

# Installation Instructions and Owner's Manual

Copy Part# IS-SBX76061/76261, Rev. 4, 03/2014

Helm

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# **90° BEZEL KIT FOR XTREME**<sup>™</sup> **NFB<sup>™</sup> & NON NFB<sup>™</sup> HELMS** Part #SBX76061 & SBX76261

(Patents Pending)

**Bezel kit** 

Installer: these instructions contain important safety information and must be forwarded to the boat owner.

These instructions describe how to install the following bezel kits and steering helms.

#### 

NOTICE

Before starting installation read these instructions and engine makers instructions thoroughly. Failure to follow either of these instructions or incorrect assembly can result in loss of control and cause property damage, injury, or death.

l these	SBX76061	SHX7606 NFB <sup>™</sup> HeIm	
ers re to	SBX76261	SHX7626 Non NFB <sup>™</sup> Helm	
ons or in loss	In addition to this kit the following components are required for a complete Xtreme <sup>™</sup> steering system:		
	Steering Helm (see above)		
	<ul> <li>SSCX64xx Cable (where xx is length in feet)</li> </ul>		
	ction Kit (refer to SeaStar Solutions catalog)		
	<ul> <li>Steering Wheel (refer to SeaStar Solutions catalog; Maximum wheel diameter 16", Maximum wheel dish 5")</li> </ul>		

! DANGER	If steering cable is stiff in operation, it is unsafe to use and must be replaced immediately.
WARNING	DO NOT substitute parts from other manufacturers, they may cause a safety hazard for which SeaStar Solutions cannot accept responsibility. Use only SeaStar Solutions SSCX64 Xtreme™ steering cable with this helm.
I WARNING	To avoid excessive steering loads, and to get the best steering performance, the outboard motor or outdrive trim tabs and tilt position must be adjusted as instructed in the motor manufacturers operation manual. Failure to do so can effect the performance of the boat and its safe operation which may cause property damage, injury, or death.
I WARNING	DO NOT attach any electrical ground wires to the helm. This would result in an electrolytic reaction to the steering system that may result in system failure or greatly reduced service life.
! WARNING	Helms must not be disassembled for any reason. Failure to

Helms must not be disassembled for any reason. Failure to reassemble correctly may lead to total failure of the system, which could result in property damage, injury, or death. When replacing an existing steering system it is recommended that you stay with the style (rotary or rack) the boat manufacturer installed. Never change your steering from a dual cable to a single cable system, as this could cause an unsafe boating condition.

#### NOTICE

Helms and cable assemblies are supplied lubricated ready for installation, do not add any lubricant to either assembly. Use of other lubricants can cause damage to the steering cable, resulting in the cable seizing or premature wear. Keep the cable and drive assembly clean during installation. Dirt will damage the system and cause premature wear.

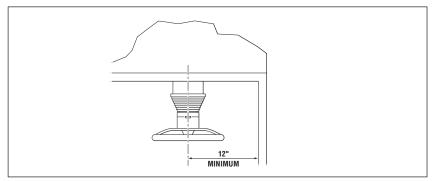
This notice does not include the engine output ram end of the cable.

# **Preparation for Installation**

STEP 1. In most common applications the steering cables are routed to the starboard side of the boat (the starboard side is preferred in order to balance engine torque). A minimum horizontal clearance of 12" is required from the gunwale to the center of the helm steering shaft (refer to figure 1). This dimension controls the MINIMUM ACCEPTABLE BEND RADIUS OF 8".
A smaller bend radius will reduce steering performance and may result

A smaller bend radius will reduce steering performance and may result in premature cable failure.

