

MODEL AF852 (30-50 MHz) PUBLIC SERVICE MONITOR with CTCSS

GENERAL:

A special monitor receiver for the Public Service Band (30 to 50MHz). This receiver is designed to meet professional monitoring and EAS equipment input requirements. The receiver is PLL (phase lock loop) controlled. The frequency of operation is selected using internal BCD switches. A receiver LINE audio output (adjustable) is provided. A speaker output (SPKR) is also provided. The SPKR output is adjustable by rear panel volume control (VOL). The audio outputs will be available continuously or controlled by the CTCSS (Continuous Tone Controlled Sub-audible Squelch) tone decoder. The tone decoder output indicates the desired sub-audible tone (as set by internal switches) has been received. An internal relay is also provided that is controlled by the CTCSS tone decoder. Front panel indicators (LED's) are provided for Power, Carrier, Modulation, and Tone Detector Operation.

The receiver circuit board has 10 VDC automotive style regulators. Input power is derived from wall mounted power converters (115 VAC to 12 DC) or other 12 VDC sources, vehicular or battery. The receiver is housed in a metal case or configured as one receiver in the AFC3 multiple receiver rack mount chassis.

SPECIFICATIONS:

Frequency of Operation:	30 to 50MHz
RF Input Impedance:	75 Ohm
Frequency Increments:	5 KHz

With modulation of 1 KHz at 5 KHz deviation:

Sensitivity:

12dB SINAD	0.25uV
20 dB S/N	0.50uV
30 dB S/N	1.20uV

Adjacent Channel Selectivity:	60 dB
Intermodulation Rejection:	65 dB
Image Rejection:	50 dB
Spurious Response Rejection:	>60 dB
LINE Output:	1.0V RMS (adj) (open circuit R out is 600Ohms)
SPKR Output:	0.5 Watts, 8 Ohm (Adjustable, Volume Control)
CTCSS:	Standard 39 Tone Decoder 1% Bandwidth
Power:	12VDC, 300 mA (300 mA converter (provided))
Metal Case Size:	6.0" W x 8" D x 1-3/4" H
Weight:	1.5 lbs

CONTROLS AND INDICATORS:

Front Panel Controls:

TONE TEST/RESET Switch: Selects continuous monitoring or CTCSS tone controlled squelch.

Front Panel Indicators:

POWER: Red LED indicates power applied.

CARRIER: Green LED indicates received carrier exceeds the set SQUELCH setting and the correct TONE has been detected.



MODULATION: Yellow LED intensity varies with carrier modulation level.

TONE DETECT: Red LED indicates desired sub-audible tone has been received

Rear Panel Connectors/Controls:

RF IN: "F" connector
POWER: 2mm, center positive
LINE: RCA
SPKR: RCA
VOL: Potentiometer
BAL OUT/RELAY (optional): DIN

Internal Controls:

SQL: (RV2) Squelch setting potentiometer
LINE LEVEL: (RV3) Line level adjustment
RELAY: Relay output controlled by CTCSS Tone Decoder circuit

OPTIONS:

Option -MF Individual 19 inch rack mount (1 3/4"),
Option -B Balanced Line audio output,
Option -C3 One receiver of the AFC3 multiple receiver chassis,

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