EIT
Preventative Controls
& Detection Systems

# Gappscan

# USER MANUAL


www.eit-international.com

This User Manual contains information that is subject to change.



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## Manuals and Guides

To reduce our use of paper and to conform to our environmental/sustainability policies and responsibility, we have moved our product documentation online. For the latest Gappscan User Manual or Product Guide, please go to www.eit-international/Gappscan

Think before you print!

## Technical Support

E-Mail: Support@eit-international.com or speak to your local in country EIT-International associate.

Web Site: Visit our web site at www.eit-international.com/support where you can browse our FAQ's, or request assistance.

## Index

# What's In the Box

***IMPORTANT: This is a sensitive instrument and can only be operated by a trained person as certified by EIT International.***

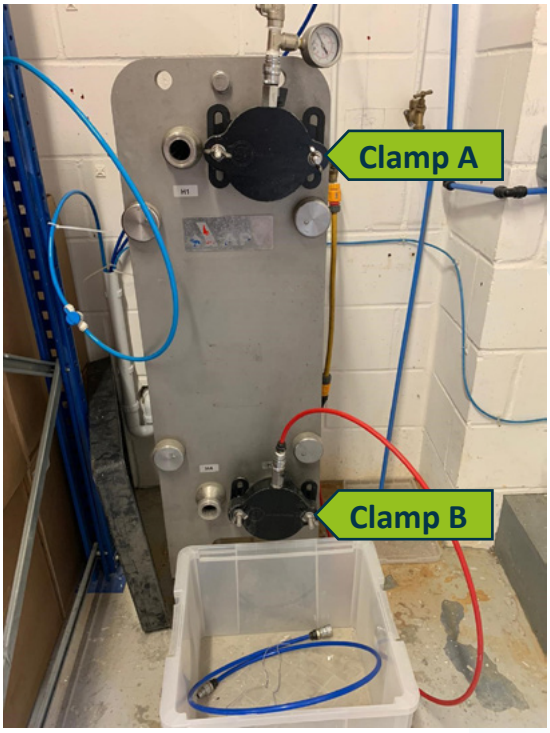
**If in the event of a failure please contact support@eit-international.com or call your local EIT representative.**

**CAUTION: Modifications not expressly approved by EIT International may void the users authority to operate the equipment. The removal of any panels or components, or to open the sealed Gappscan casing will render the equipment damaged and will void any Agreements in place. Damaged Gappscan unit through the malice of any third party will render the equipment written-off and the leaseholder will be liable for all costs associated as outlined in the Gappscan Lease Agreement.**

# Preparing the Plate Heat Exchanger

***ATTENTION: Always fill heat exchanger first, never try filling the heat exchanger through the Gappscan unit as this will severely reduce battery capacity and may lead to damage of the Gappscan unit***

- **Connect Clamps to the PHE at point A and B.**




- **Connect Mains water to inlet Clamp B do not turn water flow ON.**

- **Connect Pressure Gauge supplied to outlet Clamp A.**

  **At mains water supply, turn ON and allow water to run through heat exchanger.**

  **When water still running, open and close the outlet pressure gauge valve (Clamp A) to remove excess air in the system.**

  **Ensure all air is expelled from heat exchanger.**

  **Close both valves (Clamp A and Clamp B) and wait for pressure to stabilise on gauge at Clamp A, exchanger is now full of water and the heat exchanger is now a sealed unit.**

  **Turn OFF water supply from mains water supply.**

  **Bring pressure in heat exchanger down to 3 bar using Pressure Gauge at Clamp A and leave.**

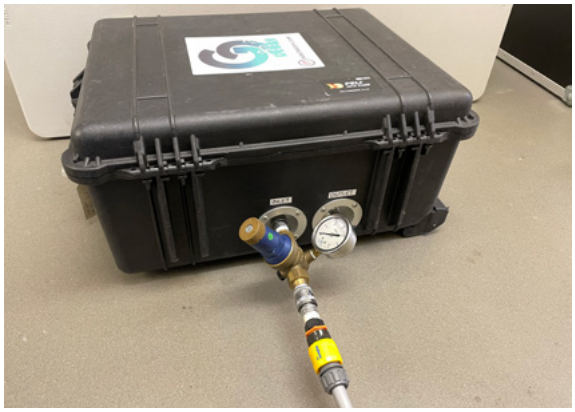
  **The plate heat exchanger is now prepped and ready.**

