Part # 400-MW-002
Rev. 002 / 8-18-10

The Communicator II

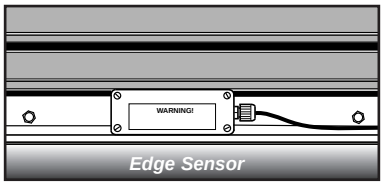
Model # MWCK04

Wireless Transmitter/Receiver Kit
Installation Instructions

TRANSMITTER INSTALLATION:

1- Remove lid from top of the MWCT04 Transmitter to reveal mounting holes. Position the Transmitter near the bottom of the door and mark the mounting hole locations.

2. Remove the Transmitter from door, drill holes and mount the Transmitter with screws supplied. **NOTE: DO NOT** drill any holes in the transmitter box. Only use holes in the 4 corners of the box. Any additional holes in the transmitter box will cause water to enter and a loss of warranty.



Proper Mounting Location on Bottom Bar

3- Loosen wire fitting nut and feed the 2 or 4 wire sensing edge leads into the Transmitter hous g trimming off excess wire.

4- Attach the 4-lead wires to the large green two-part terminal block connector as White, White, Black, Black. If a 2-lead wire connection is appropriate, connect them to the middle terminals, i.e. none, White, Black, none.Tighten the wire fitting nut to assure water tight connection.

5- Adjust Dip Switches: 1= Address Selector 2= Address Selector 3= Address Selector 4= Address Selector
5= OFF for 4-wire edges, ON for 2-wire 10KΩ terminal edges 6= Edge Input ON=N/O OFF= N/C 7= Always OFF
8= OFF for Normal Operations, ON for Test Mode (transmitter always "ON")

NOTE: the four DIP address switches must be set identically on the transmitter and receiver.

6- Be sure that the battery strap is connected and insert 9 Volt battery into the lid of the unit, and replace the lid. The Green LED light should light up briefly, indicating that the unit is functioning properly.

WARNING!

TO REDUCE RISK OF SEVERE INJURY OR DEATH; READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS
TO PREVENT ELECTROCUTION: DISCONNECT POWER AT FUSE BOX OR CIRCUIT BREAKER AND DOOR OPENER BEFORE WIRING PERMANENTLY.
IMPROPER WIRING COULD CAUSE ELECTROCUTION OR DAMAGE TO CIRCUITRY. FOLLOW ALL LOCAL BUILDING CODES AND NATIONAL ELECTRICAL CODES.

RECEIVER INSTALLATION:

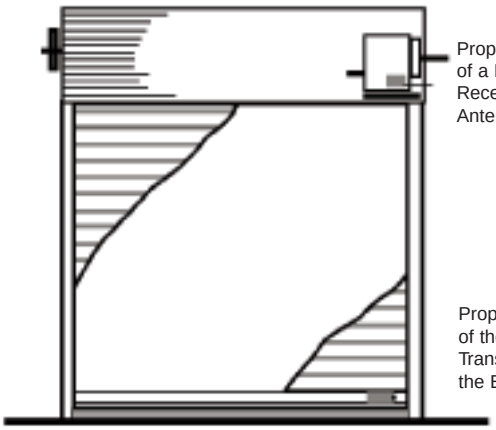
1- Hold the MWCR04 Receiver in the mounting position near the operator: mark and drill mounting holes.

2- Attach a 24VAC (at least 100mA) source to the Red & Black wires. A 24 VDC source may also be used with Red to positive (+) and Black to negative (-). When using 24 VAC, check to see if one leg is connected to the operator case. If connected to the case, connect that leg to the Black wire of the receiver.

3- Connect the White wires to the Safety Edge input for the motor operator. The output relays will bear a resistive load of 1A at 24VAC. The state of the relay is shown with a Yellow LED. The LED is illuminated when the channel is in a SAFE operating condition and will go out under fault condition. Relay contacts can be selected N/O or N/C by moving jumpers (shunts) inside the enclosure.

4- Adjust Dip Switches: 1= Address Selector 2= Address Selector 3= Address Selector 4= Address Selector 5= OFF for Standard operation (all faults and safety edge activity activate the operator's safety edge input)

5- Mount the Receiver near the operator using the 2 screws supplied. Take care to make sure the rigid wire antenna completely extends past any metal of the operator enclosure.



Typical Installation

6- Attach Coax Rigid Wire antenna. (The unit **will not work** unless the rigid antenna is properly attached.)

