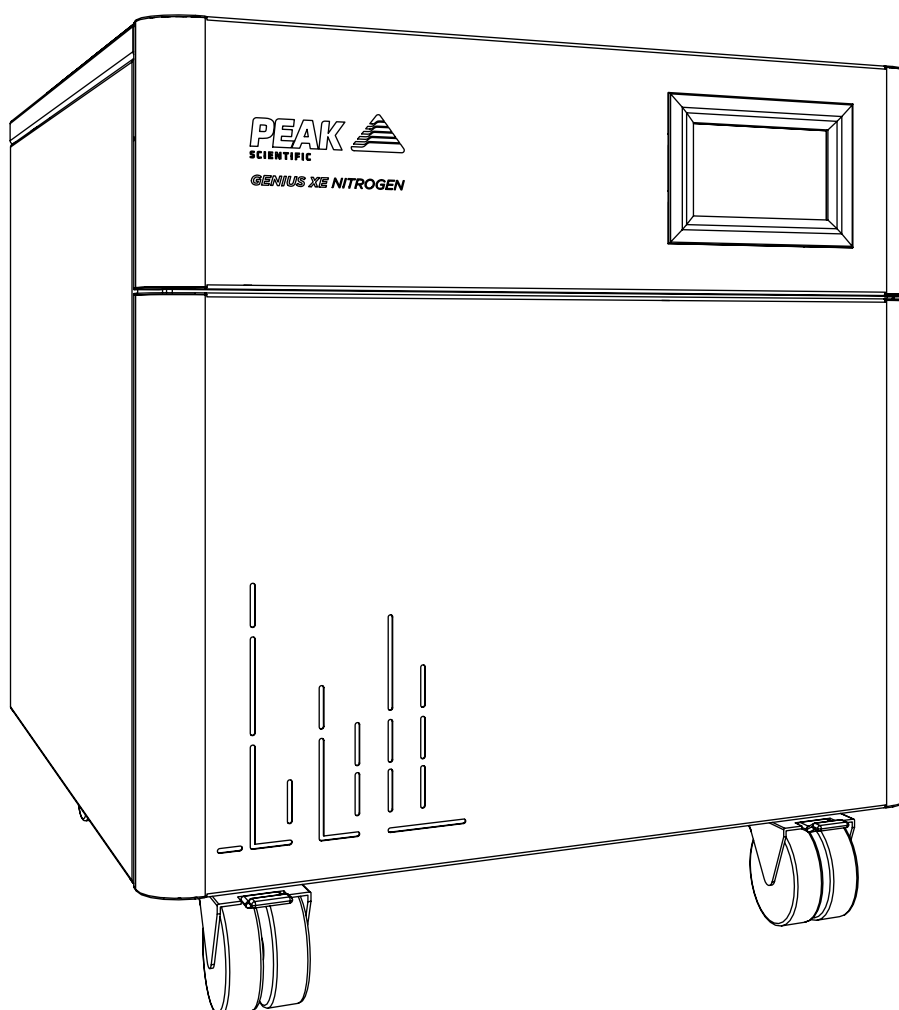


Genius XE Series (All Models)

Installation Guide



IMPORTANT

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

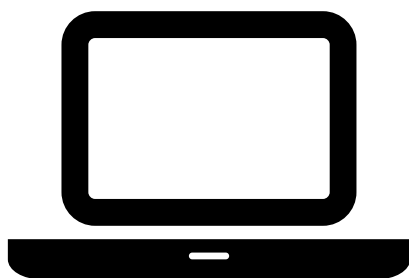


IMPORTANT

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 Genius App**.

Registering will activate your **2 year warranty*** - covering every single component in your generator.



Important!

You must register your generator before nitrogen 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 a paid 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 24 months.**

* 2nd year warranty 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

Change History

| Rev | Comment | Name | Date |
|-----|----------------------------|--------------|------------|
| 1 | Initial Release | Liam Couttie | 24/04/2018 |
| 2 | Update to Fittings Kit | Liam Couttie | 18/07/2018 |
| 3 | Update to Fittings Kit | Liam Couttie | 12/10/2018 |
| 4 | Instructions Clarified | Liam Couttie | 19/02/2019 |
| 5 | Warranty Info Update | Liam Couttie | 20/11/2019 |
| 6 | Genius XE 35 Build Update | Liam Couttie | 27/03/2020 |
| 7 | Transformer Voltage Update | Liam Couttie | 22/06/2021 |
| 8 | Update to Fittings Kit | Liam Couttie | 07/07/2021 |

How to use this Installation Guide

This document is intended to be used only as a Quick Start Guide, to facilitate safe and correct installation and initial configuration of your Peak Scientific gas generator.

For more extensive user operation directions, we recommend you download the User Manual from the website.

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




Thank you for selecting Peak Scientific to meet your laboratory gas generation needs, should you require any further assistance or support please do not hesitate to contact Peak Scientific or 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 document detail the most known 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 document 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.

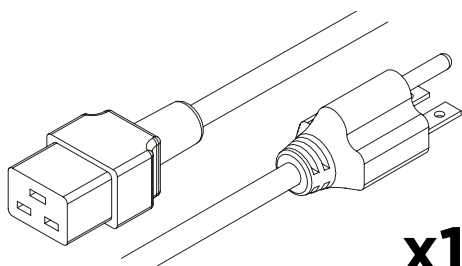


When handling, operating or carrying out any maintenance, personnel must employ safe engineering practices and observe all relevant local health and safety requirements and regulations. The attention of UK users is drawn to the Health and Safety at Work Act 1974, and the Institute of Electrical Engineers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



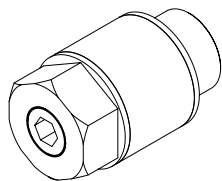
If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Fittings Kit - Genius XE 35



