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› Joinworld 12V Automotive Pre-wired Fuse and Relay Box (Model RB-R6F6-W1) Instruction Manual

Joinworld RB-R6F6-W1

Joinworld 12V Automotive Pre-wired Fuse and Relay Box

MODEL: RB-R6F6-W1

Instruction Manual

1. Product Overview

The Joinworld 12V Automotive Pre-wired Fuse and Relay Box is designed to provide a centralized and protected power distribution solution for various automotive applications. This unit simplifies wiring for auxiliary electrical components in vehicles.

Key Features:

- **Assembled Design:** High-capacity holder box with pre-wired harness, including 5pcs 4-pin 40A JD1914 relays, 1pc 4-pin RTT7121 relay, and 6pcs ATC/ATO blade fuses (5A, 10A, 15A, 20A, 25A, 30A).
- **Durable Construction:** Made from high-quality nylon flame-retardant shell. Each slot features a precise cutout for secure component fitting.
- **Pre-wired Harness:** All necessary wires are pre-wired, allowing direct connection to the vehicle's electrical system, reducing installation complexity.
- **Protective Enclosure:** Equipped with a waterproof and dust-proof top and bottom cover. Wire opening holes are designed for optimal sealing, enhancing protection against water, dust, and fire.
- **Wide Application:** Suitable for a broad range of vehicles including 4x4 Offroad, Jeep, SUV, UTV, ATV, RV, Pickup Truck, Trailer, Camper, and Marine Boats.

2. Product Dimensions

Understanding the physical dimensions of the fuse and relay box is crucial for proper placement and installation in your vehicle.

