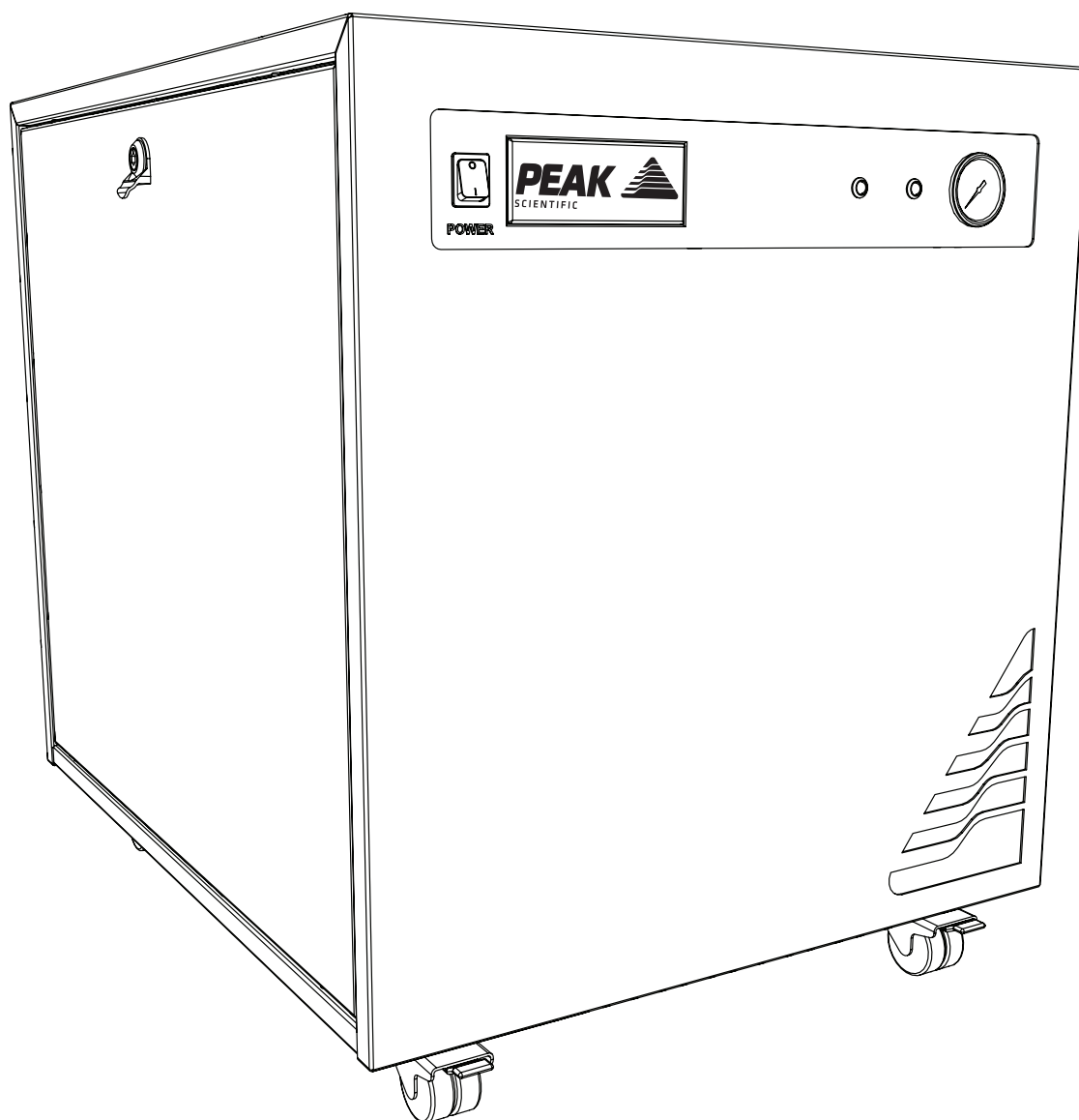


# Genius 1022, 1023 & NM32LA (All Models)

## Installation Guide



## Change History

Rev	Comment	Name	Date

## 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](http://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, and 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.

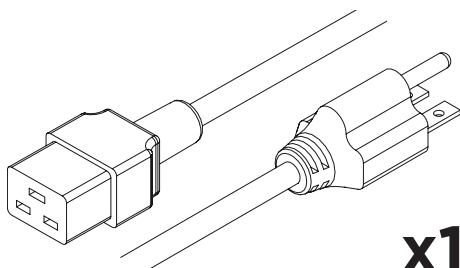


When handling, operating or carrying out any maintenance, personnel must employ safe engineering practices and observe all relevant local health and safety requirements and regulations. The attention of UK users is drawn to the Health and Safety at Work Act 1974, and the Institute of Electrical Engineers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



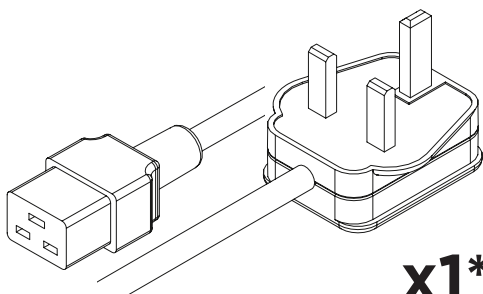
If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