**NOTICE** Dimensions shown in figures 1 and 2 must be maintained to provide proper clearance for the helm.





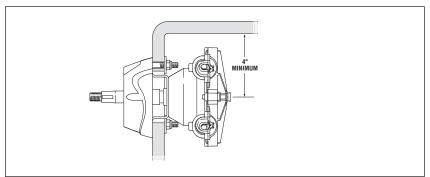


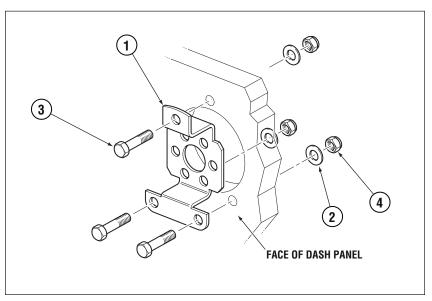
Figure 2. 90° Bezel Kit Minimum Clearance.

2. Locate the approximate position for the bezel on the console or dashboard. Using the mounting template provided (figure 6) mark the location of the holes. Drill three (3) holes 3/8" diameter and one (1) 3-1/4" diameter hole through the dash.

STEP 2.

# Helm Mounting Bracket Installation

**STEP 1.** Place helm mounting bracket (item 1) in position on dash as shown in figure 3. Insert hex bolts (item 3) through mounting holes in bracket and dash. Add a flat washer (item 2) to each bolt and thread a locknut (item 4) on each. Torque to 110 in-lbs minimum. DO NOT EXCEED 145 IN-LBS.

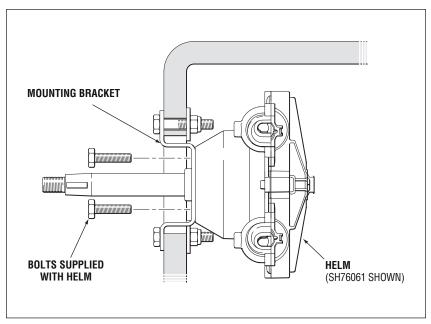




#### **Helm Installation**

STEP 1.

Insert helm steering shaft through hole in mounting bracket (refer to figure 4), orienting in the proper direction for steering cable entry, and align mounting holes. Insert the three (3) hex bolts supplied with the helm through the mounting bracket and thread into the helm. Torque to 75 in-lbs minimum. DO NOT EXCEED 120 IN-LBS.





### **Bezel Mounting**

**STEP 1.** Center bezel (item 5) around shaft and fasten in place using two (2) self-tapping screws (item 6) as shown in figure 5. Tighten snugly, taking care not to over-torque which may crack the bezel or strip screw threads.

# **Steering Wheel Installation**

**STEP 1.** Insert Woodruff key (item 7) into slot in helm steering shaft. Slide steering wheel over shaft, aligning keyway with Woodruff key. Add flat washer (item 8) and thread on locknut (Item 9). Torque to 240 in-Ibs minimum.

DO NOT EXCEED 320 IN-LBS.

The installation is now complete.

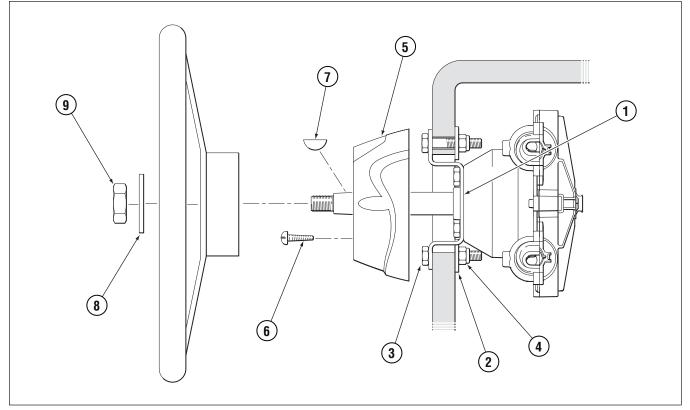


Figure 5.

