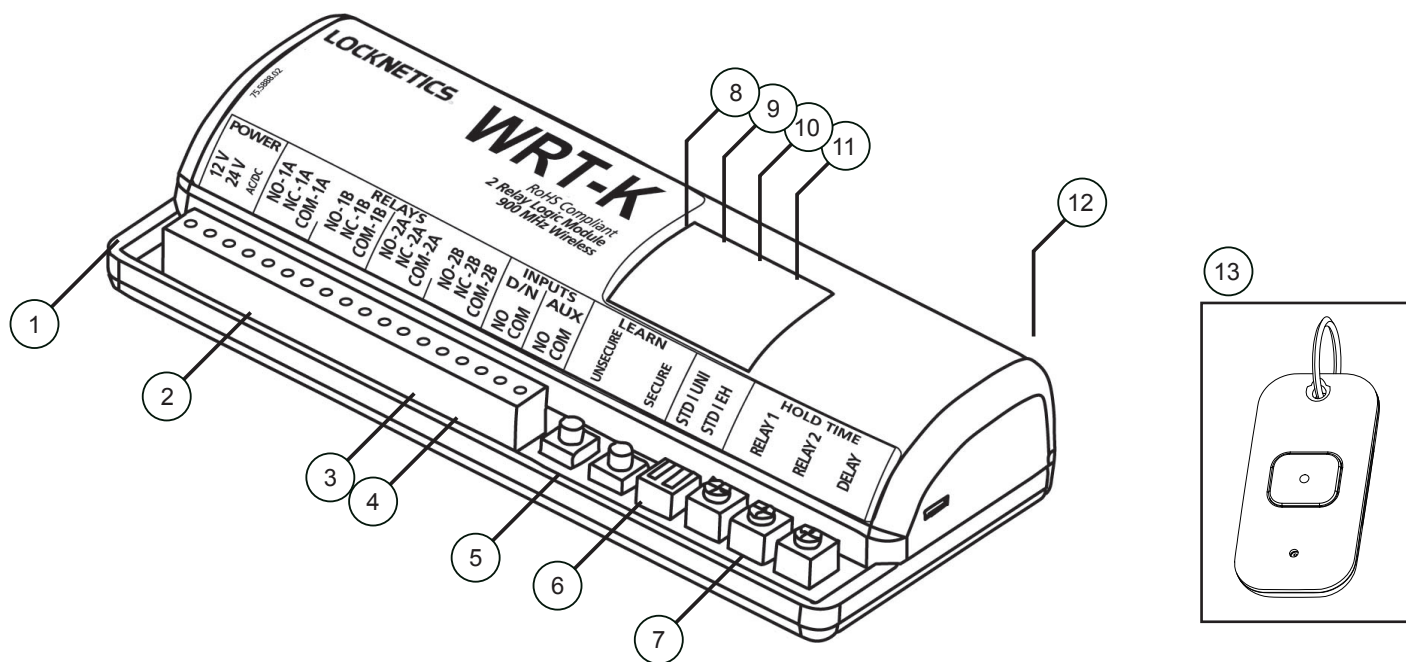


WRT-K

2 RELAY LOGIC MODULE WITH BUILT-IN
900 MHZ WIRELESS TECHNOLOGY

(US version)

1 Receiver Description



- | | | |
|--------------------|------------------------------|-----------------------------------|
| 1. Power input | 6. DIP-switches | 11. Tri-color signal strength LED |
| 2. Relay outputs | 7. Potentiometers | 12. Antenna |
| 3. Day/Night input | 8. Radio frequency LED (red) | 13. 1-button transmitter |
| 4. AUX input | 9. Relay 2 LED (white) | |
| 5. Learn buttons | 10. Relay 1 LED (blue) | |

For details regarding the limited warranty:

