

# **SHOCKWAVE**

*MARINE SUSPENSION SEATING*

**USER MANUAL**

**S5**



*MARINE  
SUSPENSION  
MODULE*

*FEEL BETTER. TRAVEL FARTHER.*

## CUSTOMER SERVICE

---

At SHOCKWAVE, we've proven that innovation and attention to the highest safety standards can protect boaters from the shock of wave impact. As avid boaters ourselves, we understand what our customers value most – and we create the best marine suspension seats in the world to provide a safer, more comfortable and exciting ride.

For customer inquiries and service support please call **+1.778.426.8544** or email **[support@shockwaveSeats.com](mailto:support@shockwaveSeats.com)**

ADDRESS	<b>2074 Henry Ave. Sidney BC Canada V8L 5Y1</b>
WEBSITE	<b><a href="http://www.shockwaveSeats.com">www.shockwaveSeats.com</a></b>
SALES	<b>+1.778.426.8545</b>
RECEPTION	<b>+1.778.426.8546</b>
HOURS	<b>8AM to 5PM PST</b>

### INCLUDED WITH YOUR S5 PURCHASE:

- SHOCKWAVE S5 Marine Suspension Module
- SHOCKWAVE S5 User Manual
- SHOCKWAVE S5 Drill Template
- Spacer Kit - 2 spacers to change suspension module height
- 2 Product Cards -Warning Card and Care Instructions
- 2 Stickers – SHOCKWAVE (all purposes)  
SHOCKWAVE EQUIPPED (for your boat)

### ACCESSORIES SOLD SEPARATELY:

- SHOCKWAVE S5 Pump
- Corbin2 Seat
- Corbin2 Seat with Flip Bolster
- SHOCKWAVE S5 Swivel Slide, Swivel, Slide, and Height Adjust

