

Operating & Maintenance

These instructions cover the installation and maintenance of Federal Type SBS Submers-a-bulb controllers. By following the outline and suggestions, the life of the controller can be extended and repairs kept to a minimum.

INSPECTION

Immediately upon receipt of the shipment, inspect and check with the packing list and report to the transportation company's local agent any damage or shortage. Inspect carton and wrappings before discarding. Parts or accessories may sometimes be wrapped individually and packed in the carton.

STORAGE

If the unit is received some time in advance of when it can be put to use, it should be inspected, rewrapped in moisture-proof papers, reboxed and stored in a dry location.

INSTALLATION

1. Install the NEMA-4 junction box on a wall in an accessible location to allow for inspection and possible wiring changes at a later date. Keep the junction box as high as possible to prevent flooding it in the event of a power failure (the junction box enclosure is watertight but not submersible). If possible, wire the motors and control bulbs directly to the panel, deleting the junction box.
2. Wall-mounting or cover-mounting SBS plate should be installed in a location which permits access for adjustment, such as near a manhole or hatch.

3. Screw the galvanized suspension pipe into the coupling of the suspension plate. Cut the pipe if too long for the pit depth or lengthen it if too short.

4. Adjust the bulb guide arms to the desired heights. Set the arms at right angles to each other, if possible, to prevent fouling of the bulbs. For submersible pumps, set the bottom 'PUMP OFF' bulb above the top of the motor, so that the motor is always under water. For vertical submerged pumps (VSA or VSP for example), set the bottom 'PUMP OFF' bulb above the pump volute so that air cannot enter the volute at the end of the pumping cycle.

5. Insert the bulb cables thru the bulb guide arms and then thru the compression fittings in the suspension plate. Tighten the compression fittings to insure a gastite installation.

6. Allow enough cable under the guide arm to permit the bulb to swing freely, but not so much as to cause possible fouling or tangling of the cables. The bulbs should swing free and not hit the pump or pit wall.

7. Connect bulbs and motor power leads to the junction box and/or control panel. If the junction box is used, be sure that the wires into the box are carefully tagged to insure correct continuation to the control panel.

8. For submersible motors, connect the moisture sensing leads (WI & W2, if specified) to the proper terminals in the panel and connect the temperature sensing leads (PI & P2, if specified) to the proper terminals in the panel.

9. Connect the top 'HIGH WATER ALARM' bulb to the proper terminals in the panel.



O&M # 0611