



Portable Two-Track Stereophonic Recorder

Full Professional Quality in Recording and Reproducing Stereophonic Sound...with the utmost in convenience and portability

Check these Ampex-engineered features!

- Precision In-Line Stereo heads for recording and playback
- Freedom from inter-channel crosstalk
- Separate mixing facility on each channel between microphone and other inputs
- Records both stereo and single channel tapes
- Plays back stereo, full or half track tapes

PLUS these performance-proved features of the Ampex 601!

- Instantaneous starting
- Illuminated record safety button
- Low impedance output
- · Plug-in low impedance microphone transformer

COMBINES PERFECTION WITH PORTABILITY

The Ampex 601-2 offers a new high level of perfection in professional stereophonic recording and reproduction, and makes it available in its most compact, portable form. Tapes recorded on the 601-2 are indistinguishable from those recorded at the same tape speed on Ampex Models 300-2 and 350-2.

The recorder safely handles "50% extra playing time" tapes to give you 48 minutes of stereophonic recording time at $7\frac{1}{2}$ i.p.s.

from a 7-inch reel. The 601-2 utilizes a specially engineered bias supply common to the two channels, insuring positive protection from "birdies" and peaks-and-valleys in output levels. The micro-accurate precision of the in-line head assembly is such that tapes recorded on any 601-2 provide identical frequency response when played back on any other Ampex stereo unit. Improved inter-channel isolation reduces the effective crosstalk to a point below the inherent noise level.

VERSATILITY FOR BROAD APPLICATION

Stereophonic tapes recorded on the Ampex 601-2 offer authentic realism, not only because of wide frequency and dynamic ranges, but also because of the audio perspective, the depth and direction afforded by true stereophonic sound. Among the many applications for stereophonic sound are these: broadcasting, research on sounds, acoustical and noise reduction studies, music and dramatic rehearsal, court room and conference reporting, military uses, re-creation of music in the home or auditorium, and sales promotion or demonstration programs.

A particularly advantageous use of the 601-2 is in making twochannel recordings for monaural playback. In recording a soloist against an orchestral background, for example, the soloist can be recorded on one channel and the orchestra on the second channel. On playback, the balance of sound level between the soloist and orchestra can be continuously monitored and adjusted while re-recording on single channel tape or disc. This technique also lends itself to special acoustic effects such as selective addition of echo to one channel.



AMPEX DESIGN plus AMPEX ENGINEERING makes AMPEX QUALITY

Year-in, year-out, Ampex recorders offer a dependability of performance that has made them the standard of the recording industry. Rugged, die-cast parts, high-quality components, and safety factors well above specifications all add up to unmatched reliability and freedom from mechanical and electrical failures. Quiet, vibrationless operation and precision speed control are assured by shock-mounted synchronous power

drive, positive shaft alignments, and lifetime bearings. Ampex recorders are characterized by absolute uniformity, part-to-part and recorder-to-recorder. This uniformity comes not only from rigid adherence to tolerances and specifications, but even more from a basic uniformity in the processes of design, engineering and construction. The overall result is an unmatched uniformity of performance.

Check these design and engineering features that add up to AMPEX PERFORMANCE



● Separate record and playback amplifiers ● Direct reading meter for both playback and recording levels ● Separate erase, record and playback heads ● Magnetic playback head gap width: .00025" ● Low impedance output ● Extremely close tolerances in all bearings and shafts ● Tape tension controlled to 8 ounces maximum ● Illuminated safety button to indicate recording mode.



The head assembly consists of a Full-Track ERASE, Two-Track RECORD, and Two-Track PLAYBACK arrangement, in this order.



GENERAL PERFORMANCE CHARACTERISTICS AND SPECIFICATIONS

HEADS PE SPEED

TAPE SPEED

REEL SIZE
FREQUENCY RESPONSE
SIGNAL-TO-NOISE RATIO
EFFECTIVE INTER-TRACK
CROSSTALK REJECTION
FLUTTER AND WOW

STARTING TIME

PLAYING TIME

FAST FORWARD OR REWIND TIME

PLAYBACK TIMING ACCURACY

OPERATING MODES

LEVEL CONTROLS

RECORD INPUTS (EACH CHANNEL) PLAYBACK OUTPUT (EACH CHANNEL) MONITORING

AMPLIFIERS
(EACH CHANNEL)
HEAD HOUSING
POWER REQUIREMENTS
DIMENSIONS

WEIGHT
ACCESSORIES
OPTIONS TO SPECIFY
WHEN ORDERING

Full-track erase, 2 channel (in-line) record, and 2 channel (in-line) playback heads, in that order. 7½ in/sec.

7" RETMA reel maximum; top may be closed with 5" reels.

30 to 15,000 cycles/sec.; down no more than 4 db at 15,000; ± 2 db from 40 to 10,000 cycles/sec.

Over 50 db at 3% harmonic distortion.

In excess of 50 db

Below 0.17%.

Instantaneous (tape accelerates to full play mode in less than one-fifth second).

Less than one second.

32 minutes with 7-inch, 1200-foot reel; 48 minutes with 7-inch,1800-foot reel.

90 seconds for full 1200-foot reel.

 $\pm\,0.2\%$ ($\pm\,3.6$ seconds in a 30 minute recording).

Play — Record: Selector Switch (safety button must be pressed when going from Play to Record). Safety button is illuminated in record mode. Fast Forward — Rewind: Selector Switch (interlocked with Play — Record Switch).

Separate Mixing Controls for each channel: Microphone Record Level, and Line Record Level. Two Professional Meters read directly all operating levels on each channel.

Microphone: Accommodates high or low impedance microphone (Low impedance microphone input secured by adding accessory plug-in transformer Ampex Cat. No. 17331-1), Line (unbalanced): 0.5 volt required for program record level.

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

Two phone jacks permit monitoring the 2 channel input to the record head or the 2 channel playback output of the tape while recording. This is done with Monitor Selector Knobs which may be turned to "Input" or "Tape."

Separate record, playback, microphone and line input amplifiers are used. Amplifier distortion at any operating level is negligible (maximum 1% distortion).

Three separate heads: erase, 2 channel record, 2 channel playback. Heads are contained in a single head housing.

117 volts, 60 cycle, 85 watts.

Transport top area: $9\%_6" \times 12\%_2"$. Electronic top area (each of 2): $6\%_6" \times 12\%_4"$. Depth below top plate: 5". Overall size, including carrying case: $8" \times 13" \times 24\%_2"$.

42 pounds.

Plug-in Low Impedance Microphone Transformer: Catalog No. 17331-1. Amplifier-speaker unit in matching case: Ampex 620. Portable case or unmounted chassis. 60 cycle operation (50 cycles available on special order). 7½ ips tape speed (3¾ ips available on special order).



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SIGNATURE OF PERFECTION IN SOUND