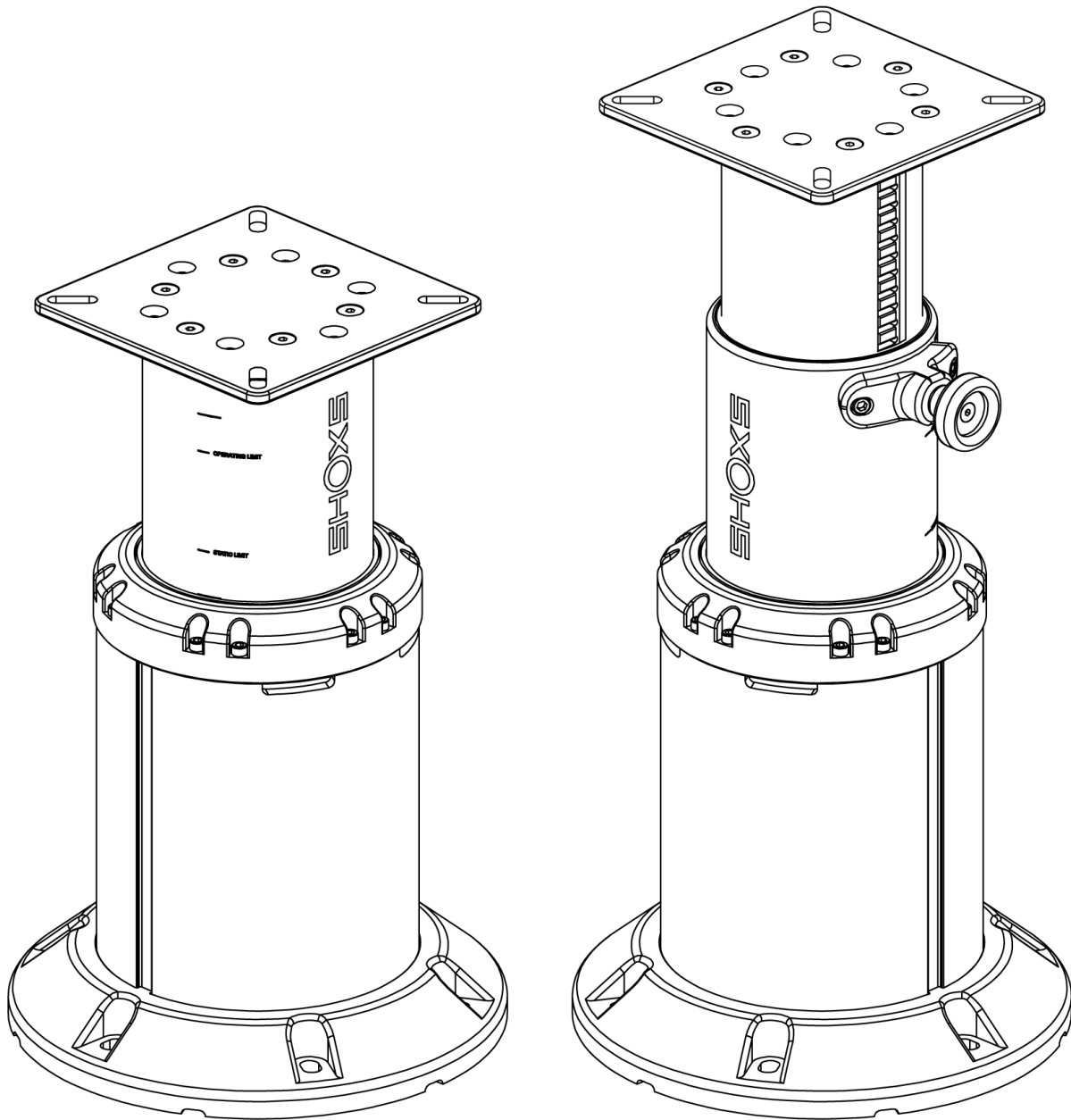


# Shock Mitigating Pedestal

## Operation & Service Manual



Revision 3 (May 2018)



