433 MHZ FAMILY

ENGLISH

433 MHz Wireless
Transmitters & Receivers

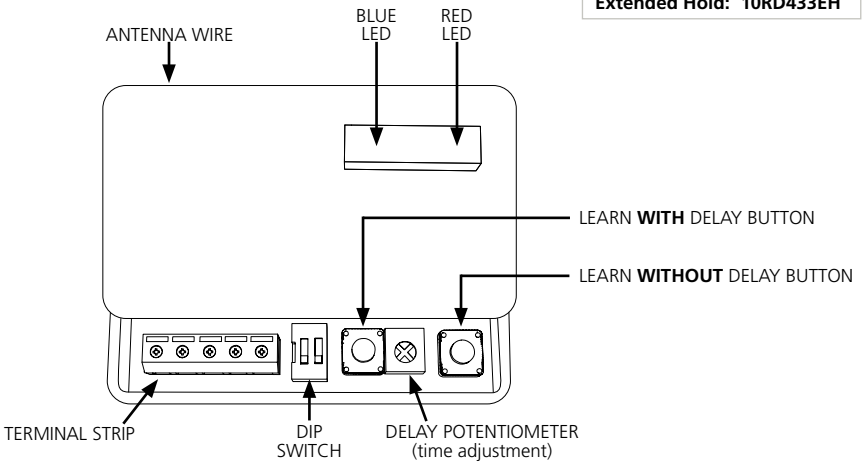
(US version)

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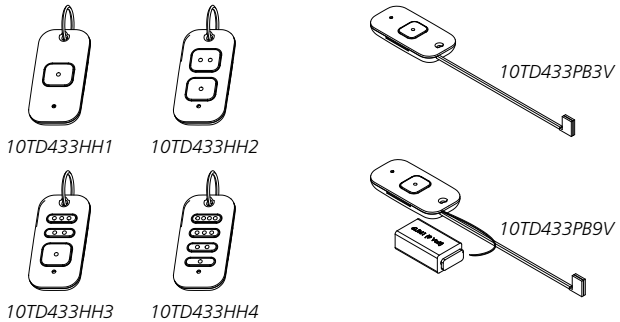
DESCRIPTION

Standard: 10RD433
Extended Hold: 10RD433EH

RECEIVER



TRANSMITTERS



BEA, INC. INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, Inc., the sensor manufacturer, cannot be held responsible for incorrect installations or incorrect adjustments of the sensor/device; therefore, BEA, Inc. does not guarantee any use of the sensor/device outside of its intended purpose.

BEA, Inc. strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor/device system performance is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer's recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107, UL294, UL325, and International Building Code).

Verify that all appropriate industry signage, warning labels, and placards are in place.

AADM ANSI DASMA IDA International Door Association

CAUTION

- ❑ This wireless receiver is not intended to be used DIRECTLY with Maglocks or Electric Strikes due to possible damage caused by inductive load kickback.
  This wireless receiver should instead be used to trigger a Logic Module (e.g. Br3) or Isolation Relay which then triggers the Maglock or Electric Strike.
- ❑ Shut off all power going to the work area before attempting any wiring procedures.
- ❑ Maintain a clean and safe environment when working in public areas.
- ❑ Part 15.231 Compliance: Do not operate transmitter (i.e. do not hold button down) for longer than 5 seconds.
- ❑ Constantly be aware of pedestrian traffic around the area.
- ❑ Always stop pedestrian traffic through the doorway when performing tests that may result in unexpected reactions by the door.
- ❑ *ESD (electrostatic discharge)*: Circuit boards are vulnerable to damage by electrostatic discharge. Before handling any board, ensure you dissipate your body's ESD charge.
- ❑ Always check placement of components before powering up to ensure that moving parts will not catch any wires and cause damage to equipment.
- ❑ Ensure compliance with all applicable safety standards (i.e. ANSI A156.10/19) upon completion of installation.
- ❑ DO NOT attempt any internal repair of the components. All repairs and/or component replacements must be performed by BEA, Inc. Unauthorized disassembly or repair:
  1. May jeopardize personal safety and may expose one to the risk of electrical shock.
  2. May adversely affect the safe and reliable performance of the product resulting in a voided warranty.

