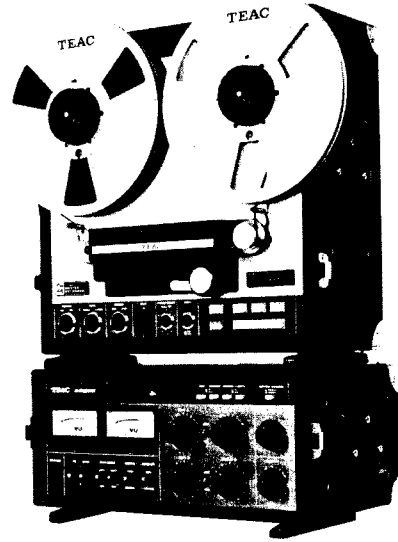


SERVICE MANUAL

2 2 track
MASTER
RECORDER

A-7300RX

Stereo Tape Deck with dbx System



1. GENERAL DESCRIPTION

TEAC'S A-7300RX is a high quality stereo tape deck representing a new Generation in the design and construction of recording equipment. It contains all of the features which made the earlier A-7300 a highly rated open reel tape deck. In addition the A-7300RX has built-in dbx* noise reduction circuitry for superior live recording capability. This deck includes dbx type I Noise reduction system, MPX filter, CUE system, PITCH CONT, EDIT function system, etc. We have produced the new A-7300RX, to provide complete flexibility in selection of recording tapes and to provide state of the art quality in your deck. The basic design of the A-7300RX is highly similar to that of the A-7300. Therefore much of the information in this Service manual may be applied to the A-7300 also.

* dbx noise reduction system made under license from dbx, Incorporated. The word dbx and the dbx symbol are trademarks of dbx, Incorporated.

NOTE

1. When placing an order for parts, please refer to the PARTS LIST which is printed separately from this manual.
2. File the PARTS LIST manual together with this SERVICE MANUAL, Future TECHNICAL INFORMATION sheets should also be kept with these.
3. Section numbers and Fig. reference numbers are not directly related.

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2. SPECIFICATIONS AND SERVICE DATA

2-1 SPECIFICATIONS

| | |
|----------------------------------|---|
| Track System | 1/2-Track, Two-channel Stereo or mono |
| Reel Size | 10-1/2" and 7" |
| Tape Speed | 15 ips (38 cm/sec) and 7-1/2 ips (19 cm/sec), $\pm 0.5\%$ |
| Inputs (Level and Impedance) | Line: Specified Input Level: -8 dB (308 mV) /50k ohms Min. Input Level: -18 dB (97 mV) MIC: Specified Input Level: -60 dB (0.774 mV) 30k ohms Min. Input Level: -70 dB (0.244 mV) |
| Outputs (Level and Impedance) | Output (SOURCE/TAPE): Specified: -8 dB (308mV) /10k ohms Maximum: -2 dB (615 mV) Output (ENCODER); Specified: 8 dB (308mV) /50k ohms Headphones: -24 dB (49 mV) /8 ohms |
| Playback Equalization | 15 ips (38 cm/sec): NAB (50 μ sec, 3180 μ sec) 7-1/2 ips (19 cm/sec): NAB (50 μ sec, 3180 μ sec) |
| Heads | Three: Erase, Record and Playback |
| Noise Reduction System | dbx System type 1 |
| Motors | One direct Drive DC Servo Capstan Motor; Two Eddy Current Induction Reel Motors |
| Bias Frequency | 100 kHz (± 5 kHz, Push-Pull oscillator) |
| Power Requirement | 100/117/220/240 VAC, 50/60 Hz, 83W |
| Dimensions (WHD) | Transport: 470 x 455 x 300 mm (18-1/2" x 17-15/16" x 11-13/16") Amplifier: 470 x 205 x 310 mm (18-1/2" x 8-11/16" x 12-1/4") |
| Weight | Transport: 28 kg (61-3/5 lbs) net Amplifier: 13 kg (28-3/5 lbs) net |

2-2 SERVICE DATA -MECHANICAL-

| | |
|--------------------------------|---|
| Tape Speed Deviation and Drift | 3,000 Hz ± 30 Hz, within 20 Hz |
| Wow and Flutter | Playback: 0.05% (WRMS) at 15 ips 0.06% (WRMS) at 7-1/2 ips Overall: 0.12% (RMS) at 15 ips 0.15% (RMS) at 7-1/2 ips |
| Pinch Roller Pressure | 1.8 kg to 2.2 kg (4.0 to 4.8 lbs) |
| Reel Torques | TAKE UP TORQUE; |

| REEL SW | TAKE-UP |
|---------|--------------------------------------|
| LARGE | 530 to 570 g cm (7.4 to 8.0 oz-inch) |
| SMALL | 330 to 370 g cm (5.0 to 5.1 oz-inch) |

BACK TENSION;

| REEL SW | BACK TENSION |
|---------|--------------------------------------|
| LARGE | 430 to 470 g cm (6.0 to 6.6 oz-inch) |
| SMALL | 280 to 320 g cm (3.9 to 4.6 oz-inch) |

Con't on next page

| | |
|--------------------------|--|
| Fast Forward Torque | 1,900 g cm \pm 100 g cm (26 oz-inch) |
| Fast Forward/Rewind Time | 150 seconds for 1,800 foot tape |
| Brake Torque | 2,200 g cm \pm 100g cm (31 oz-inch) |
| Pitch Control | 3,000 Hz \pm 5% or more |
| Counter Accuracy | \pm 1.5% at 15 ips play mode |

2-3 SERVICE DATA –ELECTRICAL–

| | |
|---------------------------|--|
| Frequency Response | Refer to Frequency Response Limits chart |
| Signal-To-Noise Ratio | Overall: 60 dB or higher with dbx, 48 dB or higher without dbx |
| Erase Efficiency | 65 dB or more at 1 kHz signal (measured with input 10 dB higher than the specified Input Level) |
| Crosstalk Rejection | 35 dB or more, adjacent track at 125 Hz |
| Stereo Channel Separation | 45 dB or more, channel to channel at 1 kHz |
| Total Harmonic Distortion | Overall: 0.8% with dbx at 1 kHz normal operating level |

NOTE: Service Data were determined using TEAC YTT Series Test Tape. Improvements may result in feature or specification and service data changes without notice.

3. TOOLS FOR TESTING AND MAINTENANCE

A minimum of the following tools and test instruments are required for measuring and adjusting to obtain optimum performance. Regular maintenance tools will be adequate for those not listed here. If any test instrument listed here is not available, a close equivalent can be used.

| | |
|-----------------------------------|---|
| WOW AND FLUTTER METER | Meguro Denpa Sokki K.K., Model MK-668A or D & R Co., Model FL-4B |
| AC VTVM | Hewlett-Packard Co., Model 400E (0.1 mV – 300 V) |
| DIGITAL FREQUENCY COUNTER | Range; 10 Hz – 100 kHz |
| BAND-PASS FILTER | 1 kHz narrow band-pass type |
| OSCILLOSCOPE | General Purpose |
| AF OSCILLATOR | 10 Hz – 100 kHz |
| ATTENUATOR | General Purpose |
| DISTORTION ANALYZER | Basic Freq. 400 Hz/1 kHz |
| TOOLS | Spring scale; 0–4 kg (0–8 lbs) 0–1 kg (0–2.2 lbs) Hex head Allen Wrench, Plastic alignment tool, Load resistor non-inductive type 8 ohm/1 W |
| HEAD DEMAGNETIZER | TEAC E-3 or equivalent |
| TEAC TEST TAPE | YTT-1003 (7-1/2 ips), YTT-1004 (15 ips) for Playback Alignment test, YTT-8013, YTT-8003 and YTT-8023 for Recording test, YTT-2003 (7-1/2 ips), YTT-2004 (15 ips) for Tape Speed and Wow/ Flutter test |
| TEAC EMPTY REEL | RE-702 (2.5" dia, hub), RE-701 (4" dia, hub) |

4. PARTIAL DIS-ASSEMBLY

4-1 REMOVING TAPE TRANSPORT CASE, AMPLIFIER CASE AND CASE LEGS

TAPE TRANSPORT

AMPLIFIER

See illustration for complete dis-assembly instructions.

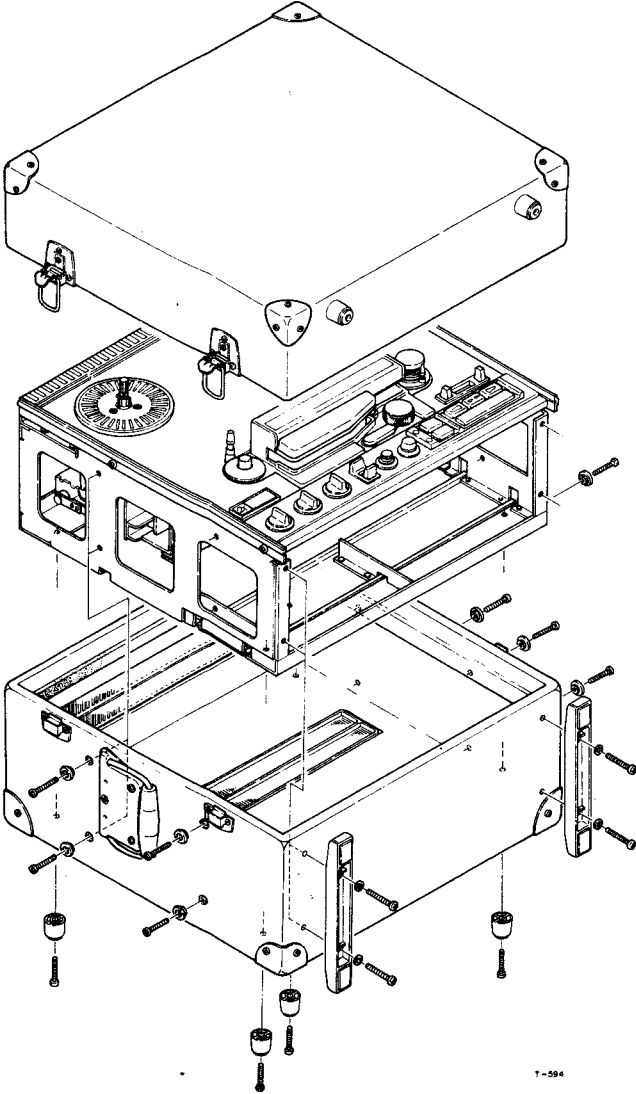


Fig. 4-1 Removing Tape transport and Case legs

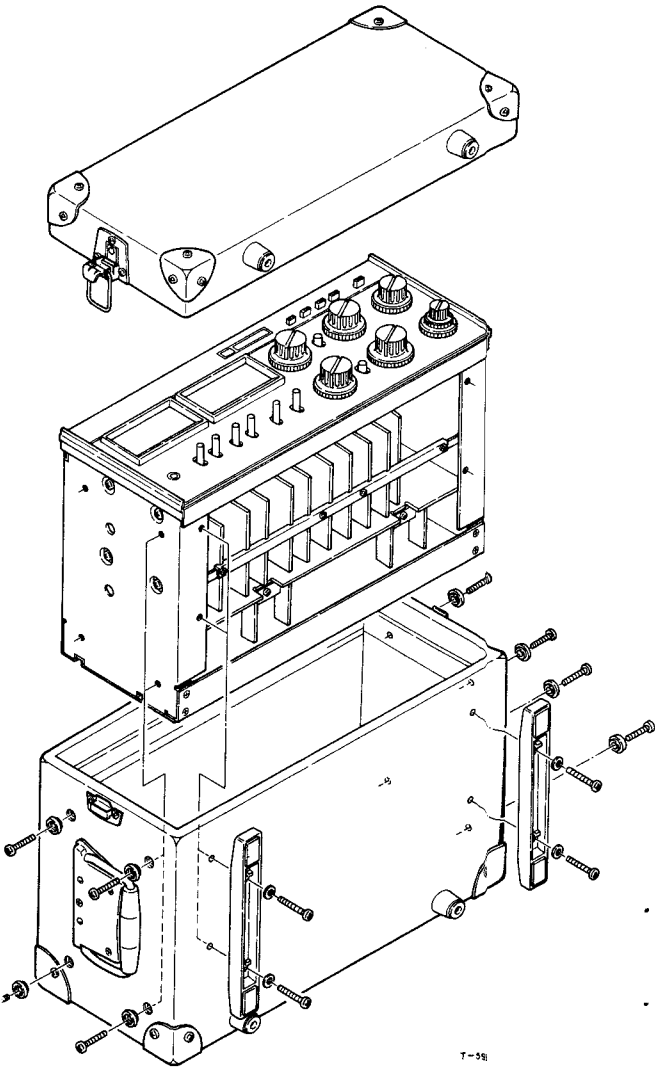


Fig. 4-2 Removing Amplifier and Case legs

4-2 HEAD HOUSING BASE AND HEAD ASS'Y REMOVAL

HEAD HOUSING BASE REMOVAL

1. Remove power from the unit.
2. Open the head housing (A).
3. Remove Name Plate (B).
4. Remove head housing Link ass'y (C) by removing 4 screws (remove with spring (D) and Anti-spoiler (E)).
5. Remove head housing Base (F) by removing 2 mounting screws.
6. Gently move head housing base (F) toward the top of the deck.

HEAD ASS'Y REMOVAL

7. Remove 4 mounting screws from the head assembly (G) and remove the 2 pin jacks and the 9 pin connector mounted on the rear of the head housing.
8. Lift off head assembly.

NOTE: After the head is replaced be sure to replace the shield case and tighten the 2 counter-sunk screws on the rear of the head assembly plate. Also insure that the spring (D) on the head housing is properly set in the slot on the head housing.

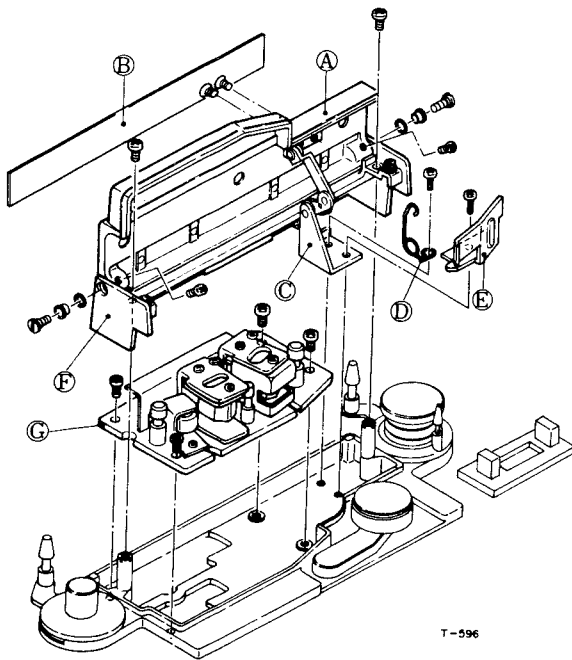


Fig. 4-3 Head Housing Base and Head ass'y Removal

4-3 REMOVAL OF REEL MOTORS

1. Loosen 2 set screws (hex head) in Reel Turntable ass'y (A) and 2 in the Brake Drum (C). Lift off these parts.
2. Disconnect the 4 motor wires from terminals and release wire harness straps.
3. Remove 3 screws securing the Brake ass'y (D) to the motor.

NOTE: Use care not to bend the brake band or brake shaping retainer during removal.

4. Remove 4 screws securing Reel motor (B) to chassis through the front panel.

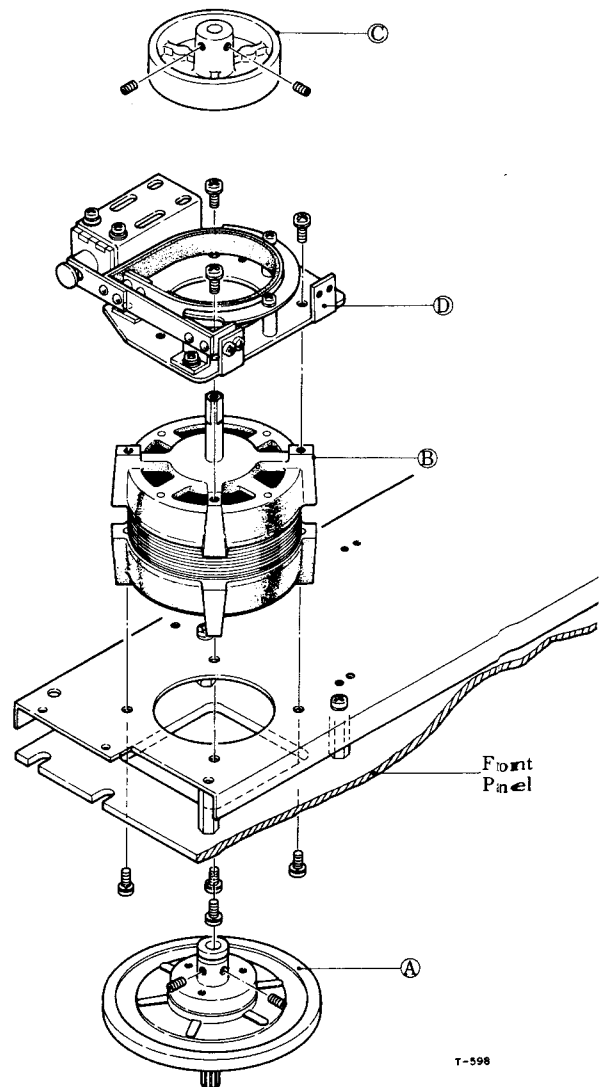


Fig. 4-4 Reel Motor Removal

4-4 REMOVAL OF TENSION ARM (RIGHT) AND DRIVE ROLLER ASS'Y

1. Remove power from the unit.
2. Remove Tape transport Case (See step 4-1 on page 6).
3. Loosen 1 set screw in Drive Roller Pulley (A).
4. Lift off the Drive Roller ass'y (B). Watch for the spacer.
5. Remove 4 screws in Tension Arm Ring (C).
6. Lift off these parts, Tension Arm Ring (C) and Tension Arm (D).

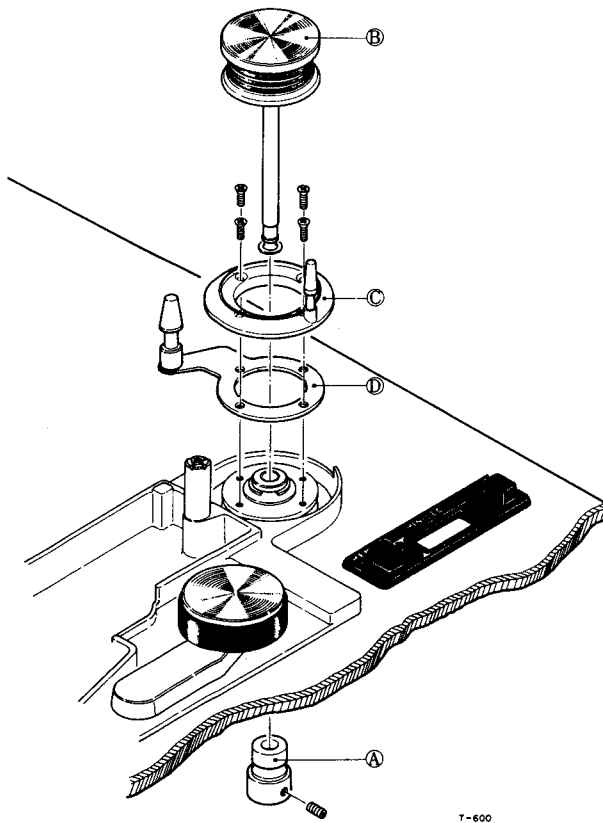


Fig. 4-5 Right Tension Arm and Drive Roller ass'y Removal

4-5 REMOVAL OF TENSION ARM (LEFT)

1. Do steps 1 and 2 of Section 4-4.
2. Unscrew Cap (A) from front panel.
3. Remove 4 screws in Tension Arm ass'y (B). Lift off these parts.

NOTE: When replacing Tension Arm ass'y be sure to position tape guide section in the original position.

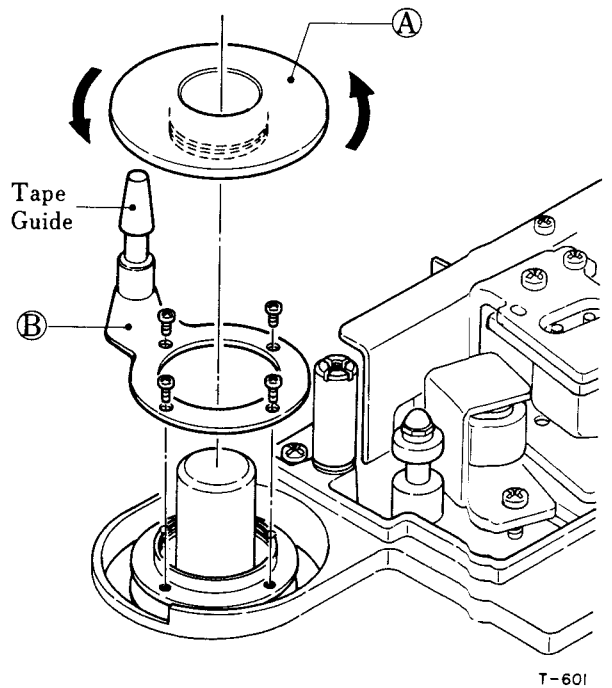


Fig. 4-6 Left Tension Arm Removal

4-6 REMOVAL OF PINCH ROLLER ASS'Y AND PINCH ROLLER ARM

1. Do steps 1 and 2 of Section 4-4.
2. Loosen 3 set screws in Solenoid Arm (A).
3. Lift off Pinch Roller Arm (B) from front panel Watch for the washers.

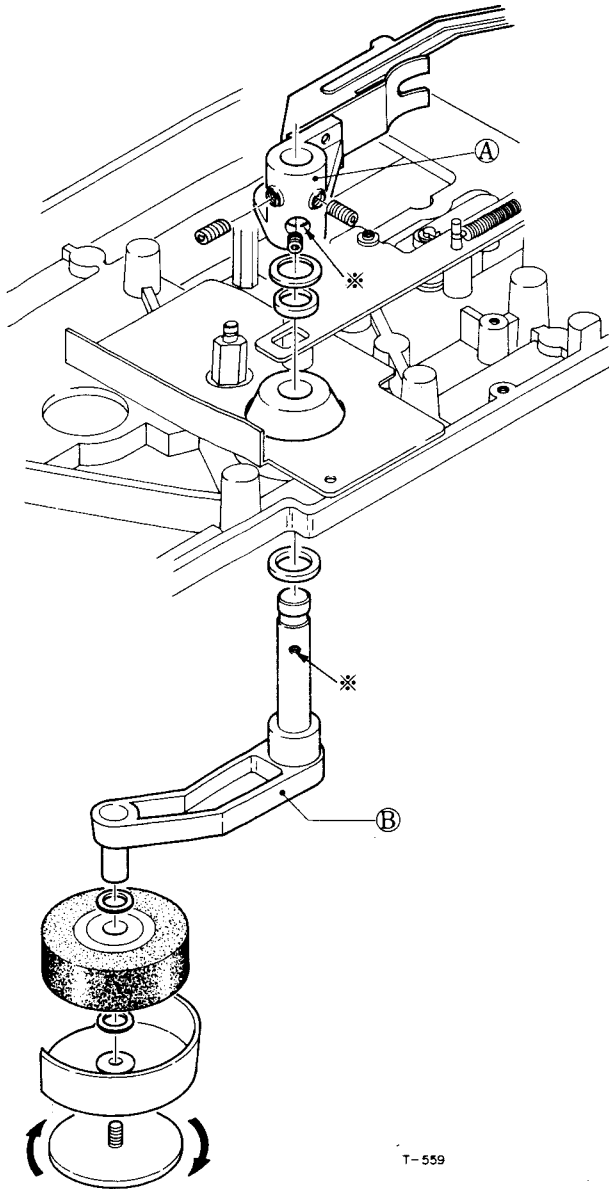


Fig. 4-7 Pinch Roller ass'y Removal

4-7 REMOVAL OF CAPSTAN MOTOR ASS'Y

1. Do steps 1 and 2 of Section 4-4.
2. Dis-connect Multi 11P Socket (B).
3. Remove 3 mounting screws on Motor ass'y.
4. Carefully lift off the Motor ass'y. (A).

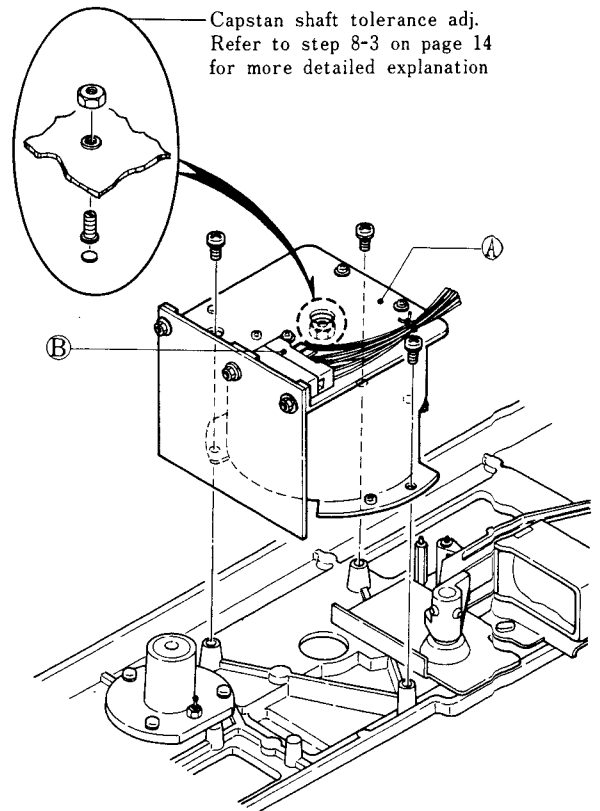


Fig. 4-8 Capstan Motor ass'y Removal

5. PARTS LOCATION

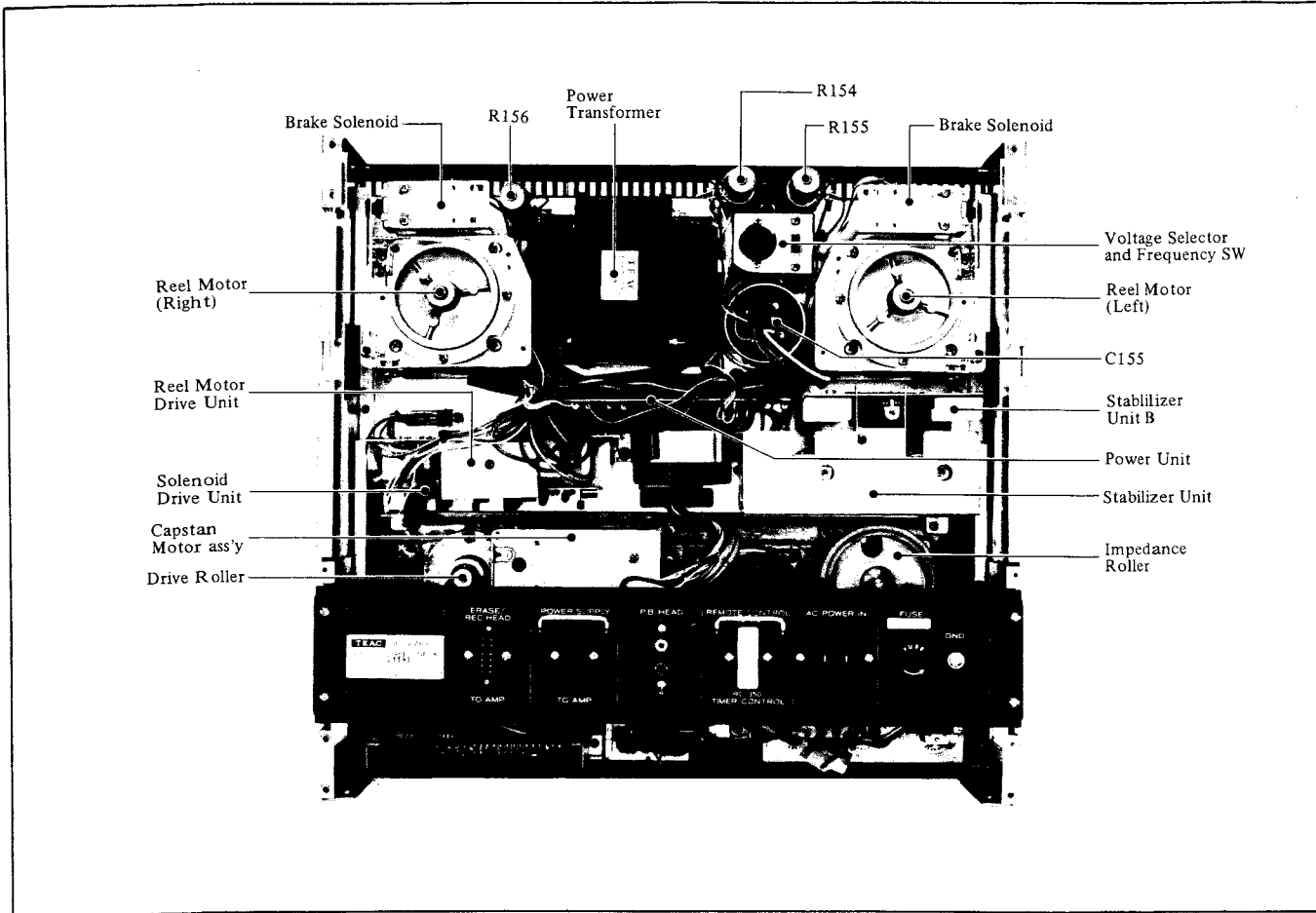


Fig. 5-1 — Mechanical Section —

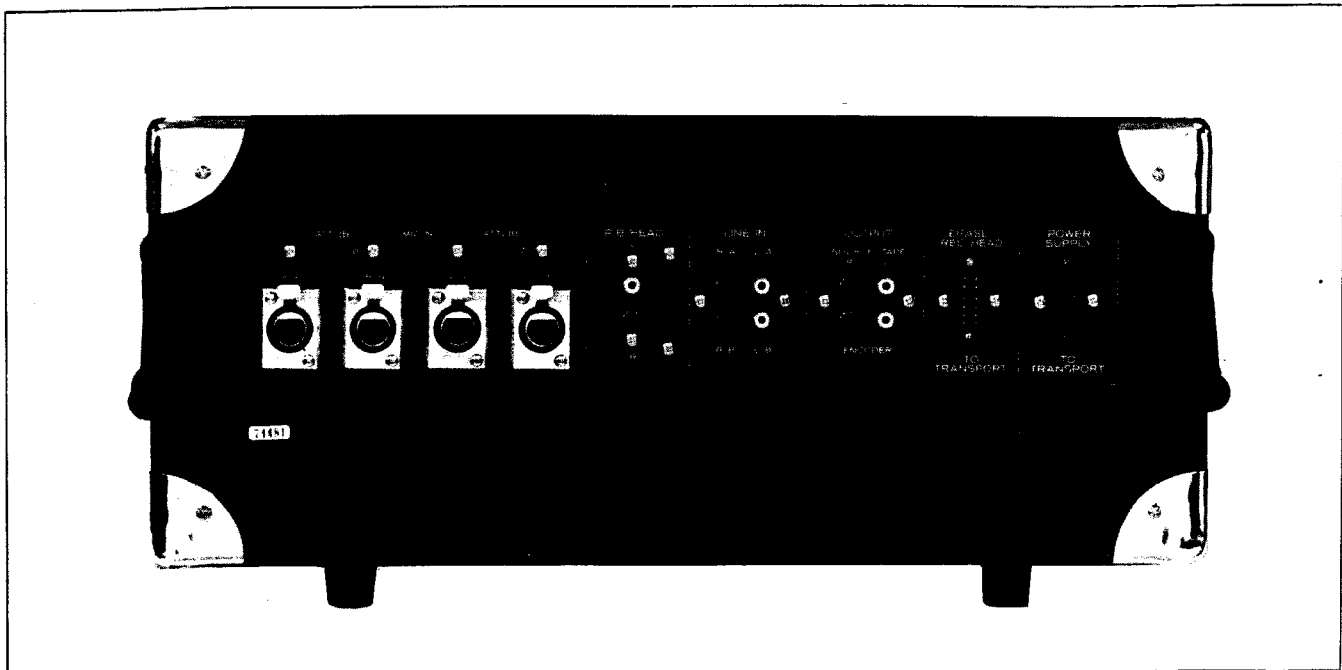


Fig. 5-2 — Amplifier Section —
Connections Location

6. SERVICING AND MAINTENANCE

6-1 CLEANING

TEAC TZ-261A and TZ-261B may be used for following places.

| TZ-261A | TZ-261B |
|---------------------|-----------------|
| Pinch roller rubber | Heads |
| Counter belt | Capstan shaft |
| Brake drums | Tape run guides |

6-2 LUBRICATION

Under normal operation, lubrication is required only once each year. Operate the deck for 30 minutes to 1 hour immediately prior to oiling. After oiling, keep the deck in the upright position for 3 to 4 hours to allow thorough penetration of the oil. Approximately once each year or after 2,000 hours of use, apply TEAC TZ-255 Lubricating Oil to the following places only;

- Pinch roller shaft 1 drop
(Remove cap)
- Capstan shaft 2 drops
(Remove the dust cap for access to the oil pit)

NOTE: Neither the reel motors, which utilize oilless metal bearings, nor the direct drive DC capstan motor require oiling. Therefore, no oiling access tubes are provided.

