

Instructions for Setup of the Fiber Optic Option for CEM Discover Systems

NOTE

Optional fiber optic temperature control requires the use of the fiber optic temperature option. For fiber optic temperature control, proceed with the following instructions.

Discover S-Class

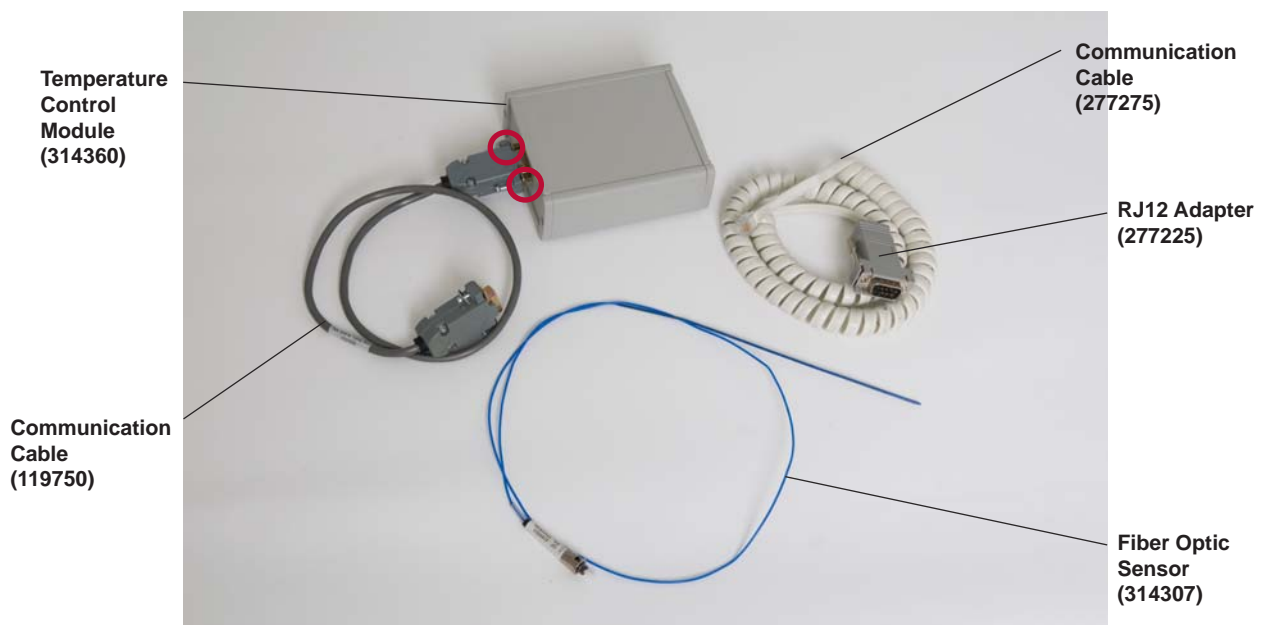


Figure 1. Fiber Optic Sensor Kit (541175)

1. Using a flat blade screwdriver, loosen the two (2) screws and remove the gray communications cable (119750) from the fiber optic module.
2. Connect the white communications cable (277275) to the RJ-12 adapter (277225) by pushing the cable in until an audible click is heard.
3. Install the RJ-12 adapter to the fiber optic module and tighten the two (2) screws finger tight (Figure 12).



Figure 2

4. If applicable, remove the plug from the temperature sensor. Insert the sensor into the fiber optic temperature control module (Figures 3 and 4). The sensor is attached to the module with a locking "collar" on the sensor. Push the collar in, twist it clockwise, and then release it to lock the sensor into the module (Figure 5).

