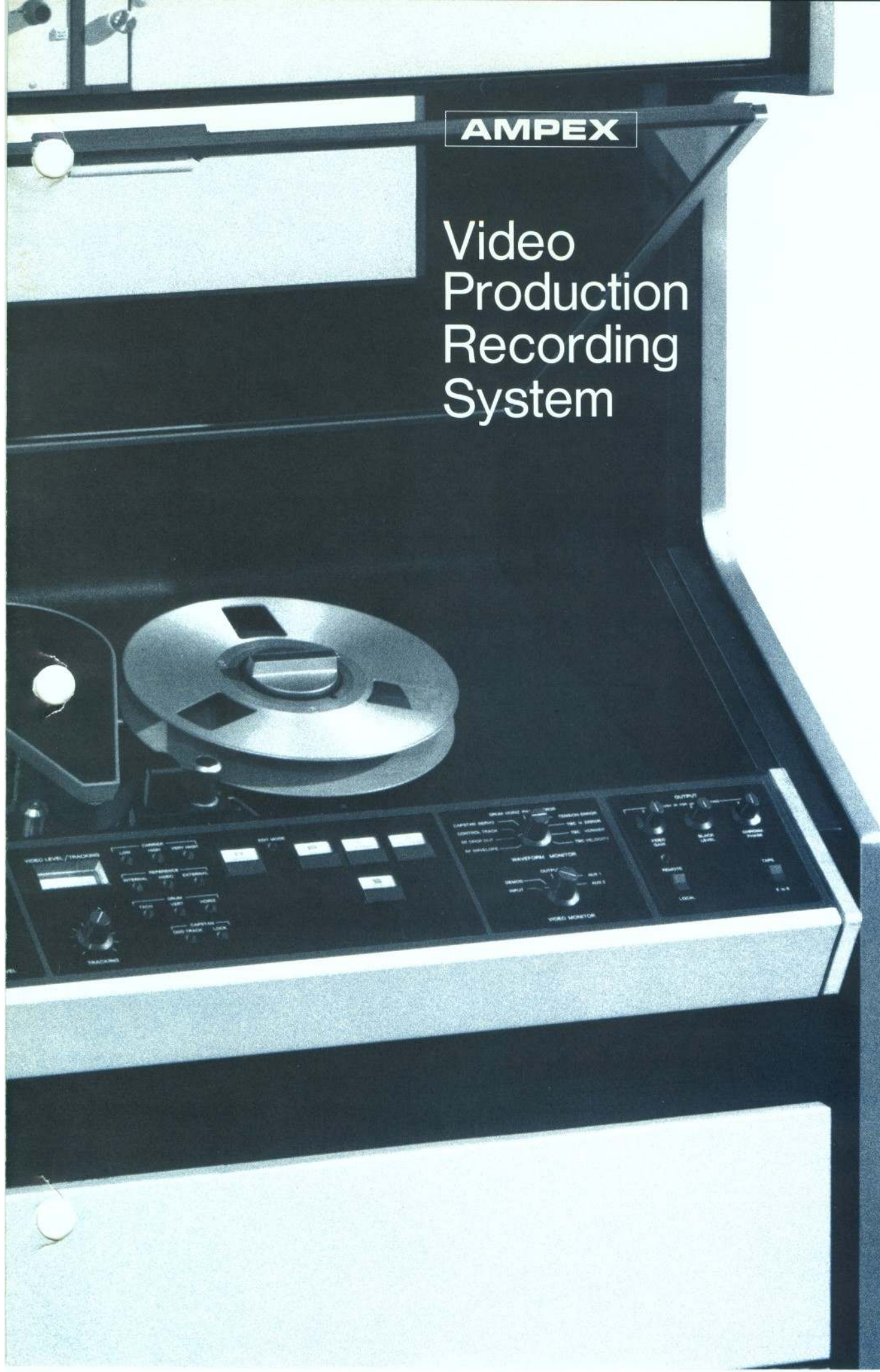


**AMPEX**

# Video Production Recording System

VPR-7950/7953



VPR-7950/7953



## for the ultimate in 1" videotape teleproduction capability

VIDEO RECORDER, TBC SYSTEM, AND MONITORING  
DISPLAYS IN A SINGLE CONSOLE

- Sets the industry's highest standards for 1" videotape teleproduction performance
- Incorporates the finest 1" videotape recorder and TBC system by Ampex
- Available with or without overhead monitoring
- Full professional editing capability
- Utmost reliability
- Engineered for easy control and maintenance

The world's finest 1" videotape teleproduction recorder and TBC system in a free-standing, fully equipped console. This is the system that sets the highest standards of the industry for 1" videotape recording—the VPR-7950/7953\*, by Ampex.

Here is a combination which affords the utmost in operating convenience, ease of maintenance, and reliability.

