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# INSTALLATION INSTRUCTIONS

## AND OWNER'S MANUAL

[www.seastarsolutions.com](http://www.seastarsolutions.com)



# **SEASTAR™**

## **MANUAL JACKPLATE**

Manual Jackplates



SEASTAR  
SOLUTIONS®

*Before you do it your way,  
please try it our way*

# To the Installer and End User (Owner)

Thank you for choosing a SeaStar Manual Jackplate by SeaStar Solutions. These Installation Instructions contain all the information that you and others will require for the safe installation and use of your Jackplate. Throughout this manual, information for the safe installation and operation of the Jackplate will be distinguished in one of the following ways;

## WARNING

**Hazards or unsafe practices which could result in severe personal injury or death.**

Failure to adhere to a warning may lead to loss of vessel control, leading to possible ejection from the vessel causing property damage, personal injury and/or death.

## CAUTION

**Hazards or unsafe practices which could result in minor injury or product or property damage.**

## NOTICE

*Important information in regards to installation, use and maintenance of the SeaStar Jackplate.*

## NOTICE

*Marine Canada Acquisition Inc. DBA SEASTAR SOLUTIONS is referred to as SeaStar Solutions throughout this publication.*

**These safety alerts alone cannot eliminate all of the hazards that may be present while on the water. SeaStar Solutions recommends that all users of the Jackplate take an accredited 'boating safety course', follow safe boating practices and are made aware of the environment that they will be in.**

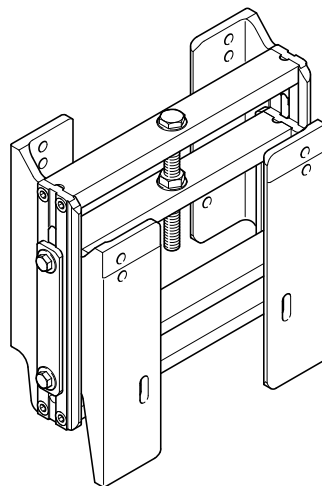
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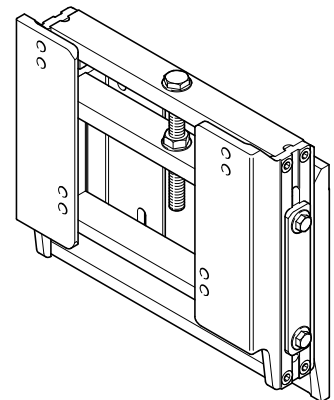
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## Introduction

Congratulations on your purchase of a SeaStar Manual Jackplate. You have chosen to install one of the sleekest and most durable engine Jackplates available. Prepare for increased performance, gains in fuel economy and the ability to run in shallow water.



TRANSOM SIDE OF JACKPLATE



ENGINE SIDE OF JACKPLATE

Figure 1. SeaStar Manual Jackplate.

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# 1.0 SAFETY INFORMATION

## WARNING

The safety information provided throughout this publication is intended to inform you of the dangers that may be present during installation and use. It is critical that you read and understand **ALL** the points noted.

If you have any questions regarding any of these warnings, contact SeaStar Solutions.

## 1.1 Before Installation

The safe operation of the SeaStar Jackplate is dependent upon proper installation and maintenance, common sense, safe judgment and the knowledge/expertise of the operator. Every installer/user of the Jackplate should know the following requirements **before** installing/using the SeaStar Jackplate.

1. Read and understand the Installation and Owner's Manual provided with your motor, steering system, and associated components.
2. Ensure that all components required to complete the installation are on hand.
3. SeaStar components are highly engineered and safety tested to ensure system integrity; DO NOT substitute any component with non-SeaStar components as this may compromise system performance/reliability.
4. Comply with all system ratings/regulations (boat/engine, U.S.C.G.).