# Shock Mitigating Pedestal

## Operation & Service Manual



### Our Sales & Support Team

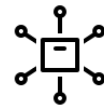
#### GLOBAL SALES TEAM

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**Bryan Wood** | Eastern United States, Canada,  
Europe / Baltic Region, Mediterranean, Caribbean, Africa  
**Email:** bryanwood@shoxs.com

**Tony Van Meter** | Western United States, Central / South  
America, Asia, Middle East, Australia / New Zealand  
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**Andrew Hughes** | United Kingdom, European Union  
**Email:** andrewhughes@shoxs.com



#### PARTS SALES AND CUSTOMER SUPPORT

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**TOLL FREE (U.S.)**      1 888 637 4697  
**Main Office**            +1 250 652 6003  
**Support Email:**        support@shoxs.com  
**Website:**                www.shoxs.com



#### YOUR PRODUCT INFORMATION

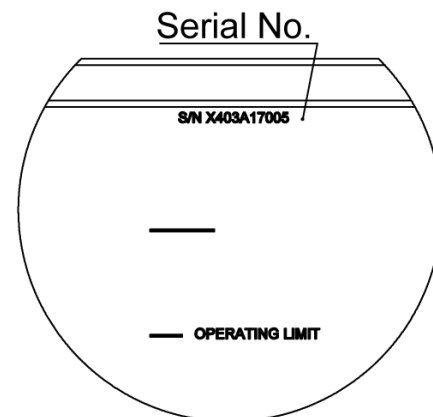
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*To serve you better, record the information below and have it ready if you require parts or technical support. Your serial number is located as shown below. Always keep your receipt as proof-of-purchase for Warranty Claims.*

**Model Serial Number:** S/N X \_\_\_\_\_

**Purchased From:** \_\_\_\_\_  
\_\_\_\_\_

**Purchase Date:** \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_



## For Your Safety

**SHOXS** Shock Mitigating Pedestals are designed to be capable of use in extreme conditions. **SHOXS** can increase both vessel operating envelopes and crew and passenger endurance by increasing safe and comfort and aiding in the prevention of personal injury. These features can assist in completing operations that take place in challenging environments.

### WARNING

#### TO REDUCE THE RISK OF SEVERE INJURY OR DEATH TO PERSONS:

**READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.** Failure to follow the installation instructions may cause serious injury or death to persons and damage to the vessel and product.

**OPERATE YOUR VESSEL RESPONSIBLY.** There are upper limits to the operation of any vessel or vehicle – **SHOXS** products are not a replacement for their responsible operation and will not prevent personal injury. High-G impacts can and will still exceed the product's ability to absorb them.

**DO NOT USE THIS PRODUCT IF** it is damaged or suspected to be malfunctioning.

**REPAIRS OR ALTERATIONS** made without prior approval of the manufacturer will void your warranty and may cause serious injury or death to persons and damage to the vessel and product.

### CAUTION

Do not use this product outside of the scope of its intended purpose. Follow the **SETUP PROCEDURE** to ensure your shock mitigating pedestal is performing at its best capability for conditions.

### LIMITED WARRANTY AND LIABILITY

**SEE THE LAST PAGE FOR A DETAILED LIMITED WARRANTY STATEMENT.**

The information contained in this Operation & Service Manual is subject to revision at any time without notice.

