



DESCRIPTION

The City Tie Disconnect switch enables the operator to disconnect the Municipal Fire Alarm Box from the host fire alarm control panel when necessary for system testing. When activated, a Trouble condition will be reported at the host control panel. Alarms will not be transmitted to the connected receiving station while the disconnect switch is activated.

There are three switch options available to suit specific project needs as described below. All three switch options consist of a disconnect switch operated by a two-pole key-operated switch, and a white incandescent lamp that indicates when the city tie has been disconnected. Once the switch has been activated by turning the key, the key cannot be removed from the lock until the city tie disconnect switch is returned to the connect position.

Note: Only one city tie disconnect switch may be installed in the system.

SWITCH OPTIONS

City Tie Disconnect Switch (External Mount) P/N 10-2719

This switch option (Exhibit 1) is designed to be installed external and directly adjacent to the host fire alarm control panel. The switch comes with a polished steel faceplate suitable for mounting to a 4" (10.16 cm) square double-gang box, and two normally open (NO) dry contacts.

Note: This option requires installation of a mini-monitor module (P/N 55-045) and relay module (P/N 55-043), both sold separately.

City Tie Disconnect Switch (Remote Mount) P/N 10-2720

This switch option (Exhibit 1) is designed to be installed remotely near Fike's Masterbox Supervisor module. The switch comes with a polished steel faceplate suitable for mounting to a 4" (10.16 cm) square double-gang box, and one normally open (NO) and one normally closed (NC) dry contact.

Parts List for P/N 10-2719 and 10-2720:

10-2716	Front Plate
02-12347	Disconnect Switch, 2-pole
02-12346	Pilot Light, White
02-2316	Machine Screw, 6-32 x .5 (qty. 4)



**Exhibit 1: City Tie Disconnect
(External and Remote Mount)**

City Tie Disconnect Switch (Panel Mount) P/N 10-2721-X (X = R for red & B for Black)

The panel mount disconnect switch (Exhibit 2) is designed to be installed onto the CyberCat enclosures deadfront panel. The design of the disconnect switch faceplate allows it to be mounted to any of deadfront panel's available card slots and can be ordered with a red or black finish to match the panel. Two normally closed (NC) dry contacts are provided with this switch option.

Note: This option requires installation of a mini-monitor module (P/N 55-045) and relay module (P/N 55-043), both sold separately.



**Exhibit 2: City Tie Disconnect
(Deadfront Mount only)**

Parts List for P/N 10-2721:

10-2718-X	Front Plate (X = R for red & B for Black)
10-2725-X	Spacer (X = R for red & B for Black)
02-12347	Disconnect Switch, 2-pole
02-12346	Pilot Light, White
02-12420	Hardware Kit, includes:
02-2715	Standoff, 6-32 x 5/8" M/F (qty. 4)
02-1879	Hex Nut, 6-32 (qty. 4)
4153-142	Lock Washer, #6 (qty. 4)

COMPATIBILITY

The City Tie Disconnect switch is compatible with the following Fike control panels:

- CyberCat 254 Fire Alarm Control Panel
- CyberCat 1016 Fire Alarm Control Panel
- CyberCat 50 Fire Alarm Control Panel
- Cheetah Xi Fire Suppression Control Panel
- Cheetah Xi 50 Fire Suppression Control Panel

LISTINGS AND APPROVALS

UL S3217
FM Pending

SPECIFICATIONS

Input Voltage:	15 – 30 VDC
Current Consumption:	0 mA (standby) 49 mA (lamp active)
Circuit Limitations:	Class B only
Dimensions (LxWxD):	4.5 in. x 4.5 in. x 1.875 in. (11.5cm x 11.5cm x 4.8cm)
Weight:	0.50 lb. (0.23 kg)
Operating Temp:	0° to 49° C (32° to 120° F)
Operating Humidity:	93% RH
Contact Ratings:	8A @ 24 VDC Resistive 4A @ 24 VDC Inductive
Mounting:	Two-gang masonry box (Raco 691 or equal), external and remote mount

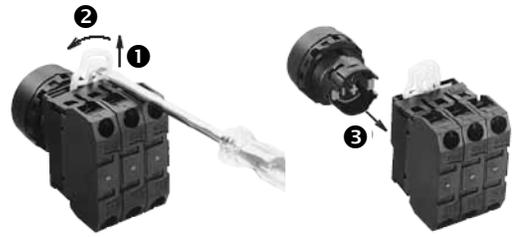
OPERATION

Insert the key and turn clockwise to disconnect the Municipal Fire Alarm Box. The white pilot light will illuminate. Once the key has been inserted, it cannot be removed until returned to its normal position. When activated, a Trouble condition will be reported at the host control panel. Alarms will not be transmitted to the connected receiving station while the disconnect switch is activated.

SWITCH ASSEMBLY INSTRUCTIONS

The disconnect switch is shipped unassembled and must be assembled in the field using the following instructions:

1. Remove the switch components from the shipping package and check for shipping damage.
2. Remove the operator from the contact block by pulling up the locking lever and turning it to the left as shown in Exhibit 3.



