Model H PrePaK™ Fully Integrated System

Features

- Compact with small footprint
- Fits through standard 36” door
- 12-gauge powder coated steel, red exterior and interior
- Integral release control panel

Product Description

The Reliable Model H 1½” (40mm) PrePaK system is a completely self-contained, supervised preaction system that can be readily installed within a floor space of 4.5 square feet. Installation of the PrePaK system (not including exterior devices, i.e., detectors and alarm bells) requires just three piping connections: a 1½” (40mm) supply line, a 1½” (40mm) system line, and a ¾” (20mm) drain line. Reference locations of these piping connections are shown in Figure 1. Also, two 120 VAC (or 220 VAC) electrical supply connections are required.

The Reliable Model H 1½” (40mm) PrePaK system contains the following components within its 64” H x 24” W x 27” D (162.6cm H x 61cm W x 68.6cm D) gauge 12 steel enclosure:

- One Reliable Model H 1½” (40mm) Deluge Riser Assembly (See Reliable Bulletin 507).
- One Reliable Model A Pressure Maintenance Device (See Reliable Bulletin 251).
- One Reliable Model G 2½” (65mm) Right-Check Valve™ w/ Preaction Trim Kit (See Reliable Bulletin 806).
- One Gast Model1 1HAB-11T-M100X HP Tank-Mounted Air Compressor with 2 Gallon (7.6 liter) tank.
- One Potter Model PFC-4410G3 Releasing Control Panel (See Potter Manual #5403751).
- All required fittings, gauges, electrical connectors, and electrical devices (excluding detection) to utilize the system in single interlock, single interlock cross-zoned, double interlock, and double interlock cross-zoned applications.

The Reliable Model H utilizes the Potter Model PFC-4410G3 Releasing Control Panel. This fully programmable, microprocessor based releasing panel is Underwriters Laboratories, Inc. Listed and is in compliance with NFPA 13 and NFPA 72. Because the PFC-4410G3 is totally zone and output programmable, the Reliable Model H PrePaK system can be utilized in four different preaction applications without having to rewire any of the factory installed devices. Once the previously described connections are completed, the 24 VDC detectors, output devices, and relay contacts may be connected to achieve the desired system implementation.

The Model H PrePaK system can be used in both single and double interlock applications. Reliable Single and Double Interlock Preaction Systems are designed for water sensitive areas, which require protection from inadvertent water flow into the sprinkler system piping.

Note: Legacy black exterior/white interior cabinets are available as special order; please allow additional time for production. Contact the factory for details.

The major benefits of a single and/or double interlock preaction system, when compared with a wet pipe system, are as follows:

A. A fire alarm sounds prior to the flow of water from a sprinkler, which may enable extinguishing the fire by handheld means before the operation of any fire sprinkler occurs.

B. An annunciator signals whenever the integrity of piping or fire sprinklers is accidentally or intentionally disturbed; however, no water flow or water damage will result at that time.

C. Speedy detection and an early fire alarm are provided by fire detectors, without the delay associated with water delivery time in the event of a fire. Note that with a wet pipe system, the fire alarm is delayed until after water has begun flowing from an operated fire sprinkler.

In single interlock applications, one electrical detector senses the presence of fire, thereby causing the electrical releasing control panel to activate fire alarm devices and latch the solenoid releasing valve in the open position. Note that arranging detectors in a cross-zoned pattern will require operation of two detectors before the solenoid valve can open (Note: Cross-zoned detection systems are not permitted in New York City and are not Factory Mutual Approved). The solenoid valve, when closed, is preserving supply water pressure in the inlet of the Reliable Model H Deluge Riser Assembly. Actuating the solenoid valve releases that water pressure, allowing water flow into the sprinkler system in readiness for the subsequent operation of a sprinkler.

To fully operate a single interlock system with cross-zoned detection, two separate electrical detection systems must activate and a sprinkler must open. During the early stages of a fire, smoke or heat activates the first detector, which causes the control panel to produce a local alarm and an alarm at the main fire alarm panel. Electrical relays inside the releasing control panel can be used to shut down air moving equipment or activate security doors and other electrical devices when the panel goes into this first alarm condition. Subsequent activation of a second, nearby or adjacent detector, on a separate detection system, will cause the panel to energize the solenoid valve open and release water into the sprinkler piping. Water flowing into the sprinkler piping will simultaneously produce water pressure that causes the transfer of contacts in the pressure switch mounted in the riser assembly, thereby activating a water flow alarm device. The flow of water into the sprinkler piping effectively converts the dry system into a wet pipe system. In the event the fire subsequently produces sufficient heat to operate a fire sprinkler, water will flow from that sprinkler, controlling the fire.

To flow water into a double interlock preaction system, two events must take place. A fire detection device must operate, and a pressure switch must be operated by the loss of system pressure (sprinkler operation). These two signals, both an electric signal and a pneumatic signal, must coexist at the releasing control panel, which only then will energize the solenoid releasing valve, causing water flow into the system and out of the open sprinkler(s).
In the event that the system piping is ruptured or a fire sprinkler is accidentally opened, the system pressure switch will operate and an alarm will sound. The riser assembly, however, will not release water since the solenoid valve remains closed due to only one input into the control panel.

When using the Reliable Model H PrePaK system in either single or double interlock applications, the sprinkler system is pressurized (supervised) with air provided by the tank-mounted air compressor and is monitored by the system pressure switch.

A hydraulic manual emergency releasing station is standard equipment in the Model H PrePaK system. It is identified by a nameplate attached above the releasing valve.

Preaction trim provides a by-pass drain line and the air supply required to supervise the preaction system at 15 psi (1.03 bar). This trim includes a UL Listed Reliable Model G Right-Check Valve installed with rigid grooved pipe couplings.

Approvals

The Reliable Model H 1½" (40mm) PrePaK Preaction System is Underwriters Laboratories Inc. (UL) Listed and UL Certified for Canada*, as an assembled unit, in the "Special System Water Control Valves Assembled Units" category (VKYL) when installed in accordance with the following guidelines and limitations:

For Single Interlock Preaction Systems:
1. Cross-zoning of preaction system detectors is prohibited, except where used as a secondary system to a gaseous suppression system.
2. A minimum of two (2) detectors must be installed for each zone in the protected area.

For Double-Interlock Preaction Systems:
1. Are required for freezer or refrigerated room applications, or where conditions will allow water to freeze in the system piping prior to sprinkler actuation.
2. Cross-zoning of preaction system detectors is prohibited, except where used as a secondary system to a gaseous suppression system.
3. A minimum of two (2) detectors must be installed for each zone in the protected area.

Notes:
1. Detection and notification devices, provided by others, must be compatible with the Potter PFC-4410G3 Releasing Control Panel.
2. Devices meeting special Canadian requirements may need specified.
3. Selection of Class A or Class B wiring must be approved by the authority having jurisdiction.
4. Any unauthorized modification or addition made on-site to a factory built listed unit, other than connection of input and output devices, will void the listing and warranty of the product.

Technical Data

The Reliable Model H 1½" (40mm) PrePaK system is rated for a minimum supply pressure of 20 psi (1.4 bar) and a maximum supply pressure of 175 psi (12 bar).
Friction loss, expressed in equivalent length of Sch. 40 pipe and based on Hazen-Williams formula with C=120 and a flowing velocity of 15 ft/s (4.6m/s), is 36 ft. (11m). This friction loss value includes all components of the Model H Riser Assembly and Model G Right-Check™ Check Valve.