## Pedestal Installation Instructions (Page 1 of 2)

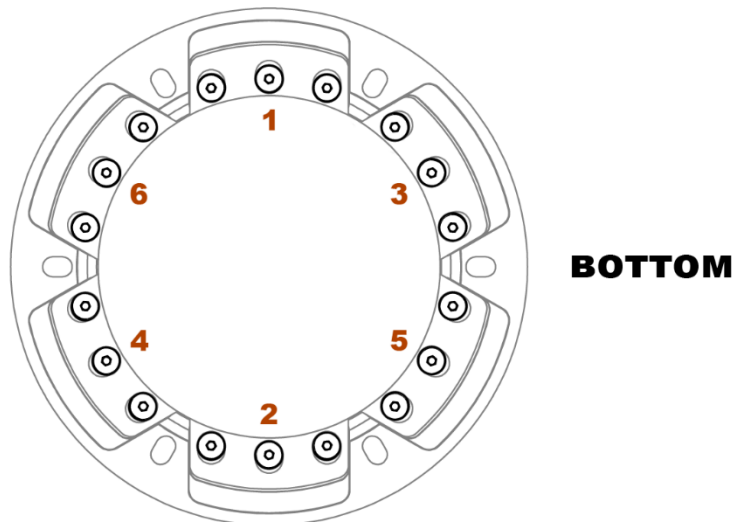
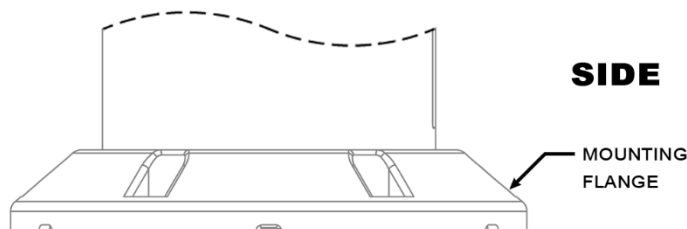
### WARNING

#### TO REDUCE THE RISK OF SEVERE INJURY OR DEATH TO PERSONS:

**READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.** Consult with an engineering group or CDG Coast Dynamics Group Ltd. if you have concerns regarding the provisions for installation of the shock mitigating pedestal on your vessel. Failure to follow the installation instructions may cause serious injury or death to persons and damage to the vessel and the shock mitigating pedestal.

Ensuring that there is sufficient strength in the mounting surface is the responsibility of the boat builder or installer. CDG Coast Dynamics Group Ltd. assumes no liability for incorrectly installed products. Limited Warranty is void where incorrect installation results in damage to the product.

### Mounting Flange Torque Procedure



The **mounting flange** of your shock mitigating pedestal is shipped installed in the lowest position available. This torque procedure **must be followed** if loosening the fasteners to adjust the position of the mounting flange.

Following the numbered sequence (left), tighten the middle bolts:

- 1) Hand-tight; then
- 2)  $\frac{1}{2}$  required torque; then
- 3) Full required torque.

Tighten all remaining fasteners by hand, then apply the full required torque to all fasteners.

All fasteners must be torqued and checked until applying torque no longer tightens any fasteners more than  $\frac{1}{16}$  of a turn.

For S/N starting with X403B18:  
**120 inch-pounds (13.5 N·m)**

For all other Serial Numbers:  
**78 inch-pounds (9.0 N·m)**

# Shock Mitigating Pedestal

## Operation & Service Manual



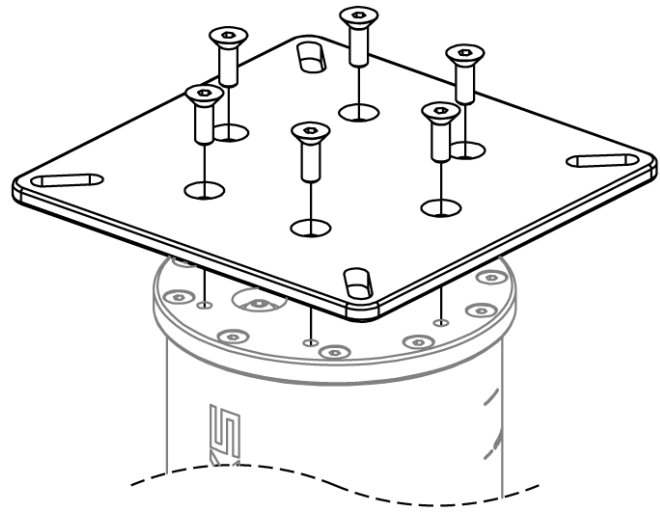
## Pedestal Installation Instructions (Page 2 of 2)

### Adapter Mounting

A standard square adapter plate for mounting with a 5.25" square hole pattern is typically pre-installed.

