

Wattchman™ RF Station Monitor/Alarm Systems 81070 & 81080 Series

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Features

- *Protects Your Transmitter From High Reflected or Low Forward Conditions*
- *Continuous Display Of Forward and Reflected Power*
- *Audible and Visual Alarms*
- *Fast Fault Response (15ms)*
- *Remote Reset Provision*
- *110/220 VAC Input Switch*
- *Two Year Limited Warranty*



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Description

The Coaxial Dynamics Wattchman Monitor/Alarm measures forward and reflected RF power simultaneously in 50-Ohm coaxial cables and transmission lines. It is compatible with our entire series of 7/8" through 6-1/8" Line Sections and will accept plug-in elements that range from 5 watts to 100 kW full scale from 0.45 MHz to 2300 MHz.

One or both meters may incorporate a front panel adjustable set point which controls the trip point of the alarm. The 81070 Series has our standard 5/10/25 scales and the 81080 Series has 15/30/60 scales.

A Station Monitor/Alarm system installation consists of a Wattchman, a dual socket Line Section and two plug-in elements for monitoring both forward and reflected power. The Wattchman is supplied with two 25-foot DC cable assemblies for connection to the line section, and a 6 foot AC power cord. Installation requires inserting the line section into the transmission line, connecting the terminals of the transmitter interlock systems to the proper terminals on the Wattchman and providing AC power.

Abnormal load conditions quickly cause transmitter shutdown within less than 15 milliseconds (including control relay). An audible single tone alarm will indicate system/transmitter malfunction. Relay contacts are provided for remote alarm and reset switching. Fail-Safe or Non-Fail-Safe mode is selected by a switch located on the rear of the instrument.

Your confidence in the quality and dependability of the 81070/81080 Series Wattchman is assured with the Coaxial Dynamics Two Year Limited Warranty.

Available Models

Model 81070

The Original Transmitter Monitor/Alarm System with a forward power meter and a reflected power shutdown control monitor and meter for high reflected power. Model 81070 is designed for use with all Coaxial Dynamics dual socket Line Sections and standard Elements.

Model 81071

Model 81071 has a control monitor and meter for an alarm on low forward power levels (via contact on the rear panel) as well as the transmitter shutdown on high reflected power levels. Model 81071 is designed for use with all Coaxial Dynamics dual socket Line Sections and standard .

Model 81073

Model 81073 has only one monitor and control meter intended to provide an alarm on low forward power only. No indication of reflected power is provided. Start up switching circuits are provided to avoid alarm when the transmitter first starts up. Model 81073 is designed for use all Coaxial Dynamics single socket Line Sections and standard Elements.

Model 81074

Model 81074 has only one monitor and control meter and is intended to provide an alarm and transmitter shutdown with high power levels. There is only one indication of power provided. This unit is generally used to monitor and protect against high reflected power levels. However, it may also be used to monitor and protect against high forward power levels by simply rotating the detector element 180 degrees. Model 81074 is designed for use with all Coaxial Dynamics single socket Line Sections and standard Elements.

Model 81081

Model 81081 is similar to Model 81070 except that the standard 30 microamp meters have special 15/30/60 scales. Model 81081 is designed for use with all Coaxial Dynamics dual socket Line Sections (1-5/8" through 6-1/8") and special Elements.

Model 81082

Model 81082 is similar to Model 81071 except that the standard 30 microamp meters have special 15/30/60 scales. Model 81082 is designed for use with all Coaxial Dynamics dual socket Line Sections (1-5/8" through 6-1/8") and special Elements.

Available Options

Model 81070-200

Model 81070-200 is an amplified DC output option available for all Wattchman models. This option provides a pair of adjustable amplified DC outputs that are available on the terminal strip on the rear of the unit. The outputs are proportional to the meter indication and are calibrated at the factory so that a full scale deflection will cause a DC voltage of 2.00 volts to be present. The amplifiers are designed to work with any DC load impedance of 500 ohms or greater.

Specifications

Power Range	5 W to 100 kW
Frequency Range	0.45 MHz to 2300 MHz
Meter Specifications	30 μ A full scale, \pm 5% 1400 ohms terminal resistance 4-1/2 inch movement
Accuracy	\pm 5% when used with proper Coaxial Dynamics line sections and elements
Response Time	Less than 15 milliseconds (including control relay function)
Front Panel Controls	Push button reset Trip set adjustments
Rear Panel Controls	Audible alarm switch Fail-Safe mode switches 110/220 VAC input switch
Connections	Meter inputs NO/NC control connections Remote alarm turn on - Normally Opened Remote reset connections AC power receptacle
Contact Ratings	5A at 110 VAC non-inductive
Power Requirements	110/220 VAC, 50/60 Hz, 10 Watts maximum
Dimensions (H x W x D)	5.25 in. (13.3 cm) x 19 in. (48.3 cm) x 8 in. (20.3 cm)
Weight	9.0 lbs. (4.08 kg)
Finish	Textured Blue Polyurethane Enamel Front Panel Alodine (Yellow Iridite) Chassis

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