# **Bezel Kit Parts List**

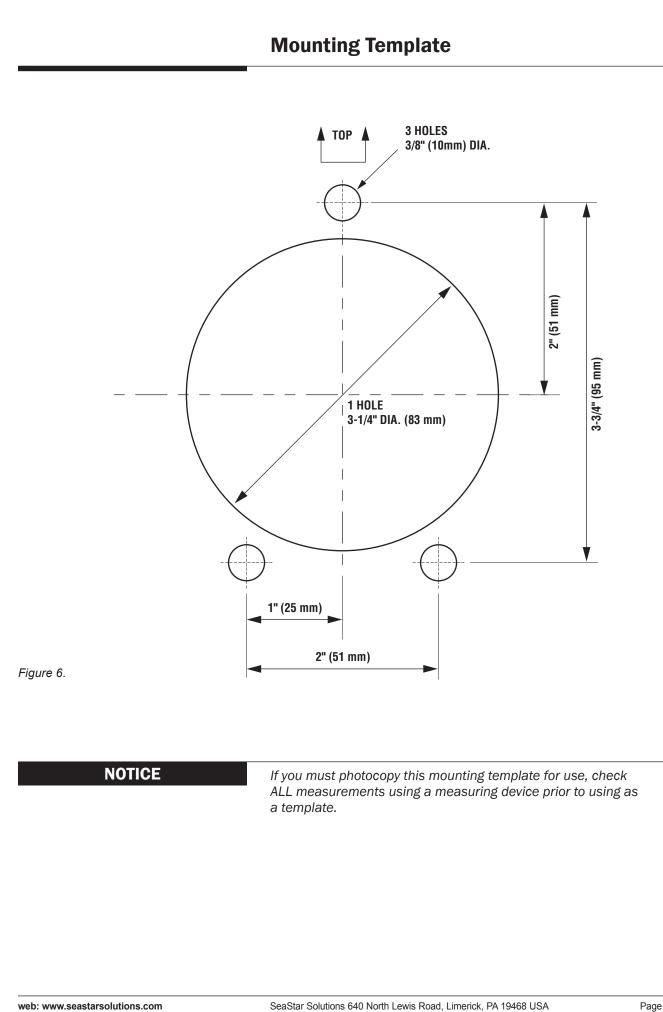
ITEM	QTY	DESCRIPTION
1	1	Helm Mounting Bracket
2	3	Flat Washer,5/16" ID
3	3	Hex Bolt, 5/16-18
4	3	Lock Nut, 5/16-18
5	1	Plastic Bezel
6	2	Screw, #10 Self Tapping
7	1	Woodruff Key, No. 9
8	1	Flat Washer, 1/2" ID
9	1	Lock Nut, 1/2-20

# **Operation & Maintenance Notes**

CAUTION	It is possible to over trim the engine and increase the steering torque to the point that the steering wheel cannot be turned, even though the torque is not felt at the wheel. This may give the impression that the steering is "locked". This condition can occur more when jack plates are used to raise the engine on the transom, and can only be overcome by reducing the boat speed or engine trim out position. Until you are completely familiar with the boat and the effects of power trim, make all adjustments of trim with extreme caution.
	<ol> <li>After a few hours of operation and at frequent intervals thereafter, check all fasteners and the complete steering system for security and integrity.</li> </ol>
<b>DANGER</b>	Loosening or loss of one or more fasteners may cause failure of the steering system, resulting in loss of steering control and could cause property damage, injury, or death.
	<ol> <li>Keep all moving parts free from build-up of salt and other foreign material. This will affect their operation and create steering problems. Periodically remove the cable, clean support tube and telescopic end of cable thoroughly and lubricate with a waterproof marine grease.</li> </ol>
	<ol> <li>Periodically inspect for corrosion. Any parts affected by corrosion must be replaced. When replacing hardware, self-locking hardware as originally supplied must be used.</li> </ol>
	<ol> <li>Periodically inspect steering cable for cracks or other damage. If any is found the cable must be replaced.</li> </ol>
<b>DANGER</b>	If steering cable is stiff in operation, it is unsafe to use and must be replaced immediately.
<b>DANGER</b>	DO NOT cover cracks with tape or other sealants, this will create a hazard in which the cable can fail suddenly without warning, resulting in property damage, injury, or death.
NOTICE	Boat builder and boat dealer, please supply these Installation Instructions and Owner's Manual with the delivery of boat. Boat owner keep these instructions with your boat for future reference. Boat owner consult with your boat builder, boat dealer, or SeaStar Solutions if you have any questions regarding these instructions.

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