

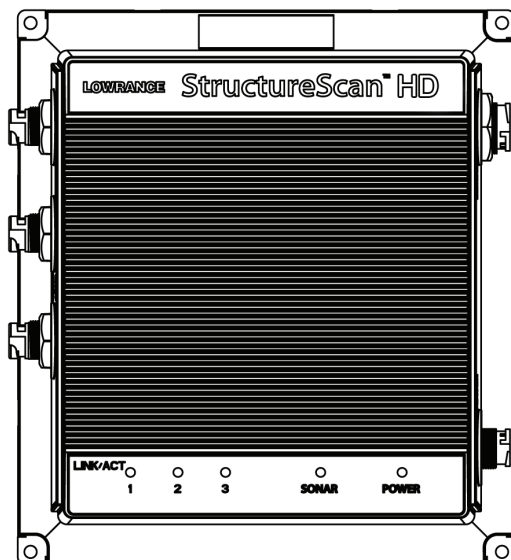
**LOWRANCE**

**SIMRAD**

**B&G**

# StructureScan HD Module Installation Guide

ENGLISH



## **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.

NAVICO HOLDING AS AND ITS SUBSIDIARIES, BRANCHES AND AFFILIATES DISCLAIM ALL LIABILITY FOR ANY USE OF THIS PRODUCT IN A WAY THAT MAY CAUSE ACCIDENTS, DAMAGE OR THAT MAY VIOLATE THE LAW.

Governing Language: This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of the Documentation, the English language version of the Documentation will be the official version of the Documentation.

This manual represents the product as at the time of printing. Navico Holding AS and its subsidiaries, branches and affiliates reserve the right to make changes to specifications without notice.

## **Copyright**

Copyright © 2012 Navico Holding AS.

**⚠ Warning:** It is your sole responsibility to install and use the instrument and transducer(s) in a manner that will not cause accidents, personal injury or property damage. Always observe safe boating practices.

### Compliance Statements

Structure Scan™ HD complies with the following regulations:

- CE compliant under EMC Directive.
- C - Tick compliant as level 2 device.

Structure Scan™ HD also meets the technical standards in accordance with Part 15.103 of the FCC rules.

### Warning

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply 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 residential 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 the interference will not occur in a particular installation. 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 outlet on a circuit different from that of the receiver

Consult the dealer or an experienced technician for help.

# Contents

---

2	Disclaimer
<b>5</b>	<b>Introduction</b>
5	Parts included in package
6	Required tools and supplies
6	StructureScan HD Indicator lights
<b>7</b>	<b>Installation and Wiring</b>
7	Selecting mounting location
8	Mounting the StructureScan HD module
8	Wiring
<b>11</b>	<b>Specifications</b>
11	Technical specifications
<b>12</b>	<b>Spare parts and accessories</b>
12	Spare parts
12	Assessories
<b>13</b>	<b>Drawings</b>
13	StructureScan HD module dimensions

# 1




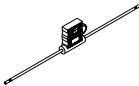



## Introduction

This document describes how to install the StructureScan™ HD black box module and connect the unit to transducers and display units.

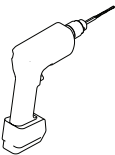

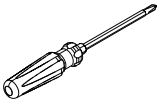

Separate installation instruction for transducers are included with the transducer package.

### Parts included with your StructureScan HD

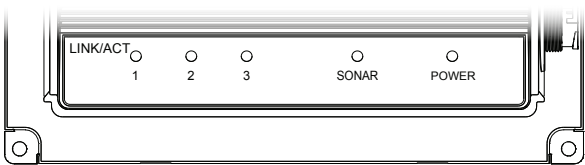
For spare parts and part numbers, see **Parts list** page 12.

