN R                          |
| 573                            | C13      | 5345-108C041  | CAP, MINI ELE 1000μ/16V | 543                       | Q4       | 5611-999(F)   | XISTOR, PNP R                          |
| 572                            | C14      | 5345-227C041  | CAP, MINI ELE 220μ/16V  | 544                       | Q5       | 5613-2320(F)  | XISTOR, NPN R                          |
| 576                            | C15      | 5345-108B041  | CAP, MINI ELE 1000μ/10V | 543                       | Q6       | 5611-999(F)   | XISTOR, PNP R                          |
| 574                            | C16      | 5341-109D0958 | CAP, ELE 10000μ/25V     | 541                       | Q7       | 5612-1375     | XISTOR, PNP A                          |
| 577                            | C17      | 5345-477E041  | CAP, MINI ELE 470μ/35V  | 544                       | Q8       | 5613-2320(F)  | XISTOR, NPN R                          |
| 578                            | C18      | 5345-226F041  | CAP, MINI ELE 22μ/50V   | 541                       | Q10      | 5612-1375     | XISTOR, PNP A                          |
| 578                            | C51      | 5345-226F041  | CAP, MINI ELE 22μ/50V   | 544                       | Q11      | 5613-2320(F)  | XISTOR, NPN R                          |
| 579                            | C52      | 5345-106F041  | CAP, MINI ELE 10μ/50V   | 544                       | Q12      | 5613-2320(F)  | XISTOR, NPN R                          |
| 579                            | C53      | 5345-106F041  | CAP, MINI ELE 10μ/50V   | 545                       | Q51      | 5611-999(F)   | XISTOR, PNP R                          |
| 580                            | C54      | 5345-107D041  | CAP, MINI ELE 100μ/25V  | 546                       | Q71      | 5613-2320(F)  | XISTOR, NPN R                          |
| 581                            | C71      | 5345-107B041  | CAP, MINI ELE 100μ/10V  | 547                       | Q72      | 5611-A124ES   | XISTOR, PNP R                          |
|                                |          |               |                         | 858                       | Q801     | 5613-C114YS   | XISTOR, NPN R                          |
|                                |          |               |                         | 856                       | Q802     | 5613-2925(T)  | XISTOR, NPN R                          |
|                                |          |               |                         | 855                       | Q803     | 5611-933S(S)  | XISTOR, PNP R                          |

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| 856                  | Q804     | 5613-2925(T)  | XISTOR, NPN R                      |
| 856                  | Q805     | 5613-2925(T)  | XISTOR, NPN R                      |
| 857                  | Q806     | 5613-1740S(S) | XISTOR, NPN R                      |
| 857                  | Q807     | 5613-1740S(S) | XISTOR, NPN R                      |
| 857                  | Q808     | 5613-1740S(S) | XISTOR, NPN R                      |
| 859                  | Q809     | 5613-2320(F)  | XISTOR, NPN R                      |
| <b>DIODES</b>        |          |               |                                    |
| 550                  | △ D1     | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D2     | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D3     | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D4     | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D7     | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D8     | 5632-S5566B   | DIODE, RECT                        |
| 554                  | D9       | 5635-HZ12B2L  | DIODE, ZENER                       |
| 554                  | D10      | 5635-HZ12B2L  | DIODE, ZENER                       |
| 554                  | D11      | 5635-HZ12B2L  | DIODE, ZENER                       |
| 555                  | D12      | 5635-HZ6B2L   | DIODE, ZENER                       |
| 556                  | D13      | 5635-HZ22-2L  | DIODE, ZENER                       |
| 557                  | D14      | 5635-RD5R1EB3 | DIODE, ZENER                       |
| 550                  | △ D15    | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D16    | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D17    | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D18    | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D51    | 5632-S5566B   | DIODE, RECT                        |
| 550                  | △ D52    | 5632-S5566B   | DIODE, RECT                        |
| 559                  | D53      | 5631-1S2473   | DIODE, DET                         |
| 563                  | D54      | 5635-RD5R1EB2 | DIODE, ZENER                       |
| 565                  | D55      | 5635-HZ11A2L  | DIODE, ZENER                       |
| 550                  | D56      | 5632-S5566B   | DIODE, RECT                        |
| 550                  | D57      | 5632-S5566B   | DIODE, RECT                        |
| 564                  | D58      | 5635-HZ16-2L  | DIODE, ZENER                       |
| 566                  | D71      | 5635-HZ3B2    | DIODE, ZENER                       |
| 864                  | D801     | 5632-S5566B   | DIODE, RECT                        |
| 862                  | D802     | 5635-HZ5C2    | DIODE, ZENER                       |
| 861                  | D803     | 5635-HZ7C3L   | DIODE, ZENER                       |
| <b>TRANSFORMERS</b>  |          |               |                                    |
| 569                  | △ T1     | 5584-S9401    | XFORMER, POWER <b>BK</b>           |
| 569B                 | △ T1     | 5584-S9402    | XFORMER, POWER <b>IB</b> <b>BB</b> |
| <b>CONTROLS</b>      |          |               |                                    |
| 868                  | VR801    | 5101-S0801103 | RES, SEMI FIX 10K                  |
| 868                  | VR802    | 5101-S0801103 | RES, SEMI FIX 10K                  |
| 869                  | VR803    | 5101-S0801502 | RES, SEMI FIX 5K                   |
| <b>MISCELLANEOUS</b> |          |               |                                    |
| 797                  | CN801    | 4443-060185   | CONNECTOR                          |
| 798                  | CN802    | 4443-070185   | CONNECTOR                          |
| 798                  | CN803    | 4443-070185   | CONNECTOR                          |
| 796                  | CN804    | 4443-050185   | CONNECTOR                          |
| 796                  | CN805    | 4443-050185   | CONNECTOR                          |
| 603                  | △ F1     | 5732-801031   | FUSE <b>BK</b>                     |
| 603B                 | △ F1     | 5732-251030   | FUSE <b>IB</b> <b>BB</b>           |
| 604                  | △ F2     | 5732-202031   | FUSE <b>BK</b>                     |
| 604B                 | △ F2     | 5732-202030   | FUSE <b>IB</b> <b>BB</b>           |
| 601                  | △ HL1    | 4472-04501    | HOLDER, FUSE                       |
| 601                  | △ HL2    | 4472-04501    | HOLDER, FUSE                       |
| 601                  | △ HL3    | 4472-04501    | HOLDER, FUSE                       |
| 601                  | △ HL4    | 4472-04501    | HOLDER, FUSE                       |
| 803                  | LCN801   | 4163-S0206151 | CONNECTOR W/W                      |
| 802                  | LCN802   | 4163-S0205151 | CONNECTOR W/W                      |
| 804                  | LCN803   | 4163-S0207151 | CONNECTOR W/W                      |
| 871                  | RC701    | 5212-S0305473 | R COMPOSITE                        |
| 872                  | RC702    | 5212-S0303473 | R COMPOSITE                        |
| 751                  | △ SW1    | 4433-01301    | SWITCH, PU-PW                      |
| 041B                 | △ SW2    | 4411-00501102 | SWITCH, ROTARY <b>IB</b> <b>BB</b> |
| 786                  | TM1      | 4214-122      | TERMINAL                           |
| 786                  | TM2      | 4214-122      | TERMINAL                           |
| 785                  | TP806    | 4214-132      | TERMINAL                           |
| 785                  | TP809    | 4214-132      | TERMINAL                           |

