

MTL4 Specifications

Electrical

Dimming Loads (mode switch to the RIGHT) up to:

Incandescent	600W
Electronic Low Voltage (ELV)	250W
LED	250W
CFL (dimnable)	250W

Switched Loads (mode switch to the LEFT) up to:

Magnetic Low Voltage (MLV)	250W
Motor Loads (incl. fans)	1/8 Hp
Cold Cathode	250VA
CFL (non-dimming)	250W

Connections

4 Connecting Wires Hot, Neutral, Load, Ground

Physical

HxWxD Switch: 84mm x 67.3 mm x 44mm
Single Wall Plate: 89mm x 88mm x 14mm

Weight	107g
Operating Temperature	0°C to 25°C All load ratings based on ambient temperature of 22°C
Buttons	1,2, or 4 buttons configured in app Backlit capacitive touchpad
Micro Slide Switch	Switch/Dimming mode selector

Note: The maximum load requirements for fluorescent, CFL and LED bulbs can vary greatly depending on the specific fixture and/or bulb being used. These load types have significant inrush current which can activate the protection circuitry on the MTL4. The quality and performance of these types of bulbs varies from manufacturer to manufacturer. When problems are encountered, simply changing to a different bulb manufacturer may correct the problem.

CE Mark Warning:

This is a Class B product, for use in a domestic environment. This product may cause radio interference in which case the user may be required to take adequate measures.

U.S. Federal Communications Commission Statement

This device has been tested and found to comply with Part 15 of the FCC rules for a Class B digital device. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Warranty:

The MTL4 and all TiO products are covered by a two year limited warranty against defects in materials and workmanship. For more information, visit our website: www.tiohome.com/warranty

Caution:

Any changes or modifications not expressly approved by TiO could void the user's authority to operate the equipment.

© 2015 Anuva Automation, Inc. TiO, Turn it On, Imagined by YOU, and the TiO logos are trademarks of Anuva Automation, Inc., registered in the U.S. and other countries. All rights reserved.

Anuva Automation, Inc. · 7845 Ellis Road · West Melbourne, FL 32904, USA
· +1.321.802.2297 · www.tiohome.com



MTL4 TouchLite® 4 Installation Guide



Description

The TouchLite 4 is a load agnostic touchpad lighting controller that works as a part of a TiO automation system. It installs in a standard 70mm back box (round or square with 60mm fixing screw spacing) and communicates with the TiO system wirelessly via Wi-Fi.

Box Contents

The MTL4 is sold in master cartons of 10 units.

Each unit contains the following:

- MTL4
- Wire Nuts
- Fixing Screws (M3.5)

A copy of this Install Guide is included in each Master Carton

For a more information about the MTL4 and all TiO Products, go to www.tiohome.com

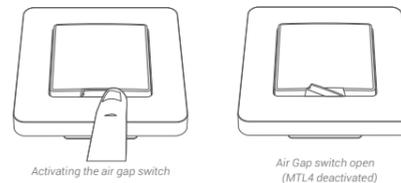
Air Gap Switch

Open the air gap when servicing the lighting (e.g. changing lamps). The MTL4's air gap switch is located on the bottom edge of the button. When open, the air gap switch completely disconnects power from the load and de-energizes the MTL4 electronics. This prevents any leakage current from reaching the load.

The air gap is also an effective way to reboot the MTL4. This should be done anytime the lens or wall plate is installed to calibrate the sensitivity threshold of the capacitive sense circuitry of the button.

Note: The MTL4 cannot be discovered, nor can it communicate with the TiO system when the air gap is in the open (service) position.

To open the air gap, press on the right side of the air gap switch and then pull up on the left side of the lever until it is about 45 degrees. To close the switch, push the left side of the lever down until it is flush with the button surface.



Operating the MTL4

On initial power up, the MTL4 backlight will flash rapidly for a few seconds as the unit starts up. The backlight will then begin to "pulse" (the light level ramping up, then ramping down slowly). The pulsing indicates the MTL4 is not connected to a TiO system. In this mode, the MTL4 can be operated manually:

- Press and release of the button toggles the load on or off.
- Press and Hold of the button will ramp the load level, stopping when the button is released. The direction of the ramp (brighter or dimmer) will toggle with each action (i.e. ramp up, then the next time it is held, will ramp down).

