



***Simrad FX80  
Catch monitoring system  
Harbour Acceptance Test***

This is the Harbour Acceptance Test for the Simrad FX80 Catch monitoring system.

The purpose of this Harbour Acceptance Test is to verify that the FX80 system provided to the vessel is correctly installed, and fully functional. It is then ready for the Sea Acceptance Test. When all the tasks have been done, the report form must be signed by the relevant parties. The completed document then becomes the official report.

<b>Vessel/Customer</b>

<b>Serial numbers (if applicable)</b>	
Display	
Processor Unit	
Bridge Control Unit	
Communication Hub	
Camera	
Lamp	

## Document information

- **Product:** Simrad FX80
- **Document:** Harbour Acceptance Test
- **Document part number:** 410999/977-800019H2
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## Warning

*The equipment to which this manual applies must only be used for the purpose for which it was designed. Improper use or maintenance may cause damage to the equipment and/or injury to personnel. You must be familiar with the contents of the appropriate manuals before attempting to operate or work on the equipment.*

*Kongsberg Maritime disclaims any responsibility for damage or injury caused by improper installation, use or maintenance of the equipment.*

## Disclaimer

*Kongsberg Maritime AS endeavours to ensure that all information in this document is correct and fairly stated, but does not accept liability for any errors or omissions.*

## Support information

If you require maintenance or repair, contact your local dealer. You can also contact us using the following address: [simrad.support@simrad.com](mailto:simrad.support@simrad.com). If you need information about our other products, visit <https://www.simrad.com>. On this website you will also find a list of our dealers and distributors.

# Table of contents

- INTRODUCTION..... 5**
- Purpose..... 5
- Personnel and location ..... 6
- Referenced documents ..... 6
- Tools and test equipment ..... 7
- HARDWARE AND SOFTWARE REGISTRATION ..... 8**
- Verification of previously tested items..... 8
- Software items ..... 9
- Hardware items ..... 10
  - Display..... 10
  - Processor Unit ..... 10
  - Bridge Control Unit.....11
  - Camera.....11
  - Lamp.....11
  - Communication Hub .....11
- TEST PROCEDURES ..... 12**
- Inspecting logistic items ..... 13
- Visual inspection of the display ..... 14
- Visual inspection of the Processor Unit..... 16
- Visual inspection of the Bridge Control Unit ..... 18
- Visual inspection of the camera ..... 20
- Visual inspection of the lamp..... 21
- Visual inspection of the Communication Hub ..... 23
- Turning on the FX80 Catch monitoring system to start the test ..... 24
- Verifying that the live video feed is operational ..... 25
- Verifying that the lamp is operational ..... 27
- Recording video sequences..... 28
- Verifying the communication with a navigation system (GPS)..... 30
- CUSTOMER ACCEPTANCE FORM ..... 32**
- SECONDARY PROCEDURES ..... 33**
- Powering up the FX80 ..... 33
- Starting the live video feed ..... 35
- Controlling the ambient light conditions for the camera ..... 36

Recording video sequences.....	36
Replaying previously recorded video sequences .....	37
Turning off the FX80 .....	39

# Introduction

## Topics

[Purpose, page 5](#)

[Personnel and location, page 6](#)

[Referenced documents, page 6](#)

[Tools and test equipment, page 7](#)

## Purpose

This is the Harbour Acceptance Test for the Simrad FX80 Catch monitoring system.

The purpose of this Harbour Acceptance Test is to verify that the FX80 system provided to the vessel is correctly installed, and fully functional. It is then ready for the Sea Acceptance Test. When all the tasks have been done, the report form must be signed by the relevant parties. The completed document then becomes the official report.

### Note

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*The Simrad FX80 Catch monitoring system can be provided with the optional Simrad DFS75 Trawl sonar subsystem. This document only describes the test for the FX80 units and the operational functionality offered by the FX80 software. For DFS75 trawl sonar procedures, refer to the dedicated Harbour Acceptance Test.*

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## Personnel and location

Successful completion of the test requires qualified and experienced test engineers and/or technicians.

This Harbour Acceptance Test is done on board the vessel, alongside the quay. The test is done by personnel from Kongsberg Maritime. All personnel must have good knowledge of the product and/or module(s) at hand.

A representative from an authorized dealer or distributor can do the Harbour Acceptance Test on behalf of Kongsberg Maritime.

Representatives from the client and/or end user are normally present to witness the test and results.