Mount your seat to this adapter plate or remove it to mount your own adapter or another **SHOXS** adapter in its place.

All fasteners should be installed with a medium-strength threadlocker such as Loctite® 243™.

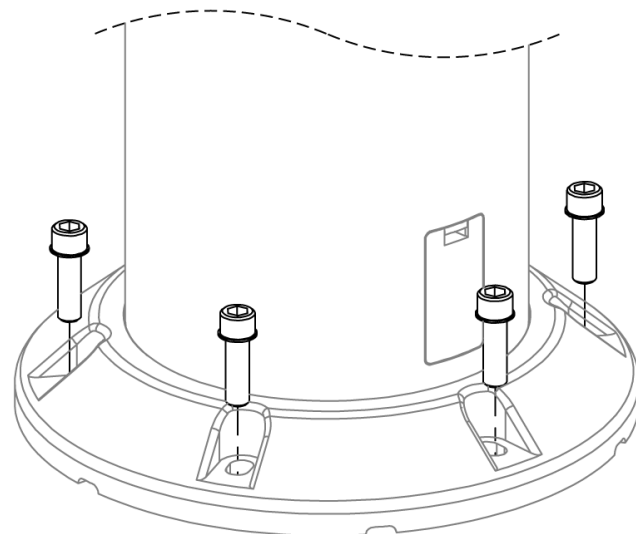


### Pedestal Mounting

The fastener size for pedestal mounting should be **3/8"-16 UNC** or **3/8"-24 UNF**, with sufficient length for full engagement with the threads of the mounting provisions (either bonded stainless steel inserts or stainless steel nylon lock nuts).

Minimum thread engagement should be **at least 0.56"** for a 3/8" bolt.