Excessive oiling will scatter oil inside the deck. Check for slippage and clean all parts inside the deck before operating after lubrication. Check for oil emission after operation and before returning deck to the customer.

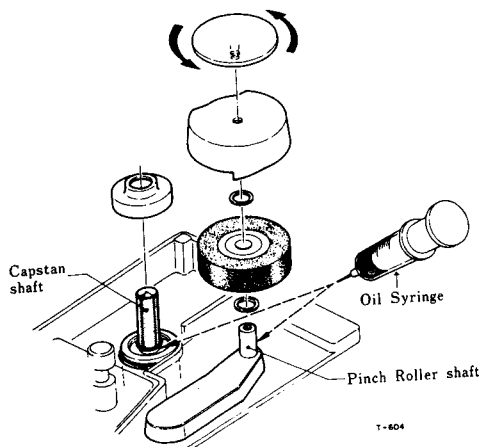


Fig. 6-1 Capstan Shaft and Pinch Roller Shaft Oiling Points

6-3 TEAC MAINTENANCE FLUIDS

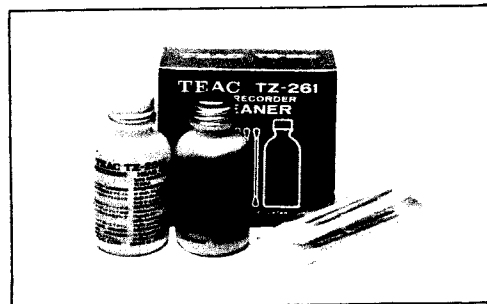


Fig. 6-2 TZ-261 Tape Recorder kit

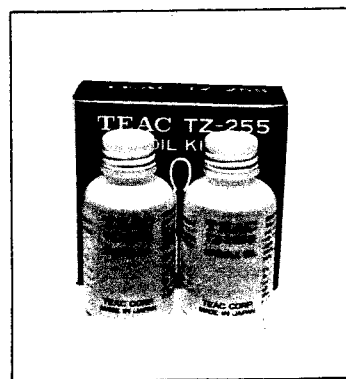


Fig. 6-3 TZ-255 Oil kit

6-4 DEMAGNETIZATION OF HEADS

If the record or Playback heads becomes magnetized, noise will increase and tonal fidelity will deteriorate. For this reason it is advisable to use non-magnetic tools when working near the heads. If the heads have had any contact with current or magnetized metal parts, demagnetize them with a TEAC E-3 eraser or Equivalent.

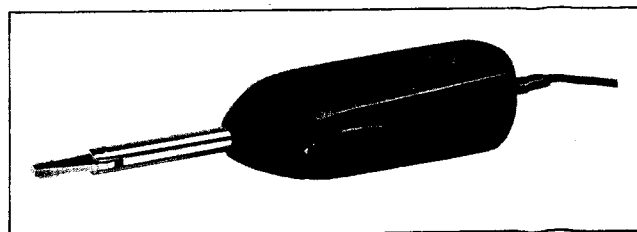


Fig. 6-4 TEAC E-3

7. HEAD REPLACEMENT AND ALIGNMENT

—MECHANICAL—

7-1 HEAD REPLACEMENT

1. Remove head housing and head ass'y.
Refer to section 4-2 on page 7.
2. Loosen 2 counter-sunk screws (A) from the rear plate of the head assembly and remove 2 small screws (B) from the top of the head. Then slide off the shield case (C).
3. To replace a single head, a nut driver is required. Remove the 2 nuts (D) on the defective head through the access hole provided. This releases the head from the mounting plate.

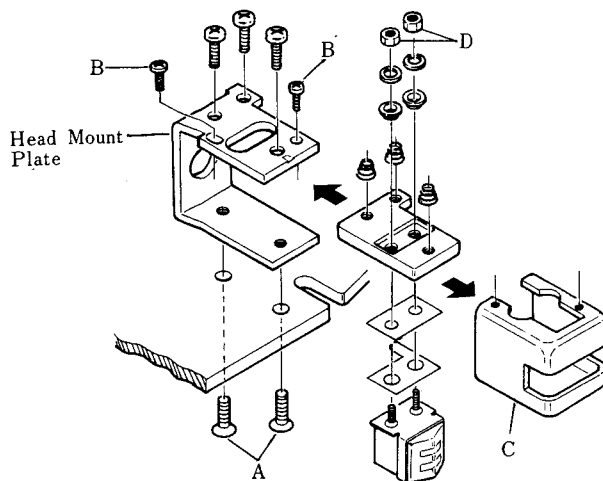


Fig. 7-1 Head Replacement (Playback)

7-2 HEAD ADJ. SCREWS AND ALIGNMENT

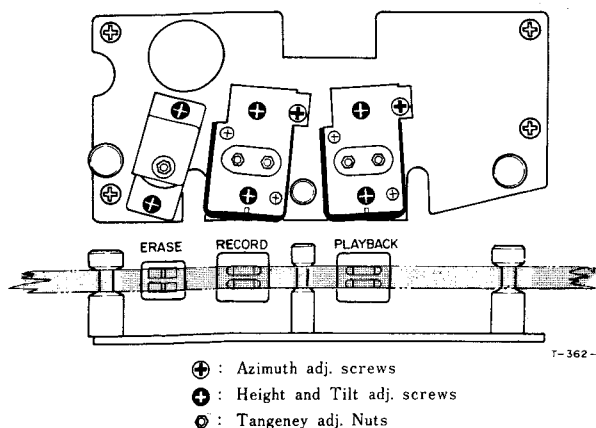


Fig. 7-2 Head Adjustment Screws and Alignment

7-3 VISUAL HEAD ALIGNMENT

Since the propriety of head alignment affects the frequency response on both playback and recording, the head alignment should be done carefully. The head can be adjusted in TILT, TANGENCY, HEIGHT and AZIMUTH.

For head alignment, perform the following coarse adjustments first. Then fine alignment should be accomplished electrically while playing back the Test Tape.

Coarse Adjustment:

Without Tape

TILT By Height and tilt screws

This alignment is performed by viewing from the side without tape threaded.

Check that the head surface is parallel to the tape guide surface.

With Tape

TANGENCY By Head mounting Nuts

Loosen the head mounting nuts. Adjust the head so that the vertical alignment of the head gap is perpendicular to the surface of the tape, then tighten the head mounting Nuts.

HEIGHT By Height and Tilt screws

This alignment is checked visually by looking at the position of the head.

The head core for track-1 (inner core) should be even with the inner edge of the tape.

AZIMUTH By Azimuth adj. Screw

Adjust the azimuth adj. screw so that the gap of the head is perpendicular to the tape travel.

NOTE: After this coarse adjustment is made, the adj. screws and the Head mounting nuts should be realigned according to electrical head alignment paragraph which follows in this Service Manual.

7-4 MIS-ALIGNMENT OF THE HEADS

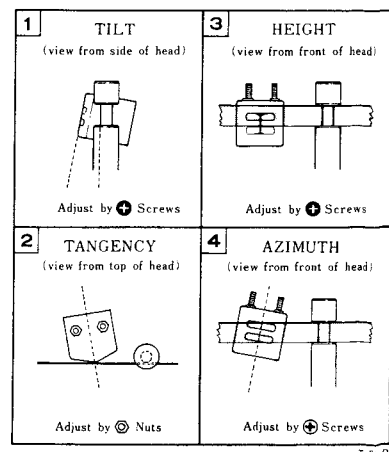


Fig. 7-3 Head Mis-Alignment -Examples-

8. MEASUREMENT AND ADJUSTMENT

—MECHANICAL—

These adjustments should be performed by experienced technicians, and then only when going through the complete test and check procedures on the unit which is being tested. The TEAC A-7300RX uses highly reliable AC Motors for both reel motors, and a DC direct-drive capstan system. It should require a minimum of mechanical maintenance or adjustment. These adjustments are made at the factory. Readjustments should only be required after long periods of operation or component replacement. The following procedures are primarily performance checks. Before performing these checks a complete cleaning, demagnetization and lubrication should be accomplished as outlined in the preventive maintenance section of this manual. See page 11.

8-1 CHANGING THE POWER LINE SETTING

Disconnect the deck from ELECTRICAL Power.

Voltage Selection:

1. Remove the outer case of the Transport Unit.
2. Locate the voltage selector plug shown in Fig. 8-1.
3. Pull out the plug and reinsert it so that the desired voltage appears in the cut-out window of the plug.
4. Only the voltages indicated on the selector plug socket can be selected with the selector plug. If you desire to use your deck connected to a voltage that is not indicated on the plug socket, please contact your TEAC authorized service center or TEAC dealer.

Frequency Conversion:

To change the selected power line frequency, just set the slide switch pictured in Fig. 8-1 to the 50 or 60 Hz position as desired. Remove the outer case of the transport Unit for access to the slide switch.

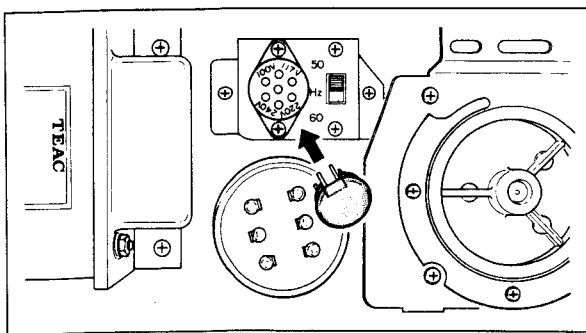


Fig. 8-1 Power Line Setting Location

Adjustment procedure:

1. Place the Power switch to ON.
2. Connect a Voltmeter or VTVM across the 24 V Test Point.
3. Adjust VR-21 if needed to obtain $24\text{ V} \pm 0.5\text{ V DC}$.
4. Adjust VR-22 for $5\text{ V} \pm 0.25\text{ V}$ at output Test Point (Pink Lead Socket).

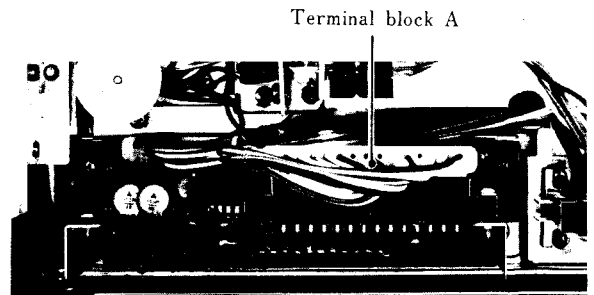


Fig. 8-2 Terminal Block A Location

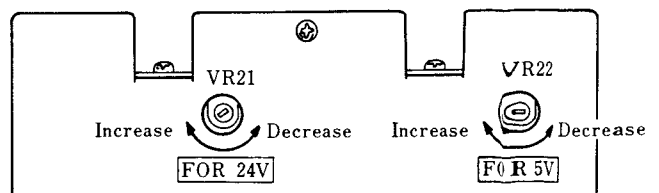


Fig. 8-3 Adjustment Location

8-2 ADJUSTMENT OF D.C. (on STABILIZER UNIT)

NOTE: To prevent damage to the motor and control circuitry:

1. Remove terminal Block A from the Control PC board. See Fig. 8-2.
2. Disconnect the 11 pin connector from the motor. See Fig. 8-4.

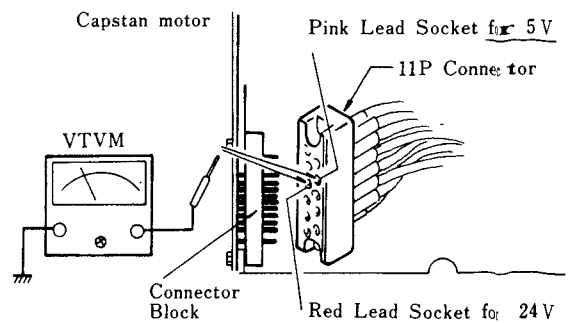


Fig. 8-4 Test Points

8-3 CAPSTAN SHAFT TOLERANCE ADJUSTMENT

1. Check that the capstan motor moves freely without binding on the Thrustplate.
2. Check that the clearance between the motor shaft tip and the Thrustplate is between 0.1 and 0.3 millimeter.
3. To adjust, first loosen the locking nut; then set with a common screwdriver for **approx. 0.2mm clearance**. Check by observing the capstan movement.
4. Tighten the Lock Nut and secure with locking paint.

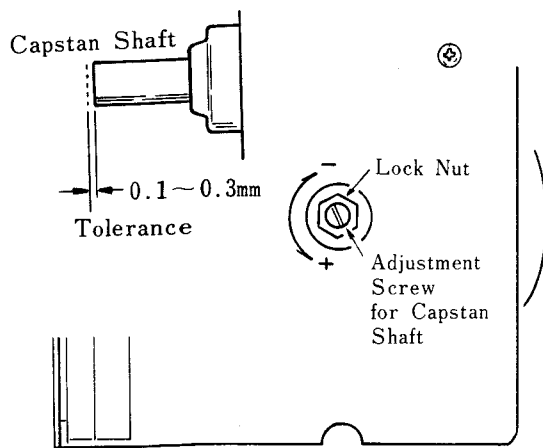


Fig. 8-5 Shaft Tolerance Adj. Location

8-4 TAPE SPEED ADJUSTMENT

Place the PITCH CONT to the OFF position. The tape speed should be measured using TEAC flutter free tape, Model YTT-2004 (15 ips), YTT-2003 (7-1/2 ips).

These tapes contain a highly accurate 3,000 Hz tone. Connect a digital frequency counter to either line OUTPUT jack. See Fig. 8-7. The indicated frequency should be 3,000 Hz (± 10 Hz or less) for both speeds. If necessary, adjust Tape Speed adjusters on the CAPSTAN MOTOR. See Fig. 8-6.

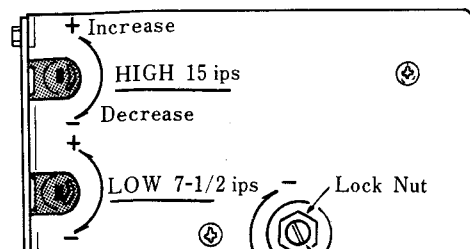


Fig. 8-6 Tape Speed Adjustments

8-6 WOW AND FLUTTER CHECK

NOTE: Before performing this measurement, clean the head and Tape run guides, also check pinch roller pressure, etc.

Use new Test Tape if possible for following adjustments.

Values obtained with different standards of equipment cannot be compared.

PLAYBACK

1. Connect Test equipment to the unit as shown Fig. 8-7. (Except oscillator).
2. Load TEAC YTT-2004 (for HIGH, 15 ips) or YTT-2003 for LOW, 7-1/2 ips) and playback tape.
3. Read the indication on the Wow and Flutter meter.
4. The Wow and Flutter should be
 - 0.05% or less for 15 ips (WRMS)
 - 0.06% or less for 7-1/2 ips (WRMS)

OVERALL

1. Connect Test equipment to the unit as shown in Fig. 8-7.
2. Load TEAC YTT-8003 (blank tape) Test Tape on the unit and Record a 3000 Hz input signal.
3. Rewind and playback the recorded signal.
4. The reading on the Meter should be
 - 0.12% or less for 15 ips (RMS)
 - 0.15% or less for 7-1/2 ips (RMS)

NOTE: These figures apply to any tape position (such as full take-up reel, full supply reel or about mid-point). Also examine the tape counter ass'y for evenness of operation.

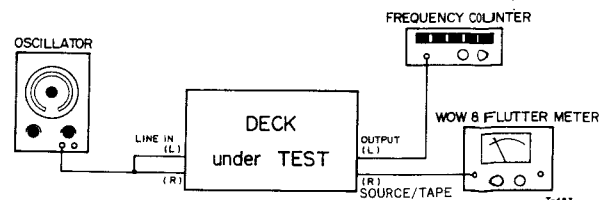


Fig. 8-7 Test Connections for Wow/Flutter and Tape Speed Test

8-7 PINCH ROLLER PRESSURE

NOTE: Pinch roller pressure is supplied by the pinch roller solenoid arm and it is most important that the solenoid plungers be fully bottomed before taking pressure measurement.

1. Load tape or block the shut-off arm in the "ON" position. Remove the Pinch Roller Cap.
2. Attach a suitable spring scale to a screw inserted in the pinch roller shaft.
3. Place the unit in the PLAY mode, and holding the spring scale as illustrated, slowly draw it away from the pinch roller.
(Do not allow the string to rub against the pinch roller.)
4. Note the reading on the spring scale at the instant the pinch roller stops rotating.
5. The scale should indicate $2 \text{ kg} \pm 0.2 \text{ kg}$ ($4.4 \text{ lbs} \pm 0.4 \text{ lbs}$)
6. If adjustment is necessary, loosen the 3 mounting screws on the capstan solenoid and position the solenoid for optimum pressure.

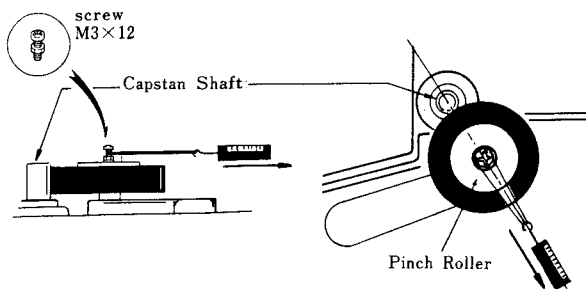


Fig. 8-8 Pressure Measurement

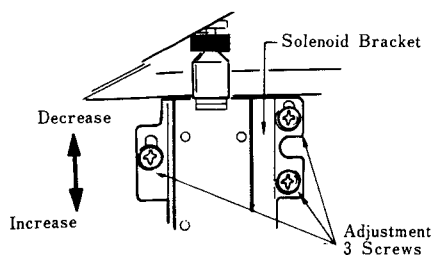


Fig. 8-9 Adjustment Location

8-8 BRAKE TORQUE

The brake torque is actuated mechanically. Pressure is set by the Leaf spring force. While making these measurements and adjustments, be careful not to bend the brake bands. As brake torque will change with cleaning, brake drums and brake shoes should be cleaned only when absolutely necessary. If cleaning is required, use TEAC cleaner TZ-261B. After cleaning, operate the brakes by depressing the play and STOP buttons several times to completely dry out the brakes before performing the following procedure.

NOTE: Brake adjustments are made with NO power connected to the equipment.

1. Place an empty large hub reel on the left reel table, and fasten one end of a 30" length of string to the reel anchor.
2. Wind several turns of string counterclockwise around the hub and attach a suitable spring scale to the free end of the string.
3. Pull on the spring scale until the reel begins rotating.
4. Take a reading only when the reel is in steady motion since the force required to overcome static friction will produce a false, excessively high initial reading.
5. The calculated value should be 2,300 to 2,100 g-cm (29 to 32 oz-inch).
6. If adjustment is required, loosen the 2 screws shown and position the brake for optimum torque.
7. The adjustment of the right brake is the same, with the exception that rotations are clockwise (wind string CLOCKWISE around reel hub)
8. See note at the top of page 16 for explanation of torque measurements.

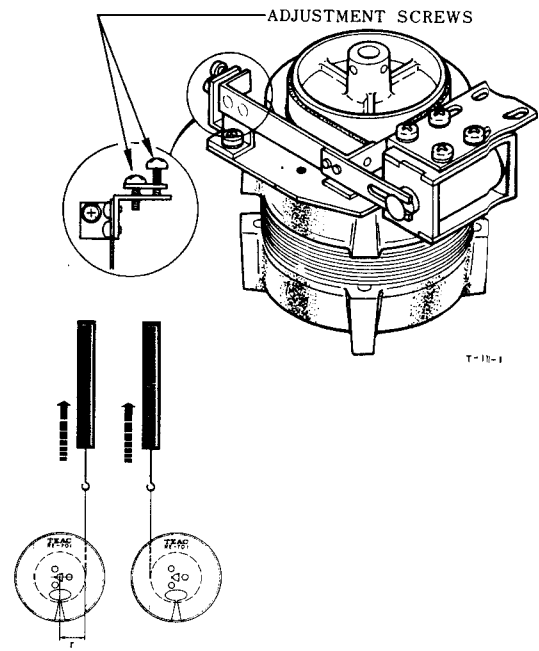


Fig. 8-10 Brake Torque Measurement and Adjustment Location

TORQUE MEASUREMENT PROCEDURE

NOTE: The following torque measurements should be made with a spring scale that is calibrated to read Torque in gram-cm. for a 7" reel with a small reel hub. If the spring scale you are using is calibrated to read Force or Weight in grams the Torque must be calculated using the Formula:

$$\text{Torque (in gm}\cdot\text{cm or oz}\cdot\text{in)} = \text{Weight or Force (in gr. or oz.)} \times \text{radius of hub (in cm or inches)}$$

If you are using a reel with other than the standard 2.5" or 6.0 cm (approx.) diameter hub, the Torque must be calculated using the same formula and substituting the actual radius and Weight or Force reading.

All Torque and Tension measurements must be made with the automatic shut-off switch (right tension arm) held in the ON position.

Brake Torque Measurement should be made using large hub reel with a hub diameter of 4" or 10.2 cm.

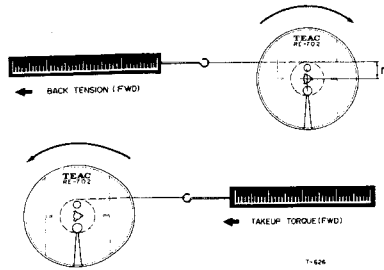


Fig. 8-11 Torque/Tension Measurement and Formula

8-9 TAKE-UP TORQUE

1. Place the empty reel and attach spring scale on the right reel table.
2. Place the unit in the Play mode.
3. Allow the rotation of the reel to slowly draw the scale toward the hub.
4. Hold the spring scale with enough force to allow a steady reading.
5. The torque reading should be approx.:

| REEL SW | TAKE-UP |
|---------|--------------------------------------|
| LARGE | 530 to 570 g cm (7.4 to 8.0 oz-inch) |
| SMALL | 330 to 370 g cm (5.0 to 5.1 oz-inch) |

8-10 BACK TENSION

1. Place an empty 7" reel with small hub on the left reel table, and fasten one end of a 30" length of string to the reel anchor.
2. Wind several turns string counter-clockwise around the hub. Attach spring scale to string.
3. Place the unit in the Play mode.
4. Pull the scale away from the reel against the motor torque with a steady, smooth motion.
5. Note the scale reading while it is in steady motion. (The string must not rub the reel flanges)
6. The calculated value should be approx.:

| REEL SW | BACK TENSION |
|---------|--------------------------------------|
| LARGE | 430 to 470 g cm (6.0 to 6.6 oz-inch) |
| SMALL | 280 to 320 g cm (3.9 to 4.6 oz-inch) |

Adjustment Location

If necessary, adjust slider of the resistors until you have the correct scale reading for optimum torque. Refer to adj. location below.

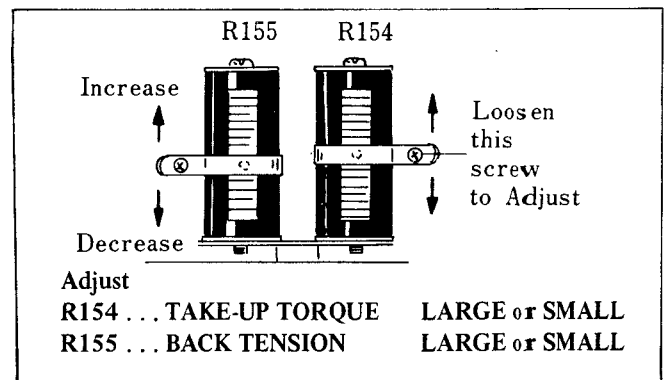


Fig. 8-12 Wire Wound Resistors Adj. Location

8-11 FAST FORWARD AND REWIND TORQUE CHECK

Specification;

F.F/ REW (LARGE) 1.9 kg cm (27 oz-inch)

F.F/ REW (SMALL) 1.6 kg cm (22 oz-inch)

No adjustment provided. FIXED Resistor (R155)

9. BLOCK AND LEVEL DIAGRAMS

9-1 BLOCK DIAGRAM

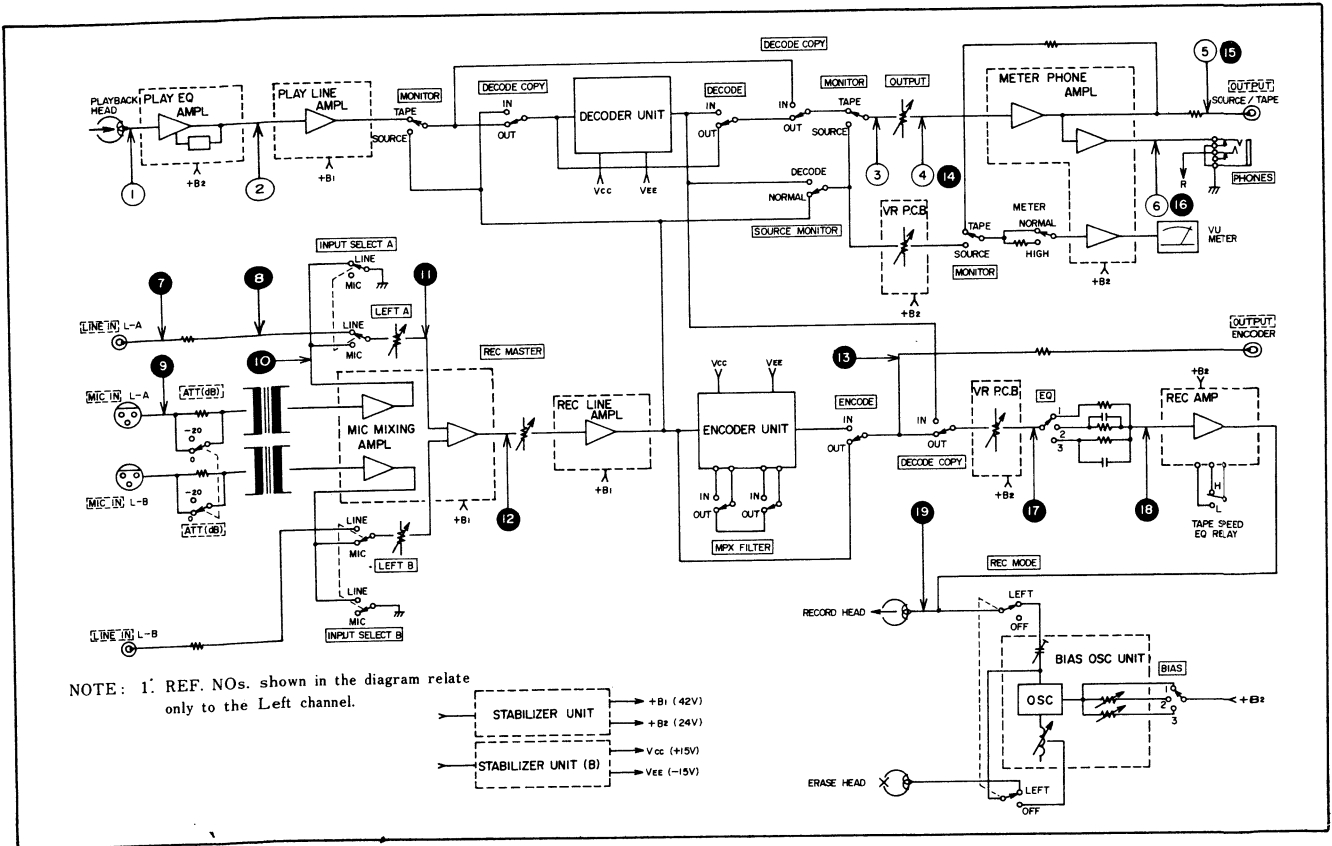


Fig. 9-1 Block Diagram

9-2 LEVEL DIAGRAMS

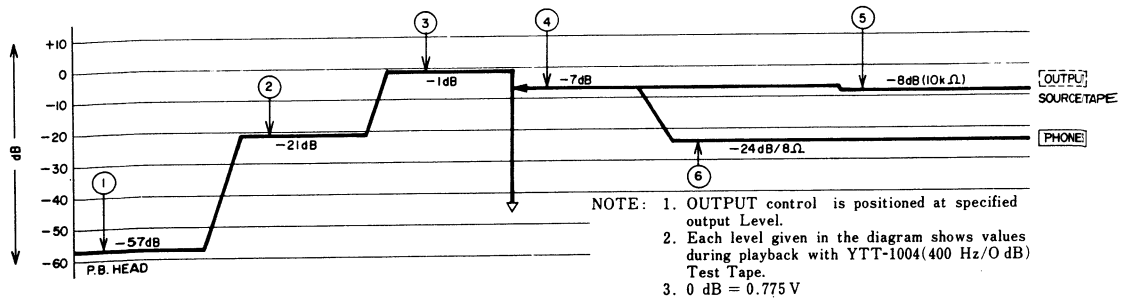


Fig. 9-2 Level Diagram - Playback

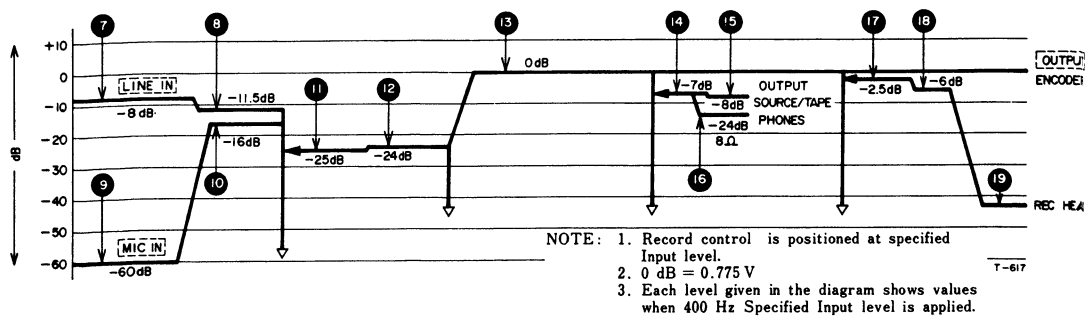
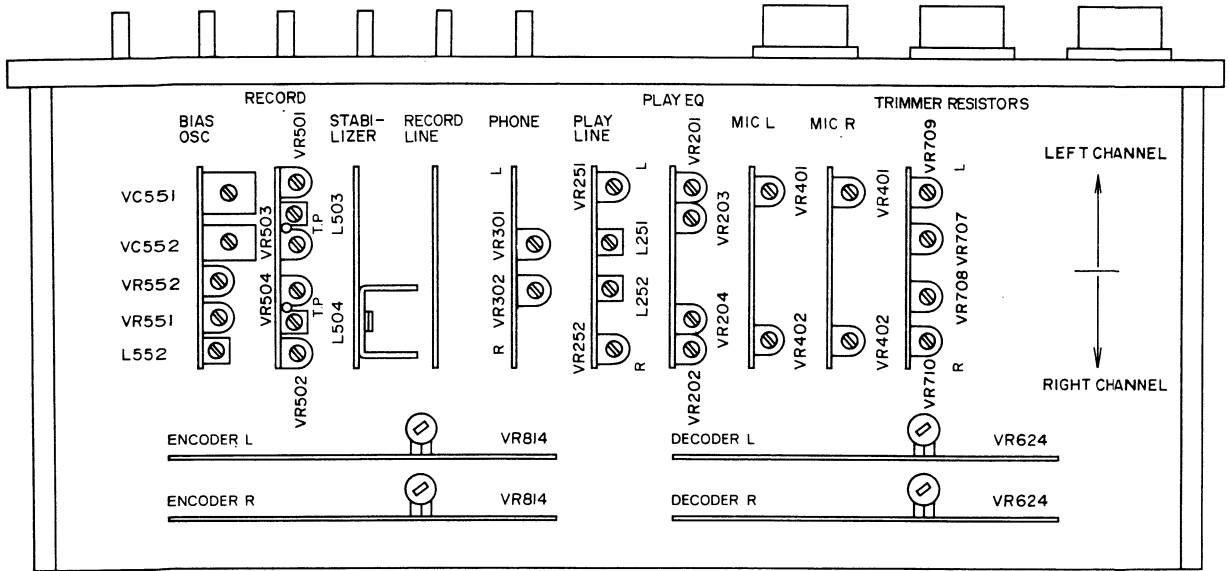