### JOIN THE SHOCKWAVE COMMUNITY

---

 **[@SHOCKWAVESEATS](https://www.facebook.com/shockwaveSeats)**

 **[@SHOCKWAVESEATS](https://www.instagram.com/shockwaveSeats)**

 **[youtube.com/shockwaveSeats](https://www.youtube.com/shockwaveSeats)**

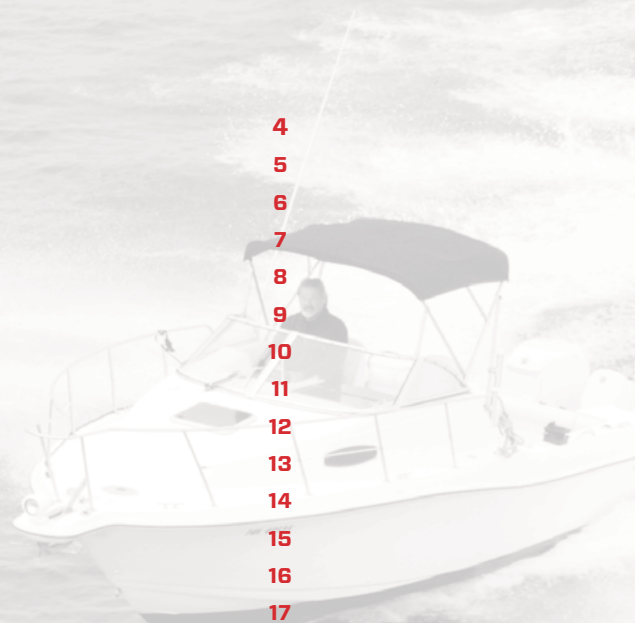
# ***SHOCKWAVE***

*MARINE SUSPENSION SEATING*

## **USER MANUAL CONTENTS**

---

MOUNTING YOUR SUSPENSION MODULE	4
SETTING UP THE SUSPENSION MODULE	5
STEPS TO SET UP THE SUSPENSION MODULE	6
SHOCK COMPRESSION ADJUSTMENT SETTINGS	7
CHANGING SUSPENSION MODULE HEIGHT	8
REBOUND ADJUSTMENT	9
SERVICE TIPS	10
HOW TO VIDEOS	11
DRAWINGS AND EQUIPMENT LIST	12
SUSPENSION MODULE DRAWING (SW-05026)	13
ACCESSORIES	14
EMERGENCY PROCEDURES/TROUBLESHOOTING	15
GENERAL BOATING BEST PRACTICE AND SAFETY	16
CAUTIONS AND WARNINGS	17
WARRANTY AND WARRANTY POLICY	18
SHOCKWAVE COMMUNITY	19



## GETTING STARTED

Congratulations on your purchase of a SHOCKWAVE S5 Marine Suspension Module. We hope you enjoy this new boating experience offering you access to new possibilities on the water.

### MOUNTING YOUR SUSPENSION MODULE

---

- Remove the two attached spacers from your SHOCKWAVE S5 - these will be required if you need to adjust to one of the two additional ride height positions. See page 8 for instructions on changing suspension module height
- Through-bolt the suspension module or bolt to stainless steel inserts bonded into the deck or equivalent structure
- There must be sufficient deck structure to support the weight of seat and occupant within the vessels operational envelope
- Thin or weak decks or mounting boxes should have large washers or fish plates on the bolting surfaces, if needed, to prevent fasteners from pulling through
- There must be no flex in the seat mounting or deck plate when the seat is loaded
- Do not attach any equipment to the suspension module
- Do not mount the suspension module in the middle of an unsupported deck plate
- Ensure that the movement of the suspension module does not interfere with the vessel structure or equipment
- Properly torque deck mount and fasteners
- Check operation of suspension module after installation as it must not bind or stick



We have created a series of 'how to' videos on our website to help you install your SHOCKWAVE S5. Visit [www.shockwavesseats.com/howto](http://www.shockwavesseats.com/howto) for more information.



#### **IMPORTANT**

The suspension module must not be modified.

## SETTING UP THE SUSPENSION MODULE

To achieve the best performance from the suspension module's shock absorber, the pressure should be adjusted to attain the proper sag setting. Sag is the amount the suspension compresses under the occupant's weight and seat. Sag should be set at 20% of total shock travel.



### **IMPORTANT**

Warranty is void on suspension modules where incorrect installation caused damage to the module.



### **WARNING**

Incorrectly installed suspension modules can cause serious injury or death and can cause damage to the vessel and the seat.



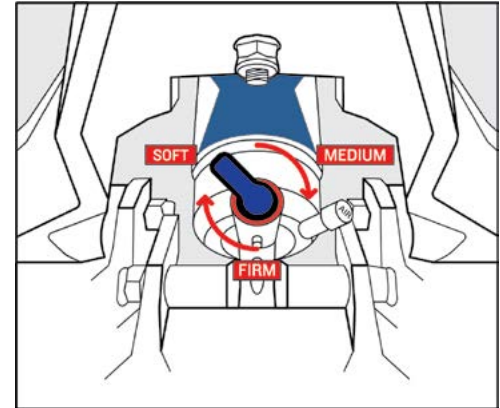
### **IMPORTANT**

Strength of decks and deck mountings is the responsibility of the boat builder or installer of the seats. SHOCKWAVE assumes no liability for suspension modules that are incorrectly installed.



### **WARNING**

Prior to use be sure to pressurize the shock absorber! Do not operate the seat without sufficient pressure in shock absorber or serious injury and damage to the suspension module will result.



