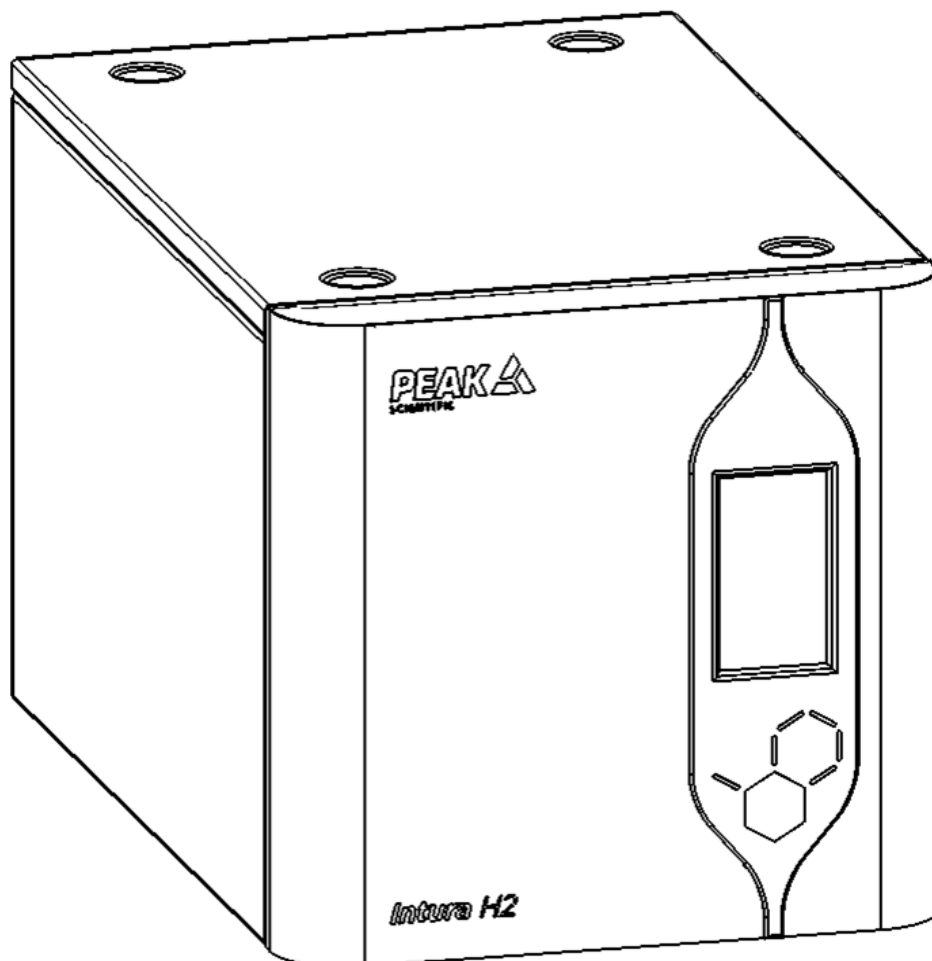


Intura H₂ (All Models)

Installation Guide



**Register product to operate at
www.peakscientific.com/activate**

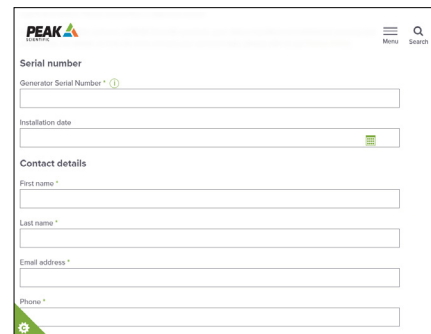


Register Product to Operate

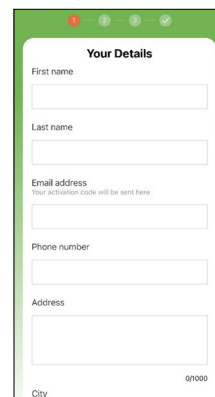
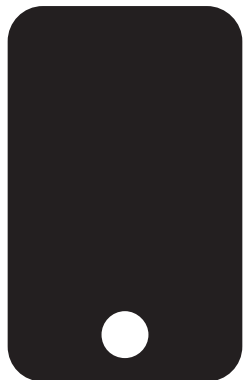
To begin operation of your unit you will need to register your generator. You can do so by **visiting www.PEAKscientific.com/activate** or by **downloading the PEAK Gas App**.



Registering will activate your **12-month warranty, extendable up to 5 years*** - covering every single component in your generator.



The screenshot shows the PEAK website registration form. It includes fields for 'Generator Serial Number', 'Installation date', and 'Contact details' (First name, Last name, Email address, Phone). The PEAK logo is visible in the top left corner.



The screenshot shows the PEAK Gas App registration form. It includes fields for 'Your Details' (First name, Last name, Email address, Phone number, Address, City). The app interface has a green header and footer.

Important!

You must register your generator before Hydrogen generation can commence. In order to be eligible for warranty your generator must be registered to the end user (not a reseller or distributor) and must have an annual preventative maintenance arranged within 12 months of the installation date & carried out by a PEAK approved Field Service Engineer. Once registered the warranty will be honoured for a period of 12 months.**

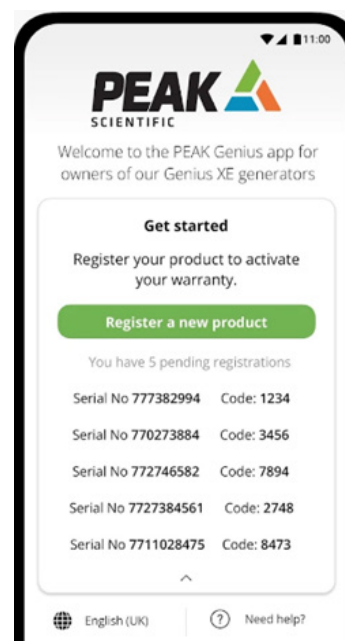
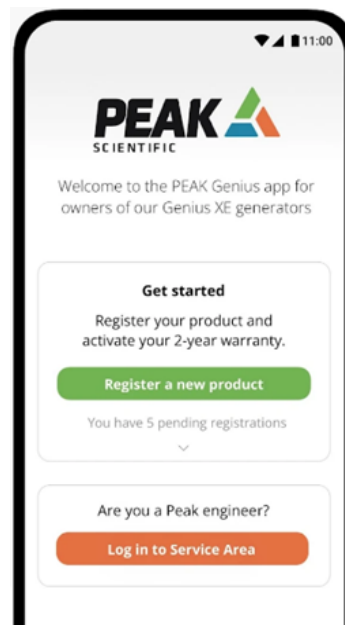
* Subject to completion of preventative maintenance visit arranged within 12 months of installation. For terms and conditions please visit www.PEAKscientific.com/warranty-statement/

** Call out and labour charges may apply where generator was not purchased directly from PEAK

PEAK Gas App

This dedicated app for PEAK gas generators offers many benefits to ensure a seamless setup.

- Simple 3-step Warranty Activation and Product Registration
- 4-digit PIN generation for first-time product installation
- Service Technician Access
- Generate codes without a network connection which automatically complete when you are back online



Change History

Rev	Comment	Name	Date
2	Addition of Japan only power cable to fittings kit	J. Murphy	25 Nov 2025
3	Removal of duplicated page 17 and its steps	J. Murphy	05 Dec 2025

How to use this Manual

This installation guide is intended to be used as a step by step, quick start guide, to facilitate installation and configuration.

Please visit www.peakscientific.com/downloads to download the full User Manual for your gas generator.

Alternatively, scan the QR code below:






Thank you for selecting PEAK Scientific to meet your gas generation needs, and should you require any further assistance or support please do not hesitate to contact PEAK Scientific or the PEAK Partner from which you purchased your generator.

Safety Notices

PEAK Scientific Instruments cannot anticipate every possible circumstance which may represent a potential hazard. The warnings detailed within this manual refer to the most likely potential hazards, but by definition cannot be all inclusive. If the user employs an operating procedure, item of equipment or a method of working which is not specifically recommended by PEAK Scientific, the user must ensure that the equipment will not be damaged or become hazardous to persons or property.

Symbols

This manual uses the following symbols to highlight specific areas important to the safe and proper use of the generator.

 WARNING	A WARNING notice denotes a hazard. It calls attention to an operating procedure, process or similar, which if not correctly performed or adhered to, could cause personal injury or in the worst case death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood or met.
 CAUTION	A CAUTION notice denotes a hazard. It calls attention to an operating procedure, process or similar, which if not correctly performed or adhered to, could cause damage to the generator or the application. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood or met.
	Caution, risk of electric shock. Ensure power to the generator has been removed before proceeding.

Safety Notice to Users



These instructions must be read thoroughly and understood before installation and operation of your PEAK Generator. Use of the generator in a manner not specified by PEAK Scientific MAY impair the SAFETY provided by the equipment.



