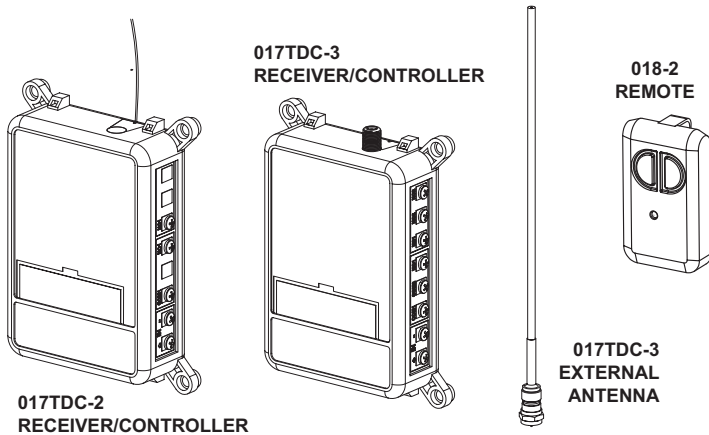


# 017TDC-2 & 3 AND 018-2 WIRELESS CONTROLLERS AND TRANSMITTER

NOTE: THE 017TDC-2 & 3 AND THE 018-2 ARE NOT COMPATIBLE WITH 017TDC-1 & 018-1

## INSTRUCTION SHEET AND TROUBLESHOOTING GUIDE



## SPECIFICATIONS:

### 018-2 Two Button Transmitter \*\*

- 6561 security codes available
- LED indicates operation
- Belt clip key ring provided
- Operates on 315 Mhz
- A-23 Battery Included
- FCC, IC Approved

### 017TDC-2 (Single Relay Controller)

- 100 Foot Range
- Time Delay 5-30 Seconds
- One 5 amp Normally Open and Normally Closed contacts, rated at 12 through 30 volts AC/DC
- Superheterodyne low radiant receiver

### 017TDC-3 (Dual Relay Controller)

- 300 Foot Range
- Time Delay 5-30 Seconds
- Two 5 amp Normally Open and Normally Closed contacts, rated at 12 through 30 volts AC/DC
- Relays can be coupled to work simultaneously or individually controlled by the 018-2's buttons.
- Superheterodyne low radiant receiver

**\*\* BOTH PUSH BUTTONS ON THE 018-2 WILL TRIGGER THE 017TDC-2**

**CAUTION:** CHANGES OR MODIFICATIONS TO THE 017TDC2, 017TDC-3 AND 018-2 NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USERS AUTHORITY TO OPERATE THE DEVICE.

## HOW TO WIRE YOUR 017TDC-2 & 3 WITH DIFFERENT DEVICES

THE ILLUSTRATIONS ON THIS MANUAL SHOWS AN ELECTRIC STRIKE AS THE INTENDED LOAD, THE 017TDC-2 & 3 CAN BE USED TO FOR OTHER APPLICATIONS (I.E. GARAGE DOOR OPENERS, REMOTE LIGHTING, OTHER SPECIAL APPLICATION SWITCHING... ETC.).

**CAUTION:** TO AVOID ELECTROCUTION, MAKE SURE TO TURN OFF THE POWER FROM THE CIRCUIT BREAKER BEFORE ELECTRICALLY WIRING THIS DEVICE.

### CONNECTING YOUR 017TDC-2 & 3 TO THE POWER SUPPLY

The 017TDC-2 & 3 will work with a range of operating voltages. These voltages are from 12 Volts through 30 Volts - AC (Alternating Current) or DC (Direct Current).

If the operating voltage is AC, polarity is not an issue. However, if the operating voltage is DC, the installer must make sure that all the polarity must match between the power supply and the devices being connected to the 017TDC-2 or 017TDC-3.

Figure 1 shows how the transformer is connected. Connect the output wires of the transformer to the power input terminals marked Positive (+) and Negative (-) if using DC voltage. If the operating voltage is AC then you need not bother about polarity, simply connect your wires to the two screws marked "IN".

