

Preface

FCC Statement

This equipment has been tested and complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a normal installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. This device must accept any interference received, including interference that may cause undesired operation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.
- A shielded cable must be used when connecting a peripheral to the serial ports.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Warranty

The warranty card is supplied as a separate document.

It is shipped with the product registration card.

In case of any queries, refer to the brand web site of your display or system.

www.Lowrance.com

Declaration of Conformity

GB	Hereby, Navico Holding AS declares that this SonicHub is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
FI	Navico Holding AS vakuuttaa täten että SonicHub tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
NL	Hierbij verklaart Navico Holding AS dat het toestel SonicHub in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
FR	Par la présente, Navico Holding AS déclare que ce SonicHub est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.
SE	Härmed intygar Navico Holding AS att denna SonicHub står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
DK	Undertegnede Navico Holding AS erklærer herved, at følgende udstyr SonicHub overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/ EF.
DE	Hiermit erklärt Navico Holding AS, dass sich dieses SonicHub in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet. (BMWi)
GR	Με την παρούσα Navico Holding AS δηλωνει οτι SonicHub συμμορφωνται προς τις ουσιωδεις απαιτησεις και τις λοιπες σχετικες διαταξεις της οδηγιας 1999/5/EK.
IT	Con la presente Navico Holding AS dichiara che questo SonicHub è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
ES	Por medio de la presente Navico Holding AS declara que el SonicHub cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
PT	Navico Holding AS declara que este SonicHub está conforme com os requisitos essenciais e outras provisões da Directiva 1999/5/CE.

The equipment named in this declaration, is intended for use in international waters as well as coastal sea areas administered by countries of the E.U. and E.E.A. A full Declaration can be obtained from www.lowrance.com

Disclaimer

As Navico is continuously improving this product, we retain the right to make changes to the product at any time which may not be reflected in this version of the manual. Please contact your nearest distributor if you require any further assistance.

- It is the owner's sole responsibility to install and use the instrument and transducers in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

