

AMPEX

VR-660C Portable Color Videotape Television Recorder



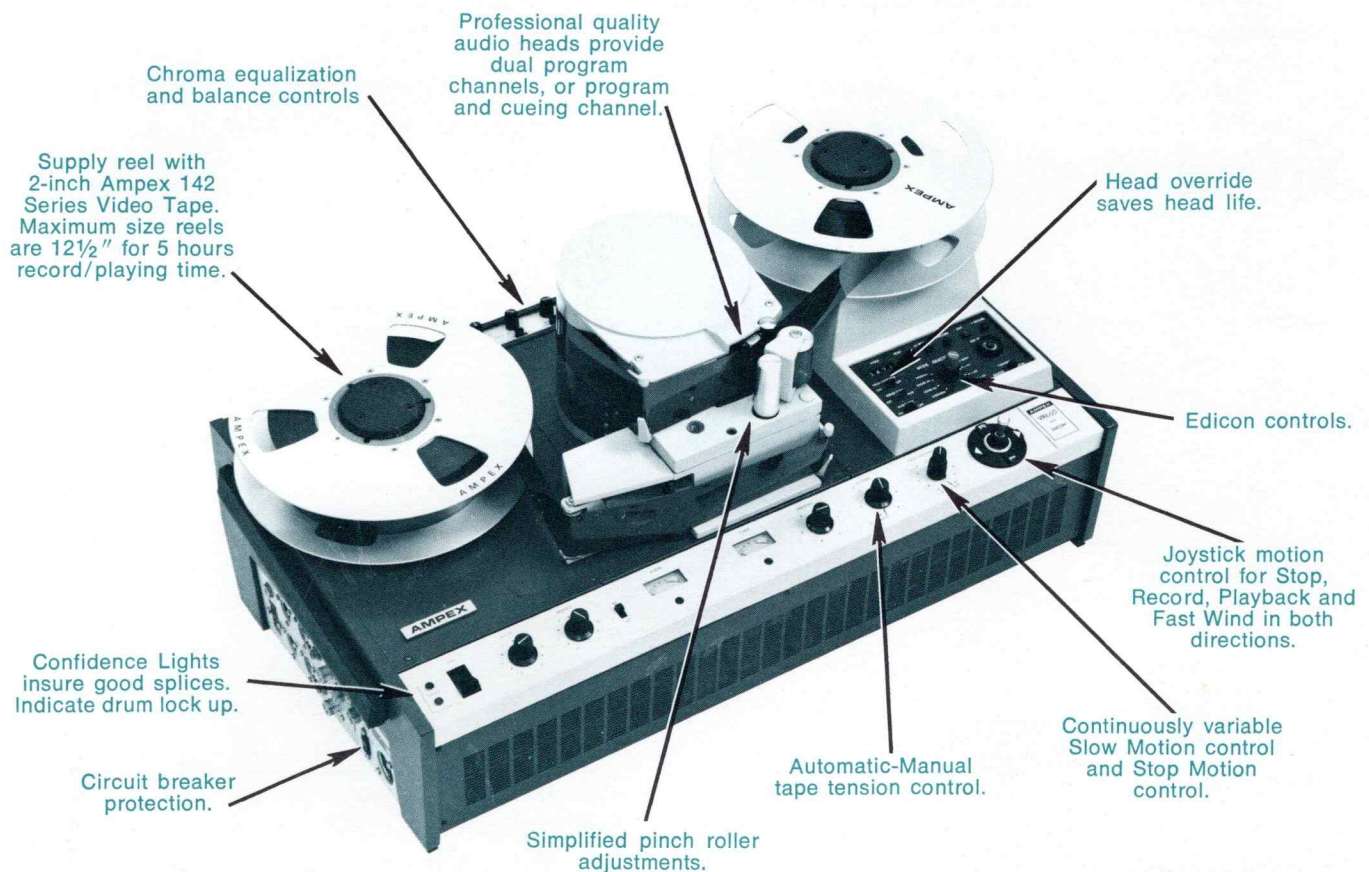
For Closed-Circuit Production

- NTSC-type color; full 4.2 mHz bandwidth
- 5 HOUR record/play time on one 12½-inch reel
- MEETS RS-170 specification for monochrome broadcast
- 2 HEADS for non-interrupted signal, continuous RF envelope
- ELECTRONIC EDITING. Built-in Edicon provides maximum editing flexibility and convenience
- NO SPECIAL SET UP. 100% interchangeable with VR-660, VR-660B and VR-1560 models in low carrier mode

NTSC-type color capability, high quality monochrome and production versatility are now within your budget with the new Ampex VR-660C. Whether

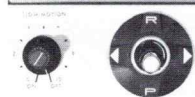
you are a commercial or educational user, the high quality of the VR-660C and its versatile performance features offer unequaled flexibility and more dollar value than any other unit of its type you can buy! And, users of Ampex VR-1560, VR-660 and VR-660B video tape recorders can easily add color capability by installing the VR-660C modification kit and using the Colorcon color corrector accessory.