## WARNING

The **MAXIMUM** supported dry engine weight is **585 lbs.**

## 1.2 During Installation

1. Install components as directed in all Installation Instructions.
2. DO NOT modify or substitute any component in any way.
3. Confirm that there is no interference between the SeaStar Jackplate(s) and the steering cylinder(s), tiebars, steering hoses, outboard engine, outboard engine hoses or any combination of these parts by performing the CLEARANCE CHECKS as detailed in Section 2.5.

## 1.3 Prior to Every Use

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1. Inspect the Jackplate(s) for damage, cracks, deformation, wear and binding. Check for loose mounting bolts and/or nuts.
2. Confirm that there is no interference between the SeaStar Jackplate(s) and the steering cylinder(s), tiebars, steering hoses, outboard engine, outboard engine hoses or any combination of these parts by performing the CLEARANCE CHECKS as detailed in Section 2.5.

DO NOT OPERATE BOAT IF ANY COMPONENT IS NOT IN PROPER WORKING CONDITION.

## 1.4 During Use

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To reduce risk of severe injury or death, always wear a Coast Guard Approved personal flotation device (PFD) and use an engine shut-off cord (lanyard).

### **⚠ CAUTION**

**Damage to outboard will occur if proper water pressure is not maintained while the boat is under way. Raising the outboard too high will result in a water pressure drop and overheating of your outboard engine will occur. Proper water pressure must be maintained at all times during operation of the outboard.**

### **⚠ CAUTION**

**DO NOT attempt to steer with the engine at full tilt. Damage to the Jackplate(s) and/or steering components could occur.**

## 1.5 After Use

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1. Rinse off Jackplate(s) thoroughly using fresh, clean water only.
  - Cleaning fluids containing ammonia, acids or any other corrosive ingredients MUST NOT be used for cleaning any part of the Jackplate(s).

## 1.6 Maintenance

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### **⚠ WARNING**

**Any work being performed with this system MUST be completed by a qualified mechanic with a working knowledge of the system.**

**After FIRST use and every 100 hours or 6 months thereafter (whichever comes first).**

1. Ensure the transom bolts and engine bolts are torqued to their recommended values.
2. Inspect the Jackplate(s) for damage, cracks, wear and binding. Inspect the Jackplate brackets, adjustment screw and sliding mechanism.

DO NOT OPERATE BOAT IF ANY COMPONENT IS NOT IN PROPER WORKING CONDITION.

# 2.0 JACKPLATE INSTALLATION

## ⚠ WARNING

Failure to adhere to these instructions may result in loss of boat control, leading to possible ejection from vessel causing property damage, personal injury and/or death.

Before proceeding with the installation, read these instructions thoroughly. SeaStar Solutions cannot accept responsibility for installations where instructions have not been followed, where substitute parts have been used, or where modifications have been made to our products.

## 2.1 Parts & Tools

If you have questions or feel that you can not properly install this manual Jackplate, **STOP** immediately and call Technical Support at 604-248-3858.

### REQUIRED TOOLS AND EQUIPMENT

- Floor crane/Overhead hoist
- Torque wrench
- Outboard engine lifting eye
- Engine and Jackplate mounting hardware  
(See below.)

### OTHER CONNECTION HARDWARE (NOT SUPPLIED)

- Marine sealant suitable for below waterline use.

#### **Jackplate to Transom Connection:**

- Stainless steel outboard engine bolts supplied by or approved by the engine manufacturer.
- Stainless steel washers supplied by or approved by the engine manufacturer.
- Brass nuts with nylon locking elements supplied by or approved by the engine manufacturer.

#### **Outboard Engine to Jackplate Connection:**

- Stainless steel outboard engine bolts supplied by or approved by the engine manufacturer.
- Stainless steel washers supplied by or approved by the engine manufacturer.
- Brass nuts with nylon locking elements supplied by or approved by the engine manufacturer.

## ⚠ WARNING

In the absence of engine supplied hardware, bolts must conform to ASTM F593C and have a minimum yield strength of 55,000 psi.

## ⚠ WARNING

If the outboard engine manufacturer has supplied installation instructions, those guidelines **MUST** be followed during installation.

