

## INSTALLATION

## 2.1 UNPACKING

### 2.1.1 Console Mounted Equipment

Equipment ordered with the console is shipped with all assemblies mounted on the console, and connections completed between those assemblies. The console lies flat on its back in the shipping package, with the tape transport rotated 90° in the console so that it is in the horizontal position during transit.

Open the shipping container completely, and be sure the casters are screwed fully in so that the studs will not be bent when the recorder is tilted to the upright position. Place a board in position to block the casters. Grasp the console at the rear members between the electronic housing and the tape transport (see Fig. 2-1) and raise the console up and forward so that it comes to the vertical position, resting on the four casters.

Manually support the transport, and loosen the knurled knob on the left inner side of the console. Position the transport horizontally and retighten the knob.

Examine the equipment for any sign of damage incurred in transit. If any such damage is noted, report it immediately to your Ampex distributor and the transportation company involved.



*Fig. 2-1 Lift Points,  
Console Mounted Equipment*

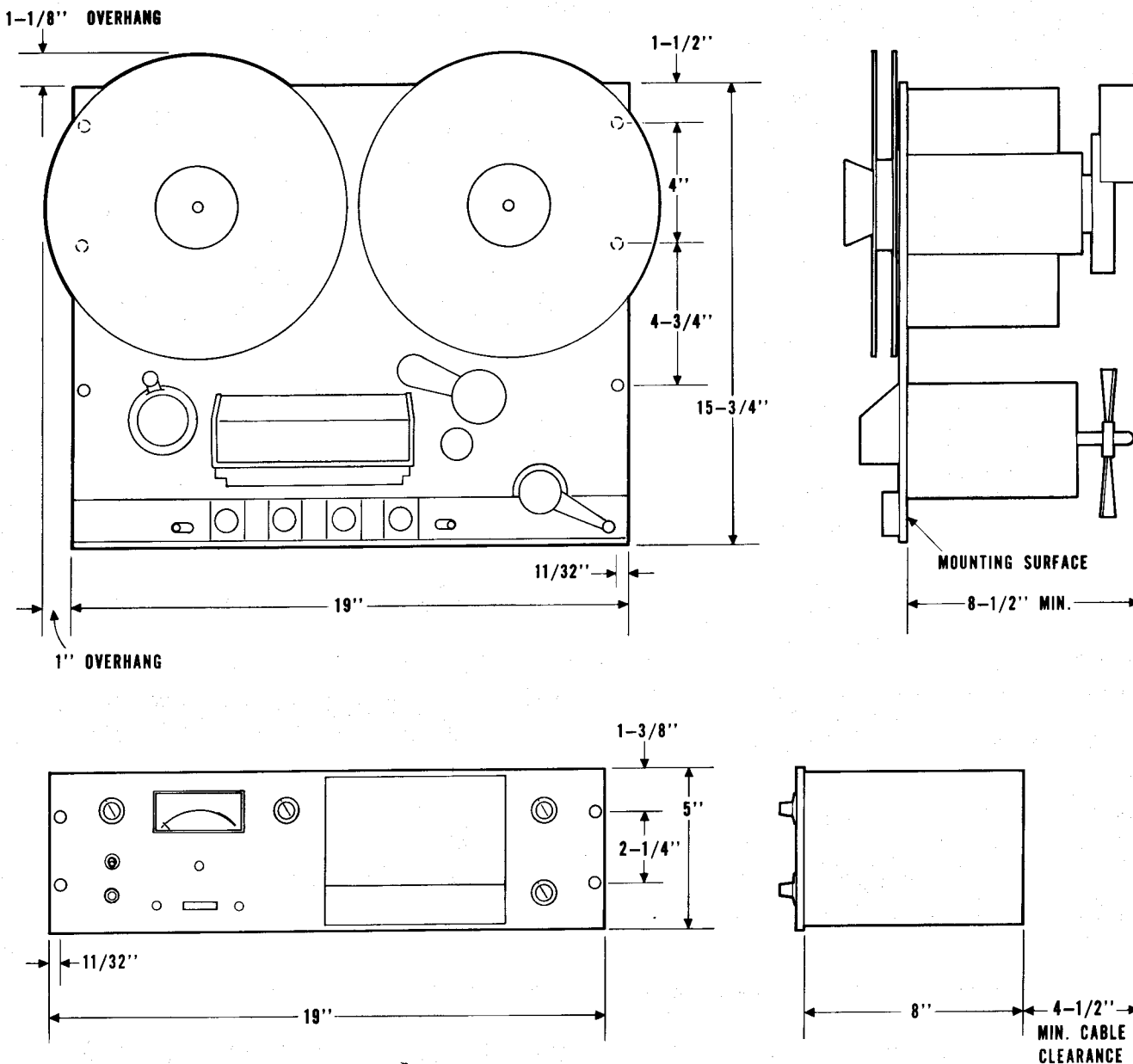


Fig. 2-2 Mounting Dimensions

### 2. 1. 2 Unmounted Equipment

Unmounted equipment is shipped with the tape transport and electronic assemblies packaged separately. Unpack each case, checking for shipping damage. If any has occurred, report it immediately to your Ampex distributor and the transportation company involved.

