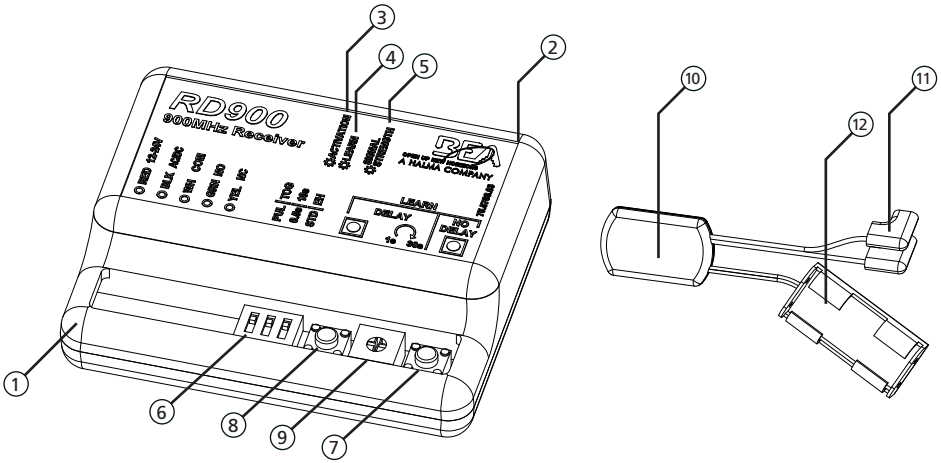
900 MHZ TRANSMITTERS & RECEIVER

Digital transmitters and receiver with frequency hopping, sequencing and extended hold functionality

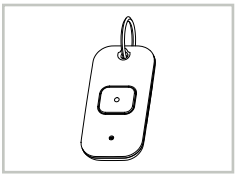
(US version)

DESCRIPTION

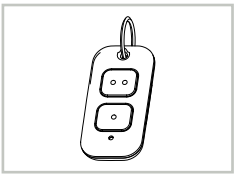


1. receiver (10RD900)
2. antenna wire
3. blue activation LED
4. red learn LED
5. tri-color signal strength LED
6. DIP switches
7. no-delay learn button
8. delay learn button
9. delay learn POT
10. transmitter (10TD900PB)
11. push plate connectors
12. battery cradle

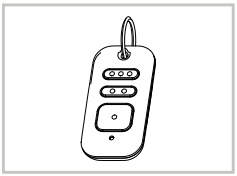
HAND HELD TRANSMITTERS



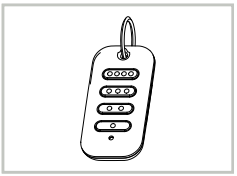
10TD900HH1



10TD900HH2



10TD900HH3



10TD900HH4

IMPORTANT:

This wireless receiver is not intended to be used DIRECTLY with maglocks or electric strikes due to possible damage caused by inductive load kickback.

Instead, this wireless receiver should be used to trigger a logic module (Br3) or isolation relay which then triggers the maglock or electric strike.

PRECAUTIONS

CAUTION

- ❑ Shut off all power going to header before attempting any wiring procedures.
- ❑ Maintain a clean & safe environment when working in public areas.
- ❑ Constantly be aware of pedestrian traffic around the door 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 all wiring before powering up to ensure that moving door parts will not catch any wires and cause damage to equipment.
- ❑ Ensure compliance with all applicable safety standards (i.e. ANSI A156.10) 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.

- The device should not be used for purposes other than its intended use. All other uses cannot be guaranteed by the manufacturer of the sensor.
- The installer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety.
- The manufacturer of the sensor cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.