## NOTICE

*The use of a transom stiffener for the top bolts on the transom side of the jackplate-to-transom connection is recommended.*

## ⚠ WARNING

Check the outboard engine manufacturer's instructions carefully for specifications regarding connection hardware. Ensure the outboard engine manufacturer's requirements are followed.

## 2.2 Mount Jackplate to Boat

### NOTICE

The following procedure outlines the process of first mounting the Jackplate on the boat, followed by installing the engine to the Jackplate. If desired, the Jackplate can first be installed on the engine, followed by installation on the boat. The order of installation may be altered but individual steps must be followed and all warnings and cautions must be followed.

- 1. PRIOR** to mounting the Jackplate to the transom, insert the engine bolts with washers into the engine side of the Jackplate.
- Using connection hardware supplied by or approved by the outboard engine manufacturer, mount the Jackplate to the transom.

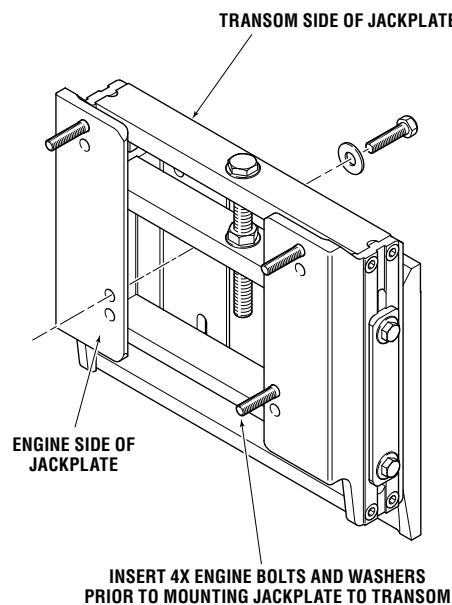


Figure 2. Engine bolt insertion.

- Seal all holes in the transom with an appropriate marine sealant.



**⚠ WARNING**

Use of non-approved bolts, nuts and washers may lead to separation of engine from boat.

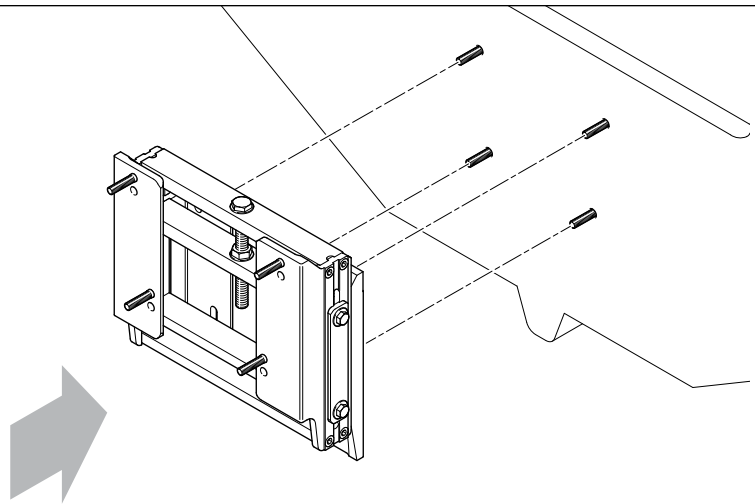


Figure 3. Jackplate to transom connection.

**⚠ WARNING**

Follow the outboard engine manufacturer's recommendations for tightening torque.