Danger! Risk of electrocution and equipment damage. Turn off the electrical power at the circuit breaker or fuse and verify that the power is off before proceeding. Failure to do so could result in injury or death and/or cause damage to the equipment.

The TouchLite 4 dimmer is for indoor use only.

To reduce the risk of overheating and possible damage to other equipment, do not install to control a receptacle or to provide variable control to a permanently installed device that is not compatible with the TouchLite 4 dimmer.

Exposed surfaces of the TouchLite 4 dimmer can reach dangerously high temperatures if overloaded. Do not use to control loads larger than those shown in the specification section or greater than 600 watts under any circumstances.

The use of metallic switch plates is not recommended on TouchLite 4 dimmers used to control large loads. The TouchLite 4 dimmer mounting yoke can be up to 90°C when fully powering a 600 watt load.

WARNING: the TouchLite 4 dimmer must be installed and used in accordance with electrical codes and regulations.

Danger! Risque d'électrocution et de dommages matériels. Coupez l'alimentation électrique au disjoncteur ou fusible et vérifiez que l'alimentation est coupée avant de procéder. Si vous risquez d'entraîner des blessures ou la mort et/ou d'endommager l'équipement.

Les 4 TouchLite gradateur est pour usage intérieur seulement.

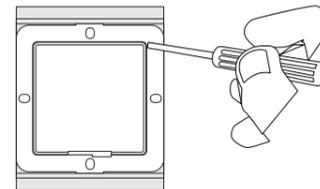
Pour réduire le risque de surchauffe ou de dommage à l'équipement, n'installez pas de contrôler une prise de courant ou pour fournir un contrôle variable pour un appareil installé en permanence qui n'est pas compatible avec la 4 TouchLite gradateur.

Les surfaces exposées du 4 TouchLite gradateur peuvent atteindre des températures dangereusement élevées si surchargé. Ne pas utiliser pour contrôler des charges supérieure à ceux indiqué dans le chapitre "caractéristiques" ou plus de 600 watts sous aucun prétexte.

L'utilisation de plaques d'interrupteur métallique n'est pas recommandée sur les gradateurs TouchLite 4 utilisés pour contrôler des charges importantes. L'étrier de montage gradateur TouchLite 4 peut être jusqu'à 90° C entièrement mise sous tension d'une charge de 600 watts.

AVERTISSEMENT: les 4 TouchLite variateur doit être installé et utilisé conformément aux règlements et codes de l'électricité.

Installing the Button Labels



Using a small flat blade screwdriver, carefully pry off the clear lens (the wall plate must be removed to detach the lens).

Insert the MTL4 button label into the lens.

Snap the lens back into place.

Perforated vellum labels especially designed for MTL4 that can be printed on an ink-jet or laser printer are available. Templates for printing can be found at www.tiohome.com/products/metric-touchlite-4/downloads. Order: FG5109 Perforated Vellum Labels for MTL4 (10 pack has 120 labels)



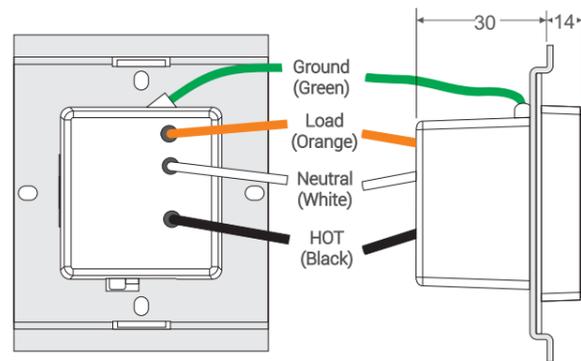
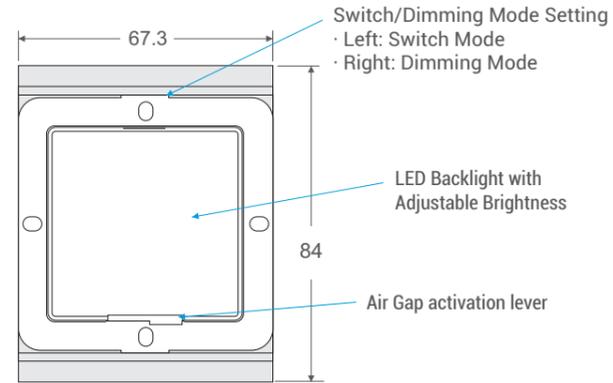
Got Questions?