Lively, interesting and fast-moving *master tapes* of high technical quality can be generated, up to five hours, in length, then dubbed onto a series of duplicates for day-to-day programming playback. The VR-660C can become the nucleus of your closed-circuit system in the taping, editing and assembly of new program material . . . in the revision of old program material for total uninterrupted programs.



Edicon

Electronic editing, furnished as standard on all VR-660C's, allows you to make fast, fool-proof corrections (video, audio or both) in new videotaped programs—or to modify and revise old ones. With the Edicon, you can also produce original videotapes in scene-by-scene fashion . . . with edited results similar to movies or audio tape. Included in the Edicon are: a HEAD OVERRIDE switch that



allows the head drum to stop while the rest of the recorder is in a "stand-by" condition (this control does *not* override normal joystick operations); and AUDIO EDIT switch that is especially useful for adding music or narrative to

previously recorded lip sync material; a SERVO SYNC switch to permit either external or local sync sources; REMOTE provision for operation of record modes at a distance. The simplicity of Edicon controls and procedures permits easy "electronic editing" with very little operator training.

Color capability with the colorcon

Versatility of the new VR-660C allows nearly unlimited applications with moderate equipment outlay—either in CCTV monochrome and color or monochrome broadcast. The recorder offers a complete color package with electronic editing. With its unique combination of features, the VR-660C can be used to *produce* high quality programs or *reproduce* these programs directly into the closed-circuit system. The recorder can also play back directly into a standard color monitor or color distribution system through the Colorcon accessory.

The Colorcon accessory is a separate color corrector that corrects the errors in the NTSC-type color signal from the VR-660C by using the burst lock correction system. Completely independent from the VR-660C, the Colorcon need not accompany the recorder on recording sessions, thereby reducing weight, volume and complexity.

The VR-660C is capable of recording and reproducing superb NTSC-type color with Colorcon—plus improved broadcast-compatible monochrome pictures when recorded on the high carrier setting. Switchable high and low carrier standards allow complete record/reproduce compatibility with unmodified equipment. Extended bandwidth (to 4.2 MHz) and improved signal-to-noise are due to the newly developed high carrier signal system and a dual rotary transformer coupling. Techniques used in the new signal system are based on Ampex's EMMY* award-winning technology, as incorporated in the VR-2000B and VR-1200B Series videotape recorders. Output from the VR-660C helical-scan color system is easily patched into normal closed-circuit switching and RF distribution circuits or color monitors.

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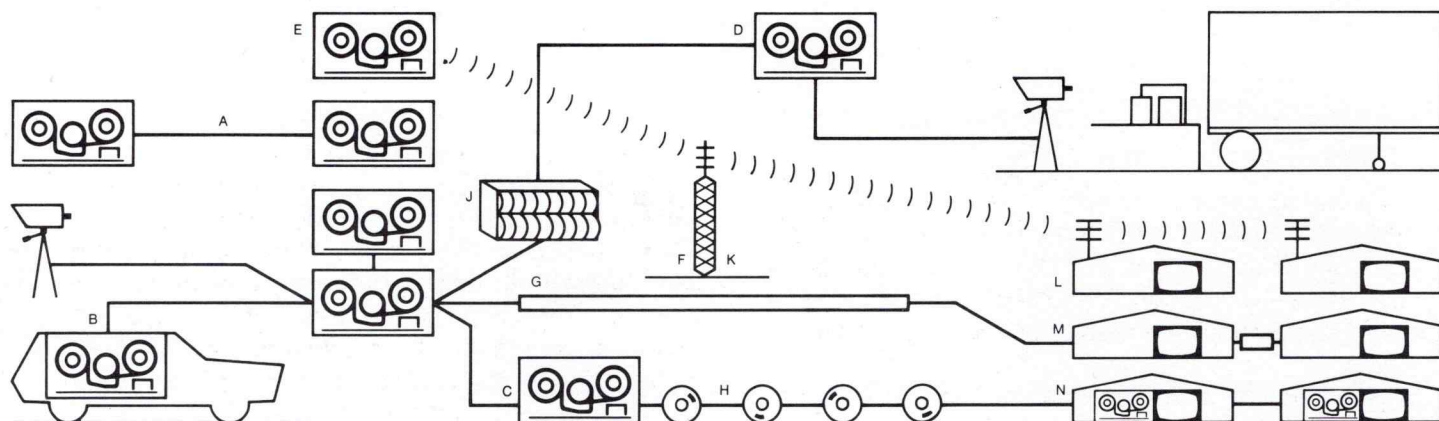
features