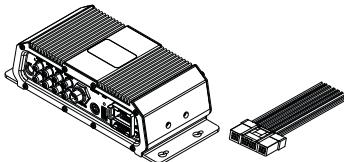
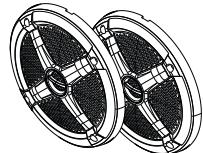
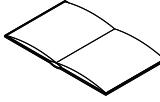
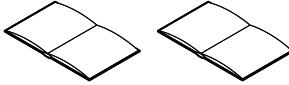
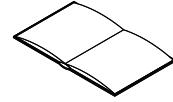
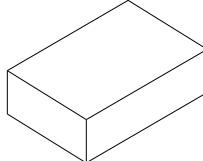
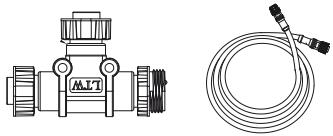
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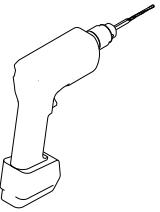
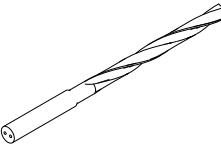
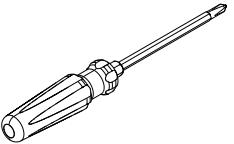
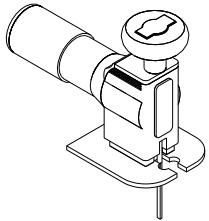