As with all assembly and test procedures related to advanced technical and/or electronic equipment, the skill of the operator is vital to a successful completion of the tasks. The only way to secure high quality of our products is first rate workmanship and high professional standards throughout the production chain.

It is equally important that all members of the production and test crews show initiative, and are willing to suggest improvements to functionality, design, procedures and documents. If you find a mistake in a document, or find that information is missing, offer this information to the proper authorities without further delay. Likewise, your experience as a skilled worker is valuable. Please forward any suggestions to make improvements to the product, the design, the production method, or any other matters related to your expertise.

## Referenced documents

The installation and use of the FX80 is described in several documents and end user manuals. Internal test documents are used throughout the production and test of the FX80.

This list is not complete. Additional documents and end user manuals are available for the FX80. These publications are not relevant for this Harbour Acceptance Test.

Note

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*Unless specified in the applicable procedure(s), the FX80 publications listed here are not required during this Harbour Acceptance Test.*

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### End user manuals

- **Quick Start Guide:** 977-00017021
- **Operator Manual:** 977-00017041

- **Reference Manual and On-line Help:** 977-00017001
- **Installation Manual:** 977-00017011

### **Software documents**

- **Software Release Note:** 388771

### **Customer acceptance test procedures**

- **Factory Acceptance Test:** 410824
- **Harbour Acceptance Test:** 410999
- **Sea Acceptance Test:** 411000

### **Internal test procedures**

- **System test:** 0478-5052

### **Qualifying documents**

- **EC Declaration of Conformity:** 413443

## **Tools and test equipment**

Specific tools and test equipment are required for this Simrad FX80 Harbour Acceptance Test. The required tools and equipment must be made available before the test can start.

The required test equipment is listed. For each item, record the instrument's serial number and - if relevant - its calibration expiry date.

<b>Multimeter (Make and model)</b>	<b>Serial number</b>	<b>Calibration expiry date</b>

# Hardware and software registration

## Topics

[Verification of previously tested items, page 8](#)

[Software items, page 9](#)

[Hardware items, page 10](#)

## Verification of previously tested items

It is not necessary to fill in registration tables for software and hardware items that have already been recorded in a previous test.

Are the FX80 user interface software and hardware units the same as those tested during the *Factory Acceptance Test*? If this is the case, it is not necessary to fill out the registration tables again.

- If no changes have been made to neither the software nor the hardware, sign the table below to verify this.
- If the software has been updated, record the new software version.
- If hardware changes have been made (units are replaced), all serial numbers must be recorded again.



<b>Verification of previously tested items</b>
Neither user interface software nor hardware units have been changed on this FX80 system since the <i>Factory Acceptance Test</i> . For this reason, the registration tables have not been filled out.
<b>Date and signature</b>

## Software items

Every software program that is provided as a part of the FX80 delivery must be registered. Part number and software version must be registered. When software media (USB flash drive, CD, DVD etc) is provided, the part number of the media and the FX80 software version provided on the media must be registered.

Software	Part number	Software version
Simrad FX80 software	450-00950000	
DATSS software	901-10280000	

Software media	Part number	Software version
Simrad FX80 Software + End user manuals		

When applicable, the *software media* item can be any memory device (CD, DVD, USB flash drive, etc) that contains the FX80 software. End user documentation may be included on the same software media, or provided on a separate device.

## Hardware items

### Topics

[Display, page 10](#)

[Processor Unit, page 10](#)

[Bridge Control Unit, page 11](#)

[Camera, page 11](#)

[Lamp, page 11](#)

[Communication Hub, page 11](#)

### Display

Each display provided with the FX80 delivery must be uniquely identified. Make(s), model(s), part number(s) and serial number(s) must be registered. Any unit that is not provided by Kongsberg Maritime AS does not need to be registered.

Display (Make and model)	Part number	Serial number
Fill in the make, model and serial number for each unit that is provided with the FX80 delivery. If applicable, add the order number. The unit contains neither circuit boards nor modules that need to be identified separately.		

### Processor Unit

The Processor Unit provided with the FX80 delivery must be uniquely identified. Make, model, part number and serial number must be registered.

Processor Unit	Part number	Serial number
	901-10360000	
The unit contains neither circuit boards nor modules that need to be identified separately.		

## Bridge Control Unit

The Bridge Control Unit provided with the FX80 delivery must be uniquely identified. Make, model, part number and serial number must be registered.

