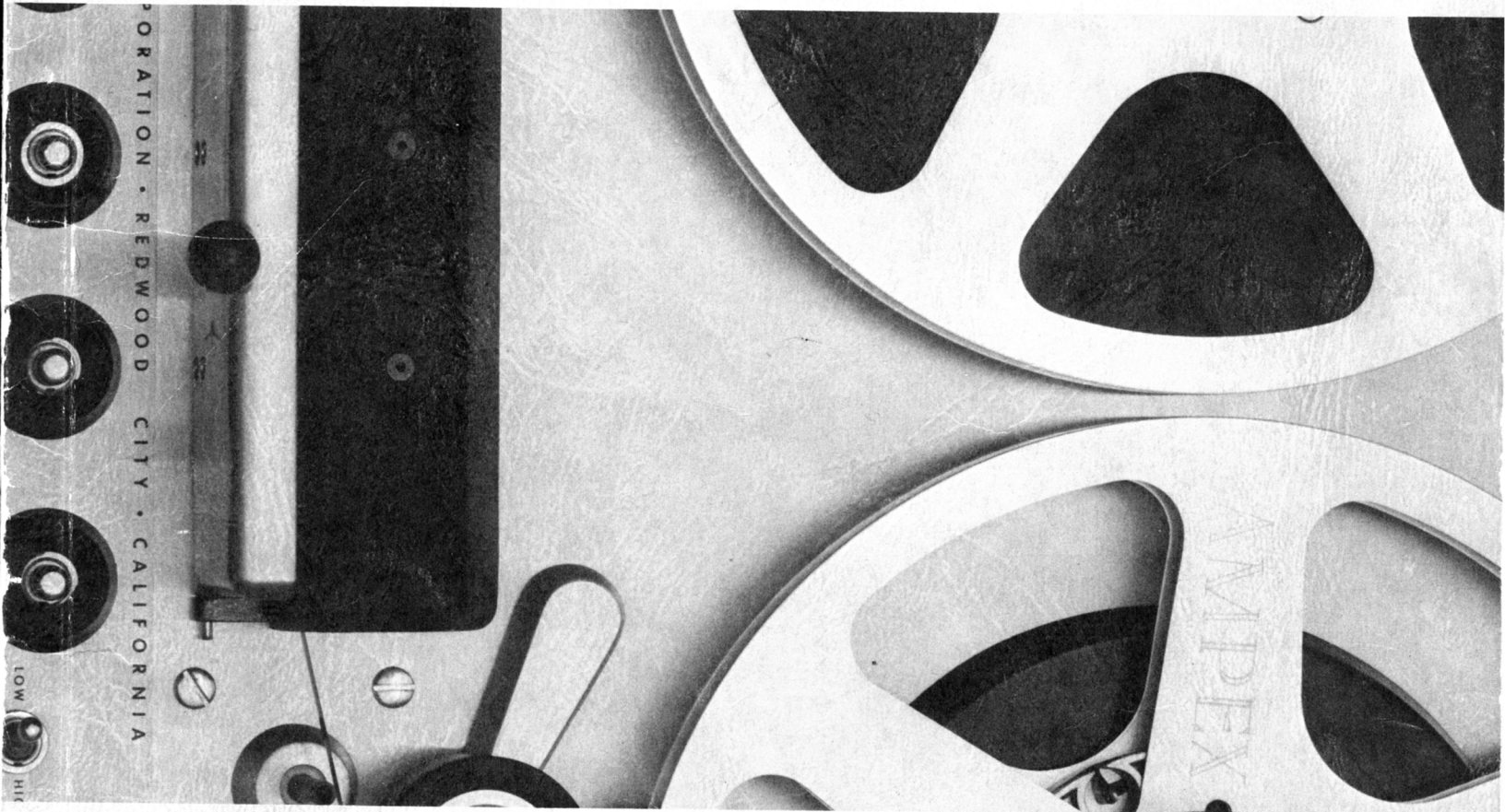


TM 2004

AMPEX SERIES

# 352

MAGNETIC TAPE  
REPRODUCER



352  
MONAURAL  
REPRODUCER

352-2 TWO CHANNEL  
STEREOPHONIC  
REPRODUCER

# **AMPEX SERIES 352 MAGNETIC TAPE REPRODUCER**

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**352 monaural reproducer**

**352-2 two channel stereophonic reproducer**

**november 1959**

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# DESCRIPTION AND PERFORMANCE CHARACTERISTICS

## GENERAL

The Ampex Series 352 and 352-2 Tape Reproducers are versions of the Model 350 equipment, featuring monaural (full track or half-track) or 2-channel stereophonic reproduction from pre-recorded 1/4-inch magnetic tape. A tape speed pair of 7 1/2 and 15 inches per second (ips) is standard with all Model 352 and 352-2 equipment. (Models operating at tape speeds of 3 3/4 and 7 1/2 inches per second may be obtained on special order.) This equipment is furnished in either console or rack mounted styles for the monaural machines; stereophonic equipment is provided only in the rack mounted version. Customers supply racks for mounting. In the console model, the tape transport mechanism, reproduce amplifier, power panel, and cabinet are shipped as individual items with all hardware for assembly included.

