

AMPEX PROFESSIONAL TAPE RECORDERS

Series 351

The Ampex Model 351 sets the highest standard in professional tape recording performance. Completely new inside, it combines the latest in circuits and electronics with Ampex superior tape handling characteristics.

SPECIFICATIONS

TAPE SPEEDS: $7\frac{1}{2}$ and 15 ips. or $3\frac{3}{4}$ and $7\frac{1}{2}$ ips.

FREQUENCY RESPONSE: All versions: 15 ips. ± 2 db 30 to 15,000 cps.

FREQUENCY RESPONSE: $7\frac{1}{2}$ ips. ± 4 db 30 to 15,000 cps. (± 2 db 40 to 10,000 cps.)
 $3\frac{3}{4}$ ips. ± 2 db 50 to 7,500 cps.

SIGNAL-TO-NOISE RATIO:

Speed	Max. Record Level to Unweighted Noise	Peak Record Level to Unweighted Noise
15"	Full track 70 db Half track 65 db 2 Channel stereo 65 db	Full track 60 db Half track 55 db 2 Channel stereo 55 db
$7\frac{1}{2}$ "	Full track 70 db Half track 65 db 2 Channel stereo 65 db	Full track 60 db Half track 55 db 2 Channel stereo 55 db
$3\frac{3}{4}$ "	60 db	50 db

FLUTTER AND WOW:

15 ips.	Well below 0.15% RMS.
$7\frac{1}{2}$ ips.	Well below 0.2% RMS.
$3\frac{3}{4}$ ips.	Well below 0.25% RMS.

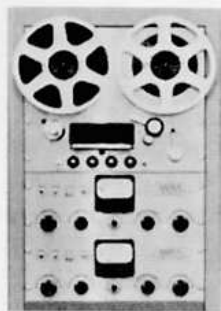
PLAYING TIMES:

With NAB Speed	Half Track	Full Track
$10\frac{1}{2}$ " reels 15 ips.	64 min.	32 min.
(2400 feet $7\frac{1}{2}$ ips. of tape)	2 hrs. 8 min.	64 min.
$3\frac{3}{4}$ ips.	4 hrs. 16 min.	2 hrs. 8 min.

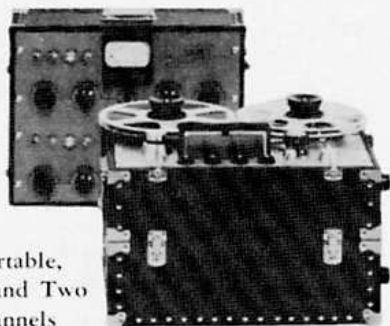
STARTING TIME: Instantaneous (tape accelerates to full speed in less than $1/10$ second).

STOPPING TIME: At 15 ips. speed, tape moves less than two inches after pressing "Stop" button.

PLAYBACK TIMING ACCURACY: $\pm 0.2\%$ (± 3.6 seconds in a thirty minute recording).



Unmounted (Rack), One and Two Channels



Portable, One and Two Channels



Console, One Channel Only.

REWIND TIME: Approximately one minute for 2400-foot NAB reel; 30 seconds for 1200-foot EIA reel. Rewind times for this base tapes proportionately longer.

CONTROLS: Tape motion controlled by four pushbuttons; Start, Stop, Fast Forward and Rewind. Separate Record button energizes record circuits, which drop out when machine is stopped. Individual Record button control for each channel in 2 Channel stereo machines. Motor speed and electronic equalization for various tape speeds are controlled by separate switches. Reel Size Switch provides proper tape tensions for NAB $10\frac{1}{2}$ " reels or EIA 5" and 7" reels.

RECORD INPUT: A switch allows recorder to accommodate either microphone level low impedance input or to bridge a 600 ohm line, balanced or unbalanced. Minimum input signal for recommended record level is -10 dbm balanced bridge, or -13 dbm unbalanced bridge. Levels as low as 150 microvolts on the microphone input will produce the recommended record level.

PLAYBACK: Plus 8 VU output into 600 ohms, balanced or unbalanced. Will feed a high input impedance amplifier directly with approximately two volts. Can be connected for +4 VU by restrapping.

