

RAYMARINE AND SEAKEEPER COMPATIBILITY



PRODUCT ALL SEAKEEPER SERIES MODELS

DESCRIPTION

Seakeeper and Raymarine have teamed up to make your boating experience an even better one with Seakeeper compatibility on select Raymarine MFDs. This document outlines how to connect Seakeeper units to compatible Raymarine MFDs using an ethernet connection and the applicable hardware and software requirements. The Raymarine Axiom Series platform is required to support this integration.

COMPATIBLE RAYMARINE AND SEAKEEPER HARDWARE

Raymarine Hardware: Axiom, Axiom Pro, and Axiom XL series units

- [Raymarine LightHouse Apps reference](#)

Seakeeper Hardware: any Seakeeper series model with a 5" Touch Display (P/N 30298) or ConnectBox (P/N 20415)

NOTE: A display upgrade kit is available for Seakeepers currently equipped with older displays.

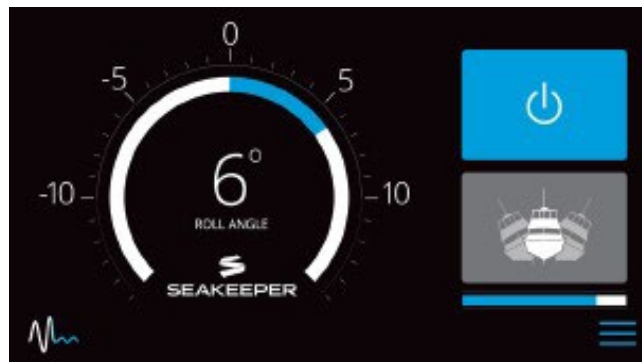


Figure 1: Seakeeper 5" Touch Display Home Screen

SOFTWARE REQUIREMENTS

The latest Raymarine software release can be found at <https://www.raymarine.eu/service-and-support/software-updates/>. Seakeeper is not responsible for updating Raymarine software.

The most recent software release is always recommended. Visit [Seakeeper Software page](#) or contact your local Seakeeper dealer for software update information. Visit <https://seakeeper.com/find-us/> for a complete listing of Seakeeper dealers.

TYPE OF CONNECTION

Raymarine ethernet ports use a proprietary RayNet twist pin connector. Both the Seakeeper 5" Touch Display and ConnectBox use an M12, male, straight, D, circular connection.

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CONNECTING TO A SEAKEEPER 5" TOUCH DISPLAY

1. Connect the Seakeeper 5" Touch Display to the Raymarine MFD Ethernet port using a custom Seakeeper-to-RayNet cable. Seakeeper cables (Seakeeper P/N 20380 "Raymarine Ethernet Cable Assembly") are currently available for purchase from a local Seakeeper dealer and are 2 m (6.5 ft) long.

NOTE: If a longer cable is needed to connect the Raymarine MFD to the Seakeeper 5" Touch Display, Seakeeper offers a 10 m cable extension (Seakeeper P/N 30330), or 25 m cable (P/N 30335), that should be plugged into the back of the Seakeeper 5" Touch Display and the Raymarine Ethernet Cable.

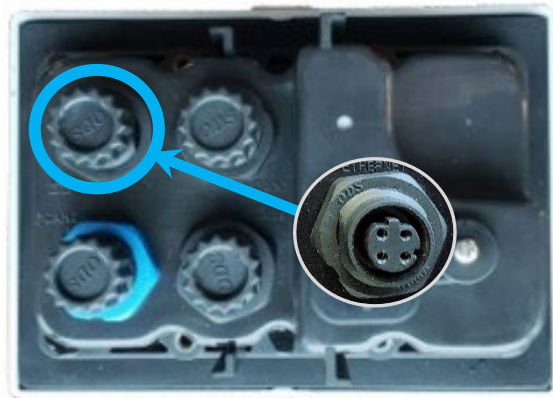


Figure 2: Port for Seakeeper 5" Touch Display to MFD Connection

2. The Seakeeper end (4 pins) of the 'Raymarine Ethernet Cable Assembly' connects to the back of the Seakeeper 5" Touch Display in the port shown in Figure 2. The RayNet end (Ethernet) of the cable should connect to a "Network" port, shown in Figure 3.



Figure 3: Connect Cable 20380 to a "Network" Port on the Back of the MFD

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- Once hardware is connected, remove DC power from the Seakeeper. Align power to MFD. Realign DC power to Seakeeper. Press Settings button (gears icon) on Seakeeper 5" touch display and select "Raymarine" from MFD dropdown list, as seen in Figure 4 below.

