

Air Maintenance Trim Assembly with Pressure Switch

SERIES 757P

WARNING

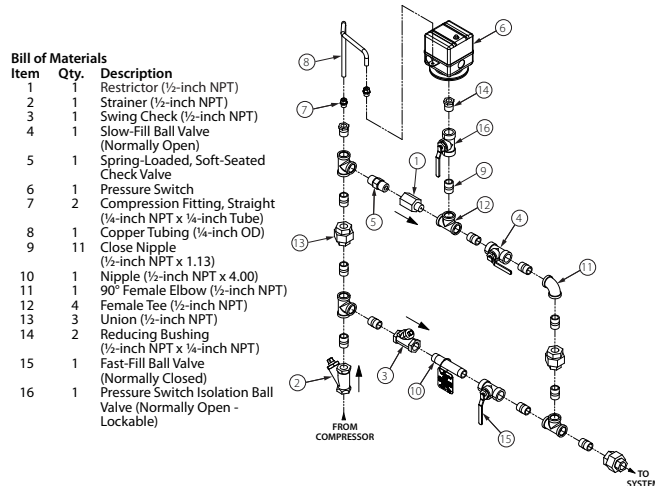


- Read and understand all instructions before attempting to install any Victaulic piping products.
 - Depressurize and drain the piping system before attempting to install, remove, adjust, or perform maintenance on any Victaulic piping products.
 - Wear safety glasses, hardhat, and foot protection when working with Victaulic piping products.
 - Any activities that require taking the valve out of service may eliminate the fire protection provided by the system. Before removing the valve from service, notify the authority having jurisdiction. Consideration of a fire patrol should be given for the affected areas.
- Failure to follow these instructions could result in serious personal injury and/or property damage.

EXPLODED VIEW DRAWING AND DESCRIPTION – SERIES 757P AIR MAINTENANCE TRIM ASSEMBLY WITH PRESSURE SWITCH

The Series 757P Air Maintenance Trim Assembly is designed to control system air pressure for Series 768 FireLock NXT™ Dry Valves, Series 764 FireLock NXT Alternate Wet/Dry Valves, and Series 769 FireLock NXT Deluge and Preaction Valves (pneumatic systems).

A decrease in air pressure will close the pressure switch. When the pressure switch closes, the air compressor turns on to restore air pressure. When air pressure is restored, the air compressor turns off, and pressure in the compressor automatically bleeds off through the release valve of the pressure switch. The release valve protects the air compressor from startup overload.



Item	Qty.	Description
1	1	Restrictor (1/2-inch NPT)
2	1	Strainer (1/2-inch NPT)
3	1	Swing Check (1/2-inch NPT)
4	1	Slow-Fill Ball Valve (Normally Open)
5	1	Spring-Loaded, Soft-Seated Check Valve
6	1	Pressure Switch
7	2	Compression Fitting, Straight (1/4-inch NPT x 1/4-inch Tube)
8	1	Copper Tubing (1/4-inch OD)
9	11	Close Nipple (1/2-inch NPT x 1.13)
10	1	Nipple (1/2-inch NPT x 4.00)
11	1	90° Female Elbow (1/2-inch NPT)
12	4	Female Tee (1/2-inch NPT)
13	3	Union (1/2-inch NPT)
14	2	Reducing Bushing (1/2-inch NPT x 1/4-inch NPT)
15	1	Fast-Fill Ball Valve (Normally Closed)
16	1	Pressure Switch Isolation Ball Valve (Normally Open - Lockable)

Exaggerated for Clarity

AIR SUPPLY REQUIREMENTS

NOTICE

- Victaulic recommends a maximum of two FireLock NXT Valves per Series 757P Air Maintenance Trim Assembly with Pressure Switch.