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| <b>PCB-5 FRONT P. C. BOARD</b> |          |               |                       |
| <b>CAPACITORS</b>              |          |               |                       |
| 835                            | C901     | 5345-106D0356 | CAP, MINI ELE 10μ/25V |
| 837                            | C902     | 5359-S010J103 | CAP, PPP.01μ          |
| <b>RESISTORS</b>               |          |               |                       |
| 841                            | R903     | 5135-221522   | RES, CBN 1/2P 220     |
| 842                            | R905     | 5135-472522   | RES, CBN 1/2P 4.7K    |
| 843                            | R906     | 5135-682522   | RES, CBN 1/2P 6.8K    |
| 844                            | R907     | 5135-183522   | RES, CBN 1/2P 18K     |
| 842                            | R908     | 5135-472522   | RES, CBN 1/2P 4.7K    |
| 843                            | R909     | 5135-682522   | RES, CBN 1/2P 6.8K    |
| 844                            | R910     | 5135-183522   | RES, CBN 1/2P 18K     |
| <b>INTEGRATED CIRCUIT</b>      |          |               |                       |
| 829                            | IC901    | 5654-MN187167 | IC, DIGITAL           |
| <b>MISCELLANEOUS</b>           |          |               |                       |
| 789                            | CN901    | 4443-0301140  | CONNECTOR             |
| 790                            | CN902    | 4443-0401140  | CONNECTOR             |
| 794                            | CN903    | 4443-05401030 | CONNECTOR             |
| 771                            | FL901    | 5722-058      | TUBE DISPLAY          |
| 839                            | RC901    | 5212-S0307123 | R COMPOSITE           |
| 753                            | S902     | 4437-01202    | SWITCH, PU-TC         |
| 753                            | S904     | 4437-01202    | SWITCH, PU-TC         |
| 753                            | S905     | 4437-01202    | SWITCH, PU-TC         |
| 753                            | S906     | 4437-01202    | SWITCH, PU-TC         |
| 753                            | S907     | 4437-01202    | SWITCH, PU-TC         |
| 753                            | S908     | 4437-01202    | SWITCH, PU-TC         |
| 833                            | X901     | 5693-CST4MGW  | OSC, CER              |

| Ser. No.                           | Ref. No. | Part No.      | Description        |
|------------------------------------|----------|---------------|--------------------|
| <b>PCB-6 CONT SW-R P. C. BOARD</b> |          |               |                    |
| <b>RESISTORS</b>                   |          |               |                    |
| 848                                | R916     | 5135-472522   | RES, CBN 1/2P 4.7K |
| 849                                | R917     | 5135-682522   | RES, CBN 1/2P 6.8K |
| <b>MISCELLANEOUS</b>               |          |               |                    |
| 809                                | LCN902   | 4163-S0104800 | CONNECTOR W/W      |
| 830                                | LED901   | 5637-SEL2410E | LED                |
| 757                                | S916     | 4437-01201    | SWITCH, PU-TC      |
| 759                                | S917     | 4437-01202    | SWITCH, PU-TC      |
| 757                                | S918     | 4437-01201    | SWITCH, PU-TC      |
| 757                                | S920     | 4437-01201    | SWITCH, PU-TC      |

| Ser. No.                           | Ref. No. | Part No.      | Description        |
|------------------------------------|----------|---------------|--------------------|
| <b>PCB-7 CONT SW-L P. C. BOARD</b> |          |               |                    |
| <b>RESISTORS</b>                   |          |               |                    |
| 845                                | R911     | 5135-472522   | RES, CBN 1/2P 4.7K |
| 846                                | R912     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 845                                | R913     | 5135-472522   | RES, CBN 1/2P 4.7K |
| 846                                | R914     | 5135-682522   | RES, CBN 1/2P 6.8K |
| 847                                | R915     | 5135-183522   | RES, CBN 1/2P 18K  |
| <b>MISCELLANEOUS</b>               |          |               |                    |
| 808                                | LCN901   | 4163-S0103800 | CONNECTOR W/W      |
| 754                                | S909     | 4437-01201    | SWITCH, PU-TC      |
| 754                                | S910     | 4437-01201    | SWITCH, PU-TC      |
| 754                                | S911     | 4437-01201    | SWITCH, PU-TC      |
| 756                                | S912     | 4437-01202    | SWITCH, PU-TC      |
| 754                                | S913     | 4437-01201    | SWITCH, PU-TC      |
| 754                                | S914     | 4437-01201    | SWITCH, PU-TC      |
| 756                                | S915     | 4437-01202    | SWITCH, PU-TC      |

Ser. No.   Ref. No.   Part No.                      Description

## ABBREVIATIONS IN PARTS LIST

### CAPACITORS

CAP, MINI ELE : Electrolytic  
 CAP, CER : Ceramic  
 CAP, PPP : Polypropylene  
 CAP, MYL : Mylar  
 CAP, MCA : Mica  
           470 $\mu$  : 470 $\mu$ F  
           6800P : 6800PF  
           .047 $\mu$  : 0.047 $\mu$ F

### RESISTORS

RES, CBN 1/6P : Carbon 1/6W  
           2.2K : 2.2k $\Omega$   
           220 : 220 $\Omega$   
 RES, FUSE : Fuse  
 RES, CEM 5P : Cement 5W  
 REC, MTL 1P : Metal 1W

### TRANSISTORS

XISTOR : Transistor  
 FET : Field Effect Transistor

### CONTROLS

RES, V CBN : Variable Carbon Resistor  
 RES, SEMI FIX : Semi - fixed Resistors

### CHASSIS MISCELLANEOUS

|      |             |            |   |
|------|-------------|------------|---|
| 772  | $\Delta$ P1 | 4161-71151 | CORD W/PLUG <b>BK</b>                     |
| 772B | $\Delta$ P1 | 4161-7256  | CORD W/PLUG <b>IB</b>                     |
| 772C | $\Delta$ P1 | 4161-04100 | CORD W/PLUG <b>BB</b>                     |
| 773  |             | 4161-71184 | CORD W/PLUG, RCA TYPE<br>(ACCESSORY) (x2) |
| 788  | LUG1        | 4211-4     | LUG, CABINET FRONT                        |
| 788  | LUG2        | 4211-4     | LUG, CABINET FRONT                        |

### PACKAGE PARTS LIST

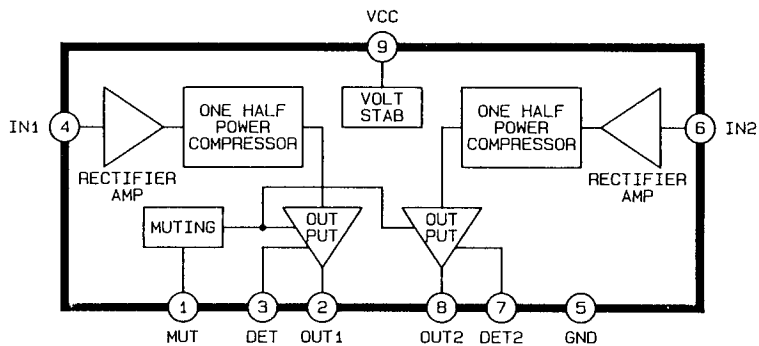
|      |               |  |
|------|---------------|--|
| 021B | 1756-03108    | LABEL (x2) <b>IB</b>                     |
| 021C | 1756-03111    | LABEL (x2) <b>BB</b>                     |
| 022B | 1756-06303    | LABEL <b>IB</b> <b>BB</b>                |
| 023C | 1756-08501    | LABEL 240V <b>BB</b>                     |
| 024C | 1111-J30319   | OWNER GUIDE<br>240V CAUTION <b>BB</b>    |
| 109  | 1111-J30355   | OWNER GUIDE <b>BK</b> <b>BB</b>          |
| 109B | 1111-J30356   | OWNER GUIDE <b>IB</b>                    |
| 110  | 1113-02501    | OWNER CARD <b>BK</b>                     |
| 112  | 1116-03801    | WARRANTY CARD <b>BK</b>                  |
| 113  | 1119-04501    | ATTACH SHEET, SERVICE STATION <b>BK</b>  |
| 114  | 1119-01201    | ATTACH SHEET, SAFETY <b>BK</b>           |
| 117A | 1221-30201    | CARTON BOX <b>BK</b> <b>IB</b> <b>BB</b> |
| 118  | 1222-7384     | CUSHION, R                               |
| 119  | 1222-7385     | CUSHION, L                               |
| 121  | 1223-R0220055 | SOFT SHEET, SET FRONT                    |
| 122  | 1223-00403012 | SOFT SHEET, CASS. LID                    |
| 123  | 1241-R0160600 | POLYETHY BAG, SET                        |
| 124  | 1241-R0123350 | POLYETHY BAG, OG                         |

