

TEAC®

A-2340

4 CHANNEL SIMUL-SYNC
STEREO TAPE DECK
SERVICE MANUAL



TEAC CORPORATION

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1. GENERAL DESCRIPTION

The TEAC A-2340 is a semi-professional tape deck capable of simul-sync recording, four channel, stereophonic and monophonic recording and playback. It offers operating speeds of 7-1/2ips and 3-3/4ips.

This service manual provides adjustment and alignment procedures, schematic diagrams and parts replacement information and the proper procedures for obtaining necessary repair parts.

If adjustments or repair procedures are not clear or seem difficult to accomplish or should you desire more detailed technical information, please contact your nearest TEAC dealer, TEAC Corporation or affiliated corporations, address's of which are printed in this manual.

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2. SERVICE DATA

MECHANICAL

TYPE: Four track 4 channel stereophonic
 Four track 2 channel stereophonic
 Four track 1 channel monophonic

HEADS: Three: Erase (Ferrite),
 Record, Playback (Permalloy)

REEL SIZE: 7" maximum NAB reel

TAPE WIDTH: Standard 1/4 inch tape

TAPE SPEED: 7-1/2ips and 3-3/4ips

MOTORS: Two 6-pole eddy current motors for
 reel drive.
 4/8 pole hysteresis synchronous
 capstan motor.

WOW AND FLUTTER: 0.12% at 7-1/2ips
 0.15% at 3-3/4ips

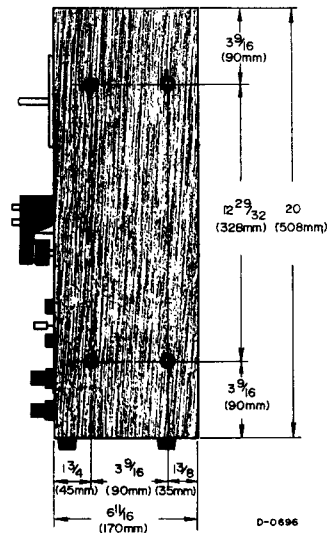
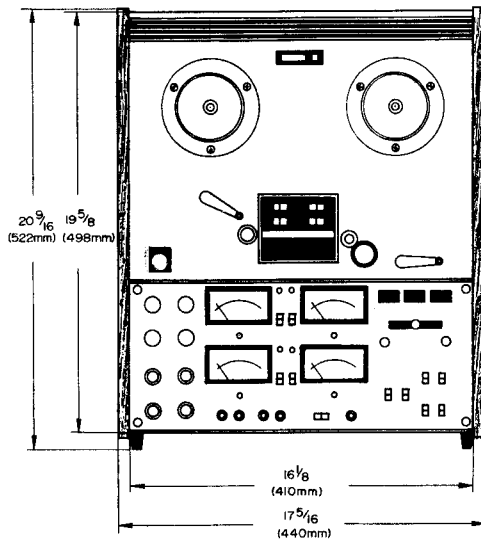
 Wow and flutter measured according
 to weighted NAB standard using
 TEAC flutter free tape.

FAST WINDING TIME: Approx. 90 seconds or less for
 1,200 feet.

OPERATING POSITION: Horizontal and vertical

POWER REQUIREMENTS: 100/117/200/220/240 V AC 50/60Hz 140W

WEIGHT: 44 lbs (20 kg) net.



ELECTRICAL

TRANSISTORS: 2SC1000 (BL) × 2 2SC693 (GU) × 4
 2SA666I (S) × 2 2SC644 (T) × 2
 2SC828 (S) × 10 2SC971 × 2
 2SC536 (F) × 2

DIODES: FR2-06 × 4
 FR2-10 × 4

FREQUENCY RESPONSE: 7-1/2ips 40Hz~18kHz ±3dB
 3-3/4ips 50Hz~10kHz ±3dB

INPUT: MIC: 0.3mV/10kΩ
 LINE: 0.1V/100kΩ

OUTPUT: LINE: approx. 0.3V/10kΩ or more
 HEADPHONE: 0.3mW/8Ω

SIGNAL TO NOISE RATIO: 7-1/2ips 48dB or higher
 3-3/4ips 46dB or higher at playback

BIAS FREQUENCY: 100±5kHz push-pull oscillator

CROSSTALK REJECTION: 35dB or more adjacent track at 100Hz

CHANNEL SEPARATION: 45dB or more channel to channel at 1kHz

ERASE EFFICIENCY: 60dB or more at 7-1/2ips

NOTE

As a result of continuing changes and improvements during the production run, minor differences may be found between early and later machines. Refer to manual change sheets for information concerning modifications.

3. EQUIPMENT REQUIRED

FOR MECHANICAL MEASUREMENT

SPRING SCALE: 0~4kg (0~8 lbs) #5086025000
0~300g(0~10 oz) #5086026000

TEST TAPE: TEAC YTT-2003 (7-1/2ips)
TEAC YTT-2002 (3-3/4ips)

FLUTTER METER: Meguro Model MK665B (preferred) or
Sentinel FL-3D-1

DIGITAL FREQ. COUNTER: Capable of 0 to 5kHz indication

TOOLS: General,
2mm nut driver #5086014000,
Hex head, Allen wrench #5086021000

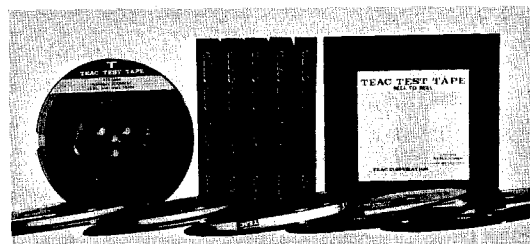
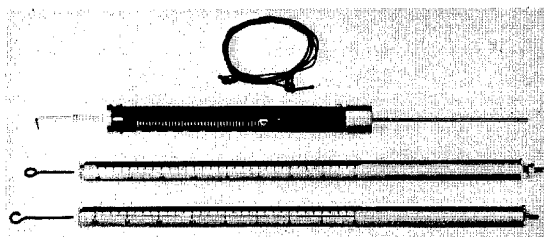


Fig. 3-1 Spring Scale, Allen Wrench and TEAC Test Tape

FOR ELECTRICAL MEASUREMENT

TEST TAPE: TEAC YTT-1003 for 7-1/2ips
TEAC YTT-1002 for 3-3/4ips
SCOTCH 203 and 150 for test recording

EMPTY REEL: TEAC RE-702 (2" hub)
TEAC RE-701 (4" hub)

TEST SET: TEAC M-826A test set

BAND PASS FILTER: TEAC M-206A(1kHz)

VTVM: hp model 4302B or equivalent

RESISTOR: Non inductive type 8 ohm/1W

OSCILLOSCOPE: General purpose

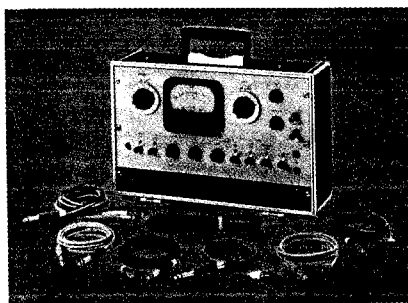


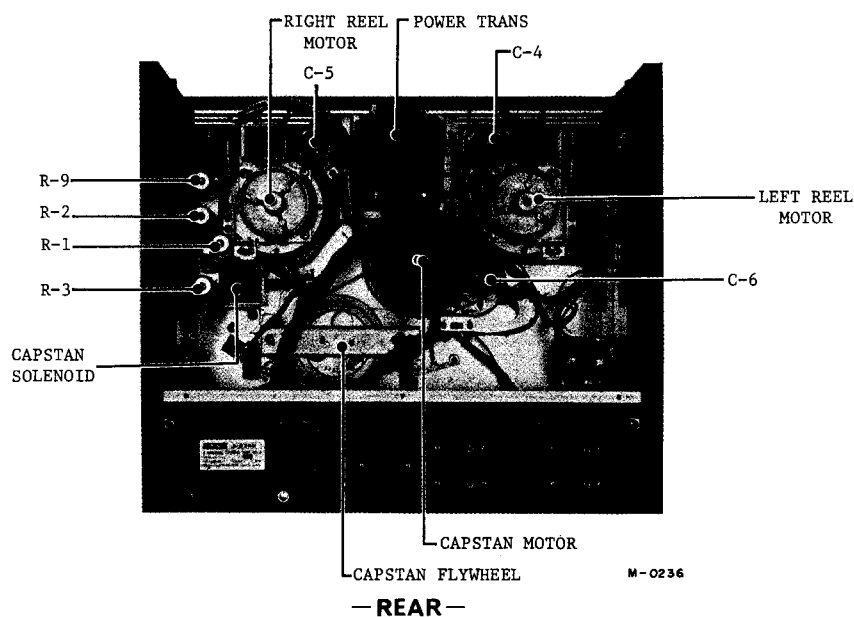
Fig. 3-2 TEAC M-826A

NOTE

Use of the TEAC M-826A test set is recommended. This set incorporates an AC VTVM, Audio Oscillator, Channel Selecting switch, Variable Attenuator, Monitor Speaker and Cables.

TEAC M-826A measures the RMS value of the Voltage(0 dB = 0.775 V). Characteristics of this test set are similar to the standard VU-meter.

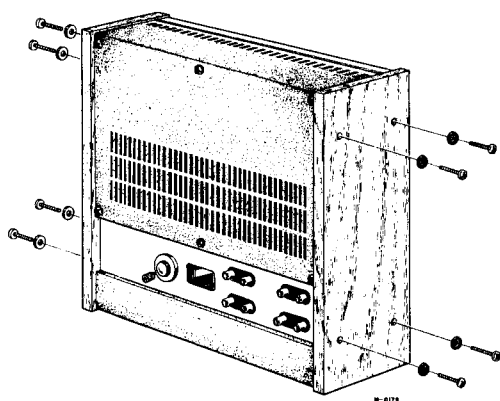
4. PARTIAL DISASSEMBLY



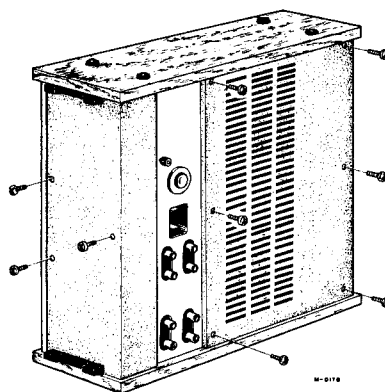
Tape Transport Parts Location

REMOVING WOODEN SIDES AND REAR PANEL

See illustration for complete disassembly instructions.



Wood Sides



Rear Panel and Bottom Plate

All amplifier checks and adjustments can be made from the bottom with the plate removed. 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.

HEAD REPLACEMENT

CAUTION

Power to the unit must be switched off when removing the heads, this will prevent transient pulses from passing through the heads causing strong magnetization or damage to the delicate windings. After head replacement, thorough demagnetization is recommended.

NOTE

The heads of the A-2340 can be changed either as a complete assembly or individually as required.

HEAD ASSEMBLY REPLACEMENT

To change the head assembly as a unit, remove the two mounting screws, (one on each end).

Note the positions of the wires on the circuit board before unsoldering.

Solder the wires of the new assembly in exactly the same positions.

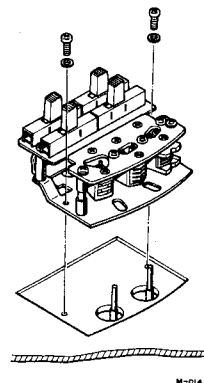


Fig. 4-1 Head Assy

INDIVIDUAL HEAD REPLACEMENT

To replace a single head, a special 2mm nut driver is required. Remove the two nuts on the defective head through the access hole provided, this releases the head from the mounting plate. Note the position of the wires on the circuit board. Connect the new head in the same manner.

Replace the nuts securing the new head to the plate, perform head alignment before operation.

Head installation mounting provides for left or right positioning. After installing heads, determine proper position while recording or playing back a tape.

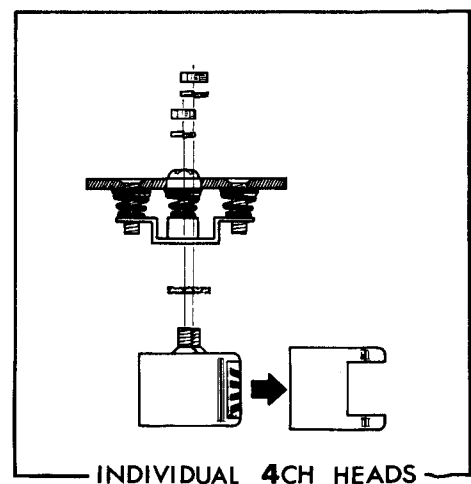


Fig. 4-2 Individual Heads

REMOVAL OF CAPSTAN MOTOR

1. Remove the three screws holding the capstan motor.
2. Unsolder the six wire connecting the capstan motor.
3. Remove the four screws holding the capstan motor.
4. Loosen the two set screws (hex head) in pulley and lift off pulley.

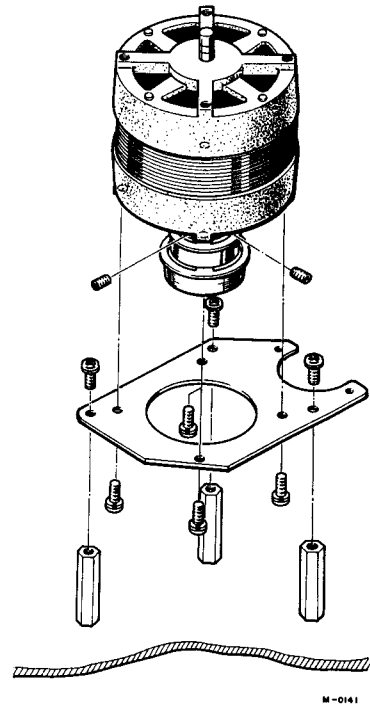


Fig. 4-3 Capstan Motor Removal

REMOVAL OF CAPSTAN ASSY

1. Unscrew capstan cover (front panel).
2. Remove two screws from rear bracket, allow bracket to drop toward floor of case.
3. Remove capstan belt.
4. Loosen two screws in capstan assy flywheel. Remove flywheel.
5. Remove three screws in capstan assy.
6. Gently move capstan assy up and down until it slides out of panel.

NOTE

A clearance of 0.01" must be maintained between the flywheel and capstan assembly.

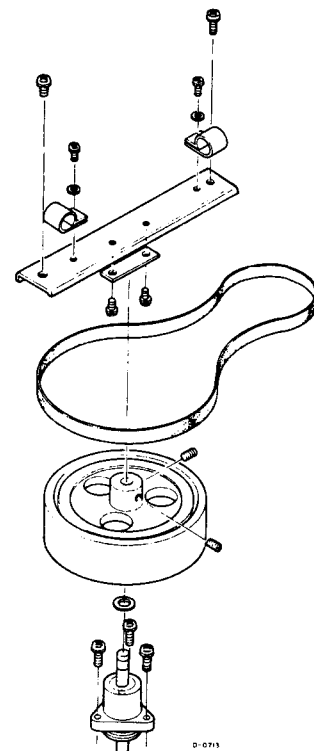
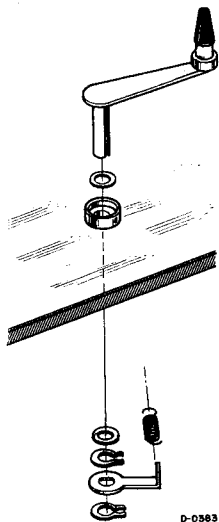


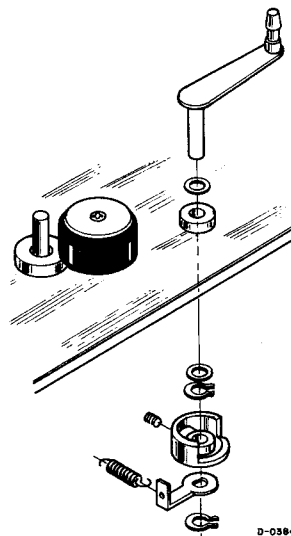
Fig. 4-4 Capstan Assy Removal

REMOVAL OF TENSION ARMS LEFT & RIGHT

See illustration for complete disassembly instructions.



IMPORTANT
After reassembly check clearance to ascertain that arm moves freely and is not binding.



REMOVAL OF REEL MOTOR ASSY

1. Loosen 2 hex screws in brake drum, lift off brake drum.
2. Remove 3 screws securing the brake assembly to the motor.
3. Remove reel turntable, remove 4 screws securing motor to front panel.

NOTE

Reel motor assemblies are mirror images of each other, these assemblies are not interchangeable.

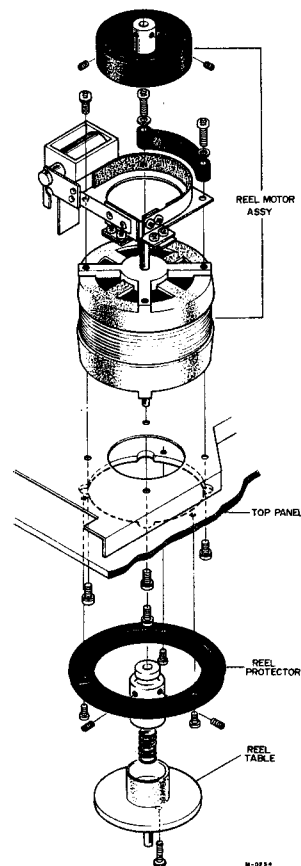


Fig. 4-5 Reel Motor Removal

5. HEAD ALIGNMENT - MECHANICAL -

NOTE

Head alignment is adjusted at the factory to very critical tolerances. Normally HEAD ASSEMBLY replacement will require only minor alignment or adjustments.

Complete readjustment should only be necessary after an individual head is replaced.

The adjustments are made as follows:

ERASE HEAD SECTION

The erase head pole should be above the edge of a threaded tape by the width of heavy pencil line.

RECORD HEAD SECTION

The record head pole should be above the edge of a threaded tape by the width of a thin pencil line.

PLAYBACK HEAD

The pole of the playback head should be even with the top of a threaded tape.