When handling, operating or carrying out any maintenance, personnel must employ safe engineering practices and observe all relevant local health and safety requirements and regulations. The attention of UK users is drawn to the Health and Safety at Work Act 1974, and the Institute of Electrical Engineers regulations.



If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment maybe impaired.

Attention – Important Notice to All Users



These instructions must be read thoroughly, section by section and understood before installation and operation of your PEAK Scientific Hydrogen Generator. Please follow the appropriate safety standards for handling hydrogen gas and other gases as determined by the laws and regulations of your country.

Please save the product packaging for storage or future shipment of the generator.

1. For your own personal safety and to prevent accidental damage to your generator please ensure that you read and understand our User Manual.
2. Do not store away the generator when not in operation. External water bottles must be made of a suitable material in order to prevent biological growth. It is recommended that you check the water quality weekly to prevent biological growth developing in the tank and tubing. Failure to do this will greatly reduce the life of the generator and render the 3-year cell warranty void.
3. Do not place the external water bottle above the height of the generator. The bottle may be placed at the same level or below the generator.
4. Use ASTM Type II water only. ($0.1\mu\text{S}/\text{cm}$ or better). Failure to use the correct quality water will invalidate the cell and system warranty. Do not attempt to connect pressurised water to the generator.
5. It is recommended that you operate the generator at the lowest pressure permissible for your particular application. Do not automatically set the pressure to maximum if not required to avoid potentially damaging your application.
6. Failure to maintain the deioniser cartridge as recommended will reduce the operational life of your generator and render its 3-year cell warranty void.
7. Do not attach any additional tanks or gas cylinders to your generator without first consulting PEAK Scientific.
8. Ensure your entire installation, both pipe work and analysers, are completely gas tight. Even minor leaks will affect the operation of your generator and generally reduce its operational life.
9. Has your generator been correctly sized for your application? If in doubt, consult your dealer or PEAK Scientific.
10. Ensure the ambient temperature inside your laboratory does not rise above $35^{\circ}\text{C}/95^{\circ}\text{F}$. Extremes of operating temperature will reduce cell life.

Customer Responsibilities

To ensure the successful and timely installation of our PEAK generator, please refer to this set of requirements. Correct site preparation is the first key step in ensuring that your generator and systems operate reliably over an extended lifetime.

This section is an information guide and checklist that outlines the requirements for your site.

It is essential that your site meets the following specifications prior to the installation date:

- The necessary spatial requirements are met.
- The correct environment is provided for the generator.
- Electrical outlet locations and quantities are planned.
- Adequate exhaust ventilation is provided.
- The correct tubing lengths and diameters are used in relation to the distance from the instrument.
- A supply of ASTM Type II deionised water ($<0.1\mu\text{S}/\text{cm}$, $>10\text{M}\Omega.\text{cm}$, $<50\text{ppb TOC}$), or deionised water from an approved water purifier is available for Intura H₂ generators.

Failure to meet the site requirements of your PEAK generator as stated above and detailed in this document could result in the unit underperforming and **loss of warranty**.

Generator Environment

The generator is designed for indoor use only. If possible, the generator should be installed adjacent to the application(s) it is supplying. If the generator is located away from the application, consideration should be given to the lengths of supplying tubing, to avoid pressure drops which can affect instrument performance. See section “Gas Connections” for guidance on tubing lengths greater than 3m.

The generator should be located on a flat, level surface for operation - this will ensure that the water level sensors within the unit operate correctly. Some components in the generator produce heat during operation and therefore an adequate airflow must be maintained around the generator to allow the ventilation system to perform efficiently. Please take care as the rear of the generator will become warm to the touch during operation. Performance of the generator is affected by ambient conditions. Note should be taken to the proximity of air conditioning outlets. These can sometimes give rise to “pockets” of air with high relative humidity. Operation of the generator within such a pocket could adversely affect its performance. Consideration should be given to the air flow around the unit. An air gap of 15cm (6”) should be maintained down both sides and rear of the unit.

If the generator is stored in an enclosed space the environment must be controlled via an air conditioner or extraction fan. The provision must be made to allow the volume of air in the room to be changed a minimum of 5 times per hour. The risk with hydrogen is a leak into the environment raising the hydrogen content to the explosive limit.

Do not obstruct or connect the vents to any application. Failing to observe this could lead to permanent damage to the generator.

Do not expose the unit to freezing conditions. Please adhere to the operating temperatures below:

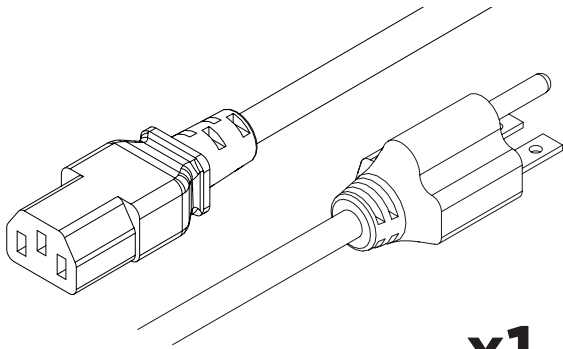
Minimum Operating Ambient Temperature: 5 °C (41 °F)

Maximum Operating Ambient Temperature: 35 °C (95 °F)

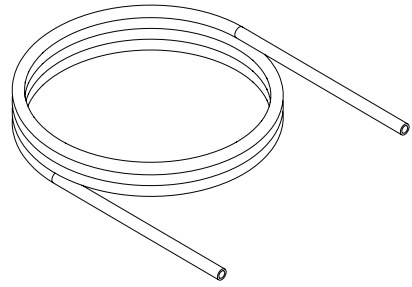
Do not position the equipment so that it is difficult to disconnect the mains plug.

Note: It is recommended that any Intura H₂ unit is left to run for 24 hours before utilisation.

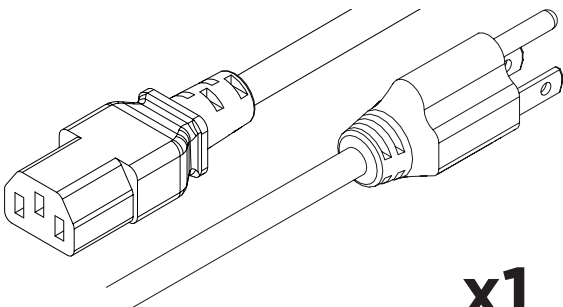
Fittings Kit



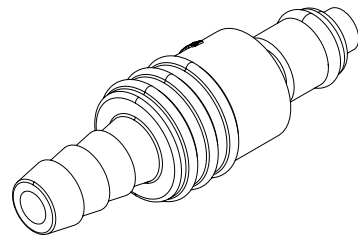
x1
US Mains Cable C13 6-15 04-1029



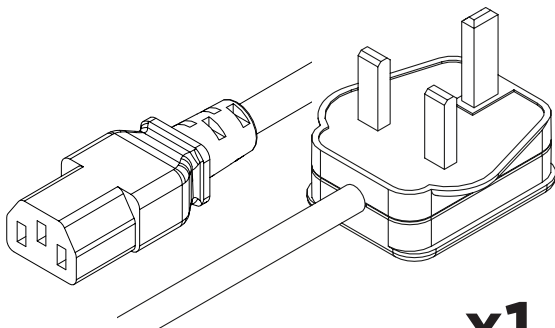
x1m
Tygon Tubing 05-3131



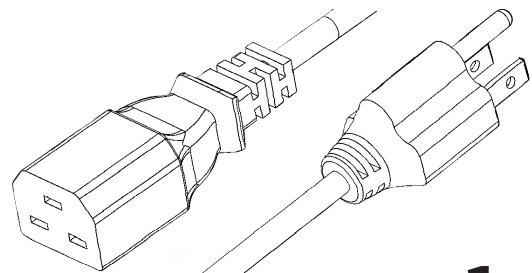
x1
US Mains Cable C13 5-15 04-1039



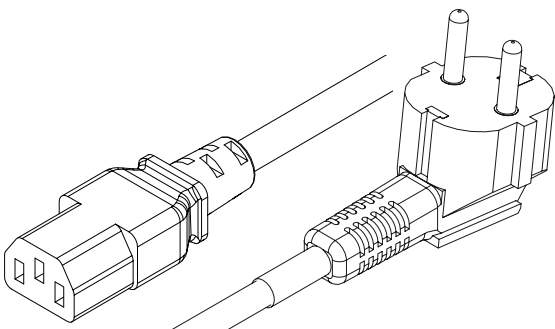
x1
Barbed Fitting 05-7029



x1
UK Mains Cable C13 04-1028



x1
JPN Mains Power Cable 100V 04-1006 *

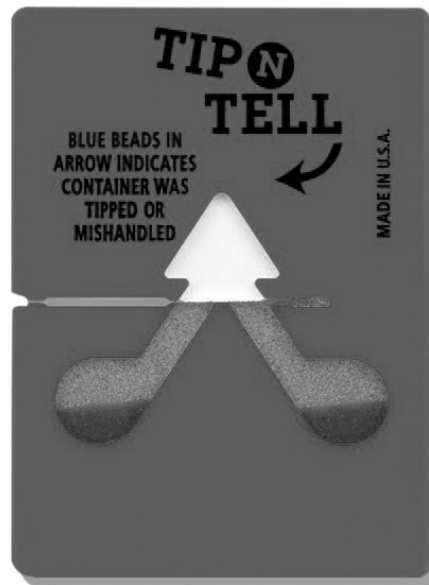


x1
EU Mains Cable C13 04-1038

Unpacking

Although PEAK Scientific takes every precaution with safe transit and packaging, it is advisable to fully inspect the unit for any sign of transit damage.