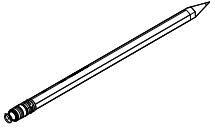
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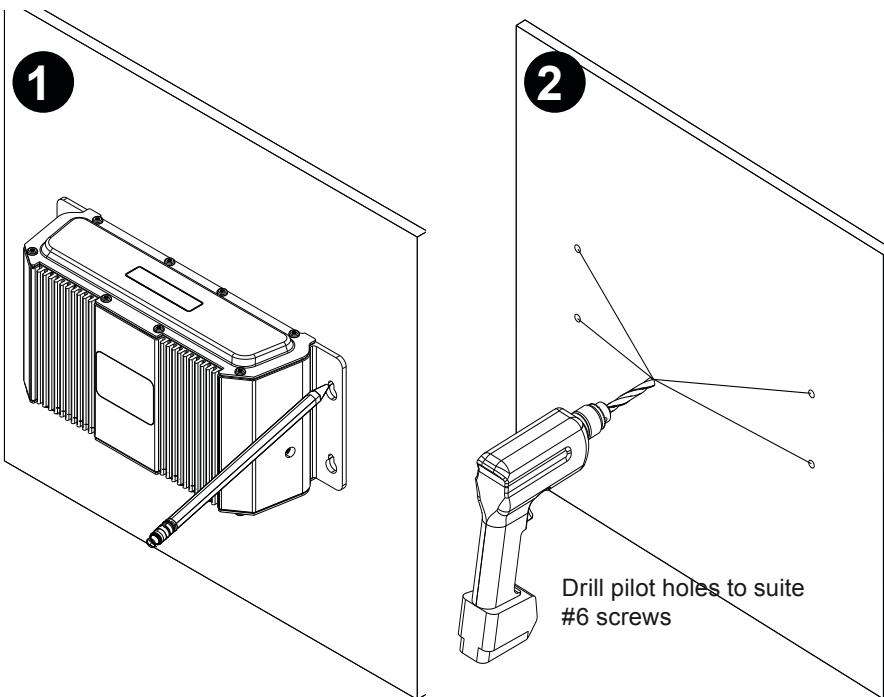
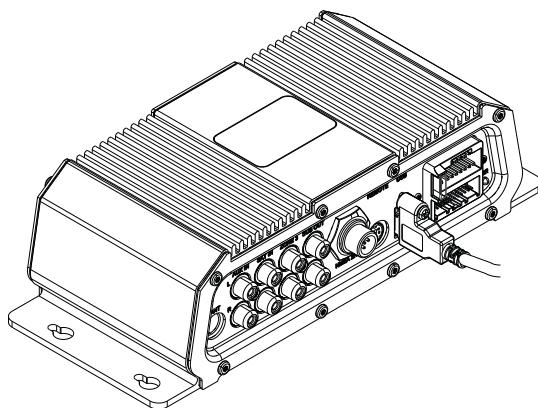
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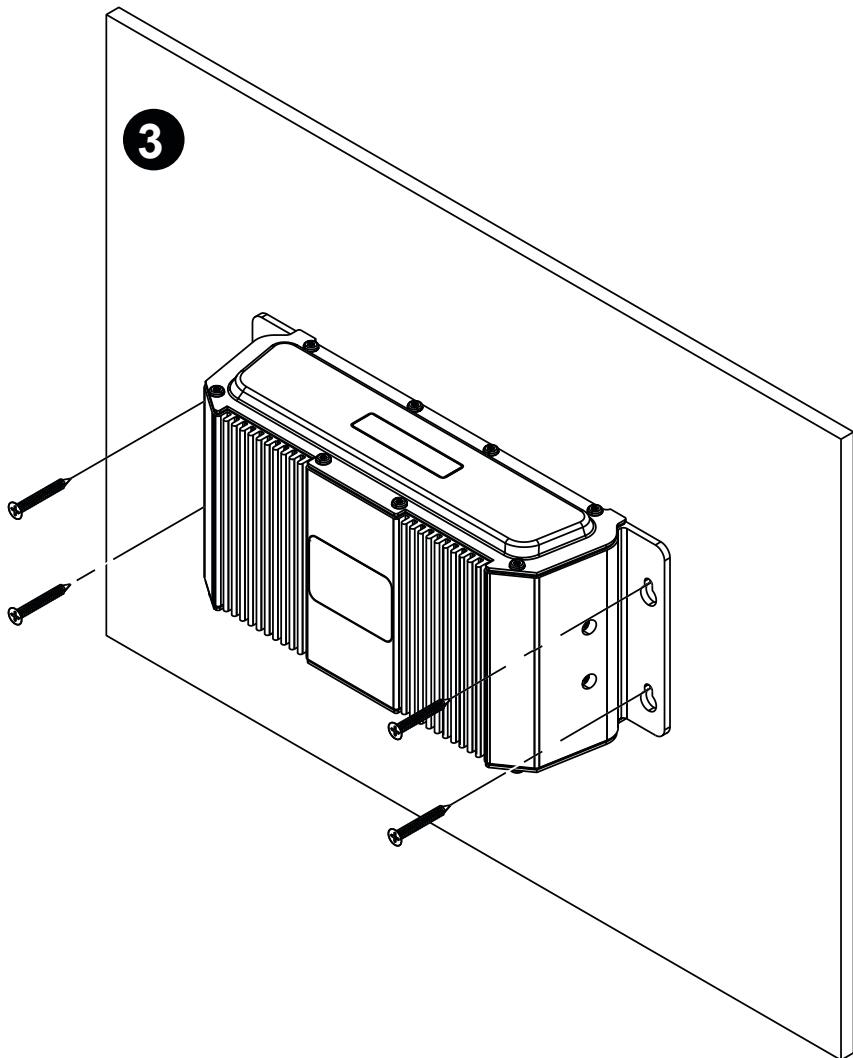
 <p>SonicHub</p>	<p>SonicHub Template</p>
 <p>Speakers</p>	 <p>Fusion Accessory Brochure</p>
 <p>Operation and Installation Manuals</p>	 <p>Blue Tooth Module user manual</p>
 <p>Blue Tooth Module</p>	 <p>NMEA2000 'T' Connector NMEA2000 Cable 1.8 m (6 ft)</p>

