



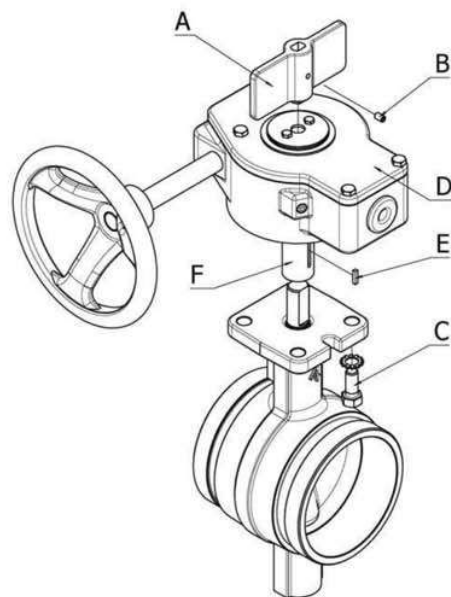
National Fire Equipment Ltd.

INSTRUCTIONS FOR GROOVED BUTTERFLY

Drive Key Replacement Instructions

Drive key (section of weakness) will shear if excessive torque is applied to the input of the gear operator while the disc is blocked partially open.

1. Loosen the set screw (B) that secures the flag (A) to the stem. Remove the flag.
2. Remove the four hex head cap screws (C) that fasten the gear operator (D) to the valve. The hex head cap screw sizes are 3/8"-16UNC for 2.5"-8" valves and 1/2"-13UNC for the 10" valve.
3. Lift the gear operator straight up from the valve. In most cases the coupling (F) will stay in the segment quadrant gear because the broken key (E) causes interference between the gear and coupling.
4. Pull the coupling from the gear. Some force may be required.
5. Remove the broken key.
6. Place new key in keyway of coupling.
7. With drive coupling and key in place within gear operator, carefully slide the gear operator over stem until it rests flush on the valve operator mounting flange. The handwheel may need to be turned in order to align bolt holes and the orientation pin.
8. Secure gear operator with four hex head screws, replace flag on stem and tighten set screw on flag.
9. Check operation of valve by turning handwheel from fully open to fully closed position.



* Instructions are same regardless of valve end connections.

Note before assembly: The replacement parts must be obtained from the manufacture to assure proper operation of the valve. Parts are available from you NCI Canada Inc. Distributor

NOTE: Drive key material and size is specifically designed to meet performance requirements of UL and FM. Failure to use the properly sized replacement parts may void the UL and FM ratings on all UL/FM valves



National Fire
Equipment Ltd.

TORONTO: (905) 761-6355
Toll Free: (800) 267-8508

OTTAWA: (613) 723-6071

VANCOUVER: (604) 420-1131
Toll Free: (800)-667-2138

BURNABY: (604)-299-4498

EDMONTON: (780) 455-3870
Toll Free: (888)-891-1008

CALGARY: (403) 236-5661

MONCTON: (506) 859-7277
Toll Free: (877) 816-3473

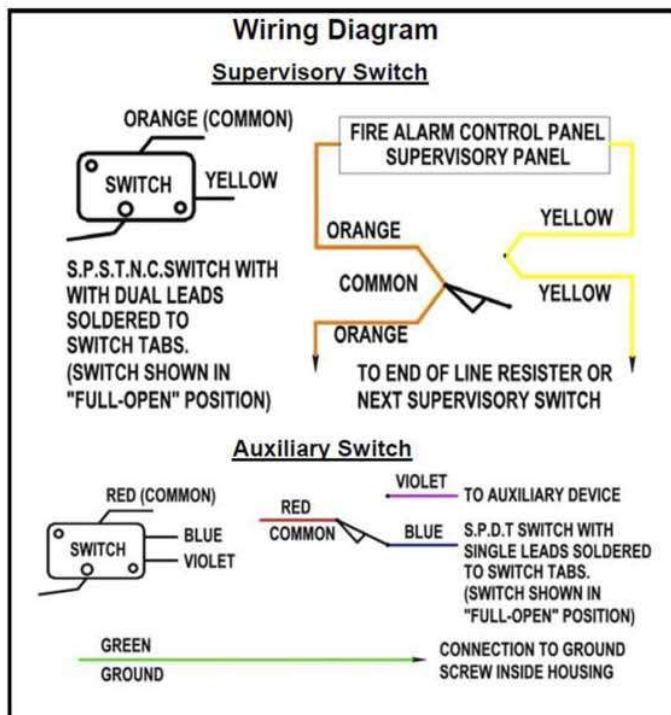
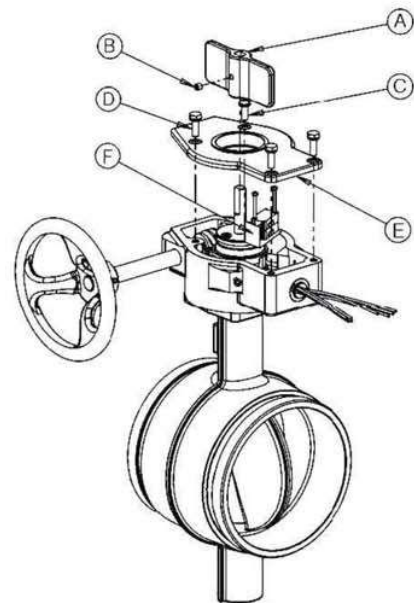
MISSISSAUGA: (905) 565-1385

www.nationalfire.com

Factory Installed Supervisory Switch Replacement

1. Remove flag (A) by backing out hex socket set screw (B).
2. Remove one socket pin head screw (C), three socket head bolts (D) and gear operator cover (E).
3. Remove two screws holding switch assembly into housing, and one screw holding ground wire to housing and remove switch assembly.
4. Feed electrical wires of new switch assembly through hole in rear of housing, put new switch assembly (F) into gear box with actuating arms against quadrant gear.
5. Reinstall cover plate.
6. Reinstall flag.
7. Use and connection of auxiliary switch to be reviewed and accepted by local authority having jurisdiction.

* Instructions are same regardless of valve end connections.



Switch Rating

Micro Switch:

- *11A 1/3 HP 125, 250VAC
- *1/2A 125VDC, 1/4A 250VDC

Switch Wiring

All lead wires are 18 AWG, 18 inches long and exit actuator housing through a single hole designed for 1/2" conduit fittings.

NOTE: Gear boxes are NOT explosion proof



National Fire
Equipment Ltd.

TORONTO: (905) 761-6355
Toll Free: (800) 267-8508
OTTAWA: (613) 723-6071

VANCOUVER: (604) 420-1131
Toll Free: (800)-667-2138
BURNABY: (604)-299-4498

EDMONTON: (780) 455-3870
Toll Free: (888)-891-1008
CALGARY: (403) 236-5661

MONCTON: (506) 859-7277
Toll Free: (877) 816-3473
MISSISSAUGA: (905) 565-1385

www.nationalfire.com