The required air pressure for Series 768 FireLock NXT Dry Valves, Series 764 FireLock NXT Alternate Wet/Dry Valves, and Series 769 FireLock NXT Deluge and Preaction Valves is 13 psi/0.9 Bar minimum, regardless of the system supply water pressure. Normal air pressure should not exceed 18 psi/1.2 Bar. Air pressure higher than the required system air pressure could reduce system operation response time. **The Series 757P Air Maintenance Trim Assembly with Pressure Switch MUST NOT be used on a Series 768 or Series 769 FireLock NXT Valve installed with a Series 746 or Series 746-LPA Dry Accelerator, unless a tank and air regulator are added.**

The engineer/system designer is responsible for sizing the compressor so that the entire system is charged to the required air pressure within NFPA guidelines (30 minutes). DO NOT oversize the compressor to provide more airflow. An oversized compressor will slow down or possibly prevent valve operation.

INSTALLATION

1. Install the Series 757P Air Maintenance Trim Assembly with Pressure Switch into the trim, per the trim drawing provided.
2. Refer to the installation, maintenance, and testing manual for the FireLock Valve for complete setup information.

Air Maintenance Trim Assembly with Pressure Switch

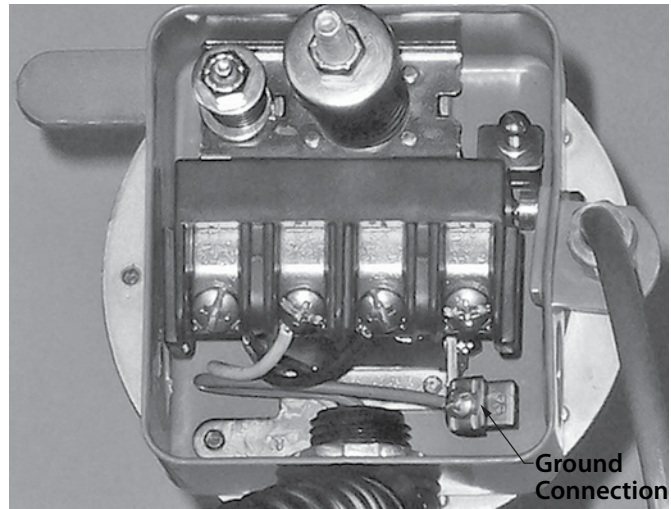
SERIES 757P

ELECTRICAL INFORMATION

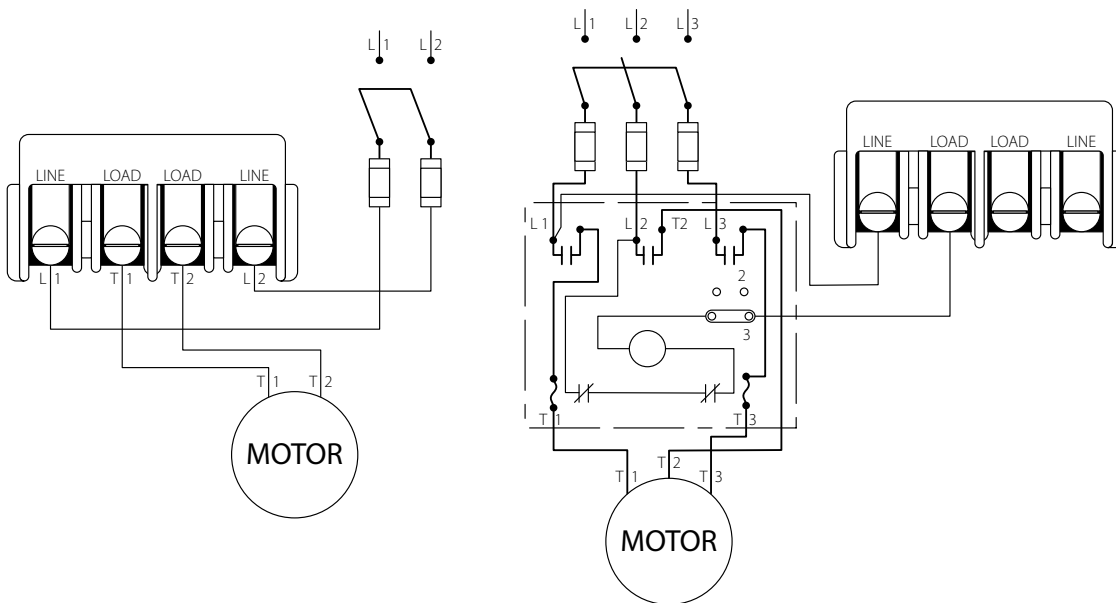
⚠ DANGER

- Only qualified electricians should make the required electrical connections in accordance with requirements of the local authority having jurisdiction, any applicable electrical codes, and the diagrams provided.
- DO NOT attach a motor larger than the electrical rating.