Required tools

 Drill	 Drill Bit for pilot hole 2 mm (5/64")
 Phillips screw driver	 Jigsaw
 Pencil	
<p><i>Other tools appropriate to your specific application may also be needed.</i></p>	

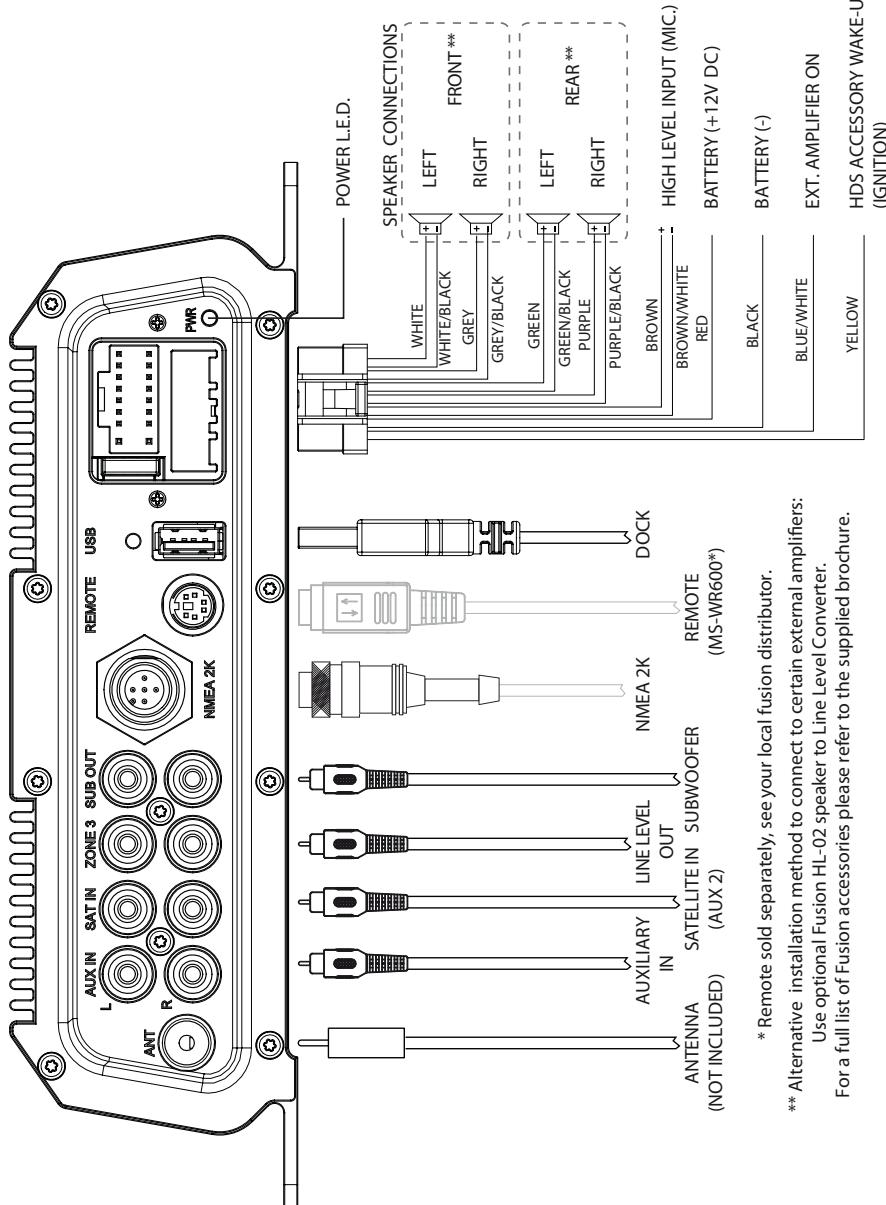
Installing the SonicHub





Wiring the SonicHub

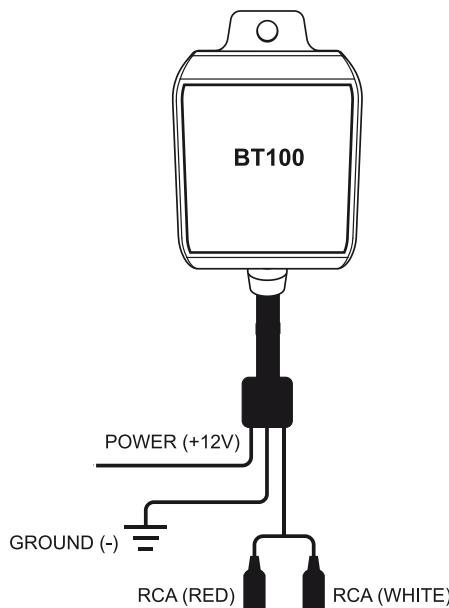
Wiring Overview



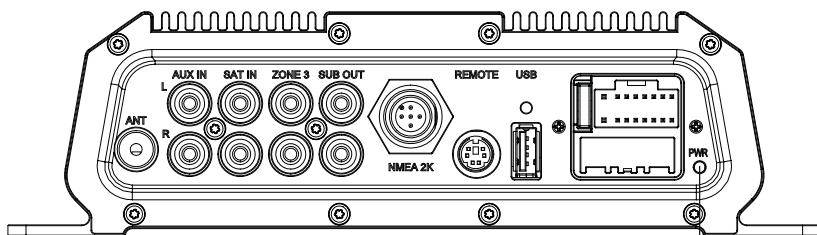
* Remote sold separately, see your local fusion distributor.

** Alternative installation method to connect to certain external amplifiers:
Use optional Fusion HL-02 speaker to Line Level Converter.
For a full list of Fusion accessories please refer to the supplied brochure.