TiO Technical Support
+1 (321) 802-2298
support@tiohome.com

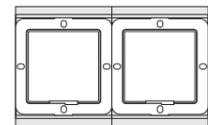
Installation Considerations

- ➔ Read and understand all instructions before beginning the installation. If you are unsure about any part of these instructions, consult a qualified electrician.
- ➔ Professional installation is recommended.
- ➔ Retain this installation guide. Keep this manual in a convenient place for future reference.
- ➔ Heed all warnings. Be aware and follow all warnings on the product and instructions.
- ➔ Use this product indoors only. Don't expose the product to the weather or harsh environmental conditions such as continuous sunlight, excessive humidity or moisture.
- ➔ Use this product only with copper wire. Do not use aluminum wiring. This product has not been approved for use with aluminum wiring.
- ➔ This product generates some heat during normal operation.
- ➔ Using this product in a manner other than as described in this document and other TiO training materials, may void the warranty. TiO is NOT liable for any damage caused by misuse of the product.
- ➔ Do not use a powered screwdriver to install this device. If you do, you may over tighten the screws and strip them.
- ➔ This is an electronic device with intricate interior components. Handle and install with care.
- ➔ Keep product dry. Don't use this product near water. Do not handle the product with wet or damp hands.
- ➔ TiO does not guarantee the performance of any bulb, lamp or fixture combination in your environment. Customer assumes all risks, including potential damage to TiO products associated with (i) the type, rating and quality of the bulb and fixture, or (ii) any use or installation not in accordance with the documentation and materials provided by TiO.
- ➔ Be certain the desired installation location meets the following:
 - That the connected load does not exceed the specified load requirements of the MTL4 for the load type to be connected. Refer to the load specifications Section for details.
 - The range and performance of the wireless control system may be adversely affected by several factors: (i) distance from the Master Coordinator; (ii) layout of the building (iii) number and construction type of walls between the MTL4 and the Master Coordinator; and (iv) electrical equipment located near the devices.
- ➔ Not grounding the MTL4 to a proper earth ground may result in an installation that is less immune to damage caused by electrical disturbances, such as ESD, power surges, or lightning and may void the warranty.
- ➔ TiO recommends that where no neutral wire connection is available for the MTL4, the controlled fixture be labeled "incandescent lamps only".
- ➔ When controlling a fan or other motor load, the MTL4 must be in "Switched" mode (the mode selector slide switch pushed to the left position). Failure to do so could result in damage to the controlled device and/or the MTL4.
- ➔ Get professional service. Have the product serviced only by TiO certified service personnel when the product doesn't appear to operate normally or the product is damaged.
- ➔ Do not attempt to repair the product yourself. Doing so will void the warranty. If you have any questions, call TiO support: +1 321 802-2298 or e-mail us at support@tiohome.com

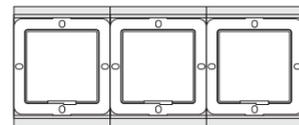
MTL4 Diagram



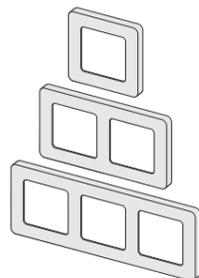
Button Configuration Options



2-GANG Install



3-GANG Install



Wall Plates Sold Separately

MWP1W	Single White	FG5100
MWP1B	Single Black	FG5101
MWP1S	Single Silver	FG5102
MWP2W	Double White	FG5103
MWP2B	Double Black	FG5104
MWP2S	Double Silver	FG5105
MWP3W	Triple White	FG5106
MWP3B	Triple Black	FG5107
MWP3S	Triple Silver	FG5108

Preparing to Install the MTL4 Touchpad Dimmer

The MTL4's ground wire (**green**) must be isolated from the neutral wire and connected to safety ground.