PROGRAMMING

SET DIP SWITCHES

DIP SWITCH #1		
OFF	Pulse Relay	Press transmitter once and relay will be active momentarily
ON	Toggle Relay	Press transmitter once and relay ouput is active indefinitely. Press transmitter again and relay will de-energize indefinitely.
DIP SWITCH #2		
OFF	0.5 sec Hold Time	Relay active 0.5 seconds after loss of activation.
ON	10 sec Hold Time	Relay active 10 seconds after loss of activation.

ON = ↑
OFF = ↓



0.5 s Pulse setting



10 s Pulse setting

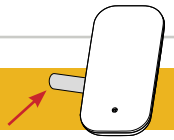




Toggle setting

In Toggle setting (1 = ON), the Hold Time is inactive. Either setting for DIP switch #2 will product the same result.

HAND-HELD CONFIGURATION



You must remove the plastic pull-tab from the transmitter to allow battery connection.

1. Set receiver DIP switches to the desired activation cycle (see settings above).
2. Press "Learn w/Delay" button or "Learn w/o Delay" button on the receiver according to the activation requirements. *If "Learn w/Delay" is selected, turn the potentiometer counterclockwise to set a zero-second delay.* After the Learn cycle is complete, adjust the potentiometer to the desired delay time (0 – 30 seconds).
3. Press the transmitter button repeatedly until the blue LED on the receiver illuminates.
   **** repeat steps 1 – 3 for additional transmitters ****
4. Test the system by pressing the transmitter button (red LED should illuminate), and observe that the blue LED illuminates on the receiver.

scan code for instructional video

PROGRAMMING (cont.)

PUSH PLATE CONFIGURATION

1. Ensure that the push plate has been installed before beginning.
2. Connect wires from transmitter to NO and COM contacts of the push plate's switch.
3. Set receiver DIP switches to the desired activation cycle (see settings above).
4. Press "Learn w/Delay" button or "Learn w/o Delay" button on the receiver according to the activation requirements. *If "Learn w/Delay" is selected, turn the potentiometer counterclockwise to set a zero-second delay.* After the Learn cycle is complete, adjust the potentiometer to the desired delay time (0 – 30 seconds).
5. Press the transmitter button repeatedly until the blue LED on the receiver illuminates.
6. Test the system by pressing the transmitter button (red LED should illuminate), and observe that the blue LED illuminates on the receiver.
7. Attach the transmitter to the inside of the electrical box.

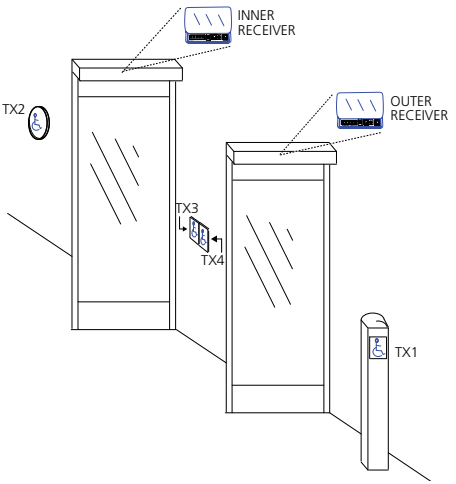
TYPICAL VESTIBULE APPLICATION

A OUTSIDE TRANSMITTER (PUSH PLATE)

1. Press "Learn w/o Delay" on the **outer receiver**, and then press Transmitter 1.
2. Press "Learn w/Delay" on **inner receiver**, and then press Transmitter 1.
3. Set the potentiometer to the desired delay time per the hand-held configuration performed in "HAND-HELD CONFIGURATION" step 2.

B INSIDE TRANSMITTER (PUSH PLATE)

1. Press "Learn w/o Delay" on the **inner receiver**, and then press Transmitter 2.
2. Press "Learn w/Delay" on **outer receiver**, and then press Transmitter 2.
3. Set the potentiometer to the desired delay time per the hand-held configuration performed in "HAND-HELD CONFIGURATION" step 2.



