DECAGON DEVICES® / QUICKSTART GUIDE

WATER LEVEL SENSORS
CTD-5 AND CTD-10

Hydrology
PRODUCTS / *we measure the world*

Read First

This guide describes how to start using your sensor immediately.
If you read nothing else, read this guide.

FULL
VERSION
Manual
For detailed information, download the user manual:
DECAGON.COM/EDUCATION/MANUAL-CTD-SENSOR

All decagon products have a 30-day satisfaction guarantee and a one-year warranty.
Incorrect sensor installation can void your sensor warranty.

If you are using the sensors in lightning-prone areas, follow our directions for providing
protection for the sensors at: *DECAGON.COM/LIGHTNING*

Pre-Installation

Before installing your CTD sensor in the field, set up and test your system (sensors and data loggers) in your lab or office. Make sure you are using the most up to date software and firmware by visiting your Decagon data logger page and checking for updates.

You can also test the temperature and EC output using known standards. Simply add table salt to the water column to increase the EC of the solution and compare the output using the following instructions.

1   Place the sensor in a column of water (i.e. a graduated cylinder filled with water)

2   Connect sensor to data logger or ProCheck handheld device. Use the scan function in Echo Utility or DataTrac 3 with a Decagon EM50 series logger to take instantaneous readings of the sensor.

3   Check the depth readings, keeping in mind that the zero point is at the top of the side slots, about 1.5 cm above the bottom of the sensor.

Sensor Overview

3.5mm Plug

Barometric Pressure
Reference Vent

Hanging
Hook

Kellem Grip

Thermistor
(Temperature)

Pressure
Sensor

Four-Point Wenner Array
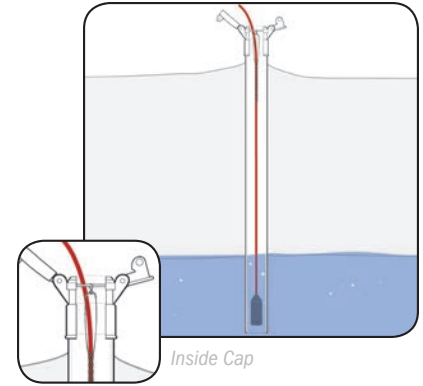(Electrical Conductivity)
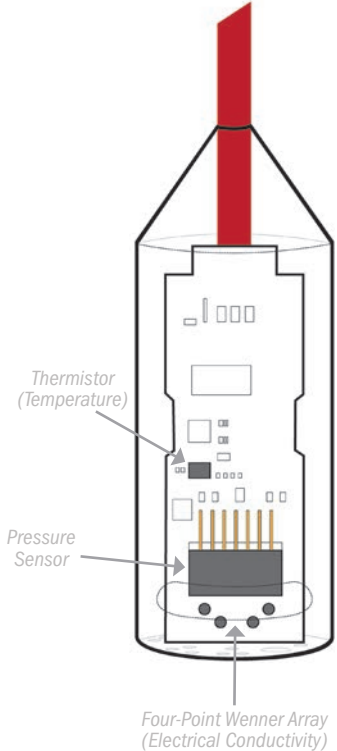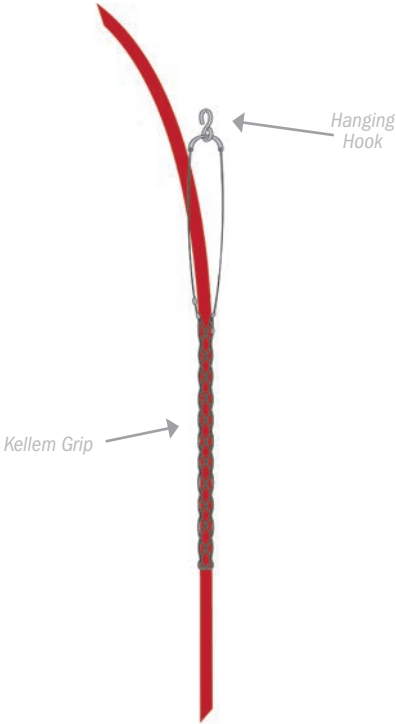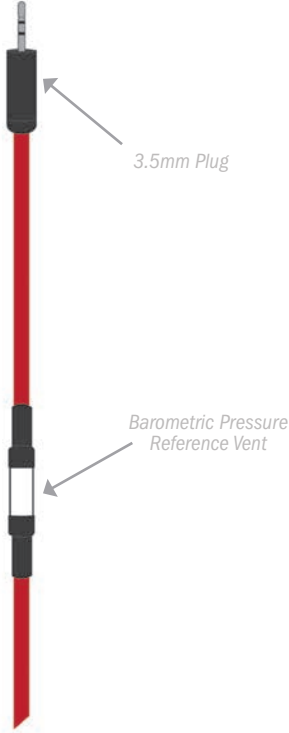
Installing Sensor