# Fittings Kit



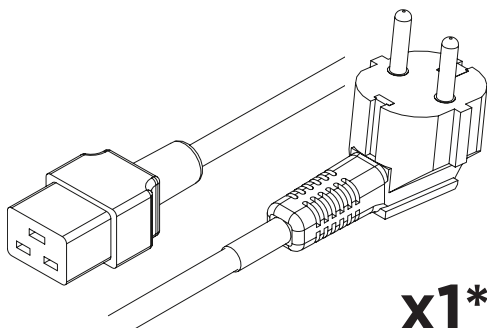
**x1\***

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



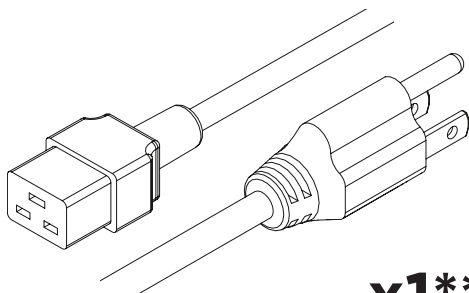
**x1\***

UK Mains Cable C19 04-1025



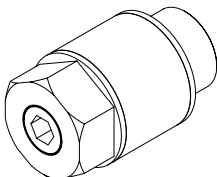
**x1\***

EU Mains Cable C19 04-1026



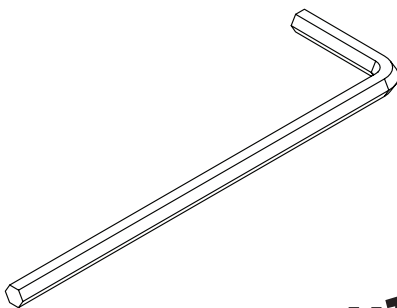
**x1\*\***

US Mains Cable 110V C19 5-15 04-1035



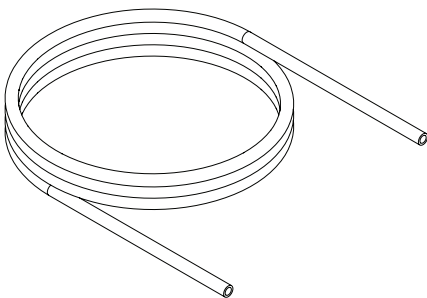
**x1**

Flow Control Silencer 02-1096



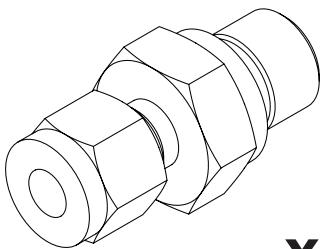
**x1**

8mm Hex Key 00-0007



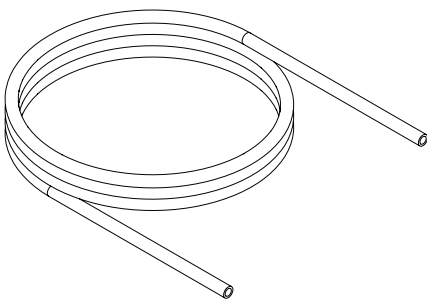
**x3m**

6mm Teflon White 00-1302



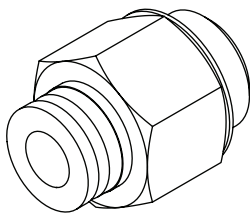
**x1**

1/4" Compression Fitting  
02-4421



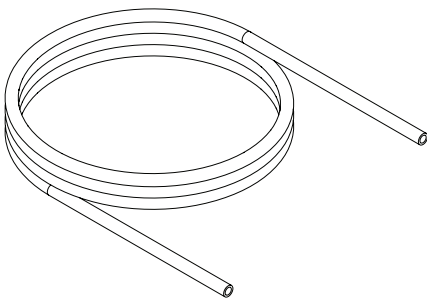
**x3m**

1/4" Teflon Tubing 00-1266



**x2**

1/4" - 6mm Push Fit Fitting  
02-4600

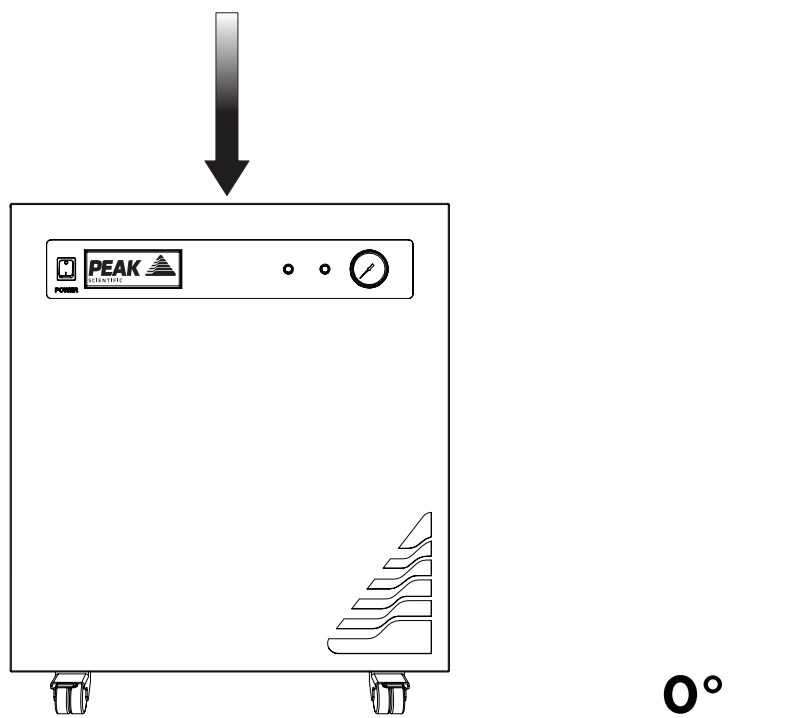


**x3m**

6mm OD x 4mm ID PE 00-1282

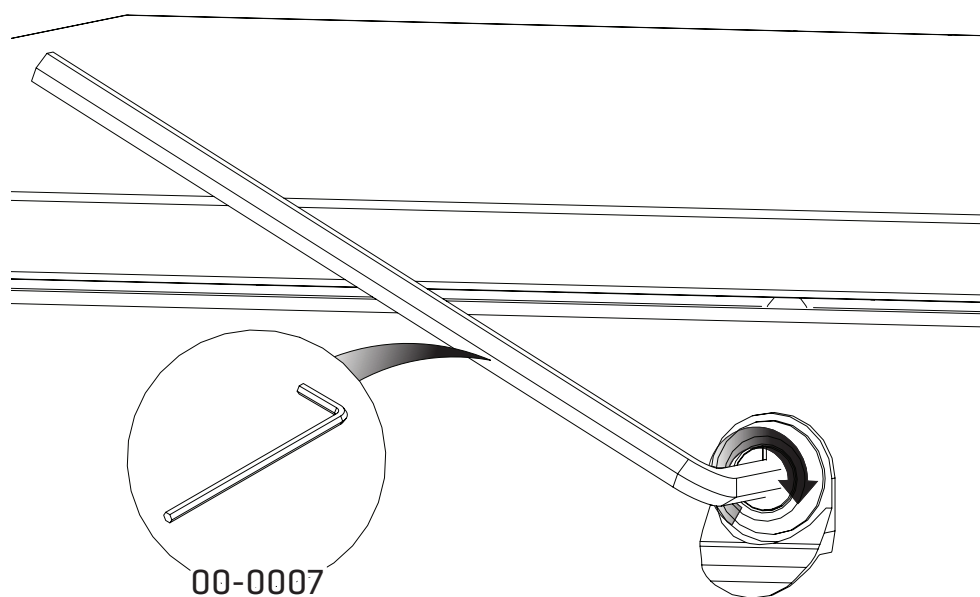
\* Genius 1022, 1023 and NM32LA Only  
\*\* NM32LA 110V Only

1.



Unpack the generator from the shipping crate and position on a flat surface, in desired area.

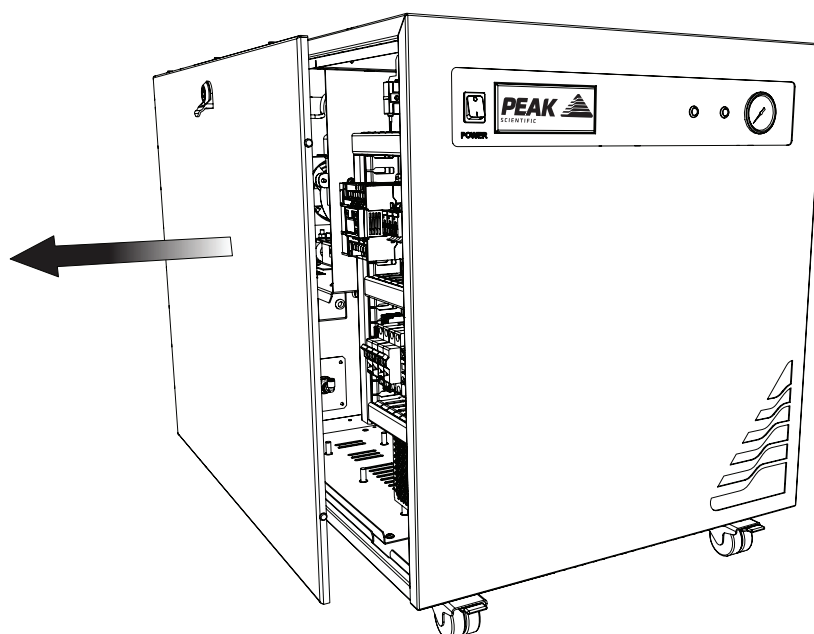
2.



First **remove the compressor transit brackets.**

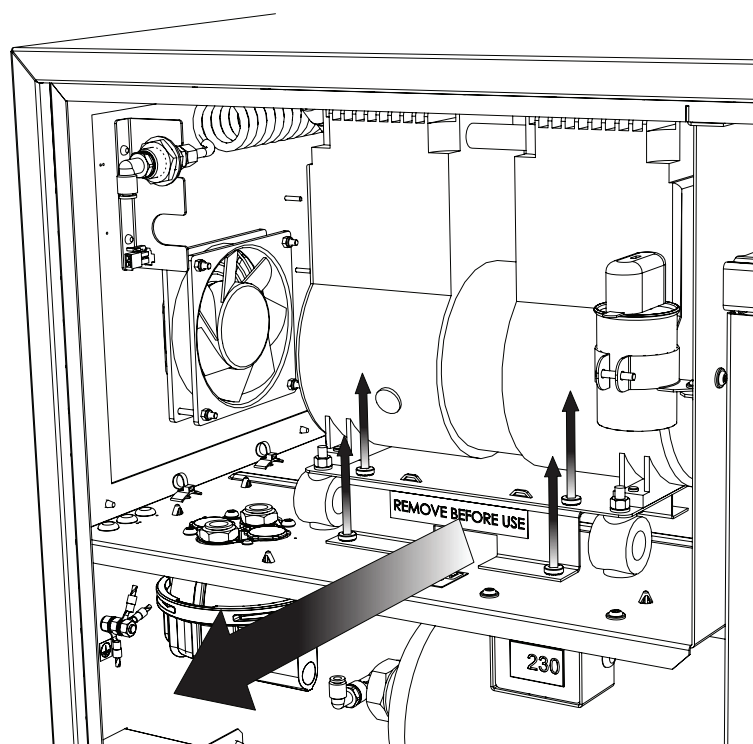
These can be accessed by removing the generator side panels. Starting with the left hand side panel, use the **8mm Hex Key 00-0007**, and turn the lock 90° to the right.

3.



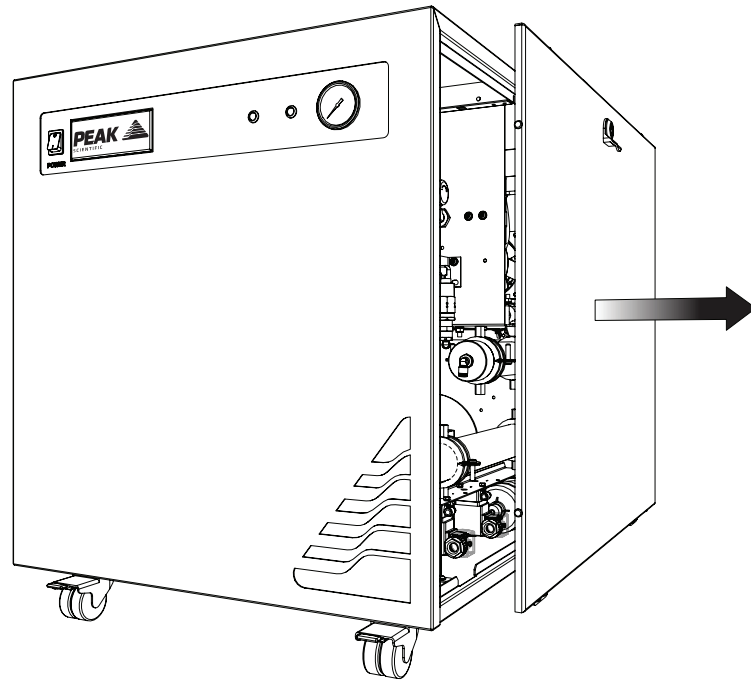
Once unlocked **remove the left hand side panel**, ensuring you **disconnect the earth lead** located in the lower middle of the panel.

