ADS® ECHO

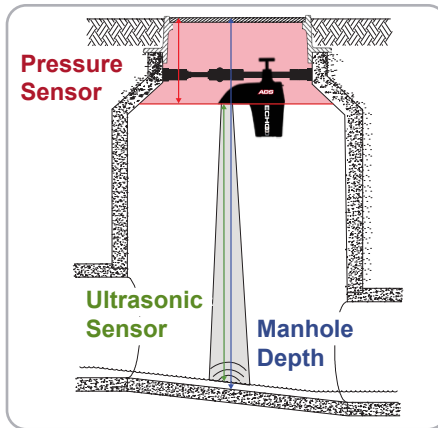## ECHO QUICK INSTALLATION GUIDE

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 presssure 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

Pressure Sensor · Ultrasonic Sensor · Manhole Depth

Watch ADS ECHO Start-up Videos

"How to Install the ADS ECHO Level Monitor"

"How to Install an Antenna for Use with ADS Monitors"

"How to Configure and Activate an ADS ECHO with Q*start*™*XML*"

Scan the QR code to access our instructional videos or enter **https://www.adsenv.com/echo**

Follow the steps below to complete the ECHO field installation.

1. Measure the Manhole Depth

1.1 Measure Distance from the Bottom of the Invert ...

1.2 ...to the Manhole Rim, and Record the Manhole Depth Value

2. Install the Mounting 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.

2.1 Pass Mounting Bar Tether Behind Top Rung

2.2 Use J-Hook to Pull Tether up from Top Rung

2.3 Pass Untethered End Through Large Loop

2.4 Pull Tether Tight, Cinching to the Top Rung

2.5 Ensure Bar Installation Gives Clear Line of Sight to the Invert

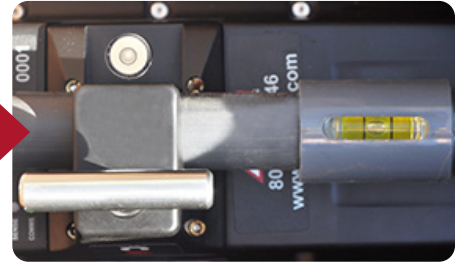**2.6** Expand, Level, and Confirm Secure Positioning of Bar

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. Watch the **"How to Install an Antenna for use with ADS Monitors"** instructional video using the QR code on the front page to assist in the installation or refer to the **ADS ECHO Operations and Maintenance Manual, Chapter 3** for additional detail.

Option 1. Antenna Cabled Tied to Bar, Logo Facing Up

Option 2. Antenna on top of **ECHO**, Logo Facing Up

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.

Download Documents from https://www.adsenv.com/ads-product-manuals/ to help install the ECHO.

"ECHO Quick Installation Guide" to share this document with co-workers.
"ADS ECHO Qstart*XML* **Quick Reference Guide"** to configure and activate the **ECHO**.
"ADS ECHO Installation, Operation, and Maintenance Manual" for detailed information regarding installation, Intrinsically Safe (IS) certifications and maintenance restrictions.

⚠️ **IMPORTANT!:** Manhole and sewer system work involves confined space entry and is inherently dangerous. Therefore, installers and technicians should comply with all federal, state, and municipal regulations concerning confined space entry.

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

www.adsenv.com/echo