



SMART Pro/R SERVICE TOOLS

Wireless Temperature and Pressure
Sensors and Mobile App

FAQs



FREQUENTLY ASKED QUESTIONS

- 1. When will the SMART Pro/R Sensors be available?**

SMART Pro/R Sensors are available now. Contact your authorized wholesaler or distributor.
- 2. How much does it cost?**

Contact your authorized wholesaler or distributor for pricing.
- 3. What is included with each sensor?**

The SMART Pro/R temperature sensor includes:
1 sensor, 1 CR123A battery, 1 spare battery cap, 2 reusable cable ties, 1 sheet of labels and an instruction sheet.

The SMART Pro/R pressure sensors includes:
1 sensor, 1 CR123A battery, 1 ¼" SAE adaptor with Schrader depressor, 1 sheet of labels and an instruction sheet.
- 4. What type of device is required to read the sensor?**

Apple® iOS devices and Google Android OS devices that have Bluetooth Low Energy capability are able to communicate with the SMART Pro/R sensors. This includes the Apple iPhone® 4S or newer, iPod® touch Gen 5, and iPad® 3 or newer (including Air and Mini), and many Android devices running Android 4.3 or newer. The device must also be updated to the latest operating system.
- 5. How do I get the app for my mobile devices?**

You will need access to the Apple's App Store® or Google's Play Store and download the free app. It is called SMART Pro/R Service Tool.
- 6. Do I need specific sensors for each mobile OS?**

No, the same sensors will work with Apple's iOS or Google's Android, but you will need to ensure that your device is compatible with Bluetooth Low Energy. Check the specifications of your mobile device.
- 7. What is Bluetooth Low Energy?**

Bluetooth SIG, Inc. developed this intelligent, power-friendly version of Bluetooth to enable communications between compact devices and devices you already own. This allowed Sporlan to develop very compact sensors that can "talk" with your SMART device. Bluetooth Low Energy is also known as Bluetooth v4.0, BLE, Bluetooth SMART, or Bluetooth SMART Ready.
- 8. How do I pair the sensors with my mobile device?**

The SMART Pro/R sensors do not require pairing. These sensors only require a one-time configuration. Once the sensors are configured, the app will instantly detect the sensors and read their data the moment they are powered on.
- 9. How do I turn the sensors on and off?**

On each sensor you will find a small, black, water-resistant button. A quick press will turn the sensor "ON". The indicator light inside the sensor housing will begin flashing blue, indicating the sensor is on. To turn the sensor "OFF", simply press and hold the button until you see the indicator light flash quickly, then release. The indicator light should then remain off.

READ IT.
RECORD IT.
SEND IT.

10. What is “configuring” a sensor, and how do I do it?

When a new sensor is turned on, it needs to be configured with a simple number such as “T1” or “T2” for a temperature sensor. Similarly it would be “LP1” or LP2” for a low pressure sensor, etc. When the new sensor is turned on, a new sensor indication will be shown in the app sensor screen. Touch this indication to configure. Once configured, any mobile device that has the SMART Pro/R Service Tool app will be able to view that sensor with its given name. To change the configured name, use the sensor setup screen accessible in the app settings.

11. What are “Mock Sensors”?

Sporlan placed mock sensors in the app so you can show others how the app works without having the sensors connected to a real system. You probably won’t need this, but you can add mock sensors by turning on mock sensors in the settings menu. If you click on a mock sensor in the settings menu, you can modify the range of values the mock sensors will display. Now you have a simulator. You can also record mock sensors to test the app’s recording, graphing, and reporting capabilities.

12. Will I need to individually reconnect each sensor to my device every time?

No. Once a sensor has been configured, any mobile device that has the app will be able to instantly read its data as long as the sensor is powered on. If a sensor is configured as “T1”, the mobile device will be able to see “T1” and display the data for the sensor automatically. Just turn on your sensor, start the app, and go.

13. What batteries are required?

Each sensor requires a CR123A battery to operate. Remove the battery cap screws and the cap, then place the battery with the “+” and “-” signs aligned as shown on the markings of the sensor housing. When tightening the screws, tighten until they just bottom out. Do not overtighten the screws.



14. What is the expected battery life?

Battery life will vary with the brand and age of the battery, as well exposure to extreme temperatures, shock, vibration, etc. Please see Form 140-494 SMART Pro/R Specifications for details.

15. What are the pressure ratings of the sensors?

Please see Form 140-494 SMART Pro/R Specifications for details.

16. What are the temperature ratings of the sensors?

Please see Form 140-494 SMART Pro/R Specifications for details. Note: For the most accurate readings, you should insulate the sensor onto the refrigerant line you are measuring. This is especially important when there is a large difference between the ambient temperature and the refrigerant line temperature.

17. Are the sensors water resistant?

Yes, the temperature and pressure sensors are water resistant. They are not intended to be submerged or exposed to high pressure water sprays. Please see Form 140-494 Smart Pro/R Specifications for details.

18. What is the communication distance range?

Many variables will affect the communication distance. Please see www.bluetooth.com for details on Bluetooth Low Energy.

19. Can multiple devices be connected to the sensors at the same time?

Yes. The SMART Pro/R sensors make use of Broadcast Mode, which enables the sensor to transmit data to any device within range without establishing a connection. There is one exception to this. While the app is recording sensor data, it “locks” those sensors to ensure the communication with the mobile device continues even if the device is locked/sleeping. During this time, only the device that is recording may see the data from the sensors.