Shipping Weight: 460 lbs. (209 kg)
Enclosure Dimensions: 64" H x 24" W x 27" D
(162.6cm H x 61cm W x 68.6cm D)

The following is a list of Technical Data Bulletins which describe the valves and devices which in this system:

Deluge Valve	507
Right-Check™ Riser Valve	806
Low/High Air Pressure Switch	5401524 (Potter)
Water Flow Pressure Alarm	5400928 (Potter)
Pressure Maintenance Device	251
Releasing Control Panel	5401600 (Potter)

System Design Considerations

The automatic sprinklers, releasing devices, fire detection devices, manual pull stations, and signaling devices which are utilized with the Reliable Model H 1½" (40mm) PrePaK system must be UL and/or ULC Listed, as applicable.
The steel enclosure and all interconnecting piping must be located in a readily visible and accessible location and in an area that can be maintained at a minimum temperature of 40°F (4°C). **Note:** Heat tracing is not permitted.

The solenoid valve is operated and supervised by the Potter Electric Releasing Control Panel. Details on the electrical connections of this system to a Potter Model PFC-4410G3 Releasing Control Panel can by found in Potter Manual #5403751 Installation, Operation and Programming of PFC-4410G3 Conventional Releasing Panel (this manual is included with other pertinent manuals and shipped inside the enclosure). This panel is fully zone and output programmable and may be adapted to several applications. Please reference pages 14 through 17 for additional information on programming.

System Supervising Pressure Requirements

The Reliable Model H 1½" (40mm) PrePaK system requires 15 psi (1.03 bar) pneumatic pressure to supervise the sprinkler system. When initially filling the system with air, the enclosure door should remain open to provide maximum air flow to the compressor. The Model A Pressure Maintenance Device, supplied with the system, is factory set to maintain system pneumatic pressure at 15 psi (1.03 bar).

Adjusting system pressure is accomplished by referring to Reliable Bulletin 251. The supervisory pressure switch is set to operate at 10 psi (0.7 bar) on decreasing pressure and 20 psi (1.38 bar) on increasing pressure.

Adjustment, if required, should be made according to Potter Bulletin 5401524 included with the switch.

System Electrical Requirements

Separate power connections are required for the release control panel and the air compressor. There is a water-tight terminal box located inside the main enclosure for these connections (see Figure 4).

All detection, alarm, and releasing devices in the Reliable Model H PrePaK are supervised by a Potter Electric Model PFC 4410-G3 Releasing Control Panel. All terminals in the release panel are translated to a water-tight terminal box mounted inside the main enclosure. All field connections are made in this terminal box (see Figures 2 and 3).

The Reliable Model H PrePaK system is delivered with the following factory-installed electrical devices:
1. A normally closed solenoid valve for system release (See Figure 4)
2. A supervisory pressure switch used to monitor low and high air pressure in the piping system (see Figure 5).
3. A water flow alarm pressure switch (See Figure 5).
4. Supervisory (tamper) switch on the main control valve (see Figure 5).

The power supply, standby emergency power supply, battery charger, and rectifier circuitry are contained within the PFC-4410G3 Panel. Batteries that provide 90 hours of standby power are provided with the panel.

Figures 6, 7, and 8 provide information on field wiring of detectors and output devices that are not provided as part of the system. Note that all work must be performed in accordance with NFPA 72 and applicable electrical standards, and must be approved by the authority having jurisdiction.

For additional information refer to Potter Manual #5403751, Installation, Operation and Programming of PFC-4410G3 Releasing Control Panel. A copy of this manual is provided with each unit.

System Operation (Single Interlock)

To activate the Reliable Model H 1½" (40mm) PrePaK system in a single interlock application, an electrical detector (two detectors with cross-zoned detection) must activate to fill the system with water. Subsequently, a fire sprinkler must open to discharge water on the fire. When a fire is detected, the releasing control panel energizes the solenoid valve open and water flows from the supply through the PrePaK system to the system and to the waterflow indicating pressure switch. The valve maintains its open position until the solenoid is de-energized.

After system shutdown and draining, the Model H Riser Assembly is easily reset without special tools. Restore detection devices by resetting or replacing any operated device. Once detection devices are restored, reset the releasing control panel and return the system to operation. (See "Resetting" instructions on subsequent pages.)

System Operation (Double Interlock)

To activate the Reliable Model H 1½" (40mm) PrePaK system in a double interlock application, two independent events must coexist before water flow will occur. A fire detection device must operate and the system pressure switch must actuate by reducing the system supervising air pressure (as a result of sprinkler operation). Operation of either one of these items will only cause an alarm to annunciate, and will not fill the sprinkler system piping with water. With coexisting initiating signals, one electric and one pneumatic, the control panel will now energize the solenoid valve to release water through the PrePaK system into the system piping and out the open sprinkler for complete operation of the system.

When the releasing control panel energizes the solenoid valve open, water flows from the supply through the riser into the system and to the waterflow indicating pressure switch. The valve maintains its open position until the solenoid is de-energized.

After system shutdown and draining, the Model H Riser Assembly is easily reset without special tools. Restore detection devices by resetting or replacing any operated device. Once detection devices are restored, reset the releasing control panel and return the system to operation. (See "Resetting" instructions on subsequent pages.)

Resetting Single Interlock Systems

Refer to Figure 1.

1. Close the supervised valve controlling water supply to the Model H Riser Assembly and shut off the system air supply at the Model A Device.
2. Open all drain valves and the manual emergency station valve to drain the system through the riser assembly.
3. Open any low point drain valves and vents throughout the system, closing all drain valves and vents when draining of water has stopped.
4. Inspect and replace any portion of the sprinkler system and detection system exposed to fire conditions. Reset detectors and PFC-4410G3 Releasing Control Panel. The PFC-4410G3 is reset by pushing the "System Reset" button. This action will also close (reset) the solenoid valve.
5. Reset the Model H Riser Assembly in accordance with Bulletin 507, Model H Deluge Riser Assembly Instructions for Installation, Operation, Care and Maintenance.
6. Restore the system supervising pressure by opening the valves on the Model A Pressure Maintenance Device (refer to Bulletin 251) and adjusting the regulator, as required.
7. Verify that the supervised control valve is open, and proper monitoring has been restored. Also verify there is no leakage from the automatic drain valve, thereby confirming that supply water is not leaking into the system.

Resetting Double Interlock Systems

Refer to Figure 1.

1. Close the supervised valve controlling water supply to the Model H Riser Assembly and shut off the system's air supply at the Model A Device.
2. Open all drain valves and the manual emergency station valve to drain the system.
3. Open all the drain valves and vents at low points throughout the system, closing them when flow of water to drain has stopped.
4. Inspect and replace any portion of the sprinkler system and detection system exposed to fire conditions. Reset detectors.
5. Restore the system supervising pressure by opening valves on the Model A Pressure Maintenance Device (refer to Bulletin 251) and adjusting the regulator, as required.
6. Verify that the bypass drain valve is closed to prevent the loss of pneumatic supervising pressure out of the automatic drain valve. When the supervisory pressure has been restored, the pressure switch will automatically reset (contacts will open).
7. Reset the release control panel. This will de-energize the solenoid valve and return it to the normally closed position.
8. Close the emergency manual release station (opened in step 2).
9. Slightly open the main water supply control valve, closing the main drain valve when water flows through it.
10. Close the control valve and observe water supply pressure gauge. System is confirmed to be leak-tight when no drop in pressure occurs.
11. Fully open the main water supply control valve and confirm it is properly supervised.

