

## Nilight 90116C

# Nilight 90116C 2-Gang Rocker Switch Panel User Manual

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## 1. PRODUCT OVERVIEW

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The Nilight 90116C 2-Gang Rocker Switch Panel is designed for controlling various electrical components in 12V-24V DC vehicles. This multi-function panel integrates two rocker switches, a 4.8 Amp dual USB charger, and a voltmeter, making it suitable for cars, UTVs/ATVs, trucks, trailers, RVs, caravans, buses, and marine boats.



Image 1: Nilight 90116C 2-Gang Rocker Switch Panel with Dual USB Charger and Voltmeter.

## 2. KEY FEATURES

- **Multi-Function Design:** Integrates two rocker switches, a 4.8A dual USB charger, and a voltmeter.
- **Wide Compatibility:** Suitable for most 12V-24V DC vehicles including cars, UTVs/ATVs, trucks, trailers, RVs, caravans, buses, marine boats, and yachts.
- **Efficient Dual USB Charging:** Features two USB ports, each providing 2.4A output, for a total of 4.8A. This allows for simultaneous charging of two devices at an optimized speed, up to 40% faster than conventional chargers.
- **Integrated Voltmeter:** A clear LED display in the center of the USB charger shows real-time voltage readings, allowing easy monitoring of the vehicle's electrical system.
- **Durable Construction:** The panel is made of strengthened aluminum with well-conductive pins, ensuring long-lasting durability and reliable performance.
- **Waterproof Design:** Engineered to withstand various environmental conditions, making it suitable for outdoor and marine applications.

## 2.4 A DUAL USB FAST CHARGER WITH VOLTMETER

Charge all your devices with the best speed.

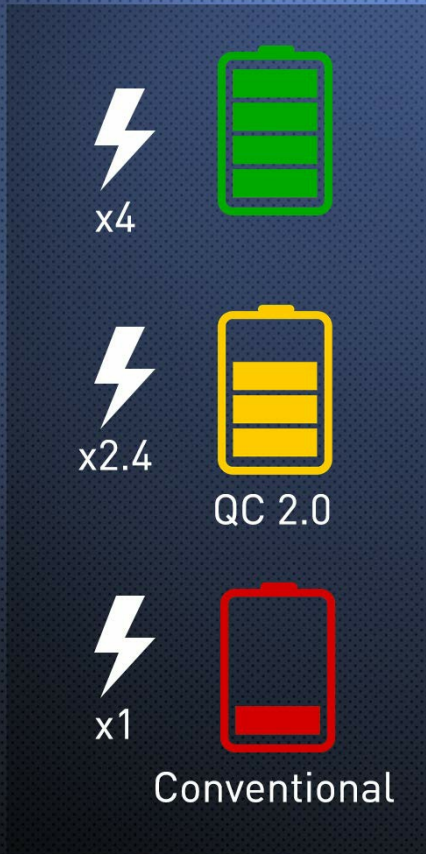


Image 2: Close-up of the 4.8 Amp Dual USB Charger with Voltmeter, showing charging speed comparison.

### 3. PACKAGE CONTENTS

Upon opening the package, you should find the following items:

- 1x 2-Gang Rocker Switch Panel (Model 90116C)
- 4x Fixing Screws
- 2 sets of DIY Night Glow Stickers for switch customization





Image 3: Contents of the Nilight 90116C package, showing the switch panel, mounting screws, and two sheets of night glow stickers for customization.

## 4. SETUP & INSTALLATION

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The Nilight 90116C switch panel is designed for straightforward installation. It comes with a pre-wired harness to simplify the connection process for both 12V and 24V systems. Ensure your vehicle's power is disconnected before beginning installation.

### 4.1 Component Disassembly and Customization

The switches and USB charger are detachable from the panel, allowing for easy replacement or rearrangement. The pre-wired jumper wires can be disconnected by pressing down on their clips.

Your browser does not support the video tag.

Video 1: This video demonstrates how to easily disconnect the jumper wires by pressing their clips and how to remove individual switches from the panel for customization or replacement.

## ***EASY DISCONNECTION***

We have made some improvements on the terminals connected to the switch, which can be easily separated from the switch by pressing down the clips

