



DESCRIPTION

The Manual Release/Abort/Main-Reserve switch is an accessory unit for use with Fike’s Fire Suppression control panels. It offers a pleasing, practical means of mounting a suppression system Manual Release, Abort, and Main-Reserve switch in a common location. The Manual Release switch consists of a latching, dual-action push button switch with keyed reset, normally-open contact block, safety clip with security tie, and adhesive label. The Abort switch consists of a momentary contact, push button switch, normally-open contact block, normally closed contact block, and adhesive label. The Main-Reserve switch consists of a two position switch, two normally-open contact blocks, two normally-closed contact blocks, and adhesive label. The switches mount to a common stainless steel faceplate.

APPLICATION

The Manual Release switch is used to manually initiate the release of the suppression system, overriding any active abort switch inputs. To operate the switch, the operator must first pull the spring safety clip (breaking the seal), and then press the push button. The switch will remain engaged until released by unlocking the active switch with a key. This provides positive indication of switch activation. The Abort switch creates an input to the control panel that delays the release of the suppression system when initiated by automatic detection. As long as the push button is held in, the suppression system will not release unless it is overridden by a manual release input. Upon release of the abort push button, the release circuit is activated, unless the control panel has been reset to the non-alarm condition. The Main-Reserve switch is required for all main-reserve fire suppression systems. Following a system discharge, emergency response personnel must restore the control unit to normal operation. The Main-Reserve switch can then be used to connect the “Reserve” agent supply to the control units releasing circuit, providing uninterrupted protection. The empty “Main” container(s) can then be removed for recharge. Once recharged, the “Main” container(s) can be reinstalled and the main-reserve switch can be set back to the “Main” position.

NOTE: Fike’s control panels provide programmable abort types with different operational characteristics. The operation described above is general and does not fully describe the function of each abort type. Refer to the associated control panel manual for further description of each abort type.

SPECIFICATIONS

- Operating temperature: 0°C to 49°C (32°F to 120°F)
- Operating humidity: 93% RH, non-condensing
- Weight: 1.2 lb. (544 grams)
- Mounting: Four-gang masonry box (RACO 698) or equivalent with a minimum depth of 3.5 inch (89 mm) *Electrical box not included.*
- For indoor use only

ORDERING INFORMATION

Part Number	Description
10-1649	Manual Release/Abort/Main-Reserve switch assembly
10-1422 ¹	Manual Release switch
10-1430 ¹	Abort switch
10-1424 ¹	Main-Reserve switch
02-2150 ^{2,3,4}	Contact Block, normally open (NO)
02-2130 ^{3,4}	Contact Block, normally closed (NC)
02-2213 ²	Security Tie (beaded cable)
02-2270 ²	Safety Clip
02-2139 ²	Adhesive Label, Manual Release
02-2137 ³	Adhesive Label, Abort
02-2140 ⁴	Adhesive Label, Main-Reserve
10-105	Stainless Steel Face Plate w/ mtg. screws
10-1372 ¹	Stainless Steel Faceplate
02-2316 ^{2,3}	Mounting Screws (4 required)
02-4192 ²	Key, #0
¹ Included in 10-1649 switch assembly. ² Included in 10-1422 switch assembly. ³ Included in 10-1430 switch assembly. ⁴ Included in 10-1424 switch assembly.	

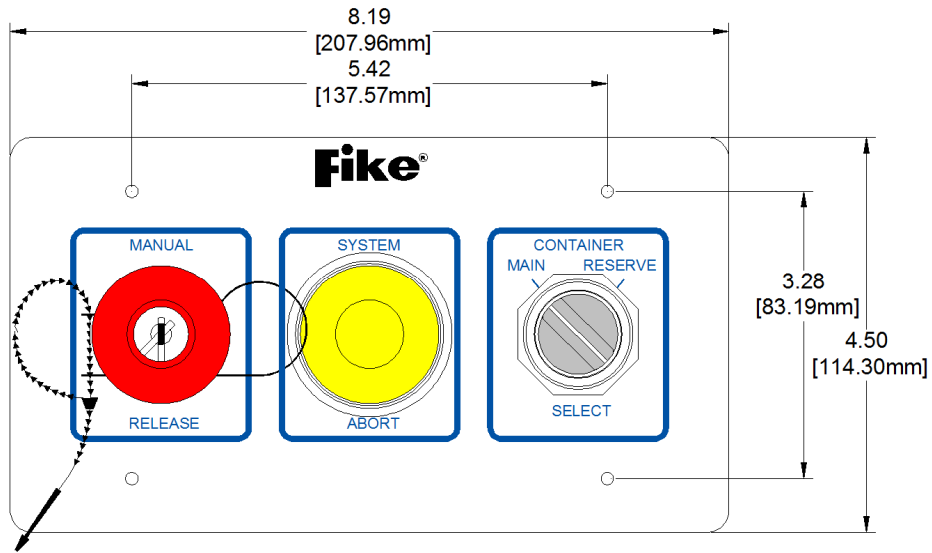


Figure 1 Switch Front View (inches/mm)

