



## Manual Control Station, Model S480

### GENERAL DESCRIPTION

The Star Model S480 Manual Control Station provides a tamper resistant means for emergency release (i.e. operation) of Star Deluge and Preaction Valves. Interconnection with the valves may be direct via hydraulic (wet) pilot line or indirect via pneumatic (dry) pilot line to a Model S440 Dry Pilot Actuator.

#### WARNING

*The Model S480 Manual Control Station described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the National Fire Protection Association, in addition to the standards of any other authorities having jurisdiction. Failure to do so may impair the integrity of this device.*

*The owner is responsible for maintaining his fire protection system and devices in proper operating condition. The installing contractor or sprinkler manufacturer should be contacted relative to any questions.*

### TECHNICAL DATA

#### Approvals

UL and ULC Listed. FM and LPC Approved.

#### Working Water Pressure

20 to 250 psi (1.4 to 17.2 bar)

#### Minimum Ambient Temperature

Dry Pilot Lines: -50F/-46C

Wet Pilot Lines: 40F/4C

#### Assembly

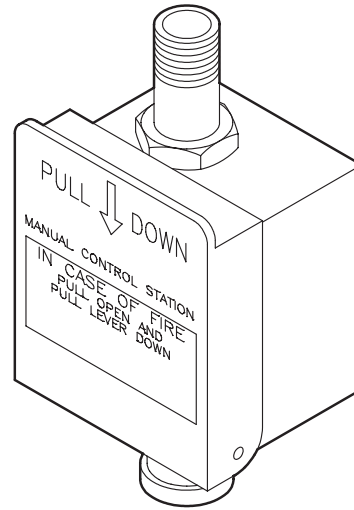
The box and cover in Figure 1 are thermoplastic. The elastomer water seal is Teflon.

### OPERATION

Operating instructions are imprinted on the Cover, and the Cover is hinged to the Box and is held up in its normally closed position by a polystyrene Break Rod. The Break Rod is inserted through corresponding holes in the top of the Cover and interior of the Box, and the Break Rod does not extend above the top of the Cover so as to prevent unnoticed tampering (i.e., the Cover can only be opened by breaking the Break Rod).

After actuation of the S480, interference between a boss on the interior of the Cover and the Operating Lever prevents closing of the Cover, before the Operating Lever is raised. As an added precaution, the Cover has been weighted such that it will not remain closed unless a Break Rod has been placed in position.

Opening of the Model S480 Manual Control Station re-



#4430

lieves hydraulic or pneumatic pressure, as applicable, which in turn permits the deluge or preaction valve to open and allow a flow of water into the system piping.

### INSTALLATION

The Model S480 Manual Control Station is provided as a trim component for Star Deluge or Preaction Valves and must be installed in accordance with the specific instructions provided with the Star Deluge or Preaction Valve Product Data Sheets.

When the S480 is utilized for remote locations on either wet or dry pilot lines, the following instructions apply:

1. The piping to the S480 is to be securely mounted, and the S480 is to be located 4-1/2 to 6 feet above the floor/ground level.
2. The S480 is to be installed vertically (so that the Cover will fall open when the Break Rod is not in place), in plain view, and in a readily accessible location.
3. When used with a wet pilot line, piping from the outlet of the S480 is to be directed to a suitable drain such that there will be no accidental damage to property or danger to persons when the S480 is operated. When used on dry pilot lines, the outlet piping is to be directed towards towards the rear of the S480 and away from the operator.

