

Astatic PDC1

Astatic PDC1 100 Watt SWR Meter Instruction Manual

Brand: Astatic | Model: PDC1

INTRODUCTION

The Astatic PDC1 100 Watt SWR Meter is designed to assist in tuning CB radio antennas and assessing coax cable conditions. Proper tuning is crucial to prevent permanent damage to CB equipment and ensure optimal transmission and reception performance. This compact, 2-function analog test meter measures Standing Wave Ratio (SWR) and relative power for 50-Ohm antenna and coax cable systems used in CB operations.

KEY FEATURES

- **3-Function Analog Meter:** Provides clear, easy-to-read measurements.
- **Antenna & Coax Condition Indicator:** Specifically designed for 50-Ohm CB antenna and coax cable systems.
- **SWR and Relative Power Testing:** Allows for comprehensive analysis of your CB setup.
- **Selectable Power Ranges:** Features 10 Watt and 100 Watt switches for versatile testing.
- **Forward and Reverse Switches:** Enables measurement of both forward and reflected power.
- **CB Radio Compatibility:** Optimized for use with most CB radios.

PRODUCT OVERVIEW

This video provides a general overview of the Astatic PDC1 SWR Meter, demonstrating its physical appearance and basic functions.

SETUP AND CONNECTIONS

Proper connection of the Astatic PDC1 SWR Meter is essential for accurate measurements and to prevent damage to your equipment. Follow these steps:

1. **Identify Ports:** Locate the 'TX' (Transmit) and 'ANT' (Antenna) ports on the rear of the SWR meter.
2. **Connect CB Radio:** Using a short, high-quality coaxial jumper cable, connect the antenna output of your CB radio to the 'TX' port on the SWR meter.
3. **Connect Antenna/Dummy Load:**

- For SWR measurement: Connect your CB antenna to the 'ANT' port on the SWR meter.
- For Power measurement: Connect a suitable dummy load (rated for your radio's maximum output power) to the 'ANT' port on the SWR meter. Ensure the dummy load can handle the transmission power to avoid damage.



Figure 1: Front view of the Astatic PDC1 SWR Meter, showing the analog display and control switches.



Figure 2: Rear view of the Astatic PDC1 SWR Meter, highlighting the 'TX' and 'ANT' connection ports.

OPERATING INSTRUCTIONS

Measuring SWR (Standing Wave Ratio)

1. **Connect Equipment:** Ensure your CB radio is connected to the 'TX' port and your antenna is connected to the 'ANT' port as described in the Setup section.
2. **Set Power Range:** Select the appropriate power range using the **10W / 100W** switch. For most CB radios, start with 100W.
3. **Set Function:** Set the **PWR / SWR** switch to 'SWR'.
4. **Set Direction:** Set the **FWD / REF** switch to 'FWD' (Forward).
5. **Calibrate:** While transmitting a continuous carrier (e.g., by pressing the PTT button on your microphone), adjust the 'CAL' knob until the meter needle aligns with the 'SET' mark on the SWR scale.
6. **Measure SWR:** Release the PTT button. Then, set the **FWD / REF** switch to 'REF' (Reflected). Transmit again. The meter will now display your SWR reading.
7. **Interpret SWR:**
 - An SWR reading of 1.5:1 or lower is generally considered excellent.
 - Readings between 1.5:1 and 2.0:1 are acceptable.
 - Readings above 2.0:1 indicate a poor match and should be addressed by adjusting your antenna. High SWR can damage your radio.

Measuring Relative Power

1. **Connect Equipment:** Ensure your CB radio is connected to the 'TX' port and a suitable dummy load is connected to the 'ANT' port.

- 2. **Set Power Range:** Select the appropriate power range using the **10W / 100W** switch.
- 3. **Set Function:** Set the **PWR / SWR** switch to 'PWR' (Power).
- 4. **Set Direction:** Set the **FWD / REF** switch to 'FWD' (Forward).
- 5. **Measure Power:** Transmit a continuous carrier. The meter will display the relative forward power output of your CB radio in Watts.

SPECIFICATIONS

Feature	Detail
Brand	Astatic
Model Number	PDC1 (Manufacturer Part Number: 302-01637)
Item Weight	8 ounces (0.5 Pounds)
Product Dimensions	6.5 x 5.1 x 3.2 inches
Frequency Range	27 MHz (Optimized for CB frequencies)
Power Ranges	10 Watt, 100 Watt
Functions	SWR, Forward Power, Reverse Power
Compatible Devices	Most CB radios
Included Components	User Manual

TROUBLESHOOTING





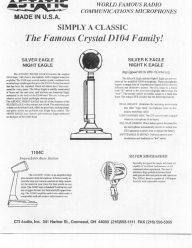
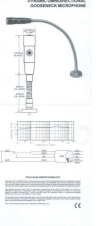
- **No Meter Movement:** Ensure all connections are secure and the CB radio is transmitting power. Check the power range switch setting.
- **High SWR Readings:** This typically indicates an issue with your antenna system. Check antenna length, mounting location, and coaxial cable for damage or shorts.
- **Inaccurate Readings:** Ensure the meter is properly calibrated before taking SWR measurements. Verify that the correct power range is selected for your radio's output.

MAINTENANCE

The Astatic PDC1 SWR Meter requires minimal maintenance. Keep the unit clean and dry. Avoid exposing it to extreme temperatures or moisture. Store in a safe place when not in use to prevent physical damage.

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact Astatic customer service directly. Keep your proof of purchase for any warranty claims.

	<p>Astatic MP200 Multifunction Audio/Video Media Player User Guide</p> <p>User guide for the Astatic MP200 Multifunction Audio/Video Media Player, detailing its features, setup, operation, and specifications. Includes information on CD/USB audio playback, DVD and USB video playback, Bluetooth connectivity, and important safety instructions.</p>
	<p>Astatic AST878DM Transistorized Desk Paging Microphone - Product Overview and Specifications</p> <p>Detailed information on the Astatic AST878DM, a rugged, omni-directional ceramic desk paging microphone designed for industrial and commercial applications. Features include push-to-talk functionality, adjustable volume, and a durable Cylolac housing. Specifications, applications, and warranty details are provided.</p>
	<p>ASTATIC 40-118 Microphone Base: Technical Specifications and Operation</p> <p>Detailed specifications, user techniques, operation, and warranty information for the ASTATIC 40-118 utility microphone base, designed for professional audio applications.</p>
	<p>Astatic 575M-6 Transistorized Microphone with External Controls</p> <p>Detailed specifications and operational guide for the Astatic 575M-6 transistorized microphone, featuring external tone and volume controls, high gain amplifier, and a durable design.</p>
	<p>Astatic Microphones: D104 Family and More - Product Catalog & Technical Guide</p> <p>Explore the range of Astatic communication microphones, including the classic D104 family, Silver Eagle, Road Devil, 636L, and more. Features, specifications, and technical notes for amateur radio operators.</p>
	<p>Astatic AMC 105 Dynamic Omnidirectional Gooseneck Microphone Specifications</p> <p>Detailed specifications and overview of the Astatic AMC 105 Series dynamic omnidirectional gooseneck microphone, including its features, applications, technical data, and warranty information.</p>