



RF MASTER DIMMER – ZWL-MDX, ZWL-IDX FOR INCANDESCENT FIXTURES ONLY / NO NEUTRAL REQUIRED RF ACCESSORY DIMMER – ZWL-WAX

INSTALLATION INSTRUCTIONS

WARNING:

- Turn OFF circuit breaker or remove fuse(s) and test that power is off before wiring.
- Never wire any electrical device with power turned on. Wiring dimmer with power on may cause permanent damage to dimmer and void warranty.
- If you are not sure about any part of these instructions, please contact a licensed electrician.

CAUTION:

1. Use only with 120V AC 60 Hz.
2. Do not exceed maximum rating of the dimmer as indicated on the device.
3. Must be installed and used in accordance with electrical codes.
4. If a bare copper or green ground connection is not available in the wallbox, contact a licensed electrician for installation.
5. For use ONLY with permanently installed 120V AC incandescent/halogen fixtures.
6. To avoid overheating and possible damage to other equipment, do not use to control receptacles, fluorescent lights, motor-driven appliances, transformer supplied appliances, etc.
7. Use only #14 or #12 copper wire rated for at least 75° C with these devices.
8. Minimum Lamp Wattage:
Single Location Control = 60 Watts.
Multi-location Control = 100 Watts

NOTES:

1. The RF Master Dimmer (ZWL-MDX or ZWL-IDX) is wired directly to the light fixture.
2. For multi-location installations one RF Master Dimmer is used with RF Accessory Dimmer(s) ZWL-WAX.
3. The ZWL-WAX requires hardware connection to the RF Master Dimmer. Refer to installation instructions for wiring.
4. The RF Master Dimmer is not compatible with standard 3-way switches.
5. For multi-location installations, the RF Master Dimmer is the only device that is included in the RF Network.
6. When installing more than one dimmer in a wallbox, the total lamp wattage must be reduced. See Ganging chart below.

GANGING: When ganging multiple Smart Dimmer Masters in one wall box, derating is required as follows:

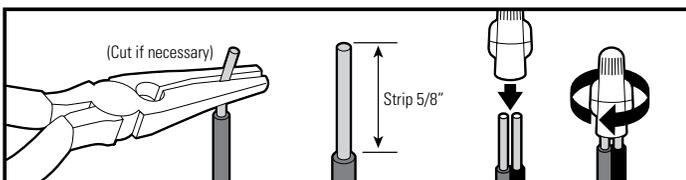
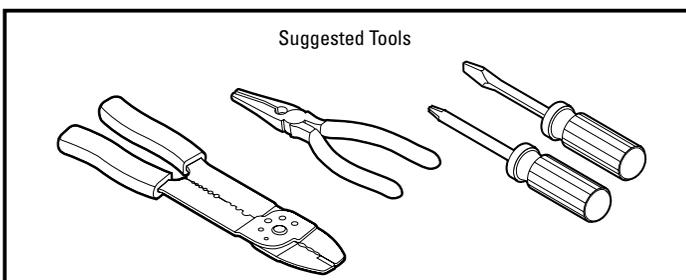
Catalog #	Single Gang	Double Gang	Triple Gang
ZWL-MDX	600W	600W	600W
ZWL-IDX	1000W	800W	800W

Z-Wave Device Network Installation Instructions for RF Master Dimmer Only:

1. This product may be added to a new or existing Z-Wave network. The device has a blue LED, which will blink when the device is not included in a Z-Wave network. The LED stops blinking when the RF Master Dimmer is in a network.
2. To include this device in a Z-Wave network, select the command on your Z-Wave controller for inclusion (Install, Add Device, Add Node, Include Device, etc.). Then press the RF Master Dimmer ON/OFF switch one time to include it in the network. The LED will stop blinking.
3. To exclude this device from a Z-Wave network, select the command on your Z-Wave controller for exclusion (Uninstall, Remove Device, Remove Node, Exclude Device, etc.). Then press the RF Master ON/OFF switch one time to exclude it from the network. The LED will start blinking.
4. This product works with other Z-Wave products from different vendors and product categories as part of the same network.
5. This product is a listening node and it will act as a repeater in the Z-Wave network. It will perform the repeater function with Z-Wave products.
6. For multi-location install; blue LED will blink on all wired units, when the RF Master Dimmer (ZWL-MDX/ZWL-IDX) is not included in the Z-Wave network. After including the RF Master Dimmer in the Z-Wave network, the LED will stop blinking. The ZWL-WAX Accessory Dimmer must be included in the Z-Wave network and then associated with the RF Master Dimmer.