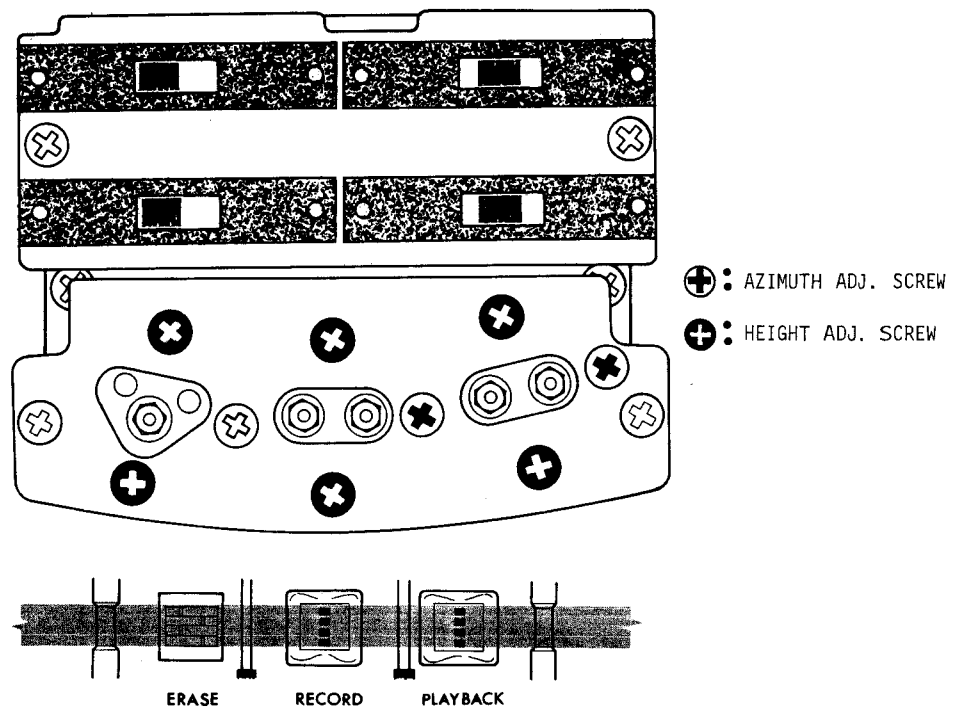
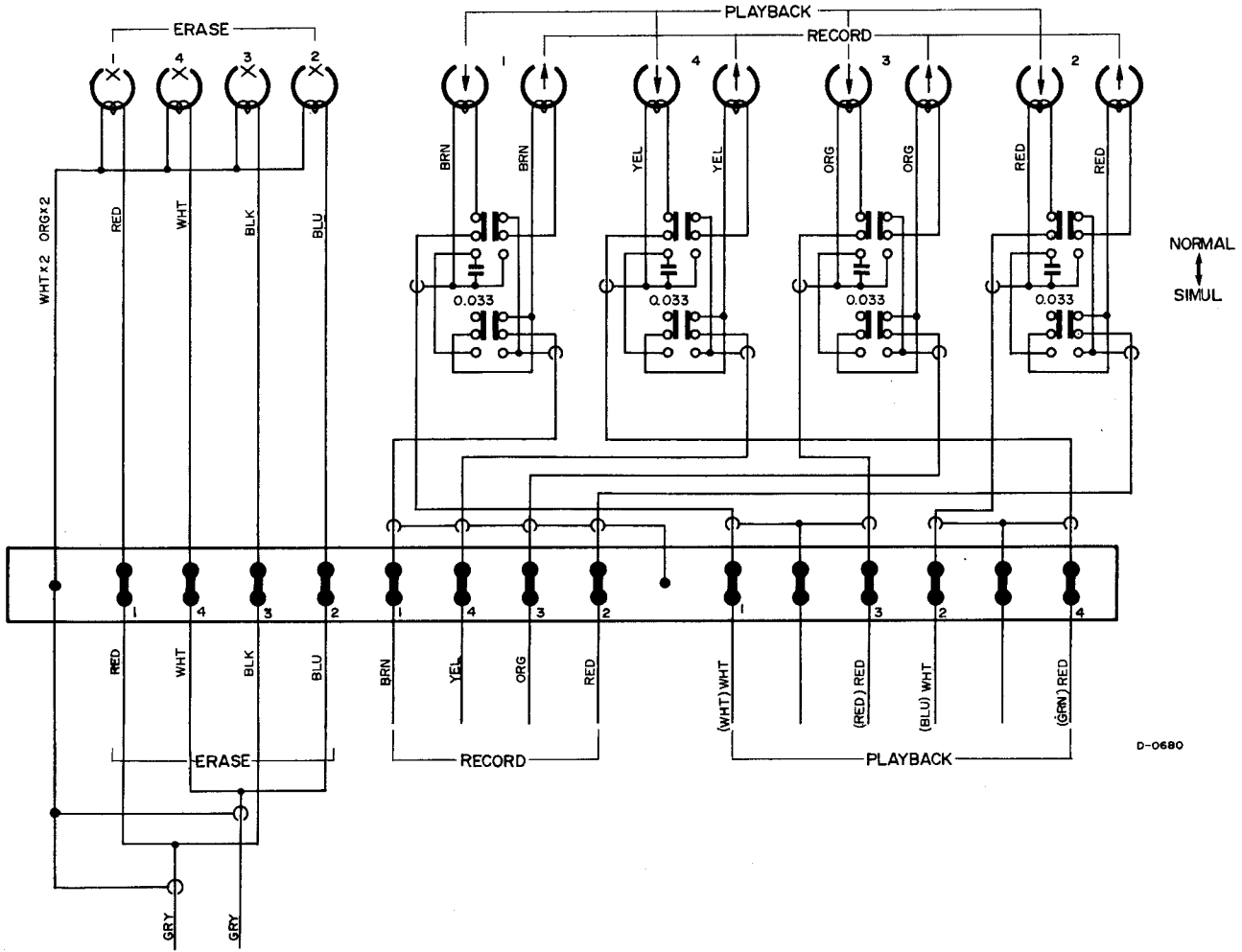


Fig. 5-1 Head Alignment and Adjustable Screws.

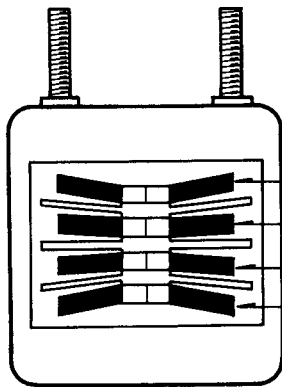
NOTE

Azimuth adjustments are given in the section on MEASUREMENTS and ADJUSTMENTS -ELECTRICAL-.

HEAD WIRING



D-0680



CHANNEL	L-R	COLOR CODE	
CH1	FRONT L	RED	ORG
CH2	REAR L	GRN	BRN
CH3	FRONT R	BLU	WHT
CH4	REAR R	YEL	BLK

D-0738

6. MEASUREMENT AND ADJUSTMENT - MECHANICAL -

The TEAC A-2340 uses a highly reliable three motor drive system and should require a minimum of mechanical maintenance or adjustment.

These adjustments are made at the factory. Readjustment should only be required after many hours of operation or component replacement.

PINCH ROLLER PRESSURE

NOTE

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

Procedure for Check and Adjustment

1. Load tape or block the shut-off arm in the ON position.
2. Attach a suitable spring scale to 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.
4. Do not allow the string to rub against the pinch roller.
5. Note the reading on the spring scale at the instant the pinch roller stops rotating.
6. The scale should indicate 2.1~2.3 kg. Optimum value is 2.2 kg.
7. If adjustment is necessary, loosen the three screws on the capstan solenoid and position the solenoid for optimum pressure.
8. Adjust solenoid limit position so that the gap between capstan shaft and pinch roller is approximately 7mm when solenoid is not actuated. Limit is adjusted by loosening the mounting screw (A), mount slot is elongated, slide limit until proper gap is obtained.

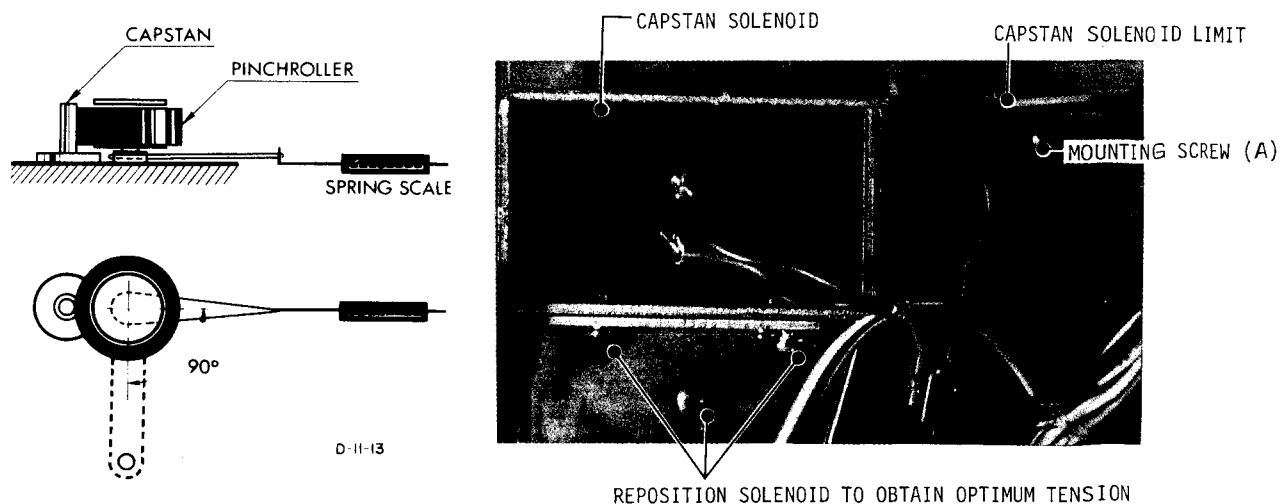


Fig. 6-1 Pressure Measurement -Pinch Roller-

TORQUE ADJUSTMENT PROCEDURE

IMPORTANT

Be sure the full required line voltage is applied and that the unit is set to the proper line frequency.

1. Measure the back tension of the left reel motor and the take-up torque of the right reel motor.
2. Adjust R-1 (50 Ω) if measurement value of right or left reel motor exceeds the specified limits. (Coarse adjustment)
3. After adjusting R-1, adjust R-2 to bring back tension and take-up torque to exact specified limits.

NOTE

Adjustments will interact. Several adjustments may be required to bring both motors within specifications.

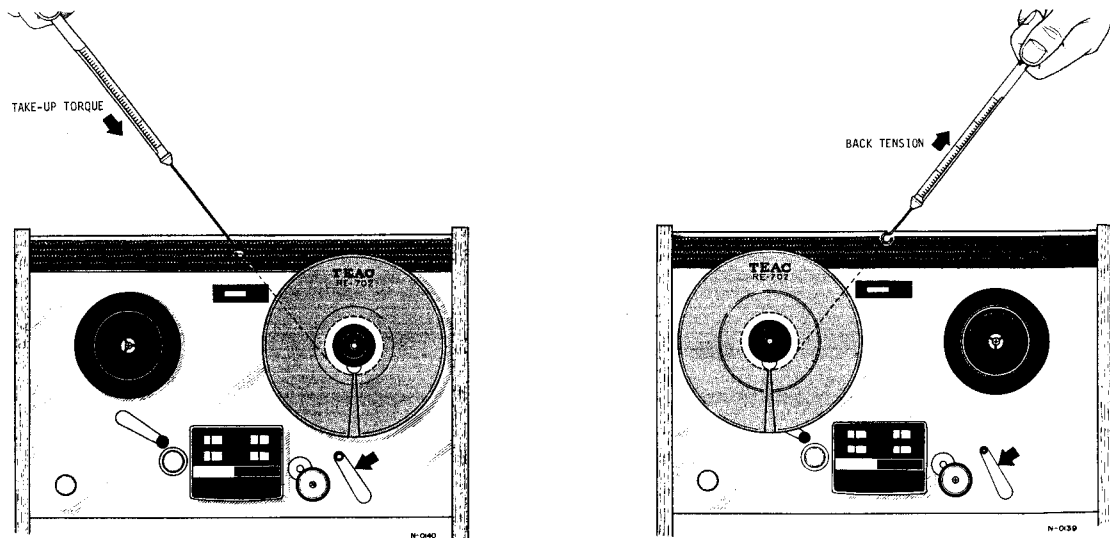
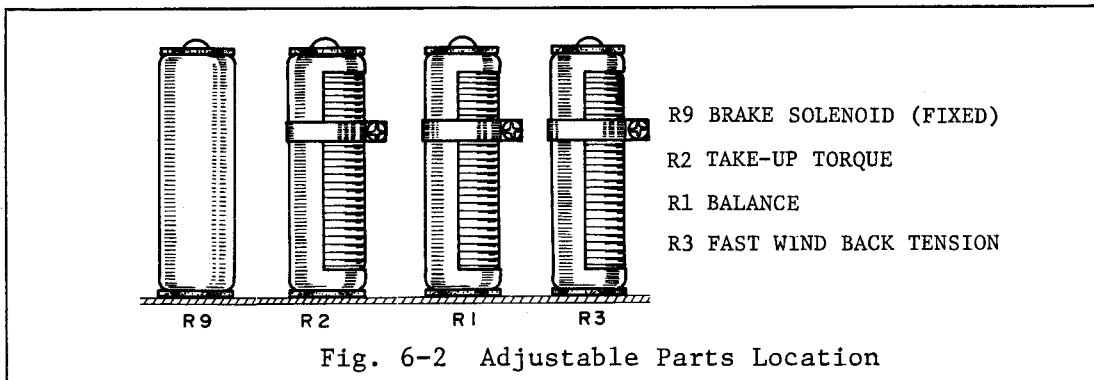


Fig. 6-3 Torque Measurement

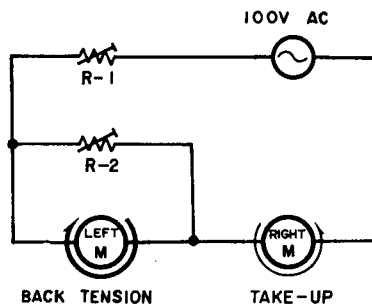
TORQUE MEASUREMENT PROCEDURE

BACK TENSION

1. Load tape or block the shut-off arm in the ON position.
2. Place an empty 7" reel with a 2" diameter hub on left reel table.
3. Rotate the reel and wind several turns of string around the hub. Attach spring scale to string.
4. Place the unit in the (▶) play mode.
5. Pull the scale away from the reel against the motor torque, with a steady smooth motion.
6. Note the scale reading while it is in steady motion.
7. Make sure the string does not rub against the reel flanges.
8. The reading should be approximately 180~220g-cm(2.8~3.1 oz-inch).

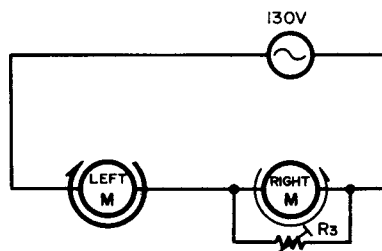
TAKE-UP TORQUE

1. Place the empty reel and attached 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. It should be approximately 360~400g-cm(4.1~4.8 oz-inch).



REWIND BACK TENSION

1. Load a full 1,800ft reel of tape on the right reel table.
2. Place the empty reel with 2" hub on the left reel table.
3. Place the unit in the fast rewind mode, (◀).
4. At this time observe the right tension arm. Adjust R-3 so that the arm moves approx. 1" to the right and remains there.



BRAKE TORQUE

NOTE

The brake torque is actuated mechanically. Pressure is set by the variable spring force. While making this measurement and adjustment, 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-251B only. After cleaning operate the machine for some time before performing the below procedures.

Brake adjustments are made with no power connected to the equipment.

Procedure for Check and Adjustment

1. Place an empty 2" 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. Slowly draw the spring scale away from the reel, making sure that the string does not rub against the reel flanges.
3. 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.
4. The reading should be 1.8 kg-cm ± 0.1 (25 oz-inch).
5. If adjustment is required, loosen the two screws shown and position the brake for optimum torque.
6. The adjustment of the right brake is the same, with the exception that rotations are clockwise.

NOTE

The difference in readings between the right and left brakes should be kept within 50 g-cm (0.7 oz-inch).

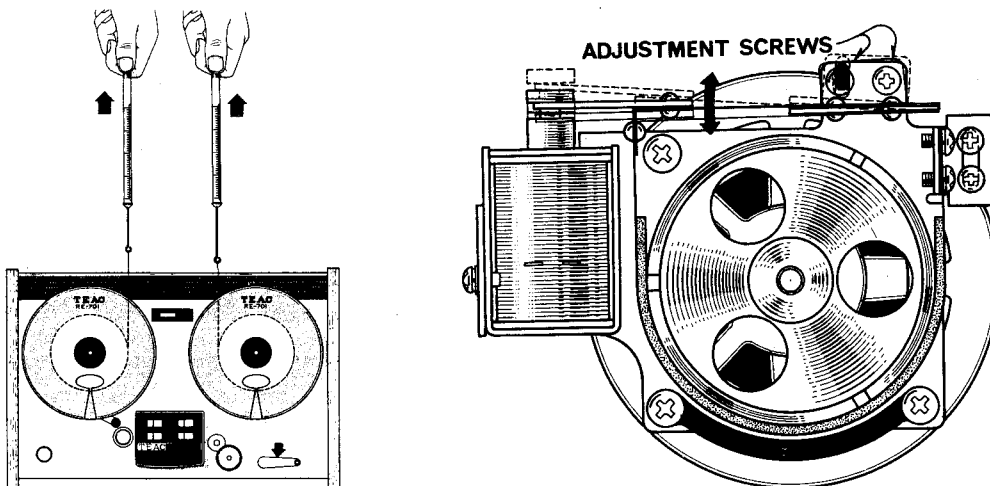


Fig. 6-4 Torque Measurement & Adjustment Location
-Brake-

REEL HEIGHT ADJUSTMENT

Reel height adjustment is required only if a motor has been replaced. Adjustment is accomplished by FINE ADJ. screw in the reel turntable. Reel turntable height should be adjusted using standard 7" reels. With a tape threaded on the machine, position the reel height for smooth tape travel.

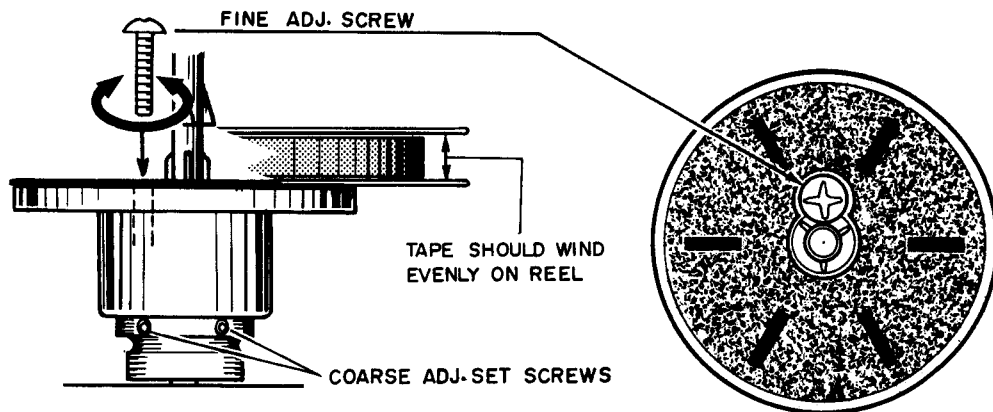


Fig. 6-5 Reel Height Adjustment

M-0233

FLUTTER

Flutter should be measured in playback mode using a TEAC flutter free tape YTT-2003-2002 and Meguro model MK665B flutter meter. Measurement of flutter should be made in accordance with NAB standards.

Values obtained with different standards or equipment cannot be compared.

Flutter should not exceed. 7-1/2ips: 0.20%

3-3/4ips: 0.25%

These figures apply to any tape position and direction (such as full take-up reel, full supply reel or about mid point).

TAPE SPEED

The tape speed should be measured using TEAC flutter free tape, model YTT-2003-2002. These tapes contain a highly accurate 3 kHz tone. Connect a digital frequency counter to either line OUTPUT jack. The indicated frequency should be 3 kHz 0.7% for all speeds.

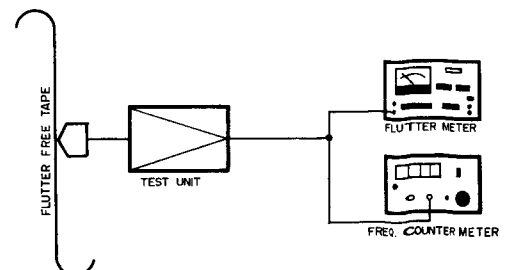


Fig. 6-6 Test Equipment Set-Up

VOLTAGE AND FREQUENCY CONVERSION

Unit must be set to the power line frequency available. Improper frequency setting will result in a 20% error between the tape speed and reel motors torque.

NOTE

US model is preset to 117V AC and 60 Hz. No frequency conversion is required. If it should be necessary to convert the A-2340 deck to operate from a power source of different voltage or frequency, it may be easily accomplished as follows:

Voltage Conversion:

The A-2340 may be set for 100, 117, 200, 220 or 240 volts. To change the voltage unscrew the fuse in the center of the voltage selector plug. Pull out the plug and reinsert it so the desired voltage shows in the cut-out. Reinstall the fuse.

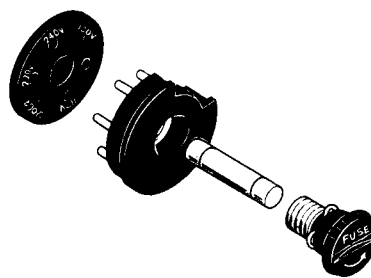


Fig. 6-7 Voltage Conversion

Frequency Conversion:

1. Remove the power cord and all connecting cables.
2. Take off tape deck rear cover by removing the six screws holding it.
3. To convert the unit from 50 to 60 Hz operation reposition the capstan belt as shown in the illustration below.
4. Slide frequency selector switch inside the rear of the tape deck must be switched to the frequency of the power line.
5. Reinstall rear cover.