# Preparing the G2 unit

1. Turn the G2 unit to POWER, this will now self-purge automatically. Wait for purge to complete.

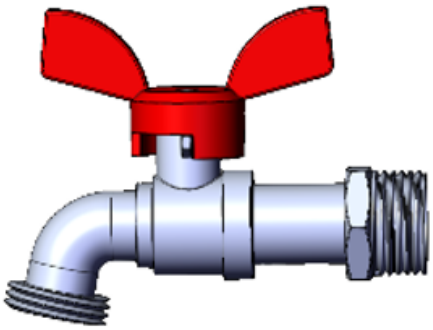

2. Connect Pressure Regulator to G2 inlet.


3. Connect mains water to pressure regulator.



4. Connect water out hose to G2 unit at Point B (do not connect to heat exchanger).

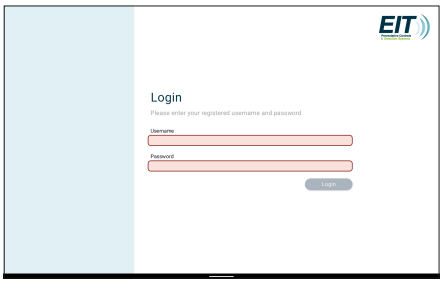

5. Turn ON water supply at source.



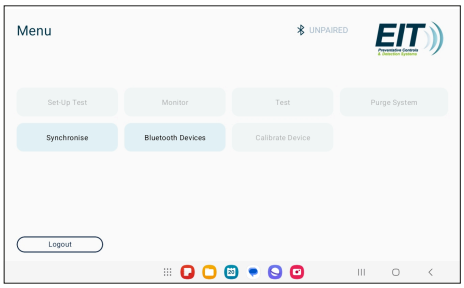
# Tablet

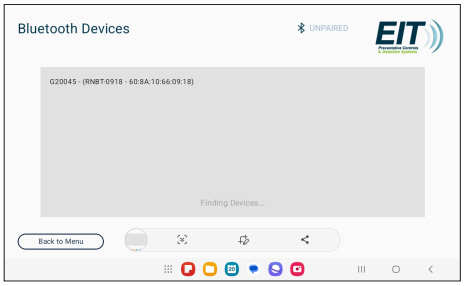
1. **Turn on G2 tablet and select ‘EIT G2’ App.**


2. **Register Tablet with Username and Password supplied by EIT-International.**

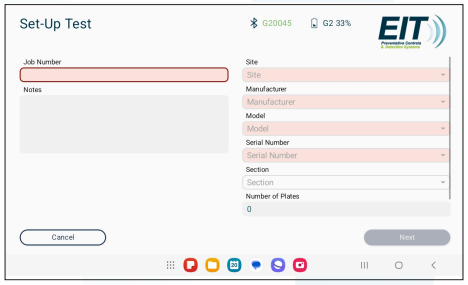


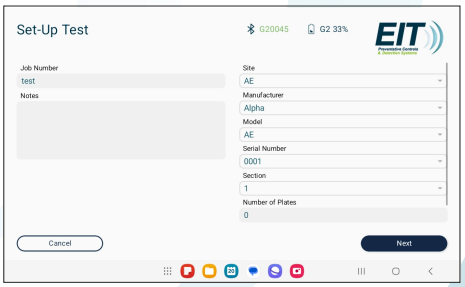

3. **Once registered, select SET UP to connect to G2, Bluetooth connection will be applied and Click next once Bluetooth has confirmed.**



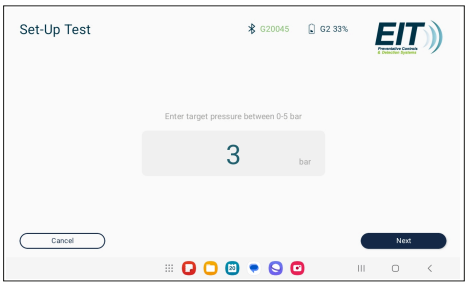




4. **Fill in Job Number and all other details required by using the drop down menus, as programmed on the G2 website.**

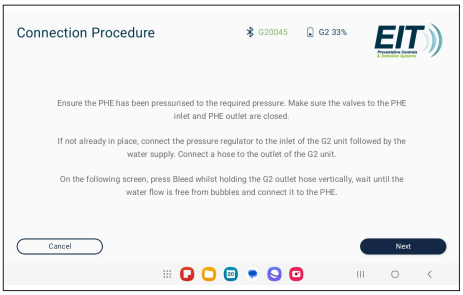


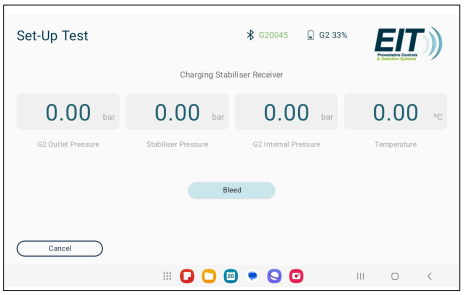
5. **Enter TARGET PRESSURE and select NEXT (as Heat Exchanger is now at 3 Bar our target pressure must also be 3 BAR).**