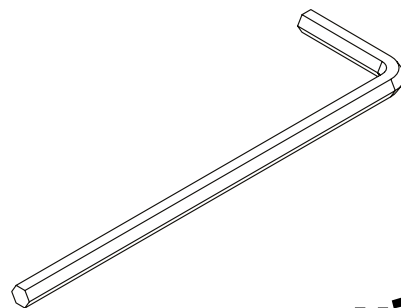
x1*

US Mains Cable 230V C19 6-15 04-1024



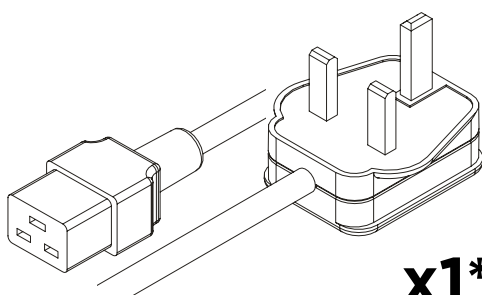
x1

Flow Control Silencer 02-1096



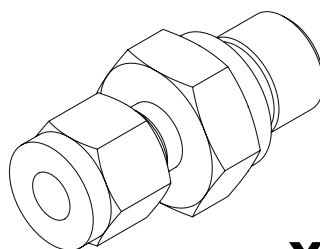
x1

4mm Hex Key 3300407



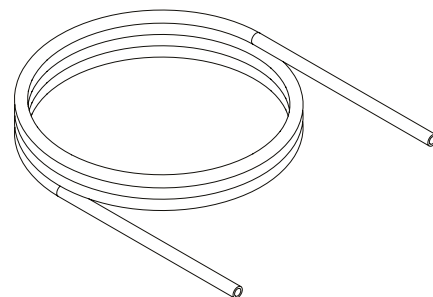
x1*

UK Mains Cable C19 04-1025



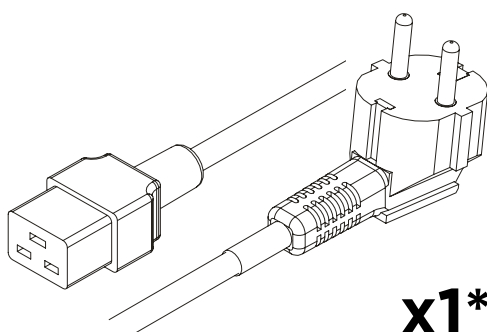
x1

1/4" Compression Fitting
02-4421



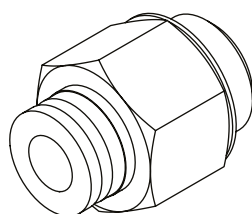
x3m

1/4" PTFE Tubing 00-1266



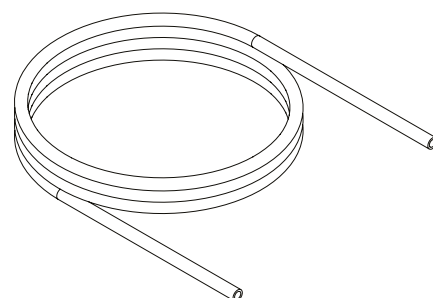
x1*

EU Mains Cable C19 04-1026



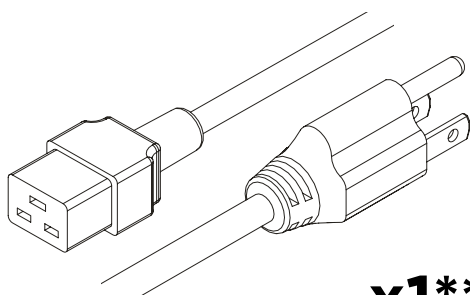
x2

6mm Push Fit Fitting
02-4600



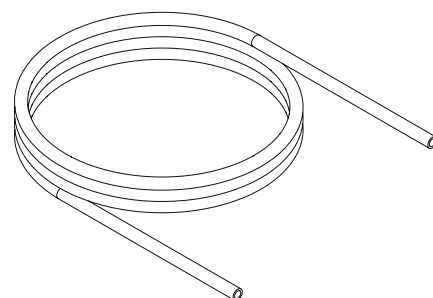
x3m

6mm PTFE Tubing 00-1302



x1**

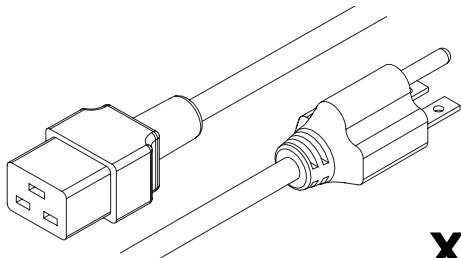
US Mains Cable 120V C19 5-15 04-1035



x3m

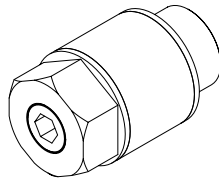
6mm Polyethylene Tubing 00-1282

Fittings Kit - Genius XE 70



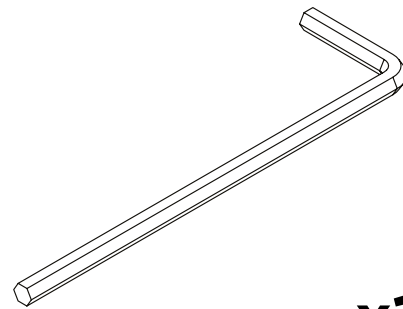
x1

US Mains Cable 230V C19 6-15 04-1024



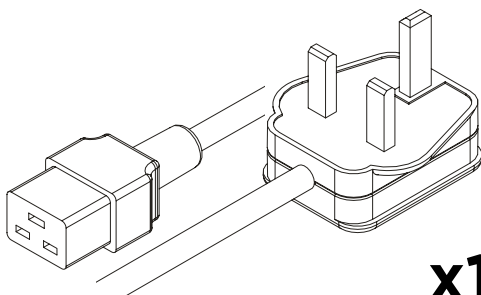
x1

Flow Control Silencer 02-1096



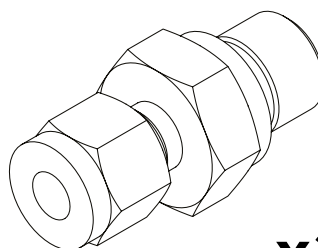
x1

4mm Hex Key 3300407



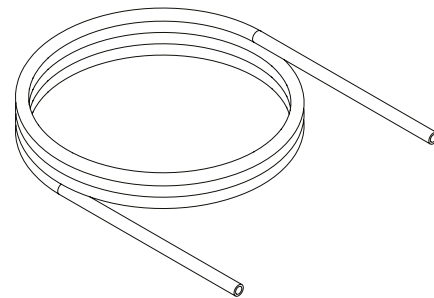
x1

UK Mains Cable C19 04-1025



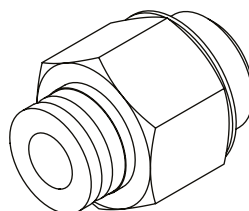
x2

1/4" Compression Fitting
02-4421



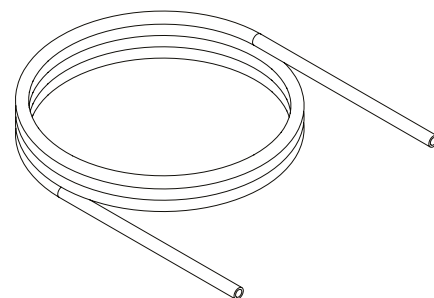
2x3m

1/4" PTFE Tubing 00-1266



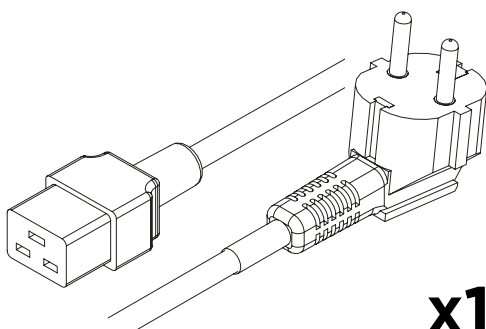
x3

6mm Push Fit Fitting
02-4600



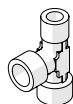
2x3m

6mm PTFE Tubing 00-1302



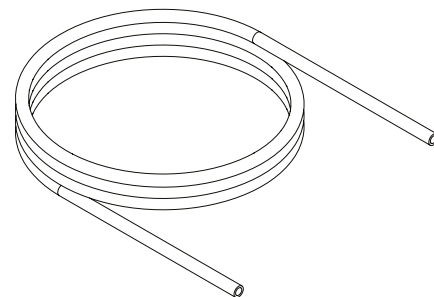
x1

EU Mains Cable C19 04-1026



x1

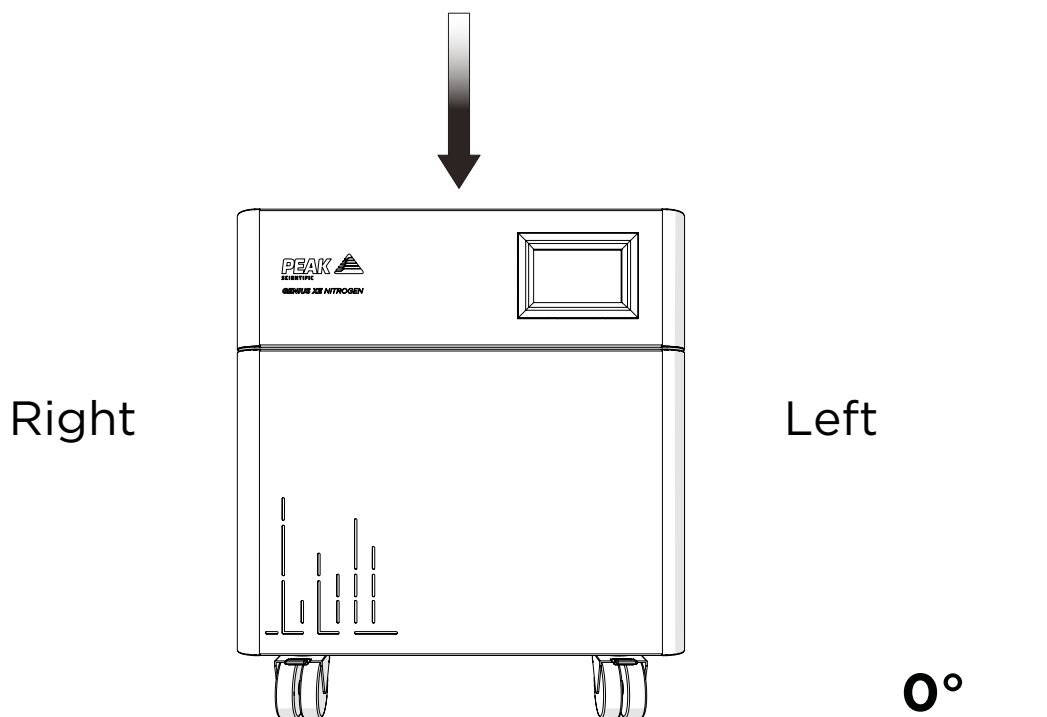
1/4" Tee Fitting 02-1048



x3m

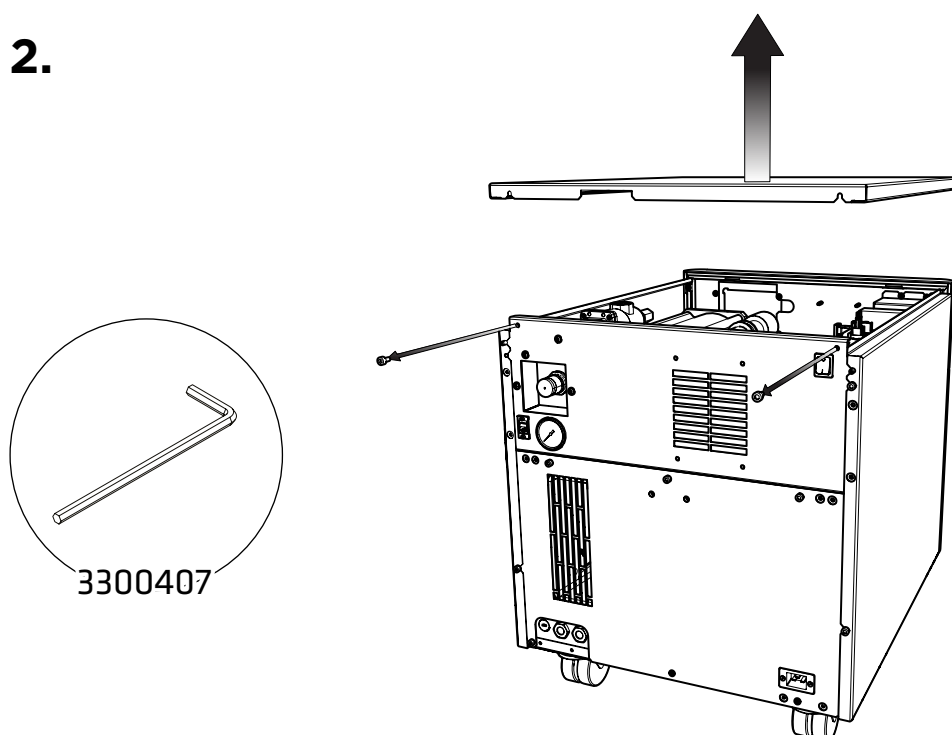
6mm Polyethylene Tubing 00-1282

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**.

2.

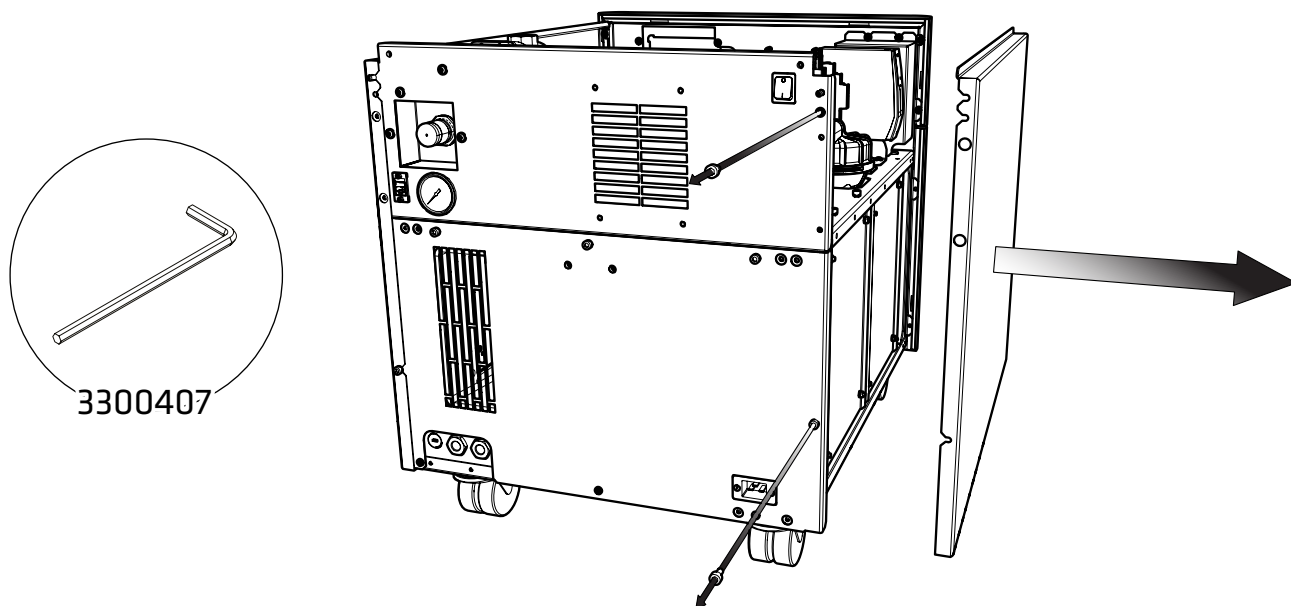


First **remove the compressor transit brackets**.

