DESCRIPTION AND SPECIFICATIONS

The AMPEX Model 600 is a lightweight portable magnetic tape recorder designed to meet the needs of both professional and non-professional users in remote pickups, custom home installations, and studio applications.

The AMPEX 600 is available in various combinations of operating conditions as listed below:

- Power Input ............... 117 volts, 50 or 60 cycles.
- Tape Speed ................. 7-1/2 or 3-3/4 inches per second.
- Head Assembly .............. full-track or half-track.
- Electronics Input .......... high or low impedance.

Sections I through VI of this manual are concerned primarily with the basic version of the Model 600; a 7-1/2 ips, full track, high impedance input portable recorder to be used with 117 v, 50 or 60 cps power. Additional notes and information on standard variations of this basic machine are given in the supplement, Section VII, which also covers accessory equipment for machines in this series. It is suggested that service personnel refer to the appropriate parts of Section VII as a preliminary to the operation and servicing of machines other than the basic version.

The complete basic equipment, as shipped from the factory, includes the following:

<table>
<thead>
<tr>
<th>Item</th>
<th>Ampex Cat. No.</th>
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</thead>
<tbody>
<tr>
<td>(1) Tape Transport</td>
<td>6200</td>
</tr>
<tr>
<td>(7-1/2 in/sec, full track)</td>
<td></td>
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<tr>
<td>(1) Electronic Assembly</td>
<td>6350</td>
</tr>
<tr>
<td>(1) Carrying Case (with hardware)</td>
<td>9417</td>
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<tr>
<td>(1) Power Cord</td>
<td>CS-2</td>
</tr>
<tr>
<td>(1) 7-inch RTMA Plastic Reel</td>
<td>RD-4</td>
</tr>
<tr>
<td>(2) Reel Hold-Down Knobs</td>
<td>6319</td>
</tr>
<tr>
<td>(1) Microphone Plug</td>
<td>PL-33P</td>
</tr>
<tr>
<td>(1) Phone Plug</td>
<td>PL-324P</td>
</tr>
<tr>
<td>(1) RTMA Pin Plug</td>
<td>PL-323P</td>
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<tr>
<td>(1) Operator's Guide</td>
<td></td>
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</tbody>
</table>

The performance specifications and physical characteristics of the "basic" machine are as follows:

**TAPE SPEED**

7-1/2 in/sec, full track

**REEL SIZE**

7 in. RTMA reel maximum
FREQUENCY RESPONSE

40 to 15,000 cycles/sec
+ 2 db 50 to 10,000 cycles/sec
down no more than 4 db at 15 Kc

SIGNAL TO NOISE RATIO

Over 55 db below Peak Record Level (defined as 3% total
rms harmonic distortion when measured on 400 cycle tone;
noise includes bias, erase, and playback amplifier noise).

FLUTTER AND WOW

Below 0.25%

STARTING TIME

Instantaneous - (tape accelerates to full play-record speed
in less than one second)

STopping Time

Less than one second

PLAYING TIME

32 minutes with 7 in. reel (1200 feet)

Fast Forward or Rewind Time

90 seconds for full 1200-foot reel

Playback Timing Accuracy

+ 0.2% (+ 3.6 seconds in a 30-minute recording)

Operating Modes

Play-Record: Selector Switch (safety button must be pressed
when going from Play to Record)

Fast Forward-Rewind:
Selector Switch (interlocked with Play-Record
Switch)

5/15/54 1-2 600
LEVEL CONTROLS

Separate Mixing Controls: Microphone Record Level, and Line Record Level

RECORD INPUTS

Microphone: Accommodates any high impedance microphone (may be modified for low impedance microphone by adding accessory transformer).

Line: 0.5 volt required for program level (1% distortion)

PLAYBACK OUTPUT

1.25 Volts into 10,000 ohms at program level

MONITORING

Phone jack and illuminated VU meter. Either program input or playback output may be monitored while recording, depending on position of Monitor Selector switch. (A-B)

HEAD ASSEMBLY

Separate erase, record, and playback heads contained in a single housing.

POWER REQUIREMENTS

117 volts, 50 or 60 cycles; .52 amperes, 61 watts (power line frequency is indicated on serial number plate on side of case).

DIMENSIONS

Tape Transport: 9-5/16'' x 12-1/2'' x 5''
Electronics: 6-1/8'' x 12-1/2'' x 5''
Overall Size, Including Case: 16-1/2'' x 13-3/4'' x 8''

WEIGHT

26 pounds, including case

ACCESSORIES

Low impedance Microphone Transformer Kit: Catalog No. 9359