4.



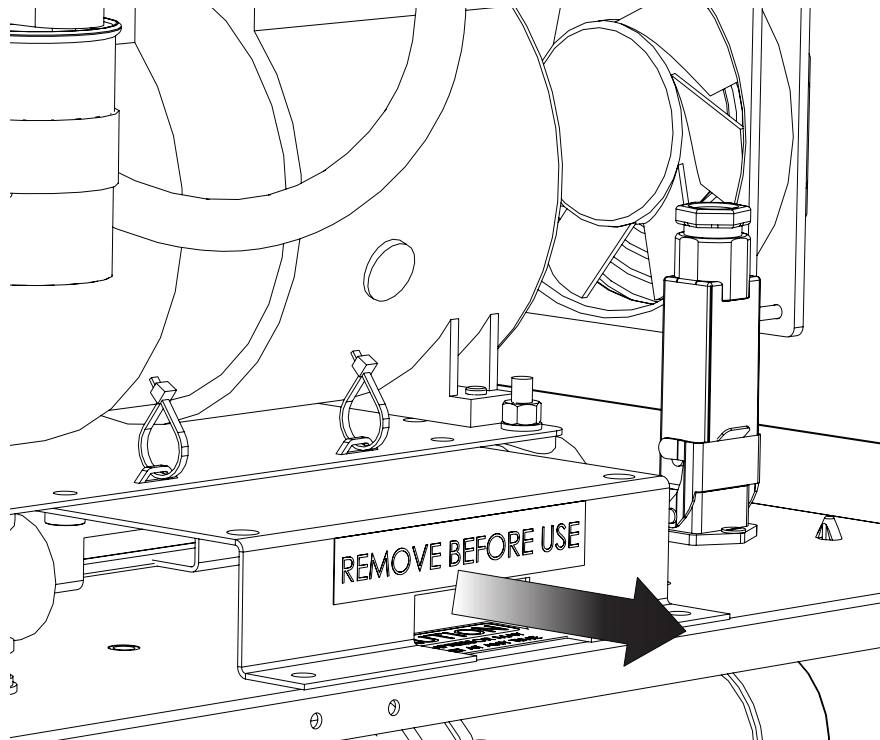
The **transit bracket** is located below the compressor and has a sticker on it stating 'Remove before use'. To remove the transit bracket, **remove the four screws** as indicated, then **slide the bracket out** from underneath the compressor. Please retain the bracket and screws for future transportation.

5.



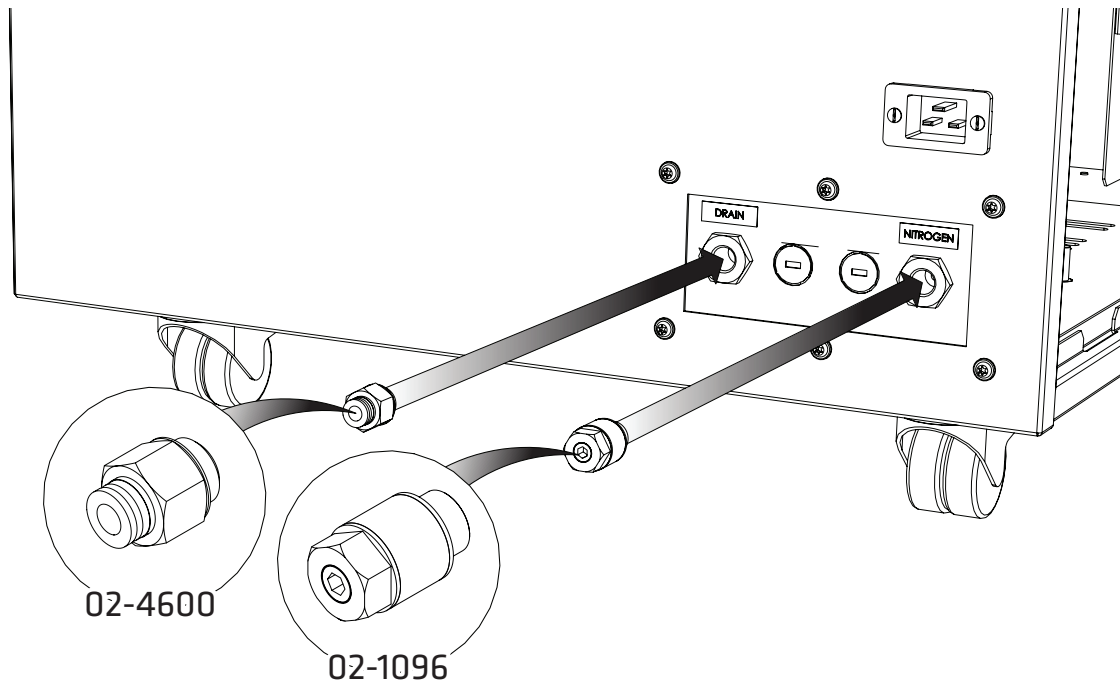
Follow the same process to **remove the right hand side panel.**

6.



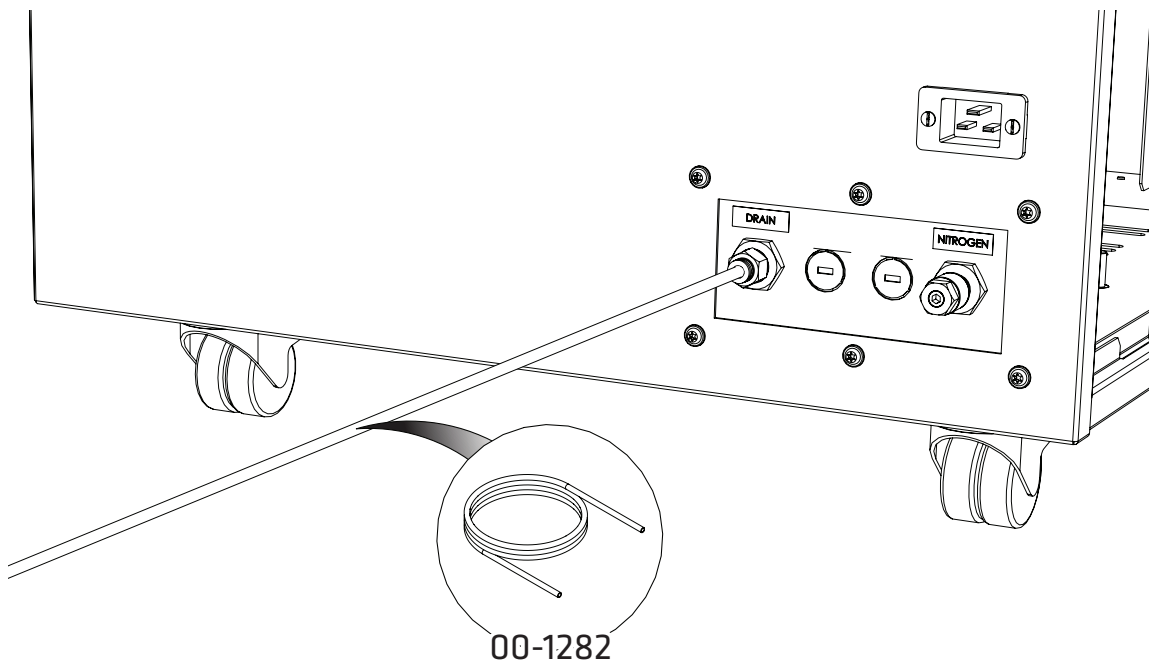
Repeat step 4 to **remove the right hand side transit bracket.**

7.



Select the **1/4"- 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.

8.

