

FURUNO

INSTALLATION GUIDE BBWX3 SATELLITE RECEIVER

Please place the ESN sticker provided in the box below




This **ESN number** is required to activate SiriusXM weather and audio services (audio services available on NavNet 3D only).

SiriusXM
MARINE



FURUNO U.S.A.

www.furunousa.com

 CAUTION
<p>Always turn your Receiver OFF before carrying out routine maintenance.</p> <p>Your Receiver is a sealed unit. DO NOT SEPARATE the unit. There are no serviceable parts or adjustments inside.</p> <p>Any internal adjustments must be carried out by an approved and qualified technician.</p>

The following routine maintenance checks should be made:

- Examine all cables for signs of wear and/or damage
- Check that all cables are supported and are not stressing the connectors
- Check that all connectors are fully inserted and supported
- Wipe the unit with a clean damp cloth

 WARNING	
	<p>Do not open the enclosure unless totally familiar with electrical circuits.</p> <p>Only qualified personnel should work inside the equipment.</p>
<p>Do not install the unit where it may get wet from rain or water splash.</p> <p>Water in the unit can result in fire, electrical shock or damage the equipment.</p>	
<p>Use only the specific power cable.</p> <p>Fire or damage to the equipment can result if a different cable is used.</p>	
<p>Do not disassemble or modify the equipment.</p> <p>Fire, electrical shock or serious injury can result.</p>	


 CAUTION		
<p>Observe the following compass safe distances to prevent interference to a magnetic compass:</p>		
	Standard Compass	Steering Compass
BBWX3	0.8m	0.5m

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1.0 Preface

1.1 Disclaimer



CAUTION

Advisory – the weather information is subject to service interruptions and may contain errors or inaccuracies and consequently should not be relied upon exclusively. The service is provided as is. You are urged to check alternate weather information sources prior to making safety related decisions.

You acknowledge and agree that you shall be solely responsible for use of the information and all decisions taken with respect thereto.

By using this service, you release and waive any claims against SiriusXM Satellite Radio Inc., WSI, Navcast Inc. and Furuno with regard to this service.

This Installation Guide represents the product at the time of printing. Furuno reserves the right to make changes to the specification without notice.

If you do not have a **SiriusXM Subscription Agreement**, you will find a copy at:

http://www.siriusxm.com/pdf/siriusxm_customeragreement_eng.pdf

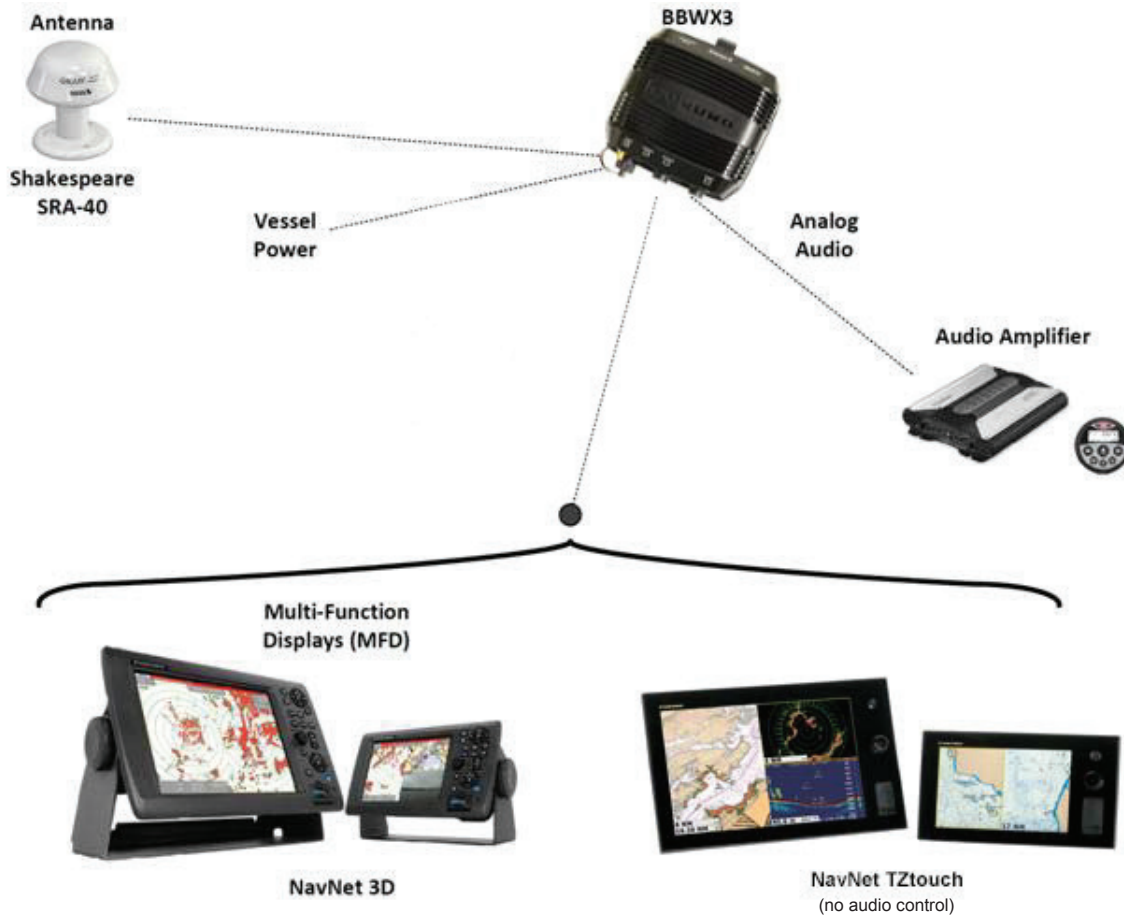
Or call 1-800-869-5480 to have a copy sent to you.

