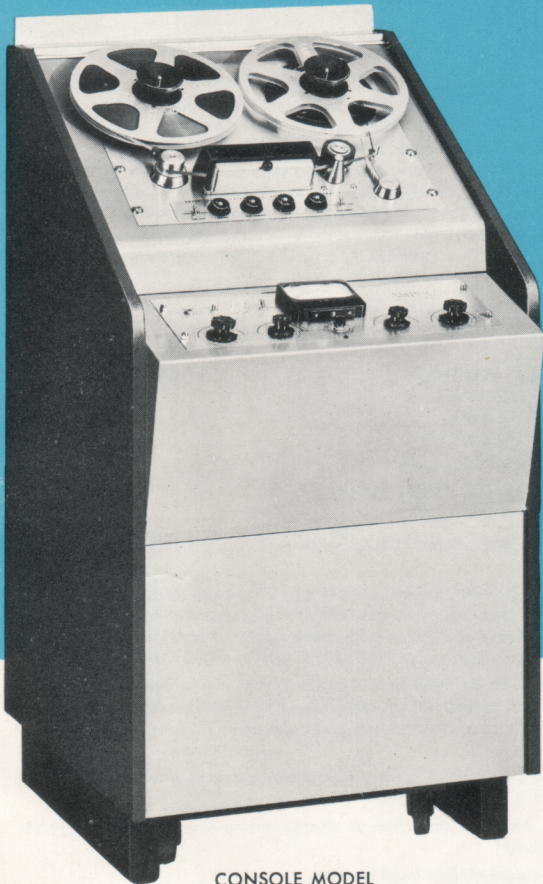


AMPEX

351

New standard of excellence
in professional recording
with **all-new** electronics



CONSOLE MODEL

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.

NEW PRINTED CIRCUITS — The "plug-in" connections and miniature tubes give finest performance with utmost reliability and low maintenance. Completely accessible.

NEW INPUT STAGE — Lower noise level. Takes a non-critical tube.

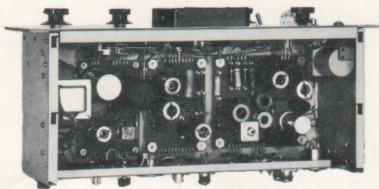
NEW PLUS 8 OUTPUT — (600 ohms—2 volts) Push-pull output stage matches the level of most other radio and recording equipment. Can be wired for a plus 4 output if desired.

NEW INTERNAL POWER SUPPLY — Now located on the amplifier chassis. Also makes the recorder easier to "rack." Takes up less space.

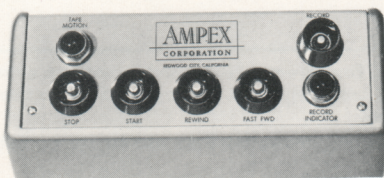
NEW "DE-POPPED" RECORDING CONTROLS — Bias build-up on recording is slower — decay is controlled when going out of recording.

AVAILABLE WITH TWO CHANNELS! Lets you take advantage of the new techniques of mastering monaurals from multi-channel originals . . . enter the booming stereo market . . . take on special assignments. Each channel can be used separately or can be locked together.

REMOTE CONTROL! You can completely control the model 351 from a distance with the optional remote control unit. Duplicates all controls including Start, Stop, Record, Fast Forward, and Rewind. Has a Red Light to indicate Record and a Green Light for Play.



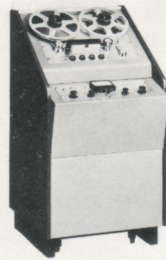
PRINTED CIRCUITS



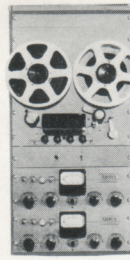
REMOTE CONTROL UNIT

THREE TYPES OF
INSTALLATIONS TO FIT
ALL REQUIREMENTS

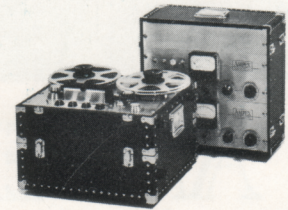
MODEL
351



CONSOLE, one channel only



UNMOUNTED (RACK),
one and two channels



PORTABLE, one and two channels

GENERAL PERFORMANCE CHARACTERISTICS AND SPECIFICATIONS

TAPE SPEEDS
FREQUENCY RESPONSE

7½ and 15 ips. or 3¾ and 7½ ips.
All versions: 15 ips. ± 2 db 30 to 15,000 cps.
7½ ips. ± 4 db 30 to 15,000 cps. (± 2 db 40 to 10,000 cps.)
3¾ 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
7½"	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
3¾"	60 db	50 db

The peak record level is defined as that level at which the overall (input to output) total RMS. harmonic distortion is 3% when measured on a 400 cycle tone. Noise is measured when erasing a signal of peak recording level and in absence of new signal. Thus, bias and erase noise are included as well as playback amplifier noise. All components between 30 and 15,000 cycles are measured.

FLUTTER AND WOW

15 ips. Well below 0.15% RMS.
7½ ips. Well below 0.2% RMS.
3¾ ips. Well below 0.25% RMS.

PLAYING TIMES

	Speed	Half Track	Full Track
With NAB 10½" reels (2400 feet of tape)	15 ips. 7½ ips. 3¾ ips.	64 min. 2 hrs. 8 min. 4 hrs. 16 min.	32 min. 64 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

± 0.2% (± 3.6 seconds in a thirty minute recording).

REWIND TIME

Approximately one minute for 2400-foot NAB reel; 30 seconds for 1200-foot EIA reel. Rewind times for thin 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 10½" 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 OUTPUT

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.

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 REQUIREMENTS

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, 15¾ 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 24½ inches wide x 28½ inches deep; weight . . . 168 lbs. (crated 260 lbs.).

OPTIONS TO SPECIFY
WHEN ORDERING

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

Tape Speed — 7½ and 15 ips. or 3¾ and 7½ ips.

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

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

REMOTE CONTROL
UNITS

Catalog No. 5763-2 and Catalog No. 5763-3. Controls Start, Stop, Fast Forward, Rewind and Record from a remote location. Catalog No. 5763-2 is mounted in a wooden case and is completely wired. Catalog No. 5763-3 is mounted on a flat plate for flush mounting in studio consoles and is not wired.

ACCESSORIES

Standard Alignment Tape — for 15 ips. Catalog No. 4494; for 7½ ips. Catalog No. 5563; and for 3¾ ips. Catalog No. 6000. Head Demagnetizer — Catalog No. 704.

AMPEX
CORPORATION

SIGNATURE OF PERFECTION IN SOUND

934 CHARTER STREET, REDWOOD CITY, CALIFORNIA

professional
products division