INSTALLATION

Wiring

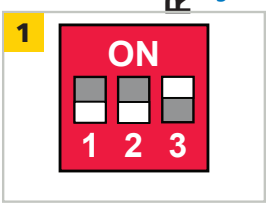
TERMINAL:	1	2	3	4	5
LABEL:	12-24 V	12-24 V	COM	NO	NC
WIRE COLOR:	red	black	white	green	yellow
SIGNAL:	+ voltage	- voltage	common	normally open	normally closed
DESCRIPTION:	power		relay contacts		

SETUP

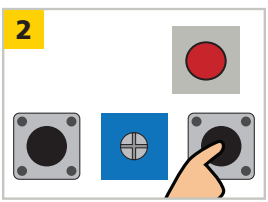
DIP Switches

DIP	STATUS	FUNCTION		DESCRIPTION
1	OFF	PUL	Pulse Relay	pressing transmitter activates and holds relay according to DIP 2 and 3
	ON	TOG	Toggle Relay	pressing transmitter once activates and holds relay indefinitely pressing transmitter again deactivates relay immediately (no hold)
2 (PUL only)	OFF	0.5s	0.5 second hold time	relay remains active for 0.5 seconds after transmitter is... pressed [STD] released [EH]
	ON	10s	10 second hold time	relay remains active for 10 seconds after transmitter is... pressed [STD] released [EH]
3	OFF	REG	standard hold	relay acts according to DIP 1 and 2 (does not matter if transmitter is pressed/released or pressed/held)
	ON	EH	extended hold	relay remains active as long as transmitter is pressed and held once released, relay acts according to DIP 1 and 2

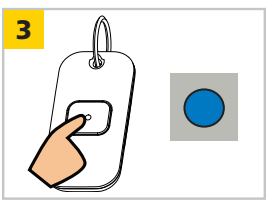
Hand Held Configuration



Set DIP switches as desired.



Press and release desired learn button (red LED on receiver will illuminate)[1].

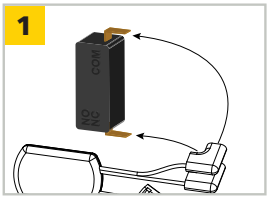


Press transmitter twice (blue LED on receiver will illuminate).

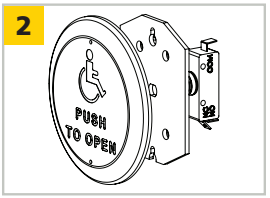
NOTES: [1]If Learn w/ Delay button is used, adjust potentiometer (1 s to 30 s).

SETUP (cont.)

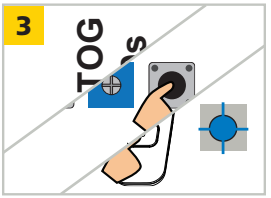
Push Plate Configuration



Connect transmitter[1] to push plate (NO & COM) and insert into box.



Install push plate.



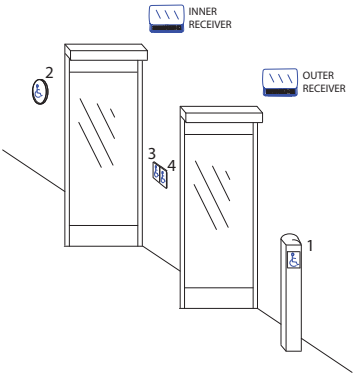
Follow steps 1-3 in Hand Held Configuration

NOTES: 1: 10TD900PB required for push plates

Vestibule Configuration

For vestibule applications, program each receiver to the appropriate transmitters according to the chart below and the picture to the right.

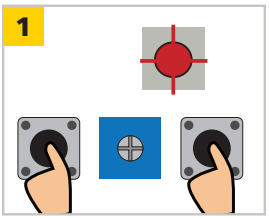
RECEIVER	TRANSMITTER	LEARN[1]
Outer	outer (1)	No Delay
	inner (2)	Delay
	vestibule (4)	No Delay
Inner	outer (1)	Delay
	inner (2)	No Delay
	vestibule (3)	No Delay



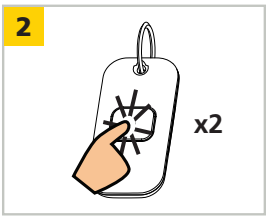
Signal Strength Indicator - Pressing and holding transmitter button for 3 seconds activates signal strength tri-color LED on receiver. Green = strong signal, Yellow = medium signal, Red = weak signal.