Check 'SHOCKWATCH' and 'TIP-N-TELL' labels for signs of rough handling prior to unpacking.



Any damage should be reported immediately to the carrier and PEAK Scientific or the PEAK Partner from where the unit was purchased.

Follow the unpacking instructions posted on the side of the crate. It will require two people to remove the unit from the shipping crate and to manoeuvre the generator into the desired location.

Please save the product packaging for storage or future shipment of the generator.

Note: Included with the generator is a "Fittings Kit" containing mains power leads for UK, EU & US with all the required fittings and warranty registration card. Be careful not to discard these with the packaging.

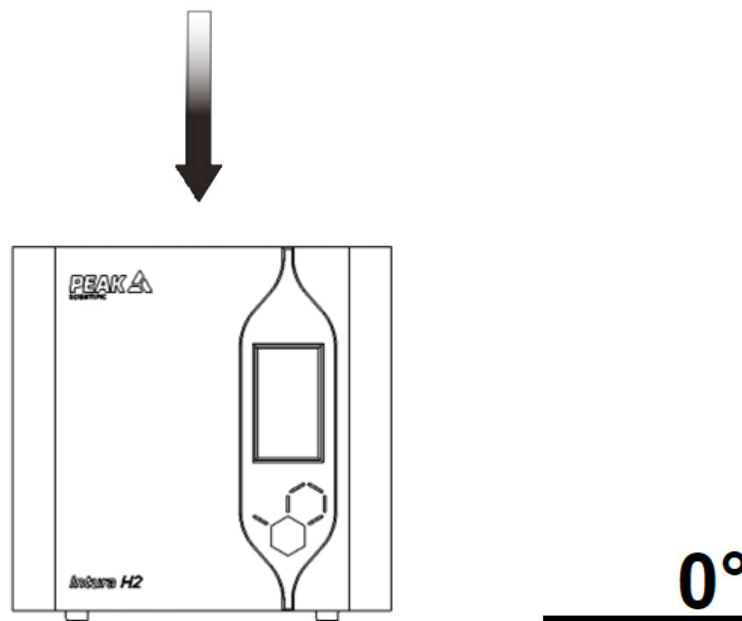
Units may be shipped without some or all of the above labels due to customer request.

Unpacking Instructions

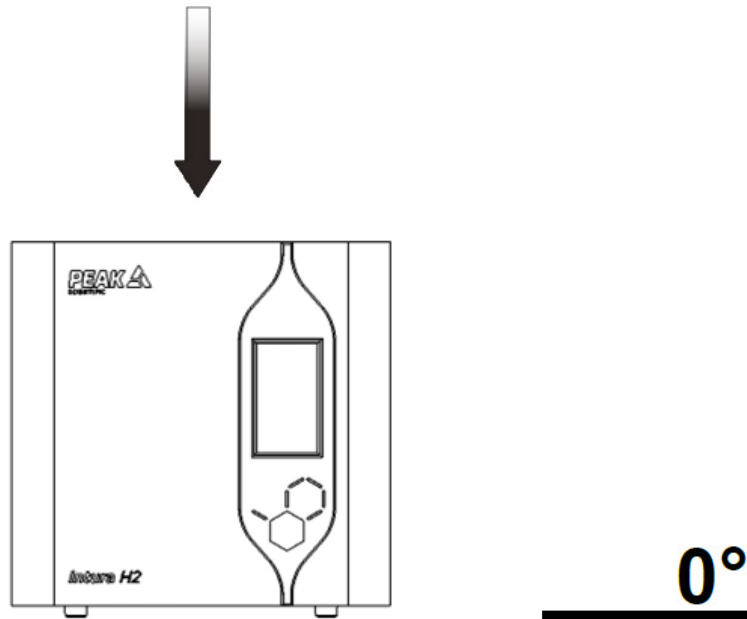
The generator weight constitutes a one-person lift WHEN INTERNAL WATER TANK IS EMPTY and as such, safe lifting practices should be employed; do not attempt to lift on your own as you will significantly increase the chance of injury & damage to yourself and others around you.

Unpack the Intura Hydrogen generator as follows:

1. Cut the plastic strapping and remove the cardboard lid.
2. Remove all documentation and fittings kit and place aside.
3. Remove protective foam packaging, cardboard sleeve and plastic covering the generator.
4. Next, with someone on either side of the unit, position your hands underneath the unit ready to lift.
5. Ensuring knees are bent and back is straight, lift the unit out of the base and place upright on a flat surface in the desired location.
6. Leave to acclimatise for 3 hours and refer to instruction for start-up procedure.



1.

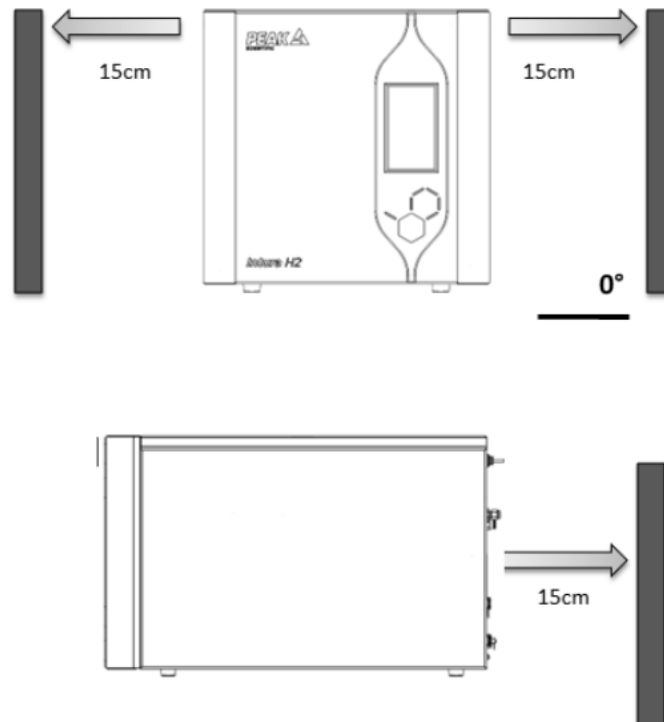


Unpack the generator from the shipping crate, referring to the unpacking instruction located on the outside of the box, and **position on a flat surface** in desired area.

The unit should be left to acclimatize for 3 hours.

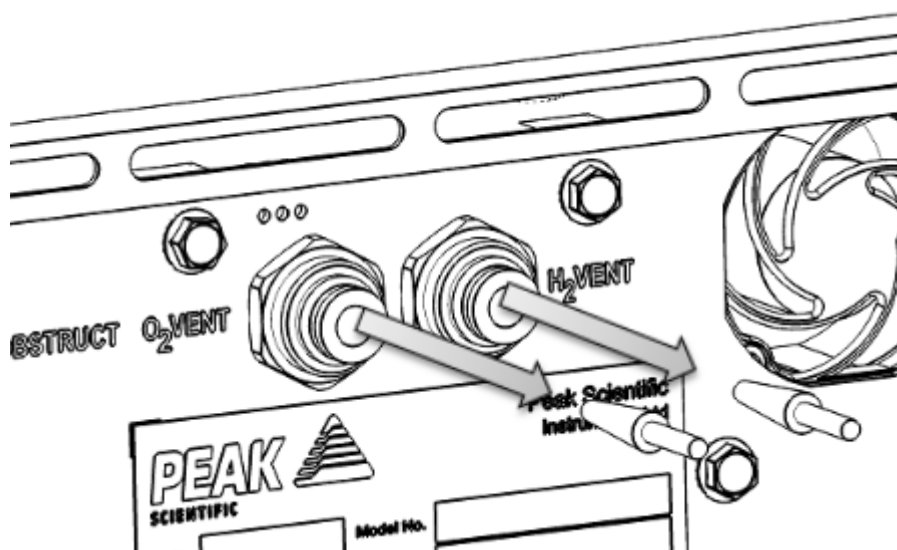
WARNING the weight of the unit constitutes a two man lift. Safe lifting practices are advised.

2.



Ensure that there is **at least 15cm of space** on **either side** and **rear** of the generator.