Product Size

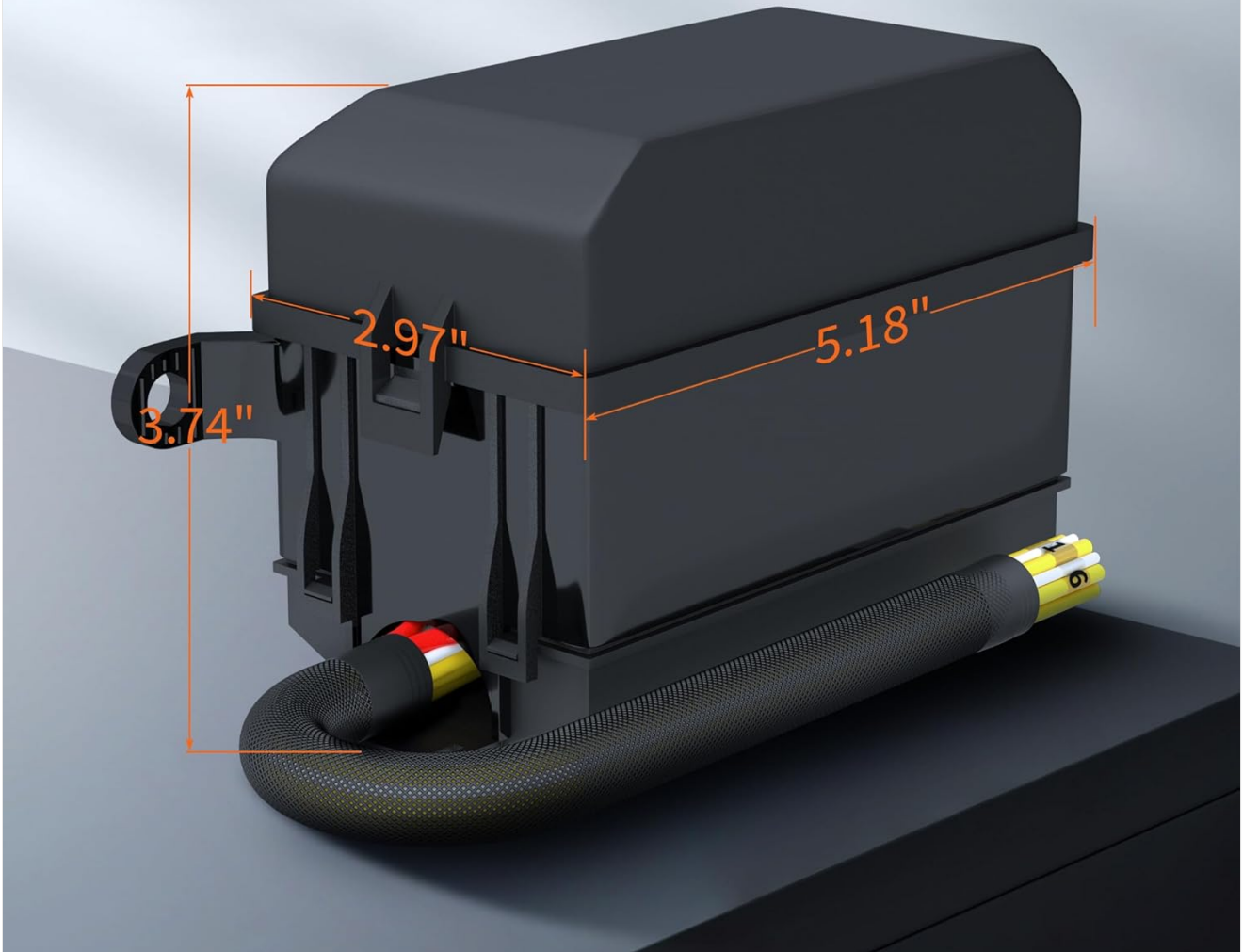


Image: Product dimensions showing length (5.18"), width (2.97"), and height (3.74").

Length: Approximately 5.18 inches (13.16 cm)

Width: Approximately 2.97 inches (7.54 cm)

Height: Approximately 3.74 inches (9.50 cm)

Item Weight: 610 g

3. Setup and Installation

The Joinworld Fuse and Relay Box comes pre-wired to simplify installation. Follow these general guidelines for a secure and functional setup.

3.1 Component Identification

Easy to Install

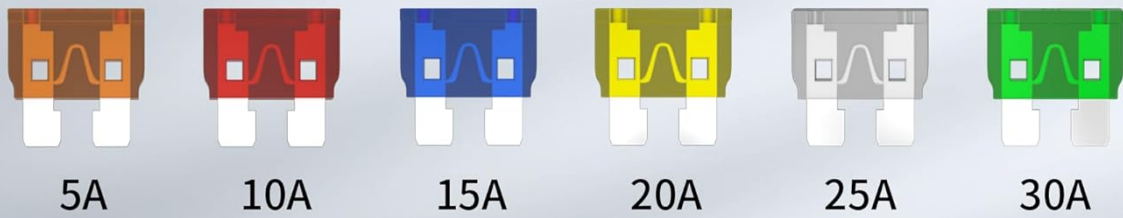


Image: Top view of the fuse and relay box, illustrating the placement of relays and various amperage fuses (5A, 10A, 15A, 20A, 25A, 30A).

The box is designed with dedicated slots for relays and fuses. Ensure correct amperage fuses are used for each circuit to prevent damage.

3.2 Wiring Connections



Image: A detailed wiring diagram showing connections for power input, control signals, and output to devices. This diagram is essential for understanding the internal wiring and making external connections.

The pre-wired harness simplifies connections. Refer to the provided wiring diagram for specific connections. Typically, wires are color-coded for positive, negative, and signal inputs/outputs. Connect the main power input to your vehicle's 12V battery, and route output wires to your desired accessories.

3.3 Mounting

Select a suitable mounting location in your vehicle that is protected from extreme heat, direct water exposure (despite its waterproof features, additional protection is always recommended for longevity), and physical damage. Secure the box using appropriate fasteners through its mounting tabs.

Suitable for all vehicles, 4X4 Offroad Jeep SUV UTV ATV RV Pickup Truck Trailer Camper Marine Boat, etc.