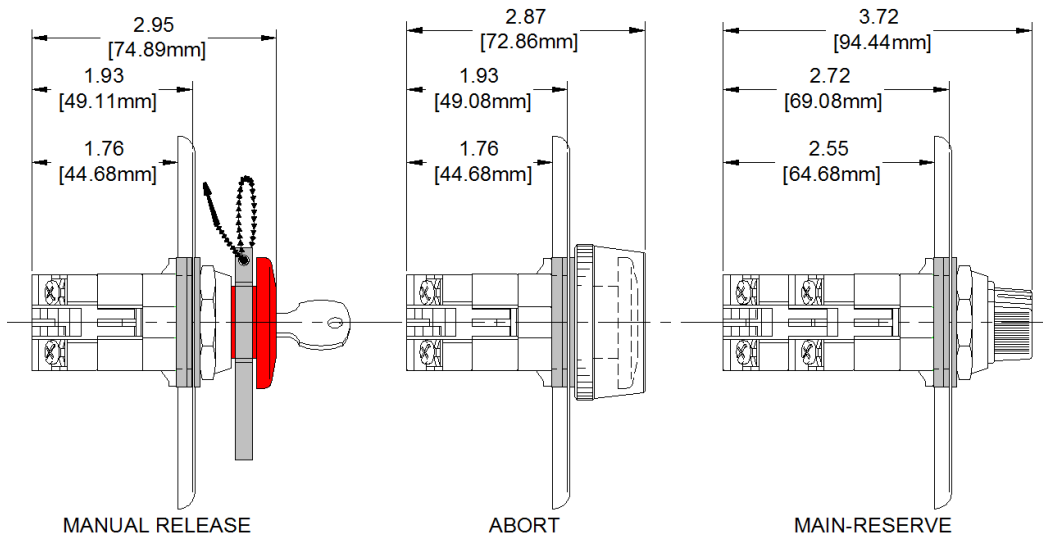


Figure 2 Switch Side Views (inches/mm)

SWITCH ASSEMBLY

The switch components are shipped disassembled and must be assembled prior to installation using the following instructions.

Manual Release Switch

See Figure 3 for switch assembly diagram.

1. Remove protective plastic film from stainless steel face plate and apply the adhesive label, oriented as shown in Figure 1.
2. Remove locking ring bezel from switch base.
3. Remove single anti-rotation ring washer from the switch base.
4. From the backside of the face plate, insert switch base through the mounting hole provided.
5. Install anti-rotation ring washer removed in Step 3 over the switch base as it protrudes through the front side of the face plate.
6. Install and hand tighten lock ring bezel (45 in-lb.).
7. Install and hand tighten mushroom head (15 in-lb.).
8. Do not install safety clip and security tie until testing is complete. See Switch Installation.
9. Install contact blocks to switch base.