2.0 Introduction

The BBWX3 unit is a SiriusXM Satellite Receiver with an Ethernet Interface (similar to the BBWX1).

The BBWX3 Receiver provides SiriusXM Satellite weather services and Sirius RadioXM via a 7 pin audio connector. Audio control is only supported when connected to a compatible Furuno NavNet 3D MFD.

2.1 System Configuration



2.2 Receiver/Switch Specifications

SiriusXM Weather	Marine Inland, Marine Coastal, Marine Offshore	
SiriusXM Radio	Analog Output: 0 dBm into 600 Ω (0 dBv)	
Transmission speed	Half-duplex/Full-duplex; 10 Mbps/100 Mbps	
I/O Ports	1 Port (Shielded RJ45)	
Environmental Conditions	Ambient Temperature	-15 to 55 °C
	Relative Humidity	95%, 66°C, 18 hours
	EMC	IEC 60945 Rev 4, Sections 9.2 & 9.3
	Water Ingress	IPX7 (IEC 60529)
Power Supply	12 – 24 VDC, 0.4 A(<3.0 Watts)	
Body Color	Matte Black	

2.3 Equipment List

Name	Type	Code No.	Qty	Remarks
<i>BBWX3</i>	<i>XXXXXX</i>	<i>BBWX3</i>	<i>1</i>	<i>Receiver</i>
<i>Installation Materials</i>	-	-	<i>1</i>	<i>Power cable</i>
	-	-	<i>1</i>	<i>Audio Cable</i>
	-	-	<i>1</i>	<i>Ethernet Cable</i>
	-	-	<i>1</i>	<i>SMA to SMB Adaptor Cable</i>
	-	-	<i>1 set</i>	<i>Mounting Bracket/screws</i>
Not provided				
<i>Ethernet Cables (not included)</i>	<i>4 Pair LAN Cable Assy</i>	<i>001-167-880-10</i>	<i>2m</i>	<i>For Navnet 3D</i>
	<i>4 Pair LAN Cable Assy</i>	<i>001-167-890-10</i>	<i>5m</i>	<i>For Navnet 3D</i>
	<i>4 Pair LAN Cable Assy</i>	<i>001-167-900-10</i>	<i>10m</i>	<i>For Navnet 3D</i>
	<i>4 Pair LAN Cable Assy</i>	<i>000-164-609-10</i>	<i>3m</i>	<i>Cable with waterproof Connector for MFD8/12</i>

3.0 BBWX3 Installation

The BBWX3 does not come standard with a SiriusXM satellite antenna or antenna cable. These must be purchased separately. The BBWX3 is compatible with two Shakespeare antenna models:

- SRA-40
- SRA 25

Furuno USA carries the following:

WX1-005-003 Shakespeare SRA-40 antenna
WX1-005-004 25' BBWX3 Antenna Cable

For installations that require longer cable lengths you may contact your local Shakespeare outlet for options.

3.1 Mounting Considerations

The BBWX3 can be mounted on a desktop or a bulkhead. When choosing a mounting location, keep in mind the following points:

- Locate the unit well away from areas subject to intense splashing, rain and direct sunlight
- Locate the unit away from the vessel engines or where fuel vapor may be present
- Locate the unit in an environment inside the operating and storage temperature ranges
- The power cable supplied is 3.0 meters, however it can be extended up to 20 meters
- If bulkhead mounting, the cables should protrude out the bottom, not the top. This will prevent any possible water (moisture) from wicking into the unit from the cables



Note: The Antenna and **Receiver** should be mounted away from electromagnetic interference (e.g. >1.5 meters away from an AIS or radio transmitter, >2.0 meters away from Radar, >1.8 meters from a compass).

Fix the unit to the mounting location with the two self-tapping screws provided.

3.2 *Mounting the Antenna*

- Do not install antenna where it can be damaged by being kicked or trampled.
- The antenna beam is required to have an unrestricted view of the skies; this constitutes 5 ft [1.5 meters] out from the antenna and 1 ft [0.3 meter] above and below the antenna.
- The antenna is to be installed on a flat horizontal surface.
- The antenna can be installed as a standard “pedestal” mounting or “surface” mounting [non metallic surface only].
- Depending on the method of mounting and thickness of mounting substrate, the hardware screws supplied may not be suitable.
- The antenna must not be installed in the path of a radar beam.
- The antenna cable should not be cut or altered.

3.3 *Cabling*



CAUTION

Avoid running cables through bilges or doorways or close to moving or hot objects. Don't make sharp bends in cables.