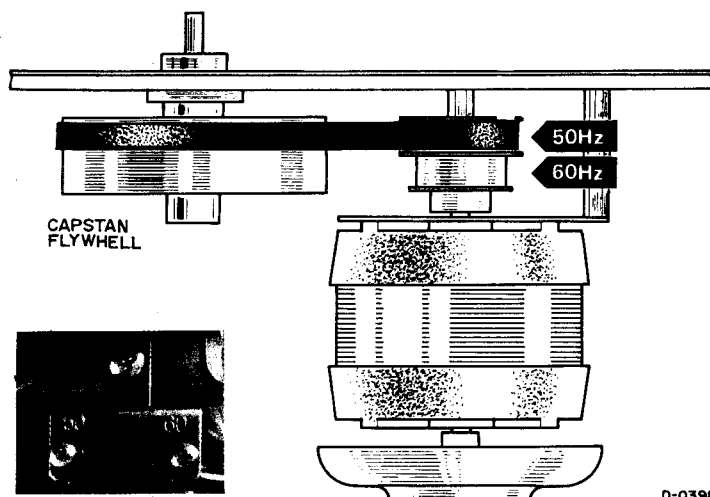


Fig. 6-8 Frequency Conversion

7. MEASUREMENT AND ADJUSTMENT - ELECTRICAL -

GENERAL NOTICE

Outlined procedures refer only to FRONT channels, the same procedures also apply to REAR channels.

Before performing checks set all head function selector switches to NORMAL position (on the head housing).

Place MONITOR switches (L1-R3, L2-R4) in TAPE position, place tape speed control at H(high), place PLAY switch in 4 CHAN position.

Power supply check and adjustment.
Check the voltage at VR-1 and adjust to 24V DC if required. (Refer to control board on the schematic diagram.)

Procedures for checks and adjustments, unless otherwise indicated, are for the left channel at a tape speed of 7-1/2ips. The same procedures are to be applied to the right channel and again for both channels at 3-3/4ips. All controls mentioned in this book will be printed in bold letters and will be exactly as they appear on the unit.

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

Only FRONT adjustments are illustrated, REAR adjustments are identical.

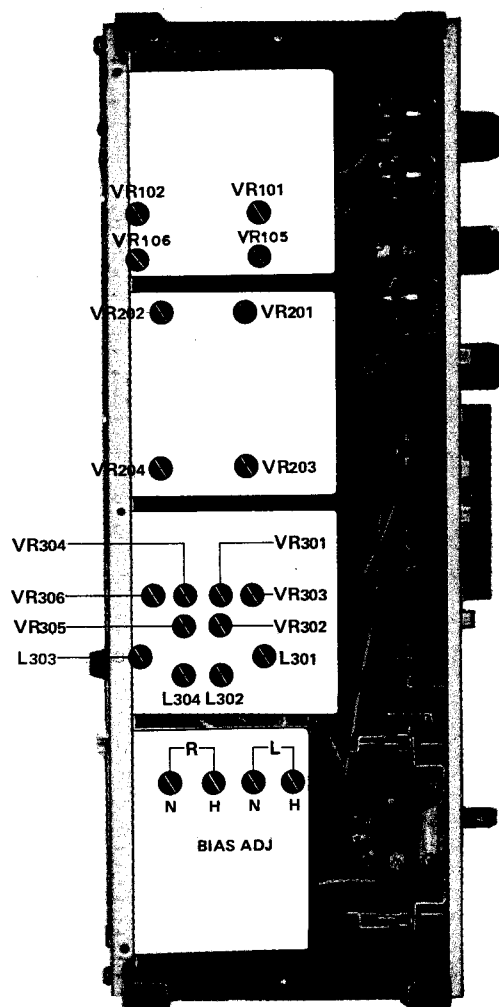


Fig. 7-1 Adjustment Locations

L CHANNEL	R CHANNEL	LOCATION
VR101	VR102	PLAYBACK EQ. (HIGH)
VR105	VR106	PLAYBACK EQ. (LOW)
VR201	VR203	PLAYBACK LEVEL
VR202	VR204	PLAYBACK METER LEVEL
VR303	VR306	REC METER LEVEL
VR301	VR304	SOURCE MONITOR LEVEL
L 301	L 303	REC EQ.
VR302	VR305	RECORD LEVEL
L 302	L 304	BIAS TRAP
VC501	VC503	BIAS NORMAL ADJ.
VC502	VC504	BIAS HIGH ADJ.

PLAYBACK PERFORMANCE

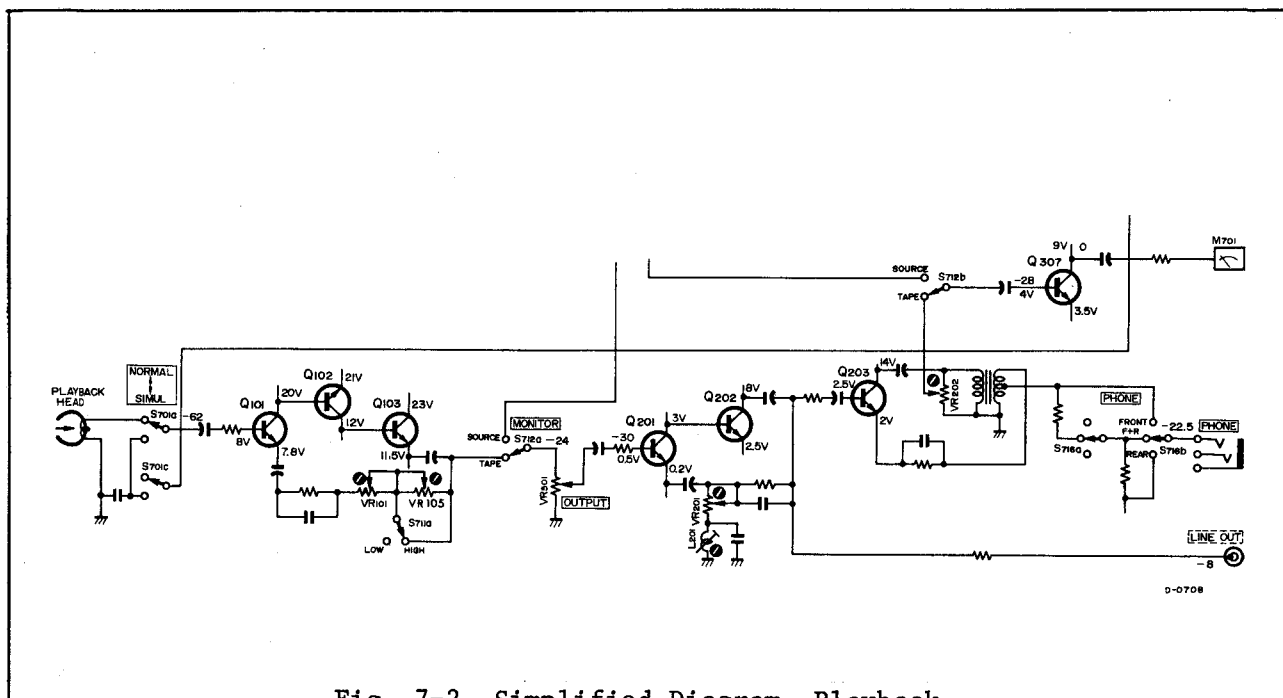


Fig. 7-2 Simplified Diagram -Playback-

PLAYBACK HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

1. Connect a level meter to either OUTPUT jack.
2. Thread a TEAC test tape YTT-1003 on the unit.
3. Play the 15 kHz test tone in section 2 of the test tape.
4. Slowly rotate the azimuth screw until maximum indication is obtained on the level meter.

NOTE

If during playback, a slight pressure on the heads results in a rise of the reading of the level meter, head alignment adjustments should be accomplished.

Fine Adjustment

CAUTION

After coarse adjustment, do not make large corrections, turn azimuth screw 1/4 turn or less.

5. It is absolutely essential to accomplish the coarse adjustment before using this method to avoid phase errors larger than 45°.
6. Connect the test equipment as shown in Fig. 7-3.
7. Play a 10 kHz signal and adjust the azimuth screw until the oscilloscope shows that the signals are less than 45° in phase.
8. Secure the screw with a drop of LOCTITE.

SPECIFIED OUTPUT LEVEL SET

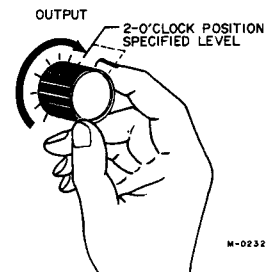
NOTE

Connect a 10 k Ω load to the OUTPUT jacks when not using TEAC M-826A (0 dB = 0.775V) output meter.

1. Play the 400 Hz tone in section 1 of the test tape. This tone is recorded at operating reference level (1% of the THD level).
THD: Third Harmonic Distortion
2. Turn the OUTPUT controls fully clockwise, and adjust VR-201/203 for +2 dB reading on level meter.
3. Then retard OUTPUT controls until a -8 dB is obtained on the level meter at the OUTPUT jacks.
4. Align the reference marks of the 4 OUTPUT controls so that they are positioned alike. This will be at approximately the two o'clock position.

IMPORTANT

This is the specified output level set. Do not disturb this setting until the remaining adjustments have been completed.



VU METER CALIBRATION

1. While playing the 400 Hz tone (1% THD) in section 1 of the test tape.
2. With MONITOR switches FRONT and REAR in the TAPE position, adjust VR-202/204 for a reading of 0 VU on the VU meters.

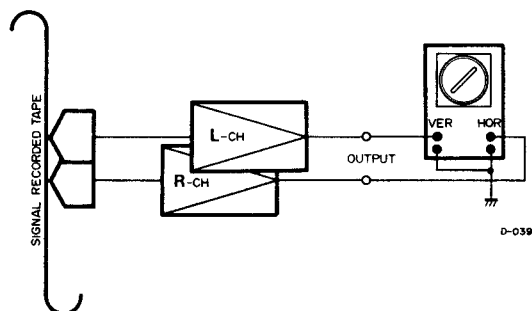


Fig. 7-3 Fine Adjustment Set-up -Head Azimuth-

FREQUENCY RESPONSE

5. Set TAPE SPEED to H(high) position. Using test tape YTT-1003, play the test tones from 15 kHz down to 40 Hz (recorded at 10 dB below operating reference level).
6. Compare the readings obtained on the level meter with the response limits given in figure 7-4.
7. In case of any deviation in the response curve, check head azimuth alignment, clean the heads, then adjust VR-101/102 for the best response.
8. Set TAPE SPEED to L(low) using test tape YTT-1002. Adjust VR-105/106 as in H(high) position.

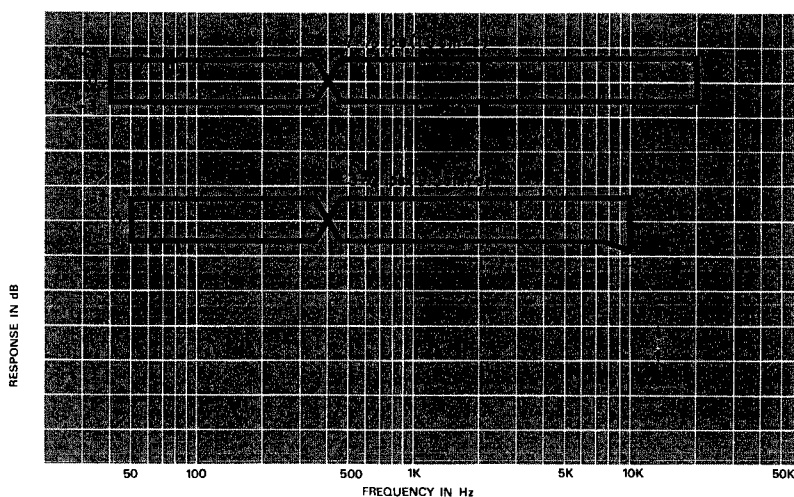


Fig. 7-4 Frequency Response -Playback-

SIGNAL TO NOISE RATIO

IMPORTANT

OUTPUT control should be at specified output level. The signal to noise ratio must meet factory standards. The values given are obtained using an unweighted level meter while the supply and take-up motors have voltage applied but are not rotating. The values are with reference to a 3% THD peak recording level.

1. Thread a tape on the unit, leaving the tape outside the capstan and pinch roller. Tension arm should be in ON position.
2. Place the unit in the PLAY mode (▶) (the tape will not move).
3. The level meter connected to the OUTPUT jacks should indicate -56 dB or less.
4. This corresponds to a signal to noise ratio of 48 dB (difference between residual noise -56 dB and specified output level -8 dB for 1% THD).

For a 3% THD signal to noise ratio, 6 dB is added, giving 56 dB (3% THD is 6 dB above 1% THD level).

MONITOR PERFORMANCE

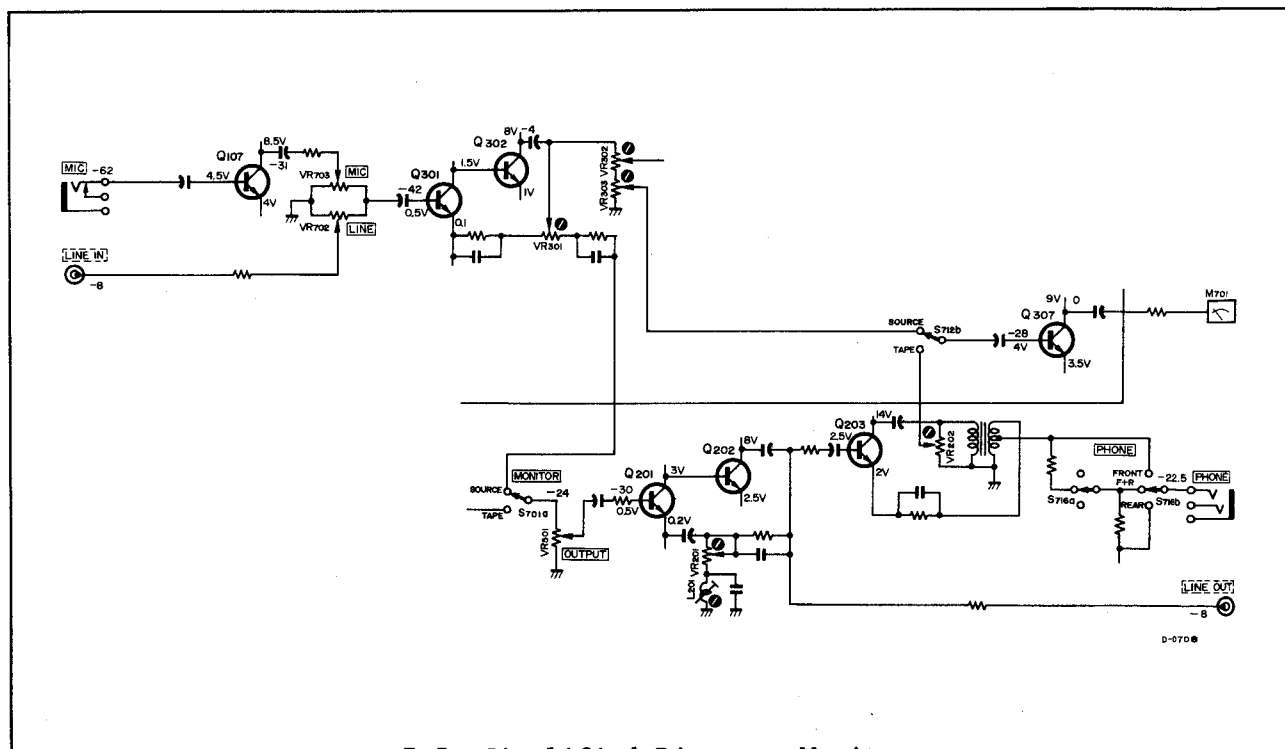


Fig. 7-5 Simplified Diagram -Monitor-

MINIMUM INPUT LEVEL _____

LINE Input

With output controls at specified output level

1. Connect an AF oscillator to the LINE IN jacks.
2. Apply a 400 Hz signal at -18 dB.
3. Place the MONITOR switches FRONT and REAR in the SOURCE position and turn the LINE controls fully clockwise.
4. Adjust VR 301/304 to obtain a specified output level of -8 dB at OUTPUT jacks.

MIC Input

5. After adjusting VR 301/304, apply a 400 Hz signal at -70 dB to the MIC IN jacks.
6. Rotate the MIC controls fully clockwise.
7. The output should be -8 dB (specified output level).

SPECIFIED INPUT LEVEL SET _____

With output controls at specified output level

8. Apply a 400 Hz signal at -8 dB to the LINE IN jacks.
9. Adjust the line controls for -8 dB at the OUTPUT jacks.

NOTE

Do not disturb the specified input level position of these controls until the remaining checks and adjustments are completed. The difference between the channels must not exceed ± 2 dB as indicated on the level meter. If they are not within limits, check the amplifier gain and the LINE control settings.

VU METER CALIBRATION -RECORD- _____

10. With the same 400 Hz signal at -8 dB applied and the MONITOR switches FRONT and REAR in SOURCE, adjust VR 303/306 for 0 VU on the VU meters.

SIMUL SYNC FREQUENCY RESPONSE _____

7-1/2 ips and 3-3/4 ips response should be identical. Frequency response in SIMUL-SYNC function is measured as in NORMAL operation.

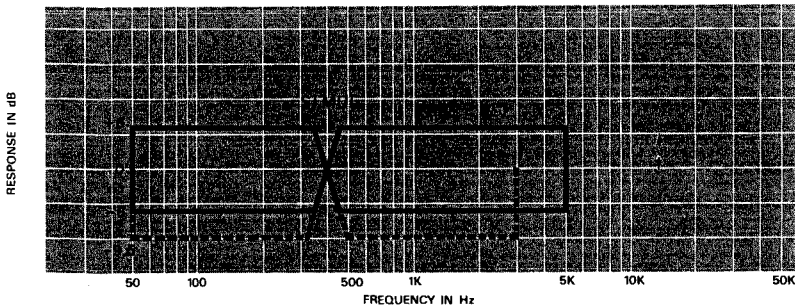
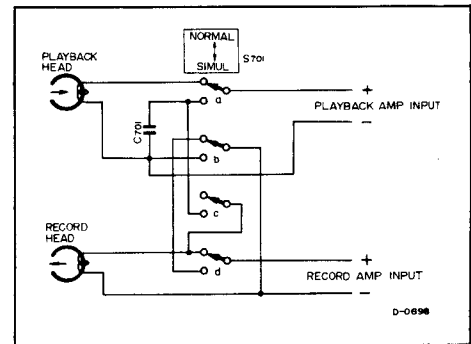


Fig. 7-6 Simul Sync Frequency Response Limits



Simul Sync Diagram

RECORD PERFORMANCE

IMPORTANT

Before making any adjustments on the record amplifier, be sure that all test in the HEAD ALIGNMENT, PLAYBACK and MONITOR PERFORMANCE sections have been accomplished and that all adjustments are correct.

Optimum recording performance (bias levels, recording levels and frequency response) is dependent upon tape characteristics. The TEAC A-2340 is factory set for SCOTCH #150/203 tape. Service data is based upon the use of SCOTCH #203 or equivalent tape.

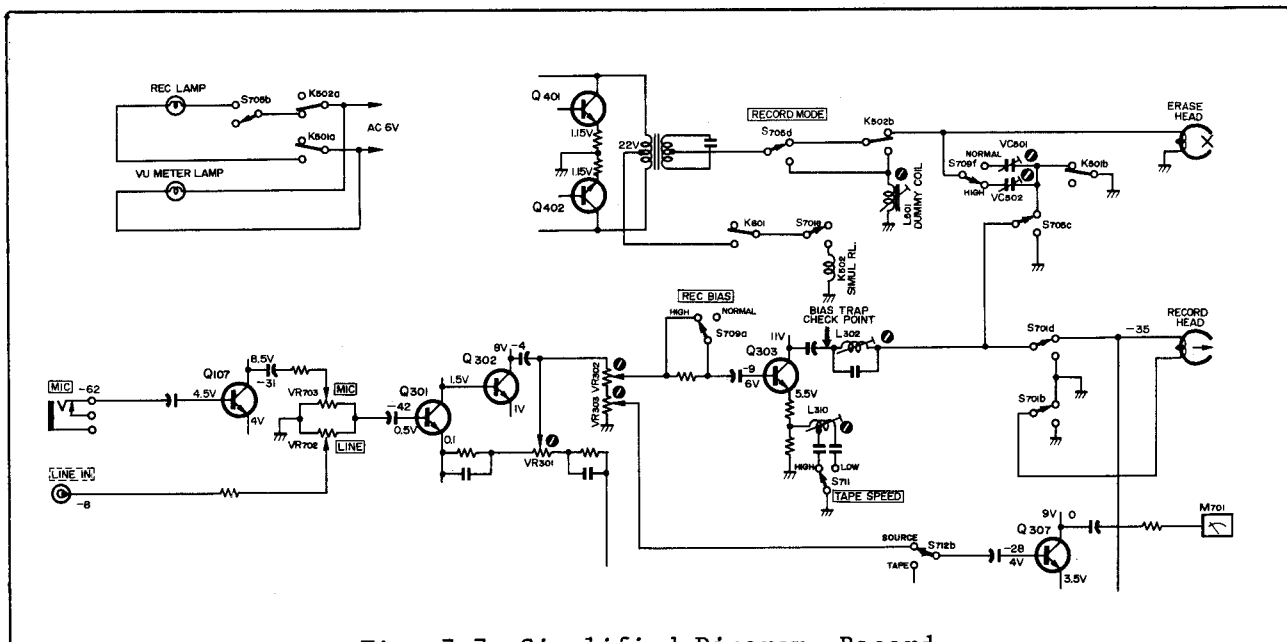


Fig. 7-7 Simplified Diagram -Record-

BIAS TRAP ADJUSTMENT

NOTE

The bias trap tank circuit keeps the bias signal from reaching the record and monitor amplifier and under normal no signal conditions, voltage should not be present at the OUTPUT jacks.