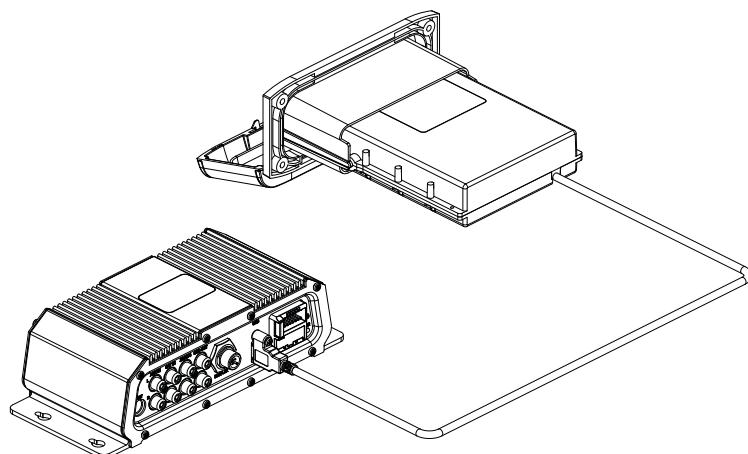
Connecting to Bluetooth



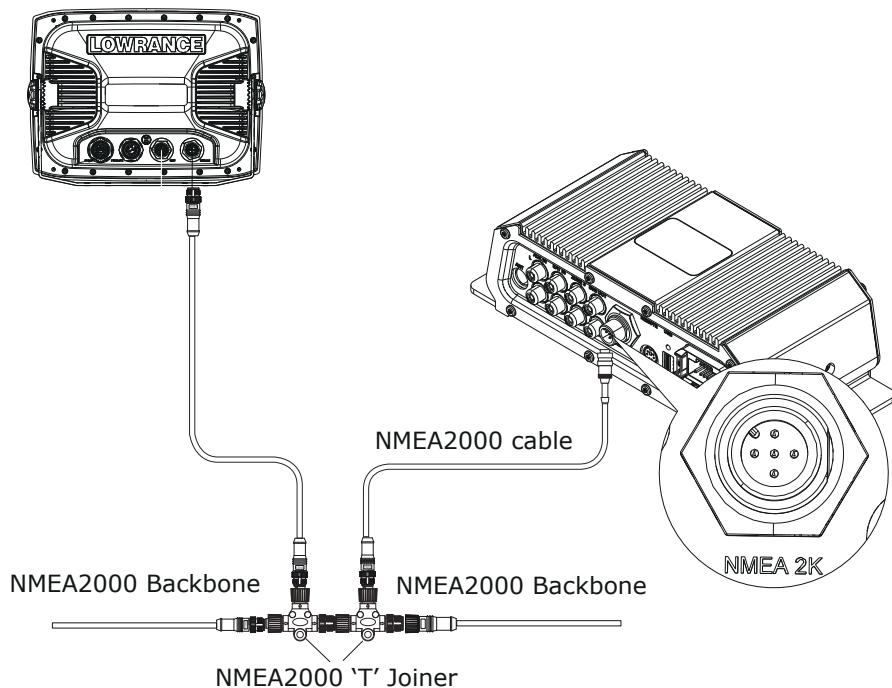
Connect to AUX IN



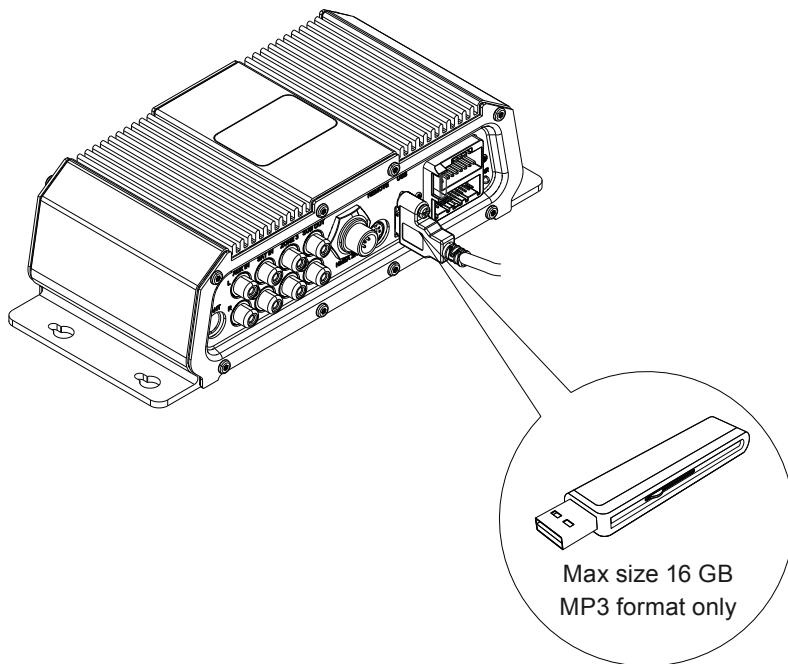
Connect the iPod Dock



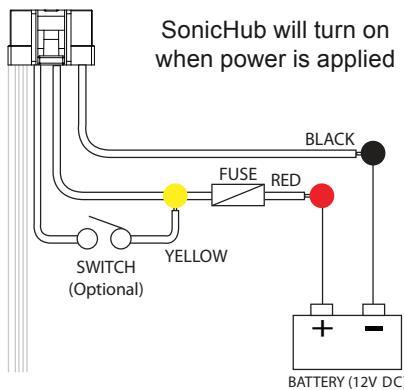
Connect NMEA2000



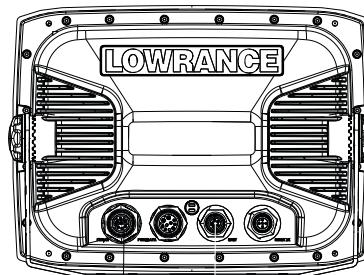
Using a USB flash drive



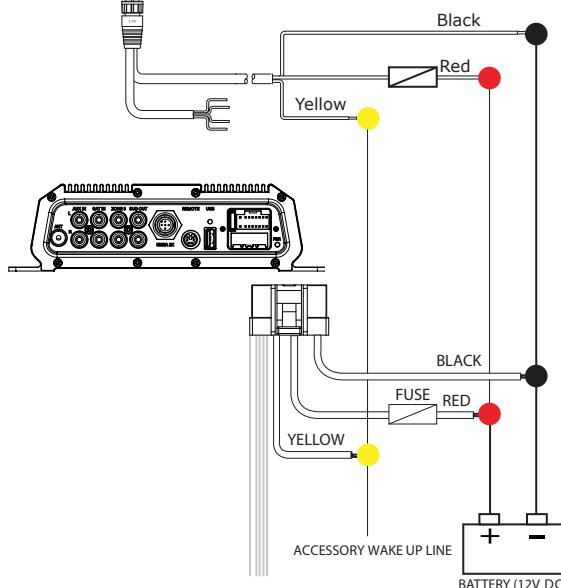
Connect Power



Always connect to power using a fuse or breaker 15 Amp