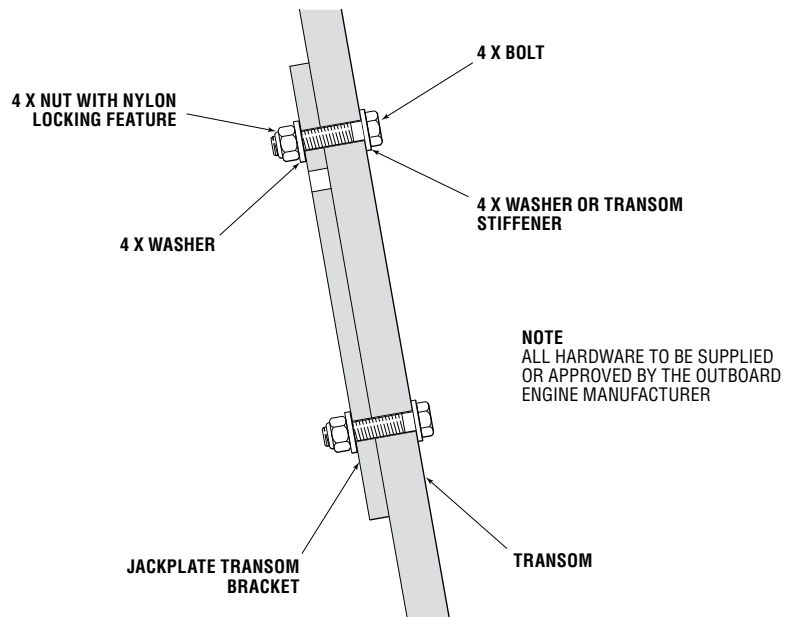


Figure 4. Jackplate to transom connection.

4. Using a torque wrench, tighten the nuts to the manufacturer's recommended torque.

Record the torque values here for future reference.

\_\_\_\_\_ ft-lbs. \_\_\_\_\_ Nm.

## 2.3 Mount Outboard to Jackplate

1. Using an appropriate hoist and lifting eye, lift the outboard into place.
2. Select the hole set on your outboard engine that will best suit the boat and application.
3. Move the engine forward on the hoist while feeding the bolts into the mounting holes.
4. Install the washers and nuts and tighten. Ensure approved bolts, nuts and washers are used. See Section 2.1.
5. Using a torque wrench, tighten to **90 ft-lbs. (122 Nm)** or to engine manufacturer's recommended value for installation on Jackplate.

### ⚠ WARNING

All engine mounting hardware must conform to the standards specified in Section 2.1.

### ⚠ WARNING

The **MAXIMUM** supported dry engine weight is 585 lbs.