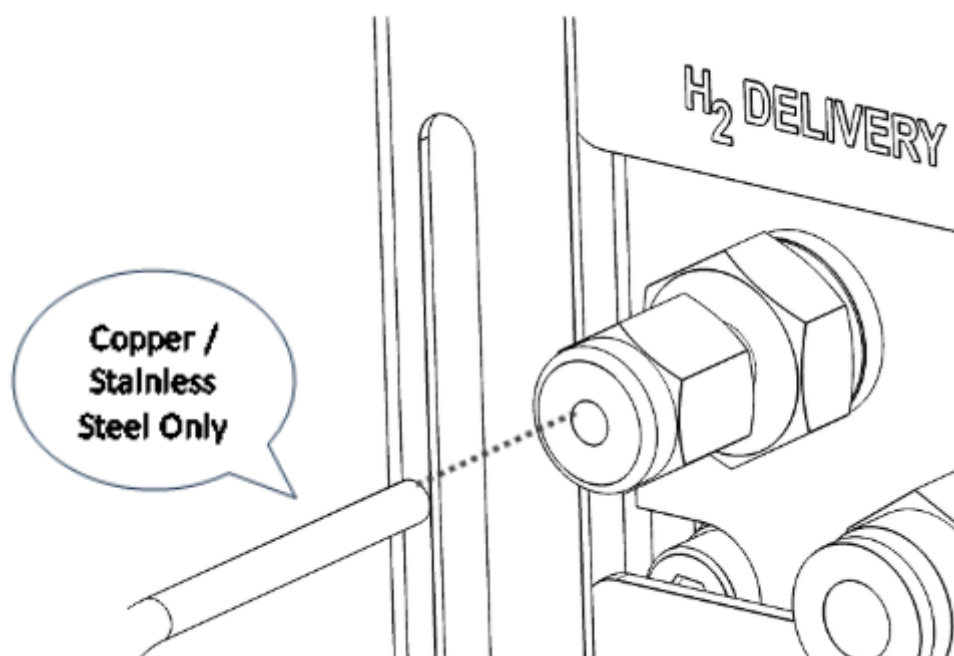
3.



All Hydrogen generators should be fitted with two Transit Plugs during the packaging process. These plugs are fitted to the H₂ and O₂ vents of all Hydrogen units to ensure no water residue from the internal water bottle during Quality testing can escape during transit, and to ensure the vents are kept free from any dust or debris.

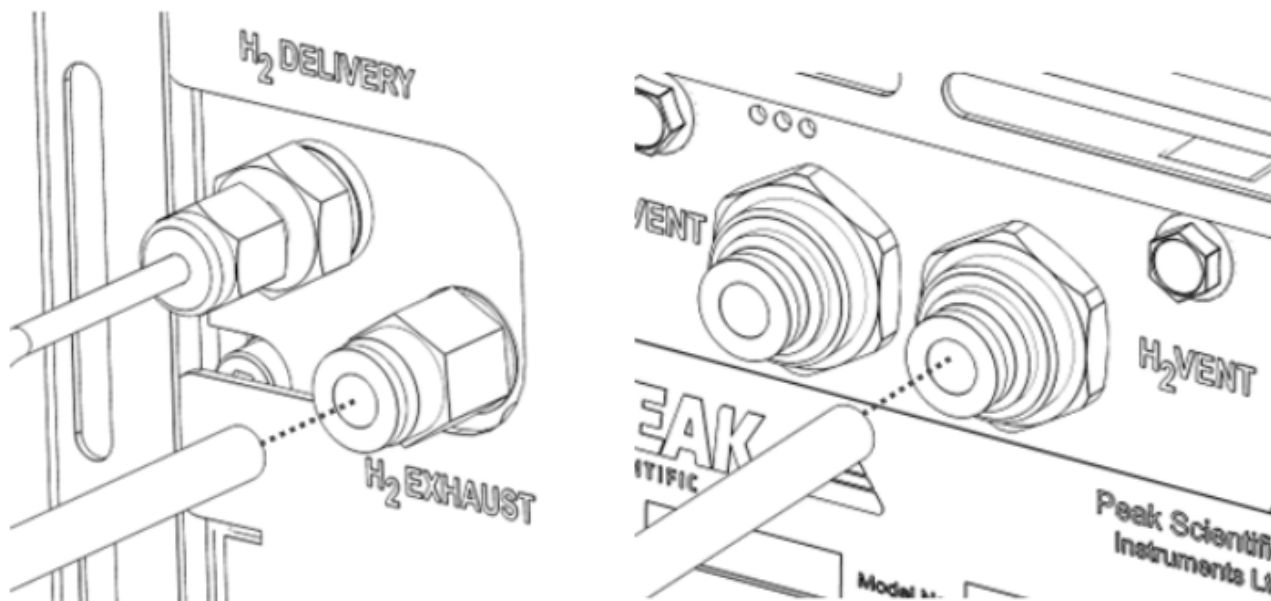
Plugs should be removed during the installation of the generator. These plugs require very little force to remove and will self-remove if left in the vents.

4.



Connect 1/8" OD tubing to the H₂ Delivery port at the rear of the generator. Tubing must be clean grade copper or stainless steel only. Please refer to Gas Connections in the User Manual for further information on Tubing requirements.

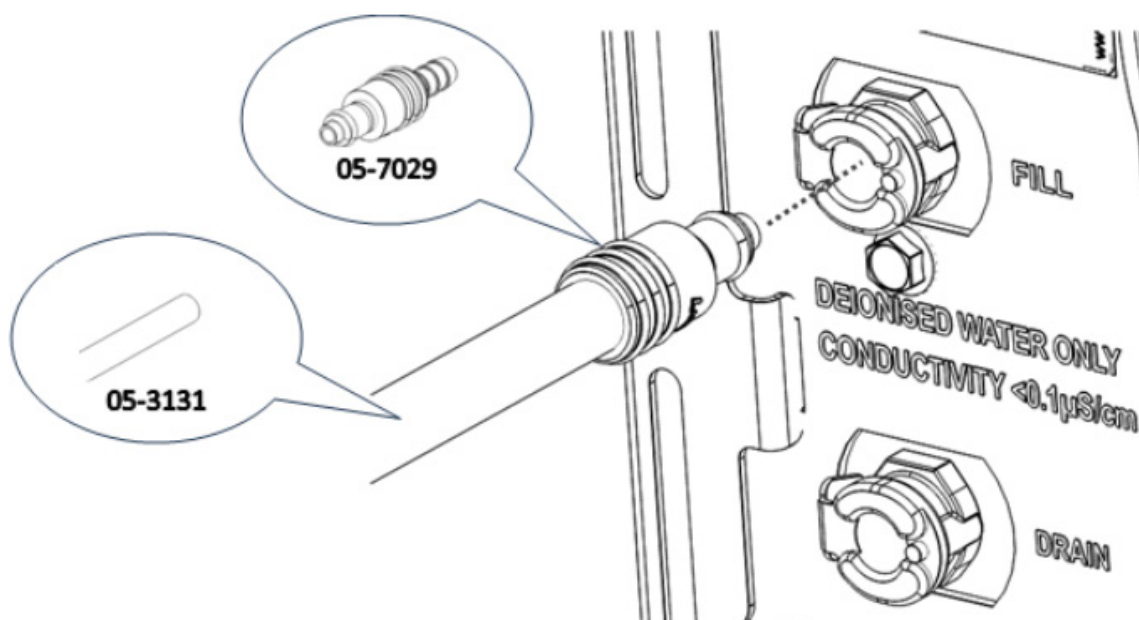
5.



Fit appropriate 6mm OD tubing to the H2 Exhaust and Vent port at the rear of the generator and connect to a fume hood or ventilation system.

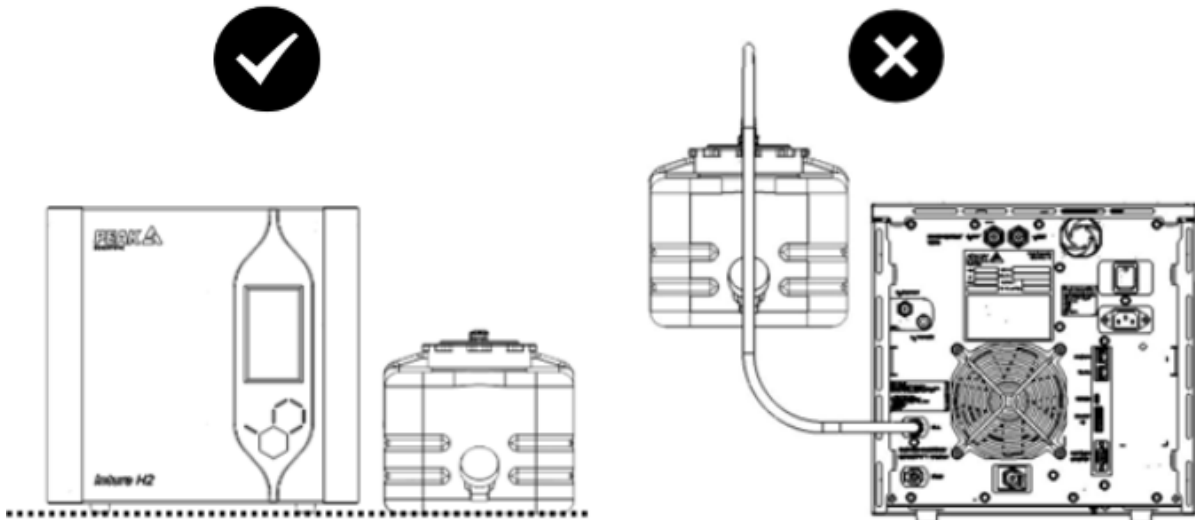
PEAK Scientific recommends that the user does NOT attach any tubing to the H2 Exhaust or H2 Vent ports if NOT venting gas to a fume hood or ventilation system. This may result in a localised build-up of Hydrogen gas.