### SETTING PROCEDURE

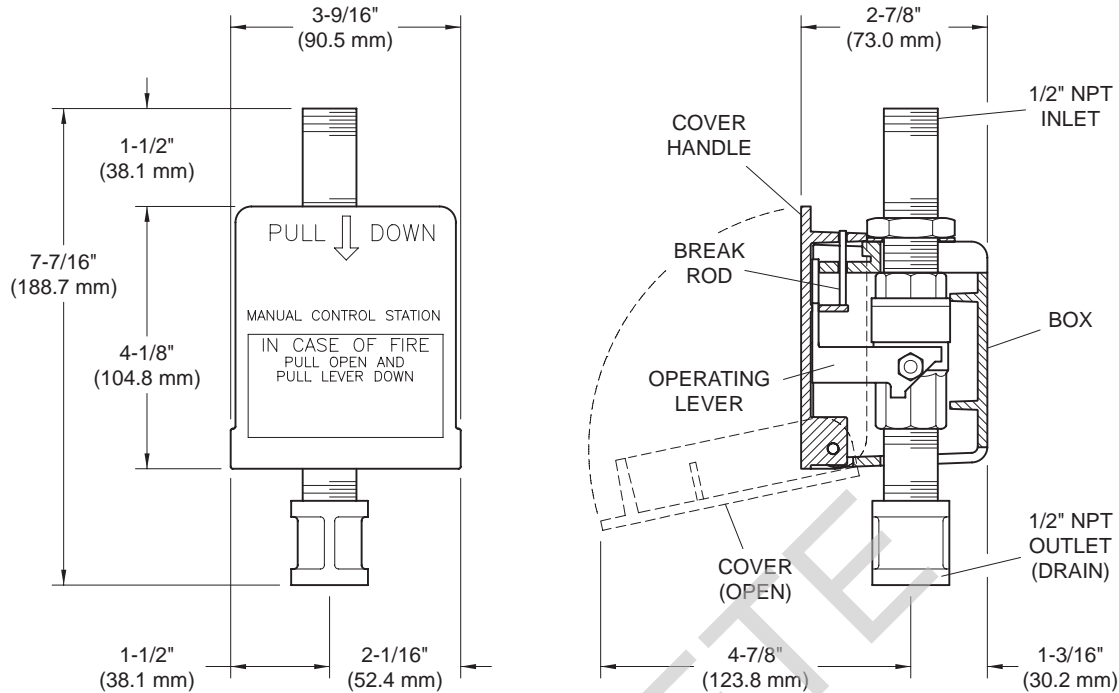
The Model S480 Manual Control Station located at the Star Deluge or Preaction Valve is to be reset in accordance with the specific instructions provided with the Star Deluge or Preaction Valve Product Data Sheets.

When the S480 is utilized for remote locations on either wet or dry pilot lines, it is reset by raising the Operating Lever, closing the Cover, and inserting a replacement Break Rod.

#### NOTES

*In order to ensure the proper maximum pull open force for the Cover, use only #922891008 replacement Break Rods.*

*It is recommended that a supply of spare Break Rods be maintained on hand.*



**FIGURE 1**  
**MODEL S480 MANUAL CONTROL STATION ASSEMBLY**

## MAINTENANCE AND SERVICE

The Model S480 Manual Control Station does not require any regularly scheduled maintenance. It is recommended, however, that its proper operation and condition be periodically verified in accordance with the following described inspection procedure. Any impairment must be immediately corrected.

It is recommended that automatic sprinkler systems be inspected by a qualified Inspection Service.

### NOTES

*Before closing a fire protection system control valve for inspection or maintenance work on the fire protection system which it controls, permission to shut down the affected fire protection system must first be obtained from the proper authorities and all personnel who may be affected by this action must be notified.*

*After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.*

### INSPECTION PROCEDURE

It is recommended that the following inspection procedure for the S480 be performed quarterly while performing the required inspection for the applicable deluge or preaction valve:

1. Verify that the S480 opens with ease when operated.
2. Verify that flow out of the S480 increases to a rate which will trip the deluge or preaction valve.

3. Inspect the drain for evidence of continued leakage past the S480. Determine and correct the cause of the leakage problem, as applicable.
4. Verify that the S480 is reset properly using only a #922891008 Break Rod.

## ORDERING PROCEDURE

Please Specify:

Model S480 Manual Control Station (#4430)

Replacement Break Rod for Model S480 Manual Control Station (#922891008)

Refer to Price List for complete listing of Part Numbers with respect to replacement parts, etc.

## AVAILABILITY AND SERVICE

Star Sprinkler Inc. products and devices are available worldwide through a network of independent distributors. Please contact Star Sprinkler Inc. for information and the name and address of the Star distributor in your area.

## LIMITED WARRANTY

Seller warrants for a period of one year from date of shipment (warranty period) that the products furnished hereunder will be free of defects in material and workmanship.

For further details on Warranty, contact Star Sprinkler Inc.