Bridge Control Unit	Part number	Serial number
	977-80040000	
The unit contains neither circuit boards nor modules that need to be identified separately.		

## Camera

The camera provided with the FX80 delivery must be uniquely identified. Make, model, part number and serial number must be registered.

Camera	Part number	Serial number
The unit contains neither circuit boards nor modules that need to be identified separately.		

## Lamp

The lamp provided with the FX80 delivery must be uniquely identified. Make, model, part number and serial number must be registered.

Lamp	Part number	Serial number
The unit contains neither circuit boards nor modules that need to be identified separately.		

## Communication Hub

The Communication Hub provided with the FX80 delivery must be uniquely identified. Make, model, part number and serial number must be registered.

Communication Hub	Part number	Serial number
	977-80050000	
The unit contains neither circuit boards nor modules that need to be identified separately.		

# Test procedures

## Topics

[Inspecting logistic items, page 13](#)

[Visual inspection of the display, page 14](#)

[Visual inspection of the Processor Unit, page 16](#)

[Visual inspection of the Bridge Control Unit, page 18](#)

[Visual inspection of the camera, page 20](#)

[Visual inspection of the lamp, page 21](#)

[Visual inspection of the Communication Hub, page 23](#)

[Turning on the FX80 Catch monitoring system to start the test, page 24](#)

[Verifying that the live video feed is operational, page 25](#)

[Verifying that the lamp is operational, page 27](#)

[Recording video sequences, page 28](#)

[Verifying the communication with a navigation system \(GPS\), page 30](#)

## Inspecting logistic items

All relevant logistic items that are included with the FX80 delivery shall be inspected. Once the FX80 has been installed, and it is ready for Harbour Acceptance Test, the items must all be on board the vessel. This includes end-user manuals, software and software media. If spare parts are included in the delivery, these shall also be inspected.

### Prerequisites

The list of logistic items to be delivered (order confirmation or contract) must be available. All the relevant items must be available for inspection. Neither tools nor instruments are required.

### Context

The verification of the operating system license is only applicable if the Processor Unit is provided by Simrad as a part of the FX80 delivery.

### Procedure

- 1 Verify that the FX80 end-user manuals have been provided.
- 2 Verify that the applicable FX80 software media (USB flash disk, CD, DVD etc) have been provided.
- 3 Verify that the operating system software license stickers is placed on the Processor Unit.
- 4 Verify that the spare parts provided matches the order confirmation for the FX80 delivery.

### Result

Requirements	Results
All logistical items are available on board the vessel.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

## Visual inspection of the display

A visual inspection of the FX80 display is required to verify that the unit has not been physically damaged during the installation.

### Prerequisites

The FX80 is installed as specified in the FX80 *Installation manual*. You need the following equipment:

- Multimeter

### Context

This test procedure is only applicable when the display is provided by Kongsberg Maritime as a part of the FX80 delivery.

The following requirements must be met:

- The display is correctly installed with easy access for maintenance and replacement of parts.
- The display is free from scratches, dents or other physical damage.
- Free access to all the connectors on the display is provided. All cables are properly mounted with enough slack.
- The display is properly grounded.

Observe the installation shipyard's procedures for workmanship, installation of physical units, and installation and termination of cables.

### Procedure

- 1 Make sure that the display is installed in the correct location, and that it is suitably orientated with respect to ambient light conditions and reflections.
- 2 Make sure that the unit is not physically damaged, and that the paint-work is clean without dents or scratches.

The physical handling of the unit during the installation may have caused some minor scratches to the paint-work. This can be accepted. However, if rough handling has caused serious damage to the unit, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.

- 3 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.
- 4 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 5 Make sure that the physical installation of the unit has been completed.

- a Make sure that the structure to which the display is fastened is substantial enough to hold the unit securely under all operating conditions.
  - b If applicable, make sure that the display (or the display mounting bracket) is bolted or welded securely to the deck and/or bulkhead.
  - c If the unit is installed inside a rack or in a closed compartment, make sure that ample ventilation is provided to avoid overheating.
  - d Make sure that ample space is provided around the unit to allow for maintenance and replacement of parts.
  - e Make sure that the bolts, screws or studs holding the unit are of the correct size.
  - f Make sure that the correct flat and shake-proof washers have been used.
  - g Make sure that all nuts have been tightened properly.
  - h Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
- 6 Make sure that the unit is firmly connected to ship's ground.
- a Make sure that the unit is securely connected to the ship's ground with an earthing strap. The strap must be in addition to any incidental electrical contact made by the mounting lugs on the unit.
  - b Use a standard multimeter to check that the resistance between the unit and the ship's ground is approximately 0 (zero)  $\Omega$ .
- 7 Make sure that cable installation has been completed.
- a Make sure that all cables leading to and from the unit have been properly mounted and secured.
  - b Make sure that enough slack has been provided on each cable to allow for maintenance and replacement.