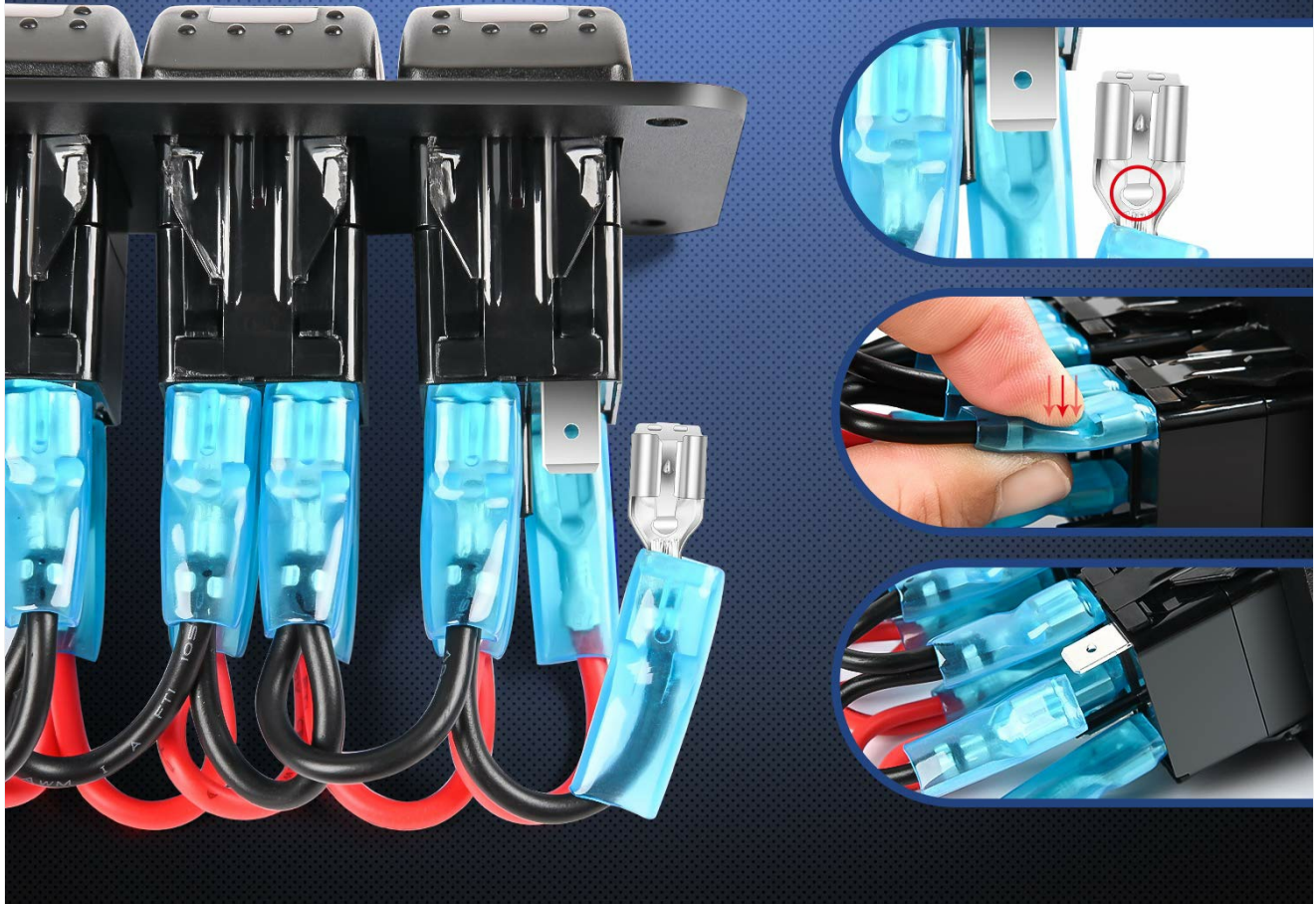
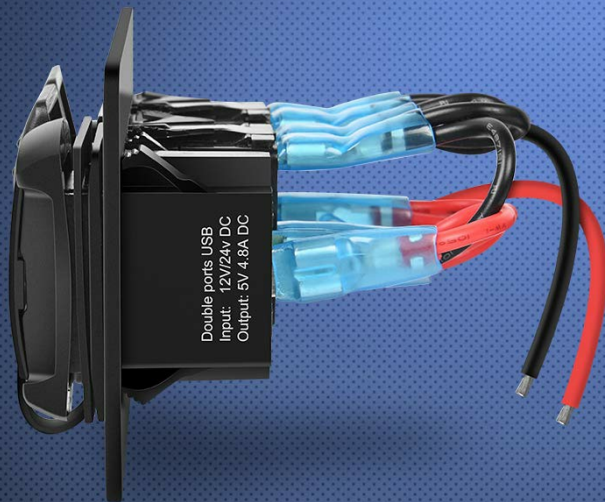


Image 4: Easy disconnection of pre-wired terminals by pressing down on the clips.

Use the provided night glow stickers to label your switches according to their function. Simply peel and apply the desired sticker onto the switch surface.



# EASY INSTALLATION



5 Pin on-off Rocker Switch is SPST designed (Single pole single throw) switch, it comes with a pre-wired wiring harness, simple to install, can be easily turned on/off.

Universal for all cars, RVs, Cans, Motorcycles, buses, boats, trailers, jeeps, UTV etc. Pre-wired wiring harness for you to easily install in both 12V and 24V vehicles.



Image 5: Applying a night glow sticker to customize a rocker switch.

## 4.2 Wiring Instructions

The switch panel comes pre-wired for convenience. Connect the main positive (red) and negative (black) wires from the panel to your battery. Then, connect the positive wire of your accessory (e.g., LED light) to Pin #3 of the corresponding switch. The negative wire of your accessory should be connected to the battery negative.

Your browser does not support the video tag.

Video 2: This video illustrates two wiring methods for connecting lights to the Nilight rocker switch panel, detailing how the lower light on the switch behaves based on the connection.

