

INSTALLATION  
INSTRUCTIONS

# ZONE EXPANDER ZX-2

## **DOORGUARD SYSTEMS**

**8970 - D ROUTE 108**

**COLUMBIA, MD 21045**

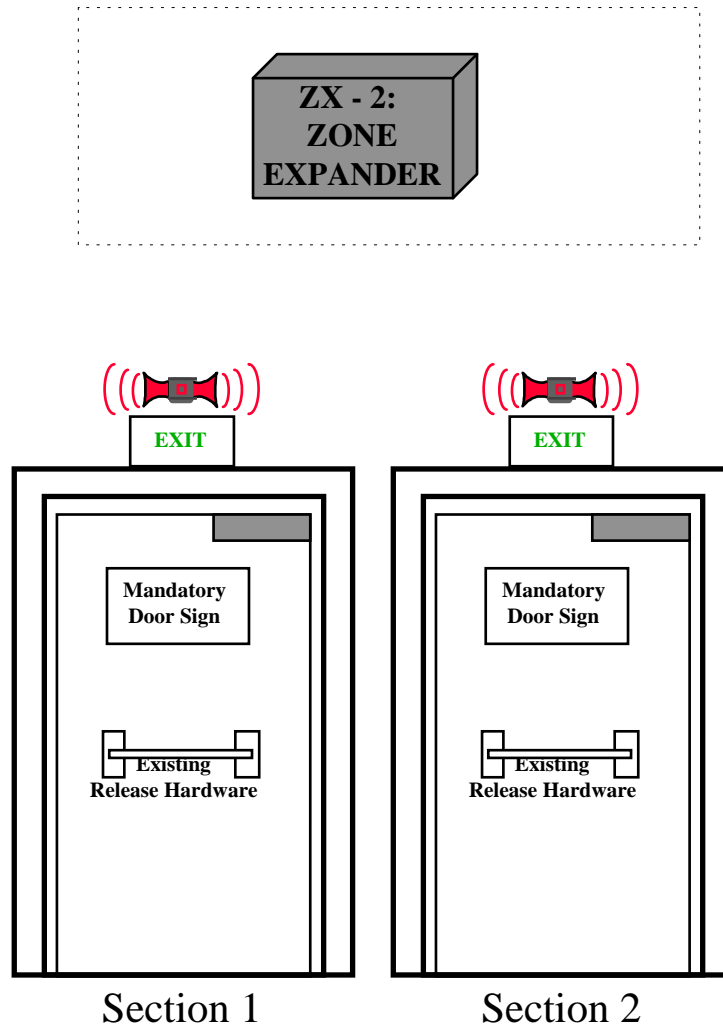
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## STEP 1



**Figure A**

### PRELIMINARY PROCEDURES

- A. Ensure that all DOORGUARD time delay magnetic locks have been properly installed as per factory installation procedures.
- B. Referring to Figure A, select a location for the Zone Expander centrally located to the DOORGUARD magnetic locks.
- C. Determine how the wiring will be run from the locks to the Zone Expander and from the Zone Expander to the Sentry Station or Sentry 1000. There will be six conductors from each lock to the Zone Expander and four conductors from the Zone Expander to the Sentry Station or Sentry 1000. Additionally, there will be two conductors to the Plug-in Transformer from the Zone Expander.

## **STEP 2**

### **MOUNTING THE ZONE EXPANDER**

A. With the #12 x 1” long screws provided, mount the cabinet using the four mounting holes in each corner.

NOTE: DO NOT MOUNT IN AN AREA WHICH WOULD RESTRICT AIR FLOW THROUGH THE FRONT COVER AIR OUTLET.

