



VHF Radio Model 1791



- Single Channel VHF transmitter
- Programmable from 117.975 MHz to 138.000 MHz
- Adjusted to minimize audible static
- Equipped with RF Isolator

Description

The Model 1791 VHF Radio is a single channel, fixed-frequency transmitter operating over the frequency range of 117.975 MHz to 138.000 MHz. The Model 1791 is designed primarily for use with All Weather Inc.'s Automated Weather Observing System (AWOS) to transmit a voice recording of the AWOS' measured weather conditions to aircraft within its vicinity.

The model 1791 is a low-power VHF/AM transmitter, which can transmit on a single, pre-programmable synthesized frequency. The frequency is programmable over the frequency range 117.975 MHz to 138.000 MHz, with 25 kHz channel spacing. The single-channel

memory set board that stores the frequency is mounted externally to the transmitter module to facilitate ease of frequency programming.

Features

The Model 1791 is equipped with an RF Isolator, which provides 20 dB of isolation between the antenna and the RF Amplifier, while providing 0.7 dB (Max.) insertion loss.

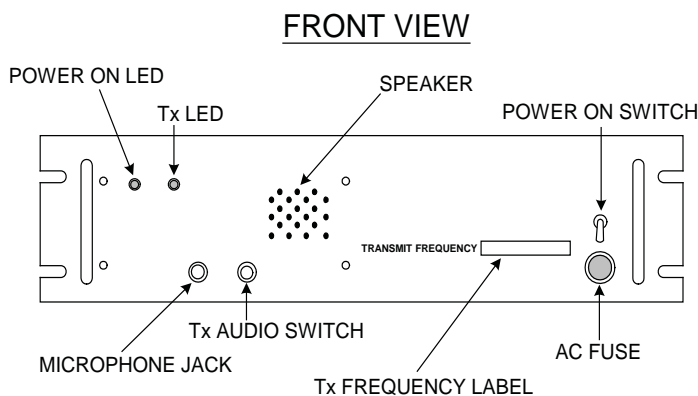
The Model 1791 VHF Radio is pre-adjusted for use with the 3000 series AWOS to minimize audible static on the voice transmission and is Federal Aviation Administration (FAA) certified, complying with the most current regulatory requirements.

PERIPHERALS

SPECIFICATIONS

Parameter	Specification
POWER REQUIREMENTS:	
AC Input Voltage/Current	100 to 132 VAC @ 1.0 Amp
Note: 220 V operation is selectable by internal power supply jumper J3 (installed for 110 V, removed for 220 V). Tolerances are 190 to 250 VAC @ one-half the applicable current consumption in the 110 VAC mode.	
Power Output	1-10 Watts
REMOTE CONTROL:	
Remote Audion Input	2 wire, balanced 600 U lines
Tone Keying Impedance	600 U floating with respect to ground
Ground Keying	Closure to ground
TX RF Output Signal	RF ON=Ground, RF OFF=Open Circuit

Parameter	Specification
Operating Temp. Range	-25°C to +55°C (-13°F to +131°F)
Storage Temp. Range	-55°C to +65°C (-67°F to +149°F)
Relative Humidity	100%
TECHNICAL:	
Audio Input	0.05 Vrms to 2.0 Vrms
Speech Processor Dynamic Range	35 dB
Modulation	95% Maximum
Audio Distortion:	
- At 90% mod (low power)	10% Maximum
- At 90% mod (with Linear Amplifier at high power)	15% Maximum
Audio Frequency Response	300 Hz to 2,500 Hz, +1 -3 dB
Spurious Emissions	60 dB below carrier
Hum and Noise	45dB below modulated carrier



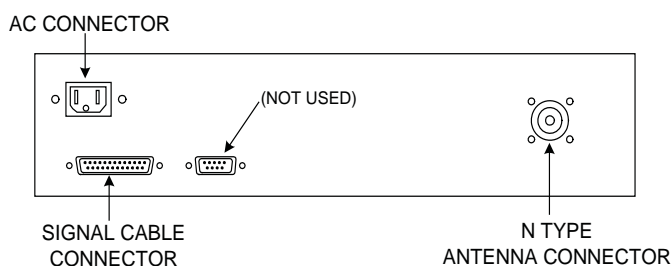
ORDERING INFORMATION

Part Number	Description
1791	VHF Radio with audio/keying cable and N-type to BNC antenna adapter

DIMENSIONS & WEIGHTS

Dimensions	483 mm x 89 mm x 432 mm (19.0 in x 3.5 in x 17.0 in)
Weight	6.3 Kg (14 lbs)
Shipping Weight	

REAR VIEW



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