

PRODUCT ALL SEAKEEPER SERIES MODELS

#### DESCRIPTION

Seakeeper and Garmin have teamed up to make your boating experience an even better one. Owners may now control and monitor their Seakeeper using compatible Garmin MFDs. The hardware and software requirements for supporting this functionality and basic troubleshooting steps are outlined within this Technical Bulletin.

#### **COMPATIBLE GARMIN AND SEAKEEPER HARDWARE**

- 1. **Garmin hardware:** Any OneHelm enabled Garmin MFD including GPSMap 7X2 Plus, 9X2 Plus, 12X2 Plus Series; GPSMap 7x3, 9x3, and 12x3 Series; GPSMap 8400 & 8600 Series; GPSMap 8700 Black Box; and GPSMap 9000 series models.
- 2. **Seakeeper Hardware:** Any Seakeeper model with a 5" Touch Display (P/N 30298) or ConnectBox (P/N 20415) interface.

**NOTE:** A display upgrade kit is available for Seakeepers using older displays.



Seakeeper 5" Touch Display Home Screen

### SOFTWARE REQUIREMENTS

The latest Garmin software can be downloaded at <u>Garmin Marine Device Software Updates</u>. All legacy Garmin devices (all except 9000 series) utilize the Garmin Marine Network (GMN) protocol. The Garmin 9000 Series utilizes the Garmin BlueNet protocol. Seakeeper is compatible with GMN and BlueNet Networks independently. Seakeeper is not compatible with BlueNet/GMN hybrid applications, and one network must be selected when both are present. Please note the Seakeeper App can only populate on up to two MFDs simultaneously.

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



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### **TYPE OF CONNECTION**

- Garmin Marine Network (GMN) MFDs: Ethernet (RJ45) connectors
- Garmin BlueNet MFDs (9000 series): Garmin 9 Pin BlueNet connectors

The Seakeeper 5" Touch Display and ConnectBox use an M12, male, straight, D, circular ethernet connection.

### **CONNECTING A GARMIN MARINE NETWORK (GMN) MFD**

#### **SEAKEEPER 5" DISPLAY**

- Connect the Seakeeper 5" Touch Display to the Garmin MFD RJ45 port using a custom Seakeeper cable. Seakeeper cables (Seakeeper P/N 20373, Garmin Ethernet Wire Harness Cable Assembly) are currently available for purchase from your local Seakeeper dealer and are 2 m (6.5 ft) long.
  - 1.1 If a longer cable is needed to connect the Garmin MFD to the Seakeeper 5" Touch Display, Seakeeper offers a 10 m cable extension (Seakeeper P/N 30330) and a 25 m cable extension (P/N 30355) that plugs into the back of the Seakeeper 5" Touch Display and the Garmin ethernet wire harness cable.
- 2. The Seakeeper Ethernet Extension Cable connects to the back of the Seakeeper 5" Touch Display port highlighted in Figure 1 and the back of the Garmin MFD in "Network" port highlighted in Figure 2.



Figure 1: 5" Touch Display Ethernet port



Figure 2: Garmin Network ports



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3. Press Settings button (Gears icon) on 5" Touch Display and select "Garmin" from the MFD dropdown list, as seen in Figure 3.

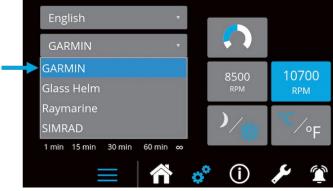


Figure 3: Seakeeper Display's Settings Screen Showing GARMIN in the MFD Dropdown Menu

- 4. Cycle DC power to Seakeeper and MFD.
- 5. Verify the Seakeeper app populates on the Garmin OneHelm screen, as in Figure 4.



Figure 4: Garmin OneHelm Display – with Seakeeper Application Icon



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#### **SEAKEEPER CONNECTBOX**

- Connect the Seakeeper ConnectBox to the Garmin MFD RJ45 port using a Seakeeper ethernet extension cable and a Seakeeper optioned Garmin Ethernet Wire Harness Cable Assembly. Seakeeper cable "Garmin Ethernet Wire Harness Cable Assembly" (Seakeeper P/N 20373) is currently available for purchase from your local Seakeeper dealer. A "Seakeeper Ethernet Extension Cable" (10m - Seakeeper P/N 30330 or 25m - 30355) comes standard with all Seakeeper models.
  - a. The Garmin Ethernet Wire Harness Cable Assembly is 2 m (6.5 ft) long and the Seakeeper ethernet extension cables are 10m or 25m long depending on Seakeeper model. If additional cable length is required to reach the Seakeeper ConnectBox and Garmin MFD, then a second Seakeeper ethernet extension cable can be purchased and added to the assembly.
  - b. The Seakeeper ethernet extension Cable is required to be plugged into the ConnectBox. The connection on the Garmin Ethernet Wire Harness Cable terminal does not fit on the back of the ConnectBox.



