

**ADEMCO**
**No. 4146**  
**KEYSWITCH**  
 (with 2 LEDs)

## INSTALLATION INSTRUCTIONS

### GENERAL INFORMATION

The No. 4146 Keyswitch includes an N.O. (normally open) momentary contact (spring loaded) lockswitch with high security (round) keys. It may be used to remotely arm and disarm burglary protection and/or to silence burglary and fire alarms when connected to a control panel that has provision for a keyswitch input. Also included are 2 indicator LEDs (1 red and 1 green) for annunciating the status of a control panel that has provision for operating them.

The 4146 is designed to meet the following UL standards: UL609 Commercial Burglary, UL864 Commercial Fire, UL985 Household Fire, and UL 1023 Household Burglary.

The Ademco Nos. 4140XMP, 4140XMPT, and 5140XM Control/Communicators are examples of control panels with which the 4146 can be used.

The 4146 consists of an inner switch plate to which the lock switch and indicator LEDs are attached, and a decorative "silver" outer cover plate. The plates are designed to mount on a standard single-gang electrical box. A tamper switch also comes attached to the inner switch plate and can be used to detect the removal of the outer cover plate.

### WIRING AND INSTALLATION

The 4146 provides flying leads for making connections to its lock switch, tamper switch, and indicator LEDs. The diagram below shows the color coding of these wires.

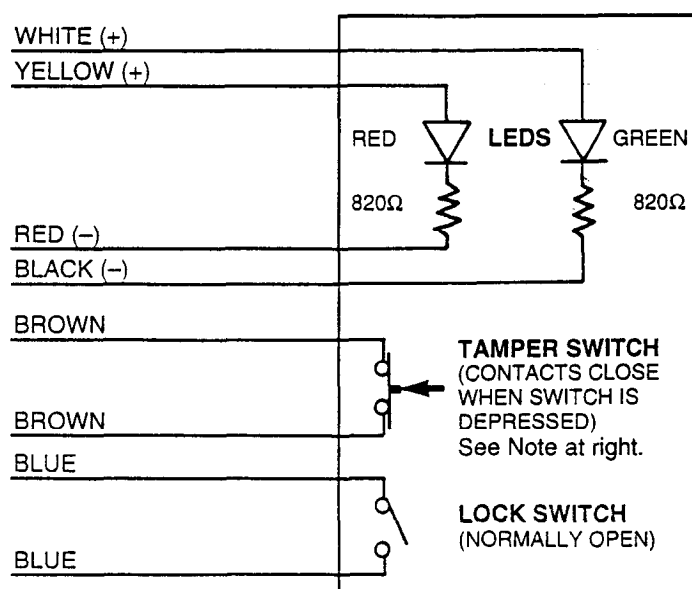
**Notes:** For UL Commercial Burglary installations, the 4146 must be located within the protected area.

For UL Commercial Fire installations, unless otherwise noted in the control panel instructions, the 4146 must be mounted next to a console (so that when the 4146 is used to silence a fire alarm, the console will provide the UL-required "fire bell silenced" indication).

1. Run wires from the control panel to a single-gang electrical box and make appropriate connections (follow the instructions accompanying the control). Use solderless connectors or wire nuts to connect the wires.

**Note:** A No. 4142TR Trigger Cable is provided, for making connections to the ARMED and READY LED header outputs on the 4140XMP, 4140XMPT, AND 5140XM Control/Communicators.

2. Mount the 4146's inner switch plate to the electrical box, using the 1" long self-tapping screws provided.
3. Mount the outer cover plate to the inner plate, using the 3/8" long machine screws provided. The outer cover must rest snugly against the inner plate to insure that the inner plate's tamper switch is fully depressed.
4. a. Apply the UL "TEST WEEKLY" label to the front of the outer cover.  
b. Also apply the UL "FIRE ALARM SILENCE" label to the front of the outer cover, if the 4146 will be used to silence fire alarms in a commercial fire installation. Align its holes with the LED holes on the outer cover.



**Note:** WHEN USED IN COMMERCIAL BURGLARY INSTALLATIONS, CONNECT TAMPER SWITCH INTO EOLR SUPERVISED ZONE PROGRAMMED FOR BURGLARY RESPONSE (i.e., TROUBLE BY DAY, ALARM BY NIGHT).

**4146 KEYSWITCH (Rear View)**  
**FLYING LEAD COLOR CODE DIAGRAM**

## OPERATION

When the 4146's lock switch is in its normal (not activated) position, its contacts are open. When the switch is activated, by turning and holding the switch key, its contacts close.

When the 4146's tamper switch is in its normal (fully depressed) position, its contacts are closed. When the tamper switch is fully extended, as occurs when the outer cover is removed, its contacts open.

The 4146's LEDs light when a voltage of 4.5–14VDC (with proper polarity) is applied.

Refer to the control panel's instructions to determine what actions the panel can perform when the lock switch is activated and to determine what status conditions the indicator LEDs can be used to annunciate.

*For example:* When used with the Ademco 4140XMP Control/Communicator, the lock switch can be used to remotely arm the burglary protection in AWAY or STAY modes, to disarm the burglary protection, and to silence alarms. The indicator LEDs can be used to annunciate READY TO ARM, ARMED, and ALARM MEMORY status.

## SPECIFICATIONS

**Physical:** 2-3/4" W x 4-1/2" H (70mm x 114mm)

**Electrical:** Lock Switch: Spring Loaded (Momentary Contact), normally open contacts, 2 round keys.  
Contact Rating: 7A max at 28VDC/AC (120VAC for non-UL installations).

Tamper Switch: Spring Loaded, closed contacts when fully depressed.  
Contact Rating: 50mA max at 28VDC.

Indicator LEDs: Red and Green, each with 820 ohm current-limiting resistor.  
Operating current range: 4.5–14VDC. Observe polarity!  
Current draw: 3mA at 4.5VDC, 12mA at 12VDC, 15mA at 14VDC.

REFER TO THE INSTALLATION INSTRUCTIONS FOR THE CONTROL PANEL WITH WHICH THIS DEVICE IS USED, FOR DETAILS ON LIMITATIONS OF THE ENTIRE ALARM SYSTEM.

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A DIVISION OF PITTPWAY CORP.  
165 EILEEN WAY, SYOSSET, NY 11791