# 5020

marantz

model 5020

*Stereo Cassette Deck*

marantz

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## INTRODUCTION

The service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz Model 5020 Stereo Cassette Deck.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operation in the Cassette Deck.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can be usually obtained through local suppliers.

## 1. SERVICE NOTE

As can be seen from the circuit diagram, the chassis of Model 5020 consists of following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. Pre-Amp. ..... mounted on P.W. Board, P100
2. Power Supply ..... mounted on P.W. Board, P400
3. Switch ..... mounted on P.W. Board, P500
4. Volume ..... mounted on P.W. Board, P600
5. Lamp ..... mounted on P.W. Board, P650
6. Terminals ..... mounted on P.W. Board, P700
7. Dolby ..... mounted on P.W. Board, P800

## 2. TEST EQUIPMENT REQUIRED FOR SERVICING REPLACEMENT

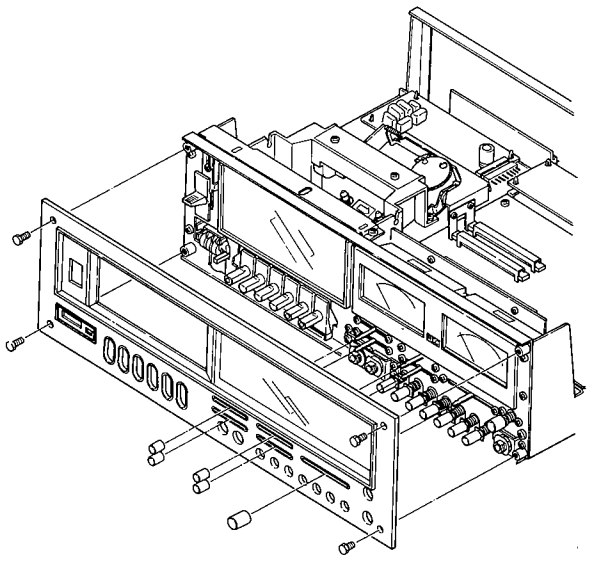
For measuring or checking the Model 5020, the following instruments and materials are necessary.

| | | |
|---|---|---|
| VTVM | | Blank Tapes |
| Audio Oscillator | (af OSC) | Digital Frequency Counter |
| Attenuator | (600Ω) | Distortion Meter |
| Oscilloscope | | Test Tapes |
| Bandpass Filters | (1kHz, 500Hz) | |
| Wow and Flutter Meter | | |
| Torque Meter | | |

# 3. DISASSEMBLING INSTRUCTIONS FOR MODEL 5020

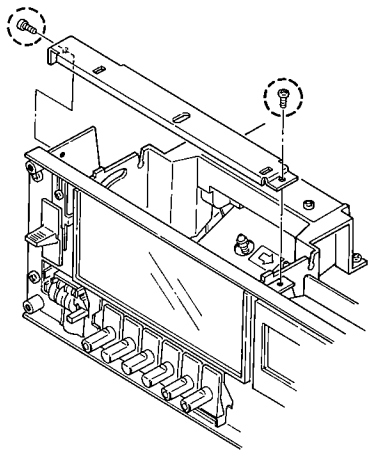
## 1. Demounting the Front Panel

Remove the five knobs. Unscrew the four hexagon bolts. The front panel, then, will be removed as illustrated in the line drawing right.

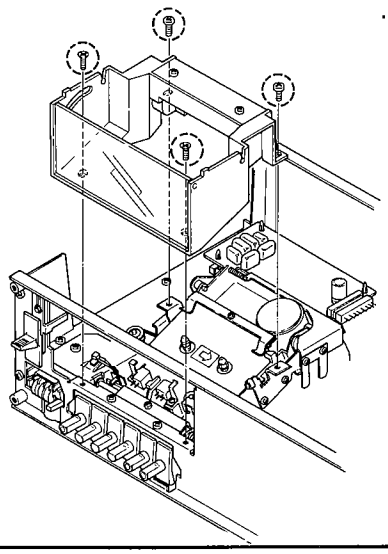


## 2. Demounting the Cassette Compartment for Repairing Around Head

2-1. Unscrew the two screws. Remove the upper supporting plate as illustrated below.

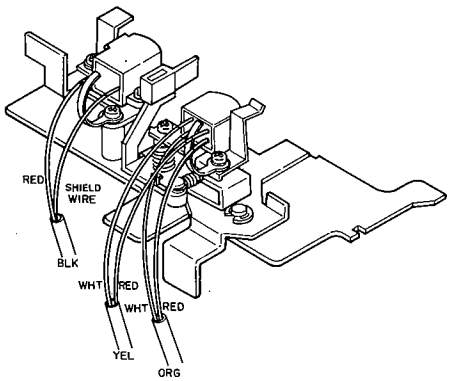


2-2. Unscrew the four screws holding the cassette compartment. The cassette compartment, then, will be removed as illustrated below.



### 3. Demounting the Tape Mechanism Block

3-1. Disconnect the head lead wires as illustrated below.




3-2. Turn the recorder body upside down, and remove the connector located on the bottom of the recorder body (Fig. A).
Put the recorder body light again and remove the six screws holding the tape mechanism block. The block, then, will be removed from the recorder body as illustrated in Fig. B.

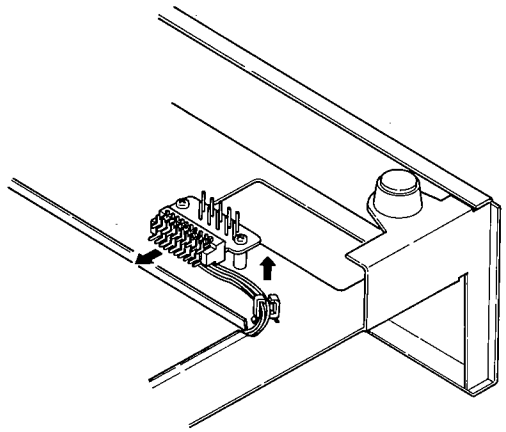


Fig. A

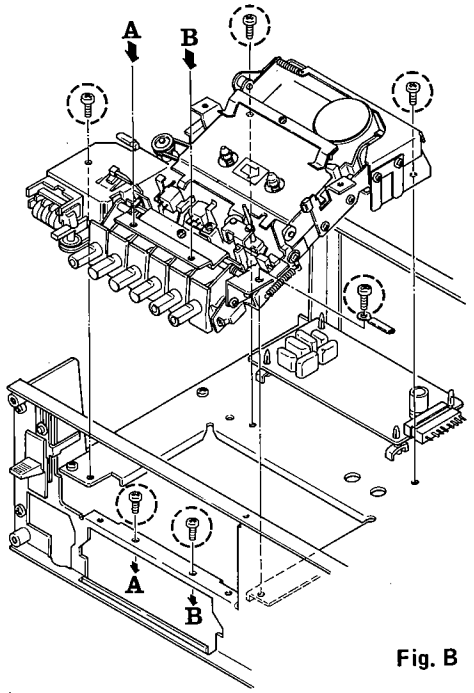
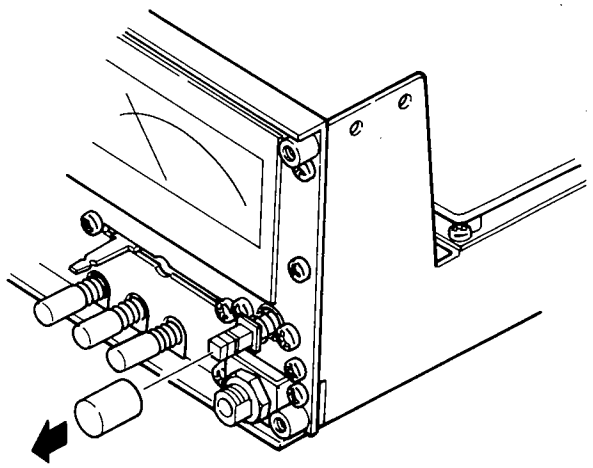


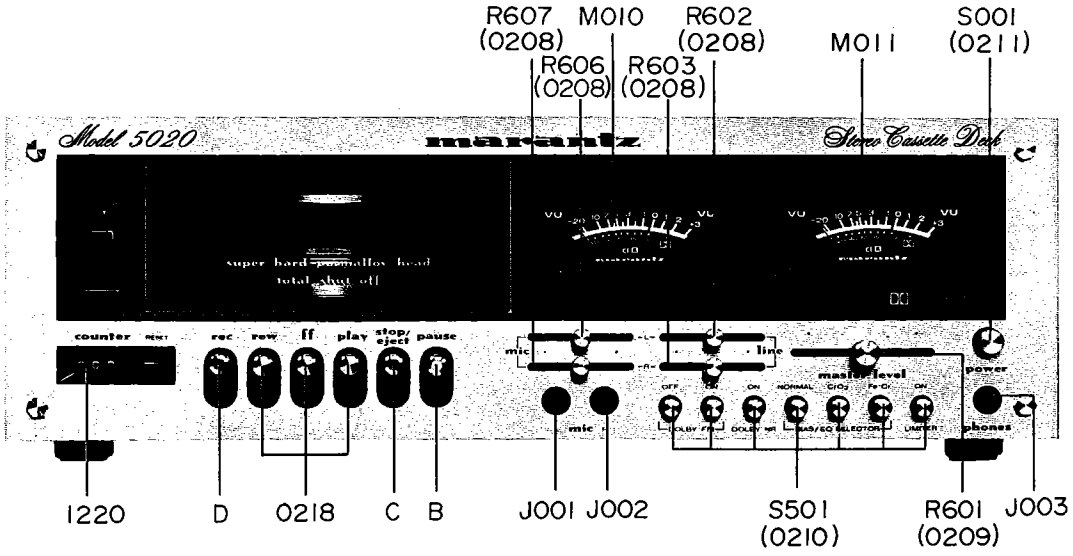

Fig. B

### 4. Replacing the Push-Switch Knob

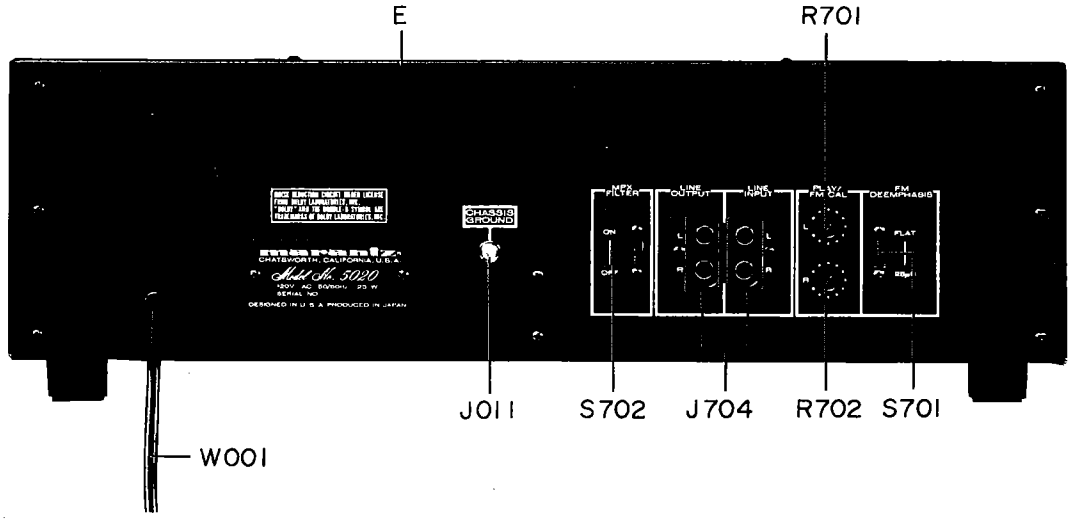
Set the push switch in the "off" state. Forcibly pull the knob in the arrow direction as illustrated right. The knob, then, will be removed.



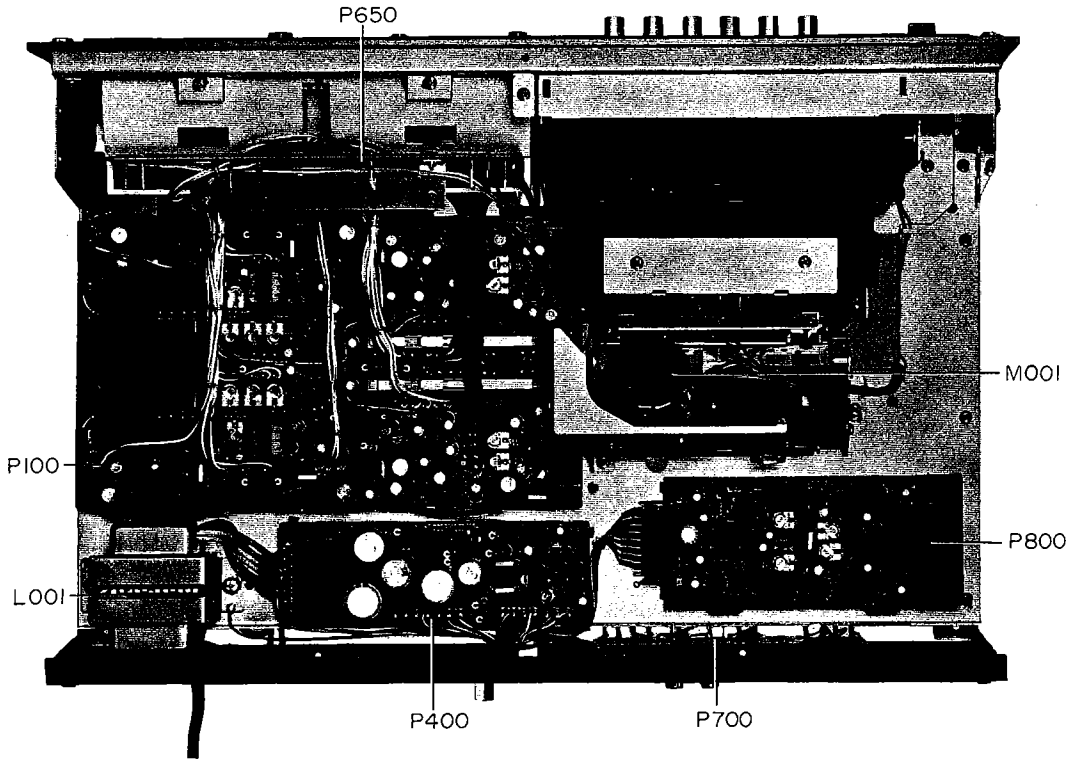
## 4. MAJOR PARTS LOCATIONS



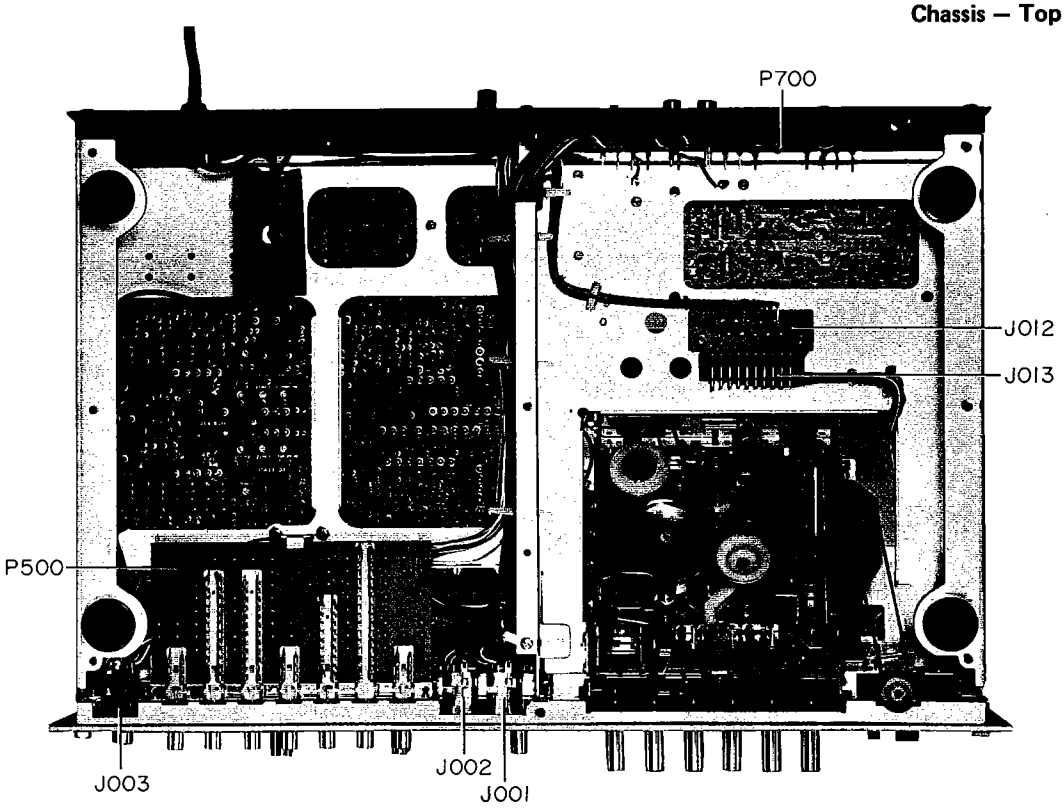

— Front View —



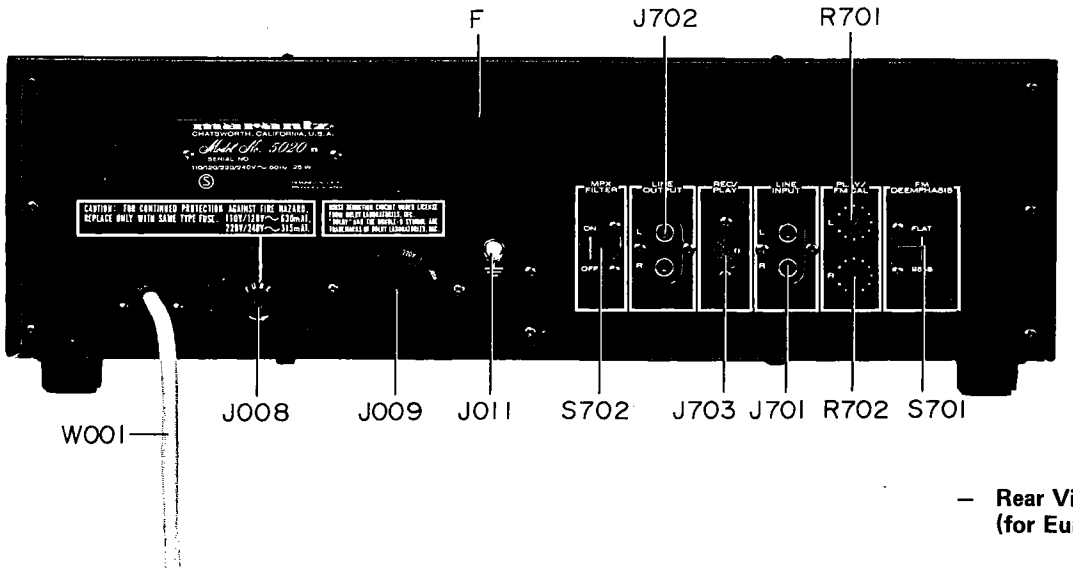

— Rear View —



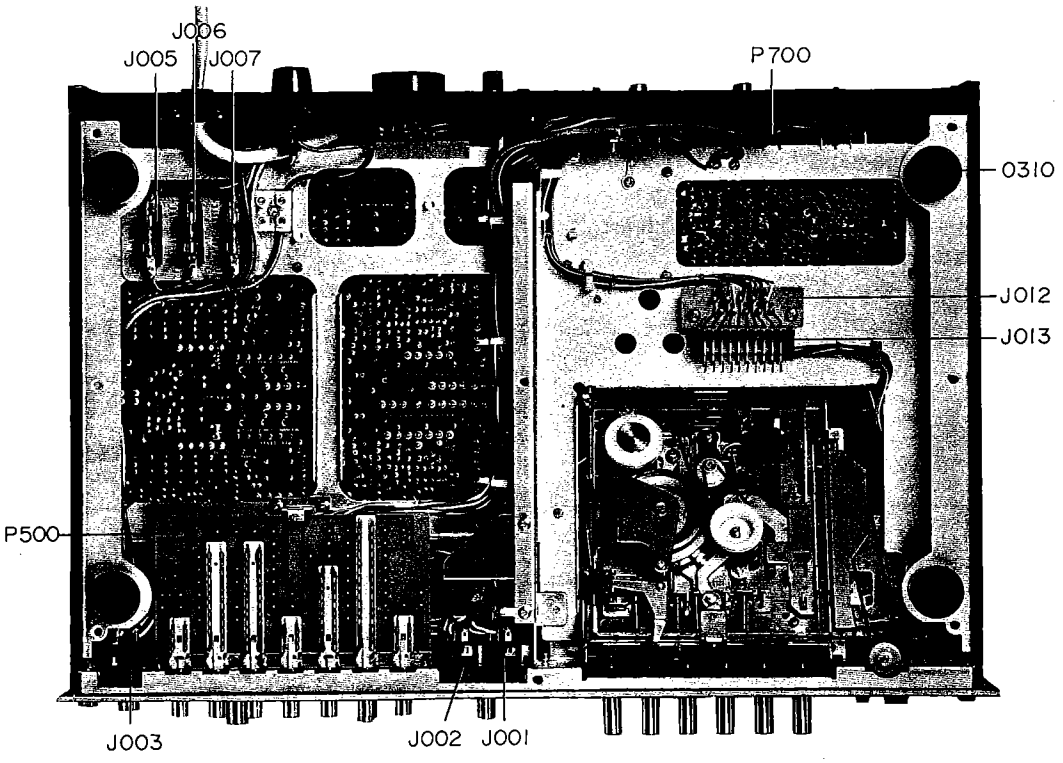

**Chassis – Top View –**




**Chassis – Back View –**




— Rear View —
(for Europe)



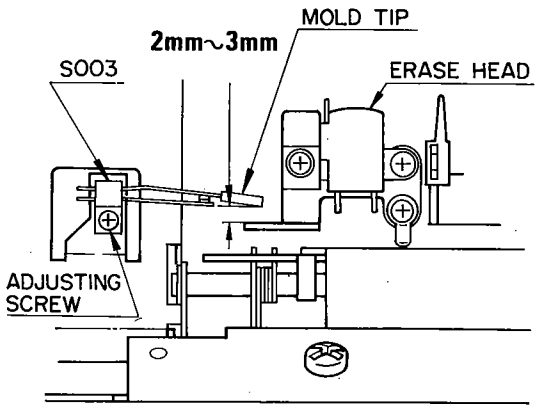

— Back View —
(for Europe)

# 5. ADJUSTMENT PROCEDURES

## 5-1. MECHANICAL ADJUSTMENTS

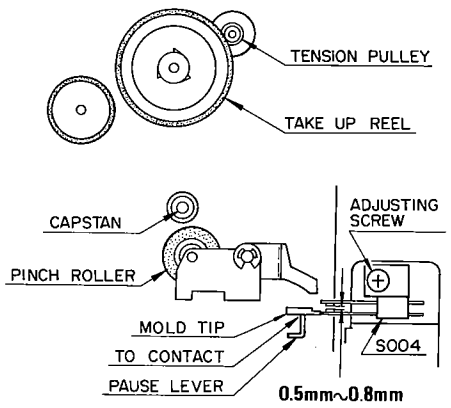
**Adjusting the PLAY muting switch**

In the stop state, loosen the adjusting screw at the PLAY muting switch (S003) and align the switch until there becomes 2 to 3mm gap between the mold tip at its end and its play operating arm, then tighten the screw to fix it.



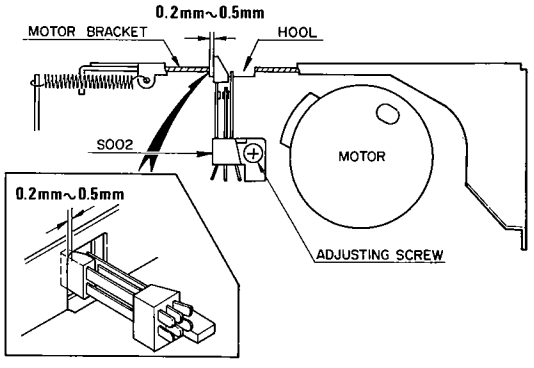

**Adjusting the PAUSE muting switch**

In the stop state, loosen the adjusting screw at the PAUSE muting switch (S004) and align the switch until the mold tip at its end comes in light contact with its pause operating lever and its contacts are separated 0.5 to 0.8mm, then tighten the screw to fix it.



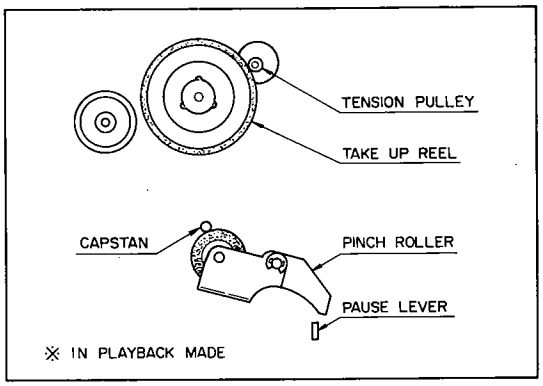

**Adjusting the RECORD muting switch**

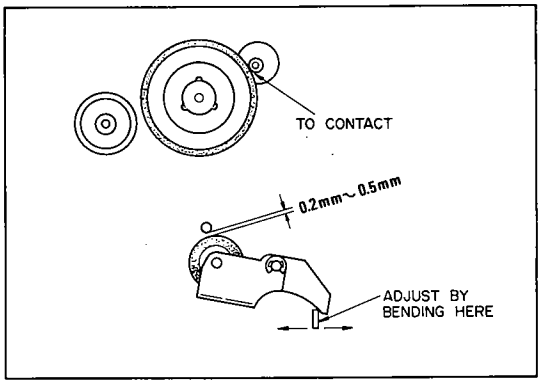
Loose the adjusting screw at the RECORD muting switch (S002) and align the switch until there becomes 0.2 to 0.5mm gap between the mold tip at its end and motor bracket, then tighten the screw to fix it.

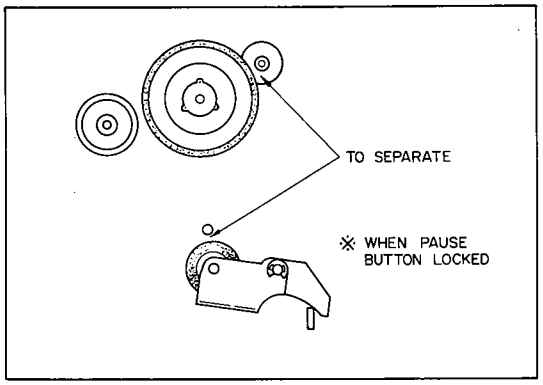


### Adjusting the PAUSE timing

Pause Lever should be so adjusted by bending with a pair of pliers that the Pinch Roller and the Capstan are disengaged before the Tension Pulley and then the Tension Pulley and Take Up Reel are disengaged when Pause button is depressed in Playback mode.

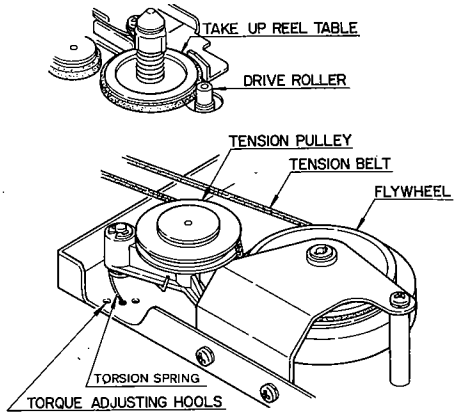


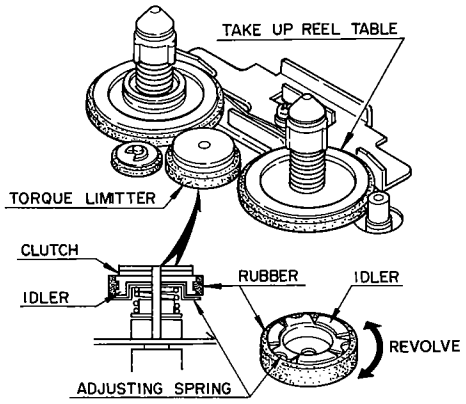

### Adjusting the PLAY torque

If the PLAY torque is out of the standard, i.e., 40 to 70g-cm, first wipe off dirt and grease accumulated on the mating surface of the takeup reel with the drive roller and the surfaces of the tension belt. Second, suspend the torsion spring for the tension pulley on an alternative torque adjusting hole. If the torque is not within the standard yet, replace the tension pulley.




### Adjusting the FF/REW torque

If the FF/REW torque is out of the standard, i.e., 70 to 120g-cm, then change the spring put in the torque limiter to an alternative position for proper torque.