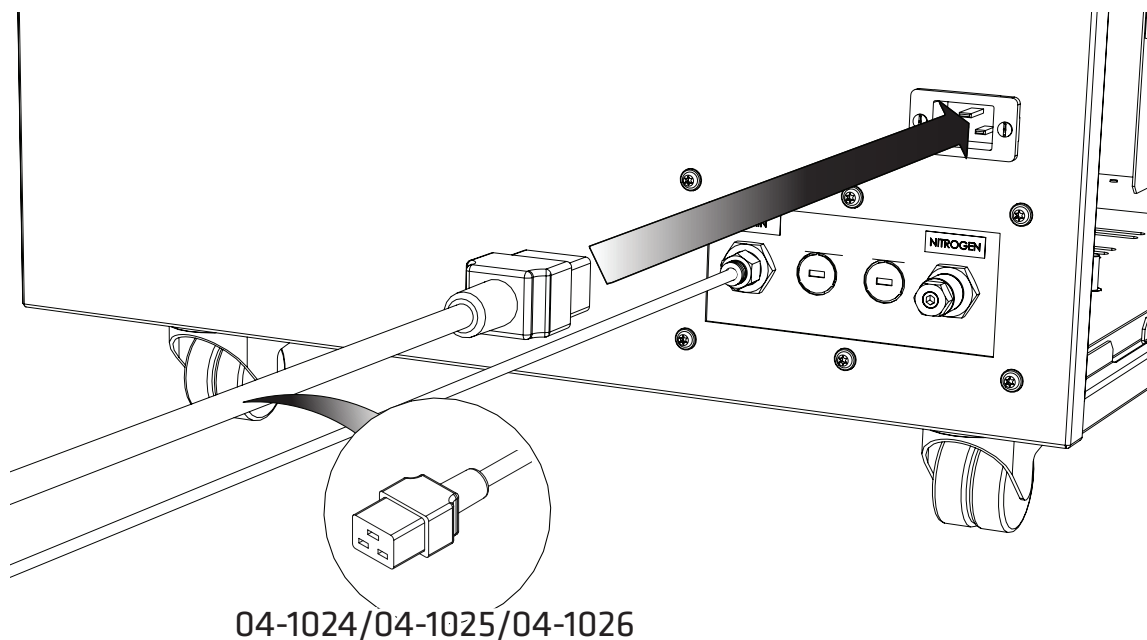


Connect the **6mm PE Tubing 00-1282** to the **1/4"- 6mm Push Fit Fitting 02-4600**.

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.



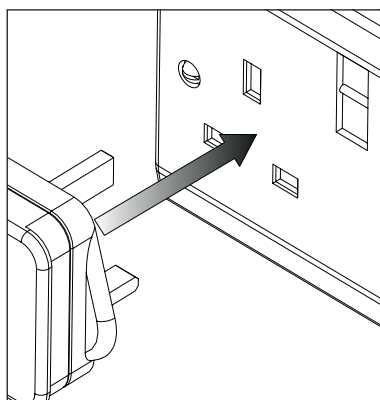
9.



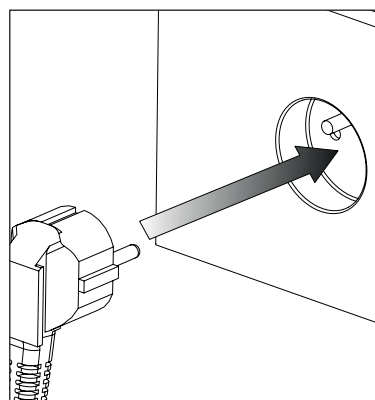
Select the appropriate mains cable from the fittings kit and plug the **IEC 60320/C19** cable into the mains input at the rear of the generator.

10.

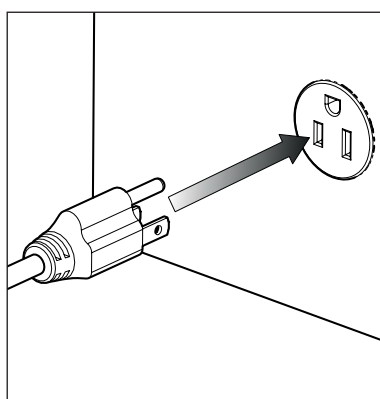
UK



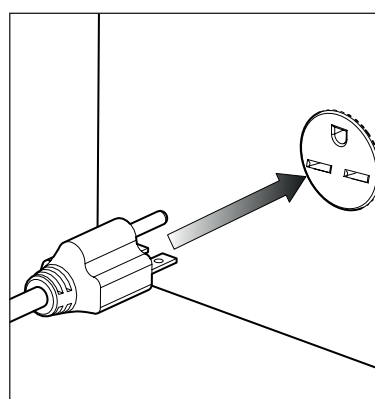
EU



US  
110V



US  
230V

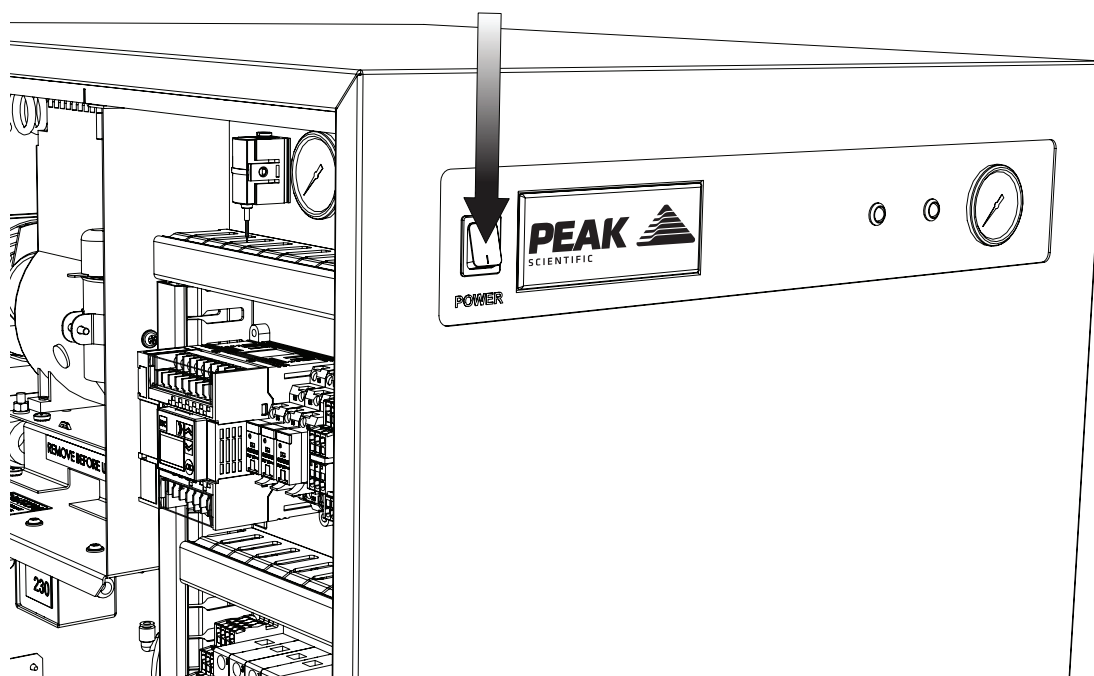


Plug the mains cable into the corresponding **110VAC 60Hz OR 230VAC 50/60Hz** single phase power supply.

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

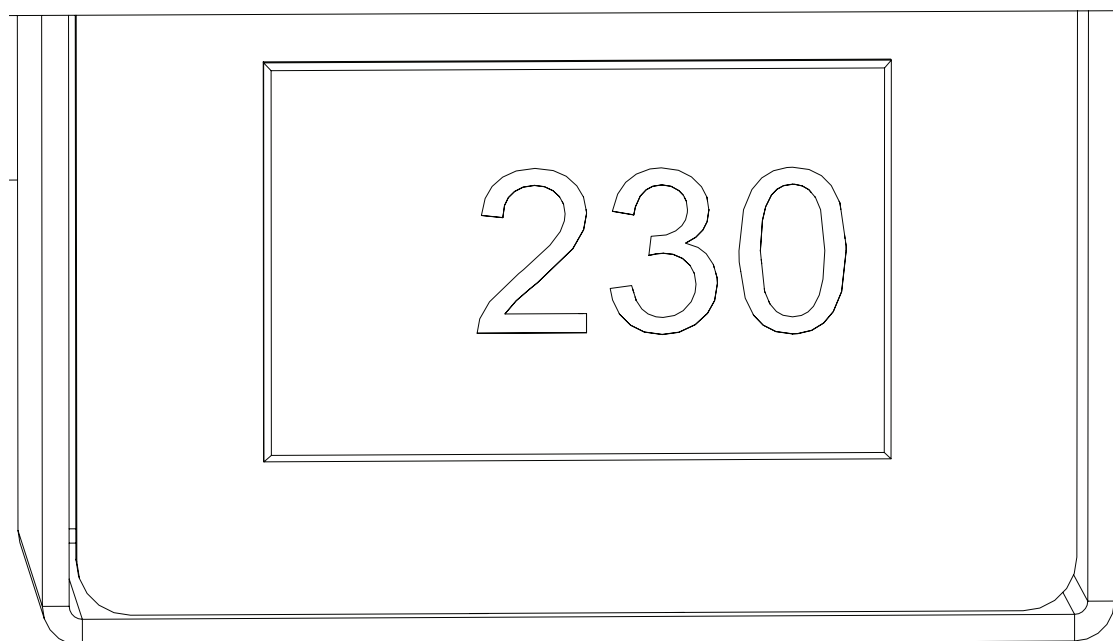
Consult the **Electrical Requirements** section if you are unsure of the requirements of your generator.

