Complete STEP 1: INITIAL SETUP from the document “ECHO Start-Up Guide” before installing the ADS® ECHO in the field.

The ADS ECHO is a level monitoring system for use in overflow prevention. It measures flow depth in the manhole with echo ranging technology. It reliably reads up to 20 feet (6.1 m) from the bottom of the reflector. Its pressure sensor measures depths above the ECHO up to and including the manhole rim.

CHECKLIST! Required installation supplies:
- ECHO monitor
- Blue magnet
- Antenna
- Mounting bar
- J-hook
- Rubber splicing tape
- Carpenter’s rule
- Grade pole
- Carpenter’s rule
- Grade pole

Follow the steps below to complete the ECHO field installation.

1. Measure the Manhole Depth
   - Measure Distance from the Bottom of the Invert...
   - ...to the Manhole Rim, and Record the Manhole Depth Value

2. Install the Mounting Bar
   - Pass Mounting Bar Tether Behind Top Rung
   - Use J-Hook to Pull Tether up from Top Rung
   - Pass Untethered End Through Large Loop
   - Pull Tether Tight, Cinching to the Top Rung
   - Ensure Bar Installation Gives Clear Line of Sight to the Invert
   - Expand, Level, and Confirm Secure Positioning of Bar

IMPORTANT: Install mounting bar at least 14 inches (355 mm) below the manhole rim to prevent the manhole lid from dislodging the bar and monitor.
3. Install the ECHO Monitor

3.1 Attach Antenna to ECHO and Wrap Connection with Rubber Splicing Tape
3.2 Lower and Place ECHO on Mounting Bar
3.3 Level the ECHO and Tighten the Mounting Clamp
3.4 ECHO Fully Installed
3.5 Ensure Installation of the ECHO Places the Effective Section of the Sensor Directly Over the Channel
3.6 Measure Distance from the Rim of the Manhole to the Face of the Sensor, Record the Physical Offset Value

4. Install the Antenna

The ADS ECHO 9000-ECHO-4VZ and 9000-ECHO-4WW communications often provide enough wireless signal strength to install the antenna in the manhole with the monitor. The following instructions are applicable when the monitor wireless signal strength is between -50 and -85 dB while the antenna is inside the manhole with the lid closed. Install the antenna in the manhole as described below. If the signal strength is not sufficient, remove the antenna and install it outside the manhole.

Use a cable tie to secure the antenna to the Mounting Bar (Option 1) or place it between the Mounting Bar and the top of the ECHO (Option 2). Position the antenna as flat and parallel to the manhole lid as possible with the ADS logo facing up. Loop the antenna cable around the ECHO handle. The antenna should be within 14 to 18" (350 and 460 mm) of the manhole lid for optimal signal strength.

For Further Assistance Call 1-877-237-9585 or Email adssupportcenter@idexcorp.com

© 2020 ADS LLC. All Rights Reserved.