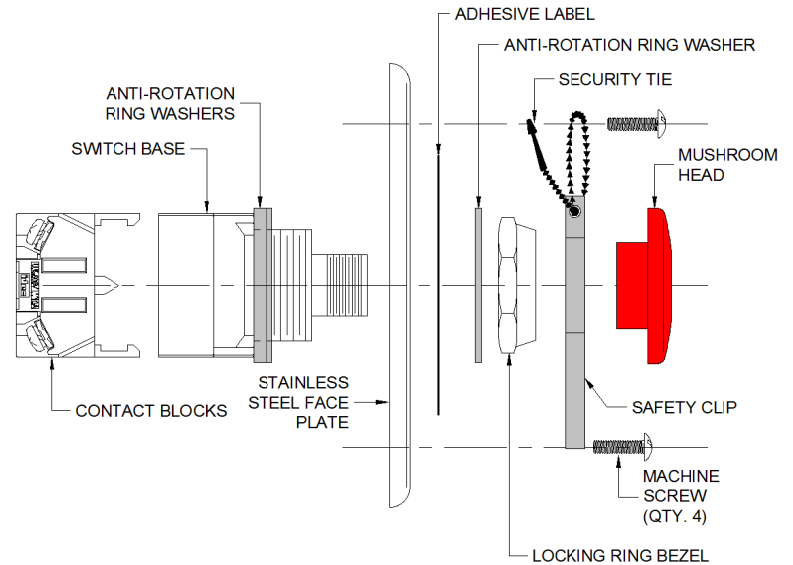


Figure 3 Manual Release Switch Assembly

Abort Switch

See Figure 4 for switch assembly diagram.

1. Apply the adhesive label to the stainless steel face plate, orientated as shown in Figure 1.
2. Remove button shroud from switch base.
3. Remove single anti-rotation ring washer from the switch base.
4. From the backside of the face plate, insert switch base through the mounting hole provided.
5. Install anti-rotation ring washer removed in Step 3 over the switch base as it protrudes through the front side of the face plate.
6. Install and hand tighten button shroud (45 in-lb.).
7. Install and hand tighten mushroom head (15 in-lb.).
8. Install contact blocks to switch base.

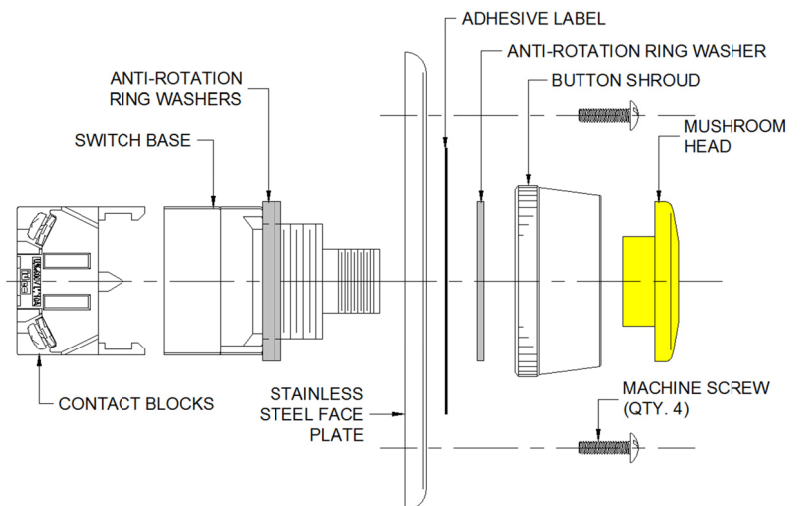


Figure 4 Abort Switch Assembly

Main-Reserve Switch

See Figure 5 for switch assembly diagram.

1. Apply adhesive label to stainless steel face plate, orientated as shown in Figure 1.
2. Remove locking ring bezel from switch base.
3. Remove single anti-rotation ring washer from the switch base.
4. From the backside of the face plate, insert switch base through the mounting hole provided.
5. Install anti-rotation ring washer removed in Step 3 over the switch base as it protrudes through the front side of the face plate.
6. Install and hand tighten locking ring bezel (45 in-lb.).
7. Install white insert into selector knob.
8. Install selector knob onto switch base by snapping it into place, observing proper orientation of white insert.
9. Install contact blocks to switch base.

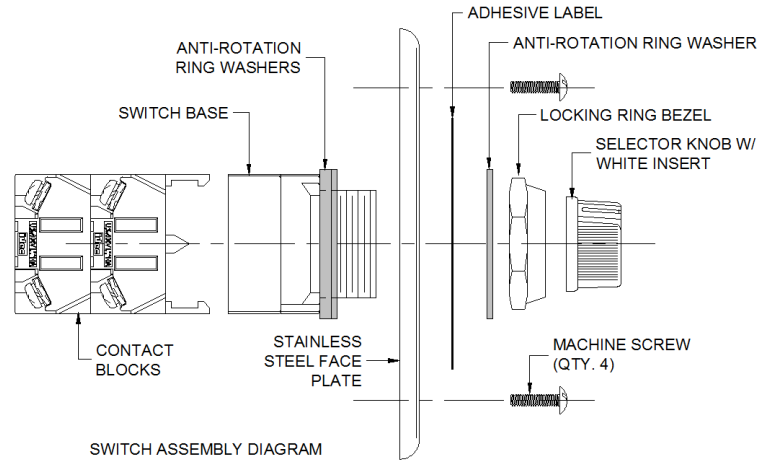


Figure 5 Main-Reserve Switch Assembly

SWITCH INSTALLATION

STOP **WARNING:** *If installing the switch in an operational system: 1) Disconnect the releasing mechanism from all suppression cylinders/containers prior to installation to prevent accidental system discharge. 2) Power down the system by removing all power sources feeding the control unit (AC and DC).*

The mounting location for the switch should be free from excessive vibration, dust, and moisture.