## STEPS TO SET UP THE SUSPENSION MODULE

- 1 Turn the 3-position lever at the base of the shock absorber to the SOFT position. See page 5.
- 2 Pressurize the shock absorber to 100 PSI and remove the pump.
- 3 Cycle the shock absorber through its travel by bouncing on the seat 5 times. This will equalize the positive and negative air chambers.
- 4 Use the pump to pressurize the shock absorber (in PSI) to match the weight in pounds (lbs), of the occupant and seat. Remove the pump before step 5.
- 5 Cycle the shock absorber through its travel by bouncing on the seat 5 times.
- 6 Push the red o-ring against the rubber air sleeve.
- 7 Gently sit on the seat.
- 8 Get out of the seat.
- 9 Check the sag percentage marking on the Shock absorber shaft. Sag is correct if the o-ring sits at the 20% mark.
- 10 If the sag value is not at the desired level, inflate or deflate the shock absorber in 10 PSI increments and repeat steps 5-8 until the desired sag level is achieved.



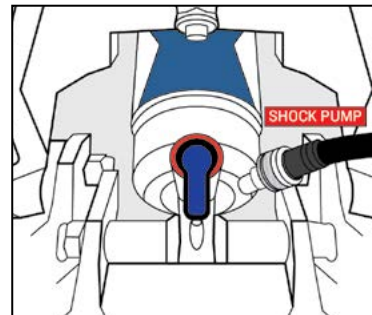
### **WARNING**

Do not sit on the seat with the SHOCKWAVE S5 Pump attached! Damage will occur to the shock and pump. Note, SHOCKWAVE S5 PUMP sold separately.



### **WARNING**

Do not exceed 350 PSI. The maximum shock absorber pressure.



## SHOCK COMPRESSION ADJUSTMENT SETTINGS

---

Setting the sag height is designed to be a starting point. To get the most out of the suspension module the shock absorber can be fine-tuned. This is done using a combination of compression and rebound damping to optimize ride quality as well as for varying sea conditions.

The suspension module comes with a 3-position blue lever that is designed to make quick adjustments to optimize the performance of the shock absorber in varying sea conditions. You can select three settings:

### 1 SOFT/MIN MODE

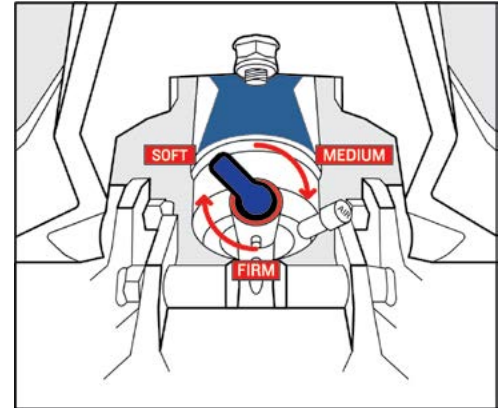
For operating in flat water and light chop where the likelihood of experiencing a slam is low. Mostly inshore use. Gives a soft ride.

### 2 MEDIUM MODE

For operating in moderate to rough conditions where some slamming could occur. Gives a medium ride.

### 3 FIRM MODE

For operating in big seas and at higher speeds where regular slamming will occur. Gives a firm ride.



## CHANGING SUSPENSION MODULE HEIGHT

The SHOCKWAVE S5 comes with the shock absorber in the front mount position which is the lowest height configuration.

If a higher installation height is required you will need to install one of the two spacers provided. These are required to properly change the height of your suspension module. Use the procedure below to change the suspension module height.

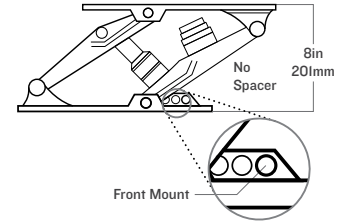


### **WARNING**

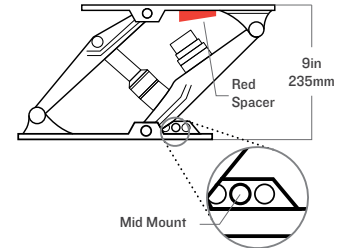
Do not change the suspension module height without using the appropriate spacer.

