INSTALLATION QUALIFICATION

Instrument Origin and Identification

Instrument Series:	PRECISION HYDROGEN
Model:	Precision Hydrogen SL
Instrument Description:	Hydrogen Gas Generator
Flow Variant:	100cc ☐ 200cc ☐
Water Load Variant:	Manual Fill ☐ Pumped Fill ☐ Pressure Fill ☐
Colour Variant:	Black ☐ White ☐
Manufacturer:	Peak Scientific Instruments Ltd Fountain Crescent Inchinnan Business Park Inchinnan Renfrew PA4 9RE Scotland, UK
Service Contact:	Peak Scientific Instruments Ltd Tel. +44 (0)141-812-8100 Email support@peakscientific.com
Serial Number:	
Condition when Received:	New ☐ Used ☐ Reconditioned ☐
Date Received:	
Installed Location:	
Purchase Order Number:	
Identification / Asset Number:	

INSTALLATION QUALIFICATION

Instrument Specification

Instrument Parameter Output	Specified Range	Acceptable
Pressure	100 psi (6.9 bar)	☐
Hydrogen Flow Rate (Select as appropriate)	100cc/min (ATP) 200cc/min (ATP)	☐

Environment and Siting

Has the instrument been adequately acclimatized since transport or storage?

(Requires 3 hours before operation)

Yes ☐ No ☐

Operating Parameter	Specified Range	Acceptable
Ambient Temperature	10-35 ºC (50-95 ºF)	☐
Maximum Relative Humidity	90% Non-Condensing	☐
Maximum Altitude	3000 m (9800 ft)	☐
Supply Voltage & Frequency	100-240V ±10%, 50/60Hz Refer to User Manual for acceptable range(s)	☐
Siting – Generator Placement	Sit Generator on a Flat Surface Minimum Clearance around Machine – 75mm	☐
Siting – General Lab Conditions	Extraction Fan/Fume Hood (Recommended)	☐
Mains Power Outlet	Within 2m Radius to Generator	☐
Water Purity Requirement	<1.0µ Siemens/cm OR >1 Mohm-cm	☐

Comments:

INSTALLATION QUALIFICATION

Instrument Delivery and Documentation

Unpack the instrument carefully. Are any items missing against the Fitting kit list as per Installation Guide?				
	Yes	☐	No	☐
If yes, state missing items:				
Is there any damage to the instrument?				
	Yes	☐	No	☐
If yes, describe damage:				
Manufacturer informed:	Yes	☐	No	☐

Fittings Kit	**Present**	**Missing**
Fittings Kit included	☐	☐

Is all standard documentation included?

	Present	**Missing**
User Manual (Available via download from Peak Extranet)	☐	☐
Warranty Registration Card	☐	☐
Installation Guide	☐	☐
Site Preparation Guide (Available via Download from Peak Extranet)	☐	☐

Installation

Installed By:	User	☐	Authorized Engineer	☐
Comments:				

INSTALLATION QUALIFICATION

Summary Report

Instrument: Precision Hydrogen SL		**Serial Number:**
Assessment of Complete Installation Qualification: No Deviations ☐ Deviations ☐		
Deviation	**Impact on Operation**	**Justification for Acceptance**
Successful completion of the preceding activities and checks indicates that this instrument has been satisfactorily delivered and installed. The instrument has passed the Installation Qualification procedure and may now be submitted for Operational Qualification.		
IQ Completed By:		**Date:**
Deviations Approved By:		**Date:**
IQ Approved By:		**Date:**

OPERATIONAL QUALIFICATION

Pre-Run Checks

Pre-Run Check	OK	Discrepancy	N/A
Check water purity	☐	☐	☐
Deioniser column installed	☐	☐	☐
Connect delivery connection to instrument	☐	☐	☐
Vents to fume hood	☐	☐	☐
Pumped and Valved Fill generators only*			
Position of water bottle	☐	☐	☐
Water inlet pressure 1 ≤ P ≤ 3 bar	☐	☐	☐
Connect inline water filter	☐	☐	☐
Connect water supply	☐	☐	☐
Comments:			

**Refer to Installation Guide and User Manual for details*

Functional Tests

Functional Test	Acceptance Criteria	Pass	Fail
Apply Mains Power / Switch On	Fan Running	☐	☐
	Bubbles produced in water tank	☐	☐
	Water tank LED pulsing green	☐	☐
Allow to run for 10 minutes	Water tank LED solid dim green	☐	☐
	Bubbles in water tank cease	☐	☐
Press front button	Water tank LED turns solid bright green	☐	☐
	Output pressure 100 psi*	☐	☐
Output connections leak tight†	No leaks between generator and instrument	☐	☐

Notes:

* If lower pressures are required, an external pressure regulator should be fitted to the output port of the generator.

† Liquid leak detectors should not be used on the Precision Hydrogen. If a liquid solution must be used, then it should be IPA based, or a portable Hydrogen detector should be used.

Serial number of calibrated flow meter:

Calibration due date of flow meter:

Serial number of calibrated pressure gauge:

Calibration due date of pressure gauge:

Comments:

OPERATIONAL QUALIFICATION

Training

Date Instrument Released for Use:			
Trained Operators	**Read User Manual**	**Practical Training**	**Authorized Signature**
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
Comments:			

OPERATIONAL QUALIFICATION

Summary Report

Instrument: Precision Hydrogen SL		**Serial Number:**
Assessment of Complete Operational Qualification: No Deviations ☐ Deviations ☐		
Deviation	**Impact on Operation**	**Justification for Acceptance**
Successful completion of the preceding activities and checks indicates that this instrument is operating satisfactorily following delivery and installation. The instrument has passed the Operational Qualification procedure and may now be released for use.		
OQ Completed By:		**Date:**
Deviations Approved By:		**Date:**
OQ Approved By:		**Date:**