Fig. 9-3 Level Diagram - Record-

10. MEASUREMENT AND ADJUSTMENT

— ELECTRICAL —

10-1 ADJUSTMENT LOCATIONS AND ADJUSTMENT POINTS



| Adj. Component | Adjustment |
|----------------|--------------------|
| VR-251/252 | Playback Level |
| VR-301/302 | VU Meter (P. B) |
| VR-203/204 | Playback EQ (HIGH) |
| VR-201/202 | Playback EQ (LOW) |
| VR-401/402 | Monitor Level |
| VR-707/708 | VU Meter (monitor) |
| L-503/504 | Bias Trap |
| L-251/252 | Bias Leakage |

| Adj. Component | Adjustment | BIAS/EQ SW |
|------------------|-------------------|------------|
| VC-551/552 | Bias | |
| VR-709/710 | Record Level | |
| VR-503/504 | Rec EQ (HIGH) | # 1 |
| VR-501 (both ch) | Rec EQ (LOW) | # 1 |
| VR-552 (both ch) | Rec EQ (both) | # 2 |
| VR-551 (both ch) | Rec EQ (both) | # 3 |
| L-552 Dummy Coil | Rec Mono (L or R) | |
| VR-814/814 | Encoder Level | |
| VR-624/624 | Decoder Level | |

Fig. 10-1 Ampl PC Board Location and Adjustment Points

10-2 ADJUSTMENT SEQUENCE CHART

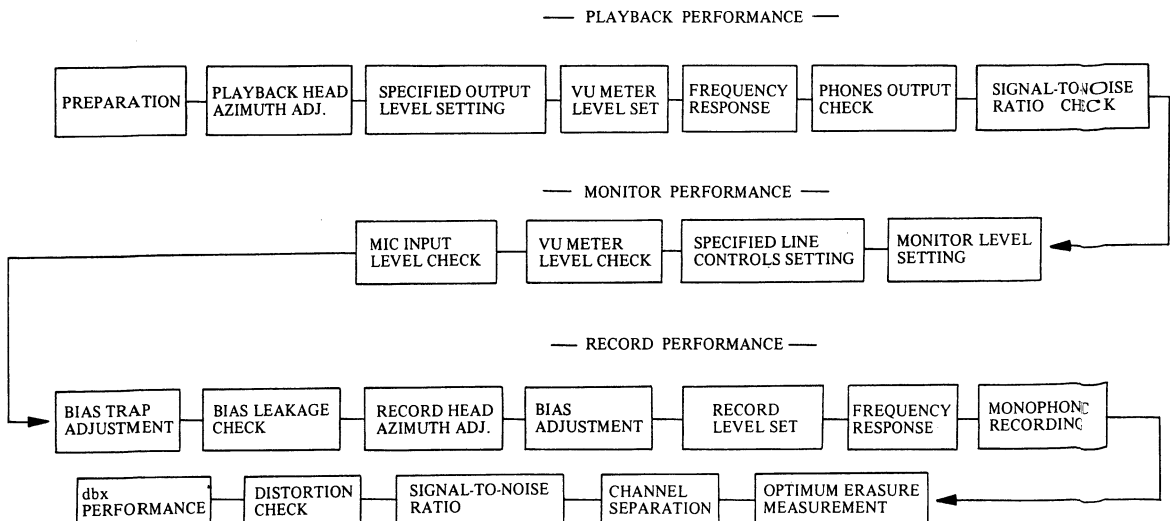


Fig. 10-2 Adjustment Sequence Chart

10-3 PREPARATION

All the following (except dbx performance adj.) checks and adjustments must be performed with the switches of the A-7300RX set as outlined below unless otherwise specified in procedure.

- MPX SW OUT
- ENCODE SW OUT
- DECODE-COPY SW OUT
- SOURCE MONITOR SW ... NORMAL
- METER SW NORMAL

Double designated symbol numbers refer to left channel/ right channel.

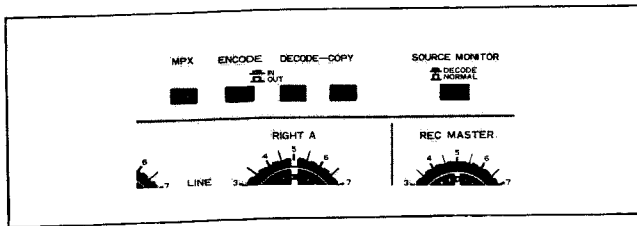


Fig. 10-3 Switches Location-1

10-4 PLAYBACK HEAD AZIMUTH ADJ.

NOTE: Before proceeding with the following head alignments be sure that heads have been properly mounted as to height, tilt and tangency (review page 12).

—FINE ADJUSTMENT—

- Tape SPEED SW LOW (7-1/2 ips)
- MONITOR SW TAPE

1. Connect a VTVM to either OUTPUT SOURCE/TAPE jack.
2. Open the head housing.
3. Thread the TEAC YTT-1003 Test Tape on the unit.
4. Play the 16 kHz/-10dB Test Tone in section 2 of the Test Tape.
5. Slowly rotate the azimuth screw (on Playback head) until maximum indication is achieved on VTVM.
6. Connect an oscilloscope to the OUTPUT SOURCE/ TAPE jacks as shown in Fig. 10-5.
7. Play the YTT-1003 tape and adjust the azimuth screw (If necessary) until the oscilloscope shown that the signals are less than 45° out of phase. Check at 40 Hz to 18 kHz signal.
8. Secure this screw with a drop of Locking Paint.

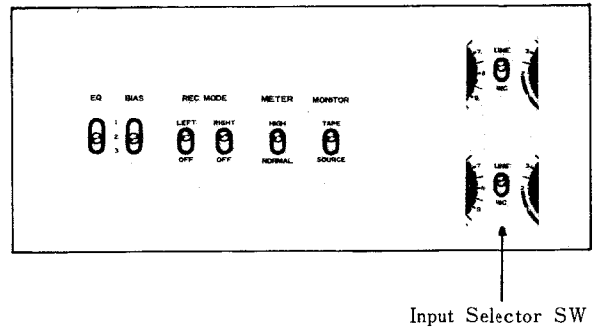


Fig. 10-4 Switches Location-2

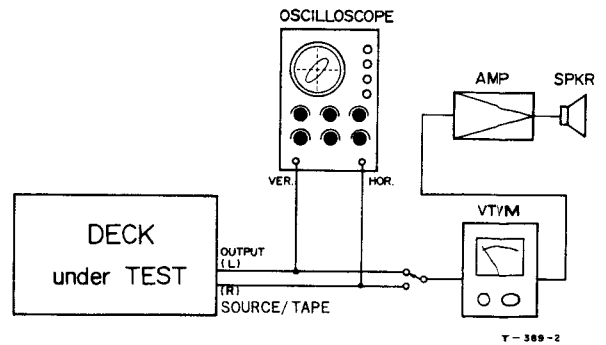


Fig. 10-5 Head Alignment Fine Adjustment Set-up and test connections (PLAYBACK)

10-5 SPECIFIED OUTPUT LEVEL AND MAX. OUTPUT LEVEL SETTINGS

SPECIFIED OUTPUT LEVEL:

9. Play the 400 Hz/0 dB tone in section 1 of test tape.
10. Set the reference marks of the OUTPUT controls to the 8 (0 VU) position.
11. Adjust VR-251/252 (on PLAY LINE AMPL. UNIT) for -8 dB (308 mV) at OUTPUT SOURCE/TAPE jacks.

MAX. OUTPUT LEVEL:

12. Turn the OUTPUT controls fully clockwise (max.) and check for -2 dB (612 mV) at OUTPUT jacks.
13. Reduce OUTPUT controls until -8 dB (308 mV) is obtained on the output VTVM.

NOTE: This is the Specified Output level setting. Do not disturb this setting until the remaining adjustments have been completed.

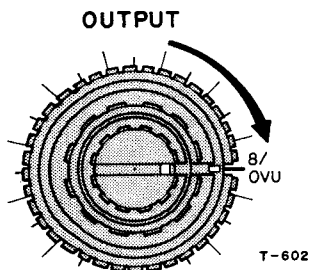


Fig. 10-6 Specified output controls setting

10-6 VU METER LEVEL SET

14. Adjust VR-301/302 (on METER PHONE AMPL. UNIT) for 0 VU reading on VU Meters.
15. With METER SW in HIGH, check for -3 VU ± 0.5 VU reading at upper scale on the Lower Scale. (0VU ± 0.5 VU reading at upper scale).

10-7 FREQUENCY RESPONSE -PLAYBACK-

Tape SPEED SW HIGH (15 ips)

1. Thread TEAC Test Tape YTT-1004 on the unit.
2. Play Tape and compare readings on VTVM with the response limits given in Fig. 10-7.
3. If adjustment is required, adjust VR-203/204 (on PLAY EQ AMPL. UNIT) for HIGH speed.
4. Change Tape SPEED SW to LOW (7-1/2 ips) position.
5. Thread a Test Tape YTT-1003 on the unit.
6. Repeat Step 2.
7. If adjustment is required, adjust VR-201/202 (on PLAY EQ AMPL. UNIT) for LOW speed.

NOTE: If the frequency response does not meet specified response limits, especially at the high-end of the spectrum, head should be checked for accumulated dirt or oxides. If clean, head azimuth must be re-adjusted.

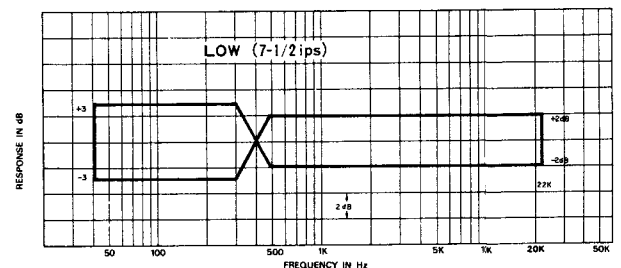
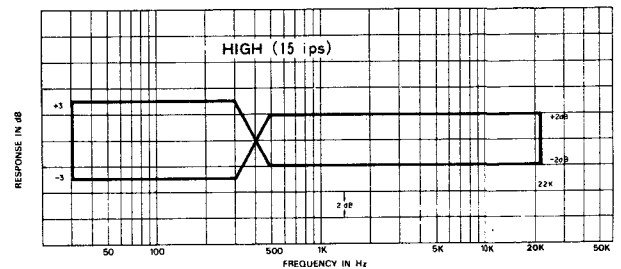


Fig. 10-7 Frequency Response -PLAYBACK-

10-8 PHONES OUTPUT CHECK

1. Connect an 8 ohm non-inductive resistor across the head-phone (PHONES) jack.
2. Connect VTVM across the resistor, VTVM should indicate -17 dB ± 1 dB (122 mV-97 mV).

10-9 SIGNAL-TO-NOISE RATIO -PLAYBACK-

1. OUTPUT controls should be at the Specified Output Level settings.
2. Thread a blank YTT-8003 on the unit leaving the tape outside the capstan and pinch roller.
3. Hold the play supply reel stationary and press the play (▶) button.
4. The VTVM connected to the OUTPUT jacks should indicate readings listed below.

LOW (7-1/2 ips) 52 dB
 HIGH (15 ips) 53 dB

10-10 MONITOR LEVEL SETTING

MONITOR SW SOURCE
 Input selector SW LINE

1. Apply a 400 Hz -18 dB (97 mV) signal from AF oscillator to LINE IN (L-A/R-A) jacks.
2. Turn REC MASTER controls and LEFT A, RIGHT A controls fully clockwise.
3. Adjust VR-401 (L-A and R-A both) and VR-402 (L-B and R-B both) for -8 dB (308 mV) at the OUTPUT SOURCE/TAPE jacks.

NOTE: Adjuster VR-401/402 is located on MIC MIXING AMPL. UNIT.

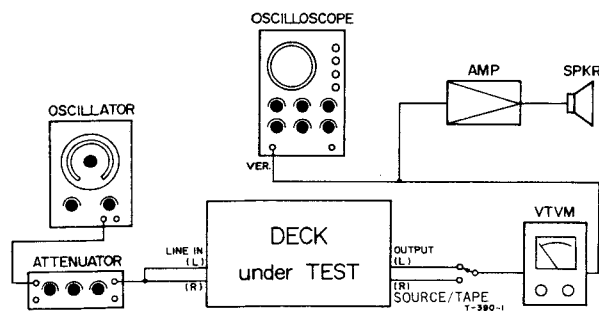


Fig. 10-8 Test Connections for Monitor Check

10-11 SPECIFIED LINE CONTROLS SETTING

4. Apply a 400 Hz signal at -8 dB (308 mV) to the LINE IN jacks.
5. Adjust LINE controls (LEFT A/RIGHT A) for -8 dB (308 mV) at OUTPUT SOURCE/TAPE jacks.

NOTE: At this point both the Line controls (LEFT A/RIGHT A) and the OUTPUT controls are at the "Specified setting". Do not move these controls unless instructed in this procedure to do so. The accuracy of many of the following adjustments and readings depends on these controls being at the "Specified setting".

6. Repeat the procedure for the LEFT B/RIGHT B side.

10-12 VU METER LEVEL SET

7. Check VU meters for 0 VU indication.
8. Adjust VR-707/708 (on TRIMMER RESISTORS UNIT) for 0 VU, if necessary.

10-13 MIC INPUT LEVEL CHECK

This is a check only. No adjustments are to be made.

Input Selector SW MIC
 MIC ATT SW . . 0 dB (on Back panel)

1. Apply a 400 Hz signal at -48 dB (3.08 mV) to the MIC IN Jacks (L-A/R-A).
2. Check for -8 dB ± 1 dB (345 mV–274 mV) level at OUTPUT SOURCE/TAPE jacks.
3. Place MIC ATT (dB) SW to 20 dB position.
4. Apply a 400 Hz signal at -8 dB (30.8 mV) level to the MIC IN jack.
5. Check for -8 dB ± 2 dB (388 mV –244 mV) level at OUTPUT SOURCE/TAPE jacks.
6. Repeat the procedure for L-B/R-B side.

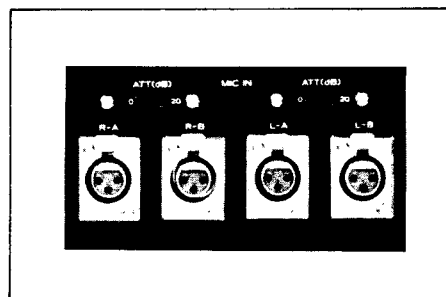


Fig. 10-9 Mic Att switches location – REAR VIEW –

10-14 BIAS TRAP ADJUSTMENT

RECORD MODE SW . . . LEFT and RIGHT (Both ON)
 Select RECORD / PAUSE mode
 MONITOR SW TAPE
 BIAS and EQ SW 1

1. Load TEAC YTT-8013 Test Tape on the unit.
2. Remove all input signals.
3. Connect a VTVM or oscilloscope across the Bias Trap T.P. (on REC AMPL. UNIT) and ground.
See Fig. 10-10.
4. Adjust L-503/504 (on REC AMPL. UNIT) for minimum reading on scope or VTVM.
Use Plastic Alignment Tool.

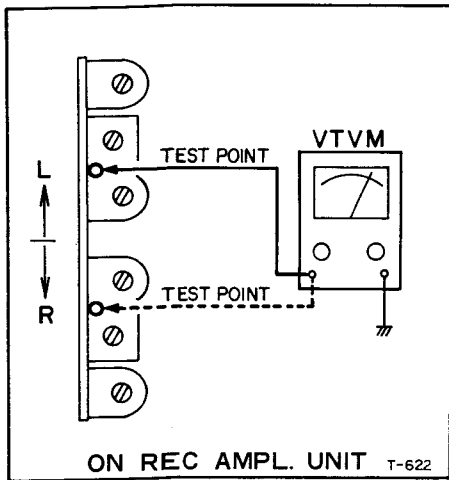


Fig. 10-10 Bias Trap Test Point

10-15 BIAS LEAKAGE CHECK

5. Adjust L-251/252 (on PLAY LINE AMPL. UNIT) for minimum bias leakage reading at OUTPUT jack, with VTVM or oscilloscope now connected to said OUTPUT SOURCE/TAPE jacks.
6. Specified Level should be -53 dB (1.73 mV) or less.

10-16 RECORD HEAD AZIMUTH ADJ.

Tape SPEED SW LOW (7-1/2 ips)

-FINE ADJUSTMENT-

NOTE: The effect of turning the azimuth screw will not immediately register on the VTVM. A slight delay will be noticed. Therefore, the screw must be rotated slightly with a pause to see the effect.

7. Connect a VTVM to the OUTPUT jack and an AF oscillator to the LINE IN jack. (Fig. 10-11). Set the oscillator to 10 kHz at -18 dB (97 mV).
8. Begin recording (Depress RECORD and play buttons).
9. While recording adjust the azimuth screw (on Record Head) for maximum reading on the VTVM.

NOTE: It is absolutely essential to accomplish the coarse adjustment before performing the fine adj. to avoid phase errors greater than 45°

Tape SPEED SW HIGH (15 ips)

10. Sweep the signal from 40 Hz to 16 kHz and adjust the azimuth so all signals are within 45° between channels.
11. Secure the screw with insulating locking paint.

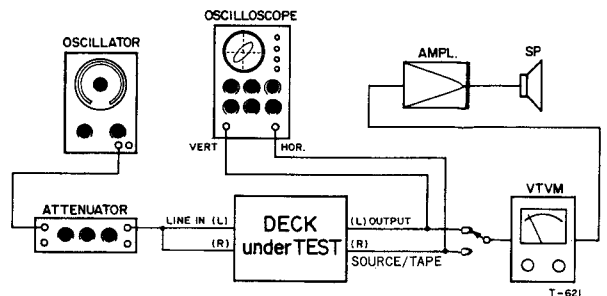


Fig. 10-11 Test Connections for Recording Check

10-17 BIAS ADJUSTMENT

Be sure the Bias Trap has been adjusted per section 8-14 and 8-15, before proceeding.

Tape SPEED SW . . . LOW (7-1/2 ips)
BIAS and EQ SW 1

14. Apply 7 kHz signal at -18 dB (97 mV) to the LINE IN jacks.
15. While recording on the YTT-8013 Test Tape, adjust capacitor VC-551/552 (on BIAS OSC UNIT) for peak reading on the VTVM, then turn the capacitor clockwise until a decrease of 2.7 dB from the peak is obtained.

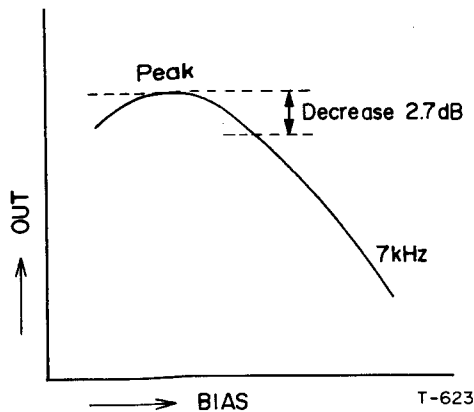


Fig. 10-12 Bias Limits Chart

10-18 RECORD LEVEL SET

Tape SPEED SW HIGH (15 ips)
BIAS and EQ SW 1

16. Apply a 400 Hz signal at -8 dB (308 mV) to the LINE IN jacks. Be sure the LINE and Output controls are still at their previously set positions.
17. Begin recording.
18. Adjust VR-709/710 (on TRIMMER RESISTORS UNIT) for -8 dB (308 mV) at OUTPUT jacks.

10-19 FREQUENCY RESPONSE -OVERALL-

NOTE: Any Bias signals feeding into the Test equipment should be filtered out by using an external Bias Trap.

- RECORD BIAS and EQ SW at position 1 -

Tape SPEED SW HIGH (15 ips)

19. Apply signal swept from 30 Hz to 28 kHz, -8 dB (308 mV) to the LINE IN jacks and record on a blank TEAC YTT-8013 Test Tape.
20. During recording, monitor the Tape signal and adjust equalization VR-503/504 (on REC AMPL. UNIT) for readings within the Response Limits chart. See Fig. 10-13.
21. Apply the same signal swept at -28 dB (30.8 mV) level and while monitoring the off-the-Tape signal check also for readings within the Response Limits chart. See Fig. 10-13.

Tape SPEED SW . . . LOW (7-1/2 ips)

22. Apply signal swept from 40 Hz to 24 kHz, -28 dB (30.8 mV).
23. During recording, monitor the Tape signal and adjust equalization VR-501/502 (on REC AMPL. UNIT) for readings within the Response Limits chart. See Fig. 10-13.

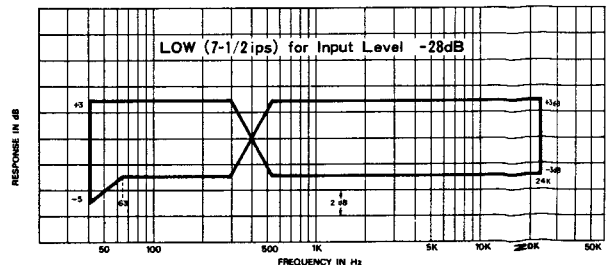
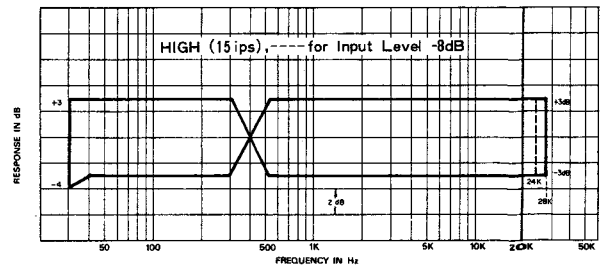


Fig. 10-13 Frequency Response -OVERALL- 1

– RECORD BIAS and EQ SW at position 2 –

Tape SPEED SW HIGH (15 ips)

24. Apply signal swept from 30 Hz to 24 kHz, -8 dB (308 mV) and record on a blank TEAC YTT-8003.
25. During recording, monitor the Tape signal and adjust equalization VR-552 (on BIAS OSC UNIT) for both channels, and check for readings within the Response Limits chart. See Fig. 10-14.
26. Apply signal swept from 30 Hz to 28 kHz, -28 dB (30.8 mV) and while monitoring the off-the-Tape signal check for readings within the Response Limits chart. See Fig. 10-14.

Tape SPEED SW LOW (7-1/2 ips)

27. Apply signal swept from 40 Hz to 24 kHz, -28 dB (30.8 mV) and while monitoring the off-the-Tape signal check for readings within the Response Limits chart. See Fig. 10-14.

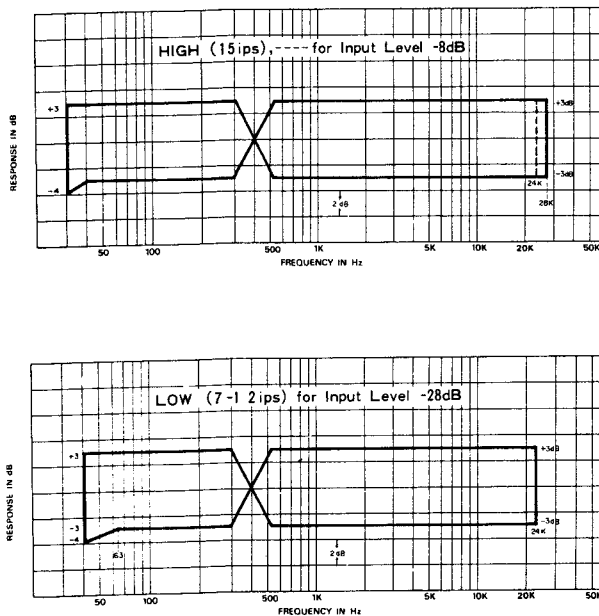


Fig. 10-14 Frequency Response –OVERALL– 2

– RECORD BIAS and EQ SW at position 3 –

Tape SPEED SW HIGH (15 ips)

28. Apply signal swept from 30 Hz to 24 kHz, -28 dB (30.8 mV) and record on a blank TEAC YTT-8023.
29. During recording, monitor the Tape signal and adjust equalization VR-551 (On BIAS OSC UNIT) for both channels. Check for reading within the Response Limits chart. See Fig. 10-15.

Tape SPEED LOW (7-1/2 ips)

30. Apply signal swept from 40 Hz to 20 kHz, -28 dB (30.8 mV).
31. During recording, monitor the Tape signal and check also for readings within the Response Limits chart. See Fig. 10-15.

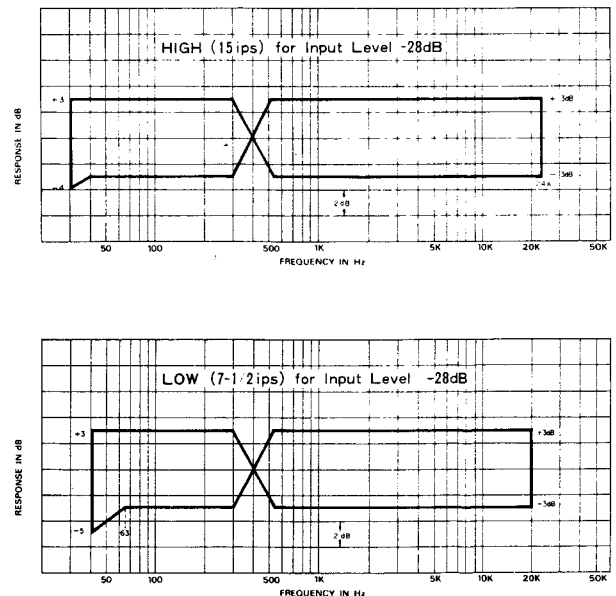


Fig. 10-15 Frequency Response –OVERALL– 3

10-20 MONOPHONIC RECORDING CHECK

Set one REC MODE SW ON (LEFT or RIGHT) and the other OFF.

BIAS and EQ SW 1

Tape SPEED SW HIGH (15 ips)

1. Apply signal swept from 30 Hz to 28 kHz, -28 dB (30.8 mV) to LINE IN jacks and record. Use record Test Tape YTT-8003.
2. If adjustment is required, adjust L-552 (on BIAS OSC UNIT).

10-21 OPTIMUM ERASURE MEASUREMENT

Tape SPEED SW HIGH (15 ips)
BIAS and EQ SW 2

1. Thread the TEAC YTT-8003 Test Tape on the unit.
2. Apply a 1 kHz signal at 10 dB above the operating level of -8 dB (308 mV), to the LINE IN jack.
3. Make a 30 second recording of the above signal while reading and noting the level of output, then rewind to beginning of this recording.
4. Disconnect the 1 kHz signal source (AF oscillator) from the LINE IN jack.
5. Connect a VTVM to the OUTPUT jack, through a 1 kHz Narrow Band-Pass Filter.
6. Put unit in the Record mode and "record" (erase) over this previous recording, then rewind to beginning again.
7. Put unit in PLAY mode and monitor the output on the VTVM.
8. Difference in output level, compared to the above recording level, should be more than 65 dB.

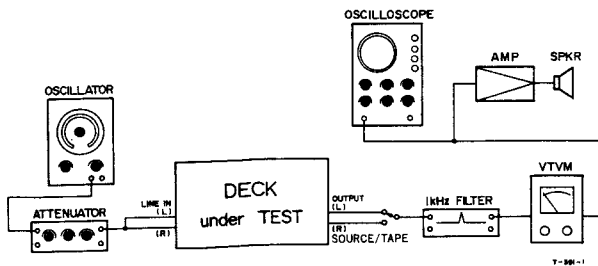


Fig. 10-16 Test Connections for Erase measurement

10-22 CHANNEL SEPARATION

NOTE: Be sure tape is completely erased prior to doing these checks.

1. Place unit in Record mode.
2. Apply a 1 kHz signal at -8 dB (308 mV) to Left channel.
3. While recording measure the OUTPUT on Right channel with VTVM connected through a 1 kHz band-pass filter. Level shall be -45 dB or less.
4. Repeat the above procedure using a 125 Hz signal and by-passing the 1 kHz band pass filter.
5. Depress the STOP button.

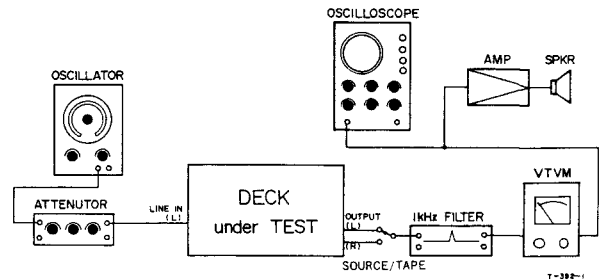


Fig. 10-17 Test Connections for Channel separation check

10-21 SIGNAL-TO-NOISE RATIO -RECORD-

1. OUTPUT and Line controls should be at the specified position.
2. Set RECORD BIAS and EQ SW to 1 position.
3. Remove the AF oscillator from the LINE IN jacks.
4. Place the unit in the Record mode with "no signal" applied. Note the point on the index counter where recording begins.
5. Rewind the tape to the beginning point and play it back.
6. The noise level as indicated on the VTVM should be readings listed below.

HIGH (15 ips) 48 dB
LOW (7-1/2 ips) 48 dB

10-24 DISTORTION CHECK

Tape SPEED SW HIGH (15 ips)
BIAS and EQ SW 1

1. Thread the TEAC YTT-8013 Test Tape on the unit.
2. Apply a 1 kHz signal to LINE IN jacks.
3. Place the unit in the record mode for about 10 seconds. Rewind and play this recorded section of the tape.
4. Read the indicated value on the distortion analyzer.
5. The distortion factor should be 0.8 % or less.

