

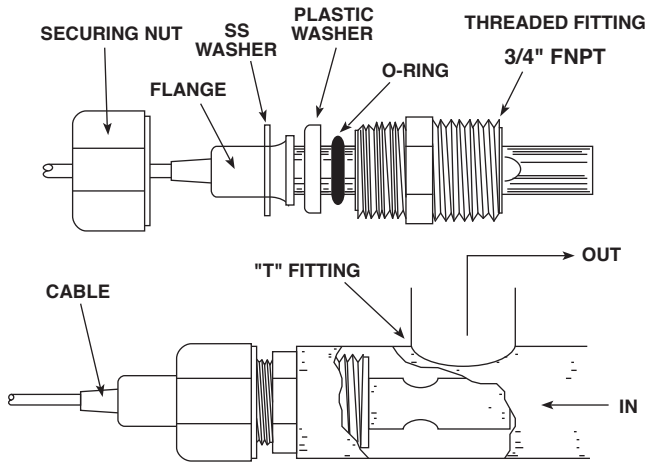
D. SENSOR INSERTION/IMMERSION MOUNTING

The Sensor's mounting orientation must provide a continuous and adequate circulation flow to prevent the trapping of air bubbles within the Sensor's electrode area (CS51 shown in figure II.D.1). Failure to do so will result in conditions that will prevent the Sensor from functioning properly.

1. INSERTION MODE (in-line installation)

Use approved sealant, i.e. Teflon tape as required.

1. Verify that the Sensor's Fitting assembly is properly assembled as shown in figure II.D.1.
2. Insert the Sensor Fitting assembly into the "T" fitting with electrode aligned as shown in figure II.D.1. and tightly secure.

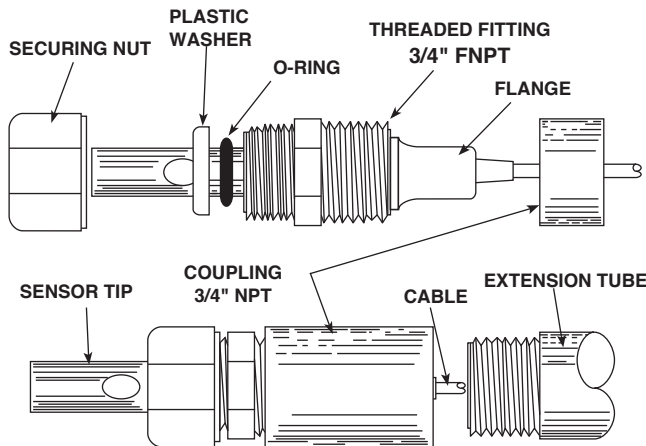


INSERTION MODE ASSEMBLY
Figure II.D.1

2. IMMERSION OR DIP SENSOR ASSEMBLY

Use approved sealant, i.e. Teflon tape as required.

1. Verify that the Sensor's Fitting assembly is properly assembled as shown in figure II.D.2.
2. Insert and pull the Sensor's cable through the extension tube and then tightly attach extension tube to Sensor assembly as shown in figure II.D.2.



IMMERSION OR DIP SENSOR ASSEMBLY
Figure II.D.2

E. ELECTRICAL INSTALLATION

The electrical installation procedures provided in this manual are common to all Conductivity & Resistivity Monitor/controllers. See figure II.B.1. for the hole dimensions of the enclosure's cable access holes. Unless otherwise instructed, refer to figure II.E.1. for the 750 Series II Monitor's terminal block connector wiring designations.

NOTE: After removing an enclosure's access hole cutout, it is suggested that the user mount a watertight restraint fixture prior to installing a cable.