The CTD-5 and CTD-10 Sensors come with an adjustable Kellem Grip and Hook to suspend the sensor in a well.
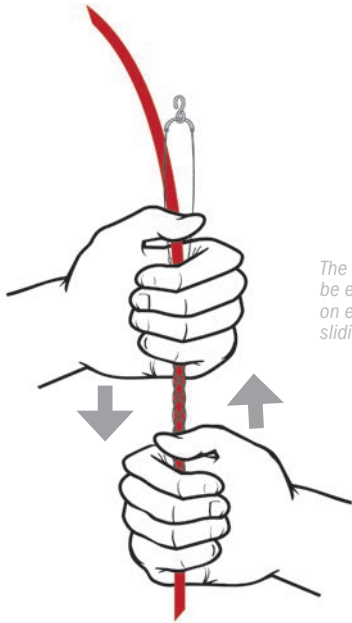
The Kellem Grip position can be easily adjusted by pushing on either end of the grip while sliding it in the desired direction.
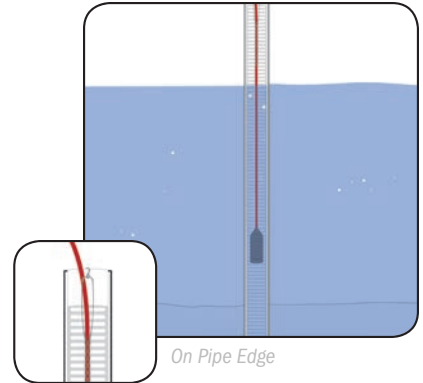
① Determine Installation Type

Groundwater Monitoring

Inside Cap

Surface Monitoring: Install Slotted Pipe

On Pipe Edge

2 Determine Installation Depth

The CTD is designed for high resolution monitoring in surface and shallow groundwater.

Fluctuations should not exceed 5 m (CTD-5)/10 m (CTD-10). If water rises above these levels the sensor will stop producing accurate readings and risk the potential of damage to the sensor.

4 Secure and Protect Cables

It is important to protect your cables with PVC casing above and below the ground surface.

3 Install Below Lowest Expected Water Depth

The sensor zero-point is on the side of the sensor at the top of opening.

Set the desired installation depth from this point.
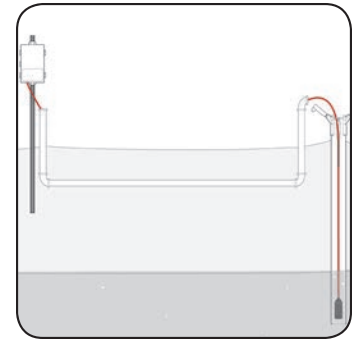
5 Plug Sensor in Logger and Configure Sensor

See next page for more details about configuring your sensor.
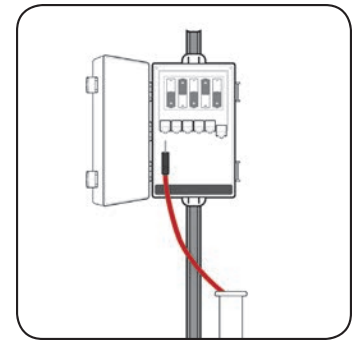
For more information on suppliers and installation methods contact Customer Support: 1-509-332-5600

Logger Configuration

Configuring your logger in DataTrac3

① Select the sensor plugged into each port

② Pick measurement intervals by selecting "Sensors and Measurements"

③ Use virtual tools to calculate meaningful metrics

Growing Tool configuration to show groundwater depth to surface

1. Click "Configure"
2. Click "Virtual Port"
3. Select Growing Tools and Ground water Depth
4. Click arrow to select the port and depth
5. Click "Create Virtual Measurement" and input installation depth in mm
6. Click "Apply"

FREE
30 DAY TRIAL
DECAGON.COM/DATATRAC3

DataTrac 3
YOUR VIRTUAL ASSISTANT
Soil Moisture and Environmental Measurements for Research and Growing Applications

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Logger Configuration

Configuring your logger in ECH2O Utility

1. Pick your measurement interval

2. Select the sensor plugged into each port

3. Select "Apply" to save settings

Our user manuals and integrator's guides have complete information for interfacing Decagon Sensors with non-Decagon loggers. In addition, we suggest that you use the specific logger manual during set-up.

Related Products

GS3

5TE

5TM
Volumetric Water Content

EC-5

10HS

MPS-2

MPS-6
Soil Matric Potential

Temperature

Electrical Conductivity

Temperature

Most Accurate

RT-1

ES-2/ES-2F
Rugged Temperature Sensor

Electrical Conductivity

Leaf Wetness Sensor
Duration of Leaf Wetness

ECRN-50
*Low-Resolution
Rain Gauge*

ECRN-100
*High-Resolution
Rain Gauge*

VP-3
*Temperature, Relative
Humidity, Vapor Pressure*

DS-2
*Sonic Anemometer, Wind
Speed, Direction*

Cup Anemometer
Wind Speed, Direction

PYR/QSO-S
*Total Solar Radiation,
PAR Photon Flux*

SRS
Measures NDVI and PRI

Drain Gauge
Deep Drainage Monitor

EM50 Logger Series
*Radio, Cellular, or Direct
Connect Logger*

ProCheck
*Sensor Read-Out and
Storage System*

CTD-5 and CTD-10 Quickstart Guide | Printed in USA

Application of Council Directive: 89/336/EE6 Standards to which conformity EN61326: 1998 is declared: EN51022: 1998

Manufacturer's Name: Decagon Devices, Inc.
Model Number: CTD-5 and CTD-10
Year of First Manufacture: 2014
Type of Equipment: CTD Sensor
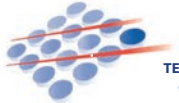
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