Customer Service

1-877-671-7011

www.allegion.com/us

LOCKNETICS

ALLEGION

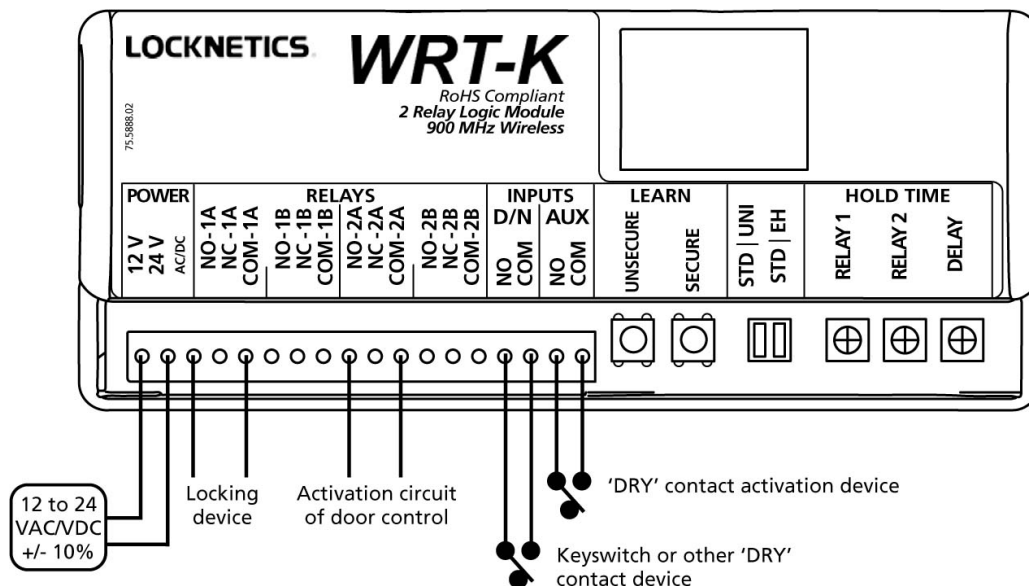
2 Precautions



CAUTION

- ❑ Shut off all power before attempting any wiring procedures.
- ❑ Maintain a clean & safe environment when.
- ❑ 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 insure moving door parts will not catch any wires and cause damage to equipment.
- ❑ Ensure compliance with all applicable safety standards and building codes 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 may:
 1. jeopardize personal safety and may expose one to the risk of electrical shock.
 2. adversely affect the safe and reliable performance of the product resulting in a voided warranty.

3 Wiring



- Relays 1 and 2 are DPDT: relays **1A and 1B** fire simultaneously and relays **2A and 2B** fire simultaneously.
- Relays **1B and 2B** are commonly used in applications with two (2) locking devices and/or with two (2) independent door controls.
- **INPUT D/N (DAY/NIGHT mode)**
 - when open, allows transmitters learned in both SECURE mode and UNSECURE mode to function
 - when closed, only allows transmitters learned in UNSECURE mode to function
- **INPUT AUX** functions regardless of learn, DIP switch, or potentiometer settings.

4 User Interface

DIP SWITCHES: can be set to achieve desired functionality based upon specific application requirements

DIP	STATUS	FUNCTION	DESCRIPTION
1	STD	standard mode	allows only learned/programmed transmitters to function
	UNI*	universal mode	allows learned/programmed and "universal transmitters" to function
2	STD	standard mode	pressing/holding or pressing/releasing transmitter activates and holds relay according to HOLD TIME POTs (single shot)
	EH	extended hold	pressing/holding transmitter holds relay as long as transmitter is pressed/held – once released, relay acts according to HOLD TIME POTs

* Day/Night mode does not function when DIP-switch 1 is set to UNI.

LEARN BUTTONS: 900 MHz wireless transmitters can be programmed (or "learned") as either **UNSECURE** or **SECURE** transmitters. Any combination of up to 75 transmitters may be programmed.

BUTTON	FUNCTION	DESCRIPTION
UNSECURE	unsecure transmitters	learned transmitter functions when INPUT D/N is open or closed
SECURE	secure transmitters	learned transmitter only functions when INPUT D/N is open

POTENTIOMETERS: control output relay functionality

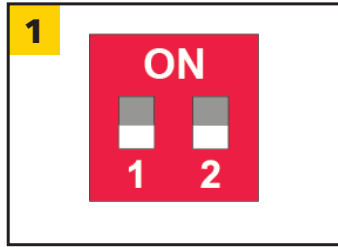
POT	FUNCTION	DESCRIPTION
HOLD 1	relay 1 hold time	0.5 – 10 seconds
HOLD 2	relay 2 hold time	0.5 – 10 seconds
DELAY	delay between relay 1 and relay 2	0 – 30 seconds

SIGNAL STRENGTH INDICATOR: pressing and holding transmitter button for three (3) seconds activates signal strength LED on receiver.

