

5.0 CONNECTOR PINOUTS

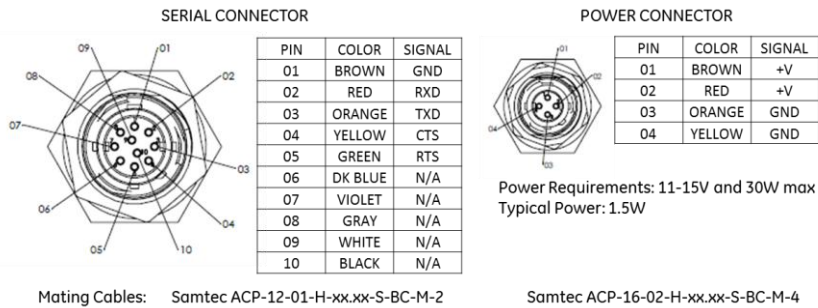


Figure 4: Connector Pin outs (view of unit connectors)

6.0 FACTORY COMMUNICATION CONFIGURATION

RSDetection* communications as shipped from the factory are shown in Table 1.

Communication Method	Configuration	Note
Ethernet	10/100 Mbps	Standard Ethernet
USB	460,800,N,8,1	USB device
Dedicated serial port	9600,N,8,1	RS-232
USBA ports: using FTDI, FT232R based USB to Serial Adapter	9600,N,8,1	USB hosts

Table 1: Factory Communication Configuration

7.0 LED PATTERNS

The LED provides visual feedback to the user as shown in Table 2. Multiple patterns may occur to indicate multiple conditions.

Color	Pattern	Indication
Red	Solid	Loading Operating System
Yellow	Solid	Loading Application
Green/Yellow	Single blink every 2 seconds	No Ethernet connection
Green	Single blink every 2 seconds	Powered from battery, no errors
Green	Double Blink every 2 seconds	Powered from external power, no errors

Table 2: LED patterns

8.0 CONTENTS OF KIT (AS SHIPPED)

- RSDetection* Environmental Radiation Monitor
- Cables: Ethernet, USB B
- Power Supply, Universal Input
- Quick Start Manual - hardcopy
- CD – User’s Manual, Firmware, Software (Config Utility), Quick Start Manual

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**Essential Installation and Operating Instructions for
RSDetection* Environmental Radiation Monitor
Manufactured By Reuter-Stokes**



CAUTIONS AND WARNINGS

IF THIS EQUIPMENT IS USED IN A MANNER NOT SPECIFIED BY THE MANUFACTURER, THE PROTECTION PROVIDED BY THE DESIGN OF THIS EQUIPMENT MAY BE IMPAIRED.
THIS DEVICE CONTAINS NO OPERATOR SERVICABLE PARTS. THIS INSTRUMENT SHALL BE SERVICED BY QUALIFIED PERSONNEL ONLY.
CONSULT LOCAL ELECTRICAL CODES AND NORMATIVE REGULATIONS FOR APPROPRIATE INSTALLATION AND POWER REQUIREMENTS.

THE SENSOR HOUSING CONTAINS A PRESSURIZED IONIZATION CHAMBER WITH HIGH INTERNAL PRESSURE AND HIGH VOLTAGE (~400 VDC) ON ITS SURFACE WHEN POWER IS APPLIED. REMOVAL OF CHAMBER FROM ITS PROTECTIVE HOUSING OR MISHANDLING COULD CAUSE SERIOUS INJURY. NOTE: DUE TO THE PRESSURIZED ION CHAMBER, SPECIAL SHIPPING REGULATIONS MAY APPLY.



THE (OPTIONAL) INTERNAL BATTERY USED IN THIS INSTRUMENT IS A LITHIUM-ION BATTERY AND SHALL ONLY BE REPLACED WITH AN IDENTICAL REPLACEMENT AVAILABLE FROM GE REUTER-STOKES. USE OF ANY OTHER BATTERY MAY CAUSE DAMAGE TO THE INSTRUMENT.

1.0 MECHANICAL

While the RSDetection* is a portable device, it may also be permanently mounted. It is recommended the RSDetection* be mounted with the cable connectors facing down. The mounting interface must be designed by the customer to support the weight of the unit (28 lbs. with optional internal battery). The integral mounting flange is compatible with tripod-type mounting systems, and will accept #10-24 machine thread fasteners. NOTE: The internal circuitry is not grounded to the exterior of the case. Grounding of the unit is not required.