Procedure for Check and Adjustment

1. Place BIAS switch in HIGH position, MONITOR switch in TAPE position and all RECORD MODE switches ON. Place tape mode lever at PAUSE position. Depress RECORD and buttons.
2. Connect a VTVM to the junction of C-308/L-302. Adjust L-302 for minimum reading.

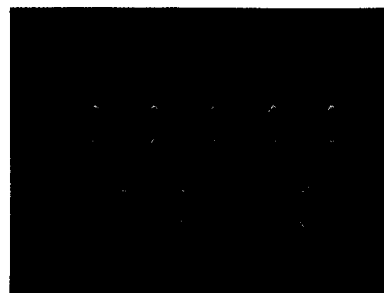
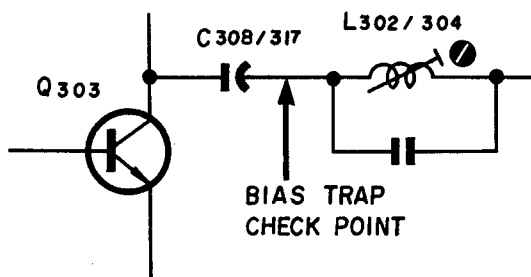


Fig. 7-8 Bias Trap Check Point and Bias Leakage.

BIAS ADJUSTMENT

NOTE

Adjust BIAS trap (L-302/304) before adjusting BIAS levels. These adjustments are only made at 7-1/2 ips tape speed, the bias oscillator frequency is 100 ±5 kHz.

NORMAL Position

1. Thread a record test tape (Scotch 150) on the unit. Place BIAS switch in NORMAL position.
2. Place MONITOR switches in TAPE position, PAUSE lever at PLAY.
3. Apply a 400 Hz signal at -8 dB at the LINE IN jacks.
4. Adjust VC-501/503 for a peak on the level meter.
5. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

HIGH Position

1. Thread a record test tape (Scotch 203) on the unit. Place BIAS switch to HIGH position.
2. Adjust VC-502/504 as in NORMAL position.

RECORD LEVEL SET

1. Using Scotch 203 tape, BIAS switch at HIGH position. Apply a 400 Hz signal at -8 dB at the LINE IN jacks.
2. OUTPUT controls must be at specified output level setting (-8 dB at OUTPUT jacks).
3. Place unit in record mode, MONITOR switches in the TAPE position.
4. Adjust VR-302/305 for a reading of 0 VU on the VU meters. (-8 dB at the OUTPUT jacks.)

OVERALL FREQUENCY RESPONSE

IMPORTANT

To avoid saturation of the tape these checks should be made at least 20 dB below the specified input level. Any bias signal feeding into the test equipment should be filtered out by adjusting the external bias trap. A broad band VTVM may be used at the output for this adjustment.

-BIAS switch in NORMAL position-

1. Thread the unit with a record test tape (Scotch 150). Set TAPE SPEED selector to H (7-1/2ips).
2. Adjust the AF oscillator to obtain an output level of -23 dB at OUTPUT jacks.
3. Apply a signal swept from 50 Hz to 18 kHz to the unit while recording on the test tape. With MONITOR switch at TAPE position monitor the output at the level meter. See figure 7-9 for proper response limits.
4. Repeat the above procedures for L (3-3/4ips), using a signal swept from 50 Hz to 15 kHz.

NOTE

If response is not uniform the heads should be checked for accumulated dirt or tape oxide.

If heads are clean the equalization coils L-301 and L-303 should be adjusted (both speed).

-BIAS switch in HIGH position-

1. Thread the unit with a record test tape (Scotch 203).
2. Repeat the overall response check at both tape speeds. The record equalization should give the proper frequency response.

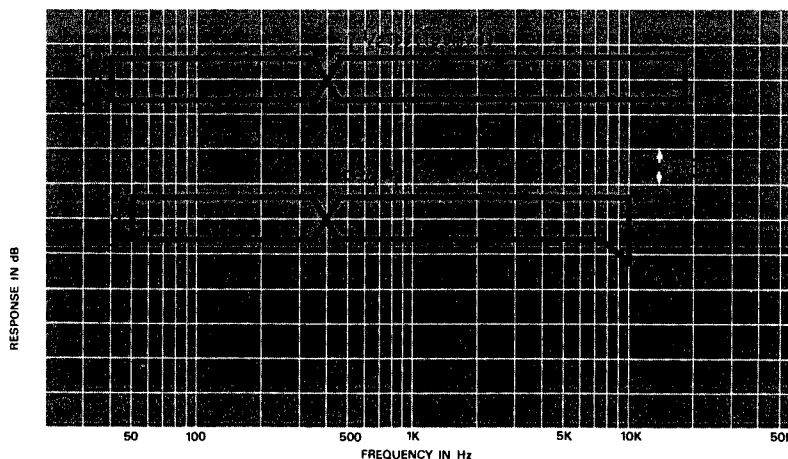
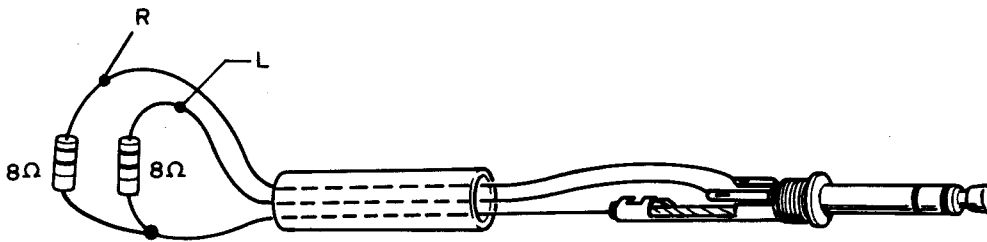


Fig. 7-9 Frequency Response Limits
-Record-

HEADPHONE OUTPUT CHECK

1. Apply a 400 Hz signal at -8 dB to LINE jacks.
2. Place OUTPUT controls at specified level setting. Place MONITOR switches at SOURCE position.
3. Connect two, 8Ω non inductive resistors across the headphone output. Connect the level meter across each resistor in turn.
4. Level meter should indicate $-24\text{ dB} \pm 2\text{ dB}$ for FRONT or REAR position, L or R channel.
5. Move switch to F+R position, again connect the level meter across each resistor in turn, output reading should be $-24\text{ dB} \pm 2\text{ dB}$ for each channel. (FRONT L ch/REAR L ch) (FRONT R ch/REAR R ch).



M-0176

Fig. 7-10 Headphone Connecting Resistor

ERASE EFFICIENCY

NOTE

To measure erase efficiency, a 1 kHz band pass filter (TEAC M2Q4 CL filter) must be used.

Due to the high level of this signal, it is recommended that only a short recording be made (approximately 30 seconds) to prevent damage to the VU meter.

1. Apply a 1 kHz signal at 0 dB to the LINE IN jacks.
2. Place the unit in record mode and record this signal.
3. Rewind the recording to the beginning and remove the AF oscillator from the LINE IN jacks.
4. Place the unit in record mode and record over this portion of tape again.
5. Rewind the tape to the starting point and connect a level meter to the LINE OUT jack through the 1 kHz band pass filter.
6. Play the erased portion of the tape.
7. The level meter should indicate -60 dB or more.

9. TROUBLE SHOOTING

NOTE

The following guide lists specific difficulties that could occur in the A-2340.

Several possible causes are listed for each malfunction. Visually inspect the unit for any damage such as broken or burned components or wiring, loose connections, etc.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Capstan fails to turn	Belt off slipping, line fuse(F-1), auto-shut off switch(SW-2), speed select switch(SW-8).	Refer to schematic diagram and repair or replace the defective components.
Pinch roller fails to contact capstan in play mode	AC voltage, position, stop switch(SW-3), rewind relay (K-1), capstan solenoid.	The normal DC resistance of the capstan solenoid is 1.3k ohms. Refer to schematic diagram and repair or replace the defective components.
Right reel does not rotate in the play mode	Resistor(R-2), rewind relay (K-1), capacitor(C-4)	Refer to schematic diagram and repair or replace the defective components.
Left reel does not rotate in play mode	Resistor(R-3), rewind relay (K-1), capacitor(C-5)	Refer to schematic diagram and repair or replace the defective components.
Left reel operates with low torque	Resistor(R-6), tension switch	Repair or replace defective components.
Both reel motors fail to operate	Operating relay(K-1)	Clean contacts on(K-1) or replace relay.
Recorder does not operate in forward play	Remote control jumper plug missing or loose, stop switch(SW-8), operate relay (K-1), brake solenoid, diode(DC 24V)	Normal DC resistance of the brake solenoid is 1.3k ohms. Refer to schematic diagram and repair or replace the defective components.
Playback noise or hum	Faulty connections, head selector switch, faulty playback head, faulty amplifier	Repair or replace defective components.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Noise or hum during record	Magnetized head, faulty connections, mic level set to maximum, faulty record amplifier, record relay (K-401).	Demagnetize and clean head, repair or replace defective components.
Wow & flutter	Defective tape, dirty or defective pinch roller, oily or defective belt, reel motor tension.	Clean or replace defective components. Adjust motor tension.
Incorrect tape speed	Drive belt in wrong position. Incorrect pinch roller pressure.	Reposition drive belt. Adjust pinch roller pressure.
Brakes do not release	Defective brake solenoid	The D.C. resistance of the brake solenoid should be 1.3k ohms. Replace solenoid.
Fast forward or rewind mode inoperative	Rewind relay(K-3)	Refer to schematic diagram and repair or replace the defective components.
No record and/or no erase	Record head dirty, erase head dirty, operate relay (K-1), record switch(SW-6), record relay(K-401), record amplifier, bias oscillator, record head, erase head.	Refer to schematic diagram and repair or replace the defective components. For record amplifier troubleshooting refer to voltage chart.
No playback	Playback head dirty, amplifier to deck connections, monitor switch(SW-501), playback amplifier.	Refer to playback amplifier voltage chart.

8 PREVENTIVE MAINTENANCE

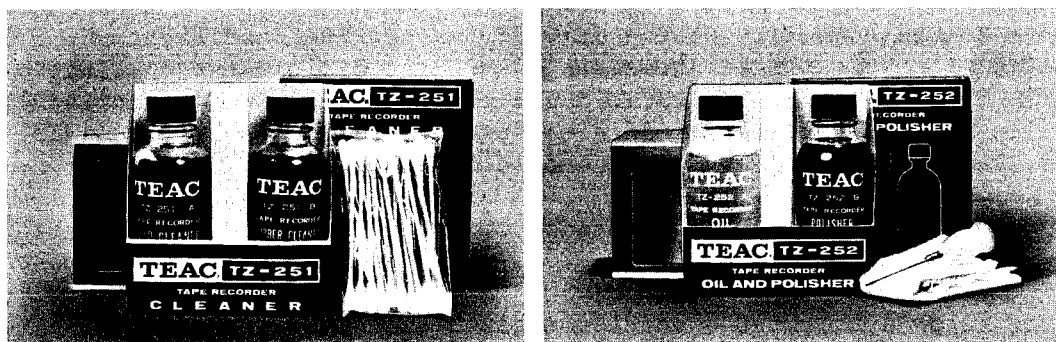


Fig. 8-1 Maintenance Equipment

CLEANING

When excess oxide accumulates on the surface of components where tape passes, normal operation and characteristics cannot be expected. Periodic cleaning should be done with proper cleaning materials. Refer to Operating Instructions.

DEMAGNETIZATION

Metal parts in contact with the tape will become magnetized after long periods of use (except erase head). Magnetization of record/playback heads causes noise in recording and reproduction and heads should be demagnetized at every 50 hours of use, and before any important recording is done. Refer to Operating Instructions.

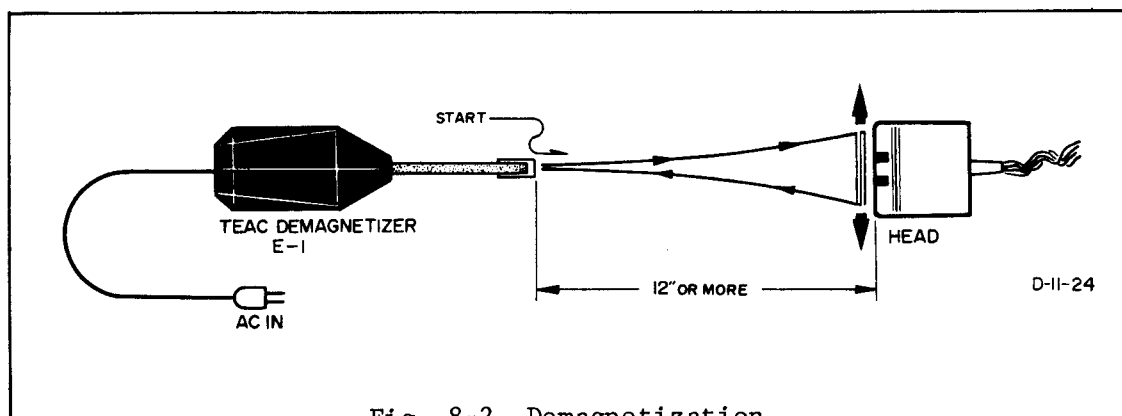


Fig. 8-2 Demagnetization

LUBRICATION

Under normal conditions the unit will not require lubrication. Most of the bearings and bushings are of the oilless type. Since there are many rubber parts in the transport mechanism, excessive or improper lubrication could cause problems. If lubrication is required, the following points should be lubricated:

Capstan bushing, pinch roller shaft 1 drop
Motor 1 - 2 drops in the plastic tubes

Parts to be lubricated should be cleaned and old oil and dirt removed before relubricating. Observe instructions as to type of oil, points to be lubricating.

Motors should be lubricated immediately after use while still warm. After oiling motors keep the unit in the vertical position for 2~3 hours to allow thorough absorption of oil.

VENTILATION

During use the face plate of the A-2340 may become quite warm to the touch, this entirely normal.

AS long as the air vents in the rear plate are unobstructed, the unit will not overheat.

However, if the unit is placed snugly against a wall, or free air passage is prevented, overheating and possible damage may occur.

TEAC®

A-2340 4 CHANNEL SIMUL-SYNC STEREO TAPE DECK PARTS LIST

REPLACEMENT INFORMATION

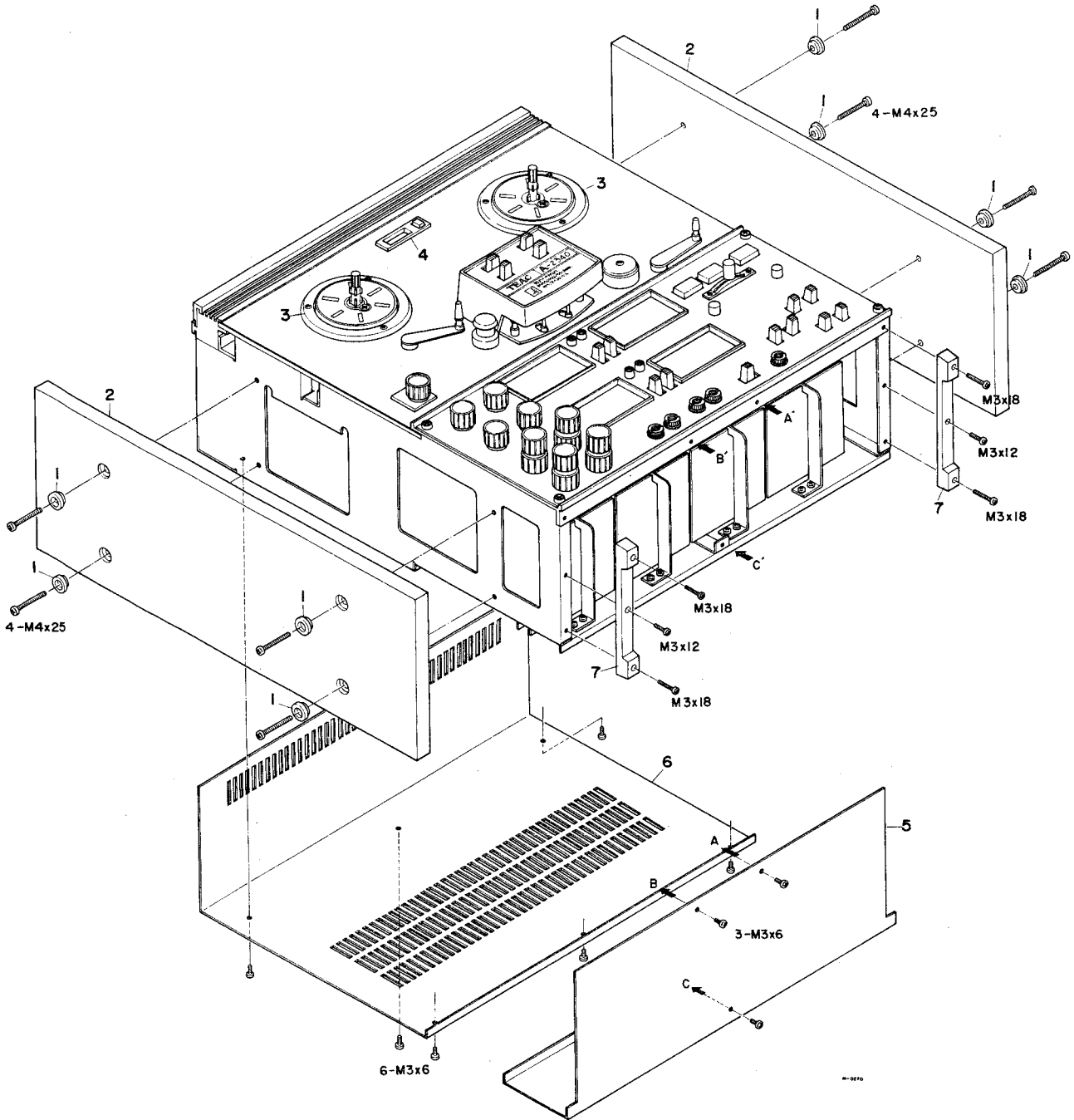
Replacement part are available through your nearest TEAC dealer or directly from the TEAC office.

Changes are constantly being made to make TEAC products better and more reliable.