### NOTE:

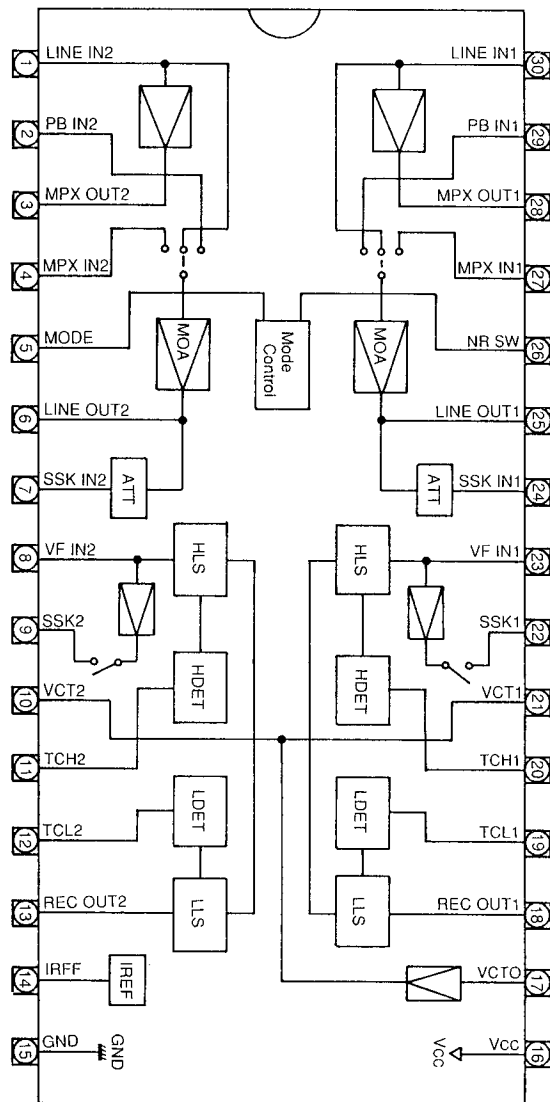
$\Delta$  SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