These can be accessed by removing the generator's right-hand side and top panels.

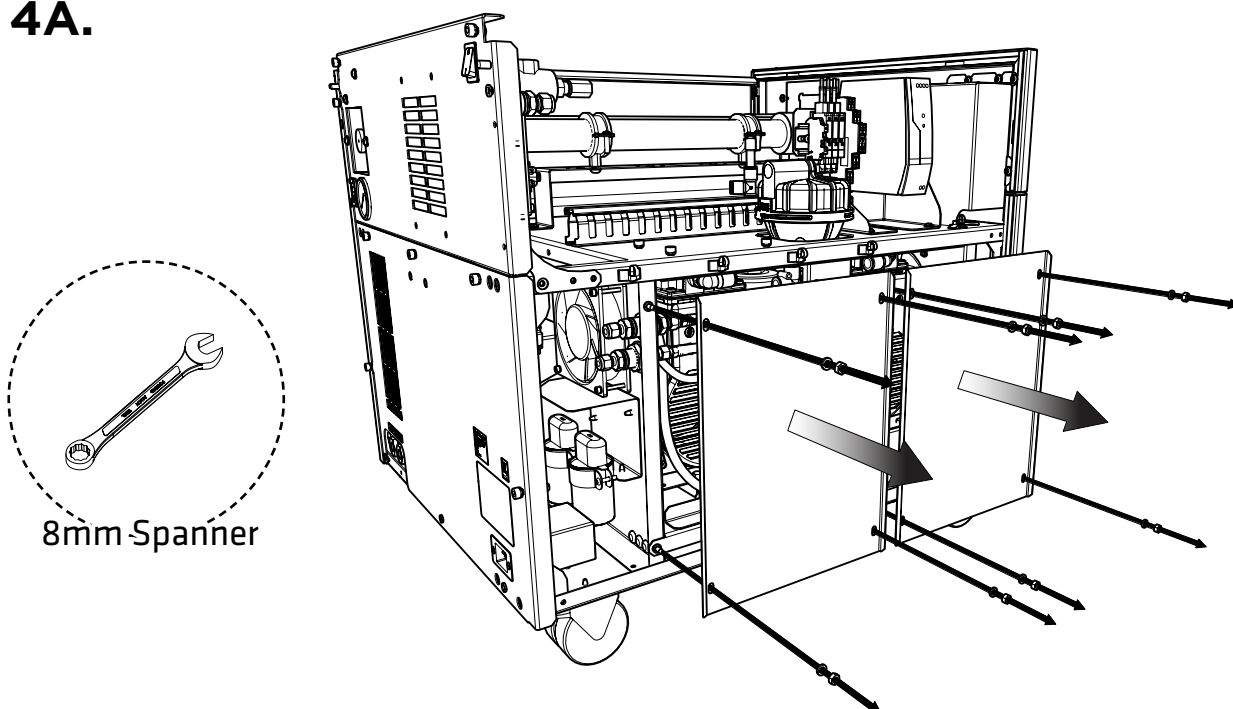
Starting with the top panel, use the **4mm Hex Key 3300407** to loosen the **two cap screws** fixing the top plate to the rear of the generator, then **tilt up and slide backwards to release the top plate** from the generator.

3.



Once the top plate has been removed, use the **4mm Hex Key 3300407** to loosen the **two cap screws** fixing the right-hand side panel to the rear of the generator, then **tilt outwards and slide backwards to release the side plate from the generator.**

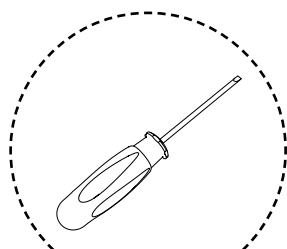
4A.



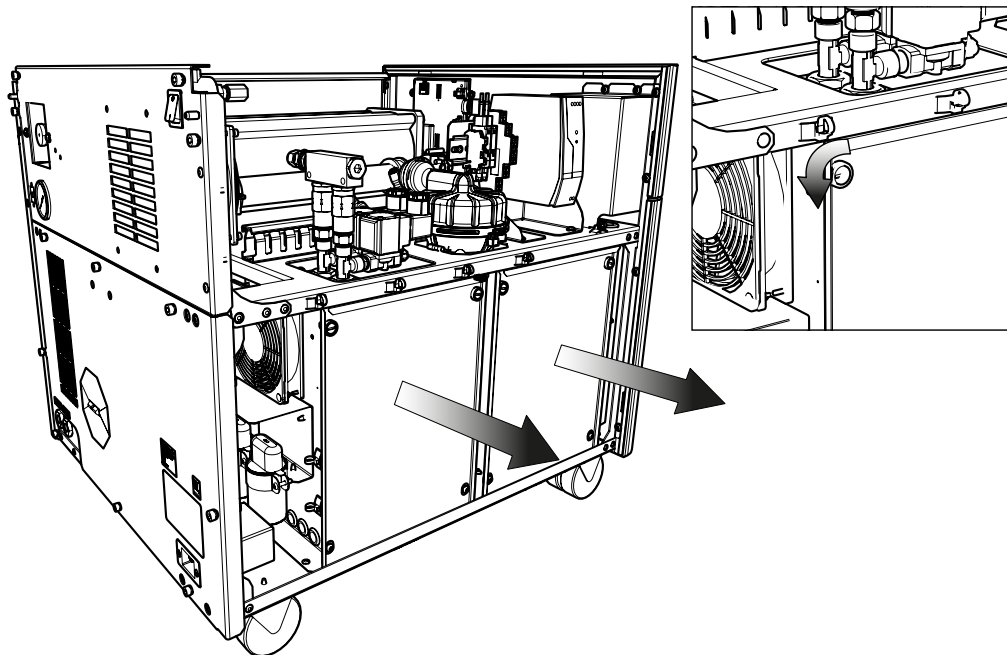
Genius XE 35 (Pre 771055721 Serial Numbers) & XE 70

With the right-hand side plate removed, use an **8mm spanner** to **remove the hex nuts** holding the compressor doors in place and remove, taking care to **retain the spring washers.**

4B.



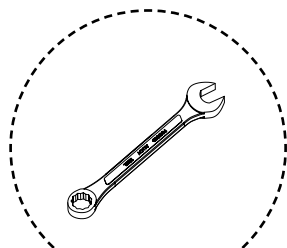
Flat-Head
Screwdriver



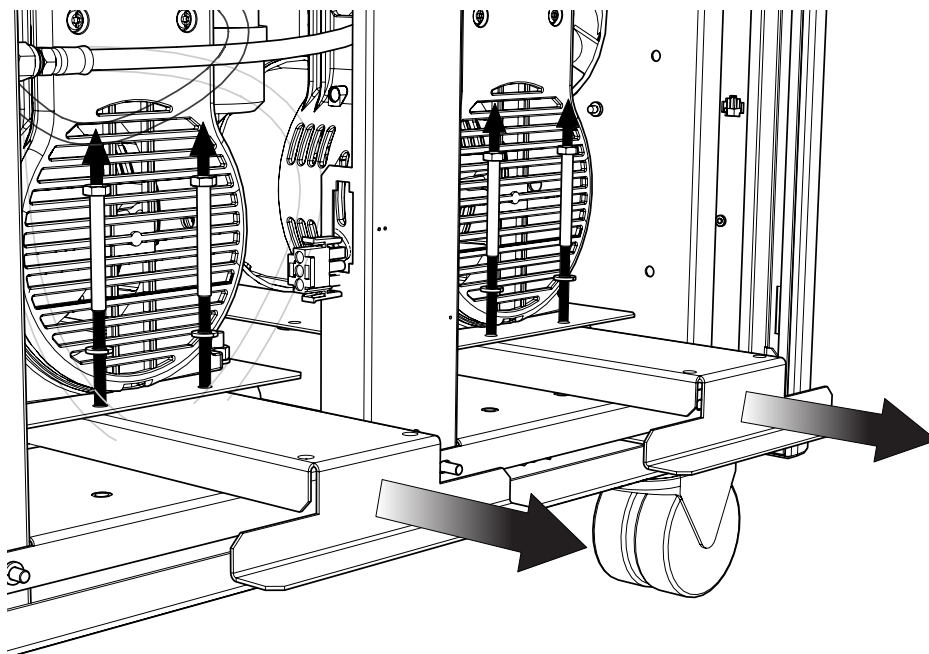
Genius XE 35 (771055721 Serial Numbers onwards)

To remove the compressor doors, **quarter turn the locking rivets** (x2 on each door at the top) and it will pop off, **allowing the compressor door to lift out**.

5.

