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› [Intermatic T104R 24 Hour Mechanical Timer Switch - 208–277 VAC, DPST, Type 3R Indoor/Outdoor Metal Enclosure, Heavy-Duty, Manual Override, 40 Amp – Ideal for Lights, Pumps, Fans, and HVAC Systems 208-277 V DPST](#)

## Intermatic T104R

# Intermatic T104R 24 Hour Mechanical Timer Switch User Manual

**Brand:** Intermatic

**Model:** T104R

## 1. INTRODUCTION AND OVERVIEW

The Intermatic T104R 24 Hour Mechanical Timer Switch is designed for industrial, commercial, and residential applications. This heavy-duty timer provides direct 24-hour control for a variety of loads, including lights, pumps, fans, and HVAC systems. It supports 1 to 12 "On/Off" operations daily with a minimum On/Off time of 1 hour. All models are equipped with one "On" and one "Off" tripper for programming.



Figure 1.1: Intermatic T104R Mechanical Timer Switch with its protective enclosure open, revealing the internal clock mechanism and wiring instructions on the inside of the door.

## 2. SAFETY INFORMATION

**WARNING: Risk of Fire or Electric Shock.**

- Installation and servicing of this timer switch should only be performed by a qualified electrician or licensed contractor in accordance with all local and national electrical codes.
- Always disconnect power at the circuit breaker or fuse box before installing or servicing the unit.
- Ensure all wiring connections are secure and properly insulated.
- Do not exceed the maximum load ratings specified for this device.
- This device is designed for permanent installation.
- Keep the enclosure door closed and latched when not in use to maintain its Type 3R rating for indoor/outdoor protection.

### 3. PRODUCT FEATURES

- **DOUBLE POLE, SINGLE THROW (DPST):** Supports two-line control for high-voltage systems and handles up to

40A loads, including motors up to 5 HP at 240V and 2 HP at 120V, ideal for commercial-grade applications.

- **24-HOUR MECHANICAL CONTROL:** Provides daily analog scheduling with up to 12 programmable ON/OFF events per day; perfect for automating lighting, pool pumps, air conditioning units, and other 208–277V equipment.
- **TYPE 3R METAL ENCLOSURE:** Weather-resistant steel housing is UL-rated for indoor or outdoor installation, making it a great fit for garages, equipment sheds, mechanical rooms, and utility panels.
- **TRIPPERS INCLUDED FOR PROGRAMMING:** Comes with one ON and one OFF tripper to start scheduling immediately; supports up to 12 ON/OFF cycles with 1-hour minimum intervals—no batteries or digital setup needed.
- **WIDE-RANGE LOAD COMPATIBILITY:** Handles resistive loads up to 40A at 120–480V, and inductive, ballast, and pilot duty loads up to 277V; UL and CSA listed for safe operation in lighting, HVAC, and industrial control systems.

4. SPECIFICATIONS

Attribute	Value
Brand	Intermatic
Model Number	T104R
Voltage	208-277 VAC
Switch Type	DPST (Double Pole, Single Throw)
Max Load	40 Amps
Enclosure Type	Type 3R Metal (Indoor/Outdoor)
Number of ON/OFF Settings	Up to 12 per day
Minimum ON/OFF Time	1 Hour
Product Dimensions	3.62"D x 5.5"W x 9.38"H
Item Weight	3.4 Pounds
Material	Steel
Certifications	UL, CSA



Figure 4.1: Approximate dimensions of the Intermatic T104R timer switch.

## 5. SETUP AND INSTALLATION

The Intermatic T104R timer switch is designed for permanent installation. Due to its electrical nature and high voltage ratings, **installation should only be performed by a qualified electrician or licensed contractor**. Refer to the detailed wiring diagrams and instructions provided on the inside of the timer's enclosure door and in the official user manual PDF for proper and safe installation.

### 5.1 Mounting the Enclosure

- Choose a suitable location for mounting, ensuring it is accessible for programming and maintenance, and protected from direct impact.

- The Type 3R metal enclosure is weather-resistant, allowing for both indoor and outdoor installation.
- Securely mount the enclosure to a flat, stable surface using appropriate fasteners.

