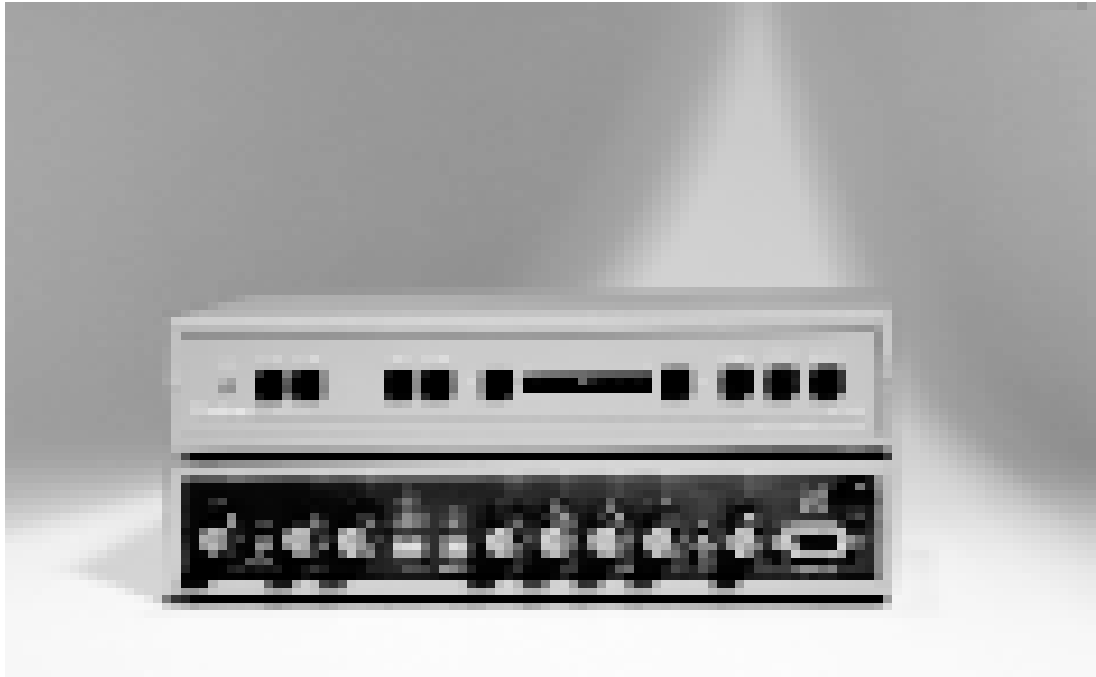


Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION



CD 400 - DIGITAL QUAD-STANDARD DECODER

True Digital Decoding

NTSC Compatible

PAL Compatible

SECAM Compatible

RGBS or RGBHV Outputs

Hue Control

Detail/Sharpness Control

Gamma Correction

Comb Filter

Remote Input Switchable

Auto Switchable

Professional Quality

RS-170 Standard



I NTRODUCTION

The Extron CD 400 is a high quality digital (with comb filter and notch filter), quad-standard video decoder which is used to separate video into Red, Green, Blue and Sync components. Using digital technology, a quality RGB output can be attained from NTSC, S-Video (S-VHS), PAL and SECAM video formats. This decoding will enable the projection device (projector or monitor) to display a higher quality image than that of normal "standard quality" video. Other applications include displaying video signals on RGB monitors and the routing of video through RGB switching and distribution systems.

A PPLICATION

Numerous features on the CD 400 combine to make it a very valuable and versatile component within any system. First, sync may be output as either composite or separate horizontal and vertical. Second, hue, detail and Gamma controls can be adjusted to obtain maximum picture quality and can be reset back to factory default with the push of a button. Dual input connectors are provided for S-Video and composite video, with an auto detect circuit to automatically switch to whichever input has an active signal, and this input selection can also be made via a back panel remote control port or front panel buttons. Backed by Extron's reknown quality, the CD 400 has proven to be the best value performance-driven decoders on the market.

