

Packard PR340

Packard PR340 DPDT 24 Volt Coil Switching Relay User Manual

Model: PR340

1. INTRODUCTION

This manual provides essential information for the safe and effective use of the Packard PR340 DPDT 24 Volt Coil Switching Relay. This relay is designed for various industrial and HVAC applications, including use in heat pumps, vending machines, fans, and heating and air conditioning systems. It functions as a Double Pole Double Throw (DPDT) relay with a 24 Volt coil voltage.

The Packard PR340 is a direct replacement for Mars 90340 and RBM 90-340 relays.

2. SPECIFICATIONS

Feature	Detail
Model Number	PR340
Coil Voltage	24 Volt AC
Contact Configuration	DPDT (Double Pole Double Throw)
Connector Type	Screw Terminals
Contact Material	Silver
Mounting Type	DIN Rail Mount (or equivalent)
Dimensions	2.5 x 2.4 x 1.7 inches
Weight	6.08 ounces
Replacements	Mars 90340, RBM 90-340

3. SETUP AND INSTALLATION

Before beginning installation, ensure that all power to the circuit is disconnected at the main breaker or fuse box. Failure

to do so can result in electrical shock or damage to equipment.

3.1 Safety Precautions

- Always disconnect power before installation or maintenance.
- Wear appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses.
- Ensure wiring complies with all local and national electrical codes.
- If unsure about any step, consult a qualified electrician.

3.2 Mounting the Relay

The Packard PR340 relay is designed for DIN rail mounting or can be secured using its integrated mounting brackets. Ensure the mounting surface is stable and free from excessive vibration.



Figure 3.2.1: The Packard PR340 relay shown with its packaging, illustrating its overall form factor and mounting bracket design.

3.3 Wiring Instructions

The PR340 is a DPDT relay, meaning it has two independent sets of contacts, each with a common, normally open (NO), and normally closed (NC) terminal. The coil terminals activate the relay.

- **Coil Terminals:** Apply 24 Volt AC power to the coil terminals to energize the relay. These are typically located at the bottom of the relay.
- **Contact Terminals:**
 - Terminals 1-2-3: One set of DPDT contacts. Terminal 1 is Common, Terminal 2 is Normally Closed, Terminal 3 is Normally Open.

- Terminals 4-5-6: The second set of DPDT contacts. Terminal 4 is Common, Terminal 5 is Normally Closed, Terminal 6 is Normally Open.