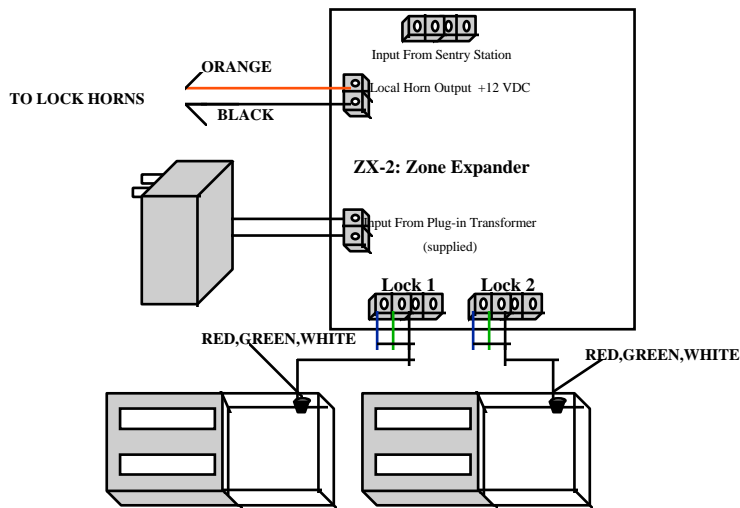
## **STEP 3**

### **WIRING CONNECTIONS**

A. Referring to Figure 2, connect the five wires from each magnetic lock to the corresponding zone of the Zone Expander (TB 2 and TB 3).

Red	=	Positive voltage to the lock ( <b>12 volts</b> )
Green	=	Common ground to lock and electronics
White	=	Trigger voltage
Black	=	Negative supply voltage to the horn
Orange	=	Positive supply voltage to the horn

**Figure 2**



B. Referring to Figure 2, connect the two wires from the 'Horn Output' (TB 4). OB-  
 SERVE POLARITY. Orange is positive and Black is negative.

C. Referring to Figure 2, connect the two wires from the Plug-In Transformer (supplied) to the 'AC Transformer' input. Polarity is not important. **DO NOT PLUG IN TRANSFORMER AT THIS TIME.**

D. Referring to Figures 3.1, 3.2, 3.3, and 3.4, determine the correct wiring configuration for your installation. Connect the four wires from TB 1 to their proper position in either the Sentry Station, Sentry 1000, or other optional electronics.

