

Quick Start Guide - Sprint Pro 2 - 6

IMPORTANT NOTES:

Please read the user manual for full instructions on the use of Sprint Pro this guide should be used for a quick reference only (full user manual is available at www.crowcon.com).

Observe all warnings and instructions detailed in the user manual or as prompted by the analyser. Before use ensure Sprint Pro is in good repair and do not use if damaged or if calibration has expired. Sprint Pro must only be used with the Sprint Pro Flue Probe Assembly and **always** with the water trap and filters in place.

The water trap must be dried after use and before Sprint Pro Flue Probe Assembly is returned to carry case.

Connect the Flue Probe Assembly to Sprint Pro before switching on and do not insert probe into flue until after the zeroing process is complete.

Always start Sprint Pro in clean air.

Sprint Pro will lock out its Test Menu once calibration has expired.

SWITCH-ON

Press and hold the ON/OFF/ENTER key for two seconds until you hear two beeps. Ensure the gas exhaust outlet on the side of the FGA is not blocked. After warm-up is complete, Sprint Pro will display the *Main Menu* screen. You can now navigate the menu system using the \uparrow and \downarrow soft keys and the \leftarrow and ESC keys on the analyser.

SWITCH-OFF

Press and hold the ON/OFF/ENTER button for approximately two seconds until you hear a rising beep. Press the ESC key to abort switch off sequence and return to *Test Menu*. **Note: Unit will purge and shut down once purge complete.**

PERFORMING TESTS

To enter any test screen, select the required test from the menu and use the soft key marked \checkmark or \leftarrow . To end any test, press the ESC key.

FLUE GAS ANALYSIS

Select *Flue gas analysis* from the *Test Menu*. The first time this option is entered after each switch on the Sprint Pro will perform a 'zero'. Following a successful 'zero', Sprint Pro will begin taking measurements. Use the soft keys to log or print the results.

Press the ON/OFF/ENTER button to display the various screens available:

Screen 1: O₂, CO, CO₂, CO/CO₂ ratio and pressure

Screen 2: O₂, excess (XS) air, Temperature Flue and Efficiency

Screen 3: Combines flue elements from previous screens.

Screen 4: (if NO sensor *not* fitted): Temperature Flue, Temperature Inlet, Net Temperature

Screen 4: (if NO sensor fitted): NO, NOx, CO, CO₂, CO/CO₂ Ratio, O₂

Screen 5: (if NO sensor fitted): Temperature Flue, Temperature Inlet, Net Temperature

To perform a manual pressure 'zero', use the soft key marked $P=0$ in flue gas screen 1 or 3.

To change the efficiency readings (Net, Gross – for NetHE see user manual), use the soft key marked η in flue gas screen 2.

Note: The pump will remain on and continue purging for some time after leaving this option to clear residual gas

PRESSURE AND DIFFERENTIAL PRESSURE TESTS

Before carrying out the test, the pressure must be zeroed with the tubes connected to the instrument but not to the pressure source. A thermocouple may be connected to provide temperature readings in these tests.

1. Select *Pressure Menu* from the *Test Menu*. Then select *Pressure* or *Diff Pressure* from the menu.

2. Connect tubes to pressure inlets on instrument.

3. Zero pressure using the soft key marked $P=0$.

4. Connect tube(s) to pressure source(s) to begin differential pressure tests. Sprint Pro will give a warning if the pressure points are the wrong way round.

5. There is an option to time this test: Sprint Pro will display the duration time on the screen.

Press the soft key \blacktriangleright to start optional timer.

To stop timer press the soft key \blacksquare

To reset the timer press the soft key \blacktriangleleft then \blacktriangleright .

6. To re-zero the pressure at any time press $P=0$

LET-BY, STABILISATION AND TIGHTNESS TEST

1. Select *Pressure Menu* from the *Test Menu*. From the *Pressure Menu* select *Let-by / Tightness*.

2. Connect tube to positive pressure inlet on the instrument

3. Zero pressure, using the soft key marked $P=0$

Summary of screen icons

	Select, pick or action
	Up item or entry
	Down item or entry
	Left field
	Right field
	Zero pressure
	Start timed test
	Stop timed test
	Restart timed test
	Yes, pass or done
	No or fail or cancel
	Purge or pump running icon
	Select temp 1 (flow) (Differential Temperature Test)
	Select temp 2 (return) (Differential Temperature Test)
	Save log
	Export report/log to IR Printer
	Export report/log to Mobile App
	Delete
	Edit value
	Increase value
	Decrease value
	Descend through character list (string edit)
	Ascend through character list (string edit)
	CO Alarm
	Select Net/Gross/NetHE Efficiency

IR Printer Alignment



1. Connect tube to pressure source and ensure correct starting pressure.






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2. Press the soft key  to start test. Sprint Pro displays the duration time on the screen.
3. To stop test press the soft key .
4. To pass the let-by test, press the soft key  to proceed to *Stabilisation* and *Tightness* test. If the *Let-by* test fails press . To carry out the test again press  and restart from step 2.
5. Follow the process above for stabilisation and tightness tests.
6. At the end of the let-by / tightness test you can log or print the results.

