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› [Power Watchdog PWD50EPOW Smart RV Portable Surge Protector 50 Amp User Manual](#)

### Power Watchdog PWD50EPOW

# Power Watchdog PWD50EPOW Smart RV Portable Surge Protector

**Brand:** Power Watchdog | **Model:** PWD50EPOW

## 1. INTRODUCTION

The Power Watchdog PWD50EPOW is a smart RV portable surge protector designed to safeguard your recreational vehicle's electrical system. This 50 Amp unit features patented WiFi and Bluetooth connectivity, allowing real-time monitoring of voltage, amperage, and wattage via a mobile application. It provides 4,600 Joules of surge protection and includes an Emergency Power Off (EPO) function, automatically disconnecting power during unsafe voltage conditions (below 104V or above 132V) and restoring it after 90 seconds of stable conditions. Its IP65-rated, weather-resistant construction ensures durability in various outdoor environments. A key feature is its replaceable surge module, eliminating the need to replace the entire unit after a surge event.





Image 1.1: Front view of the Power Watchdog PWD50EPOW Smart RV Portable Surge Protector.

## 2. KEY FEATURES

- **4,600 Joules Surge Protection:** Shields your RV from harmful power spikes.
- **Automatic Emergency Power Off (EPO):** Disconnects power when voltage is outside the safe range (104V-132V) and restores it after 90 seconds of stability.

- **WiFi and Bluetooth Connectivity:** Monitor electrical parameters (voltage, amperage, wattage) in real-time via a mobile app.
- **Replaceable Surge Module:** Allows for cost-effective replacement of the surge protection component after a surge, extending the unit's lifespan.
- **IP65 Water-Resistant Construction:** Durable design for outdoor use in various weather conditions.
- **LED Diagnostics:** Provides visual fault alerts and status indicators.
- **Wireless Fault Alerts:** Receive notifications on your mobile device for electrical issues.
- **Compatibility:** Works seamlessly with dogbone adapters for flexible setup.

### 3. SAFETY INFORMATION

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- Always ensure the power pedestal circuit breaker is OFF before connecting or disconnecting the surge protector.
- Do not operate the unit if it appears damaged.
- Ensure all connections are secure and dry before applying power.
- This device is designed for outdoor use but should not be submerged in water.
- Keep children away from electrical connections.

### 4. SETUP INSTRUCTIONS

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1. **Power Off:** Ensure the circuit breaker at the RV park's power pedestal is in the OFF position.
2. **Connect Surge Protector:** Plug the Power Watchdog PWD50EPOW directly into the 50 Amp receptacle on the power pedestal. Ensure a firm connection.
3. **Connect RV Shore Power:** Plug your RV's 50 Amp shore power cord into the receptacle on the Power Watchdog unit. If using a dogbone adapter, connect it between the RV cord and the surge protector.
4. **Secure Unit (Optional):** Utilize the integrated locking ring to secure the unit to the power pedestal with a padlock (not included) to deter theft.
5. **Restore Power:** Turn the circuit breaker at the power pedestal to the ON position.
6. **Initial Diagnostics:** The Power Watchdog will perform a diagnostic check. Observe the LED display for fault codes. A white bulldog face indicates correct wiring and power.
7. **App Connection:** Download the Power Watchdog app from your device's app store (e.g., [Apple App Store](#) or Google Play Store). Follow the in-app instructions to connect your device via Bluetooth and then configure WiFi for remote monitoring.





Image 4.1: The Power Watchdog PWD50EPOW connected to an RV power cable.





*Image 4.2: The Power Watchdog PWD50EPOW showing the open receptacle cover for connecting the RV shore power cord.*

## 5. OPERATING INSTRUCTIONS

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### 5.1. LED Indicators

The Power Watchdog features an illuminated bulldog face and a digital display to indicate status and fault codes:

- **White Bulldog Face:** Indicates correct wiring and stable power.
- **Red Bulldog Face with Code:** Indicates a detected fault or issue with the power source. Refer to the Troubleshooting section for code meanings.
- **Digital Display:** Shows real-time voltage, amperage, or wattage, and fault codes.

### 5.2. Mobile App Monitoring

Once connected to the Power Watchdog app via Bluetooth and WiFi, you can:

- View real-time voltage, amperage, and wattage data.
- Receive wireless fault alerts directly to your mobile device.
- Customize voltage thresholds for personalized protection.
- Track power consumption over time.
- Remotely turn power on or off (if EPO model and configured).

## 6. MAINTENANCE

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### 6.1. Cleaning

Wipe the unit with a damp cloth as needed. Do not use harsh chemicals or abrasive cleaners. Ensure the unit is disconnected from power before cleaning.

### 6.2. Surge Module Replacement

The Power Watchdog PWD50EPOW features a replaceable surge module. If the unit experiences a significant surge event, the surge module may be consumed to protect your RV. A red bulldog face and a specific fault code (refer to troubleshooting) will indicate that the module needs replacement.

1. **Power Off:** Disconnect the Power Watchdog from the power pedestal and your RV.
2. **Access Module:** Locate the surge module compartment, typically secured by screws.
3. **Remove Old Module:** Carefully remove the old surge module.
4. **Install New Module:** Insert a new, compatible Power Watchdog surge module, ensuring it is correctly

seated.

5. **Secure Compartment:** Re-secure the compartment cover.
6. **Test:** Reconnect the unit and verify the white bulldog face indicator.