***Figure 3.1***

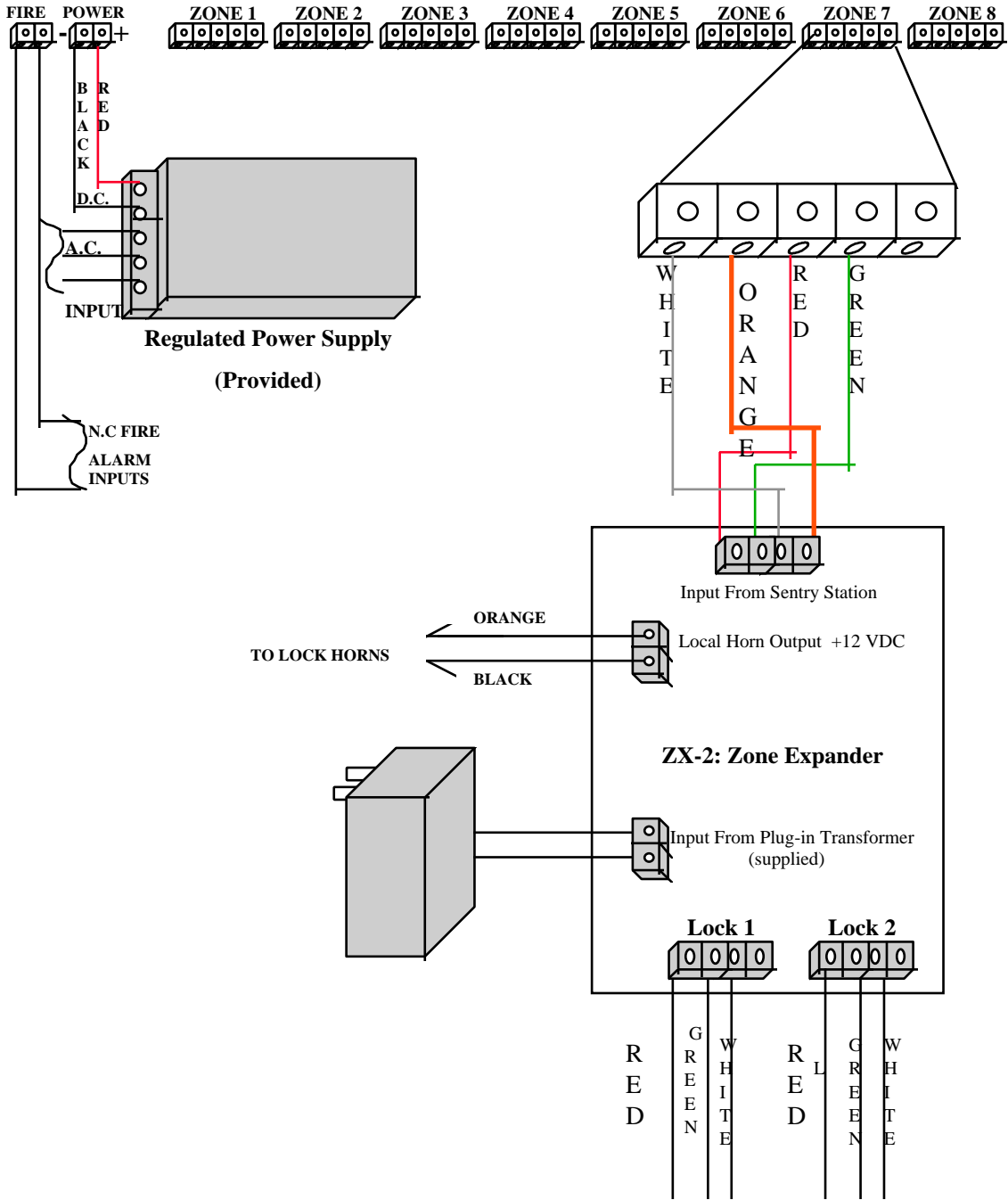
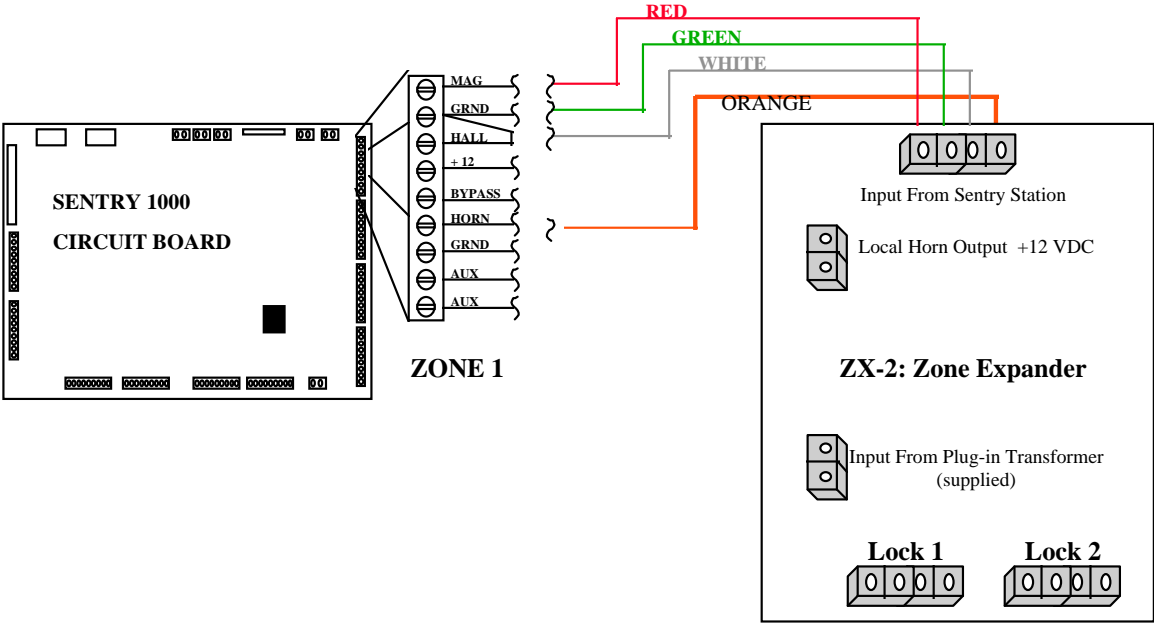