11.



Switch the generator power **ON** using the switch on the front panel.

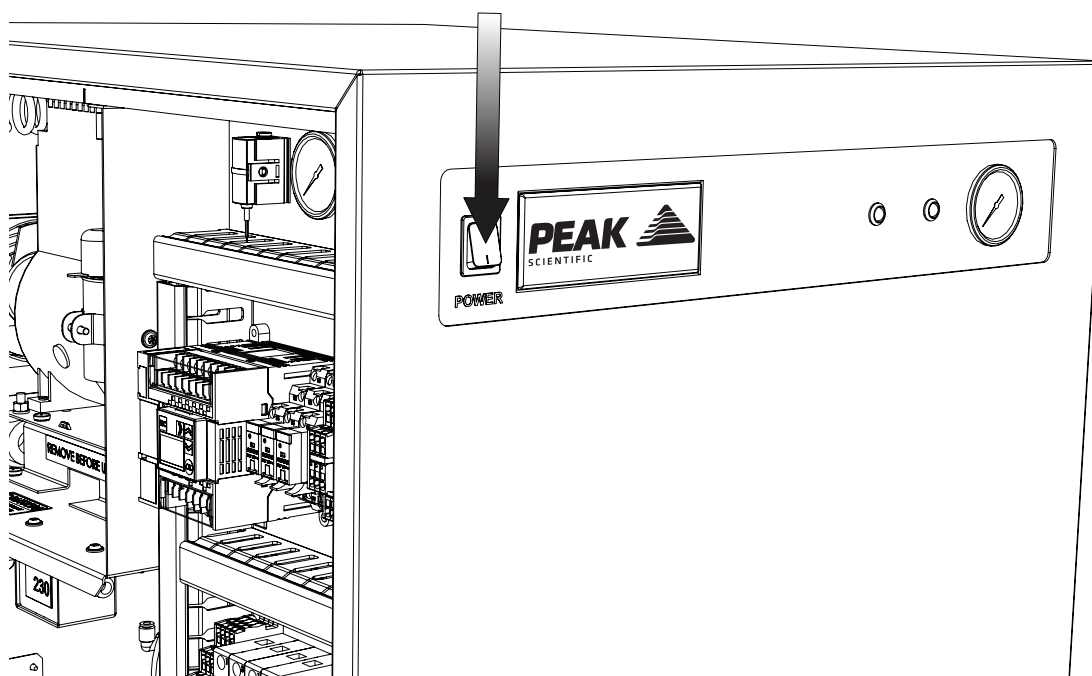
12.



Check the Generators **internal voltmeter**. This will measure and display the mains voltage that is being supplied to the generator. Note the displayed voltage. If the voltage is 195V to 219V a transformer will be required. This can be ordered directly from Peak. **06-3200 Dual Tap Transformer 200-230V**

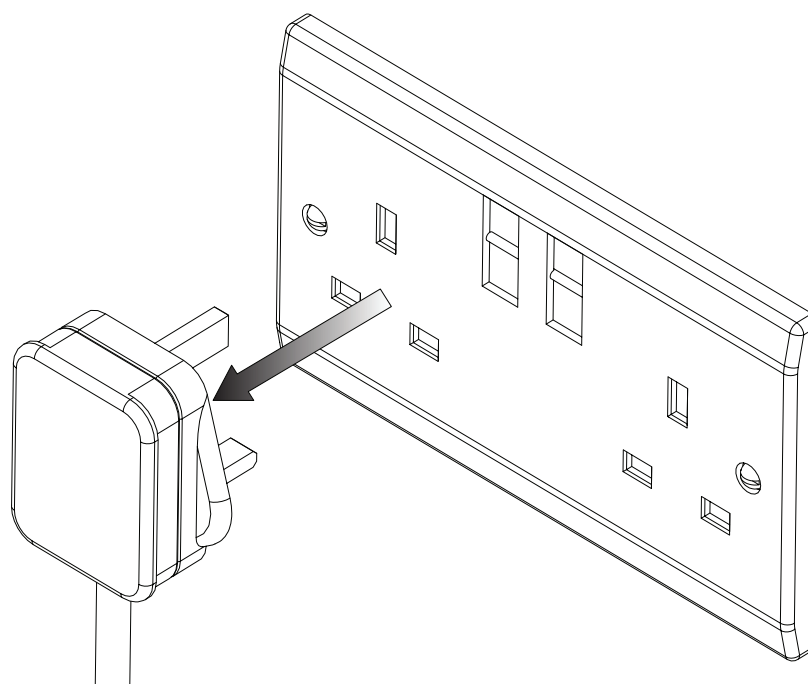
For NM32LA (110V) voltage should not be less than 100V.

13.



Switch the generator **OFF** using the switch on the front panel.

14.

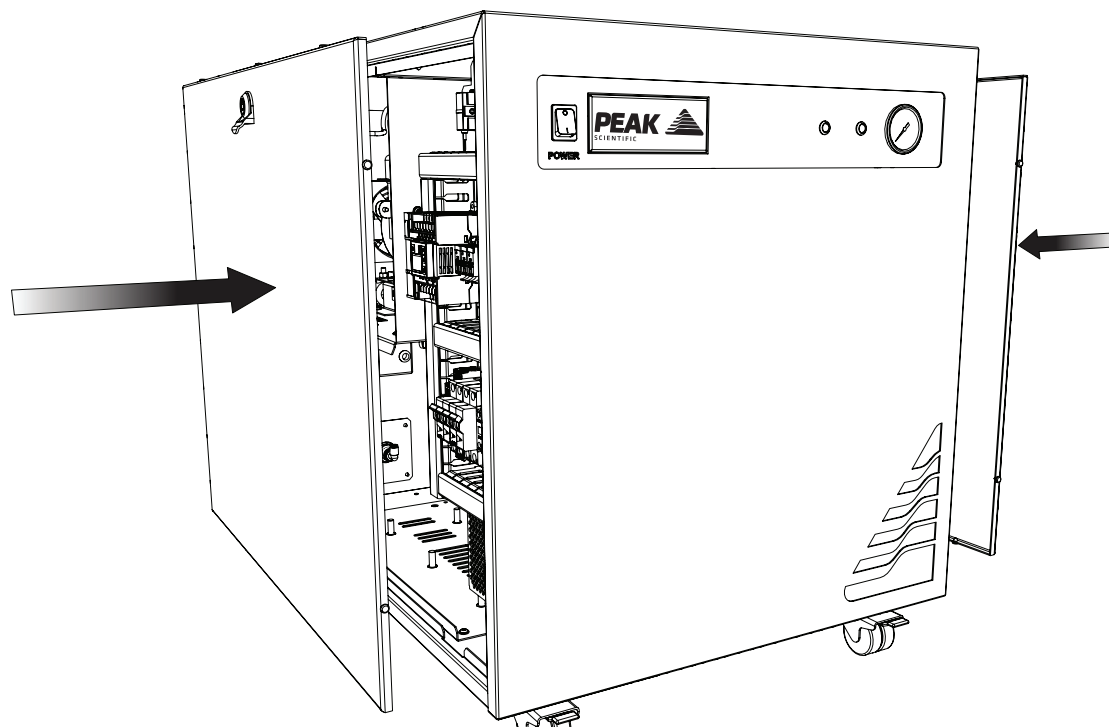


CAUTION



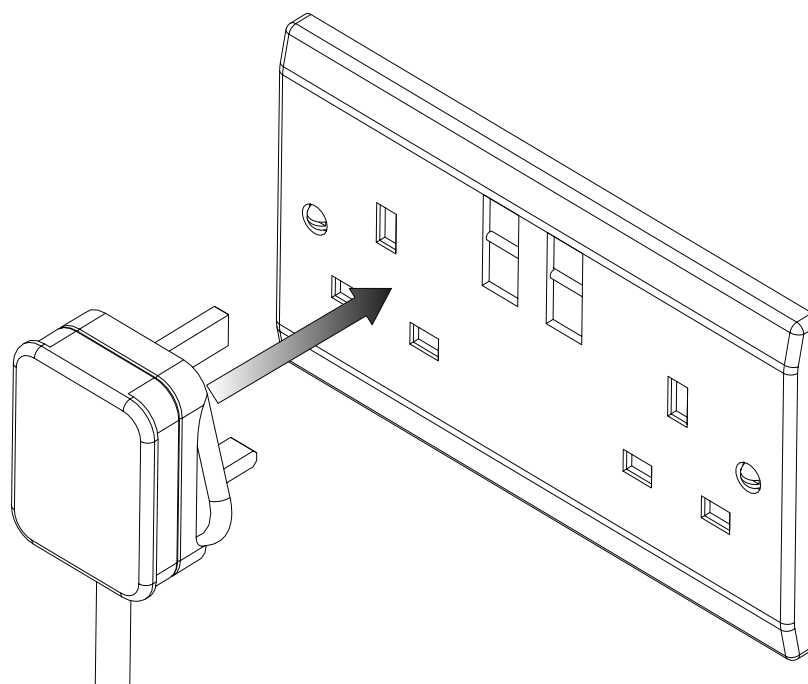
**Remove the mains cable** completely from the power supply.