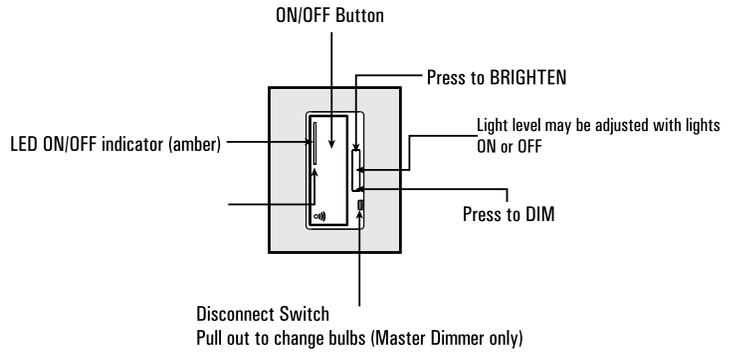
IMPORTANT:

RF Master Dimmer will not work or will become damaged if wired incorrectly and the warranty will be voided.



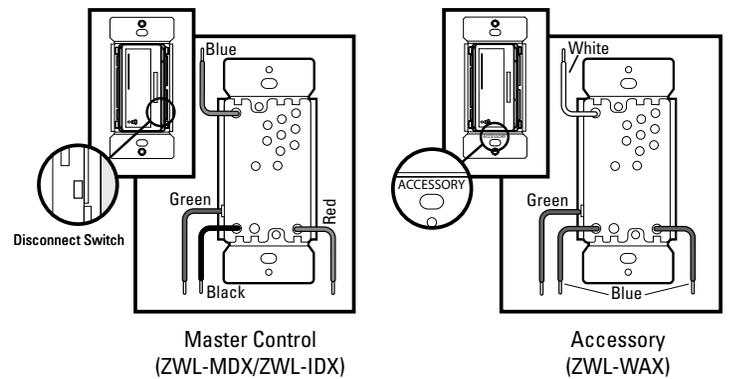
ON/OFF SWITCH

- Press once to turn lights ON at previously selected level.
- Press again to turn lights OFF.
- When lights are OFF, press and hold for 2 seconds for full brightness.
- When lights are ON, press and hold for 2 seconds until the blue LED blinks. After the preset delay, the lights will begin fading to OFF (up to 4 minutes).
- ON/OFF LED indicates that dimmer is turned on.



READ BEFORE INSTALLATION!

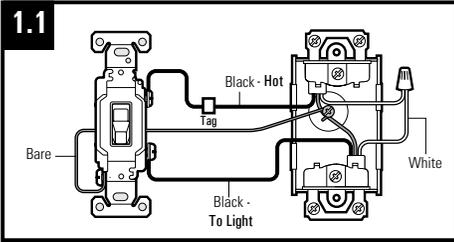
Switch Identification



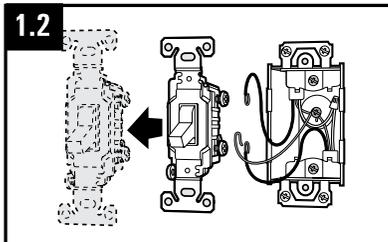
Troubleshooting Guide

Symptom	Possible Cause	Solution
No Function. LEDs is OFF	A) Light bulb(s) burned out B) Circuit breaker is off or tripped C) Disconnect switch on the dimmer is pulled out to the OFF position D) Improper wiring E) Defective dimmer	A) Replace light bulb B) Turn on the circuit breaker C) Push in the disconnect switch on the dimmer D) Check and correct wiring E) Replace dimmer
Erratic operation or flickering LEDs	A) Lamp power is less than 60 Watts B) Loose wiring connections	A) Increase lamp power to at least 60 Watts B) Check and correct wiring
Functions normally using the dimmer push buttons but not from Z-Wave controller and one of the blue LEDs blinks ON and OFF about once per second	Dimmer is not included in Z-Wave network	Include dimmer in a Z-Wave network using a Z-Wave controller. Refer to Z-Wave controller user manual for details
Functions normally using the Master dimmer control but not from Z-Wave controller and no LEDs are blinking	Problem with RF communication on dimmer	A) Relocate Z-Wave controller B) Replace dimmer
Functions normally both locally and from a Z-Wave controller but can't be controlled from a dimmer accessory switch (ZWL-AND) or other Z-Wave device	The dimmer accessory or other Z-Wave device is not associated with the dimmer you wish to control	Create an association between the dimmer accessory or other device and the dimmer. Refer to your Z-Wave controller user manual for details
Dimmer is warm to touch after a period of time	This is normal	No action required

