



**AMPEX**

**AX-Series**

the one you  
waited for

# AMPEX

## AX-300

six head bi-directional  
record/play  
stereo tape deck

Ampex experience in building the finest recorders for the broadcast industry, recording industry, and professional equipment user has preceded and contributed to a new generation of Ampex audio recorders for the serious home recordist . . . the new Ampex AX-Series.



### features

*Bi-directional Record/Play/Monitor:* Separate erase, record, and reproduce heads for left-to-right and right-to-left tape travel allow bi-directional recording, playback, off-the-tape monitor, and special effects.

*Six Separate Heads:* Two erase, two Deep-Gap record, and two Deep-Gap reproduce. All are

hyperbolic type and symmetrically located on each side of a central capstan so that tape is always pulled over heads in either direction of operation for more even tape motion and better head to tape contact. No pressure pads are used or needed.

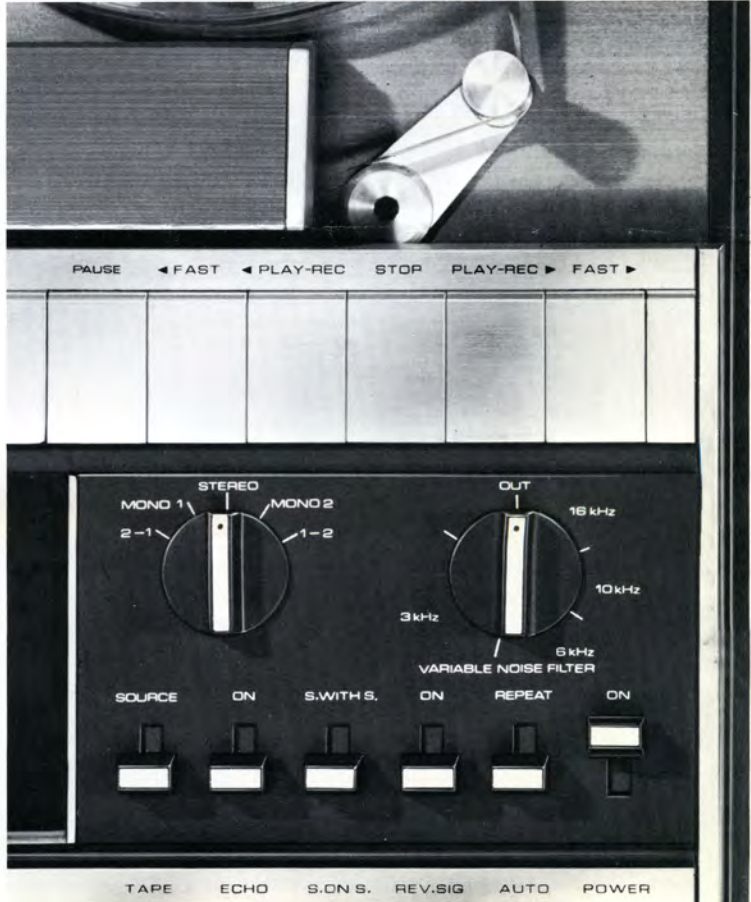
*Automatic Reverse:* By pushing the special "Reverse Signal" button, a 20 Hz signal is recorded on the tape during recording. In playback mode the transport automatically reverses the direction of tape travel the moment the signal is picked up by the reproduce head. A

signal may be applied at each end of the tape allowing continuous playback of the same tape or automatic shut-off of the transport at the end of the complete tape. All Ampex pre-recorded tapes carry these signals.

*Easy-Touch Pushbutton Function Controls:* Symmetrically arranged pushbuttons control all tape motion functions through positive action relay solenoid operation. Separate controls for Pause/Edit, Record/Play right-to-left, Fast Wind right-to-left, Stop, Record/Play left-to-right, Fast Wind left-to-right.

*Built-in 4-source mixing center.*

*Fingertip function control center.*



# specifications

**Motion Sensing and Electro-mechanical Braking:** Logic circuitry combined with electro-mechanical braking prevents accidental tape stretch, breaks, and spills even when changing from fast wind in one direction to play in the opposite direction.

**Automatic Tape Lifters:** Ease tape away from the heads during fast wind operations.

**Pause/Edit Control:** Solenoid operated control stops tape motion instantly during play or record without disengaging record circuitry. Tape lifters are overridden allowing precision editing or cueing.