**Measurement of PLAY, FF and REWIND torques**
**– in Play/FF/Rew Mode –**

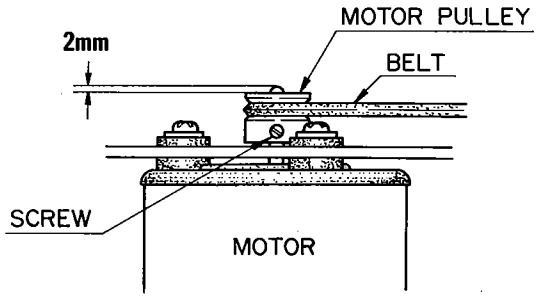
Measure the torques with a torque cassette to confirm that the torque satisfies the specified value in each mode.

Specifications:

| | |
|---|---|
| Play | 40 ~ 70 g.cm |
| FF | 70 ~ 120 g.cm |
| Rew | 70 ~ 120 g.cm |

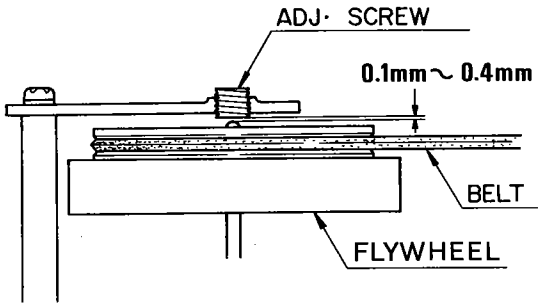
**Adjusting the motor pulley mounting position**

Loosen the set screw and adjust the position to obtain the distance of 2mm between the edge of Motor Shaft and the upper surface of Motor Pulley.



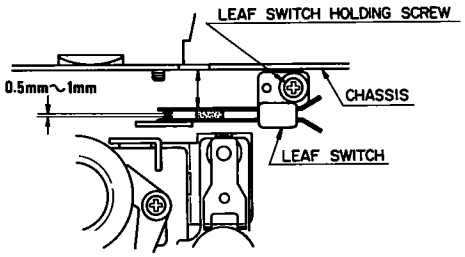

**Adjusting the flywheel thrust**

Adjust the thrust to 0.1 ~ 0.4 mm by rotating the adjustment screw. After the adjustment, be sure to lock the adjustment screw with paint.



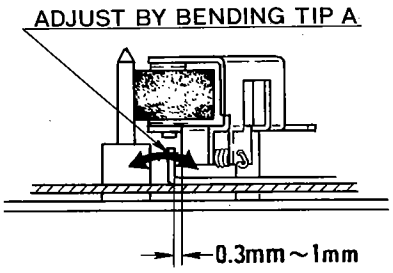

**Adjusting the leaf switch position**
**– in Stop Mode –**

Leaf Switch should be positioned parallel with the chassis.



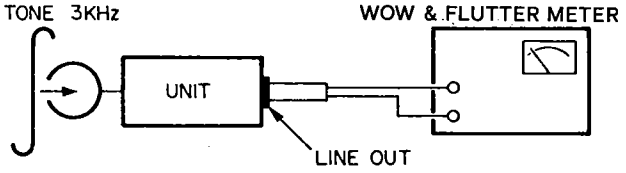
**Adjusting the pinch roller position**
**– in Playback Mode –**

In the playback mode of operation, bend the tip A right or left until there becomes 0.3 to 1.0mm gap between the pinch roller arm and pinch roller home stopper hook on the head chassis as shown.



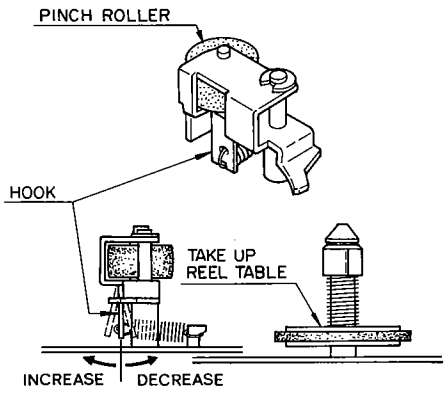

**Measurement of wow and flutter**
**– in Playback Mode –**

Playing back a 3 kHz Test Tape, connect a wow and flutter meter to the Line Out jack to confirm that the meter reading satisfies the specified value. Use the beginning and the last portions of the test tape for the measurement and the measurement should be performed at least 30 seconds after placing the unit in Playback mode.




**Adjusting the pinch roller pressure**

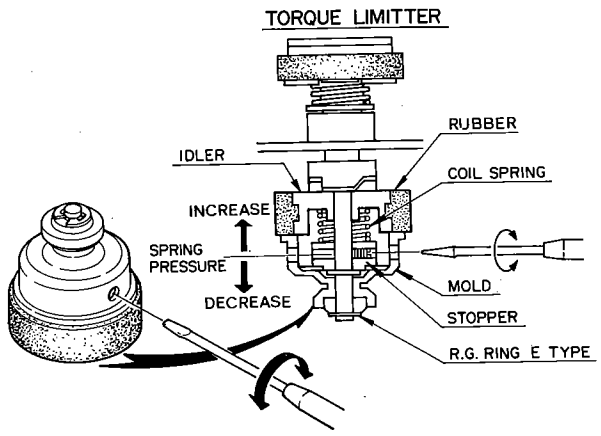
To adjust the pinch roller pressure, bend the spring hook beneath the pinch roller toward the takeup reel (for weak pressure) or in the reverse direction (for strong pressure).



**Adjusting the FF/REW autostop mechanism**

If the tape is automatically stopped in the course of the fast forward or rewind, loosen the stopper screw within the mold under the torque limiter with a small standard screwdriver inserted into the hole located at the side of the mold. Move the stopper in the direction of compressing the coil spring, or upward in the figure, to increase the coil spring pressure to prevent such an erroneous stopping.

On the contrary, if the tape is not automatically stopped at its end, make the above-mentioned coil spring pressure weak and wipe dirt and grease off the mating surface of the flywheel with the rubber. If the tape-end stop is not normal yet, then replace the torque limiter.



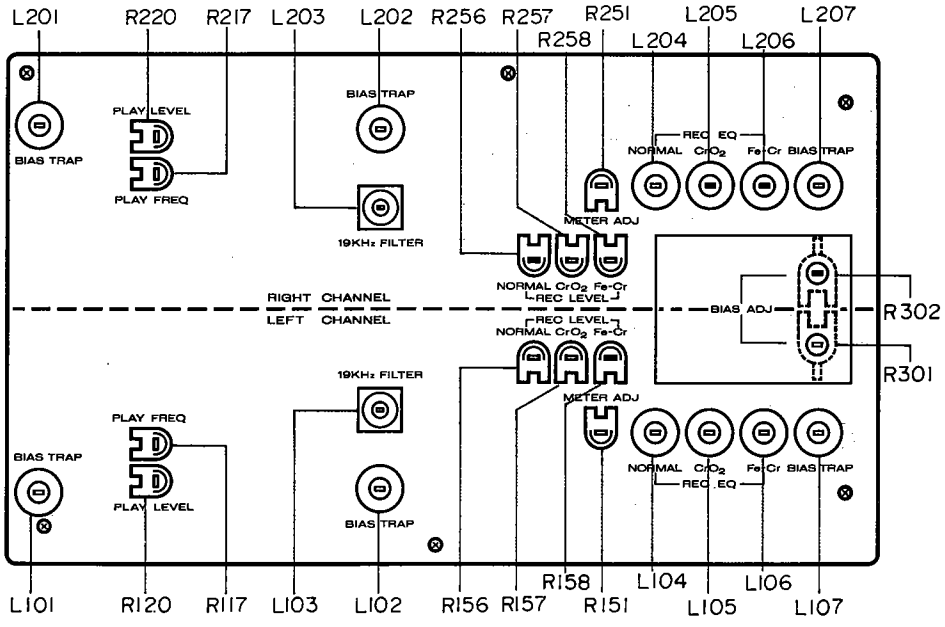
## 5-2. ELECTRICAL ADJUSTMENTS AND MEASUREMENTS

**Precautions Before Adjustment and Measurement**

1. Before playing the test tape back, thoroughly demagnetize the heads, capstan and similar metal parts using an eraser as the test tape-recorded tone is easily erased.
2. Do not place the test tape on any measuring instrument.
3. Do not put the test tape near a place where the eraser is used.
4. Method of Demagnetization:—Turn the eraser power switch on at a remote position far away from the heads. Bring the eraser close to the heads, capstan and other parts to be demagnetized, and move it up and down four or five times to demagnetize. Slowly separate the eraser far away from the parts, and turn the power switch off.
5. Do not use any magnetized adjusting tool. When using it, demagnetize it from time to time in the course of each adjustment.
6. Do not turn semi-fixed resistor, capacitor, and inductor adjusting screws more than needed.
7. If measuring the tape speed wow and flutter, operate the tape deck in the normal operating condition.
8. Do not apply locking bond excessively.

**Definitions**

1. The "normal playback state" is an operating state of the tape deck which plays back the MTT-150 test tape and is adjusted so as to produce a 580mV output at the MAIN P.W. Board (P100) J125, J225 with the load assuming the measuring instrument input impedance of greater than 100kΩ and with the TAPE selector switch set at the NORMAL position.
2. The "normal recording state" is an operating state of the tape deck which records a 1kHz signal to a specified recording level for which the recording level control is adjusted with the 1kHz signal applied at a specified input level to the MIC input terminal.
   In the normal recording state, therefore, this tape deck is set up with the level control to the state that the level meter pointer may deflect to the 100% mark as 0VU with a 1kHz, 1mV input signal applied.



## 1. Head Azimuth Adjustment

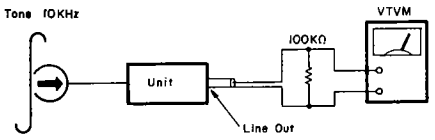
### SET UP

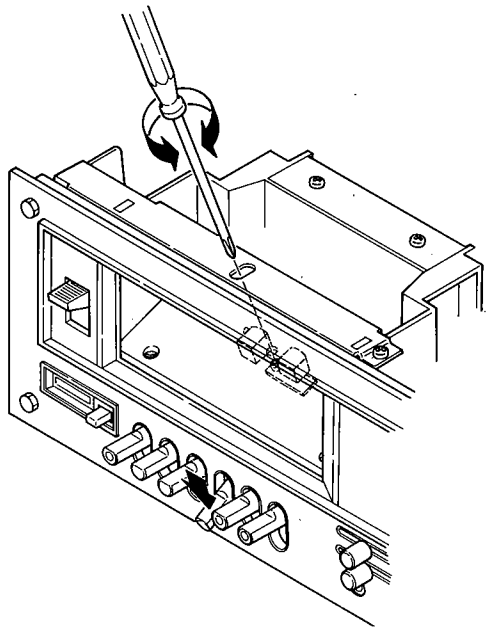
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. TAPE selector switch position:- NORMAL.
3. Load:- Measuring instrument input impedance.
4. Output terminal used:- LINE OUT.
5. Test tape used:- MTT-116U (31.5Hz to 14kHz).

### PROCEDURES

1. Play the 10kHz portion of the test tape MTT-116U back. Adjust the head azimuth adjusting screw for maximum VTVM read.
2. If the peak output reads of the right and left channels are different, set the screws to obtain the mechanical center between the peaks.
3. After adjustment, lock the screw with bond.

Mode: playback



### CAUTION

After adjustment, repeat the playback and stop setting a few times to make certain of no head azimuth deviation.

## 2. Tape Speed Adjustment

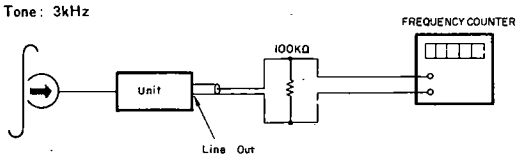
### SET UP

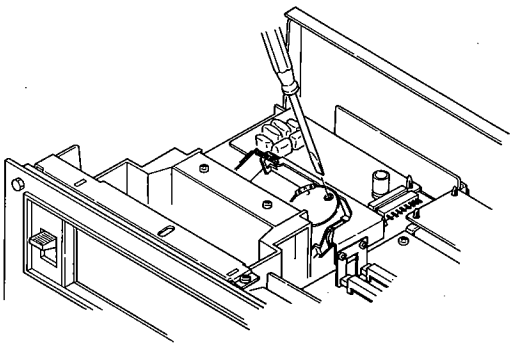
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Output terminal:- LINE OUT.
3. Test tape used:- MTT-111.
4. Unit position:- Horizontal.

### PROCEDURES

1. Play the mid portion of the test tape MTT–111 back. Adjust the tape speed adjusting semi-fixed resistor for 2990 to 3010Hz counter indication.

Mode: playback



### CAUTIONS

1. For adjustment, the tape deck should be set up in the normal operating condition.
2. Do not adjust the semi-fixed resistor more turns than needed.
3. Do not proceed with adjustment after the tape deck temperature has changed.
4. If a strong shock or similar vibration is applied to the tape deck after adjustment, make certain that the measured tape speed had not changed.
5. If the tape speed deviation occurs, perform the adjustment again.
6. Be careful that the counter may indicate a wrong value because of too low counter input level.
7. Before adjustment, allow for 30 seconds or more after depressing of the PLAY push-button.

### 3. Playback Equalizer Adjustment

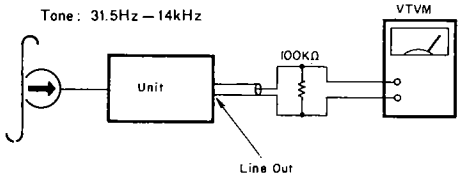
**SET UP**

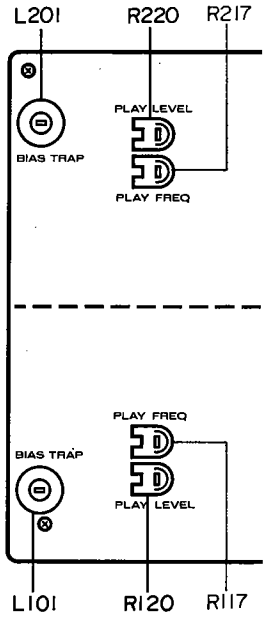
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. TAPE selector switch position:- NORMAL.
3. Load:- Measuring instrument input impedance.
4. output terminal:- LINE OUT.
5. Test tape used:- MTT-116U (31.5Hz to 14kHz).

**PROCEDURES**

1. Play the test tape MTT-116U. Let the 315Hz signal level be reference as 0dB.
2. Adjust R117 and R217 (3kΩ each) for 10kHz frequency response of 0 to −1dB in reference to the 315Hz signal level (0dB).
3. Proceed both for the right and left channels in the same manner.
4. Note that clockwise turning of R117 and R217 will increase the 10kHz signal output level.

Mode: playback




### 4. Playback Output Adjustment

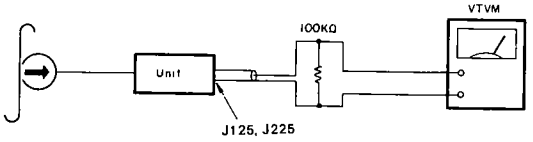
**SET UP**

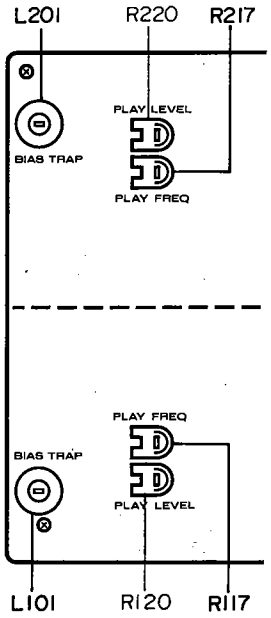
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. TAPE selector switch position:- NORMAL.
3. Load:- Measuring instrument input impedance.
4. Output terminal:- MAIN P.W. Board (P100) J125 and J225.
5. Test tape used:- MTT-150.

**PROCEDURES**

1. Play the test tape MTT-150 back. Adjust R120 and R220 (50kΩ each) for 580mV playback output level.
2. Proceed both for the right and left channels in the same manner.

Mode: playback




**CAUTION**

1. This adjustment should be performed after the one for the playback equalizer. If the playback equalizer is adjusted after the playback output adjustment, the playback output should be readjusted.

## 5. VU Meter Adjustment

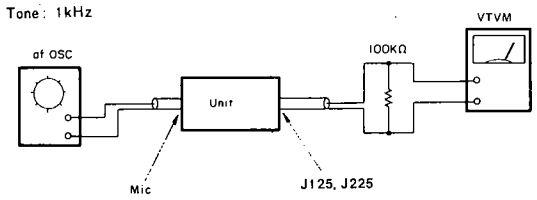
### SET UP

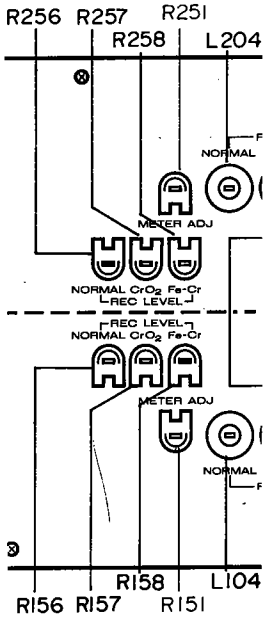
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. FUNCTION selector switch position:- NORMAL.
3. Load:- Measuring instrument input impedance.
4. Output terminal used:- MAIN P.W. Board (P100) J125 and J225.
5. Input terminal:- MIC.

### PROCEDURES

1. Connect a 1kHz, –60dBV input signal to the MIC terminal. Set up the tape deck for the recording mode of operation.
2. Adjust the REC control for 580mV output level at MONI. OUT of the MAIN P.W. Board (P100) J125 and J225.
3. Adjust R151 and R251 (3kΩ each) until the VU meter pointer deflects to the DOLBY mark (DOLBY) on the VU meter.

Mode: record



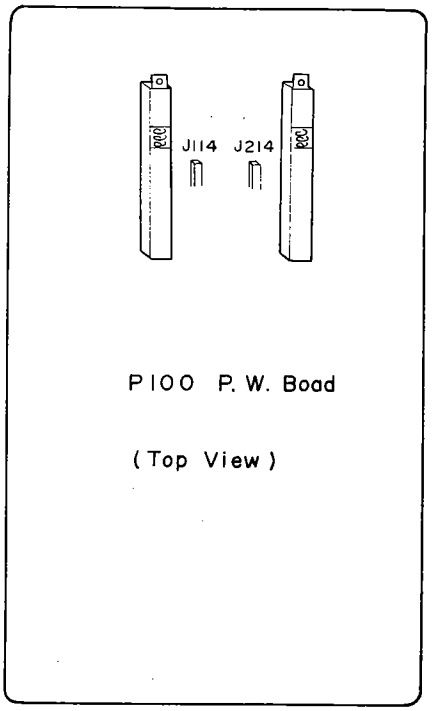

## 6. Bias Trap Adjustment

### SET UP

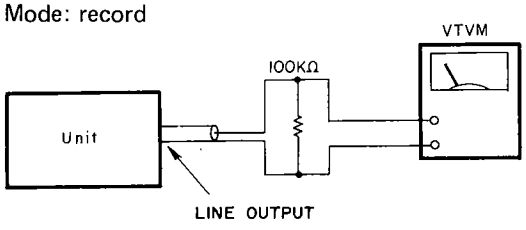
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Level control position:- Maximum.
3. TAPE selector switch position:- $CrO_2$.

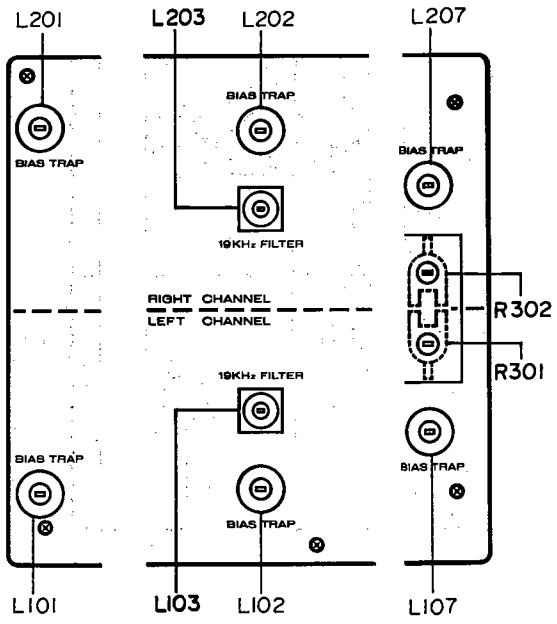
### PROCEDURES

1. Set up the tape deck in the recording mode of operation.
2. Connect the VTVM to J114 and J214. Adjust L101 and L201 for minimum VTVM read.
3. In turn, connect the VTVM to R171 and R271. Adjust L107 and L207 for minimum VTVM read.
4. Adjust L102 and L202 for minimum leak bias at the LINE OUTPUT terminal.




Mode: record






**CAUTIONS**

1. If the leak bias is less than the specified value, the bias trap needs not to be adjusted since the adjusting coil is factory preset.
2. The adjusting rod used should be non-metalic.

**7. 19kHz Filter Adjustment**

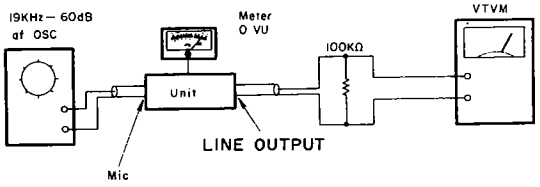
**SET UP**

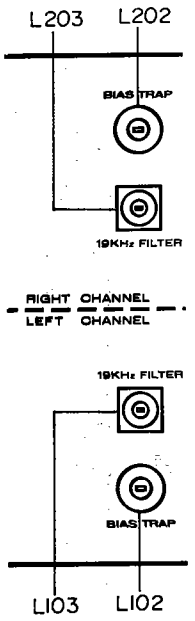
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input connection:- 19kHz, –60dB signal to MIC terminal.
3. TAPE selector switch:- NORMAL.
4. Output terminal: LINE OUTPUT.
5. Load:- Measuring instrument input impedance.

**PROCEDURES**

1. Connect the 19kHz, –60dBV input signal to the MIC terminal. Adjust the level control for 0VU.
2. In turn, turn the MPX Filter switch to the ON position. Adjust L103 and L203 for minimum output level at the LINE OUTPUT terminal.
3. Proceed both for the right and left channels in the same manner.

Mode: record




**CAUTIONS**

1. The 19kHz input signal should be as precise as 19±0.5kHz.
2. If the filter characteristic is better than 15dB, the adjusting coil needs not to be adjusted since it is factory set.

**8. Recording Bias Current Adjustment (Temporal)**

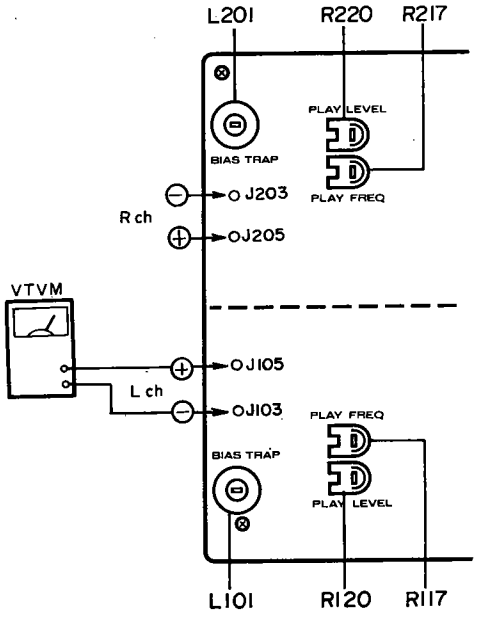
**SET UP**

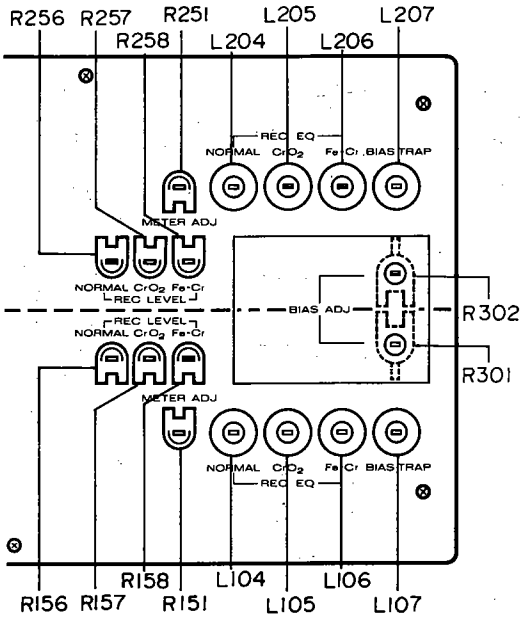
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. TAPE selector switch:- NORMAL.

**PROCEDURES**

1. Set up the tape deck in the recording mode of operation. Connect the VTVM to J105, J103 (Lch) and J205, J203 (Rch). Adjust the semifixed resistor R301 and R302 for 58mV VTVM read.
2. Proceed both for the right and left channels in the same manner.
3. For the tape deck equipped with the TAPE selector switch, make certain that the VTVM reads approximately 85mV with it set to the $CrO_2$ position.
4. When the TAPE selector switch is set at the NORMAL position, the leaf switch interlocked with the automatic tape selector lever, or $CrO_2$ tape detecting lever, will turn off.

Mode: record



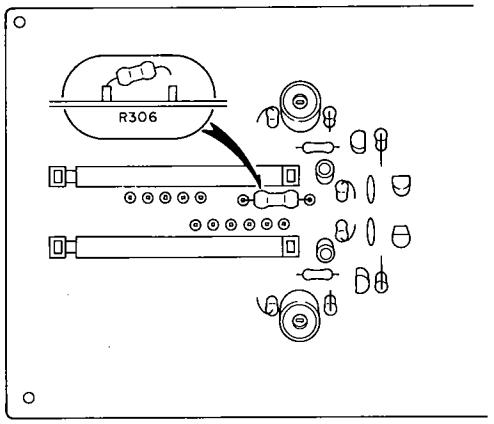
## 9. Recording Equalizer Adjustment

### SET UP

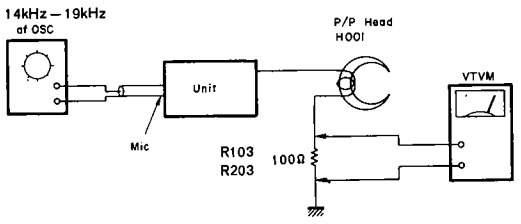
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input level:- 20dB lower than −60dB.

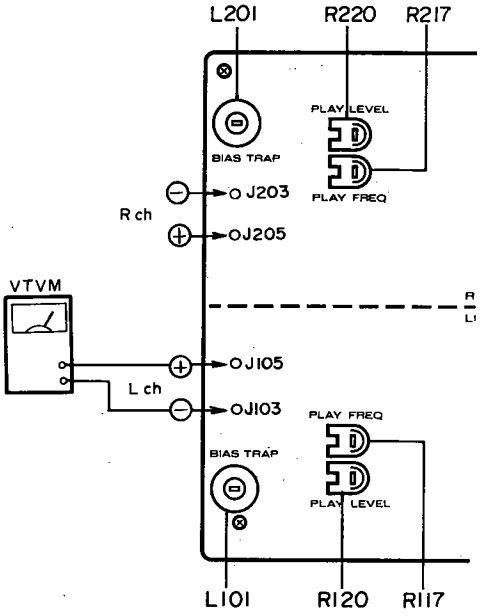
### PROCEDURES

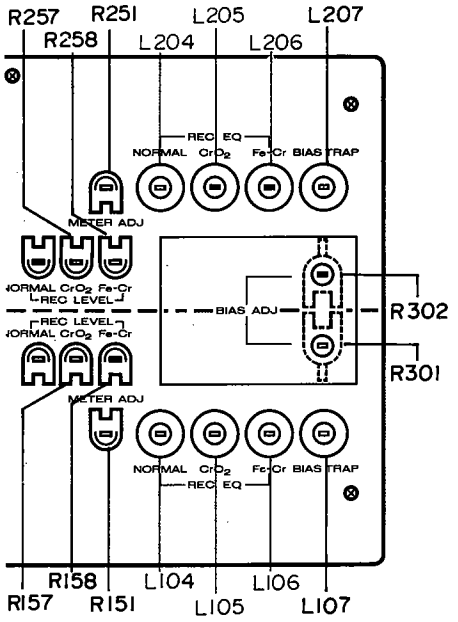
1. Stop the recording bias current oscillation by disconnecting the bias circuit +B resistor (R306).
2. Set up the tape deck to the normal recording state. Reduce the input level by 20dB.
3. Set the TAPE selector switch to the NORMAL position. Set the audio-frequency oscillator to 14kHz. Connect the VTVM to J105, J103 (L ch) and J205, J203 (R ch). Adjust L104 and L204 for maximum VTVM read.
4. In turn, set the TAPE selector switch to the $CrO_2$ position. Set the low-frequency oscillator to 17kHz. Connect the VTVM to J105, J103 (L ch) and J205, J203 (R ch). Adjust L105 and L205 for maximum VTVM read.
5. Set the TAPE selector switch to the Fe-Cr position. Set the audio-frequency oscillator to 19kHz. Connect the VTVM to J105, J103 (L ch) and J205, J203 (R ch). Adjust L106 and L206 for maximum VTVM read.
6. Proceed both for the right and left channels in the same manner.
7. After adjustment, release the recording bias current.