Therefore, when ordering parts, always include the following information:

<i>MODEL</i>	<i>SERIAL NO.</i>	<i>REF NO.</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
--------------	-------------------	----------------	-----------------	--------------------

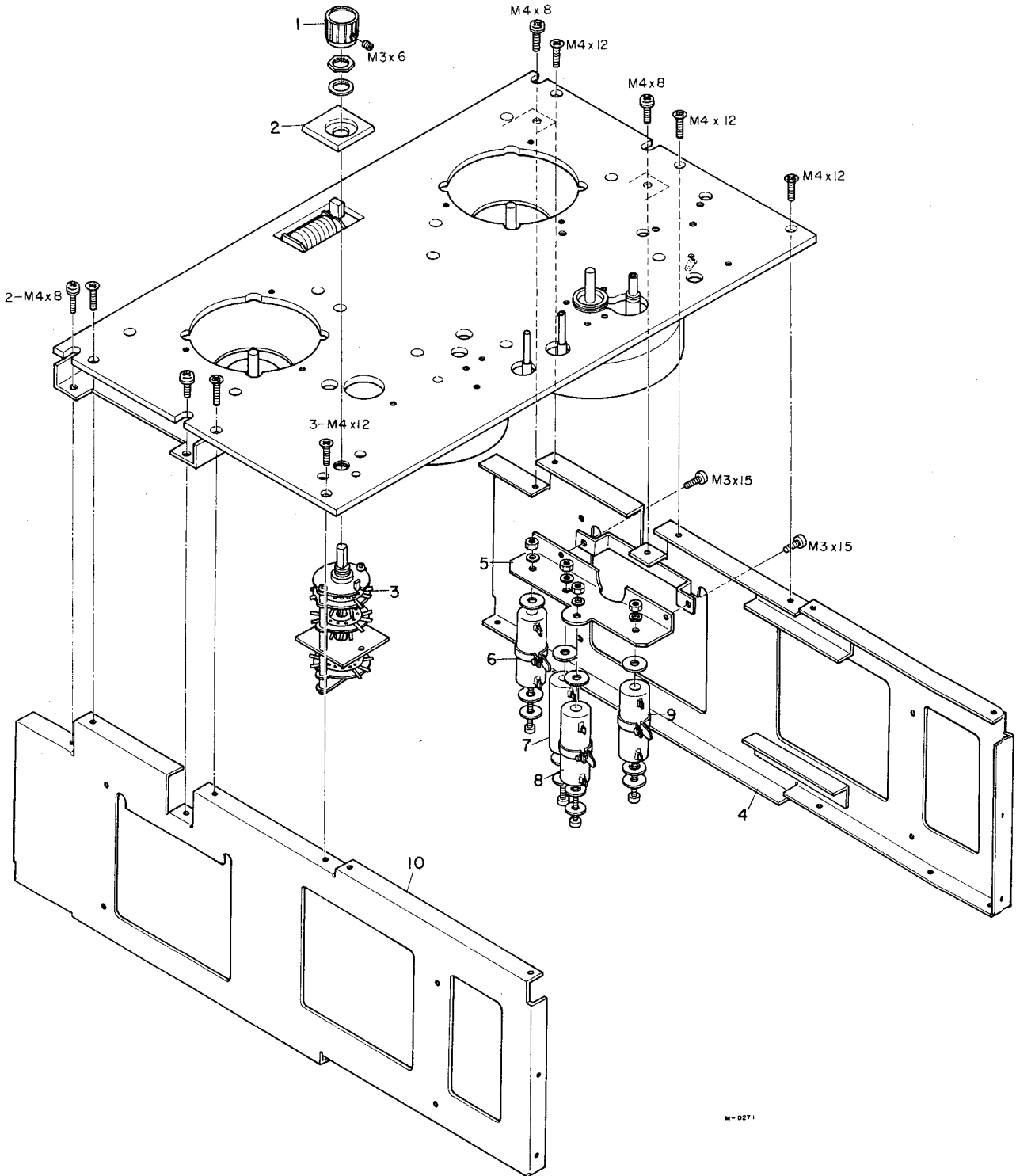
TRIM PARTS



TRIM PARTS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
1-1	50276930	Washer			
1-2	50288350	Wooden Plate			
1-3	50161940	Reel Protector			
1-4	50277020	Counter Escutcheon			
1-5	50288270	Bottom Cover Assy			
1-6	50288290	Rear Cover Assy			
1-7	50277980	Mount Foot			

DECK PANEL

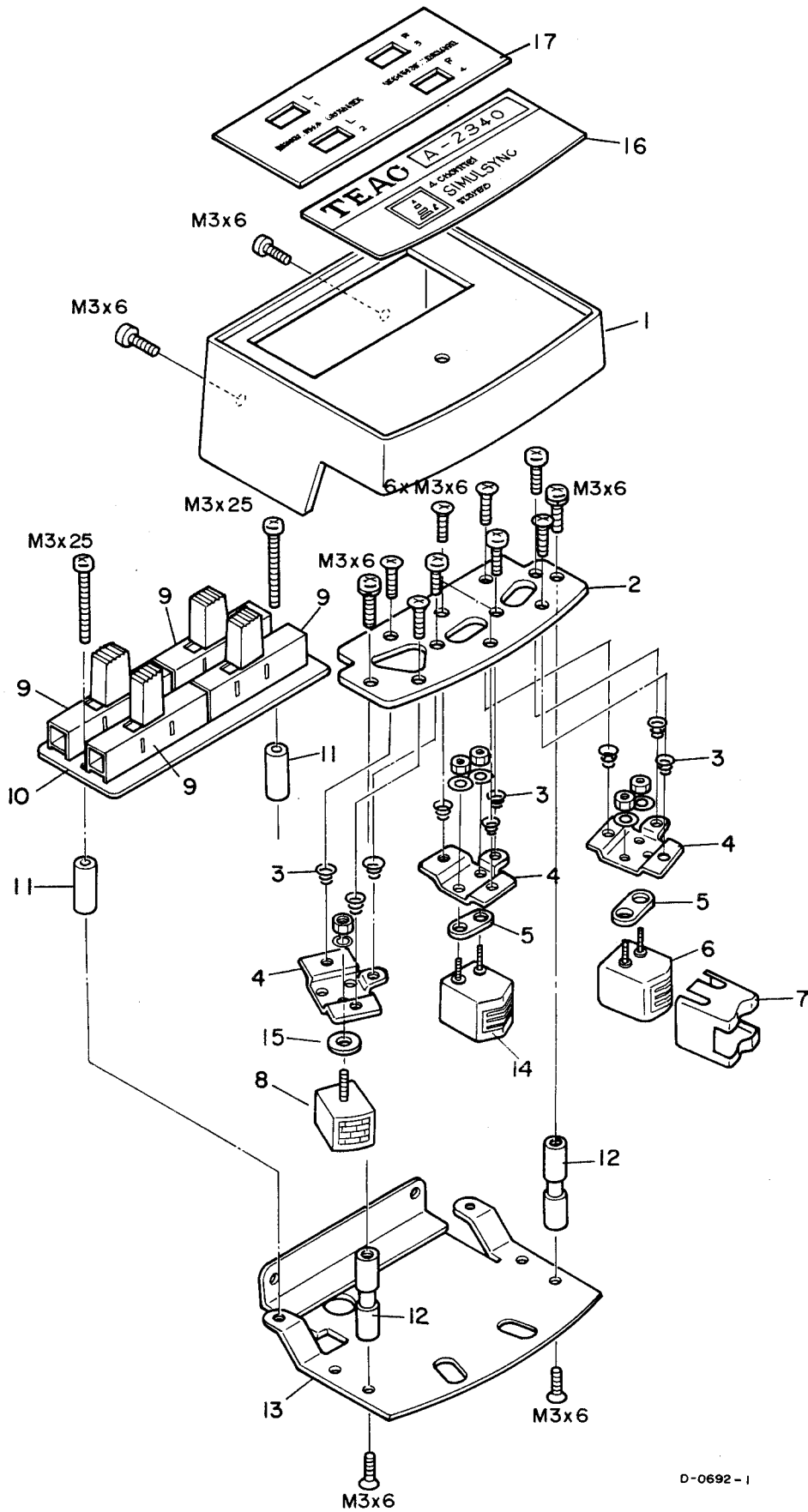


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DECK PANEL

REF. NO.	TEAC PARTS NO.	DESCIRPTION	1st	2nd	3rd
2- 1	50253390	Knob (Upper)			
2- 2	50263171	Tape Speed Name Plate			
2- 3	50442700	Rotary Switch			
2- 4	50113981	Side Panel (Right)			
2- 5	50330110	Resistor Mount Plate			
2- 6	50524321	Wire Wound Resistor 500Ω 20HA			
2- 7	50522190	Wire Wound Resistor 200Ω 20H			
2- 8	50522210	Wire Wound Resistor 50Ω 20HA			
2- 9	50524200	Wire Wound Resistor 100Ω 20HA			
2-10	50113991	Side Panel (Left)			

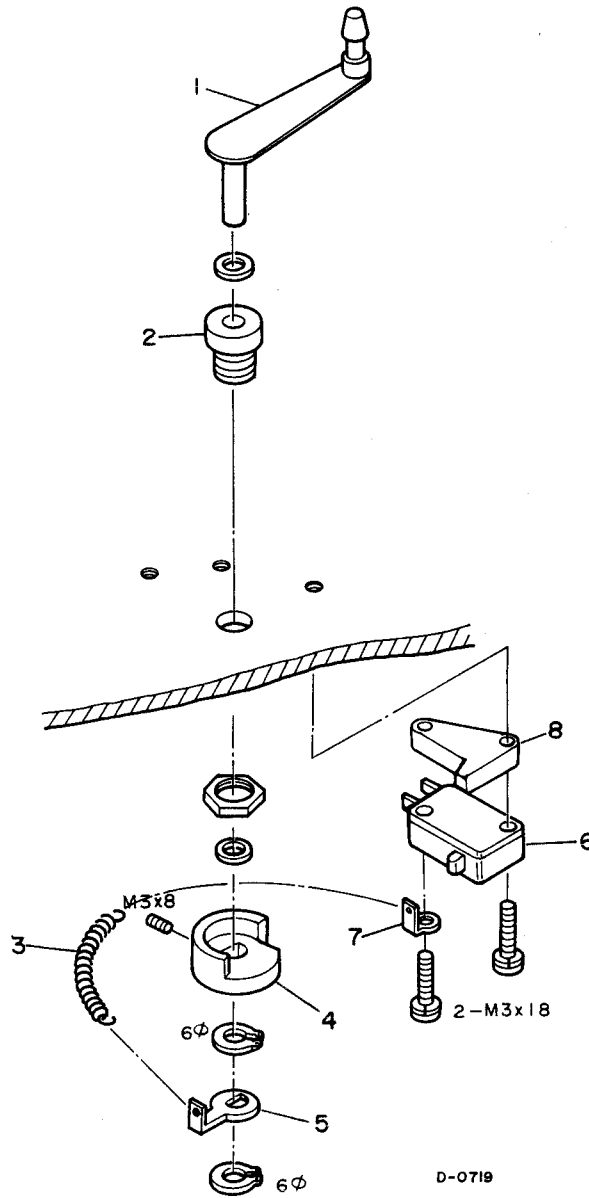
HEAD ASSY



HEAD ASSY

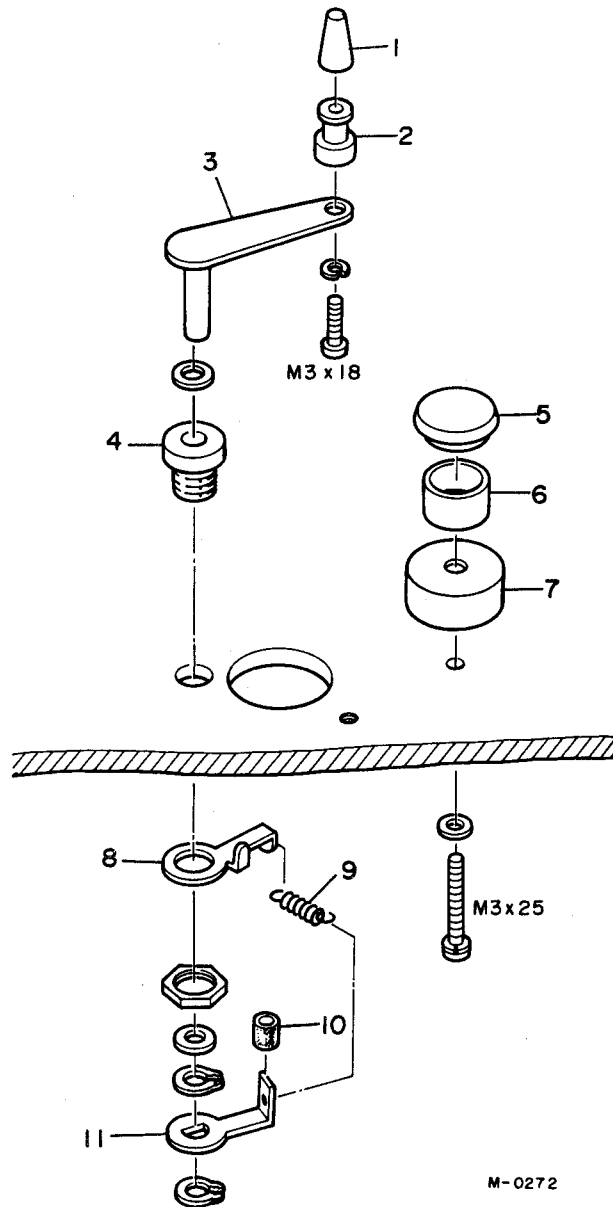
REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50136500	Head Assy			
3- 1	50136292	Head Housing			
3- 2	50134400	Head Mount Base			
3- 3	50220500	Head Spring			
3- 4	50134370	Head Mount Plate			
3- 5	50134390	Record Head Spacer			
3- 6	50664810	Playback Head (4T-4CH)			
3- 7	50675650	Front Shield Case A			
3- 8	50664110	Erase Head (4T-4CH)			
3- 9	50444480	Slide Switch			
3-10	50483860	Simul-Sync PC Board			
3-11	50136310	Slide Switch Stand-off			
3-12	50182672	Tape Guide			
3-13	50136260	Housing Base			
3-14	50664210	Record Head (4T-4CH)			
3-15	50134380	Erase Head Spacer			
3-16	50136360	Head Housing Plate D (DM,EX only)			
	50136370	Head Housing Plate E (TCA only)			
3-17	50136330	Head Housing Plate A			

RIGHT TENSION ARM



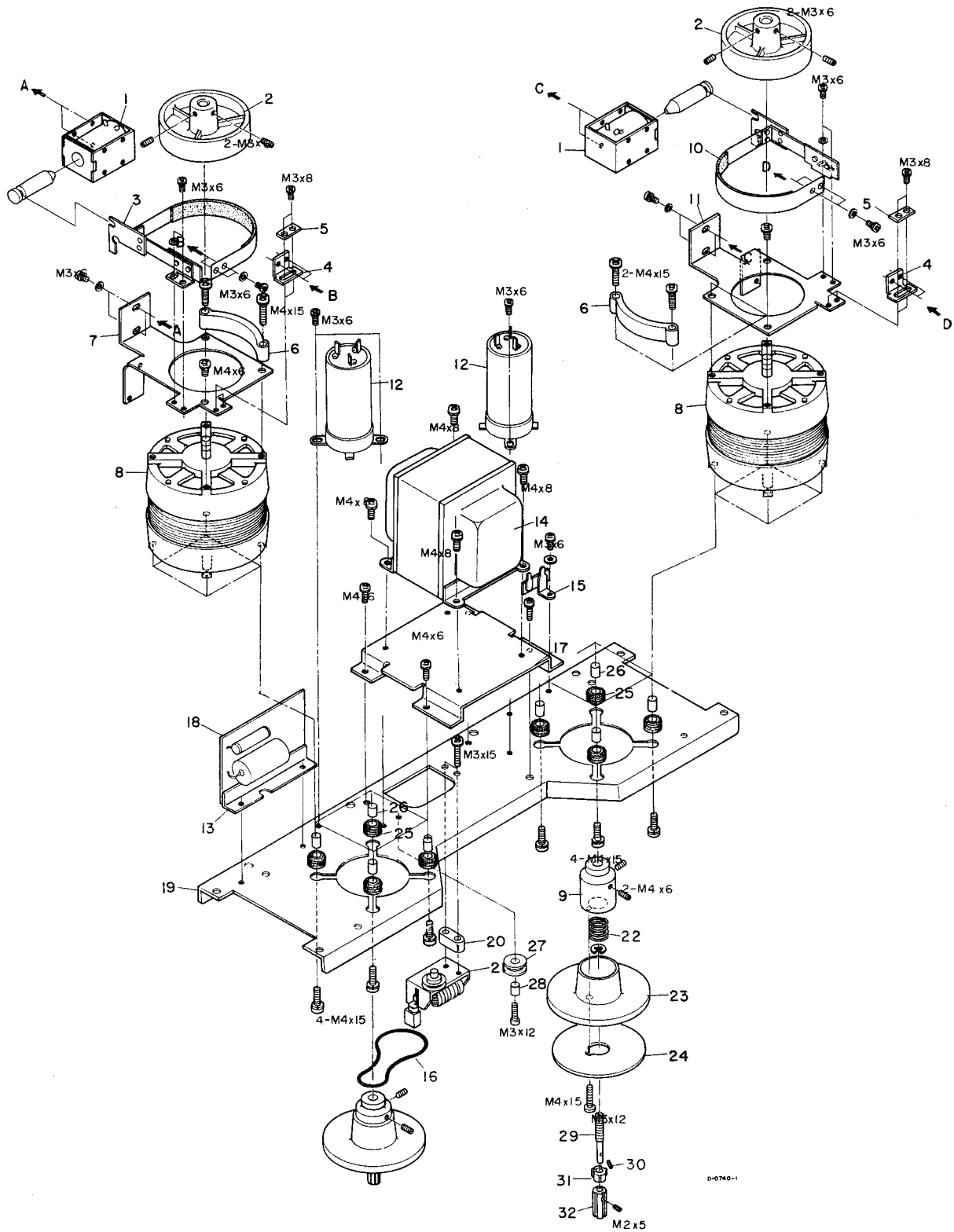
REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
4-1	50180432	Tension Arm Assy (Right)			
4-2	50182701	Arm Holder A			
4-3	50221122	Spring C			
4-4	50182990	Tension Arm Drum			
4-5	50286860	Spring Hanger (Right)			
4-6	50446180	Micro Switch			
4-7		Spring Hanger 3φ			
4-8	50182730	Limit Stop (Right)			

LEFT TENSION ARM



REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
5- 1	50134360	Guide Cap			
5- 2	50182690	Tape Guide B			
5- 3	50180442	Tension Arm Assy (Left)			
5- 4	50182701	Arm Holder A			
5- 5	50123910	Guide Ring Cap			
5- 6	50123930	Guide Ring			
5- 7	50123921	Guide Ring Base			
5- 8	50276870	Spring Hanger (Left)			
5- 9	50221110	Spring B			
5-10	50276990	Rubber Collar			
5-11	50182750	Limit Stop (Left)			