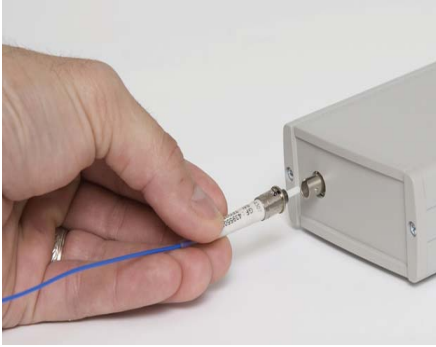


Figure 3

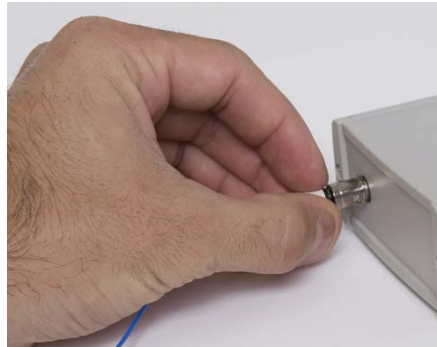


Figure 4



Figure 5

5. Position the temperature control module on the right side of the Discover S-Class System (facing back of instrument), and connect the communications cable into the RJ-11 port on the side of the instrument (Figures 6 and 7).



Figure 6



Figure 7

6. Enter the temperature constant (GF Number) for the fiber optic sensor as outlined below.

NOTE

The GF Number is recorded on the label attached to the fiber optic sensor as well as the label on the case in which the sensor is shipped.

- a. From the Discover Home Screen, press the down arrow until "System Setup" is highlighted. Press the ENTER key.

NOTE

If "System Setup" is not displayed on the Discover Home Screen, log off the present user and log in using the user name "USER" or other user name with administrative privileges.

- b. From the "System Setup" screen, press the right arrow key until the second menu screen (Calibration Setup) is displayed.
- c. Ensure that the "Temperature" option is selected. Press the ENTER key.
- d. Press the down arrow key to highlight "Fiber Optic Probe." Press the ENTER key.
- e. If a GF value is displayed, highlight "Clr" to delete the value.

- f. Using the arrow keys, select the appropriate numbers for the GF Number (located on the label attached to the fiber optic sensor or on the label on the fiber optic sensor case).
 - g. Once the GF Number is entered, select "OK." Press the ENTER key.
 - h. Press the "Home" key to return to the Discover Home Screen.
7. Select the fiber optic sensor temperature option as outlined below.
- a. From the Discover Home Screen, select "System Setup." Press the ENTER key.
 - b. Select "Temperature Type." Press the ENTER key.
 - c. Using the up/down arrow keys, select "Fiber Optic." Press the ENTER key.
 - d. Press the "Home" key to return to the Discover Home Screen.

NOTE

To verify proper operation of the fiber optic probe, hold the tip of the probe between two fingertips. The temperature should increase slightly.