Mode: record




### CAUTION

The adjusting rod should be non-metalic.

## 10. Recording Current Adjustment (Temporal)

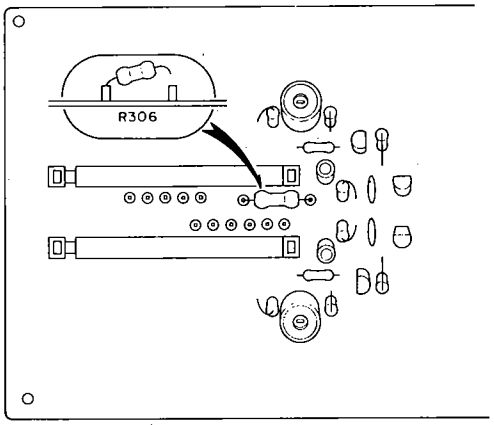
### SET UP

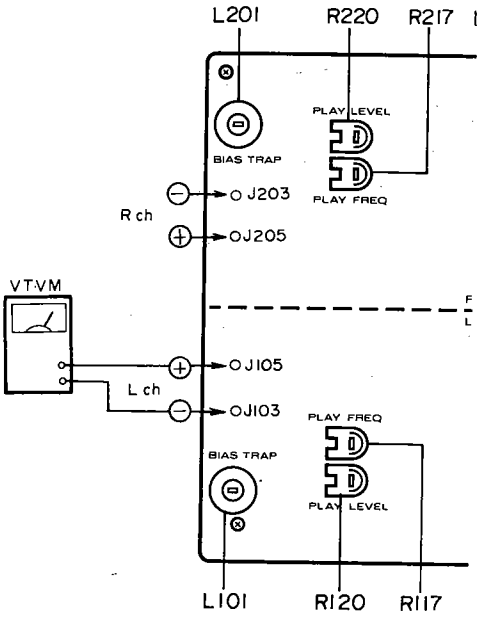
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input signal:- 1kHz, –60dB signal.
3. TAPE selector switch positions:- NORMAL, $CrO_2$ and Fe-Cr.
4. Load:- Measuring instrument input impedance.

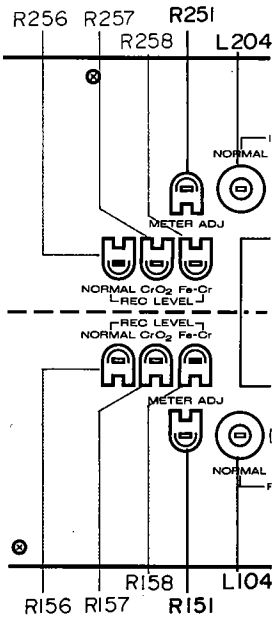
### PROCEDURES

1. Stop the recording bias current oscillation by disconnecting the bias circuit +B resistor (R306).
2. Set up the tape deck to the normal recording state. Connect the VTVM to J105, J103 (L ch) and J205, J203 (R ch). Adjust the semi-fixed resistors R156 and R256 (for NORMAL) R157 and R257 (for $CrO_2$) and R158 and R258 (for Fe-Cr) until the VTVM reads 4.4mV (for NORMAL), 7mV (for $CrO_2$) and 4.6mV (for Fe-Cr), respectively.
3. Proceed both for the right and left channels in the same manner.
4. After adjustment, release the recording bias current.

Mode: record



## 11. Reocrd-Playback Frequency Response Adjustment

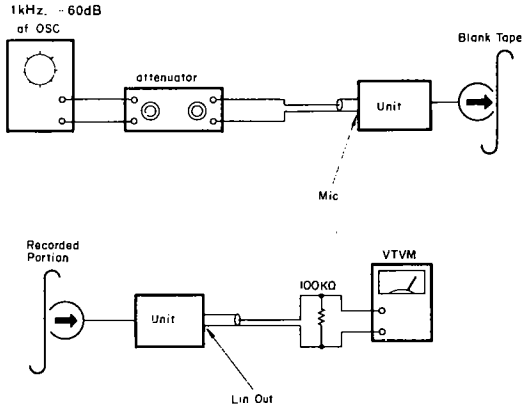
### SET UP

1. Power voltage:- 50 ot 60Hz AC voltage rated for the unit to be used in a market country.
2. Input signal:- 1kHz, –60dB with –20dB referenced as 0VU.
3. TAPE selector switch:- Fe-Cr.
4. Output terminal:- LINE OUT.
5. Load:- Measuring instrument input impedance.
6. Test tape used:- SONY Fe-Cr.

### PROCEDURES

1. Connect the input signal to the MIC terminal. Set up the tape deck to the normal recording state.
2. In turn, reduce the input level by 20dB with the use of the attenuator. Record the 1 and 10kHz tones.
3. Play the 1kHz, 20dB-down recorded tone back as 0dB. Adjust the recording bias current until the 10kHz response is within ±1.5dB as referenced to the 1kHz, 0dB response.
4. Proceed both for the right and left channels in the same manner.
5. If the recording bias current is reduced in the above adjustment, be sure to measure the distortion.

Mode: record



## 12. Record-Playback Output Level Adjustment

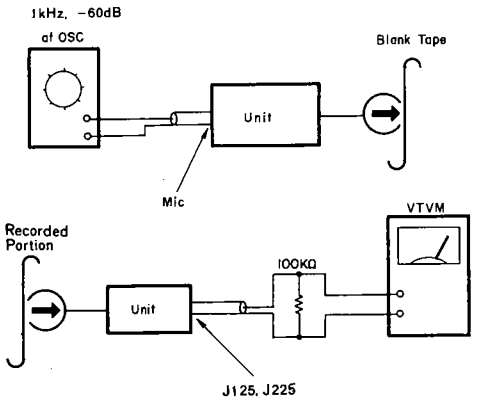
### SET UP

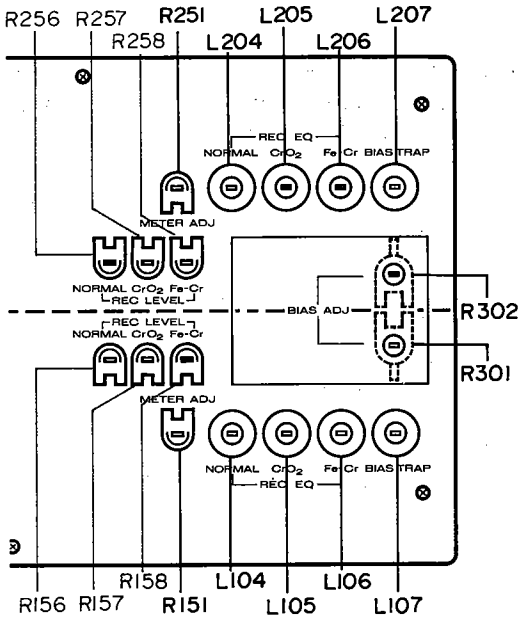
1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 1kHz, –60dB signal.
3. TAPE selector switch position:- NORMAL, $CrO_2$ and Fe-Cr.
4. Output terminal:- MAIN P.W. Board (P100) J125 and J225.
5. Load:- Measuring instrument input impedance.
6. Test tape used:- TDK DC-60, KRC-60 and SONY Fe-Cr.

### PROCEDURES

1. Connect the 1kHz, –60dB input signal to the MIC terminal. Set up the tape deck to the normal recording state.
2. Adjust the REC LEVEL semi-fixed resistor until the recorded signal is reproduced at 460mV ±0.5dB.
3. Proceed for the NORMAL, $CrO_2$ and Fe-Cr positions each in the same manner.
4. The semi-fixed resistors to be adjusted are:
   R156 and R256 for the NORMAL position.
   R157 and R257 for the $CrO_2$ position.
   R158 and R258 for the Fe-Cr position.

Mode: record




### CAUTION

1. If the bias current is changed, be sure to perform the above adjustment.

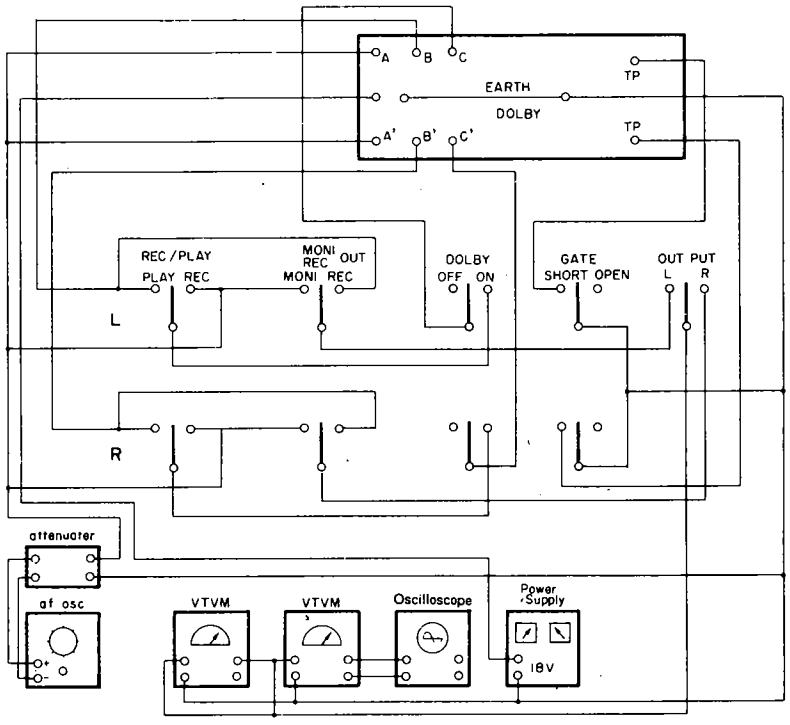
## 13. Dolby Circuit Adjustment

### A) Encoder Circuit

1. Set the selector switch to the ENCODER (recording) position.
2. Adjust the LAW control for maximum positive potential applied to the source of the FET.
3. Turn the NOISE REDUCTION switch to the OFF position. Ground the gate of the FET.
4. Connect and adjust a 5kHz input signal for 17.5mV level at the MON. OUT terminal.
5. Note the output level at the REC. OUT terminal. Let the output level be 0dB as reference level.
6. Turn the NOISE REDUCTION switch to the ON position. Adjust the GAIN control until the output level at the REC. OUT terminal increases by 10 + 0.25dB as compared with the one measured in Step (5) above (0dB).
7. Open the gate of the FET. Adjust the LAW control until the output level at the REC. OUT terminal decreases by 2 + 0.25dB as compared with the 0dB reference level.

### B) Decoder Circuit

1. Set the selector switch to the DECODER (playback) position.
2. Turn the NOISE REDUCTION switch to the OFF position. Ground the gate of the FET.
3. Connect and adjust the 5kHz input signal for 4.4mV level at the MON. OUT terminal.
4. Make certain that the output level at the MON. OUT terminal is reduced by 10dB ± 0.5dB when the NOISE REDUCTION switch is turned to the ON position.
5. Open the gate of the FET. Make certain that the signal level at the MON. OUT terminal is 17.5mV ± 0.5dB.
6. If the signal level is out of the above permissible range, repeat the adjustment beginning with the encoder circuit, not from the decoder circuit at all.



## 14. Tape Speed Measurement

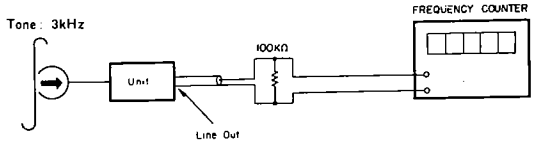
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Output terminal:- LINE OUT.
3. Test tape used:- MTT-111.
4. Set position:- Horizontal

### PROCEDURES

1. Play the wound-up end of the test tape MTT-111 back. Read the frequency counter indication.

Mode: playback




### STANDARD

Tape speed:- 4.8cm/sec +2, −2%.
Frequency: 2940 to 3060Hz.

### CAUTION

The tape deck should be leveled as specified for this measurement.

## 15. Wow and Flutter Measurement

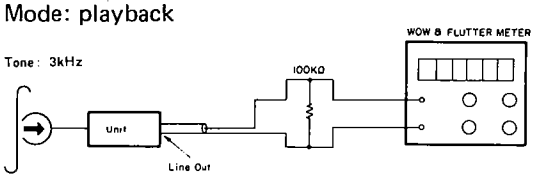
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Output terminal:- LINE OUT.
3. Load:- Measuring instrument input impedance.
4. Test tape used:- MTT-111.
5. Set position:- Horizontal.
6. Wow & flutter meter function switch:- NAB UNWTD.

### PROCEDURES

1. Play the test tape MTT-111 back. Read the wow & flutter meter indication.

Mode: playback




### STANDARD

Less than NAB 0.25% in rms.

### CAUTION

The measurement should be performed at the wound-up end of the test tape.

## 16. Playback Output Level Measurement (at LINE OUT)

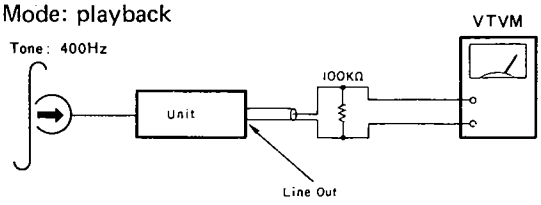
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. TAPE selector switch position: NORMAL.
3. Load:- Measuring instrument input impedance.
4. Output terminal:- LINE OUT.
5. Test tape used:- MTT-150.

### PROCEDURES

1. Play the test tape back in the normal playback state. Read the VTVM indication.
2. Proceed both for the right and left channels in the same manner.

Mode: playback




### STANDARD

Within 900mV ±3dB.

## 17. Playback Signal-to-Noise Ratio Measurement

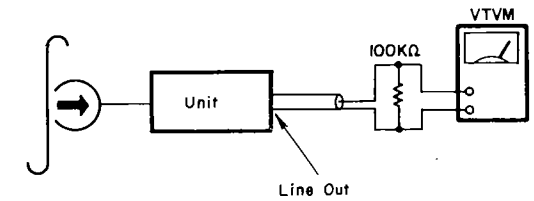
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Load:- Measuring instrument input impedance.
3. Measuring output terminal:- LINE OUT.
4. Test tape used:- MTT-112 (333Hz tone).
5. TAPE selector switch position:- NORMAL, $CrO_2$ and Fe-Cr.

### PROCEDURES

1. Load the test tape MTT-112. Set up the tape deck to the normal playback state.
2. Read playback output as a 0dB reference. Then playback blank tape and note the output level drop in dB.
3. Proceed both for the right and left channels in the same manner.
4. Repeat the above measurement for each TAPE selector switch position.

Mode: playback




### STANDARD

Greater than 45dB.

### CAUTIONS

1. Arrange the tape deck power cord for minimum hum component.
2. Effect by induction noises should be minimized for the measurement.
3. When playing the standard reference level tape MTT-112 back, the VU meter indication is close to +2.5 VU and is used as the reference level for the signal-to-noise ratio measurement.

## 18. Playback Frequency Response Measurement

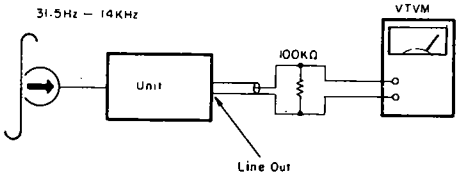
**SET UP**

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. TAPE selector switch position:- NORMAL and $CrO_2$ or Fe-Cr.
3. Load:- Measuring instrument input impedance.
4. Measuring output teminal:- LINE OUT.
5. Test tape used:-
   MTT-116U (for NORMAL).
   MTT-116K (for $CrO_2$ or Fe-Cr).

**PROCEDURES**

1. Play the test tape MTT-116U and –116K back. Let the 315Hz output level be 0dB as reference level.
2. Read the 40Hz and 10kHz output level differences from the 315Hz, 0dB reference level.
3. Proceed both for the right and left channels in the same manner.
4. For the above measurement, use the test tape MTT-116U for the NORMAL position and MTT-116K for the $CrO_2$ or Fe-Cr.

Mode: playback




**STANDARD**

In reference to the 315Hz, 0dB signal output level,

+3dB to –5dB at 40Hz.
+3dB to –6dB at 10kHz.

**CAUTION**

Since the test tapes used may involve some head azimuth difference, the head azimuth should be corrected at the highest frequency of each test tape before measurement.

## 19. Record-Playback Output Level Measurement (at LINE OUT)

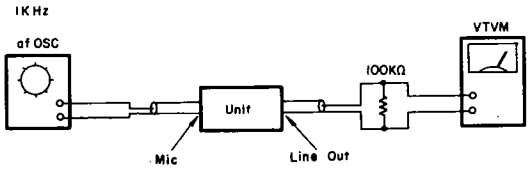
**SET UP**

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input: 1kHz, –60dB signal.
3. Load:- Measuring instrument input impedance.
4. Level control position:- SRL for recording operation.
5. TAPE selector switch position:- NORMAL, $CrO_2$ and Fe-Cr.
6. Measuring output terminal:- LINE OUT.
7. Cassette tape used:- TDK DC-60, KRC-60 and SONY Fe-Cr.

**PROCEDURES**

1. Record the 1kHz, –60dB signal in the normal recording state.
2. Play the recorded signal back. Read the VU meter indication.
3. Proceed for the NORMAL, $CrO_2$ and Fe-Cr positions each in the same manner.
4. Proceed both for the right and left channels in the same manner.

Mode: reocrd




**STANDARDS**

| | | |
|---|---|---|
| 1. | NORMAL position: | 730mV ± 3dB. |
| 2. | $CrO_2$ position: | 730mV ± 3dB. |
| 3. | Fe-Cr position: | 730mV ± 3dB. |

## 20. Record-Playback, Harmonic Distortion Measurement

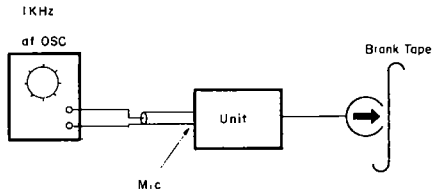
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 1kHz, −60dB signal.
3. Playback output level:- Same as the recorded signal level.
4. Load:- Measuring instrument input impedance.
5. Measuring output terminal:- LINE OUT.
6. Cassette tape used:- TDK DC-60, KRC-60 and SONY Fe-Cr.

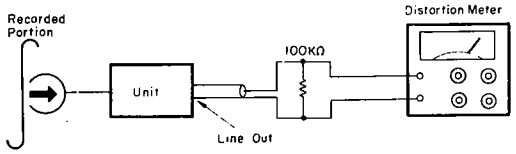
### PROCEDURES

1. Record the 1kHz signal in the normal recording state.
2. Play the recorded signal back in the normal playback state. Calibrate the harmonic distortion meter to 100% at the INPUT CONT. Adjust the adjusting knob for minimum meter pointer deflection, and read the harmonic distortion.
3. Proceed both for the right and left channels in the same manner.
4. Proceed for the NORMAL, $CrO_2$ and Fe-Cr positions each in the same manner.

Mode: record




Mode: playback




### STANDARDS

1. Less than 4% for the NORMAL and Fe-Cr positions.
2. Less than 4.5% for the $CrO_2$ position.

### CAUTIONS

1. Be sure to demagnetize the heads as the measured values may deviate from the accurate values.
2. Note that excessive wow and flutter also causes deviation of the measured values.

## 21. Record-Playback Signal-to-Noise Ratio Measurement

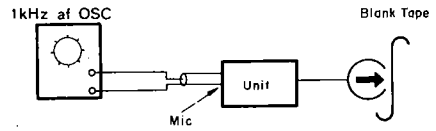
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 1kHz, −60dB signal.
3. Playback output level:- Same as the recorded signal level.
4. Load:- Measuring instrument input impedance.
5. Measuring output terminal:- LINE OUT.
6. Cassette tape used:- TDK DC-60, KRC-60 and SONY Fe-Cr.

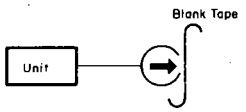
### PROCEDURES

1. Record the 1kHz signal in the normal recording state.
2. Disconnect the input signal from the microphone jack. In this state, record no signal.
3. Play the 1kHz signal back in the normal playback state. Let the output level be 0dB as reference level.
4. Read difference between the recorded 0dB reference output and no-signal output levels.
5. Proceed both for the right and left channels in the same manner.
6. Set the DOLBY switch to the ON position, and proceed with similar measurement with the use of the high-pass filter.

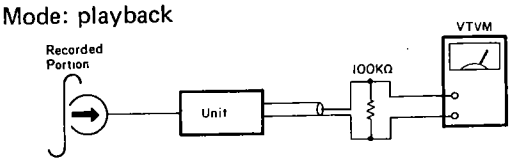
Mode: record




Mode: record




Mode: playback




### STANDARDS

1. Greater than 52dB for the ON position of the DOLBY switch.
2. Greater than 43dB for the OFF position of the DOLBY switch.

### CAUTION

Arrange the tape deck power cord for minimum hum component.

## 22. Record-Playback Frequency Response Measurement

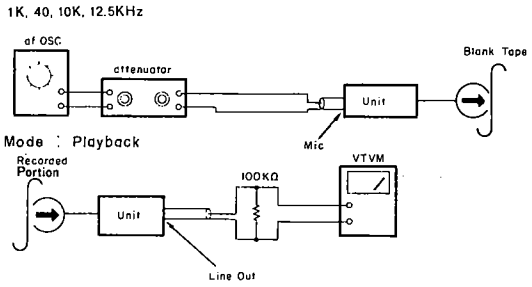
### SET UP

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 1kHz, –60dB signal with –20dB as OVU.
3. Playback output level:- Same as the recorded signal level.
4. Load:- Measuring instrument input impedance.
5. Measuring output terminal:- LINE OUT.
6. Cassette tape used:- TDK DC-60, KRC-60 and SONY Fe-Cr.

### PROCEDURES

1. Record the 1kHz signal in the normal recording state. In turn, reduce the input level by 20dB with an attenuator. Then, record the 1kHz, 40Hz, 12kHz, and 13kHz signals.
2. Play the recorded 1kHz signal back in the normal playback state.
3. Let the 1kHz, –20dB-down signal level be 0dB as reference level. Read difference of the 40Hz, 10kHz and 12.5kHz signal output levels from the 1kHz signal 0dB reference level.
4. Proceed for the NORMAL, $CrO_2$ and Fe-Cr positions each in the same manner.
5. Proceed both for the right and left channels in the same manner.

Mode: record




### STANDARDS

1. NORMAL position:
   +3dB to –6dB at 40Hz
   +3dB to –6dB at 10kHz
   with DOLBY switch at OFF.
2. $CrO_2$ position:
   +3dB to –6dB at 40Hz
   +3dB to –8dB at 12.5kHz
   with DOLBY switch at OFF.
3. Fe-Cr position:
   +3dB to –6dB at 40Hz
   +3dB to –6dB at 12.5 kHz
   with DOLBY switch at OFF.
4. NORMAL, $CrO_2$ and Fe-Cr positions:
   +3dB to –8dB at 40Hz
   +5dB to –8dB at 10kHz
   with DOLBY switch at ON.

## 23. Erasing Effect Measurement

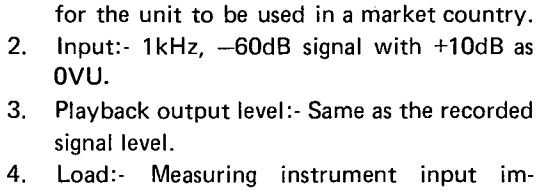
**SET UP**

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 1kHz, –60dB signal with +10dB as 0VU.
3. Playback output level:- Same as the recorded signal level.
4. Load:- Measuring instrument input impedance.
5. TAPE selector switch position:- NORMAL, $CrO_2$ and Fe-Cr.
6. Cassette tape used:- TDK DC-60, KRC-60 and SONY Fe-Cr.
7. Filter used:- 1kHz band-pass filter.

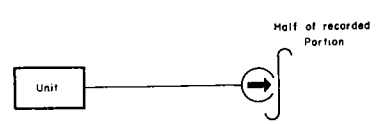
**PROCEDURES**

1. Record the 1kHz input signal in the normal recording state.
2. In turn, increase the input level by 10dB with the attenuator, and record it.
3. Rewind a half portion of the 10dB-up tape and record in no-signal state, or erase, on the portion with the input signal disconnected from the microphone jack.
4. Play back in the normal playback state the input signal recorded in the normal recording state.
5. In turn, let the 10dB-up recorded signal level be 0dB as reference level. Read difference of the level at the erased portion from the 0dB reference level.

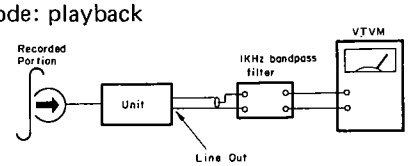
Mode: record




Mode: record




Mode: playback




**STANDARD**

Greater than 55dB.

## 24. Leak Bias Measurement

**SET UP**

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 1kHz, –60dB signal.
3. Load:- Measuring instrument input impedance.
4. Level control position:- SRL.
5. TAPE selector switch position:- NORMAL, $CrO_2$ and Fe-Cr.

**PROCEDURES**

1. Record the 1kHz input signal in the normal recording state. Let the monitor output level at the LINE OUT terminal be 0dB as reference level. Read difference of the output level having the input signal disconnected from the 0dB reference level.
2. Proceed both for the right and left channels in the same manner.

Mode: record


**STANDARD**

Lower than –45dB.



## 25. FM Deemphasis Measurement

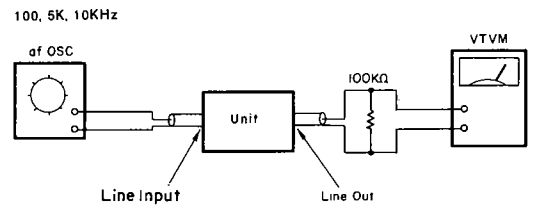
**SET UP**

1. Power voltage:- 50 or 60Hz AC voltage rated for the unit to be used in a market country.
2. Input:- 100Hz, –10dB signal.
3. Input terminal:- LINE INPUT
4. Output terminal:- LINE OUT.
5. DOLBY FM switch position: ON
6. DOLBY switch position:- ON.
7. REC/PLAY switch position:- REC.

**PROCEDURES**

1. Connect the 100Hz, –10dBV input signal to the LINE INPUT terminal. Adjust the FM CAL control for 0VU output level with the DEEMPHASIS switch set at the FLAT position.
2. Let the above output level at the LINE OUT terminal be 0dB as reference level. Set the DEEMPHASIS switch to the 25$\mu$sec position and read output level differences of 5kHz and 10kHz to 100Hz.
3. Proceed both for the right and left channels in the same manner.

Mode: record




**STANDARD**

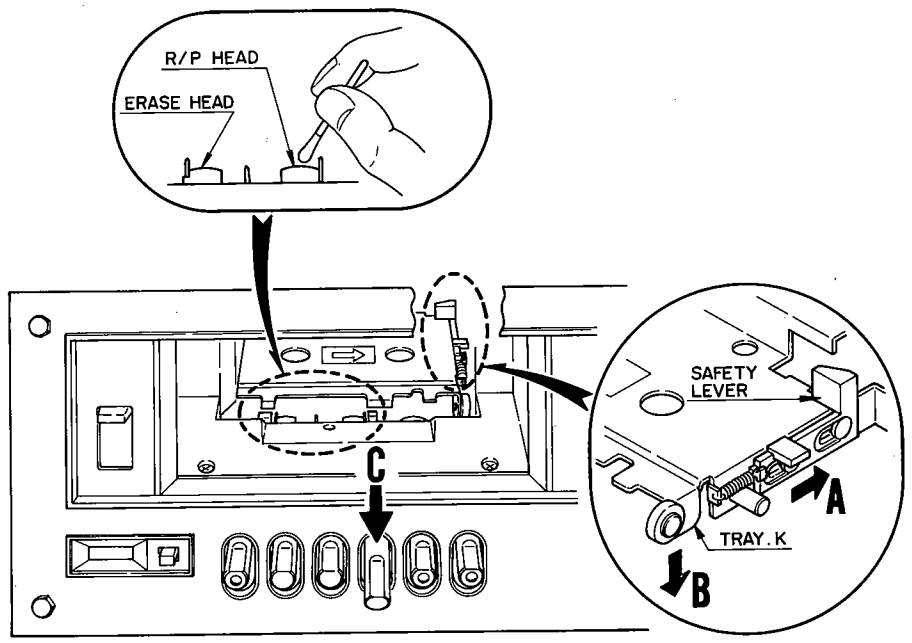
| FREQ. | FOR U AND C | FOR N |
|---|---|---|
| 5kHz | +6 ± 2dB | +3.5 ± 2dB |
| 10kHz | +8.5 ± 2dB | +5 ± 2dB |

**NOTE**

U: U.S.A.
C: Canada
N: Europe

## 6. HOW TO LOWER THE CASSETTE TRAY DOWN (WITHOUT CASSETTE TAPE)

To operate the 5020 in the playback mode of operation in cleaning or demagnetizing the heads, push the safety lever, which is located at the back right of the cassette compartment (A) all the way toward the rear panel using a pensil, small screwdriver or similar rod. While pressing the safety lever, then, push the cassette tray (B) down and depress the PLAY button (C) down.