- Once you set the height of your seat on your boat, if required, the height of your suspension module position can be changed by 1-inch (25mm) to Mid Mount or 2-inch (50mm) to Rear Mount.
- Remove the bolt from the front mount and place it into either the Mid mount or Rear Mount position.
- For the Mid Mount setting, install the smaller, red spacer to the top module plate using the supplied fastener.
- For the Rear Mount setting, install the larger, blue spacer to the top module plate using the supplied fastener.

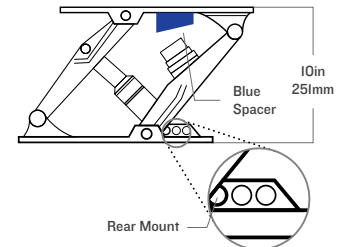
### 8-inch Height Configuration



### 9-inch Height Configuration



### 10-inch Height Configuration





## REBOUND ADJUSTMENT

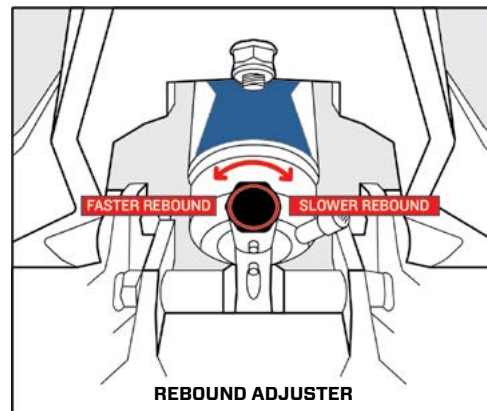
Rebound dampening controls the rate of speed at which the shock returns to the proper position after compressing. The rebound adjustment is dependent on the air pressure setting. Higher pressure requires slower rebound settings. Use the procedure below to find the correct rebound setting.

### FASTER REBOUND

- In high frequency and small wave activity a faster rebound can improve your suspension performance.
- Turning the red rebound adjuster fully counter-clockwise maximizes the shock rebound rate. This setting is the fastest to return the seat to your sag height.

### SLOWER REBOUND

- In low frequency and large wave activity a slower rebound can improve your suspension performance.
- Turning the red rebound adjuster fully clockwise reduces the shock rebound rate. This setting is the slowest to return the seat to your sag height.



### **WARNING**

Do not sit on the seat with the SHOCKWAVE S5 Pump attached! Damage will occur to the shock and pump. Note, SHOCKWAVE S5 PUMP sold separately.

## SERVICE TIPS

---

**CLEANING** Rinse your suspension module with fresh water after each use to prevent build up of salt and corrosion. Wash and treat surfaces with appropriate products every month or as often as possible to prolong appearance and service life.

**LEAKS** The shock absorber uses a patented sealing system. The shock absorber should hold pressure between settings and should only need to be topped up occasionally. While it is recommended to regularly check sag and damper settings, the shock absorber does not require constant pressure adjustment.

**SHOCK LEAK-DOWN** Check the fill valve to see if debris is interfering with its operation or perform a simple soap solution test to identify the source of the problem.

**BOLT TORQUE (TIGHTNESS)** All fasteners are prone to becoming loose from sustained high performance use. SHOCKWAVE recommends that all bolts should be visibly inspected for signs of being loose. Always use a thread-locking sealant on threads to prevent loosening of parts.



### **IMPORTANT**

Be sure to wash your suspension module properly. Thoroughly wash module with fresh water and boat or car wash detergent, removing all contaminants and surface corrosion.

# ***HOW TO VIDEOS***

---

For complete instructions, including video tutorials of how to install your Shockwave S5, please visit [www.shockwaveSeats.com/howto](http://www.shockwaveSeats.com/howto), where we have a comprehensive guide for installation options.

For further instruction, please contact your Shockwave S5 dealer or email [support@shockwaveSeats.com](mailto:support@shockwaveSeats.com).



