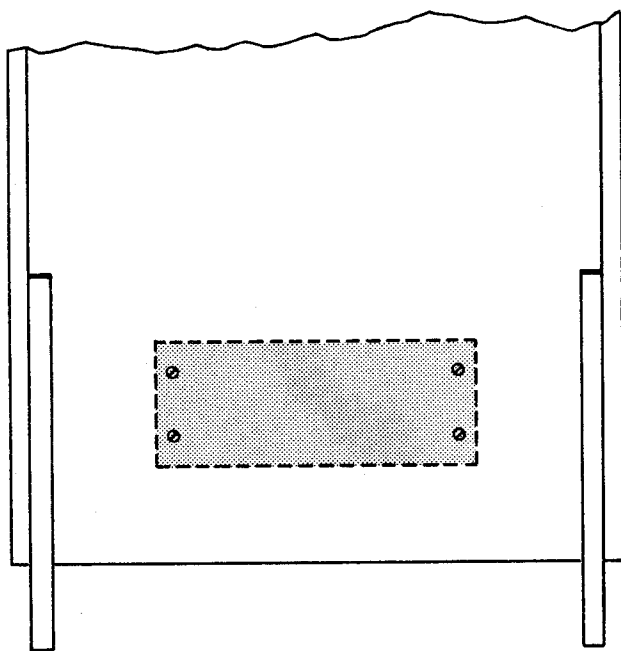


MOUNTING

Console models are shipped with the cabinet, tape transport, power panel, and reproduce amplifier packed individually. All hardware and cables needed to install this equipment in the cabinet have been included. The back of the cabinet is open to provide easy access to the chassis connectors on the electronic chassis when assembly is complete.

The following steps denote the mounting procedures:

- Step 1:* Install the tape transport in the cabinet frame, securing it with eight of the 12-24 x 1¼ oval head screws and washers.
- Step 2:* Remove the back panel of the cabinet.
- Step 3:* Install the electronic assembly using four of the 12-24 x 1¼ oval head screws and secure it to the cabinet. A cover panel (Catalog number 5520-02 for Console and 17206-01 for Rack Mounted) is installed simultaneously with the electronic assembly, utilizing the same screws.



Mounting of reproduce amplifier

NOTE

Holes for mounting the electronic chassis to the cabinet are predrilled before shipping.

Step 4: After the interconnecting procedure (See Installation of Cable Assemblies) replace the back panel of the cabinet so that all external cables run freely through the semi-circular cuts in the lower edge.

Rack mount models will fit standard 19-inch relay racks. The units should be mounted in the following order, from top to bottom: tape transport mechanism, power panel, and reproduce amplifiers.

CAUTION

THE BACK OF THE CONSOLE CABINET SHOULD BE PLACED AT LEAST 4 INCHES FROM THE WALL TO PERMIT PROPER VENTILATION.

RACK MOUNTED MODELS

Mount these versions of the equipment on a standard 19-inch relay rack with the mechanical assemblies above the reproduce amplifiers.

INSTALLATION OF CABLE ASSEMBLIES

Single Track Equipment

- Step 1:** Plug the free end of the captive cable (P201P) from the control strip into J105S of the Reproduce Amplifier Assembly.
- Step 2:** Plug the free end of the captive cable (P507P) from the tape Transport into J104S on the Reproduce Amplifier Assembly.
- Step 3:** The captive cable from the reproduce head must be plugged into J101P of the Reproduce Amplifier Assembly.
- Step 4:** The output connector should be plugged into J102P on the electronic assembly.
- Step 5:** Plug the female end of the ac power cable into J103P (AC POWER IN) and connect the male end to a 117 volt ac source.