Removing Transmitters

Single Transmitter

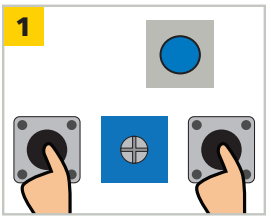


Press BOTH learn buttons until red LED flashes once (~2 s).



Press transmiter TWICE within 10 seconds.

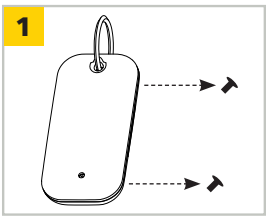
All Transmitters



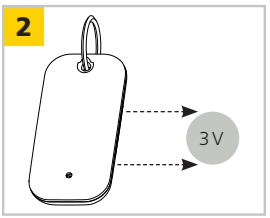
Press BOTH learn buttons until blue LED illuminates (~10 s).

Battery Replacement

Handheld (TD900HHx)

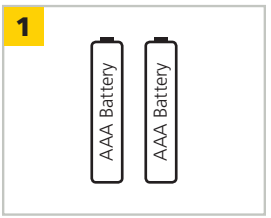


Remove back screws and disassemble.



Replace 3 volt (CR2032) battery observing polarity and reassemble.

Push Plate (TD900PB)



Replace 2 AAA batteries observing polarity.

Low Battery Indicator - After transmitter button is pressed, low battery is indicated by three (3) transmiter LED blinks.

NOTE: All transmitters must ONLY be powered with provided batteries or equivalent.

TROUBLESHOOTING

red LED on receiver flickering; unable to program	stuck push plate	disconnect push plates to determine which is stuck (LED should go out)
	faulty transmitter	if LED does not go out, remove transmitter batteries to determine which is faulty, replace transmitter
weak signal	receiver antenna positioned poorly	position antenna outside of door header

TECHNICAL SPECIFICATIONS

Frequency:	908-918 MHz (frequency hopping)
Emitted radio power:	-25 dBm (TX)
Power consumption:	30mA (TX) 40mA (RX)
Supply voltage:	12-24 VAC/DC
Contact rating:	1.0 A @ 30 VDC 0.5 A @ 125 VAC 0.3 A @ 60 VDC
Temperature range:	14°F to 131°F (-10°C to 55°C)
Programmable units per receiver:	75
LEDs:	red (receiver learn) blue (relay activation) tri-color (signal strength)
Dimensions:	2.5" (W) x 2.0" (D) x 0.75" (H) [RD900] 2.75" (W) x 1.38" (D) x 0.56" (H) [TD900HHx] 1.75" (W) x 1.0" (D) x 0.3" (H) [TD900PB]
Certification:	FCC, IC

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

FCC / IC

"This device 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 operation."

Changes or modifications not expressly approved by BEA Incorporated could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC ID: 2ABWS-10RD900	IC: 4680A-10RD900	MODEL: 10RD900
FCC ID: 2ABWS-10TD900PB	IC: 4680A-10TD900PB	MODEL: 10TD900PB
FCC ID: 2ABWS-10TD900HH4	IC: 4680A-10TD900HH4	MODEL: 10TD900HH1
FCC ID: 2ABWS-10TD900HH4	IC: 4680A-10TD900HH4	MODEL: 10TD900HH2
FCC ID: 2ABWS-10TD900HH4	IC: 4680A-10TD900HH4	MODEL: 10TD900HH3
FCC ID: 2ABWS-10TD900HH4	IC: 4680A-10TD900HH4	MODEL: 10TD900HH4

ANSI / AAADM Compliance

Upon completion of the installation or service work, at a minimum, perform a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each equipment owner with an owner's manual that includes a daily safety checklist and contains, at a minimum, the information recommended by AAADM. Offer an information session with the equipment owner explaining how to perform daily inspections and point out the location of power/operation switches to disable the equipment if a compliance issue is noted. The equipment should be inspected annually in accordance with the minimum inspection guidelines. A safety check that includes, at a minimum, the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector, BEA strongly recommends you have an AAADM certified inspector perform an AAADM inspection and place a valid inspection sticker below the safety information label prior to putting the equipment into operation.