15.



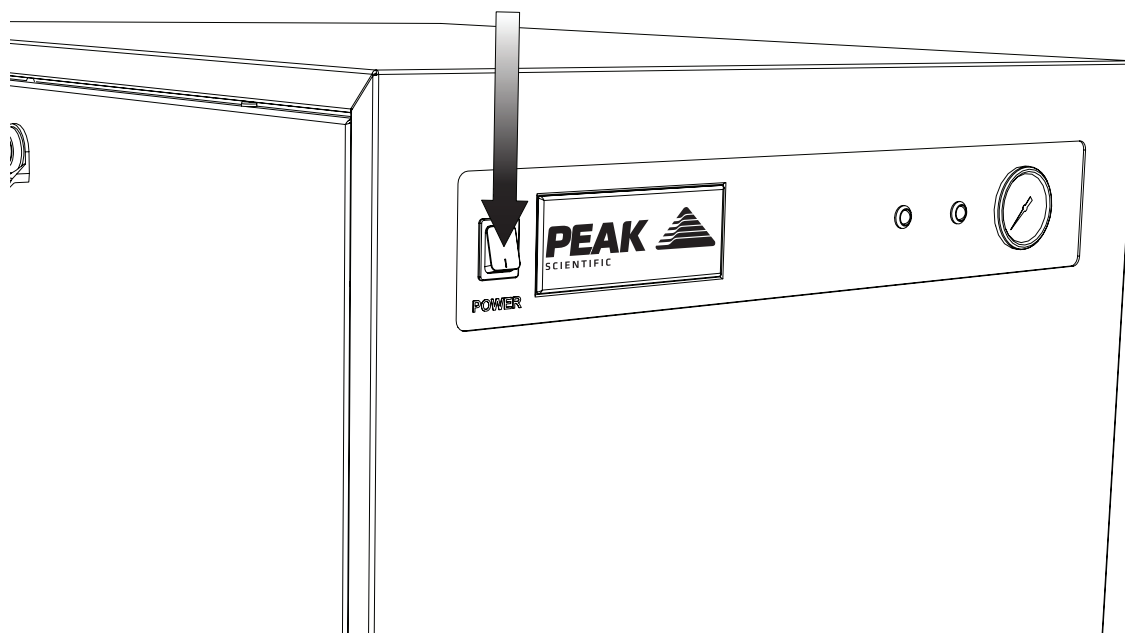
**Re-attach both side panels** to the generator, ensuring the **earth leads** are **re-connected** and the **locks are secured**.

16.



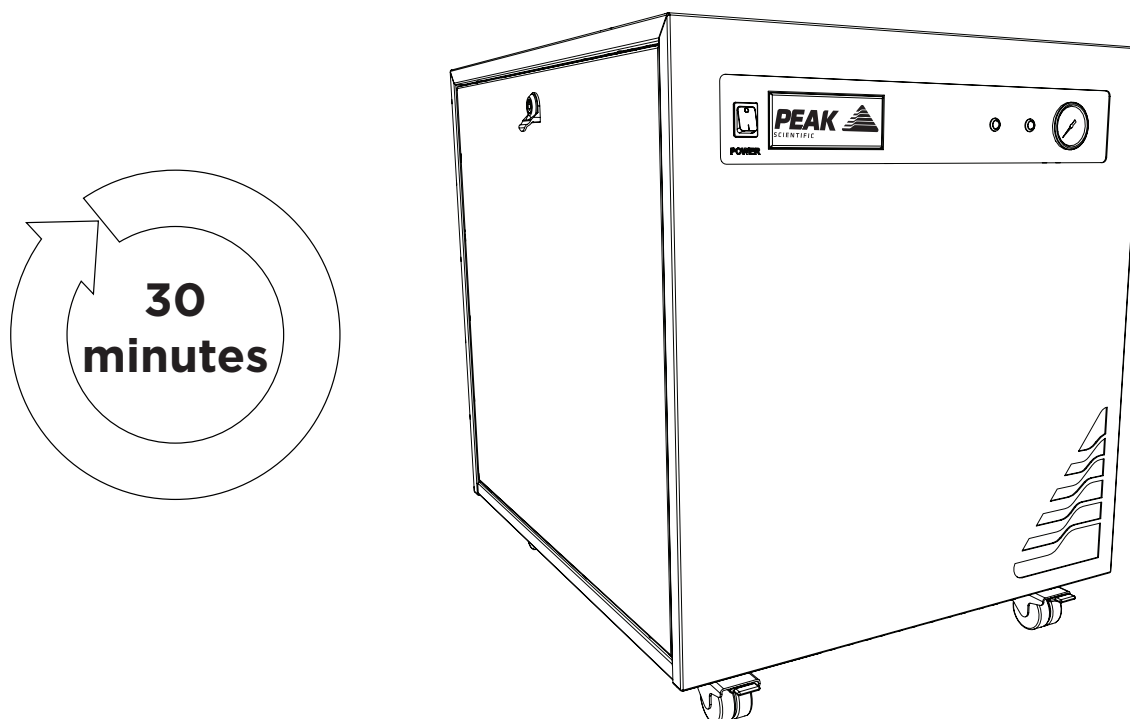
With the side panels securely re-attached, the mains power supply can be **re-connected**.

17.



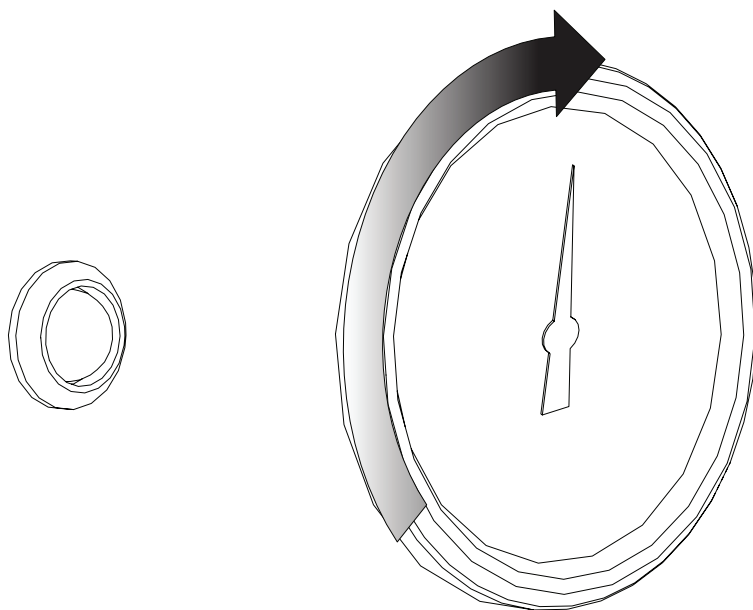
Again, switch the generator power **ON** using the switch on the front panel.

18.



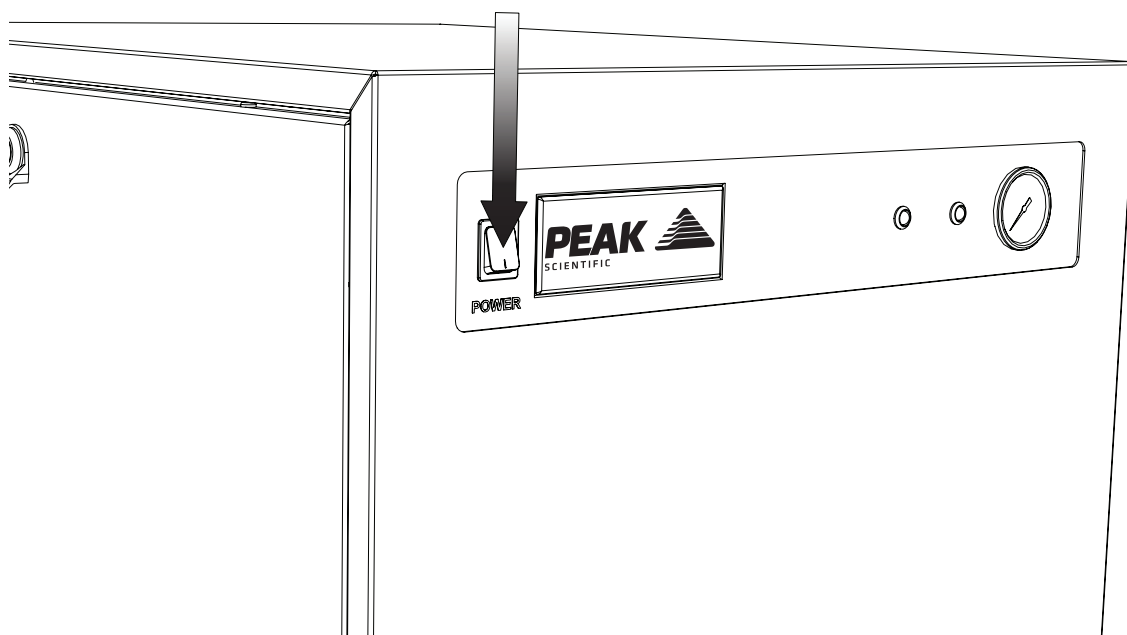
Leave the generator **switched on** for a period of **30 minutes** to purge the system.