Item	No.	Description
	1	StructureScan HD Black box module
	1	4 pin power cable
	1	Fuse, 3A Automotive Type
	1	Fuse holder
	2	Yellow Ethernet caps
	1	Close end crimp connector
	4	Phillips stainless steel screws (#8)
	1	Warranty
	1	This manual
	1	Manual translations DVD

## Required tools and supplies

			
Drill	2 mm (5/64") Drill Bit	Phillips screw driver	Pencil

## StructureScan HD Indicator lights



Ind.	Status	Description
1, 2 and 3	Off	No Ethernet communication (cable unplugged, bad cable or remote unit not powered)
	Flashing - yellow	Ethernet communication is working (link/active light)
Sonar	Off	Transducer not connected or cable/transducer is broken
	On - Green	Transducer detected/locked on to bottom
	Flashing - green	Transducer detected/not locked on to bottom
Power	Off	No power or not switched on (check yellow wire)
	On - Red	System booting
	On - Green	System operating
	Slow flashing - Red/green	Product in factory mode; Ethernet communication working
	Fast flashing - Red/green	Product in factory mode; no Ethernet communication (cable unplugged or bad cable)

# 2

## Installation and Wiring

The StructureScan HD black box module connects between the transducer and display unit, or via a network switch.

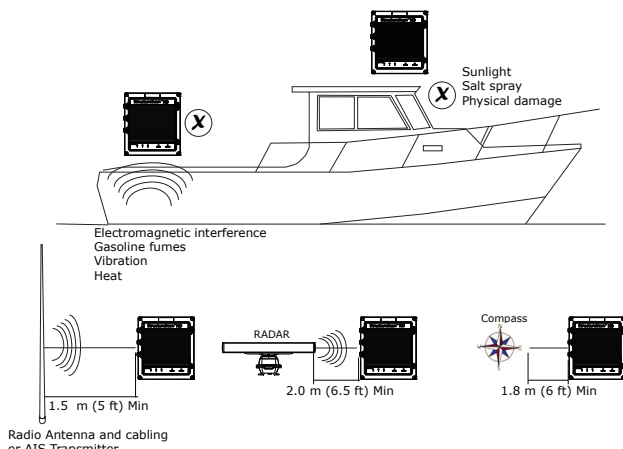
Before installing the module, consider location and cable runs necessary to connect the module to the display unit and power source.

Do not run the transducer cabling near the module DC power cables or any VHF antenna coax or power cables for the VHF.

The module conforms to the appropriate Electromagnetic Compatibility (EMC) standards; but proper installation is required to get the best use and performance from this product.

### Selecting mounting location

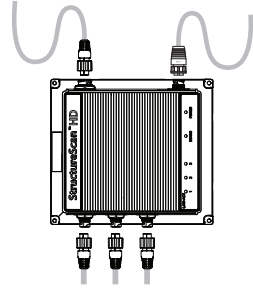
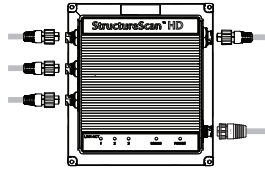
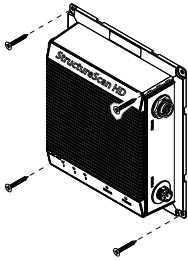
When installing the module certain factors that could affect its operation should be considered. Ensure you have as much separation as possible between different electrical equipment, (see diagram).



Make sure the transducer cable is long enough to connect to the module. If not, an extension cable is available (only one extension is recommended for optimal performance). For transducer cable length see **Spare parts and accessories**, page 12.

## Mounting the StructureScan HD module

Preferably mount the StructureScan HD black box module on a vertical surface so that cables exit sideways. If that is not feasible, create drip loops to prevent moisture entering the connectors.



Fasten the module by using the screws included with the unit. Secure cables and ensure to not put strain in the connectors.

## Wiring

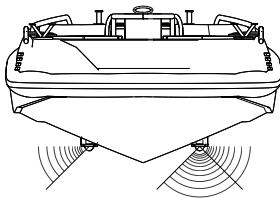
Refer to the Wiring diagram on page 10.