U.S. Patent # 7,123,144

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NORMAL START-UP SEQUENCE

1- On Power Up, the receiver performs a light-test for 1/2 second "ON" and 1/2 second "OFF" and then begins normal operations. When the battery is connected to the transmitter, it also lights it's Green **(Activity)** LED for 1/2 second "ON" and 1/2 second "OFF" and then begins normal operations.

2- Apply power to receiver; the Green **(POWER ON)** LED should come on with one Yellow **(SAFETY EDGE, RELAY 1)** LED, near antenna end of the receiver.

3- Press (activate) the Safety Edge; the Green Transmitter LED should blink "ON" briefly, and the receiver's Green **(Signal Acquired)** LED should also blink "ON". The Yellow **(Safety Edge Active)** LED should light and stay lighted for as long as the Safety Edge is activated, and go "OFF" when the Safety Edge is released. If there are no faults sensed, the Red **(Maintenance Required)** LED will remain "OFF".

4- When the Safety Edge is pressed, the receiver's Yellow **(Safety Edge, Relay1)** LED will go "OFF" and the Yellow **(Safety Edge Active)** LED will go "ON".

5- If the Safety Edge is pressed for longer than 1/4 second while the door is closing, the door should stop and reverse.

6- If the Red **(Maintenance Required)** LED comes on during door operation at any time, a fault is indicated. Slow blinking indicates that a weak battery is sensed in the transmitter. Fast blinking indicates that a wiring fault to the Safety Edge is sensed. Solid "ON" indicates that the receiver has not heard from the transmitter in over 10 minutes.

TROUBLE SHOOTING HINTS

1- The receiver's Green **(Power-On)** LED is not illuminated:
- a) Check with a VOM to see if 24 volts AC or DC is present at the receiver.
- b) If using DC power, check to make sure Red is positive and Black is negative.

2- The Transmitter's Green LED never comes on:
- a) Check to make sure the battery is connected and check battery voltage (should be 8.2 volts or higher).
- b) Remember: the transmitter only comes on briefly when the sensing edge is pressed or released, and once every 5 minutes if there is no other activity.

3- The Transmitter's Green LED comes on, but not the receiver's Green **(Signal Acquired)** LED comes on - Check address DIP switches, they must be set indentically.
If they are identical, symptom could be a result of low RF signal strength. Check antenna location: should be outside of any metal enclosure(s), and pointing away from the operator case.

4- The receiver's Red **(Maintenance Required)** LED is on:
- a) **Slowly Blinking;** Verify battery voltage. It should be 8.2 volts or higher, if not replace with same type (Lithium 9 Volts).
- b) **Fast Blinking;** Check the wires to the safety edge: One is not being sensed as connected.
- c) **Solid;** Receiver has not heard from the transmitter within last 10 minutes. Press the sensing edge at least once to send a message and clear the fault..

5- The receiver's Yellow **(Safety Edge, Relay 1)** LED is not illuminated, Green **(Signal Acquired)** LED illuminates, Edge tested good, door/gate always goes to fault location.
- a) Check edge wire connections to make sure the colors are correct and that bare wire is contacted inside the terminal block.
- b) Check for wire short circuit between the Black sensing edge wires and the White sensing edge wires.

TROUBLE SHOOTING GUIDE

ACTION	TRANSMITTER	RECEIVER
Door encounters an obstacle, edge is compressed (Closed)	Green LED Blinks sends RF signal, microprocessor is awake	Yellow LED (Relay #1) OFF Yellow LED (S.E. Active) ON Green LED (Signal Aquired) Blinks
Door has Safety Edge fault (Broken Wire)	Green LED Blinks when fault message is sent	Red LED (Maint. Req.) Blinks Quickly Green LED (Signal Acquired) Blinks Yellow LED (Relay #1) "OFF"
Transmitter has Low Battery	Green LED Blinks when fault message is sent	Red LED (Maint. Req.) Blinks Slowly Yellow LED (S.E. Active) "OFF" Yellow LED (Relay #1) "OFF"
Receiver has not heard from the transmitter for more than 10 minutes	Doesn't Matter	Red LED (Maint. Req.) "ON" Yellow LED (Relay#1) "OFF"