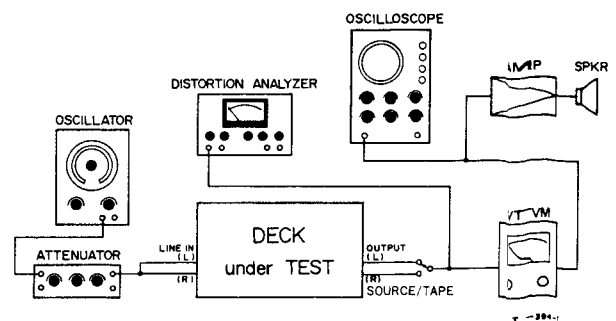


Fig. 10-18 Test Connections for Distortion check

dbx PERFORMANCE

The A-7300RX dbx performance ENCODER and DECODER adjustments themselves are critical and should only be performed by skilled technicians.

10-25 PREPARATION

NOTE: Prior to doing the dbx system adjustment procedure the output voltage of the Stabilizer Unit B must be checked and adjusted if necessary. Adjust VR-171 for +15 V at Test Point (terminal) No. 8. Confirm also, that the output of Test Point No. 1 is -15 ± 0.5 V.

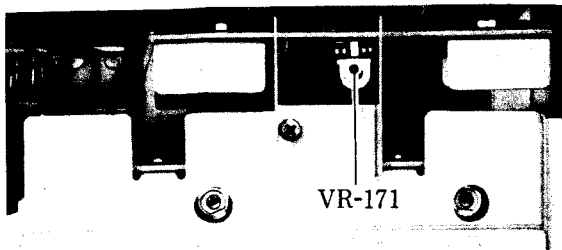


Fig. 10-19 Stabilizer Unit B Adj. Location

MONITOR SW SOURCE
Input Selector SW LINE

Apply a 400 Hz signal at -8 dB (308 mV) to the LINE IN jacks.

Adjust LINE controls for -8 dB (308 mV) at SOURCE/TAPE output jacks.

With controls set as described above in MONITOR LEVEL SETTING 10-10 begin following checks and adjustments.

10-26 ENCODER LEVEL ADJUSTMENT

1. Apply a 1 kHz signal at -8 dB (308 mV) to the LINE IN jacks. Check for -1 dB (690 mV) approx. at ENCODER output jacks.
2. Depress and release the ENCODER pushbuttons (IN and OUT). Check that change in level is ± 0.5 dB or less.
3. Adjust VR-814 (LEVEL ADJ. VR) if necessary, to obtain this reading.

NOTE: Input impedance of the VTVM used in this Test must be 1 M ohm or more.

10-27 ENCODER OPERATION CHECK

With controls set as described above in Section 10-25, 10-26 step 1 and set ENCODER SW to IN.

1. Change the Input frequency to 100 Hz, The ENCODER output level should read -3.5 dB ± 0.5 dB (548 mV–488 mV).
2. Change the Input signal frequency to 10 kHz, The ENCODER output level should read -5.7 dB ± 0.5 dB (435 mV–388 mV).
3. Decrease input level to -58 (975 mV) dB and check that ENCODER output level reads -26 dB ± 0.5 dB (36.6 mV–41.1 mV).
4. Increase input level to +12 dB (3.08 V) and check that ENCODER output level reads +9 dB ± 0.5 dB (2.06 V–2.30 V).
5. With these condition distortions should be less than 0.5%.
6. Change the Input signal frequency to 19 kHz ($\pm 5\%$) and set the MPX SW to IN position.
7. The ENCODER output level should read -26 dB (38.8 mV) or less.
8. Change the Input signal frequency to 38 kHz to LINE IN jack. The ENCODER output level should read -9 dB (274 mV).
9. Remove input signal and check that ENCODER output noise level is -40 dB or less.

10-28 DECODER LEVEL SET

1. Change the Input signal frequency to 1 kHz to LINE IN jacks.
2. The SOURCE/TAPE output should read -8 dB (308 mV).
3. Depress and release the SOURCE MONITOR SW pushbutton (NORMAL and DECODER).
4. Check that change in level is ± 1 dB or less.
5. Adjust VR-624 (LEVEL ADJ. VR) if necessary, to obtain this reading.

10-29 DECODER OPERATION CHECK

Depress DECODER SW to IN.

1. Change the Input signal frequency to 100 Hz,
The SOURCE/TAPE output level should read $-3 \text{ dB} \pm 1 \text{ dB}$ (615 mV–488 mV).
2. Change the Input signal frequency to 10 kHz,
The SOURCE/TAPE output level should read $+1.4 \text{ dB} \pm 1 \text{ dB}$ (730 V–580 V).
3. Decrease Input level to -38 dB (9.75 mV) and check that SOURCE/TAPE output level reads -68 dB (345 mV–274 mV).
4. Increase Input level to $+2 \text{ dB}$ (975 V) and check that SOURCE/TAPE output level reads $+12 \text{ dB} \pm 1 \text{ dB}$ (12.6 V–19.9 V).
5. With these condition distortion should be less than 0.5%.
Set ENCODER SW to IN.
6. Remove Input signal and check that SOURCE/TAPE output noise level is -85 dB or less.

10-30 dbx SINGLE SINEWAVE RESPONSE CHARACTERISTICS

1. Depress the ENCODE and DECODE pushbuttons and then run OVERALL FREQUENCY RESPONSE Section 10-19.
2. Check also for reading within the Response Limits chart. See Fig. 10-20.

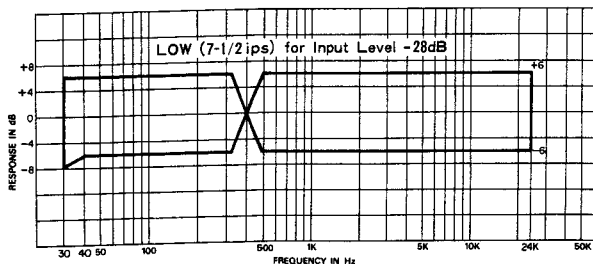
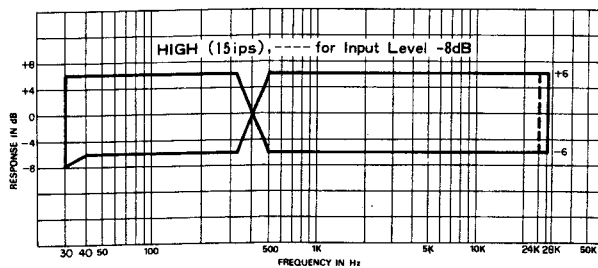


Fig. 10-20 dbx Single Sinewave Response Limits Chart

10-31 dbx CHANNEL SEPARATION

1. Repeat Section 10-22 with ENCODE and DECODE push-buttons depressed.
2. Separation should be 65 dB or more at 1 kHz.

10-32 dbx SYSTEM OVERALL DISTORTION CHECK

1. Repeat Section 10-24 with ENCODE and DECODE push-buttons depressed.
2. Distortion should be 0.8% or less at 1 kHz
(Specified level)
3% or less at 1 kHz (+20 dB level)

10-33 dbx OVERALL SIGNAL-TO-NOISE RATIO CHECK

1. Repeat Section 10-23 with ENCODE and DECODE push-buttons depressed.
2. The noise level as indicated on the VTVM should be reading 60 dB or more (both HIGH and LOW speeds).

10-34 dbx IN/OUT LEVEL DIFFERENCE CHECK

1. Apply specified Input signal 400 Hz, -8 dB (308 mV).
2. During recording and playback depress and release ENCODE and DECODE pushbuttons.
3. Difference in output level should be 2 dB or less.

11. TROUBLE-SHOOTING-1

| MALFUNCTION | POSSIBLE SOURCE OF TROUBLE |
|--|--|
| - Pilot Lamps (in VU Meters) do not illuminate when power is applied | Fuse F701 (2A) burned out |
| - Fuse burns out (blows) when power is applied | Defective Power transformer (T151) |
| - Capstan will not rotate | Specified 24V DC present on the CAPSTAN MOTOR ASS'Y J152 Pins #1~7 Defective CAPSTAN MOTOR ASS'Y Specified 24V DC not present on the STABILIZER UNIT J21 Pins #11, #12 Defective STABILIZER UNIT ASS'Y or Connector loose Specified 37V DC not present on the STABILIZER UNIT J21 Pins #13, #14 Defective D10~D13 or Power transformer (T151) |
| - Transport inoperative in Forward Playback | Faulty Safety switch (SW156) |
| - Pinch roller fails to engage completely | Voltage present on the CAP SOL. 1 terminals CAP SOL. 1 Disconnected High-Level voltage (approx. 3V) present on the SOLENOID DRIVE UNIT J121 Pin #3 Defective Q121 or Q122 High-Level output voltage not present on the CONTROL UNIT P41 Pin #1 Defective CONTROL UNIT |
| - Right Reel Motor does not rotate | Fast Forward OK Defective Q71 or K12 High-Level output voltage not present on the CONTROL UNIT P41 Pins #1 or #2 Defective CONTROL UNIT High-Level output voltage present on the REEL MOTOR DRIVE UNIT at H terminal Defective Reel Motor |
| - Neither Reel Motor rotates | Brakes not dis-engaged Disconnected brake Solenoid R or L, Defective Q125 or Q126 High-Level output voltage present on the SOLENOID DRIVE UNIT J121 Pin #8 Defective SOLENOID DRIVE UNIT High-Level output voltage not present on the CONTROL UNIT P41 Pin #2 Defective CONTROL UNIT |
| - Fast Forward or Rewind modes inoperative (Playback is OK) | High-Level output voltage not present on the CONTROL UNIT P41 Pins #4, #7 Defective CONTROL UNIT High-Level output voltage present on the CONTROL UNIT P41 Pin #2 Defective SOLENOID DRIVE UNIT (Q125, Q126) |

NOTE: Explanation of abbreviations and circuit component designations. F . . . Fuse D . . . Diode SW . . . Switch K . . . Relay T . . . Transformer J . . . Pin jack (Female) Connector P . . . Pin plug (male) connector. High-Level output voltage- Logic true level approx. +3V. Refer to the circuit diagram for further assistance in locating possible defective circuit components.

11. TROUBLE-SHOOTING-2

| MALFUNCTION | POSSIBLE SOURCE OF TROUBLE |
|---|--|
| – Transport inoperative (Capstan only rotates) | Specified 8V DC present on the STABILIZER UNIT J21 Pins #5, #6 Defective STABILIZER UNIT Specified 8V DC not present on the STABILIZER UNIT J21 Pins #5, #6 Faulty D14~D17 or fuse F2 (2A) |
| – Cannot select PAUSE | Defective CONTROL UNIT |
| – Amplifier inoperative | Voltage not present on P151 at Pin #10 or #11 (To ampl. connector) Fuse F1 (2A), F4 (0.5A) burned out Voltage present on P151 at Pins #10 or #11 Defective Q601, Q602, Q603 (on AMPL. STABILIZER UNIT) |
| – Playback audio intermittent or absent a) Both channels inoperative (SOURCE OK) b) R-Ch or L-Ch inoperative | Defective Q207, Q208, Q209 (on PLAY EQ AMPL. UNIT) or associated parts SOURCE also inoperative Defective Q301 (on METER PHONE AMPL. UNIT) or associated parts SOURCE Monitor function normal Defective Q201, Q203, Q205, Q207 (on PLAY EQ AMPL. UNIT) Q251, Q253 (on PLAY LINE AMPL. UNIT) or associated parts |
| – Playback sound is not clear | High Freq. weak Dirty head, incorrect Adj. of VR201/ 203 (on PLAY EQ AMPL. UNIT) Sound distorted Defective Q201, Q203, Q205 (on (PLAY EQ AMPL. UNIT) |
| – VU Meter inoperative in TAPE Monitor mode (sound is normal) | Defective Q306 (on METER PHONE AMPL. UNIT) or as- sociated parts, Faulty VU Meter ass'y |
| – Hum in playback signal | Defective Playback head |
| – Intermittent or absence of audio at PHONES jack | Defective Q303, Q305, Q307 (on METER PHONE AMPL. UNIT) or associated parts |
| – LINE IN signal is not applied to SOURCE (Playback normal) | Defective Q405, Q406 (on MIC MIXING AMPL. UNIT) Q451, Q453 (on REC LINE AMPL. UNIT), etc. |
| – Will not Record | No Erase Defective K551, Q551~554, T551 (on BIAS OSC UNIT) Erase normal Sound normal at SOURCE Defective Q507, Q509 (on REC AMPL. UNIT) Dirty or defective record head |
| – Recorded sound not clear | Dirty record head, incorrect Bias Adj. or Defective Q505 (on REC AMPL. UNIT) |
| – Inoperative MIC Recording (LINE IN signal normal) | Defective Q401~Q404 (on MIC MIXING AMPL. UNIT), etc. |
| – Hum in Recording signal | Defective Record head or P702 connector loose or heads magnetized |

TEAC®

2 2 track
MASTER
RECORDER

A-7300RX

Stereo Tape Deck with dbx* System

PARTS LIST



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PARTS ORDERING INFORMATION

Spare parts are available through your nearest TEAC Authorized Service Center or directly from the TEAC office, the address of which is written on the back cover. When ordering parts, always include the following information:

- | | |
|--------------|--------------------|
| 1. MODEL | 4. DESCRIPTION |
| 2. REF. NO. | 5. UNIT SERIAL NO. |
| 3. PARTS NO. | 6. MANUAL CODE NO. |

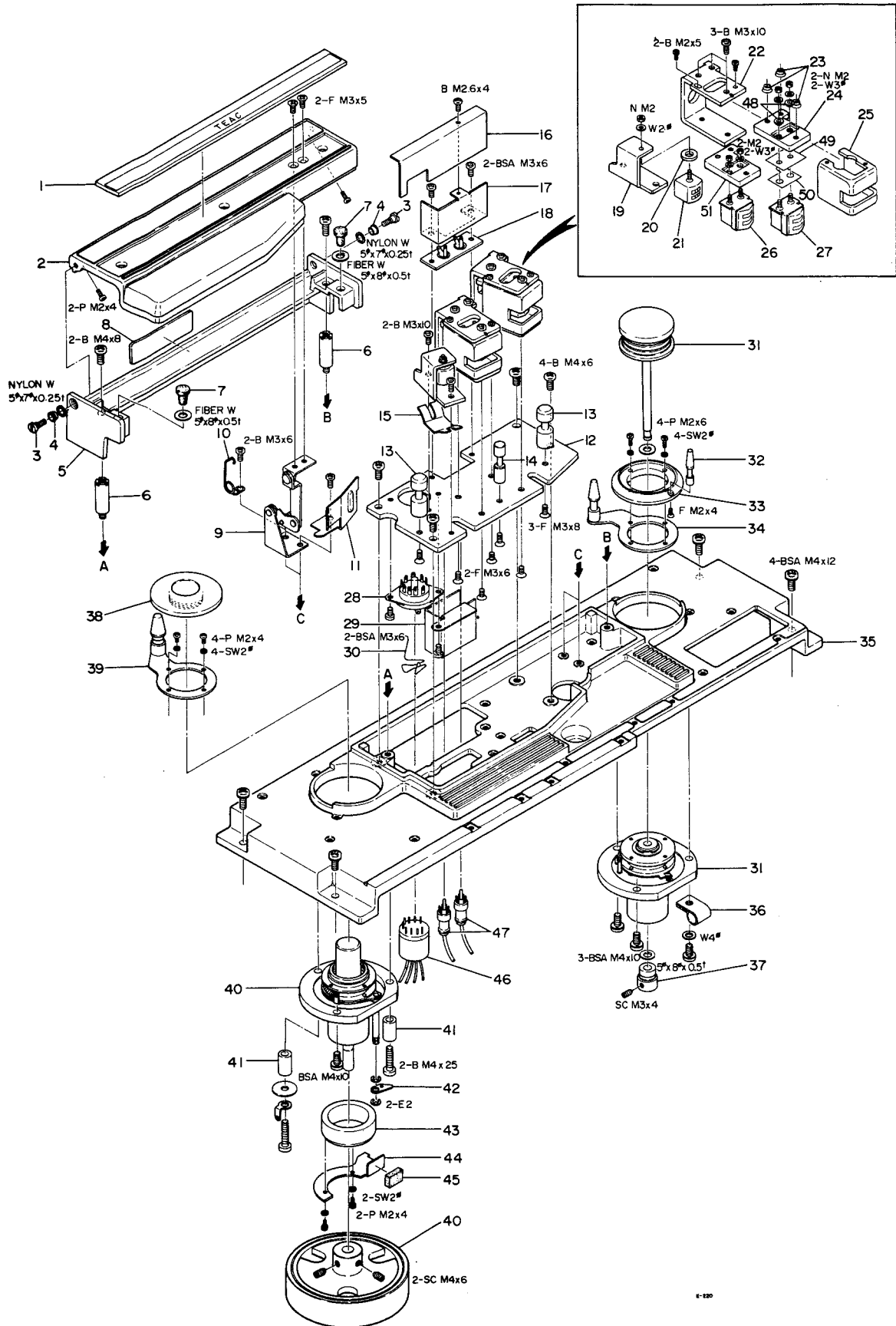
NOTICE REGARDING PARTS ORDERS

1. Do not order by only REF. NO.
2. In some instances, individual minor parts are not available. In such a case, the entire assembly including the part requested will be sent to you.
3. Parts are identical between the different models with the exceptions as coded by the designations in the REMARKS column.
4. PC Boards shown viewed from foil side.
5. Parts marked with * require longer delivery time than regular parts.

PARTS LIST—1

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|-------------------------------------|----------------|
| 1 - 1 | * 55001351 | Case Assy, Portable | |
| 1 - 2 | * 55320051 | Air Vent. | |
| 1 - 3 | * 55507000 | Panel, Trim | |
| 1 - 4 | * 55340190 | Cover, Counter | |
| 1 - 5 | * 55540530 | Name Plate, 2 Track Master Recorder | |
| 1 - 6 | * 55520260 | Panel, Chassis | |
| 1 - 7 | * 55530210 | Angle, Front | |
| 1 - 8 | * 55530780 | Sash, Side; L | |
| 1 - 9 | * 55530790 | Sash, Side; R | |
| 1 - 10 | * 55530860 | Sash, Bottom | |
| 1 - 11 | * 55020810 | Panel Assy, Side; R | |
| 1 - 12 | * 55020800 | Panel Assy, Side; L | |
| 1 - 13 | * 50235312 | Angle, Rear Cover | |
| 1 - 14 | * 55002310 | Mounting Foot Assy | |
| 1 - 15 | * 55545810 | Bracket, Connection Panel | |
| 1 - 16 | * 50432950 | Socket, AC Power | |
| | * 51240140 | Socket, AC Power; 3P | |
| 1 - 17 | 50541150 | Capacitor, Polyst, 0.0047 mfd 250V | |
| 1 - 18 | * 55546720 | Holder, Cord | |
| 1 - 19 | * 50279490 | Clamp, B | |
| 1 - 20 | * 50435070 | Jack, Pin; 2P | |
| 1 - 21 | * 55540990 | Plate, Connector Mounting | |
| 1 - 22 | * 50438411 | Connector Socket, 12P | |
| 1 - 23 | * 50430360 | Socket, 1P | |
| 1 - 24 | * 50430350 | Plug, 1P | |
| 1 - 25 | * 50436650 | Plug, 3P | |
| 1 - 26 | * 50438420 | Socket, 3P | |
| 1 - 27 | * 55520820 | Panel, Connection | |
| 1 - 28 | * 51680690 | PC Board Assy, Capacitor Mounting | |
| | 50542040 | Ceramic Capacitor, 0.01 mfd 50V | Part of 1 - 28 |
| 1 - 29 | * 55443890 | Guide, Plug | |
| 1 - 30 | * 50454071 | Terminal, Ground | |
| 1 - 31 | * 50924500 | Fuse Holder | |
| 1 - 32 | 50411140 | Fuse, 2A | |
| | 50411010 | Fuse, 1A (220V/240V area) | AUSTRALIA |
| 1 - 33 | * 55001361 | Case Assy, Portable; Amplifier | |
| 1 - 34 | 50276931 | Washer, Trim | |
| 1 - 35 | 55342670 | Mounting Foot | |
| 1 - 36 | * 50436631 | Connector Plug, 12P | |

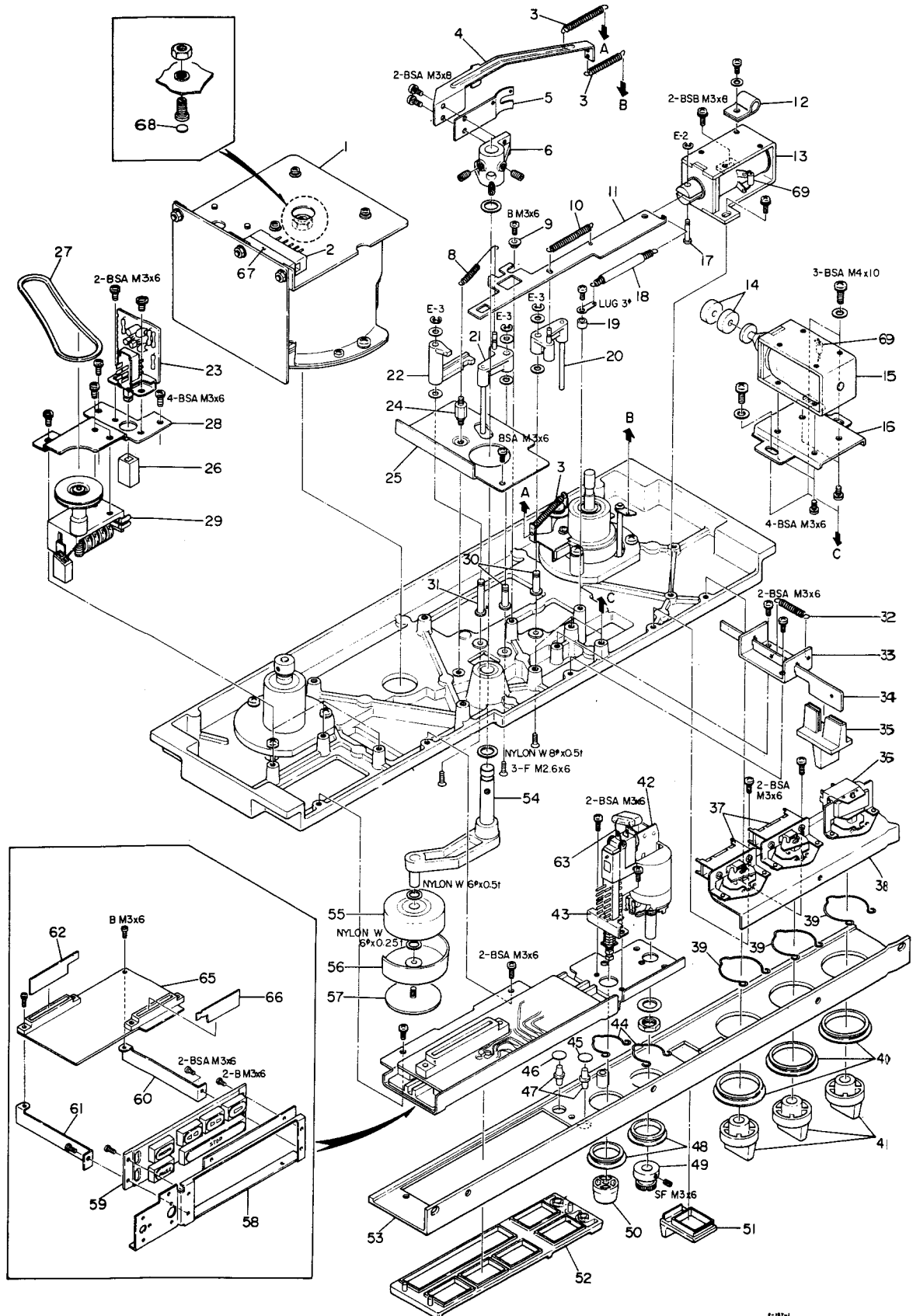
EXPLODED VIEW—2



PARTS LIST—2

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|-------------------------------|---------|
| 2 - 1 | * 55530920 | Name Plate, Housing | |
| 2 - 2 | * 55305111 | Head Housing | |
| 2 - 3 | * 55405150 | Screw, Hinge | |
| 2 - 4 | * 55405160 | Collar, Hinge | |
| 2 - 5 | * 55305121 | Base, Head Housing | |
| 2 - 6 | * 55405011 | Stud, Head Housing Mounting | |
| 2 - 7 | * 55305390 | Cushion, Rubber | |
| 2 - 8 | * 55507480 | Plate, Cover | |
| 2 - 9 | * 55002271 | Link Assy, Head Housing | |
| 2 - 10 | * 55202050 | Spring, Head Housing | |
| 2 - 11 | * 55540780 | Anti-Spoiler | |
| 2 - 12 | * 55507531 | Plate, Head Base | |
| 2 - 13 | 55440341 | Tape Guide, B | |
| 2 - 14 | 55440731 | Tape Guide, C | |
| 2 - 15 | * 55202020 | Spring, Head Adjusting | |
| 2 - 16 | * 55507630 | Shield, Pin Jack | |
| 2 - 17 | * 55540470 | Shield, A | |
| 2 - 18 | * 50435070 | Jack, Pin; 2P | |
| 2 - 19 | * 55507160 | Plate, Erase Head | |
| 2 - 20 | 50136540 | Spacer, Erase Head | |
| 2 - 21 | 50662090 | Head, Erase (2T-2CH) | |
| 2 - 22 | * 55507170 | Bracket, Head Plate | |
| 2 - 23 | * 55240840 | Spring, Head; E | |
| 2 - 24 | * 55341990 | Plate, Head; P | |
| 2 - 25 | * 55507180 | Head Shield | |
| 2 - 26 | 50664520 | Head, Record (2T-2CH) | |
| 2 - 27 | 50664530 | Head, Playback (2T-2CH) | |
| 2 - 28 | * 50435040 | Socket, 9P (w/Clamp) | |
| 2 - 29 | * 55546740 | Shield, Socket; C | |
| 2 - 30 | * 50429060 | Clip, Socket Retaining; Small | |
| 2 - 31 | 55040154 | Drive Roller Assy | |
| 2 - 32 | * 55440490 | Pin, Tape Guide | |
| 2 - 33 | * 55441241 | Ring, Tension Arm; A | |
| 2 - 34 | 55040170 | Tension Arm, R | |
| 2 - 35 | * 55305031 | Base, Center Mounting | |
| 2 - 36 | * 55340420 | Clamp, Wire; B | |
| 2 - 37 | * 55440500 | Pulley, Drive Roller | |
| 2 - 38 | * 55405100 | Cap, A | |
| 2 - 39 | 55040554 | Tension Arm Assy, L | |
| 2 - 40 | 55002052 | Impedance Roller Assy | |
| 2 - 41 | * 55440830 | Spacer, Impedance Roller | |
| 2 - 42 | * 55541550 | Hook, Spring; T | |
| 2 - 43 | * 55440820 | Ring, Damper | |
| 2 - 44 | * 55541890 | Arm, Damper | |
| 2 - 45 | * 55541900 | Cushion, Damper Arm | |
| 2 - 46 | * 50432740 | Connector, 9P (Plug) | |
| 2 - 47 | * 51280250 | Cord, Head Connection | |
| 2 - 48 | * 50322950 | Spacer, Insulator | |
| 2 - 49 | * 55544350 | Plate, Insulator | |
| 2 - 50 | * 55546820 | Plate, Ground; Head | |
| 2 - 51 | * 55305100 | Plate; Head | |

EXPLODED VIEW-3



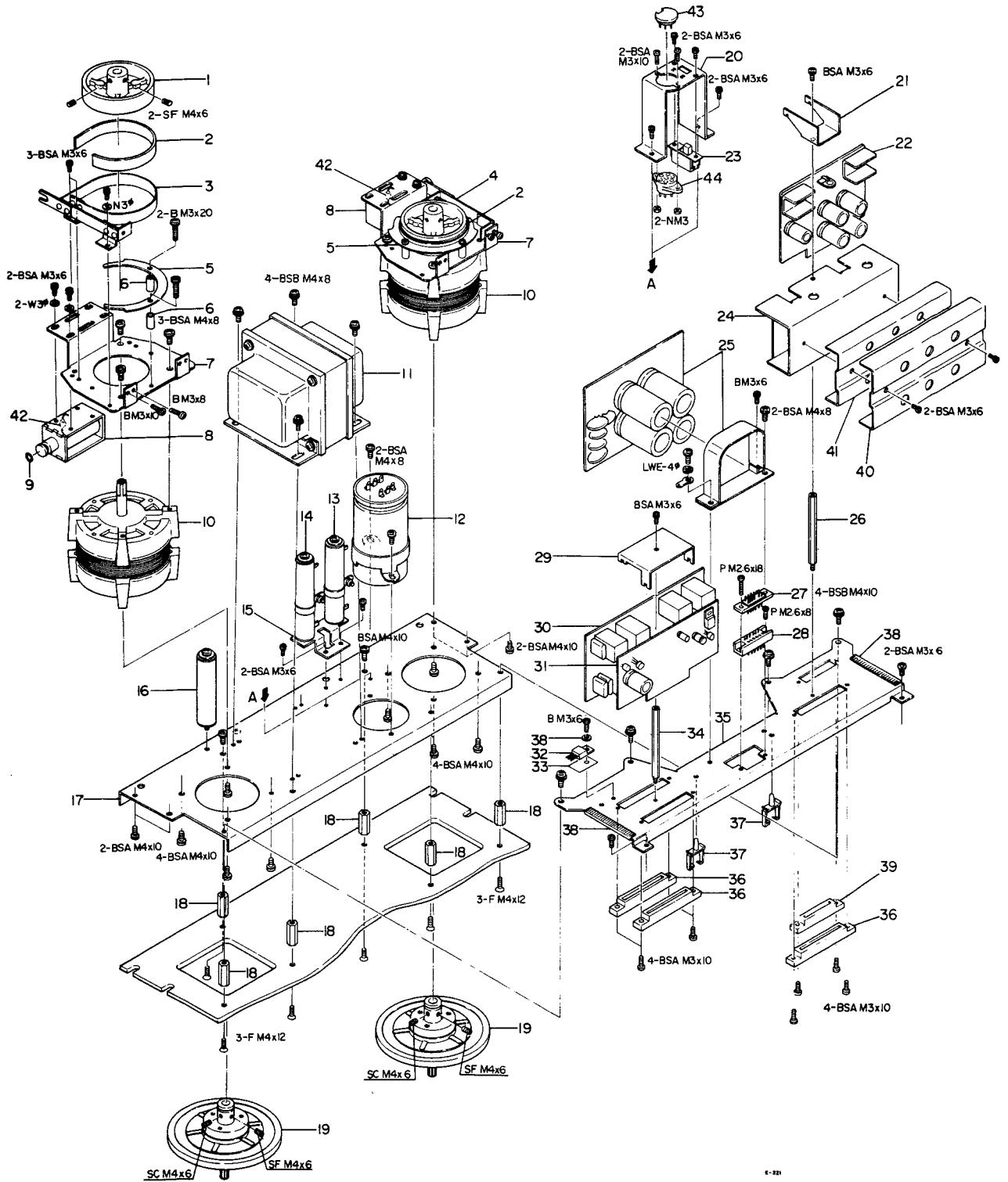
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PARTS LIST—3