Reproduce head configurations include full track, half-track or two-track stereophonic assemblies. For further information on magnetic heads refer to Section 6.

Complete monaural equipment comprises a tape transport mechanism, a reproduce amplifier, and a power panel. Stereophonic reproducers have an additional reproduce amplifier.

## PERFORMANCE CHARACTERISTICS

|                                                                             |                                                                                                                                                                                                                                                                     |                                                    |   |                                                            |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---|------------------------------------------------------------|
| <i>Tape Speeds</i>                                                          | 7½ and 15 inches per second (ips).                                                                                                                                                                                                                                  |                                                    |   |                                                            |
|                                                                             | <i>Speed (ips)</i>                                                                                                                                                                                                                                                  | <i>Response</i>                                    |   |                                                            |
|                                                                             | 7½                                                                                                                                                                                                                                                                  | ± 2 db 40 to 10,000 cps                            |   |                                                            |
|                                                                             | 15                                                                                                                                                                                                                                                                  | ± 4 db 30 to 15,000 cps<br>± 2 db 30 to 15,000 cps |   |                                                            |
| <i>Signal-to-Noise Ratio</i>                                                | At either tape speed (7½ or 15 ips):                                                                                                                                                                                                                                |                                                    |   |                                                            |
|                                                                             | 60 db for full track reproducer.                                                                                                                                                                                                                                    |                                                    |   |                                                            |
|                                                                             | 55 db for half-track or stereophonic reproducer.                                                                                                                                                                                                                    |                                                    |   |                                                            |
|                                                                             | This figure is referenced to a signal recorded at a nominal 3% rms distortion level. These levels may be determined by a professional quality Ampex alignment tape.                                                                                                 |                                                    |   |                                                            |
| <i>Flutter and Wow</i>                                                      | <i>Speed (ips)</i>                                                                                                                                                                                                                                                  | <i>Flutter and Wow</i><br>(percentage rms)         |   |                                                            |
|                                                                             | 7½                                                                                                                                                                                                                                                                  | 0.20%                                              |   |                                                            |
|                                                                             | 15                                                                                                                                                                                                                                                                  | 0.15%                                              |   |                                                            |
|                                                                             | The flutter and wow measurements include all components between 0 and 300 cycles, using a meter calibrated to read the rms value of constant amplitude sine wave flutter.                                                                                           |                                                    |   |                                                            |
| <i>Output Level</i>                                                         | Plus 4 vu output into 600 ohms, balanced or unbalanced, from tapes recorded at normal level (point of approximately 1% distortion).                                                                                                                                 |                                                    |   |                                                            |
| <i>Reproducing Time</i><br>(with NAB 10½ inch reels<br>-2400 feet of tape), | <i>Speed (ips)</i>                                                                                                                                                                                                                                                  | <i>Half Track</i><br>(hrs) (min)                   |   | <i>Full Track</i><br><i>or Stereophonic</i><br>(hrs) (min) |
|                                                                             | 7½                                                                                                                                                                                                                                                                  | 2                                                  | 8 | 1                                                          |
|                                                                             | 15                                                                                                                                                                                                                                                                  | 1                                                  | 4 | 4<br>32                                                    |
| <i>Starting Time</i>                                                        | The tape is accelerated to full speed in less than 1/10 second.                                                                                                                                                                                                     |                                                    |   |                                                            |
| <i>Reproduce Timing Accuracy</i>                                            | ± 0.2% or 3.6 seconds in thirty-minute recording.                                                                                                                                                                                                                   |                                                    |   |                                                            |
| <i>Rewind Time</i>                                                          | Approximately one minute for a full 2,400 foot NAB reel.                                                                                                                                                                                                            |                                                    |   |                                                            |
| <i>Controls</i>                                                             | Tape motion is controlled by four pushbuttons: PLAY, STOP, FAST FORWARD, and REWIND. The tape speed is changed by a TAPE SPEED SWITCH. A REEL SIZE SWITCH provides proper tape tension for either the NAB 10½ inch reel or the smaller EIA 5 inch and 7 inch reels. |                                                    |   |                                                            |
| <i>Head</i>                                                                 | Full track, half-track or two channel stereophonic configuration.                                                                                                                                                                                                   |                                                    |   |                                                            |