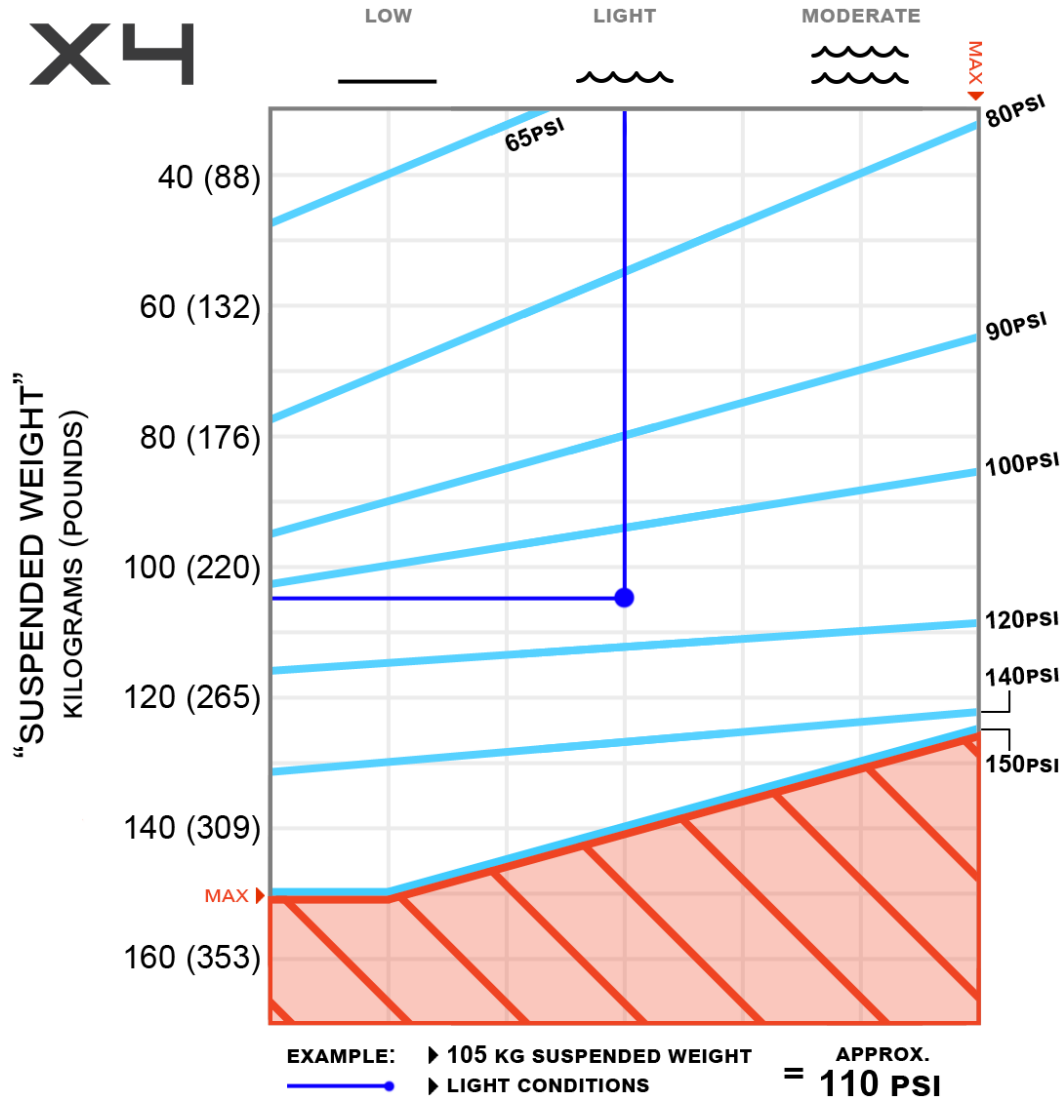
All fasteners should be installed with a medium-strength threadlocker such as Loctite® 243™.



Note: Preferred installation orientation is with the **side access door** of the pedestal facing **aft**. SHOXS logos on the upper pedestal will be on the STBD and PORT sides of the unit.

## Pedestal Setup Instructions (Page 1 of 2)

It is essential to correctly setup your shock mitigating pedestal to achieve the best performance for expected conditions. Setup is performed by adjusting the pressure of the isolator.



### Step 1

Choose a starting pressure, rounded to nearest 5 psi, based on **a)** the “suspended weight” (the **combined weight** of the seat mounted atop the pedestal (including any accessories) and the weight of the occupant), and **b)** the average conditions expected to be operating in.

THE PRESSURES INDICATED IN THE CHART ABOVE ARE RECOMMENDATIONS ONLY. THE RESULTS OF TESTING IN ACTUAL CONDITIONS USING THE **STATIC LIMIT** AND **OPERATING LIMIT** INDICATORS ARE THE FINAL DECISIVE FACTORS IN WHICH PRESSURE TO USE IN SERVICING AND OPERATING YOUR SHOCK MITIGATING PEDESTAL. ALWAYS ERR TOWARDS A HIGHER PRESSURE TO ENSURE PROTECTION FROM ‘BOTTOMING’ THE ISOLATOR.

## Pedestal Setup Instructions (Page 2 of 2)

### Step 2

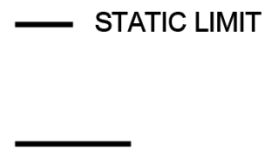
Get the isolator moving by bouncing in the seat a few times, then service the pressure in the isolator using the side access port or the bottom access port **without occupant or extra weight in the seat**. See the **Recommended Service** section for details on servicing the isolator.

### Step 3

The intended occupant should take a seat normally, and then step out and inspect the indicator o-ring on the upper tube of the pedestal against the markings engraved in the side, as shown on the right (NOT TO SCALE).