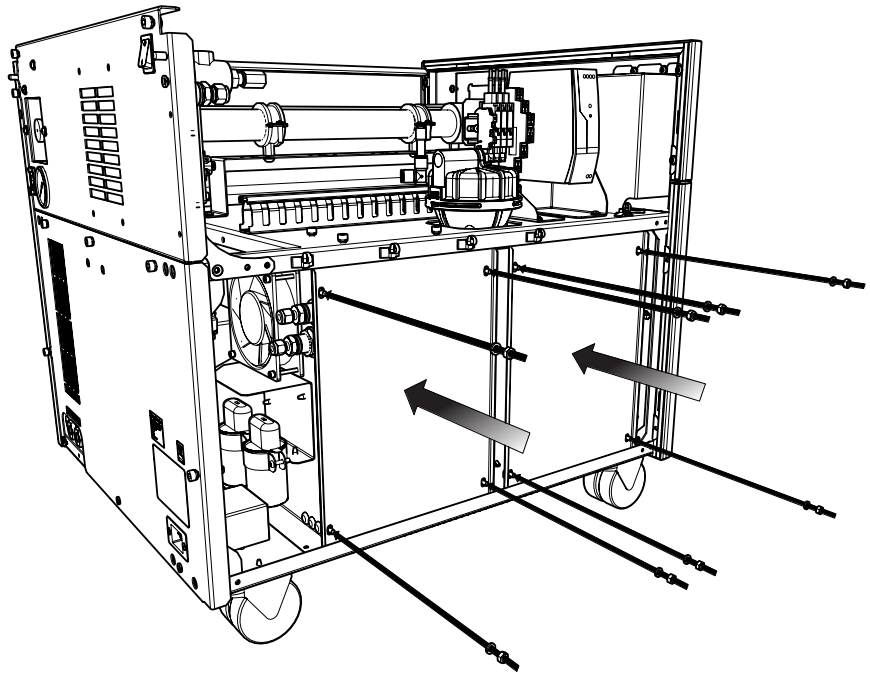
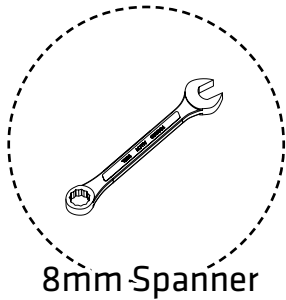


10mm-Spanner



The transit brackets are located below the compressors and have stickers on them stating 'Remove before use'. To **remove the transit brackets**, use a **10mm spanner** to **remove the two screws on each bracket** as indicated, then **slide the brackets out** from underneath the compressors. There are two brackets on the XE 35 and four on the XE 70. **Please retain the brackets and screws for future transportation.**

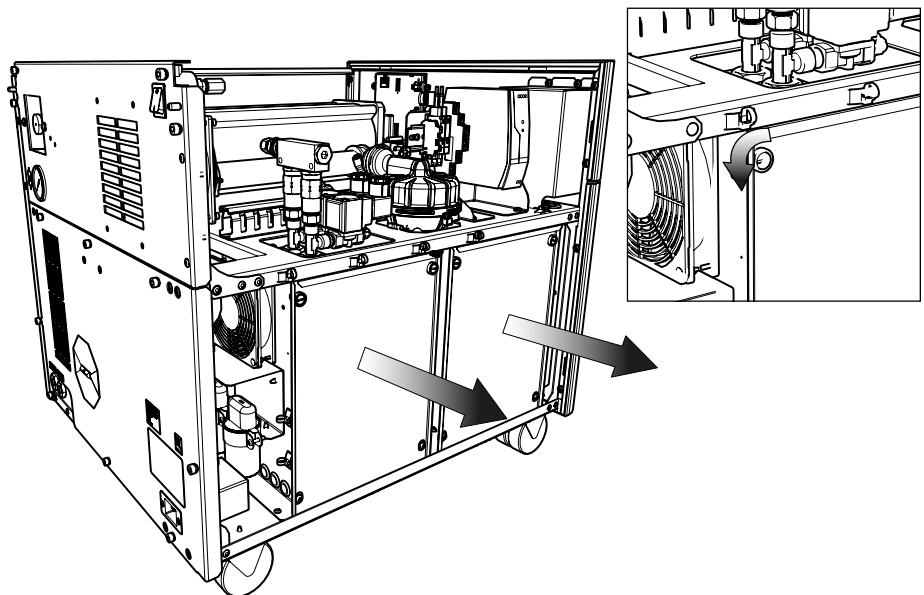
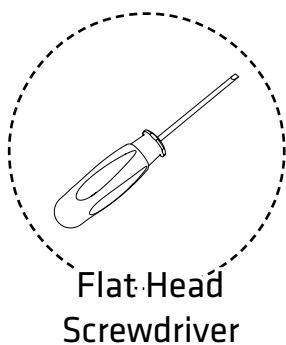
6A.



Genius XE 35 (Pre 771055721 Serial Numbers) & XE 70

The transit brackets are located below the compressors and have stickers on them stating 'Remove before use'. To **remove the transit brackets**, use a **10mm spanner** to **remove the two screws on each bracket** as indicated, then **slide the brackets out** from underneath the compressors. There are two brackets on the XE 35 and four on the XE 70. **Please retain the brackets and screws for future transportation.**

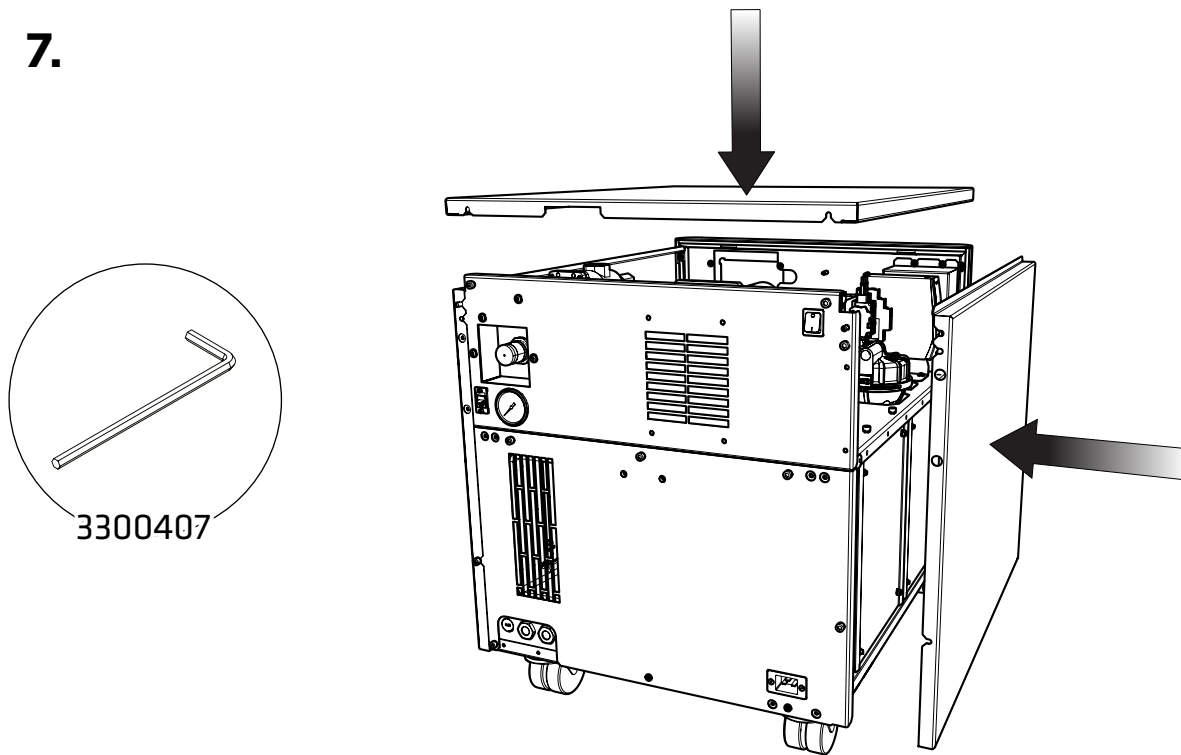
6B.



Genius XE 35 (771055721 Serial Numbers onwards)

Replace the compressor doors, sit the doors into the slots on the base and then **push the pop on rivets in** and it will fasten itself in place.

7.

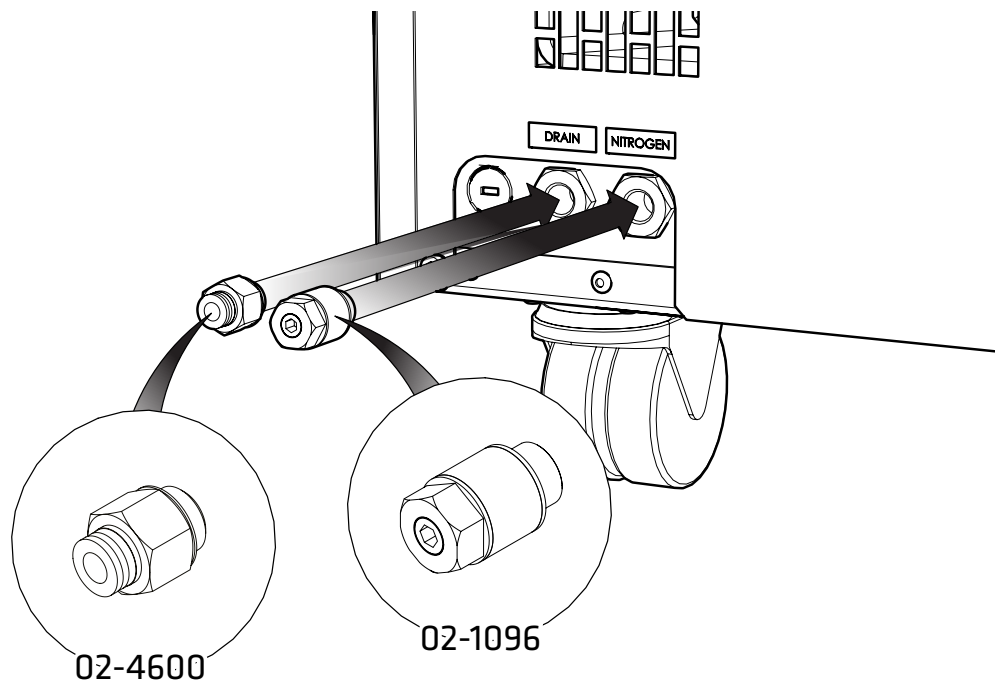


Reattach the right hand side and top panel to the generator



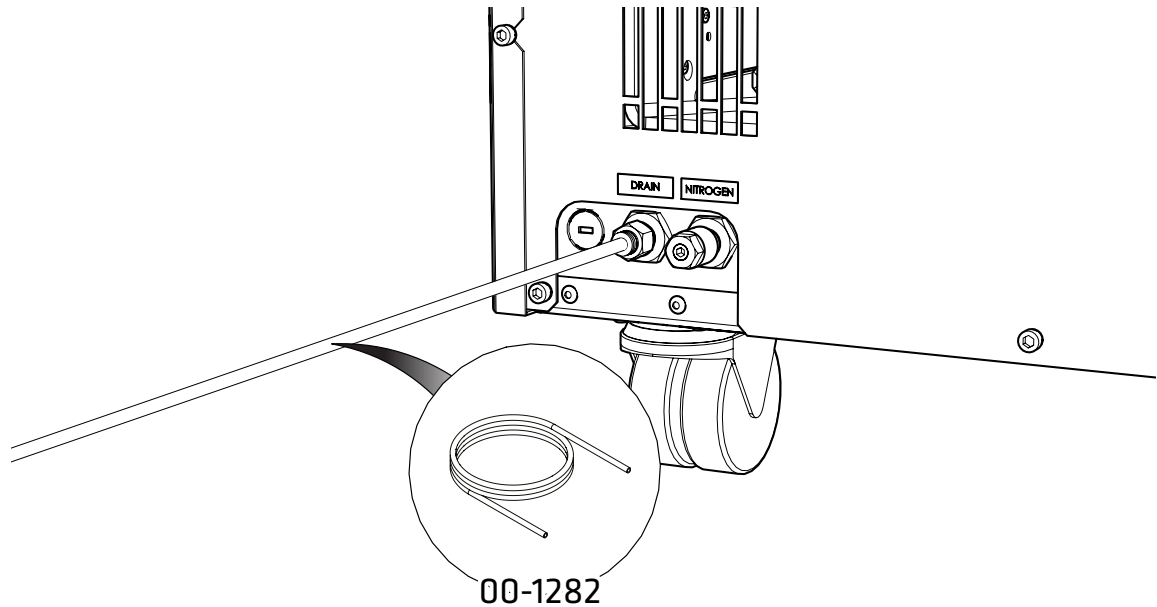
Ensure all screws are firmly tightened

8.