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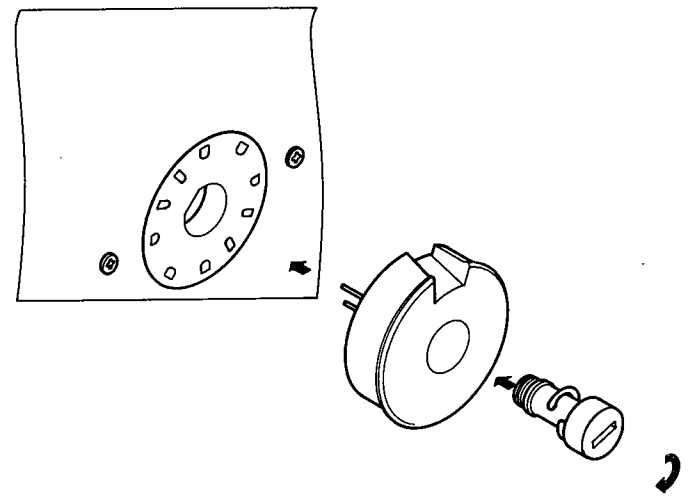
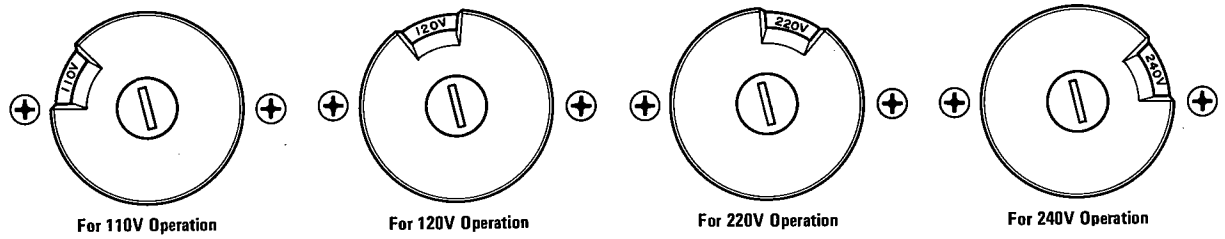
## 7. VOLTAGE CONVERSION (For European Model Only)

This Model is equipped with a universal power transformer to permit operation at either power source of 110, 120, 220 or 240 V AC, 50/60 Hz.

To convert the unit to a different power source voltage, change the plug as illustrated in the drawing below.

**CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.**






For 110V Operation | For 120V Operation | For 220V Operation | For 240V Operation

## 8. HOW TO USE 5020 DOLBY SYSTEM

| Use | Connections | Input | Deck Mode | Level Adj. | 5020 Function Switches | | | | Signal State | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DOLBY NR | DOLBY FM | De-emphasis | Mic/ Line in | Input | Rec. Out Rec. Amp | Output | Result |
| **Play back** | 5020 LINE (Line output) – Amp AUX Tape In | Recorded Tape | Play | Output Level Cont. (Rear) | ON | OFF | – | |  | – |  | Good |
| | | | | | | | | |  | – |  | Wrong |
| | | | | | OFF | OFF | – | |  | – |  | Wrong |
| | | | | | | | | |  | – |  | Good |
| **Record** | Amp Tape Out/ Rec Out – 5020 LINE (Line Input) | LINE | Rec | Record Level Cont. | ON | OFF | – | Both position OK |  |  |  | Wrong |
| | | | | | | | | |  |  |  | Good |
| | Microphone – 5020 Mic | MIC | | Master Level Cont. (Front) | OFF | OFF | – | Both position OK |  |  |  | Wrong |
| | | | | | | | | |  |  |  | Good |
| **DOLBY FM** | Tuner – 5020 LINE INPUT & 5020 LINE (Line Output) – Amp. AUX Tape in | LINE | Rec | FM CAL (Rear) | ON | ON | 25μ | |  |  |  | Good |
| | | | | | | | | |  |  |  | Wrong |
| **Other Tape Recorder play CAL for Decode** | Other Tape Recorder Output –5020 LINE INPUT (from Recorder) | LINE | STOP | Play CAL (Rear) | ON | ON | Flat | | 400Hz DOLBY TONE | | | Good |

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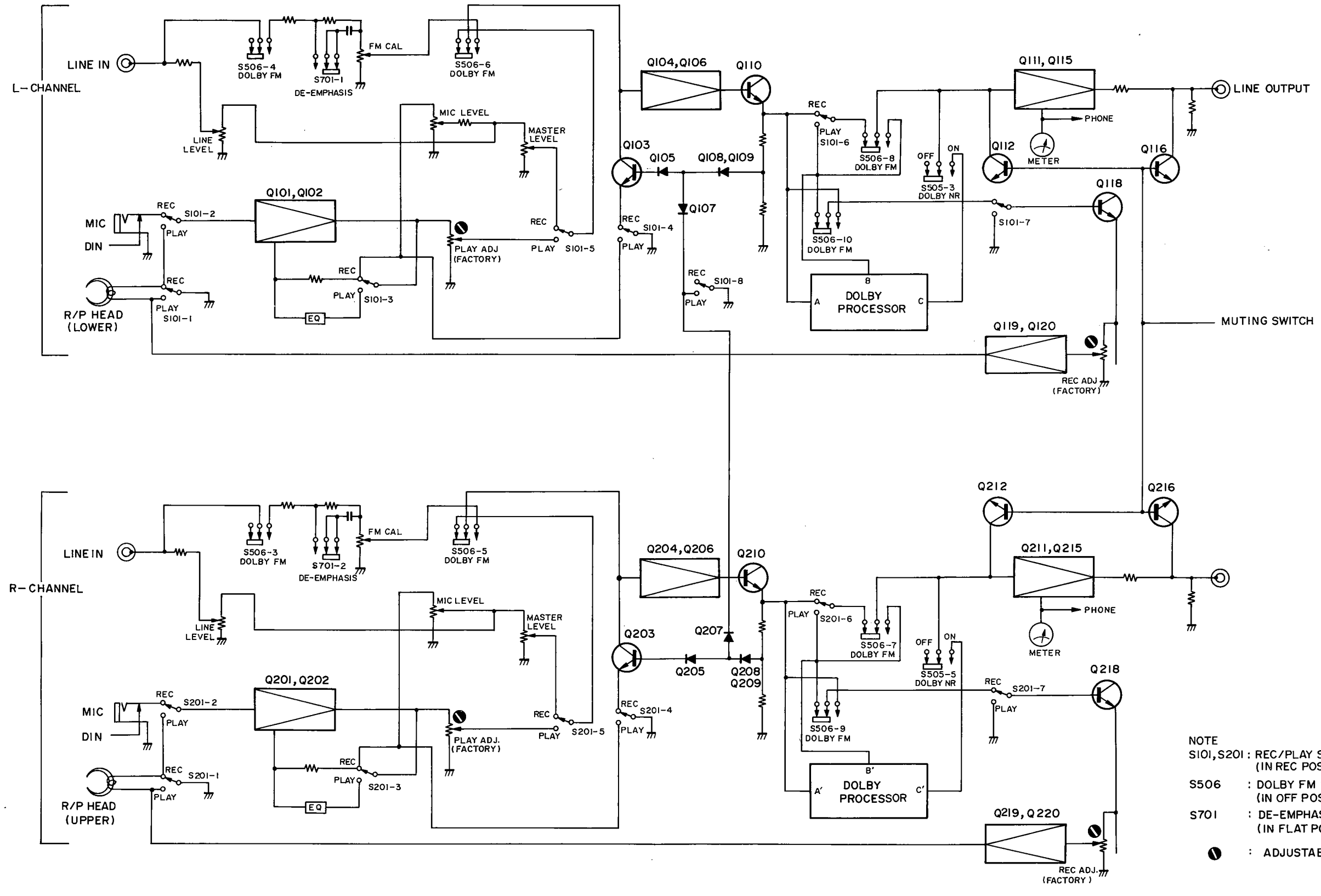
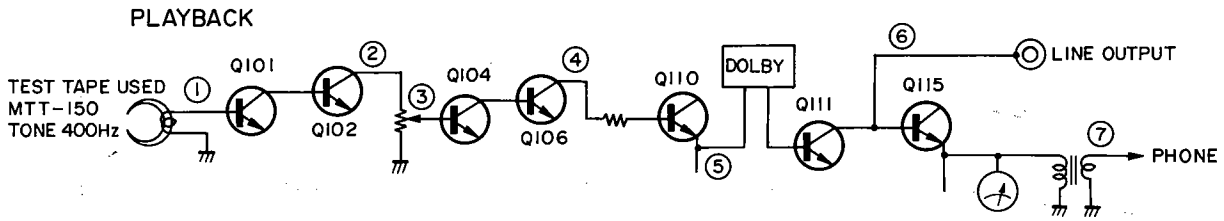
## 9. BLOCK DIAGRAM

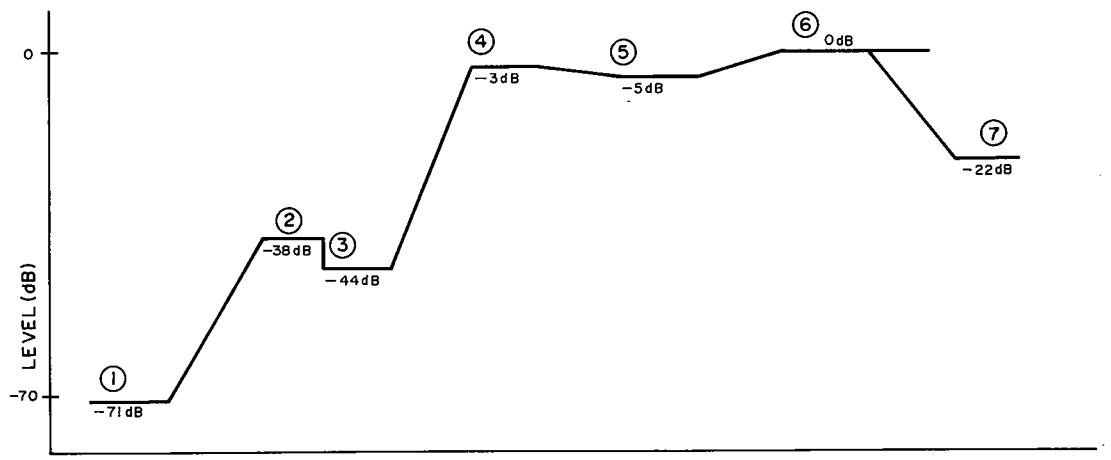



NOTE
S101, S201 : REC/PLAY SWITCH (IN REC POSITION)
S506 : DOLBY FM SWITCH (IN OFF POSITON)
S701 : DE-EMPHASIS SWITCH (IN FLAT POSITON)
● : ADJUSTABLE

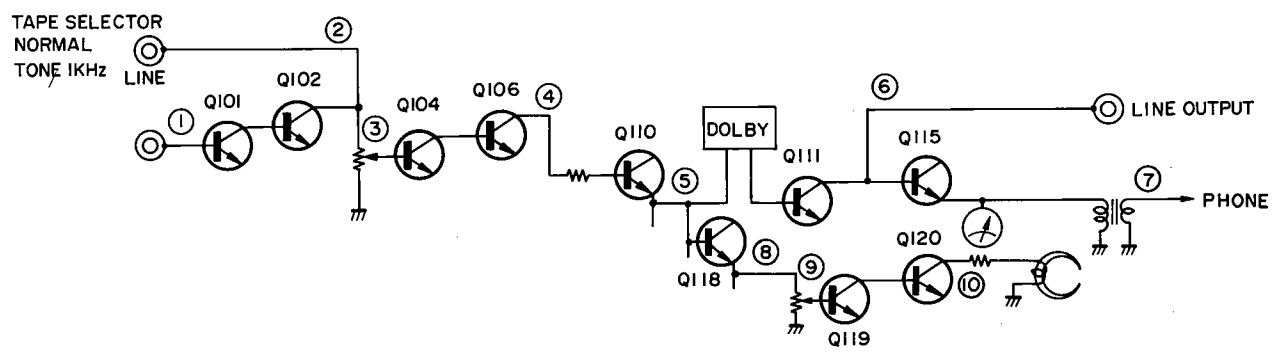
## 10. LEVEL DIAGRAMS

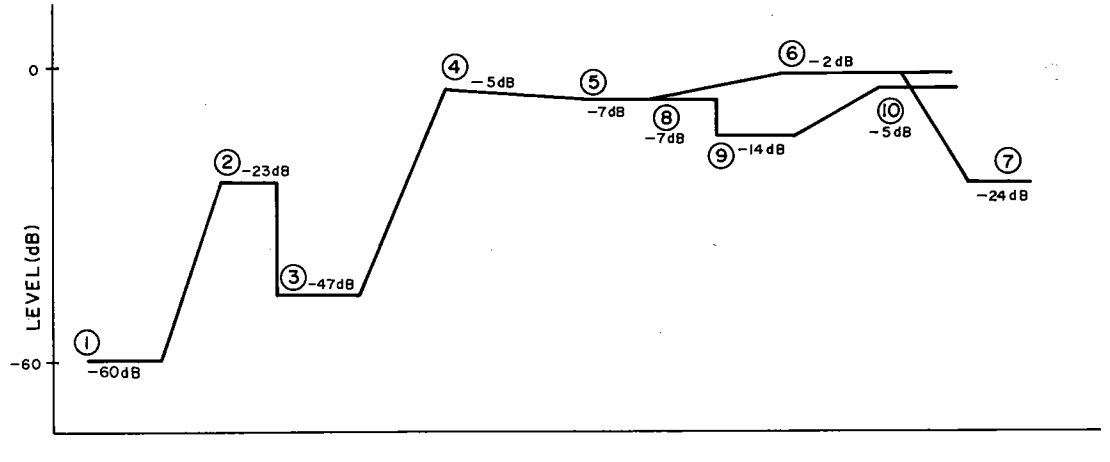
PLAYBACK




RECORD



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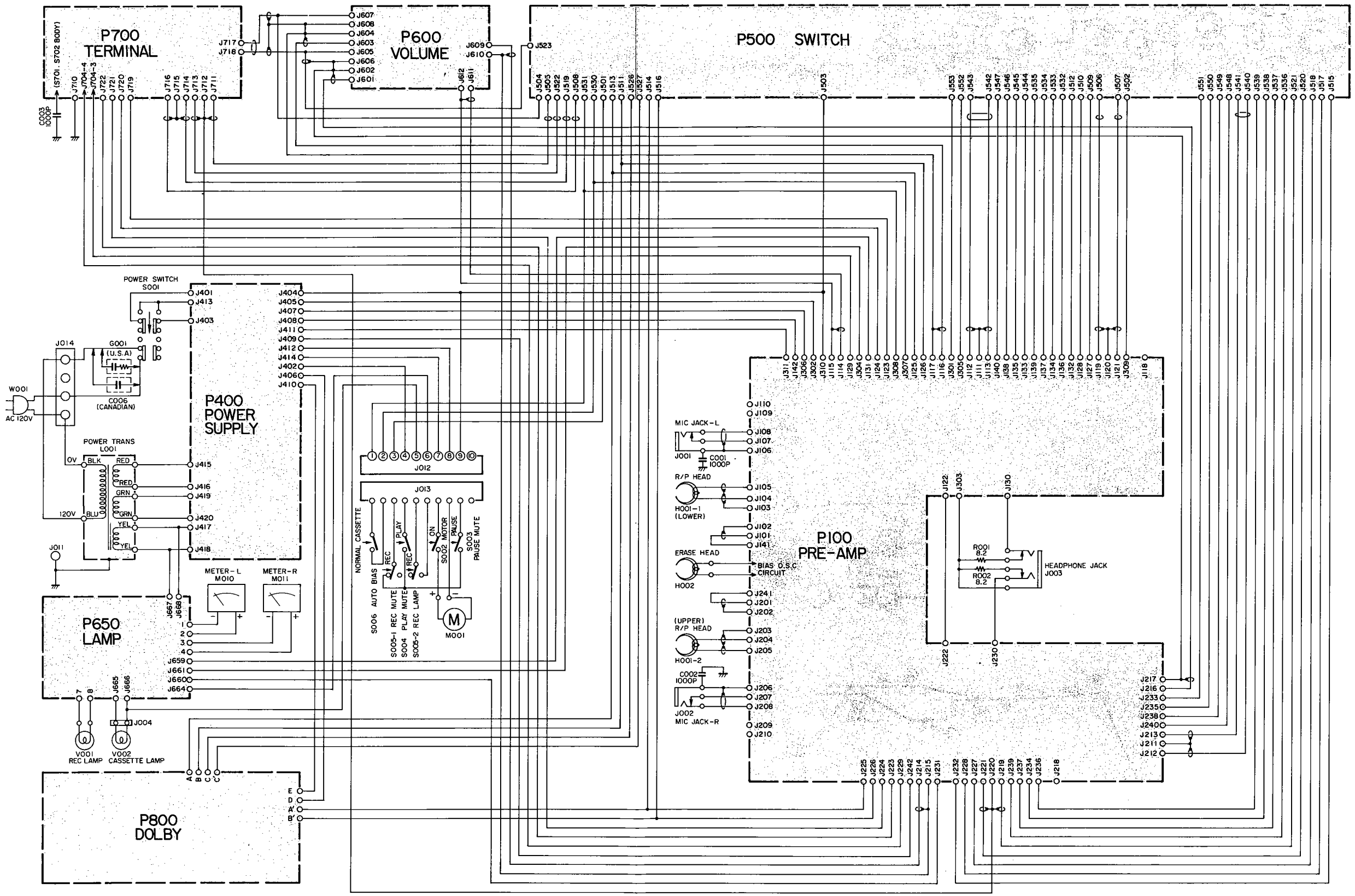
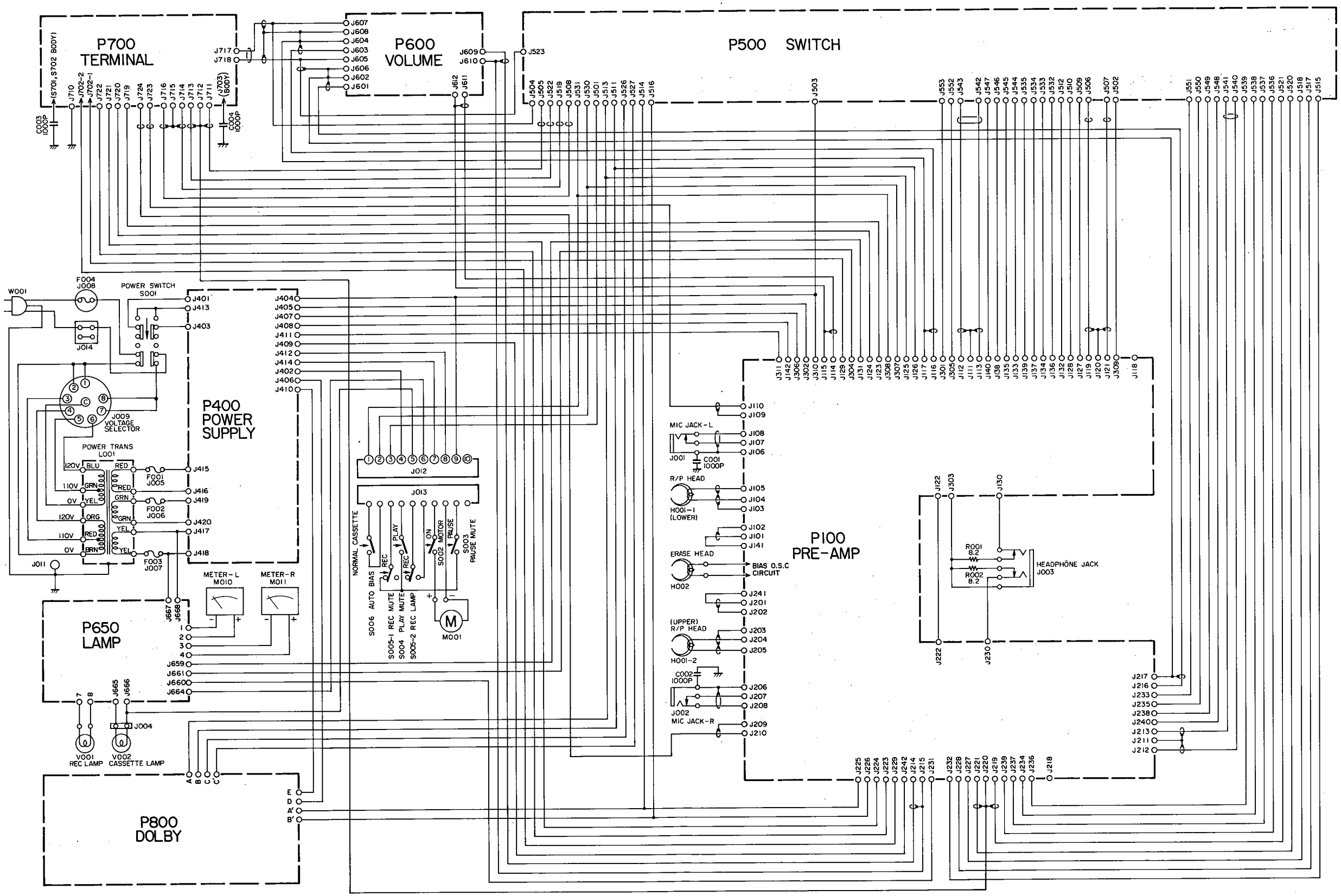
## 11. INTERCONNECTION DIAGRAMS

### (A) for U.S.A. and Canada



**(B) for Europe**


P700
TERMINAL
P600
VOLUME
P500 SWITCH
P400
POWER
SUPPLY
P650
LAMP
P800
DOLBY
P100
PRE-AMP
POWER SWITCH
S001
POWER TRANS
L001
METER-L
M010
METER-R
M011
NORMAL CASSETTE
AUTO BIAS
REC
PLAY
REC MUTE
PLAY MUTE
REC LAMP
MOTOR
PAUSE
PAUSE MUTE
MIC JACK-L
MIC JACK-R
R/P HEAD
(LOWER)
ERASE HEAD
(UPPER)
R/P HEAD
BIAS O.S.C
CIRCUIT
HEADPHONE JACK
J003
REC LAMP
CASSETTE LAMP
VOLTAGE
SELECTOR

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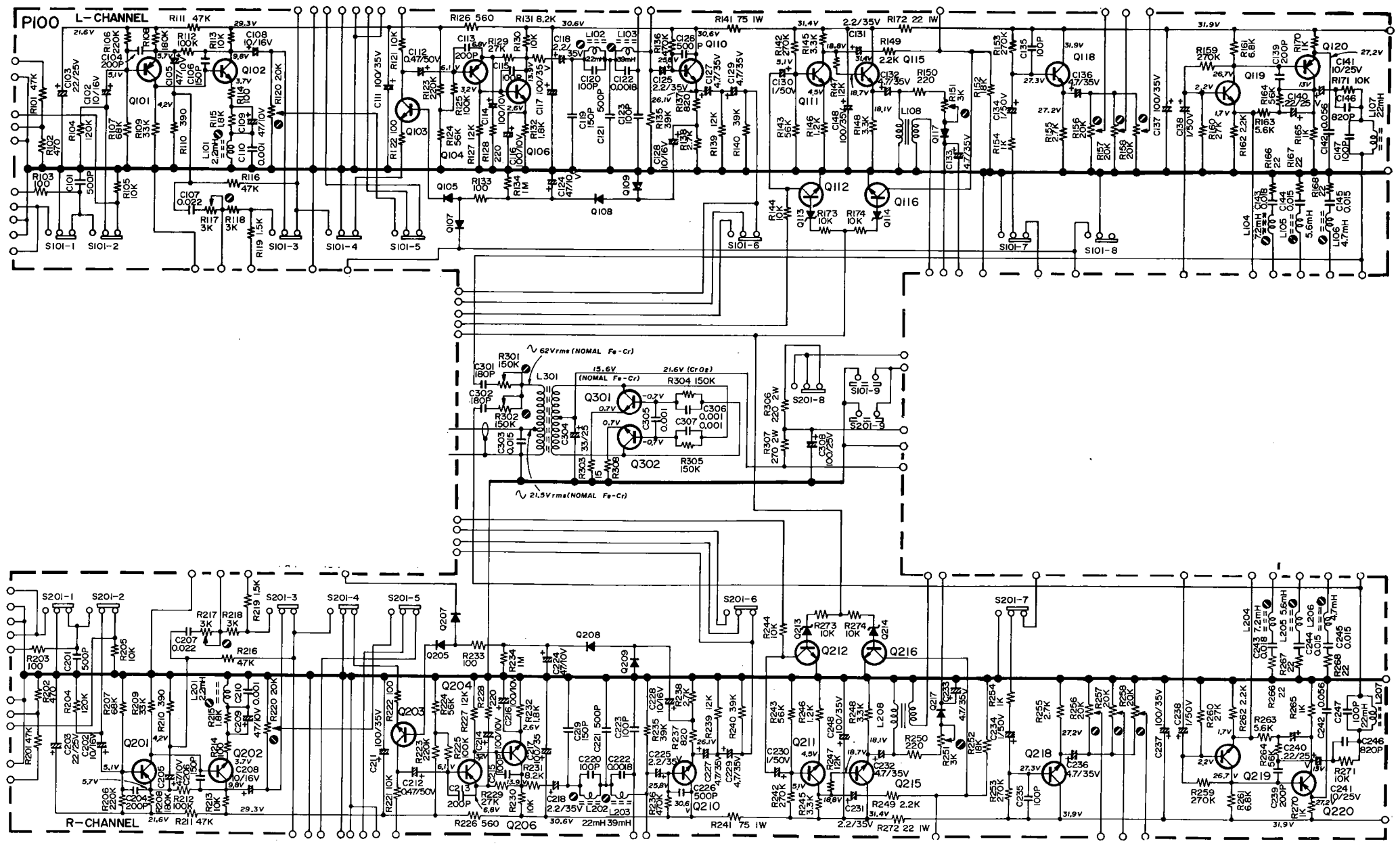
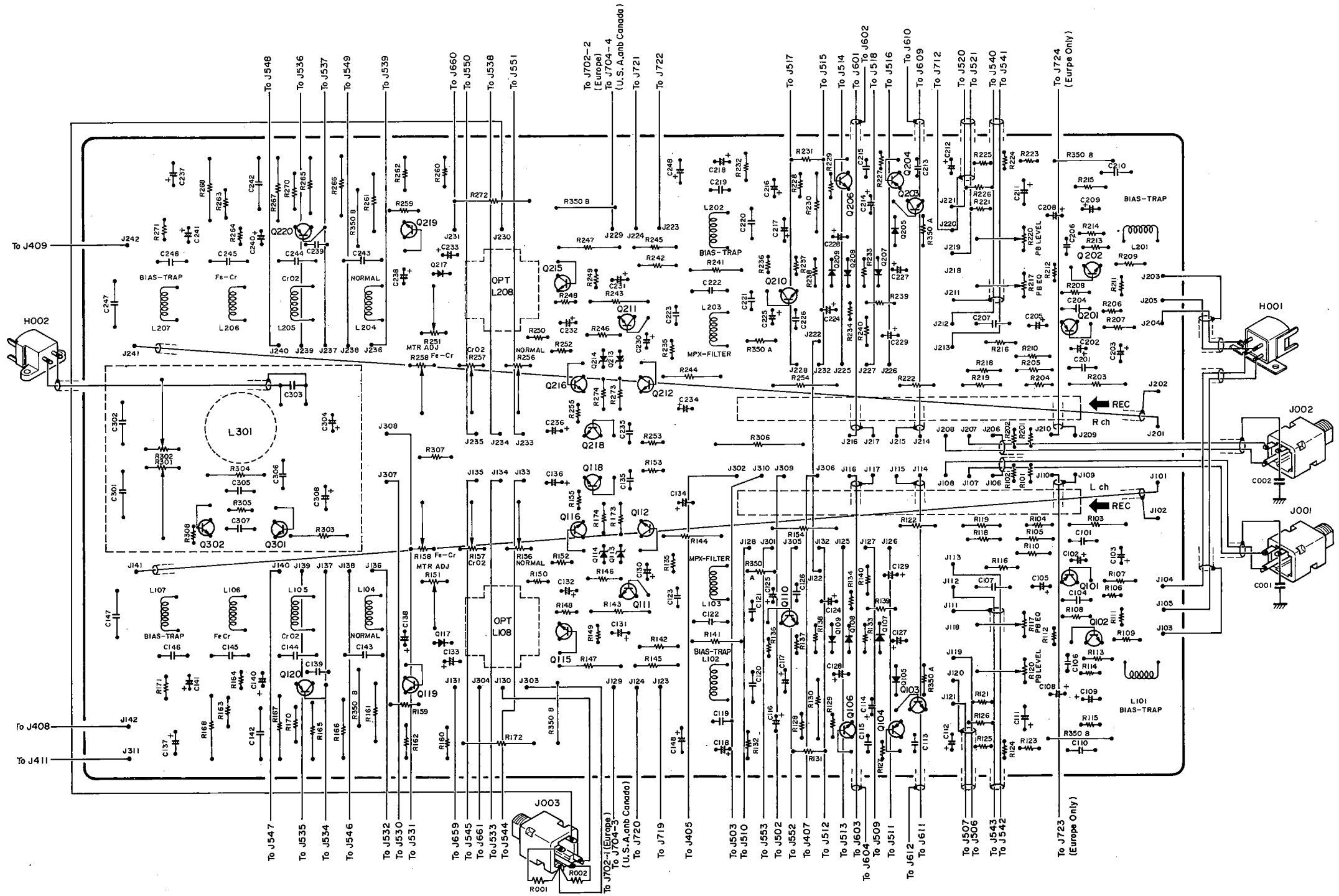
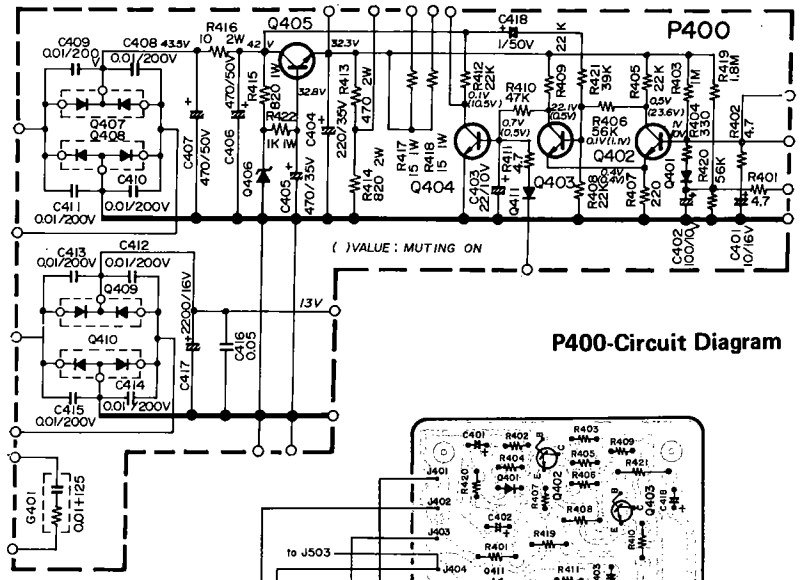
## 12. MOUNTING/SCHEMATIC DIAGRAMS