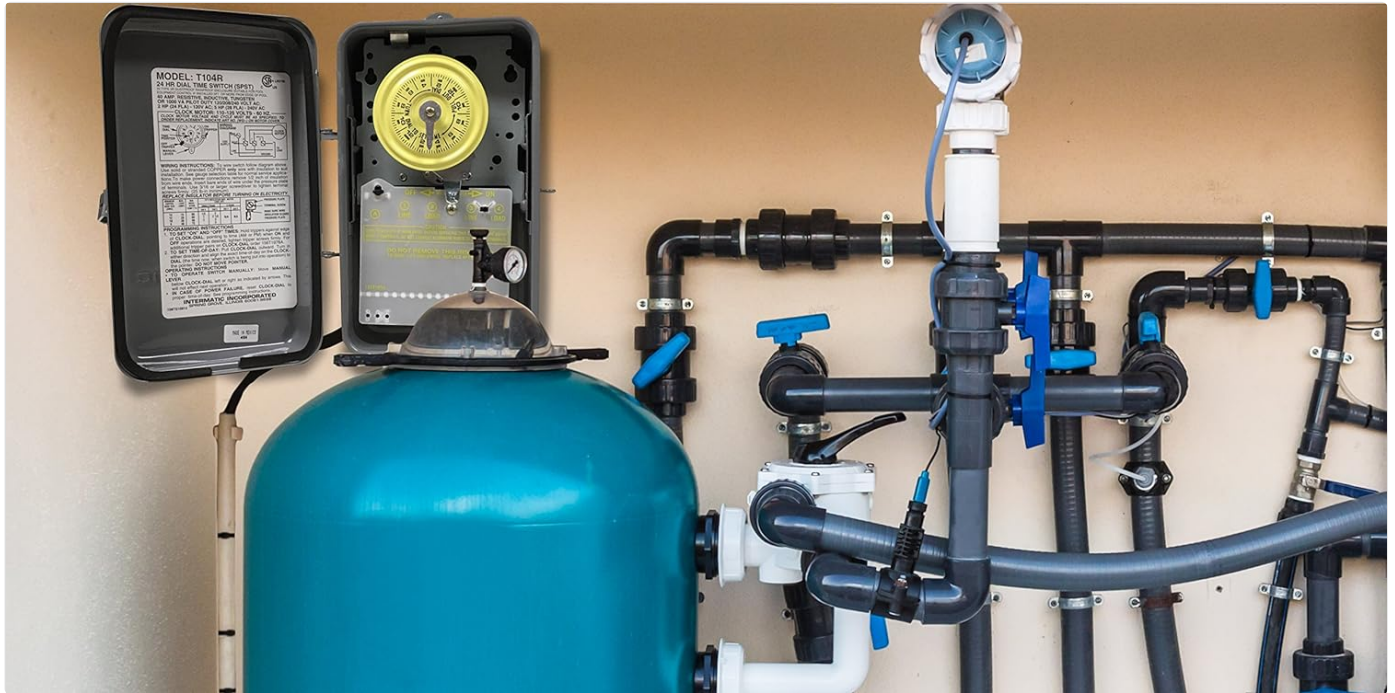


Figure 5.1: Example of the Intermatic T104R timer switch installed in an outdoor pool pump setup.

## 5.2 Wiring

- **Before wiring, ensure all power to the circuit is disconnected at the main breaker.**
- Follow the specific wiring instructions and diagrams printed on the inside of the timer's door.
- Connect the incoming power lines (LINE) and the outgoing load lines (LOAD) to the designated terminals.
- Ensure proper grounding.





Figure 5.2: Internal view of the T104R, highlighting the dial, manual lever, and wiring terminals.

## 6. OPERATING INSTRUCTIONS

The T104R timer operates on a simple mechanical principle, allowing for straightforward daily scheduling.

### 6.1 Setting the Time of Day

- To set the current time, gently pull the yellow dial outwards.
- Rotate the dial in either direction until the current time aligns with the arrow or mark on the timer mechanism.
- Push the dial back in to engage the mechanism.

## 6.2 Programming ON/OFF Times

- The timer comes with one "ON" tripper (green) and one "OFF" tripper (red). Additional trippers can be purchased separately.
- To set an "ON" time, slide the green tripper onto the dial at the desired hour. Ensure it is securely fastened.
- To set an "OFF" time, slide the red tripper onto the dial at the desired hour. Ensure it is securely fastened.
- The timer will activate the load when the "ON" tripper passes the trip mechanism and deactivate when the "OFF" tripper passes it.
- The minimum interval between an ON and OFF event is 1 hour.