**Three Motor Drive System:** Heavy duty hysteresis synchronous motor assures steady, even tape speed regardless of line voltage fluctuations. Die-cast capstan flywheel is dynamically balanced to assure stable and constant tape run. Two separate reel drive motors provide proper take-up and hold-back tension on each reel, and allow for a smooth and fast tape wind. Electro-mechanical braking action provides smooth, fast, positive action. This three motor system allows extremely low tape tension to handle all tape thicknesses without need for adjustment for each tape type. Capstan idler maintains constant pressure evenly across the entire tape width, reduces edge stretch.

**Three-Speed Operation:** Lets you choose the speed just right for your needs—1% ips for voice, 3% ips for background music, 7½ ips for most serious recording. Speed change control automatically provides the proper equalization for each of the three speeds.

**Built-in Four Source Mixing:** Four separate Velvet-Touch sliding level controls allow you to mix four independent sources for monaural recording, or two stereo sources for stereo recording. Allows mixing of two line inputs with two microphone inputs or two auxiliary line inputs. Also allows mixing of three inputs during *sound-on-sound*.

**Selector Panel:** Operates independently of mixing panel. Allows total recording or playback convenience with choice of stereo operation, channel one monaural operation, channel two monaural operation, sound-with-sound and sound-on-sound recording. All functions operate during right-to-left, or left-to-right tape travel.

**Stereo Echo Effect:** Built-in provision allows addition of controlled feedback in both channels for stereo echo effect without the use of

**TAPE SPEEDS:** 7½ ips, 3% ips, 1% ips

**TAPE TRANSPORT:** 3-motor deck; hysteresis synchronous capstan motor

**SIGNAL-TO-NOISE RATIO:** 55 db

**FREQUENCY RESPONSE (overall):**  
20-20,000 Hz (40-16K Hz  $\pm 3$  db) @ 7½ ips  
20-14,000 Hz (80-12K Hz  $\pm 4$  db) @ 3% ips

**FLUTTER AND WOW:** less than 0.09% @ 7½ ips (unweighted NAB) less than 0.15% @ 3% ips

**FAST WIND TIME:** 55 seconds

**SPEED ACCURACY:** 7½ ips  $\pm 1\%$   
3% ips  $\pm 2\%$

**EQUALIZATION:** separate NAB for 7½ ips, 3% ips, and 1% ips automatically selected by speed change

**BIAS OSCILLATOR FREQUENCY:** 100K Hz

**INPUTS:** 4 line (high impedance); 2 mike (high impedance-adjustable)

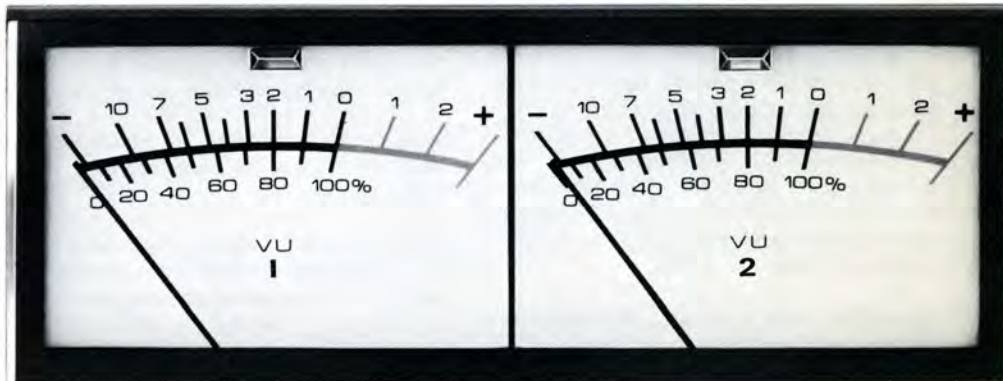
**OUTPUTS:** 2 tape out (high impedance); 2 tape/source (high impedance); 8 ohm stereo headphone

**PRE-AMP OUTPUT LEVEL:** 1V

**POWER CONSUMPTION:** 110 WATTS

**OVERALL SIZE:** 16½" x 14½" x 8"

**WEIGHT:** 45 LBS.



external patch cords. Echo effect can be added to sound-on-sound and sound-with-sound recordings using external patch cords.

**Variable Noise Reduction Filter:** Continuously variable filter allows a 12 db per octave reduction in background noise and hiss between 16K Hz and 3K Hz during playback of pre-recorded tapes.

**Two Large, Illuminated VU Meters:** Easy to read VU meters for each channel with NAB mechanical and electrical characteristics. Monitor source or tape.

**Adjustable Bias and VU Meter Calibration:** External adjustment provision allows selection of proper bias for any tape characteristic and adjustment of VU meter calibration.

