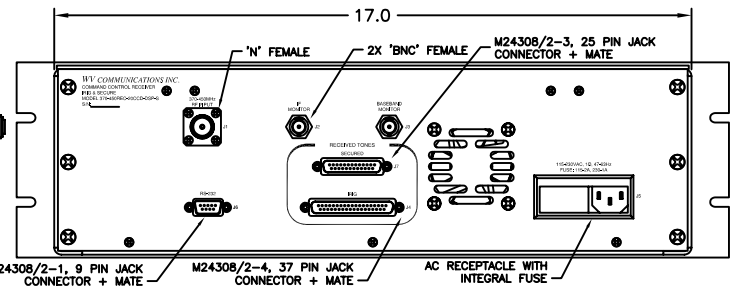
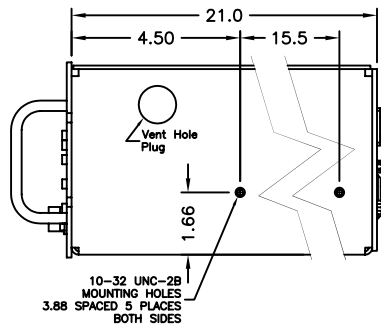
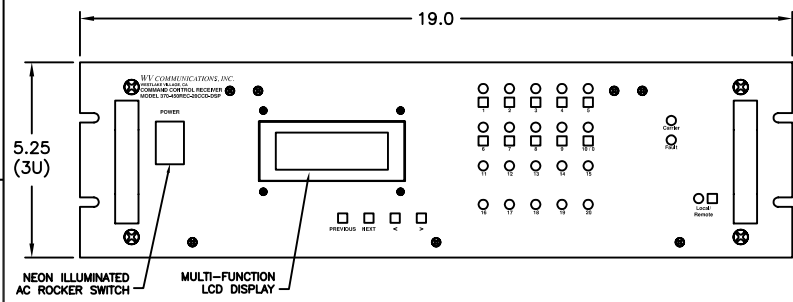


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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	PRELIMINARY RELEASE		
	B	UPDATED FRONT PANEL	31JUN02	



RECEIVER CHARACTERISTICS:
FREQUENCY RANGE: 370-450MHz in 100kHz Steps
FREQUENCY STABILITY: ±0.002% Maximum / 24 Hours
NOISE FIGURE: 6dB Maximum
SPURIOUS & IMAGE REJECTION: -60dBc Maximum
LO RERADIATION: -60dBm Maximum
RF INPUT IMPEDANCE: 50 Ohm Nominal
VSWR INPUT: 2:1 Maximum (Ref 50 Ohm)
RF INPUT DYNAMIC RANGE: -104 to +13dBm
SIGNAL STRENGTH / DEVIATION INDICATION: Via Front Panel LCD & RS-232
SIGNAL STRENGTH REPORTING ACCURACY: ±2dB Maximum
PEAK DEVIATION REPORTING ACCURACY: ±7% Maximum of Received Carrier Dev. @ +13 to -85dBm
IF 3dB BANDWIDTH: 500±50KHz
IF 60dB BANDWIDTH: 1500±150KHz

IRIG DECODER CHARACTERISTICS:
NUMBER OF IRIG TONES: 20 Channels (See Table for Precise Tones)
-2dB TONE BANDWIDTH: ±1% Minimum
-20dB TONE BANDWIDTH: ±4% Maximum
SIMULTANEOUS TONE DETECTION: 1 to 6 Tones
DECODER CARRIER DEVIATION RANGE: ±30KHz Nominal / Tone (±15 to ±40KHz Range)
DECODER RESPONSE TIME: 10 Millisecond Maximum
DECODER OUTPUT: SPST 250mA SSR Contact Closure to Common via Rear Panel J4 'D' Connector
DECODER ACTION: Should Not Latch. A Continuous Signal Should Be Emitted While a Tone is Being Received
TONE DURATION: 20 Millisecond Minimum
LED ACTION: Should Not Latch since IRIG Tones Are Continuous; i.e. LED's Are Illuminated When Tone(s) are Being Received
LAMP TEST: LEDs and Solid State Relays contacts activated during the Lamp Test when Local/Remote Switch is pressed for > 3 Sec