*Power Requirements*

2.0 amperes at 117 volts, 50 or 60 cycles single channel equipment. 2.5 amperes at 117 volts, 50 or 60 cycles for two channel equipment. When the Ampex Model 375 Precision Frequency 60 cycle amplifier is used with the equipment, power requirements are greater by 2.5 amperes; single channel equipment will then total 4.5 amperes and two channel 5.0 amperes.

*Dimensions and Weight*

*Rack Mount*

(Standard 19 inch wide panel with commercial notching.)

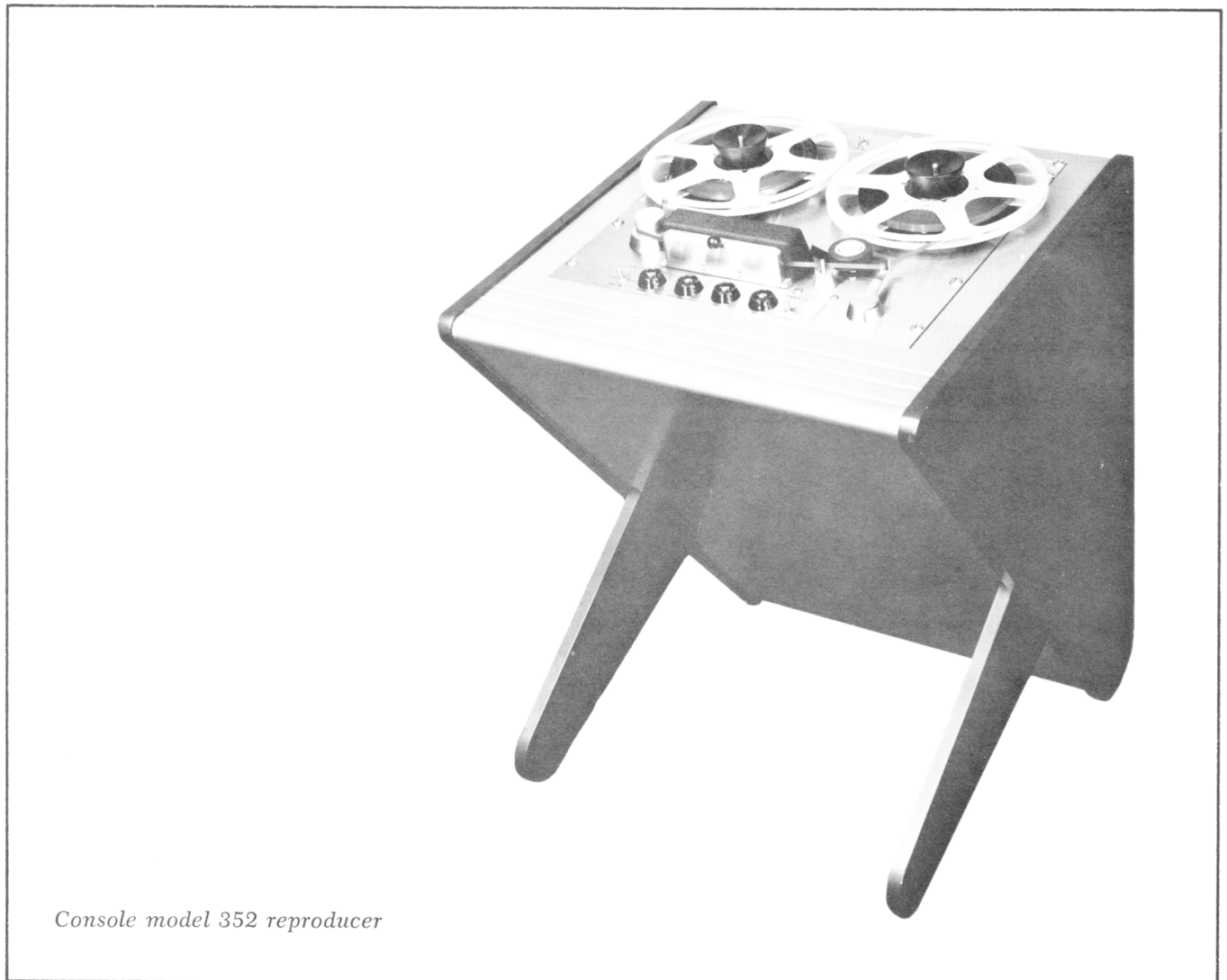
Tape Transport—15¾ inches of rack space, 50 pounds.

