

## PRODUCT DATA SHEET



The TCR-495 provides a large, easy to read visual display of IRIG-B, IRIG-CS3, MILA/KSC, CCS, FDME/BUDX, and IRIG-CS5 time and countdown codes.

The TCR-495 has been designed to automatically select and display IRIG-B, KSC/MILA, IRIG-CS3 and FDME/BUDX analog time codes. The CCS countdown code can be manual selected. It also displays IRIG CS-5246, CS-5247, and CS-5248 countdown formats. Two digital inputs are provided. One for RS-232 voltage level data and the other for RS-422 level data. A DIP switch on the rear panel is used to select between the analog or digital codes.

The time code is displayed on a large easy to read 9 digit, 4" high LED display with lighted colons. Hi-efficiency LEDs are used to provide excellent visibility even in brightly lighted areas. The intensity of the display can be adjusted with a rear panel mounted intensity control. A plus sign is displayed for positive counts while a minus sign is displayed for negative counts. A separate indicator in the upper left of the display, displays an H for hold, P for predicted launch time and an A for actual launch time. These times are available with IRIG-CS3 and IRIG-CS5 formats and are selected using the rear panel DIP switch.



The analog input circuitry of the TCR-495 contains an automatic gain circuit to allow the unit to reliably copy a wide range of signal levels. The software processing of the countdown and time code signals are processed to provide a reliable read out of the received time code. Automatic display blanking is provided when the input signal is lost or when the time code is corrupted. The unit is housed in a rugged, attractive aluminum enclosure and is powered by 115 VAC. A wall / ceiling mounting bracket is included for easy installation. The TCR-495 is covered by our 1 year warranty.

## Technical Specifications

### Input

Analog Time Code	IRIG-B, IRIG CS-3, KSC/MILA, FDME/BUDX With auto code selection. CCS countdown by manual selection.
Amplitude	.5 to 12 Vpp
Modulation Ratio	2:1 to 6:1
Input Impedance	10K ohm, transformer isolated
Physical Connections	Isolated BNC connector
Digital Time Code	IRIG CS-5246, 5247, 5248 (RS-232 or RS-422)
Physical Connections	RS-422, Triaxial (BJ-77) RS-232, BNC

### Display

Readout Information	
IRIG-B120, IRIG-B123	Days, Hours, Minutes, Seconds
IRIG CS3, MILA	Plus/Minus Sign, Days, Hours, Minutes, Seconds
FDME/BUDX	Plus/Minus Sign, Minutes, Seconds
CCS	Plus/Minus Sign, Days, Hours, Minutes, Seconds, H for hold
IRIG CS-5	Plus/Minus Sign, Days, Hours, Minutes, Seconds H for hold, P for predicted, A for actual launch time
Display Hardware	4" Red Hi-efficiency LED digits
Blanking	Leading zeros are blanked when using countdown codes. Display is blanked for analog input signal levels below .5 Vpp.

### Power Input

Voltage	110-130 VAC
Frequency	50-70 Hz
Power Consumption	25 Watts

### Mechanical

Case Dimensions	6.5 inches high x 42 inches wide x 4 inches deep
Case Material	Aluminum enclosure
Color	Painted flat black
Mounting	1/4"-20 threaded insert on the center of each end. Mount using 1-1/4" diameter knobs with 1/4"-20 x 3/4" long studs and wall/ceiling mounting bracket which is included.
Weight	14 pounds

### Environmental

Operating Temperature	0 to 50 degrees Celsius
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Specifications subject to change without notice. 042009