The system is available in two versions, each of which includes the Ampex VPR-7900/7903 video recorder, and the TBC-790/793\*\* Time Base Correction system as standard, integral equipment, with a single control panel. A lowboy version includes the recorder and TBC system only. A more versatile version adds an overhead monitoring bridge with a video waveform monitor, an optional color or monochrome picture monitor, and an optional vector display scope.

### PROFESSIONAL EDITING CAPABILITY

The VPR-7950/7953 permits full insert and assemble editing capability—an advantage made possible by the exclusive Ampex format. This format provides three independent recording tracks—one for video and two for audio—which may be recorded or rerecorded separately, or in any combination. Vertical interval switching produces a clean, professional splice with every edit. The three independent tracks afford an open-end versatility for special creative effects, as well as such practical advantages as the ability to record location sound, or cueing instructions, on the second audio track.

### THE VIDEOTAPE RECORDER

The recording unit is identical to the Ampex VPR-7900/7903, the most advanced 1" video recorder in the industry. Its exclusive features include the same VHC (Very High Carrier) Mode as that of high-performance quadruplex recorders, the Ampex recording format, a 12.5 Hz control track, a digital servo system, and

\*VPR-7950 designates the 525/60 system; VPR-7953 is the 625/50 version.

\*\*VPR-7900 and TBC-790 designate 525/60 models; VPR-7903 and TBC-793 are 625/50 units.



Video waveform and picture monitor selectors

a split capstan. Other important features include an internal reference system, Hot-Pressed Ferrite video head, flying erase head, vertical interval editing, and five printed circuit motors.

### TBC SYSTEM

The TBC system is standard equipment, and identical to the Ampex TBC-790/793. It corrects the total timing error of the recorder to produce the most stable signal ever achieved by a one-inch videotape teleproduction system. The corrected signal meets FCC/CCIR broadcast requirements, and may be used as a camera signal for fades, lap dissolves, special effects, dubs to other videotape recorders, or transfers to film. The high quality signal is exceptionally effective for multi-generation dubbing.

The TBC system reduces a monochrome output jitter to  $\pm 30$  nanoseconds, and color output jitter to  $\pm 2.5$  nanoseconds.

### MONITORING SYSTEM

Options for the monitoring system include: (1) a color monitor, video waveform monitor and vector scope display; (2) monochrome monitor with video waveform monitor or (3) monochrome monitor only.

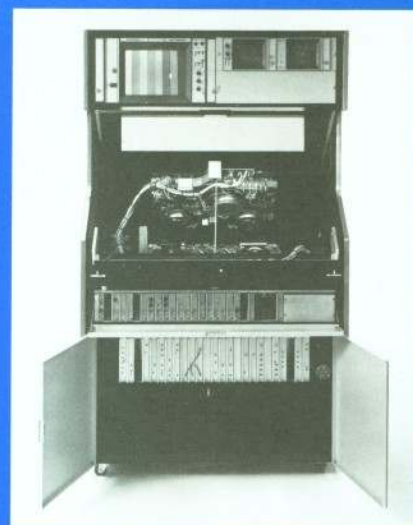
The monitoring units are recognized as the finest of their kind in the industry\*. The vector display monitor is custom-made for the VPR-7950/7953 system.

### THE CONSOLE

Ampex design and engineering pays off with ease of operation as well as maintenance, and increased reliability of individual elements because of proper mounting, and such elements as a plexiglass dust cover which protects the head assembly and tape transport during operation. A single control panel includes separate selector switches for video waveform monitor and picture monitor functions. These controls may be used either together or independently, thus permitting complete isolation of picture and video waveform monitoring—a desirable advantage in many applications. Controls also allow the operator to use the video waveform monitor as a substitute for an oscilloscope display to monitor various operational signals in the system, while monitoring the video signal at the same time.

In addition to the standard confidence lights of the VPR-7900/7903, the VPR-7950/7953 includes three extra groups: Record Reference Indicators, Drum Lock Modes, and Capstan Status Indicators.

\*Tektronix color monitor, vector display monitor, and waveform monitor.



Control panel may be flipped over and transport may be raised for easy maintenance. Recorder and TBC electronics are easily accessible below.



## ACCESSORIES

The capability of the VPR-7950/7953 can be improved by adding one or more of the following accessories:

### DIRECT COLOR SYSTEM

The color sensing module produces a signal of broadcast quality. Plug-in modules for PAL and SECAM standards are available.

### DROPOUT COMPENSATOR

The Dropout Compensator (DOC) eliminates the effects of dropouts in taped color video signals. The unit also functions with monochrome signals.

### VELOCITY COMPENSATOR

This unit corrects playback errors due to minute differences in mechanical tolerances between recorders, and further improves the capability of the system for producing high-quality color dubs through many generations.