19.



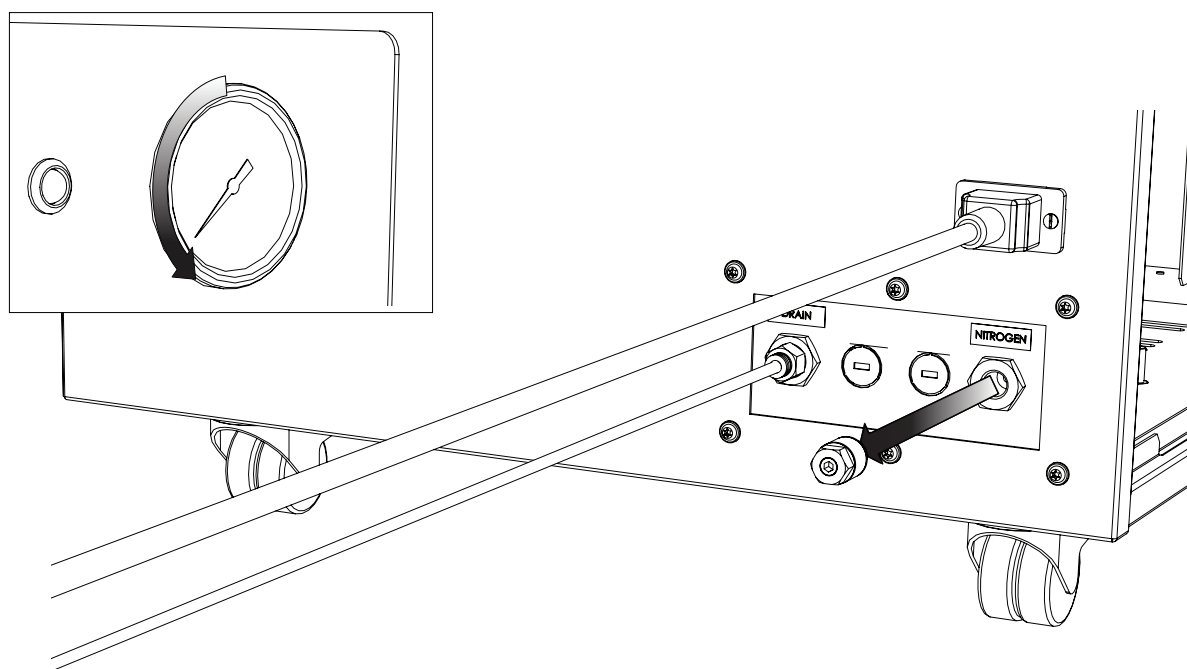
The **pressure gauge** on the front panel will gradually increase to the factory set pressure.

20.



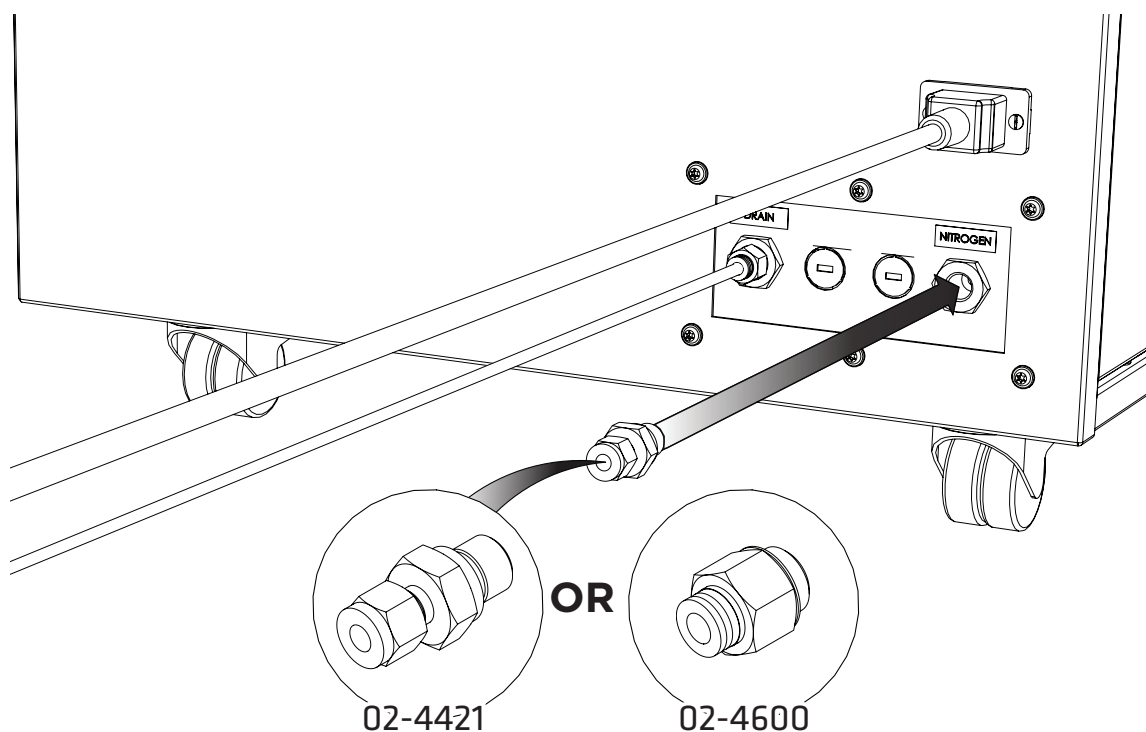
**After 30 minutes** of running, the generator can be turned **OFF**.  
Allow the stored gas in the internal tanks to dissipate.

21.



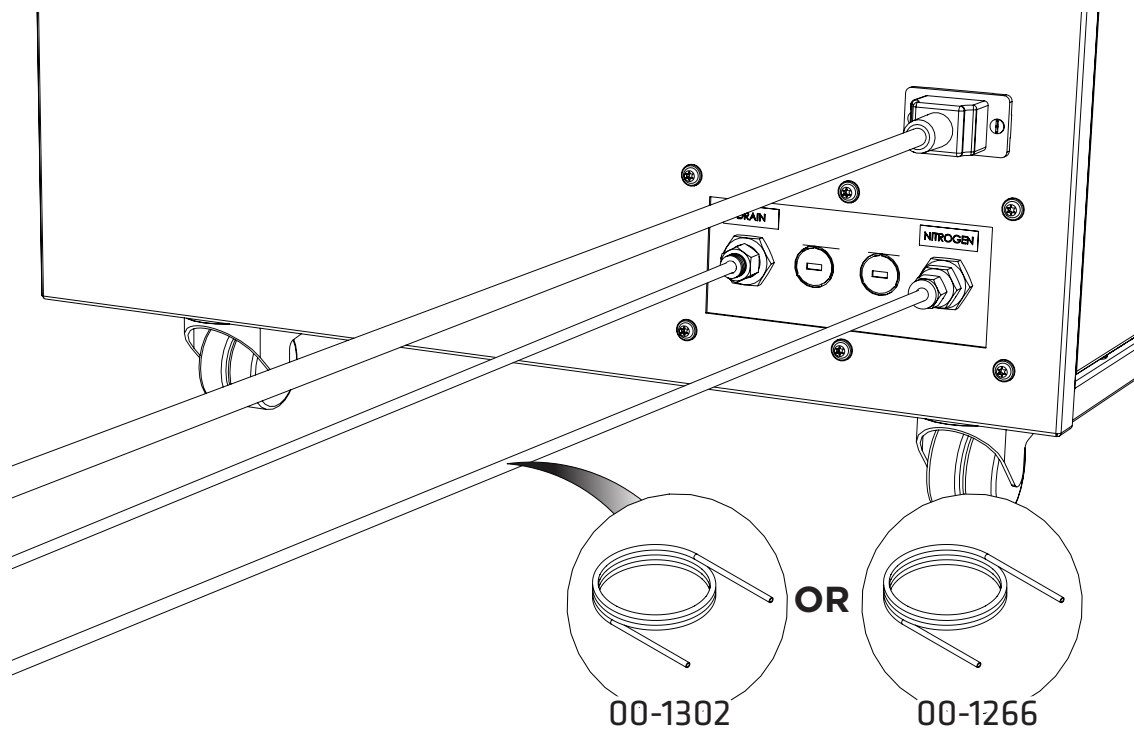
The purge is now complete. Once the pressure gauge on the front of the generator reads 0, the **silencer fitting can be removed** from the nitrogen port.

22.