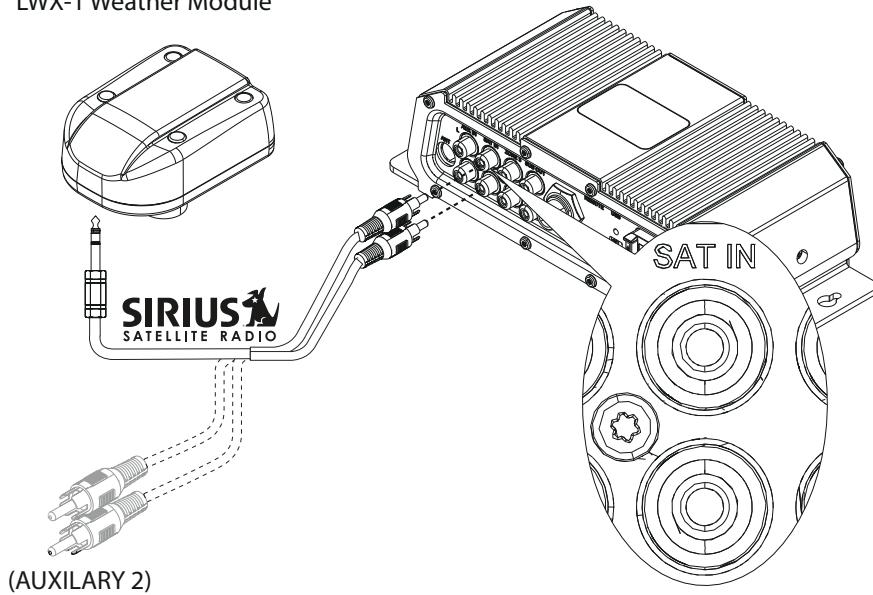
Connect Yellow wire to the yellow accessory wake up wire of the HDS. SonicHub will turn on when the HDS is turned on.



Connect SAT IN (AUX 2)

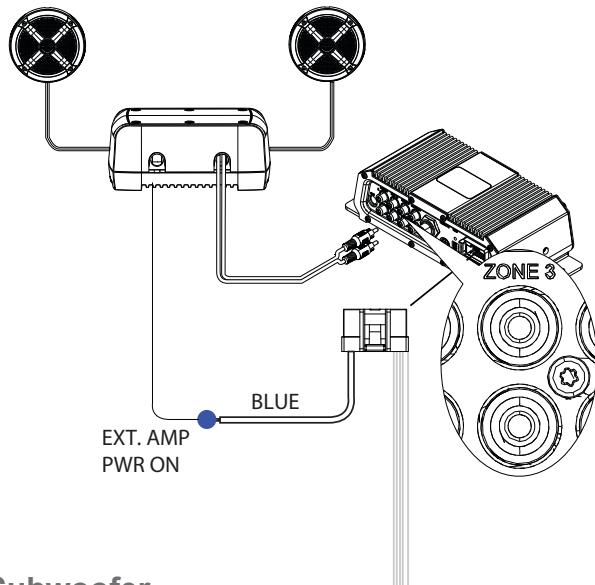
The **SAT IN** input can be from a LWX-1 weather module to listen to Sirius satellite radio. Or it can be connected to some other line level audio source (AUX2).

