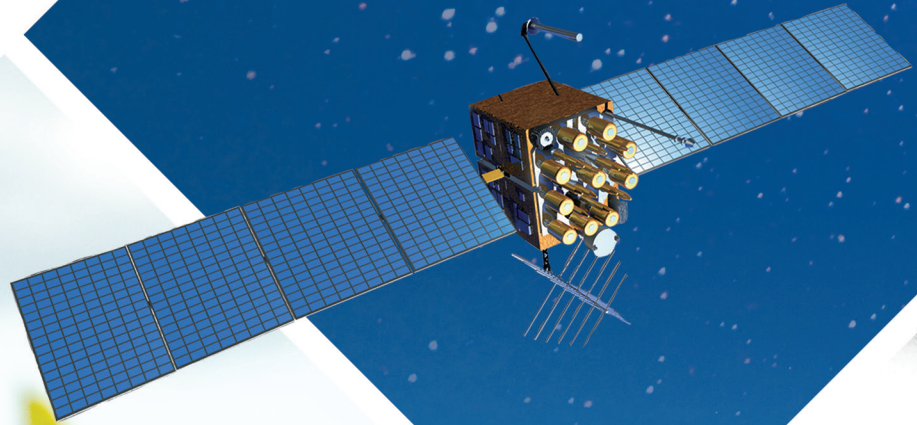


FAQ  
SCX-20  
SATELLITE COMPASS™



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# SCX20 FAQ

**Q How can the SCX20 be mounted?**

The SCX20 comes standard with a roof mount kit. An optional pole mount kit, part # 000-000-000 is also available.

**Q What type of connector does the SCX20 use?**

The SCX20 is supplied with a standard male NMEA2000 connector.

**Q What connection cable is the SCX20 supplied with?**

The SCX20 is supplied with a 6M Micro Drop cable.

**Q Can I use shorter NMEA2000 Micro Drop cables with the SCX20?**

Yes.

**Q Does the supplied connection cable have a built in NMEA2000 terminator?**

**No**, the supplied cable is a standard NMEA2000 6M Micro Drop cable. If the SCX20 will be used at the end of the NMEA2000 backbone, then an inline NMEA2000 terminator, part # [001-077-830](#) must be added or a NMEA2000 T along with a terminator.

**Q How much space is required under the SCX20 to make the bend in the NMEA2000 cable?**

At least three (3) inches is required to make a bend without adding stress to the cable/connector. Alternatively, a 90° right angle connector can be added to reduce the space required to make the bend.

**Q Can I use a right-angle cable or right-angle connector?**

Yes. If the space under the SCX20 is very limited, a right-angle cable can be substituted for the standard supplied cable. Or, an NMEA2000 right angle elbow connector can be added to the end of the standard cable.

**Q What are the physical dimensions of the SCX20?**

The SCX20 is 3"H x 8"W x 10" L, 2.2lbs

**Q How many I/O ports does the SCX20 have?**

The SCX20 has one NMEA2000 port.

**Q What NMEA2000 sentences does the SCX20 output?**

127250	Vessel Heading
127251	Rate of Turn
127252	Heave
127257	Attitude
127258	Magnetic Variation
129025	Position, Rapid Update
129026	COG & SOG, Rapid Update
129029	GNSS Position Data
129538	GNSS Control Status
130312	Temperature
130314	Actual Pressure
130316	Temperature, Extended Range
130577	Direction Data
130578	Vessel Speed Components
130816	Self-Test Report
130817	Furuno GNSS Control Status
130818	Heading & Attitude Sensor Control Status
130819	Motion Sensor Control Status
129539	GNSS DOPs
129540	GNSS Sat's in View
130310	Environmental Parameters

**Q Can the output rate be changed and or individual sentences turned off?**

Yes. Sentence output rates can be individually changed or turned off completely using the Sensor setting menu of a TZT2/3, NavPilot 300\*, FI70\*, or via PC running SCX20 Tool software.

\* Requires latest software.

**Q How can offsets and changes be made to the SCX20?**

Offsets and changes can be made to the SCX20 using a TZtouch2/3 MFD, NavPilot 300\*, FI70\*, or a PC using SCX20 Tool software. Limited offsets such as heading alignment, can be made with a TZtouch MFD v6.01 software and above. \* latest version of software required.

**Q What is the update rate of the SCX20 position/heading information?**

The SCX20 updates position and heading at 10hz.

**Q Is the SCX20 affected by GPS blockage and or multipath?**

Any GPS sensor or satellite heading sensor can be affected by blockage and or multipath. The SCX20 decreases these affects by using 4 internal GNSS antennas creating 6 baselines, the most currently available on the market, for measurement. While the SCX20 can use all 6 baselines for heading, it does not have to. It can calculate heading using only two baselines. The chance that all 6 baselines would be affected by multipath is decreased. This makes the SCX20 much more resistant to these issues.