IC BLOCK DIAGRAM

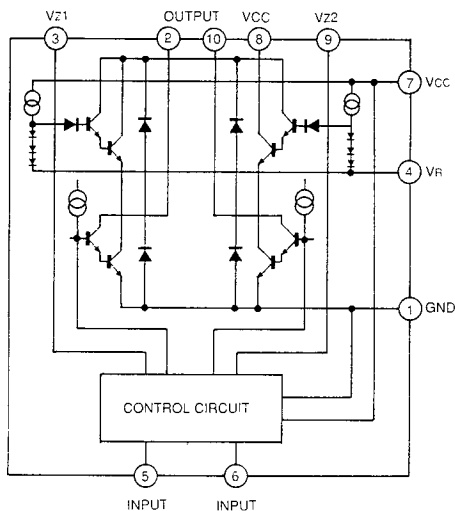
IC402 : BA6138  
Signal Level Meter



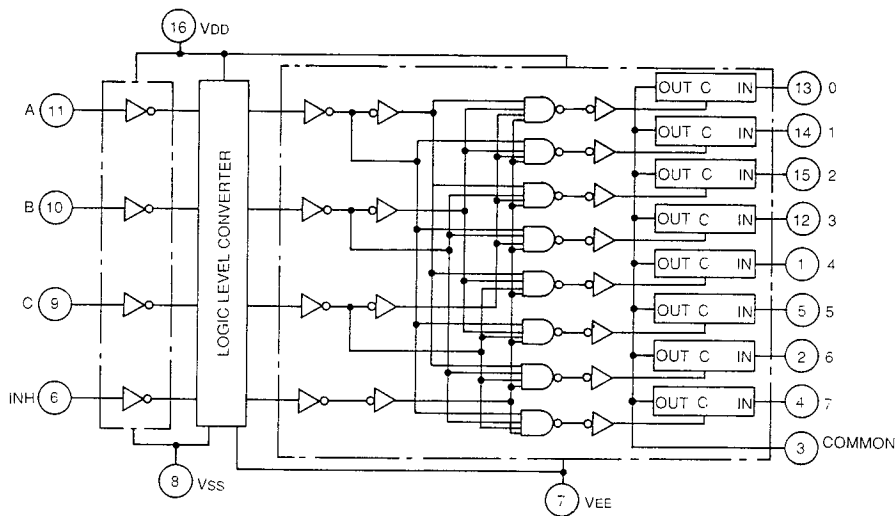
IC501 : CXA1330S  
Dolby B/C NR



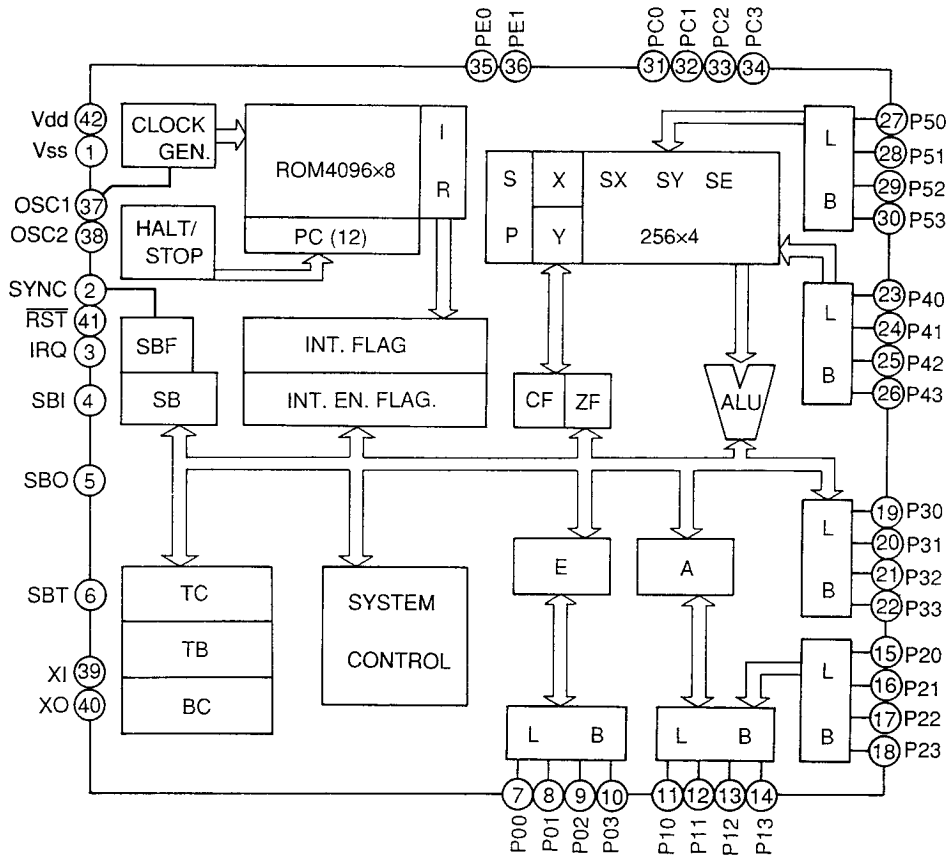
IC801, 802 : BA6229  
Motor Driver



IC753 : TC4051BP



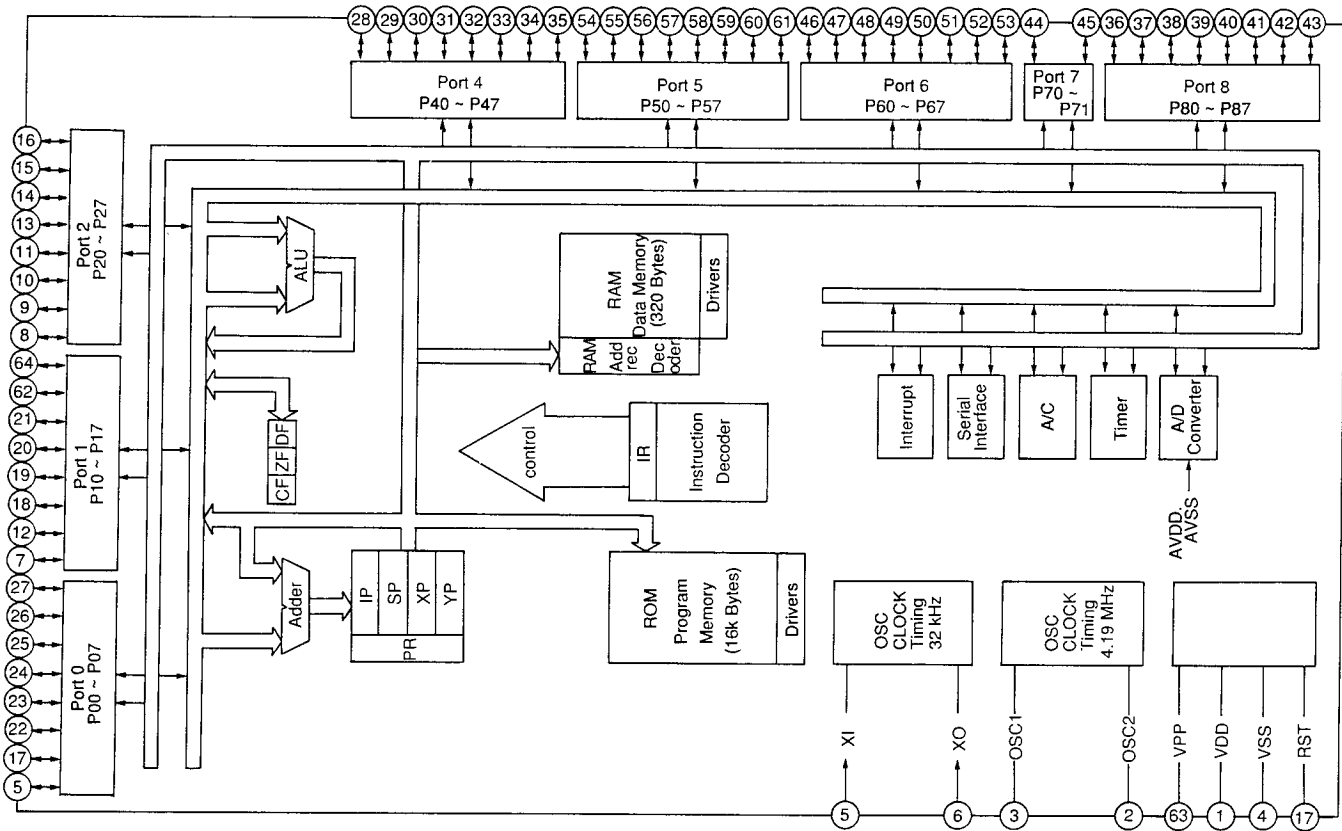
IC751 : MN15542  
Logic Control Block



TERMINAL FUNCTIONS

| NO. | Name | Functional Name | I/O | Description  | NO. | Name | Functional Name | I/O | Description                              |
|-----|------|-----------------|-----|--|-----|------|-----------------|-----|--|
| 1   | Vss  | Vss             |     | GND  | 22  | P33  | LINE MUTE       | 0   | Line mute output                         |
| 2   | SYNC |                 |     | Not used   | 23  | P40  | SEC-RPC         | 0   | SEC reel motor drive voltage change-over |
| 3   | IRQ  | STB IN          | i   | STB input from MAIN                                | 24  | P41  | SEC-RM2         | 0   | SEC reel motor reverse drive output      |
| 4   | SBI  | DATA IN         | i   | Data input from MAIN                               | 25  | P42  | SEC-RM1         | 0   | SEC reel motor forward drive output      |
| 5   |      |                 |     |  | 26  | P43  | SEC-SOLP        | 0   | SEC solenoid retaining output            |
| 6   | SBT  | CLK IN/OUT      | I/O | Clock input/output for data communication with SUB | 27  | P50  | SEC-SOL         | 0   | SEC solenoid trigger output              |
| 7   | P00  | SEC-RE MUTE     | 0   | SEC playback mute output                           | 28  | P51  | SEC-CPM         | 0   | SEC capstan motor drive output           |
| 8   | P01  | SEC-REC MUTE    | 0   | SEC REC mute output                                | 29  | P52  | SEC-MMS         | 0   | SEC capstan motor rpm change-over        |
| 9   | P02  | SEC-REC         | 0   | SEC REC change-over output                         | 30  | P53  | HI SPD          | 0   | EQ change-over at high-speed copy        |