LWX-1 Weather Module



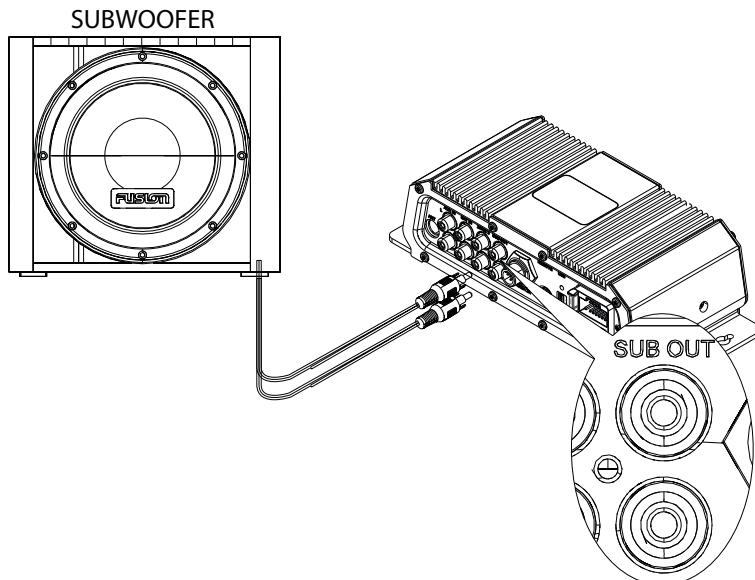
Connect to Line Level Amplifier

ZONE 3 is a Line level output that can be connected to an external amplifier. The output is linked to the master volume control.



Connect to a Subwoofer

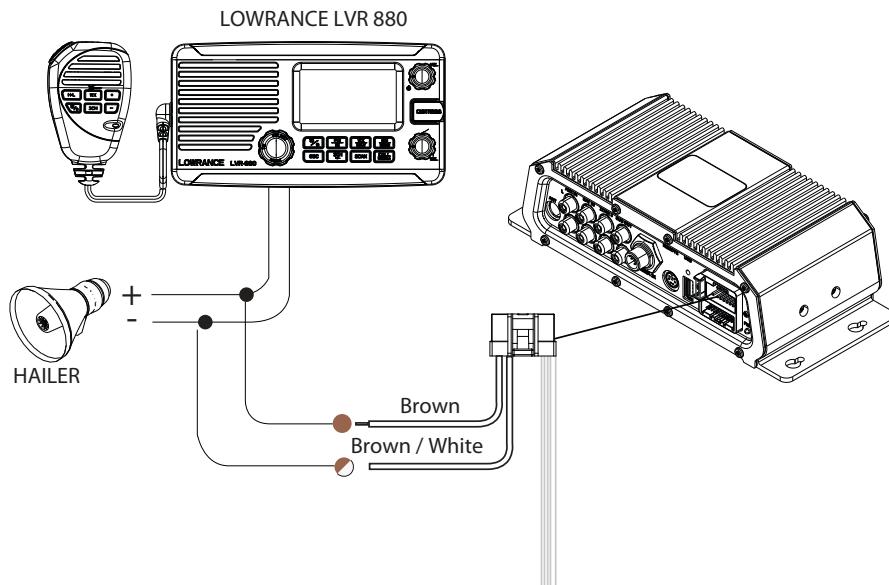
The **Sub Out** connection is a Mono Line Level output from both RCA connectors.