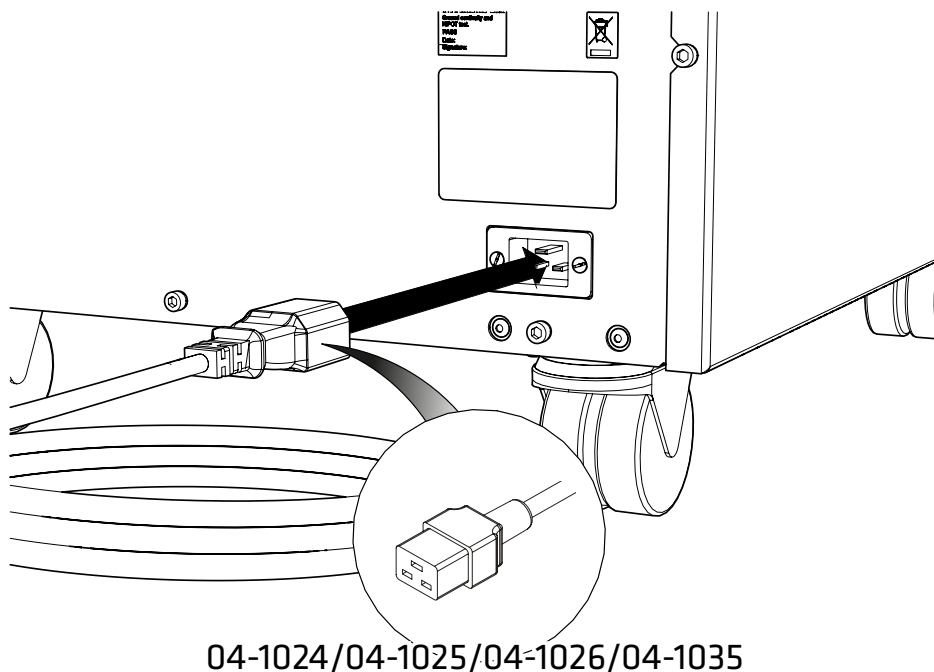
Select the 6mm Push Fit Fitting 02-4600 and attach to the Drain port at the rear of the generator. Attach the Flow Control Silencer 02-1096 to the Nitrogen port.

9.



Connect the **6mm Polyethylene Tubing 00-1282** to the **6mm Push Fit Fitting 02-4600**.
Fit the other end of the tubing to a suitable drain connection or container. The container **MUST NOT** have an airtight seal as water and air will be expelled periodically under a slight pressure. The generator will expel up to 5L per 24 hours depending on ambient humidity.

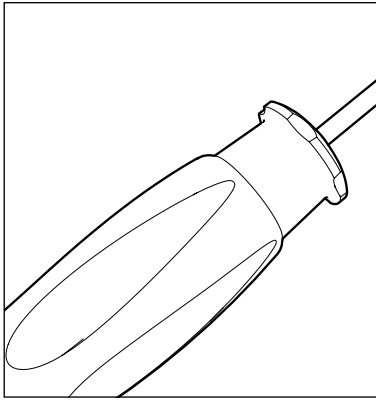
10.



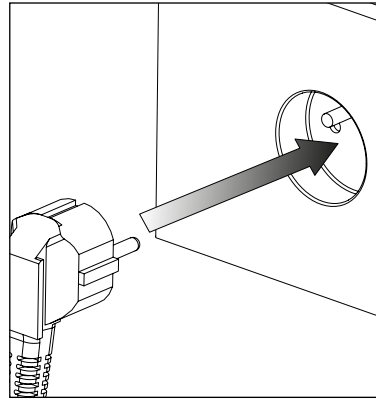
Select the appropriate power cable from the fittings kit and **plug the IEC 60320/C19 cable into the power input** at the rear of the generator.

11.

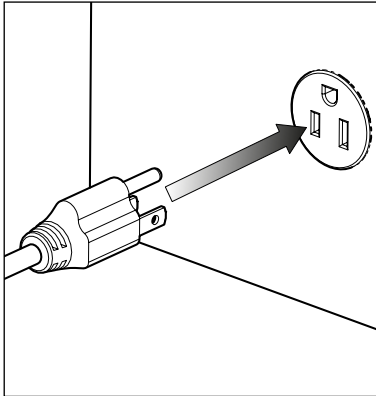
UK



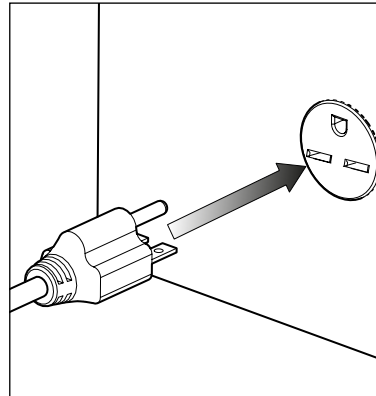
EU



US
120V



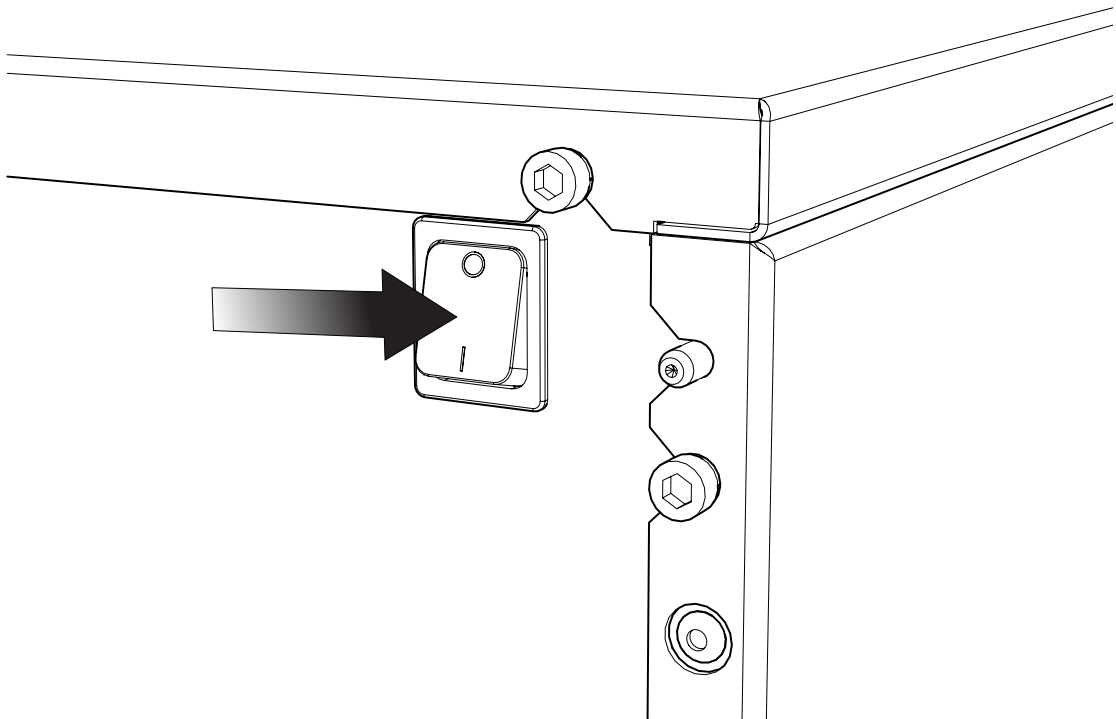
US
230V



Plug the mains cable into the corresponding **120VAC 60Hz OR 230VAC 50/60Hz** single phase power supply.

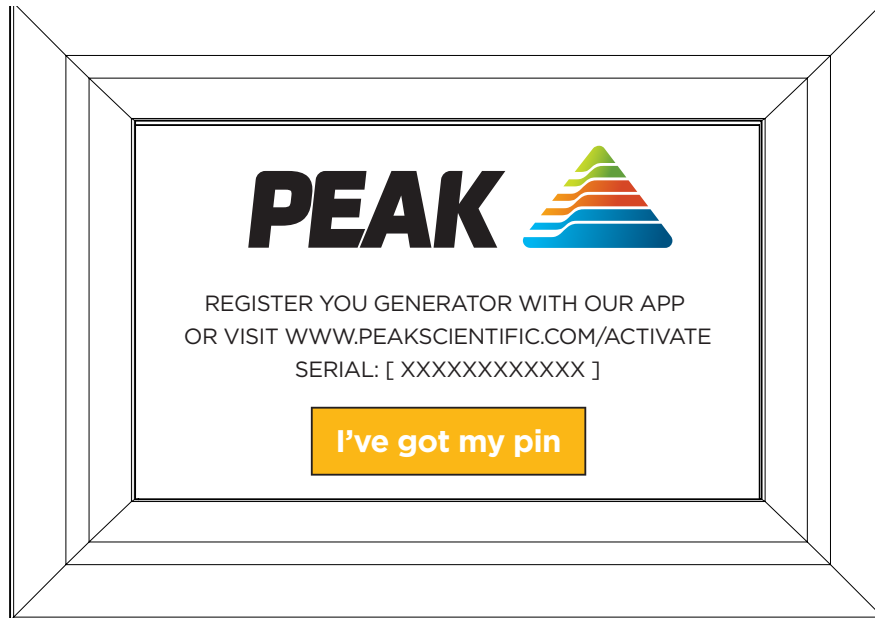
CAUTION ensure the correct cable has been selected for your electrical supply.
Consult the **Electrical Requirements** section if you are unsure of the requirements of your generator.