Figure 3.2



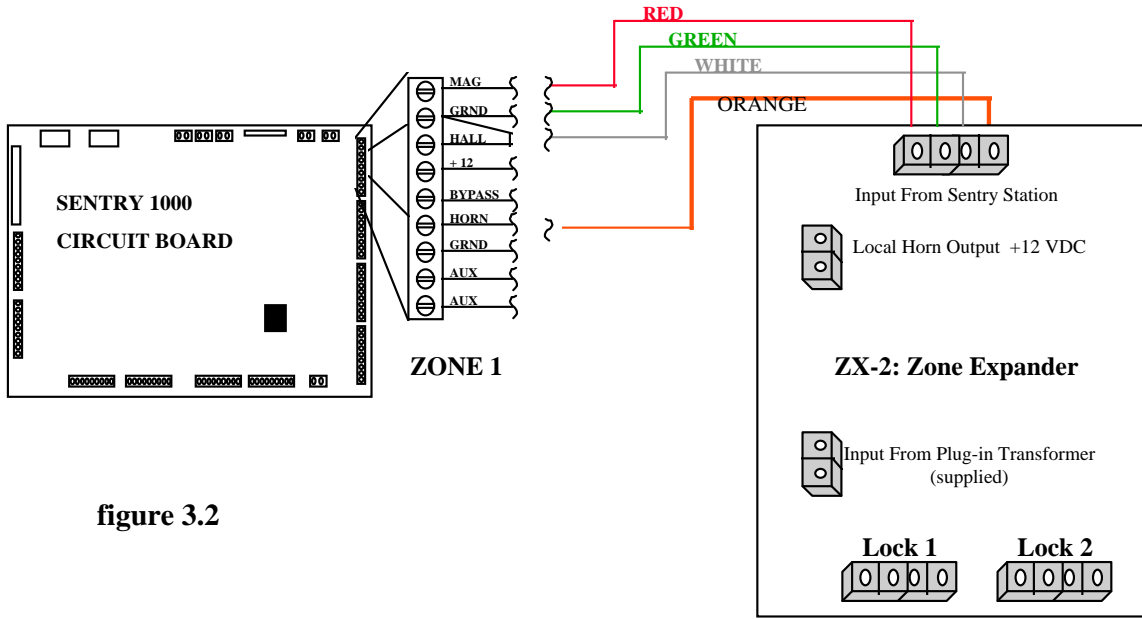


figure 3.2