Discover BenchMate or Discover LabMate

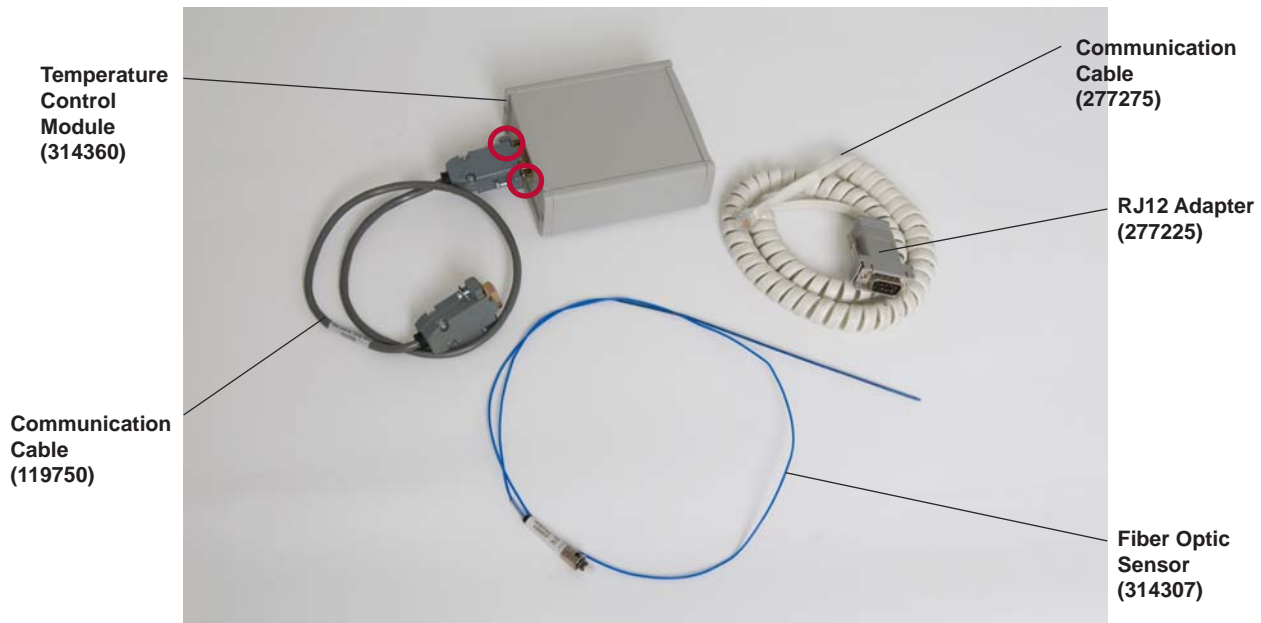


Figure 8. Fiber Optic Sensor Kit (541175)

1. If applicable, replace the communication cable as follows.
 - a. Using fingers, loosen screws securing the RJ-12 adapter (277225) and pull the adapter from the fiber optic module (Figure 1), leaving the communication cable (277275) connected.



Figure 9

- b. Install the gray communication cable (119750) on the fiber optic module using a flat blade screwdriver to tighten the two (2) screws (Figure 10).



Figure 10

2. Facing the back of the instrument, place the temperature control module on the left side of the Discover System. Connect the communications cable into the Com 2 Port located on the back of the instrument (Figure 11).
3. Turn the instrument on. Verify that light is visible in the opening for the probe. If not, reattach the communications cable in the opposite direction.



Figure 11

4. Remove the plug from the temperature sensor. Insert the sensor into the temperature control module (Figures 12 and 13). The sensor is attached to the module with a locking “collar” on the sensor. Push the collar in, rotate it clockwise, and release it to lock the sensor into the module (Figure 14).



Figure 12

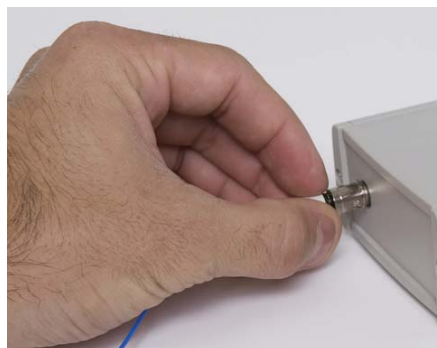


Figure 13



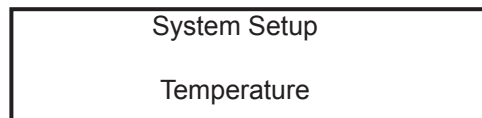
Figure 14

5. Enter the temperature constant (GF Number) for the fiber optic sensor as follows.

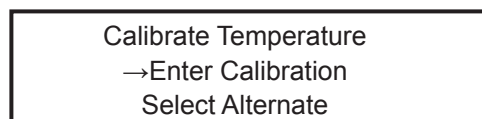
NOTE

The GF Number is recorded on the label attached to the fiber optic sensor as well as the label on the case in which the sensor is shipped.

- a. From the Discover Home Screen, press the EDIT key. to access the “System Setup” screen.



- b. Press the ENTER key.



- c. Press the down arrow key until “Select Alternate” is selected. Press the ENTER key.
- d. Press the right arrow key until “Fiber Optic Probe” is selected. Press the ENTER key.

e. The GF Number should appear automatically. If it does not, follow the instructions below. If the GF Number does appear, proceed to step i.

f. Press the EDIT key to access the “System Setup” screen.

System Setup
Temperature

g. Press the ENTER key.

Calibrate Temperature
→Enter Calibration
Select Alternate

h. Press the down arrow key until “Enter Calibration” is selected. Press the ENTER key.

Calibration
XXXXXXX
Press EDIT To Change

i. Press the EDIT key to highlight the GF Number. Using the numeric keypad, enter the GF Number from the label attached to the fiber optic sensor or the label on the plastic case in which the sensor was shipped.

j. Press the ENTER key. Press the HOME (large arrow) key.

NOTE

To verify proper operation of the fiber optic probe, hold the tip of the probe between two fingertips. The temperature should increase slightly.