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|----------------------------------|---------|
| 3 - 1 | 71060070 | Direct Drive Capstan Motor Assy | |
| 3 - 2 | * 50436190 | Socket, Multi-; 11P | |
| 3 - 3 | 55202170 | Spring, Tension | |
| 3 - 4 | * 55541210 | Arm, Actuating | |
| 3 - 5 | 50221152 | Spring, Pressure | |
| 3 - 6 | * 55305190 | Arm, Solenoid | |
| 3 - 7 | | (not used) | |
| 3 - 8 | * 55202090 | Spring, Lifter | |
| 3 - 9 | * 55405380 | Washer, Shoulder; 3 x 7 | |
| 3 - 10 | 55202070 | Spring, Pinch Roller | |
| 3 - 11 | * 55507200 | Link, Plunger | |
| 3 - 12 | * 55340420 | Clamp, Wire; B | |
| 3 - 13 | 51630010 | Solenoid, Plunger; B | |
| 3 - 14 | * 55541070 | Damper, Solenoid | |
| 3 - 15 | 51630000 | Solenoid, Plunger; A | |
| 3 - 16 | * 55507211 | Bracket, Solenoid Mounting | |
| 3 - 17 | * 55405170 | Pin, Plunger | |
| 3 - 18 | 55202080 | Spring, Link | |
| 3 - 19 | * 55405340 | Spacer, 3 x 3 | |
| 3 - 20 | 55305200 | Arm, Tape Lifter; A | |
| 3 - 21 | 55305210 | Arm, Tape Lifter; B | |
| 3 - 22 | * 55305160 | Arm, Cue | |
| 3 - 23 | * 51680670 | PC Bd. Assy, REWIND STOP UNIT | |
| 3 - 24 | * 55405361 | Stud, Hook; A | |
| 3 - 25 | * 55540460 | Shield, Motor | |
| 3 - 26 | 55305250 | Button, Counter Switch | |
| 3 - 27 | 55340320 | Belt, Counter; 14 x 61.5 | |
| 3 - 28 | * 55507231 | Bracket, Counter | |
| 3 - 29 | 55005000 | Counter, Index | |
| 3 - 30 | * 55405020 | Stud, A | |
| 3 - 31 | * 55405030 | Stud, B | |
| 3 - 32 | 55202100 | Spring, Cue Return | |
| 3 - 33 | * 55507190 | Journal, Cue Link | |
| 3 - 34 | * 55507220 | Link, Cue | |
| 3 - 35 | * 55305150 | Lever, Cue | |
| 3 - 36 | 51330010 | Switch, Rotary Toggle | |
| 3 - 37 | 51330020 | Switch, Rotary Slide | |
| 3 - 38 | * 55507300 | Bracket, Switch; A | |
| 3 - 39 | * 55202031 | Retaining Ring, Escutcheon; A | |
| 3 - 40 | * 55405331 | Escutcheon, A | |
| 3 - 41 | * 55305280 | Knob, Rotary Switch | |
| 3 - 42 | 51500071 | Var. Res. (w/Switch) 500 ohm-B | |
| 3 - 43 | * 50444740 | Switch, Mini Double-push | |
| 3 - 44 | * 55202041 | Retaining Ring, Escutcheon; B | |
| 3 - 45 | * 55507280 | Insert, Green | |
| 3 - 46 | * 55507270 | Insert, Red | |
| 3 - 47 | * 55305260 | Light Cover | |
| 3 - 48 | * 55405320 | Escutcheon, B | |
| 3 - 49 | * 55440380 | Knob, Pitch Control | |
| 3 - 50 | * 55305290 | Pushbutton | |
| 3 - 51 | * 55305300 | Hook, Cue Lever | |
| 3 - 52 | * 55305310 | Escutcheon, Transport Pushbutton | |
| 3 - 53 | * 55002260 | Panel, Control Mounting; D | |
| 3 - 54 | * 55305170 | Arm, Pinch Roller | |
| 3 - 55 | 55002100 | Pinch Roller | |
| 3 - 56 | 55340160 | Cover, Pinch Roller | |
| 3 - 57 | 55405180 | Cap, Pinch Roller | |
| 3 - 58 | * 55540311 | Bracket, Pushbutton; C | |
| 3 - 59 | * 50448611 | Pushbutton Assy, Transport; B | |
| 3 - 60 | * 55507320 | Retainer, PB Panel | |
| 3 - 61 | * 55541230 | Retainer, PB Panel; B | |
| 3 - 62 | * 51670200 | Board, Terminal; A | |
| 3 - 63 | * 50529050 | Spark Killer 0.1 mfd + 120 ohm | |
| 3 - 64 | | (not used) | |

(Continued on page 9)

EXPLODED VIEW—4

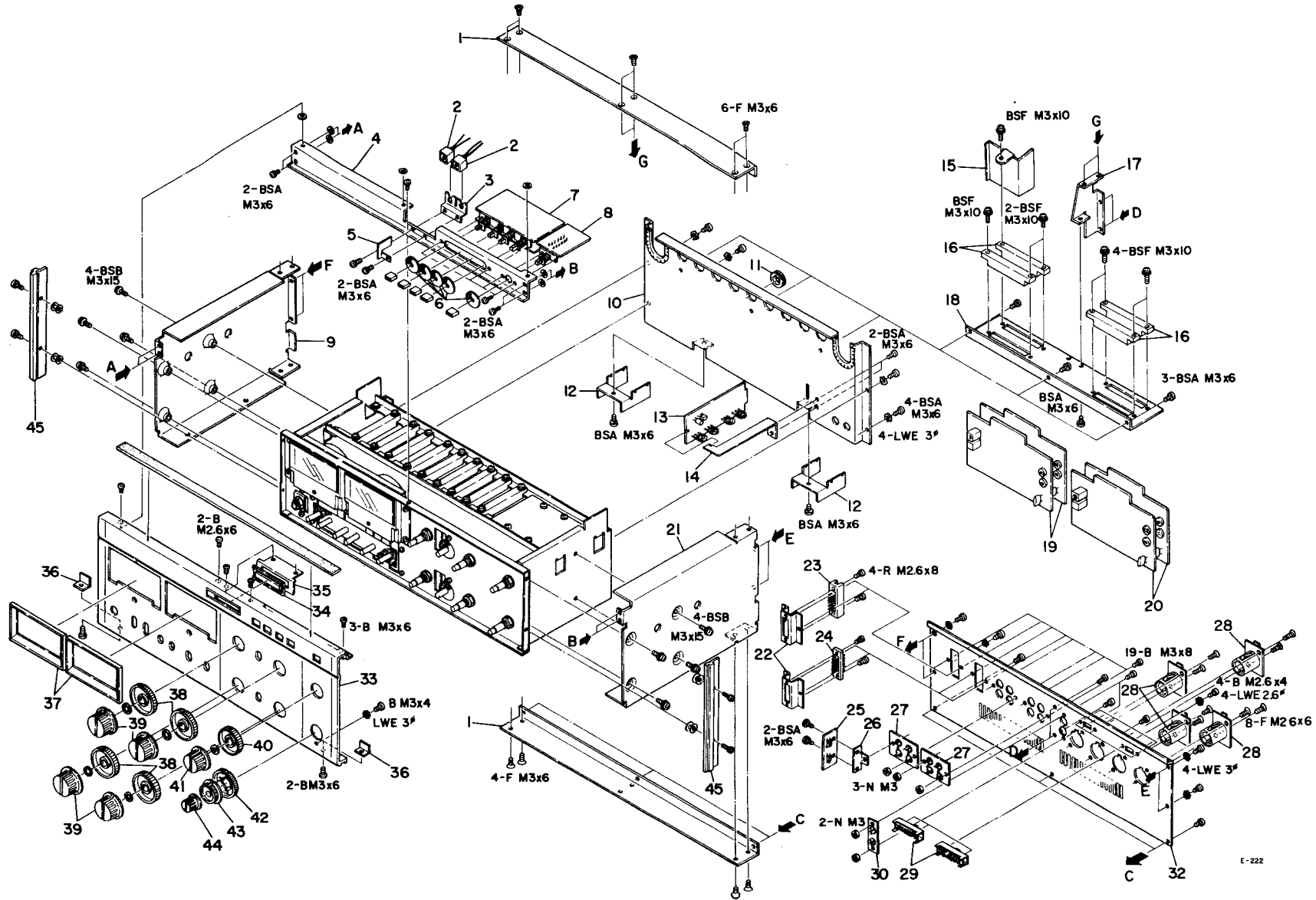


PARTS LIST-4

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|------------------------------------|---------|
| 4 - 1 | 50173570 | Drum, Brake | |
| 4 - 2 | 55342790 | Felt, Brake | |
| 4 - 3 | 50173392 | Brake Band Assy, R | |
| 4 - 4 | 50173332 | Brake Band Assy, L | |
| 4 - 5 | * 50173481 | Retainer, Brake Shaping | |
| 4 - 6 | * 50173490 | Spacer, Brake Retainer | |
| 4 - 7 | * 50173601 | Plate, Reel Motor; P | |
| 4 - 8 | 51630050 | Solenoid, Brake; R | |
| 4 - 9 | 55302510 | "O" Ring, P-4 (Spacer) | |
| 4 - 10 | 71041081 | Motor, Reel | |
| 4 - 11 | * 51520220 | Transformer, Power | |
| 4 - 12 | * 51700050 | Cap., MP; (7 + 1.5) mfd x 2 250V | |
| 4 - 13 | * 50524412 | Resistor, Wire Wound 100 ohm 30H | |
| 4 - 14 | * 50522420 | Resistor, Wire Wound 30 ohm 30H | |
| 4 - 15 | * 55540571 | Plate, Resistor | |
| 4 - 16 | * 50522410 | Resistor, Wire Wound 600 ohm 30 H | |
| 4 - 17 | * 55520252 | Chassis, Reel Motor | |
| 4 - 18 | * 50161950 | Standoff, Reel Motor | |
| 4 - 19 | * 55040881 | Reel Table Assy | |
| 4 - 20 | * 55541240 | Bracket, Frequency Selector | |
| 4 - 21 | * 55545670 | Bracket, PC Board; C | |
| 4 - 22 | 51682311 | PC Bd. Assy, STABILIZER UNIT; B | |
| 4 - 23 | * 50444560 | Switch, Slide; 6P | |
| 4 - 24 | 51682940 | PC Bd. Assy, STABILIZER UNIT | |
| 4 - 25 | 51682471 | PC Bd. Assy, POWER SUPPLY UNIT | |
| 4 - 26 | * 55405000 | Stud, PC Board; A | |
| 4 - 27 | * 50436610 | Plug, 16P | |
| 4 - 28 | * 50438390 | Socket, 16P | |
| 4 - 29 | * 55541220 | Bracket, PC Board; B | |
| 4 - 30 | 51681312 | PC Bd. Assy, REEL MOTOR DRIVE UNIT | |
| 4 - 31 | 51681457 | PC Bd. Assy, SOL. DRIVE UNIT | |
| 4 - 32 | * 50425460 | Transistor, 2SA490-Y | |
| 4 - 33 | * 50332910 | Sheet, Insul; Mylar | |
| 4 - 34 | * 55440700 | Stud, PC Board; B | |
| 4 - 35 | * 55520780 | Chassis, Connector Mounting | |
| 4 - 36 | * 50438380 | Connector, PC; 14P | |
| 4 - 37 | * 50332580 | Clamp, Wire; E | |
| 4 - 38 | * 50332950 | Washer, Insulating | |
| 4 - 39 | * 50438440 | Connector, PC; 10P | |
| 4 - 40 | * 55504341 | Heat Sink, C | |
| 4 - 41 | * 55504331 | Heat Sink, B | |
| 4 - 42 | 51430930 | Diode VO6E | |
| 4 - 43 | 50432990 | Plug, Voltage Selector | |
| 4 - 44 | 50435060 | Socket, Voltage Selector | |

PARTS LIST-3 (Continued from page 7)

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|---------------------------|---------|
| 3 - 65 | * 51681623 | PC Bd. Assy, CONTROL UNIT | |
| 3 - 66 | * 51670250 | PC Board, Terminal; B | |
| 3 - 67 | * 50436560 | Plug, Multi-; 11P | |
| 3 - 68 | * 50125590 | Thrust Bearing, Fiber | |
| 3 - 69 | 51430930 | Diode VO6E | |

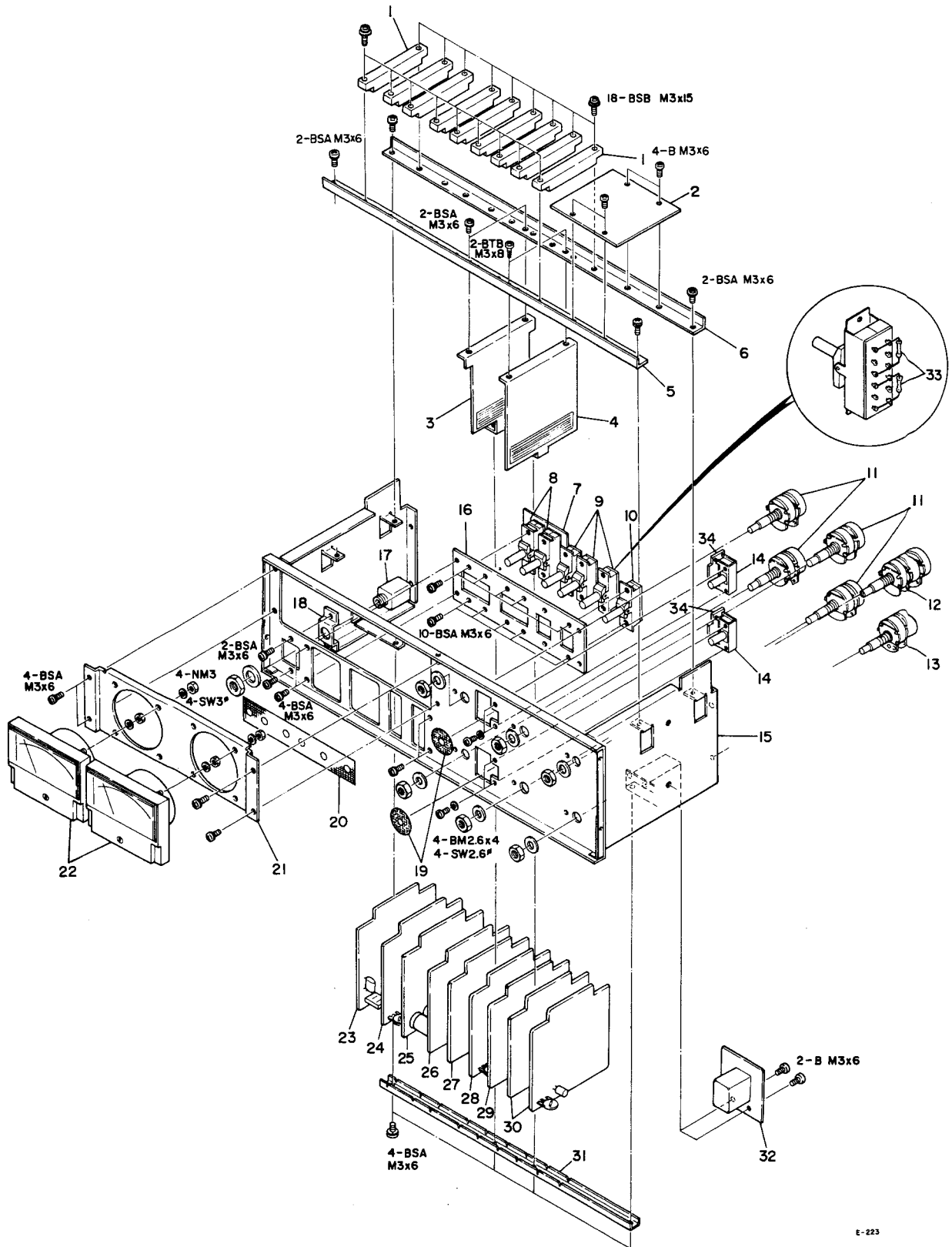


EXPLODED VIEW—5

PARTS LIST-5

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|---------------------------------------|----------------|
| 5 - 1 | * 55530750 | Angle, Amplifier | |
| 5 - 2 | * 51420920 | Lamp, w/Holder | |
| 5 - 3 | * 55545690 | Bracket, Lamp | |
| 5 - 4 | * 55530850 | Plate, Push Switch | |
| 5 - 5 | * 55545820 | Paper, Blind | |
| 5 - 6 | * 55545040 | Mask, Push Switch | |
| 5 - 7 | 51682340 | PC Board Assy, Switch; A | |
| | * 51672340 | Upper PC Board, Switch; A | Part of 5 - 7 |
| | * 51672350 | Lower PC Board, Switch; A | Part of 5 - 7 |
| | * 51340060 | Switch, Push; 4-Gang | Part of 5 - 7 |
| 5 - 8 | * 51682360 | PC Board Assy, Switch; B | |
| | * 51672360 | PC Board, Switch; B | Part of 5 - 8 |
| | * 51340070 | Switch, Push | Part of 5 - 8 |
| 5 - 9 | * 55042801 | Side Chassis Assy, Ampl; L | |
| 5 - 10 | * 55530820 | Plate, Shield; Ampl. | |
| 5 - 11 | * 55341190 | Bushing, Rubber | |
| 5 - 12 | * 55545850 | Bracket, PC Bd.; D | |
| 5 - 13 | * 51682760 | PC Board Assy, TRIMMER RESISTOR | |
| 5 - 14 | * 50233760 | Bracket, PC Bd. | |
| 5 - 15 | * 55546730 | Plate, Shield | |
| 5 - 16 | * 50438380 | Connector, PC; 14P | |
| 5 - 17 | * 55545660 | Retainer, Angle | |
| 5 - 18 | * 55530740 | Plate, PC Bd. | |
| 5 - 19 | * 51683560 | PC Board Assy, ENCODER UNIT | |
| 5 - 20 | * 51683550 | PC Board Assy, DECODER UNIT | |
| 5 - 21 | * 55042791 | Side Chassis Assy, Ampl.; Right | |
| 5 - 22 | * 55540990 | Plate, Connector Mounting | |
| 5 - 23 | * 50438411 | Connector Socket; 12P | |
| 5 - 24 | * 50436631 | Connector Plug; 12P | |
| 5 - 25 | 51682750 | PC Board Assy, Input-Output | |
| 5 - 26 | * 55540820 | Angle, PC Bd. | |
| 5 - 27 | * 50436580 | Jack, Pin; 4P | |
| 5 - 28 | * 60520070 | Receptacle, Cannon; XLR-3-31 (Female) | |
| 5 - 29 | * 50444730 | Switch, Slide | |
| 5 - 30 | * 50435070 | Jack, Pin; 2P | |
| 5 - 31 | | (not used) | |
| 5 - 32 | * 55520990 | Panel, Connection; Ampl. | |
| 5 - 33 | * 55021030 | Panel Assy, Ampl.; Trim | |
| 5 - 34 | * 55341800 | Lens, Lamp | Part of 5 - 33 |
| 5 - 35 | * 55545680 | Plate, Lamp Lens | Part of 5 - 33 |
| 5 - 36 | * 55507350 | Holder, Ampl. Chassis | |
| 5 - 37 | * 55305370 | Escutcheon, Meter | |
| 5 - 38 | * 55305341 | Guide, Memory Marker; Large | |
| 5 - 39 | * 50253670 | Knob, Medium | |
| 5 - 40 | * 55305351 | Guide, Memory Marker; Small | |
| 5 - 41 | * 50253820 | Knob, B-30B | |
| 5 - 42 | * 55305361 | Guide, Memory Marker; B | |
| 5 - 43 | * 55305330 | Knob, Large | |
| 5 - 44 | * 50253750 | Knob, Small | |
| 5 - 45 | * 55545840 | Sash, Ampl.; Side | |

EXPLODED VIEW-6



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PARTS LIST—6

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|------------|--|---------------|
| 6 - 1 | * 50438380 | Connector, 14P | |
| 6 - 2 | 51680840 | PC Board Assy, Mic. Transformer | |
| 6 - 3 | * 55507341 | Plate, Shield; C | |
| 6 - 4 | * 55541200 | Plate, Shield | |
| 6 - 5 | * 55507550 | Angle, PC Bd.; A | |
| 6 - 6 | * 55507560 | Angle, PC Bd.; B | |
| 6 - 7 | 51680972 | PC Board Assy, Switch Mounting; B | |
| 6 - 8 | * 50447420 | Switch, Lever; 4P3T | Part of 6 - 7 |
| 6 - 9 | 50447440 | Switch, Lever; 4PDT | |
| 6 - 10 | 50447340 | Switch, Lever; 6PDT | |
| 6 - 11 | * 51500040 | Var. Res. (w/"Snap Stop"), 100k ohm - A | |
| 6 - 12 | * 51500020 | Var. Res. (w/"Snap Stop"), 50k ohm - B x 2 | |
| 6 - 13 | * 51500030 | Var. Res. (w/"Snap Stop"), 50k ohm - A x 2 | |
| 6 - 14 | 50444730 | Switch, Slide; 4PDT | |
| 6 - 15 | * 55020890 | Chassis Assy, Ampl. | |
| 6 - 16 | * 55507370 | Plate, Lever Switch Mounting | |
| 6 - 17 | 50433030 | Jack, Phone; 3 cond. | |
| 6 - 18 | * 55507380 | Bracket, Jack Mounting | |
| 6 - 19 | * 55500790 | Mask Control Switch | |
| 6 - 20 | * 55507390 | Seal, Switch Masking | |
| 6 - 21 | * 55507400 | Bracket, Meter | |
| 6 - 22 | 51650011 | Meter, VU | |
| 6 - 23 | * 51680823 | PC Board Assy, BIAS OSC UNIT | |
| 6 - 24 | * 51680893 | PC Board Assy, RECORD AMPL. UNIT; B | |
| 6 - 25 | * 51680832 | PC Board Assy, AMPL. STABILIZER UNIT | |
| 6 - 26 | * 51683660 | PC Board Assy, RECORD LINE AMPL. UNIT; C | |
| 6 - 27 | * 51682971 | PC Board Assy, METER PHONE AMPL. UNIT; C | |
| 6 - 28 | * 51682171 | PC Board Assy, PLAYBACK LINE AMPL. UNIT; B | |
| 6 - 29 | * 51683640 | PC Board Assy, PLAYBACK EQ AMPL. UNIT; D | |
| 6 - 30 | * 51683760 | PC Board Assy, MIC MIXING AMPL. UNIT; B | |
| 6 - 31 | * 55507610 | Holder, PC Board | |
| 6 - 32 | 51680461 | PC Board Assy, EQ RELAY | |
| 6 - 33 | 51813160 | Carbon Res., 27k ohm 1/4W (R703/R704) | |
| 6 - 34 | * 51684420 | PC Board Assy, Switch Mounting; D | |

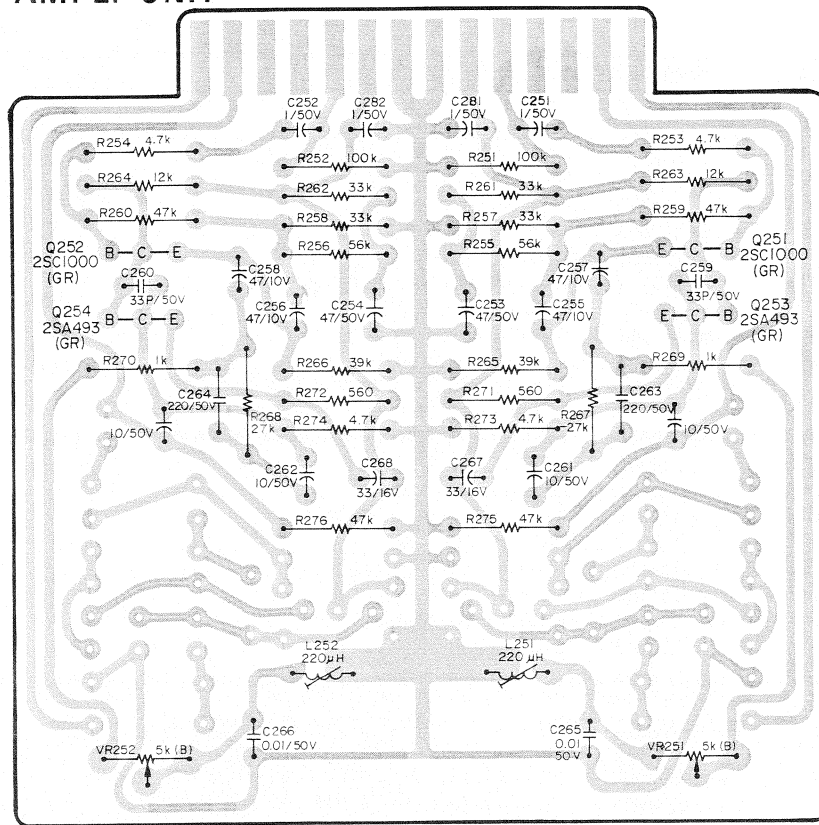
INCLUDED ACCESSORIES

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|-----------|-------------------------------------|---------|
| | 51280010 | Cords, Input-Output Connection, x 2 | |
| | 51280240 | Cord, Low Stray Capacity | |
| | 51280260 | Cord, AC Power | |
| | 51280300 | Cord, AC Power | |
| | 51280220 | Cord 12P Plug | |
| | 51280230 | Cord, 12P Socket | |
| | 57100300 | Cleaning Stick (TZ-275) | |
| | 50629620 | Splicing Tape | |
| | 50291350 | Silicone Cloth | |
| | 50860090 | Hex Wrench Kit (M3 & M4) | |
| | 55980250 | Reel Adapter Clamp (TZ-612), x 2 | |
| | 55143060 | Case, Cord | |
| | 50411010 | Fuse, 1A or | |
| | 50411140 | Fuse, 2A | |
| | * RE-1002 | Empty Reel, 10 inch | |
| | 51013830 | A-7300RX Owner's Manual | |
| | 51013371 | Open Reel Supplement | |

NOTE: * The Empty Reel is available as an Optional Accessory and thus is not assigned a special TEAC parts number. Please order this by the MODEL CODE NUMBER (RE-1002). This number is included on the package.

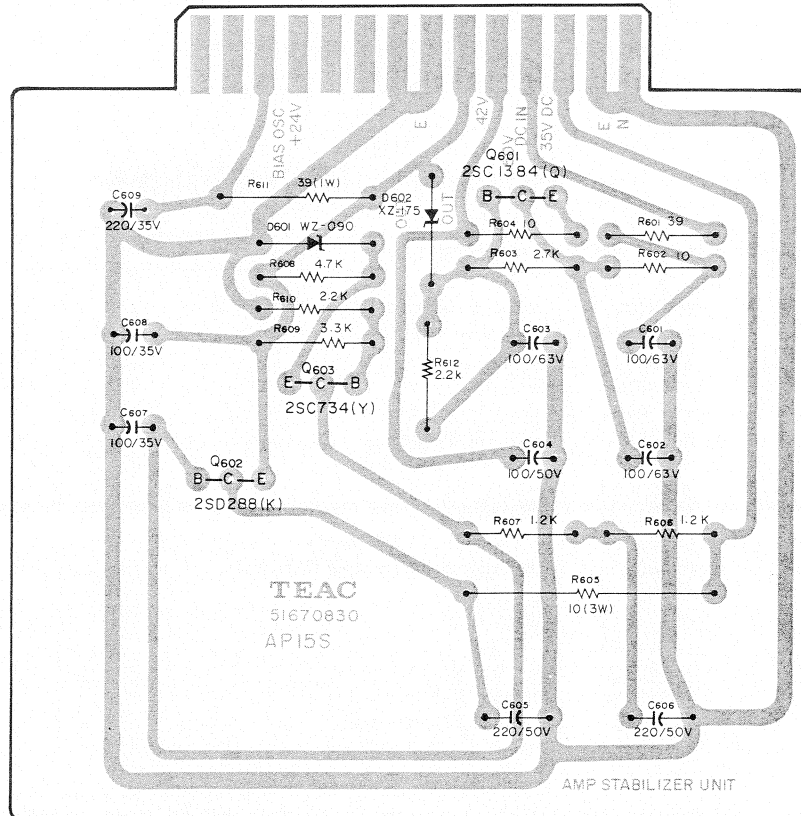
2. PC BOARD SECTION (Diagram)