The indicator should be at or below the **STATIC LIMIT** line on the seat. If the indicator is above the static limit, then increase the pressure of the isolator by 5-10 psi (up to a maximum of **150 psi**), return the indicator o-ring to the bottom of the tube and repeat the test.



## CAUTION

**INJURY TO SEAT OCCUPANTS MAY RESULT FROM  
REGULARLY EXCEEDING THE OPERATING LIMIT.**

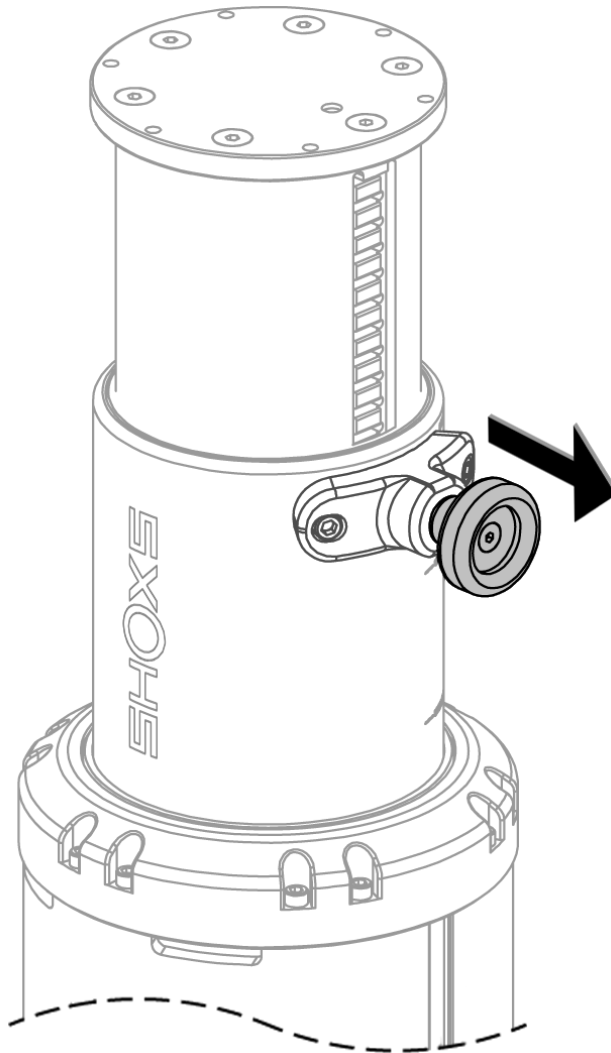
The **OPERATING LIMIT** is the upper limit of normal travel for your shock mitigating pedestal. If you are observing the indicator to be above the operating limit, first ensure the isolator is at your set pressure, and either:

- Decrease the severity of vessel operating conditions, or
- Increase the pressure in your isolator by 5-10 psi.

In the event there is a conflict between the indications from the static limit check and the operating limit, the **operating limit** takes priority.

## Operating Instructions

### Height Adjustment (Optional Feature)



A spring-loaded knob located on the side of the pedestal retracts the locking pin, allowing the seat to be raised or lowered.

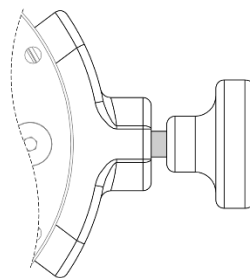
While in a standing position, pull the knob and adjust the seat to the desired height. The pedestal may not rise on its own, depending on the weight of the seat and components installed.

Release the spring-loaded knob and bounce in your seat to ensure the locking pin is engaged.

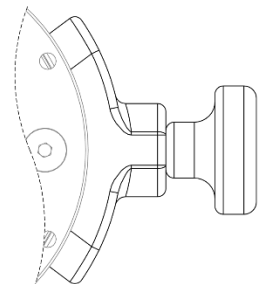
### CAUTION

Always ensure your adjustment is locked before operation.