| 10  | P03  | SEC-BIAS        | 0   | SEC bias drive output                              | 31  | PC0  | PRI-DOLBY C     | 0   | PRI Dolby C drive output                 |
| 11  | P10  | PRO-PB MUTE     | 0   | PRI playback mute output                           | 32  | PC1  | PRI-DOLBY B     | 0   | PRI Dobby B drive output                 |
| 12  | P11  | PRI-REC MUTE    | 0   | PRI recording mute output                          | 33  | PC2  | PRI-MPX         | 0   | PRI MPX filter drive output              |
| 13  | P12  | PRI-REC         | 0   | PRI recording mute change-over                     | 34  | PC3  | SEC-DOLBY C     | 0   | SEC Dolby C drive output                 |
| 14  | P13  | PRI-BIAS        | 0   | PRI bias drive output                              | 35  | PE0  | SEC-DOLBY B     | 0   | SEC Dolby B drive output                 |
| 15  | P20  | PRI-RPC         | 0   | PRI reel motor drive voltage change-over           | 36  | PE1  | BUSY OUT        | 0   |  |
| 16  | P21  | PRI-RM2         | 0   | PRI reel motor reverse drive output                | 37  | OSC1 | OSC1            |     | Ceramic resonator connection             |
| 17  | P22  | PRI-RM2         | 0   | PRI reel motor forward DRIVE output                | 38  | OSC2 | OSC2            |     | Transmitting frequency : 4.0 MHz         |
| 18  | P23  | PRI-SOLP        | 0   | PRI solenoid retaining power                       | 39  | X1   |                 |     | Not used                                 |
| 19  | P30  | PRI-SOL         | 0   | PRI solenoid trigger output                        | 40  | X0   |                 |     |  |
| 20  | P31  | PRI-CPM         | 0   | PRI capstan motor drive output                     | 41  | RST  | RESET           | i   | Reset                                    |
| 21  | P32  | PRI-MMS         | 0   | PRI capstan motor rpm change-over                  | 42  | Vdd  | Vdd             |     | 5V DC power connection                   |