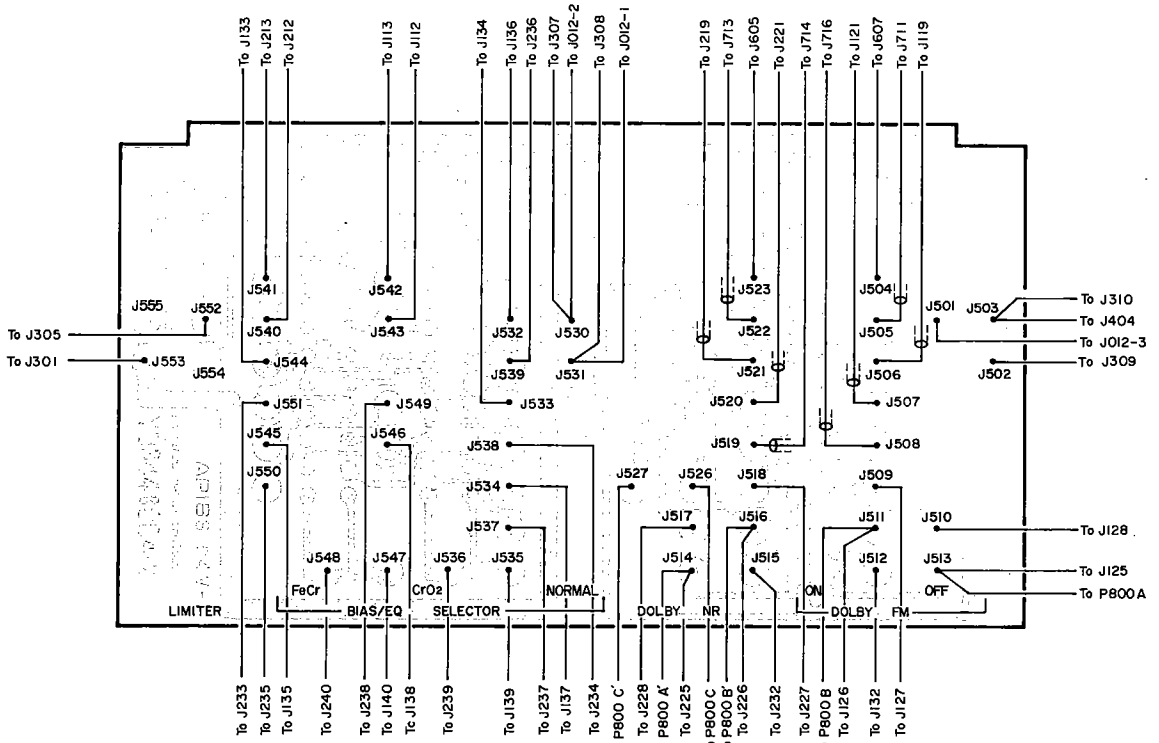

**P100-Circuit Diagram**




**Pre-Amp. Assembly P100 Component Locations**

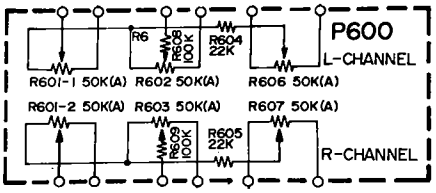



**P400-Circuit Diagram**

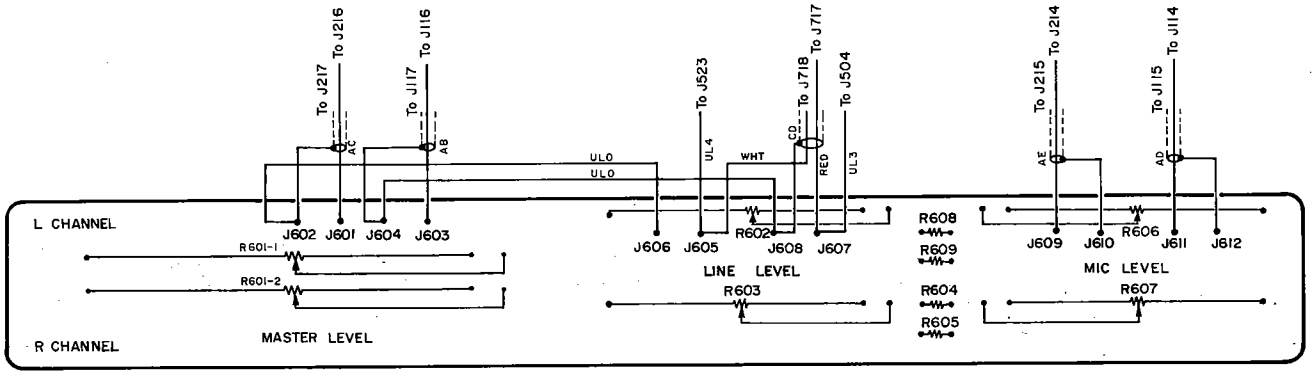



**Switch Assembly P500 Component Locations**

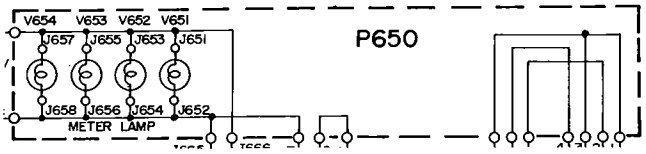
**Power Supply Assembly P400 Component Locations**