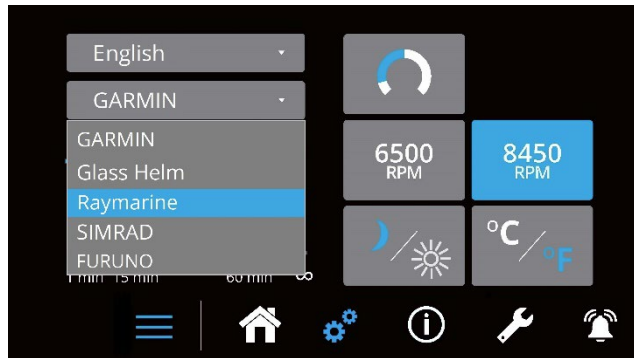


Figure 4: Seakeeper Display's Settings Screen showing Raymarine in the MFD dropdown menu

- The display will ask if the user wants to apply these changes. Select "Yes" and the display will reboot.
- The Seakeeper App will now be populated in the Lighthouse 3 "Installed Apps" screen, as seen below in Figure 5.

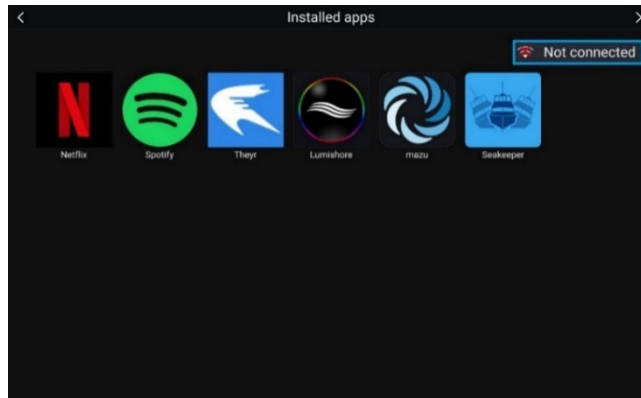


Figure 5: Raymarine MFD Screen – With Seakeeper Application Icon

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CONNECTING TO A SEAKEEPER CONNECTBOX

1. Connect the Seakeeper ConnectBox to the Raymarine MFD Ethernet port using two Seakeeper cables. Seakeeper-to-RayNet cable "Raymarine Ethernet Cable Assembly" (Seakeeper P/N 20380) is currently available for purchase from a Seakeeper dealer. "Seakeeper Adapter Cable" (Seakeeper P/N 30330) comes standard with applicable models.
 - a. The Raymarine Ethernet Cable is 2 m (6.5 ft) long and the Seakeeper Adapter Cable is 10 m long. If a total cable length of 12 m is not sufficient to reach between the Seakeeper ConnectBox and Raymarine MFD, then a second Seakeeper Adapter Cable can be purchased and added to the assembly to provide an additional 10 m of length.
 - b. The Seakeeper Adapter Cable is required to be plugged into the ConnectBox. The connection on the Raymarine Ethernet Wire Harness Cable terminal does not fit on the back of the ConnectBox.
2. The Seakeeper Adapter Cable connects to the back of the Seakeeper ConnectBox using the Ethernet port highlighted in Figure 6.



Figure 6: Port for Seakeeper ConnectBox to MFD Connection

3. The RayNet end (Ethernet) of the cable should connect to a "Network" port, shown in Figure 3.

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4. Once the hardware is connected, perform the following steps to integrate:
 - a. Cycle DC control power to the Seakeeper.
 - b. Press ConnectBox ethernet button for 10 seconds or until spool bar LEDs strobe from right to left (indicating DHCP server OFF)



MOMENTARILY PRESS
ETHERNET BUTTON



SPOOL BAR LEDs WILL STROBE FROM
RIGHT TO LEFT. ROUND LEDs WILL FLASH

- c. If spool bar LEDs strobe from left to right or no response, then press ethernet button for 10 seconds or until LEDs strobe from right to left to indicate DHCP server OFF.

NOTE: ConnectBox will return to normal operation automatically after short period.