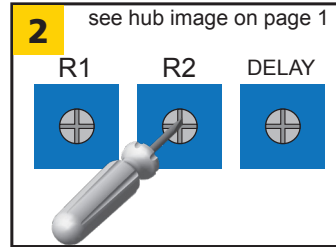
LED COLOR	DESCRIPTION
GREEN	strong wireless signal
YELLOW	moderate wireless signal
RED	weak wireless signal

5 Setup

OPTIONAL:

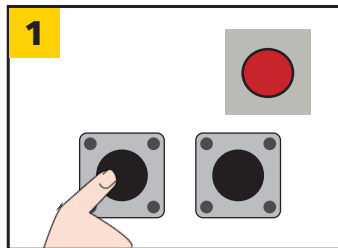


Set DIP-switches as desired.
For DIP-switch settings, please refer to table on page 3.

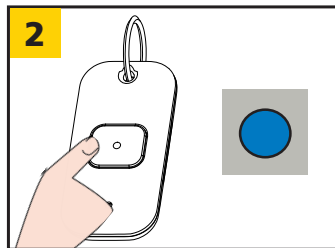


Adjust POTs as desired.
clockwise = longer delay
counterclockwise = shorter delay
default / full CCW = no delay
See page 3 for descriptions.

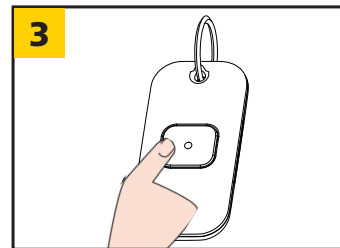
TRANSMITTER PROGRAMMING



Press and release desired Secure/Unsecure Learn button (red LED on receiver will illuminate).

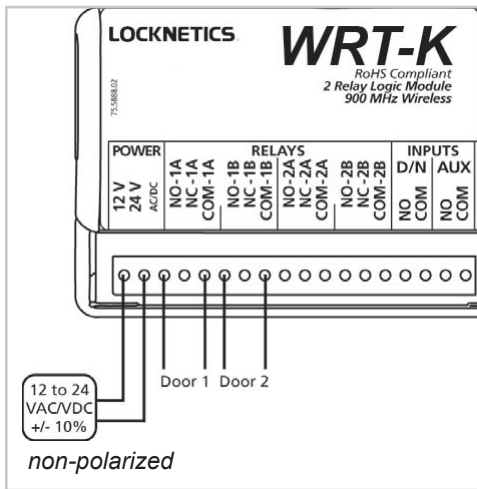


Press transmitter twice (white and blue LEDs on receiver will illuminate).



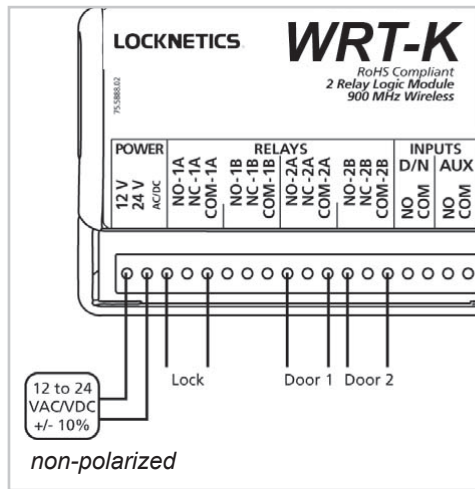
TEST/CHECK: Press transmitter and verify operation.

VESTIBULE CONFIGURATION: Vestibule applications may be installed and programmed so that either door 1 and door 2 **open simultaneously** or door 1 opens first and door 2 **opens after a delay** (set by HOLD TIME potentiometers).



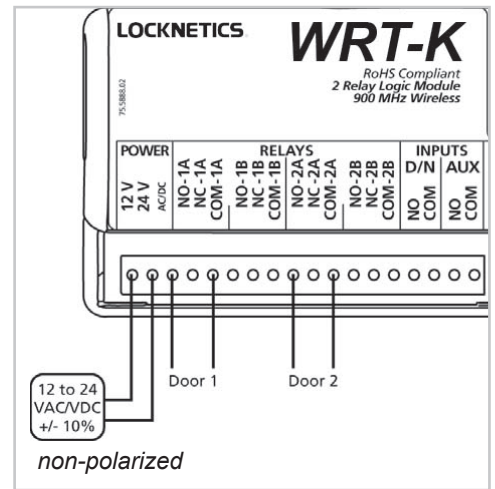
1-Way Traffic (simultaneous)

Door 1 and Door 2 will open simultaneously.