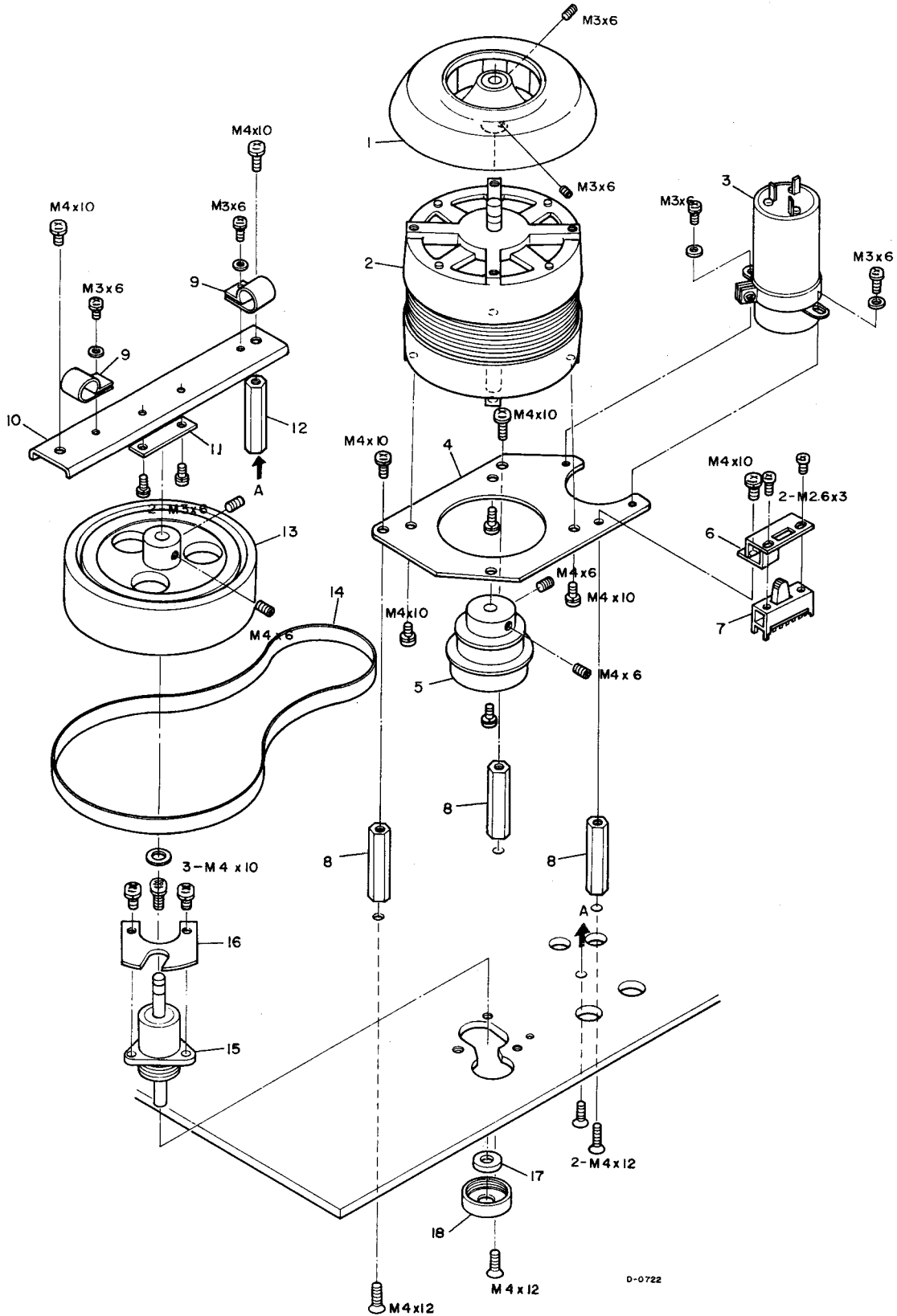
REEL MOTOR ASSY



REEL MOTOR ASSY

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
6- 1	50616370	Solenoid			
6- 2	50173560	Brake Drum			
6- 3	50170143	Brake Band Assy B			
6- 4	50170160	Band Mount Angle			
6- 5	50170150	Band Pressure			
6- 6	50172550	Brake Retainer			
6- 7	50172612	Brake Mount Plate B			
6- 8	50702251	Reel Motor			
6- 9	50163300	Reel Shaft			
6-10	50170182	Brake Band Assy A			
6-11	50172602	Brake Mount Plate A			
6-12	50545660	MP Capacitor 3+1 μ F/AC 250V			
6-13	50233930	PC Board Angle B			
6-14	50562490	Power Transformer (or 50562370) (DM,EX only)			
	50562500	Power Transformer (TCA only)			
6-15	50452080	Terminal Strip 1L-1P			
6-16	50276940	Counter Belt			
6-17	50233751	Power Transformer Mount Plate			
6-18	50500500	Rectifier PC Board Assy			
6-19	50233922	Motor Chassis			
6-20	50276950	Counter Spacer			
6-21	50585090	Tape Counter			
6-22	50221650	Height Adjust Spring			
6-23	50163290	Reel Table			
6-24	50163340	Reel Table Cover			
6-25	50162960	Rubber Cushion Ring B			
6-26	50162760	Rubber Cushion Spacer			
6-27	50162940	Counter Relay Pulley			
6-28	50163100	Pulley Shaft			
6-29	50163330	Reel Lock Shaft B			
6-30	50221610	Slip Spring			
6-31	50163090	Reel Lock			
6-32	50163320	Reel Lock Knob B			

CAPSTAN DRIVE ASSY

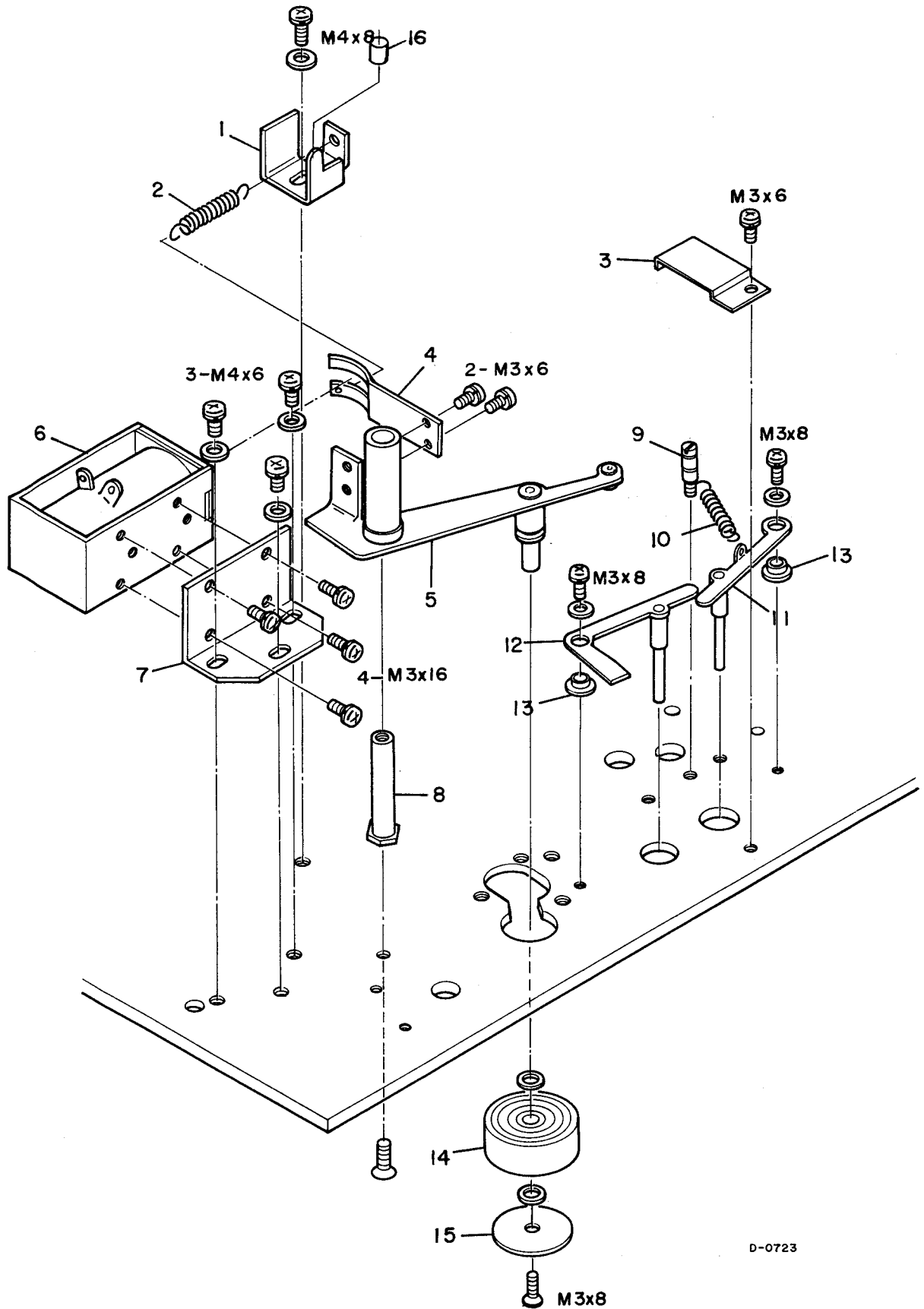


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CAPSTAN DRIVE ASSY

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
7- 1	50123981	Fan			
7- 2	50701343	Capstan Motor			
7- 3	50545650	MP Capacitor 2+0.8 μ F/250V			
7- 4	50123870	Motor Mount Plate			
7- 5	50124003	Motor Pulley (50Hz/60Hz)			
	50125121	Motor Pulley (60Hz, TCA only)			
7- 6	50276910	Slide SW Mount Plate (DM,EX only)			
7- 7	50444170	Slide Switch (DM,EX only)			
7- 8	50123850	Pole (Capstan)			
7- 9	50276290	Cord Pressure			
7-10	50277151	Thrust Angle			
7-11	50277230	Thrust Plate			
7-12	50123860	Pole (Flywheel)			
7-13	50123801	Flywheel			
7-14	50123830	Capstan Belt			
7-15	50120440	Capstan Assy			
7-16	50141830	Holder Supporter			
7-17	50123900	Sponge Oiler			
7-18	50123971	Metallized Cap			

LIFTER AND PINCH ROLLER

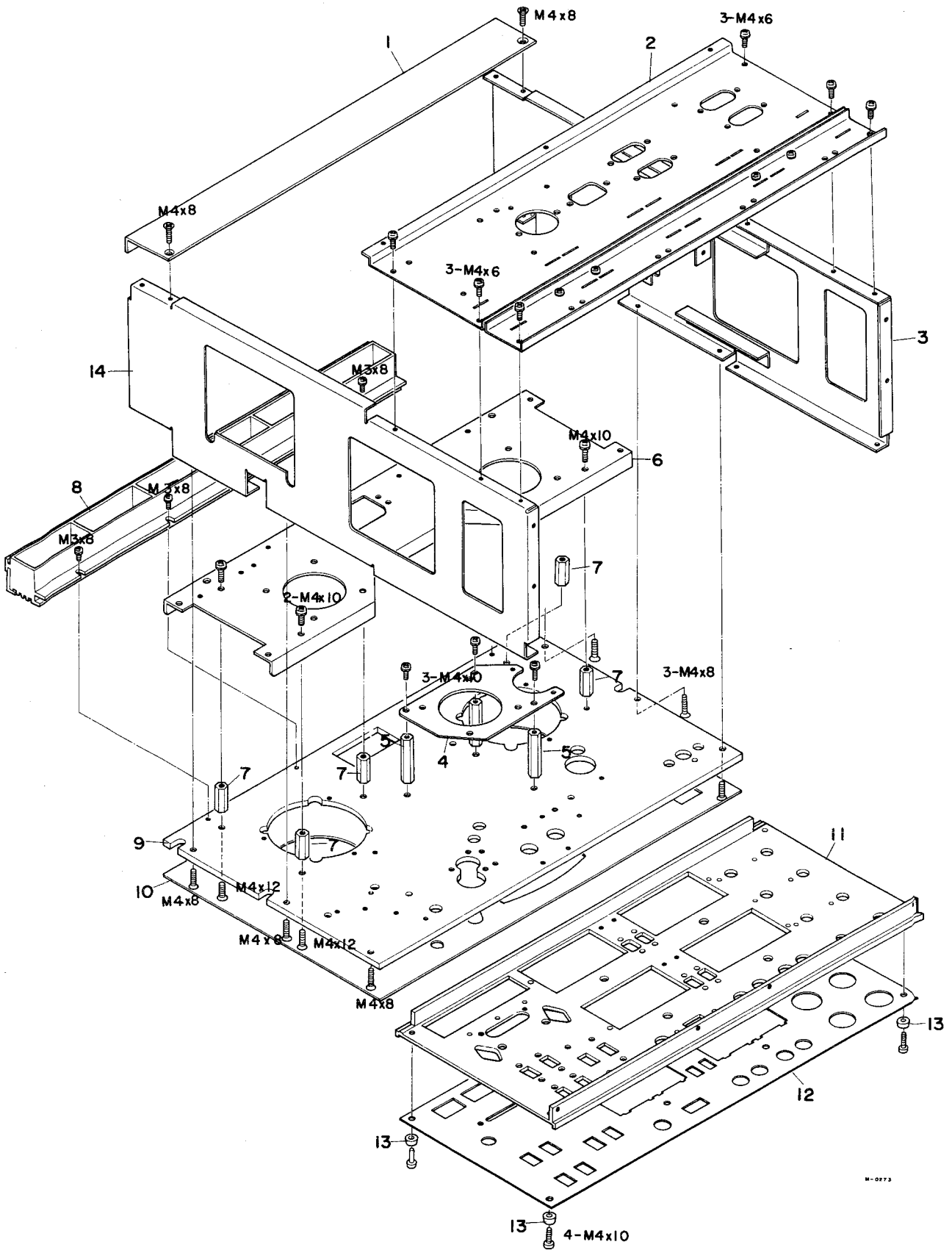


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LIFTER AND PINCH ROLLER

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
8- 1	50141841	Pinch Roller Stopper			
8- 2	50220441	Return Spring			
8- 3	50152452	Lifter Angle			
8- 4	50221151	Pressure Spring			
8- 5	50140235	Pinch Roller Arm Assy			
8- 6	50616340	Solenoid			
8- 7	50277080	Solenoid Mount Plate			
8- 8	50141821	Roller Arm Shaft			
8- 9	50123140	Spring Angle Pin			
8-10	50221100	Spring (A)			
8-11	50150252	Lifter Arm (B) Assy			
8-12	50150242	Lifter Arm (A) Assy			
8-13	50152501	Lifter Arm Shaft			
8-14	50141751	Pinch Roller			
8-15	50141760	Pinch Roller Cap			
8-16	50275690	Rubber Cushion Ring			

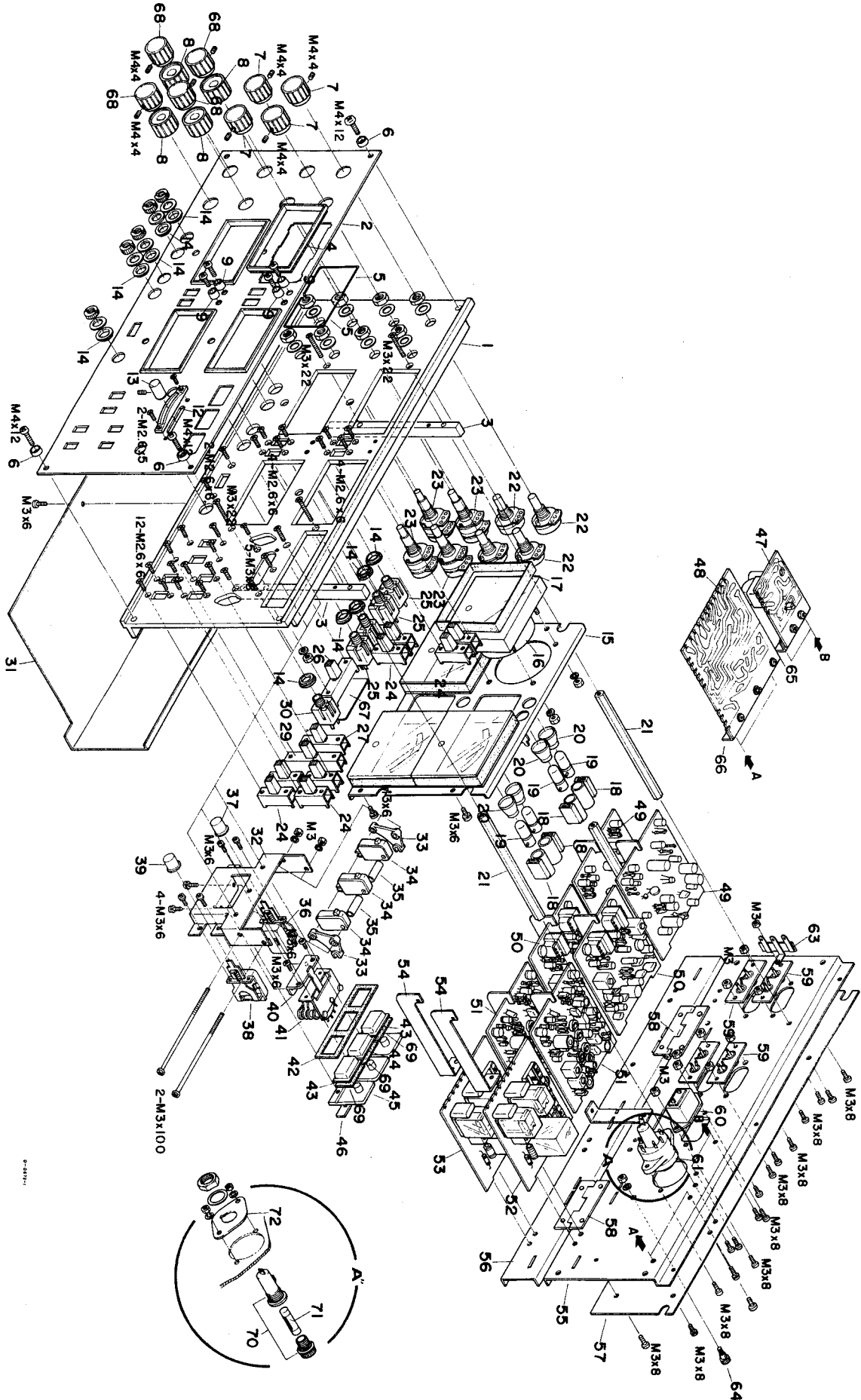
MAIN CHASSIS



MAIN CHASSIS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
9- 1	50235311	Cover Angle Plate			
9- 2	50236441	Amp Chassis A			
	50236451	Amp Chassis B			
9- 3	50113991	Slide Panel (Left)			
9- 4	50123870	Motor Mount Plate			
9- 5	50123850	Pole (Capstan)			
9- 6	50233922	Motor Chassis			
9- 7	50161951	Pole (Reel Motor)			
9- 8	50112980	Top Grille Assy			
9- 9	50112674	Top Panel			
9-10	50112663	Face Panel			
9-11	50236320	Amp Panel			
9-12	50236310	Amp Trim Panel			
9-13	50277111	Trim Washer			
9-14	50113981	Side Panel (Right)			

PREAMPLIFIER CHASSIS



PRINTED CIRCUIT BOARD AND PARTS LIST

A-2340

REPLACEMENT INFORMATION

Replacement parts are available through your nearest TEAC dealer or directly from the TEAC office.

Changes are constantly being made to make TEAC products better and more reliable.

Therefore, when ordering parts, always include the following information:

<i>MODEL</i>	<i>SERIAL NO.</i>	<i>REF.NO.</i>	<i>PARTS NO.</i>	<i>DESCRIPTION</i>
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MIC AND PLAYBACK EQ. AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50490480	PC Board Assy			
		SILICON TRANSISTORS			
Q101/104	50424340	2SC1000-BL			
Q102/105	50423650	2SA494-Y			
Q103/106	50423830	2SC536-F			
Q107/108	50423870	2SC693-G			
		CARBON RESISTORS			
		ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4 WATTS UNLESS OTHERWISE NOTED.			
R101/118	50515730	470k			
R102/119	50515340	1k			
R103/120	50515610	56k			
R104/121	50515610	56k			
R105/122	50515590	47k			
R106/123	50515580	39k			
R107/124	50515500	12k			
R108/125	50515310	560			
R109/126	50515570	33k			
R110/127	50515350	1.2k			
R111/128	50515250	180			
R112/129	50515490	10k			
R113/130	50515460	5.6k			
R114/131	50515510	15k			
R115/132	50515350	1.2k			
R116/133	50515700	270k			
R135	50515300	470			
R136/142	50515700	270k			
R137/143	50515620	68k			
R138/144	50515590	47k			
R139/145	50515260	220			
R140/146	50515500	12k			
R141/147	50515490	10k			
R148	50515350	1.2k			
		TRIMMER RESISTORS			
VR101/102	50533460	4.7k Ω B 10 ϕ			
VR105/106	50533480	10k Ω B 10 ϕ			
		CAPACITORS			
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.			
C101/111	50546190	Tantalum 10 10V			
C102/112	50554030	Elec. 47 6.3V			
C103/113	50543420	High Q 220pF 50V			
C104/114	50554050	Elec. 10 16V			
C105/115	50554170	Elec. 100 25V			
C106/116	50554230	Elec. 100 6.3V			
C107/117	50543330	High Q 22pF 50V			
C109/119	50554040	Elec. 10 25V			
C110/120	50548420	Mylar 0.015 50V			
C121/130	50554170	Elec. 100 25V			
C122/126	50554050	Elec. 10 16V			
C123/127	50543400	High Q 100pF 50V			
C124/128	50554030	Elec. 47 6.3V			
C125/129	50554050	Elec. 10 16V			
C131/132	50543690	High Q 470pF 50V			