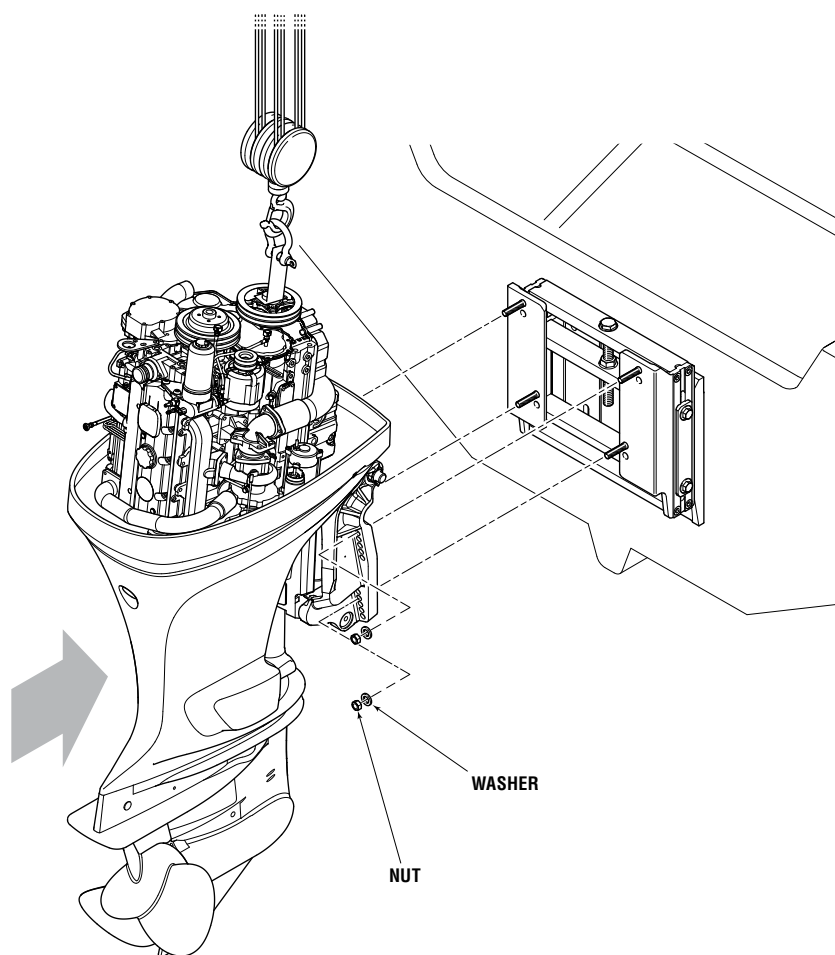


Figure 5. Outboard installation.

### ⚠ CAUTION

Perform the Clearance Checks prior to water testing. See Section 2.5.

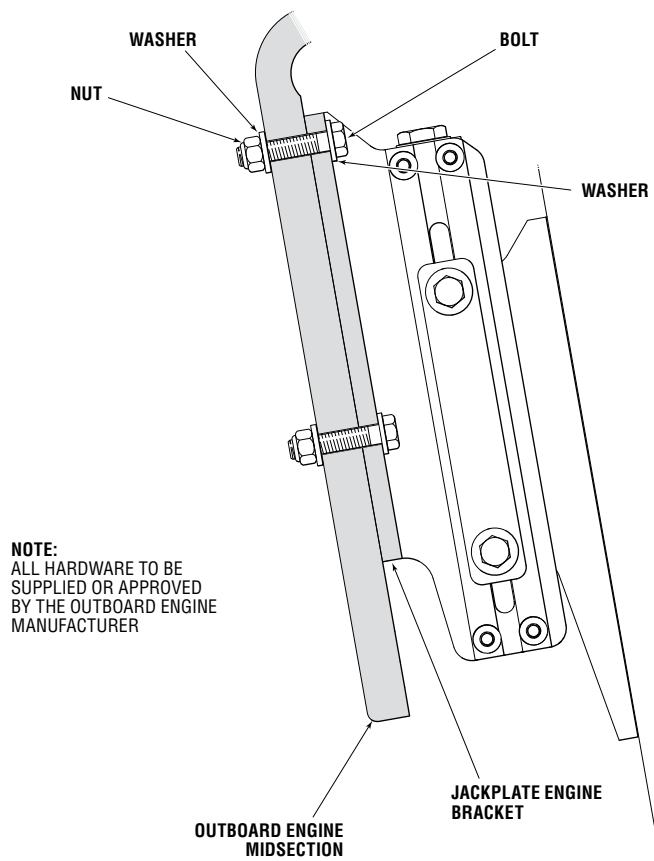


Figure 6. Outboard Engine to Jackplate connection.

## 2.4 Adjusting the Jackplate

### ⚠ WARNING

Never make adjustments to the Jackplate while the engine is running.

1. Ensure that engine is turned off and battery is disconnected.
2. Loosen locking bolts on both port and starboard sides of Jackplate (4 total).
3. Loosen locking nut located under adjustment screw.
4. Move Jackplate up or down by turning adjustment screw. Using the scale on the side of the Jackplate, move plate in 1/8" to 1/4" increments.
5. Torque locknut to 70 ft-lb.
6. Torque locking bolts on both port and starboard sides of Jackplate (4 total) to 25 ft-lb.
7. Assess boat operation and readjust Jackplate position as necessary to achieve optimum vessel performance under a variety of water conditions and operation (speed, turns, etc).