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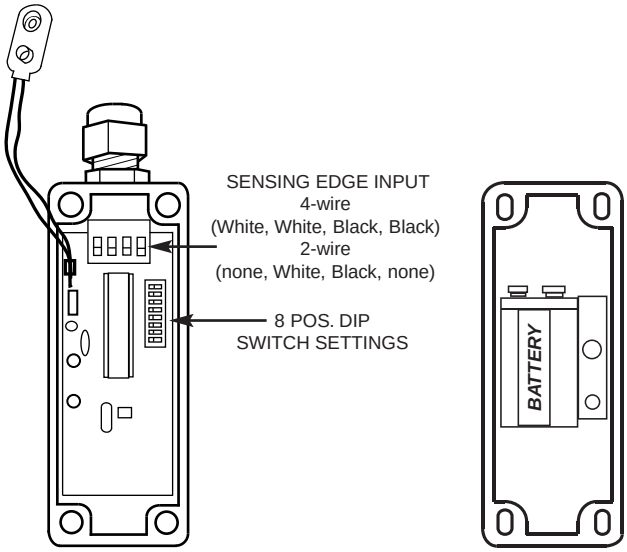
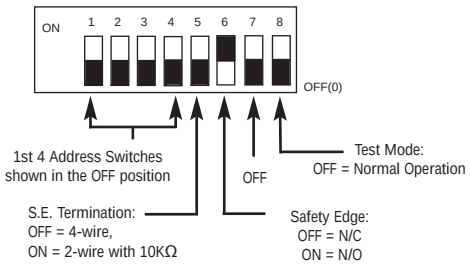
The Communicator II
Wireless Transmitter Wiring Diagram

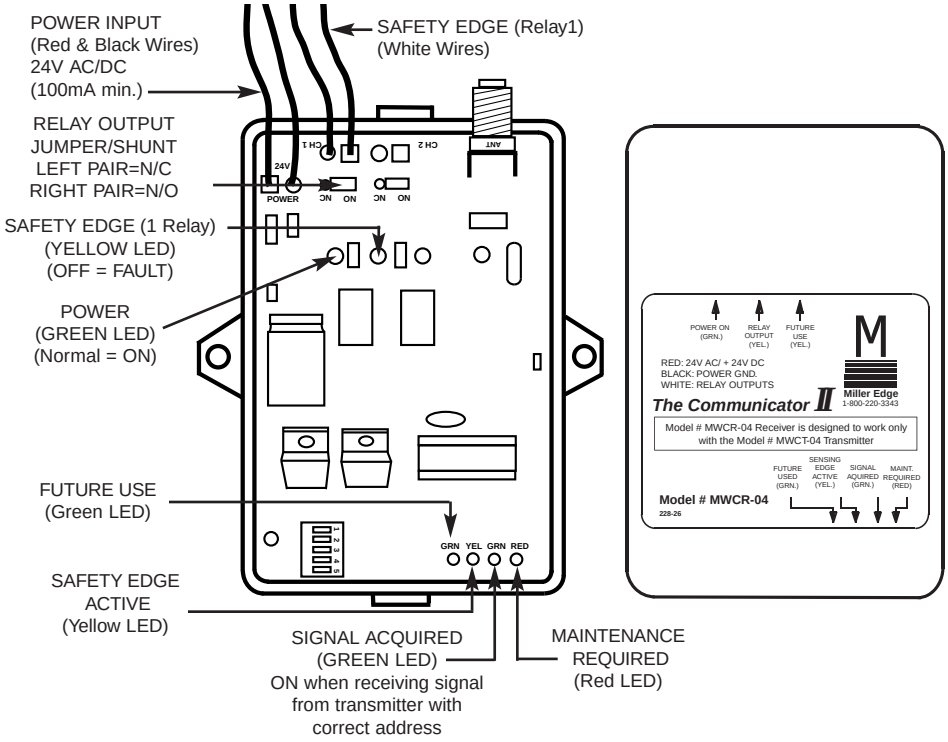


1 RECEIVER W/ 1 TRANSMITTER

TRANSMITTER SWITCH SETTING

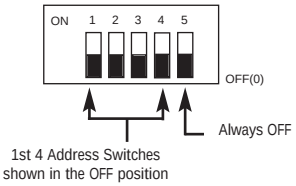


Wireless Receiver Wiring Diagram



1 RECEIVER W/ 1 TRANSMITTER

RECEIVER SWITCH SETTING



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Wireless Transmitter Wiring Diagram

IMPORTANT

Any user that changes or makes modifications not expressly approved by Miller Edge Inc. could void the user's authority to operate the equipment.

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 may 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:

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

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