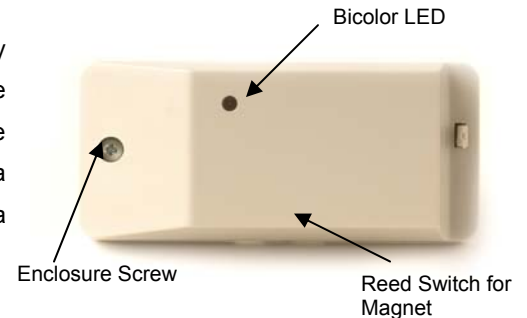


Vigil® Wireless Contact Transmitter (WCT02-5576)

Description

The **Wireless Contact Transmitter (WCT)** is used to capture signals from a variety of devices and send them through to the Vigil Wireless Network. The WCT can be used to connect any normally open or closed device such as a relay from a smoke detector, doorbell, outdoor call station, etc. The WCT will accept a device with a voltage between 5 and 24VDC. The WCT may also be used with a magnet to act as a wireless magnetic contact for door or window alarms.



Operation

Use with a Normally Open or Closed Device: The WCT will accept a dry contact (voltage free) signal from a hardwired device such as a smoke detector, outdoor call station, door egress alarm or doorbell. The WCT may also be used with one voltage input (5-25VDC) through the OI+ and OI- terminals. When not in use terminal connectors should be left open.

Use with a Magnetic Contact: The WCT works with a magnet to detect when a door or window is open or closed. The magnet should be mounted parallel to the bottom side of the WCT, as shown. The WCT can be programmed to alarm only when a door is opened or only when a door is closed.

When the WCT detects a change in state from one of the inputs or from the magnet, the LED will flash green once to indicate the change of state. The LED will flash green a second time to indicate the wireless transmission. When the input returns to its normal state, the LED will flash green once and flash green a second time indicate the wireless transmission for the reset.

Mounting Instructions

For Use with **Smoke Detector:** Ideally, the WCT should be located away from the smoke detector in an area that it can be accessed to change batteries and also be visible to observe LED activity for troubleshooting and maintenance. In some cases, the WCT may be mounted behind the smoke detector in the ceiling box; however it is important that the WCT NOT be mounted in a metal box, as it will interfere with the wireless signal. Please consult a Vigil technician before mounting the WCT in a ceiling box.

For Use with **Doorbell or Call Station:** For indoor applications, the WCT may be mounted inside the wall box behind the device. For outdoor applications, install the device in a weatherproof box in the desired outdoor location and run a 4-conductor 24AWG cable to the location of the **WCT, which must be located indoors** and must be accessible to change batteries. It is important that the WCT NOT be mounted in a metal box, as it will interfere with the wireless signal.

For Use as **Door or Window Contact:** Mount the WCT on the frame of the door or window so that the reed switch is located adjacent to the magnet. Mount the magnet on the door or window so that when the door/window is closed, the magnet is within 3mm (1/8") of the bottom of the WCT.



Do not mount Wireless Stations on or near metal objects (HVAC, I Beams, etc) or electrical devices (motors, high voltage switching, etc) as they can interfere with the wireless signals

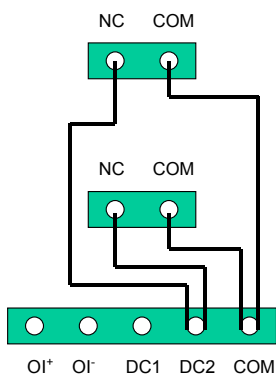
Wiring and Connections

All wires are connected to the five-pin screw terminal connector through the wiring knockout at the bottom of the WCT. Wiring connections are described in the table below.

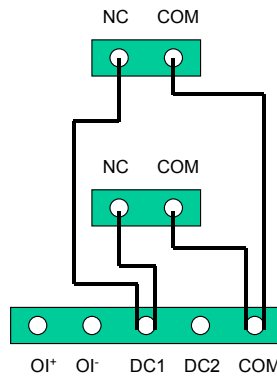
Input Type	OI+	OI -	DC1	DC2	COM
Input Voltage 5VDC to 25VDC	X	X			
Normally Open Device (30 Second Delay)			X		X
Normally Closed Device (30 Second Delay)			X		X
Normally Open Device (No Delay)				X	X
Normally Closed Device (No Delay)				X	X

Wiring Multiple Doors to One WCT

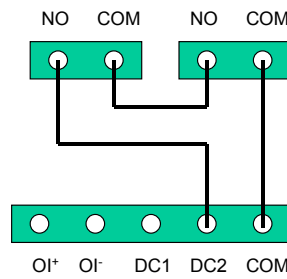
Special consideration must be made if two doors are wired to one WCT. There are four different wiring configurations depending on if *Normally Open* or *Normally Closed* are used and whether a 30 second delay is required. The four wiring configurations are shown below.