F EATURES

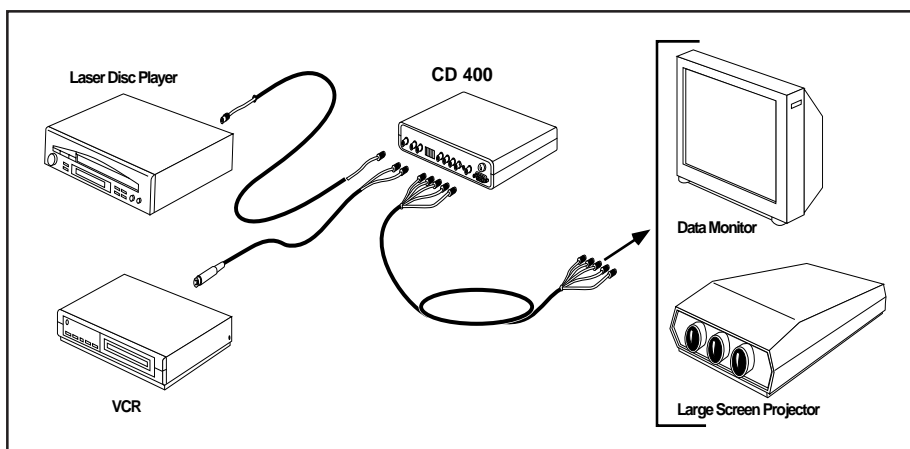
- **Dual Input Design** - Allows separate inputs for both video (NTSC, PAL, SECAM) as well as S-Video (S-VHS)—see standards listing in specifications section. Input selection is either automatic or user selectable by front panel buttons. Input connectors are a single BNC for video and two BNC's (Y & C) for S-Video.
- **Remote Control Input Selection** - Front panel input selection between video and S-Video is provided as well as a contact closure remote control connector on the rear panel. When utilizing the remote control port, the front panel buttons may also be used to select inputs.
- **Hue and Detail Adjustments** - These adjustments are provided to allow the user to achieve optimum picture quality. Hue is identical to the tint control found on most television sets to allow adjustment of color while Detail is similar to a professional quality sharpness control. An LED scale bar is provided to display minimum and maximum settings on each control.
- **RGB and Sync Output Options** - Red, Green and Blue video on BNC connectors as well as two sync options are available on the rear panel. Sync can be output as either separate horizontal and vertical or composite. A toggle switch is located on the rear panel to select the desired sync output option.
- **Gamma Correction** - A switch is located on the front panel to gamma correct any input video signal. This adjustment allows the user the option of correcting the gamma with two levels as needed. Since most video equipment already has built in gamma correction, this control should be left in the "off" position unless needed, as gamma correcting

F EATURES (Continued)

- a video signal more than once may cause signal distortion.
- **Automatic Input Selection** - The CD 400 will automatically detect which input (video or S-Video) is active and automatically switch to that input. This feature can be overridden via a switch on the rear panel, thus requiring front panel input selection or input selection through an external remote control system.
- **Factory Presets and Memory** - All available adjustments are preset at the factory for average optimum setup, for each input. These adjustments (hue, detail, gamma) can also be adjusted by the user. A button labeled "Preset" is located on the front panel, which has an LED to indicated status. When this button is off, settings can be made by the user and stored into memory by depressing the "memory" button. Each input has its own settings, and factory default settings can be restored by activating the "Preset" button.
- **Comb and Notch Filter** - A back panel switch allows the user to select a professional comb filter mode or a consumer notch filter mode for decoding.

S PECIFICATIONS

Input Signal:	
(Color) Standard:	NTSC (3.58 & 4.43), PAL (PAL BIG, PAL N, PAL M & PAL 4.43), SECAM
Signal Format:	Composite, Y/C (S-VHS, Hi-8)
Level:	1v p-p
Coupling:	AC, ± 2V DC
Termination:	75 Ohms
Output Signal:	
RGB:	Level - .7 volts p-p
	Coupling - DC
	Output Impedance - 75 Ohm
Sync:	Separate H&V (positive going)
	Composite H/V (negative going)
	Dip Switch Selectable
	Level - TTL (CMOS Driver)
	Recommended load: ≥ 800 Ohms (to ground)
Luminance Bandwidth:	5 MHz
Differential Gain:	1.5%
Differential Phase:	1.5 degrees
Connectors:	BNC
Power Consumption:	6 Watts nominal
Dimensions:	9.75" W x 7" D x 1.75" H
	24.7cm x 17.8cm x 4.4cm (W x D x H)
Enclosure:	High-impact plastic
Shipping Weight:	2 lb.; 0.9 kg.
Warranty:	2 years parts and labor
Part #:	110 Volt: 60-145-01
	220 Volt: 60-145-02



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