### CONNECTING A FAIL-SECURE STRIKE TO YOUR 017TDC-2 & 3

Electric strikes can be FAIL SECURE (Locked when power is off) or FAIL SAFE (Unlocked when power is off). To connect a FAIL SECURE Strike please see Figure 2. Note that most electric strikes are not polarity sensitive. Read the electric strike's instruction sheet and follow its polarity recommendations.

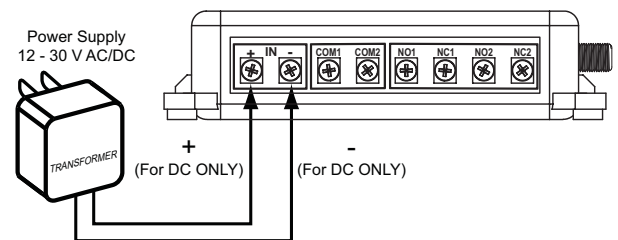


FIGURE 1

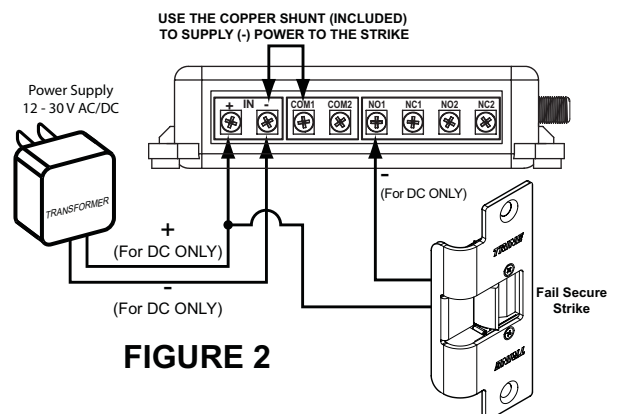


FIGURE 2

### CONNECTING A FAIL-SECURE STRIKE AND A SWITCH TO YOUR 017TDC-2 & 3

To connect a push button to mechanically operate the FAIL-SECURE Strike, connect one side of the Normally Open Switch to the 017TDC's "COM1" terminal and to the "NO1" terminal as shown on Figure 3.

This application is not limited to fail-secure strikes only. Any normally "OFF" devices that needs to be temporarily switched "ON" can substitute for fail-secure strikes for example garage door openers.

**NOTE:** If external push button switches were used, the time delay function of the receiver is overridden when using the push buttons so the load will stay "ON" only for the duration that the switches are pressed.

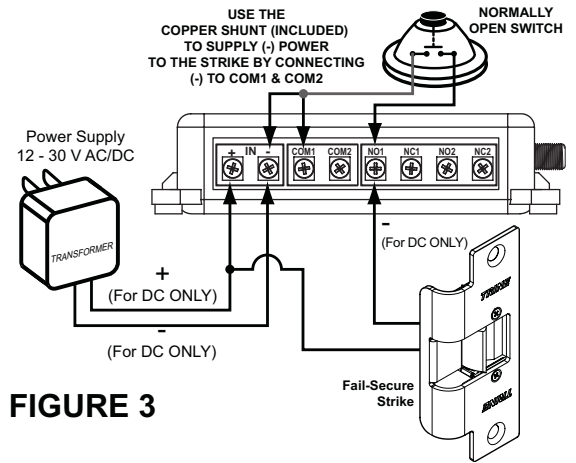


FIGURE 3

### CONNECTING TWO FAIL-SECURE STRIKES AND SWITCHES TO YOUR 017TDC-3

017TDC-3 has two relay outputs that can be triggered together or separately. You can connect two fail-secure electric strikes as shown below in Figure 4. Optionally, you can add two switches to manually override the wireless receiver.