### Wiring Method A: Constant Lower Light

In this method, the lower light on the switch will remain constantly illuminated when the panel is powered on or the vehicle's key is turned to the ON position. This provides continuous visibility of the switch location.

### Wiring Method B: Lower Light On with Accessory

If the wire connected to Pin #6 (typically the lower light power) is disconnected, the lower light on the switch will only illuminate when the switch is activated (i.e., the accessory is turned on). This conserves power and indicates active accessories.



## PRODUCT SIZE



Image 6: Product dimensions for precise installation. The panel measures approximately 3.9 inches in length and 2.7 inches in width. The rear housing depth is about 1.5 inches.

## 5. OPERATION

Once installed, operating the Nilight 90116C switch panel is straightforward:

- **Rocker Switches:** Press the top part of a rocker switch to turn on the connected accessory, and the bottom part to turn it off. The upper LED indicator on the switch illuminates when the accessory is active.
- **Dual USB Charger:** Plug your USB-powered devices into either of the two USB ports for charging. The charger provides a total of 4.8A (2.4A per port) for efficient charging.
- **Voltmeter:** The digital display on the USB charger continuously shows the current voltage of your vehicle's electrical system, allowing you to monitor battery health.

# PRODUCT SPECIFICATION

PRODUCT	OTHERS	NILIGHT 2 Gang Switch Panel
LED LIGHT	X	✓
JUMP WIRES	X	✓
USB CHARGER	X	✓
VOLTERMETER	X	✓
VOLTAGE	ONLY 12V DC	12V/24V DC
AMPERE	10-15 AMP	10/20 AMP
MATERIAL	Cheap Plastic	Superior Aluminum Panel

Image 7: The Nilight 90116C switch panel installed on a boat, demonstrating its practical application and integrated design.

## 6. MAINTENANCE

To ensure the longevity and optimal performance of your Nilight 90116C switch panel, follow these general maintenance guidelines:

- **Regular Cleaning:** Wipe the panel surface with a soft, damp cloth to remove dust and grime. Avoid abrasive cleaners or solvents that could damage the finish or labels.
- **Inspect Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion. Loose connections can lead to intermittent operation or electrical issues.
- **Waterproof Integrity:** While the panel is waterproof, ensure the USB port cover is properly closed when not in use, especially in wet environments, to protect the internal components.
- **Switch Functionality:** Test each switch periodically to confirm proper operation. If a switch becomes stiff or unresponsive, inspect for debris or damage.

## 7. TROUBLESHOOTING



If you encounter issues with your Nilight 90116C switch panel, consider the following troubleshooting steps:

- **No Power to Panel/Voltmeter Off:**

- Check the main positive and negative power connections to the battery. Ensure they are secure and free from corrosion.
- Verify that the vehicle's power supply (battery) is functioning correctly and providing adequate voltage (12V-24V DC).

- **Accessory Not Turning On:**

- Confirm that the accessory itself is properly connected and functional. Test it directly if possible.
- Check the connection from the switch's Pin #3 to the accessory's positive wire.
- Ensure the switch is fully engaged in the 'ON' position.

- **USB Charger Not Working:**

- Verify that the panel has power (voltmeter is active).
- Try a different USB cable and device to rule out issues with your charging accessories.

- **Lower Switch Light Always On (even when accessory is off):**

- This is typically due to Wiring Method A (see Section 4.2). If you prefer the lower light to only illuminate when the accessory is on, ensure the wire to Pin #6 of the switch is disconnected (Wiring Method B).

- **Voltmeter Display Inaccurate:**

- Ensure stable power supply. Fluctuations in vehicle voltage can cause readings to vary.
- If consistently inaccurate, contact customer support for further assistance.

## 8. TECHNICAL SPECIFICATIONS

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Specification	Value
Brand	Nilight
Model Number	90116C
Operation Mode	ON-OFF
Current Rating	4.8 Amps (USB Charger)
Operating Voltage	12V-24V DC
Contact Type	Normally Open
Connector Type	Plug In
Terminal Type	Marine
Material	Aluminum
Item Dimensions (L x W x H)	0.39 x 0.39 x 0.39 inches (Note: This appears to be a generic placeholder, refer to Image 6 for actual panel dimensions)
Circuit Type	2-way
Actuator Type	Rocker
International Protection Rating	IP65 (Waterproof)
Number of Positions	2
Wattage	115.2 watts
Item Weight	6.4 ounces
Color	Blue
Vehicle Service Type	ATV, Passenger Car, Trailer, Truck, UTV

Note: The item dimensions provided in the specifications may be generic. Please refer to Image 6 for accurate product dimensions for installation purposes.



# PACKAGE INCLUDES

A 132PCS Night Glow Rocker Switch DIY Sticker and  
50PCS universal Stickers



Image 8: Product specification comparison highlighting key features of the Nilight 2-Gang Switch Panel.

## 9. WARRANTY & SUPPORT

Nilight products are designed for durability and performance. For specific warranty information, returns, or technical support, please refer to the official Nilight website or contact their customer service directly. Keep your purchase receipt for warranty claims.

You can visit the [Nilight Store on Amazon](#) for more information and to contact support.