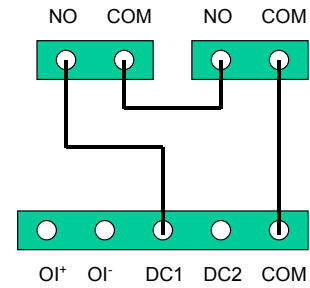
Normally Closed – No delay



Normally Closed – 30s delay



Normally Open – No delay

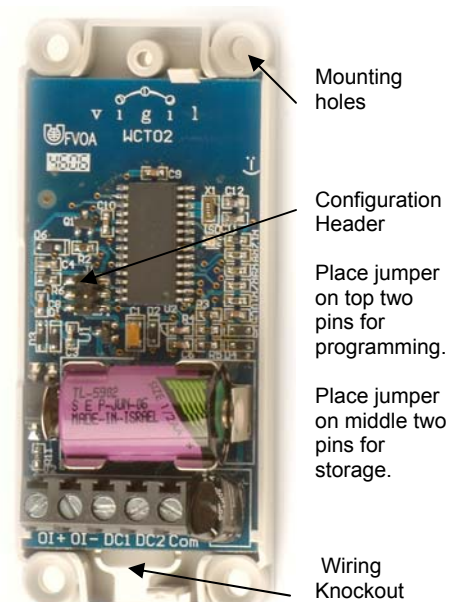


Normally Open – 30s delay

Installation Instructions

⚠ DO NOT INSTALL BATTERY UNTIL ALL STEPS ARE COMPLETED AND THE WIRELESS NETWORK IS OPERATIONAL

1. Remove the screw to take off the cover of the WCT.
2. Connect wires to WCT as shown above depending on type of connection. Route all wires through the wiring knockout on the base. If using with magnet go to Step 2.
3. Mount WCT using appropriate screws for wall or frame type. If using as a door or window contact mount the magnet on the frame of the door and the WCT on the door itself. This will reduce the interference from metal doorframes.
4. Record the ID number of the WCT for programming. The 6-digit ID number appears on the cover of the WCT.



Programming Instructions

1. Ensure the WCT is wired or set to its normal (off) state. I.e. If the device is wired so that it is off (no alarm) when the contact is closed, then ensure the contact is closed. If the device is wired so that it is off (no alarm) when the contact is open, ensure the contact is open.
2. Place the jumper on the top two pins of the 6-pin configuration header. This is the programming mode.
3. Install the battery observing correct polarity.
4. The LED on the WCT will blink green 16 times followed by a series of red and green flashes to indicate the firmware version. When the programming is complete the green LED will stay on steady.
5. Remove the jumper from the top two pins and place it on the two middle pins for storage. **DO NOT DISCARD THE JUMPER.**
6. The LED on the WCT will blink green again to establish communication with the network and then stop. Once the green LED turns off, the WCT is ready for use. If the LED blinks RED, it is not able to communicate with the network (*see troubleshooting document*).

Troubleshooting

Symptom	Solution
Green LED does not blink at all when battery installed.	The battery may be dead, try a new battery. The device may be damaged, try a new device.
The device is raising calls when the door is closed instead of when it gets opened.	The device may have been programmed in the wrong state. <ol style="list-style-type: none"> 1. Remove the battery from the device. 2. Use a screwdriver or metal object to short the terminals on the battery clip to reset the device. 3. Set the WCT to the normal (off) state. In this case, ensure the door is closed. 4. Follow the programming instructions again to reprogram the device.
The green LED stays on all the time.	Make sure you remove the programming jumper from the top two pins when programming is complete. Store the jumper on the middle two pins.

Specifications

PHYSICAL		ELECTRICAL	
Height	41mm (1.61")	Operating Voltage	3.3V
Width	91mm (3.85")	Wireless	900MHz FHSS Transceiver
Depth	25mm (0.98")	Standing Current	20µA
Weight	43 grams	Operating Current	40mA TX/RX
Enclosure	High impact white color plastic enclosure	Battery Type	1/2AA 3.6V Lithium
		Battery Life	up to 2 years depending on usage
Temperature Ratings			
Operating:	-0°C to 50°C (32°F to 122°F)		
Storage/Transport:	-55°C to 85°C (-67°F to 185°F)		
IC: 6706A-WNCA01	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	FCC ID UI6-WNCA01	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.



Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.