This application is not limited to fail-secure strikes only. Any normally "OFF" devices that needs to be temporarily switched "ON" can substitute for fail-secure strikes for example garage door openers.

**NOTE:** If external push button switches were used, the time delay function of the receiver is overridden when using the push buttons so the load will stay "ON" only for the duration that the switches are pressed.

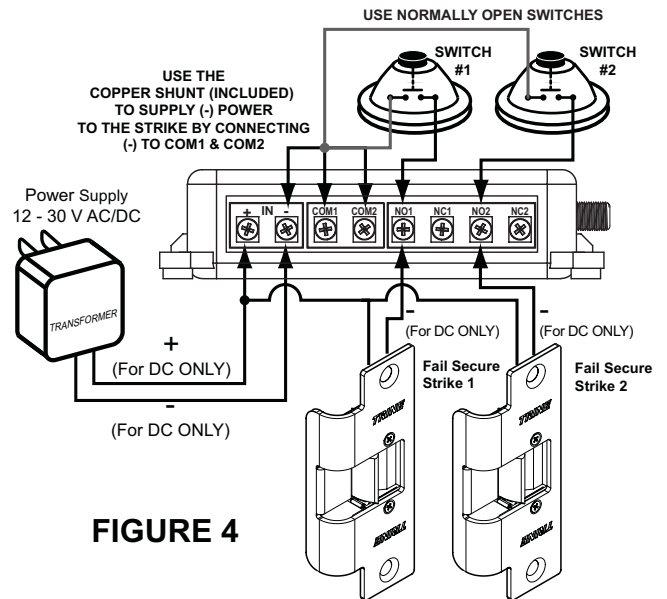


FIGURE 4

### CONNECTING A FAIL-SAFE STRIKE TO YOUR 017TDC-2 & 3

To connect a FAIL-SAFE strike to the 017TDC please see Figure 5 below.

Note that AC application requires no polarity matching, however, for DC applications, the positive side of the strike attaches to terminal #4 and the negative side to terminal #3.

This application is not limited to fail-safe strikes only. Any normally "ON" devices that needs to be temporarily switched "OFF" can substitute for fail-safe strikes for example Magnetic Locks.

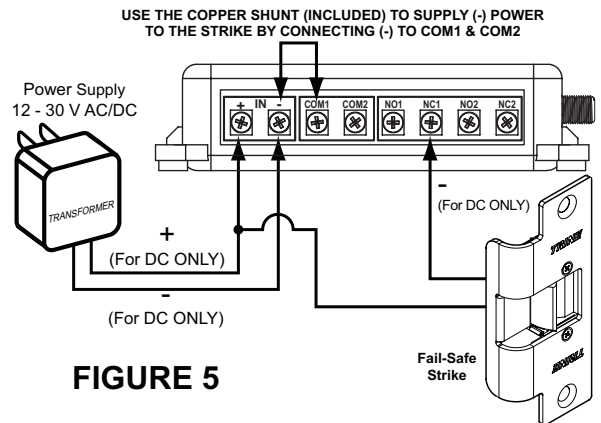


FIGURE 5

### CONNECTING A FAIL-SAFE STRIKE AND A SWITCH TO YOUR 017TDC-2 & 3

To connect a push button to mechanically operate a FAIL SAFE strike, connect one side of a Normally CLOSED Switch in series with the strike. One side of the switch connects to the 017TDC's terminal #5 and the other side to one side of the strike as shown on Figure 6 below.

Note that this application is not limited to fail-safe strikes only. Any normally "ON" devices that needs to be temporarily switched "OFF" can substitute for fail-safe strikes for example Magnetic Locks.

**NOTE:** If external push button switches were used, the time delay function of the receiver is overridden when using the push buttons so the load will stay "ON" only for the duration that the switches are pressed.