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition, including the main solenoid valve. Any system maintenance or testing that involves placing a control valve or detection system out of service will impair the fire protection system. Prior to proceeding, notify the building owner and occupants, and the authority having jurisdiction that work is being performed. Consideration should be given to employment of a fire patrol in the affected area(s).

The Reliable Model H 1½" (40mm) PrePaK system and associated equipment shall periodically be given a thorough inspection and test. NFPA 25, Inspection, Testing and Maintenance of Water Based Fire Protection Systems, provides minimum maintenance requirements. Systems should be tested, operated, cleaned and inspected at least annually, and parts replaced as required. Periodically, open the bleeder valve on the compressor tank to drain any condensate accumulation.

Inspection and Testing

1. Confirm the valve controlling water supply to the Model H Riser Assembly is open fully and properly supervised.
2. Confirm that that all pressure gauge valves are open, and that the Model A Pressure Maintenance Device quick fill valve is closed. The two ¼" NPT bypass line valves must be fully open.
3. Check that system supervising pressure is 15 psi (1.03 bar).
4. Gradually increase the pneumatic pressure in the system to verify high pressure alarm at approximately 20 psi (1.4 bar).
5. Testing Full Operation:
   4a. To test full operation of single interlock system, activate the detection system.
   4b. To test full operation of double interlock system, activate detection system and discharge air or nitrogen pressure from the system.

Note: This test will cause water flow into the system. See subsequent pages for testing without causing water flow.

Testing Without Causing Water Flow

1. Close the supervised valve controlling water supply to the Model H Riser Assembly, and note the water pressure gauge reading.
2. For single interlock systems, activate the detection system. For double interlock systems, activate the detection system and discharge air or nitrogen pressure from the system.
3. Confirm that a sudden drop of water pressure occurs when the solenoid valve opens. When water pressure drops to zero, open the main drain valve and bypass valves to drain any water from above the main control valve.
4. Reset system by following the operation described previously in this document. All detection devices must be reset before the PFC-4410G3 Releasing Control Panel can be reset.
5. Slowly open the supervised valve controlling water supply to the Model H Riser Assembly, closing the main drain valve after water flows steadily through it. Fully open the main control valve and confirm it is properly supervised. Verify there is adequate water supply pressure and proper pneumatic supervisory pressure on the appropriate gauges. There should be no pressure reading on the water gauge directly above the manual emergency releasing station when the system is properly reset.

Solenoid Valve

It is imperative that the solenoid valve be inspected and tested in accordance with NFPA 25 on a regular basis.
The frequency of the inspections may vary due to contaminated water supplies, corrosive water supplies, or corrosive atmospheres. The valve must be inspected at least monthly for cracks, corrosion, leakage, etc. and replaced as necessary. Note that the solenoid valve is not field serviceable; please order PN 6871080000 for replacement.

Guarantee

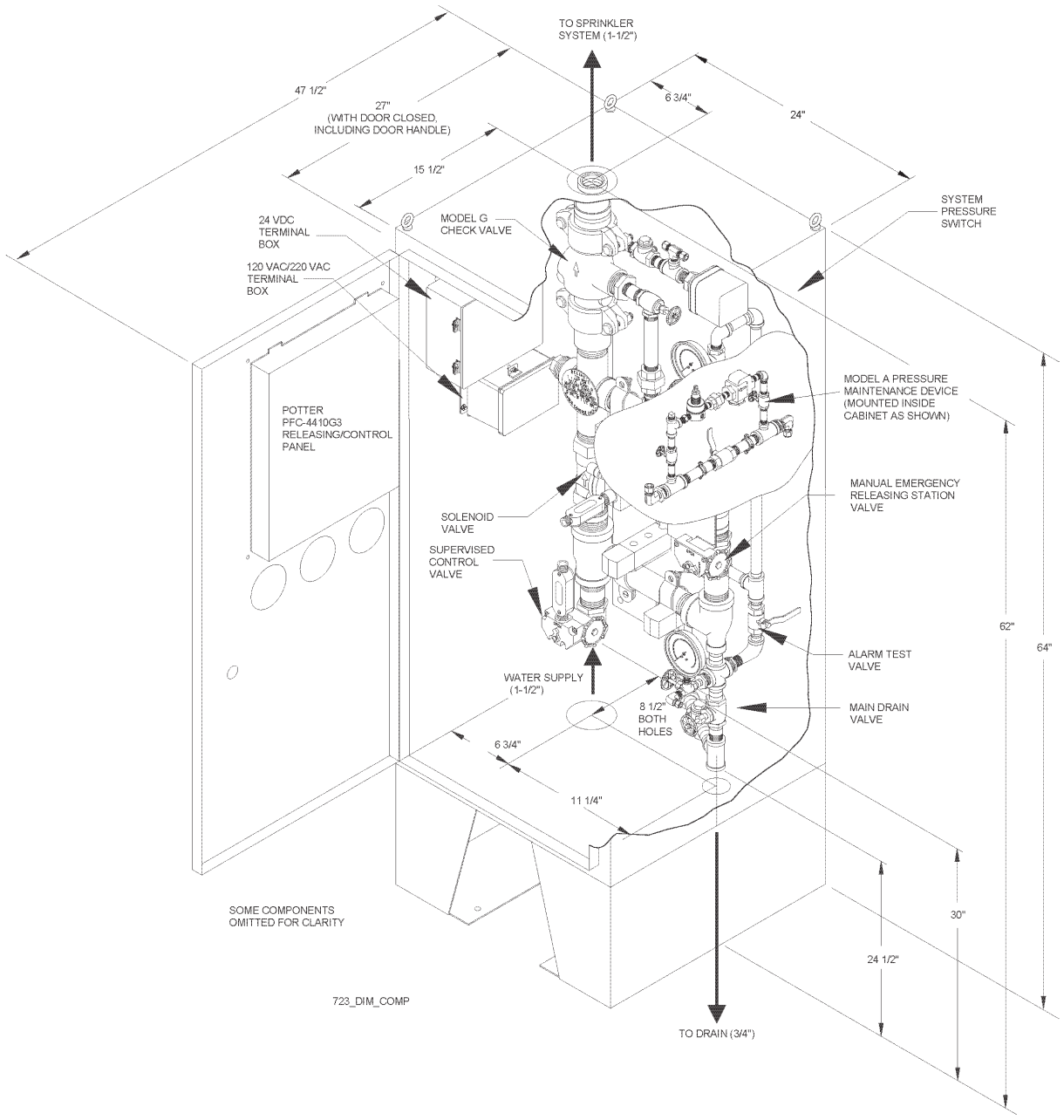
For guarantee, terms, and conditions, visit www.reliablesprinkler.com