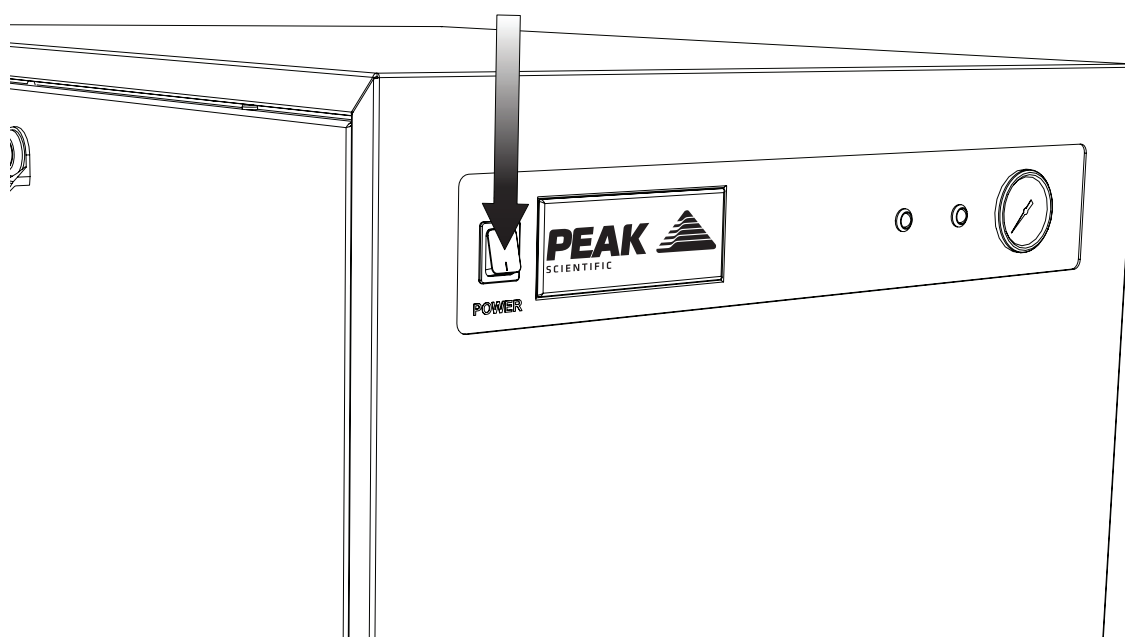
Depending on the size of the inlet on the instrument, select either the ¼" **Compression Fitting 02-4421** or the remaining ¼"- 6mm **Push Fit Fitting 02-4600**.

23.



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

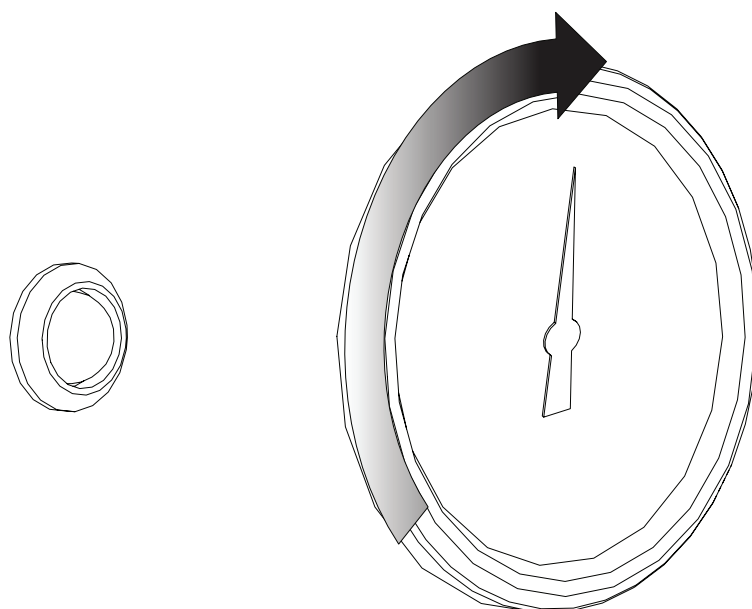
24.



Switch the generator power **ON** using the switch on the front panel.

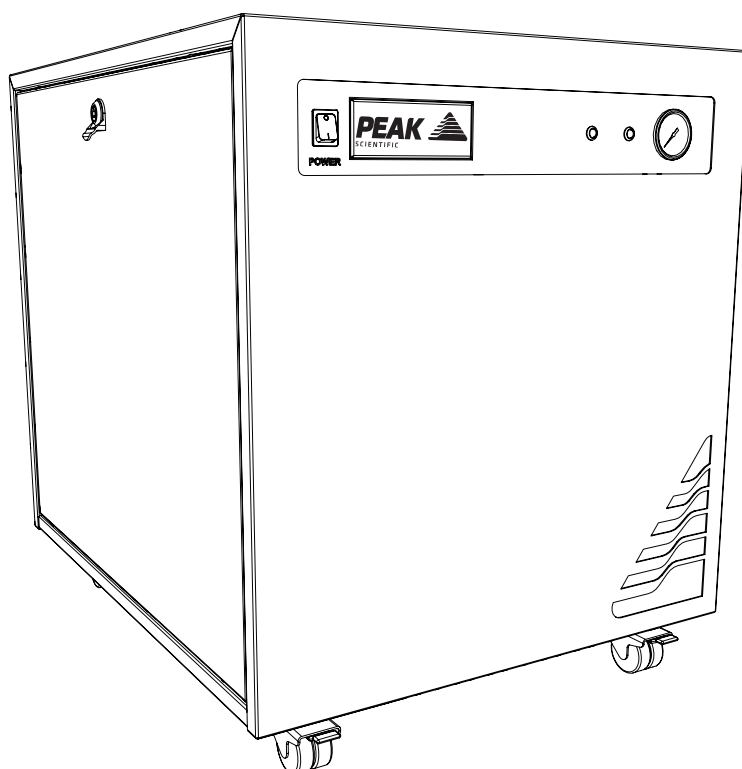


25.



The **pressure gauge** 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 is 195V - 253V 50/60Hz. For 195V - 219V a 06-3200 Dual Tap Transformer is required.
2. Electrical requirements for the 110V generator is 100V to 127V 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 ¼" (3/16" internal diameter) tubing is 10m. For further information relating to tubing lengths please refer to the user manual.

## Electrical Requirements

Generator	Voltage		Frequency		Plug Type
	230	110	50	60	
Genius 1022	✓	✗	✓	✓	UK, EU, US 230V
Genius 1023	✓	✗	✓	✓	UK, EU, US 230V
NM32LA	✓	✗	✓	✓	UK, EU, US 230V
NM32LA-A	✓	✗	✓	✓	UK, EU, US 230V
NM32LA (110V)	✗	✓	✗	✓	US 110V

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

# Go Online or Complete and Return

We know that registering any of your recently purchased products is not the first thing on your mind- but it is very important to both of us. Not all warranties are alike and Peak Scientific stand out against other gas suppliers as we offer a comprehensive, quick response, on-site warranty. This means that in the very unlikely case that your gas generator develops a fault we have rapid support teams on-hand around the world who are able to come to your lab and get you back up and running in no time.

Register for your **comprehensive 12 month on-site warranty** with ease online at [www.peakscientific.com/register](http://www.peakscientific.com/register).

Alternatively, you can send the completed form to Peak Scientific by post or email at [warranty@peakscientific.com](mailto:warranty@peakscientific.com).

**Go Online or Complete and Return**

You can register for your **FREE 12 month Warranty** with ease online at [www.peakscientific.com/protected](http://www.peakscientific.com/protected).

Alternatively, you can send the completed form to Peak Scientific by post or email at [warranty@peakscientific.com](mailto:warranty@peakscientific.com).

Product Warranty Registration			
Contact name			
Email address			
Company			
Address			
City/Town			
Postcode			
Country			
Telephone			
Generator serial #			
Model type			
Installation date			
Do you still use an alternative gas solution i.e. cylinders or bulk liquid?	Yes	No	
What gas requirements do you have in your lab?	Hydrogen	Nitrogen	Zero Air

**Extend your cover with**

Peak Scientific offer comprehensive gas generator after sales support packages. Peak [Protected] aftercare support can guarantee an on-site response within 72 hours\*, genuine parts from our ISO9001 approved factory and a 95% first-time fix rate. See our enclosed Peak [Protected] leaflet for further information.

**Important!**

You have 1 month to register your Peak Scientific product from the date of installation. Once registered the warranty will be honoured for a period of 12 months. If you wish to defer the installation of your generator you must notify Peak Scientific immediately by emailing [warranty@peakscientific.com](mailto:warranty@peakscientific.com). For generators that remain unregistered after 1 month from the shipment date, the warranty will be considered active from the date of factory dispatch.

\* Complete Plan only



## Important!

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Please visit [www.peakscientific.com/downloads](http://www.peakscientific.com/downloads) to download the full User Manual for your gas generator.

## [**PEAK Protected**]<sup>TM</sup>

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](mailto:protected@peakscientific.com).

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For further information on any of our generator products please contact [marketing@peakscientific.com](mailto:marketing@peakscientific.com)