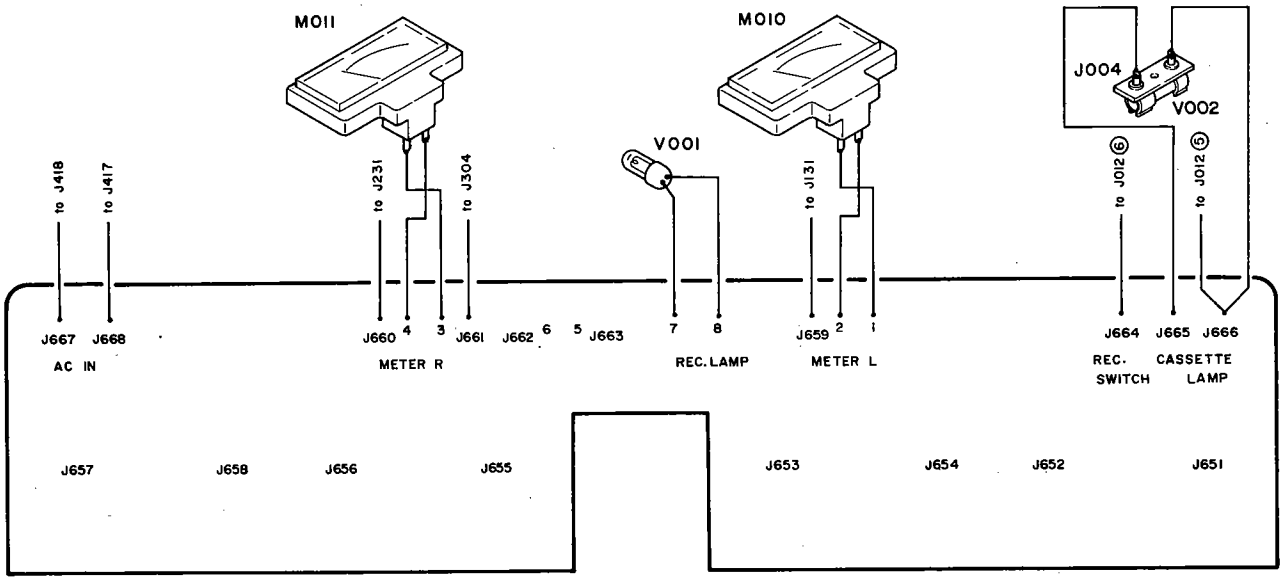

P600-Circuit Diagram



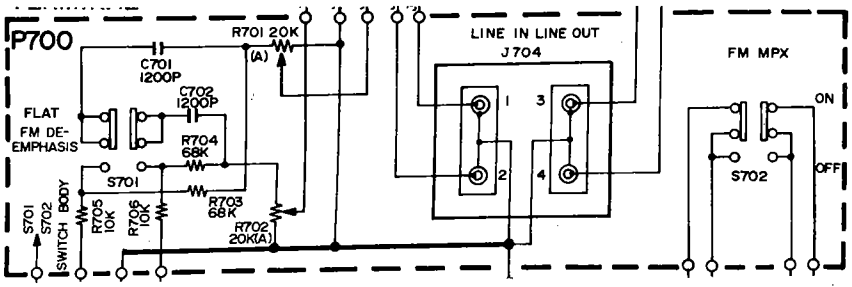

Volume Assembly P600 Component Locations



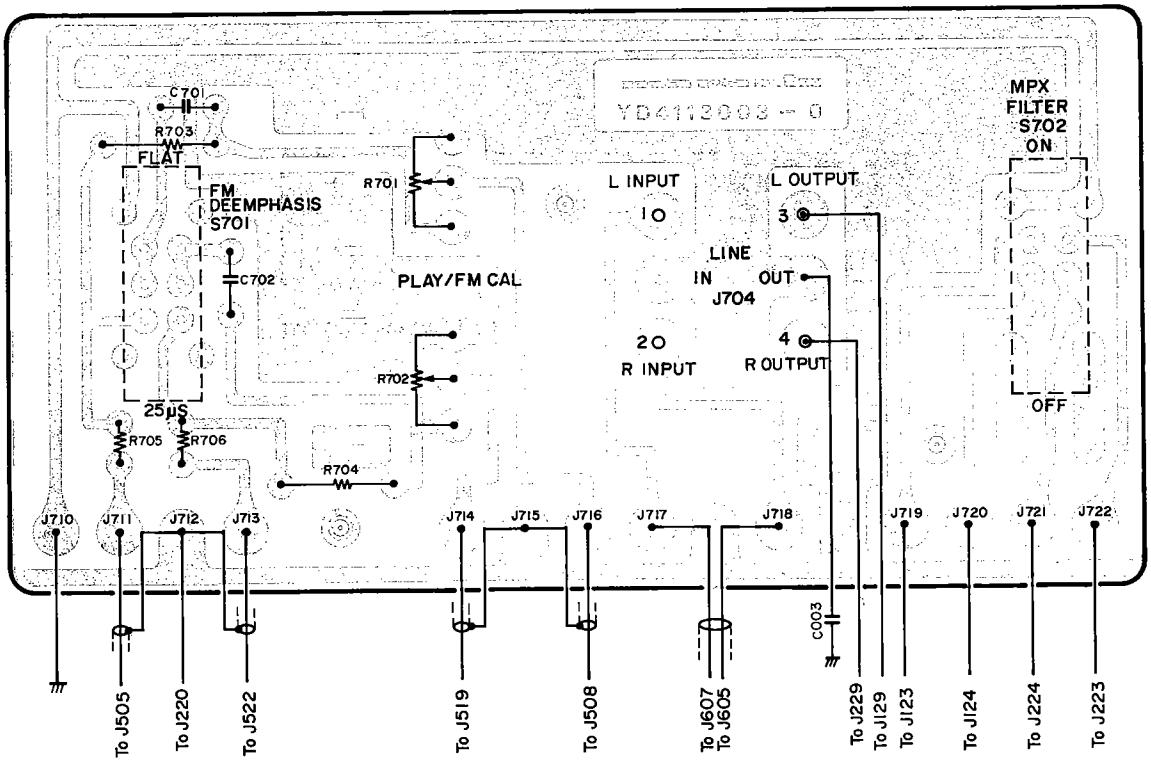

P650-Circuit Diagram



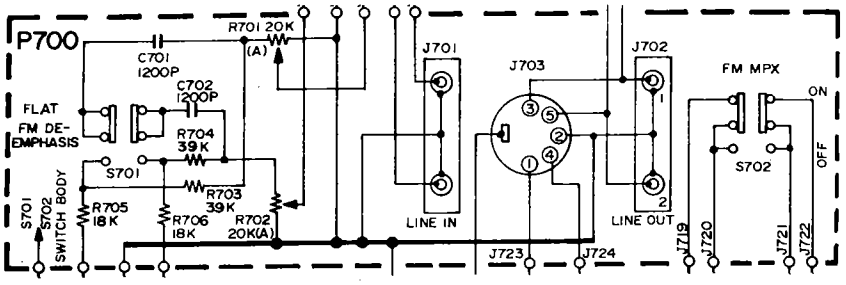

Lamp Assembly P650 Component Locations



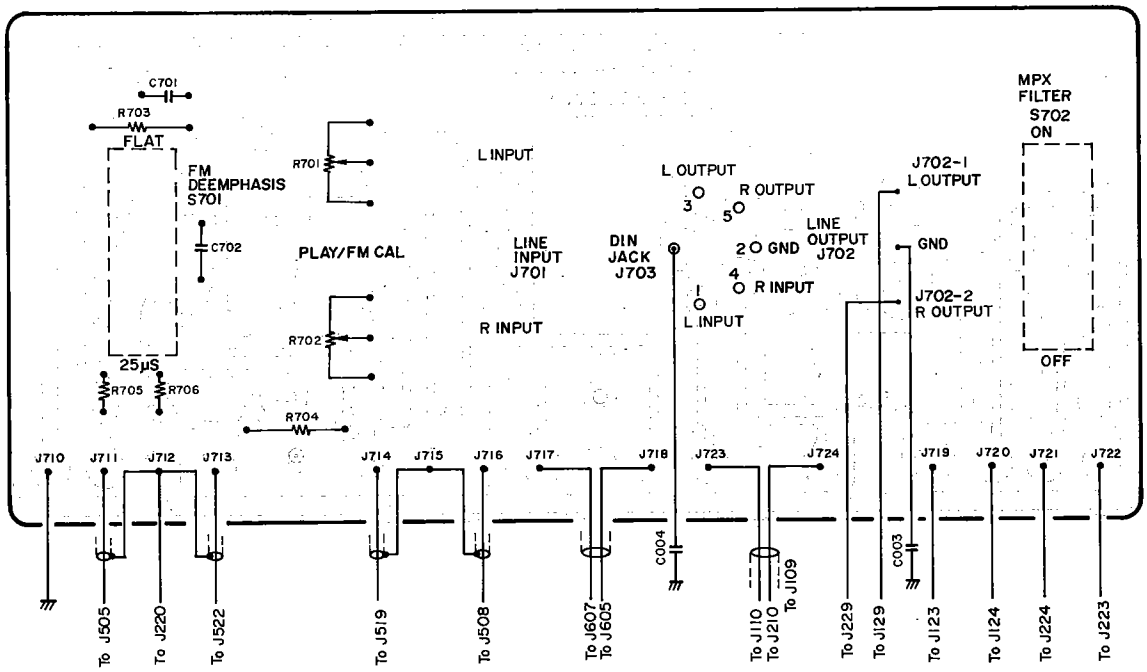

**P700-Circuit Diagram**



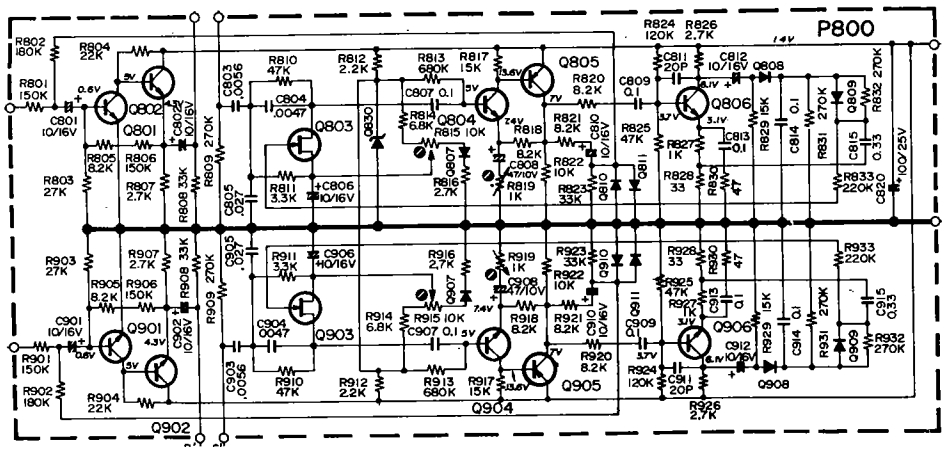

**Terminals Assembly P700 Component Locations**



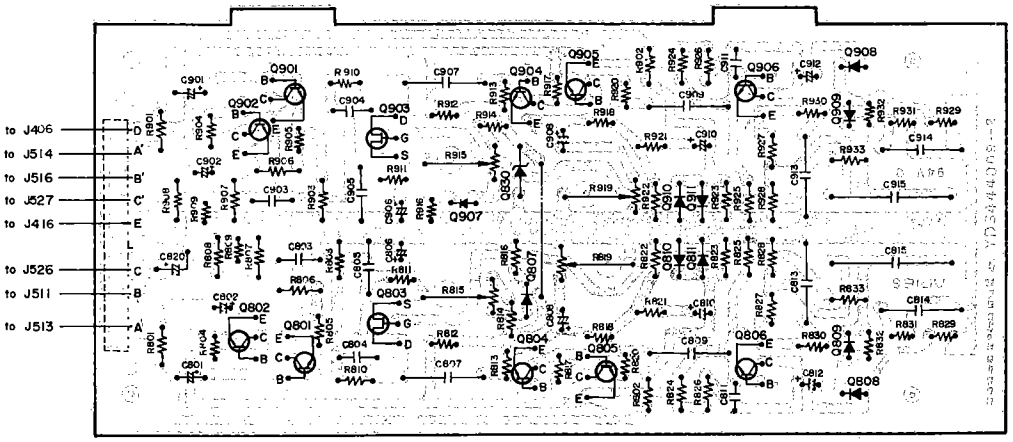

**P700-Circuit Diagram (For European Model)**




**Terminals Assembly P700 Component Locations (For European Model)**



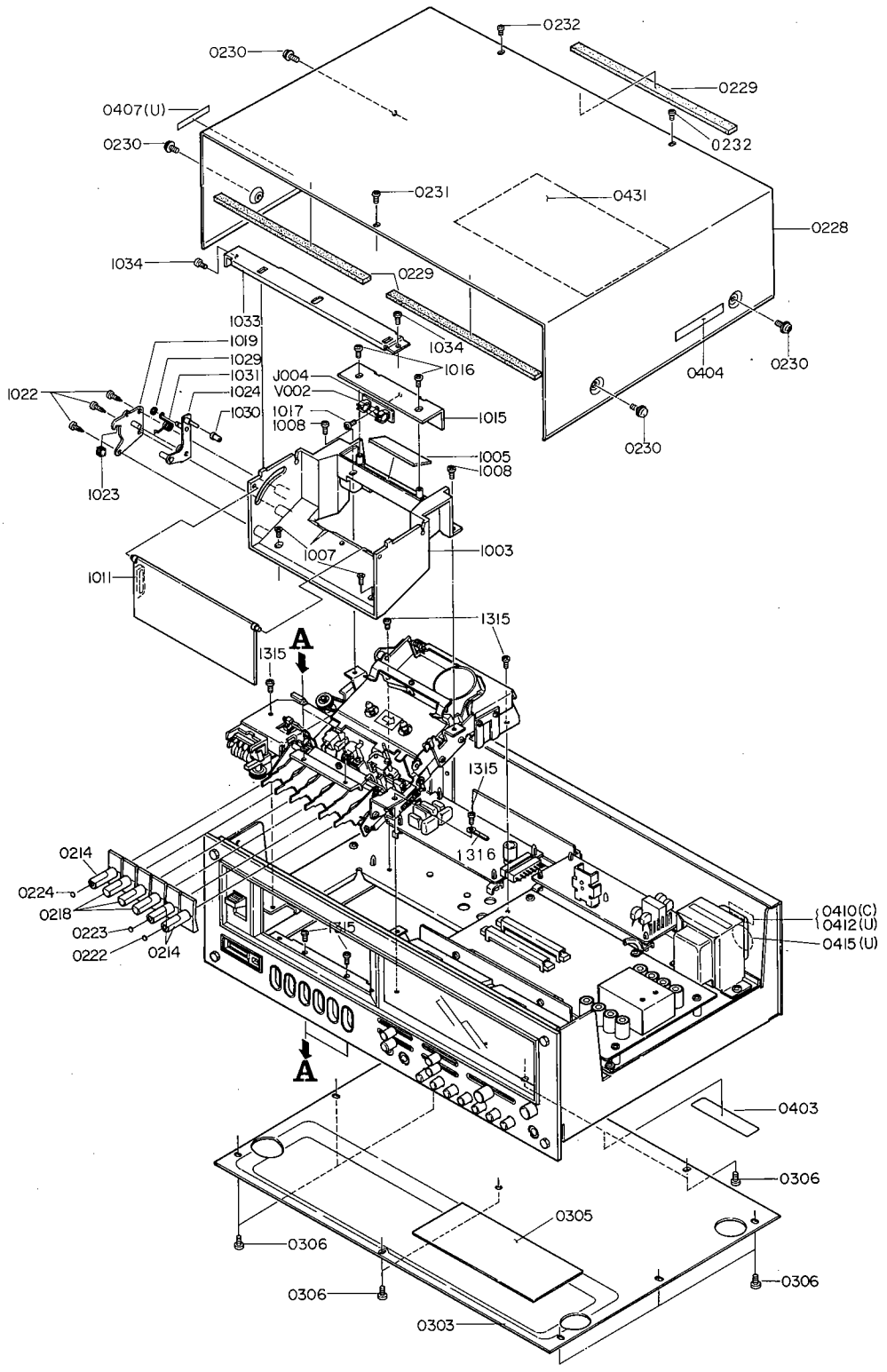

**P800-Circuit Diagram**



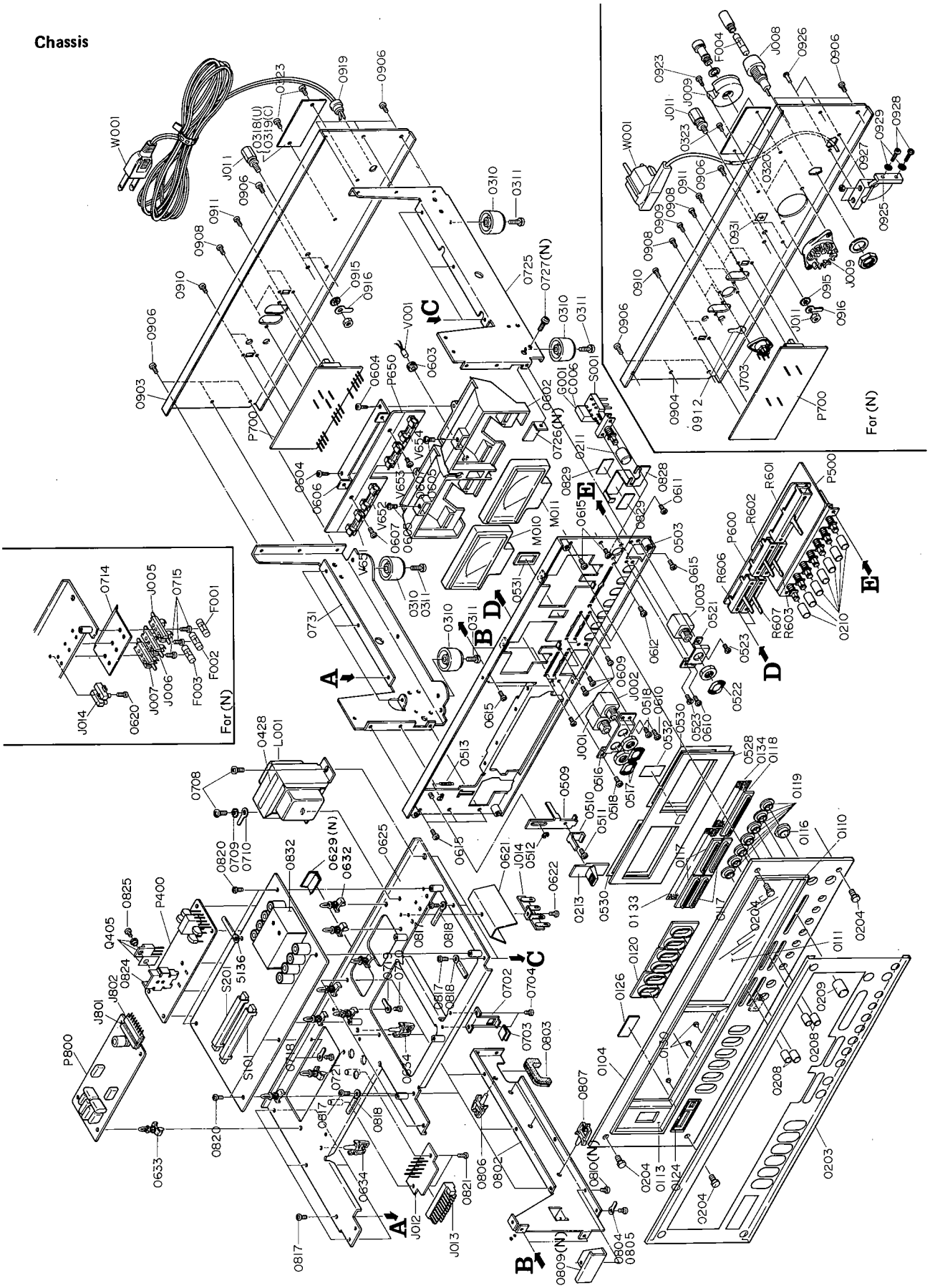

**Dolly Assembly P800 Component Locations**

## 13. EXPLODED VIEWS

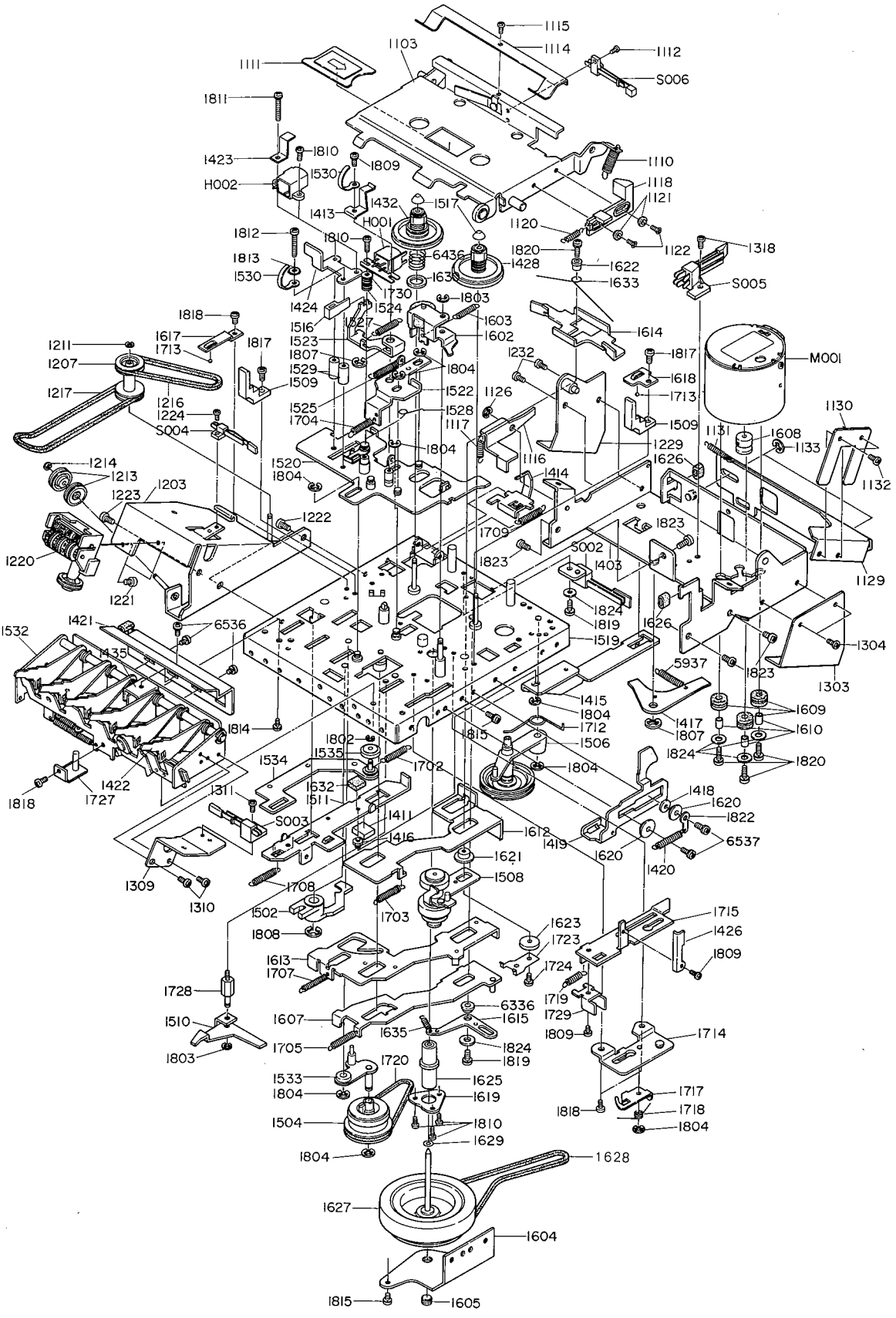
### Cabinet



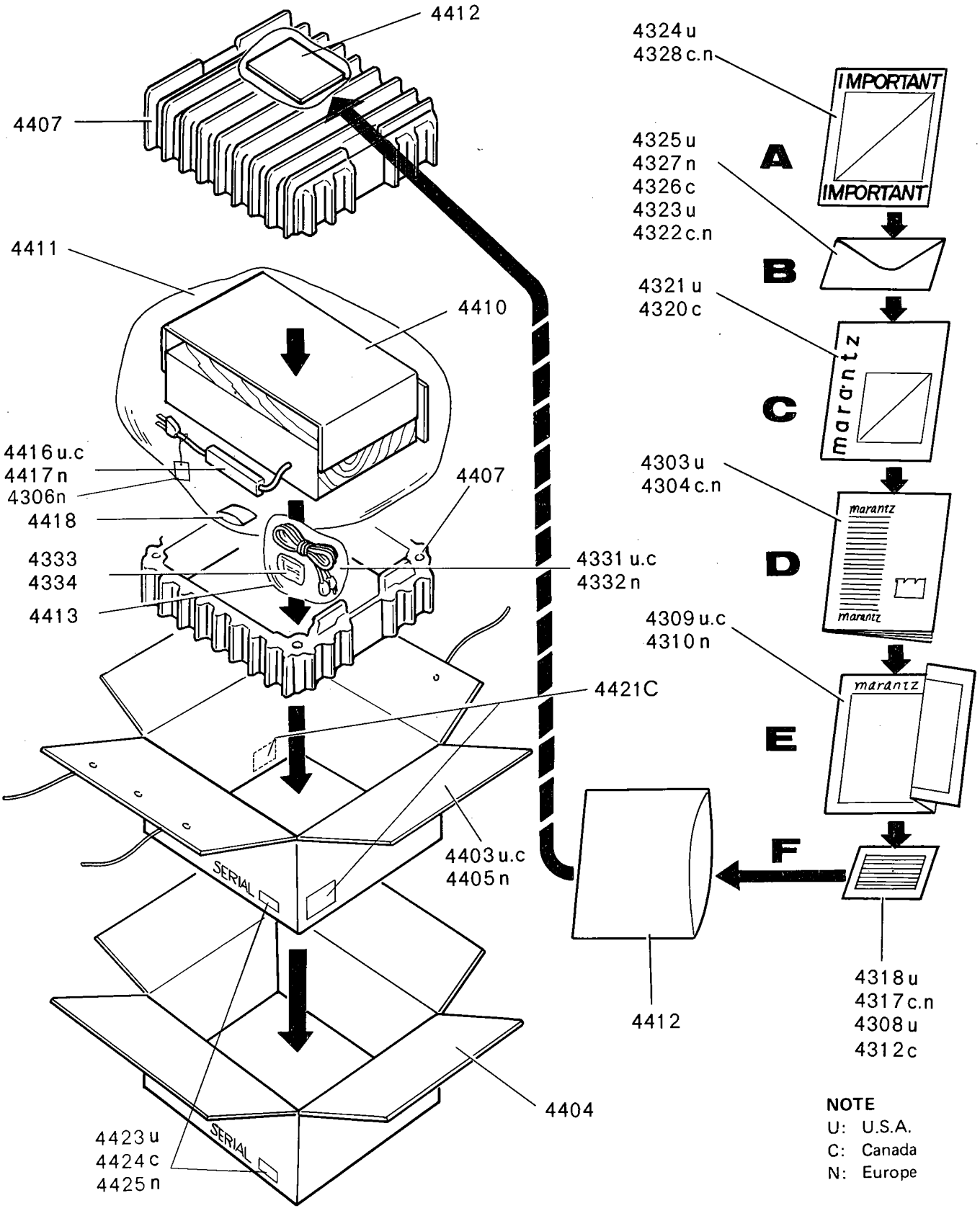
## Chassis



## Tape Mechanism



## 14. PACKING MATERIAL EXPLODED VIEW




**NOTE**
U: U.S.A.
C: Canada
N: Europe

## 15. PARTS LIST

U: U.S.A.
C: Canada
N: Europe

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| A | 1 | 1 | 1 | 4113063400 | Front Panel Assembly |
| 0104 | 1 | 1 | 1 | 4113063500 | Front Panel |
| 0110 | 1 | 1 | 1 | 3448401016 | Frame |
| 0111 | 1 | 1 | 1 | 4113158010 | Window |
| 0113 | 1 | 1 | 1 | 4113158020 | Window |
| 0116 | 1 | 1 | 1 | 2886259010 | Bushing |
| 0117 | 4 | 4 | 4 | 3448259070 | Bushing |
| 0118 | 1 | 1 | 1 | 3448259080 | Bushing |
| 0119 | 7 | 7 | 7 | 3448259010 | Bushing |
| 0120 | 1 | 1 | 1 | 4113259012 | Bushing |
| 0124 | 1 | 1 | 1 | 4113053010 | Cover |
| 0126 | 1 | 1 | 1 | 3448158032 | Window |
| 0130 | 3 | 3 | 3 | 1861056030 | Buffer |
| 0133 | 1 | 1 | 1 | 3448303010 | Mask |
| 0134 | 1 | 1 | 1 | 3448303020 | Mask |
| 0203 | 1 | 1 | 1 | 4113053020 | Cover |
| B | 1 | 1 | 1 | 4113270400 | Button Assembly, Pause |
| 0214 | 1 | 1 | 1 | 4113270502 | Button |
| 0222 | 1 | 1 | 1 | 3411108013 | Seal |
| C | 1 | 1 | 1 | 4113270410 | Button Assembly, Stop. Eject |
| 0214 | 1 | 1 | 1 | 4113270502 | Button |
| 0223 | 1 | 1 | 1 | 3411108023 | Seal |
| D | 1 | 1 | 1 | 4113270420 | Button Assembly, Rec. |
| 0214 | 1 | 1 | 1 | 4113270502 | Button |
| 0224 | 1 | 1 | 1 | 3411108033 | Seal |
| E | 1 | 1 | 1 | 4113257400 | Top Lid Assembly |
| 0228 | 1 | 1 | 1 | 3448257012 | Lid |
| 0229 | 3 | 3 | 3 | 2577118070 | Spacer |
| 0431 | 1 | 1 | 1 | 4113861010 | Label, Adj. Point |
| F | | | 1 | 4113160400 | Rear Panel Assembly |
| 0904 | | | 1 | 4113160050 | Bracket |
| 0925 | | | 1 | 2821259010 | Bushing |
| 0926 | | | 1 | 55060305S0 | T.R. Rivet |
| | | | | | **EXTERIORS** |
| 0204 | 4 | 4 | 4 | 52017039J0 | H. Head Bolt |
| 0208 | 4 | 4 | 4 | 3448154010 | Knob, Mic & Line |
| 0209 | 1 | 1 | 1 | 2850154010 | Knob, Master Level |
| 0210 | 7 | 7 | 7 | 3448154020 | Knob, Push Button |
| 0211 | 1 | 1 | 1 | 3448154040 | Knob, Power |
| 0213 | 1 | 1 | 1 | 3448270012 | Button |
| 0218 | 3 | 3 | 3 | 4113270512 | Button Play, FF, Rew |
| 0230 | 4 | 4 | 4 | 5148040650 | B. H. M. Screw F, B4x6 |
| 0231 | 1 | 1 | 1 | 5112608S0 | T. H. M. Screw T, T2.6x8 |
| 0232 | 2 | 2 | 2 | 5112605S0 | T. H. M. Screw T, T2.6x5 |
| 0303 | 1 | 1 | 1 | 3448257023 | Lid |
| 0305 | 1 | 1 | 1 | 3448120050 | Insulator |
| 0306 | 10 | 10 | 10 | 5110406S9 | B. H. M. Screw, B4x6 |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| 0310 | 4 | 4 | 4 | 2932057010 | Leg |
| 0311 | 4 | 4 | 4 | 5144041OS9 | B. H. M. Screw FS, B4x10 |
| | | | | | **PANEL INDICATORS** |
| 0318 | 1 | | | 4113265010 | Name Plate |
| 0319 | | 1 | | 4113265022 | Name Plate |
| 0320 | | | 1 | 4113265032 | Name Plate |
| 0323 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0403 | 1 | 1 | 1 | 2578861010 | Label, UL Caution |
| 0404 | 1 | 1 | 1 | 2932861010 | Label, Caution "Do not remove marking on bottom" |
| 0407 | 1 | | | 2818861010 | Label, "Imitation" |
| 0410 | | 1 | | 9510911010 | Label, LL No. |
| 0412 | 1 | | | 9510911020 | Label, UL Factory |
| 0415 | 1 | | | 9511101050 | Label, UL |
| | | | | | **LABEL INSIDE CABINET** |
| 0428 | 1 | 1 | 1 | 2908861010 | Label, "Marantz" on Power Transf. |
| | | | | | **FRONT PANEL ASSOCIATED HARDWARE** |
| 0503 | 1 | 1 | 1 | 4113160500 | Bracket K |
| 0509 | 1 | 1 | 1 | 4113354020 | Lever |
| 0510 | 1 | 1 | 1 | 4113354030 | Lever |
| 0511 | 1 | 1 | 1 | 51100305B9 | B. H. M. Screw, B3x5 |
| 0512 | 1 | 1 | 1 | 64000300R0 | RG Ring, E Type |
| 0513 | 1 | 1 | 1 | 4113115080 | Spring |
| 0516 | 1 | 1 | 1 | 3448160192 | Bracket |
| 0517 | 2 | 2 | 2 | 3448107010 | Sheet |
| 0518 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0521 | 1 | 1 | 1 | 3448160020 | Bracket |
| 0522 | 1 | 1 | 1 | 3448107010 | Sheet |
| 0523 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0528 | 1 | 1 | 1 | 4113265040 | Indicator, Meter Window |
| 0530 | 2 | 2 | 2 | 3448122010 | Sticker, Blind |
| 0531 | 1 | 1 | 1 | 3448118033 | Spacer |
| 0532 | 1 | 1 | 1 | 3444107030 | Sheet |
| 0602 | 1 | 1 | 1 | 3448274014 | Reflector |
| 0603 | 1 | 1 | 1 | 3444271060 | Holder, Lamp |
| 0604 | 2 | 2 | 2 | 51280308P0 | B. H. Tapped Screw, B3x8ST |
| 0605 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0606 | 1 | 1 | 1 | 3448160270 | Bracket |
| 0607 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0609 | 8 | 8 | 8 | 51100205B0 | B. H. M. Screw, B2x5 |
| 0610 | 2 | 2 | 2 | 5110030459 | B. H. M. Screw, B3x4 |
| 0611 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0612 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |
| 0615 | 8 | 8 | 8 | 5110030659 | B. H. M. Screw, B3x6 |
| | | | | | **CHASSIS AND ASSOCIATED PARTS** |
| 0620 | | | 1 | 5110031459 | B. H. M. Screw, B3x14 |
| 0621 | 1 | 1 | | 3892120020 | Insulator |
| 0622 | 1 | 1 | | 5110030659 | B. H. M. Screw, B3x6 |
| 0625 | 1 | 1 | 1 | 4113105503 | Chassis K |
| 0629 | | | 1 | 3448120060 | Insulator |
| 0632 | 5 | 5 | 5 | 2912101050 | Support |
| 0633 | 4 | 4 | 4 | 2912101050 | Support |
| 0634 | 2 | 2 | 2 | 2886005050 | Clamper |
| 0702 | 1 | 1 | 1 | 3448160220 | Bracket |
| 0703 | 1 | 1 | 1 | 2886120090 | Insulator |
| 0704 | 2 | 2 | 2 | 5110030659 | B. H. M. Screw, B3x6 |

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C: Canada
N: Europe

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| 0708 | 2 | 2 | 2 | 5110040889 | B. H. M. Screw, B4x8 |
| 0709 | 2 | 2 | 2 | 54050400R0 | T. L. Washer OR |
| 0710 | 1 | 1 | 1 | 62041760W0 | Lug |
| 0714 | | | 1 | 3448120043 | Insulator |
| 0715 | | | 3 | 51062606B0 | P. H. M. Screw, P2.6x6 |
| 0718 | 1 | 1 | 1 | 62030039W0 | T. L. Lug |
| 0719 | | | 1 | 62030039W0 | T. L. Lug |
| 0720 | 1 | 1 | 1 | 51570306B0 | P. H. Tapped Screw, P3x6ST |
| 0721 | 1 | 1 | 1 | 51570306B0 | P. H. Tapped Screw, P3x6ST |
| 0725 | 1 | 1 | 1 | 3448104013 | Retainer |
| 0726 | | | 1 | 3448114110 | Stopper |
| 0727 | | | 1 | 5110030689 | B. H. M. Screw, B3x6 |
| 0731 | 1 | 1 | 1 | 4113104010 | Retainer |
| 0802 | 1 | 1 | 1 | 4113104022 | Retainer |
| 0803 | 1 | 1 | 1 | 2889259010 | Bushing |
| 0804 | 1 | 1 | 1 | 62030039W0 | T. L. Lug |
| 0805 | 1 | 1 | 1 | 5110030689 | B. H. M. Screw, B3x6 |
| 0806 | 1 | 1 | 1 | 2886005050 | Clamper |
| 0807 | 3 | 3 | 3 | 2886005020 | Clamper |
| 0809 | | | 1 | 3448114100 | Stopper |
| 0810 | | | 1 | 5110030689 | B. H. M. Screw, B3x6 |
| 0817 | 9 | 9 | 9 | 5110030689 | B. H. M. Screw, B3x6 |
| 0818 | 3 | 3 | 3 | 1382005030 | Clamper |
| 0820 | 6 | 6 | 6 | 5110030589 | B. H. M. Screw, B3x5 |
| 0821 | 2 | 2 | 2 | 5110030589 | B. H. M. Screw, B3x5 |
| 0824 | 1 | 1 | 1 | 3444267013 | Heatsink |
| 0825 | 1 | 1 | 1 | 5110030689 | B. H. M. Screw, B3x6 |
| 0828 | 1 | 1 | 1 | 3448109040 | Shield |
| 0829 | 2 | 2 | 2 | 3448120070 | Insulator |
| 0832 | 1 | 1 | 1 | 3444109092 | Shield |
| | | | | | **TERMINAL BOARD ASSOCIATED HARDWARE** |
| 0903 | 1 | 1 | | 4113160040 | Bracket |
| 0906 | 8 | 8 | 8 | 5110030689 | B. H. M. Screw B3x6 |
| 0908 | 2 | 2 | 4 | 5110030689 | B. H. M. Screw, B3x6 |
| 0909 | | | 2 | 5110030689 | B. H. M. Screw, B3x6 |
| 0910 | 2 | 2 | 2 | 5110260350 | B. H. M. Screw, B2.6x3 |
| 0911 | 2 | 2 | 2 | 5110260350 | B. H. M. Screw, B2.6x3 |
| 0912 | | | 1 | 62031340W0 | Lug |
| 0915 | 1 | 1 | 1 | 54050400R0 | T. L. Washer OR |
| 0916 | 1 | 1 | 1 | 62041760W0 | Lug |
| 0919 | 1 | 1 | | 1455259030 | Bushing |
| 0923 | | | 2 | 5110030689 | B. H. M. Screw, B3x6 |
| 0927 | | | 2 | 53110303A9 | Hexagon Nut |
| 0928 | | | 2 | 5110031689 | B. H. M. Screw, B3x16 |
| 0929 | | | 2 | 54050300R0 | T. L. Washer OR |
| 0931 | | | 1 | 2882861020 | Label |
| | | | | | **TAPE MECHANISM MOUNTING HARDWARE** |
| 1003 | 1 | 1 | 1 | 4113064012 | Case |
| 1005 | 1 | 1 | 1 | 4113158042 | Window |
| 1007 | 2 | 2 | 2 | 5104031089 | F. H. M. Screw, F3x10 |
| 1008 | 2 | 2 | 2 | 5110030689 | B. H. M. Screw, B3x6 |
| 1011 | 1 | 1 | 1 | 4113257012 | Window |
| 1015 | 1 | 1 | 1 | 4113160090 | Bracket |
| 1016 | 2 | 2 | 2 | 5110030589 | B. H. M. Screw, B3x5 |
| 1017 | 1 | 1 | 1 | 5110030589 | B. H. M. Screw, B3x5 |
| 1019 | 1 | 1 | 1 | 4113160540 | Bracket K |
| 1022 | 3 | 3 | 3 | 51300308P0 | P. H. Tapped Screw, P3x8ST |
| 1023 | 1 | 1 | 1 | 4113056020 | Buffer |
| 1024 | 1 | 1 | 1 | 4113002502 | Arm K |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| 1029 | 1 | 1 | 1 | 64000200R0 | RG Ring E Type |
| 1030 | 1 | 1 | 1 | 3448055050 | Collar |
| 1031 | 1 | 1 | 1 | 4113115062 | Spring |
| 1033 | 1 | 1 | 1 | 4113269012 | Protector |
| 1034 | 2 | 2 | 2 | 5110030689 | B. H. M. Screw, B3x6 |
| 1103 | 1 | 1 | 1 | 4113163504 | Tray K |
| 1110 | 1 | 1 | 1 | 4113115022 | Spring |
| 1111 | 1 | 1 | 1 | 3448158040 | Window |
| 1112 | 1 | 1 | 1 | 5106020489 | P. H. M. Screw, P2x4 |
| 1114 | 1 | 1 | 1 | 4113115042 | Spring |
| 1115 | 3 | 3 | 3 | 5110020489 | B. H. M. Screw, B2x4 |
| 1116 | 1 | 1 | 1 | 4113354100 | Lever |
| 1117 | 1 | 1 | 1 | 4113115100 | Spring |
| 1118 | 1 | 1 | 1 | 4113354072 | Lever |
| 1120 | 1 | 1 | 1 | 4113115072 | Spring |
| 1121 | 2 | 2 | 2 | 4113055010 | Collar |
| 1122 | 2 | 2 | 2 | 5104020589 | F. H. M. Screw, F2x5 |
| 1126 | 1 | 1 | 1 | 64000200R0 | RG Ring, E Type |
| 1129 | 1 | 1 | 1 | 4113354082 | Lever, Rec. Switch |
| 1130 | 1 | 1 | 1 | 4113115010 | Spring |
| 1131 | 1 | 1 | 1 | 4113115080 | Spring |
| 1132 | 2 | 2 | 2 | 5110030589 | B. H. M. Screw, B3x5 |
| 1133 | 2 | 2 | 2 | 64000300R0 | RG Ring, E Type |
| 1203 | 1 | 1 | 1 | 4113160510 | Bracket K |
| 1207 | 1 | 1 | 1 | 4113262500 | Pulley K |
| 1211 | 1 | 1 | 1 | 64001500R0 | RG Ring, E Type |
| 1213 | 2 | 2 | 2 | 4113262020 | Pulley |
| 1214 | 1 | 1 | 1 | 64001500R0 | RG Ring, E Type |
| 1216 | 1 | 1 | 1 | 4113264012 | Belt |
| 1217 | 1 | 1 | 1 | 4113264022 | Belt |
| 1220 | 1 | 1 | 1 | 4113052010 | Counter |
| 1221 | 2 | 2 | 2 | 5110030589 | B. H. M. Screw, B3x5 |
| 1222 | 2 | 2 | 2 | 51570306B0 | P. H. Tapped Screw, P3x6ST |
| 1223 | 1 | 1 | 1 | 5110260589 | B. H. M. Screw, B2.6 x5 |
| 1224 | 1 | 1 | 1 | 5106020589 | P. H. M. Screw, P2x5 |
| 1229 | 1 | 1 | 1 | 4113160522 | Bracket K |
| 1232 | 2 | 2 | 2 | 51570306B0 | P. H. Tapped Screw, P3x6ST |
| 1303 | 1 | 1 | 1 | 4113160120 | Bracket |
| 1304 | 2 | 2 | 2 | 51570306B0 | P. H. Tapped Screw, P3x6ST |
| 1309 | 1 | 1 | 1 | 4113160072 | Bracket |
| 1310 | 2 | 2 | 2 | 5110260589 | B. H. M. Screw, B2.6x5 |
| 1311 | 1 | 1 | 1 | 5110260689 | B. H. M. Screw, B2.6x6 |
| 1315 | 6 | 6 | 6 | 5110030689 | B. H. M. Screw, B3x6 |
| 1316 | 1 | 1 | 1 | 1382005030 | Clamper |
| 1318 | 1 | 1 | 1 | 5110260689 | B. H. M. Screw, B2.6x5 |
| | | | | | **TAPE MECHANISM** |
| 1403 | 1 | 1 | 1 | 4113160534 | Bracket K |
| 1411 | 1 | 1 | 1 | 4133056020 | Buffer |
| 1412 | 1 | 1 | 1 | 4113115080 | Spring |
| 1413 | 1 | 1 | 1 | 3904115042 | Spring |
| 1414 | 1 | 1 | 1 | 4113354090 | Lever |
| 1415 | 1 | 1 | 1 | 4113354042 | Lever |
| 1416 | 1 | 1 | 1 | 4113112060 | Shaft |
| 1417 | 1 | 1 | 1 | 4113002032 | Arm |
| 1418 | 1 | 1 | 1 | 4113358020 | Roller |
| 1419 | 1 | 1 | 1 | 4113354052 | Lever |
| 1420 | 1 | 1 | 1 | 4113115090 | Spring |
| 1421 | 1 | 1 | 1 | 4113104032 | Retainer |
| 1422 | 6 | 6 | 6 | 4113354010 | Lever |
| 1423 | 1 | 1 | 1 | 4113114010 | Stopper |
| 1424 | 1 | 1 | 1 | 4113160132 | Bracket |
| 1426 | 1 | 1 | 1 | 4113002050 | Arm |