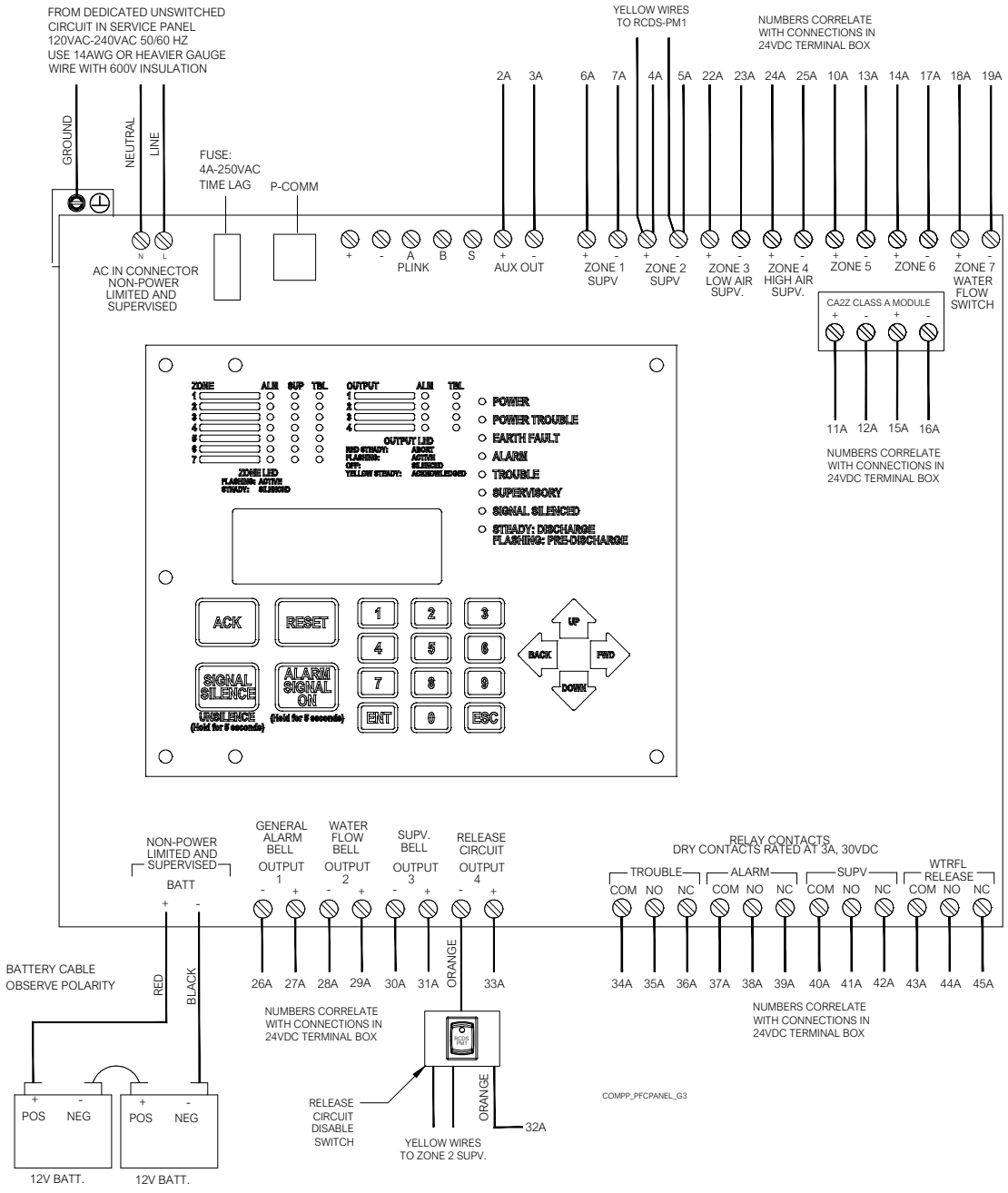
Ordering Information

Reliable Model H PrePaK
- Part Number 6552000000

Dimensions and Internal Components

Figure 1



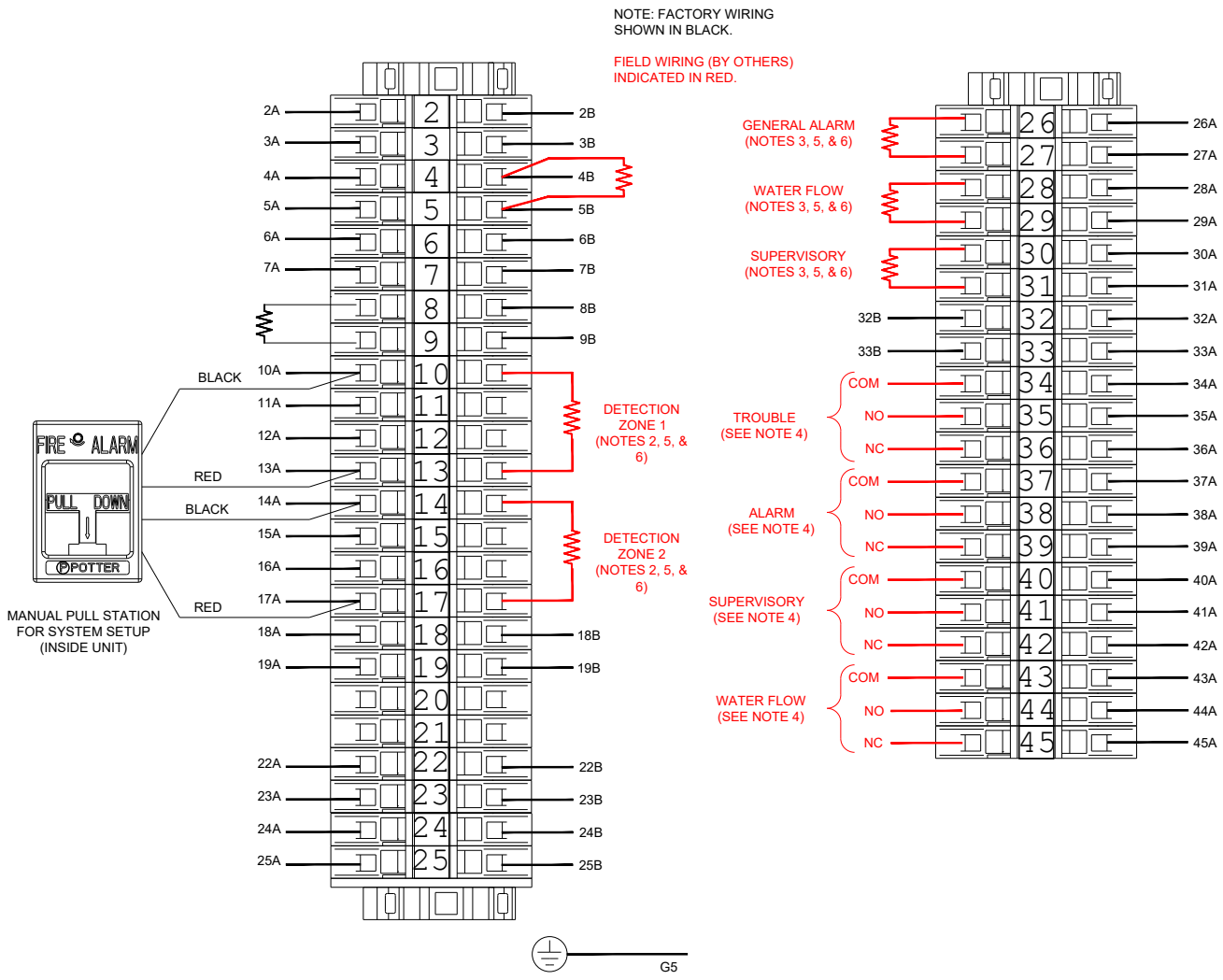


POTTER PFC-4410G3 RELEASING CONTROL PANEL

Notes:

1. Panel is factory wired and mapped to 24VDC terminal box inside enclosure. All field wiring terminates in 24VDC terminal box; no field connections are required inside the Potter PFC4410-RC panel.
2. Leave end-of-line resistors (EOLR) on all unused circuits.
3. Polarity marked on outputs 1 through 4 are for an activated (non-normal) condition. Polarity is reversed in normal condition.
4. Maximum current per individual output is 1 amp.
5. Maximum current for all outputs combined is 2.5 amps.
6. All initiating and release circuits are supervised and power limited.