IC901 : MN187167  
Main Controller



TERMINAL FUNCTIONS

| NO. | Name | Functional Name | I/O | Description   | NO. | Name       | Functional Name | I/O   | Description  | NO. | Name      | Functional Name | I/O                                   | Description                    |
|-----|------|-----------------|-----|---|-----|------------|-----------------|---|--|-----|-----------|-----------------|---------------------------------------|--------------------------------|
| 1   | Vdd  | Vdd             |     | 5V DC power supply  | 22  | P05        | R-SI            | I   | Remote control input   | 39  | P84       | S. R. LED       | 0                                     | H when SYNC. REVERSE LED is on |
| 2   | OSC  | OSC OUT         |     | Ceramic resonator connection<br>Transmitting frequency : 4.0 MHz                | 23  | P04        | VOLT-DN         | I   | Power OFF detection ; L when OFF   | 40  | P83       | A. P. LED       | 0                                     | H when AUTO PAUSE LED is on    |
| 3   | OSC  | OSC IN          |     |   | 24  | P03        | MS GAIN         | I   | MS amplifier gain control ; H when the gain is small                               | 41  | P82       | G0              | 0                                     | FL display grid drive output   |
| 4   | Vss  | Vss             |     | 25  | P02 | CLK IN/OUT | I/O             | Clock input/output terminal for data communication with SUB | 42   | P81 | G1        | 0               |                                       |                                |
| 5   | P06  | BUSY IN         | I   | BUSY IN   | 26  | P01        | DATA IN         | I   | Serial data input from SUB   | 43  | P80       | G2              | 0                                     |                                |
| 6   | X0   |                 |     | Not used  | 27  | P00        | DATA OUT        | O   | Serial data output to SUB  | 44  | P71       | G3              | 0                                     |                                |
| 7   | P17  | SYNC. REV. KEY  | I   | SYNC. REVERSE key input   | 28  | P47        | SEC-F. REC      | I   | SEC tape front hook detection ; L when REC enabled                                 | 45  | P70       | G4              | 0                                     |                                |
| 12  | P16  | A-PAUSE KEY     | I   | AUTO PAUSE key input  | 29  | P46        | SEC-R. REC      | I   | SEC tape rear hook detection   | 46  | P67       | G5              | 0                                     |                                |
| 8   | AD7  | KEY IN 5        | I   | Key input   | 30  | P45        | PRI-REEL 2      | I   | PRI right reek pulse input   | 47  | P66       | G6              | 0                                     |                                |
| 9   | AD6  | KEY IN 4        | I   | Judging wich key has been pressed by DC voltage detection with an A/D converter | 31  | P44        | PRI-REEL 1      | I   | PRI left reel pulse input  | 48  | P65       | G7              | 0                                     |                                |
| 10  | AD5  | KEY IN 3        | I   |   | 32  | P43        | PRI-PACK DET    | I   | PRI pack detection   | 49  | P64       | G8              | 0                                     |                                |
| 11  | AD4  | KEY IN 2        | I   |   | 33  | P42        | PRI-QUICK DET   | I   | PRI quick photo detection  | 50  | P63       | a               | 0                                     |                                |
| 13  | AD3  | KEY IN 1        | I   |   | 34  | P41        | PRI-R. REC      | I   | PRI tape rear hook detection   | 51  | P62       | b               | 0                                     |                                |
| 14  | AD2  | MS IN           | I   | A/D input port for MS detection   | 35  | P40        | PRI-F. REC      | I   | PRI tape front hook detection  | 52  | P61       | c               | 0                                     |                                |
| 15  | AD1  | METER R         | I   | Level meter right channel input   | 36  | P87        | STB OUT         | O   | STB output to SUB  | 53  | P60       | d               | 0                                     |                                |
| 16  | AD0  | METER L         | I   | Level meter left channel input  | 37  | P86        | COPY            | O   | H when copying from SEC to PRI   | 54  | P57       | e               | 0                                     |                                |
| 17  | RST  | RESET           | I   | Reset   | 38  | P85        | SEC             | O   | Voice output to LINE OUT and MS amplifier; H when SEC output and L when PRI output | 55  | P56       | f               | 0                                     |                                |
| 18  | P15  | SEC-REEL 2      | I   | SEC right reel pulse input  |     |            |                 |   | 56   | P55 | g         | 0               |                                       |                                |
| 19  | P14  | SEC-REEL 1      | I   | SEC left reel pulse input   |     |            |                 |   | 57   | P54 | h         | 0               |                                       |                                |
| 20  | P13  | SEC-PACK DET    | I   | SEC pack detection ; L when a cassette is present                               |     |            |                 |   | 58   | P53 | i         | 0               |                                       |                                |
| 21  | P12  | SEC-QUICK DET   | I   | SEC quick photo detection L at the leader tape position                         |     |            |                 |   | 59   | P52 | j         | 0               |                                       |                                |
|     |      |                 |     |   |     |            |                 |   | 60   | P51 | k         | 0               |                                       |                                |
|     |      |                 |     |   |     |            |                 |   | 61   | P50 | l         | 0               |                                       |                                |
|     |      |                 |     |   |     |            |                 |   | 62   | P11 | INI SET B | I               | Initial setting SW B connection       |                                |
|     |      |                 |     |   |     |            |                 |   | 63   | Vpp | Vpp       |                 | Negative voltage load terminal for FL |                                |
|     |      |                 |     |   |     |            |                 |   | 64   | P10 | INI SET A |                 | Initial setting SW A connection       |                                |



# SCHEMATIC DIAGRAM (1)

## NOTES:

1. ALL RESISTANCES VALUES ARE IN  $\Omega$ .  
k $\Omega$  = 1000 $\Omega$ , M $\Omega$  = 1000k $\Omega$ .
2. THE WATTAGE OF RESISTORS IS 1/2W UNLESS OTHERWISE NOTED.