Failure to follow these instructions could result in death or serious personal injury.



Only qualified electricians should make the required electrical connections in accordance with requirements of the local authority having jurisdiction, any applicable electrical codes, and the diagrams provided. DO NOT attach a motor larger than the electrical rating (refer to the "Two-Pole Electrical Ratings" table on this page).



NOTE: NEMA 1 Enclosure - intended only for indoor use

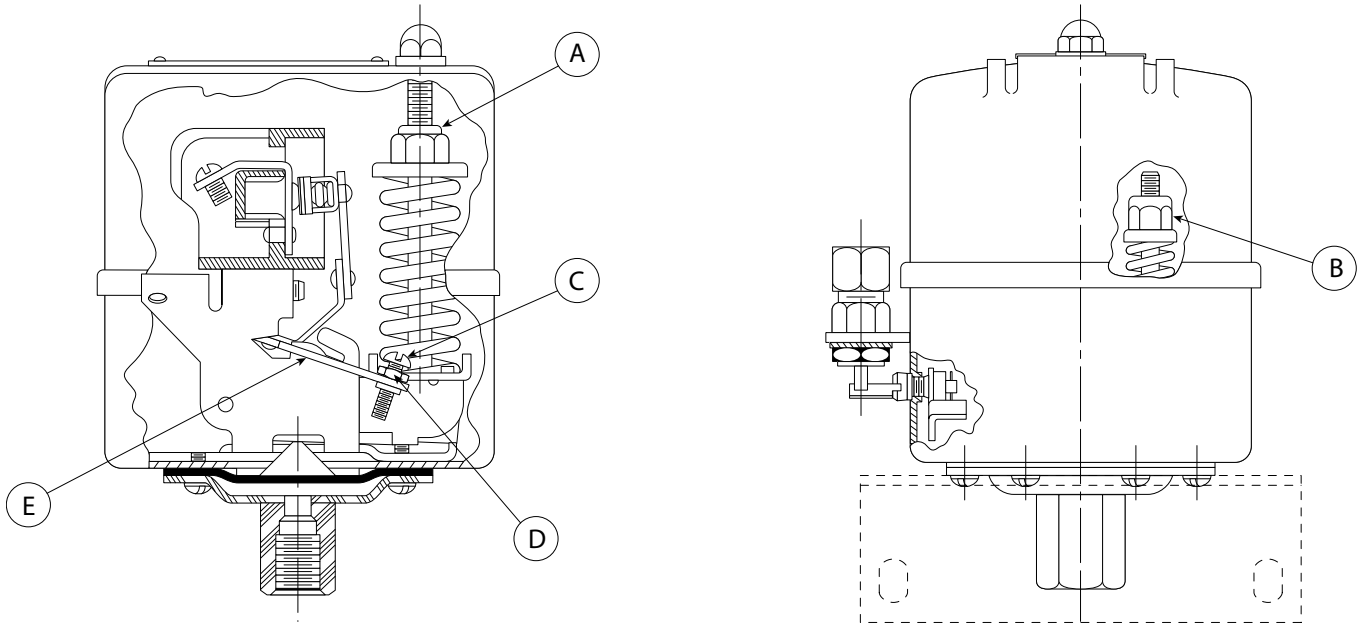
Two-Pole Electrical Ratings

Voltage	Single-Phase AC	Polyphase AC	DC
115	2 HP	3 HP	1 HP
230	3 HP	5 HP	1 HP
460 - 575	5 HP	5 HP	-
32	-	-	½ HP

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CUTAWAY DRAWING - PRESSURE SWITCH

