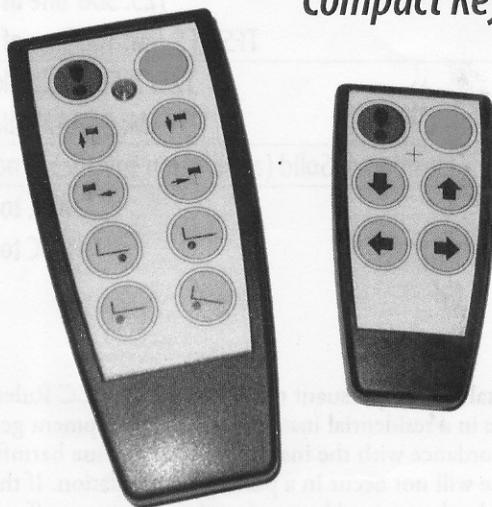




# T-5 Operating Guide

## Compact Keypad Remote Control



*Photo for reference only. Actual product appearance will vary.*

### **IMPORTANT!**

Read this manual completely before operating system.

Keep this manual available for future reference.

Make sure the area is safe for operating equipment before turning power on or starting equipment.

If you encounter any problem or malfunction, discontinue use immediately, and contact your equipment dealer for service or replacement parts.

### **CAUTION**

Improper operation of these controls could cause damage to equipment. Do not allow anyone to operate this equipment before completely reading all manuals.

### **NOTICE**

Miratron, Inc. controls are not intended for life or safety applications. Miratron, Inc. shall not accept responsibility for installation, application, or safety of machine or systems which utilize miratron, Inc. controls.

### **Care and Handling**

Failure to follow care and handling instructions will void the warranty and could result in unsafe equipment operation.

Clean transmitter gently with a damp cloth or dry, compressed air. Do not immerse transmitter in water, or spray with hose. Do not store outside.

Do not drop transmitter or otherwise subject transmitter to physical shock.

Do not expose transmitter to extreme temperatures.

Do not open transmitter enclosure. Transmitter contains no user serviceable parts.

### **OPERATION**

#### **Controls**

Transmitters are custom labeled, and may be equipped with a "SHIFT" or "ALT" button to provide multiple functions for each button. Take time to become familiar with the operation and arrangement of the buttons before operating equipment.

#### **Batteries**

The T-5 transmitter operates from a standard 9-volt battery. The T-5-SM transmitter operates from a pair of "AAA" batteries. Alkaline batteries generally provide longest life. If rechargeable batteries are used, NiMH type are recommended. T-5 Batteries are accessible by a battery compartment door on the back of the transmitter. T-5 batteries are inside of the transmitter. A small phillips screwdriver is needed to replace T-5-SM batteries. To ensure maximum battery life, be sure to turn the transmitter OFF when not in use. Remove batteries prior to shipping or storing transmitter.

#### **Transmitter/Receiver Matching**

Transmitters and receivers are shipped from the factory as matched pairs. If a new transmitter is to be used, it must be trained to operate the receiver.

Training procedure:

1. Power on transmitter and receiver.
2. Press "LEARN" button on receiver.
3. Operate transmitter normally.

# SPECIFICATIONS

|                      |               |   |
|----------------------|---------------|---|
| <b>Transmitter</b>   | Frequency     | TZ5: 2.4-2.4835GHz, Unlicensed ISM band<br>TF5/TF5-SM: 433MHz |
|                      | Range         | TZ5: 300' line of sight<br>TF5/TF5-SM: 100' line of sight     |
|                      | Battery Type  | TZ5/TF5: 9-volt alkaline<br>TF5-SM: 2 "AAA" alkaline          |
|                      | Led Indicator | Flashing or Solid (application specific) = normal             |
| <b>Environmental</b> | Storage       | -40°C to 85°C   |
|                      | Operating     | -10°C to 60°C   |

## INSTRUCTION TO THE USER (TF5 AND TF5-SM VERSIONS ONLY)

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- \* Reorient or relocate the receiving antenna.
- \* Increase the separation between the equipment and receiver.
- \* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- \* Consult the dealer or an experienced radio/TV technician for help.

This equipment has been certified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

## Troubleshooting:

| ISSUE  | SOLUTIONS   |
|--|---|
| Transmitter not working. LED not on or blinking. | Install new batteries.<br>Make sure power switch is pressed (if applicable)   |
| Transmitter not working. LED on or blinking.     | Install new batteries.<br>Make sure receiver is powered.<br>Check receiver fuse.<br>Make sure transmitter is in range of receiver.<br>Make sure transmitter and receiver are matched.   |
| Poor range.                                      | Check receiver antenna and cable for loose connections or damage.<br>Install new batteries.<br>Obstructions, interference, and adverse weather can affect range.  |
| One or more functions do not operate properly.   | Verify receiver wiring is correct.<br>Verify control device is operational (solenoid valve, pump, etc.)<br>Inspect transmitter, receiver, and cabling for damage. (Do not open.)<br>Some control systems feature special program logic that can disable functions under certain conditions. Consult factory for specific details. |