Figure 5: Port for Seakeeper ConnectBox to MFD Connection



Figure 6: Connect Cable 20373 to a "Network" Port on the Back of the MFD



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- 2. Once the hardware is connected, perform the following steps to integrate:
  - a. Press ConnectBox ethernet button for 10 seconds or until spool bar LEDs strobe from right to left to indicate DHCP server function OFF.



MOMENTARILY PRESS ETHERNET BUTTON



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

b. If spool bar LEDs strobe from left to right or no response, press the 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.

- c. Cycle power to Seakeeper and MFD
- 3. Verify the Seakeeper App populated on the Garmin OneHelm screen, as shown in Figure 7.



Figure 7: Garmin OneHelm Display – with Seakeeper Application Icon



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### **CONNECTING A GARMIN BLUENET MFD**

- 1. Connect the Seakeeper 5" Touch Display or ConnectBox to the Garmin MFD BlueNet port using a custom Garmin BlueNet Ethernet Wire Harness Cable Assembly (Seakeeper P/N 20617). Seakeeper cables are currently available for purchase from your local Seakeeper dealer and are 2 m (6.5 ft) long.
  - a. If a longer cable is needed to connect the Garmin MFD to the Seakeeper 5" Touch Display or ConnectBox, Seakeeper offers a 10 m ethernet cable extension (Seakeeper P/N 30330) or a 25 m ethernet cable extension (P/N 30355) that plugs into the back of the Seakeeper 5" Touch Display or ConnectBox and the Garmin ethernet wire assembly.
  - b. The Male end of the Seakeeper Ethernet Extension Cable is required to be plugged into the 5" Touch Display or ConnectBox. The Female connector of the D-Code (4-Pin) Seakeeper Ethernet Extension Cable then terminates to the Male D-code connector of the Garmin BlueNet Ethernet Wire Harness Cable Assembly.



c. The BlueNet connector terminates at the back of the MFD.

*Figure 8: Connect Seakeeper Cable P/N 20617 to a "Network" Port on the Back of the 9000 Series MFD* 

2. Once the hardware is connected, perform the following steps to integrate:



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#### SEAKEEPER CONNECTBOX

a. Press ConnectBox ethernet button for 10 seconds or until spool bar LEDs strobe from right to left to indicate DHCP server function OFF.



MOMENTARILY PRESS ETHERNET BUTTON



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

b. If spool bar LEDs strobe from left to right or no response, press the 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.

c. Cycle DC power to Seakeeper and MFD

#### **SEAKEEPER 5" DISPLAY**

a. Press Settings button (Gears icon) on 5" Touch Display and select "Garmin" from the MFD dropdown list, as seen in Figure 9.

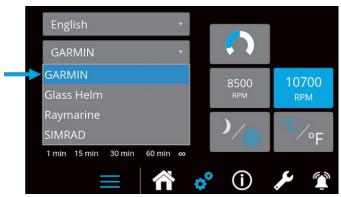


Figure 9: Seakeeper Display's Settings Screen Showing GARMIN in the MFD Dropdown Menu



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- b. Cycle DC power to Seakeeper and MFD
- c. Verify the Seakeeper app populates on the Garmin OneHelm screen, as in Figure 10



Figure 10: Garmin OneHelm Display – with Seakeeper Application Icon

#### **MULTI-SEAKEEPER SUPPORT**

- 1. Garmin hardware required: GMS<sup>™</sup> 10 Network Port Expander (P/N: 010-00351-00)
  - 1.1. The <u>GMS 10 Network Port Expander</u> allows you to connect multiple Seakeepers over the Garmin Marine Network.
- 2. Start by checking each Seakeeper 5" Touch Display onboard has a unique Seakeeper ID, as shown in Figure 11. ConnectBoxes will automatically assume uniquew IDs.
- 3. "DHCP Server" setting should be in its default "off" setting.
- 4. Ensure Seakeeper Display software is latest release.



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5. The Seakeeper ID can be checked/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 11. 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".

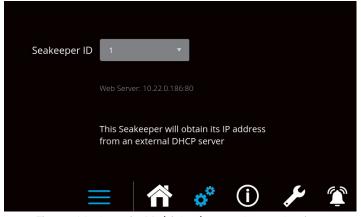


Figure 11: Garmin Multi-Seakeeper Server Settings Screen for Seakeeper ID 1

6. Multi-Seakeeper display screens can be seen in Figure 12. Seakeepers can all be powered on and 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 12: 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 Garmin MFD once connected, the following steps should be taken:
  - 1.1 Check physical cable connections at the back of the Seakeeper display, the MFD, and any connectors and hubs.
  - 1.2 Restart the MFD and then Seakeeper display.
  - 1.3 Update both the MFD and Seakeeper software to the most up-to-date versions.
  - 1.4 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 <a href="mailto:support@seakeeper.com">support@seakeeper.com</a>.