- 1 Pull up the locking lever.
- 2 Turn the lever to the left.
- 3 Pull out the contact block.

Exhibit 3: Removing and Installing the Contact Block

3. Remove the locking ring from the operator and insert the operator into the switch faceplate from the front as shown in Exhibit 4. Refer to Exhibits 1 and 2 for correct location for switch installation.
4. Reinstall the locking ring onto the operator from the back and tighten with pliers or locking ring wrench (02-12318), making sure that the TOP marking on the operator is aligned with the top center of the faceplate.

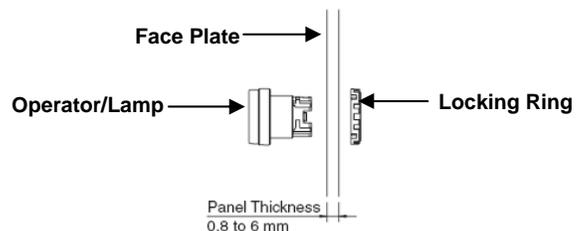


Exhibit 4: Operator and Lamp Installation

5. Insert the operator into the contact block making sure that the Idec marking on the contact block is facing the same direction as the TOP marking on the operator. Turn the locking lever to the right.
6. Remove the locking ring from the indicator lamp and insert the lamp into the switch faceplate from the front as shown in Exhibit 4. Refer to Exhibits 1 and 2 for correct location for lamp installation.
7. Reinstall the locking ring onto the lamp from the back and tighten with pliers or locking ring wrench (02-12318), making sure that the TOP marking on the lamp is aligned with the top center of the faceplate.

INSTALLATION INSTRUCTIONS

The wiring and installation of each of the available disconnect switch options varies. The following installation instructions must be followed in order to properly wire and install each disconnect switch option. Improper operation of the city tie disconnect may occur if the following installation steps are not followed.

External Mount disconnect switch:

This switch is designed to be located near the host fire alarm control panel. Interface to the city tie circuit is made using an addressable relay module.

Required components:

- 10-2719 City Tie Disconnect Switch
 - 55-045 Mini Monitor Module
 - 55-043 Relay Module
1. If the fire alarm system is already connected to a Municipal Fire Alarm Box, physically disconnect the city tie circuit wiring.
 2. Disable all critical Fire Alarm panel functions and power down system.
 3. Mount disconnect switch electrical box near the host fire alarm control panel.
 4. Mount the disconnect relay electrical box near the Masterbox Supervisor Module.
 5. Verify that all field wiring is free of opens, shorts and ground faults.
 6. Make all wiring connections to the disconnect switch as shown in Exhibit 5, making sure to observe circuit polarity.

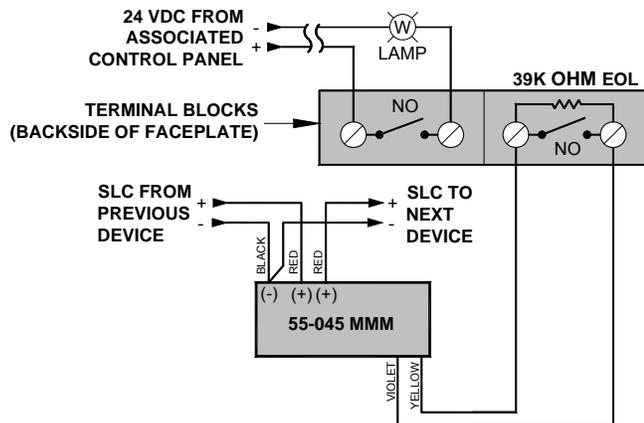


Exhibit 5: City Tie Disconnect Wiring Diagram (External Mount)

7. Make all wiring connections to the disconnect relay as shown in Exhibit 6. Do **NOT** connect the city tie circuit wiring to the Master Fire Alarm Box coil at this time.

