

Intermatic T104M

Intermatic T104M Mechanical Time Switch Mechanism User Manual

Model: T104M

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Intermatic T104M Mechanical Time Switch Mechanism. This mechanism is designed for integration into compatible Intermatic enclosures (sold separately) and is ideal for automating various electrical loads such as pumps, fans, lighting, and high-voltage equipment.

2. SAFETY INFORMATION

WARNING: Risk of Fire or Electric Shock.

- Always turn OFF power at the main circuit breaker or fuse box before installing, servicing, or removing the time switch mechanism. Failure to do so may result in serious injury or death.
- This product may expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.
- Ensure all wiring connections are secure and comply with local and national electrical codes.
- Do not remove the plastic insulator covering the terminals. It must be replaced after wiring to ensure safety.



Figure 1: Intermatic T104M Mechanical Time Switch Mechanism. This image shows the front view of the mechanism, highlighting the yellow dial, manual lever, and wiring terminals.

3. SETUP AND INSTALLATION

The T104M is a mechanism-only unit designed for integration into existing or new compatible Intermatic enclosures. It does not come with an enclosure.

3.1. Preparing for Installation

1. **Turn Off Power:** Locate the circuit breaker or fuse that controls the power to the timer's location and turn it OFF. Verify power is off using a voltage tester.

2. **Access Enclosure:** Open the existing Intermatic enclosure where the T104M mechanism will be installed or replaced.
3. **Remove Old Mechanism (if replacing):** If replacing an old mechanism, carefully disconnect all wires from the terminals. Note the wiring configuration or take a photo for reference. Push the retaining tab at the top of the mechanism and lift it out of the enclosure's side slots.



Figure 2: Top-down view of the T104M mechanism, showing the gear assembly and mounting points.

3.2. Installing the New Mechanism

1. **Insert Mechanism:** Align the new T104M mechanism with the slots in the enclosure. Push the mechanism into place until the top retaining tab clicks securely.
2. **Wire Connections:** Connect the electrical wires to the appropriate terminals on the mechanism. The T104M is a Double Pole, Single Throw (DPST) switch. Refer to the wiring diagram on your enclosure or the product's specifications for correct connections. Ensure all wire connections are tight and secure.
3. **Replace Insulator:** Ensure the plastic insulator covering the terminals is properly in place. This is crucial for safety.
4. **Close Enclosure:** Close the enclosure door securely.
5. **Restore Power:** Turn the power back ON at the main circuit breaker or fuse box.

4. OPERATING INSTRUCTIONS

The T104M features a 24-hour mechanical scheduling dial with ON/OFF trippers for automated control.

4.1. Setting the Current Time

1. Locate the yellow time dial.
2. Gently pull the entire dial outwards.
3. Rotate the dial clockwise or counter-clockwise until the current time aligns with the time pointer (usually a small arrow or line on the mechanism's frame).
4. Once the correct time is set, release the dial. It should snap back into place.

4.2. Setting ON/OFF Events

The mechanism comes with one ON (green) and one OFF (red) tripper. Additional trippers can be purchased separately to allow for up to 12 ON/OFF events per day.

1. **Attach Trippers:** If not already attached, slide the ON and OFF trippers onto the outer edge of the time dial at your desired ON and OFF times.
2. **Adjust Trippers:** To adjust a tripper, loosen the small screw on the tripper, slide it to the desired time on the dial, and then tighten the screw to secure it. Ensure the trippers are firmly in place to engage the manual lever.
3. The dial will continuously rotate, and when the time pointer reaches an ON tripper, the switch will activate. When it reaches an OFF tripper, the switch will deactivate.

4.3. Manual Override

A manual lever is provided for temporary ON/OFF control without affecting the programmed schedule.

- To manually turn the load ON or OFF, simply push the manual lever to the desired position (ON or OFF).
- The next programmed tripper will override the manual setting and resume the automatic schedule.

5. MAINTENANCE

The Intermatic T104M is designed for durability and requires minimal maintenance. However, periodic checks can ensure optimal performance.

- **Regular Inspection:** Periodically inspect the mechanism for any signs of wear, corrosion, or debris buildup, especially on the gears and electrical contacts.
- **Cleaning:** Gently clean any dust or dirt from the mechanism using a soft, dry cloth. Avoid using liquids or abrasive cleaners.
- **Contact Points:** If the electrical contacts appear discolored or show signs of arcing, they may need to be gently cleaned or filed by a qualified electrician.
- **Tripper Security:** Ensure that the ON and OFF trippers are securely fastened to the dial. Loose trippers may lead to inaccurate scheduling.