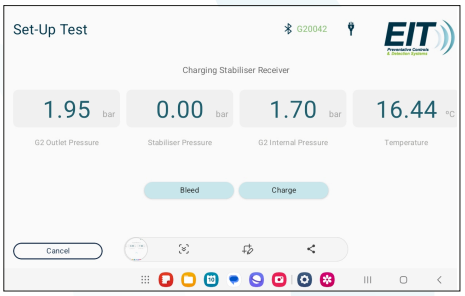



6. **Follow Connection Procedure as explained then select NEXT.**

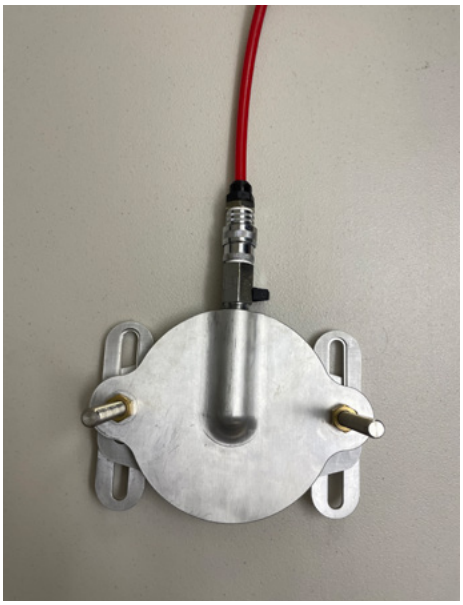



7. **Select BLEED, G2 unit will now run water through Point B and eliminate any air pockets within.**

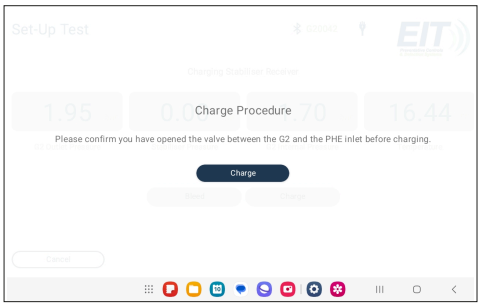


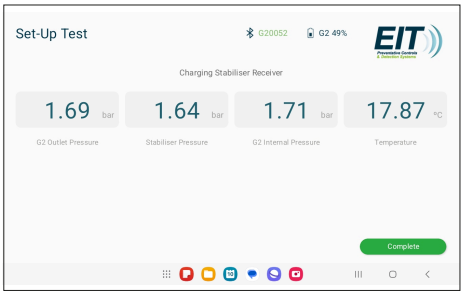
8. Once bleeding has expelled all the air, connect Water out Hose to Clamp B. DO NOT open flow valve on Clamp B at this point.



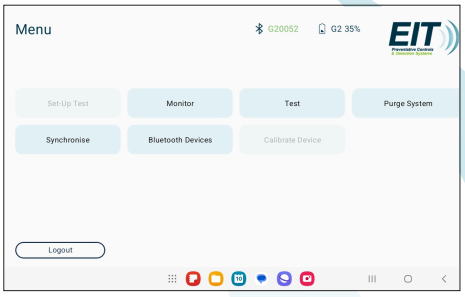
9. On tablet select CHARGE, follow instructions on tablet. CONFIRM once instructions have been followed – Make sure Clamp B Valve is now open.