## **DRAWINGS AND EQUIPMENT LIST**

---

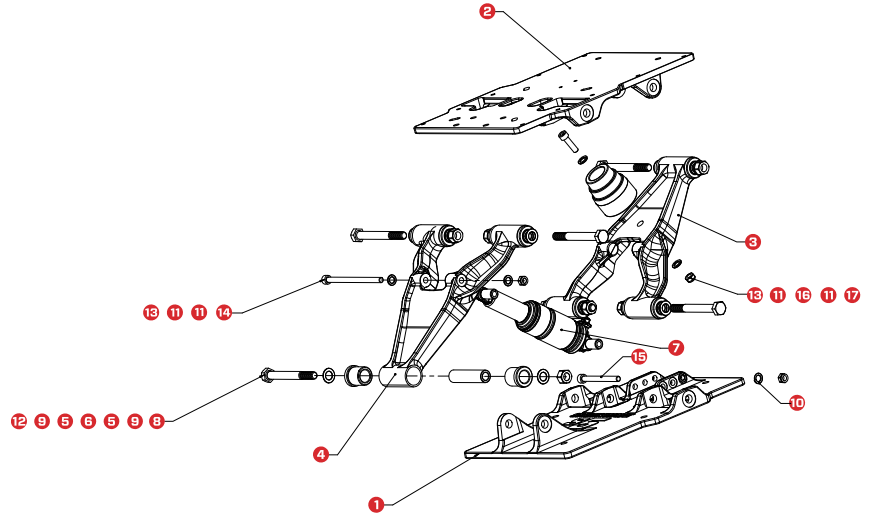
The illustrated part breakdown is designed to provide a functional overview of the **SHOCKWAVE S5 Marine Suspension Module** and provide a reference to points covered in the user manual. These drawings show:

- The name and location of major components
- A breakdown of the major components in your suspension module order

These drawings can be used to order spare parts and for replacing or repairing parts.

## SUSPENSION MODULE DRAWING (SW-05026)

ITEM	QTY	PART NO.	DESCRIPTION
1	1	SW-04963	S5-PRO BOTTOM-PLATE
2	1	SW-04964	S5-PRO TOP PLATE
3	1	SW-04938	S5 CAST A-ARM FORWARD
4	1	SW-04937	S5 CAST A-ARM AFT
5	12	SW-04747	S5 PIVOT BUSHING
6	6	SW-04748	S5 BUSHING SPACER
7	1	SW-04867	SHOCK ABSORBER
8	6	FA-MI2XI10-HH-CS	S5 BOLT HEX HEAD
9	12	FA-I/2-FW-AN960C8I6L	WASHER, FLAT
10	2	FA-5/16-FW-AN960C8I6L	WASHER, FLAT
11	4	FA-3/8-FW-AN960C8I6	WASHER, FLAT
12	6	FA-MI2LN-S5	
13	3	FA-M8LN-S5	
14	1	FA-M8XI30-AS-C5-NC-S5	SCREW, SOCKET, HEADCAP
15	1	FA-M8X85-AS-C5-NC-S5	SCREW, SOCKET, HEADCAP
16	1	SW-04754	BUMPSTOP
17	1	FA-M8X30-AS-CS-NC-S5	SCREW, SOCKET, HEADCAP METRIC



### PROPRIETARY AND CONFIDENTIAL

NOTICE: THIS DRAWING MAY REVEAL DESIGNS OR INFORMATION PROPRIETARY TO PROFESSIONAL COMPONENTS LTD. BY ACCEPTANCE OF REPRODUCTIONS, RECIPIENTS AGREE TO PROTECT PROFESSIONAL COMPONENTS LTD. RIGHTS AND ARE WARNED AGAINST USE OF THE DOCUMENT FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS ISSUED.

## ACCESSORIES

---



### SHOCKWAVE S5 PUMP

The high-pressure shock pump is required for the setup and operation of your suspension module. It features an integrated pressure gauge and bleed valve for simple adjustment with a maximum inflation pressure of 350 psi.