1. Install mounting box (recess or surface mount), as shown in Figure 6.
2. Pull field wiring into mounting box.
3. Connect field wiring to contact blocks. See Figures 7, 8 and 9 for wiring diagrams.
4. Secure stainless steel faceplate to mounting box with supplied machine screws.
5. Reapply power and test switch operation prior to reconnecting releasing mechanism to all suppression cylinders/containers.
6. Install the safety clip onto manual release switch between mushroom head and locking ring bezel, as shown in Figure 3.
7. Install beaded security tie through holes provided in safety clip. Pull tight making sure the safety clip is held firmly in place preventing the red mushroom head from being pressed without removal of the safety clip.
8. Store switch keys in a secure location.

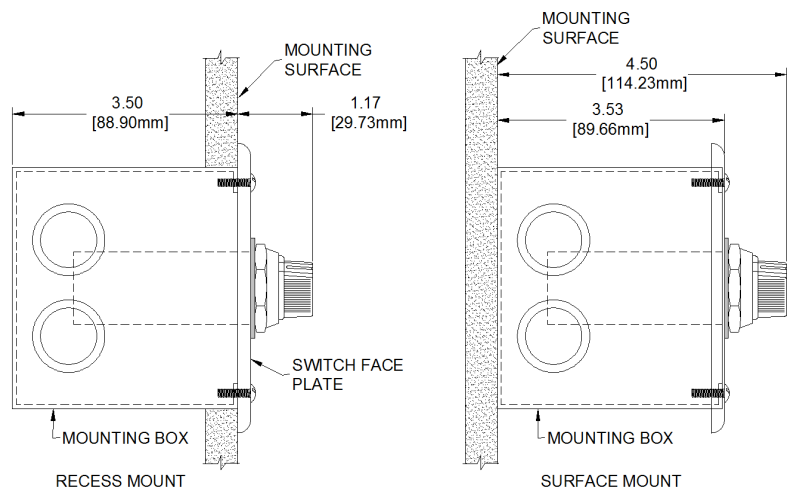


Figure 6 Mounting Options

SWITCH WIRING

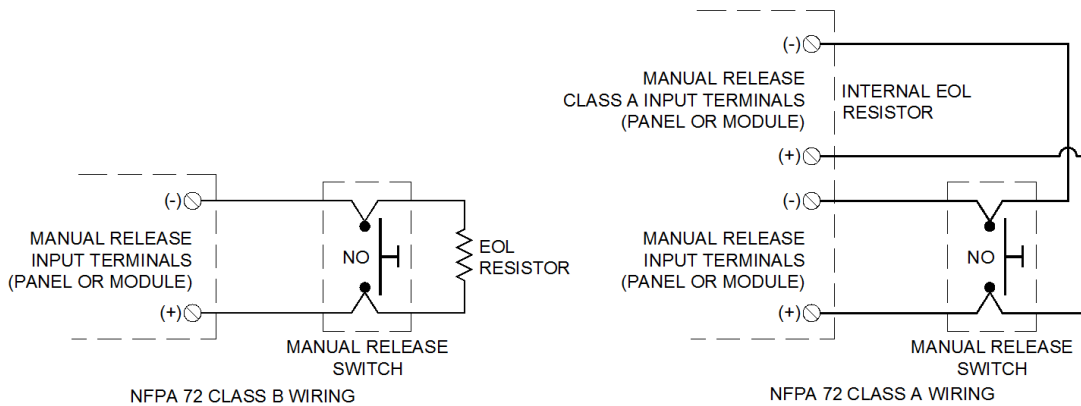


Figure 7 Typical Manual Release Switch Wiring

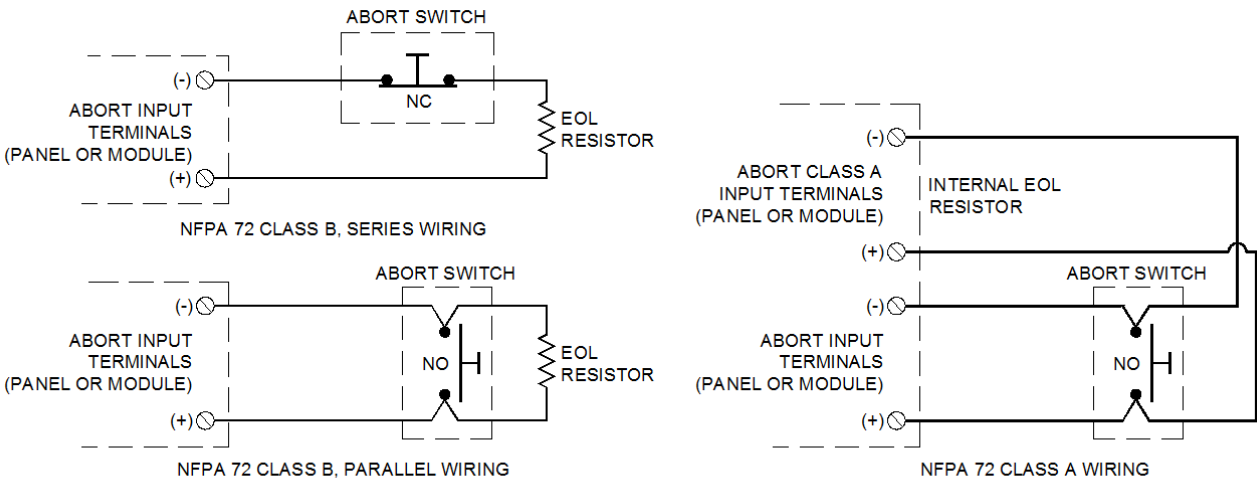


Figure 8 Typical Abort Switch Wiring

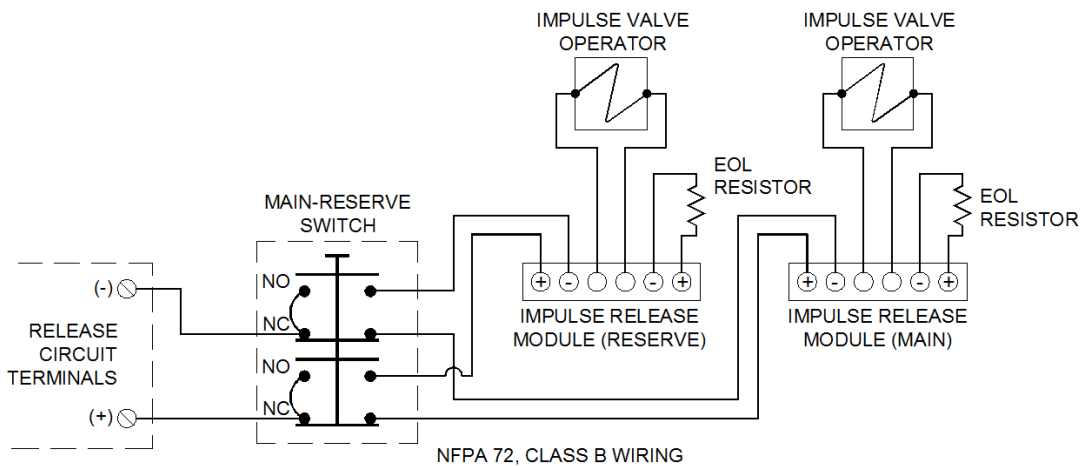


Figure 9 Typical Main-Reserve Switch Wiring

Warranty

Fike provides a one-year limited manufacturer's warranty on this product. All warranty returns must be returned from an authorized Fike Distributor. Contact Fike's Marketing department for further warranty information.

Fike maintains a repair department that is available to repair and return existing electronic components or exchange/purchase previously repaired inventory components (advance replacement). All returns must be approved prior to return. A Material Return Authorization (MRA) number must be indicated on the box of the item being returned. Contact the appropriate Regional Sales Manager for further information regarding product return procedures.

Limitations of Liability

Installation in accordance with this document, applicable codes, and the instructions of the Authority having jurisdiction is mandatory. Fike cannot be held liable for an incidental or consequential damages arising from the loss of property or other damages or losses resulting from the used or misuse of Fike products beyond the cost of repair or replacement of any defective components. Fike reserves the right to make product improvements and change product specifications at any time.

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