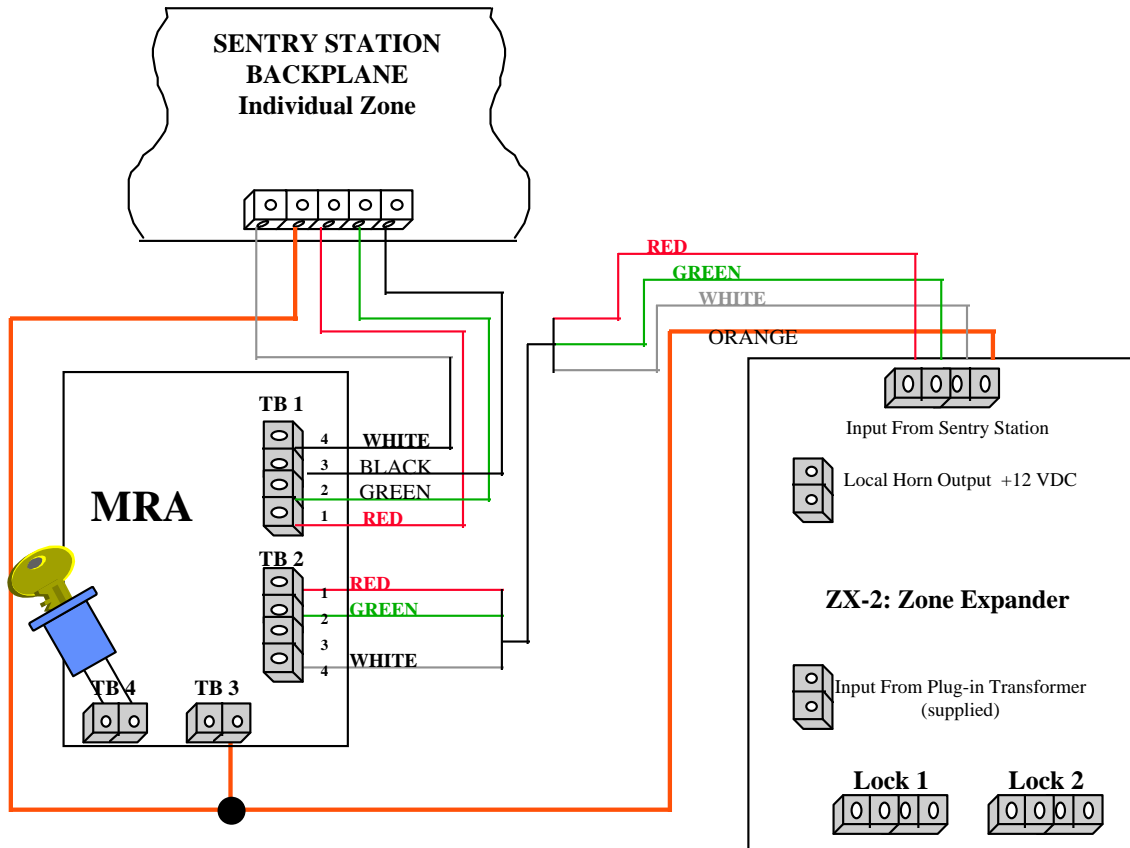
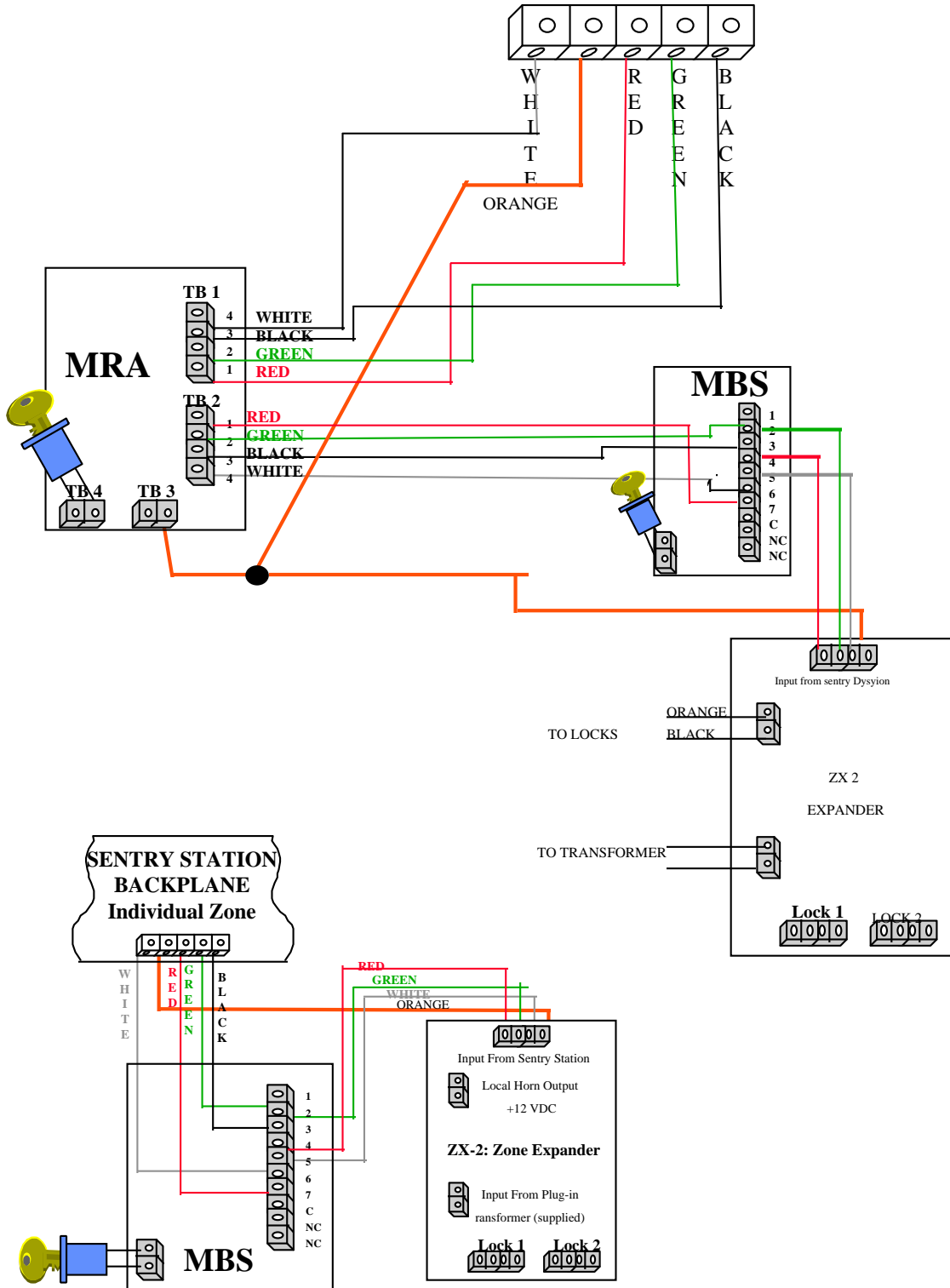