12.



Switch the generator ON using the switch on the rear panel

13.



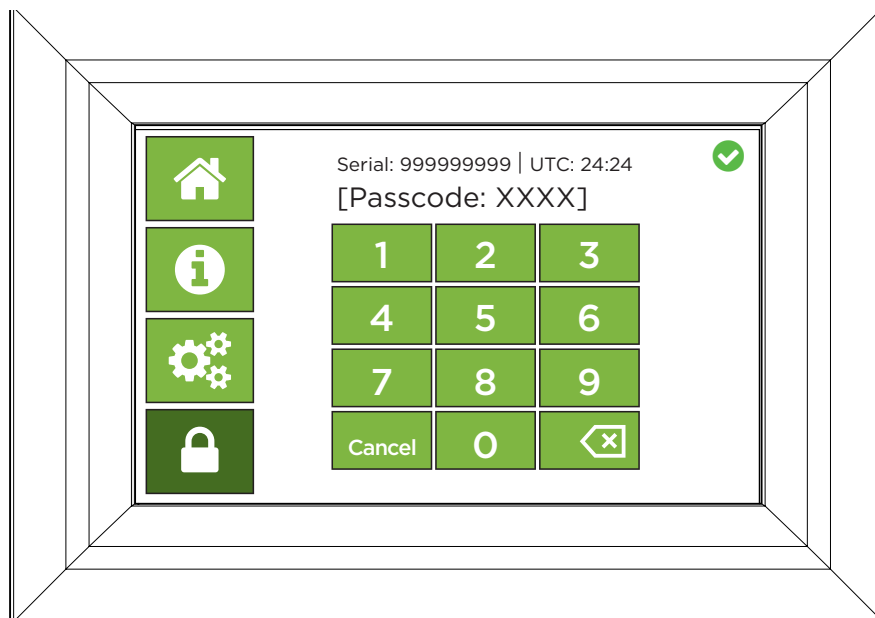
Before the generator will start-up for the first time the **user must enter a unique 4-digit PIN code.**

To receive your generator's unique PIN code, please register on the Peak website **www.peakscientific.com/activate** or **by downloading the Peak mobile app** from the Google Play Store or Apple App Store. A PIN code may also be requested by phoning the Peak helpdesk.

You will require the generator serial number which is displayed on the screen below.

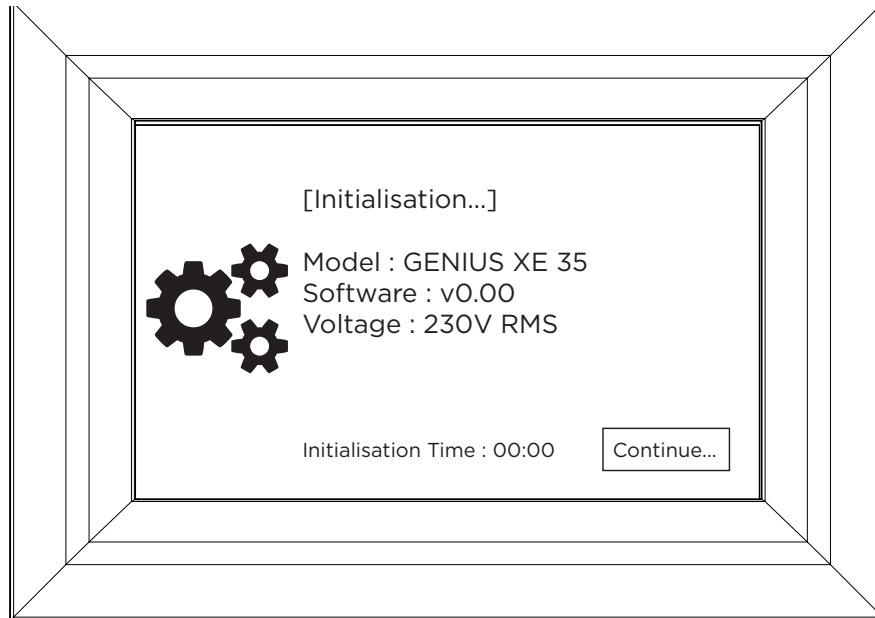
This code is only required on the initial start-up of the unit on the screen on the front of the generator.

14.



Enter your PIN. If entered incorrectly the screen will briefly display a wrong pass code warning before allowing a new PIN entry attempt.

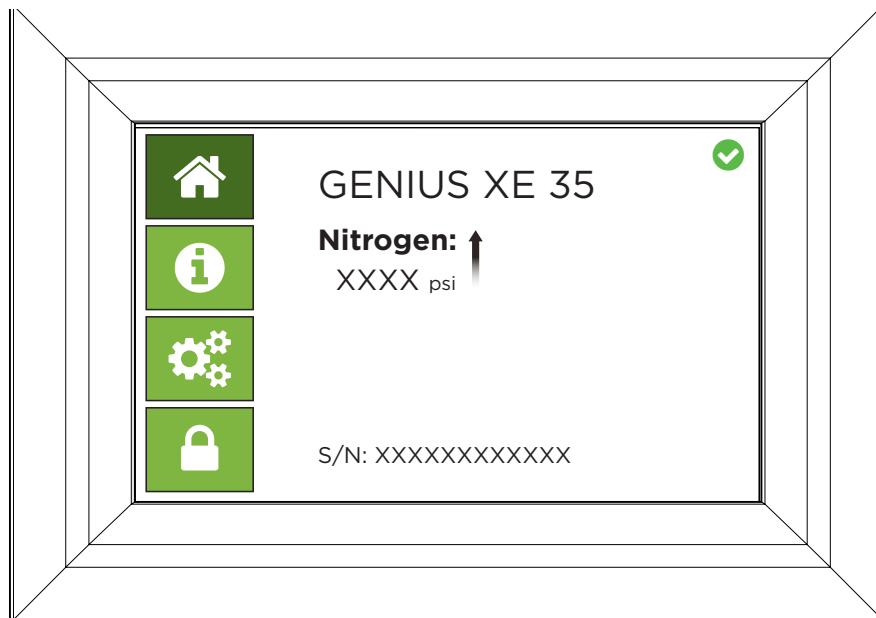
15.



The generator will now initialise. To ensure that the correct voltage is being supplied to the generator, the generator will show the supply voltage on its front display. **The voltage reading should be checked prior to the initial purge of the system.** The supply voltage will be displayed on the touch screen when the generator is switched on. **If the reading is 198V or less, then we would highly recommend fitting a Dual Tap Transformer 06-3200 (XE 35) or 06-3210 (XE 70).** This can be ordered directly from Peak Scientific.

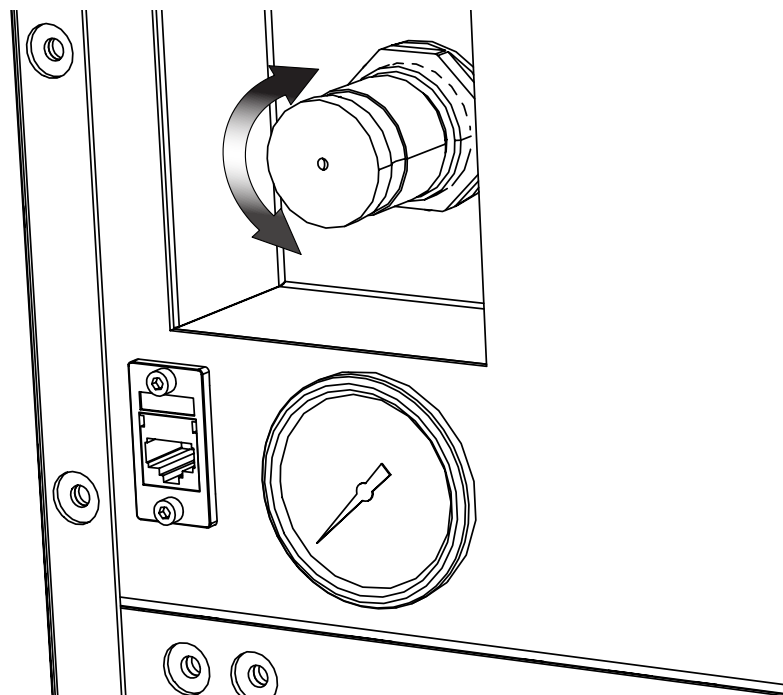
For Genius XE 35 (120V) voltage should not be less than 114V.

16.



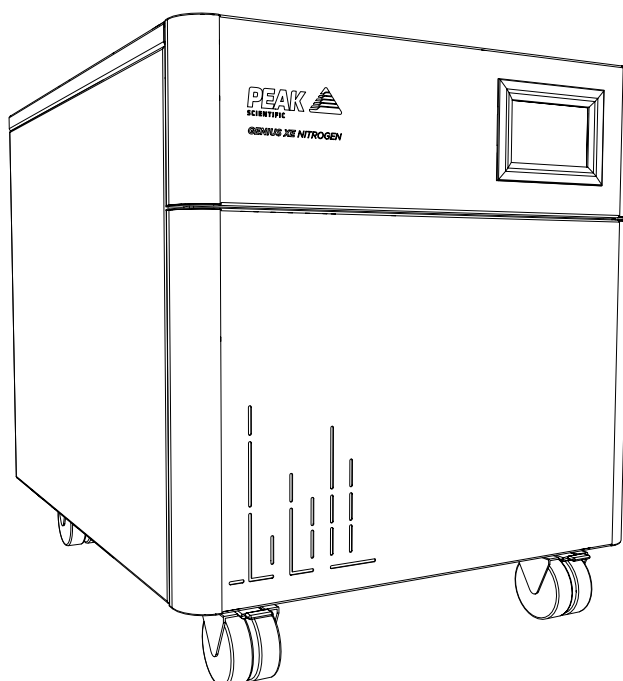
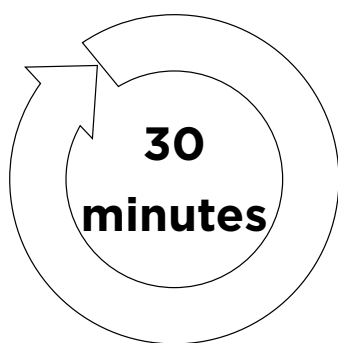
The outlet pressure reading on the display **will gradually increase** to the factory set pressure of 100 psi (6.9 bar).