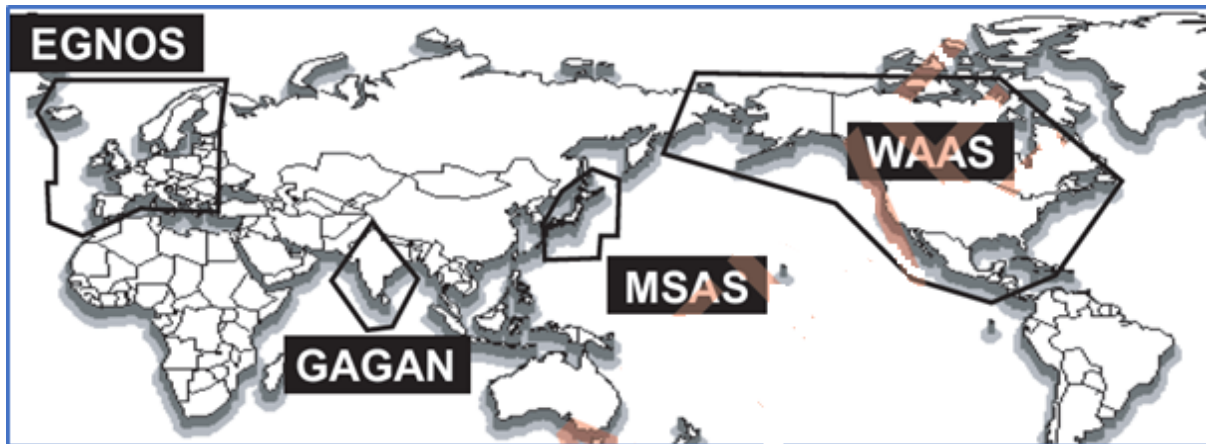


**Q What satellite systems is the SCX20 compatible with?**

The SCX20 is compatible with GPS, Galileo (EU), GLONASS (Russia), and QZSS (Japan and Oceania). The SCX20 will track multiple GNSS Satellite Systems for heading calculation.

**Q Is the SCX20 compatible with any SBAS systems?**

The SCX20 is compatible with the following **Satellite Based Augmentation Systems**.



**Q Is the SCX20 NMEA2000 certified?**

Yes.

**Q Does the SCX20 output Heave information for my Furuno Sounder?**

Yes, the SCX20 outputs Heave along with pitch and roll.

**Q What is the LEN of the SCX20?**

NMEA2000 LEN=4@9VDC.

**Q What voltage can the SCX20 operate from?**

The operating voltage of the SCX20 is from 12vdc to 24vdc.

**Q I have an SC30 and I want to replace it with the SCX20. However, it would be difficult to run a new cable. Can I use the SC30 cable?**

If the SC30 installation does not include an IF-NMEASC (cables are different), then the SC30 cable can be re-used with a cable conversion kit, part # 001-506-810-00.



**Q Is the SCX20 compatible with the TZtouch2/3 Sensor management menu?**

Yes. The SCX20 is fully compatible with TZT2/3 Sensor management menu. The Sensor management menu can be used to make installation settings, adjustments, offsets, change NMEA2000 output settings, and perform a self-test of the SCX20.

**Q Is the SCX20 compatible with the IF-NMEASC?**

**No.** The SCX20 is not compatible with the IF-NMEASC. The SCX20 does not output all sentences required by the IF-NMEASC.

**Q What options are available for the SCX20?**

Options include Pole mount kit, Bird repellents, Snow cover kit, SC30 cable conversion kit, shorter drop cables, various NMEA2000 connectors. For a complete list of available options, please see the accessories page of the SCX20 on the Furuno USA website.

# Explaining the Roof Mounting the SCX20

Credit for correctly figuring this out goes to Furuno forum member Bill106. His JInglish certification is top notice.

One seal goes on the underside of the SCX20 near the NMEA 2000 connection. Some of the units already have this attached at factory. (fig 1) If not attached, you must put it into place. It is the smaller of the two seals. It is always used. (roof or surface mounting)



The other is a rubber compression seal (fig 2) that sits UNDER the roof mount adaptor and compresses when the roof mount adaptor is pressed down to the roof/surface. This seal is normally placed around the antenna cable and into the roof hole. This seal is not used when surface mounting. It only is used when the roof fixture is used. (roof mounting)



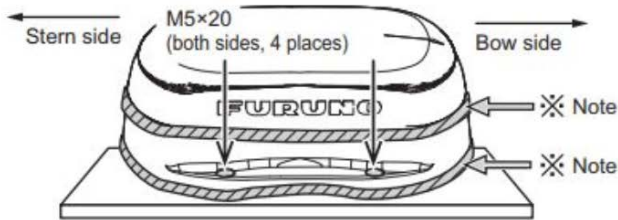
The smaller part of the seal goes into the hole at the top of the roof for which the roof adaptor sits on top of. Then the roof fixture is screwed down the seal makes a tight seal.

The seals are very near the core/center of the unit.



You do not seal around the fixture. (fig 3) This area stays open so water can come and go. If you try to seal the base and the roof adaptor it will create condensation and destroy your unit with water. The unit must be able to breathe.

9. Apply the supplied adhesive TB5211 to the threads of the supplied screws (M5×20), then fasten the antenna unit assembly with their screws from the top.
- Note:** DO NOT apply the adhesive to the contact areas (Hashed areas in the figure below) between the roof mount kit and a mounting platform and between the antenna unit and the roof mount kit.



It is okay and encouraged to put a bit of sealant on the screws, and the face of the seals, to assist with keeping the core sealed tight, so that no water goes down into the console/area below. DO NOT seal around the base or around the SCX20 unit.

Placement location in relation to other RF units on the boat is critical. Furuno installation manual and NMEA 0400 installation standards to be followed. Placement near strong RF sources or inside the transmitting radar beam will reduce product life and/or damage the product.