The MTL4's line wire (**black**) must be connected to the 240VAC supply line/hot wire. It may be necessary to use a circuit tester or voltmeter to determine which wire is the supply line/hot wire.

Single Pole Configurations

Connect the MTL4's load wire (**orange**) to an approved load. Connect the MTL4's neutral wire (**white**) to the supply neutral. If no neutral wire is available, connect the MTL4's neutral wire (**white**) to the MTL4's load wire (**orange**).

Multi-Way configurations

Connect the load wire (**orange**) from only one MTL4 to an approved load. Use a wire nut to cap off the load wire(s) (**orange**) of the remaining MTL4s on the circuit.

In many existing multi-way wiring configurations, a neutral wire will be available in at least one location. In this case, use one of the traveler wires as a neutral wire for locations without an existing neutral wire.

If a neutral wire is not available, the minimum load requirements are dependent upon the total number of MTL4 dimmers (refer to the specification section). A maximum of eight MTL4 dimmers can be wired together without a neutral.

Installing the MTL4 Touchpad Dimmer

1. Turn off the electrical power to the desired installation location by switching off the circuit breaker or removing the circuit protection fuse.
2. Before proceeding, test and verify that the electrical power is turned off.
3. Remove the existing switch from the in-wall box (leaving the wires attached) and note the switch type (single pole or multi-way), and the wire types (line/hot, neutral, common, traveler, etc.)
4. Disconnect the wires from the switch

⚠ DANGER! Risk of electrocution, proceed with caution.

Note: in a multi-way switch configuration, it may be necessary to restore power to identify the line/hot wire. Test and verify that the electrical power is turned off after the line/hot wire has been identified).

5. Inspect the wiring connections. Straighten and lightly sand the exposed copper wires if needed. As an alternative, cut off the exposed copper and strip off 3/4" of insulation.

6. Remove the pre-cut insulation from the leads of the MTL4.

7. Twist together the ends of the wires from the MTL4 and the appropriate cable wire from the wall box and secure the wires with a wire nut. Refer to the Wiring Configuration drawings for the proper connections.

Note: Before installing the MTL4 into the wall box, make sure the air gap switch is positioned at the bottom.

8. Carefully fold and insert the wires and the MTL4 into the wall box. Secure the MTL4 with two M3.5 fixing screws (included).

CAUTION: Do not force the MTL4 into the wall box. If it will not fit flush with the front of the box, reposition the wires and wire nuts until there is sufficient space. A deeper wall box may be required.

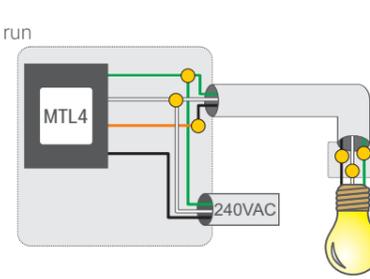
9. Restore the power to the circuit. The MTL4 is now ready to be discovered by the TiO system.

Got Questions?

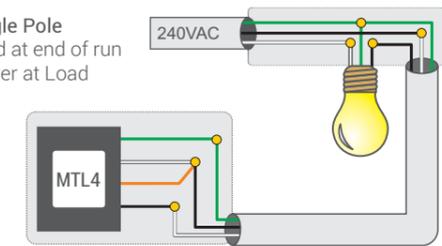
TiO Technical Support
+1 (321) 802-2298
support@tiohome.com