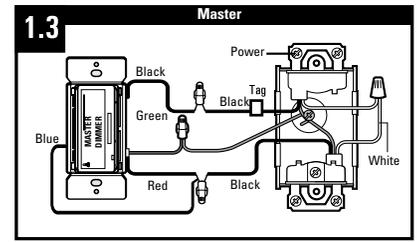
Single Location Control Installation (requires one RF Master Dimmer)



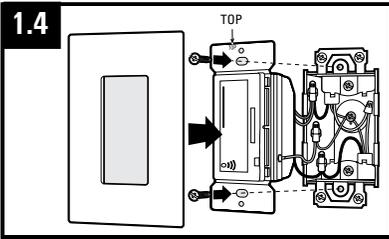
1.1
Turn OFF circuit breaker or remove fuse(s) and test that power is off before wiring. Identify existing wiring (This switch will be a single-pole) and tag "Hot" wire. Use voltage tester as necessary to confirm "Hot" wire (Voltage will be present at the "Hot" wire when the lights are off).



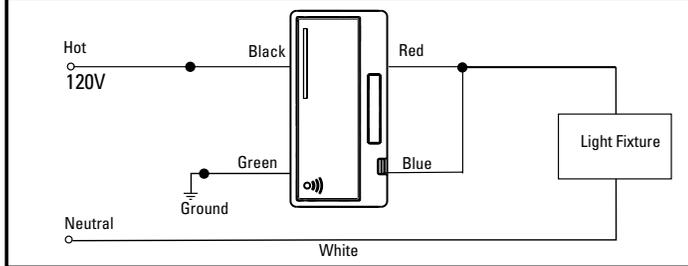
1.2
Disconnect existing switch and remove.



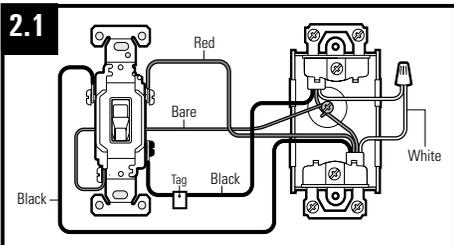
1.3
Connect master dimmer as shown.



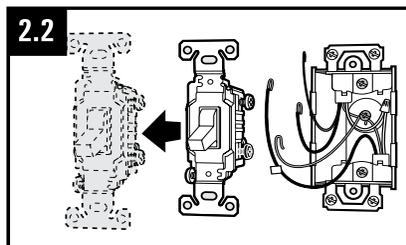
1.4
Gently push dimmer into place and secure with mounting screws. Make sure disconnect switch at bottom of master is fully pushed in.



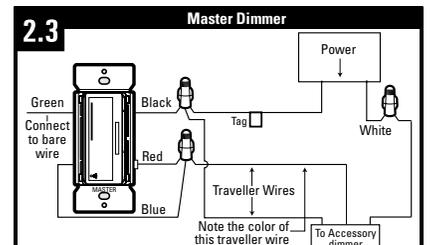
Two Location Control Installation (requires one Master and one Accessory)



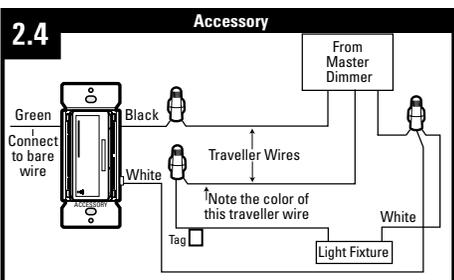
2.1
Turn OFF circuit breaker or remove fuse(s) and test that power is off before wiring. Identify existing wiring (both existing switches will be "3-way") Tag common wire on both 3-Way switches (see "How to Identify Common Wires" section*).



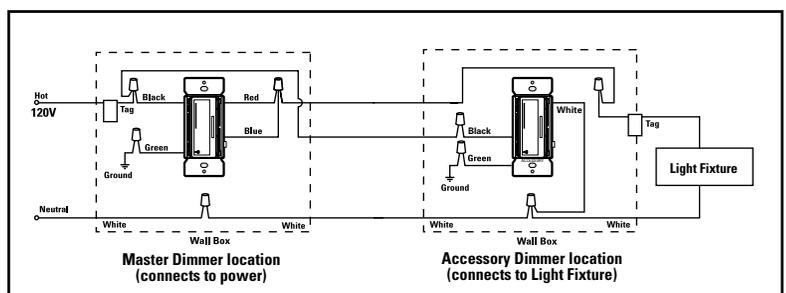
2.2
Disconnect existing switch and remove.