Image: Examples of the fuse and relay box installed in different vehicle types, demonstrating its versatility for various applications.

4. Operation

The Jointworld Fuse and Relay Box functions as a power distribution and circuit protection unit. Once correctly installed and connected, it operates automatically based on the signals received by its relays.

- **Relay Function:** Relays act as electrical switches, allowing a low-current control signal to switch a higher-current circuit. When the control signal is activated (e.g., by a switch in the cabin), the corresponding relay closes, supplying power to the connected accessory.
- **Fuse Protection:** Each circuit is protected by an individual blade fuse. In the event of an overcurrent or short circuit, the fuse will blow, interrupting the power supply to that specific accessory and protecting the wiring and the accessory itself.

5. Maintenance

Regular maintenance ensures the longevity and reliable performance of your fuse and relay box.

- **Inspect Connections:** Periodically check all wiring connections to ensure they are tight and free from corrosion. Loose connections can lead to overheating or intermittent operation.
- **Check Fuses:** If an accessory stops working, inspect its corresponding fuse. Replace blown fuses only with fuses of the same amperage rating. Using a higher amperage fuse can lead to wiring damage or fire.
- **Enclosure Integrity:** Ensure the waterproof and dust-proof covers are securely closed to protect internal components from environmental elements. While designed to be protective, avoid submerging the unit in water.
- **Relay Inspection:** If a relay is suspected to be faulty, it can be carefully removed and tested or replaced. Ensure the replacement relay matches the specifications of the original.
- **Spare Fuses:** If storing spare fuses within the box, ensure they are held securely to prevent them from falling out or shorting against other components.

6. Troubleshooting

If you encounter issues with your Joinfworld Fuse and Relay Box, refer to the following troubleshooting steps:

1. Accessory Not Working:

- Check the corresponding fuse for the non-functional accessory. Replace if blown.
- Verify the relay for the accessory is properly seated and functioning. You can swap it with a known good relay of the same type to test.
- Ensure the control signal (e.g., from a switch) is reaching the relay. Use a multimeter to check for voltage at the control pin.
- Confirm the accessory itself is not faulty by testing it directly with a 12V power source if safe to do so.

2. Battery Drain:

- If the fuse box appears to draw power constantly, check for any LEDs or indicators that remain illuminated when the vehicle is off.
- Ensure all relays are de-energized when the ignition is off. A stuck or faulty relay can cause continuous power draw.
- Verify that the main power input to the fuse box is correctly wired to a switched 12V source if you intend for accessories to only operate with the ignition.

3. Wiring Issues:

- Although pre-wired, inspect all external connections for proper crimping and insulation.
- Ensure no wires are pinched or damaged, which could lead to short circuits.

If problems persist after following these steps, it is recommended to consult with a qualified automotive electrician.

7. Specifications

Feature	Specification
Brand	Joinfworld

Feature	Specification
Model Number	RB-R6F6-W1
Voltage	12V
Current Rating	40 Amps (per relay)
Wattage	480 watts
Relay Type	JD1914 (4-pin 40A), RTT7121 (4-pin)
Fuse Type	ATC/ATO Blade Fuses (5A, 10A, 15A, 20A, 25A, 30A)
Material	High-quality Nylon (flame retardant shell), Silver (contact material)
Contact Type	Normally Open
Mounting Type	Surface Mount
Protection	Waterproof and Dust-proof (top and bottom cover)
Dimensions (L x W x H)	28.1 x 18.7 x 9.1 cm (Parcel Dimensions)
First Available Date	Nov. 9, 2022

8. Warranty and Support

For any questions, concerns, or technical assistance regarding your Joinfworld 12V Automotive Pre-wired Fuse and Relay Box, please contact Joinfworld customer support. We are committed to providing high-quality products and customer satisfaction.

Please refer to your purchase documentation for specific warranty details and contact information.