24V Terminal Block Factory Wiring **Figure 3**



24V TERMINAL BOX CONNECTIONS

723_24V_TERM_A

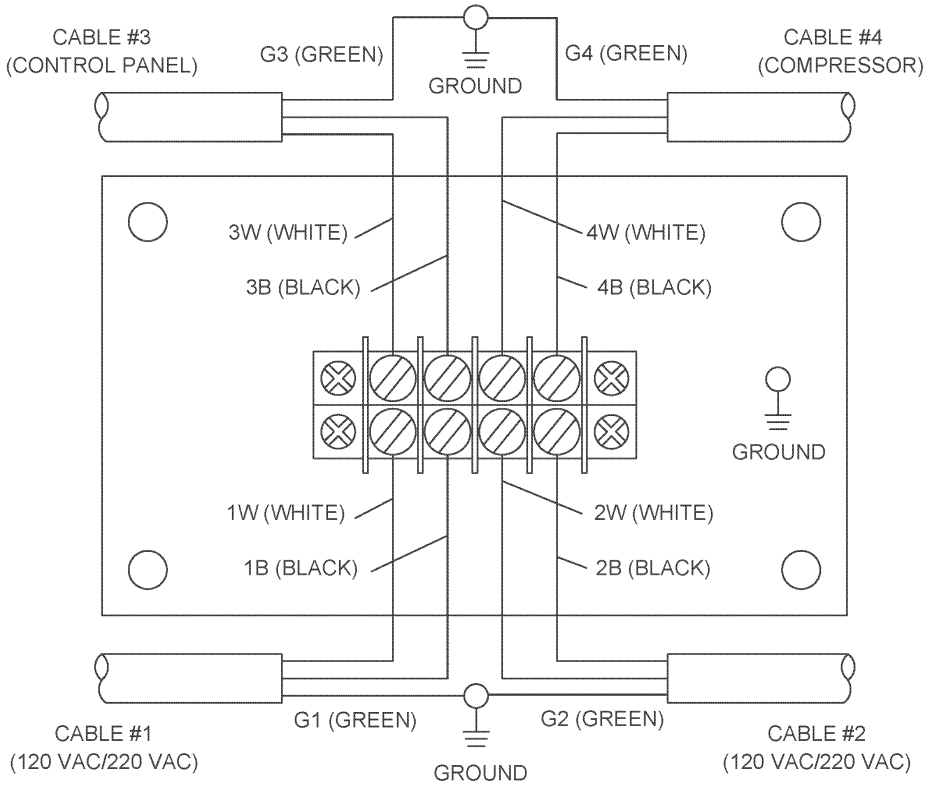
NOTES:

1. THIS DRAWING IS INTENDED AS A REFERENCE ONLY. DESIGN OF THE DETECTION, RELEASE, AND NOTIFICATION SYSTEM (BY OTHERS) MUST MEET THE MINIMUM REQUIREMENTS OF NFPA 13, NFPA 72, AND THE AUTHORITY HAVING JURISDICTION.
2. FOR SINGLE ZONE DETECTION, USE TERMINALS 10 AND 13 FOR CLASS B WIRING OR TERMINALS 10 THROUGH 13 FOR CLASS A WIRING. DETECTION ZONE 2 IS ONLY USED FOR CROSS ZONE DETECTION. (CROSS ZONE DETECTION IS NOT PERMITTED IN NEW YORK CITY AND IS NOT FM APPROVED. CONFIRM USE OF CROSS ZONE DETECTION WITH AUTHORITY HAVING JURISDICTION.)
3. TERMINALS 26 THROUGH 31 ARE FOR 24VDC NOTIFICATION DEVICES (NAC).
4. TERMINALS 34 THROUGH 45 ARE DRY CONTACT RELAYS FOR CONNECTION TO MAIN BUILDING FIRE ALARM SYSTEM. ADDRESSABLE MODULES, IF REQUIRED, TO BE PROVIDED BY THE MAIN BUILDING FIRE ALARM SYSTEM SUPPLIER.
5. ALL DETECTION AND NOTIFICATION DEVICES MUST BE COMPATIBLE WITH THE POTTER PFC4410 RELEASING CONTROL PANEL.
6. RELOCATE FACTORY INSTALLED END-OF-LINE RESISTORS (EOLR) TO ENDS OF CLASS B DETECTION AND NOTIFICATION CIRCUITS. LEAVE FACTORY INSTALLED EOLR ON ALL UNUSED CIRCUITS.

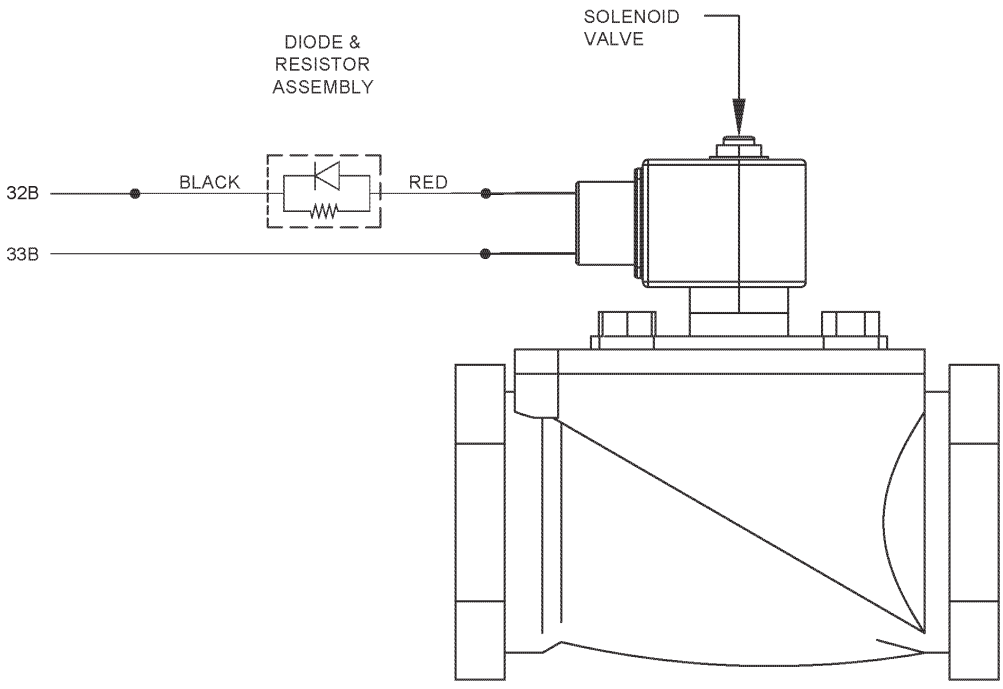
Addressable Fire Alarm Systems

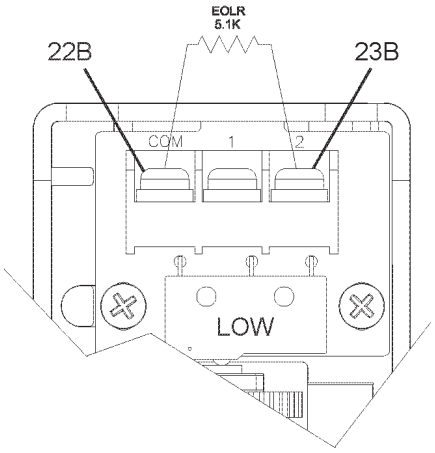
Reliable PrePaK™ units are easily adaptable for use with addressable fire alarm systems by utilizing addressable modules compatible with the specific brand of fire alarm system. Connect to the following relay outputs in the 24V terminal block:

1. Supervisory: terminals 40 and 41
2. Trouble: terminals 34, 35, and 36; depending on normally open or closed circuit
3. Alarm (terminals 37, 38, and 39; depending on normally open or closed circuit
4. Water flow: terminals 42 and 43



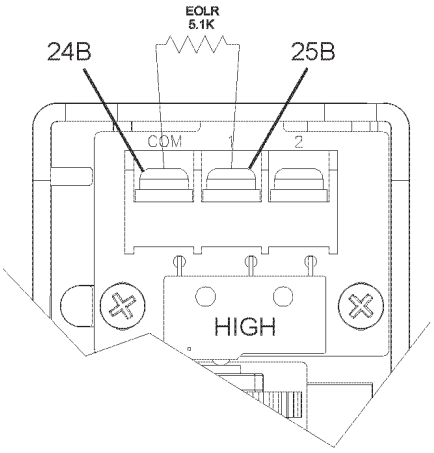
POWER WIRING (FACTORY CONNECTIONS)





LOW AIR SUPERVISORY PRESSURE SWITCH

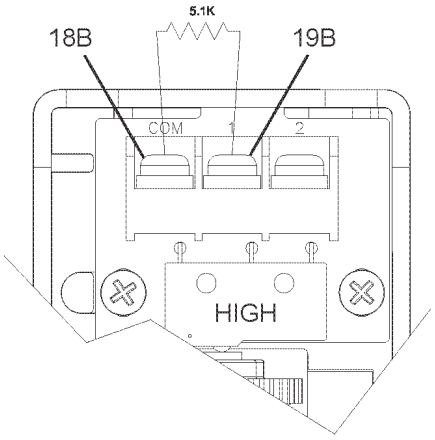
WIRED TO ZONE #3 IN RELEASING CONTROL PANEL



HIGH AIR SUPERVISORY PRESSURE SWITCH

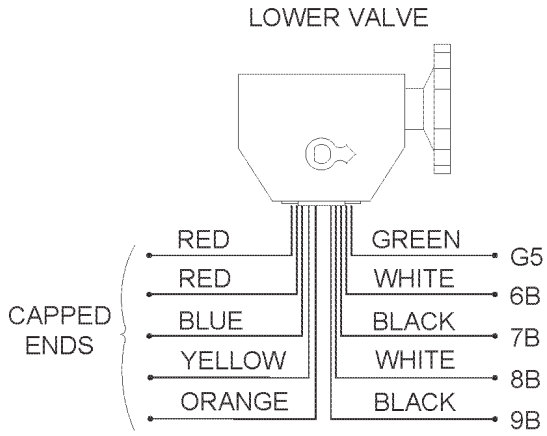
WIRED TO ZONE #4 IN RELEASING CONTROL PANEL

723_WIRE_DEV1



WATER FLOW ALARM PRESSURE SWITCH

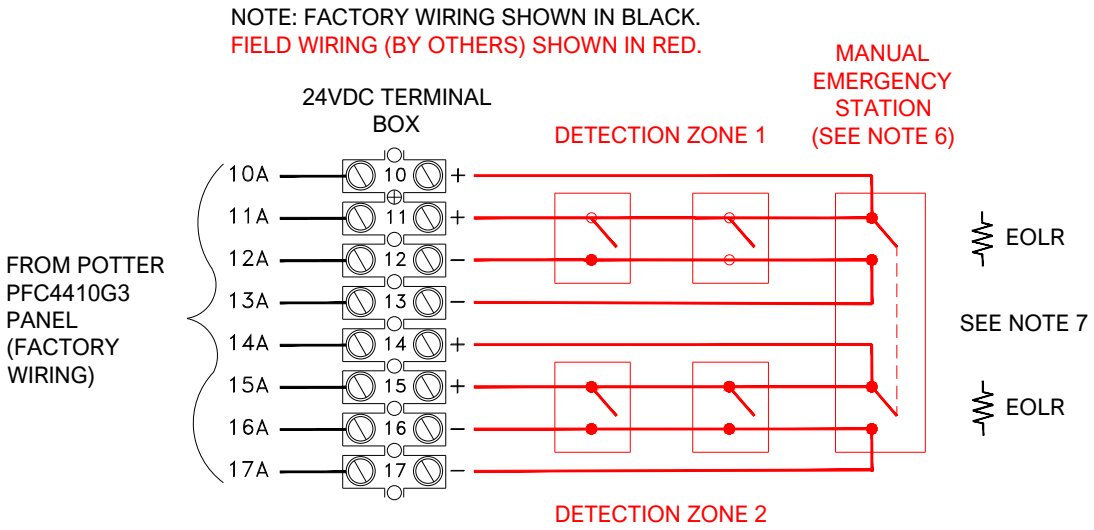
WIRED TO ZONE #7 IN RELEASING CONTROL PANEL



CONTROL VALVE 1-1/2" REL-BVG

WIRED TO SUPV #1 IN RELEASING CONTROL PANEL

NOTE: NUMBERS ON WIRES CORRELATE TO TERMINAL NUMBERS IN 24VDC TERMINAL BOX



DETECTOR WIRING EXAMPLE (CLASS A)

COMPP_DET_CLA

NOTES:

1. THIS DRAWING IS INTENDED AS A REFERENCE ONLY. DESIGN OF THE DETECTION SYSTEM (BY OTHERS) MUST MEET THE MINIMUM REQUIREMENTS OF NFPA 13, NFPA 72, AND THE AUTHORITY HAVING JURISDICTION.

2. DRAWING INDICATES CROSS ZONE DETECTION. CROSS ZONE DETECTION IS NOT PERMITTED IN NEW YORK CITY AND IS NOT FM APPROVED. CONFIRM USE OF CROSS ZONE DETECTION WITH AUTHORITY HAVING JURISDICTION.