#### NOT LOCKED



#### LOCKED





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## Operation & Service Manual



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## Operation & Service Manual



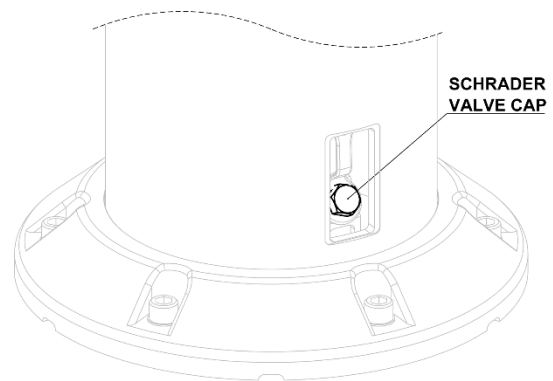
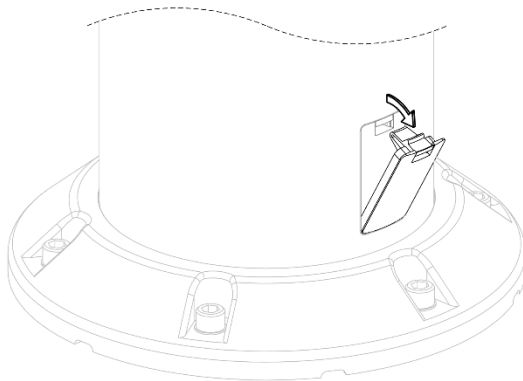
## Recommended Service

- **After each use:**
  - All components should be rinsed with **fresh water**
- **Every 30 days:**
  - Check isolator pressure and ensure STATIC LIMIT check is normal
  - Inspect all fasteners for security

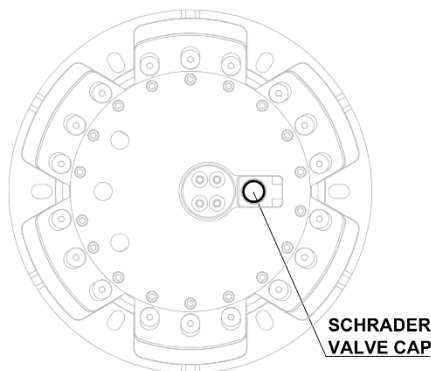
## Servicing Your Isolator

To provide flexibility, there are two points by which you can access the Schrader valve of your isolator to check and service the pressure, as shown below.

**SIDE ACCESS**



**BOTTOM ACCESS**



**BOTTOM VIEW**

### CAUTION



This pedestal has internal moving parts. Use caution when using the **SIDE ACCESS** Schrader valve. Loss of pressure from connecting an air supply may cause the top portion of the pedestal to sink.

## Cleaning

The following products are recommended for cleaning your **SHOXS** seats:

- Upholstery (if applicable) – **303® Aerospace Protectant™**
- All other components – wet rag with mild soap detergent