**⚠ Warning:** Removing the transducer cable from the StructureScan HD module while it is powered on can cause sparks. Remove the transducer cable only after the module has been disconnected from its power source.

## Connecting the module to your display

The module connects to your display over an Ethernet network, either directly or via an Ethernet network switch.

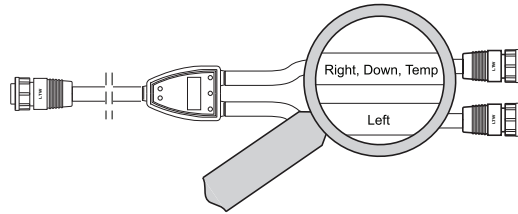




## Connecting the transducer

The StructureScan transducer connects to the module with the cable supplied with the transducer.

On boats with large dead rise angle two StructureScan transducers can be used. They are connected to the module by using the optional Y cable. Connect the transducers according to the labeling on the Y-cable.

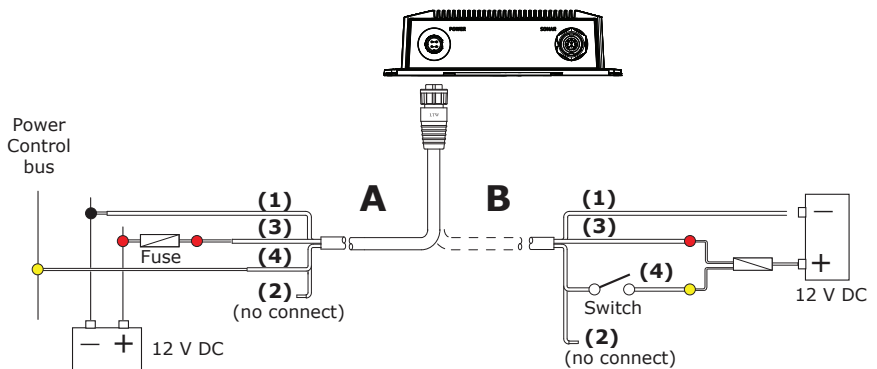


## Power connection

The unit will turn on when power is applied.

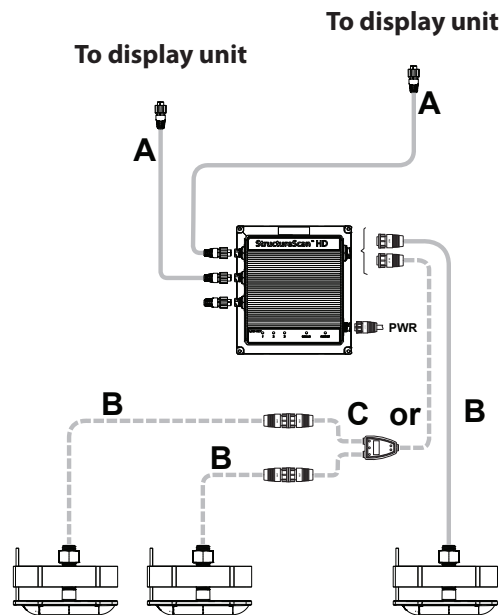
It is recommended to connect the module to a Power control bus (A), and set your unit to power control master.

Alternatively the unit can be powered directly from the vessel's battery (B).



	Pin/Item	Color	Signal
	1	Black	12 V battery -
	2	Blue	NC
	3	Red	12V battery +
	4	Yellow	Ignition sense

→ **Note:** If the black box module is connected directly to the vessel's battery, the module will continue to draw power even when it is not in operation. It is recommended that the yellow power cable wire be fitted with an optional on/off switch, allowing the module to be powered off when not in use.



Reference	Description
A	Ethernet cable
B	StructureScan Transducer cable
C	StructureScan Y-cable (option)

For part numbers, see **Spare parts and accessories** on page 12.