1. PLAY LINE AMPL. UNIT



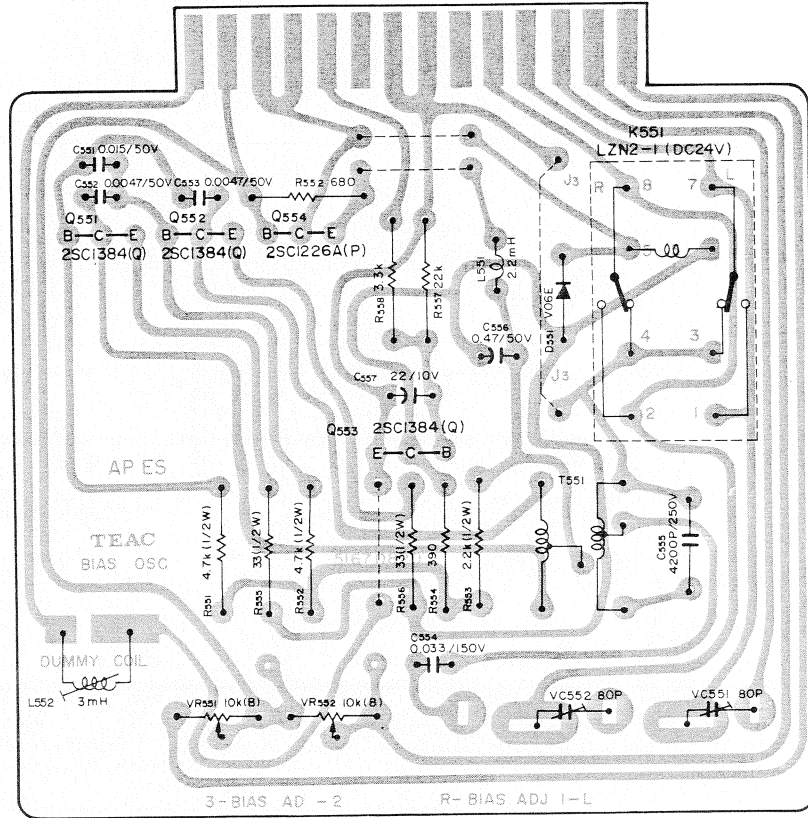
P-213

2. AMPL. STABILIZER UNIT



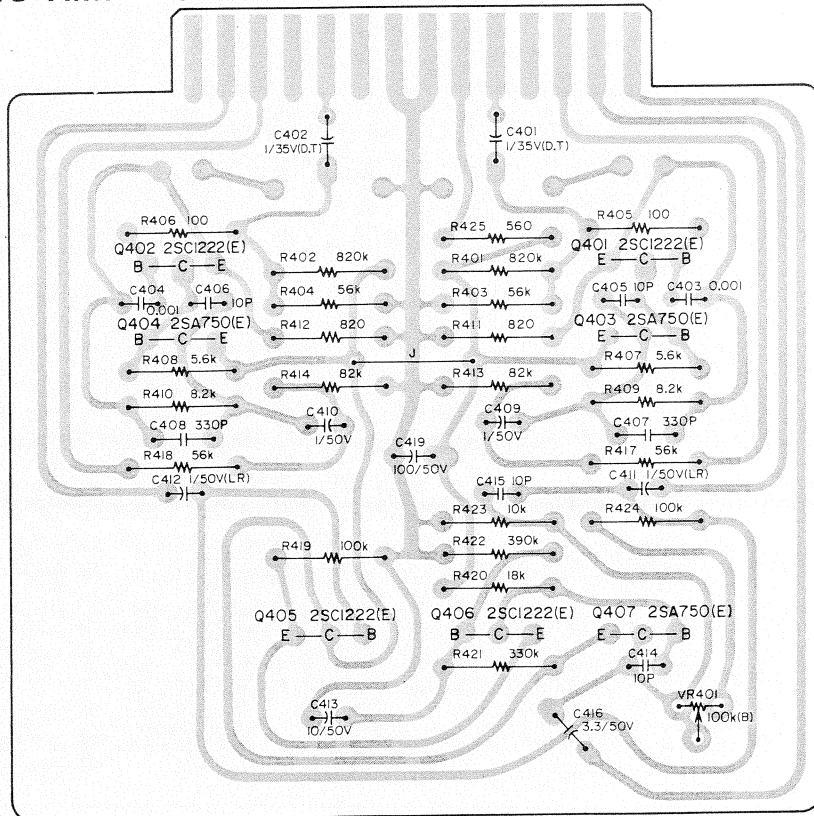
P-120

3. BIAS OSC UNIT



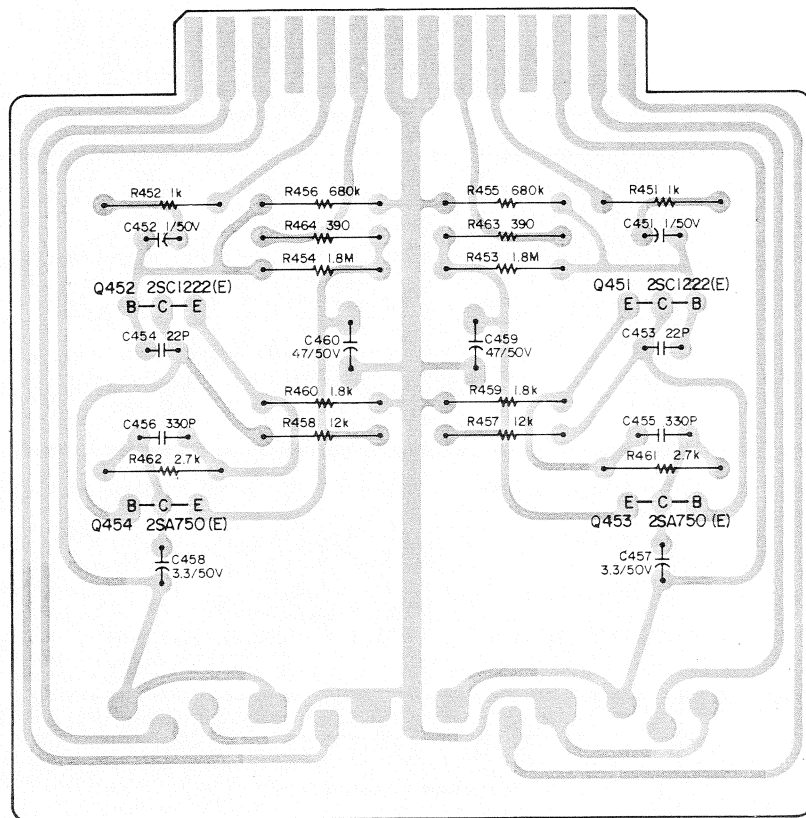
P-117

4. MIC MIXING AMPL. UNIT



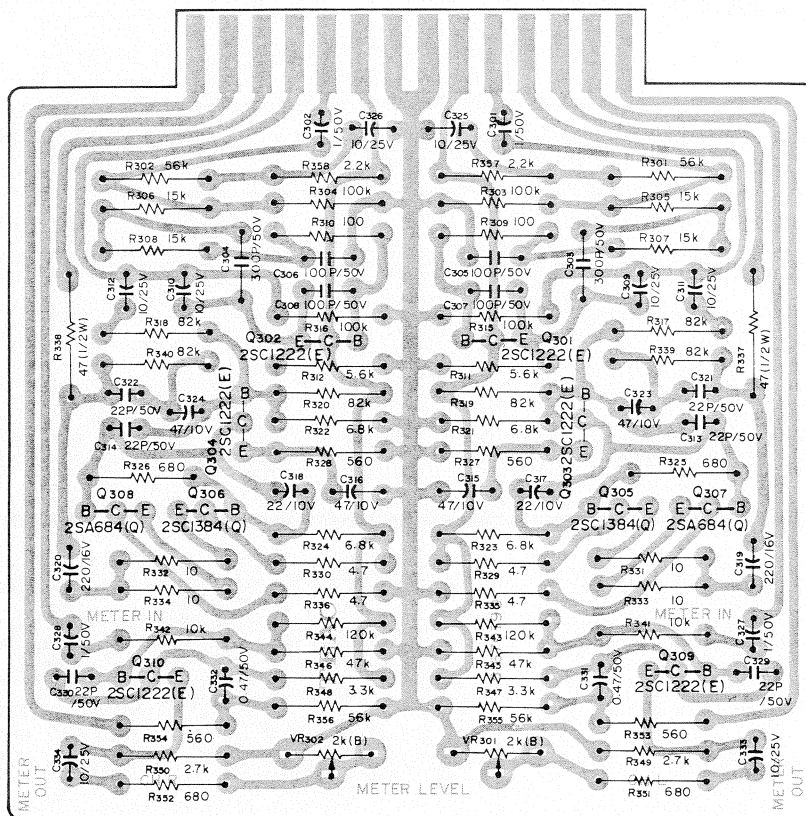
P-140-1

5. REC LINE AMPL. UNIT



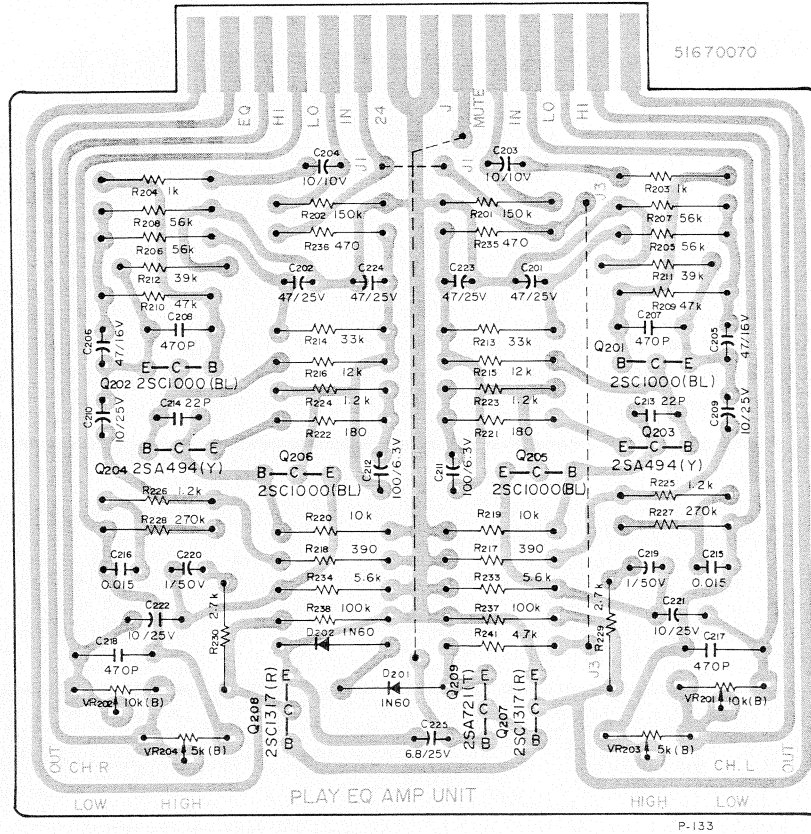
P-132-1

6. METER PHONE AMPL. UNIT

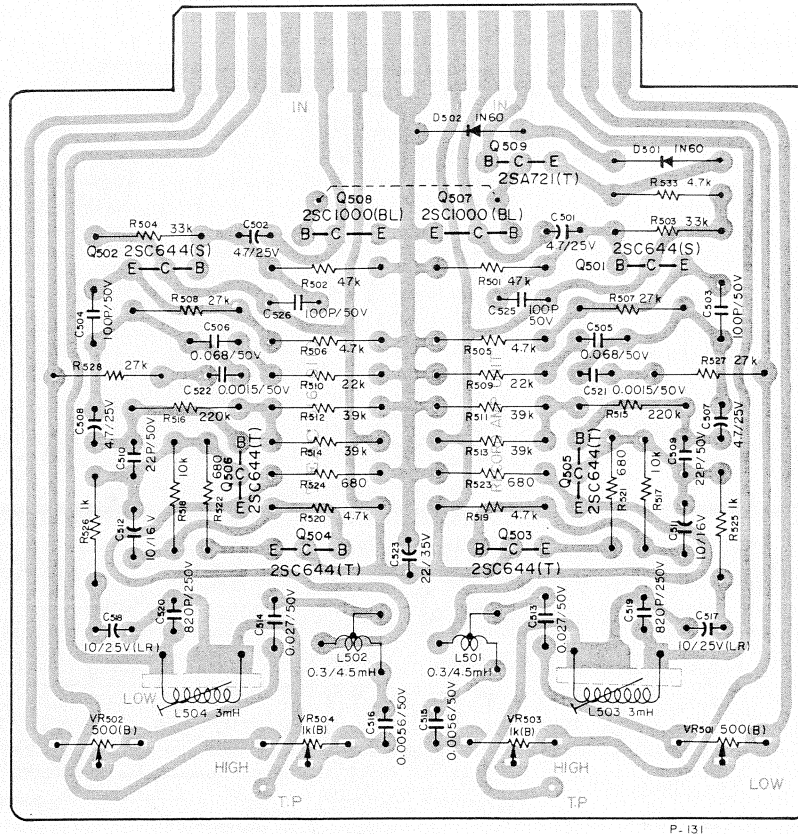


P-124-1

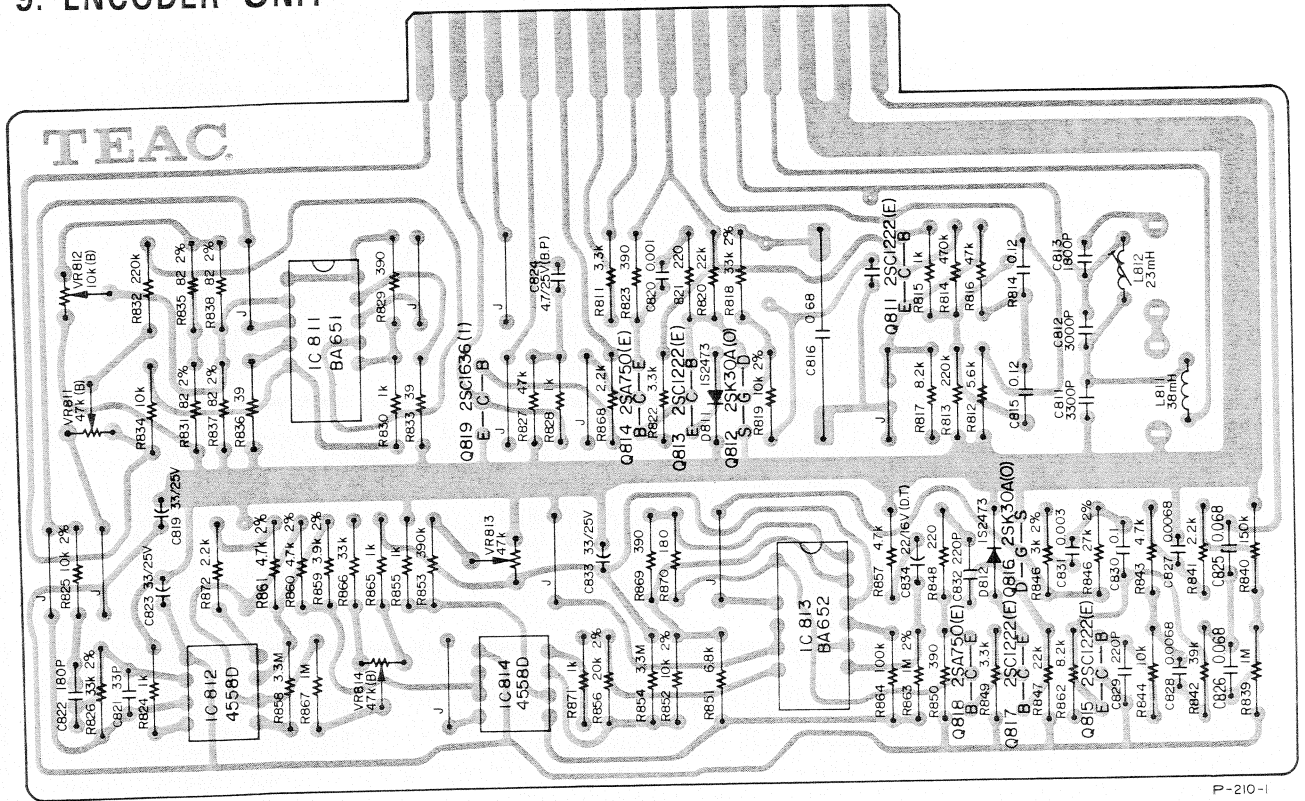
7. PLAY EQ AMPL. UNIT



8. RECORD AMPL. UNIT

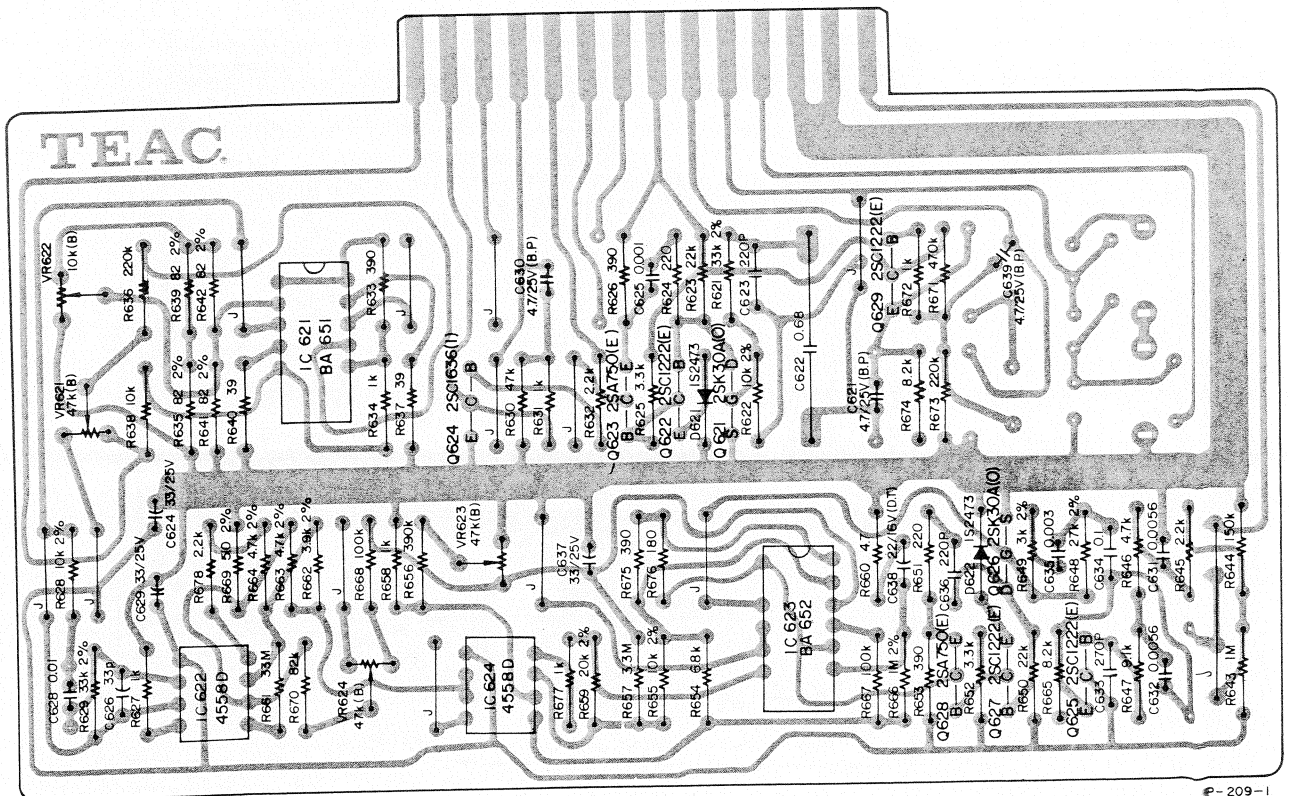


9. ENCODER UNIT



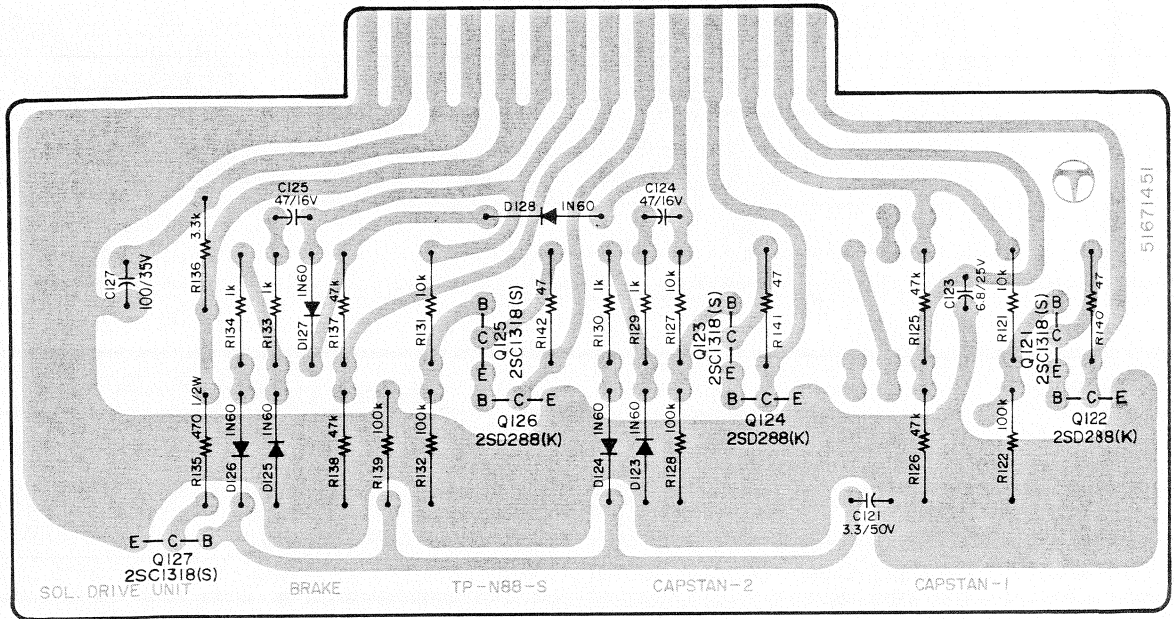
P-210-1

10. DECODER UNIT



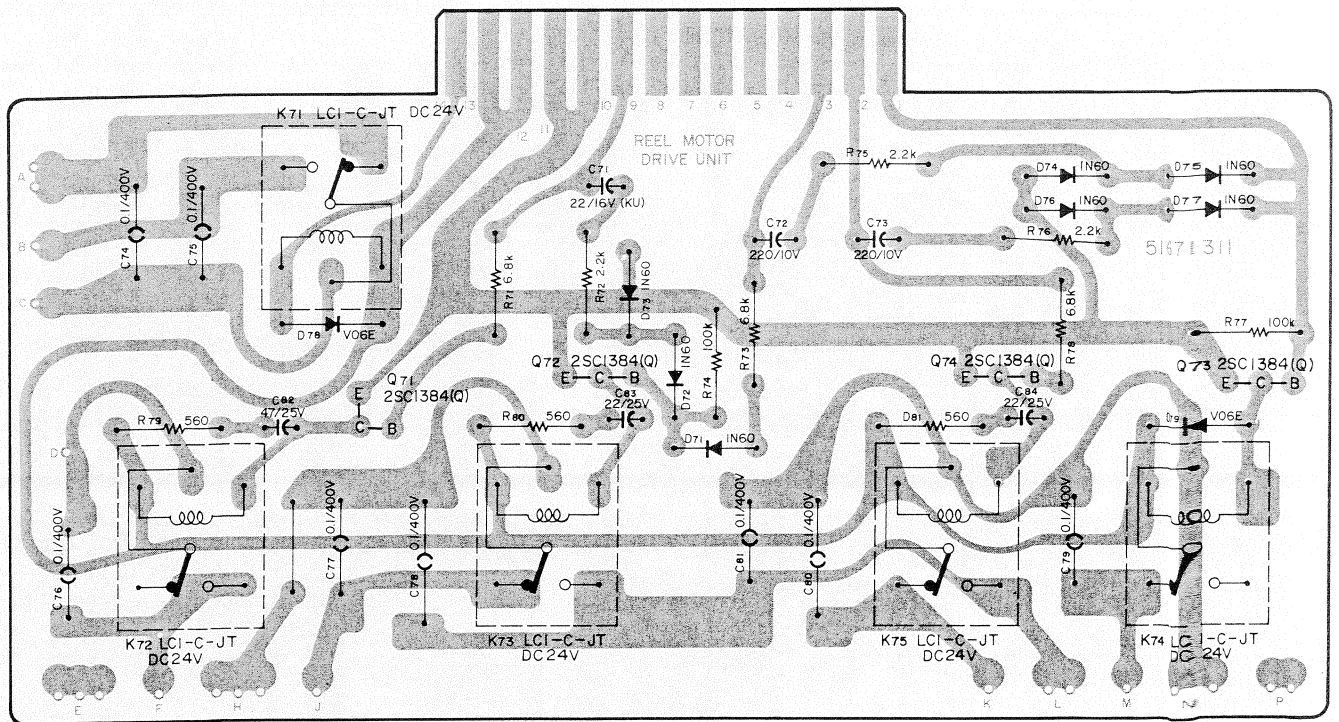
P-209-1

11. SOLENOID DRIVE UNIT



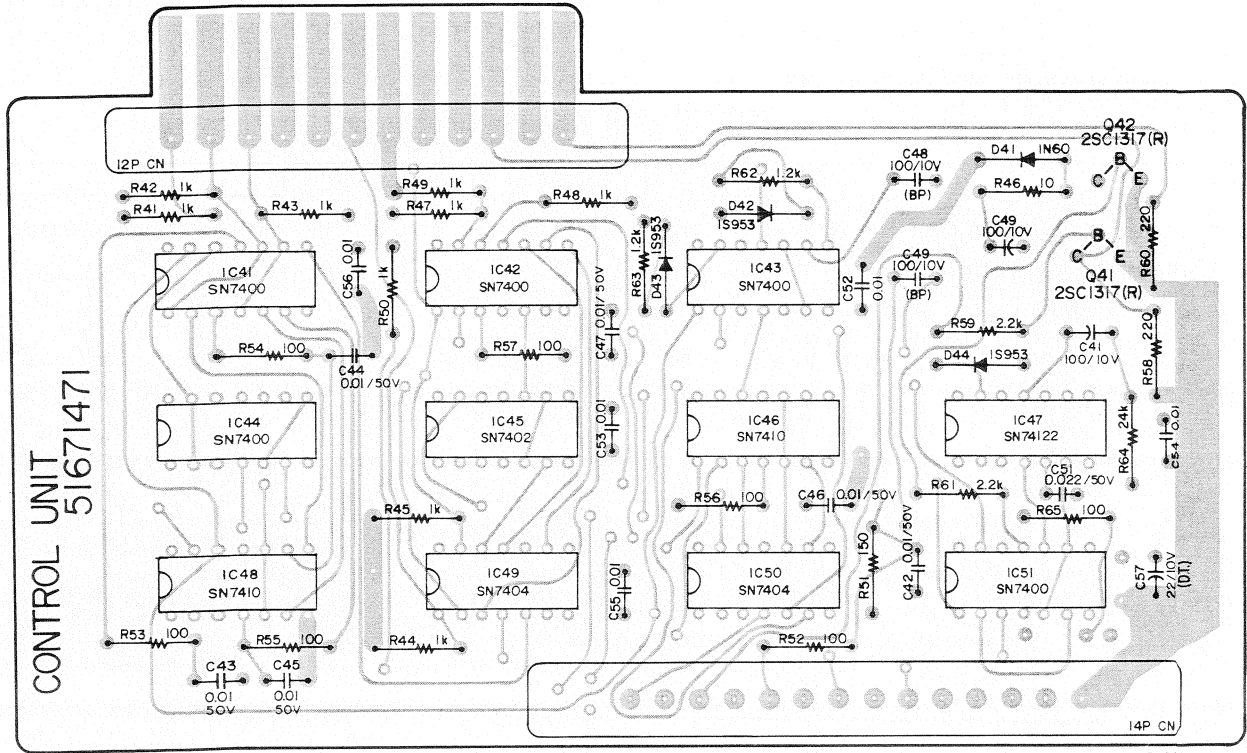
P-214

12. REEL MOTOR DRIVE UNIT



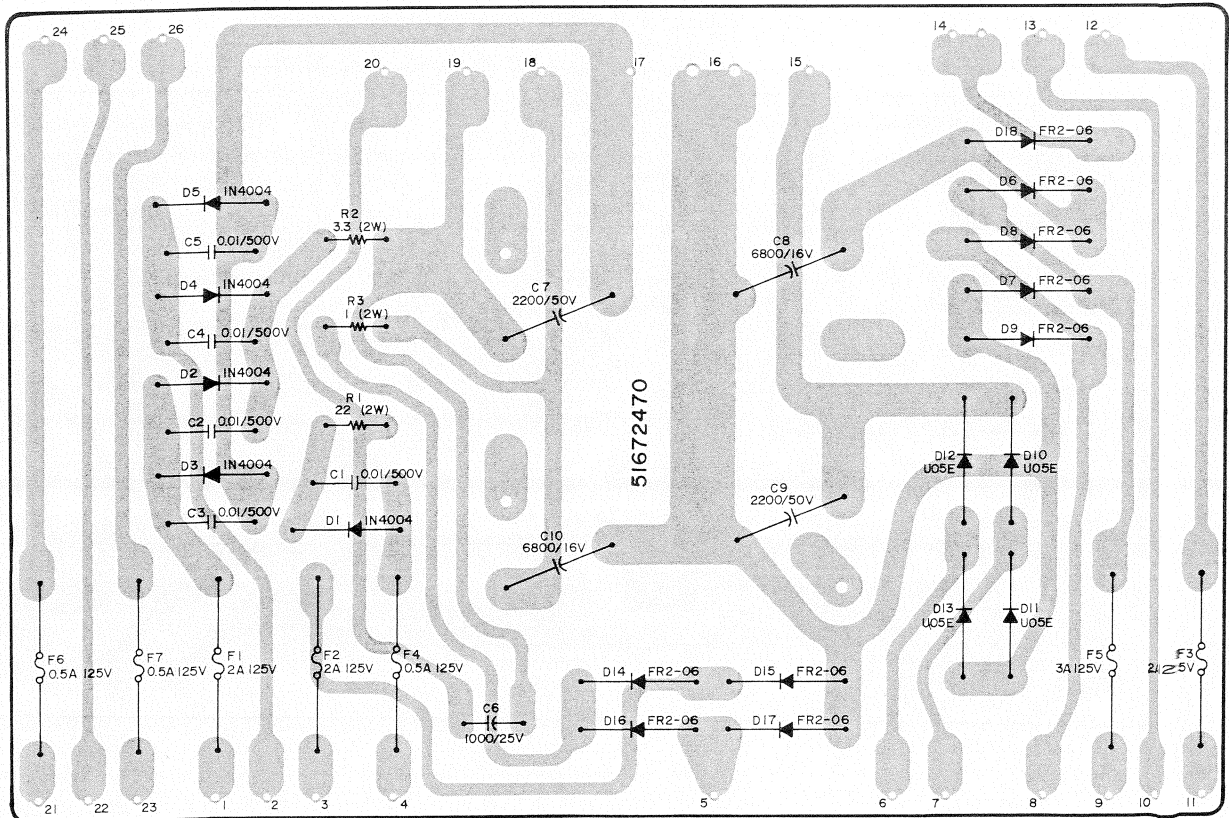
P-215

13. CONTROL UNIT



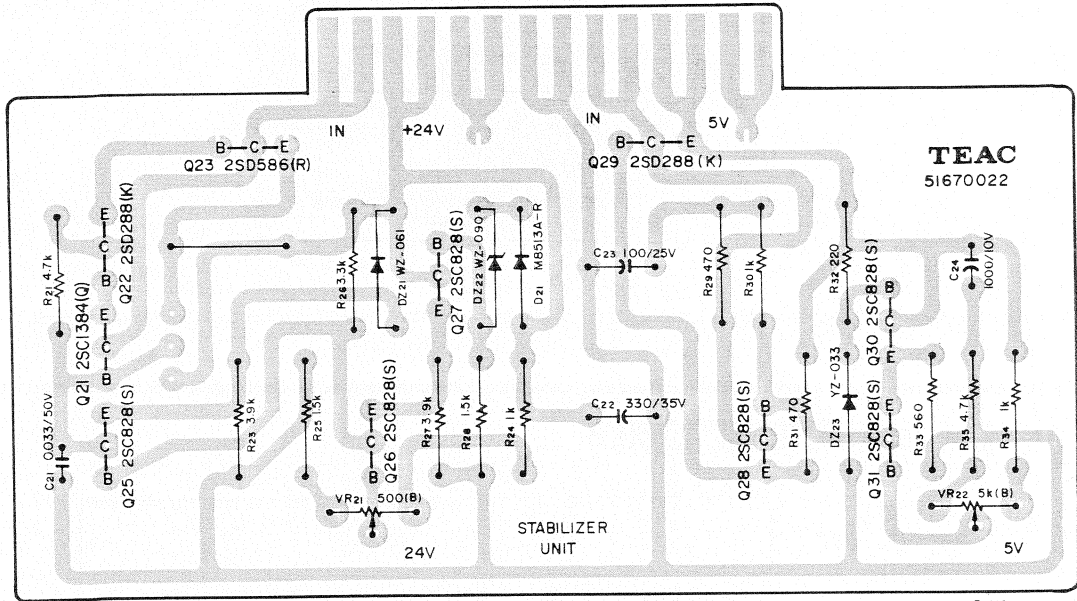
P-208

14. POWER SUPPLY UNIT



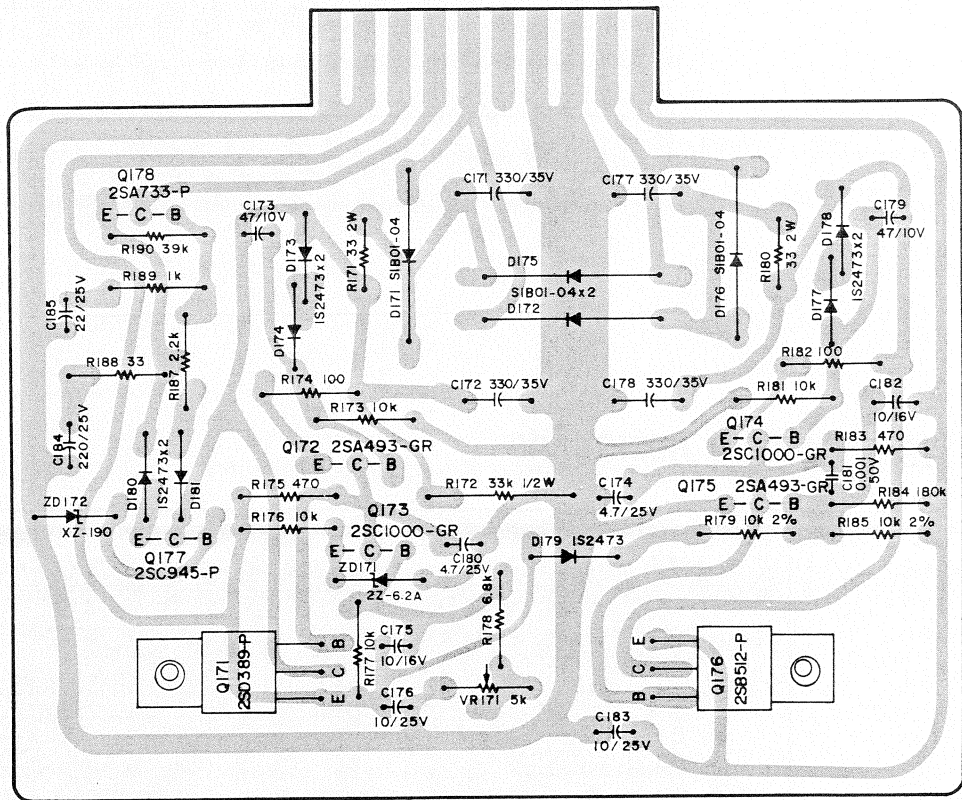
P-21

15. STABILIZER UNIT



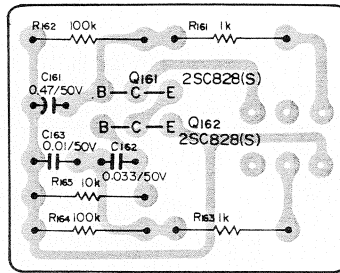
P-118

16. STABILIZER UNIT, B



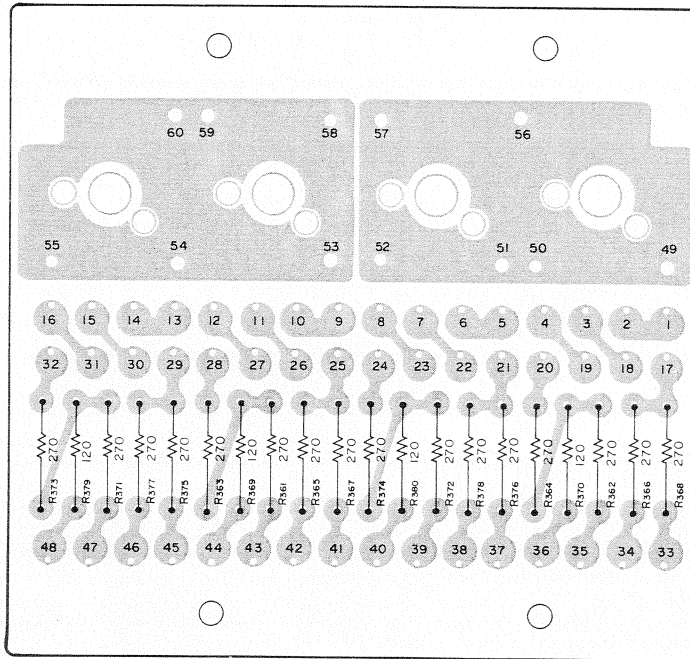
P-207

17. REWIND STOP UNIT



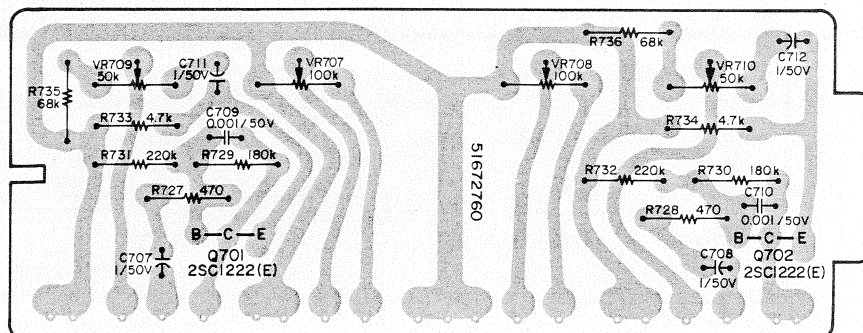
P-128

18. MIC TRANSFORMER



P-126

19. TRIMMER RESISTORS



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2. PC BOARD SECTION (Parts List)