20. Can I use the SMART Pro/R sensors with other apps?

No. The sensors are uniquely identified by the SMART Pro/R app.

21. Can I use the SMART Pro/R app with other sensors?

The SMART Pro/R app is designed to work with Sporlan SMART and SMART Pro/R sensors.

22. Can I use the same sensor for multiple refrigerants?

Yes. The pressure sensors are made of stainless steel. There are no compatibility issues with most standard refrigerants and oils.

23. What do I need to do when switching types of refrigerants?

The app offers a drop down menu for selecting refrigerants. As far as cross contamination concerns, due to the very small amount of refrigerant in these “hose-less” sensors, you may not need to do anything. While it may not be required, you could clean the pressure sensors as you would any other gauge or hose that has been connected to an air conditioning or refrigeration system.

24. Is internet required to use the SMART Pro/R app?

While you do need access to the internet to download the free app, you do not need access to perform measuring or recording functions. Obviously, you will need access to e-mail the recorded data from the mobile device. All refrigerant data is embedded into the app so it can calculate superheat and subcooling for you without internet access.

25. How do I update the app?

The app is free on Apple’s App Store and Google’s Play Store. Depending on your mobile device settings and your access to the internet, you may be notified of an available update. If not, simply go to the correct store and upgrade. Be sure to e-mail any recorded sessions prior to upgrading or uninstalling the app.

26. Can refrigerants be added to the SMART Pro/R app?

Sporlan has over 115 refrigerants in the app, but if one is missing, let us know and we can add it to the next app revision.

27. Is there a micron sensor built in?

The pressure sensors do not have an internal micron sensor, but the sensors will not be harmed by pulling them into vacuum.

28. Do I have to re-zero the sensor every time I use them?

No, the pressure sensors are uniquely identified and the initial offsets are recorded in the app. It doesn’t hurt to calibrate, but it should rarely be needed.

29. Why are some sensors “greyed-out” in the app?

When a sensor appears “greyed-out” in the app, it indicates that the device is not able to detect the readings from the sensor. This can happen if the sensor is out of range or turned off. As long as the sensor is within range and turned on, the app should be able to recover the readings automatically.

30. How can I reconnect to the SMART Pro/R sensors?

It is not necessary to reconfigure the SMART Pro/R sensors at all. As long as you are within range of the powered-on sensors, the app will automatically detect them.

31. I turned on my sensor, but I cannot see it in the app. Is my sensor defective?

If two sensors are both configured with the same name such as “T1”, the app will only display the readings for one of the sensors. If you wish to use both sensors, go to the settings menu under sensor setup and configure one of the sensors to a different name. Also, make sure that mock sensors are turned off in the settings menu.

32. Can I use the SMART Pro/R app to connect to my SMART Service Temperature clamp and pressure sensors?

Yes. The SMART Pro/R app is compatible with the original SMART Service Tool Kit. The original SMART Service Toolkit sensors do not use Broadcast Mode, so you will have to make sure that the sensors are “locked” by tapping on the lock icon next to the sensors. To use your SMART Service Tool Kit Sensors with the SMART Pro/R app, simply turn on your sensors. The app will recognize them as “new” sensors, and you may configure them. Note that this configuration will only be recorded on the mobile device used.

33. How can I improve the communication range of my sensors?

Signal strength is reduced as it passes through walls, equipment, etc. You may try moving to a location that offers less obstruction between the sensors and your mobile device. Please see www.bluetooth.com for details on Bluetooth Low Energy.

34. Do the SMART Pro/R pressure sensors read negative pressures?

No, but they will not be harmed by pulling them into a vacuum. They do not have an internal micron sensor.

35. How do I start a recording?

To start recording data, first you must select your refrigerant in the refrigerant screen. Once you have selected your refrigerant, you must create a new job, or open an existing job in the job/notes screen.



Once you have entered a job, you will see all the notes for that job. You will see a red circle button on the upper-right area of the screen. Tap on this record button to start a new recording. Tap on this button again to stop the recording. You may view and send data/graphs through the recording “note” created within the job. Please note that if the app is deleted, all recordings are deleted as well. From the recording note, you may also send the data to another device, e-mail, etc.

36. Why won't the recorded session e-mail from my device?

Verify that you have an e-mail account established on your device. Also make sure you have access to the internet via a Wi-Fi or cellular (3G, 4G, LTE, etc.) connection. If you don't have a connection, don't worry, just send the file when you get connected.

37. How do I access a previously recorded session?

All recordings are saved with the notes for the job they were recorded in. Just access the job the recording was in, and then access the recording data and graphs from the recording started/ended notes. Note that if you delete a job, you also delete all the recordings associated with that job.

38. How do I open the “.csv” file I sent to my personal computer?

That depends on the software available on your computer. “.csv” files can typically be opened in text readers, word document software, and in many spreadsheet packages. Sporlan's website provides a template using Microsoft Excel that creates charts utilizing your recorded data.

39. How do I clean the sensors?

The plastic components may be cleaned with a damp cloth and a mild soap solution. Do not use harsh chemicals that will damage plastic. Do not submerge the units as they are not waterproof. The units are dust proof and water resistant.



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