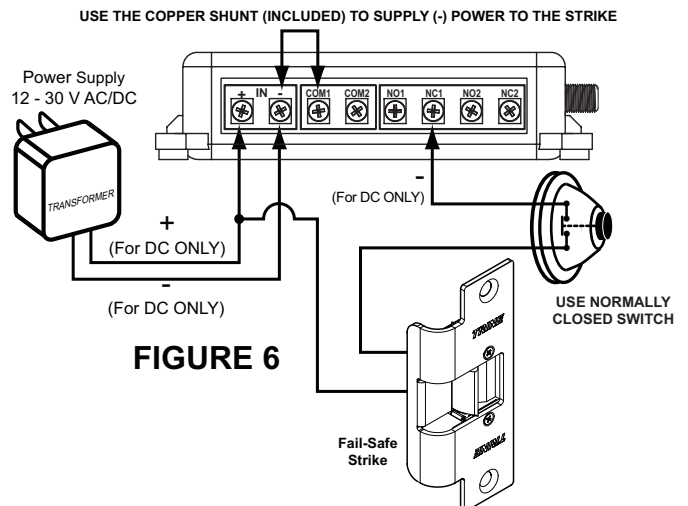


FIGURE 6

### CONNECTING TWO FAIL-SAFE STRIKES AND SWITCHES TO YOUR 017TDC-3

Optionally, you can connect two fail-safe strikes on the 017TDC-3 that can have two switches to manually override the wireless receiver. Refer to the schematic shown in Figure 7 below.

This application is not limited to fail-safe strikes only. Any normally "ON" devices that needs to be temporarily switched "OFF" can substitute for fail-safe strikes for example Magnetic Locks.

**NOTE:** If external push button switches were used, the time delay function of the receiver is overridden when using the push buttons so the load will stay "ON" only for the duration that the switches are pressed.