1. PLAY LINE AMPL. UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|-----------|------------------------------|
| | 51682171 | PC Board Assy, B |
| | 51670780 | PC Board |
| | 51670120 | PC Board, Coil Mtg. (2 used) |
| TRANSISTORS | | |
| Q215/Q252 | 50424100 | 2SC1000 - GR |
| Q253/Q254 | 50424890 | 2SA493 - GR |
| CARBON RESISTORS | | |
| All resistors are rated $\pm 5\%$ tolerance and 1/4 watt. | | |
| R251/R252 | 50573300 | 100k ohm |
| R253/R254 | 50572980 | 4.7k ohm |
| R255/R256 | 50573240 | 56k ohm |
| R257/R258 | 50573180 | 33k ohm |
| R259/R260 | 50573220 | 47k ohm |
| R261/R262 | 50573180 | 33k ohm |
| R263/R264 | 50573080 | 12k ohm |
| R265/R266 | 50573200 | 39k ohm |
| R267/R268 | 50573160 | 27k ohm |
| R269/R270 | 50572820 | 1k ohm |
| R271/R272 | 50572760 | 560 ohm |
| R273/R274 | 50572980 | 4.7k ohm |
| R275/R276 | 50573220 | 47k ohm |
| CAPACITORS | | |
| C251/C252 | 50554540 | Elec. 1 mfd 50V |
| C253/C254 | 50555550 | Elec. 47 mfd 50V |
| C255/C256 | 50555540 | Elec. 47 mfd 10V |
| C257/C258 | 50555540 | Elec. 47 mfd 10V |
| C259/C260 | 50547590 | Dip. Mica 33 pfd 50V |
| C261/C262 | 50554350 | Elec. 10 mfd 50V |
| C263/C264 | 50547450 | Dip. Mica 220 pfd 50V |
| C265/C266 | 50548020 | Mylar 0.01 mfd 50V |
| C267/C268 | 50554260 | Elec. 33 mfd 16V |
| C269/C270 | 50554350 | Elec. 10 mfd 50V |
| C281/C282 | 50554540 | Elec. 1 mfd 50V |
| VARIABLE RESISTORS | | |
| VR251/VR252 | 50534210 | Semi-fixed, 5k ohm - B |
| COILS | | |
| L251/L252 | 50566640 | Choke, 220 uhy |

2. AMPL. STABILIZER UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|-------------------------|-----------|---------------------------|
| | 51680832 | PC Board Assy |
| | 51670831 | PC Board |
| TRANSISTORS | | |
| Q601 | 50424750 | 2SC1384 - Q |
| Q602 | 50425270 | 2SD288 - K |
| Q603 | 50423500 | 2SC734 - Y |
| ZENER DIODES | | |
| D601 | 50425150 | WZ - 090 or |
| | 50422980 | Q2Z 9.1A |
| D602 | 50425260 | XZ - 175 |
| CARBON RESISTORS | | |
| R601 | 50572480 | 39 ohm 1/4W 5% |
| R602, R604 | 50572340 | 10 ohm 1/4W 5% |
| R603 | 50572920 | 2.7k ohm 1/4W 5% |
| R605 | 50520360 | 10 ohm 3W |
| R606, R607 | 50572840 | 1.2k ohm 1/4W 5% |
| R608 | 50572980 | 4.7k ohm 1/4W 5% |
| R609 | 50572940 | 3.3k ohm 1/4W 5% |
| R610, R612 | 50572900 | 2.2k ohm 1/4W 5% |
| R611 | 50526420 | 39 ohm 1W |
| ELEC. CAPACITORS | | |
| C601~C603 | 50555640 | 100 mfd 63V |
| C604 | 50554070 | 100 mfd 50V |
| C605, C606 | 50555610 | 220 mfd 50V |
| C607, C608 | 50554630 | 100 mfd 35V |
| C609 | 50554380 | 220 mfd 35V |
| MISCELLANEOUS | | |
| | 50333040 | Heat Sink (for 2SC1384) |
| | 55504320 | Heat Sink, A |
| | 50332910 | Sheet, Insul.; for 2SD235 |

3. BIAS OSC UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|--------------------|-----------|----------------|
| | 51680823 | PC Board Assy |
| | 51670820 | PC Board |
| TRANSISTORS | | |
| Q551~Q553 | 50424750 | 2SC1384 - Q |
| Q554 | 50424160 | 2SC1226 - A(P) |
| DIODE | | |
| D551 | 51430930 | V06E |

| REF. NO. | PARTS NO. | DESCRIPTION |
|-------------------------|-----------|------------------------------|
| CARBON RESISTORS | | |
| R551, R552 | 50574980 | 4.7k ohm 1/2W 5% |
| R553 | 50517860 | 2.2k ohm 1/2W |
| R554 | 50572720 | 390 ohm 1/4W 5% |
| R555, R556 | 50574460 | 33 ohm 1/4W 5% |
| R557 | 50573140 | 22k ohm 1/4W 5% |
| R558 | 50572940 | 3.3k ohm 1/4W 5% |
| R559 | 50572780 | 680 ohm 1/4W 5% |
| CAPACITORS | | |
| C551 | 50548870 | Mylar 0.015 mfd 50V 5% |
| C552, C553 | 50548910 | Mylar 0.0047 mfd 50V 5% |
| C554 | 51700160 | Mylar 0.033 mfd 150V |
| C555 | 50544040 | Mica 4200 pfd 250V 5% |
| C556 | 50554970 | Elec. 0.47 mfd 50V |
| C557 | 50554720 | Elec. 22 mfd 10V |
| TRIMMERS | | |
| VC551, VC552 | 50547110 | Trimmer Cap., 80 pfd Max. |
| VR551, VR552 | 50534210 | Semi-fixed Res., 10k ohm - B |
| COILS | | |
| L551 | 50566720 | Choke, 2.2 mH |
| L552 | 50566581 | Dummy, 3 mH |
| T551 | 50563550 | Bias Oscillator |
| RELAY | | |
| K551 | 51611280 | DPDT, DC 24V 1740 ohm |
| MISCELLANEOUS | | |
| | 51670120 | PC Board, Coil Mounting |
| | 50330940 | Washer, Insulating |
| | 50333040 | Heat Sink |

4. MIC MIXING AMPL. UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|--------------------|-----------|------------------|
| | 51683760 | PC Board Assy, C |
| | 51673670 | PC Board |
| TRANSISTORS | | |
| Q401/Q402 | 50424950 | 2SC1222 - E |
| Q403/Q404 | 51450380 | 2SA750 - E |
| Q405/Q406 | 50424950 | 2SC1222 - E |
| Q407 | 50450380 | 2SA750 - E |

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|-----------|--------------------------|
| CARBON RESISTORS | | |
| All resistors are rated $\pm 5\%$ tolerance and 1/4 watt. | | |
| R401/R402 | 50573520 | 820k ohm |
| R403/R404 | 50573240 | 56k ohm |
| R405/R406 | 50572580 | 100 ohm |
| R407/R408 | 50573000 | 5.6k ohm |
| R409/R410 | 50573040 | 8.2k ohm |
| R411/R412 | 50572800 | 820 ohm |
| R413/R414 | 50573280 | 82k ohm |
| R417/R418 | 50573240 | 56k ohm |
| R419, R424 | 50573300 | 100k ohm |
| R420 | 50573120 | 18k ohm |
| R421 | 50573420 | 330k ohm |
| R422 | 50573440 | 390k ohm |
| R423 | 50573060 | 10k ohm |
| R425 | 50572760 | 560 ohm |
| CAPACITORS | | |
| C401/C402 | 50546703 | Dip. Tant 1 mfd 35V |
| C403/C404 | 50548320 | Mylar 0.001 mfd 50V |
| C405/C406 | 50547400 | Dip. Mica 10 pfd 50V |
| C407/C408 | 50547460 | Dip. Mica 330 pfd 50V |
| C409/C410 | 50554540 | Elec. 1 mfd 35V |
| C411/C412 | 51700860 | Elec. 1 mfd 50V (LR) |
| C413 | 50554350 | Elec. 10 mfd 50V |
| C414, C415 | 50547400 | Dip. Mica 10 pfd 50V |
| C416 | 50555730 | Elec. 3.3 mfd 50V |
| C419 | 50554070 | Elec. 100 mfd 50V |
| VARIABLE RESISTORS | | |
| VR401 | 50536290 | Semi-fixed, 100k ohm - B |

5. REC LINE AMPL. UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|---|-----------|------------------|
| | 51683660 | PC Board Assy, F |
| | 51673660 | PC Board |
| TRANSISTORS | | |
| Q451/Q452 | 50424950 | 2SC1222 - E |
| Q453/Q454 | 51450380 | 2SA750 - E |
| CARBON RESISTORS | | |
| All resistors are rated $\pm 5\%$ tolerance and 1/4 watt. | | |
| R451/R452 | 50572820 | 1k ohm |
| R453/R454 | 50573590 | 1.8M ohm |
| R455/R456 | 50573500 | 680k ohm |
| R457/R458 | 50573080 | 12k ohm |
| R459/R460 | 50572880 | 1.8k ohm |
| R461/R462 | 50572920 | 2.7k ohm |
| R463/R464 | 50572720 | 390 ohm |

| REF. NO. | PARTS NO. | DESCRIPTION |
|-------------------|-----------|-----------------------|
| CAPACITORS | | |
| C451/C452 | 50554540 | Elec. 1 mfd 50V |
| C453/C454 | 50543820 | Dip. Mica 22 pfd 50V |
| C455/C456 | 50542580 | Dip. Mica 150 pfd 50V |
| C457/C458 | 50555730 | Elec. 3.3 mfd 50V |
| C459/C460 | 50555550 | Elec. 47 mfd 50V |

6. METER PHONE AMPL. UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|--------------------|-----------|------------------|
| | 51682971 | PC Board Assy, D |
| | 51670791 | PC Board |
| TRANSISTORS | | |
| Q301/Q302 | 50424950 | 2SC1222 - E |
| Q303/Q304 | 50424100 | 2SC1000 - GR |
| Q305/Q306 | 50424750 | 2SC1384 - Q |
| Q307/Q308 | 50424900 | 2SA684 - Q |
| Q309/Q310 | 50424100 | 2SC1000 - GR |

CARBON RESISTORS

All resistors are rated $\pm 5\%$ tolerance and 1/4 watt.

| | | |
|-----------|----------|-------------|
| R301/R302 | 50573240 | 56k ohm |
| R303/R304 | 50573300 | 100k ohm |
| R305/R306 | 50573100 | 15k ohm |
| R307/R308 | 50573100 | 15k ohm |
| R309/R310 | 50572580 | 100 ohm |
| R311/R312 | 50573000 | 5.6k ohm |
| R315/R316 | 50573300 | 100k ohm |
| R317/R318 | 50573250 | 62k ohm |
| R319/R320 | 50573280 | 82k ohm |
| R321/R322 | 50573020 | 6.8k ohm |
| R323/R324 | 50573020 | 6.8k ohm |
| R325/R326 | 50572780 | 680 ohm |
| R327/R328 | 50572760 | 560 ohm |
| R329/R330 | 50572260 | 4.7 ohm |
| R331/R332 | 50572340 | 10 ohm |
| R333/R334 | 50572340 | 10 ohm |
| R335/R336 | 50572260 | 4.7 ohm |
| R337/R338 | 50574500 | 47 ohm 1/2W |
| R339/R340 | 50573360 | 180k ohm |
| R341/R342 | 50573060 | 10k ohm |
| R343/R344 | 50573320 | 120k ohm |
| R345/R346 | 50573220 | 47k ohm |
| R347/R348 | 50572940 | 3.3k ohm |
| R349/R350 | 50572920 | 2.7k ohm |
| R351/R352 | 50572500 | 47 ohm |
| R353/R354 | 50572760 | 560 ohm |
| R355/R356 | 50573240 | 56k ohm |
| R357/R358 | 50572900 | 2.2k ohm |

| REF. NO. | PARTS NO. | DESCRIPTION |
|-------------------|-----------|-----------------------|
| CAPACITORS | | |
| C301/C302 | 50554540 | Elec. 1 mfd 50V |
| C303/C304 | 50547360 | Dip. Mica 300 pfd 50V |
| C305/C306 | 50547440 | Dip. Mica 100 pfd 50V |
| C307/C308 | 50547440 | Dip. Mica 100 pfd 50V |
| C309/C310 | 50554040 | Elec. 10 mfd 25V |
| C311/C312 | 50554040 | Elec. 10 mfd 25V |
| C313/C314 | 50547400 | Dip. Mica 10 pfd 50V |
| C315/C316 | 50554570 | Elec. 100 mfd 10V |
| C317/C318 | 50554720 | Elec. 22 mfd 10V |
| C319/C320 | 50554390 | Elec. 220 mfd 16V |
| C321/C322 | 50547400 | Dip. Mica 10 pfd 50V |
| C323/C324 | 50555540 | Elec. 47 mfd 10V |
| C325/C326 | 50554040 | Elec. 10 mfd 25V |
| C327/C328 | 50554540 | Elec. 1 mfd 50V |
| C329/C330 | 50543820 | Dip. Mica 22 pfd 50V |
| C331/C332 | 50554970 | Elec. 0.47 mfd 50V |
| C333/C334 | 50554040 | Elec. 10 mfd 25V |

VARIABLE RESISTORS

VR301/VR302 50534190 Semi-fixed, 500 ohm - B

7. PLAY EQ AMPL. UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|--------------------|-----------|------------------|
| | 51683640 | PC Board Assy, E |
| | 51670073 | PC Board |
| TRANSISTORS | | |
| Q201/Q202 | 50424340 | 2SC1000 - BL |
| Q203/Q204 | 50423650 | 2SA494 - Y |
| Q205/Q206 | 50424340 | 2SC1000 - BL |
| Q207/Q208 | 50424670 | 2SC1317 - R |
| Q209 | 50424340 | 2SC1000 - BL |

DIODES

D201/D202 50422130 1N60

CARBON RESISTORS

All resistors are rated $\pm 5\%$ tolerance and 1/4 watt.

| | | |
|-----------|----------|----------|
| R201/R202 | 50573340 | 150k ohm |
| R203/R204 | 50572820 | 1k ohm |
| R205/R206 | 50573240 | 56k ohm |
| R207/R208 | 50573240 | 56k ohm |
| R209/R210 | 50573220 | 47k ohm |
| R211/R212 | 50573200 | 39k ohm |
| R213/R214 | 50573180 | 33k ohm |
| R215/R216 | 50573080 | 12k ohm |
| R217/R218 | 50572720 | 390 ohm |
| R219/R220 | 50573060 | 10k ohm |
| R221/R222 | 50572680 | 180 ohm |
| R223/R224 | 50572840 | 1.2k ohm |

| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|-----------|-------------|
| R225/R226 | 50572840 | 1.2k ohm |
| R227/R228 | 50573400 | 270k ohm |
| R229/R230 | 50572920 | 2.7k ohm |
| R233/R234 | 50573000 | 5.6k ohm |
| R235/R236 | 50572740 | 470 ohm |
| R237/R238 | 50573300 | 100k ohm |
| R241 | 50572980 | 4.7k ohm |

CAPACITORS

| | | | | |
|-----------|----------|-----------|-----------|----------|
| C201/C202 | 50554490 | Elec. | 47 mfd | 25V |
| C203/C204 | 50546190 | Tant. | 10 mfd | 10V |
| C205/C206 | 50554010 | Elec. | 47 mfd | 16V |
| C207/C208 | 50547560 | Dip. Mica | 470 pfd | 50V |
| C209/C210 | 51700820 | Elec. | 10 mfd | 25V (LR) |
| C211/C212 | 50554230 | Elec. | 100 mfd | 6.3V |
| C213/C214 | 50543820 | Dip. Mica | 22 pfd | 50V |
| C215/C216 | 50548960 | Mylar | 0.015 mfd | 50V 5% |
| C217/C218 | 50547560 | Dip. Mica | 470 pfd | 50V |
| C219/C220 | 50554540 | Elec. | 1 mfd | 50V |
| C221/C222 | 50554040 | Elec. | 10 mfd | 25V |
| C223/C224 | 50554490 | Elec. | 47 mfd | 25V |
| C225 | 50546622 | Elec. | 6.8 mfd | 25V |

VARIABLE RESISTORS

| | | |
|-------------|----------|-------------------------|
| VR201/VR202 | 50534220 | Semi-fixed, 10k ohm - B |
| VR203/VR204 | 50534210 | Semi-fixed, 5k ohm - B |

8. RECORD AMPL. UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|----------|-----------|-------------|
|----------|-----------|-------------|

51680893 PC Board Assy, B

51670112 PC Board

TRANSISTORS

| | | |
|-----------|----------|--------------|
| Q501/Q502 | 50423590 | 2SC644 - S |
| Q503/Q504 | 50423770 | 2SC644 - T |
| Q505/Q506 | 50423770 | 2SC644 - T |
| Q507/Q508 | 50424340 | 2SC1000 - BL |
| Q509 | 50424650 | 2SA721 - T |

DIODE

D501/D502 50422130 1N60

CARBON RESISTORS

All resistors are rated $\pm 5\%$ tolerance and 1/4 watt.

| | | |
|-----------|----------|----------|
| R501/R502 | 50573220 | 47k ohm |
| R503/R504 | 50573180 | 33k ohm |
| R505/R506 | 50572980 | 4.7k ohm |
| R507/R508 | 50573160 | 27k ohm |
| R509/R510 | 50573140 | 22k ohm |
| R511/R512 | 50573200 | 39k ohm |
| R513/R514 | 50573200 | 39k ohm |

| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|-----------|-------------|
| R515/R516 | 50573380 | 220k ohm |
| R517/R518 | 50573060 | 10k ohm |
| R519/R520 | 50572980 | 4.7k ohm |
| R521/R522 | 50572780 | 680 ohm |
| R523/R524 | 50572780 | 680 ohm |
| R525/R526 | 50572820 | 1k ohm |
| R527/R528 | 50573160 | 27k ohm |
| R533 | 50572980 | 4.7k ohm |

CAPACITORS

| | | | | |
|-----------|----------|-----------|------------|----------|
| C501/C502 | 50554530 | Elec. | 4.7 mfd | 25V |
| C503/C504 | 50547440 | Dip. Mica | 100 pfd | 50V |
| C505/C506 | 50549260 | Mylar | 0.068 mfd | 50V 5% |
| C507/C508 | 50554530 | Elec. | 4.7 mfd | 25V |
| C509/C510 | 50543820 | Dip. Mica | 22 pfd | 50V |
| C511/C512 | 50554050 | Elec. | 10 mfd | 16V |
| C513/C514 | 50548990 | Mylar | 0.027 mfd | 50V 5% |
| C515/C516 | 50548920 | Mylar | 0.0056 mfd | 50V 5% |
| C517/C518 | 51700820 | Elec. | 10 mfd | 25V (LR) |
| C519/C520 | 50543120 | Polyst. | 820 pfd | 250V |
| C521/C522 | 50548960 | Mylar | 0.0015 mfd | 50V 5% |
| C523 | 50554900 | Elec. | 22 mfd | 35V |
| C525/C526 | 50547440 | Dip. Mica | 100 pfd | 50V |

VARIABLE RESISTORS

| | | |
|--------------|----------|-------------------------|
| VR501, VR502 | 50534190 | Semi-fixed, 500 ohm - B |
| VR503, VR504 | 50534200 | Semi-fixed, 1k ohm - B |

COILS

| | | |
|-----------|----------|-----------------------|
| L501/L502 | 50566750 | Record EQ. 0.3/4.5 mH |
| L503/L504 | 50566300 | Trap, 3 mH |

MISCELLANEOUS

51670120 PC Board, Coil Mounting (2 used)

9. ENCODER UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|----------|-----------|-------------|
|----------|-----------|-------------|

51683561 PC Board Assy

51673560 PC Board

IC's

| | | |
|-------|----------|----------|
| IC811 | 51470200 | BA651 |
| IC812 | 50427380 | NJM4558D |
| IC813 | 51470211 | BA652 |
| IC814 | 50427380 | NJM4558D |

TRANSISTORS

| | | |
|------------|----------|-------------------|
| Q811, Q813 | 50424950 | 2SC1222 - E |
| Q812, Q816 | 50425480 | FET 2SK - 30A - O |
| Q814, Q818 | 51450380 | 2SA750 - E |

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|-------------|
| Q815, Q817 | 50424950 | 2SC1222 - E |
| Q819 | 50425490 | 2SC1636 - I |

DIODE

| | | |
|------------|----------|--------|
| D811, D812 | 50425500 | 1S2473 |
|------------|----------|--------|

RESISTORS

All resistors are rated $\pm 5\%$ tolerance, 1/4 watt and of carbon type unless otherwise noted.

| | | |
|------------|----------|-------------------------|
| R811 | 51812940 | 3.3k ohm |
| R812 | 51813000 | 5.6k ohm |
| R813 | 51813380 | 220k ohm |
| R814 | 51813460 | 470k ohm |
| R815 | 51812820 | 1k ohm |
| R816 | 51813220 | 47k ohm |
| R817 | 51813040 | 8.2k ohm |
| R818 | 51813840 | 33k ohm 2%, Metal Film |
| R819 | 51813810 | 10k ohm 2%, Metal Film |
| R820 | 51813140 | 22k ohm |
| R821 | 51812660 | 220 ohm |
| R822 | 51812940 | 3.3k ohm |
| R823 | 51812720 | 390 ohm |
| R824 | 51812820 | 1k ohm |
| R825 | 51813810 | 10k ohm 2%, Metal Film |
| R826 | 51813840 | 33k ohm 2%, Metal Film |
| R827 | 51813270 | 47k ohm |
| R828 | 51812820 | 1k ohm |
| R829 | 51812720 | 390 ohm |
| R830 | 51812820 | 1k ohm |
| R831 | 51813760 | 82 ohm 2%, Metal Film |
| R832 | 51813380 | 220k ohm |
| R833 | 51812480 | 39 ohm |
| R834 | 51813060 | 10k ohm |
| R835 | 51813760 | 82 ohm 2%, Metal Film |
| R836 | 51812480 | 39 ohm |
| R837, R838 | 51813760 | 82 ohm 2%, Metal Film |
| R839 | 51813540 | 1M ohm |
| R840 | 51813340 | 150k ohm |
| R841 | 51812900 | 2.2k ohm |
| R842 | 51813200 | 39k ohm |
| R843 | 51812980 | 4.7k ohm |
| R844 | 51813060 | 10k ohm |
| R845 | 51813830 | 27k ohm 2%, Metal Film |
| R846 | 51813780 | 3.0k ohm 2%, Metal Film |
| R847 | 51813140 | 22k ohm |
| R848 | 51812660 | 220 ohm |
| R849 | 51812940 | 3.3k ohm |
| R850 | 51812720 | 390 ohm |
| R851 | 51813020 | 6.8k ohm |
| R852 | 51813810 | 10k ohm 2%, Metal Film |
| R853 | 51813400 | 270k ohm |
| R854 | 51813620 | 2.2M ohm |
| R855 | 51812820 | 1k ohm |
| R856 | 51813820 | 20k ohm 2%, Metal Film |
| R857 | 51812260 | 4.7 ohm |
| R858 | 51813660 | 3.3M ohm |
| R859 | 51813790 | 3.9k ohm 2%, Metal Film |
| R860, R861 | 51813800 | 4.7k ohm 2%, Metal Film |
| R862 | 51813040 | 8.2k ohm |
| R863 | 51813870 | 1M ohm 2%, Metal Film |
| R864 | 51813300 | 100k ohm |

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|-------------|
| R865 | 51812820 | 1k ohm |
| R866 | 51813120 | 18k ohm |
| R867 | 51813540 | 1M ohm |
| R868 | 51812900 | 2.2k ohm |
| R869 | 51812720 | 390 ohm |
| R870 | 51812640 | 180 ohm |
| R871, R872 | 51812900 | 2.2k ohm |

CAPACITORS

| | | | | |
|------------|----------|-----------------|------------|----------|
| C811 | 50596800 | Polyst. | 3300 pfd | 50V 5% |
| C812 | 50596810 | Polyst. | 3000 pfd | 50V 5% |
| C813 | 50543990 | Polyst. | 1800 pfd | 50V 5% |
| C814, C815 | 50549290 | Mylar | 0.12 mfd | 50V 5% |
| C816 | 50700210 | Metalized Mylar | 0.68 mfd | 200V 10% |
| C817 | 50548770 | Mylar | 0.01 mfd | 50V 5% |
| C819 | 50554480 | Elec. | 33 mfd | 25V |
| C820 | 50548780 | Mylar | 0.001 mfd | 50V 5% |
| C821 | 50543510 | Dip. Mica | 33 pfd | 50V |
| C822 | 50542600 | Dip. Mica | 180 pfd | 50V |
| C823 | 50554480 | Elec. | 33 mfd | 25V |
| C824 | 50559090 | Bi-Polar | 4.7 mfd | 25V |
| C825, C826 | 50549260 | Mylar | 0.068 mfd | 50V 5% |
| C827, C828 | 50548930 | Mylar | 0.0068 mfd | 50V 5% |
| C829 | 50547450 | Dip. Mica | 220 pfd | 50V |
| C830 | 50549280 | Mylar | 0.1 mfd | 50V 5% |
| C831 | 50547260 | Mylar | 0.003 mfd | 50V 5% |
| C832 | 50547450 | Dip. Mica | 220 pfd | 50V |
| C833 | 50554480 | Elec. | 33 mfd | 25V |
| C834 | 50546780 | Dip. Tant. | 22 mfd | 16V 10% |

VARIABLE RESISTORS

| | | |
|--------------|----------|-------------------------|
| VR811, VR813 | 50539270 | Semi-fixed, 47k ohm - B |
| VR812 | 50539230 | Semi-fixed, 10k ohm - B |
| VR814 | 50536270 | Semi-fixed, 47k ohm - B |

COILS

| | | |
|------|----------|-------|
| L811 | 50566660 | 38 mH |
| L812 | 50566650 | 23 mH |