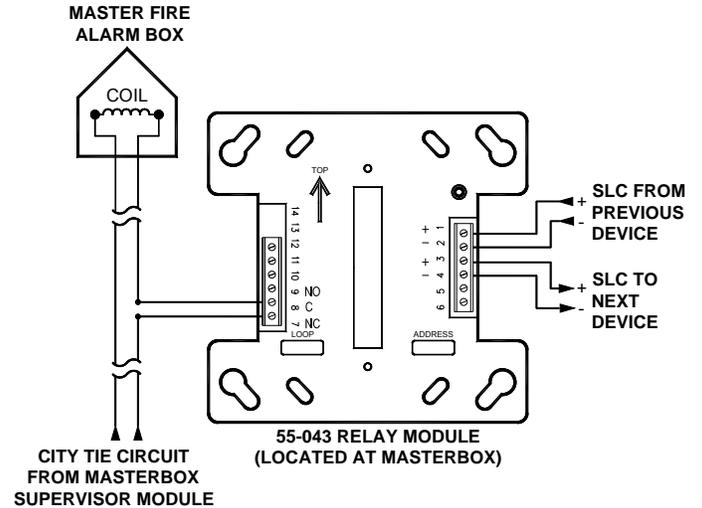


Exhibit 6: City Tie Disconnect Relay Wiring Diagram

8. Apply power to system and program modules as follows:
 - Program the Mini Monitor Module (MMM) as a non-latching, normally open Trouble input in a zone dedicated for Master Fire Alarm Box disconnect.
 - Program the output control on the Relay Module (RM) to turn on upon activation of the general Trouble state for the specific MMM device address.
9. Functionally test the operation of the disconnect switch in both the connected and disconnected positions. When everything operates properly, proceed to next step.
10. Attach the switch faceplate to the electrical box with supplied mounting screws. Verify that the key switch is in the disconnect position (indicator lamp on) before proceeding to next step.
11. Reconnect the city tie circuit wiring to the Master Fire Alarm Box coil.
12. Turn the key switch to the connect position (indicator lamp off) and test proper operation.

Remote Mount disconnect switch:

This switch is designed to be located remotely near the Masterbox Supervisor module. The switch is interfaced directly to the city tie circuit.

Required components:

- 10-2720 City Tie Disconnect Switch
1. If the fire alarm system is already connected to a Municipal Fire Alarm Box, physically disconnect the city tie circuit wiring.
 2. Disable all critical Fire Alarm panel functions and power down system.
 3. Mount disconnect switch electrical box near the Masterbox Supervisor Module.
 4. Verify that all field wiring is free of opens, shorts and ground faults.
 5. Make all wiring connections to the disconnect switch as shown in Exhibit 7, making sure to observe circuit polarity. Do **NOT** connect the city tie circuit wiring to the Master Fire Alarm Box coil at this time.

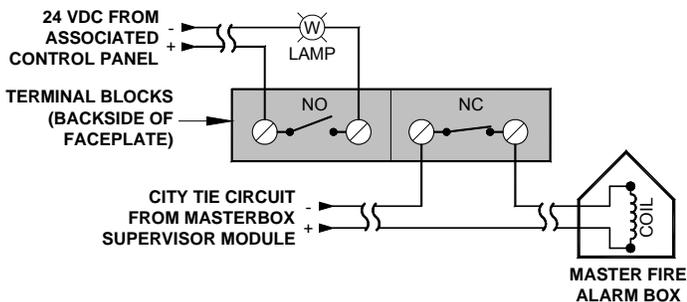


Exhibit 7: City Tie Disconnect Wiring Diagram (Remote Mount)

6. Apply power and functionally test the operation of the disconnect switch in both the connected and disconnected positions. If everything operates properly, proceed to next step.
7. Attach the switch faceplate to the electrical box with supplied mounting screws. Verify that the key switch is in the disconnect position (indicator lamp on) before proceeding to next step.
8. Reconnect the city tie circuit wiring to the Master Fire Alarm Box coil.
9. Turn the key switch to the connect position (indicator lamp off) and test proper operation.

Panel Mount disconnect switch:

This switch is designed to be installed onto the deadfront door of a CyberCat 254 or 1016 control panel. Interface to the city tie circuit is made using an addressable relay module.

Required components:

- 10-2721 City Tie Disconnect Switch
 - 55-045 Mini Monitor Module
 - 55-043 Relay Module
1. If the fire alarm system is already connected to a Municipal Fire Alarm Box, physically disconnect the city tie circuit wiring.
 2. Disable all critical Fire Alarm panel functions and power down system.
 3. Select appropriate card slot for switch installation. The depth of the switch assembly may prevent you from installing the switch in all card slot locations (i.e., directly in front of system transformer).
- Note:** You must install adjacent switch cards prior to installing city-tie disconnect switch.
4. Install four standoffs supplied with switch to the deadfront panel as shown in Exhibit 8.
 5. Install the trim ring supplied with the switch onto the standoffs.
 6. Install the city-tie switch plate onto the standoffs; then secure in place with the four 6-32 nuts supplied.

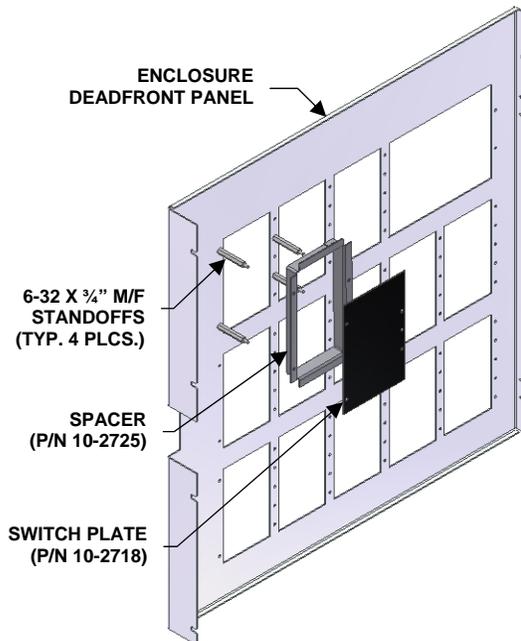


Exhibit 8: Mounting Switch to Deadfront Panel

Refer to Steps 4 through 12 of the External Mount switch installation instructions for remaining installation steps.