General Information
The Water Column Switch is an electronic supervisory switch used to detect the presence of a conductive fluid (water) that can accumulate or become trapped in the piping directly above the clapper on a Dry-Pipe or Pre-Action valve. The electronic circuitry of the WCS is designed to indicate the presence of water accumulated to a specific elevation, that if left unattended could impair or prevent the operation of a dry pipe or pre-action automatic sprinkler valve. The yellow LED indicates the presence of water. The green LED indicates that the input voltage is present.

Probe Installation (See Fig. 1)
Note: Apply a small amount of pipe sealant to the external threads of the probe.

2. Orient the slotted holes in the control unit over the heads of the mounting screws of the probe and turn the control unit counterclockwise so that the ends of the slot are fully under the mounting screw heads. Tighten screws securely.
3. Replace the lock washer and nut onto the probe and tighten.

Testing Requirements
NFPA Standards (NFPA 25: 12.4.4.2.2.2 and 12.4.4.2.2.3)

Testing Procedure (See Fig. 4)
Test the dry and pre-action valves as directed by the valve manufacturer. During a partially open control valve test, the control valve must be left in the partially open position for a period of time sufficient to allow water to reach the probe location. When the yellow LED on the WCS becomes illuminated, close the control valve. Following the valve manufacturers instructions, drain the system and reset the valve. The WCS will automatically reset when the water level drops below the probe location. If priming water is required, make sure that the level of the priming water is in accordance with the valve manufacturers requirements and below the location of the probe.

Control Unit Mounting Onto The Probe (See Fig. 3)
1. Make sure the heads of the two mounting screws in the probe bushing are loosened approximately 1/8” from the bushing surface.

Potter Electric Signal Company, LLC • 2081 Craig Road, St. Louis, MO, 63146-4161 • Phone: 800-325-3936/Canada 888-882-1833 • www.pottersignal.com
Terminal Block Connections Clamping Plate Terminal

An insulated section of a single conductor should not be looped around the terminal and serve as two separate connections. The wire must be severed, thereby providing supervision of the connection in the event that the wire becomes dislodged from under the terminal. Use 18 AWG (min.), or as required by local code. Wire insulation rating must be at least 167°F (75°C).
**Probe Spacing Requirements** (Fig. 1)

Note: Mount only with probe facing horizontally or vertically downward. Do not mount with probe angled upward. Maintain probe clearances as indicated.

**Control Unit Mounted On Probe**

**Probe Cleaning And Replacement** (Fig. 4)

Probe must be inspected annually for scale build-up. Clean all scale from probe and teflon sleeve taking care not to damage the teflon sleeve. Probe should be replaced every 10 years.

The Control Unit should be replaced every 15 years. In areas of high humidity and heavy dust or other airborne contaminants, more frequent replacement may be required.