6.



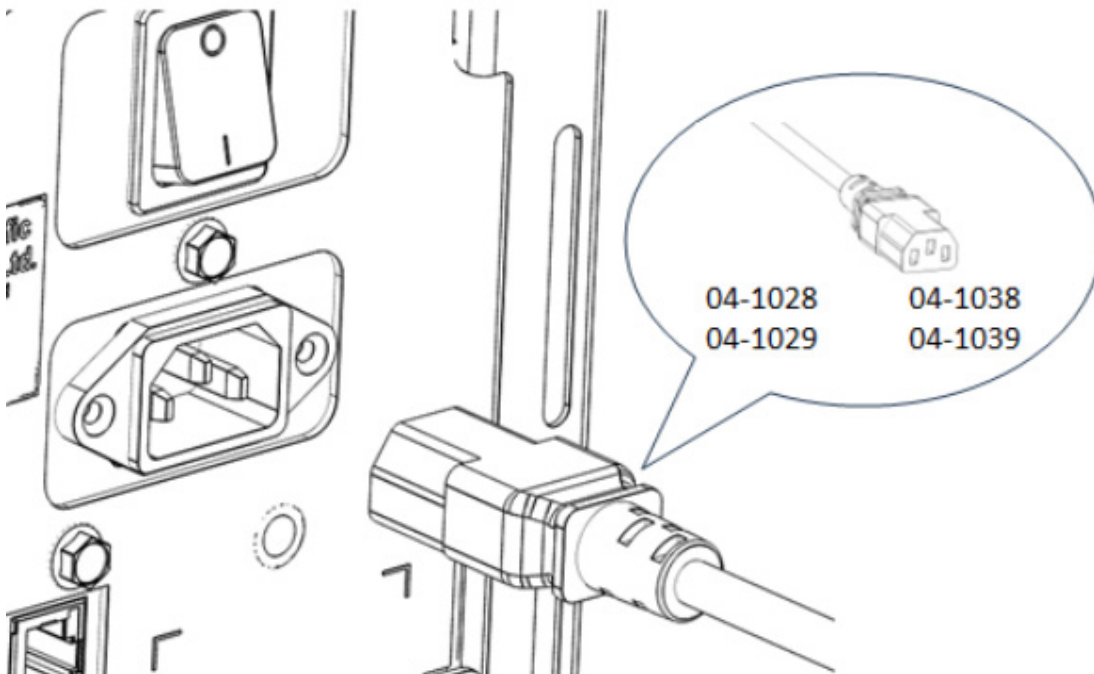
The Tygon tubing and Barbed fitting supplied in the generator Accessories kit should be connected to the Fill port at the rear of the generator. Connect the opposite end of the Tygon tubing to a High Grade Deionised Water Supply ($\le 0.1 \mu S/cm$ @ 20°C).

7.



Make sure the **Water Bottle is on a level surface** at the same height that the generator is placed upon. **Do not place water supply bottle above the height of the generator as this will cause siphoning and flood the generator.** (Water bottle image for reference only)

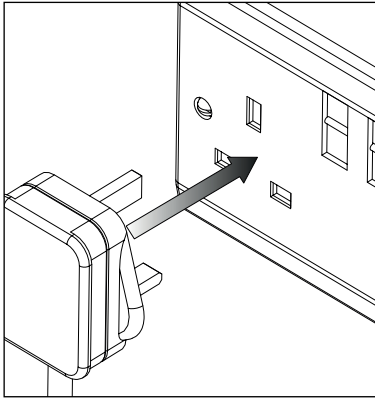
8.



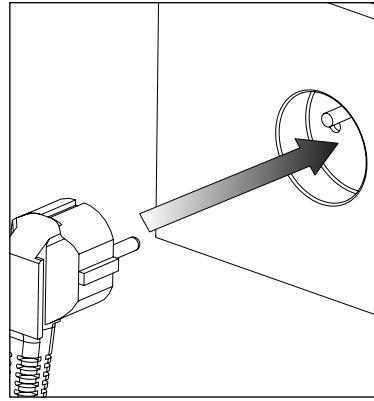
Select the appropriate mains cable from the Accessories kit and **plug the IEC 60320/C13 cable into the main input at the rear of the generator.** Please note both 110V and 230V US cables have been supplied, ensure correct mains cable is used to match the rating on the generator's serial plate.

9.

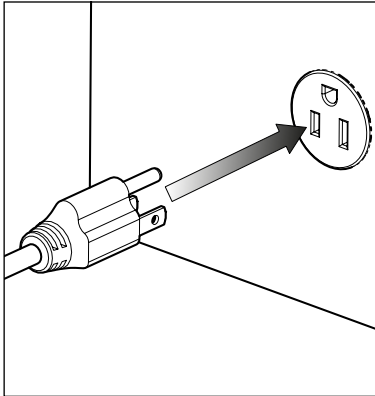
UK



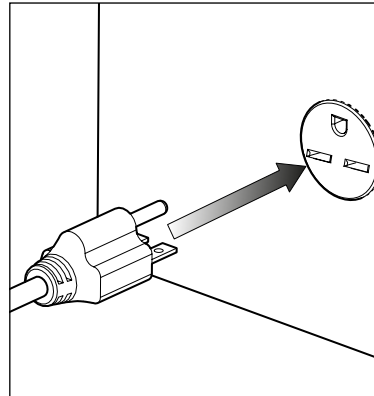
EU



US
110V



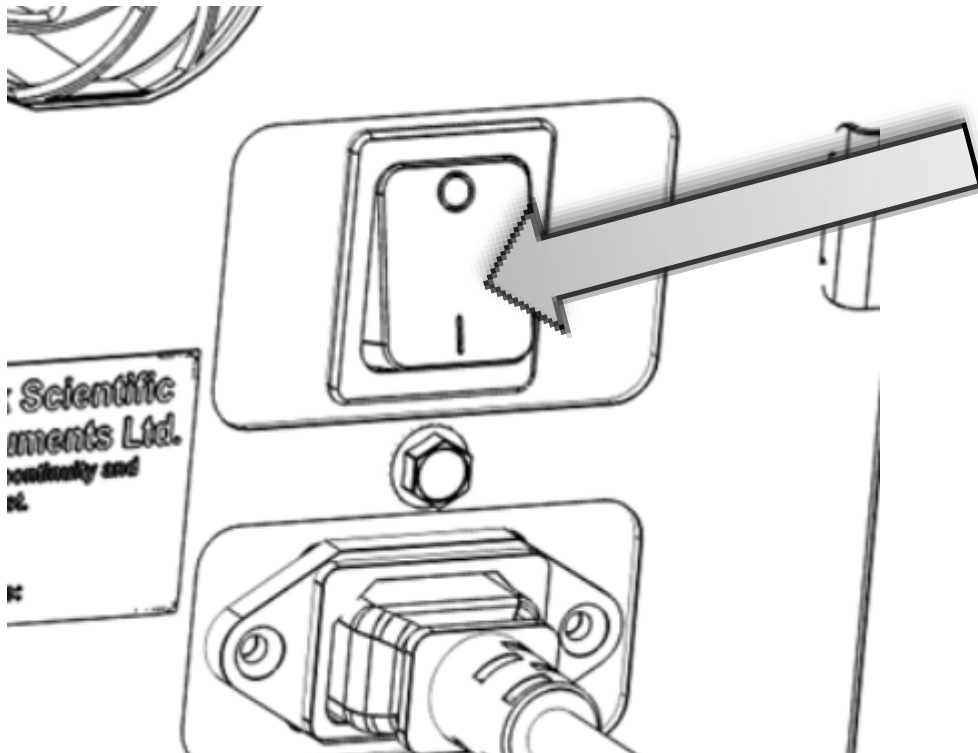
US
230V



Plug the **mains cable** into an appropriate **100-230VAC 50/60Hz single phase power supply**.

CAUTION ensure the correct cable has been selected for your electrical supply

10.