Stereophonic Equipment

- Step 1:** Plug the female two pin ac connector (P302S) located on the free end of the captive cable from the control panel into J103P of Channel 2 Reproduce Amplifier.
- Step 2:** Connect the four pin plug (P301P) located on the captive cable from the control panel to J105S Channel 1.
- Step 3:** Dummy 30867-00 is plugged into J105S on Channel 2.
- Step 4:** Plug the free end of the captive cable (P507P) from the Tape Transport into J104S on Channel 1 Reproduce Amplifier.
- Step 5:** Connect the reproduce head cable marked Track 1 or with red tape, into J101P (PLAYBACK HEAD INPUT) of Channel 1 amplifier.
- Step 6:** Cable marked Track 2 is connected to J101P of Channel 2 amplifier. J102P of Channel 1 provides output for half-track or left channel in stereophonic operation. J102P of Channel 2 provides right channel in stereophonic operation.

NOTE

The eight-contact receptacle (J106S), located on the Reproduce Amplifier, is not utilized in this equipment.

NOTE

This equipment is designed for either 50 cycles per second (CPS) or 60 cycles per second power line frequency. Power line frequency is indicated on the serial number plate located on the rear of the console models, and on the amplifier chassis in rack mounted models.

CAUTION

Do not attempt to lengthen head cables, as the additional cable capacitance will affect the frequency characteristics of the equipment.

OUTPUT CONNECTIONS

Studio Line. — A +4 vu, 600-ohm output, balanced or unbalanced, is available across pins 2 and 3 of output connector J102P. Pin 1 is chassis ground. If an unbalanced output is desired, connect either side of the line to ground. The output of the equipment must be terminated at all times. Therefore, if it is not feeding a terminated line, connect an external 600-ohm load across the output.

High Impedance Input. — Connect pin 3 of output connector J102P to the high side of the amplifier input. Strap pins 1 and 2, and connect to the ground side of the amplifier input. An external 600-ohm termination must be connected from pin 3 to pins 1 and 2.

REMOTE CONTROL (ACCESSORY EQUIPMENT)

The operation of the tape transport mechanism can be controlled at a location removed from the equipment proper, through a remote control unit (Ampex Catalog Number 5763-00 or 5763-01). The Catalog Number 5763-00 unit is supplied in a wooden case, and is completely wired, ready to plug into remote control connector J502S on the front of the control circuit box. The Catalog Number 5763-01 unit is

mounted on a flat plate for installation in studio consoles. To install, plug into receptacle J502S. Note that no speed change facilities are included in the remote control unit.

NOTE

A dummy plug, (P502P) supplied with the equipment, must be plugged into J502S, whenever a remote control unit is not connected. Do not remove dummy plug P503S, supplied with the equipment, unless one of these units is to be connected.

60 CYCLE AMPLIFIER (ACCESSORY EQUIPMENT)

Provision has been made for plug-in of Ampex Model 375, 60-cps Amplifier. This unit can be plugged into J503S on the front of the control circuit box. No other connections are necessary. *If either of these systems is used, tape transport fuse F101 must be increased to 5 amperes.*

CHARACTERISTICS OF STANDARD CURVES

The reproduce amplifier responses are factory-adjusted to the standard 50 micro-second curve shown at the back of the manual. In addition, for stereophonic operation the output levels are set to the same value on both amplifiers. For best results, the tapes reproduced on this equipment will be recorded at the operating level determined by AMPEX Alignment tape, with characteristics that will produce a flat overall response when the reproduce response is adjusted to the standard curve. (The Ampex recommended recording level can be determined on this equipment by playing an Ampex Alignment Tape. See Section 6. All Ampex Professional Audio recorders will produce the desired record characteristics.)

OVERALL PERFORMANCE CHECK

NOTE

Operating instructions necessary in making the performance checks are included in Section 3.

The following procedures are recommended

for checking the performance of the equipment at the time of installation.

Frequency Response

Thread an Ampex Alignment Tape (Catalog Number 31321-01 for 7½ inches per second equipment or Catalog Number 31311-01 for 15 inches per second equipment) on the tape transport. Connect a 600-ohm termination, a vtvm, and a high impedance aural monitoring device (speaker or headphone) across the output (J102P) and press the PLAY button (S505). The frequency response check-tones on the Standard Alignment Tape, are all preceded by a voice announcement. The 7½ ips tape has been recorded 10 db below operating level, while the 15 ips tape has been recorded at the operating level of 0 vu .