Replacement surge modules can be purchased from authorized Power Watchdog retailers or the manufacturer's website.

## 7. TROUBLESHOOTING

This section provides guidance for common issues and LED fault codes.

Symptom/Code	Possible Cause	Solution
<b>Red Bulldog Face (No Code)</b>	General fault, unit not receiving proper power.	Check power pedestal breaker. Ensure connections are secure.
<b>Code E0</b>	Open Ground	The power pedestal has an open ground. Do not connect your RV. Report to campground management.
<b>Code E1</b>	Open Neutral	The power pedestal has an open neutral. Do not connect your RV. Report to campground management.
<b>Code E2</b>	L1 Reverse Polarity	Line 1 is wired with reverse polarity. Do not connect your RV. Report to campground management.
<b>Code E3</b>	L2 Reverse Polarity	Line 2 is wired with reverse polarity. Do not connect your RV. Report to campground management.
<b>Code E4</b>	High Voltage (L1)	Voltage on Line 1 exceeds safe limits. The unit will automatically disconnect. Wait for voltage to stabilize or report to campground management.
<b>Code E5</b>	High Voltage (L2)	Voltage on Line 2 exceeds safe limits. The unit will automatically disconnect. Wait for voltage to stabilize or report to campground management.
<b>Code E6</b>	Low Voltage (L1)	Voltage on Line 1 is below safe limits. The unit will automatically disconnect. Wait for voltage to stabilize or report to campground management.
<b>Code E7</b>	Low Voltage (L2)	Voltage on Line 2 is below safe limits. The unit will automatically disconnect. Wait for voltage to stabilize or report to campground management.
<b>Code E8</b>	Surge Module Consumed	The surge module has absorbed a significant surge and needs replacement. Refer to Section 6.2.
<b>App not connecting</b>	Bluetooth range exceeded, WiFi not configured, or app issue.	Ensure you are within Bluetooth range. Verify WiFi credentials in the app. Restart the app and/or your mobile device.

## 8. SPECIFICATIONS

Feature	Detail
<b>Model Number</b>	PWD50EPOW
<b>Amperage</b>	50 Amp
<b>Surge Protection</b>	4,600 Joules
<b>Voltage Range (Auto Shut-off)</b>	Below 104V or Above 132V
<b>Connectivity</b>	WiFi, Bluetooth
<b>Weather Resistance</b>	IP65 Rated
<b>Dimensions</b>	8.5" x 3.75" x 2.75" (approximate, based on description)
<b>Item Weight</b>	6.89 pounds
<b>Total Power Outlets</b>	1
<b>Manufacturer</b>	Hughes Autoformers

## 9. WARRANTY AND SUPPORT

### 9.1. Warranty Information

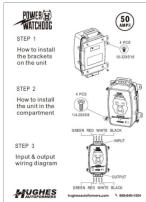
The Power Watchdog PWD50EPOW Smart RV Portable Surge Protector is backed by a **limited lifetime warranty**. This warranty covers defects in materials and workmanship under normal use. For specific terms, conditions, and limitations of the warranty, please refer to the official warranty documentation included with your product or visit the Power Watchdog website.

### 9.2. Customer Support

For technical assistance, troubleshooting beyond this manual, warranty claims, or to purchase replacement parts (such as surge modules), please contact Power Watchdog customer support. Contact information can typically be found on the manufacturer's website or within the product packaging.

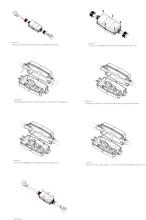
**Manufacturer:** Hughes Autoformers

**Website:** [www.hughesautoformers.com](http://www.hughesautoformers.com) (Note: This is an assumed URL based on manufacturer name, please verify with official documentation.)



### [Power Watchdog Installation Guide and Wiring Diagram | Hughes Autoformers](#)

Concise guide to installing the Power Watchdog 50 AMP surge protector from Hughes Autoformers, including step-by-step instructions and a wiring diagram.



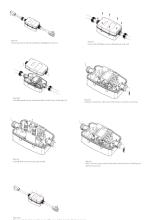
### [PWD 30A Power Watchdog Unit Surge Module Replacement Guide](#)

Step-by-step instructions for replacing the surge module in a PWD 30A Power Watchdog Unit, including disassembly and reassembly.



### [Hughes Autoformers Power Watchdog PWD30-EPO/PWD50-EPO Installation and Operation Guide](#)

Comprehensive guide for Hughes Autoformers Power Watchdog surge protectors (PWD30-EPO, PWD50-EPO), covering installation, operation, technical specifications, error code explanations, and mobile app usage for RV power protection.



### [Hughes Power Watchdog Surge Module Replacement Guide](#)

Detailed, step-by-step instructions for replacing the surge module in your Hughes Power Watchdog portable surge protector. Learn how to safely open the unit, disconnect wiring, swap modules, and reassemble for optimal performance.



### [Hughes Autoformers Power Watchdog PWD30EPOHW/PWD50EPOHW Installation and Operating Manual](#)

Comprehensive guide for Hughes Autoformers Power Watchdog PWD30EPOHW and PWD50EPOHW RV surge protectors, covering installation, operation, technical specifications, and troubleshooting for RV power protection.



### [Hughes Power Watchdog: Advanced RV Surge Protector User Guide](#)

Learn how to use the Hughes Power Watchdog, an advanced RV surge protector, to analyze and protect your RV from power issues. This guide covers setup, app usage, error codes, and troubleshooting.