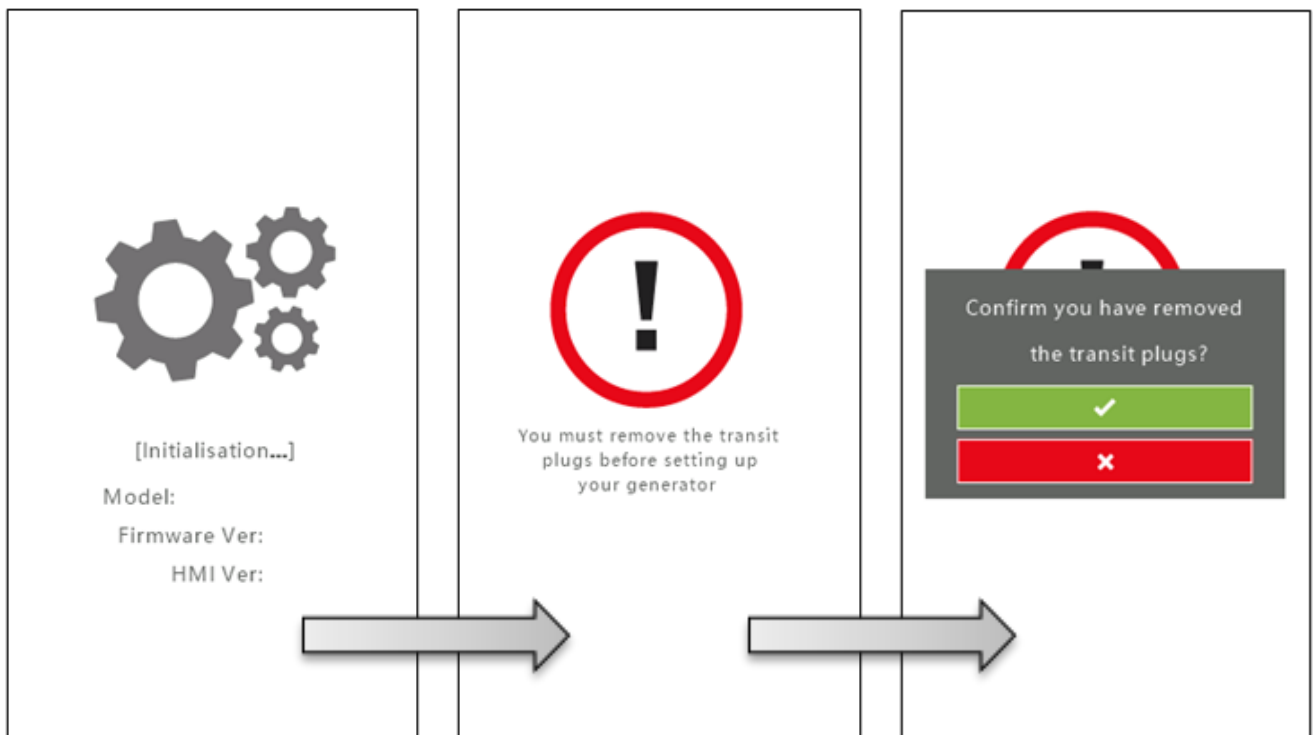
Turn the generator on, using the **switch** on the back of the unit.

11.



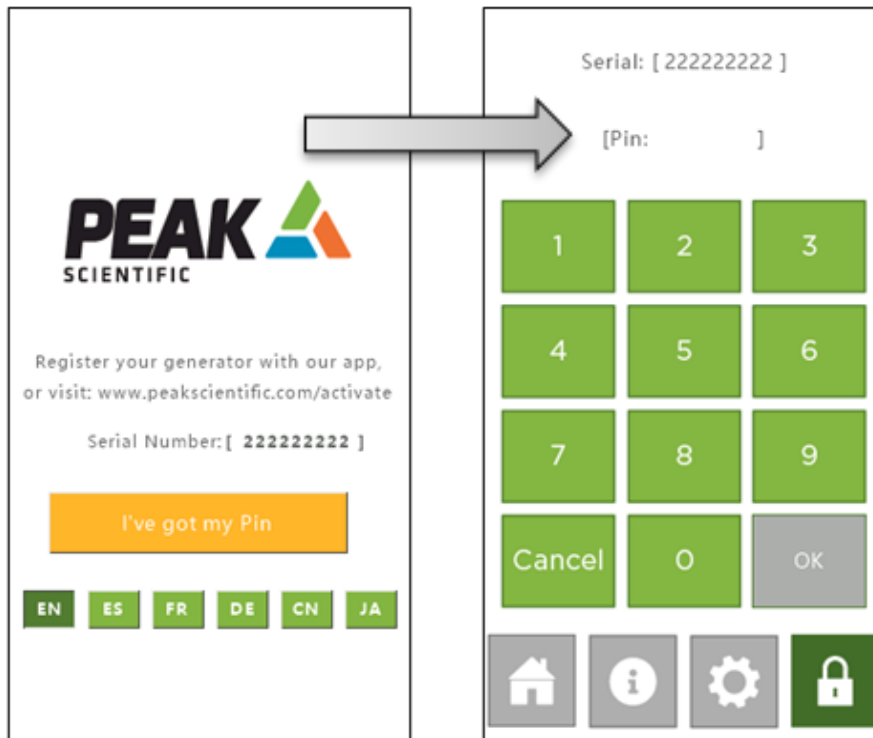
The **HMI screen** will **illuminate** and the PEAK logo will be displayed.

12.



The system will now run its Initialisation process. After which, a screen will be displayed instructing the **user to remove the Transit Plugs from the Vent ports** at the rear of the generator. Once removed, **Press the screen and Confirm.**

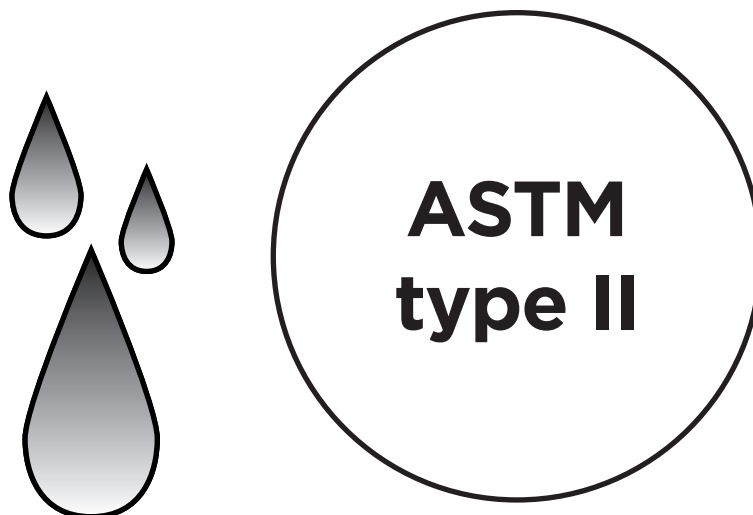
13.



The HMI will now display the screen prompting the user to **register the generator using the Peak Gas App** (downloadable via Google Play Store or Apple App Store) or by visiting www.peakscientific.com/activate to obtain a unique 4-digit Registration Code.

Once registered and the code has been obtained, select the required language at the bottom of the screen and **click “I’ve got my PIN”**. The user will then be required to enter the unique 4-digit Registration Code.

14.



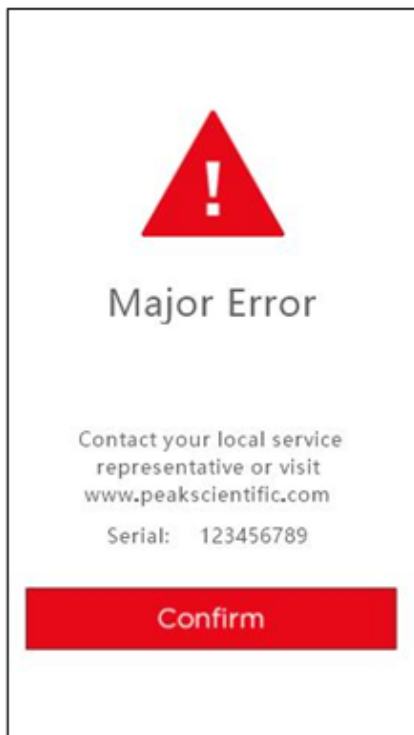
Before continuing, ensure the generator is connected to a high grade deionised water source as it will initiate water loading during startup.

15.