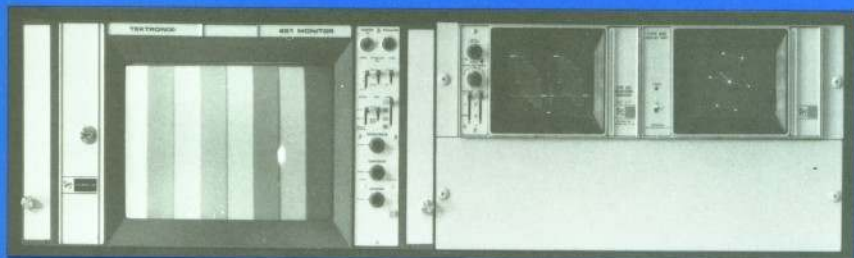
### TENSION MEMORY

This unit automatically compensates for any variation in tape tension between an original recording and subsequent editing. It thus further refines the editing capability of the system to the most critical degree possible by correcting for variations in tape tension due to temperature and humidity changes during storage.

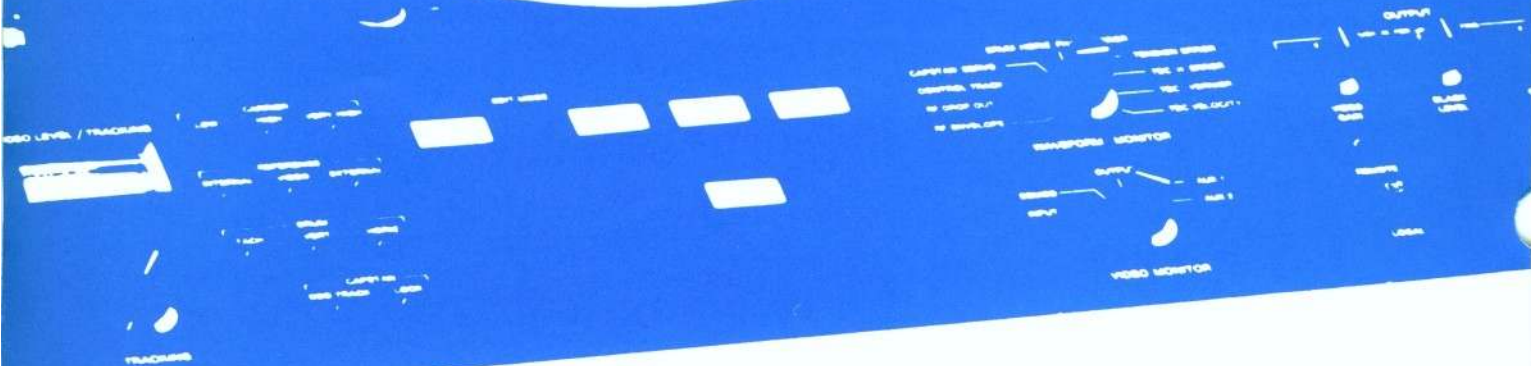
### REMOTE CONTROL

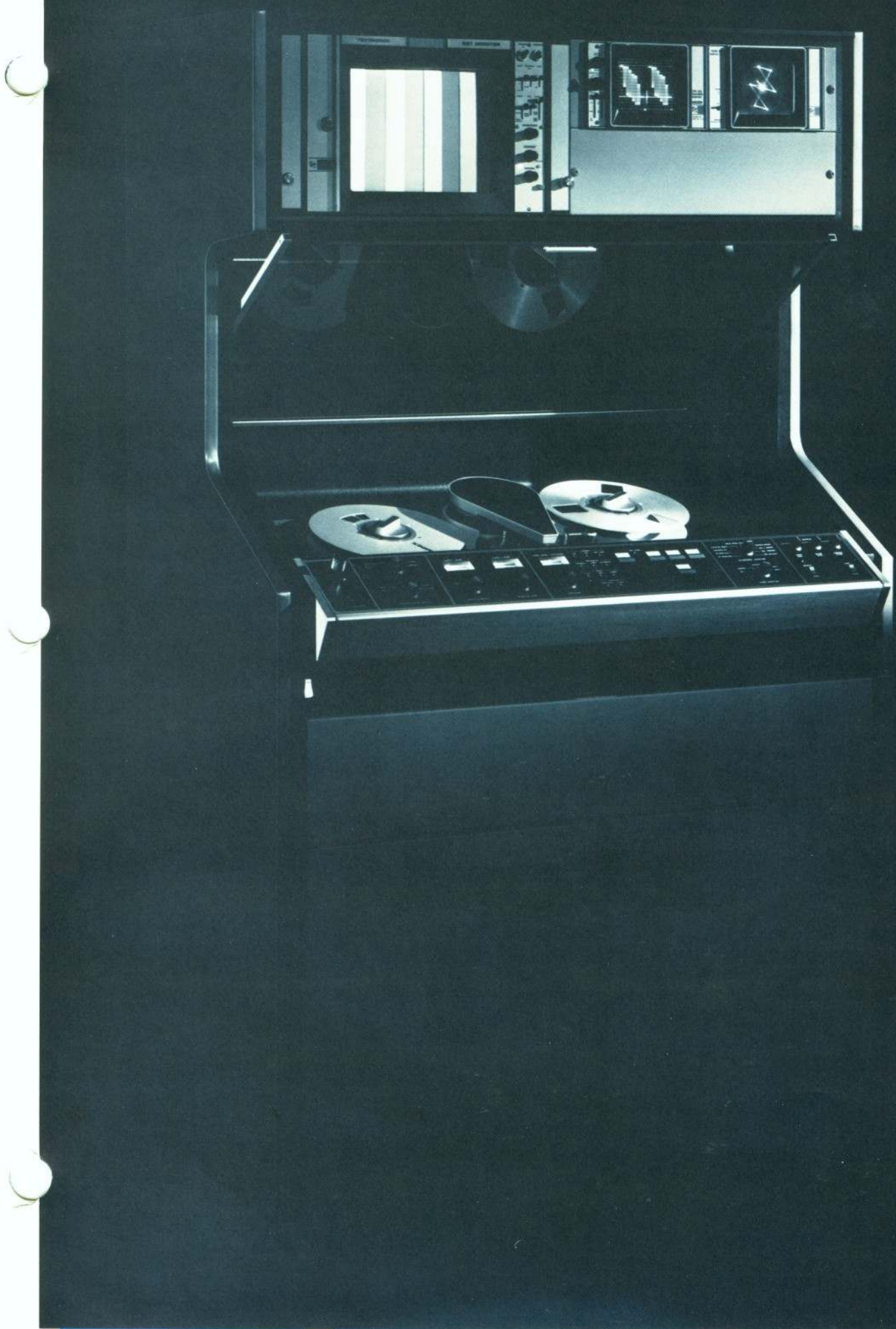
Full remote control is available for all transport functions.

Control panel



The system is available with or without picture and video waveform monitors, and a vector scope display.





## SPECIFICATIONS

## VPR-7950

## VPR-7953

### GENERAL

Tape Speed:	9.6 ips	9.45 ips
Video Writing Speed:	1000 ips	833 ips
Carrier Mode:	Very High — 7.06-10.0 MHz	Very High — 7.16-9.3 MHz
Input Power:	117 V or 234 V, 50/60 Hz, 15 amps @ 117 V	117 V or 234 V, 50/60 Hz, 7.5 amps @ 234 V
Size:		
Lowboy	48" high x 42" wide x 26" deep	123 cm high x 108 cm wide x 68 cm deep
With overhead monitoring	68" high x 42" wide x 26" deep	174 cm high x 108 cm wide x 68 cm deep