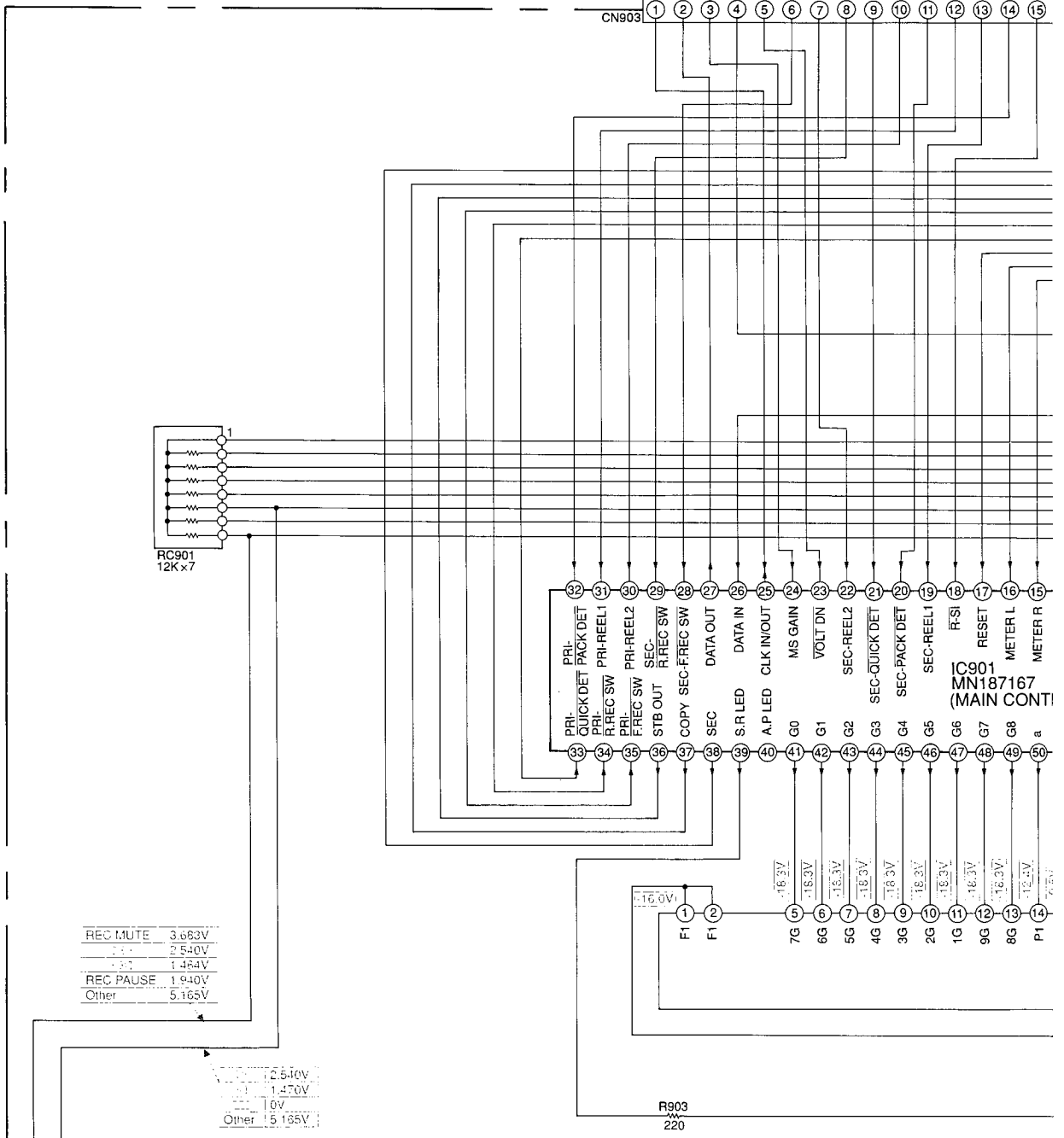
## OTHERWISE NOTED.

3. ALL CAPACITANCES VALUES ARE IN  $\mu$ F UNLESS OTHERWISE NOTED. P =  $\mu$ F.
4. V : DC VOLTAGE AT NO SIGNAL.

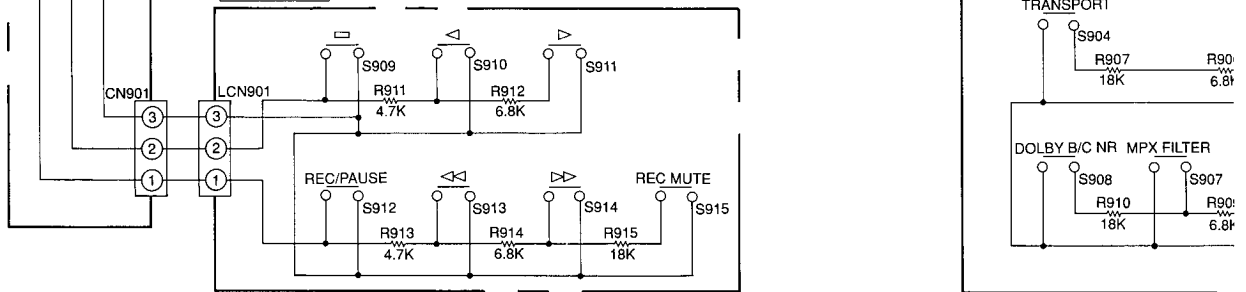
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### PCB-5 FRONT P. C. BOARD

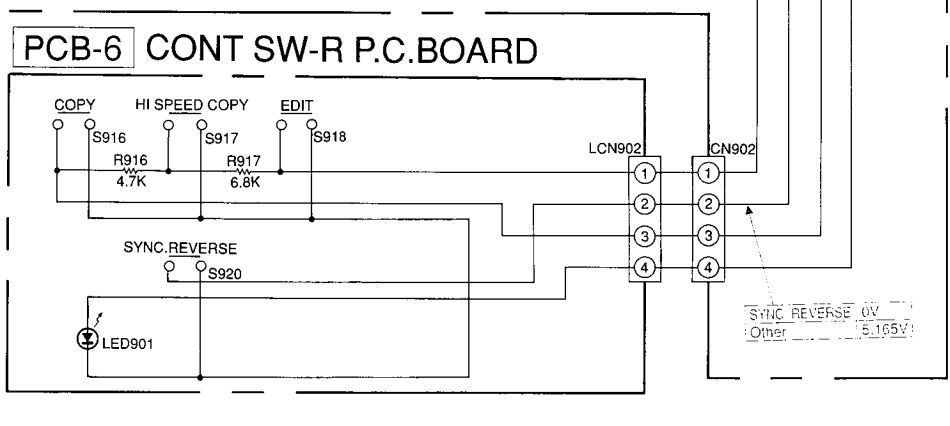
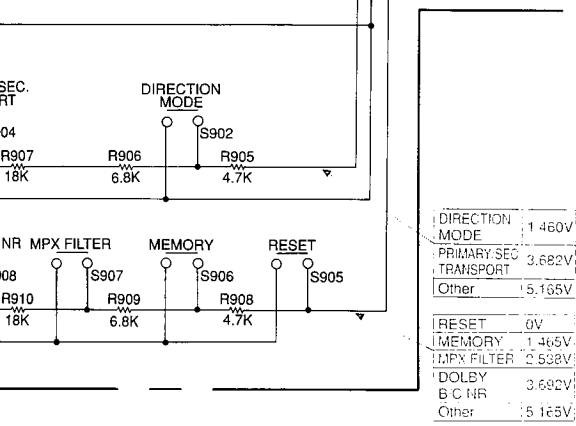
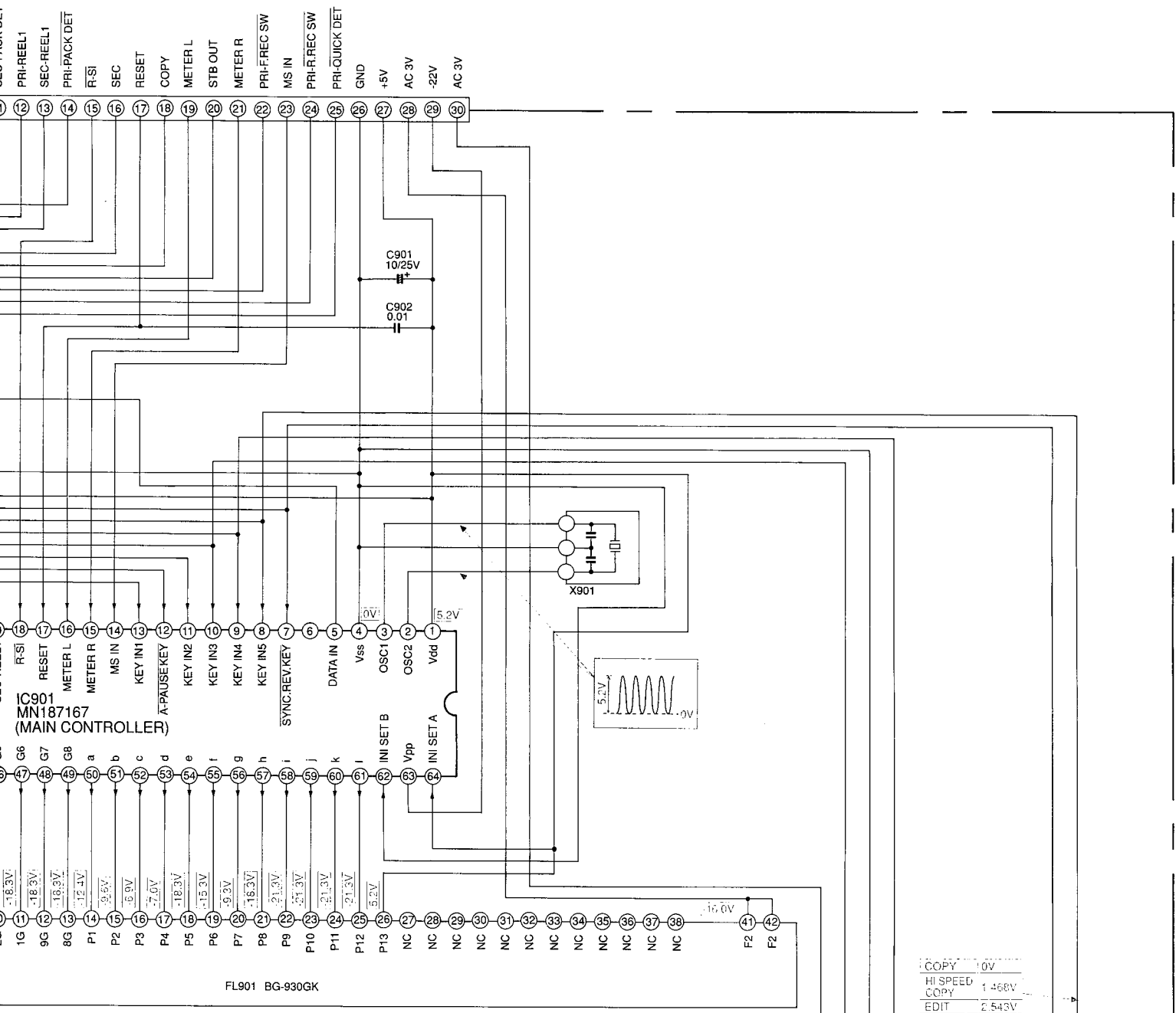