17.



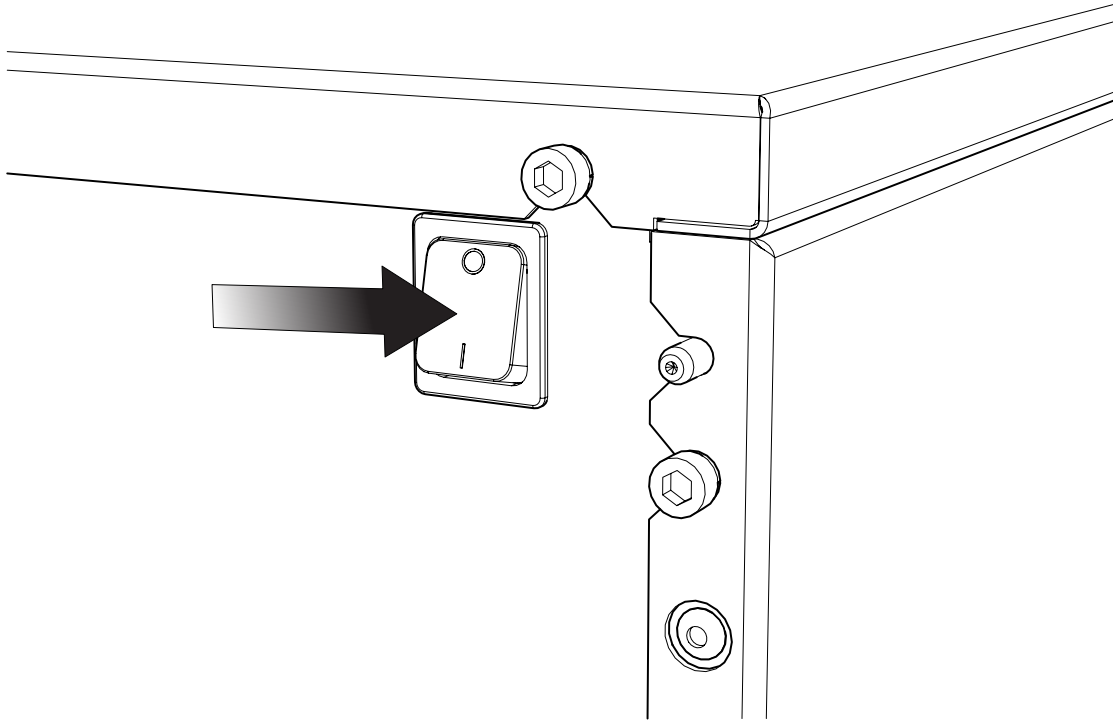
If required, the output pressure can be adjusted using the **pressure regulator at the rear of the generator**. View the **pressure gauge below the regulator** when setting the pressure. This gauge is for indication only. The actual pressure should be confirmed on the display.

18.



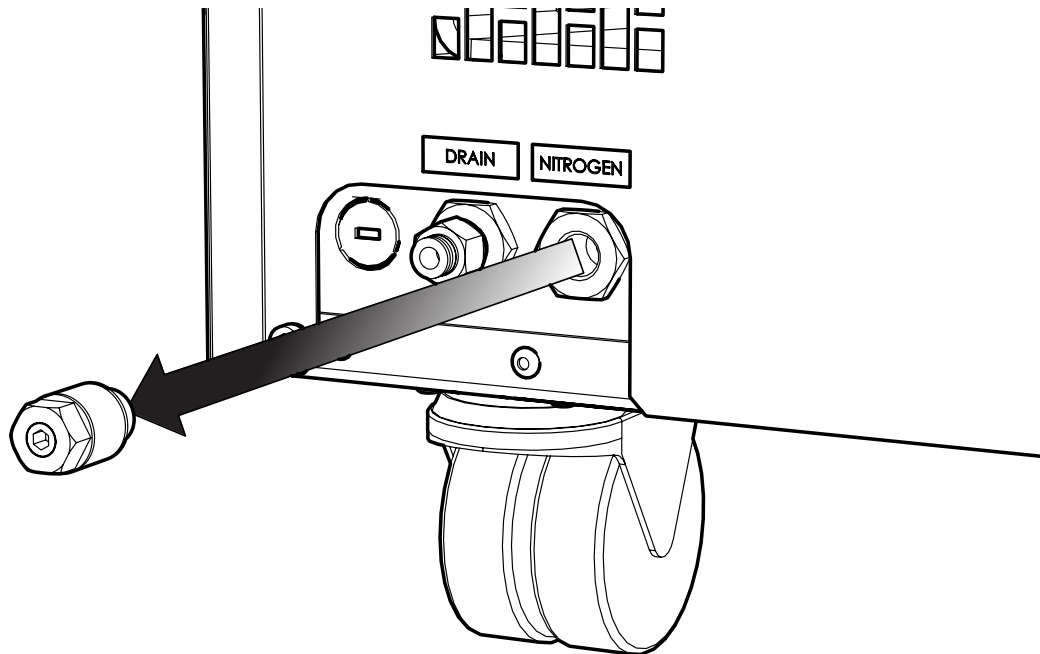
Leave the generator **switched on** for a period of **30 minutes** to purge the system.

19.



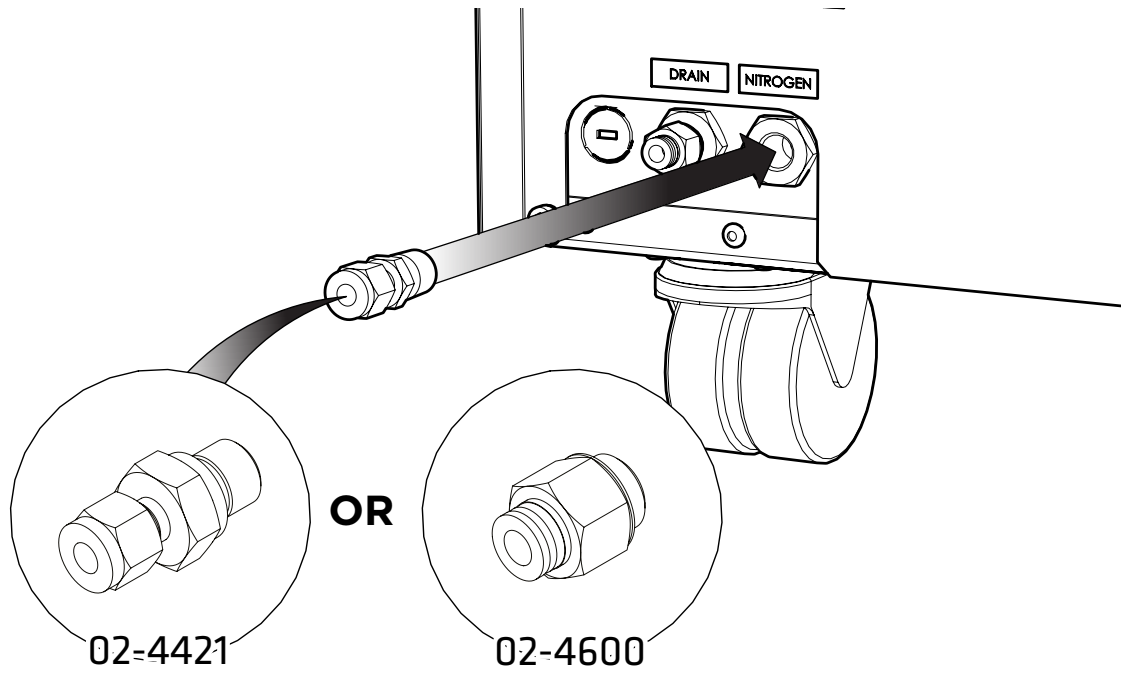
After 30 minutes of running, the generator can be turned **OFF**.
Allow the stored gas in the internal tanks to dissipate.

20.



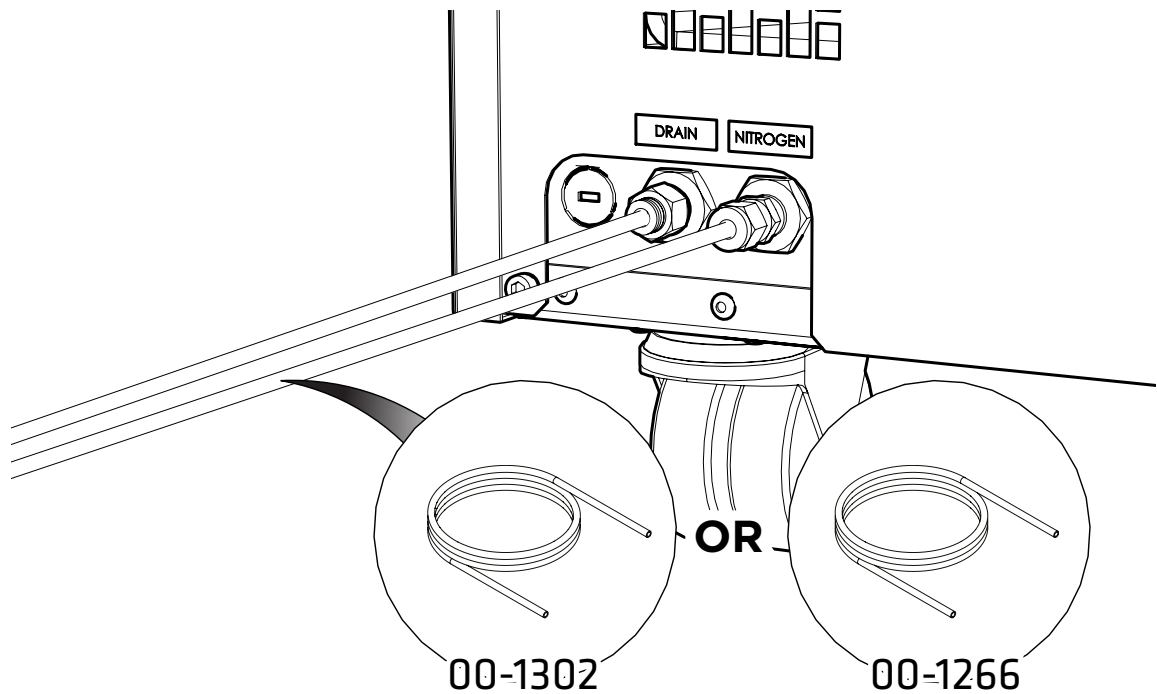
Once the pressure gauge at the rear of the unit **reads 0**, the **silencer fitting** can be **removed** from the **Nitrogen port**.