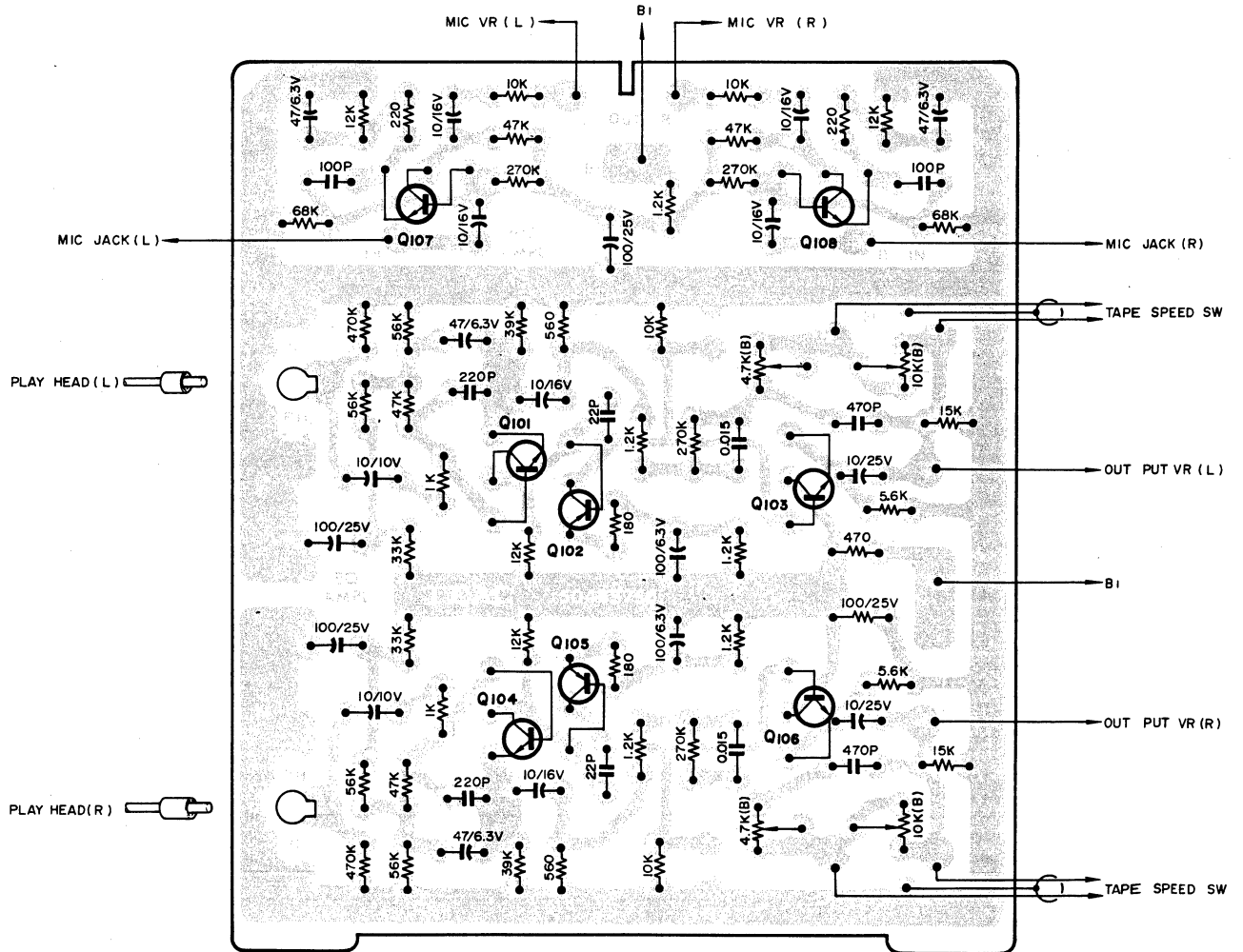
PREAMPLIFIER CHASSIS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
10- 1	50236320	Front Panel			
10- 2	50236300	Ampl. Trim Panel			
10- 3	50236420	VU Meter Retainer			
10- 4	50236500	VU Meter Escutcheon			
10- 5	50236511	Meter Escutcheon Clamp			
10- 6	50277111	Trim Washer			
10- 7	50253390	Knob (Upper)			
10- 8	50253400	Knob (Lower)			
10- 9	50236430	Record Lamp Escutcheon			
10-12	50449900	Lever Switch Cover			
10-13	50253470	Knob D			
10-14	50272620	Insulator Washer			
10-15	50236340	VU Meter Plate			
10-16	50581380	VU Meter			
10-17	50939110	VU Meter Band			
10-18	50415250	Record Lamp Socket			
10-19	50414510	Record 8V Lamp			
10-20	50419070	Record Lamp Cover			
10-21	50236490	Ampl. Chassis Stand-off			
10-22	50535140	Single Potentiometer 10k Ω			
10-23	50535150	Dual Potentiometer (Outer Shaft 100k Ω , Inner 10k Ω)			
10-24	50440000	Slide Switch			
10-25	50430240	Phone Jack (Single)			
10-26	50444470	Slide Switch			
10-27	50444450	Slide Switch			
10-29	50444460	Slide Switch			
10-30	50432450	Phone Jack (3 cond)			
10-31	50288270	Bottom Cover Assy			
10-32	50277782	Control Base Plate			
10-33	50277540	Base Plate Holder			
10-34	50446090	Micro Switch (V-1A)			
10-35	50241121	Control Collar A			
10-36	50443410	Push Switch (Non Lock) (DM,EX only)			
	50443530	Push Switch (Non Lock) (TCA only)			
10-37	50253130	Push Button B (Red)			
10-38	50443210	Push Switch (DM,EX only)			
	50443360	Push Switch (TCA only)			
10-39	50253120	Push Button A (Black)			
10-40	50277771	Lever Switch Plate			
10-41	50442350	Rotary Switch (Lever Type)			
10-42	50277160	Rubber Protector			
10-43	50253210	Operation Button			
10-44	50253200	Stop Button			
10-45	50253113	Push Button Base			
10-46	50277010	Control Plate			
10-47	50490370	Bias Osc. PC Board Assy			
10-48	50490510	Control Relay PC Board Assy			
10-49	50490480	Mic/Playback EQ Ampl. PC Board Assy			
10-50	50490540	Line/Phone Ampl. PC Board Assy			

PREAMPLIFIER CHASSIS (CONTINUED)

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
10-51	50490550	Rec./Meter Ampl. PC Board Assy			
10-52	50490220	Bias Adjust A PC Board Assy			
10-53	50490210	Bias Adjust B PC Board Assy			
10-54	50233760	PC Board Plate			
10-55	50236441	Ampl. Chassis A			
10-56	50236451	Ampl. Chassis B			
10-57	50236330	Rear Trim Panel			
10-58	50236480	Hinge			
10-59	50434631	Pin Jack (2P)			
10-60	50431050	AC Socket			
10-61	50412143	Voltage Selector, with Fuse Holder (DM,EX only)			
10-62					
10-63	50452060	Terminal Strip (1L-2P)			
10-64	50454071	Ground Terminal			
10-65	50236280	Angle (for Bias Oscillator)			
10-66	50330950	Angle (for Control RL Assy)			
10-67	50490190	Headphone SW PC Board Assy			
10-68	50253480	Knob A (Mic)			
10-69	50277240	Rubber Plate Collar			
10-70	50412130	Fuse Holder (TCA only)			
10-71	50411140	Fuse 2A			
10-72	50412290	Fuse Post Panel (TCA only)			

MIC AND PLAYBACK EQ. AMPLIFIER



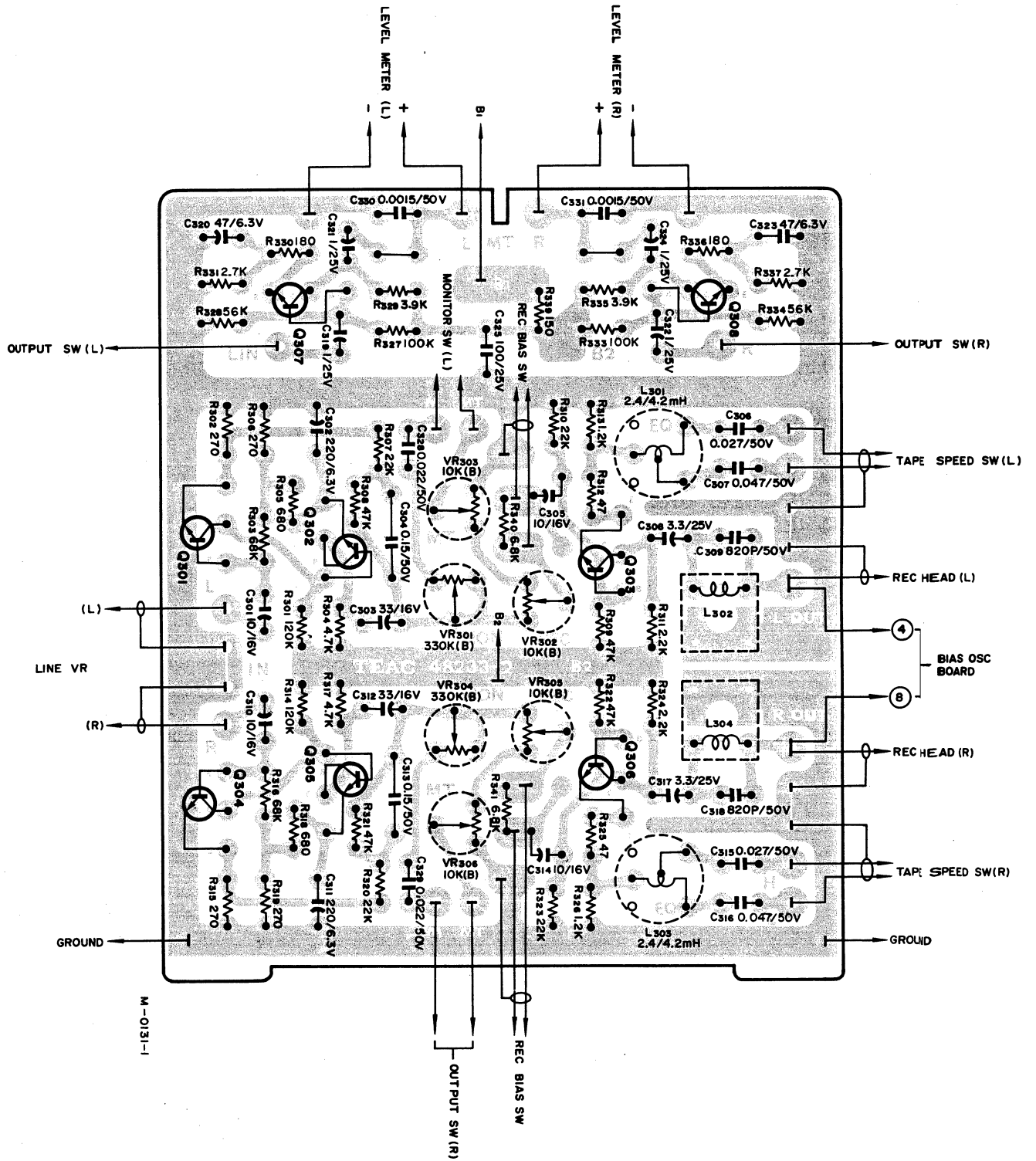
M-0276

PARTS LIST
A-2340

LINE OUT AND PHONE AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO. DESCRIPTION	1st	2nd	3rd
	50490540 PC Board Assy			
	SILICON TRANSISTORS			
Q201/204	50423870 2SC693-G			
Q202/205	50423830 2SC536-F			
Q203/206	50423830 2SC536-F			
	CARBON RESISTORS			
	<i>ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4WATTS UNLESS OTHERWISE NOTED.</i>			
R201/217	50515680 220k			
R202/218	50515340 1k			
R203/219	50515650 120k			
R204/220	50515700 270k			
R205/221	50515520 18k			
R206/222	50515460 5.6k			
R207/223	50515280 330			
R208/224	50515320 680			
R209/225	50515280 330			
R210/226	50515540 22k			
R211/227	50515340 1k			
R212/228	50515520 18k			
R213/229	50515630 82k			
R214/230	50515490 10k			
R215/231	50515410 3.3k			
R216/232	50515310 560			
R233	50515310 560			
R234	50515640 100k			
	TRIMMER RESISTORS			
VR201/203	50533500 1kΩ B 10ϕ			
VR202/204	50533480 10kΩ B 10ϕ			
	CAPACITORS			
	<i>ALL CAPACITORS IN MICRO FARAD, UNLESS OTHERWISE NOTED.</i>			
C201/212	50549270 Mylar 0.082 50V			
C202/213	50549670 Elec. 2.2 25V			
C204/215	50543420 High Q 220pF 50V			
C205/216	50548020 Mylar 0.01 50V			
C206/217	50554240 Elec. 33 6.3V			
C207/218	50543420 High Q 220pF 50V			
C208/219	50554050 Elec. 10 16V			
C209/220	50554050 Elec. 10 16V			
C210/221	50554030 Elec. 47 6.3V			
C211/222	50554260 Elec. 33 16V			
C223	50554170 Elec. 100 25V			
C225/235	50548020 Mylar 0.01 50V			
	MISCELLANEOUS			
T201/202	50562141 Transformer, Headphone 3kΩ:8Ω			
L201/202	50566640 Coil, Choke 220μH			

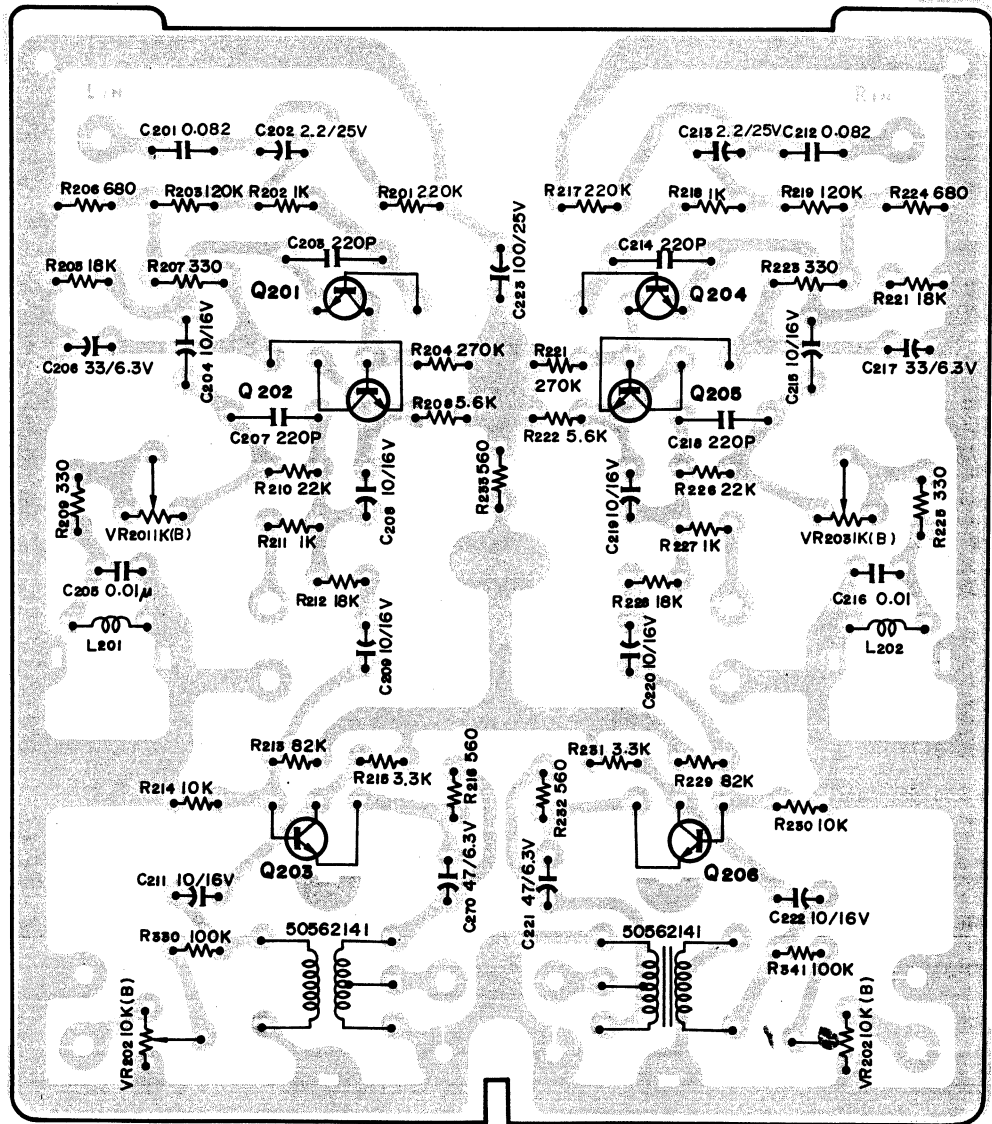
METER AND REC. EQ. AMPLIFIER



BIAS OSCILLATOR

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
T401	50490370	PC Board Assy			
	50563230	Coil, Oscillator			
SILICON TRANSISTORS					
Q401·402	50424450	2SC1226A-R			
RESISTORS					
R402	50514920	Carbon 2.2k Ω 1/2W			
R403	50515220	Carbon 100 Ω 1/4W			
R404·405	50516440	Carbon 4.7k Ω 1/2W			
R406·407	50516130	Carbon 22 Ω 1/2W			
CAPACITORS					
C402·403	50548810	Mylar 0.0033 μ F 50V			
C404	50548920	Mylar 0.0056 μ F 50V			
C405	50544040	Mica 4200pF 250V			

LINE OUT AND PHONE AMPLIFIER



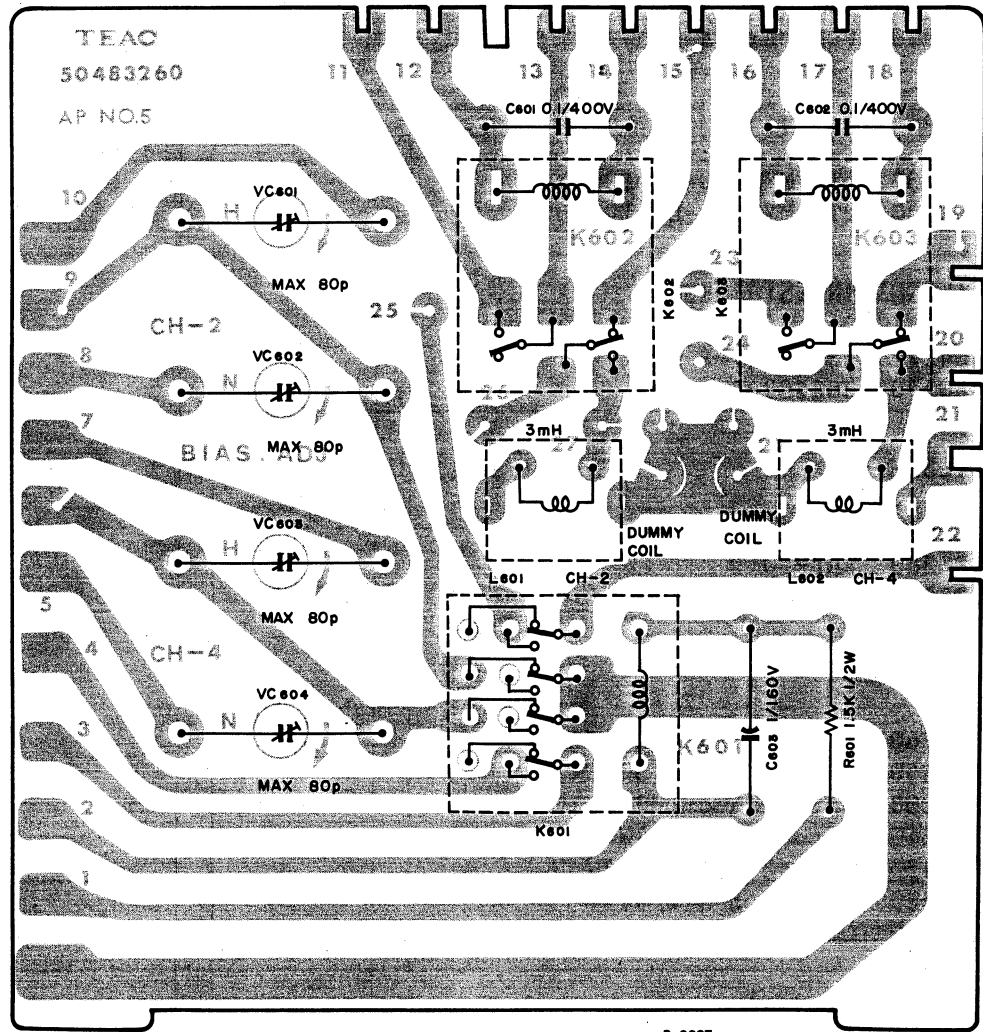
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PARTS LIST
A-2340