Figure 3.3



## Figure 3.4

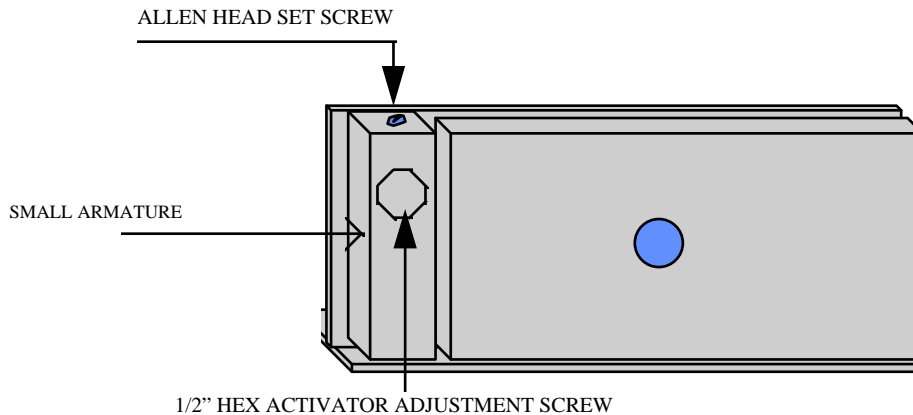
### STEP 4

#### CHECKOUT PROCEDURE

The following procedure will test the function of the Zone Expander and the activator assembly (trigger mechanism) of the DOORGUARD time delay magnetic locks.

- A. With the power disconnected from both the Sentry Station and the Zone Expander, place a jumper on TB 2 (lock 1) and TB 3 (lock 2) across the Green (gnd) and White (hall) positions. This will bypass both doors so you may test the wiring between the Sentry Station and the Zone Expander.
- B. Apply power to both the Sentry Station and the Zone Expander. Assure that the zone that the Zone Expander is attached to will secure. If the zone goes into alarm, check to ensure that the wiring between the Sentry Station and the Zone Expander is correct. When the zone is secure, remove one of the jumpers from lock 1 or 2 to ensure that the zone will go into alarm. Replace the jumper, secure the zone and repeat with the other lock.
- C. Turn off the zone at the Sentry Station and remove power from the Zone Expander. Remove the jumper from lock one and reapply power to the Zone Expander. With the door fully closed and latched, turn the Sentry Station zone back on and ensure that the unit comes up secure. If, within the first ten seconds, the unit goes into alarm, refer to the Activator Adjustment section. If the unit remains secure, go to the door and attempt to open the door with continuous pressure applied to the door for at least five seconds. Within five seconds, the alarm should sound and the door should open in either 15 or 30 seconds depending on the timing configuration you have installed. If the unit does not go into alarm and open, refer to the Activator Adjustment section.
- D. If all is working properly on lock one, turn off the Sentry Station zone and remove power from the Zone Expander. Replace the jumper on lock one and remove the jumper on lock two. Repeat the procedures of section C for lock two.
- E. When both locks have been adjusted, replace the power to the Zone Expander and turn the Sentry Station zone on. Once again go through the door testing procedure to ensure that both locks are operating properly.

## ACTIVATOR ADJUSTMENT



### THEORY OF ADJUSTMENT

When the door is closed and latched, the magnet in the 1/2" hex screw on the small armature activates, signaling a secure status of the lock. When an attempt is made to open the door, the door is allowed to move outward, letting the activator change states. It is the movement of the door which signals the timing electronics that an attempt to open the door is being made. If the hex screw is not allowed to move away far enough, the door will not go into alarm. If the hex screw is not close enough to the lock when the door is closed, the unit will signal a false alarm.

- A. If the unit will not secure, or continuously goes into false alarm, then the activator adjustment screw must come further out from the small armature.
  1. Remove power from the system to release the magnetic lock.
  2. Referring to the activator adjustment diagram, loosen the Allen head set screw on top of the small armature that houses the 1/2" hex screw.
  3. Adjust the 1/2" hex screw **OUTWARD** in half turn increments. Repeat the testing procedure and resecure the set screw when complete.
  
- B. If the unit will secure but will not go into alarm and release the door, then the activator adjustment screw must go further in the small armature.
  1. Remove power from the system to release the magnetic lock.
  2. Referring to the activator adjustment diagram, loosen the Allen head set screw on top of the small armature block and adjust the 1/2" hex

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