



## Mechanical Installation

### Submersion Installation

The CS150 electrode can be submersed and mounted in a tank for conductivity measurement using gland and nut fitting FC50P (1/2" NPT) or FC75P (3/4" NPT). The FC50P or FC75 must first be inverted so the nut is pointed downwards. Loosen the nut by turning clockwise (remember that fitting is inverted). Slip electrode through hole in nut until desired depth is reached. Tighten nut (hand-tight) by turning counterclockwise. See **FIG 1** and **FIG 2**.

### Inline Installation

Mounting in-line is also possible using FC50P or FC75P fittings. For in-line mounting, it is suggested that the sensor be mounted through the side of the tee as shown in **FIG 3** and **FIG 4**. The sensor must also be mounted such that the opening/slot in the body is pointed upward so as to allow any air bubbles to rise out of the sensor and escape with the flow.

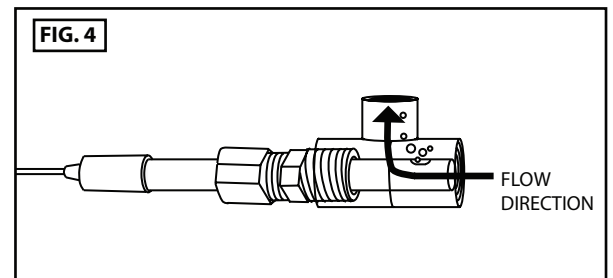
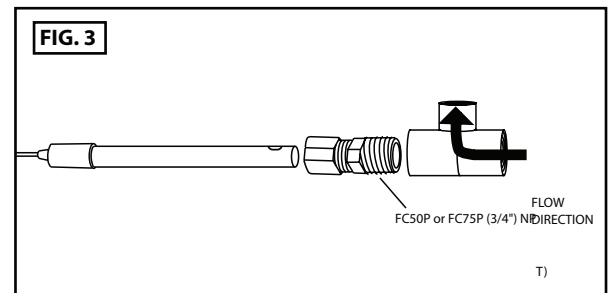
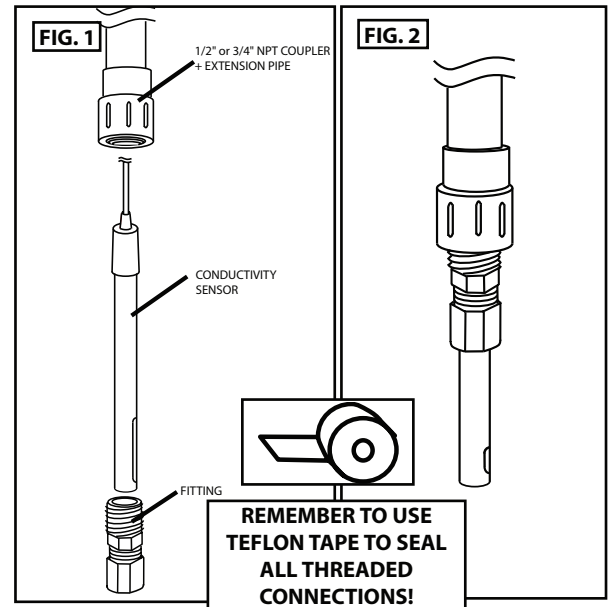
### Electrode Removal

Simply reverse installation procedures above.

## Electrical Installation

### Installation for Electrodes without Temperature Sensor Included

The CS150 does not include temperature sensors. Each is supplied with two connections (red and black) and optional ground. Refer to **FIG 5**. These wires are for conductivity connection and have no unique polarity. Connect to any conductivity controller or transmitter per the manufacturer's wiring instructions at the connections marked "conductivity" or "cell".



## Installation for Electrodes with Temperature Sensor Included

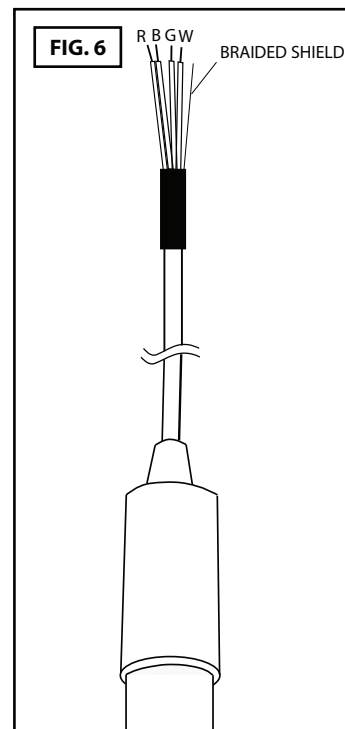
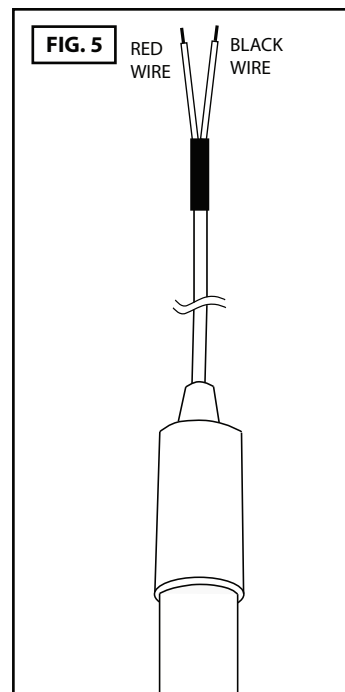
For sensors with temperature compensation, the wires are green and white. See **FIG 6** for wiring details. These temperature wires can be connected to the instrument's temperature input in any order since the output is a resistance signal (ohms  $\Omega$ ). Please note that some meters require a three- or four-wire temperature signal input. In these cases, place a jumper wire (for three-wire type) or two jumper wires (for four-wire type) from the original lead to open temperature inputs. Refer to manufacturer's manual for details.

## Calibration

Calibrate sensor according to meter/controller of the manufacturer's instructions using known certified conductivity standards. Contact Sensorex or go to [www.sensorex.com](http://www.sensorex.com) for a complete selection of calibration standards. To ensure accuracy, calibrate in a large beaker or bucket, stirring sample with electrode. Avoid bubbles as much as possible; bubbles cause erroneous readings.

## Care and Cleaning

CS150 electrodes have graphite measuring surfaces. Clean surfaces with gentle detergent or 5% HCl in cup or beaker. Do not sand or abrade the graphite surface as abrasion changes the surface area and will cause erroneous readings.



INSTRUCT-CS150-11222023