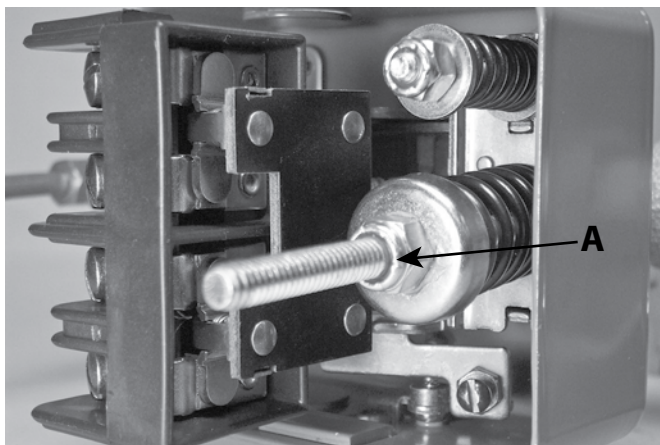


Exaggerated for clarity

PRESSURE SWITCH ADJUSTMENT

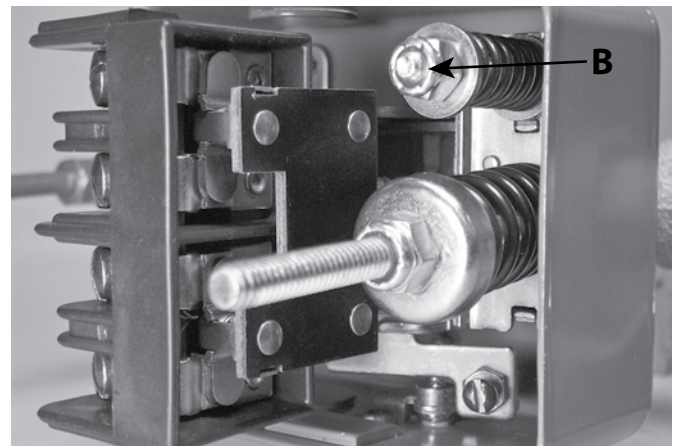
The pressure switch is factory set for typical system air pressures (13 - 18 psi/0.9 - 1.2 Bar). For the original series fire protection valves (Series 756 and 758), the pressure switch requires special factory settings to 25 - 40 psi/1.7 - 2.8 Bar. **NOTE:** Any adjustment made may affect correct operation and increase the cut-off time. Higher air pressure may slow down the system response time. Refer to the system air pressure gauge when making any adjustments.

RANGE



1. Adjust the range spring nut (A) first, until the desired operating point on the falling pressure is obtained. **NOTE:** Turning the range spring nut clockwise will increase the setting. This adjustment changes both the cut-in and cut-out operating points but should be adjusted only for the cut-in point.

DIFFERENTIAL

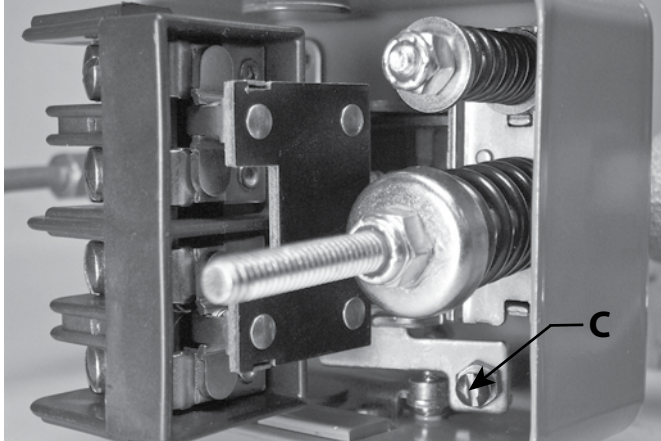


1. Set the operating point on the rising pressure by adjusting the differential spring nut (B). **NOTE:** Turning the differential spring nut clockwise will increase the pressure difference between the cut-in and cut-out operating points by increasing the cut-out point only.

