

# CVC-50

## BETACAM CCD CAMERA

### General:

The CVC-50 is a rugged, lightweight camera designed to deliver superior picture quality for ENG or EFP, particularly under adverse conditions.

The camera is dust and moisture resistant and features a durable, die-cast magnesium alloy frame.

The solid-state CCD sensors are bonded directly to the prism block, forming a shock resistant and permanently aligned assembly unaffected by outside magnetic or electrical interference.

The camera's CCD technology eliminates lag, burn-in and microphonic noise. And CCD imaging geometry eliminates the need for registration adjustment.

High-sensitivity CCD sensors permit shooting in low-light locations, while a switchable Dynamic Contrast Control compresses high light signals in high-contrast situations.

Newly designed *Frame Interline Transfer* CCD sensors reduce vertical streaking to such a degree that it has been virtually eliminated.

A new *speed selectable* electronic shutter provides exceptionally clear pictures of fast-moving subjects when played back in still or slow motion on a recorder.

For additional comfort and convenience, the CVC-50 has an adjustable chest brace and a redesigned viewfinder.



## Features:

The CVC-50 has a long list of standard features designed for convenience and creative control:

- ▣ Electronic shutter with seven selectable speeds down to 1/2000 sec in NTSC or 1/1600 sec in PAL
- ▣ Automatic iris control
- ▣ Automatic white/black balance
- ▣ Four position filter wheel
- ▣ 2 white balance memories for each filter with 3200° preset
- ▣ High resolution, adjustable viewfinder; can be shifted right, left, forward and back
- ▣ Gen-lock input via adaptor or VTR
- ▣ Full remote control capability from optional adaptor and CCU
- ▣ Microphone
- ▣ Automatic white level compression
- ▣ Color bar generator
- ▣ Adjustable chest brace

## Viewfinder displays provide:

- ☐ Record status
- ☐ Tape remaining
- ☐ Filter position
- ☐ Video level
- ☐ Audio level and control (Ch. 1)
- ☐ Gain position
- ☐ White/black balance status
- ☐ Scene color temperature
- ☐ Battery condition
- ☐ Shutter speed

## CVC-50 Camera Specifications

<b>CAMERA</b>	
Imaging device format	3-chip-2/3" CCD (New FIT type)
Imaging array density	510(H) × 492(V) NTSC; 500(H) × 582(V) PAL
Optical system	F1.4 prism system
Built-in filters	1:3200°K, 2:5600°K + 1/4ND, 3:5600°K, 4:5600°K + 1/16 ND
Gain select	<0/ + 9/ + 18 dB ( + 24 dB available)
Lens mount	Special bayonet mount
Video output	1.0V p-p, sync negative, 75 Ohms
	2 outputs: TEST OUT, VTR connector
Horizontal resolution	550 TV lines (Center)
Registration	0.05% all zones (Excluding lens error)
Geometric distortion	Less than 1%
Sensitivity	2000 lux at F5.6, 90% reflectance (NTSC) (Shutter off)
	2000 lux at F5.0, 90% reflectance (PAL) (Shutter off)
Minimum illumination	NTSC = 15 lux; PAL = 20 lux (with f1.4 lens, + 18 dB gain)
S/N ratio	NTSC: 60 dB, PAL: 57 dB
Smear (Y)	Less than 0.0002% (Shutter off)
Electronic shutter	NTSC: 1/100, 1/125, 1/175, 1/250, 1/500, 1/1000, 1/2000 (sec.)
	PAL: 1/60, 1/100, 1/150, 1/200, 1/400, 1/800, 1/1600 (sec.)
Connectors	VTR: 50-pin; TEST OUT: BNC; LENS: 12-pin; Remote: 6-pin
<b>VIEWFINDER</b>	
Picture tube	1.5 monochrome, BRIGHT control, CONTR control, TALLY switch, AUDIO control, ZEBRA on/off switch
Resolution	500 TV lines
<b>REMOTE CONTROL</b>	
Functions	With optional CA-3A and RM-P3: Gain, Output Mode, Iris Auto/Man., Iris, Master Pedestal, R/B Pedestal, R/B Levels, W/B Balance, Lock With optional CA-50 and CCU-350: Gain, Output Mode, Iris Auto/Man., Iris, Master Black, Master Gamma*, R/B Black, R/B Levels, Black Balance, White Balance, Master Knee* On/Off, Master Knee*, Detail, Cable Comp., Panel Active, Headset Level, Camera Call, Shutter On/Off, Shutter Speed, SCH Phase, H Phase, Intercom Mode
Distance	RM-P3: 100 Meters (10M cable supplied) CCU-350: 300 Meters (25, 50, 100 M cables available)
<b>GENERAL</b>	
Power requirements	DC 12V (10.5V to 17V)
Power consumption	11.5W
Warm-up time	3.5 seconds from pre-heat condition
Operating temperature	- 20°C to + 45°C ( - 4°F to 113°F)
Storage temperature	- 20°C to + 50°C ( - 4°F to 122°F)
Microphone	Sharp-directional
Supplied accessories	Extension board, tripod adaptor, chest brace, extractor, rain cover, 50-pin cap, mount cap, carrying handle, op./maint. manual
Dimensions	236mm (9.2 in)H × 102mm (4 in)W × 478mm (18.8 in)L
Weight	3.4 kg (7 lb, 8 oz) with viewfinder

Ampex reserves the right to make product specification changes at any time without notice.

\*BKP-501 Kit required for remote control of master and red and blue gamma, auto knee on/off and knee point.

## Accessories:

- ☐ CVR-1A or CVR-5 (SP) on-board VTRs
- ☐ CA-3A stand-alone adaptor enables the CVC-50 to feed component *or* composite video directly to a remote VTR
- ☐ RM-P3 Remote Control Unit provides basic remote control functions
- ☐ BVF-50 5" B&W viewfinder
- ☐ CCU-350 camera control unit controls all functions of the CVC-50 including electronic shutter speed
- ☐ CA-50 camera adaptor for component/composite signals to VTR, or Remote Control via CCU-350

## Applications:

The improved picture dynamics and speed selectable shutter make the CVC-50 ideal for high quality ENG, EFP and sports.

Our Betacam *Systems and Accessories* guide has a complete list of products as well as systems diagrams and other helpful information.