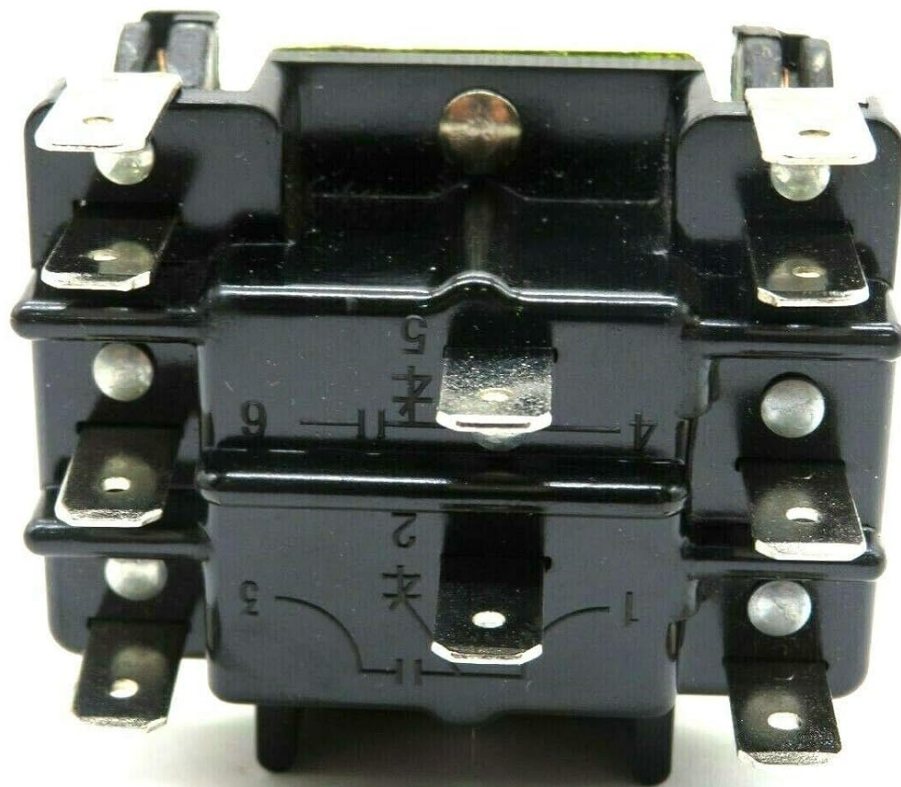


Figure 3.3.1: Top-down view of the Packard PR340 relay, clearly showing the numbered terminals for wiring connections.

Ensure all connections are secure and properly insulated. Refer to the specific wiring diagram of your application for correct integration.



Figure 3.3.2: Close-up view of the product label on the Packard PR340 relay, detailing electrical ratings such as 12FLA 120V, 6FLA 277VAC, 60LRA 120V, 35LRA 277VAC, and DPDT Coil 24 VAC.

4. OPERATING PRINCIPLES

The Packard PR340 relay operates by using an electromagnetic coil to control the switching of electrical contacts. When 24 Volt AC power is applied to the coil, it generates a magnetic field that pulls an armature, causing the contacts to change state.

- **De-energized State:** When no power is applied to the coil, the common terminals are connected to the normally closed (NC) terminals.
- **Energized State:** When 24 Volt AC power is applied to the coil, the common terminals switch connection from the normally closed (NC) terminals to the normally open (NO) terminals.

This switching action allows the relay to control higher voltage or current circuits with a low-voltage control signal, or to provide isolation between control and power circuits.

5. MAINTENANCE

The Packard PR340 relay is designed for long-term, reliable operation with minimal maintenance. However, periodic inspection can help ensure optimal performance and longevity.

5.1 Inspection Schedule

- **Annually:** Inspect the relay and its connections for any signs of wear, corrosion, or overheating.
- **After Fault:** If a circuit fault occurs, inspect the relay for damage before re-energizing the system.

5.2 Cleaning

If dust or debris accumulates on the relay, gently clean it using a soft, dry brush or compressed air. Do not use liquid cleaners or solvents, as they may damage the internal components.

5.3 Replacement

If the relay shows signs of damage, such as cracked housing, burnt terminals, or inconsistent operation, it should be replaced immediately with an identical Packard PR340 relay or an approved equivalent (e.g., Mars 90340, RBM 90-340).

6. TROUBLESHOOTING

This section provides guidance for common issues encountered with the Packard PR340 relay. Always ensure power is disconnected before performing any troubleshooting steps involving physical inspection or wiring.

Problem	Possible Cause	Solution
Relay does not energize (no click sound)	- No power to coil terminals. - Incorrect coil voltage (not 24V AC). - Damaged coil. - Loose wiring connection to coil.	- Verify 24V AC supply to coil terminals. - Check power source for correct voltage. - Test coil resistance (consult manufacturer specs if available). Replace relay if coil is open/shorted. - Secure all coil wiring connections.
Relay energizes but contacts do not switch or switch intermittently	- Worn or pitted contacts. - Mechanical obstruction. - Overload condition.	- Replace the relay. - Inspect for foreign objects. - Ensure load current does not exceed relay's contact ratings.
Relay hums loudly or overheats	- Incorrect coil voltage (too high or low). - AC coil used on DC supply (or vice-versa). - Short circuit in coil or contacts.	- Verify correct 24V AC supply. - Ensure AC relay is used with AC supply. - Disconnect power and inspect for shorts. Replace relay if damaged.

7. WARRANTY INFORMATION

Packard products are manufactured to high standards and are typically covered by a limited warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official Packard website. Keep your proof of purchase for warranty claims.

8. CUSTOMER SUPPORT

For technical assistance, product inquiries, or support regarding your Packard PR340 relay, please contact Packard customer service. You may find contact information on the product packaging, the official Packard website (packardonline.com), or through your authorized distributor.

When contacting support, please have your product model number (PR340) and any relevant purchase details ready.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question