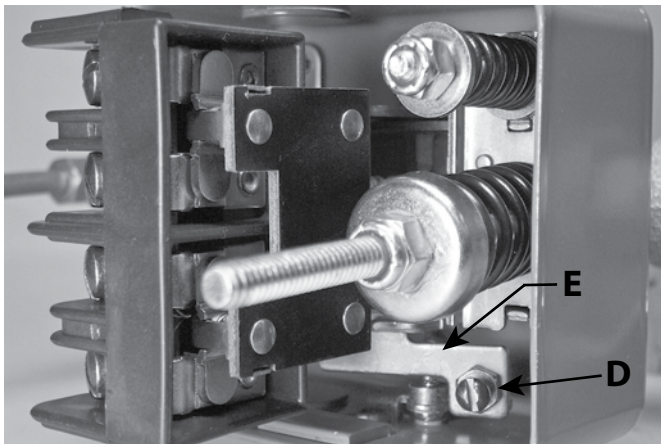
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RELEASE VALVE



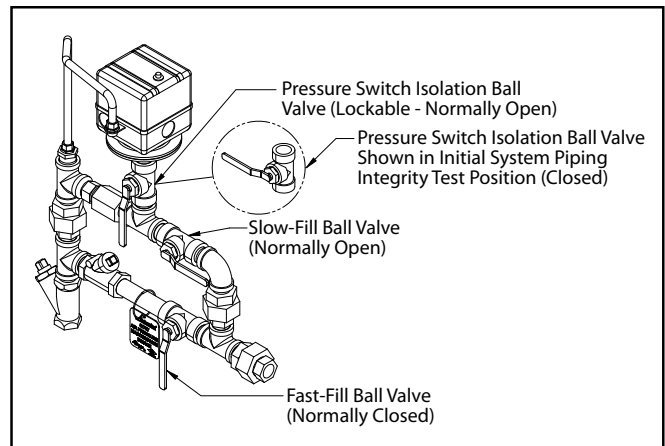
1. The release valve is factory installed. If the release valve is replaced or the release valve screw (C) requires adjustment, complete the following steps:
 - 1a. With air pressure applied to the valve and the switch contacts open, turn the release valve screw (C) clockwise until the release valve just begins to release air.
 - 1b. Turn the release valve screw (C) clockwise an additional 1½ turns.



- 1c. Lock the jam nut (D) against the bearing-plate lever (E).

FAST-FILL BALL VALVE, SLOW-FILL BALL VALVE, AND PRESSURE SWITCH ISOLATION BALL VALVE INFORMATION

The following information describes the function of the fast-fill ball valve, the slow-fill ball valve, and the pressure switch isolation ball valve of the air maintenance trim. Always refer to the installation, maintenance, and testing manual for the FireLock NXT valve for complete setup information.



1. Close the slow-fill ball valve on the air maintenance trim.
2. Charge the system by opening the fast-fill ball valve on the air maintenance trim. Confirm that the system is charging by observing the air pressure gauge. If the gauge is not showing an increase in air pressure, there is a leak or an opening in the line. Repair any leaks or openings and restart the setup procedures.
3. When system air pressure is established, close the fast-fill ball valve on the air maintenance trim. The fast-fill ball valve will remain “normally closed.”
4. Open the slow-fill ball valve on the air maintenance trim. The slow-fill ball valve will remain “normally open.” **NOTE:** Failure to leave the slow-fill ball valve open may allow system pressure to drop, resulting in valve operation in the event of a system leak.
5. To perform the one-time initial system piping integrity test (per NFPA requirements), close the pressure switch isolation ball valve to allow the compressor to charge the system pressure above the cut-out pressure. Upon completion of the test, open the pressure switch isolation ball valve. Manually bleed the system pressure down to 18 psi/1.2 Bar by opening the system main drain valve. Lock the pressure switch isolation ball valve in the “normally open” position.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The valve operates without sprinkler activation.	There is a loss of air pressure in the system or trim.	Check for any leaks in the system and trim. Confirm that the air maintenance trim is operating properly. Consider installing a low-air supervisory switch.
	The pressure switch is set too low, or the compressor is not operating properly.	Increase the “ON” setting of the pressure switch, and check the air compressor for proper operation.

For complete contact information, visit www.victaulic.com

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