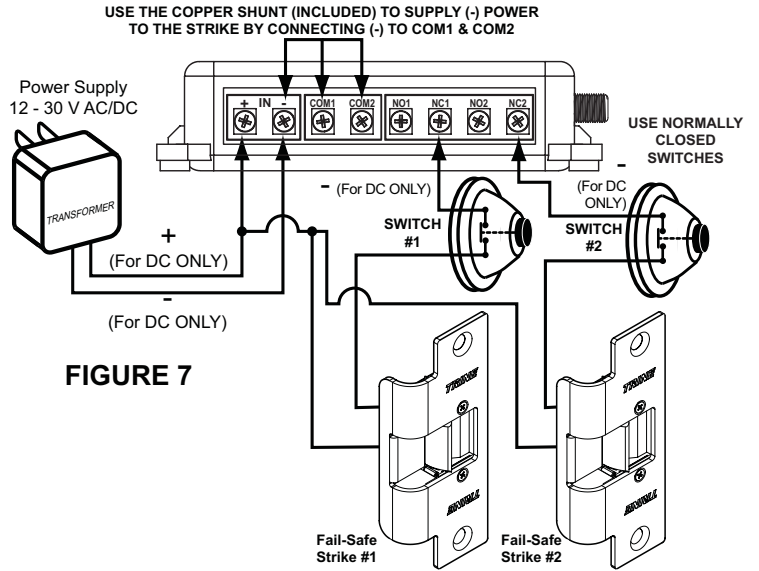


FIGURE 7

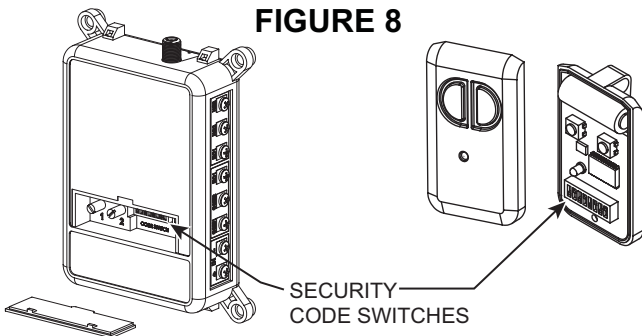
## SETTING: SECURITY CODE, TIME DELAY AND SWITCHING MODE

### SECURITY CODE SETTING:

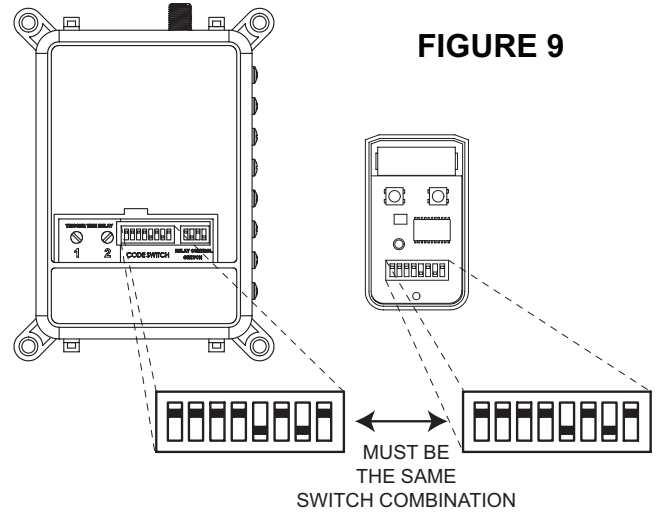
Once all the electrical connections had been made and checked, you have to set the security codes for the 017TDC-2 or 3 receiver and the 018-2 transmitter. If you have the 017TDC-3 you have to set the switching mode of the two relays.

The security code positions for the receiver must match the codes of the transmitter/ transmitters for these devices to communicate properly.

To change the codes on the 017TDC-2 or 3 receiver, open the cover and set the Security Code tri-state DIP switches to your desired positions, open the 018-2 transmitter and match the coding of the receiver. Figure 8 shows the location of the DIP switches for the receiver and the 018-2 transmitter.

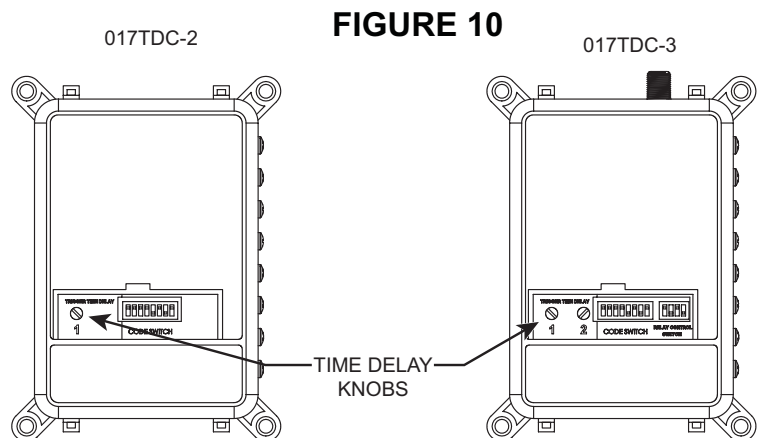


### EXAMPLE CODE SETTING:



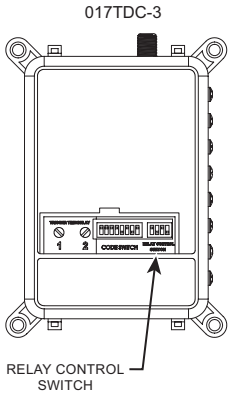
### 017TDC-2 & 3 TRIGGER TIME DELAY SETTING:

The 017TDC receiver trigger time delay can be adjusted to stay "ON" for 5 seconds minimum to 30 seconds maximum. Turn the time delay knob/knobs to your desired setting. Counter-clockwise to reduce the delay, Clockwise to increase delay. For the location of the knobs, see Figure 10 below.

