Introduction

BM-5415 is an electrochemical chlorine sensor module for use with Models 1610 (1610B) and 1620 (1620B) Gas Detectors. The sensor module is used to increase the number of locations monitored by the Model 1620 (1620B) Multipoint Gas Detector, or to replace a chlorine sensor module. For new installations, refer to Instruction Bulletin 325.6001. For replacing existing solid-state sensor modules, refer to the following instructions.

Removing Existing Sensor Module

1. Turn OFF ac power at Gas Detector (receiver).
2. Remove existing sensor from mounting.
3. Remove the cover of the module by loosening the four (4) screws.
4. Note the color of the wires from the receiver to the module terminals +, G, and I. Loosen the screws and remove these wires at the module.
5. Loosen the cable clamp nut on the module and withdraw the cable.

Figure 1 - Sensor Mounting Dimensions
Installation of Electrochemical Sensor Module

1. Drill holes in the mounting surface in the pattern shown in Figure 1.
2. Remove the sensor module cover by loosening the four (4) screws.
3. Loosen the cable clamp nut and insert the cable.
4. Connect the sensor wires to the terminals. Make sure the sensor terminals +, G and I are connected to the corresponding terminals on the receiver. Refer to Figures 2, 3 and 4.

NOTE: If any other wiring combination is used, damage to the sensor module will result.

5. Replace the module cover and secure with the four (4) screws.
6. Tighten the cable clamp nut around the cable by making hand tight, then tighten with a wrench one (1) turn.

NOTE: Incomplete tightening of the cable fitting and cover screws can allow water to enter the electronics module which will result in erratic operation.

7. Secure the module to the mounting surface with four (4) screws.
8. Turn on the ac power to the Gas Detector.
9. The sensor module is factory calibrated therefore, field calibration is NOT necessary.
10. Test the sensor using Capital Controls Sensor Test Kit BM-4709.

IMPORTANT NOTICE: TEST THE SENSOR AT LEAST ONCE A MONTH AND AFTER EXPOSURE TO A GAS LEAK. WHEN A SENSOR’S LIFE HAS EXPIRED, IT WILL NOT WARN OF A GAS LEAK.
Figure 3 - Model 1610 Interconnection Diagram

NOTES:
1. (**) INDICATES SUPPLIED BY OTHERS.
2. USE LARGE CONNECTORS FOR LINE VOLTAGE CABLES AND FOR GAS DETECTOR ALARM AND MALFUNCTION/ALARM CABLES.
3. (***) INDICATES CONNECT SHIELD TO GND TERMINAL AT RECEIVER.
Figure 4 - Model 1620 Interconnection Diagram

**NOTES:**
1. (*) DO NOT USE "SENSE" CONNECTION IF GAS DETECTOR IS CONNECTED TO POWER BACK-UP.
2. (**) INDICATES SUPPLIED BY OTHERS.
3. USE LARGE CONNECTORS FOR LINE VOLTAGE CABLES AND FOR GAS DETECTOR ALARM AND MALFUNCTION ALARM CABLES.
4. (***)) INDICATES CONNECT SHIELD TO GND TERMINAL AT RECEIVER.
These instructions describe the installation, operation and maintenance of the subject equipment. Failure to strictly follow these instructions can lead to an equipment rupture that may cause significant property damage, severe personal injury and even death. If you do not understand these instructions, please call De Nora Water Technologies for clarification before commencing any work at +1 215-997-4000 and ask for a Field Service Manager. De Nora Water Technologies, Inc. reserves the rights to make engineering refinements that may not be described herein. It is the responsibility of the installer to contact De Nora Water Technologies, Inc. for information that cannot be answered specifically by these instructions.

Any customer request to alter or reduce the design safeguards incorporated into De Nora Water Technologies equipment is conditioned on the customer absolving De Nora Water Technologies from any consequences of such a decision.

De Nora Water Technologies has developed the recommended installation, operating and maintenance procedures with careful attention to safety. In addition to instruction/operating manuals, all instructions given on labels or attached tags should be followed. Regardless of these efforts, it is not possible to eliminate all hazards from the equipment or foresee every possible hazard that may occur. It is the responsibility of the installer to ensure that the recommended installation instructions are followed. It is the responsibility of the user to ensure that the recommended operating and maintenance instructions are followed. De Nora Water Technologies, Inc. cannot be responsible deviations from the recommended instructions that may result in a hazardous or unsafe condition.

De Nora Water Technologies, Inc. cannot be responsible for the overall system design of which our equipment may be an integral part or any unauthorized modifications to the equipment made by any party other than De Nora Water Technologies, Inc.

De Nora Water Technologies, Inc. takes all reasonable precautions in packaging the equipment to prevent shipping damage. Carefully inspect each item and report damages immediately to the shipping agent involved for equipment shipped “F.O.B. Colmar” or to De Nora Water Technologies for equipment shipped “F.O.B Jobsite”. Do not install damaged equipment.

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Design improvements may be made without notice.
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