SECURE DECODER CHARACTERISTICS:
NUMBER OF TONES: 8 Channels (See Table for Precise Tones)
-2dB TONE BANDWIDTH: ±1% Minimum
-20dB TONE BANDWIDTH: ±4% Maximum
SIMULTANEOUS TONE DETECTION: 2 Tones
SECURED TONE DETECTION OUTPUT: 5V Differential output via J7 Connector and Strobe when Tone Pair is detected
DECODER CARRIER DEVIATION: ±15 to ±30KHz for Each Tone
DECODER RESPONSE TIME: 5 Millisecond Maximum
DECODER JITTER TIME: 1 Millisecond Maximum

ENVIRONMENTAL:
OPERATING TEMPERATURE RANGE: 0 to +50°C
OPERATING RELATIVE HUMIDITY: 0-95%
OPERATING ALTITUDE: 0-10,000 Feet
CALENDAR LIFETIME: 10 Years Minimum
OPERATIONAL LIFETIME: 20,000 Hours Minimum
MTBF: 2,000 Hours Minimum
MTTR (MEAN TIME TO REPAIR): 1 Hour Maximum Down to Card Level
AC INPUT: 115/230±10%VAC, 47-63Hz, Single Phase
FRONT PANEL COLOR: Black per MIL-STD-27038

PIN NO.	TONE/OUTPUT	PIN NO.	TONE/OUTPUT
1	1 +	14	1 -
2	2 +	15	2 -
3	3 +	16	3 -
4	4 +	17	4 -
5	5 +	18	5 -
6	6 +	19	6 -
7	7 +	20	7 -
8	8 +	21	8 -
9	GND	22	GND
10	STROBE +	23	STROBE -
11	GND	24	GND
12	GND	25	GND
13	GND	-	-

PIN NO.	PIN NAME
1	N/C
2	RX
3	TX
4	N/C
5	GND
6	N/C
7	RTS
8	CTS
9	N/C

PIN NO.	TONE/OUTPUT	PIN NO.	TONE/OUTPUT	PIN NO.	TONE/OUTPUT	PIN NO.	TONE/OUTPUT
1	1	11	N/C	21	4	31	N/C
2	3	12	N/C	22	6	32	CARRIER
3	5	13	N/C	23	8	33	N/C
4	7	14	N/C	24	10	34	N/C
5	9	15	N/C	25	12	35	N/C
6	11	16	N/C	26	14	36	N/C
7	13	17	N/C	27	16	37	COMMON
8	15	18	N/C	28	18		
9	17	19	COMMON	29	20		
10	19	20	2	30	N/C		

SECURE TONE	FREQUENCY (KHz)	IRIG TONE	FREQUENCY (KHz)	IRIG TONE	FREQUENCY (KHz)
1	7.35				
2	8.40	1	7.50	11	25.01
3	9.45	2	8.46	12	28.21
4	10.50	3	9.54	13	31.83
5	11.55	4	10.76	14	35.90
6	12.60	5	12.14	15	40.49
7	13.65	6	13.70	16	45.68
8	15.45	7	15.45	17	51.52
		8	17.43	18	58.12
		9	19.66	19	65.56
		10	22.17	20	73.95

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS DECIMALS ANGLES HOLES ± 1/64 .XXX-01 ±0°30' .XXX-.005 .XXX-.001		APPROVALS	DATE
MACHINED FINISH: 32 RMS REMOVE BURRS .005 MAX		DRAWN G. GODDARD	2JUN02
MATERIAL		CHECKED	
FINISH		MECH ENGR	
		ELEC ENGR	
		P/PA	
		APPROVED	
NEXT ASSEMBLY	USED ON		
APPLICATION		DO NOT SCALE DRAWING	

WVCommunications 756-A LAKEFIELD RD. WESTLAKE VILLAGE, CA

COMMAND CONTROL RECEIVER
MODEL 370-450REC-20CCD-DSP-S
IRIG 20 CHANNEL/SECURED 8 CHANNEL

SIZE C	CAGE CODE 1GFQ7	DWG. NO. 050-50236	REV A
SCALE NONE	SHEET 1 OF 1		

REV A 050-50236 DWG NO. 050-50236