Noise Measurement

Wide band noise is measured with a vtvm (see illustration) while reproducing a blank tape. If the gain has been adjusted with an Ampex Alignment Tape (See Section 6), the noise will be -45 dbm (.0043 volts) or less for half-track operation and -50 dbm (.0024 volts)



Power panel, two channel

or less for full track or stereophonic operation.

Distortion

Overall distortion can be measured by connecting any standard distortion-measuring apparatus across the output. The readings from a wave analyzer or selective frequency distortion meter will be more accurate than those from a null-type instrument at low distortion levels. Distortion readings are dependent on the tape being used. A reading of 1% is normal at operating level.

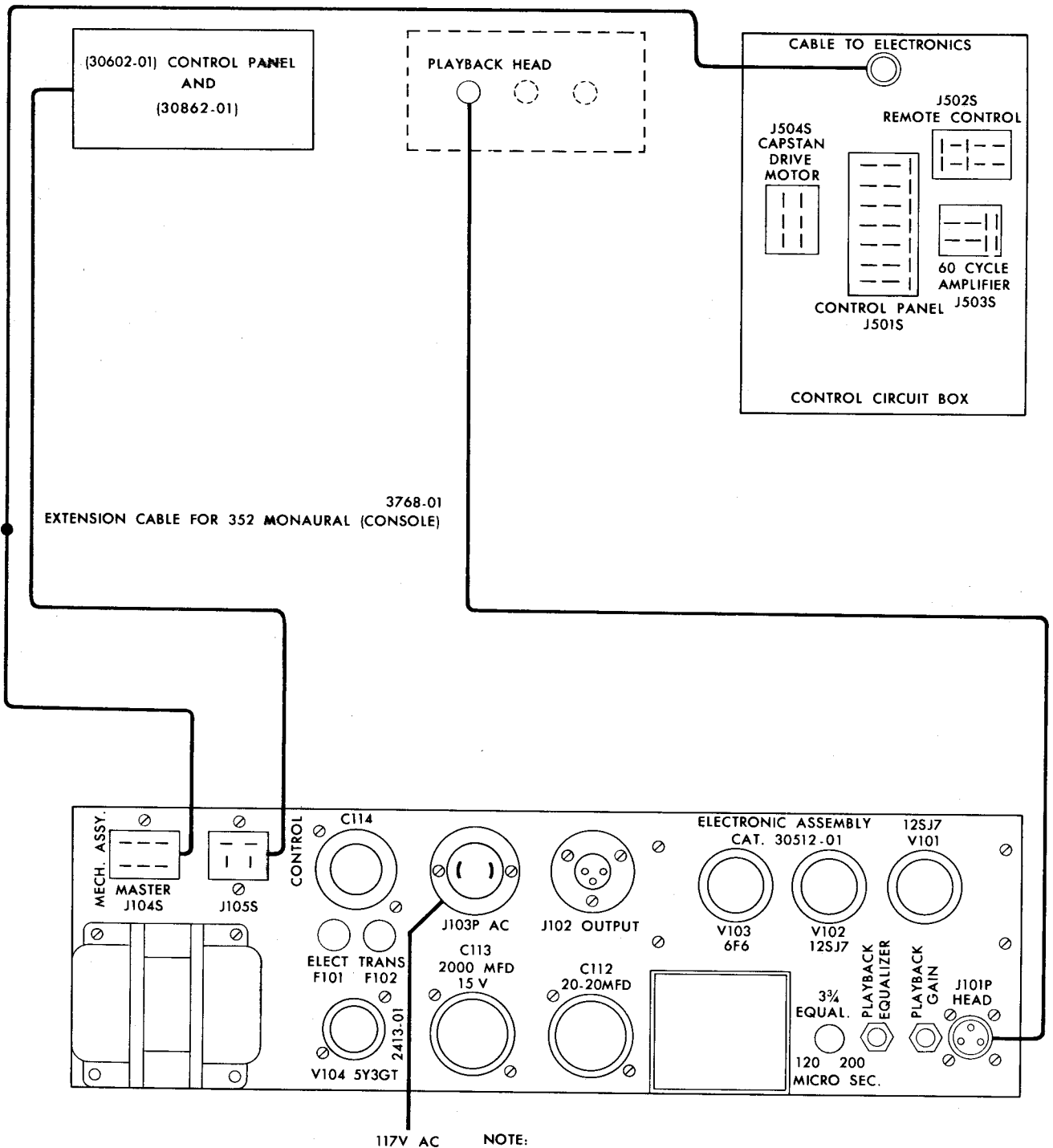
Flutter and Wow