Weight:		
Lowboy	490 lb.	220 Kg.
With overhead monitoring	600 lb.	273 Kg.

### VIDEO

Bandwidth:	$\pm 1$ dB, 30 Hz to 4.2 MHz < -3 dB @ 5.0 MHz	$\pm 1$ dB, 25 Hz to 5 MHz < -3 dB @ 5.2 MHz
Signal-to-Noise Ratio:	-45 dB p-p video to rms noise -48 dB p-p signal to rms noise	-38 dB p-p video to rms noise -41 dB p-p signal to rms noise
Differential Gain:	< 6%	< 6%
Differential Phase:	< 6°	< 6°
Horizontal and Vertical Tilt:	5% Max.	5% Max.
Transient Response:	2%, 2T pulse	2%, 2T pulse
Moire: (75% amplitude) (color bars)	-35 dB or greater	-30 dB or greater
Lock-up Time:	8 sec max. (H-Lock)	10 sec max. (H-Lock)
Time Base Stability:	$\pm 2.5$ nsec color	$\pm 2.5$ nsec color

### AUDIO

Frequency Response:		
Audio 1:	+2, -3 dB, 50 Hz to 15 kHz	+2, -3 dB, 50 Hz to 15 kHz
Audio 2:	$\pm 3$ dB, 50 Hz to 12 kHz	$\pm 3$ dB, 50 Hz to 12 kHz
Signal-to-Noise Ratio:		
Audio 1:	-50 dB @ 3%, 3rd Harmonic Distortion	-50 dB @ 3%, 3rd Harmonic Distortion
Audio 2:	-40 dB @ 3%, 3rd Harmonic Distortion	-40 dB @ 3%, 3rd Harmonic Distortion
Wow & Flutter:	.15%	.15%

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