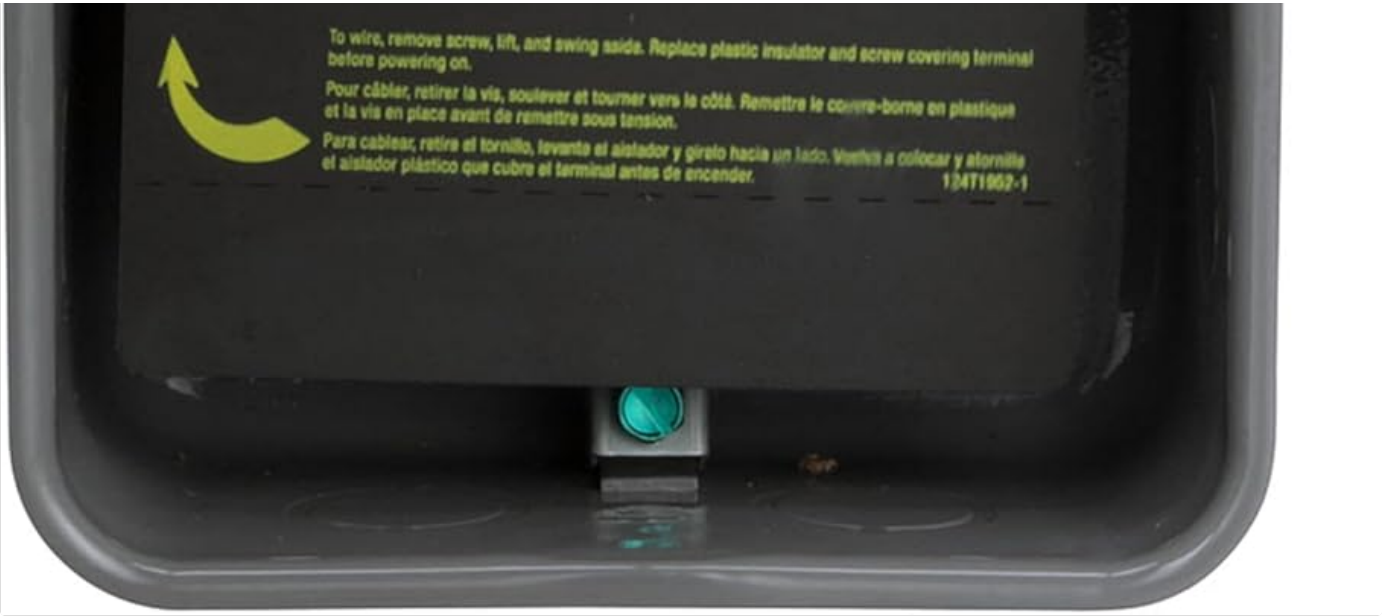


Figure 6.1: Setting the ON/OFF trippers on the timer dial.

### 6.3 Manual Override

The T104R features a manual override lever located below the dial. This lever allows you to temporarily turn the connected load ON or OFF without affecting the programmed schedule. Simply move the lever to the desired position (ON or OFF). The timer will resume its programmed schedule at the next scheduled ON or OFF event.

## 7. MAINTENANCE

The Intermatic T104R is designed for long-lasting, reliable operation with minimal maintenance. However, periodic checks can help ensure optimal performance:

- **Cleanliness:** Keep the interior of the enclosure clean and free from dust, debris, and insects.
- **Connections:** Periodically inspect wiring connections to ensure they remain tight and free from corrosion.
- **Enclosure Integrity:** Check the enclosure for any signs of damage, cracks, or loose seals that could compromise its weather resistance. Ensure the door is securely latched.
- **Time Accuracy:** If the timer loses time or runs inaccurately, it may indicate an issue with the internal motor.

**Always disconnect power before performing any maintenance or inspection.**

## 8. TROUBLESHOOTING

If your Intermatic T104R timer switch is not functioning as expected, consider the following common issues and solutions:

Problem	Possible Cause	Solution
Timer not turning ON/OFF at programmed times.	Trippers are not securely placed or are incorrectly positioned.	Ensure ON and OFF trippers are firmly snapped onto the dial at the correct times. Verify the manual override lever is not engaged.
Timer dial is not rotating.	No power to the timer; internal motor failure.	Check the circuit breaker. Ensure wiring connections are secure. If power is present and the dial still doesn't move, the internal motor may need replacement or professional servicing.



Load (e.g., pump, light) is not receiving power.	Timer is in OFF cycle; wiring issue; faulty load.	Check the timer's current position on the dial. Use the manual override to test the load. Verify all wiring connections are correct and secure. Test the load directly if possible.
Timer is losing or gaining time.	Power interruptions; internal motor issue.	Mechanical timers require manual reset after power outages. If time drift occurs without power interruptions, the internal motor may be failing.

For issues not covered here or if troubleshooting steps do not resolve the problem, contact a qualified electrician or Intermatic customer support.

## 9. WARRANTY AND SUPPORT

The Intermatic T104R Mechanical Timer Switch comes with a **1-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or to purchase replacement parts, please contact Intermatic customer service. Keep your proof of purchase for warranty validation.

## 10. ADDITIONAL RESOURCES

For more detailed information, including comprehensive wiring diagrams and advanced troubleshooting, please refer to the official User Manual (PDF):

[Download Official User Manual \(PDF\)](#)

