

## OJOPOV TVPS1-16C

# OJOPOV TVPS1-16C Over/Under Voltage and Over Current Protector User Manual

Model: TVPS1-16C | Brand: OJOPOV

## 1. INTRODUCTION AND PRODUCT OVERVIEW

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The OJOPOV TVPS1-16C is an advanced electrical protection device designed to safeguard your home appliances and electrical equipment from damage caused by voltage fluctuations and excessive current. It provides comprehensive protection against over-voltage, under-voltage, and over-current conditions, ensuring the longevity and safe operation of your connected devices. This manual provides detailed instructions for the proper installation, operation, and maintenance of your protector.



Figure 1: Front view of the OJOPOV TVPS1-16C protector. This image shows the front of the OJOPOV TVPS1-16C protector, featuring a digital display for voltage and current, control buttons, and a universal socket.

## 2. KEY FEATURES

The TVPS1-16C protector is equipped with several essential features to ensure optimal electrical safety:

- **Over-voltage protection:** Automatically disconnects power when voltage exceeds a safe limit.
- **Under-voltage protection:** Automatically disconnects power when voltage drops below a safe limit.
- **Over-current protection:** Automatically disconnects power when current exceeds a safe limit.
- **Automatic recovery:** Restores power automatically once voltage and current return to normal parameters after a fault.
- **Voltage display:** Real-time display of the current voltage.
- **Current display:** Real-time display of the current draw.
- **Adjustable voltage calibration:** Allows fine-tuning of voltage readings (-9.5% to +9.5%).
- **Adjustable current calibration:** Allows fine-tuning of current readings (-9.5% to +9.5%).
- **Factory settings restore:** Option to revert all settings to default.
- **Fault inquiry:** Ability to check for past fault conditions.

# It's Widely Used

Use In Any Indoor Electrical Equipment, Including Home Appliances, Lights, Holiday Decorations, Etc.



Figure 2: Protective functions overview. This diagram highlights the key protective features of the device, such as safeguarding against over-voltage, short circuits, overloads, and general wire protection, ensuring appliance safety.

### 3. PRODUCT COMPONENTS AND CONTROLS

Familiarize yourself with the device's display and control buttons:



Figure 3: Labeled control panel. This image provides a clear, labeled view of the protector's interface, detailing the ON/OFF button, SET button, adjustment keys (up/down), and indicators for various protection states and power.

- **Digital Display:** Shows real-time voltage (top) and current (bottom) readings.
- **ON/OFF Button (Power Symbol):** Press to manually turn the device on or off.
- **SET Button:** Used to enter the settings menu and confirm selections.
- **Up/Down Adjustment Keys:** Used to navigate through settings and adjust parameter values.
- **Indicators:** LEDs for Over Voltage (>V), Under Voltage (<V), and Power (POWER).

### 4. SETUP AND INSTALLATION

The TVPS1-16C protector is designed for easy installation and use.

1. **Unpacking:** Carefully remove the protector from its packaging. Inspect for any visible damage.
2. **Plug Type:** Ensure the protector's plug type (e.g., Universal UK Plug) is compatible with your wall socket.
3. **Connection:** Plug the TVPS1-16C directly into a standard wall outlet.
4. **Appliance Connection:** Plug the appliance you wish to protect into the socket on the front of the TVPS1-16C.
5. **DIN Rail Installation:** For permanent installations, the device is designed for 35mm DIN rail mounting. Consult a qualified electrician for this type of installation.



## UNIVERSAL SOCKET UK PLUG

Figure 4: Universal UK Plug variant. This image displays both the front (socket side) and back (plug pin side) of the OJOPOV TVPS1-16C protector, specifically the universal UK plug variant, ready for installation.

### 5. OPERATING INSTRUCTIONS

Follow these steps to operate and configure your TVPS1-16C protector:

#### 5.1 Power On/Off

- **To Power On:** Once plugged in, the device will typically power on automatically. If not, press the ON/OFF button (power symbol).

- **To Power Off:** Press the ON/OFF button. The display will turn off, and power to the connected appliance will be cut.

## 5.2 Viewing Voltage and Current

The digital display continuously shows the real-time voltage (top display) and current (bottom display) of the connected circuit.