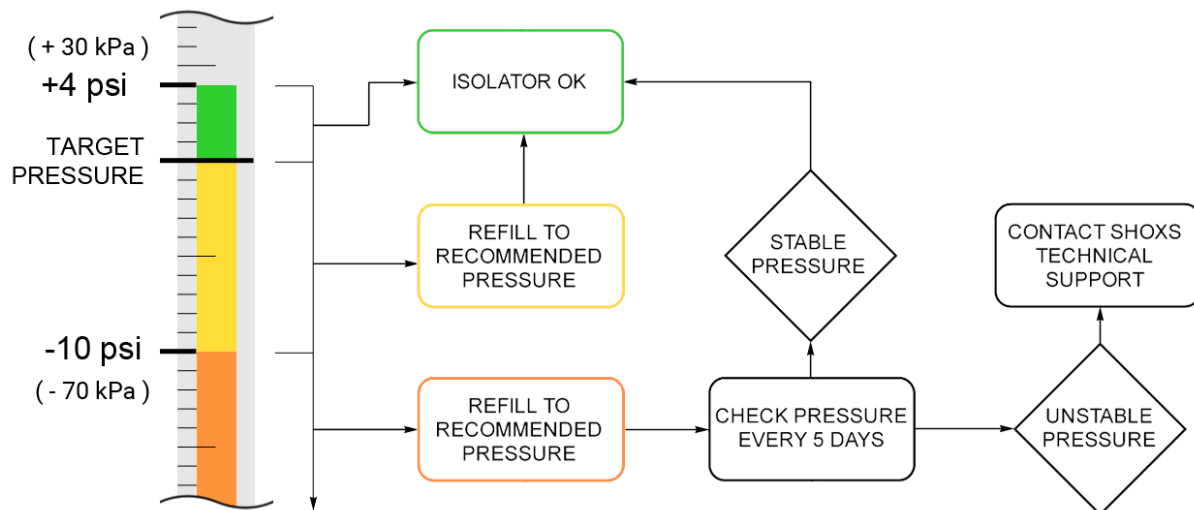
## Protecting

Regular application of a corrosion-inhibiting product such as **Rust Check** for stainless steel components and fasteners may be desired to protect these against harsh marine environments.

## Isolator Troubleshooting

Use the flowchart below to troubleshoot when an issue is suspected with your isolator.

Fill your isolator to 2-4 psi above your desired pressure to account for some pressure loss when disconnecting, unless using a lossless type connector.





## Limited Warranty Statement

**Thank you for purchasing a CDG Coast Dynamics Group Ltd. (CDG) product.** All products and accessories come with a limited warranty against defects in materials and workmanship from the original date of invoice.

### 1. Limited Warranty Conditions

The limited warranty is provided to the original owner only and is not transferable. Proof of purchase will be required for any limited warranty on CDG products. CDG's warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any product which:

- (i) has been repaired or altered unless done or approved by CDG,
- (ii) has not been maintained in accordance with any servicing or handling instructions provided by CDG,
- (iii) has been altered or damaged by accident,
- (iv) has been subjected to unusual physical or mechanical stress, misuse, abuse, or negligence,
- (v) has been used other than in accordance with the product operating and handling instructions,
- (vi) has been used and handled beyond what is considered to be a normal duty cycle in a typical marine operating environment.

### 2. Limited Warranty Coverage

Within the period of time from the original date of invoice identified below, if CDG receives notice of and verifies a defect in any CDG product which is covered by CDG's warranty, CDG shall either repair the defective product or replace with a new or refurbished unit, at CDG's option. CDG shall have no obligation to perform a repair or replacement until the customer returns the defective product to CDG according to the Warranty Procedure below. Accessories include, but are not limited to, seat options (such as workstations, consoles, safety harnesses) or any CDG products which are not part of a fixed or suspended seat. All warranty periods are defined from the original date of invoice.

#### CDG Product Duration of Limited Warranty

Fixed or suspended seats (new) (excluding accessories or upholstery)	2 years
Fixed or suspended seats (refurbished) (excluding accessories or upholstery)	1 year
Accessories or seat upholstery	1 year

### 3. Warranty Procedure

If a product is suspected of being defective, the owner should contact CDG's Customer Support department. A representative will assess the report and, if validated, authorize the exchange or repair of the defective item. On request from CDG, warranted products must be shipped in the original or comparable packaging with shipping to a CDG approved facility with insurance charges prepaid in U.S. currency.

### 4. Limitation of Warranty

Neither CDG nor its third-party suppliers make any other warranty or condition of any kind whether expressed or implied, with respect to the CDG products, and specifically disclaim any statutory or implied warranties or conditions, including without limitation, any such warranties or conditions in respect of merchantability, quality, durability, or fitness for a particular purpose.

### 5. Limitation of Liability

Except for the limited obligations specifically set forth in this warranty statement, in no event shall CDG or its third-party suppliers be liable for direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory and whether advised of the possibilities of such damages.

# SHOX5