6. TROUBLESHOOTING

6.1. Timer Dial Not Turning

- **Check Power:** Ensure the timer is receiving power. Verify the circuit breaker is ON.
- **Motor Failure:** The internal clock motor may have failed. This is a common issue after extended use (e.g., 15+ years). The mechanism will need to be replaced.
- **Gear Issues:** Inspect the gears behind the dial. If teeth are broken or stripped, the mechanism will need replacement.

6.2. Load Not Turning ON/OFF at Programmed Times

- **Tripper Placement:** Verify that the ON and OFF trippers are correctly positioned and securely tightened on the dial at the desired times.
- **Manual Lever Position:** Check if the manual lever is in the correct position. Remember that the next tripper will override the manual setting.
- **Electrical Contacts:** Over time, the internal electrical contacts may become worn or corroded, preventing proper connection. This typically requires mechanism replacement.
- **Wiring:** Ensure all wiring connections are secure and not loose.

7. SPECIFICATIONS

Brand	Intermatic
Model Number	T104M

Product Dimensions	2.5"D x 5"W x 8"H
Item Weight	1 Pound
Material	Acrylonitrile Butadiene Styrene
Time Period	24 Hour
Number of Settings	12 ON/OFF events per day
Contact Form	DPST (Double Pole, Single Throw)
Voltage Rating	208-277 Volts AC (Clock Motor) / 120-480V (Resistive Loads)
Current Rating	Up to 40A
Motor Load Capacity	Up to 5 HP at 240V, 2 HP at 120V
Certifications	UL and CSA certified



Figure 3: Certification logos for the Intermatic T104M mechanism.

8. WARRANTY AND SUPPORT


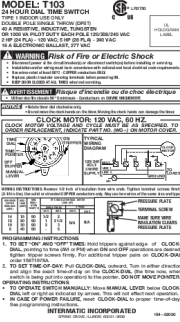
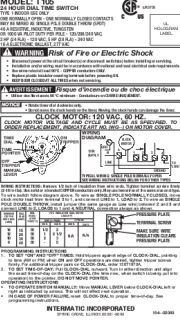
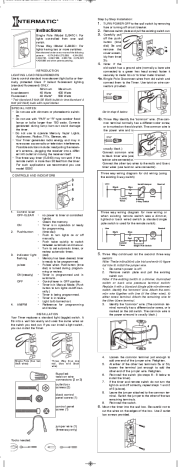

8.1. Warranty Information

The Intermatic T104M Mechanical Time Switch Mechanism comes with a **1-year warranty** from the date of purchase. Please retain your proof of purchase for warranty claims.

8.2. Further Support

For detailed wiring diagrams, advanced troubleshooting, or to download the complete user manual in PDF format, please visit the official Intermatic website or refer to the provided resources:

- **User Manual (PDF):** [Download User Manual](#)
- **Intermatic Store:** [Visit Intermatic Brand Store on Amazon](#)

	<p>Intermatic P1353ME Multipurpose Control Instruction Manual</p> <p>Comprehensive instruction manual for the Intermatic P1353ME Multipurpose 24-Hour Control mechanism, detailing installation, operation, programming, features, and safety guidelines for pool and spa equipment.</p>
	<p>Intermatic T103 24-Hour Dial Time Switch: Installation and Operation Manual</p> <p>Detailed guide for the Intermatic T103 24-Hour Dial Time Switch, covering specifications, safety warnings, wiring instructions, programming, and operation. Suitable for indoor use with 120/208/240 VAC power.</p>
	<p>Intermatic T105 24-Hour Dial Time Switch: Installation, Wiring, and Operation Guide</p> <p>Comprehensive guide for the Intermatic T105 24-hour mechanical dial time switch. Covers model specifications, safety warnings, wiring instructions for various configurations (SPNO, SPNC, SPDT), programming procedures, and manual operation. Includes a detailed table of electrical ratings and wire gauge recommendations.</p>
	<p>Intermatic EJ341C/EJ343C Lighting Timer Switch Installation and Programming Guide</p> <p>Detailed instructions for installing and programming Intermatic EJ341C (Single Pole) and EJ343C (Three Way) lighting timer switches. Covers setup, controls, programming methods, troubleshooting, and specifications.</p>
	<p>Intermatic EI200 Electronic In-Wall Countdown Timer - Installation and Operation Guide</p> <p>Detailed guide for the Intermatic EI200 Electronic In-Wall Countdown Timer. Covers features, ratings, installation steps, operation modes (Timer Mode, Hold Mode), and a 1-year limited warranty. Includes wiring diagrams and safety warnings.</p>



operation modes, and warranty information.