## 5.3 Adjusting Protection Parameters

To enter the settings menu and adjust parameters:

1. Press and hold the **SET** button for approximately 3 seconds until the display starts flashing, indicating you are in the settings mode.
2. Use the **Up** and **Down** adjustment keys to navigate through the different parameters (e.g., Over-voltage protection value, Under-voltage protection value, Over-current adjustment range, action times, recovery delays).
3. When the desired parameter is displayed, press the **SET** button once to select it. The value will start flashing.
4. Use the **Up** and **Down** keys to adjust the value.
5. Press the **SET** button again to confirm the new value.
6. Repeat steps 2-5 for all parameters you wish to change.
7. To exit the settings menu, wait for approximately 10 seconds without pressing any buttons, or press and hold the **SET** button again until the display stops flashing.

## 5.4 Voltage and Current Calibration

If you suspect the voltage or current readings are inaccurate, you can calibrate them:

- **Voltage Calibration:** While in settings mode, navigate to the voltage calibration option. Use the Up/Down keys to adjust the voltage reading from -9.5% to +9.5%. Confirm with SET.
- **Current Calibration:** Similarly, navigate to the current calibration option. Adjust the current reading from -9.5% to +9.5%. Confirm with SET.

## 5.5 Restore Factory Settings

To restore all parameters to their default factory settings:

- Press and hold the **Down** adjustment key for more than 12 seconds. The display will indicate a reset, and all settings will revert to default values.

## 5.6 Fault Inquiry

To check for past fault conditions:

- Press and hold the **Up** adjustment key for more than 12 seconds. The display will show information about the last recorded fault.

# 6. MAINTENANCE

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The OJOPOV TVPS1-16C protector requires minimal maintenance.

- **Cleaning:** Ensure the device is unplugged before cleaning. Use a soft, dry cloth to wipe the exterior. Do

not use abrasive cleaners or solvents.

- **Inspection:** Periodically check the device and its connections for any signs of wear, damage, or loose connections.
- **Environment:** Keep the device in a dry environment, away from direct sunlight, excessive heat, and moisture.

## 7. TROUBLESHOOTING

If you encounter issues with your TVPS1-16C protector, refer to the following:

- **Device not powering on:** Ensure the protector is securely plugged into a live wall outlet. Check the wall outlet with another device to confirm it has power.
- **Protection frequently tripping:** This indicates that the connected appliance or circuit is experiencing frequent over-voltage, under-voltage, or over-current conditions. Check the appliance for faults or consult an electrician to inspect your electrical wiring. Review and adjust your protection parameters if necessary, but do not set them outside safe operating limits.
- **Display not working:** If the device is powered on but the display is blank, try unplugging and re-plugging the device. If the issue persists, contact customer support.
- **Incorrect voltage/current readings:** Perform a voltage or current calibration as described in section 5.4. If the readings remain inaccurate, the device may require service.
- **Cannot adjust settings:** Ensure you are pressing and holding the SET button for the correct duration to enter settings mode. If the buttons are unresponsive, try resetting the device to factory settings (Section 5.5).

## 8. SPECIFICATIONS

Detailed technical specifications for the OJOPOV TVPS1-16C protector:

Parameter	Value
Model Number	TVPS1-16C
Power Supply	90-300VAC 50/60Hz
Max. Loading Power	1~16A Adjustable (default: 16A)
Over-voltage Protection Value Range	100V~300V~OFF (default: 270V)
Over-voltage Recovery Voltage Range	95V~295V (default: 265V)
Over-voltage Protection Action Time	0.1s~30s (default: 0.5s)
Over-voltage Recovery Delay Time	1s~500s (default: 30s)
Under-voltage Protection Value Range	80V~210V~OFF (default: 170V)
Under-voltage Recovery Voltage Range	85V~215V (default: 175V)
Under-voltage Protection Action Time	0.1s~30s (default: 0.5s)
Under-voltage Recovery Delay Time	1s~500s (default: 30s)
Over-current Adjustment Range	1-16A (default: 16A)

Parameter	Value
Over-current Action Time	0.1s~30s (default: 0.5s)
Over-current Recovery Delay Time	1s~500s (default: 30s)
Power-on Delay Time	1s~500s (default: 10s)
Power Consumption	<2W
Electric Machinery Life	100,000 times
Installation	35mm DIN rail
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.76 ounces

# PRODUCT DIMENSION



Figure 5: Product dimensions. This diagram illustrates the physical dimensions of the OJOPOV TVPS1-16C protector, providing measurements for its height, width, and depth.

## 9. WARRANTY AND SUPPORT

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

- **Manufacturer:** OJOPOV
- **Contact:** Refer to your purchase platform or product packaging for specific contact details.

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