

**Device Maintenance**

**Battery Replacement**

Materials:  
Small Needle Nose Pliers  
Replacement Battery (TL-2150)

- Carefully unscrew the sensor end cap and pull the electronics out.
- The battery is the purple cylinder on the circuit board.
- Gently pull out the old battery.
- Insert the new battery one lead at a time, using pliers to fully push the leads into the sockets.

**Note: The battery should be flat against the circuit board, and the positive lead should be closest to the communications jack.**

- Ensure the circuit board is inserted into the white plastic bushing. The sensor cable should not be twisted, or kinked. From the connection to the circuit board, it should run up towards the battery, then down to the sensor.
- Insert the electronics back into the tube and carefully screw the cap on.

**Battery Warning**

**WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80°C (176°F).**

**Recalibration**

The PRTemp1000D standard calibration depends on the range.

<b>Range (PSI)</b>	0-30	0-100	0-300	0-500
<b>Calibration Point</b>	25°C	25°C	25°C	25°C

**Pricing:**

Recalibration traceable to NIST      \$90.00  
Recalibration                                      \$70.00

**Additional:**

As Found Data                                      \$15.00  
Additional Points                                      \$15.00 per point

**To send the devices back, visit [www.madgetech.com](http://www.madgetech.com), select Services then RMA Process.**

Part Number	PRTemp1000D		
Temperature Sensor	Semiconductor		
Temperature Range	-20 to +80°C		
Temperature Resolution	0.1°C		
Calibrated Accuracy	±0.5°C		
Pressure Range			
Pressure Resolution	*See Table for Details		
Pressure Accuracy			
Memory	16,383/channel		
Sample Rate	2 seconds to 12 hours		
Units	PSIA(G), inches, feet, bar, Torr, mmHg, Pascals		
Required Interface Package	IFC110 or IFC200		
Baud Rate	2,400		
Typical Battery Life	1 year		
Operating Environment	-20 to +80°C, 0 to 100%RH		
Material	303 stainless steel		
Dimensions	Logger Body: 1.0" OD x 4.6" L (25mm OD x 117mm L)	Cable: 12" (305mm)	Transducers: 3.4" x 2.0" x 1.0" (86mm x 51mm x 25mm)
Approvals	-		

\*PRTemp1000D Range, Accuracy and Resolution

<b>Range (PSID)</b>	0-30	0-100	0-300	0-500
<b>Accuracy</b>	.25% FSR, 0.1% @ 25°C typical			
<b>Resolution (PSID)</b>	0.002	0.005	0.02	0.05

*Specifications subject to change.*

*See MadgeTech's terms and conditions at [www.madgetech.com](http://www.madgetech.com)*

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**PRTemp1000D**  
Differential Pressure and Temperature Recorder

Product Notes

Submergibility

The PRTemp1000D is weather resistant rated IP63.

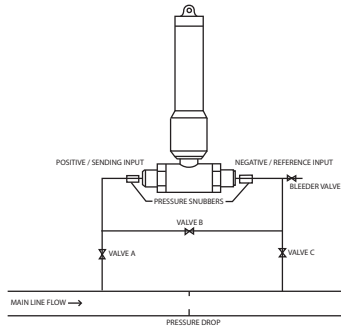
O-Rings

O-ring maintenance is a key factor when properly caring for the PRTemp1000D. The o-rings ensure a tight seal and prevent liquid from entering the inside of the device.

Please refer to the app note "O-Rings 101: Protecting Your Data", found on the MadgeTech website, for information on how to prevent O-ring failure.

Installation Instructions

Due to the potential for line pressure to exceed proof pressure, high line pressure must be applied simultaneously to each side of the sensor. To the right is a diagram of a recommended installation. Pressure snubbers are recommended to prevent damage from water hammers or other high intensity pressure events.



Applying Line Pressure	Removing Line Pressure
<ul style="list-style-type: none"> <li>- Install sensor with valves "A" and "C" closed</li> <li>- Open bypass valve "B"</li> <li>- Crack bleeder valve</li> <li>- Slowly open valve "A" to apply pressure</li> <li>- Close bleeder valve</li> <li>- Open valve "C"</li> <li>- Close bypass valve "B"</li> </ul>	<ul style="list-style-type: none"> <li>- Open bypass valve "B"</li> <li>- Close valve "C"</li> <li>- Close valve "A"</li> <li>- Crack bleeder valve</li> <li>- Allow pressure to equalize with ambient</li> <li>- Uninstall sensor</li> </ul>

Installation Guide

Installing the Interface cable

- IFC200, IFC202 or IFC300  
Refer to the "Quick Start Guide" included in the package.
- IFC110, IFC102 or IFC103  
Plug the serial cable into the port and verify it is secure.

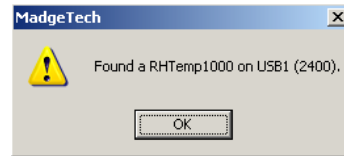
- USB-1 or USB-101  
Install the USB drivers from the CD provided in the kit, then plug the USB cable into the computer and the serial cable into the serial port.

Installing the software

Insert the Software CD in the CD-ROM Drive. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Wizard.

Connecting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Click the **Communication Menu**, then **Auto Configure Port**.
- After a moment, a box similar to the following will appear;



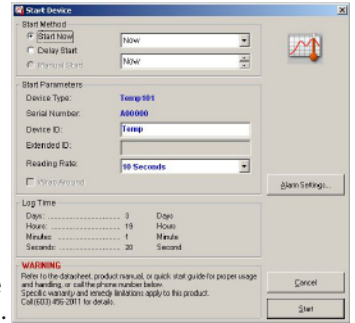
- Click **OK**. The **Device Status** box will appear. Click **OK**.
- At this point, communications have been configured for your logger. These settings can be found under the **Communication Menu**.

**Note:** For additional installation instructions refer to your "Data Logger & Software Operating Manual".

Device Operation

Starting the data logger

- Click **Device Menu** then **Start Device**.
- Choose the desired start method.
- Choose the start parameters by selecting a **Reading Rate** suitable for your application.
- Enter in any other desired parameters and click **Start**.
- A box will appear stating the data logger has been started. Click **OK**.



- Disconnect the data logger from the interface cable and place it in the environment to measure.

**Note:** The device will stop recording data when the end of memory is reached or the device is stopped. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

- Connect the data logger to the interface cable.
- Click the **Device Menu** then **Read Device Data**. This will offload all recorded data onto the PC.

**Technical Support**

Visit [www.madgetech.com](http://www.madgetech.com), or call (603) 456-2011. Technical support is also available by e-mailing [support@madgetech.com](mailto:support@madgetech.com)

Additional product information is available by e-mailing [info@madgetech.com](mailto:info@madgetech.com).