

Allen-Bradley TNR00305F

Allen-Bradley TNR00305F Timing Relay User Manual

Model: TNR00305F | 15S, 115VAC

1. PRODUCT OVERVIEW

The Allen-Bradley TNR00305F is an industrial timing relay designed for precise control of electrical circuits based on a set time delay. This device operates at 115VAC and provides a timing range of up to 15 seconds. It is commonly used in automation, control panels, and various industrial machinery to sequence operations or provide delayed actions.



Figure 1: Front view of the TNR00305F Timing Relay, showing the adjustment dial for setting the time delay.

2. SETUP AND INSTALLATION

Proper installation is crucial for the safe and reliable operation of the TNR00305F timing relay. Always ensure power is disconnected before beginning any installation work.

2.1 Safety Precautions

- Disconnect all power to the circuit before installation or maintenance.
- Installation should only be performed by qualified personnel.
- Ensure the operating voltage (115VAC) matches the relay's specifications.

- Protect the device from moisture, excessive heat, and vibration.

2.2 Mounting and Wiring

The TNR00305F is designed for panel mounting or socket installation. Refer to the specific wiring diagram provided with your equipment or consult the manufacturer's official documentation for correct terminal connections.



Figure 2: Rear view of the TNR00305F Timing Relay, illustrating the pin configuration for electrical connections.

Ensure all connections are secure and properly insulated to prevent short circuits or electrical hazards. The relay typically connects to a compatible socket that provides the necessary pin configuration for power input, output contacts, and timing control.

3. OPERATING INSTRUCTIONS

The TNR00305F timing relay features an adjustable dial on its front face to set the desired time delay.

3.1 Setting the Time Delay

1. Identify the timing range of the relay (e.g., 0-15 seconds).
2. Rotate the black adjustment dial on the front of the relay to align the desired time value with the indicator mark. The dial is marked from 0 to 10, representing a percentage or fraction of the total timing range. For a 15-second relay, a setting of '5' would typically correspond to 7.5 seconds.
3. Once the power is applied, the timing sequence will initiate according to the relay's specific function (e.g., On-Delay, Off-Delay).

Consult the specific application's control schematic to understand the exact timing function and how it integrates into the overall system.

4. MAINTENANCE

The Allen-Bradley TNR00305F timing relay is a robust industrial component designed for long-term reliability with minimal maintenance. Regular inspection is recommended to ensure optimal performance.

4.1 General Inspection

- Periodically inspect the relay for any signs of physical damage, such as cracks, discoloration, or loose connections.

- Ensure the mounting is secure and the relay is not exposed to excessive vibration.
- Check for any accumulation of dust or debris, especially around the terminals, and clean if necessary using a dry, soft cloth.

4.2 Cleaning

If cleaning is required, ensure the power is disconnected. Use a dry, lint-free cloth to wipe the exterior of the relay. Do not use liquid cleaners or solvents, as these can damage the internal components or markings.

This device contains no user-serviceable parts. Any internal issues require replacement of the unit.

5. TROUBLESHOOTING

If the TNR00305F timing relay is not functioning as expected, consider the following common issues and troubleshooting steps:

Problem	Possible Cause	Solution
Relay does not energize/time	No power supply; Incorrect wiring; Faulty relay.	Verify 115VAC power is present at the input terminals. Check wiring against schematic. Replace relay if power and wiring are confirmed correct.
Incorrect timing	Dial setting incorrect; External interference; Faulty relay.	Re-adjust the dial setting. Check for stable power supply and absence of strong electromagnetic fields. Replace relay if timing remains inaccurate.
Contacts not switching	Overload; Worn contacts; Faulty relay.	Ensure load current does not exceed contact rating. Replace relay.

If troubleshooting steps do not resolve the issue, it is recommended to contact a qualified electrician or the product supplier for further assistance.

6. SPECIFICATIONS

The following specifications are for the Allen-Bradley TNR00305F Timing Relay:



Figure 3: Product label of the TNR00305F, detailing electrical specifications.

Brand: Allen-Bradley

Model: TNR00305F

Function: Timing Relay

Time Range: 15 Seconds

Operating Voltage: 115 VAC

Contact Rating:

- 10 Amps Resistive at 115 VAC
- 1/6 H.P. at 115 VAC
- 1/3 H.P. at 230 VAC

Manufacturer: INDUSTRIAL MRO

ASIN: B091FZPX97

7. WARRANTY AND SUPPORT

For specific warranty information regarding the Allen-Bradley TNR00305F Timing Relay, please refer to the terms and conditions provided by the original seller or manufacturer at the time of purchase. As this item may be new surplus or remanufactured, warranty coverage can vary.

For technical support or inquiries, please contact the vendor from whom the product was purchased. Provide them with the product model number (TNR00305F) and ASIN (B091FZPX97) for efficient assistance.

Legal Disclaimer: Surplus Item - Package Condition/Type May Vary.

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Related Documents - TNR00305F

 Allen-Bradley 440RC23137 MSR Safety Relay Datasheet	<p>Technical datasheet for the Allen-Bradley 440RC23137 MSR Single Function Safety Relay, detailing electrical, mechanical, dimensional, and environmental specifications. Designed for safety control applications.</p>
 Allen-Bradley 440RN23131 AB 440R MSR Safety Relay 115VAC Datasheet	<p>Datasheet for the Allen-Bradley 440RN23131 AB 440R MSR Safety Relay. This device monitors safety-related circuits and operates at 115VAC. Details include electrical, construction, mechanical, and environmental specifications.</p>

 <p>Product Catalog</p> <ul style="list-style-type: none"> AS-i Masters/Gateways/Link/Scanners AS-i Slaves AS-i Protocols/Diagnosis/Development Other Products/Master Simulators AS-i Safety of Motion <p>4 Edition: April 2011</p>	<p>Bihl+Wiedemann AS-i Product Catalog and Solutions</p> <p>Explore the comprehensive Bihl+Wiedemann AS-i product catalog, featuring masters, gateways, slaves, safety components, and accessories for industrial automation. Discover AS-Interface technology solutions.</p>
	<p>Faucet Repair Parts Catalog and Guide</p> <p>Comprehensive catalog of faucet repair parts and replacement components for various brands including Acorn, American Standard, Delta, Moen, and more. Find detailed part numbers, descriptions, and compatibility information.</p>
 <p>System Security Design Guidelines</p> <p>Allen-Bradley</p> <p>Reference Manual Original Instructions</p>	<p>System Security Design Guidelines for Industrial Automation</p> <p>Comprehensive guidelines for designing and implementing robust security for industrial automation systems, covering vulnerabilities, network security, user access management, and threat modeling. Learn how Rockwell Automation products enhance system security.</p>
 <p>44 x 44 JULIE COUNTER TABLE</p> <p>Assembly Instructions</p>	<p>Assembly Instructions for 44 x 44 Julie Counter Table</p> <p>Step-by-step assembly instructions for the 44 x 44 Julie Counter Table by Patio Furniture, including parts list and tools needed.</p>