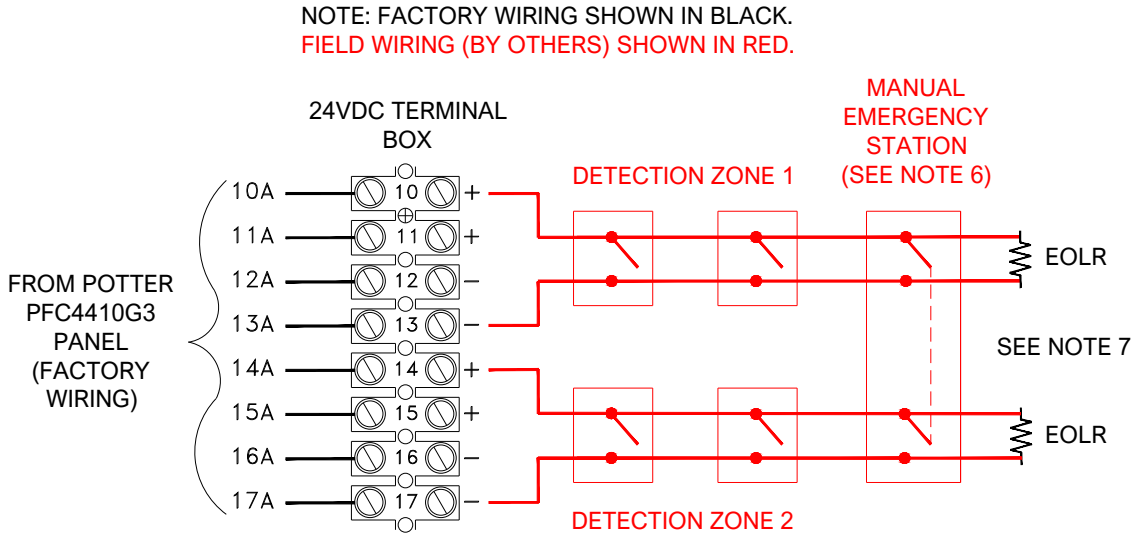
3. FOR SINGLE ZONE DETECTION, USE DETECTION ZONE 1 (TERMINALS 10 THROUGH 13).

4. DETECTION DEVICES, INCLUDING MANUAL EMERGENCY STATIONS, ARE FIELD WIRED BY OTHERS.

5. ALL DEVICES MUST BE COMPATIBLE WITH THE POTTER PFC-4410G3 RELEASING CONTROL PANEL.

6. WHEN USING CROSS ZONE DETECTION, ARRANGE MANUAL PULL STATIONS TO SIMULTANEOUSLY RELEASE DETECTION ZONES 1 AND 2.

7. REMOVE FACTORY INSTALLED END-OF-LINE RESISTORS FROM 24VDC TERMINAL BLOCK AND STORE (EOLR ARE NOT USED ON CLASS A DETECTION CIRCUITS). LEAVE FACTORY INSTALLED EOLR ON ALL UNUSED CIRCUITS.



DETECTOR WIRING EXAMPLE (CLASS B)

COMPP_DET_CLB

NOTES:

1. THIS DRAWING IS INTENDED AS A REFERENCE ONLY. DESIGN OF THE DETECTION SYSTEM (BY OTHERS) MUST MEET THE MINIMUM REQUIREMENTS OF NFPA 13, NFPA 72, AND THE AUTHORITY HAVING JURISDICTION.

2. DRAWING INDICATES CROSS ZONE DETECTION. CROSS ZONE DETECTION IS NOT PERMITTED IN NEW YORK CITY AND IS NOT FM APPROVED. CONFIRM USE OF CROSS ZONE DETECTION WITH AUTHORITY HAVING JURISDICTION.

3. FOR SINGLE ZONE DETECTION, USE DETECTION ZONE 1 (TERMINALS 10 AND 13).

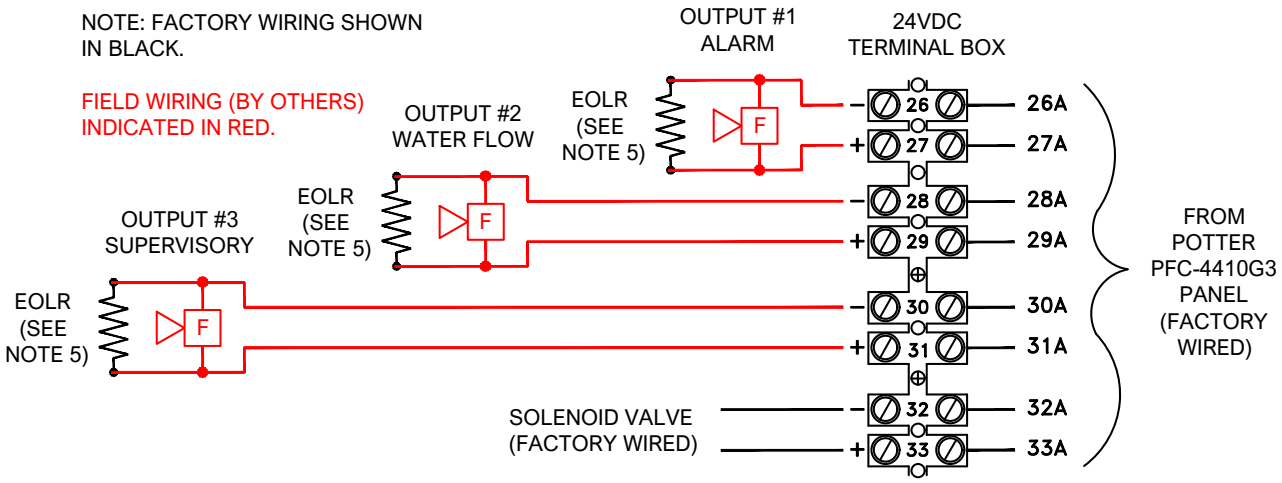
4. DETECTION DEVICES, INCLUDING MANUAL EMERGENCY STATIONS, ARE FIELD WIRED BY OTHERS.

5. ALL DEVICES MUST BE COMPATIBLE WITH THE POTTER PFC-4410G3 RELEASING CONTROL PANEL.

6. WHEN USING CROSS ZONE DETECTION, ARRANGE MANUAL PULL STATIONS TO SIMULTANEOUSLY RELEASE DETECTION ZONES 1 AND 2.

7. RELOCATE FACTORY INSTALLED END-OF-LINE RESISTORS FROM 24VDC TERMINAL BLOCK TO ENDS OF DETECTION CIRCUITS. LEAVE FACTORY INSTALLED EOLR ON ALL UNUSED CIRCUITS.

Output Device (Notification) Wiring Example **Figure 8**



OUTPUT DEVICE WIRING EXAMPLE

COMPP_WIRE_OUTPUT

NOTES:

1. THIS DRAWING IS INTENDED AS A REFERENCE ONLY. DESIGN OF THE NOTIFICATION SYSTEM (BY OTHERS) MUST MEET THE MINIMUM REQUIREMENTS OF NFPA 13, NFPA 72, AND THE AUTHORITY HAVING JURISDICTION.
2. NOTIFICATION DEVICES AND CIRCUITS ARE FIELD WIRED BY OTHERS.
3. ALL DEVICES MUST BE COMPATIBLE WITH THE POTTER PFC-4410G3 RELEASING CONTROL PANEL.
4. OBSERVE POLARITY WHEN CONNECTING DEVICES. POLARITY SHOWN ON OUTPUT CIRCUITS IS IN THE ACTIVATED (OFF-NORMAL) CONDITION.
5. RELOCATED FACTORY INSTALLED END-OF-LINE RESISTORS FROM 24VDC TERMINAL BLOCK TO END OF NOTIFICATION CIRCUITS. LEAVE FACTORY INSTALLED EOLR ON ALL UNUSED CIRCUITS.

Releasing Control Panel Programming

The following programs in the Potter PFC-4410G3 panel are used with the Model H PrePaK. Program selection and reprogramming of panel should only be done by qualified personnel knowledgeable in the specific operation of each type of system.