### CORBIN2 SEAT

The Corbin2 is designed to add an extra element of comfort and support for your suspension module. Crafted in the U.S., these seats are the definition of quality and strength, made using only the best materials available today. **Available in** Onyx (black), Desert (tan) and Storm (white).



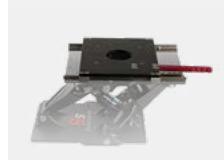
### THE CORBIN2 SEAT WITH FLIP BOLSTER

The Corbin2 with flip bolster is ideal for the boater who requires a high-quality comfortable ride with the option to operate standing up when needed. **Available in** Onyx (black), Desert (tan) and Storm (White).



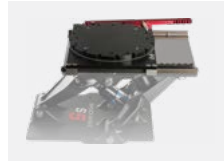
### HEIGHT ADJUST

The SHOCKWAVE S5 height adjust system integrates seamlessly with your suspension module to provide a full 3 inches of vertical travel at the touch of a button. Built to last and made with the highest-quality components this is the perfect option for giving your S5 the ultimate in adjustability.



### SLIDE

The SHOCKWAVE S5 high-quality seat slide offers a full 5 inches of fore-aft travel allowing for comfortable seating options for a wide variety of occupants and uses.



### SWIVEL

This remarkable SHOCKWAVE S5 seat swivel offers 360-degree swivel. It locks in place in any of its 16 positions for excellent flexibility.



### SWIVEL SLIDE

The ultimate in adjustability for your suspension module, this swivel and slide system is designed specifically for the S5 and built to the same high level of durability and corrosion resistance. The slide offers 5 inches of fore-aft travel and the 360-degree swivel locks in place in any of 16 positions for excellent flexibility.

## EMERGENCY PROCEDURES/TROUBLESHOOTING

CONDITION	CAUSE	SOLUTION(S)
Suspension module is lower than normal or shock absorber will not pressurize	<ul style="list-style-type: none"> <li>• Leak in system</li> <li>• Worn or corroded fill valve</li> <li>• Defective shock absorber</li> </ul>	<ul style="list-style-type: none"> <li>• Check system for leaks by applying soapy water to system connections and look for bubbles. If leak found replace shock absorber.</li> <li>• Remove fill valve core and replace with new one from auto supply store</li> <li>• Replace shock absorber - this is required only on extremely rare occasions</li> </ul>
Suspension module is bottoming out	<ul style="list-style-type: none"> <li>• Shock pressure is too low</li> </ul>	<ul style="list-style-type: none"> <li>• Attach pump and add air as per this manual</li> </ul>
Suspension module is topping. Ride is rough and erratic. Noise heard or shock felt when seat comes to top of travel	<ul style="list-style-type: none"> <li>• Shock pressure is too high</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce shock air pressure</li> </ul>
Seat is “bucking off” or bouncing occupant	<ul style="list-style-type: none"> <li>• Rebound rate is too high</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust red rebound adjuster as per instructions on page 9 of this manual</li> </ul>
Squeaking noise when underway	<ul style="list-style-type: none"> <li>• Loose components</li> <li>• Shock absorber mounting bolts are dry</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten loose components</li> <li>• Apply grease to shock mounting bolts</li> </ul>
Moving components or accessories will not move	<ul style="list-style-type: none"> <li>• Bearing or sliding mechanism is corroded, dry or binding</li> </ul>	<ul style="list-style-type: none"> <li>• Disassemble if necessary and lubricate with marine grade grease</li> </ul>

## GENERAL BOATING BEST PRACTICE AND SAFETY

---

SHOCKWAVE Marine Suspension Modules are designed to mitigate shock and vibration encountered in high-speed vessel operation in rough seas. Following the suggestions in this section will ensure that you are getting the most out of the product.

### **OPERATE IN THE VESSEL'S DESIGN ENVELOPE**

Driving a boat beyond its limitations can have damaging effects on the hull, engines and equipment. SHOCKWAVE seats are designed to provide shock mitigation to the occupant. They will not protect the occupants from injury caused from operating the vessel outside of its operational envelope.