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| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| 1428 | 1 | 1 | 1 | 4113004500 | Table K |
| 1432 | 1 | 1 | 1 | 4113004510 | Table K |
| 1435 | 1 | 1 | 1 | 3904104020 | Retainer |
| 1502 | 1 | 1 | 1 | 3435002100 | Arm |
| 1504 | 1 | 1 | 1 | 4129001010 | Idler |
| 1506 | 1 | 1 | 1 | 3435001700 | Idler K |
| 1508 | 1 | 1 | 1 | 4129001700 | Ider K |
| 1509 | 2 | 2 | 2 | 4113051020 | Guide, Cassette |
| 1510 | 1 | 1 | 1 | 3904354060 | Lever, Eject |
| 1511 | 1 | 1 | 1 | 3435354250 | Lever, Rec. |
| 1516 | 1 | 1 | 1 | 3435123010 | Contactor |
| 1517 | 2 | 2 | 2 | 3435067100 | Cap |
| 1519 | 1 | 1 | 1 | 4113105700 | Chassis S, Main |
| 1520 | 1 | 1 | 1 | 4113105710 | Chassis S, Head |
| 1522 | 1 | 1 | 1 | 3435354200 | Lever |
| 1523 | 1 | 1 | 1 | 4113002060 | Arm |
| 1524 | 1 | 1 | 1 | 3435115200 | Spring |
| 1525 | 1 | 1 | 1 | 3435115210 | Spring |
| 1527 | 1 | 1 | 1 | 3435115222 | Spring |
| 1528 | 1 | 1 | 1 | 3435115230 | Spring |
| 1529 | 2 | 2 | 2 | 4113101030 | Support |
| 1530 | 2 | 2 | 2 | 3435005060 | Clumper |
| 1532 | 1 | 1 | 1 | 4113354500 | Lever K |
| 1533 | 1 | 1 | 1 | 3435002700 | Arm S |
| 1534 | 1 | 1 | 1 | 3435002710 | Arm S |
| 1535 | 1 | 1 | 1 | 3435001050 | Idler |
| 1602 | 1 | 1 | 1 | 4113255500 | Pinch Roller K |
| 1603 | 1 | 1 | 1 | 3435115240 | Spring |
| 1604 | 1 | 1 | 1 | 3435104100 | Retainer |
| 1605 | 1 | 1 | 1 | 3435106010 | Bearing |
| 1607 | 1 | 1 | 1 | 4129002700 | Arm S |
| 1608 | 1 | 1 | 1 | 3435262010 | Pulley |
| 1609 | 3 | 3 | 3 | 3435056010 | Buffer |
| 1610 | 3 | 3 | 3 | 4113055020 | Collar |
| 1612 | 1 | 1 | 1 | 3435354230 | Lever |
| 1613 | 1 | 1 | 1 | 3435354240 | Lever |
| 1614 | 1 | 1 | 1 | 3435002120 | Arm |
| 1615 | 1 | 1 | 1 | 3435002130 | Arm |
| 1617 | 1 | 1 | 1 | 3435115260 | Spring |
| 1618 | 1 | 1 | 1 | 3435115270 | Spring |
| 1620 | 2 | 2 | 2 | 3904259010 | Bushing |
| 1621 | 1 | 1 | 1 | 4113259030 | Bushing |
| 1622 | 1 | 1 | 1 | 3435055020 | Collar |
| 1623 | 1 | 1 | 1 | 4113055030 | Collar |
| 1625 | 1 | 1 | 1 | 3435106040 | Bearing |
| 1626 | 2 | 2 | 2 | 4113056030 | Buffer |
| 1627 | 1 | 1 | 1 | 4113273500 | Flywheel K |
| 1628 | 1 | 1 | 1 | 3435264010 | Belt |
| 1629 | 1 | 1 | 1 | 59254602G9 | Washer |
| 1630 | 1 | 1 | 1 | 59060902G9 | Washer |
| 1632 | 1 | 1 | 1 | 3435056020 | Buffer |
| 1633 | 1 | 1 | 1 | 3435115290 | Spring |
| 1635 | 1 | 1 | 1 | 3435115320 | Spring |
| 1702 | 1 | 1 | 1 | 3435115330 | Spring, Rew Arm |
| 1703 | 1 | 1 | 1 | 3435115340 | Spring, Break Lever |
| 1704 | 1 | 1 | 1 | 3435115360 | Spring, Head Chassis |
| 1705 | 1 | 1 | 1 | 3435115370 | Spring, FF Arm |
| 1707 | 1 | 1 | 1 | 3435115380 | Spring, Rew Lever |
| 1708 | 1 | 1 | 1 | 3435115390 | Spring, Rec Lever |
| 1709 | 1 | 1 | 1 | 3904115060 | Spring |
| 1712 | 1 | 1 | 1 | 3435115620 | Spring |
| 1713 | 2 | 2 | 2 | 61020010T0 | Ball |
| 1714 | 1 | 1 | 1 | 3435160700 | Bracket S |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| 1715 | 1 | 1 | 1 | 3435354270 | Lever |
| 1717 | 1 | 1 | 1 | 3435054100 | Cam |
| 1718 | 1 | 1 | 1 | 3435115630 | Spring |
| 1719 | 1 | 1 | 1 | 3435115640 | Spring |
| 1720 | 1 | 1 | 1 | 4129264010 | Belt |
| 1723 | 1 | 1 | 1 | 4129115020 | Spring |
| 1724 | 1 | 1 | 1 | 51062603A0 | P. H. M. Screw, P2.6x3 |
| 1727 | 1 | 1 | 1 | 3904002500 | Arm S |
| 1728 | 1 | 1 | 1 | 3904101010 | Support |
| 1729 | 1 | 1 | 1 | 3904125010 | Joint |
| 1730 | 1 | 1 | 1 | 3444118070 | Spacer |
| 1802 | 1 | 1 | 1 | 64001500R0 | RG Ring, E Type |
| 1803 | 2 | 2 | 2 | 64000200R0 | RG Ring, E Type |
| 1804 | 9 | 9 | 9 | 64002500R0 | RG Ring, E Type |
| 1807 | 2 | 2 | 2 | 64000300R0 | RG Ring, E Type |
| 1808 | 1 | 1 | 1 | 64000400R0 | RG Ring, E Type |
| 1809 | 3 | 3 | 3 | 51440204A0 | L Washer Screw |
| 1810 | 5 | 5 | 5 | 51060205A0 | P. H. M. Screw, P2x5 |
| 1811 | 1 | 1 | 1 | 51440216A0 | L Washer Screw |
| 1812 | 1 | 1 | 1 | 51060214A0 | P. H. M. Screw, P2x14 |
| 1813 | 1 | 1 | 1 | 54020201E0 | Flat Washer P |
| 1814 | 2 | 2 | 2 | 51442604A0 | L Washer Screw, 2.6x4 |
| 1815 | 3 | 3 | 3 | 51442605A0 | L Washer Screw, 2.6x5 |
| 1817 | 1 | 1 | 1 | 51062605A0 | P. H. M. Screw, P2.6x5 |
| 1818 | 4 | 4 | 4 | 51062603A0 | P. H. M. Screw, P2.6x3 |
| 1819 | 2 | 2 | 2 | 51442606A0 | L Washer Screw, 2.6x6 |
| 1820 | 4 | 4 | 4 | 51442608A0 | L Washer Screw, 2.6x8 |
| 1822 | 1 | 1 | 1 | 62261240W0 | Lug |
| 1823 | 4 | 4 | 4 | 51570305A0 | P. Tapped Screw, P3x5ST |
| 1824 | 5 | 5 | 5 | 54022601E0 | Flat Washer P |
| | | | | | **PRINTED MATTER** |
| 4303 | 1 | | | 4113851010 | Instructions, Set |
| 4304 | | 1 | 1 | 4113851310 | Instructions, Set |
| 4306 | | | 1 | 9560000042 | Hang Tag |
| 4308 | 1 | | | 9650000060 | S Station Card |
| 4309 | 1 | 1 | | 4113856010 | Schematic Diagram |
| 4310 | | | 1 | 4113856020 | Schematic Diagram |
| 4312 | | 1 | | 9650000050 | S Station Card |
| 4317 | | 1 | 1 | 2818851140 | Instructions, Packing |
| 4318 | 1 | | | 2818851040 | Instructions, Packing |
| 4320 | | 1 | | 2818854040 | Guarantee Card |
| 4321 | 1 | | | 2818854020 | Guarantee Card |
| 4322 | | 1 | 1 | 9630000180 | Guarantee Card, IBM |
| 4323 | 1 | | | 2577854012 | Guarantee Card, IBM |
| 4324 | 1 | | | 2577851020 | Instructions, "Important" |
| 4325 | 1 | | | 2577813010 | Envelope |
| 4326 | | 1 | | 2918813012 | Envelope |
| 4327 | | | 1 | 2818813010 | Envelope |
| 4328 | | 1 | 1 | 2818851120 | Instructions, "Important" |
| | | | | | **ACCESSORIES** |
| 4331 | 2 | 2 | | ZD01500160 | Connection Cord, RCA Type |
| 4332 | | | 1 | ZD02000070 | Connection Cord, DIN Type |
| 4333 | 1 | 1 | 1 | 3089071020 | Cleaner, Longer |
| 4334 | 1 | 1 | 1 | 2881071010 | Cleaner, Shorter |
| | | | | | **PACKING MATERIALS** |
| 4403 | 1 | 1 | | 4113801010 | Packing Case, Inner |
| 4404 | 1 | 1 | 1 | 4113801020 | Packing Case, Outer |
| 4405 | | | 1 | 4113801030 | Packing Case, Inner |

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N: Europe

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| 4407 | 2 | 2 | 2 | 3448803013 | Cushion |
| 4410 | 1 | 1 | 1 | 2918107150 | Sheet |
| 4411 | 1 | 1 | 1 | 9014538350 | Polyethylene Bag, Set |
| 4412 | 1 | 1 | 1 | 9013025010 | Polyethylene Bag, Printed Matter |
| 4413 | 1 | 1 | 1 | 9011325010 | Polyethylene Bag, Accessories |
| 4416 | 1 | 1 | | 1029804010 | Sleeve |
| 4417 | | | 1 | 2864804010 | Sleeve |
| 4418 | 1 | 1 | 1 | 2731821010 | Silicagel |
| 4421 | | 2 | | 9510901020 | Label |
| 4423 | 4 | | | 9522815010 | Serial No. Card |
| 4424 | | 4 | | 9523015120 | Serial No. Card |
| 4425 | | | 4 | 9523015130 | Serial No. Card |
| 5136 | 1 | 1 | 1 | 1210005010 | Clamper |
| 5937 | 1 | 1 | 1 | 4113115080 | Spring |
| 6336 | 1 | 1 | 1 | 3435055030 | Collar |
| 6436 | 1 | 1 | 1 | 3435115610 | Spring |
| 6536 | 3 | 3 | 3 | 51442605A0 | L. Washer Screw |
| 6537 | 2 | 2 | 2 | 51062606A0 | P.H.M. Screw, P2.6x6 |
| | | | | | **PRE AMP. CIRCUIT BOARD-P100** |
| P100 | 1 | 1 | 1 | YD41130010 | P. W. Board (Print Only) |
| | 1 | 1 | 1 | ZZ41130010 | P. W. Board Assembly |
| | | | | | **P100-SWITCHES** |
| S101 | 1 | 1 | 1 | SS09020070 | Slide Switch, Rec/Play |
| S201 | 1 | 1 | 1 | SS09020070 | Slide Switch, Rec/Play |
| | | | | | **P100-COILS & TRANSFORMERS** |
| L101 | 1 | 1 | 1 | LC22250040 | Choke Coil, 2.5mH |
| L201 | 1 | 1 | 1 | LC22250040 | Choke Coil, 2.5mH |
| L102 | 1 | 1 | 1 | LC22260050 | Choke Coil, 22mH |
| L202 | 1 | 1 | 1 | LC22260050 | Choke Coil, 22mH |
| L103 | 1 | 1 | 1 | LC23960010 | Choke Coil, 39mH |
| L203 | 1 | 1 | 1 | LC23960010 | Choke Coil, 39mH |
| L104 | 1 | 1 | 1 | LC27250010 | Choke Coil, 7.2mH |
| L204 | 1 | 1 | 1 | LC27250010 | Choke Coil, 7.2mH |
| L105 | 1 | 1 | 1 | LC25650040 | Choke Coil, 5.6mH |
| L205 | 1 | 1 | 1 | LC25650040 | Choke Coil, 5.6mH |
| L106 | 1 | 1 | 1 | LC24750030 | Choke Coil, 4.7mH |
| L206 | 1 | 1 | 1 | LC24750030 | Choke Coil, 4.7mH |
| L107 | 1 | 1 | 1 | LC22260050 | Choke Coil, 22mH |
| L207 | 1 | 1 | 1 | LC22260050 | Choke Coil, 22mH |
| L108 | 1 | 1 | 1 | TO11905040 | Output Transformer |
| L208 | 1 | 1 | 1 | TO11905040 | Output Transformer |
| L301 | 1 | 1 | 1 | TC10180072 | Osc Transformer |
| | | | | | **P100-SEMICONDUCTORS** |
| Q101 | 1 | 1 | 1 | HT107501E0 | Transistor, 2SA750(E) |
| Q201 | 1 | 1 | 1 | HT107501E0 | Transistor, 2SA750(E) |
| Q102 | 1 | 1 | 1 | HT312221U0 | Transistor, 2SC1222(U) |
| Q202 | 1 | 1 | 1 | HT312221U0 | Transistor, 2SC1222(U) |
| Q103 | 1 | 1 | 1 | HT402272A0 | Transistor, 2SD227(Q) or (V) |
| Q203 | 1 | 1 | 1 | HT402272A0 | Transistor, 2SD227(Q) or (V) |
| Q104 | 1 | 1 | 1 | HT107501F0 | Transistor, 2SA750(F) |
| Q204 | 1 | 1 | 1 | HT107501F0 | Transistor, 2SA750(F) |
| Q105 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q205 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q106 | 1 | 1 | 1 | HT312221U0 | Transistor, 2SC1222(U) |
| Q206 | 1 | 1 | 1 | HT312221U0 | Transistor, 2SC1222(U) |
| Q207 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q207 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q108 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q208 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q109 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| Q209 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q110 | 1 | 1 | 1 | HT312221U0 | Transistor, 2SC1222(U) |
| Q210 | 1 | 1 | 1 | HT312221U0 | Transistor, 2SC1222(U) |
| Q111 | 1 | 1 | 1 | HT312221E0 | Transistor, 2SC1222(E) |
| Q211 | 1 | 1 | 1 | HT312221E0 | Transistor, 2SC1222(E) |
| Q112 | 1 | 1 | 1 | HT309452B0 | Transistor, 2SC945(P) or (Q) |
| Q212 | 1 | 1 | 1 | HT309452B0 | Transistor, 2SC945(P) or (Q) |
| Q113 | 1 | 1 | 1 | HD30031090 | Diode, WZ082 |
| Q213 | 1 | 1 | 1 | HD30031090 | Diode, WZ082 |
| Q114 | 1 | 1 | 1 | HD30033090 | Diode, WZ052 |
| Q214 | 1 | 1 | 1 | HD30033090 | Diode, WZ052 |
| Q115 | 1 | 1 | 1 | HT309001E0 | Transistor, 2SC900(E) |
| Q215 | 1 | 1 | 1 | HT309001E0 | Transistor, 2SC900(E) |
| Q116 | 1 | 1 | 1 | HT309452B0 | Transistor, 2SC945(P) or (Q) |
| Q216 | 1 | 1 | 1 | HT309452B0 | Transistor, 2SC945(P) or (V) |
| Q117 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q217 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q118 | 1 | 1 | 1 | HT312221E0 | Transistor, 2SC1222(E) |
| Q218 | 1 | 1 | 1 | HT312221E0 | Transistor, 2SC1222(E) |
| Q119 | 1 | 1 | 1 | HT312221E0 | Transistor, 2SC1222(E) |
| Q219 | 1 | 1 | 1 | HT312221E0 | Transistor, 2SC1222(E) |
| Q120 | 1 | 1 | 1 | HT107501E0 | Transistor, 2SA750(E) |
| Q220 | 1 | 1 | 1 | HT107501E0 | Transistor, 2SA750(E) |
| Q301 | 1 | 1 | 1 | HT313181R0 | Transistor, 2SC1318(R) |
| Q302 | 1 | 1 | 1 | HT313181R0 | Transistor, 2SC1318(R) |
| | | | | | **P100-RESISTORS** |
| R101 | 1 | 1 | 1 | RN05473140 | Fixed, 47KΩ ±5%, ¼W |
| R201 | 1 | 1 | 1 | RN05473140 | Fixed, 47KΩ ±5%, ¼W |
| R102 | 1 | 1 | 1 | RT05471140 | Fixed, 470Ω ±5%, ¼W |
| R202 | 1 | 1 | 1 | RT05471140 | Fixed, 470Ω ±5%, ¼W |
| R103 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R203 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R104 | 1 | 1 | 1 | RN05124140 | Fixed, 120KΩ ±5%, ¼W |
| R204 | 1 | 1 | 1 | RN05124140 | Fixed, 120KΩ ±5%, ¼W |
| R105 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R205 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R106 | 1 | 1 | 1 | RN05224140 | Fixed, 220KΩ ±5%, ¼W |
| R206 | 1 | 1 | 1 | RN05224140 | Fixed, 220KΩ ±5%, ¼W |
| R107 | 1 | 1 | 1 | RN05683140 | Fixed, 68KΩ ±5%, ¼W |
| R207 | 1 | 1 | 1 | RN05683140 | Fixed, 68KΩ ±5%, ¼W |
| R108 | 1 | 1 | 1 | RN05184140 | Fixed, 180KΩ ±5%, ¼W |
| R208 | 1 | 1 | 1 | RN05184140 | Fixed, 180KΩ ±5%, ¼W |
| R109 | 1 | 1 | 1 | RN05333140 | Fixed, 33KΩ ±5%, ¼W |
| R209 | 1 | 1 | 1 | RN05333140 | Fixed, 33KΩ ±5%, ¼W |
| R110 | 1 | 1 | 1 | RT05391140 | Fixed, 390Ω ±5%, ¼W |
| R210 | 1 | 1 | 1 | RT05391140 | Fixed, 390Ω ±5%, ¼W |
| R111 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |
| R211 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |
| R112 | 1 | 1 | 1 | RN05104140 | Fixed, 100KΩ ±5%, ¼W |
| R212 | 1 | 1 | 1 | RN05104140 | Fixed, 100KΩ ±5%, ¼W |
| R113 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R213 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R114 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R214 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R115 | 1 | 1 | 1 | RT05182140 | Fixed, 1.8KΩ ±5%, ¼W |
| R215 | 1 | 1 | 1 | RT05182140 | Fixed, 1.8KΩ ±5%, ¼W |
| R116 | 1 | 1 | 1 | RN05473140 | Fixed, 47KΩ ±5%, ¼W |
| R216 | 1 | 1 | 1 | RN05473140 | Fixed, 47KΩ ±5%, ¼W |
| R117 | 1 | 1 | 1 | RA03020030 | Trimming, 3KΩ |
| R217 | 1 | 1 | 1 | RA03020030 | Trimming 3KΩ |
| R118 | 1 | 1 | 1 | RN05302140 | Fixed, 3KΩ ±5%, ¼W |
| R218 | 1 | 1 | 1 | RN05302140 | Fixed, 3KΩ ±5%, ¼W |
| R119 | 1 | 1 | 1 | RN05152140 | Fixed, 1.5KΩ ±5%, ¼W |

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C: Canada
N: Europe

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| R219 | 1 | 1 | 1 | RN05152140 | Fixed, 1.5KΩ ±5%, ¼W |
| R120 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R220 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R121 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R221 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R122 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R222 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R123 | 1 | 1 | 1 | RN05224140 | Fixed, 220KΩ ±5%, ¼W |
| R223 | 1 | 1 | 1 | RN05224140 | Fixed, 220KΩ ±5%, ¼W |
| R124 | 1 | 1 | 1 | RN05563140 | Fixed, 56KΩ ±5%, ¼W |
| R224 | 1 | 1 | 1 | RN05563140 | Fixed, 56KΩ ±5%, ¼W |
| R125 | 1 | 1 | 1 | RN05104140 | Fixed, 100KΩ ±5%, ¼W |
| R225 | 1 | 1 | 1 | RN05104140 | Fixed, 100KΩ ±5%, ¼W |
| R126 | 1 | 1 | 1 | RT05561140 | Fixed, 560Ω ±5%, ¼W |
| R226 | 1 | 1 | 1 | RT05561140 | Fixed, 560Ω ±5%, ¼W |
| R127 | 1 | 1 | 1 | RN05123140 | Fixed, 12KΩ ±5%, ¼W |
| R227 | 1 | 1 | 1 | RN05123140 | Fixed, 12KΩ ±5%, ¼W |
| R128 | 1 | 1 | 1 | RT05221140 | Fixed, 220Ω ±5%, ¼W |
| R228 | 1 | 1 | 1 | RT05221140 | Fixed, 220Ω ±5%, ¼W |
| R129 | 1 | 1 | 1 | RN05273140 | Fixed, 27KΩ ±5%, ¼W |
| R229 | 1 | 1 | 1 | RN05273140 | Fixed, 27KΩ ±5%, ¼W |
| R130 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R230 | 1 | 1 | 1 | RN05103140 | Fixed, 10KΩ ±5%, ¼W |
| R131 | 1 | 1 | 1 | RN05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R231 | 1 | 1 | 1 | RN05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R132 | 1 | 1 | 1 | RT05182140 | Fixed, 1.8KΩ ±5%, ¼W |
| R232 | 1 | 1 | 1 | RT05182140 | Fixed, 1.8KΩ ±5%, ¼W |
| R133 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R233 | 1 | 1 | 1 | RT05101140 | Fixed, 100Ω ±5%, ¼W |
| R134 | 1 | 1 | 1 | RT05105140 | Fixed, 1MΩ ±5%, ¼W |
| R234 | 1 | 1 | 1 | RT05105140 | Fixed, 1MΩ ±5%, ¼W |
| R135 | 1 | 1 | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R235 | 1 | 1 | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R136 | 1 | 1 | 1 | RT05474140 | Fixed, 470KΩ ±5%, ¼W |
| R236 | 1 | 1 | 1 | RT05474140 | Fixed, 470KΩ ±5%, ¼W |
| R137 | 1 | 1 | 1 | RT05821140 | Fixed, 820Ω ±5%, ¼W |
| R237 | 1 | 1 | 1 | RT05821140 | Fixed, 820Ω ±5%, ¼W |
| R138 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R238 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R139 | 1 | 1 | 1 | RT05123140 | Fixed, 12KΩ ±5%, ¼W |
| R239 | 1 | 1 | 1 | RT05123140 | Fixed, 12KΩ ±5%, ¼W |
| R140 | 1 | 1 | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R240 | 1 | 1 | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R141 | 1 | 1 | 1 | GJ05750010 | Fixed, 75Ω ±5%, 1 W |
| R241 | 1 | 1 | 1 | GJ05750010 | Fixed, 75Ω ±5%, 1 W |
| R142 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R242 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R143 | 1 | 1 | 1 | RT05563140 | Fixed, 56KΩ ±5%, ¼W |
| R243 | 1 | 1 | 1 | RT05563140 | Fixed, 56KΩ ±5%, ¼W |
| R144 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R244 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R145 | 1 | 1 | 1 | GD05332140 | Fixed, 3.3KΩ ±5%, ¼W |
| R245 | 1 | 1 | 1 | GD05332140 | Fixed, 3.3KΩ ±5%, ¼W |
| R146 | 1 | 1 | 1 | RT05122140 | Fixed, 1.2KΩ ±5%, ¼W |
| R246 | 1 | 1 | 1 | RT05122140 | Fixed, 1.2KΩ ±5%, ¼W |
| R147 | 1 | 1 | 1 | RT05123140 | Fixed, 12KΩ ±5%, ¼W |
| R247 | 1 | 1 | 1 | RT05123140 | Fixed, 12KΩ ±5%, ¼W |
| R148 | 1 | 1 | 1 | RT05332140 | Fixed, 3.3KΩ ±5%, ¼W |
| R248 | 1 | 1 | 1 | RT05332140 | Fixed, 3.3KΩ ±5%, ¼W |
| R149 | 1 | 1 | 1 | RT05222140 | Fixed, 2.2KΩ ±5%, ¼W |
| R249 | 1 | 1 | 1 | RT05222140 | Fixed, 2.2KΩ ±5%, ¼W |
| R150 | 1 | 1 | 1 | RT05221140 | Fixed, 220Ω ±5%, ¼W |
| R250 | 1 | 1 | 1 | RT05221140 | Fixed, 220Ω ±5%, ¼W |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| R151 | 1 | 1 | 1 | RA03020030 | Trimming, 3KΩ |
| R251 | 1 | 1 | 1 | RA03020030 | Trimming, 3KΩ |
| R152 | 1 | 1 | 1 | RT05183140 | Fixed, 18KΩ ±5%, ¼W |
| R252 | 1 | 1 | 1 | RT05183140 | Fixed, 18KΩ ±5%, ¼W |
| R153 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R253 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R154 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R254 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R155 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R255 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R156 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R256 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R157 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R257 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R158 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R258 | 1 | 1 | 1 | RA02030060 | Trimming, 20KΩ |
| R159 | 1 | 1 | 1 | RT05304140 | Fixed, 300KΩ ±5%, ¼W |
| R259 | 1 | 1 | 1 | RT05304140 | Fixed, 300kΩ ±5%, ¼W |
| R160 | 1 | 1 | 1 | RT05273140 | Fixed, 27KΩ ±5%, ¼W |
| R260 | 1 | 1 | 1 | RT05273140 | Fixed, 27KΩ ±5%, ¼W |
| R161 | 1 | 1 | 1 | RT05682140 | Fixed, 6.8KΩ ±5%, ¼W |
| R261 | 1 | 1 | 1 | RT05682140 | Fixed, 6.8KΩ ±5%, ¼W |
| R162 | 1 | 1 | 1 | RT05222140 | Fixed, 2.2KΩ ±5%, ¼W |
| R262 | 1 | 1 | 1 | RT05222140 | Fixed, 2.2KΩ ±5%, ¼W |
| R163 | 1 | 1 | 1 | RT05562140 | Fixed, 5.6KΩ ±5%, ¼W |
| R263 | 1 | 1 | 1 | RT05562140 | Fixed, 5.6KΩ ±5%, ¼W |
| R164 | 1 | 1 | 1 | RT05563140 | Fixed, 56KΩ ±5%, ¼W |
| R264 | 1 | 1 | 1 | RT05563140 | Fixed, 56KΩ ±5%, ¼W |
| R165 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R265 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R166 | 1 | 1 | 1 | RT05220140 | Fixed, 22Ω ±5%, ¼W |
| R266 | 1 | 1 | 1 | RT05220140 | Fixed, 22Ω ±5%, ¼W |
| R167 | 1 | 1 | 1 | RT05220140 | Fixed, 22Ω ±5%, ¼W |
| R267 | 1 | 1 | 1 | RT05220140 | Fixed, 22Ω ±5%, ¼W |
| R168 | 1 | 1 | 1 | RT05220140 | Fixed, 22Ω ±5%, ¼W |
| R268 | 1 | 1 | 1 | RT05220140 | Fixed, 22Ω ±5%, ¼W |
| R170 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R270 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R171 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R271 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R172 | 1 | 1 | 1 | GJ05220010 | Fixed, 22Ω ±5%, 1W |
| R272 | 1 | 1 | 1 | GJ05220010 | Fixed, 22Ω ±5%, 1W |
| R173 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R273 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R174 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R274 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R301 | 1 | 1 | 1 | RA01540020 | Trimming, 150KΩ |
| R302 | 1 | 1 | 1 | RA01540020 | Trimming, 150KΩ |
| R303 | 1 | 1 | 1 | RT05390140 | Fixed, 390Ω ±5%, ¼W |
| R304 | 1 | 1 | 1 | RT05154140 | Fixed, 150KΩ ±5%, ¼W |
| R305 | 1 | 1 | 1 | RT05154140 | Fixed, 150KΩ ±5%, ¼W |
| R306 | 1 | 1 | 1 | GJ05221020 | Fixed, 220Ω ±5%, 2W |
| R307 | 1 | 1 | 1 | GJ05271020 | Fixed, 270Ω ±5%, 2W |
| R308 | 1 | 1 | 1 | RT05390140 | Fixed, 39Ω ±5%, ¼W |
| R350 | 10 | 10 | 10 | RC00000120 | Fixed, 0Ω ½W |
| | | | | | **P100-CAPACITORS** |
| C101 | 1 | 1 | 1 | DF65501010 | Film, 500pF |
| C201 | 1 | 1 | 1 | DF65501010 | Film, 500pF |
| C102 | 1 | 1 | 1 | EE10601650 | Electrolytic, 10μF, 16V |
| C202 | 1 | 1 | 1 | EE10601650 | Electrolytic, 10μF, 16V |
| C103 | 1 | 1 | 1 | EE22602550 | Electrolytic, 22μF, 25V |
| C203 | 1 | 1 | 1 | EE22602550 | Electrolytic, 22μF, 25V |
| C104 | 1 | 1 | 1 | DD16201010 | Film, 200pF |
| C204 | 1 | 1 | 1 | DD16201010 | Film, 200pF |