### 2. 1. 3 Equipment in Portable Cases

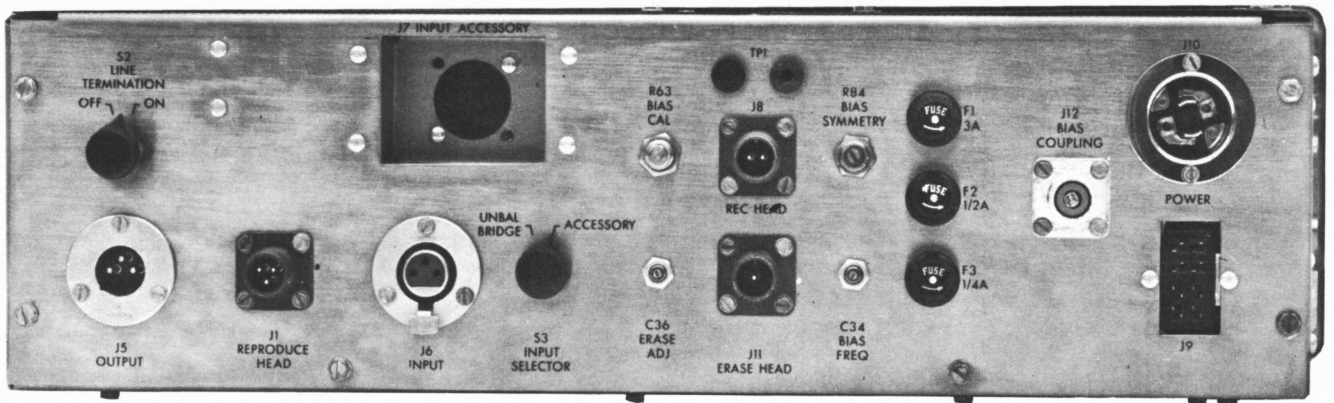
The portable models are mounted in two cases. Remove the cases from the shipping container and examine for shipping damage. If

any has occurred, report it immediately to your Ampex distributor and the transportation company involved.

## 2. 2 MOUNTING

When the equipment is ordered with the console or portable cases, all assemblies are mounted in position at the factory.

Other equipment can be mounted in standard 19-inch racks, or in custom cabinets. Mounting dimensions are given on Fig. 2-2. The major limitation in such mounting is that the tape



**Fig. 2-3 Back Panel, Record/Reproduce Electronics Assembly**

transport and electronic assemblies must be located so that it is not necessary to lengthen the head cables as supplied. Adequate ventilation must be provided.

## 2.3 INTERCONNECTING THE ASSEMBLIES

### 2.3.1 Console Mounted Equipment

All assemblies shipped in a console are interconnected at the factory. It is therefore necessary only to connect the signal leads (refer to paragraph 2.4) and the power cable (refer to paragraph 2.5). If because of maintenance or other reasons it becomes necessary to interconnect assemblies in the console, follow the instructions given in paragraph 2.3.2. Route the cables from the transport to the electronic assemblies through the hollow uprights, with power and control cables in the right upright (as viewed from the back), and signal input-output and head cables through the left upright.