**OPERATE THE VESSEL IN YOUR CREW'S PHYSICAL CONDITIONING ENVELOPE** Personal fitness is a limiting factor to the amount of sustained G Loads a person can endure without injury. If you have inexperienced, relatively unfit or overweight persons aboard, extra caution must be exercised to prevent injury. The helmsman must be keenly aware of the shock loads being transmitted to others not in a suspension seat or standing as serious injury can occur. Installation of SHOCKWAVE seats provides an extra level of protection but they will not protect a person from ALL shock loads.

### **OPERATE IN YOUR OWN ABILITY ENVELOPE**

SHOCKWAVE seating will increase the confidence of the helmsman. Sometimes over confidence can lead to loss of control. Generally, the seats will permit greater control of the vessel and helmsman should focus on using the control advantages of shock mitigated seating to better look after the vessel and crew.

**DO NOT SIT IN SEATS WITH HARD OR SHARP OBJECTS. DO NOT WALK ON SEATS** Ensure that sharp objects and heavy gear are worn so that they will not tear upholstery.

**DO NOT TIE THE BOAT UP WITH THE SUSPENSION MODULE** As tempting as it may be SHOCKWAVE seats are not designed to tie up the boat. A sudden surge or wave will likely bend the seats or attachment brackets and compromise performance.

**TIE EVERYTHING DOWN** Pay attention to how you have stowed your gear. Elastic shock cords and ratchet tie-downs should be used to secure all gear. Plastic containers of oil and other fluids must be protected from chafing and puncture. Electronic equipment must be secured to prevent damage from shock loads.

**CHECK ALL EQUIPMENT** Conventional mounting brackets for heavy items such as fire extinguishers are subject to much more loading than without shock mitigation. Make sure all of your equipment brackets are tight. Recheck major equipment bolts regularly. Wiring, cables and fluid hoses should be bundled tightly and not allowed to flail. Do not allow any objects under the seats or footrests, as they will limit the stroke of the seat, damage the objects or damage the seat.

**ENSURE THAT THE SUSPENSION MODULE IS FUNCTIONING PROPERLY** Refer to the Caution Notes in the next section. The following is provided as a general checklist. Providing you have done everything correctly in the Caution Notes - do not operate the seat if:

- The shock absorber setting or ride height is incorrect
- Components are loose, broken or missing
- The suspension module makes a strange noise

**USE SEAT BELTS** If supplied - Seat belts prevent occupants from being ejected from the vessel and the seat. When not in use, the seat belt buckle clasp should be fastened to prevent damage to the suspension module.

**ADJUST HEIGHT AND FORE AND AFT ADJUST CORRECTLY** If supplied - Correct ergonomics and posture enhances the ability to operate the vessel safely and reduces the risk of shock and vibration related injury. Take the time to adjust the seat on the suspension module so that it's comfortable.

**RINSE THE SUSPENSION MODULE WITH FRESH WATER AFTER EACH USE** Rinse suspension module with fresh water after each use or every week if being stored outside to prevent a buildup of salt and debris.



## CAUTION AND WARNINGS

---

Your SHOCKWAVE S5 Marine Suspension Module will mitigate the effects of shock and vibration, reducing the potential of injury, but it will NOT prevent the possibility of injury. The increased level of comfort and control provided by SHOCKWAVE S5 marine suspension seating will allow the craft to operate at higher speeds in sea states which create high shock loads on the craft and potentially the occupants. **HIGH SHOCK LOADS COULD POTENTIALLY EXCEED THE SEAT'S CAPABILITY TO MITIGATE.**

Operating marine craft in a high shock load environment is inherently hazardous. Tolerance to the effects of shock and vibration vary from person to person and it is the responsibility of the craft operator to ensure the safety of each person on board. Pain and/or discomfort are indicators of a potential injury. Constantly monitor the physical state of the craft and the personnel on board. Hazardous operation of the craft may result in serious injury, death or damage to the craft.