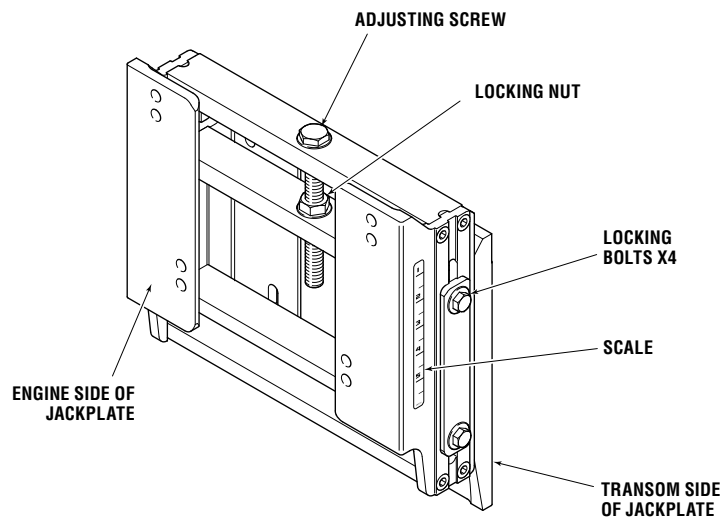


Figure 7. Jackplate Adjustments.

### ⚠ WARNING

Operation of vessel at some Jackplate positions may lead to loss of vessel control, leading to possible ejection from the vessel causing property damage, personal injury and/or death.

### ⚠ CAUTION

Damage to outboard will occur if proper water pressure is not maintained while the boat is under way. Raising the outboard too high will result in a water pressure drop and overheating of engine will occur. Proper water pressure must be maintained at all times during operation of the outboard.

## 2.5 Clearance Checks

### **⚠ WARNING**

**Jackplate clearance checks MUST be completed after installation and before use. Failure to adhere to this warning may result in the loss of vessel control, leading to possible ejection from vessel causing property damage, personal injury and/or death.**

1. With the Jackplate at its intended operating position, verify full steering travel through the entire trim range.
2. CAREFULLY tilt the engine and verify that no interference occurs as the outboard engine is tilted. Check for interference between the SeaStar Jackplate and the steering cylinder(s), tiebars, steering hoses, outboard engine, engine hoses or any other components.
3. If any interference exists, action must be taken to do one of the following:
  - a. Establish the minimum operating position of the Jackplate at a height which avoids interference under these conditions.
  - b. Add a tilt limiter device to the outboard engine and ensure it is set to prevent the engine from reaching a position where interference is possible.
  - c. Move the engine up to a higher set of mounting bolt holes.

### **⚠ WARNING**

**Interference with any object MUST be corrected prior to use.**

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## 3.0 WARRANTY

### 3.1 Statement of Limited Warranty

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We warrant to the original retail purchaser that **Marine Canada Acquisition Inc. DBA SEASTAR SOLUTIONS** (herein forward referred to as **SeaStar Solutions**) products have been manufactured free from defects in materials and workmanship. This warranty is effective for two years from date of purchase, excepting that where **SeaStar Solutions** products are used commercially or in any rental or income producing activity, then this warranty is limited to one year from the date of purchase.

We will provide replacement product without charge, for any **SeaStar Solutions** product meeting this warranty, which is returned (freight prepaid) within the warranty period to the dealer from whom such product were purchased, or to us at the appropriate address. In such a case **SeaStar Solutions** products found to be defective and covered by this warranty, will be replaced at **SeaStar Solutions'** option, and returned to the customer.

The above quoted statement is an extract from the complete **SeaStar Solutions** products warranty statement. A complete warranty policy is available in our **SeaStar Solutions** products catalogue.

### 3.2 Return Goods Procedure

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Prior to returning product to **SeaStar Solutions** under warranty, please obtain a *Return Goods Authorization number* (claim number).

Be sure to label the goods with:

- a) the name and address of the sender, and
- b) the return goods authorization number (claim number)

Please address the returned goods as follows:

RGA # ?  
Sierra International  
1 Sierra Place  
Litchfield, IL 62056

### 3.3 Technical Support

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Phone: 604-248-3858

email: [seastar@seastarsolutions.com](mailto:seastar@seastarsolutions.com)

Hours: Monday to Friday 05:00 – 15:30 PST

Web: [www.seastarsolutions.com](http://www.seastarsolutions.com)

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