10. DECODER UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|----------|-----------|---------------|
| | 51683551 | PC Board Assy |
| | 51673550 | PC Board |
| | | IC's |
| IC621 | 51470200 | BA651 |
| IC622 | 50427380 | NJM4558D |
| IC623 | 51470211 | BA652 |
| IC624 | 50427380 | NJM4558D |

| REF. NO. | PARTS NO. | DESCRIPTION |
|--|-----------|-------------------------|
| TRANSISTORS | | |
| Q621, Q626 | 50425480 | FET 2SK30A - O |
| Q622, Q627 | 50424950 | 2SC1222 - E |
| Q623, Q628 | 51450380 | 2SA750 - E |
| Q624 | 50425490 | 2SC1636 - I |
| Q625, Q629 | 50424950 | 2SC1222 - E |
| DIODES | | |
| D621, D622 | 50425500 | 1S2473 |
| RESISTORS | | |
| All resistors are rated $\pm 5\%$ tolerance, 1/4 watt and of carbon type unless otherwise noted. | | |
| R621 | 51813840 | 33k ohm 2%, Metal Film |
| R622 | 51813810 | 10k ohm 2%, Metal Film |
| R623 | 51813140 | 22k ohm |
| R624 | 51812660 | 220 ohm |
| R625 | 51812940 | 3.3k ohm |
| R626 | 51812720 | 390 ohm |
| R627 | 51812820 | 1k ohm |
| R628 | 51813810 | 10k ohm 2%, Metal Film |
| R629 | 51813840 | 33k ohm 2%, Metal Film |
| R630 | 51813220 | 47k ohm |
| R631 | 51812820 | 1k ohm |
| R632 | 51812900 | 2.2k ohm |
| R633 | 51812720 | 390 ohm |
| R634 | 51812820 | 1k ohm |
| R635 | 51813760 | 82 ohm 2%, Metal Film |
| R636 | 51813380 | 220k ohm |
| R637 | 51812480 | 39 ohm |
| R638 | 51813060 | 10k ohm |
| R639 | 51813760 | 82 ohm 2%, Metal Film |
| R640 | 51812480 | 39 ohm |
| R641, R642 | 51813760 | 82 ohm 2%, Metal Film |
| R643 | 51813540 | 1M ohm |
| R644 | 51813340 | 150k ohm |
| R645 | 51812900 | 2.2k ohm |
| R646 | 51812980 | 4.7k ohm |
| R647 | 51813050 | 9.1k ohm |
| R648 | 51813830 | 27k ohm 2%, Metal Film |
| R649 | 51813780 | 3k ohm 2%, Metal Film |
| R650 | 51813140 | 22k ohm |
| R651 | 51812660 | 220 ohm |
| R652 | 51812940 | 3.3k ohm |
| R653 | 51812720 | 390 ohm |
| R654 | 51813020 | 6.8k ohm |
| R655 | 51813810 | 10k ohm 2%, Metal Film |
| R656 | 51813440 | 270k ohm |
| R657 | 51813620 | 2.2M ohm |
| R658 | 51812820 | 1k ohm |
| R659 | 51813820 | 20k ohm 2%, Metal Film |
| R660 | 51812260 | 4.7 ohm |
| R661 | 51813660 | 3.3M ohm |
| R662 | 51813790 | 3.9k ohm 2%, Metal Film |
| R663, R664 | 51813800 | 4.7k ohm 2%, Metal Film |
| R665 | 51813040 | 8.2k ohm |
| R666 | 51813870 | 1M ohm 2%, Metal Film |
| R667 | 51813300 | 100k ohm |
| R668 | 51813220 | 47k ohm |
| R669 | 51813770 | 510 ohm 2%, Metal Film |

| REF. NO. | PARTS NO. | DESCRIPTION |
|---------------------------|-----------|-----------------------------------|
| R670 | 51813280 | 82k ohm |
| R671 | 51813460 | 470k ohm |
| R672 | 51812820 | 1k ohm |
| R673 | 51813380 | 220k ohm |
| R674 | 51813040 | 8.2k ohm |
| R675 | 51812720 | 390 ohm |
| R676 | 51812640 | 180 ohm |
| R677, R678 | 51812900 | 2.2k ohm |
| CAPACITORS | | |
| C621 | 50559090 | Bi-Polar 4.7 mfd 25V |
| C622 | 51700210 | Metalized 0.68 mfd 200V 10% Mylar |
| C623 | 50547450 | Dip. Mica 220 pfd 50V |
| C624 | 50554480 | Elec. 33 mfd 25V |
| C625 | 50548780 | Mylar 0.001 mfd 50V 5% |
| C626 | 50543510 | Dip. Mica 33 pfd 50V |
| C628 | 50548770 | Mylar 0.01 mfd 50V 5% |
| C629 | 50554480 | Elec. 33 mfd 25V |
| C630 | 50559090 | Bi-Polar 4.7 mfd 25V |
| C631, C632 | 50548920 | Mylar 0.0056 mfd 50V 5% |
| C633 | 50547370 | Dip. Mica 270 pfd 50V |
| C634 | 50549280 | Mylar 0.1 mfd 50V 5% |
| C635 | 50547260 | Mylar 0.003 mfd 50V 5% |
| C636 | 50547450 | Dip. Mica 220 pfd 50V |
| C637 | 50554480 | Elec. 33 mfd 25V |
| C638 | 50546780 | Dip. Tant. 22 mfd 16V 10% |
| C639 | 50559090 | Bi-Polar 4.7 mfd 25V |
| VARIABLE RESISTORS | | |
| VR621, VR623 | 50539270 | Semi-fixed, 47k ohm - B |
| VR622 | 50539230 | Semi-fixed, 10k ohm - B |
| VR624 | 50536270 | Semi-fixed, 47k ohm - B |

11. SOLENOID DRIVE UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|-------------------------|
| | 51681457 | PC Board Assy |
| | 51671451 | PC Board |
| Q121, Q123 | 50426250 | Transistor, 2SC1318 - S |
| Q122, Q124 | 50425270 | Transistor, 2SD288 - K |
| Q125 | 50426250 | Transistor, 2SC1318 - S |
| Q126 | 50425270 | Transistor, 2SD288 - K |
| Q127 | 50426250 | Transistor, 2SC1318 - S |
| D123~D128 | 50422130 | Diode, 1N60 |
| R121, R127 | 50573060 | Carbon 10k ohm 1/4W 5% |
| R122, R128 | 50573300 | Carbon 100k ohm 1/4W 5% |
| R125, R126 | 50573220 | Carbon 47k ohm 1/4W 5% |
| R129, R130 | 50572820 | Carbon 1k ohm 1/4W 5% |
| R131 | 50573060 | Carbon 10k ohm 1/4W 5% |
| R132 | 50573300 | Carbon 100k ohm 1/4W 5% |
| R133, R134 | 50572820 | Carbon 1k ohm 1/4W 5% |
| R135 | 50574740 | Carbon 470 ohm 1/2W 5% |
| R136 | 50572940 | Carbon 3.3k ohm 1/4W 5% |

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|-------------------------|
| R137, R138 | 50573220 | Carbon 47k ohm 1/4W 5% |
| R139 | 50573300 | Carbon 100k ohm 1/4W 5% |
| R140~R142 | 50572500 | Carbon 47 ohm 1/4W 5% |
| C121 | 50555730 | Elec. 3.3 mfd 50V |
| C123 | 50546622 | Dip. Tant. 6.8 mfd 25V |
| C124, C125 | 50554010 | Elec. 47 mfd 16V |
| C127 | 50554630 | Elec. 100 mfd 35V |

12. REEL MOTOR DRIVE UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|----------|-----------|-----------------------------|
| | 51681312 | PC Board Assy |
| | 51671311 | PC Board |
| Q71~Q74 | 50424750 | Transistor, 2SC1384 - Q |
| C71~D77 | 50422130 | Diode, 1N60 |
| D78, D79 | 51430930 | Diode, V06E |
| R71 | 50573020 | Carbon 6.8k ohm 1/4W 5% |
| R72 | 50572900 | Carbon 2.2k ohm 1/4W 5% |
| R73 | 50573020 | Carbon 6.8k ohm 1/4W 5% |
| R74 | 50573300 | Carbon 100k ohm 1/4W 5% |
| R75, R76 | 50572900 | Carbon 2.2k ohm 1/4W 5% |
| R77 | 50573300 | Carbon 100k ohm 1/4W 5% |
| R78 | 50573020 | Carbon 6.8k ohm 1/4W |
| R79~R81 | 50572760 | Carbon 560 ohm 1/4W 5% |
| C71 | 50549780 | Elec. 22 mfd 16V (KU) |
| C72, C73 | 50554910 | Elec. 220 mfd 10V |
| C74~C81 | 50549920 | Meta. Mylar 0.1 mfd 400V AC |
| C82 | 50554490 | Elec. 47 mfd 25V |
| C83, C84 | 50554950 | Elec. 22 mfd 25V |
| K71~K75 | 50611270 | Relay, DC 24V |

13. CONTROL UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|--------------------|
| | 51681623 | PC Board Assy |
| | 51671471 | PC Board |
| | | IC's |
| IC41~IC44 | 50427120 | SN7400N |
| IC45 | 50427130 | SN7402N |
| IC46, IC48 | 50427140 | SN7410N |
| IC47 | 50427270 | SN74122N |
| IC49, IC50 | 50427250 | SN7404N |
| IC51 | 50427120 | SN7400N |
| | | TRANSISTORS |
| Q41, Q42 | 50424670 | 2SC1317 - R |

| REF. NO. | PARTS NO. | DESCRIPTION |
|----------|-----------|-------------------------|
| | | DIODES |
| D41 | 50422130 | 1N60 |
| D42~D44 | 50425360 | 1S953 |
| | | CARBON RESISTORS |
| R41~R45 | 51812820 | 1k ohm 1/4W |
| R46 | 51812340 | 10 ohm 1/4W |
| R47~R50 | 51812820 | 1k ohm 1/4W |
| R51 | 51812620 | 150 ohm 1/4W |
| R52~R57 | 51812580 | 100 ohm 1/4W |
| R58, R60 | 51812660 | 220 ohm 1/4W |
| R59, R61 | 51812900 | 2.2k ohm 1/4W |
| R62, R63 | 51812840 | 1.2k ohm 1/4W |
| R64 | 51813150 | 24k ohm 1/4W |
| R65 | 51812580 | 100 ohm 1/4W |
| | | CAPACITORS |
| C41 | 50554570 | Elec. 100mfd 10V |
| C42~C47 | 50542040 | Ceramic 0.01mfd 50V |
| C48, C49 | 50559130 | Bi-Polar 100mfd 10V |
| C50 | 51700700 | Elec. 390mfd 6.3V 10% |
| C51 | 50548290 | Mylar 0.022 mfd 50V |
| C52~C56 | 50542040 | Ceramic 0.01mfd 50V |
| C57 | 50546501 | Dip. Tant. 22 nfd 10V |

MISCELLANEOUS

| | | |
|-----|----------|----------------|
| J41 | 50438370 | Connector, 14P |
| J42 | 50438360 | Connector, 12P |

14. POWER SUPPLY UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|----------------------|
| | 51682470 | PC Board Assy |
| | 51672470 | PC Board |
| D1~D9 | 50422570 | Diode, S1B01 - G |
| D10~D13 | 51430180 | Diode, U05 (E) |
| D14~D18 | 50422570 | Diode, S1B01 - G |
| R1 | 51806420 | Wire Wound 22ohm 2W |
| R2 | 51806220 | Wire Wound 3.3ohm 2W |
| R3 | 51806100 | Wire Wound 1 ohm 2W |
| C1~C5 | 50542230 | Ceramic 0.01mfd 500V |
| C6 | 50555580 | Elec. 100mfd 25V |
| C7, C9 | 50555710 | Elec. 220mfd 50V |
| C8, C10 | 50555720 | Elec. 680mfd 16V |
| F1, F2, F3 | 50411360 | Fuse, 2A - 125V |
| F4, F6, F7 | 50411430 | Fuse, 0.5A - 125V |
| F5 | 50411420 | Fuse, 3A - 125V |
| | 5507470 | Holder, Capacitor |

15. STABILIZER UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|---------------------------|-----------|--------------------------|
| | 51682940 | PC Board Assy |
| | 51670022 | PC Board |
| TRANSISTORS | | |
| Q21 | 50424750 | 2SC1384 - Q |
| Q22 | 50425270 | 2SD288 - K |
| Q23 | 50425560 | 2SD586 - R |
| Q25~Q28 | 50424600 | 2SC828 - S |
| Q29 | 50425270 | 2SD288 - K |
| Q30 Q31 | 50424600 | 2SC828 - S |
| DIODES | | |
| D21 | 50422180 | M8513A - R |
| DZ - 21 | 50425140 | Zener, WZ - 061 |
| DZ - 22 | 50425150 | Zener, WZ - 090 |
| DZ - 23 | 50425560 | Zener, YZ - 033 |
| CARBON RESISTORS | | |
| R21 | 50572980 | 4.7k ohm 1/4W 5% |
| R23 | 50572960 | 3.9k ohm 1/4W 5% |
| R24 | 50572820 | 1k ohm 1/4W 5% |
| R25 | 50572860 | 1.5k ohm 1/4W 5% |
| R26 | 50572940 | 3.3k ohm 1/4W 5% |
| R27 | 50572960 | 3.9k ohm 1/4W 5% |
| R28 | 50572860 | 1.5k ohm 1/4W 5% |
| R29 | 50572740 | 470 ohm 1/4W 5% |
| R30 | 50572820 | 1k ohm 1/4W 5% |
| R31 | 50572740 | 470 ohm 1/4W 5% |
| R32 | 50572660 | 220 ohm 1/4W 5% |
| R33 | 50572760 | 560 ohm 1/4W 5% |
| R34 | 50572820 | 1k ohm 1/4W 5% |
| R35 | 50572980 | 4.7k ohm 1/4W 5% |
| CAPACITORS | | |
| C21 | 50548240 | Mylar 0.033 mfd 50V |
| C22 | 50554650 | Elec. 330 mfd 35V |
| C23 | 50554170 | Elec. 100 mfd 25V |
| C24 | 50554880 | Elec. 1000 mfd 10V |
| VARIABLE RESISTORS | | |
| VR21 | 50534190 | Semi-fixed, 500 ohm - B |
| VR22 | 50534210 | Semi-fixed, 5k ohm - B |
| MISCELLANEOUS | | |
| | 55504581 | Heat Sink, E |
| | 55504331 | Heat Sink, B |
| | 55504341 | Heat Sink, C |
| | 50332950 | Insulating Tube (2 used) |
| | 50332910 | Insulating Sheet |

16. STABILIZER UNIT, B

| REF. NO. | PARTS NO. | DESCRIPTION |
|--|-----------|-----------------------------|
| | 51682311 | PC Board Assy, B |
| | 51672310 | PC Board, B |
| TRANSISTORS | | |
| Q171 | 50425290 | 2SD389 - P |
| Q172, Q175 | 50424890 | 2SA493 - GR |
| Q173, Q174 | 50424100 | 2SC1000 - GR |
| Q176 | 50424720 | 2SB512 - P |
| Q177 | 50425210 | 2SC945 - P |
| Q178 | 50425530 | 2SA733 - P |
| DIODES | | |
| D171, D172 | 50422850 | Silicon, S1B01 - 04 |
| D173, D174 | 50425500 | Silicon, 1S2473 |
| D175, D176 | 50422850 | Silicon, S1B01 - 04 |
| D177~D181 | 50425500 | Silicon, 1S2473 |
| ZENER DIODES | | |
| ZD171 | 50422870 | 2Z - 6.2A |
| ZD172 | 50425510 | XZ - 190 |
| CARBON RESISTORS | | |
| All resistors are rated $\pm 5\%$ tolerance, 1/4 watt and of carbon type unless otherwise noted. | | |
| R171, R180 | 51806460 | 33 ohm 2W, Wire Wound |
| R172 | 51800940 | 3.3k ohm 1/2W 5% |
| R173, R176 | 51813060 | 10k ohm |
| R174, R182 | 51812580 | 100 ohm |
| R175, R183 | 51812740 | 470 ohm |
| R177, R181 | 51813060 | 10k ohm |
| R178 | 51813020 | 6.8k ohm |
| R179, R185 | 51813810 | 10k ohm 1/4W 2%, Metal Film |
| R184 | 51813360 | 180k ohm |
| R186 | 51812940 | 3.3k ohm |
| R187 | 51812900 | 2.2k ohm |
| R188 | 51812460 | 33 ohm |
| R189 | 51812820 | 1k ohm |
| R190 | 51813200 | 39k ohm |
| CAPACITORS | | |
| C171, C172 | 50554650 | Elec. 330 mfd 35V |
| C173, C179 | 50555540 | Elec. 47 mfd 10V |
| C174, C180 | 50554530 | Elec. 4.7 mfd 25V |
| C175, C182 | 50554050 | Elec. 10 mfd 16V |
| C176, C183 | 50554040 | Elec. 10 mfd 25V |
| C177, C178 | 50554650 | Elec. 330 mfd 35V |
| C181 | 50548320 | Mylar 0.001 mfd 50V |
| C184 | 50554180 | Elec. 220 mfd 25V |
| VARIABLE RESISTORS | | |
| VR171 | 50534210 | Semi-fixed, 5k ohm - B |

18. MIC TRANSFORMER

| REF. NO. | PARTS NO. | DESCRIPTION |
|----------------------|-----------|---------------------------|
| MISCELLANEOUS | | |
| | 50234870 | Heat Sink (2 used) |
| | 50332950 | Insulating Tube (2 used) |
| | 50332910 | Insulating Sheet (2 used) |

17. REWIND STOP UNIT

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|-------------------------|
| | 51680670 | PC Board Assy |
| | 51670670 | PC Board |
| Q161, Q162 | 50424600 | Transistor, 2SC828 - S |
| R161, R163 | 50572820 | Carbon 1k ohm 1/4W 5% |
| R162, R164 | 50573300 | Carbon 100k ohm 1/4W 5% |
| R165 | 50573060 | Carbon 10k ohm 1/4W 5% |
| C161 | 50554970 | Elec. 0.47 mfd 50V |
| C162 | 50548240 | Mylar 0.033 mfd 50V 10% |
| C163 | 50542040 | Ceramic 0.01 mfd 50V |

| REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-----------|-------------------------|
| | 51680840 | PC Board Assy |
| | 51670840 | PC Board |
| R361~R368 | 50572680 | Carbon 270 ohm 1/4W 5% |
| R369, R370 | 50572600 | Carbon 120 ohm 1/4W 5% |
| R371~R378 | 50572680 | Carbon 270 ohm 1/4W 5% |
| R379, R380 | 50572600 | Carbon 120 ohm 1/4W 5% |
| T361~T364 | 51520972 | Transformer, Microphone |

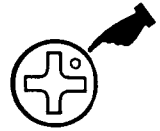
19. TRIMMER RESISTORS

| REF. NO. | PARTS NO. | DESCRIPTION |
|-------------|-----------|-------------------------------|
| | 51682760 | PC Board Assy |
| | 51672760 | PC Board |
| Q701/Q702 | 50424950 | Transistor, 2SC1222 - E |
| R727/R728 | 51812740 | Carbon 470 ohm 1/4W |
| R729/R730 | 51813360 | Carbon 180k ohm 1/4W |
| R731/R732 | 51813380 | Carbon 220k ohm 1/4W |
| R733/R734 | 51812980 | Carbon 4.7k ohm 1/4W |
| R735/R736 | 51813260 | Carbon 68k ohm 1/4W |
| C707/C708 | 50554540 | Elec. 1 mfd 50V |
| C709/C710 | 50548320 | Mylar 0.001 mfd 50V |
| C711/C712 | 50554540 | Elec. 1 mfd 50V |
| VR707/VR708 | 50534230 | Semi-fixed Res., 100k ohm - B |
| VR709/VR710 | 50534280 | Semi-fixed Res., 50k ohm - B |

A-7300RX Stereo Tape Deck with dbx System

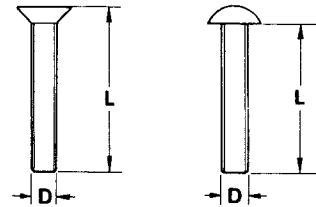
ASSEMBLING HARDWARE CODING LIST

All screws conform to ISO standards, and have crossrecessed heads, unless otherwise noted. ISO screws have the head inscribed with a point as in the figure to the right.



FOR EXAMPLE:

B M 3 x 6
 ----- Length in mm (L)
 ----- Diameter in mm (D) *
 ----- Metric System
 ----- Nomenclature



* Inner dia. for washers and nuts

| | Code | Name | Type | | Code | Name | Type |
|---------------|-----------------------------|---------------------------------|-----------|--------------------------------|------------------------------|-------------------------------------|---------------------------------|
| MACHINE SCREW | R | Round Head Screw | | TAPPING SCREW | BTA | Binding Head Tapping Screw(A Type) | |
| | P | Pan Head Screw | | | BTB | Binding Head Tapping Screw(B Type) | |
| | T | Stove Head Screw (Truss) | | | RTA | Round Head Tapping Screw(A Type) | |
| | B | Binding Head Screw | | | RTB | Round Head Tapping Screw(B Type) | |
| | F | Flat Countersunk Head Screw | | | SETSCREW | SF | Hex Socket Setscrew(Flat Point) |
| O | Oval Countersunk Head Screw | | SC | Hex Socket Setscrew(Cup Point) | | | |
| WOOD SCREW | RW | Round Head Wood Screw | | SS | | Slotted Socket Setscrew(Flat Point) | |
| | FW | Flat Countersunk Wood Screw | | WASHER | E | E-Ring (Retaining Washer) | |
| | OW | Oval Countersunk Wood Screw | | | W | Flat Washer (Plain) | |
| SEMS SCREW | BSA | Binding Head SEMS Screw(A Type) | | | SW | Lock Washer (Spring) | |
| | BSB | Binding Head SEMS Screw(B Type) | | LWI | Lock Washer (Internal Teeth) | | |
| | BSF | Binding Head SEMS Screw(F Type) | | LWE | Lock Washer (External Teeth) | | |
| | PSA | Pan Head SEMS Screw(A Type) | | TW | Trim Washer (Countersunk) | | |
| | PSB | Pan Head SEMS Screw(B Type) | | NUT | N | Hex Nut | |

TEAC CORPORATION 3-7-3, NAKA-CHO, MUSASHINO, TOKYO PHONE: (0422) 53-1111

TEAC CORPORATION OF AMERICA 7733 TELEGRAPH ROAD, MONTEBELLO, CALIFORNIA 90640 PHONE: (213) 726-0303

TEAC HONGKONG LIMITED FLAT 78, PORTLAND HOUSE, 7TH FLOOR, BLOCK C, No. 41-D, MA TAU WAI ROAD, KOWLOON, HONG KONG PHONE 3-659071~4

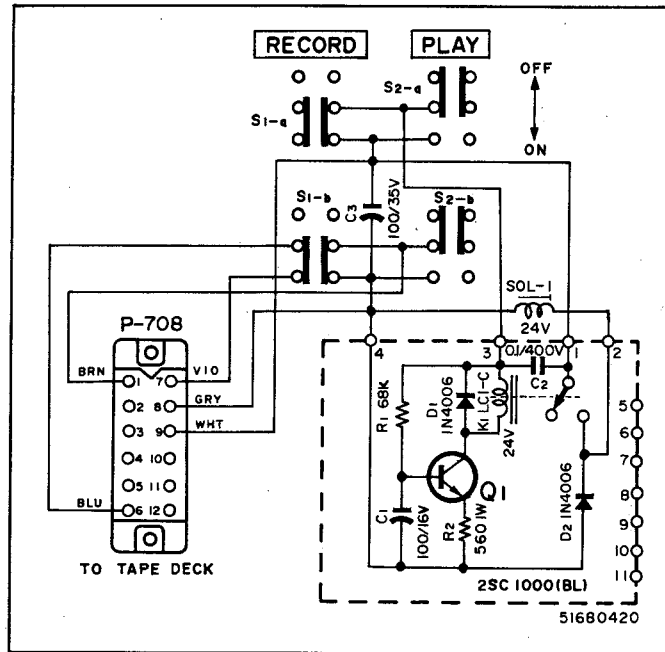
SCHEMATICS

TEAC A-7300RX

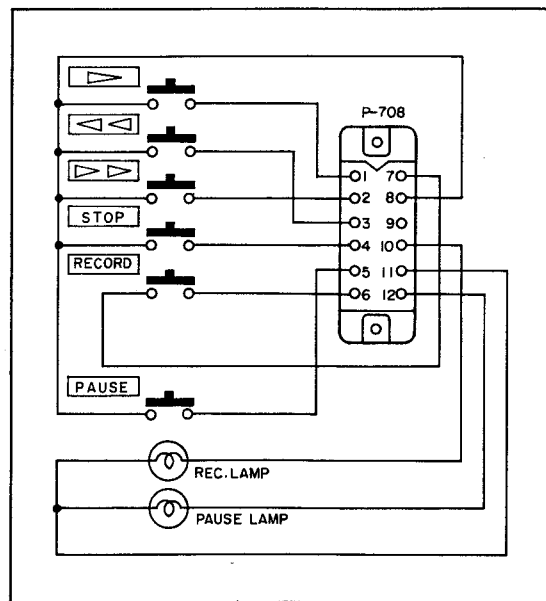
2-Track Master Recorder with dbx System.

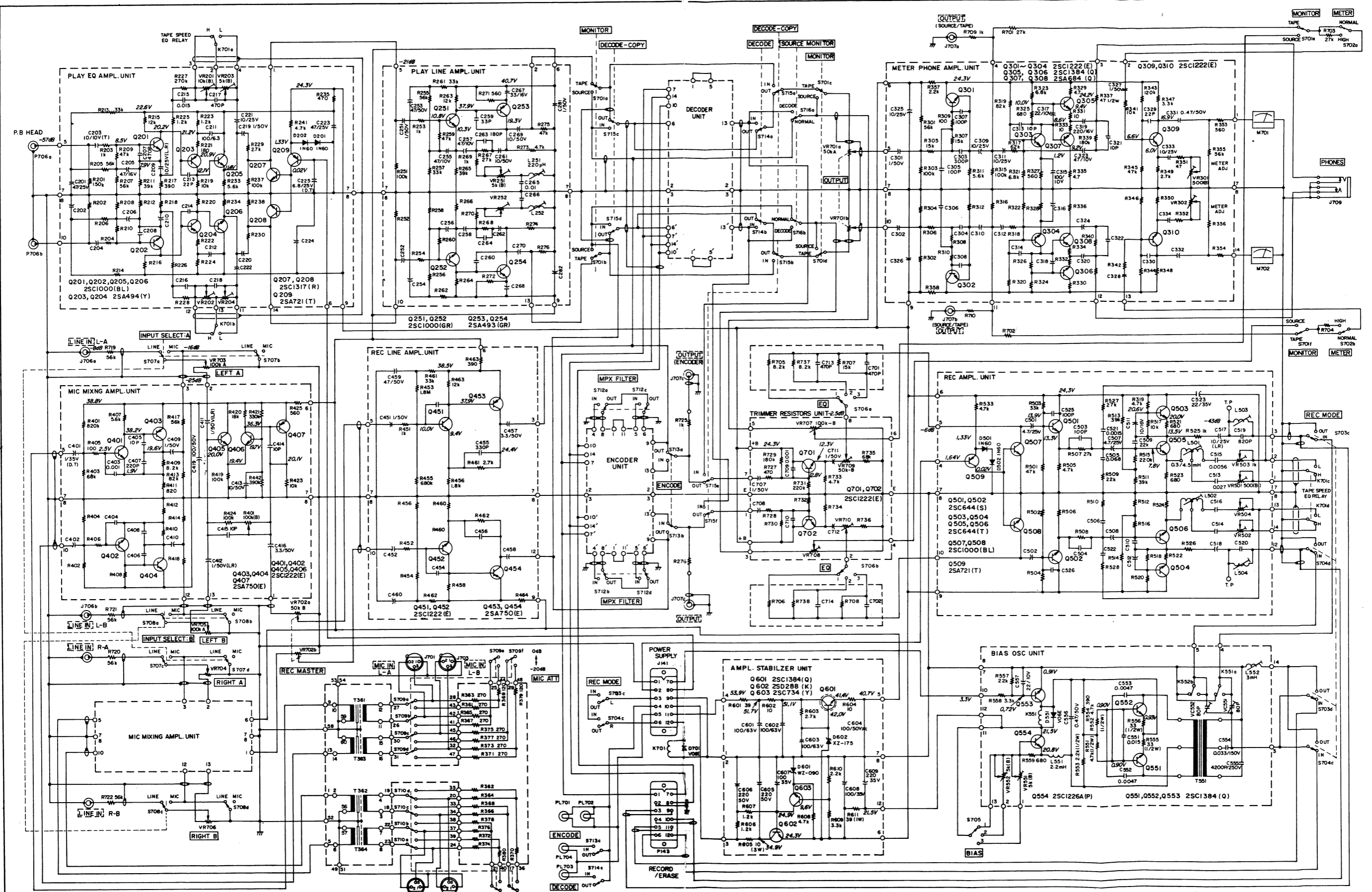
TEAC®

**TIMER CONTROL SCHEMATIC
(RC-350)**



**REMOTE CONTROL SCHEMATIC
(RC-170)**

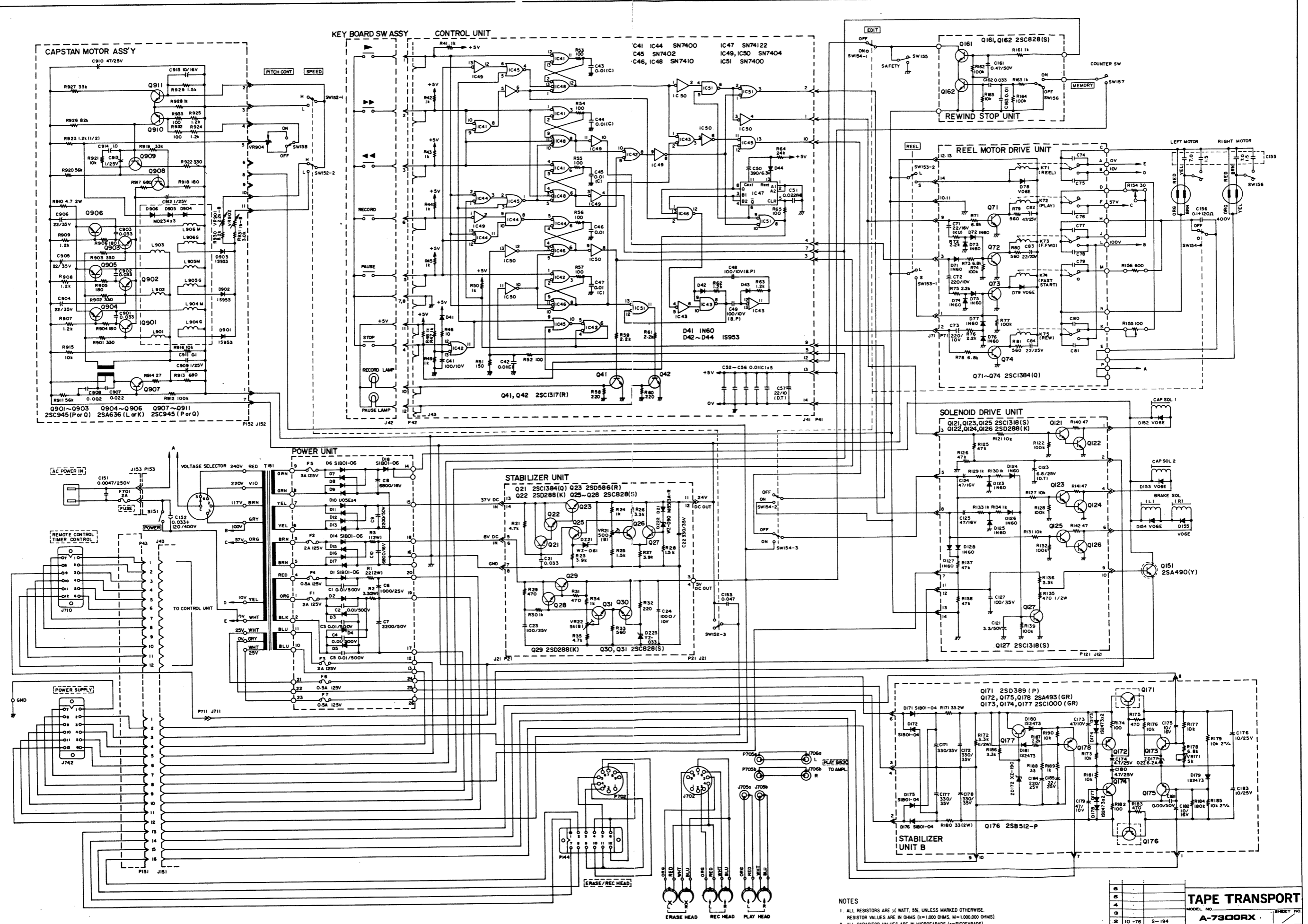




- NOTES
1. ALL RESISTORS ARE 1/2 WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (K=1,000 OHMS, M=1,000,000 OHMS).
 2. ALL CAPACITOR VALUES ARE IN MICROFARADS (P=PROFARADS).
 3. DC VOLTAGES WERE MEASURED DURING RECORD PAUSE MODE.
 4. SIGNAL LEVELS (dB) WERE MEASURED WITH INPUT AND OUTPUT CONTROLS AT SPECIFIED POSITION.
 5. READING IN dB REFERENCED TO 0dB=0.775V.

| | | | |
|----------|--|------|------------|
| REVISION | | DATE | CHANGE NO. |
| | | | |
| | | | |
| | | | |
| | | | |

PREAMPLIFIER
MODEL NO. **A-7300RX** SHEET NO. **1**
TEAC CORPORATION
A-0101



NOTES
 1. ALL RESISTORS ARE 1/4 WATT, 5% UNLESS MARKED OTHERWISE.
 RESISTOR VALUES ARE IN OHMS (Ω)=1,000 OHMS, M=1,000,000 OHMS.
 2. ALL CAPACITOR VALUES ARE IN MICROFARADS (μ=PICOFARADS).

| | | | |
|----------|-------|------------|--|
| 5 | | | |
| 4 | | | |
| 3 | | | |
| 2 | 10-76 | S-194 | |
| 1 | 04-76 | | |
| REVISION | DATE | CHANGE NO. | |

TAPE TRANSPORT
 MODEL NO. **A-7300RX** SHEET NO. **1**
TEAC CORPORATION