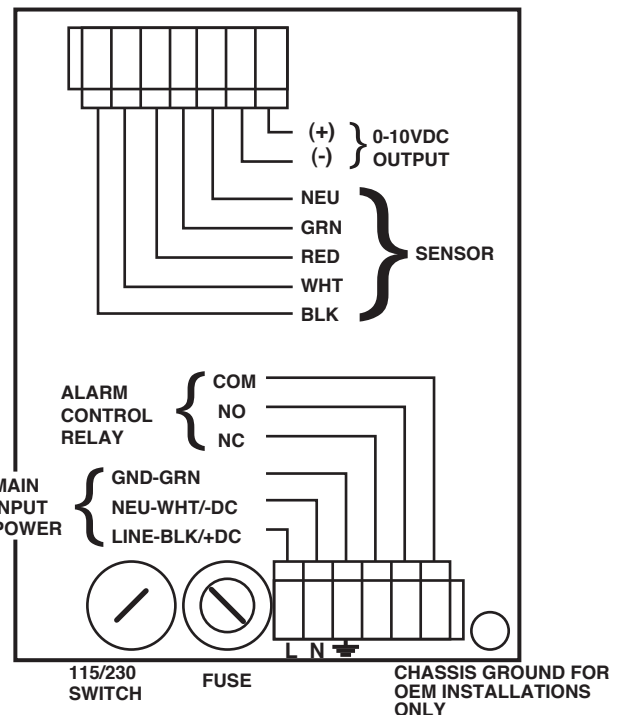
A device to disconnect the Model 750II from the power supply is required. It is recommended that this switch or circuit breaker be labeled as the disconnection device for the Model 750II.

1. MAIN INPUT POWER INSTALLATION

WARNING: All AC line powered Monitor/controllers are factory set for 115 VAC. Before starting, ensure the input power "115/230" selection is correct for your requirements. Failure to do so is beyond the responsibility of the Myron L Company. See section II.E.2. below and figure II.E.1. **NOTE:** Some models may have either a 24 VAC or a 24 VDC input power requirement - check labels carefully.

For OEM models skip to step #7.

1. Verify that the main AC power source is turned "OFF" or disconnected.
2. Using a standard slot screwdriver remove the four (4) screws on the front panel.
3. Carefully wiggle the front panel to loosen and pull gently toward you. Do not pull more than about 8 inches/20CM or you could damage the wiring harness.



ELECTRICAL CONNECT DIAGRAM
Figure II.E.1

4. Turn the front panel around so that the back side is facing you and set aside for now.
5. Carefully remove front panel, leaving the harness connected.
6. Using the enclosure cutouts, install the proper wire and watertight cable restraint (not provided) to comply with local electrical codes.
7. Neatly connect wires to the Main Circuit Board connectors, as shown in figure II.E.1.

***CAUTION:** The input power connectors require only a small screwdriver or a pen to push on the release levers. The release levers may be broken or damaged if not pushed straight toward the circuit board. DO NOT push the release levers sideways.

2. 115/230 VAC CONVERSION

1. Before turning power on to the Monitor/controller ensure the proper input voltage has been selected. Failure to do so will blow the fuse. It could, under some conditions, cause injury and damage the instrument voiding the warranty.
2. Locate switch located next to the fuse holder.
3. Using a screwdriver, turn switch to required voltage.

3. CONNECTING THE SENSOR CABLE

For OEM models skip #1.

1. Place the Sensor's interface cable and user supplied watertight cable restraint into the enclosure's appropriate access hole.
2. Install the sensor cable wire to comply with local electrical codes. Follow the color code as marked. See figure II.E.1.

***CAUTION:** The sensor connectors require only a small screwdriver or a pen to push on the release levers. The release levers may be broken or damaged if not pushed straight toward the circuit board. DO NOT push the release levers sideways.

a. MODIFICATION FOR US PHARMACEUTICAL 25 (No Temperature Compensation)

This simple modification will allow your Monitor/controller to meet the USP 25 requirements by defeating the normal temperature compensation circuit thus giving "uncompensated" readings as required.

Specifications:

As required to meet USP25.

Installation

Briefly -

For Conductivity/TDS, a resistor is installed in place of the sensor "temperature" sensing leads.

For Resistivity, two resistors are installed in place of the sensor "temperature" sensing leads.

The extra sensor leads are either cut off or the ends are wrapped in tape to prevent shorting.



CAUTION - READ FOLLOWING CAREFULLY

WARNING: BEFORE STARTING, IF MONITOR/CONTROLLER IS INSTALLED, ENSURE THE POWER IS OFF. FAILURE TO DO SO COULD CAUSE DAMAGE TO THE INSTRUMENT, AND COULD BE HARMFUL OR FATAL TO PERSONNEL. ONLY QUALIFIED PERSONNEL SHOULD INSTALL OR SERVICE ELECTRICAL EQUIPMENT.