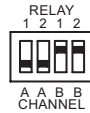


**017TDC-3 SWITCHING MODE SETTING:**

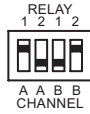
The 017TDC-3 has two relays capable of being triggered together by one button from the 018-2 transmitter or separately by the two buttons from the 018-2 transmitter. Set the relay control switch to your desire mode but following the coding below.



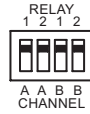
ALL CHANNELS "OFF"



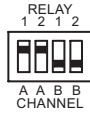
"B" BUTTON OPERATES BOTH RELAYS



"A" BUTTON OPERATES "1" RELAY  
"B" BUTTON OPERATES "2" RELAY



ANY BUTTON OPERATES BOTH RELAYS



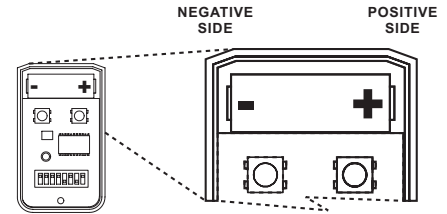
"A" BUTTON OPERATES BOTH RELAYS

**NOTE:**

The 017TDC-2 has only one relay and is triggered by any of the two buttons on the 018-2 transmitter.

**BATTERY SPECIFICATION AND ORIENTATION:**

USE **A23 12VDC** ALKALINE BATTERY OR IT'S FOLLOWING EQUIVALENT:  
MN21, GP23AE, A23, VA23GA, MS21



**TROUBLESHOOTING GUIDE SECTION:**

The 017TDC-2 & 3 and the 018-2 operates on radio frequency (RF) signaling and may have some problems being installed in certain locations. Radio frequency (RF) signals are similar in principle as two people conversing. RF communications however are more difficult to troubleshoot because RF modulates at frequencies that are not audible to human ears.

Let's say that you and I are comfortably conversing, if a person starts talking loud next to us, then we may start to automatically go closer and closer to each other until we can once again understand each other.

RF devices will work the same way. The first objective in troubleshooting is to spot the troublemaker, in this case the offending device. The offending device can be one or the combination of the following items: light dimmers, fluorescent lights, TV or computer CRT displays and any piece of equipment using a switching power supply or "clock" oscillator (computers and other digital devices). Additionally, ham and CB transmitters, remote controls, wireless phones, cellular phones, commercial taxi/police/aircraft radios, microwave ovens, motion sensors, radar systems, and a myriad of medical and industrial RF devices.

As you can appreciate from the litany of devices above almost any perimeter can have multiple sources of RF noisemakers. Deciding the final position for mounting the 017TDC will immensely improve your chances of installation success. Before nailing the 017TDC receiver down, choose an initial location and use a 10 feet electrical cord and walk test the 017TDC's sensitivity to receive the 018-2's signal. Once you have determine the most ideal spot, that is the place you will install the receiver.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Transmitter does not work (LED lamp does not light)	Battery is low	Replace the battery. Use an A23 size 12VDC Alkaline battery.
	Battery is not properly installed	Reinstall the battery correctly (see battery polarity drawing above)
Transmitter does not work (LED lamp turns ON)	Transmitter is out of range	Move the transmitter closer to the receiver (see above article)
	Wiring connections may be faulty	Check your wiring against the appropriate wiring scheme on page 1, 2 & 3
	Security Code mismatch	See if your receiver and transmitter security code match (see page 3)
Receiver does not work	Wiring connection may be faulty	Check your wiring against the appropriate wiring scheme on page 1, 2 & 3
	RF interference	Read the article above regarding RF interference
	Security Code mismatch	See if your receiver and transmitter security code match (see page 3)
	Faulty power supply	Check the power supply for correctness of voltage and capacity
Receiver works intermittently	Loose wiring connections or shorted wire	Carefully check all your wiring connections and tighten loose connections

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

**NOTICE REGARDING THE 018-2 TRANSMITTER**

FCC ID: PFO018-2

**018-2 TRANSMITTER**

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.



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