Flutter and wow are produced by periodic irregularities in tape speed, and appear as cyclic frequency deviations in reproduction. They can be measured by means of any standard flutter bridge. To measure flutter, record a 3,000 cycle signal at the desired speed on a reliable tape recorder. Connect any standard flutter meter to the output of the machine to be tested and play this recorded signal back. The flutter readings will be less than 0.2% for 7½ inches per second (ips) tape speed, and under 0.15% at 15 inches per second (ips) tape speed.



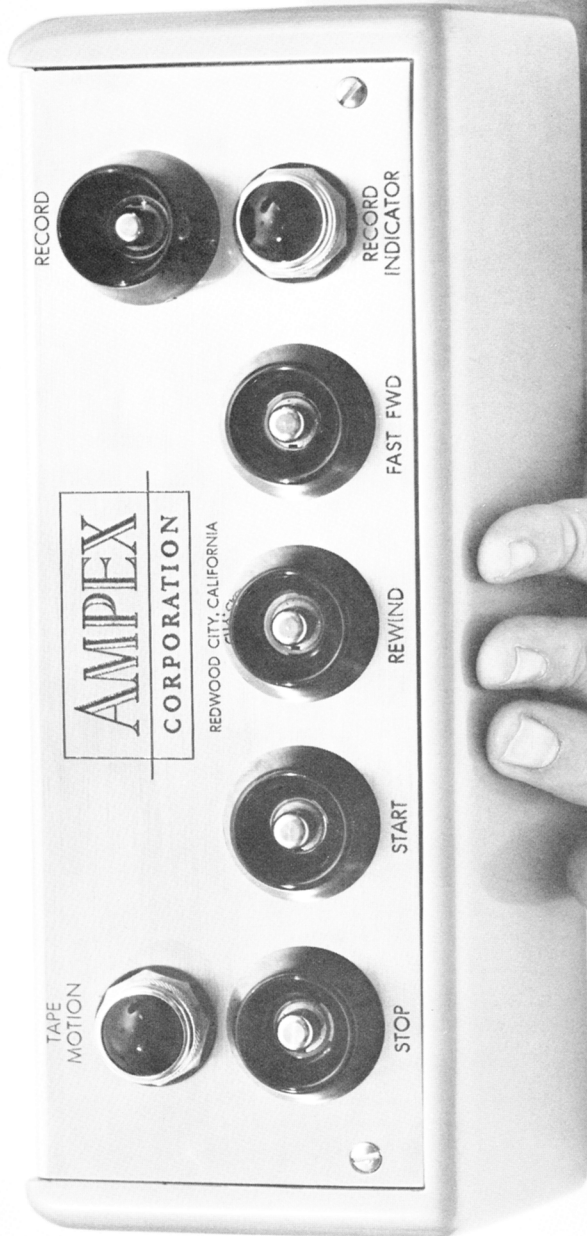
Power panel, single channel

INTERCONNECTING



117V AC NOTE:

1. FOR MONAURAL RACK INSTALLATION EXISTING CABLE FROM CONTROL CIRCUIT BOX (CABLE TO ELECTRONICS) CONNECTS DIRECTLY TO THE MECH. ASS'Y. (J104S) PLUG.
2. ON MODEL 352-2, CONNECT TAPE TRANSPORT TO J104S ON CHANNEL 1 ELECTRONICS. INSTALL DUMMY PLUG NO. 30867 IN J105S ON CHANNEL 2
3. CONSOLE MOUNTED MACHINES REQUIRE EXTENSION CABLES (CATALOG NUMBER 3768-01) CONNECTED TO THE CAPTIVE CABLE FROM TAPE TRANSPORT.



Remote control unit