AMPEX PROFESSIONAL TAPE RECORDERS

MODEL 351 SPECIFICATIONS (Con't)

AMPLIFIERS: Separate record and playback amplifiers are used. Amplifier distortion at any operating level is negligible compared to tape distortion, even using new high-output tapes.

PLUG-IN HEAD HOUSING: Erase, record and playback heads are contained in a single plug-in head housing.

MONITORING: Independent record and playback systems allow tape to be monitored while recording. A phone jack is provided to monitor either the record input signal before or during recording, or the output signal from the playback head while recording or during playback. An A-B switch is incorporated in order that direct comparison can be made between the original program and the recorded program. The same switch transfers a 4-inch VU meter for level comparison and monitoring. The VU meter is also used to read bias and erase current.

POWER REQUIREMENT: Either half or full-track machines require 2.0 amperes at 117 volts AC., 2 Channel stereo requires 2.5 amperes. Machines are available for either 50 or 60 cycle operation.

RACK SPACE: Standard 19 inch wide panel with commercial notching.

Tape Transport, 15³/₄ inches of rack space, weight 58 lbs.

Electronic Assembly, 7 inches of rack space, weight 18 lbs.

(Two required for 2 Channel stereo.)

CONSOLE DIMENSIONS: 48 inches high x 24¹/₂ inches wide x 28¹/₂ inches deep; weight 168 lbs. (crated 260 lbs.)

ORDERING INFORMATION

Mounting Style — Console, rack-mount or two case portable for Full or Half Track; rack, or portable for 2 Channel stereo Model 351

Tape Speed — 7¹/₂ and 15 ips. or 3³/₄ and 7¹/₂ ips.

Track Configuration — Full track, or half track, or 2 track stereo.

Power Line Frequency — 60 or 50 cps. (117 V. only).

AMPEX 601 PORTABLE TAPE RECORDER



This famous Ampex Portable fits your recording needs exactly.

LOW IMPEDANCE OUTPUT: 600 ohms, 1.23 volts. Balanced or unbalanced (from tapes recorded at program level).

LOW IMPEDANCE INPUT: Accommodates high or low impedance microphone. Low impedance microphone secured by accessory plug-in transformer.

INSTANTANEOUS STARTING: Accelerates to full play mode in less than one-fifth of a second.

SUPERB FIDELITY: Frequency response, 30 to 15,000 cps., at 7¹/₂ in/sec. Down no more than 4 db at 15,000 ± 2 db from 40 to 10,000. Signal-to-noise ratio over 55 db. Flutter and wow — Below 0.17%. Separate erase, record and playback heads.

PRECISE TIMING: Synchronous motor drive. Timing accuracy within 3.6 seconds in its 30 minutes playback.

EASIEST OPERATION: Simple one hand "wrap around" threading. Large scale meter for accurate program levels. Can be monitored during either record or playback. Suitable for rack mounting.

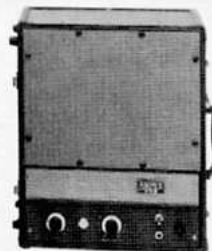
DEPENDABLE SERVICE: Vital parts have been tested an equivalent of more than 10 years of normal broadcasting usage. "Lift-out" accessibility for maintenance.

ORDERING INFORMATION

Full or half-track. Portable case or unmounted chassis. 60 cycle operation (50 cycles available on special order). With or without, accessory low impedance input transformer, 17331-1 Model 601

AMPEX 620 AMPLIFIER-SPEAKER

Designed to match the Ampex 601



FIDELITY: Speaker and amplifier in combination have flat acoustic response from 65 to 10,000 cycles with additional useful range above and below.

POWER: Amplifier output is 10 watts with less than 1% harmonic distortion. Speaker can use full power if necessary, giving ample volume even for a medium size auditorium.

VERSATILITY: The Ampex 620 can amplify from any sound source. It may be used as an amplifier-speaker or as an amplifier only, since an external speaker jack bypasses the internal speaker and its reciprocal network.

ORDERING INFORMATION

Ampex Amplifier-Speaker Model 620