# 3

## Specifications



### Technical specifications

Mechanical	
Dimensions	See page 13
Weight	0.8 kg (1.8lbs)
Material	Plastic/Aluminum
Environmental	
Operating temperature	-15° - +55°C (5° - 131°F)
Storage temperature	-40° - +85°C (-40° - 185°F)
Waterproof integrity	IPx7
Notified compliance	CE, FCC, C-Tick, RoHS
Electrical	
Power supply	12V DC
Voltage input	10 - 17 V DC
Fuse	External: 3A Fast Acting Automotive Blade
Transmit power	WRMS: 500W; WPK: 4000W
Current drain	Max: 0.75 A; Typical: 0.60 A; Inrush: 4.7 A pk
Communication	
Ethernet	3 ports
Shared device support	3
Transducer	
Number of devices support	1
Frequencies	455kHz



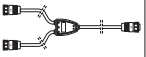
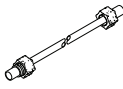
# 4

## Spare parts and accessories

### Spare parts

Item	Part no.	Description
	000-10801-001	StructureScan HD module
	032-0055-08	4 pin power cable

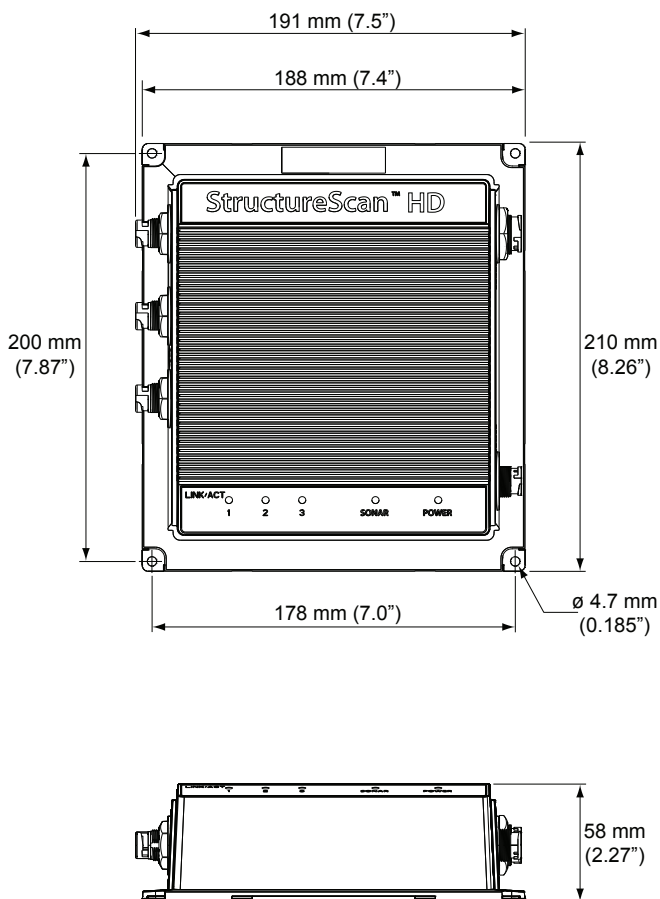
### Assessories

Item	Part no.	Description
	000-10802-001	StructureScan Skimmer mount transducer, including 6 m (20 ft) cable
	000-00099-006	Transducer Extension cable, 3 m (10 ft)
	032-0264-02	StructureScan Y-cable, 0.3 m (11.8")
	000-0127-51	Ethernet cable, 1.8 m (6 ft)
	000-0127-29	Ethernet cable, 4.6 m (15 ft)
	000-0127-30	Ethernet cable, 7.6 m (25 ft)
	000-0127-37	Ethernet cable, 15.2 m (50 ft)
	000-0124-70	Kit of 4 replacement caps for connectors

# 5

## Drawings

### StructureScan HD module dimensions









**LOWRANCE®**

**SIMRAD**

***B&G***

[www.bandg.com](http://www.bandg.com)  
[www.simrad-yachting.com](http://www.simrad-yachting.com)  
[www.lowrance.com](http://www.lowrance.com)

CE  N2584