Wiring Diagrams

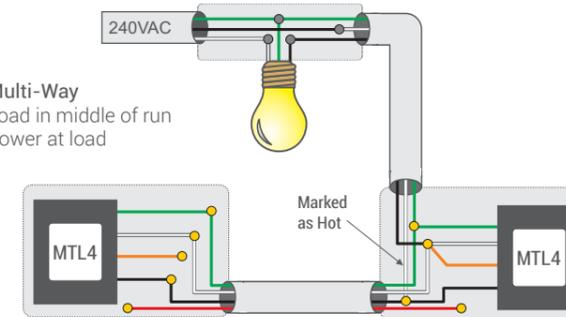
Single Pole Dimmer at end of run Power at Dimmer



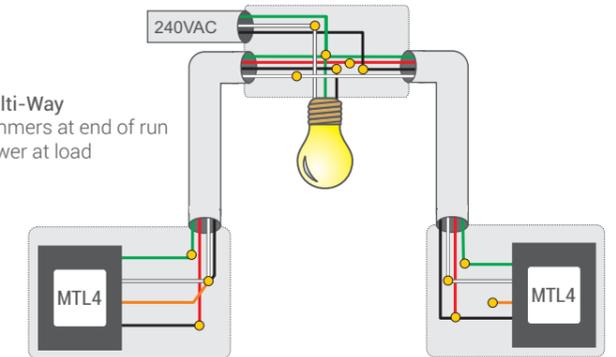
Single Pole Load at end of run Power at Load



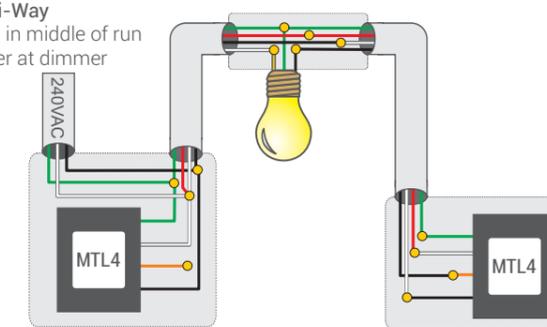
Multi-Way Load in middle of run Power at load



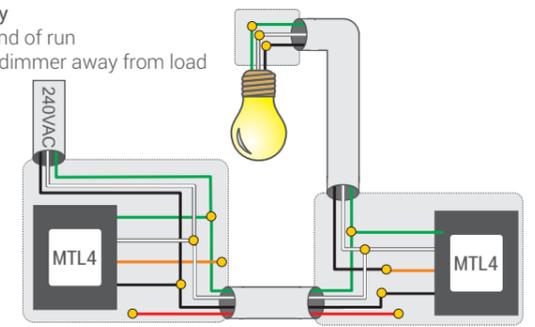
Multi-Way Dimmers at end of run Power at load



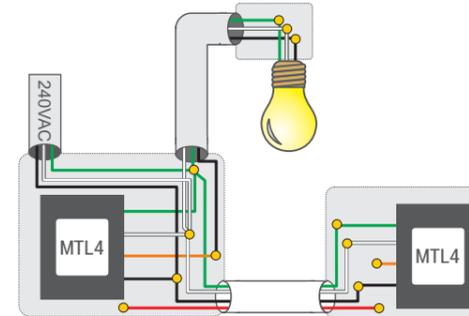
Multi-Way Load in middle of run Power at dimmer



Multi-Way Load at end of run Power at dimmer away from load



Multi-Way Load at end of run Power at dimmer connected to load



Back Light Status - Diagnostics

- **FAST 50/50 Blink** - Occurs every time power is applied to an MTL4 - MTL4 is booting
- **FAST PULSING** (dim up then dim down) - MTL4 is in discovery mode. This is normal start mode when first powered up and successfully starting the internal firmware
- **80/20 Duty Cycle Blink** - no known network; waiting for Discovery to be initiated. Discovery mode is initiated by pressing and holding the top left and bottom right buttons simultaneously for 3 - 5 seconds. Not necessarily a fault mode.
- **Slow Pulsing** - Attempting to connect to a known network
- **Solid ON** - Paired with an MC and operating normally
- **Solid OFF** - Paired with an MC and operating normally where the back light has been set to off; OR, no power connected; OR, air gap is engaged.