### 2.3.2 Unmounted Equipment

After mounting such equipment, make the following connections between the assemblies.

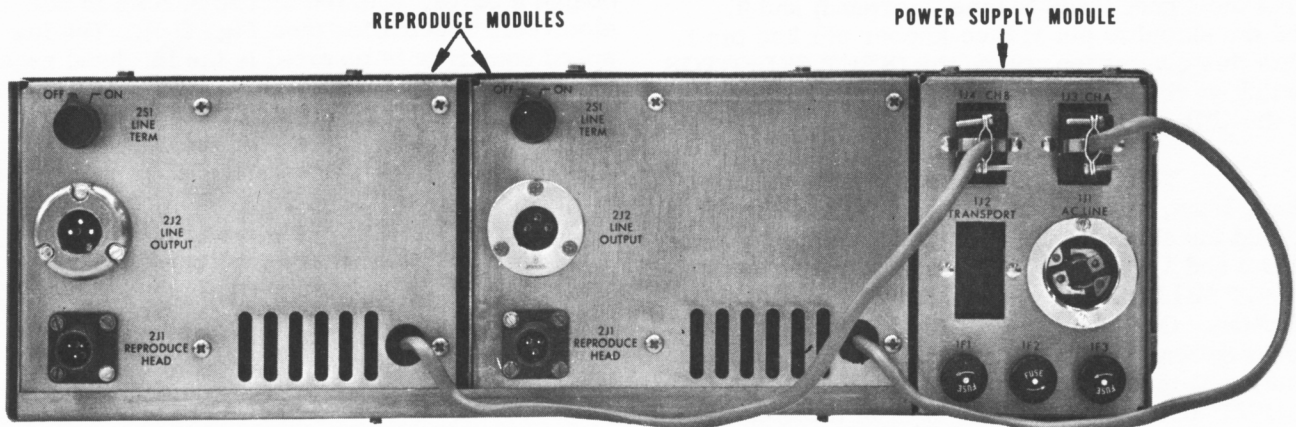
Back panel receptacles on the electronic assemblies are shown in Figs. 2-3 and 2-4.

a. Connect the control cable, which is captive at the tape transport to receptacle J9 at the back of the electronic assembly. If this is a two channel equipment, connect this cable to J9 at both electronic assemblies.

b. Connect the captive head cables to the applicable connectors on the back of each electronic assembly. If this is a two channel equipment, the cables are marked with the head track to which they are connected. Track 1 is that farthest from the top plate of the transport.

c. If this is a two channel equipment, connect the jumper cable (provided) between BIAS COUPLING connectors J12 on the electronic assemblies.

d. On reproduce-only equipment, connect the captive cable on each audio module to J3 or J4 on the power supply module (see Fig. 2-4).



**Fig. 2-4 Back Panel, Reproduce-only Electronic Assembly (Two Channel)**

### 2.3.3 Equipment in Portable Cases

On portable equipment place the case containing the tape transport to the right of that containing the electronics. Unlatch and remove the front cover and the side access door on the transport case and uncoil the connecting cables. Unlatch and remove the front and back covers on the electronic case, and connect the cables from the transport to the receptacles at the back of the electronic assemblies. These connections are the same as those for unmounted equipment (refer to paragraph 2.3.2).

## 2.4 **CONNECTING SIGNAL LINES**

### 2.4.1 General

Input and output receptacles are standard XL connectors, female and male respectively, located on the back panel of the electronics assembly. Mating plugs for these receptacles are provided with the equipment.

On console mounted equipment, remove the back panels from the electronic housing and the transport housing. Insert the signal lines through the hole on the inward side of the left upright (as viewed from the back of the recorder) that supports the electronic housing. Route the lines up through this hollow upright, then fan them out from the rear of the upright to the applicable electronic assembly. (After entering the upright, these lines follow the same path as the head cables.) Note that the power cable should also be connected before reinstalling the back panels (refer to paragraph 2.5).

### 2.4.2 Input Connection and Switching

To connect an unbalanced line input, wire the signal leads to pins 2 (ground) and 3, and the shield to pin 1; then jumper pin 2 to pin 1. With this connection, place the INPUT SELECTOR switch on the back of the electronic assemblies in the UNBAL BRIDGE position.