System Description	Program	Reference
Type D Single Interlock Preaction, Single Zone Detection	#50	Page 15
Type D Single Interlock Preaction, Cross-Zoned Detection	#51	Page 16
Type D Single Interlock Preaction, New York City	#52	Page 17
Type D Double Interlock Preaction Single Zone Detection	#53	Page 18

Single Interlock, Single Zone Detection Potter Program #50

1. Apply power to panel.
2. Press ENT to enter PROGRAM mode
3. Press 6 or scroll down to #6 and press ENT, (The selection is indicated by a flashing arrow next to the number.
4. Enter the password. (Factory default is 1111)
5. Press 1 or press ENT. (1 should be the highlighted selection)
6. The display shows the current program number. Press 50 to change to program 50. Press ENT.
7. Press 1 to accept the change.
8. Press ENT to accept the change.

OUTPUTS	INPUTS						
	Supervisory (Valves)	Supervisory (RCDS)	Low Air	High Air	Detection	Detection	Waterflow
	#1	#2	#3	#4	#5	#6	#7
#1 Alarm					X	X (OPT)	
#2 Waterflow							X
#3 Supervisory	X	X	X	X			
#4 Release					X	X (OPT)	

Program 50 Operation

Activation of Supervisory Input #1 or #2 will operate Supervisory Output #3.

Activation of Low Air Input #3 or High Air Input #4 will operate Supervisory Output #3.

Independent actvation of EITHER Detection Input #5 or #6 (if used) will operate Alarm Output #1 and Release Output #4.

Activation of Waterflow Input #7 will operate Water Flow Output #2.

Notes:

1. The emergency manual release within the unit is wired into Zone 5 and Zone 6 Detection Inputs, and is provided to release the solenoid for setup and testing purposes.
2. See note 4 on page 8 for connection of relay contacts to main building fire alarm system.For additional information, please refer to the Installation, Operation, and Instruction Manual for the Releasing Control panel provided with the PrePaK.
3. For additional information, please refer to the Installation, Operation, and Instruction Manual for the Releasing Control panel provided with the PrePaK.

Single Interlock, Cross-Zoned Detection
Potter Program #51

1. Apply power to panel.
2. Press ENT to enter PROGRAM mode
3. Press 6 or scroll down to #6 and press ENT, (The selection is indicated by a flashing arrow next to the number.
4. Enter the password. (Factory default is 1111)
5. Press 1 or press ENT. (1 should be the highlighted selection)
6. The display shows the current program number. Press 51 to change to program 51. Press ENT.
7. Press 1 to accept the change.
8. Press ENT to accept the change.

OUTPUTS	INPUTS							Software Zone
	Supervisory (Valves)	Supervisory (RCDS)	Low Air	High Air	Detection	Detection	Waterflow	Release Zone
	#1	#2	#3	#4	#5	#6	#7	#8
#1 Alarm					X	X		X
#2 Waterflow							X	
#3 Supervisory	X	X	X	X				
#4 Release					XX	XX		XX*

* Release Outputs which are Cross-Zoned need a Software Zone in order to work properly. The Software Zone Number will be displayed upon a release.

XX = Cross-Zoned

Program 51 Operation

Activation of Supervisory Input #1 or #2 will operate Supervisory Output #3.

Activation of the Low Air Input #3 or High Air Input #4 will operate Supervisory Output #3.

Independent activation of EITHER Detection Zone #5 or #6 will operate Alarm Output Zone #1.

Simultaneous activation of BOTH Detection Input #5 AND #6 will operate Release Output #4.

Activation of Waterflow Input #7 will operate Water Flow Output #2

Notes:
1. The emergency manual release within the unit is wired into Zone 5 and Zone 6 Detection Inputs, and is provided to release the solenoid for setup and testing purposes.
2. See note 4 on page 8 for connection of relay contacts to main building fire alarm system.
3. For additional information, please refer to the Installation, Operation, and Instruction Manual for the Releasing Control panel provided with the PrePaK.

Single Interlock Preaction, New York City Custom Program #52

1. Apply power to panel.
2. Press ENT to enter PROGRAM mode
3. Press 6 or scroll down to #6 and press ENT, (The selection is indicated by a flashing arrow next to the number.
4. Enter the password. (Factory default is 1111)
5. Press 1 or press ENT. (1 should be the highlighted selection)
6. The display shows the current program number. Press 52 to change to program 52. Press ENT.
7. Press 1 to accept the change.
8. Press ENT to accept the change.

OUTPUTS	INPUTS							Software Zone
	Supervisory (Valves)	Supervisory (RCDS)	Low Air	High Air	Detection	Detection	Waterflow	Trouble Zone
	#1	#2	#3	#4	#5	#6	#7	#8
#1 Alarm						Not Used	X	
#2 Trouble	Panel trouble condition is mapped to Output #2 (Trouble Bell) for NYC							X*
#3 Supervisory	X	X	X	X		Not Used		
#4 Release					X			

*Trouble Output needs a Software Trouble Zone Type in order to work properly. The Software Zone Number will be displayed upon release.

Program 52 Operation

Activationof Supervisory Input #1 or #2 will operate Supervisory Output #3..
Activation of Low Air Input #3 or High Air Input #4 will operate Supervisory Output #3.
Activation of Detection Input #5 will operate Alarm Output #1 and Release Output #4.
Activation of Waterflow Input #7 will operate Alarm output 1.
Activation of tany trouble condition with the panel will operate Trouble Output #2

Note:
1. The emergency manual release within the unit is wired into Zone 5 and Zone 6 Detection Inputs, and is provided to release the solenoid for setup and testing purposes.
2. See note 4 on page 8 for connection of relay contacts to main building fire alarm system.
3. For additional information, please refer to the Installation, Operation, and Instruction Manual for the Releasing Control panel provided with the PrePaK.

Type D Double Interlock Preaction, Single Zone Detection, Program #53

1. Apply power to panel.
2. Press ENT to enter PROGRAM mode
3. Press 6 or scroll down to #6 and press ENT, (The selection is indicated by a flashing arrow next to the number.
4. Enter the password. (Factory default is 1111)
5. Press 1 or press ENT. (1 should be the highlighted selection)
6. The display shows the current program number. Press 53 to change to program 53. Press ENT.
7. Press 1 to accept the change.
8. Press ENT to accept the change

OUTPUTS	INPUTS							Software Zone
	Supervisory (Valves)	Supervisory (RCDS)	Low Air	High Air	Detection	Detection	Waterflow	Release Zone
	#1	#2	#3	#4	#5	#6	#7	#8
#1 Alarm					X	Not Used		X
#2 Waterflow							X	
#3 Supervisory	X	X	X	X				
#4 Release			XX		XX			XX*

* Release Outputs which are Cross-Zoned need a Software Zone in order to work properly. The Software Zone Number will be displayed upon a release.

XX = Cross-Zoned

Program 53 Operation

Activation of Supervisory Input #1 or #2 will operate Supervisory Output #3.

Independent activation of Low Air Input #3 or activation of High Air Input #4 will operate Supervisory Output #3.

Activation of Detetion Input #5 will operate Alarm Output #1.

Simultaneous activation of BOTH Detection Input #5 AND Low Air Input #3 will operate Release Output #4.

Activation of Waterflow Input #7 will operate Water Flow Output #2..

Notes:

1. The emergency manual release within the unit is wired into Zone 5 and Zone 6 Detection Inputs, and is provided to release the solenoid for setup and testing purposes.
2. See note 4 on page 8 for connection of relay contacts to main building fire alarm system.
3. For additional information, please refer to the Installation, Operation, and Instruction Manual for the Releasing Control panel provided with the PrePaK.