TEMPERATURE TESTS


Sprint Pro can perform a differential temperature test with one or two thermocouple probes. To begin test, select *Diff Temperature* from the *Test Menu*. Check the units displayed are the correct temperature scale. **Note: If no probes are connected Sprint Pro will display #####.**

Two probe test: Connect both probes to the K-type connectors. Place probes in position. The screen will display the temperature of probe 1, probe 2, and the differential temperature. Use the soft keys to log or print the results as required.

Single probe test: When using only a single probe Sprint Pro will display an additional icon on the screen to allow the first and second reading to be taken separately.

1. Place the probe in position 1 to take the first measurement, T1.
2. Press the soft key icon  to take a snapshot reading of T1. The screen will now display the icon as .
3. Move the probe into position 2 to take the second reading, T2. The screen will display the snapshot of T1, the live probe temperature of T2 and the differential temperature.
Use the soft keys to log or print the results.


ROOM SAFETY TEST

1. To begin test, select *Room Safety* from the *Test Menu*. Sprint Pro will display the *Room Safety Menu*. Select the appropriate appliance from the list.
2. If required, connect probe to the Sprint Pro and place at the recommended height. **Note: Refer to British standard BS7967 if necessary.**
3. The pump will switch on in readiness for the test. The test will run for the duration required depending on the appliance selected according to BS7967.
4. To start test press the  soft key.



Sprint Pro will emit an alarm if 30ppm (or 90ppm) threshold is exceeded for the CO test or 0.5% (or 1.5%Vol) for the CO2 test (where CO2 sensor fitted). Sprint Pro is programmed with pass/fail criteria for this test. Refer to British Standard BS7967 for further details on performing room safety tests.

To stop the test before the minimum duration is met, press the ESC key.















When the minimum duration is met the  soft key will end the test.

Use the soft keys or  to select 'Quit test?' Use the soft keys to log or print the results once test is complete.

APPLIANCE SWEEP TEST


1. To begin test, select *Appliance Sweep Test* from the *Test Menu*.
2. Connect probe to the Sprint Pro and press start to commence test. **Note: Refer to British standard BS7967 if necessary.**
3. When the time period has elapsed Sprint Pro will give an audible indication and the  soft key can be pressed to stop the test
The test will run for the required duration where each sweep must last at least 2 minutes. Maximum allowed CO is 10 ppm; if this level is exceeded the test fails.
To stop the test at any time, press the ESC key. Use the soft keys or  to select 'Quit test?' Use the soft keys to log or print the results once test is complete.

AMBIENT AIR MONITORING

1. To begin the test select *Ambient Air Monitor* from the *Test Menu*.
2. The pump will switch on in readiness for test but this does not indicate the test has started.
3. Connect probe to the Sprint Pro.
4. Use the soft keys  and  to select duration required, the interval for sampling will be displayed on the screen. The duration can be adjusted with the soft keys, from a minimum of 15 minutes (sampling every minute) to a maximum of 7 days (sampling every 30 minutes).
5. Press  to proceed with the test.
6. Then press soft key  to confirm Sprint Pro has sufficient battery life.
7. Press the  soft key to start test. During the test the overall peak and average gas readings for the total time of the test will be displayed.
8. To stop test at any time, press the ESC key. Use the soft keys  or  to select 'Quit test?'.
9. Use the soft keys to log or print results.
10. For long duration tests the number of samples may be large. It is possible to reduce the length of the exported results by only exporting samples when the peak exceeds selected levels within a given sample period.
11. Using the soft keys  and  to Select Report CO above or Report CO2 above (where CO2 sensor fitted), then press the soft key .
12. Use the soft keys  and  to select the gas level required and then press the soft key .
13. Press  to print report.

GAS ESCAPE TEST

Note: Battery power will be used at a higher rate under this test.

1. To begin test, select *Gas Escape Detection* from the *Test Menu*.
2. Connect the Gas Escape Probe (GEP) to the jack socket.
3. Sprint Pro will check the sensor and will display 'Sensor settling' for approximately 30 seconds.
4. When the sensor is stable the unit will ask 'In clean air?' before zeroing. Press  to zero and Sprint Pro will display a bar graph on the screen as gas levels are monitored.
5. Place the probe in the area of inspection for several seconds before moving it to other locations.
6. Sprint Pro will emit continuous clicks like a Geiger counter. If higher gas levels are detected the bar graph will increase in readings and the sounder will increase in pitch.

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