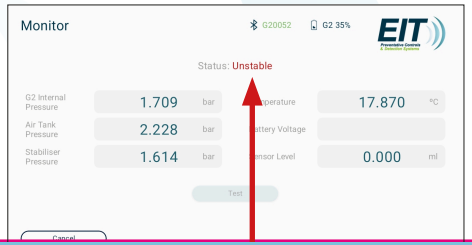



10. Select COMPLETE.




11. Select MONITOR, watch for green STABLE sign to show (top middle on the screen). Select TEST once Status is STABLE.

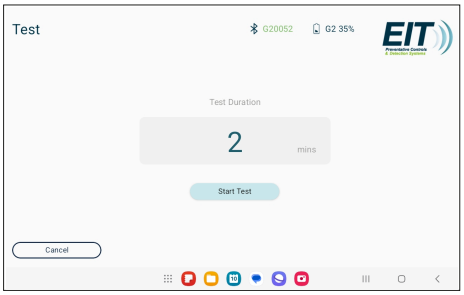


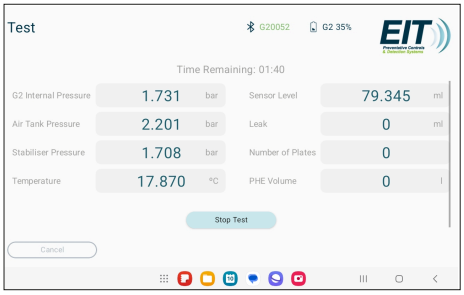

Status: Unstable


Status: Stable

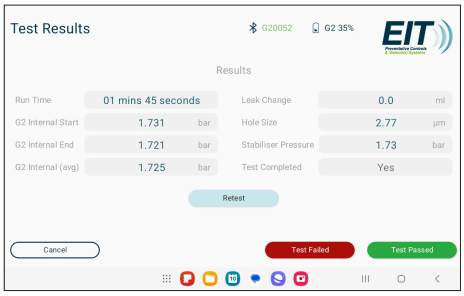
12. Set 3 minutes for duration of test and select START TEST.



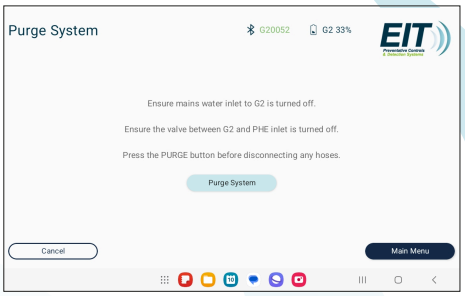

13. Test will start and show the following information.




14. Select RESULTS then -> Select END TEST.

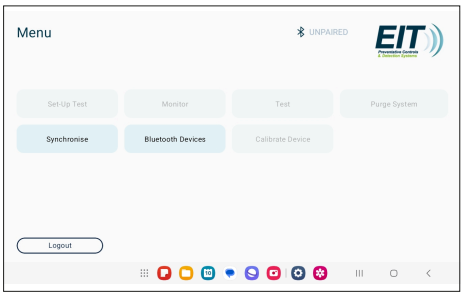



15. Follow Instructions below and either select PURGE to finish tests or Select MONITOR to test again.




16. The test has now completed. Test will automatically upload when connected to the internet.

NB Tablet must be connected to Internet to upload.




17. Turn off mains water at source.

On Clamp B water flow lever must now be turned OFF.

On tablet select PURGE to empty excess water from the G2 unit.

Turn the G2 unit to STANDBY.

Remove hose from Point A.

Remove hose from Point B.

Open Clamp A on heat exchanger and allow pressure to normalise.

# Gappscan FAQs

**Q. How will I know if the Gappscan unit is charging correctly?**

A. When Gappscan unit is charging, the indicator light will blink continuously

**Q. I don't see a Battery Voltage, is the unit charged?**

A. Place the unit back on charge, if fully charged as indicated by the charger. Turn the unit off and on as well as restarting the tablet.

**Q. What is the best water pressure for carrying out a test?**

A. EIT recommend a pressure of 3 bar as best for carrying out a test on PHE. Note: It doesn't have to be exactly 3 bar, the equipment calibrates itself for the actual pressure, something around 3 bar I best.

**Q. Can I tell if there is one hole or multiple holes?**

A. Yes, following a 3 bar test the pressure can be reduced to 2 bar to assess if there are multiple holes. By varying the pressure it can be determined if there are multiple holes or just one single hole, as smaller holes often close up with lower pressures. For more advanced analytical techniques such as this please speak to EIT for details.

**Q. Why will my reports not upload?**

A. For reports to upload the Gappscan tablet device must be connected to the interned. Please ensure the tablet has a good Wi-Fi connection.

**Q. Do I need to keep the water supply on whilst carrying out a test?**

A. Yes you do. The water needs to flow in order to measure the hole size in the equation.

**Q. Do I have to keep the Gappscan upright during a test?**

A. Yes, with the handle and ON switch at the top. This gives a more accurate reading.

**Q. Sometimes water drips out of the bottom of the case during a test, is this a leak?**

A. The Gappscan needs to purge itself on occasion during the test cycle, when this happens a small amount of water can appear from the bottom of the case; this is normal and the test can continue safely.