### PCB-7 CONT SW-L P.C. BOARD



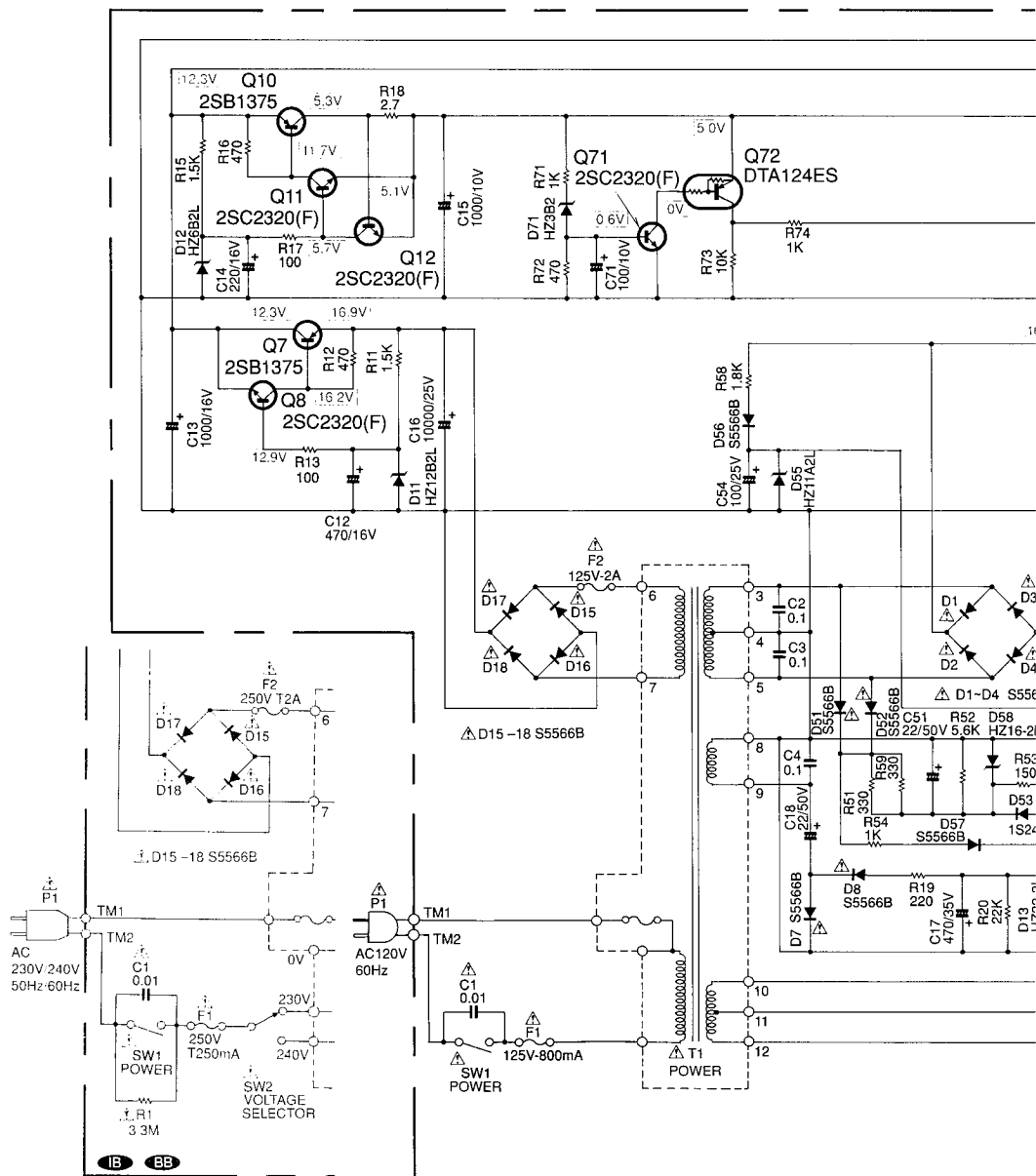
E F G H I J

UNLESS



**SCHEMATIC DIAGRAM (2)**

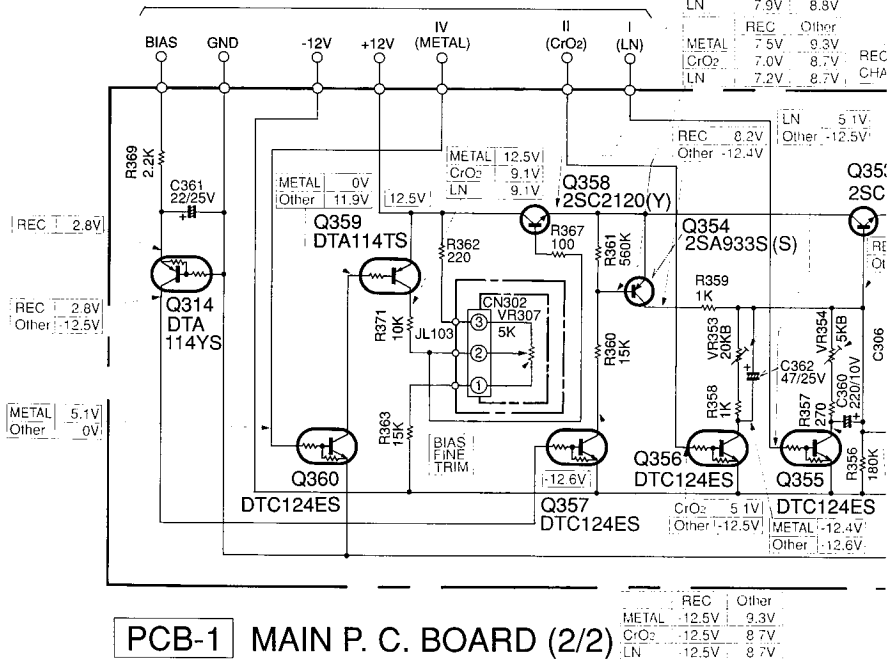
**PCB-4 POWER P. C. BOARD (1/2)**



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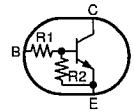
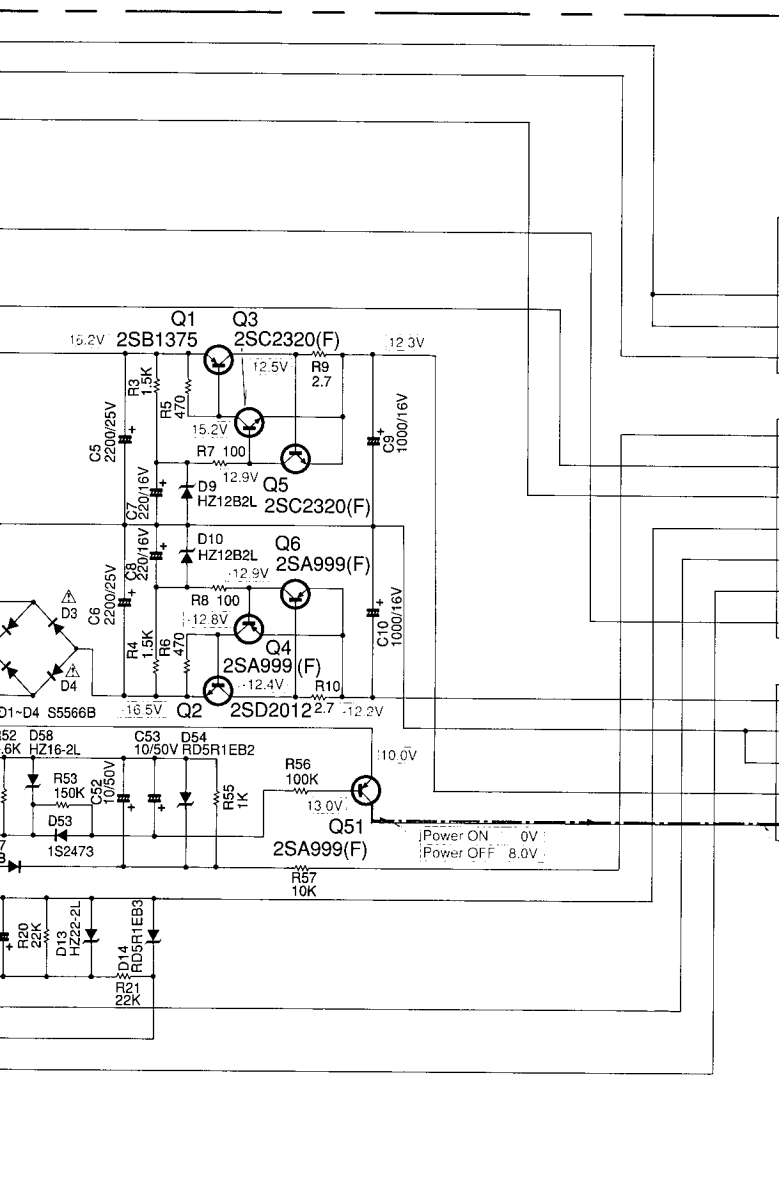


|                  |           |
|------------------|-----------|
| REC              | Other     |
| METAL            | 8.3V 9.4V |
| CrO <sub>2</sub> | 7.8V 8.8V |
| LN               | 7.9V 8.8V |
| REC              | Other     |
| METAL            | 7.5V 9.3V |
| CrO <sub>2</sub> | 7.0V 8.7V |
| LN               | 7.2V 8.7V |

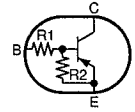


**PCB-1 MAIN P. C. BOARD (2/2)**

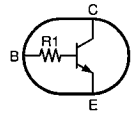
|                  |            |
|------------------|------------|
| REC              | Other      |
| METAL            | 12.5V 9.3V |
| CrO <sub>2</sub> | 12.5V 8.7V |
| LN               | 12.5V 8.7V |



| Type     | R1  | R2  |
|----------|-----|-----|
| DTC114YS | 10K | 47K |
| DTC124ES | 22K | 22K |



| Type     | R1   | R2   |
|----------|------|------|
| DTA114YS | 10K  | 47K  |
| DTA124ES | 22K  | 22K  |
| DTA143ES | 4.7K | 4.7K |



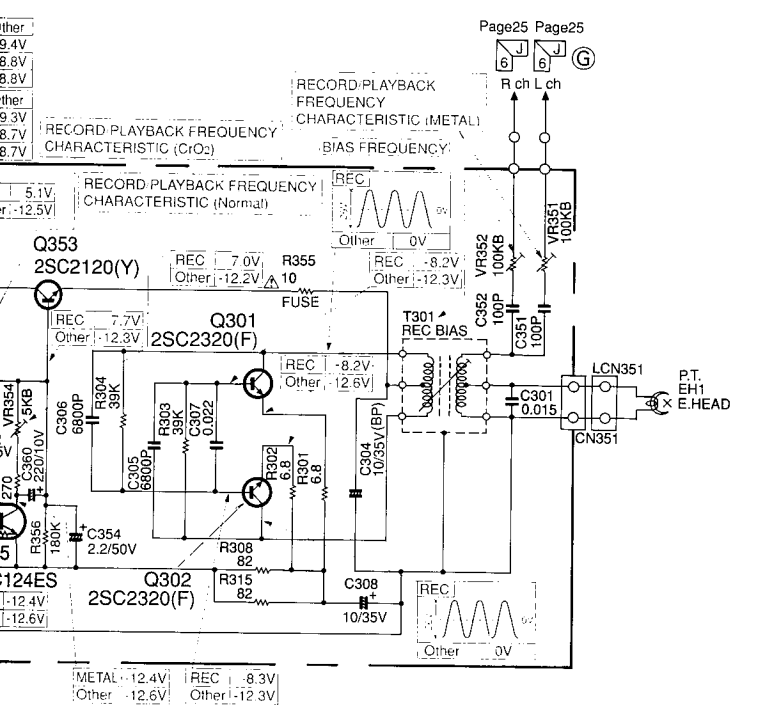
| Type     | R1  |
|----------|-----|
| DTC114TS | 10K |

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|       |        |       |        |
|-------|--------|-------|--------|
| METAL | -12.4V | REC   | -8.3V  |
| Other | -12.6V | Other | -12.3V |

SCHEMATIC DIAGRAM (3)