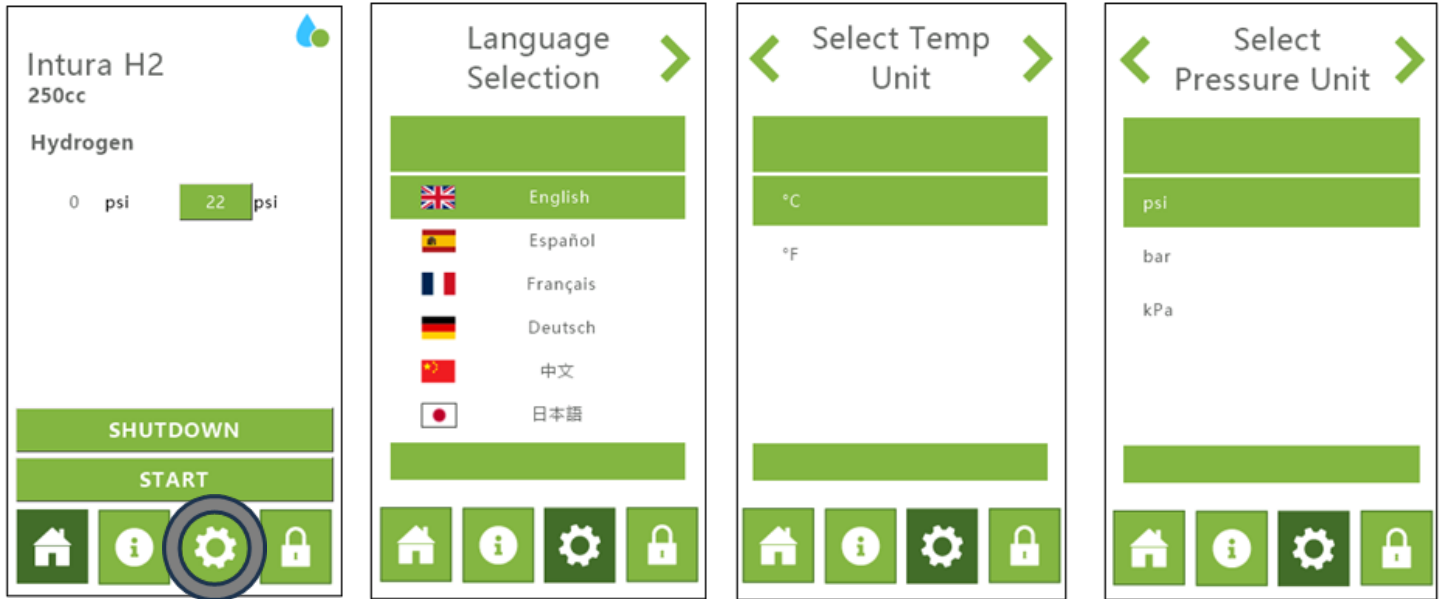
The system will now **run diagnostics** and **leak detection tests**.

16.



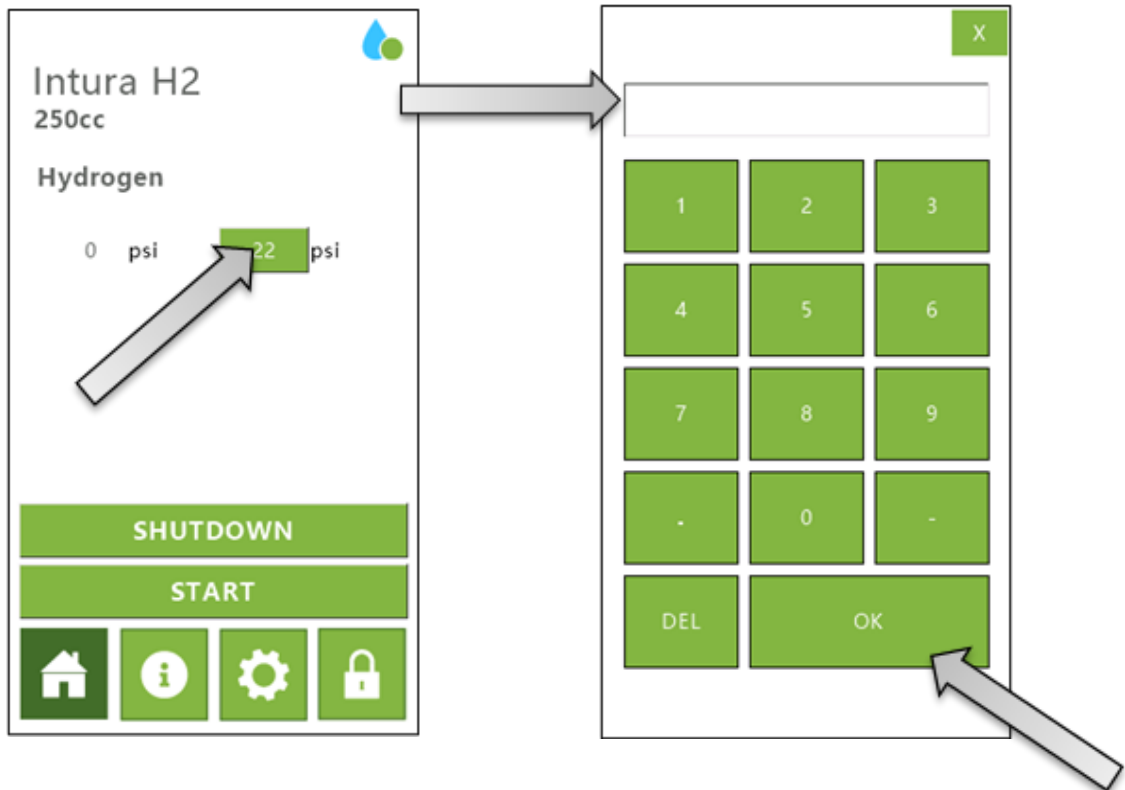
Note: In the unlikely event that diagnostics are unsuccessful, an alarm will sound, and the screen will display an error message. If this occurs, click confirm and the user will be taken to an Error Page where a QR code will be generated. Scanning the QR code will take the user to the PEAK Scientific website where contact information can be entered to receive a follow-up correspondence once the Technical Team have analysed the data. Alternatively, contact a PEAK service provider.

17.



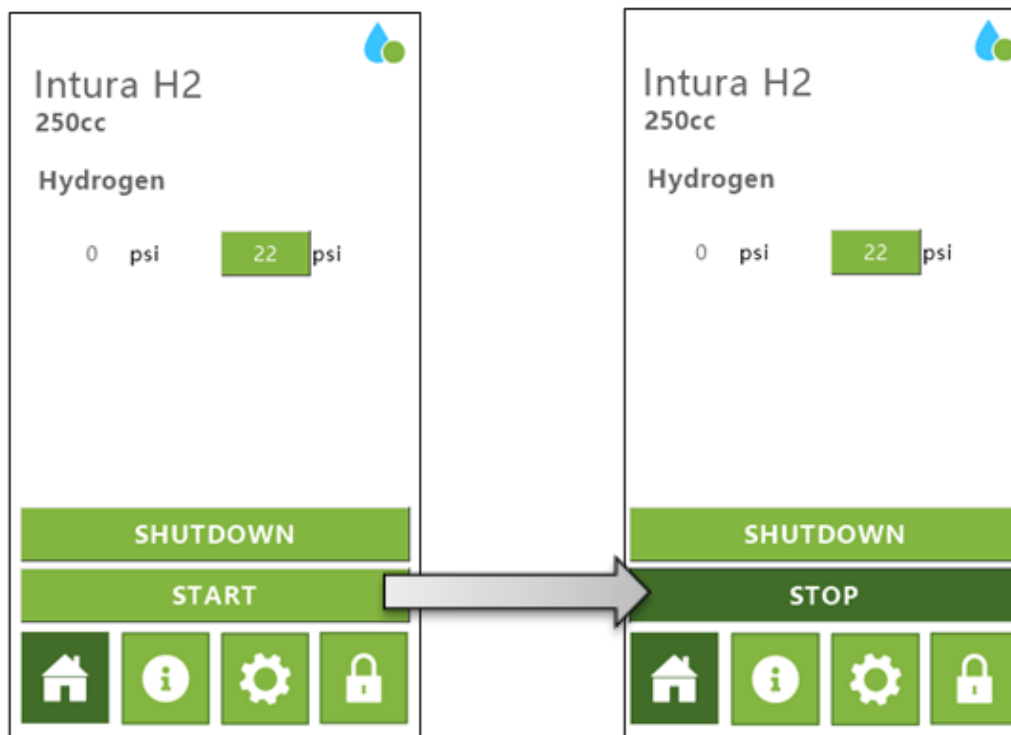
Upon successful completion of the diagnostic checks, the home screen will be displayed. **Press the Gear icon** to access the Generator Display Settings. From here, the user can change the Language, preferred Temperature unit (°C or °F) and preferred Pressure unit (psi, bar or kPa). **Return to the Home screen by pressing the Home button.**

18.



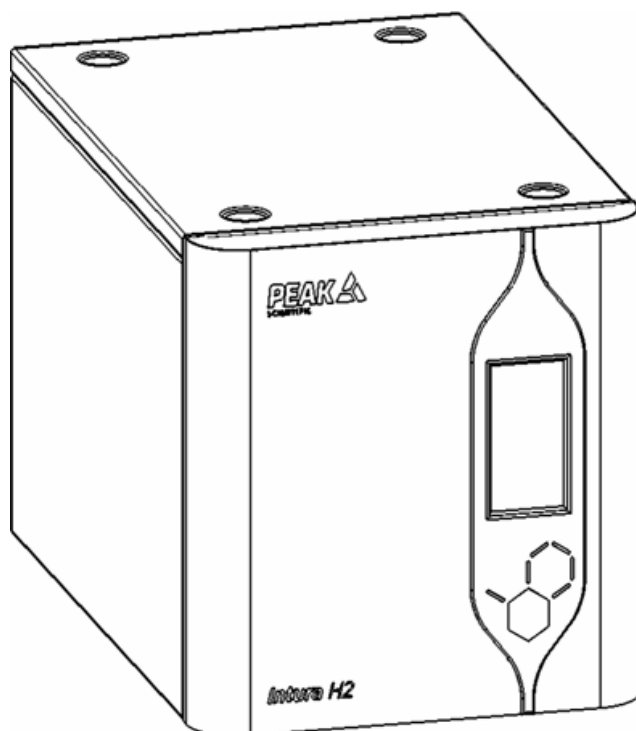
The user can now set the required output pressure. By **pressing the green box** on the home screen, a screen will appear prompting the user to enter the desired value. All Intura Hydrogen generators are capable of delivering up to 175 psi*. Once the desired value has been typed, **press OK** and the user will be returned to the home screen.