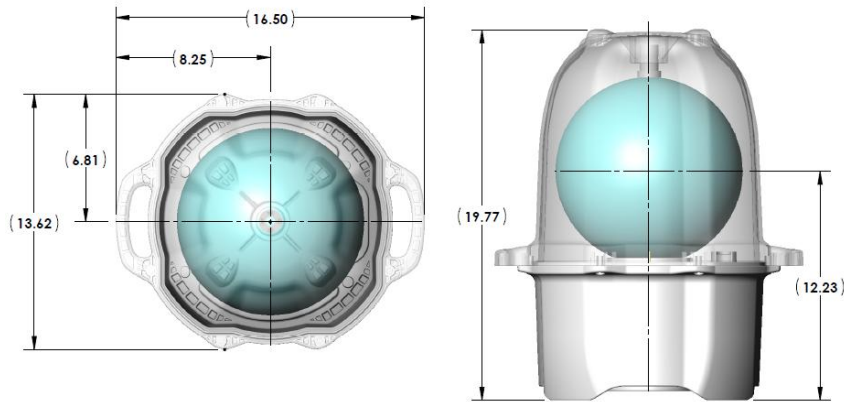


Figure 1: HPIC Dimensions Relative to Center of Ion Chamber

2.0 CONFIGURATION UTILITY INSTALLATION

The configuration utility must be installed on a PC running Windows XP SP2 or later. If the host PC is not configured to automatically run programs when a CD is inserted open Windows Explorer and run Setup.exe from the CD root directory. Follow prompts to complete installation.

3.0 BASIC CHECKOUT/SETUP

- Ensure power is off (On/Off switch 'up').
- Install optional battery, if necessary.
 - Loosen the battery cover screws using the 9/64" socket or driver. These are captive and cannot be separated from the cover.
 - Lift the cover and battery gasket off the case.
 - Place a new battery in the case. Only Inspired Energy NH2057GE29 batteries may be used. The battery should be oriented such that the connector is located toward the top, outside edge of the case. This allows the battery cable to be connected without undue strain.
 - Mate cable connector to battery.
 - Place the gasket and cover back onto the case.
 - Secure the battery cover by tightening the captive screws. For proper weatherproofing, these must be torqued to 30 inch-pounds using an appropriate torque wrench.

- Connect external DC power. A +12VDC power supply is provided with the unit to facilitate setup. The power supply is rated for indoor use only and should not be used outdoors without appropriate customer-provided weatherproofing measures such as a NEMA enclosure. Customer-provided power cabling should reference Figure 4.
- Connect cabling between the PC and RSDetection* as appropriate based on user preferences. The configuration utility communicates with the RSDetection* unit over Ethernet, USB, or RS-232 links. If Ethernet is used the customer must provide all external equipment such as a router required to access the local network.
- Turn unit on by pushing On/Off switch 'down'.
- Start the configuration utility.
- If using Ethernet to communicate with the RSDetection* a Discovery window will appear as shown in Figure 2. This window will not appear if using USB or RS-232. Highlight the row containing the IP address of the RSDetection* unit and click the Connect button.

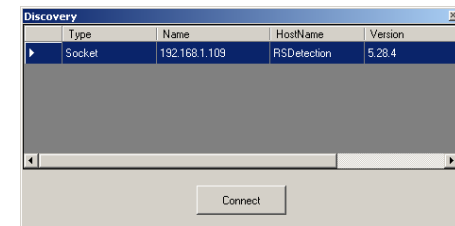


Figure 2: Discovery Window

- Verify parameters are retrieved from the RSDetection* when connection is established.
- Select the Measurements tab in the configuration utility and ensure dose rate and other displayed values are reasonable.
- Configure as desired. Consult the user manual for details on individual parameters.
- Power off the unit and mount as desired per manual and local regulations.

4.0 UNIT CONNECTIONS

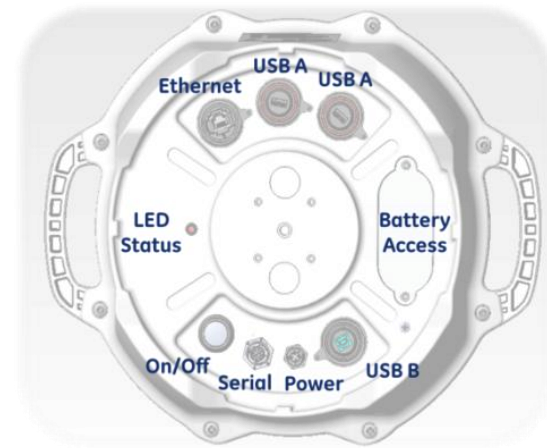


Figure 3: RSDetection* Connector Diagram