Be careful when pulling cables and/or connectors through bulkheads as damage can occur. Don't run cables in a way that allows water to flow down into connectors.

Where a cable passes through an exposed bulkhead or deck head, a watertight gland or “swan neck” should be used.

Don't run the Ethernet cables in areas adjacent to radar transmitter, or large current carrying cables.

The **power cable** provided is 3 meters long. However, it may be extended to a maximum of 20 meters using a suitable 16 AWG multi-stranded cable. Red is positive, black is negative.

The **audio cable** provided is 3 meters long. It has two RCA male stereo connectors. Note that only certain MFDs provide audio control with the BBWX3.

The **antenna cable** for the BBWX3 is not standard supply and must be purchased separately.

The **Ethernet cables** used with the BBWX3 must be shielded.

3.4 Turning Power ON, LED Indications/Functionality

Power ON

No operation is required for the user. Simply turn on the BBWX3's DC power source to power it.

BBWX3 LEDs

The LEDs are displayed near the connectors on the BBWX3 unit as shown below.



Audio LED

There is a single, green LED that provides the audio status of the BBWX3 receiver. Generally, the Audio LED is solid green for normal operation; when off, the audio channel is muted. When it is blinking, there is a receiver failure.

Antenna LED

The Antenna LED provides antenna status information. If the LED is off or flashing green while power to the BBWX3 Receiver is applied, there is no antenna connection recognized by the BBWX3.

If the Antenna LED is solid green, a normal antenna connection has been detected by the BBWX3. If the Antenna LED is fast flashing (x2), an antenna short circuit has been detected.

Network LED

The Network LED indicates network status information. If the Network LED is off, no network connection is recognized. If the Network LED is solid green or flashing green, the network connection is normal.

Power LED

The Power LED is amber and indicates whether the receiver has power.

4.0 Activating your SiriusXM receiver

To enable the weather services and/or the radio services, you must first have a SiriusXM subscription to these services. Individual and combination weather and audio subscriptions are available.

For more information, please visit www.siriusxm.com/marineweather or www.siriusxm.com/radio/packages.

Before calling SiriusXM, make sure that...

- The installation is complete and the unit is powered on
- There are no LED Error Indications and you are within the North American SiriusXM Service Area
- You have the **ESN number** of your BBWX3 Satellite Receiver from the label shown below (this label is on the retail box, on the back of the unit itself or on the inside cover of this Installation Guide)
- You have the billing information to arrange payment of the subscription
- You have a major credit card available (that has a US billing address)

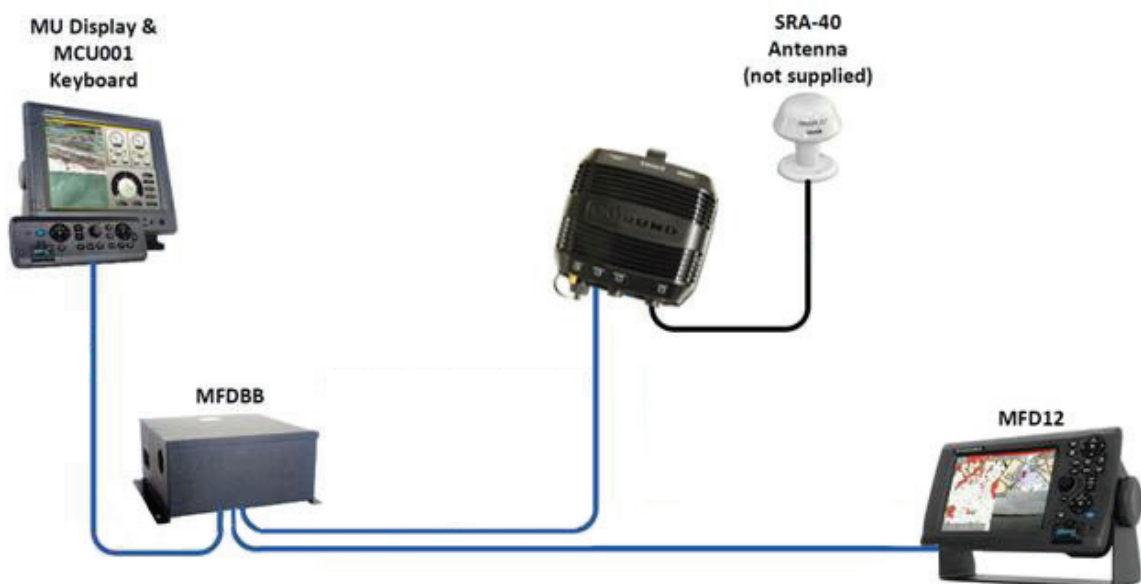


To activate a SiriusXM subscription, contact SiriusXM by calling 1-800-869-5480

NOTE: Activation of your BBWX3 SiriusXM receiver is undertaken with a third party (SiriusXM). Furuno has no involvement in or responsibility for the actual activation process.

5.0 BBWX3 Operation

5.1 Connecting to and configuring the NavNet 3D MFD (display)



5.2 Connecting to and configuring the NavNet TZtouch (display)