Reproduce Amplifier (each)—5¼ inches of rack space, 14 pounds.

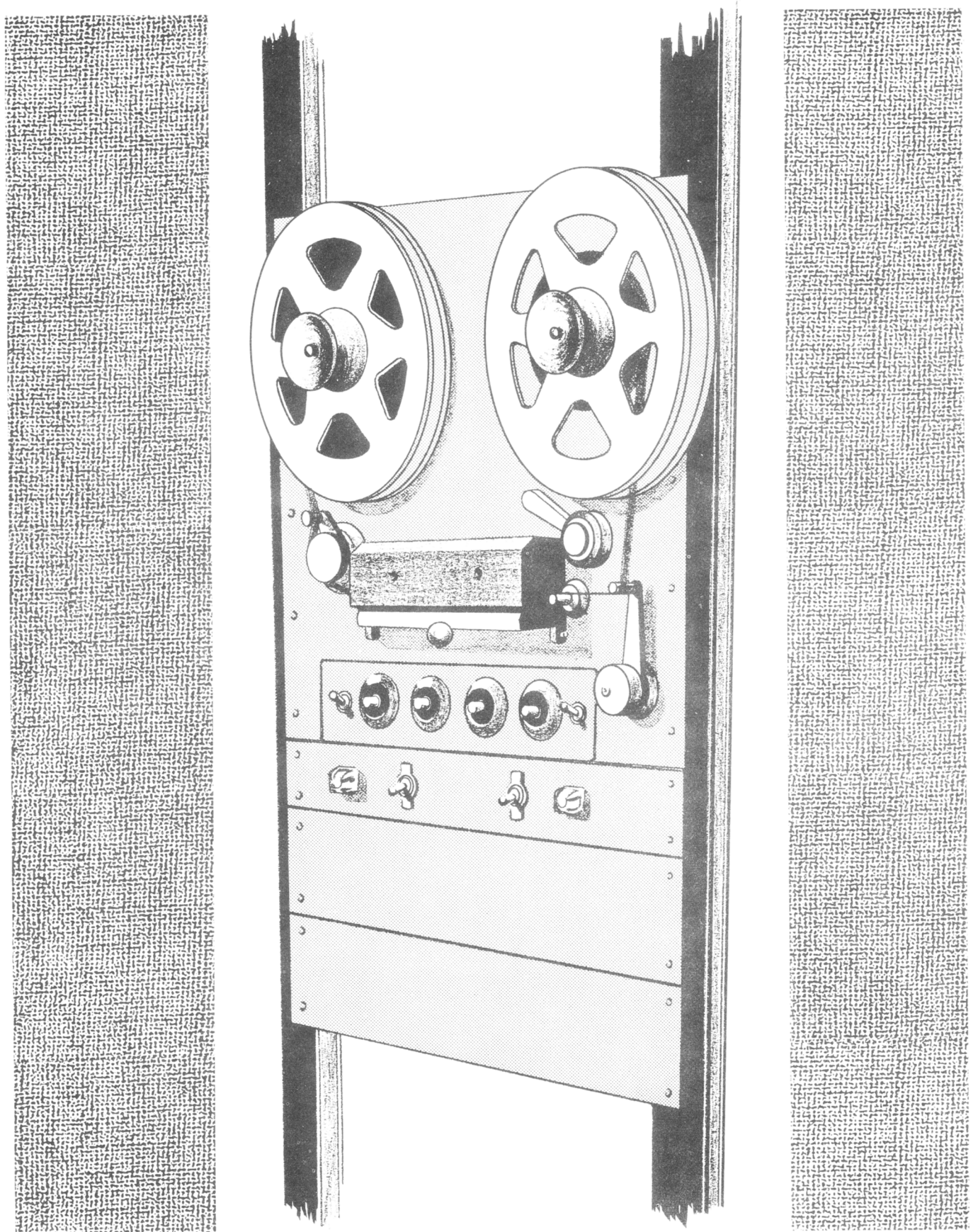
Power Panel—1¾ inches of rack space, 1 pound.

*Console*

|         |                              |
|---------|------------------------------|
| Height: | 35 inches                    |
| Depth:  | 24½ inches                   |
| Width:  | 24½ inches                   |
| Weight: | 109 pounds (44 pounds empty) |



*Console model 352 reproducer*



*Suggested rack layout*