METER AND REC. EQ. AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50490550	PC Board Assy			
SILICON TRANSISTORS					
Q301/304	50423870	2SC693-G			
Q302/305	50424220	2SC828-S			
Q303/306	50424220	2SC828-S			
Q307/308	50424220	2SC828-S			
CARBON RESISTORS					
<i>ALL RESISTORS IN OHM, 10% TOLERANCE</i>					
<i>1/4 WATT UNLESS OTHERWISE NOTED.</i>					
R301/314	50515650	120k			
R302/315	50515270	270			
R303/316	50515620	68k			
R304/317	50515460	4.7k			
R305/318	50515320	680			
R306/319	50515270	270			
R307/320	50515540	22k			
R308/321	50515590	47k			
R309/322	50515590	47k			
R310/323	50515540	22k			
R311/324	50515380	2.2k			
R312/325	50515170	47			
R313/326	50515350	1.2k			
R327/333	50515640	100k			
R328/334	50515610	56k			
R329/335	50515430	3.9k			
R330/336	50515250	180			
R331/337	50515400	2.7k			
R340/341	50515490	6.8k			
R342/352	50515610	56k			
TRIMMER RESISTORS					
VR301/304	50533670	330kΩ B 10ϕ			
VR302/305	50533480	10kΩ B 10ϕ			
VR303/306	50533480	10kΩ B 10ϕ			
CAPACITORS					
<i>ALL CAPACITORS IN MICRO FARADS</i>					
<i>UNLESS OTHERWISE NOTED.</i>					
C301/310	50554050	Elec. 10 16V			
C302/311	50554330	Elec. 220 6.3V			
C303/312	50554260	Elec. 33 16V			
C304/313	50548310	Mylar 0.15 50V			
C305/314	50554050	Elec. 10 16V			
C306/315	50548950	Mylar 0.012 50V			
C307/316	50548270	Mylar 0.047 50V			
C308/317	50549680	Elec. 3.3 25V			
C309/318	50543440	Polyst. 820pF 50V			
C319/322	50554670	Elec. 1 25V			
C320/323	50554030	Elec. 47 6.3V			
C321/324	50554670	Elec. 1 25V			
C328/329	50548290	Mylar 0.022 50V			
C330/331	50548120	Mylar 0.0015 50V			
COILS					
L301/303	50566370	Record Compensation 2.4~4.2mH			
L302/304	50566300	Trap 3mH			

BIAS ADJUST ASSY B

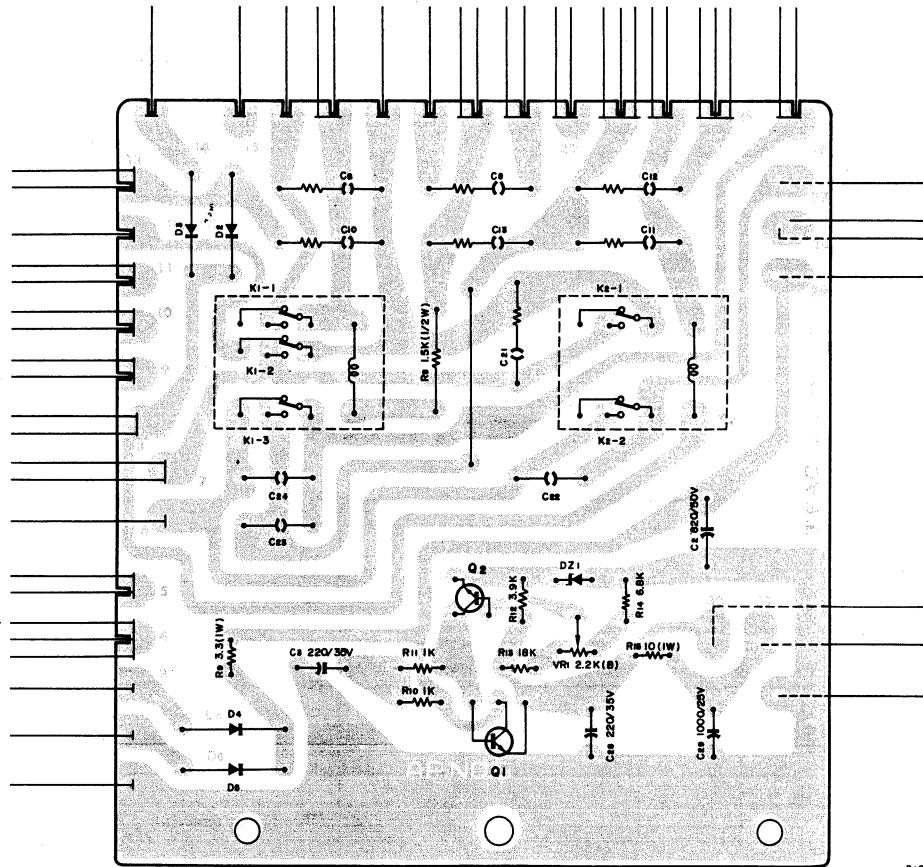


CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50490210	PC Board Assy			
VC601-602	50547070	Trimmer Capacitor, MAX 80pF			
VC603-604	50547070	Trimmer Capacitor, MAX 80pF			
L601-602	50566620	Coil, Dummy Load			
C601-602	50549920	Cap., Mylar 0.1µF 400V			
C603	50554380	Cap., Elec. 1µF 160V			
K601	50610730	Relay, 4T DC 100V			
K602-603	50610790	Relay, 2T DC 24V			
R601	50574860	Resistor, Carbon 1.5kΩ 1/2W			

CONTROL RELAY

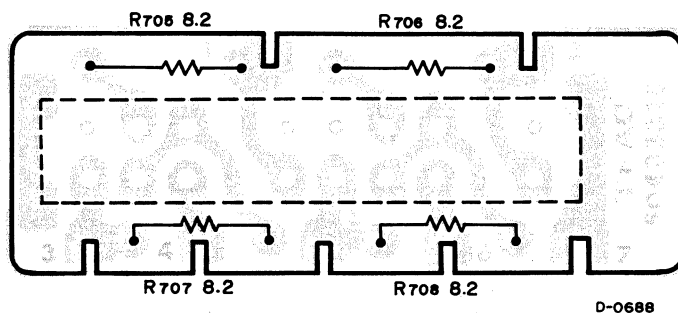
CIRCUIT REF.NO.	TEAC PARTS NO. DESCRIPTION	1st	2nd	3rd
	50490510 PC Board Assy			
	RELAYS			
K1	50610730 4T, MY-4-0 DC 100V			
K2	50610750 2T, MY-2-0 DC 100V			
	SILICON TRANSISTORS			
Q1	50424270 2SD317-P			
Q2	50423510 2SC733-Y			
	DIODES			
D2·4·5	50422360 FR2-06			
D3	50422380 FR2-10			
DZ1	50422580 Zener 02Z 6.2A			
	RESISTORS			
R7	50574860 Carbon 1.5k Ω 1/2W			
R8	50525440 Wire Wound 3.3 Ω 1W			
R9	50525100 Wire Wound 10 Ω 1W			
R15·16	50515340 Carbon 1k Ω 1/4W			
R17	50515430 Carbon 3.9k Ω 1/4W			
R18	50515520 Carbon 18 Ω 1/4W			
R19	50515490 Carbon 6.8k Ω 1/4W			
	TRIMMER RESISTOR			
VR1	50533640 2.2k Ω B 10 ϕ			
	CAPACITORS			
C2	50554380 Elec. 220 μ F 35V			
C3	50554440 Elec. 1000 μ F 25V			
C8~13	50529050 Spark Killer 0.1 μ F+120 Ω 400V			
C21	50529050 Spark Killer 0.1 μ F+120 Ω 400V			
C22·23·24	50549920 Mylar 0.1 μ F 400V			
C38	50557080 Elec. 820 μ F 50V			
C39	50554380 Elec. 220 μ F 35V			

CONTROL RELAY



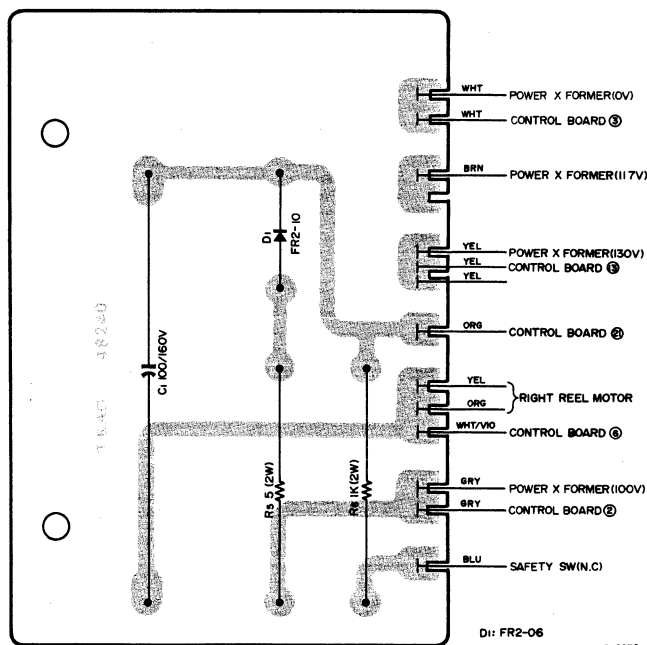
D-0683

HEADPHONE SWITCH



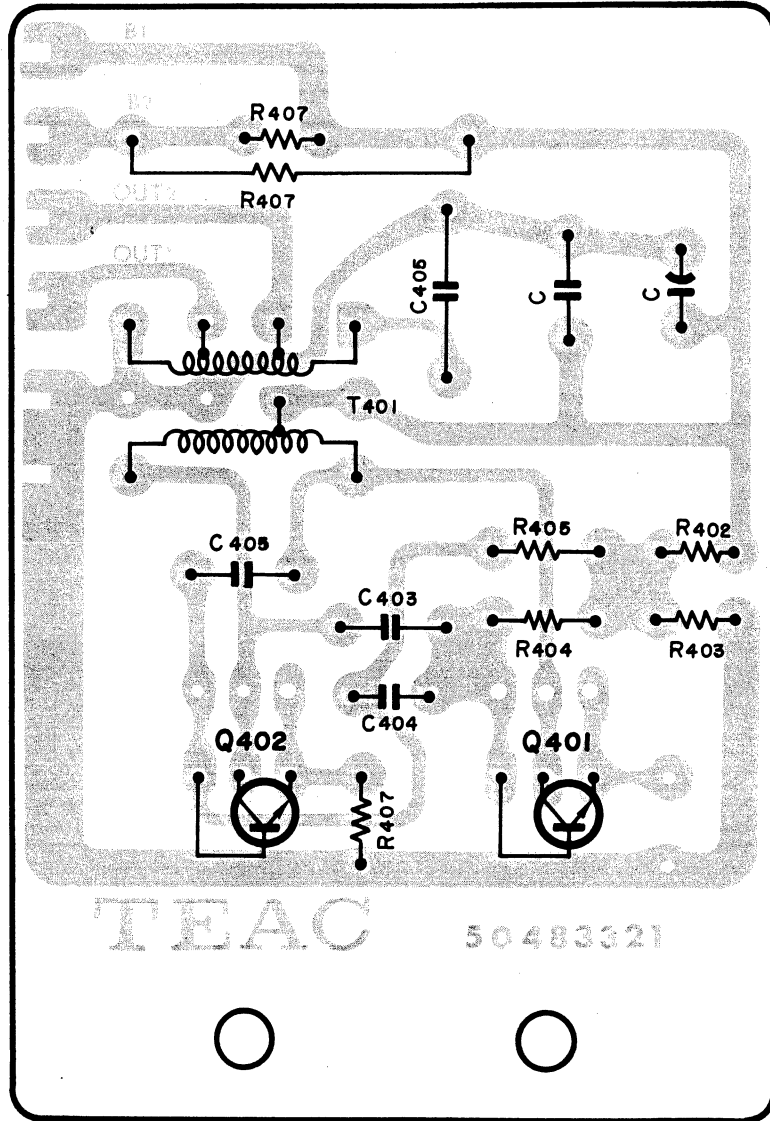
CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-67	50490190	PC Board Assy			
	50483310	PC Board			
R705~708	50515080	Resistor, Carbon 8.2Ω 1/4W			
	50444470	Switch, Slide			

RECTIFIER



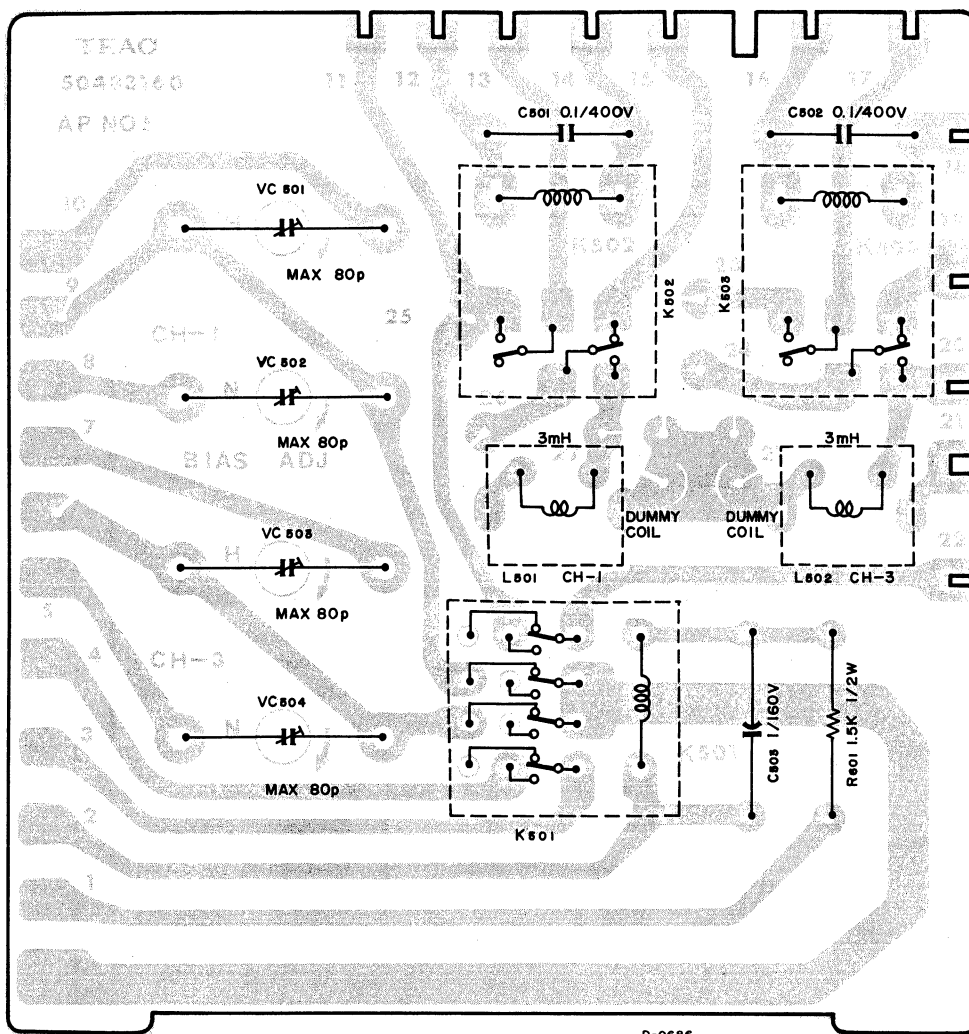
CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50500500	PC Board Assy			
D1	50422380	Diode FR2-10			
C1	50555250	Cap., Elec. 100µF 160V			
R5	50526030	Resistor, Wire Wound 5Ω 2W			
R6	50578820	Resistor, Carbon 1kΩ 2W			

BIAS OSCILLATOR



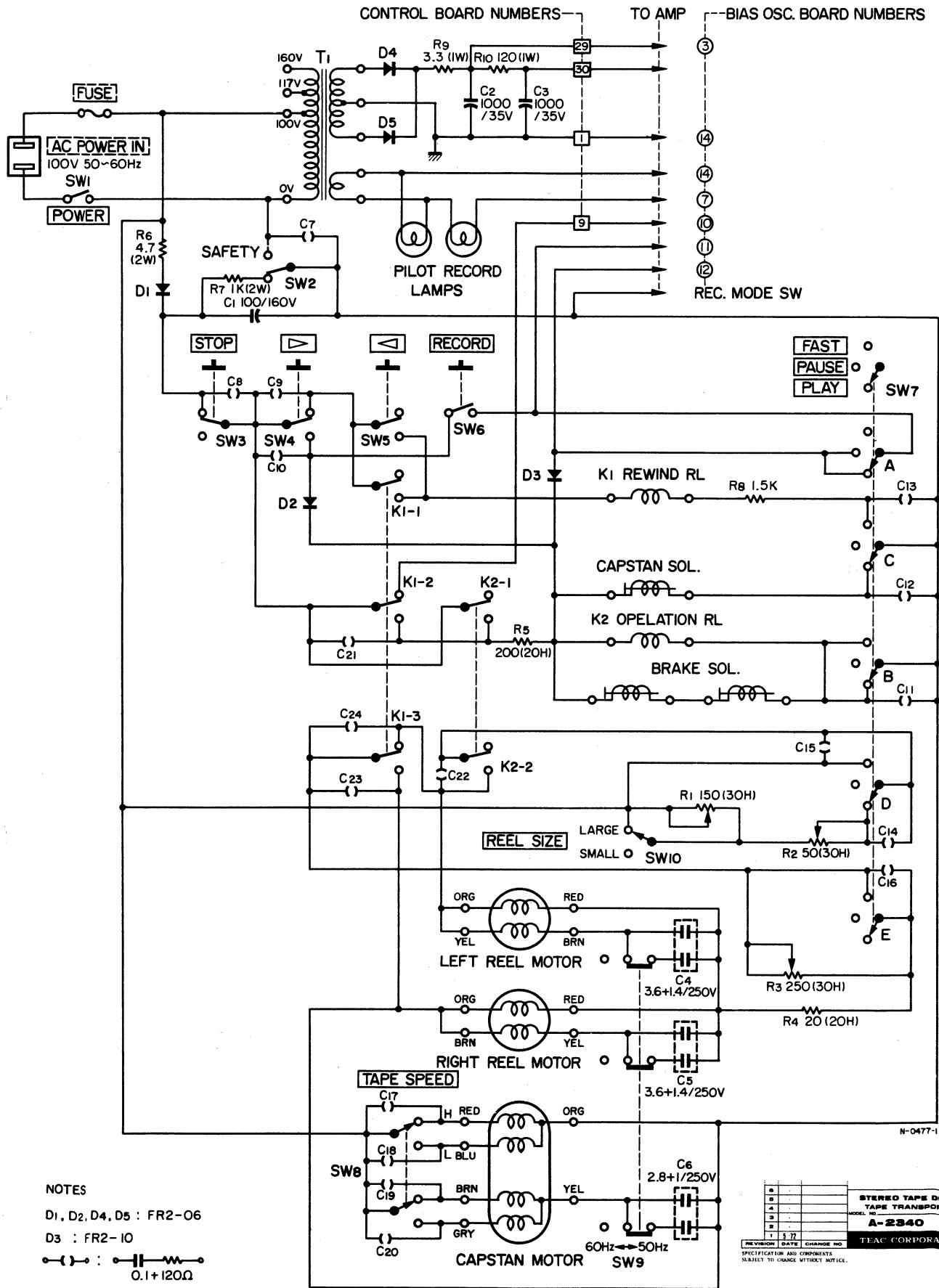
M-0275

BIAS ADJUST ASSY A



D-0686

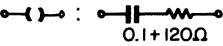
CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50490220	PC Board Assy			
VC501-502	50547070	Trimmer Capacitor, MAX 80pF			
VC503-504	50547070	Trimmer Capacitor, MAX 80pF			
L501-502	50566620	Coil, Dummy Load			
C501-502	50549920	Cap., Mylar 0.1μF 400V			
C503	50554380	Cap., Elec. 1μF 160V			
K501	50610730	Relay, 4T DC 100V			
K502-503	50610790	Relay, 2T DC 24V			
R501	50574860	Resistor, Carbon 1.5kΩ 1/2W			



NOTES

D1, D2, D4, D5 : FR2-06

D3 : FR2-10



N-0477-1

1	3.72	REVISED DATE CHANGE NO.	
2		SPECIFICATION AND COMMENTS	
3		SUBJECT TO CHANGE WITHOUT NOTICE.	

STEREO TAPE DECK
TAPE TRANSPORT
MODEL NO. A-2340
TEAC CORPORATION

10. PACKING FOR SHIPMENT

SHIPPING INSTRUCTIONS

If the unit is to be sent back to the TEAC factory (service department) for repair, carefully pack as shown below.