19.



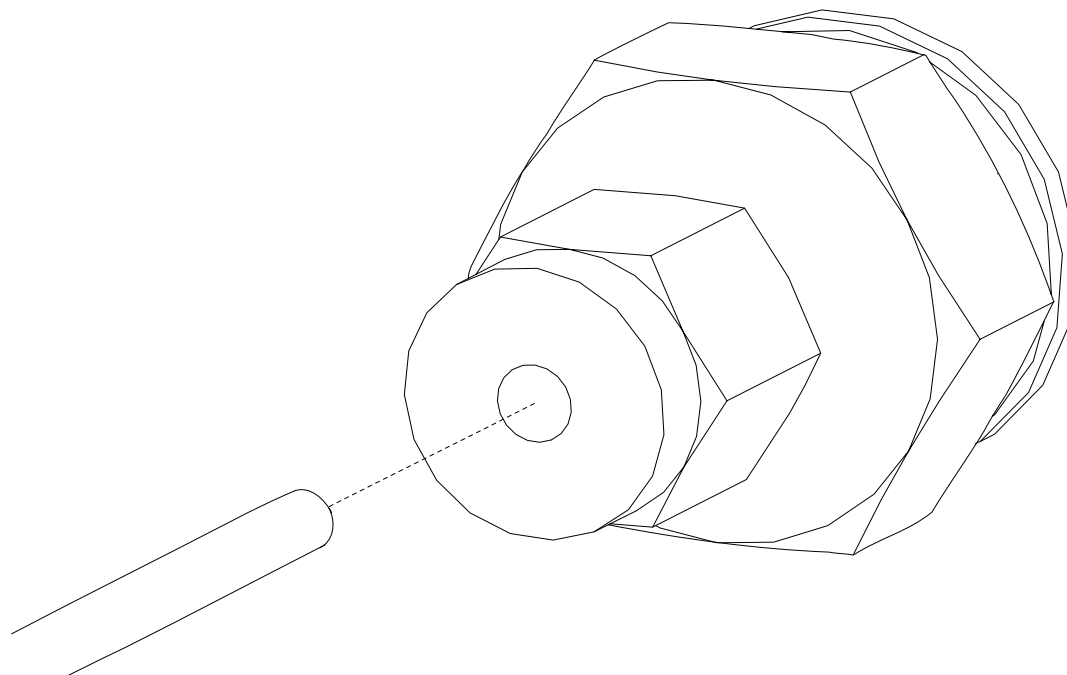
Pressing START will begin the supply to the application. Intura Hydrogen generators will deliver the gas slowly at first until the desired pressure is reached. This is due to a ramping feature to ensure the user's application does not receive a sudden burst of pressure. The system can be stopped at anytime by **pressing STOP**. This will return the generator to Standby mode.

20.



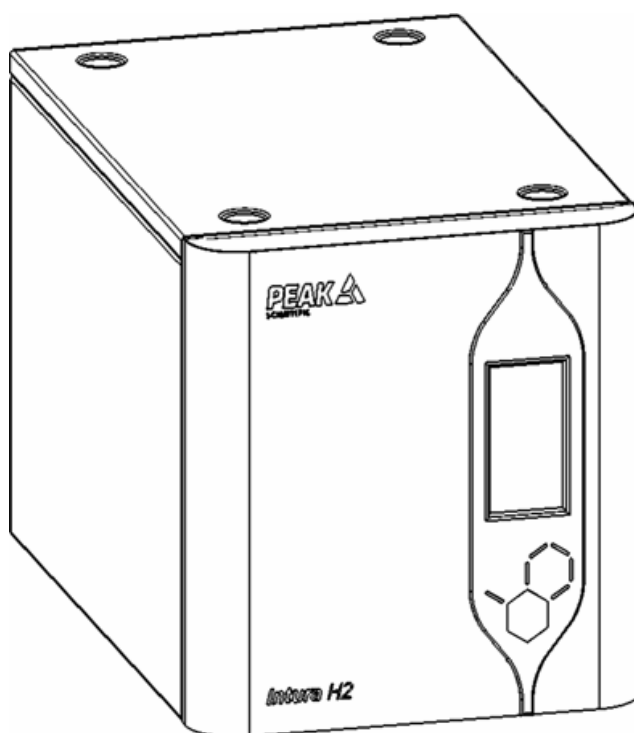
Before connecting the generator to the application, it is **recommended to purge the generator to atmosphere for a maximum period of 10 minutes at maximum generator flow output**. For example, if an Intura 500 is purchased, maximum flow output would be 500 ccs/min. Ensure the generator is connected to equipment that can control the flow before venting to atmosphere.

21.



Connect the other end of the tubing to the **Application**.

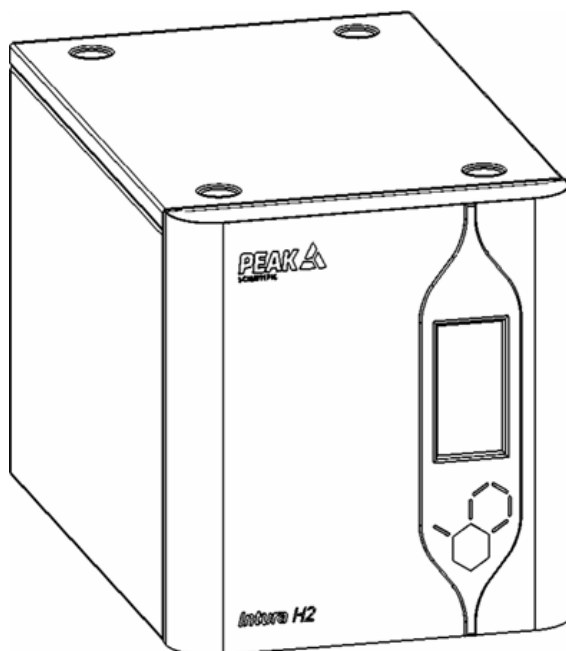
22.



It is recommended that any Intura H2 unit is left to run for 24 hours before utilisation.

If using a moisture trap between your Peak Hydrogen Generator and your GC/ GC-MS please ensure the generator has been operated for 24 hours before supplying gas to the application to ensure longevity of moisture trap. Please repeat the process for each time the generator has been switched off for any period of time. Peak Scientific Gas Generators are designed to consume the least possible amount of power; our Hydrogen Generators have been developed with safety in mind and have passed most stringent NRTL safety testing. It is safe to keep the generator in standby.

23.



CONGRATULATIONS

Your **PEAK SCIENTIFIC** gas generator is now fully installed, operational and ready to supply gas on demand to your instrument.


PEAK Protected

With PEAK Scientific you invest in not only a product but peace of mind. With a network of certified PEAK engineers stationed throughout the globe, PEAK's rapid response team are never far away and our commitment is to keep your generator running day in, day out, protecting your laboratory workflow.

[Peak Protected] can provide...



Installation
A dedicated Peak engineer will visit your lab to install and setup your generator



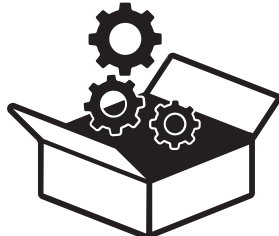
Complete plan
Swift response by a Peak Service Engineer within 72 hours & planned preventative maintenance



Premium Protected
Guaranteed rapid on-site response within 24 hours & planned preventative maintenance



IQ/OQ
Certified assurance for applications requiring documented qualification



Spares
Genuine Peak parts with express delivery, ensuring optimal performance and lifetime



Technical Support Hotline
Around the clock support by phone or online with our global technical helpdesk

To find out more about protecting your investment visit: www.PEAKscientific.com/protected

[**PEAK Protected**]TM

Peak Scientific has highly trained, fully certified Field Service Engineers located in over 20 countries across every continent around the world. This allows us to provide an industry-leading rapid response service to our customers. With [**Peak Protected**], your laboratory's productivity becomes our top priority.

To discuss Peak Protected generator cover and payment options speak to your local Peak Representative or for further information contact: protected@peakscientific.com



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For further information on any of our generator products please contact marketing@peakscientific.com