

# Submersible Cap and Cable With Temperature Compensation S653TC/S653TK

## Product Instructions

### Mechanical Installation

**CONDUIT CONNECTION.** The Temperature Compensated Submersible Cable Assembly is supplied with a 1/2" male pipe thread. Attach to this thread a coupling or reducing bushing and the required length of support pipe.

**ELECTRODE INSTALLATION.** The electrode mounts in the cable cap by a 1/4 turn which locks together the mating BNC-type connectors. Refer to Figure 2. It is important that the electrode be locked in position and the following stepwise procedure is suggested:

A. While pushing the electrode into the cap, rotate it clockwise until it slips into the notch of the mating connector. This step requires no real amount of force and, when completed, the cap will cover most of the electrode's top O-ring.

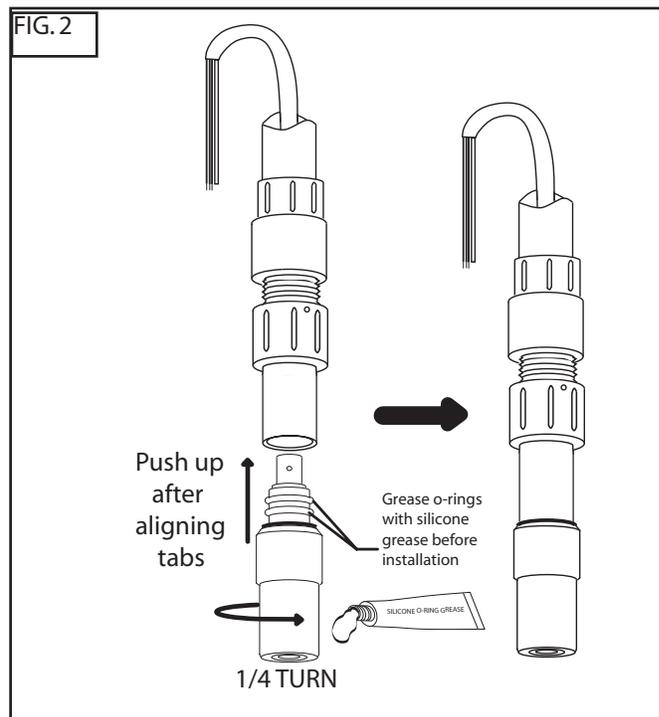
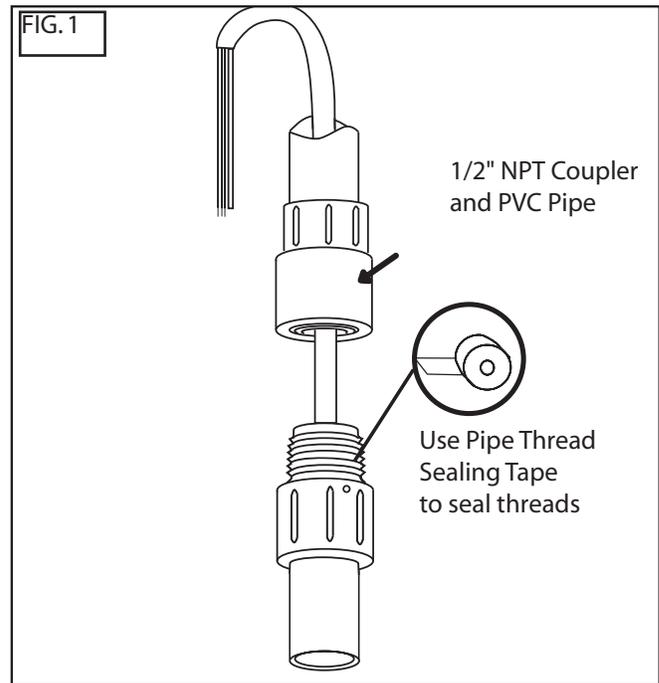
B. Now, without further rotation, push the electrode into the cap until the bottom O-ring is mostly covered and the black washer almost touches the cable cap.

C. Finally, again rotate the electrode clockwise until it "clicks" into the locking position (about 1/4 turn). Now the bottom O-ring will be fully covered and the bottom of the cap will rest firmly against the electrode's black washer.

**ELECTRODE REMOVAL.** Simply reverse installation procedure.

**IMPORTANT NOTES:** 1) As supplied the electrode's O-rings have a light coating of silicone grease. After several insertions and removals, it may be necessary to re-lubricate the O-rings. A stopcock or vacuum-type silicone grease should be used. 2) DO NOT IMMERSE CAP AND CABLE ASSEMBLY INTO SOLUTION WITHOUT ELECTRODE ATTACHED!!!

**CAUTION: MAKE SURE ELECTRODE IS ORIENTED AS SHOWN IN FIG 2. WHEN INSTALLING OR REMOVING SO THAT LIQUID CANNOT FLOW BACK INTO THE INTERNAL CONNECTOR!**



## 2. ELECTRICAL INSTALLATION

The pH preamplifier/transmitter/meter electrical connections are as follows:

pH - \_\_\_\_\_  
Reference - \_\_\_\_\_  
Temperature Compensator\* - \_\_\_\_\_  
Solution Ground\*\* - \_\_\_\_\_

### NOTES:

\* Unless noted above, either temperature compensator lead (red or black wires) may be connected to either temperature compensator terminal strip connection.

\*\* The green wire is for solution ground. Not all units have or require a solution ground. The pH meter/transmitter instructions should provide information about the use of this connection. If no reference is made to a solution (not earth) ground connection then it probably is not needed.

### Cable includes:

1 coaxial

3 each 22AWG-  
color coded

RED (TC), BLK (TC), GRN  
(GND)