### DO NOT

- Operate seat without sufficient pressure in shock absorber or serious injury and damage to suspension module will result.
- Place hands near module when in use. Serious injury can result.
- Modify the equipment by drilling extra holes, removing material, or adding extra equipment. Serious injury can result.
- Use the suspension module if it is or appears to be damaged. Serious injury can result.
- Use the suspension module if module to deck attachments are loose. Serious injury can result.
- Use the suspension module if module resting height is lower than normal. This may be an indication of a damaged shock and serious injury can result.
- Operate the suspension module with insufficient air pressure in shock to prevent bottoming. Serious injury and damage to seat can result.
- Use the suspension module for uses other than its intended purpose. Use of the seating for other than its intended purpose may result in damage to the equipment or bodily harm.
- Use the suspension module if fasteners are loose. Damage to the equipment or bodily harm may result.
- Attempt to open, perform maintenance or repair the suspension module while craft is underway. Damage to the equipment or bodily harm may result.
- Place items under or around the suspension module that may interfere with the suspension modules range of motion. Damage to the equipment or bodily harm may result.



### IMPORTANT

Follow IMPORTANT instructions located throughout this User Manual to prolong the appearance and service life of your SHOCKWAVE S5 Marine Suspension Module.

## WARRANTY AND WARRANTY POLICY

---

SHOCKWAVE Seats expressly warrants that all mechanical seat components in its MARINE AND OTHER and SUSPENSION SEATS shall be free from defects in material and workmanship for three years from the date-of-sale provided such seats are subject to normal use and receive proper maintenance. SHOCKWAVE SEATS expressly warrants that the cushions and seat covers shall be free from defectively sewn seams for a period of 90 days or 750 hours, whichever comes first, excluding normal wear and tear.

Your sole and exclusive remedy against SHOCKWAVE SEATS arising from the purchase or use of MARINE AND OTHER and SUSPENSION SEATS is limited to repair or replacement of defective materials or defective workmanship, after verification by SHOCKWAVE Seats. All warranty claims must have prior approval from SHOCKWAVE Seats warranty department. Products will be repaired or replaced at the sole discretion of SHOCKWAVE Seats.

These warranties will become null and void if:

- The seat is abused or altered
- The seat is involved in an accident
- The seat is improperly installed
- The seat is used for other than its intended use
- There is damage to the cushions and covers caused by cuts, burns, or abuse

### WARRANTY DISCLAIMERS AND LIMITATIONS OF LIABILITY

THE ABOVE EXPRESSED WARRANTIES SHALL BE THE EXCLUSIVE WARRANTIES, AND SHOCKWAVE SEATS MAKES NO OTHER WARRANTIES, EXPRESSED OR IMPLIED. SHOCKWAVE SEATS EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. IT IS AGREED THAT SHOCKWAVE SEATS SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, including, but not limited to, loss of income, loss of use, lost profits, damage to other property, the cost of removing and reinstalling the INDUSTRIAL SEATING or SUSPENSION SEATS, attorney's fees, and any liability you may have with respect to any other person.

### TIME LIMIT ON COMMENCING LEGAL ACTION


It is agreed that you have one year from the accrual of a claim to commence any legal action arising from the purchase or use of the MARINE AND OTHER or SUSPENSION SEATS, or be barred forever.


Failure to give prompt written notice within thirty (30) days of the discovery of any defect in material or workmanship that occurs within the warranty period will void the warranty.


# ***JOIN THE SHOCKWAVE COMMUNITY***



---

 [@SHOCKWAVESEATS](#)

 [@SHOCKWAVESEATS](#)

 [youtube.com/shockwavesats](https://youtube.com/shockwavesats)

***SHOCKWAVE***

*MARINE SUSPENSION SEATING*