To connect a balanced line or microphone input, wire the signal leads to pins 2 and 3, and the shield to pin 1 (ground); do not jumper pins 2 and 1. With this connection, place the INPUT SELECTOR switch in the ACCESSORY position. One of the optional input transformers or the optional microphone preamplifier (refer to Section 1) must be inserted in octal socket J7 (INPUT ACCESSORY) at the back of the electronic assemblies whenever a balanced line input is used.

### 2.4.3 Output Connection, Strapping, and Switching

To obtain an unbalanced line output, wire the signal leads to pins 2 (ground) and 3, and the shield to pin 1; then jumper pins 1 and 2.

For a balanced line output, wire the signal leads to pins 2 and 3 and the shield to pin 1; do not jumper pins 1 and 2.

The equipment is shipped from the factory strapped for a +8 dbm operating level output into a 600 ohm line. This can be changed to a +4 dbm operating level output by removing the top service cover from the electronic assembly and re-strapping the terminal board in the upper back corner above the LINE TERMINATION switch. Restrap the board as indicated on the schematic diagrams (see Figs. 7-3 or 7-6).

In most instances, the LINE TERMINATION switch on the back panel of the electronic assemblies is to be left in the OFF position except during tests and adjustments. However, if the equipment is to drive a high impedance load (2,000 ohms or more) leave that switch in the ON position.

## 2.5 **CONNECTING POWER**

The power cable, which is provided, connects from receptacle J10 on the back of the master electronic assembly to the power source. On console mounted equipment, route this cable in the right hand upright (as viewed from the back) to the electronic assembly.

## 2.6 **INSTALLING PLUG-IN EQUALIZERS**

Receptacles for the plug-in equalizer modules (record/reproduce equipment) are located behind a cover, secured by two screws to the electronic assemblies (see Fig. 2-5). The low speed equalizer is inserted in the left hand recep-

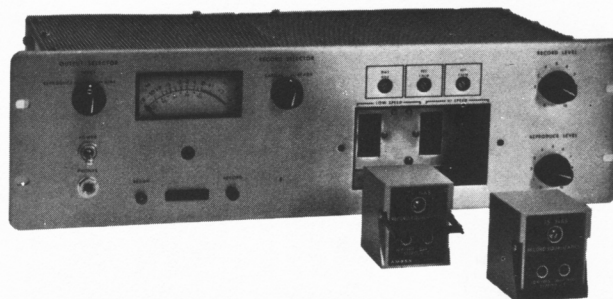


Fig. 2-5 *Plug-in Record/Reproduce Equalizers*

tacle (as viewed from the front), the high speed equalizer in the right hand receptacle. Equalizer modules are marked for the tape speed with which they are to be used, and for the type of equalization (NAB, CCIR, etc.).

Reproduce-only equipment does not employ plug-in equalizers, the circuits are built into the electronic assembly.

## **2.7    INSTALLING ACCESSORY ITEMS OR DUMMY PLUGS**

### **2.7.1    Electronic Assemblies**

As previously noted, either of two transformers for a balanced line input or a microphone preamplifier can be inserted in octal socket J7 on the back panel of the electronic assembly. When any such accessory is used the INPUT SELECTOR switch is placed in the ACCESSORY position. No dummy plug is required if an accessory is not used; the INPUT SELECTOR switch is simply placed in the UNBAL BRIDGE position.

### **2.7.2    Tape Transport**

### **2.7.2.1    Motor Drive Amplifier**

A precision amplifier for the capstan motor can be connected at J503S on the tape transport control box. The a-c power to the amplifier is taken at pins 1 and 4 of this connector, and the precision frequency a-c drive for the capstan motor is delivered to pins 5 and 8.

#### **NOTE**

If a motor drive amplifier is used, change fuse F1 on the back panel of the master electronic assembly to a 5 ampere fuse.

If a motor drive amplifier is not employed, a dummy plug (provided) must be inserted in J503S or the capstan motor will not operate.

### **2.7.2.2    Remote Control**

An optional remote control unit (refer to Section 1) can be connected to receptacle J502S on the control box of the tape transport. If a remote control is not used, a dummy plug (provided) must be inserted in this receptacle or the transport will not operate.