**Four Solid State Preamplifiers:** Utilize the latest in state of the art circuitry and components for years of stable, reliable performance.

**Flat Head Cover:** Easily removed for cleaning,

editing, etc. Permits mounting of commercial edit block.

**Source/Tape Monitoring:** Separate switch allows you to monitor source or tape during recording. Separate tape and source/tape outputs.

**4-Digit Index Counter:** Pushbutton reset, indexes 3,600 foot reels.

**Automatic Shut-Off:** Two polished rocker switches provide automatic stop of tape motion in play or wind due to break in tape or end of tape.

**Headphone Monitoring:** Convenient front panel output for 8 ohm stereo headphone.

**Die Cast Turntable and Bearing Mounts:** Assures long life and precision alignment of all critical parts.

**Handsome Walnut Base:** Finished on four sides for vertical or horizontal operation.

**Optional Remote Control**

# AMPEX

## AX-50

three head record/play  
stereo tape deck



## features

**Three Separate Heads:** Erase, Deep-Gap record, Deep-Gap reproduce. All are specially contoured to eliminate the need for head-wearing pressure pads.

**Direct Tape Monitor:** Separate reproduce head allows direct off-tape monitoring while recording to assure "clean" recordings. Tape/Source switch allows comparison between original material and actual recording.

**Echo Effect:** Built-in provision allows addition of controlled feedback on one channel for echo effect without the use of external patch cords or adapters.

**Sound-on-Sound:** Multiple recordings may be produced by combining new material with previously recorded material on a separate track. This function is switch selected and a monaural function.

**Sound-with-Sound:** The ideal way to study. You can record one track while listening to material previously recorded on the other track. This is a switch selected function, no patch cords required.

**Noise Suppression Filter:** This switch-selected filter eliminates objectionable background noise and hiss from prerecorded tapes. Does not function in record mode and is usually not required for tapes recorded in the AX-50.

**Automatic Tape Lifter:** Ease tape away from heads during fast wind operations to extend head life.

**Pause/Edit Control:** Stops tape motion instantly during play or record without dis-

engaging record interlock. Tape lifters are overridden allowing precision editing or cueing.

**Two Large, Illuminated VU Meters:** Easy to read VU meters for each channel. Record indicator light.

**Single Function Control:** Single rotary control for all tape motion functions for simplified operation. Automatically prevents tape damage.

**Hysteresis Synchronous Motor:** Assures steady, even speed regardless of line voltage fluctuations. Die-cast flywheel is balanced to assure stable and constant tape run.

**Three Speed Operation:** Lets you choose the speed just right for your needs—1½ ips for voice, 3¾ ips for background or light music, 7½ ips for most serious recording. Separate NAB equalizations for all speeds.

**Velvet-touch Level Controls:** Separate sliding level controls for each channel, plus a separate feedback level control for echo and sound-on-sound recording.

**Four Solid State Preamplifiers:** Utilize the latest in state of the art circuitry and components for years of stable, reliable performance.

**4-Digit Index Counter:** Pushbutton reset, indexes 3,600 foot reels.

**Automatic Shut-Off:** Automatic switch stops tape motion at end of tape or if tape breaks.

**Handsome Walnut Base:** Finished on four sides for vertical or horizontal mounting.

## specifications

**TAPE SPEEDS:** 7½ ips, 3¾ ips, 1½ ips

**TAPE TRANSPORT:** single hysteresis synchronous motor

**SIGNAL-TO-NOISE RATIO:** 55 db

**FREQUENCY RESPONSE (overall):**  
20-20,000 Hz (40-15K Hz ±3 db) @ 7½ ips  
20-14,000 Hz (80-10K Hz ±4 db) @ 3¾ ips

**FLUTTER/WOW:** less than 0.12% @ 7½ ips  
(unweighted NAB) less than 0.19% @ 3¾ ips

**SPEED ACCURACY:** 7½ ips ±1%

**EQUALIZATION:** separate NAB for 7½ ips, 3¾ ips, and 1½ ips automatically selected by speed change

**BIAS OSCILLATOR FREQUENCY:** 95K Hz

**INPUTS:** 2 line (high impedance); 2 mike (high impedance)

**OUTPUTS:** 2 tape out (high impedance); 2 tape/source (high impedance); 8 ohm headphone

**PRE-AMP OUTPUT LEVEL:** .78V

**POWER CONSUMPTION:** 75 WATTS

**OVERALL SIZE:** 16½" x 15¾" x 8½"

**WEIGHT:** 23 LBS.

# AMPEX

the sound idea people