C VESTIBULE TRANSMITTERS (dual-switch push plate / two separate push plates)

1. Press "Learn w/o Delay" on the **inner receiver**, and then press Transmitter 3.
2. Press "Learn w/Delay" on **outer receiver**, and then press Transmitter 4.

REMOVING TRANSMITTER CODE(S)

A SINGLE TRANSMITTER CODE

1. Press both "Learn w/Delay" and "Learn w/o Delay" buttons simultaneously until the red LED flashes once (for ~1 second).
2. Press the transmitter button twice within 10 seconds, and the transmitter code will be deleted.

B ALL TRANSMITTER CODES

1. Press and hold both "Learn w/Delay" and "Learn w/o Delay" buttons simultaneously until the blue LED illuminates, and then release (~10 seconds).

WIRING

	POWER VAC/VDC		OUTPUT		
LABEL	12 – 24	12 – 24	COM	NO	NC
WIRE COLOR	Red (+)	Black (-)	white	green	empty[1]
TERMINAL	1	2	3	4	5
DESCRIPTION	Control or Transformer power		Control Common	Control Activation	Typically not used

NOTES:

1. When a Normally Closed contact is required, simply move the wire from NO to NC.

BATTERY REPLACEMENT

THERE IS A RISK OF EXPLOSION IF AN INCORRECT BATTERY TYPE IS USED.
DISPOSE OF USED BATTERIES ACCORDING TO LOCAL MUNICIPAL LAWS AND REGULATIONS.

3-VOLT TRANSMITTERS

1. Remove the 2 screws from the back of the transmitter.
2. Separate housing and install an unused 3V (type CR2032) battery. *OBSERVE POLARITY.*
3. Reassemble housing and replace screws.

9-VOLT TRANSMITTERS

1. Remove old battery.
2. Connect an unused 9V (type 6LR61) battery. *OBSERVE POLARITY.*

TROUBLESHOOTING

Red LED on receiver is flickering; unable to program	Stuck push plate or faulty transmitter.	Disconnect each push plate until LED goes out.
	Faulty transmitter	Remove each transmitter battery until LED goes out. Replace faulty transmitter.
Receiver intermittently does not receive signal	Not enough antenna wire for reception	Extend receiver antenna in multiples of 6 ¾" no more than three times until reception is achieved.

Can't find your answer? Visit www.BEAsensors.com or scan QR code for Frequently Asked Questions!

TECHNICAL SPECIFICATIONS

Frequency:	433 MHz
Radio Control Type:	Digital
Emitted Radio Power:	-28.7 dBm (TX)
Power Consumption:	3mA (TX) 30mA (RX)
Input Voltage:	12 – 24 VAC / VDC (RX)
Contact Rating:	1.0 A @ 30 VDC 0.3 A @ 60 VDC 0.5 A @ 125 VAC
Operating Temperature:	14 – 131 °F (-10 – 55 °C)
Max. Number of Units:	100 programmed transmitters (per receiver)
LEDs:	Red (Receiver Learn) Blue (Relay Activation)
Dimensions: Transmitter: Receiver:	 1 ⅜" x 9⁄16" x 2 ¾" (70mm x 35mm x 14 mm) 2 ⅛" x 1" x 2 ¾" (70mm x 55mm x 25 mm)
Norm Conformance:	CE, FCC, IC

Specifications are subject to change without prior notice.
All values measured in specific conditions.

FCC COMPLIANCE

FCC ID#: G9B-10TD433HH4
IC ID#: 4680A-10TD433HH4

This Digital Transmitter complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference and;
2) This device must accept any interference received including interference that may cause undesired operations.

a. 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 a 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 instruction, 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 transmitter operates in the band 433.5- 434.5 MHz and is restricted to periodic transmissions of up to 5 seconds.
Changes or modifications not expressly approved by BEA, Inc. for compliance could void the user's authority to operate the equipment.
Devices authorized under these provisions shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than 60 seconds and be only permitted to re initiate an interrogation in the case of a transmission error.

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