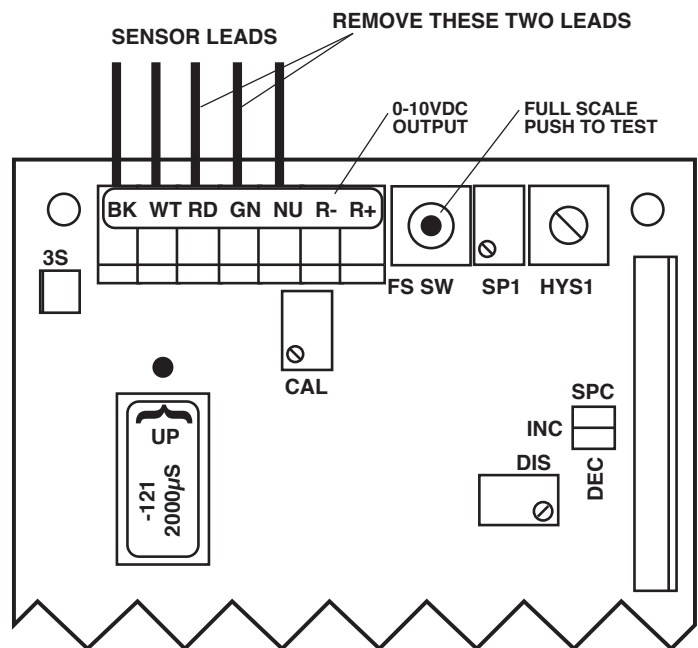
Requirements:

For Conductivity/TDS; one 10kΩ 1% resistor, user supplied or may be ordered from the Myron L Company.

For Resistivity; one 100kΩ 1% resistor, and one 5.49kΩ 1% resistor, user supplied or may be ordered from the Myron L Company.

NOTE: When opening instrument, remove front cover with care; a ribbon cable connects the front panel and main board. If the front panel has all ready been removed from the enclosure skip to #4.

1. Using a standard slot screwdriver remove the four (4) screws on the front panel.
2. Carefully wiggle the front panel to loosen and pull gently toward you. Do not pull more than about 8 inches/20CM or you could damage the wiring harness.
3. Turn the front panel around so that the back side is facing you and set aside.
4. For Conductivity/TDS Monitor/controllers;
 - a. If sensor is installed, locate and remove the RED (RD) and the GREEN (GN) leads from MAIN Circuit Board, as shown in figure II.E.2.



**Conductivity/TDS Main CB Assembly
Figure II.E.2**

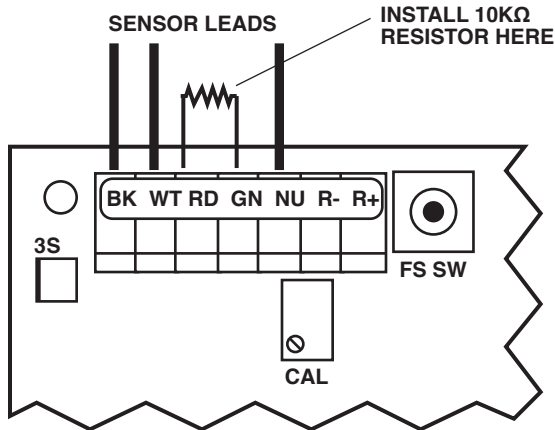
- b. Cut off or tape RED (RD) and the GREEN (GN) leads from sensor.
- c. Install 10kΩ resistor at RED (RD) and the GREEN (GN) connector locations, as shown in figure II.E.3.

For Resistivity Monitor/controllers;

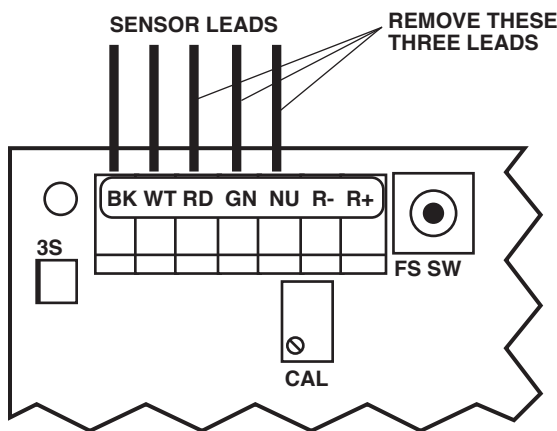
- a. If sensor is installed, locate and remove the GREEN (GN), RED (RD), and the NEUTRAL (NU) leads from MAIN Circuit Board, as shown in figure II.E.4.
- b. Cut off or tape GREEN (GN), RED (RD), and the NEUTRAL (NU) leads from sensor.
- c. Install 100kΩ resistor at BLACK (BK) and GREEN (GN) connector locations, as shown in figure II.E.5.