5. Verify Seakeeper App populated in the Lighthouse 3 “Installed Apps” screen, as seen in Figure 7.

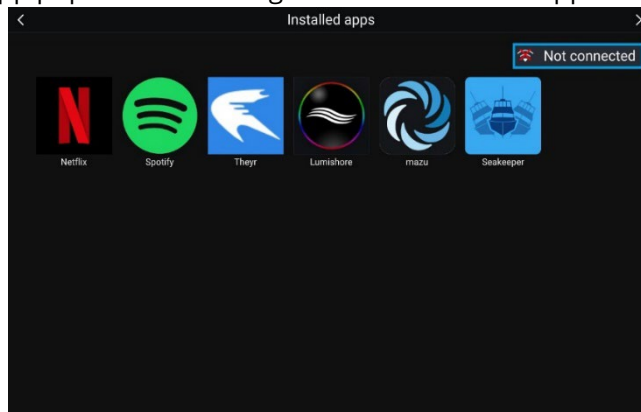


Figure 7: Raymarine MFD Screen – With Seakeeper Application Icon

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MULTI-SEAKEEPER SUPPORT

1. Raymarine hardware required: RNS-5 RayNet Network Switch - 5 ports (P/N: A80007).
 - a. The network switch allows you to connect multiple Seakeepers over the Raymarine network: <http://www.raymarine.com/en-us/our-products/chartplotters/chartplotter-accessories/rns-5>.
2. Ensure each Seakeeper 5" Touch Display onboard has a unique Seakeeper ID as shown in Figure 8.
 - a. The Seakeeper ID can be checked and changed by holding the Settings button on the Seakeeper 5" Touch Display for five (5) seconds, then selecting the Seakeeper ID drop-down menu shown in Figure 8. One Seakeeper unit must have the designation Seakeeper ID "1" and the other units should be identified with increasing ID numbers (2, 3, ...). For the use of a single Seakeeper unit, the ID must be Seakeeper ID "1".

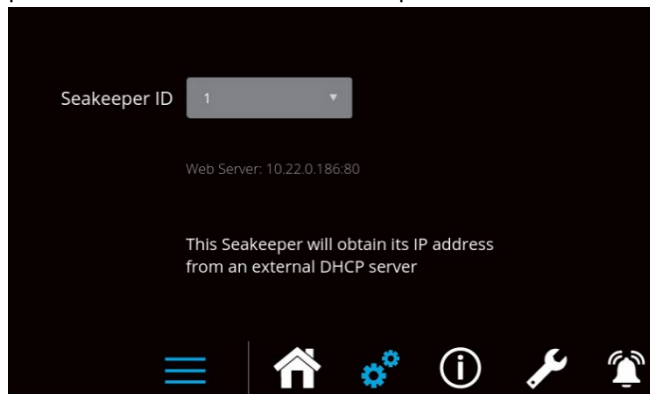


Figure 8: Settings Screen for Seakeeper ID 1

3. Multi-Seakeeper display screens can be seen in Figure 9. The Seakeepers can all be powered on/off, or locked and unlocked in the home screen. Toggle arrows at the top of the screen can be used to navigate to each Seakeeper's respective home screen, where specific details for each Seakeeper can be found.

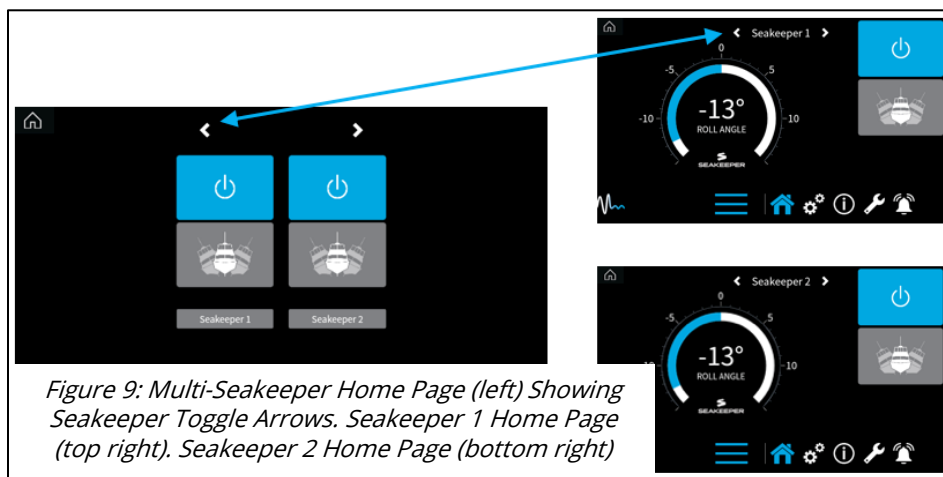


Figure 9: Multi-Seakeeper Home Page (left) Showing Seakeeper Toggle Arrows. Seakeeper 1 Home Page (top right). Seakeeper 2 Home Page (bottom right)

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TROUBLESHOOTING

1. If the Seakeeper app does not load onto the Raymarine MFD once connected, the following steps should be taken:
 - a. Check physical cable connections at the back of the Seakeeper display, the MFD, and any connectors and hubs.
 - b. Update both the MFD and Seakeeper software to the most up-to-date versions.
 - c. Cycle power to the MFD and then the Seakeeper display.
 - d. For the use of a single Seakeeper unit application, check that the Seakeeper ID is "1". For multi-Seakeeper applications, check that a Seakeeper is designated as Seakeeper ID "1" and the other units are identified with increasing ID numbers (2, 3, ...).
2. For additional support contact Seakeeper Product Support Team at support@seakeeper.com.