1-Way Traffic (lock + simultaneous)

Lock(s) will unlock and then Door 1 and Door 2 will open simultaneously.

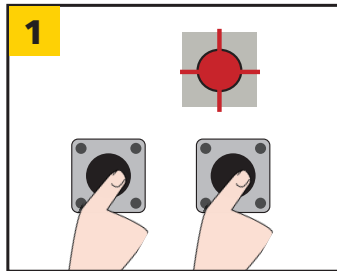


1-Way Traffic (sequence)

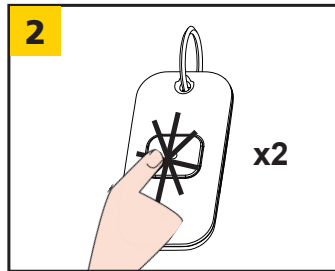
Door 1 will open and then Door 2 will open after a delay set by DELAY POT.

6 Removing Transmitter Programming

Single Transmitter

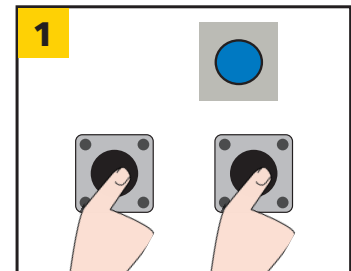


Press BOTH learn buttons on the receiver until red LED flashes once (approx. 2 seconds).



Press transmitter TWICE within 10 seconds.

All Transmitters

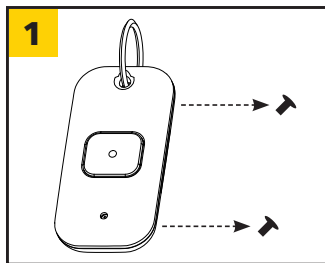


Press BOTH Learn buttons on the receiver until blue LED illuminates (approx. 10 seconds).

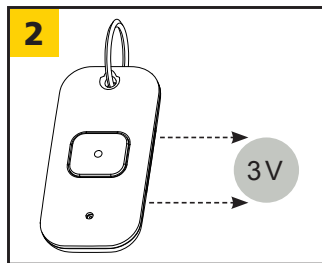
7 Battery Replacement

A low-battery indicator is provided.

After transmitter button is pressed, low battery is indicated by three (3) blinks of the red, transmitter LED.



Remove back screws and disassemble.



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

8 Troubleshooting

Receiver will not react to any inputs	Incorrect power	Verify power supply of 12 – 24 VAC/VDC \pm 10% is wired to correct terminals.
	Not programmed	Ensure a receiver is programmed with wireless transmitter.
	Incorrect wiring	Verify wiring.
	Defective receiver	Replace receiver.
Receiver has no output	Incorrect output devices	Ensure proper devices are connected to outputs.
	Incorrect wiring	Verify wiring.
	Incorrect settings	Verify programming and potentiometer settings.
	Defective receiver	Replace receiver.
Red LED on receiver flickering; unable to program	Push Plate is stuck	Disconnect push plates to determine which one 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	Antenna positioned poorly	Position antenna outside of door header.

9 Specifications

DESCRIPTION	SPECIFICATION
Supply voltage:	12 – 24 VAC / VDC \pm 10%
Current consumption:	45 mA DC 75 mA AC
Frequency:	908 – 918 MHz (frequency hopping)
Emitted radio power:	-25 dBm (TX)
Power consumption:	0.5 – 1.5 W
Transmitter capacity (per receiver): Programmable (standard): Universal:	75 unlimited
Temperature rating:	-22 – 158 °F (-30 – 70 °C)
Input Day / Night (24hr) AUX	DRY contact DRY contact
Contact rating: Relay 1 DPDT / Relay 2 DPDT:	2 A @ 30 VDC or 2 A @ 24 VAC
LEDs:	blue (relay 1 activation) white (relay 2 activation) red (radio frequency / learn) tri-color (signal strength)
Certification:	FCC, IC
Dimensions:	5.2" (W) x 1" (H) x 2.2" (D) (133 mm x 25 mm x 55 mm)
Housing:	ABS (white translucent)

10 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 product manufacturer 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-10BR2900	IC: 4680A-10BR2900	MODEL: 10BR2900
FCC ID: 2ABWS-10TD900HH1U	IC: 4680A-10TD900HH1U	MODEL: 10TD900HH1U