2.3
Connect RF Master Dimmer as Shown. Note the color of the traveller wire you have connected to the blue and red wires. Connect green wire to bare wire in box.

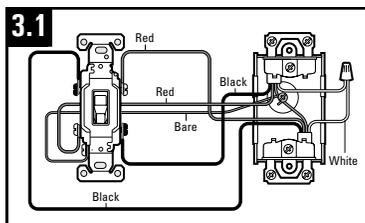


2.4
Connect the Accessory Dimmer as shown. You must connect the tagged wire to the same traveller wire color noted in Step 2.3. Connect green wire to bare wire in box.

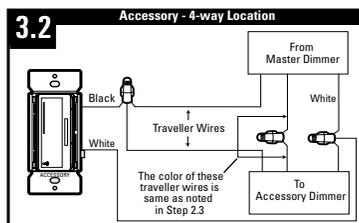


Refer to 1.4 to install device in the wallbox.

Three Location Control Installation (requires one Master and two Accessory Dimmers)



3.1
Turn OFF circuit breaker or remove fuse(s) and test that power is off before wiring. Identify existing wiring (4-way switches). See "How to Identify Common Wires" section for wiring instructions.



3.2
Connect Accessory in 4-way location as shown. For Accessory in 3-way location refer to 2.4.

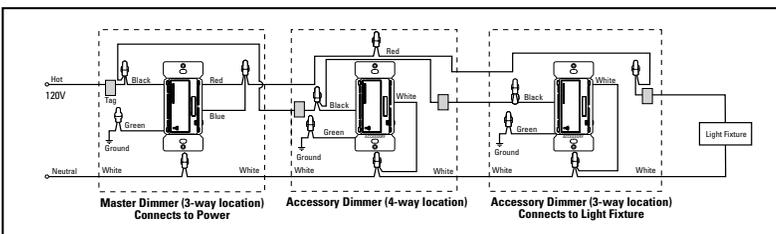
IMPORTANT! How to identify Common Wires*

Two location:

Each switch will have insulated wires connected to three terminal screws plus a green terminal screw. The three terminals are usually one dark colored screw and two light colored screws (ignore the Green screw). Alternatively, the three screws may be the same color and one will be marked COMMON or COM Find the wires connected to the dark or COMMON screws. Usually these wires are black but may be red or blue. Tag these wires on both switches to identify when wiring.

Three location:

Two of the existing switches will be 3-way. The 3-way switches will be located at each end of the circuit with a 4-way switch in between. TAG the two 3-way switches as in the Two Location Control section. The 4-Way switch has 4 insulated wires connected to 4 terminal screws. VERY IMPORTANT - Connect traveler wires with same color noted in Step 2.3 together. Connect remaining traveler wires and the Accessory black wire together.



Refer to 1.4 to push dimmers into place.

Additional Information (Contact Info, Safety, Service & Support, Warranty)

Contacting RTI

For news about the latest updates, new product information, and new accessories, please visit our web site at: www.rticorp.com
For general information, you can contact RTI at: Remote Technologies Incorporated, 5775 12th Ave. E Suite 180, Shakopee, MN 55379, Tel. (952) 253-3100, Fax (952) 253-3131, info@rticorp.com

Safety Suggestions

Do not use unit near water, for example, near a sink, swimming pool, open window, in wet basement, etc.
Do not allow objects to fall or liquids to be spilled into the enclosure through openings.
Do not attempt any service beyond that described in the operating instructions. Refer all other service needs to qualified service personnel.

Service & Support

If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance. RTI provides technical support by telephone or e-mail. For the highest quality service, please have the following information ready: Your Name • Company Name • Telephone Number • E-mail Address • Product model & serial no. (if applicable)
If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried. *Please do not return products to RTI without return authorization.*

Limited Warranty

RTI warrants its products for a period of one (1) year (90 days only for included battery packs); or for a period of time compliant with local laws when applicable from the date of purchase from RTI or an authorized RTI distributor. This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, so long as the original dated sales receipt or other proof of warranty coverage is presented when warranty service is required. Except as specified below, this warranty covers all defects in material and workmanship in this product. The following are not covered by the warranty:
Damage resulting from:
1. Accident, misuse, abuse, or neglect.
2. Failure to follow instructions contained in this Guide.
3. Repair or attempted repair by anyone other than Remote Technologies Incorporated.
4. Failure to perform recommended periodic maintenance.
5. Causes other than product defects, including lack of skill, competence or experience of user.
6. Shipment of this product (claims must be made to the carrier).
7. Being altered or which the serial number has been defaced, modified or removed.