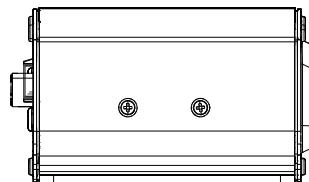
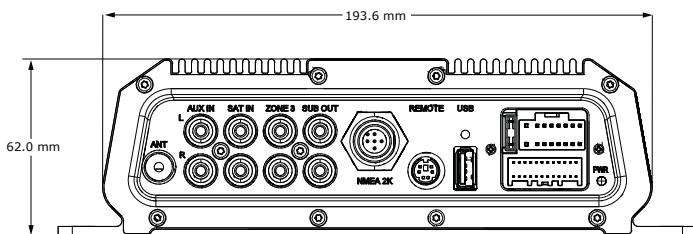
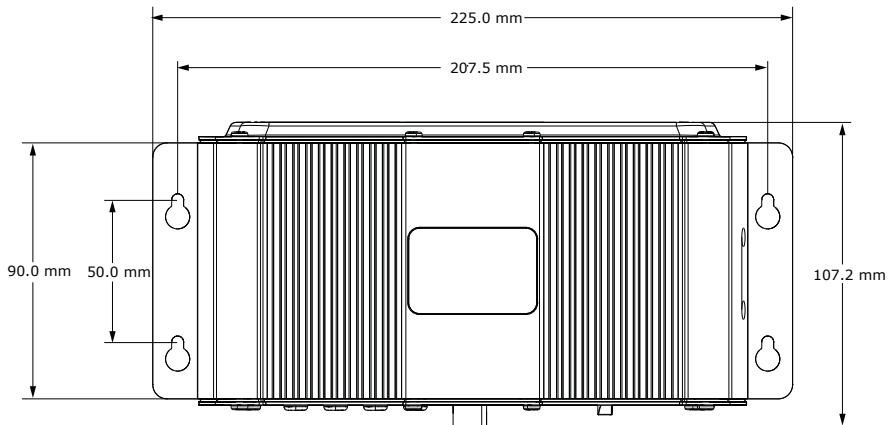
Connect MIC

MIC. Connection accepts a high level input (speaker level) as a source.

The example below shows how the SonicHub can be connected to the hailer output of the Lowrance LVR880 VHF. The PA function of the Hailer will broadcast from the SonicHub.



Dimensions



Specifications

General	
Dimensions (L x W x H)	107 x 225 x 62mm (4.2 x 8.9 x 2.4")
Weight	.88kg (1.96 lbs)
Waterproof Rating	IPX2
Temperature	Operating: -20 to 60°C (-4 to 140°F) Storage: -40 to 80°C (-40 to 176°F)
Compliance	FCC part B, Subpart J; CE per EN 60945; C-Tick
AM Tuner	
Tuning Range	531 to 1611 kHz EU with 9kHz/step; 530 to 1710 USA with 10kHz/step
Usable Sensitivity	28dBuV = 25uV
Auto Seek Station sensitivity	<20dBuV
Signal to Noise ratio	50dB @ 60dBuV signal
Ultimate S/N ratio	>60dB @ 80dBuV signal
Distortion	<0.4% @ 60dBuV signal, 80% modulation
Adjacent Channel selectivity	33dB @ Adjacent channel = 9kHz offset, 30% modulation. SINAD = 26dB
Alternate Channel selectivity	50dB @ Alternate channel = 18kHz offset, 30% modulation. SINAD = 26dB
FM Tuner	
Tuning Range	76.0 to 90.0MHz EU with 50kHz/step; 87.4 to 108.0MHz USA with 100kHz/step
Usable Sensitivity	28dBuV = 25uV
Auto Seek Station sensitivity	-6.5dBuV = 0.5uV for 30dB S/N ratio
Signal to Noise ratio	50dB @ 10dBuV signal
Ultimate S/N ratio	>70dB @ 60dBuV signal
Distortion	<0.1% @ 10dBuV signal
Adjacent Channel selectivity	30dB @ SINAD = 30dB, 40dBuV signal strength. 400Hz tone, 40kHz deviation. Adjacent channel = 100kHz offset, 1kHz tone, 40kHz deviation.
Alternate Channel selectivity	63dB @ SINAD = 30dB, 40dBuV signal strength. 400Hz tone, 40kHz deviation. Adjacent channel = 100kHz offset, 1kHz tone, 40kHz deviation.

Audio Amplifier	
Output Music Power per Channel	50W
Total Output Music Power	200W
Signal-to-Noise Ratio (unweighted, 20Hz to 20kHz)	96dB
Total Harmonic Distortion (1W output, 4 ohm load, 20Hz to 20kHz)	0.04% typical <0.1% max
Power Supply Requirements	10 to 16V DC
Current (Muted)	<250 mA
Current (Max)	<15 A
AUX Input/Outputs	
AUX 1 In; SAT IN (AUX 2 In); RCA Output; Subwoofer Out	Stereo AUX line input for CD/DVD/MP3; Stereo AUX line input for SIRIUS; RCA Stereo Line Output Mono line output for Subwoofer; Mono Line Input for intercom (MIC), alarm, ALL levels are 1Vrms.
Antenna Connection	Standard Motorola Radio Male Plug
USB/MP3	Industry Standard