21.



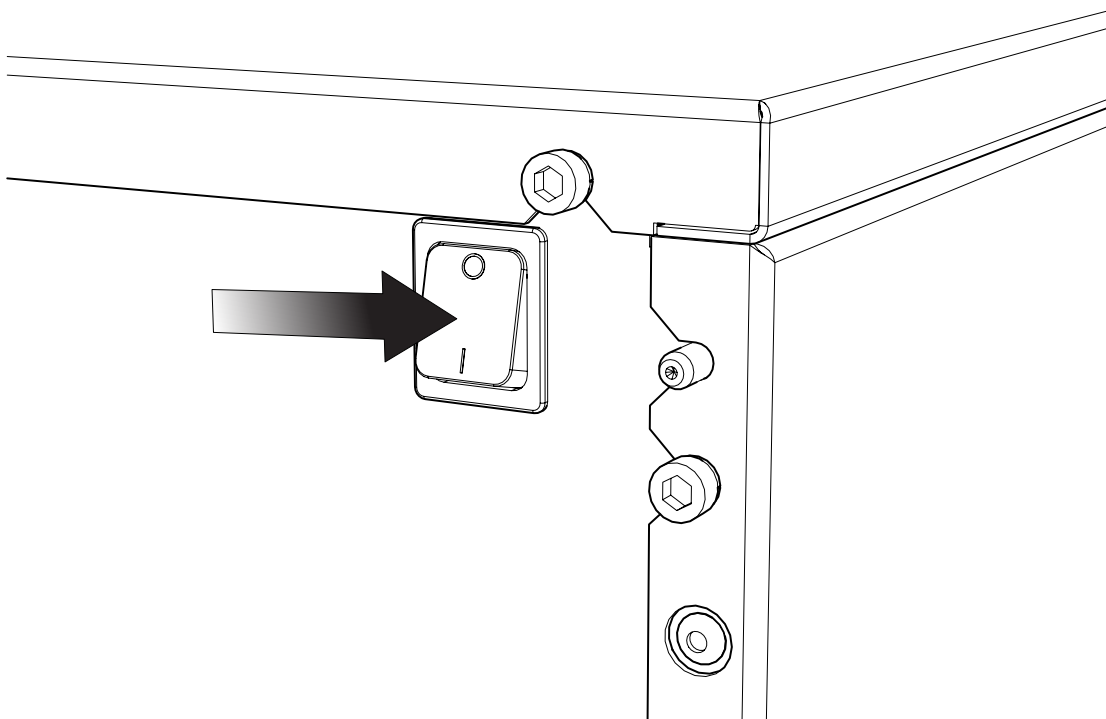
Depending on the size of the inlet on the instrument, select either the 1/4" **Compression Fitting 02-4421** or the remaining 1/4"- 6mm **Push Fit Fitting 02-4600**.

22.



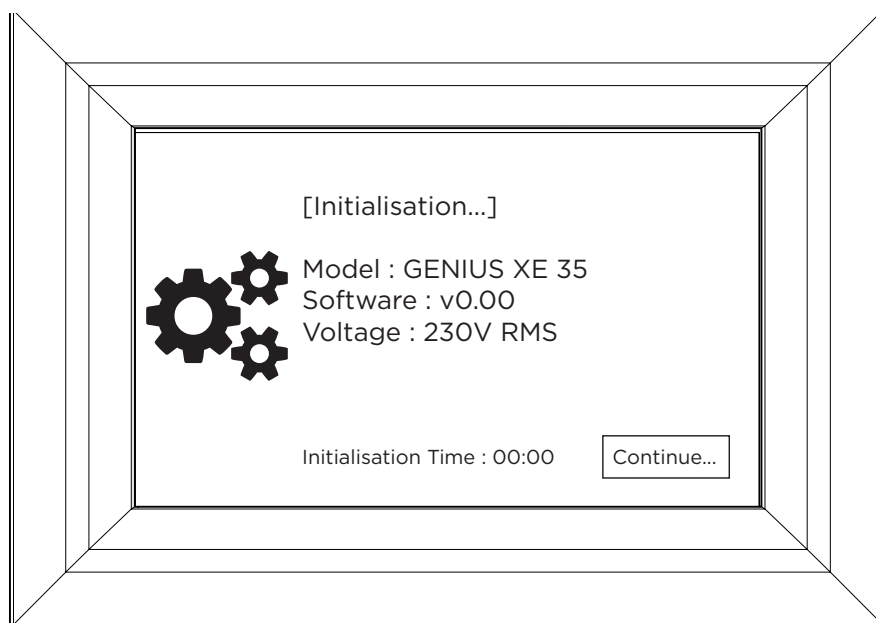
Attach the appropriate sized **Teflon tubing** to the fitting attached to the **nitrogen port** and connect to the **gas inlet of your instrument**.

23.



Switch the generator ON using the switch on the rear panel

24.



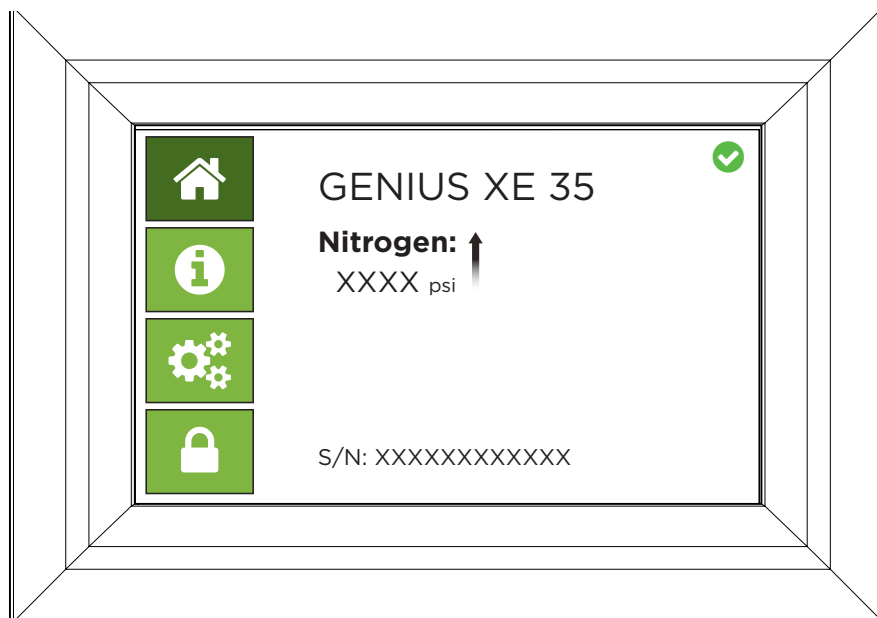
The generator will once again show the **initialisation screen**.

START UP DISCLAIMER

The generator will be ready to be connected to your LC-MS/MS Instrument after a 30 minute purge run as LC-MS/MS grade purity will be achieved within this period. For some other instruments, including AP-GC we recommend a purge run of 12 hours at full flow to ensure no interference during analysis.

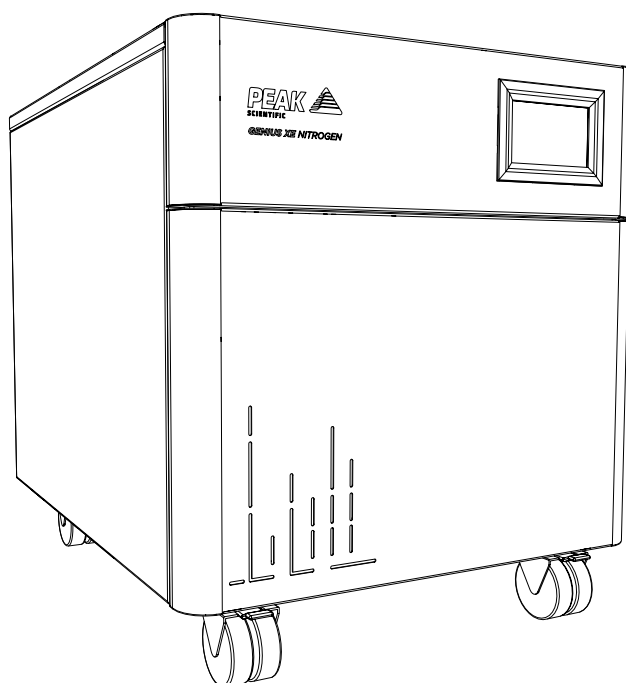
This only applies to the initial start up of the generator. Should your generator be switched off occasionally for a period of up to 48hrs, we recommend a short purge run of 30 minutes at 12LPM before resuming testing.

25.



The **pressure display** will again **gradually increase** to the factory set pressure.

26.



CONGRATULATIONS

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

General Notes

1. Electrical requirements for 230V generators are 195V - 253V 50/60Hz. If the reading is 198V or less, then we would highly recommend fitting a Dual Tap Transformer 06-3200 (XE 35) or 06-3210 (XE 70). This can be ordered directly from Peak Scientific. For Genius XE 35 (120V) voltage should not be less than 114V.
2. Electrical requirements for the 120V generator is 114V to 126V at 60 Hz.
3. The Teflon tube supplied in the fittings kit is to allow the generator to be installed adjacent to the instrument it is supplying. If the generator is to be installed further away from the instrument then attention needs to be paid to pressure drops that could occur. The maximum distance away from the instrument the generator can be placed still using 6mm (4mm internal diameter) or 1/4" (3/16" internal diameter) tubing is 3m. For further information relating to tubing lengths please refer to the user manual.

Electrical Requirements

| Generator | Voltage | | Frequency | | Plug Type |
|--------------|---------|-----|-----------|----|-----------------------------|
| | 230 | 120 | 50 | 60 | |
| Genius XE 35 | ✓ | ✓ | ✓ | ✓ | UK, EU, US 230V, US 120V |
| Genius XE 70 | ✓ | ✗ | ✓ | ✓ | UK, EU, US 230V |

Please familiarise yourself with the full **User Manual** available at **www.peakscientific.com/downloads**. This includes all other technical specifications, operating instructions, service requirements, contact details and trouble shooting.

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

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