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| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| C105 | 1 | 1 | 1 | EE47601050 | Electrolytic, 47μF, 10V |
| C205 | 1 | 1 | 1 | EE47601050 | Electrolytic, 47μF, 10V |
| C106 | 1 | 1 | 1 | DD16151010 | Ceramic, 150pF |
| C206 | 1 | 1 | 1 | DD16151010 | Ceramic, 150pF |
| C107 | 1 | 1 | 1 | DF15223050 | Film, 0.022μF |
| C207 | 1 | 1 | 1 | DF15223050 | Film, 0.022μF |
| C108 | 1 | 1 | 1 | EE10601650 | Electrolytic, 10μF, 16V |
| C208 | 1 | 1 | 1 | EE10601650 | Electrolytic, 10μF, 16V |
| C109 | 1 | 1 | 1 | EE47601050 | Electrolytic, 47μF, 10V |
| C209 | 1 | 1 | 1 | EE47601050 | Electrolytic, 47μF, 10V |
| C110 | 1 | 1 | 1 | DF65821010 | Film, 820pF |
| C210 | 1 | 1 | 1 | DF65821010 | Film, 820pF |
| C111 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C211 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C112 | 1 | 1 | 1 | EE47405050 | Electrolytic, 0.47μF, 50V |
| C212 | 1 | 1 | 1 | EE47405050 | Electrolytic, 0.47μF, 50V |
| C113 | 1 | 1 | 1 | DD16201010 | Ceramic, 200pF |
| C213 | 1 | 1 | 1 | DD16201010 | Ceramic, 200pF |
| C114 | 1 | 1 | 1 | EA10701090 | Electrolytic 100μF, 10V |
| C214 | 1 | 1 | 1 | EA10701090 | Electrolytic, 100μF, 10V |
| C115 | 1 | 1 | 1 | DD16101010 | Ceramic, 100pF, |
| C215 | 1 | 1 | 1 | DD16101010 | Ceramic, 100pF |
| C116 | 1 | 1 | 1 | EA10701090 | Electrolytic, 100μF, 10V |
| C216 | 1 | 1 | 1 | EA10701090 | Electrolytic, 100μF, 10V |
| C117 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C217 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C118 | 1 | 1 | 1 | EE22503550 | Electrolytic, 2.2μF 35V |
| C218 | 1 | 1 | 1 | EE22503550 | Electrolytic, 2.2μF, 35V |
| C119 | 1 | 1 | 1 | DF65151510 | Film, 150pF |
| C219 | 1 | 1 | 1 | DF65151510 | Film, 150pF |
| C120 | 1 | 1 | 1 | DF65101010 | Film, 100pF |
| C220 | 1 | 1 | 1 | DF65101010 | Film, 100pF |
| C121 | 1 | 1 | 1 | DF65501010 | Film, 500pF |
| C221 | 1 | 1 | 1 | DF65501010 | FIlm, 500pF |
| C122 | 1 | 1 | 1 | DF15182050 | Film, 0.0018μF |
| C222 | 1 | 1 | 1 | DF15182050 | Film, 0.0018μF |
| C123 | 1 | 1 | 1 | DF65101010 | Film, 100pF |
| C223 | 1 | 1 | 1 | DF65101010 | Film, 100pF |
| C124 | 1 | 1 | 1 | EA47601090 | Electrolytic, 47μF, 10V |
| C224 | 1 | 1 | 1 | EA47601090 | Electrolytic, 47μF, 10V |
| C125 | 1 | 1 | 1 | EE22503550 | Electrolytic, 2.2μF, 35V |
| C225 | 1 | 1 | 1 | EE22503550 | Electrolytic, 2.2μF, 35V |
| C126 | 1 | 1 | 1 | DD16501010 | Ceramic, 500pF |
| C226 | 1 | 1 | 1 | DD16501010 | Ceramic, 500pF |
| C127 | 1 | 1 | 1 | EE47503550 | Electrolytic, 4.7μF, 35V |
| C227 | 1 | 1 | 1 | EE47503550 | Electrolytic, 4.7μF, 35V |
| C128 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C228 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C129 | 1 | 1 | 1 | EE47503550 | Electrolytic, 4.7μF, 35V |
| C229 | 1 | 1 | 1 | EE47503550 | Electrolytic, 4.7μF, 35V |
| C130 | 1 | 1 | 1 | EE10505050 | Electrolytic, 1μF, 50V |
| C230 | 1 | 1 | 1 | EE10505050 | Electrolytic, 1μF, 50V |
| C131 | 1 | 1 | 1 | EE22503550 | Electrolytic, 2.2μF, 35V |
| C231 | 1 | 1 | 1 | EE22503550 | Electrolytic, 2.2μF, 35V |
| C132 | 1 | 1 | 1 | EA47503590 | Electrolytic, 4.7μF, 35V |
| C232 | 1 | 1 | 1 | EA47503590 | Electrolytic, 4.7μF, 35V |
| C133 | 1 | 1 | 1 | EA47503590 | Electrolytic, 4.7μF, 35V |
| C233 | 1 | 1 | 1 | EA47503590 | Electrolytic, 4.7μF, 35V |
| C134 | 1 | 1 | 1 | EE10505050 | Electrolytic, 1μF, 50V |
| C234 | 1 | 1 | 1 | EE10505050 | Electrolytic, 1μF, 50V |
| C135 | 1 | 1 | 1 | DD16101010 | Ceramic 100pF |
| C235 | 1 | 1 | 1 | DD16101010 | Ceramic, 100pF |
| C136 | 1 | 1 | 1 | EE47503550 | Electrolytic, 4.7μF, 35V |
| C236 | 1 | 1 | 1 | EE47503550 | Electrolytic, 4.7μF, 35V |
| C137 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C237 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C138 | 1 | 1 | 1 | EE10505050 | Electrolytic, 1μF, 50V |
| C238 | 1 | 1 | 1 | EE10505050 | Electrolytic, 1μF, 50V |
| C139 | 1 | 1 | 1 | DD16201010 | Ceramic, 200pF |
| C239 | 1 | 1 | 1 | DD16201010 | Ceramic, 200pF |
| C140 | 1 | 1 | 1 | EM22402510 | Electrolytic, 0.22μF, 25V |
| C240 | 1 | 1 | 1 | EM22402510 | Electrolytic, 0.22μF, 25V |
| C141 | 1 | 1 | 1 | EE10602550 | Electrolytic, 10μF, 25V |
| C241 | 1 | 1 | 1 | EE10602550 | Electrolytic, 10μF, 25V |
| C142 | 1 | 1 | 1 | DF15563050 | Film, 0.056μF |
| C242 | 1 | 1 | 1 | DF15563050 | Film, 0.056μF |
| C143 | 1 | 1 | 1 | DF15183050 | Film, 0.018μF |
| C243 | 1 | 1 | 1 | DF15183050 | Film, 0.018μF |
| C144 | 1 | 1 | 1 | DF15153050 | Film, 0.015μF |
| C244 | 1 | 1 | 1 | DF15153050 | Film, 0.015μF |
| C145 | 1 | 1 | 1 | DF15153050 | Film, 0.015μF |
| C245 | 1 | 1 | 1 | DF15153050 | Film, 0.015μF |
| C146 | 1 | 1 | 1 | DF65821010 | Film, 820pF |
| C246 | 1 | 1 | 1 | DF65821010 | Film, 820pF |
| C147 | 1 | 1 | 1 | DF65101010 | Film, 100pF |
| C247 | 1 | 1 | 1 | DF65101010 | Film, 100pF |
| C148 | 1 | 1 | 1 | EA10703590 | Electrolytic, 100μF, 35V |
| C248 | 1 | 1 | 1 | EA10703590 | Electrolytic 100μF, 35V |
| C301 | 1 | 1 | 1 | DF66181500 | Film, 180pF, 125V |
| C302 | 1 | 1 | 1 | DF66181500 | Film, 180pF, 125V |
| C303 | 1 | 1 | 1 | DF15153510 | Film, 0.015μF, 200V |
| C304 | 1 | 1 | 1 | EE33602550 | Electrolytic, 33μF, 25V |
| C305 | 1 | 1 | 1 | DF16102050 | Film 0.001μF, |
| C306 | 1 | 1 | 1 | DF16102510 | Film, 0.001μF, 200V |
| C307 | 1 | 1 | 1 | DF16102510 | Film, 0.001μF, 200V |
| C308 | 1 | 1 | 1 | EA10702590 | Electrolytic, 100μF, 25V |
| | | | | | **P100-MISCELLANEOUS** |
| P106 | 3 | 3 | 3 | 3444118050 | Spacer |
| P107 | 12 | 12 | 12 | 2933118020 | Spacer |
| J101 | 94 | 94 | 94 | YP10001130 | Plugs |
| | | | | | **POWER SUPPLY CIRCUIT BOARD-P400** |
| P400 | 1 | 1 | 1 | YD41130020 | P. W. Board (Print Only) |
| | 1 | 1 | 1 | ZZ44130020 | P. W. Board Assembly |
| | | | | | **P400-SEMICONDUCTORS** |
| Q401 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q402 | 1 | 1 | 1 | HT309451Q0 | Transistor, 2SC945(Q) |
| Q403 | 1 | 1 | 1 | HT309451Q0 | Transistor, 2SC945(Q) |
| Q404 | 1 | 1 | 1 | HT309451Q0 | Transistor, 2SC945(Q) |
| Q405 | 1 | 1 | 1 | HT403891A0 | Transistor, 2SD389(O) |
| Q406 | 1 | 1 | 1 | HD30046090 | Diode, BZ-310 |
| Q407 | 1 | 1 | 1 | HD20016100 | Diode, 10DC1 + |
| Q408 | 1 | 1 | 1 | HD20017100 | Diode, 10DC1 − |
| Q409 | 1 | 1 | 1 | HD20016100 | Diode, 10DC1 + |
| Q410 | 1 | 1 | 1 | HD20017100 | Diode, 10DC1 − |
| Q411 | 1 | 1 | 1 | HD10001010 | Diode, 1N34A |
| | | | | | **P400-RESISTORS** |
| R401 | 1 | 1 | 1 | RT05047140 | Fixed, 4.7Ω ±5%, ¼W |
| R402 | 1 | 1 | 1 | RT05047140 | Fixed, 4.7Ω ±5%, ¼W |
| R403 | 1 | 1 | 1 | RT05105140 | Fixed, 1MΩ ±5%, ¼W |
| R404 | 1 | 1 | 1 | RT05331140 | Fixed, 330Ω ±5%, ¼W |
| R405 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R406 | 1 | 1 | 1 | RT05563140 | Fixed, 56KΩ ±5%, ¼W |
| R407 | 1 | 1 | 1 | RT05221140 | Fixed, 220Ω ±5%, ¼W |
| R408 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R409 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |

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| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| R410 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |
| R411 | 1 | 1 | 1 | RT05047140 | Fixed, 4.7Ω ±5%, ¼W |
| R412 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R413 | 1 | 1 | 1 | GJ05471020 | Fixed, 470Ω ±5%, 2 W |
| R414 | 1 | 1 | 1 | GJ05821020 | Fixed, 820Ω ±5%, 2 W |
| R415 | 1 | 1 | 1 | GJ05821010 | Fixed, 820Ω ±5%, 1 W |
| R416 | 1 | 1 | 1 | GJ05100020 | Fixed, 10Ω ±5%, 2 W |
| R417 | 1 | 1 | 1 | GJ05150010 | Fixed, 15Ω ±5%, 1 W |
| R418 | 1 | 1 | 1 | GJ05150010 | Fixed, 15Ω ±5%, 1 W |
| R419 | 1 | 1 | 1 | RT05185140 | Fixed, 1.8MΩ ±5%, ¼W |
| R420 | 1 | 1 | 1 | RT05563140 | Fixed, 56KΩ ±5%, ¼W |
| R421 | 1 | 1 | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R422 | 1 | 1 | 1 | GJ05102010 | Fixed, 1KΩ ±5%, 1W |
| R450 | 2 | 2 | 2 | RC00000120 | Fixed, 0Ω, ½W |
| | | | | | **P400-CAPACITORS** |
| C401 | 1 | 1 | 1 | EE10601650 | Electrolytic, 10μF, 16V |
| C402 | 1 | 1 | 1 | EZ10701010 | Electrolytic, 100μF, 10V |
| C403 | 1 | 1 | 1 | EE22600650 | Electrolytic, 22μF, 6.3V |
| C404 | 1 | 1 | 1 | EA22703590 | Electrolytic, 220μF, 35V |
| C405 | 1 | 1 | 1 | EA47703590 | Electrolytic, 470μF, 35V |
| C406 | 1 | 1 | 1 | EA47705090 | Electrolytic, 470μF, 50V |
| C407 | 1 | 1 | 1 | EA47705090 | Electrolytic, 470μF, 50V |
| C408 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C409 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C410 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C411 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C412 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C413 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C414 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C415 | 1 | 1 | 1 | DF16103500 | Film, 0.01μF, 200V |
| C416 | 1 | 1 | 1 | DK18503010 | Ceramic, 0.05μF |
| C417 | 1 | 1 | 1 | EA22801690 | Electrolytic, 2200μF, 16V |
| C418 | 1 | 1 | 1 | EA10505090 | Electrolytic, 1μF, 50V |
| | | | | | **P400-MISCELLANEOUS** |
| G401 | 1 | 1 | 1 | BF10400030 | Printed Comp., 0.1μF + 120Ω |
| J401 | 20 | 20 | 20 | YP10001130 | Plugs |
| P406 | 7 | 7 | 7 | 3444118050 | Spacer |
| P407 | 14 | 14 | 14 | 2933118020 | Spacer |
| | | | | | **SWITCH CIRCUIT BOARD-P500** |
| P500 | 1 | 1 | 1 | YD34480042 | P. W. Board (Print Only) |
| | 1 | 1 | 1 | ZZ34480040 | P. W. Board Assembly |
| | | | | | **P500-MISCELLANEOUS** |
| S501 | 1 | 1 | 1 | SP10070010 | Push Switch with S502+S507 |
| J501 | 51 | 51 | 51 | YP10001130 | Plugs |
| | | | | | **VOLUME CIRCUIT BOARD-P600** |
| P600 | 1 | 1 | 1 | YD34480050 | P. W. Board (Print Only) |
| | 1 | 1 | 1 | ZZ34480050 | P. W. Board Assembly |
| | | | | | **P600-RESISTERS** |
| R601 | 1 | 1 | 1 | RS05030240 | Variable, 50KΩ(A), Master |
| R602 | 1 | 1 | 1 | RX05030110 | Variable, 50KΩ(A), Line(L) |
| R603 | 1 | 1 | 1 | RX05030110 | Variable, 50KΩ(A), Line(R) |
| R604 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R605 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R606 | 1 | 1 | 1 | RX05030110 | Variable, 50KΩ(A), Mic (L) |
| R607 | 1 | 1 | 1 | RX05030110 | Variable, 50KΩ(A), Mic (R) |
| R608 | 1 | 1 | 1 | RT05104140 | Fixed, 100KΩ ±5%, ¼W |
| R609 | 1 | 1 | 1 | RT05104140 | Fixed, 100KΩ ±5%, ¼W |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| | | | | | **P600-PLUGS** |
| J601 | 12 | 12 | 12 | YP10001130 | Plugs |
| | | | | | **LAMP CIRCUIT BOARD-P650** |
| P650 | 1 | 1 | 1 | YD34480080 | P. W. Board (Print Only) |
| | 1 | 1 | 1 | ZZ34480080 | P. W. Board Assembly |
| | | | | | **P650-MISCELLANEOUS** |
| J651 ~ J658 | 8 | 8 | 8 | YJ08000170 | Jacks |
| J659 | 8 | 8 | 8 | YP10001130 | Plugs |
| V651 ~ V654 | 4 | 4 | 4 | IN10080070 | Lamps |
| | | | | | **TERMINAL CIRCUIT BOARD-P700** |
| P700 | 1 | 1 | | YD41130030 | P. W. Board (Print Only) |
| | 1 | 1 | | ZZ41130030 | P. W. Board Assembly |
| P700 | | | 1 | YD41130040 | P. W. Board (Print Only) |
| | | | 1 | ZZ41130040 | P. W. Board Assembly |
| | | | | | **P700-SWITCHES** |
| S701 | 1 | 1 | 1 | SS02020420 | Slide Switch |
| S702 | 1 | 1 | 1 | SS02020420 | Slide Switch |
| | | | | | **P700-RESISTORS** |
| R701 | 1 | 1 | 1 | RK02030360 | Variable, 20KΩ (A), FM Cal(L) |
| R702 | 1 | 1 | 1 | RK02030360 | Variable, 20KΩ (A), FM Cal(R) |
| R703 | 1 | 1 | | RT05683140 | Fixed, 68KΩ ±5%, ¼W |
| R704 | 1 | 1 | | RT05683140 | Fixed, 68KΩ ±5%, ¼W |
| R705 | 1 | 1 | | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R706 | 1 | 1 | | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R703 | | | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R704 | | | 1 | RT05393140 | Fixed, 39KΩ ±5%, ¼W |
| R705 | | | 1 | RT05183140 | Fixed, 18KΩ ±5%, ¼W |
| R706 | | | 1 | RT05183140 | Fixed, 18KΩ ±5%, ¼W |
| | | | | | **P700-CAPACITORS** |
| C701 | 1 | 1 | 1 | DF15122050 | Film, 0.0012μF |
| C702 | 1 | 1 | 1 | DF15122050 | Film, 0.0012μF |
| | | | | | **P700-MISCELLANEOUS** |
| J701 | | | 1 | YT02020100 | Terminal, 2P, RCA Type, Input |
| J702 | | | 1 | YT02020100 | Terminal, 2P, RCA Type, Output |
| J703 | | | 1 | YJ11000170 | J ack, DIN |
| J704 | 1 | 1 | | YT02040070 | Terminal, 4P RCA Type, Input, Output |
| J711 | 13 | 13 | 15 | YP10001130 | Plugs |
| | | | | | **DOLBY CIRCUIT BOARD-P800** |
| P800 | 1 | 1 | 1 | YD34440092 | P. W. Board (Print Only) |
| | 1 | 1 | 1 | ZZ34440092 | P. W. Board Assembly |
| | | | | | **P800-SEMICONDUCTORS** |
| Q801 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q901 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q802 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q902 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q803 | 1 | 1 | 1 | HF200301E0 | Transistor, 2SK30A(D) |
| Q903 | 1 | 1 | 1 | HF200301E0 | Transistor, 2SK30A(D) |
| Q804 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q904 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q805 | 1 | 1 | 1 | HT107211T0 | Transistor, 2SA721(T) |
| Q905 | 1 | 1 | 1 | HT107211T0 | Transistor, 2SA721(T) |

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| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| Q806 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q906 | 1 | 1 | 1 | HT306441B0 | Transistor, 2SC644(S) |
| Q807 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q907 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q808 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q908 | 1 | 1 | 1 | HD10003020 | Diode, 2OA90 |
| Q809 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q909 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q810 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q910 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q811 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q911 | 1 | 1 | 1 | HD20011050 | Diode, 1S1555 |
| Q830 | 1 | 1 | 1 | HD30031090 | Diode, WZ081 |
| | | | | | **P800-RESISTORS** |
| R801 | 1 | 1 | 1 | RT05154140 | Fixed, 150KΩ ±5%, ¼W |
| R901 | 1 | 1 | 1 | RT05154140 | Fixed, 150KΩ ±5%, ¼W |
| R802 | 1 | 1 | 1 | RT05184140 | Fixed, 180KΩ ±5%, ¼W |
| R902 | 1 | 1 | 1 | RT05184140 | Fixed, 180KΩ ±5%, ¼W |
| R803 | 1 | 1 | 1 | RT05273140 | Fixed, 27KΩ ±5%, ¼W |
| R903 | 1 | 1 | 1 | RT05273140 | Fixed, 27KΩ ±5%, ¼W |
| R804 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R904 | 1 | 1 | 1 | RT05223140 | Fixed, 22KΩ ±5%, ¼W |
| R805 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R905 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R806 | 1 | 1 | 1 | RT05154140 | Fixed, 150KΩ ±5%, ¼W |
| R906 | 1 | 1 | 1 | RT05154140 | Fixed, 150KΩ ±5%, ¼W |
| R807 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R907 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R808 | 1 | 1 | 1 | RT05333140 | Fixed, 33KΩ ±5%, ¼W |
| R908 | 1 | 1 | 1 | RT05333140 | Fixed, 33KΩ ±5%, ¼W |
| R809 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R909 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R810 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |
| R910 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |
| R811 | 1 | 1 | 1 | RT05332140 | Fixed, 3.3KΩ ±5%, ¼W |
| R911 | 1 | 1 | 1 | RT05332140 | Fixed, 3.3KΩ ±5%, ¼W |
| R812 | 1 | 1 | 1 | RT05222140 | Fixed, 2.2KΩ ±5%, ¼W |
| R912 | 1 | 1 | 1 | RT05222140 | Fixed, 2.2KΩ ±5% ¼W |
| R813 | 1 | 1 | 1 | RT05684140 | Fixed, 680KΩ ±5%, ¼W |
| R913 | 1 | 1 | 1 | RT05684140 | Fixed, 680KΩ ±5%, ¼W |
| R814 | 1 | 1 | 1 | RT05183140 | Fixed, 18KΩ ±5%, ¼W |
| R914 | 1 | 1 | 1 | RT05183140 | Fixed, 18KΩ ±5%, ¼W |
| R815 | 1 | 1 | 1 | RA01030140 | Trimming, 10KΩ |
| R915 | 1 | 1 | 1 | RA01030140 | Trimming, 10KΩ |
| R816 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R916 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R817 | 1 | 1 | 1 | RT05153140 | Fixed, 15KΩ ±5%, ¼W |
| R917 | 1 | 1 | 1 | RT05153140 | Fixed, 15KΩ ±5%, ¼W |
| R818 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R918 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R819 | 1 | 1 | 1 | RA01020110 | Trimming, 1KΩ |
| R919 | 1 | 1 | 1 | RA01020110 | Trimming, 1KΩ |
| R820 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R920 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R821 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R921 | 1 | 1 | 1 | RT05822140 | Fixed, 8.2KΩ ±5%, ¼W |
| R822 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R922 | 1 | 1 | 1 | RT05103140 | Fixed, 10KΩ ±5%, ¼W |
| R823 | 1 | 1 | 1 | RT05333140 | Fixed, 33KΩ ±5%, ¼W |
| R923 | 1 | 1 | 1 | RT05333140 | Fixed, 33KΩ ±5%, ¼W |
| R824 | 1 | 1 | 1 | RT05124140 | Fixed, 120KΩ ±5%, ¼W |
| R924 | 1 | 1 | 1 | RT05124140 | Fixed, 120KΩ ±5%, ¼W |
| R825 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| R925 | 1 | 1 | 1 | RT05473140 | Fixed, 47KΩ ±5%, ¼W |
| R826 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R926 | 1 | 1 | 1 | RT05272140 | Fixed, 2.7KΩ ±5%, ¼W |
| R827 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R927 | 1 | 1 | 1 | RT05102140 | Fixed, 1KΩ ±5%, ¼W |
| R828 | 1 | 1 | 1 | RT05330140 | Fixed, 33Ω ±5%, ¼W |
| R928 | 1 | 1 | 1 | RT05330140 | Fixed, 33Ω ±5%, ¼W |
| R829 | 1 | 1 | 1 | RT05153140 | Fixed, 15KΩ ±5%, ¼W |
| R929 | 1 | 1 | 1 | RT05153140 | Fixed, 15KΩ ±5%, ¼W |
| R830 | 1 | 1 | 1 | RT05470140 | Fixed, 47Ω ±5%, ¼W |
| R930 | 1 | 1 | 1 | RT05470140 | Fixed, 47Ω ±5%, ¼W |
| R831 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R931 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R832 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R932 | 1 | 1 | 1 | RT05274140 | Fixed, 270KΩ ±5%, ¼W |
| R833 | 1 | 1 | 1 | RT05224140 | Fixed, 220KΩ ±5%, ¼W |
| R933 | 1 | 1 | 1 | RT05224140 | Fixed, 220KΩ ±5%, ¼W |
| R800 | 1 | 1 | 1 | RC00000120 | Fixed, 0Ω ½W |
| | | | | | **P800-CAPACITORS** |
| C801 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C901 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C802 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C902 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C803 | 1 | 1 | 1 | DF15562050 | Film, 0.0056μF |
| C903 | 1 | 1 | 1 | DF15562050 | Film, 0.0056μF |
| C804 | 1 | 1 | 1 | DF15472050 | Film, 0.0047μF |
| C904 | 1 | 1 | 1 | DF15472050 | Film, 0.0047μF |
| C805 | 1 | 1 | 1 | DF15273050 | Film, 0.027μF |
| C905 | 1 | 1 | 1 | DF15273050 | Film, 0.027μF |
| C806 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C906 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C807 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C907 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C808 | 1 | 1 | 1 | EA47601090 | Electrolytic, 47μF, 10V |
| C908 | 1 | 1 | 1 | EA47601090 | Electrolytic, 47μF, 10V |
| C809 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C909 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C810 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C910 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C811 | 1 | 1 | 1 | DD15200010 | Ceramic, 20pF |
| C911 | 1 | 1 | 1 | DD15200010 | Ceramic, 20pF |
| C812 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C912 | 1 | 1 | 1 | EA10601690 | Electrolytic, 10μF, 16V |
| C813 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C913 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C814 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C914 | 1 | 1 | 1 | DF17104050 | Film, 0.1μF |
| C815 | 1 | 1 | 1 | DF17334050 | Film, 0.33μF |
| C915 | 1 | 1 | 1 | DF17334050 | Film, 0.33μF |
| C820 | 1 | 1 | 1 | EA10702590 | Electrolytic, 100μF, 25V |
| | | | | | **P800-MISCELLANEOUS** |
| J801 | 1 | 1 | 1 | YP06000270 | Plug |
| J802 | 1 | 1 | 1 | YJ06000270 | Jack |
| | | | | | **GENERAL MISCELLANEOUS** |
| R001 | 1 | 1 | 1 | RT05082140 | Fixed Resistor, 8.2Ω ±5%, ¼W |
| R002 | 1 | 1 | 1 | RT05082140 | Fixed Resistor, 8.2Ω ±5%, ¼W |
| C001 | 1 | 1 | 1 | DK17102010 | Ceramic Capacitor, 1000pF |
| C002 | 1 | 1 | 1 | DK17102010 | Ceramic Capacitor, 1000pF |
| C003 | 1 | 1 | 1 | DK17102010 | Ceramic Capacitor, 1000pF |
| C004 | | | 1 | DK17102010 | Ceramic Capacitor, 1000pF |
| C006 | | 1 | | DF17473590 | Film Capacitor, 0.047μF |

**U:** U.S.A.
**C:** Canada
**N:** Europe

| REF. DESIG. | Q'TY U | C | N | PART NO. | DESCRIPTION |
|---|---|---|---|---|---|
| J001 | 1 | 1 | 1 | YJ01000820 | Jack |
| J002 | 1 | 1 | 1 | YJ01000820 | Jack |
| J003 | 1 | 1 | 1 | YJ01000810 | Jack |
| J004 | 1 | 1 | 1 | YJ08000130 | Jack |
| J005 | | | 1 | YJ08000090 | Jack |
| J006 | | | 1 | YJ08000090 | Jack |
| J007 | | | 1 | YJ08000090 | Jack |
| J008 | | | 1 | YJ08000220 | Jack |
| J009 | | | 1 | BY03110010 | Jack |
| J011 | 1 | 1 | 1 | YT01010050 | Terminal |
| J012 | 1 | 1 | 1 | BY03100010 | Jack |
| J013 | 1 | 1 | 1 | YJ07000140 | Jack |
| J014 | 1 | 1 | | YL01040160 | Terminal |
| J014 | | | 1 | YL09020040 | Terminal |
| S001 | 1 | 1 | 1 | SP04010150 | Pushswitch |
| S003 | 1 | 1 | 1 | SM01010360 | Mini-Switch |
| S004 | 1 | 1 | 1 | SM01010520 | Mini-Switch |
| S005 | 1 | 1 | 1 | SM02020070 | Mini-Switch |
| S006 | 1 | 1 | 1 | SM01010462 | Mini-Switch |
| H001 | 1 | 1 | 1 | LH42851020 | Rec/Play Head |
| H002 | 1 | 1 | 1 | LH31000400 | Erase Head |
| M001 | 1 | 1 | 1 | MM11200042 | DC Motor |
| S002 | 1 | 1 | 1 | SM01010530 | Mini-Switch |
| M010 | 1 | 1 | 1 | IM11080014 | Meter, Left |
| M011 | 1 | 1 | 1 | IM11080014 | Meter, Right |
| L001 | | 1 | | TS16016020 | Power Transformer |
| L001 | | | 1 | TS16017020 | Power Transformer |
| L001 | 1 | | | TS16016040 | Power Transformer |
| V001 | 1 | 1 | 1 | IN10080300 | Lamp |
| V002 | 1 | 1 | 1 | IN10080070 | Lamp |
| F001 | | | 1 | FS10100800 | Fuse, 1A |
| F002 | | | 1 | FS10100800 | Fuse, 1A |
| F003 | | | 1 | FS10315800 | Fuse, 3.15A |
| F004 | | | 1 | FS10031800 | Fuse, 3.15mA |
| W001 | | | 1 | YC01900030 | Power Cord |
| W001 | 1 | 1 | | YC02400220 | Power Cord |
| G001 | 1 | | | BF10400040 | Printed Comp., 0.1μF + 120Ω |

## 16 TECHNICAL SPECIFICATIONS

Signal-to-Noise Ratio
- DOLBY NR OFF
  - with Fe-Cr or $CrO_2$ tape ..... 50 dB
  - with standard tape ..... 48 dB
- DOLBY NR ON improves S/N by ..... 8 dB

Total Harmonic Distortion ..... 2%

Frequency Response
- with Fe-Cr tape ..... 40 Hz to 17 kHz
- with $CrO_2$ tape ..... 40 Hz to 15 kHz
- with standard tape ..... 40 Hz to 13 kHz

Wow and Flutter ..... 0.15% W.R.M.S.

Input Impedance
- Mic ..... 8.2 kΩ
- Line ..... 120 kΩ

Line Output Level ..... 900 mV

Line Output Impedance ..... 3.9 kΩ

Headphone Output Impedance ..... 8Ω

### GENERAL

Power Requirements ..... 120V AC, 60 Hz (for U.S.A. and Canada)
..... 110/120/220/240 AC, 50 Hz (for Europe)

Power Consumption ..... 25 W

Dimensions:
- Width ..... 17-3/8 inches
- Height ..... 5-3/8 inches
- Depth ..... 11-1/2 inches

Weight:
- Model 5020 Only ..... 17 lbs 10 oz
- Packed for Shipment ..... 23 lbs 11 oz