Centeron™ Digital Two Channel Monitor and Float Switch Assembly
Installation Guide

Required Equipment:
FS series Centeron Float Switch Assembly
Centeron Digital Two Channel Monitor
Thread-Thread Bushing (if required for mounting)

Tools:
Pipe wrench to remove existing tank cap (if required)
Thread tape

Warning: Tanks may contain flammable liquid or vapor, extinguish all flames and smoking material before performing the Monitor installation procedure.

Mounting

After the Centeron High Level Alarm Console or Controller has been successfully setup, the Float Switch Assembly and Digital Two Channel Monitor can be mounted on the tank by following these instructions:

Step 1.
Select a mounting bung on the top of the tank that will keep the Float Switch Assembly vertical and allow free travel of the float mechanism. Verify that there is adequate clearance to prevent the float mechanism from contacting obstructions such as walls, baffles, reinforcements, and other measurement equipment inside the tank. Remove all materials from the desired bung.

Step 2.
Install a thread-thread bushing in the bung to allow mounting of the Float Switch Assembly (if required).

Step 3.
Carefully insert the Float Switch Assembly into the tank and tighten it.

Step 4.
Connect the Float Switch Assembly wiring harness to the Centeron Digital Two Channel Monitor. Place the Monitor on top of the tank. A large magnet in the base will hold the Monitor securely on a steel tank. Repeat Steps 1–4 for additional Monitors.

Warning: For maximum Monitor reception, mount the Monitor within 500 feet of the High Level Alarm Console or Controller, avoid mounting either device inside a fully closed metal building or in a metal enclosure, and avoid close proximity to large electrical equipment. See Monitor Instruction Manual for more RF Guidelines.

Activation

Step 5.
Following Monitor mounting, the unit(s) can be activated.

To activate the Monitor, pull the external slide magnet completely out of the top of the Monitor housing. This will activate the Monitor to report switch transitions and to make supervisory radio transmissions on a pre-programmed interval.

> *Note: Do not discard the magnet completely—keep it accessible for future use if needed. Do not store the magnet in the monitor upper housing slot since this will de-activate the monitor.*

- When the external slide magnet is removed from the Monitor, the High Level Alarm Panel or Controller lights should indicate that it is receiving a Monitor transmission.

Step 6.
To activate additional Monitors, repeat Step 5. See Digital Two Channel Monitor Instruction Manual for further details if installation is unsuccessful.

FCC Notice
These products generate and use radio frequency energy. If not installed and used in accordance with the manufacturer's instructions, they may cause interference to radio and television reception. These products have been tested and found to comply with the specifications in Part 15 of the FCC rules for Class B Devices.

Caution: Robertshaw Industrial Products Division does not support field changes or modifications to any Centeron™ Level Alarm System Equipment unless they are specifically covered in the instruction manual. All adjustments must be made at the factory under the specific guidelines set forth in our manufacturing processes. Any modifications to the equipment will void the manufacturers' warranty and could void the user's authority to operate the equipment and render the equipment in violation of FCC Part 15, Subpart C, 15.247.

These devices comply with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and   (2) this device must accept any interference received, including interference that may cause undesired operation.

Intrinsic Safety
The Centeron Level Alarm Monitor is designed to comply with UL Standards for Intrinsically Safe Apparatus for use in Class I, Division 1, Group D locations. The Centeron Level Alarm Monitor conforms to UL 913 and has been certified to CAN/CSA Standard C22.2 No. 157.

Warning: Substitution of components may impair intrinsic safety.
Avertissement: La substititution de composants peut comprommettre la securite intrinseque.

Battery Information
Warning: To prevent ignition of a hazardous atmosphere, the battery must only be changed in an area known to be nonhazardous.
Avertissement: Afin de prevenir l'inflammation d'atmospheres dangereuses, ne changer le batterie que dans des emplacements designes non-dangereux.

Warning: Use Duracell Ultra DL123A Lithium Manganese Dioxide 3 volt battery only.

Centeron Level Alarm System
Equipment Check Guideline and Maintenance Procedure

1. Equipment Check Guideline

1.1. Local Alarm Console (if installed)
    1.1.1.   Verify that the Alarm Console "Power" light is illuminated.
    1.1.2.   Verify that no alarm conditions exist (no solid Red indicator lights illuminated).
    1.1.3.   Verify that no "Lost Monitor" conditions exist (no flashing Red indicator lights).
    1.1.4.   Verify that no "Low Battery" conditions exist (no solid Amber indicator lights illuminated).
    1.1.5.   Fully raise the liquid detection float on each FSL Series Float Switch Assembly and verify that the Alarm Console indicates the appropriate alarm condition while the float is raised.
    1.1.6.   Verify that the external audible alarm (if installed) and / or visual indicator (if installed) signal an alarm condition when the floats are raised.
    1.1.7.   Verify that each liquid detection float moves freely on its shaft. Release each float and verify that all alarm indications are eliminated.

1.2. Remote Alarm Notification (if Controller installed and Data Center configured)
    1.2.1.   Verify that the Centeron TC Series Controller is displaying a solid Green "Power" light and a solid Green "Connection" light.
    1.2.2.   Fully raise the liquid detection float on each FSL Series Float Switch Assembly and verify that the alarm condition caused by raising the float is reported to the Centeron website (http://www.centeron.net). *Note: there may be a delay of up to five minutes for alarm indications to be posted on the website.*

2. System Maintenance Procedure

2.1. Perform the Equipment Check as described in Section 1 of this document and verify that all alarm conditions are properly indicated.

2.2. Correct any "Lost Monitor" conditions by following the RF Test procedure found in the SM Series User Manual.

2.3. Correct any "Low Battery" conditions by following the Battery Replacement procedure found in the SM Series User Manual.

2.4. Correct any audible or visual external alarm faults that are detected by locating and replacing the inoperative component(s).

2.5. Verify that each liquid detection float moves freely on its shaft. If not, clean and inspect the float. Replace any damaged or non-functional components.

2.6. Once all necessary adjustments and repairs have been completed, repeat the Equipment Check as described in Section 1 of this document to verify proper system operation.