- Monochrome can be aired directly . . . meets FCC RS-170 standards.
- Designed for heavy-duty mobile, remote or studio use in CCTV or surveillance.
- STOP MOTION and SLOW MOTION allows detailed study of pictures or special effects.
- TWO AUDIO CHANNELS, one for program, one for cueing/editing
- Provides NTSC-type color recording capability with extended bandwidth to 4.2 MHz.
- Longest record/play time in the industry; up to *five continuous hours per 12½" reel*.
- Absolute tape interchangeability with VR-660, VR-660B, and VR-1560 Ampex helical-scan recorders.
- Tapes are easily dubbed to any videotape recording format.
- Standard equipment Edicon electronic editor permits a high degree of editing flexibility.
- Small and light weight; it can be easily transported.
- Simplest operation of all professional quality recorders.

VR-660C in typical applications

The VR-660C forms a nucleus around which the well-planned CCTV educational or training system can be built. It provides a *master studio recorder* and *master remote recorder* on which original program material can be videotaped for storage of all video signals; it also doubles as a playback unit.

The VR-660C is ideal for surveillance video taping such as at freight loading dock monitoring or similar applications requiring dependability and long recording time—up to 5 continuous hours on a 12½ inch reel. The long record time offers the broadcaster economical logging; *proof in video format* of what went on the air.



ORIGINATION

- A - Pair of VR-660C's for master recording, back-and-forth dubbing, playback.
- B - VR-660C removed temporarily to car or truck for remote recording or playback.
- C - Tapes duplicated for distribution and playback on VR-660C or dubbed to low cost units such as the VR-5100.

- D - VR-660C monitoring work-site in surveillance application.
- E - VR-660C logging broadcast station off the air.

DISTRIBUTION

- F - UHF Transmission, monochrome
- G - Cable, monochrome/color
- H - Video Tape Distribution, monochrome/color

- J - Storage monochrome/color
- K - UHF Transmission, monochrome

DISPLAY

- L - Tuner and monitor system
- M - Cable and monitor system
- N - Video tape playback facilities and monitor system

specifications

Controls: Record, Playback, Fast Forward, Fast Rewind and Stop in single joystick control; Video Levels, Editing Function Controls; Slow Motion; Tracking; Tension; Carrier.

Tape Reel Rotation Counter: Provides reference for any desired segment of the tape.

Dimensions: 29½" L x 17½" D x 14½" H.

Weight: 100 lbs.

Power Requirements: 105/130 volts without adjustment. 200/250 volts after change of single tap on power transformer.

Power: 400 watts maximum.

Tape Speed: 3.7 inches per second.

Maximum Record/Playback Time: 5 hours.

Maximum Reel Size: 12½ inches.

Rewind Time: 80 seconds maximum for 1 hour program on 8" reel.

Fast/Play Ratio: 60:1.

Still Frame: Dependent upon tape used.

VIDEO

	Low Carrier	High Carrier
Frequency Response:	±3 dB 10 Hz to 3 MHz	+2-3, 10 Hz to 4.2 MHz
Signal-to-Noise Ratio: (peak-to-peak video to RMS noise)	40 dB or better on interchanging tapes	42 dB weighted
Differential Phase:	—	5° maximum
Differential Gain:	—	10% maximum
Horizontal Resolution:	240 lines	330 lines

Input: 75 ohms unbalanced, terminated internally. Composite signal, sync negative. Either standard EIA or industrial sync, interlaced or non-interlaced may be used. Any number of scanning lines at 60 fields/second can be accommodated. Video input is adjustable. Minimum input level is 0.5 volts of peak-to-peak composite video.

Output: 75 ohms unbalanced, 1 volt ±10% peak-to-peak composite.

Horizontal Stability: Within U.S.A. FCC Standards of Good Engineering Practice, III, A, 3687a(8).

AUDIO

Frequency Response: ±3 dB from 50 cps to 9 Kc.

Signal-to-Noise Ratio: 45 dB below 3% distortion level at 400 cps.

Inputs: (2) 600 ohms unbalanced line at -10 dBm minimum. Terminated internally. Microphone inputs, nominal ½ millivolt across 50,000 ohms (typical high impedance microphone).

Output: 600 ohms, balanced or unbalanced, at +8 dBm nominal, +16 dBm maximum.

Recording Medium: 2" wide Ampex Video Tape, Series 142.

These specifications supersede all previous specifications, stated or implied. Term financing and leasing available in the United States on all equipment and systems.

Warranty: Recorders, one full year; video recording head, 250 hours per set when Ampex Series 142 Video Tape is used.

AMPEX

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