

## Model MC-1 Manual Control Station For Deluge And Preaction Systems Manual Release Service

### General Description

The Model MC-1 Manual Control Station provides a tamper resistant means for emergency release (i.e. operation) of Tyco Fire Products 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 DP-1 Dry Pilot Actuator.

The Model MC-1 Manual Control Station is a redesignation for the Central Model MC, Gem Model F180, and Star Model S480.

#### WARNING

*The Model MC-1 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 LPCB 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 MC-1, 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 MC-1 Manual Control Station relieves 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.

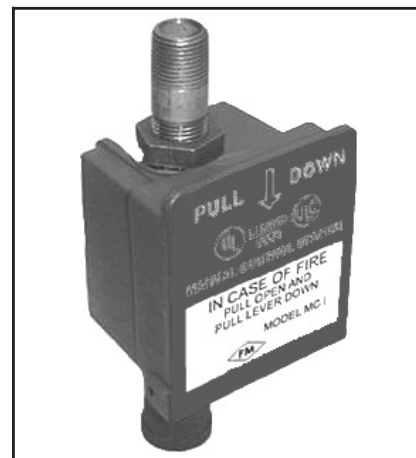
### Installation

The Model MC-1 Manual Control Station is provided as a trim component for Tyco Fire Products Deluge or Preaction Valves and must be installed in accordance with the specific instructions provided with the Tyco fire Products Deluge or Preaction Valve Technical Data Sheets.

When the MC-1 is utilized for remote locations on either wet or dry pilot lines, the following instructions apply:

**Step 1.** The piping to the MC-1 is to be securely mounted, and the MC-1 is to be located 4-1/2 to 6 feet above the floor/ground level.

**Step 2.** The MC-1 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.

**Step 3.** When used with a wet pilot line, piping from the outlet of the MC-1 is to be directed to a suitable drain such that there will be no accidental damage to property or danger to persons when the MC-1 is operated. When used on dry pilot lines, the outlet piping is to be directed towards the rear of the MC-1 and away from the operator.

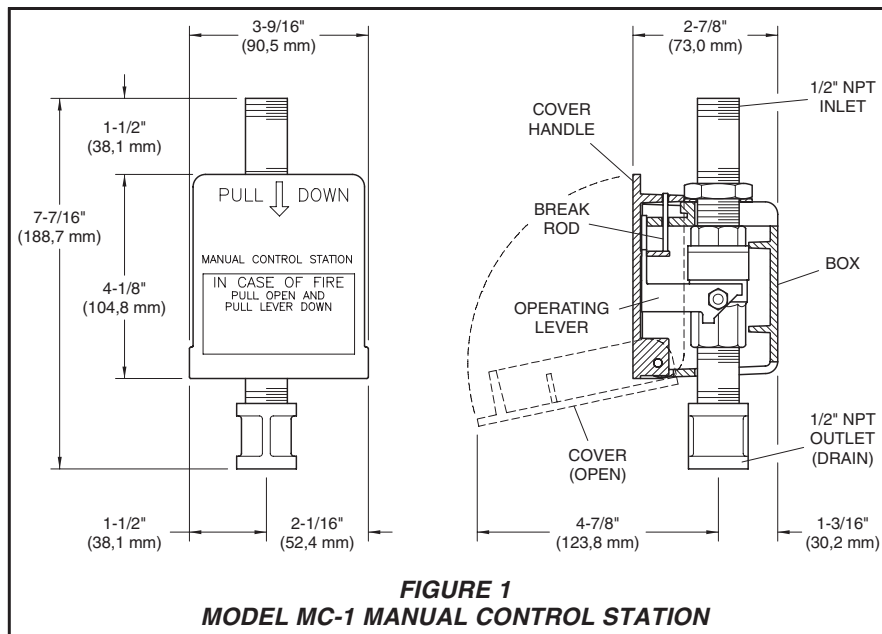
### Setting Procedure

The Model MC-1 Manual Control Station located at the TFP Deluge or Preaction Valve is to be reset in accordance with the specific instructions provided with the TFP Deluge or Preaction Valve Technical Data Sheets.

When the MC-1 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*



**FIGURE 1**  
**MODEL MC-1 MANUAL CONTROL STATION**

P/N 92-289-1-008 replacement Break Rods.

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

## Care and Maintenance

The following inspection procedure must be performed as indicated, in addition to any specific requirements of the NFPA, and any impairment must be immediately corrected.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the National Fire Protection Association (e.g., NFPA 25), in addition to the standards of any authority having jurisdiction. The installing contractor or product manufacturer should be contacted relative to any questions.

It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection Service.

### NOTES

*Before closing a fire protection system control valve for inspection or maintenance work on the fire protection system that it controls, permission to shut down the effected 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

The Model MC-1 Manual Control Station must be inspected quarterly in accordance with the following instructions:

**Step 1.** Verify that the MC-1 opens with ease when operated.

**Step 2.** Verify that flow out of the MC-1 increases to a rate which will trip the deluge or preaction valve.

**Step 3.** Inspect the drain for evidence of continued leakage past the MC-1. Determine and correct the cause of the leakage problem, as applicable.

**Step 4.** Verify that the MC-1 is reset properly using only a P/N 92-289-1-008 Break Rod.

## Limited Warranty

Products manufactured by Tyco Fire Products are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by Tyco Fire Products. No warranty is given for products or components manufactured by companies not affiliated by ownership with Tyco Fire Products or for products and components which have been subject

to misuse, improper installation, corrosion, or which have not been installed, maintained, modified or repaired in accordance with applicable Standards of the National Fire Protection Association, and/or the standards of any other Authorities Having Jurisdiction. Materials found by Tyco Fire Products to be defective shall be either repaired or replaced, at Tyco Fire Products' sole option. Tyco Fire Products neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. Tyco Fire Products shall not be responsible for sprinkler system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

IN NO EVENT SHALL TYCO FIRE PRODUCTS BE LIABLE, IN CONTRACT, TORT, STRICT LIABILITY OR UNDER ANY OTHER LEGAL THEORY, FOR INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LABOR CHARGES, REGARDLESS OF WHETHER TYCO FIRE PRODUCTS WAS INFORMED ABOUT THE POSSIBILITY OF SUCH DAMAGES, AND IN NO EVENT SHALL TYCO FIRE PRODUCTS' LIABILITY EXCEED AN AMOUNT EQUAL TO THE SALES PRICE.

**THE FOREGOING WARRANTY IS MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

## Ordering Information

Orders for the MC-1 and replacement parts must include the description and Part Number (P/N).

### MC-1:

Specify: Model MC-1 Manual Control Station w/black steel fittings, P/N 52-289-1-001.

Specify: Model MC-1 Manual Control Station w/galvanized steel fittings, P/N 52-289-2-001.

Specify: Model MC-1 Manual Control Station w/brass fittings, P/N 52-289-3-001.

### Replacement Break Rod:

Replacement Break Rod for Model MC-1 Manual Control Station, P/N 92-289-1-008.