- d. Install 5.49kΩ resistor at RED (RD) and the NEUTRAL (NU) connector locations, as shown in figure II.E.5.
5. Carefully reinstall the front panel, bottom first. Ensure no wires have been pinched between enclosure and front panel.
6. Reinstall the four (4) screws and tighten.
7. To operate, turn power **ON**.

NOTE: Recalibration will require both the solution and sensor be at 25°C for maximum accuracy.



Conductivity/TDS Main CB Assembly
Figure II.E.3



Resistivity Main CB Assembly
Figure II.E.4

4. SOLID STATE OUTPUT

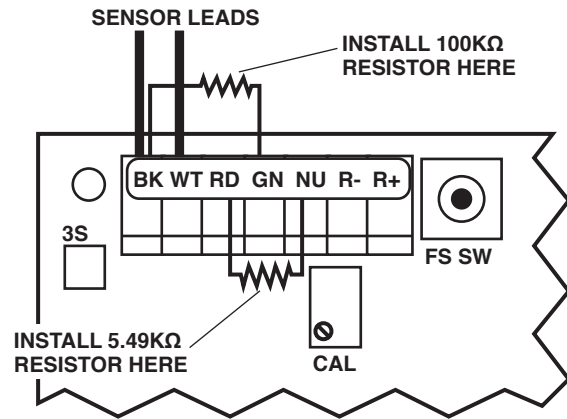
24 VDC Unregulated 30mA max. The following instructions are assuming the Monitor/controller enclosure is already open.

a. Piezo Electric Alarm - PA/PAO (option)

For additional information, see Piezo Alarm under Options in section III.I.

1. If not already installed, peel tape backing from PIEZO and press into place per figure III.I.3.
2. Attach connector to main control circuit board per figure III.I.4.

NOTE: If remotely mounted; cut wires and splice as necessary, use comparable wire. Piezo requires 1/4" (6.35mm) hole in user panel.



Resistivity Main CB Assembly
Figure II.E.5

b. Remote Alarm - RA™ (option)

For additional information, see RA Instructions under options in section III.J.

1. Run user supplied #22, 2 conductor speaker type wire from Monitor/controller to RA location as necessary. Additional wire may be ordered, part #RAW-200, see Options & Accessories.
2. Open the RA by removing the four (4) screws.
3. Locate and remove the 8" 2 conductor wire attached to RA.
4. At the controller, connect the extension wires to the 8" 2 conductor wire with the wire nuts provided — Black to Positive (+) and White to Negative (-). Be sure to first pass the wire through the user supplied waterproof strain relief in the enclosure.
5. Plug the reddish brown female connector into the male connector on the controller CB marked either RA or PA (see inside case label for location). It will only go on the connector one way.
6. At the RA, connect the wires to the connector — Black to Positive (+) and White to Negative (-).
7. To test, simply turn on the controller and adjust controller set point until the alarm/piezo sounds off. If controller is not yet connected to a functioning sensor, on conductivity/TDS controllers it will be necessary to press and hold the Full Scale test switch. The black button on the front of the RA will mute the piezo alarm for approximately three minutes or until you improve the water quality (readjust controller set point). The piezo alarm will continue to sound off every three minutes until the user has improved the alarm condition inside the controller. If three minutes muting is fine for your application, skip to step 9.
8. If three minutes is too long or too short, adjust time delay control inside RA until desired mute time is achieved (adjustable from approximately 6 seconds to 10 minutes).
9. Replace the bottom of the RA, and secure RA to the surface you have selected for its installation.

NOTE: If the RA does not sound off;

1. Check the polarity of the extension wire connections.
2. Be sure the controller is actually switching (relay will click).