**Result**

Test requirements	Results
The display is correctly installed with easy access for maintenance and replacement of parts.	
The display is free from scratches, dents or other physical damage.	
Free access to all the connectors on the display is provided. All cables are properly mounted with enough slack.	
The display is properly grounded.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

## Visual inspection of the Processor Unit

A visual inspection of the FX80 Processor Unit is required to verify that the unit has not been physically damaged during the installation.

### Prerequisites

The FX80 is installed as specified in the FX80 *Installation manual*. You need the following equipment:

- Multimeter

### Context

The Processor Unit is not a standard part of the FX80 delivery. This test procedure is only applicable when the Processor Unit is provided by Kongsberg Maritime as a part of the FX80 delivery.

The following requirements must be met:

- The Processor Unit is correctly installed with easy access for maintenance and replacement of parts.
- The Processor Unit is free from scratches, dents or other physical damage.
- Free access to all the connectors on the Processor Unit is provided. All cables are properly mounted with enough slack.
- The Processor Unit can be fully opened for access to the internal parts.
- The Processor Unit is properly earthed.

Observe the installation shipyard's procedures for workmanship, installation of physical units, and installation and termination of cables.

### Procedure

- 1 Make sure that the computer is installed in the correct location, and that it is suitably oriented for replacement and cabling.



- 2 Make sure that the unit is not physically damaged, and that the paint-work is clean without dents or scratches.

The physical handling of the unit during the installation may have caused some minor scratches to the paint-work. This can be accepted. However, if rough handling has caused serious damage to the unit, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.

- 3 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.
- 4 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 5 Make sure that the physical installation of the unit has been completed.
  - a Make sure that you have free access to rear and front side connectors on the computer for maintenance purposes.
  - b Make sure that ample space is provided to open/close DVD and/or CD lids (if relevant), and to insert and remove USB flash drives.
  - c If the unit is installed inside a rack or in a closed compartment, make sure that ample ventilation is provided to avoid overheating.
  - d Make sure that ample space is provided around the unit to allow for maintenance and replacement of parts.
  - e Make sure that the bolts, screws or studs holding the unit are of the correct size.
  - f Make sure that the correct flat and shake-proof washers have been used.
  - g Make sure that all nuts have been tightened properly.
  - h Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
- 6 Make sure that the unit is firmly connected to ship's ground.
  - a Make sure that the unit is securely connected to the ship's ground with an earthing strap. The strap must be in addition to any incidental electrical contact made by the mounting lugs on the unit.
  - b Use a standard multimeter to check that the resistance between the unit and the ship's ground is approximately 0 (zero)  $\Omega$ .
- 7 Make sure that cable installation has been completed.
  - a Make sure that all cables leading to and from the unit have been properly mounted and secured.
  - b Make sure that enough slack has been provided on each cable to allow for maintenance and replacement.

## Result

Test requirements	Results
The Processor Unit is correctly installed with easy access for maintenance and replacement of parts.	
The Processor Unit is free from scratches, dents or other physical damage.	
Free access to all the connectors on the Processor Unit is provided. All cables are properly mounted with enough slack.	
The Processor Unit can be fully opened for access to the internal parts.	
The Processor Unit is properly earthed.	
Date and signature:	

## Related topics

[Customer acceptance form, page 32](#)

# Visual inspection of the Bridge Control Unit

A visual inspection of the FX80 Bridge Control Unit is required to verify that the unit has not been physically damaged during the installation.

## Prerequisites

The FX80 is installed as specified in the FX80 *Installation manual*. You need the following equipment:

- Multimeter

## Context

The following requirements must be met:

- The Bridge Control Unit is correctly installed with easy access for maintenance and replacement of parts.
- The Bridge Control Unit is free from scratches, dents or other physical damage.
- Free access to all the connectors on the Bridge Control Unit are provided.
- All cables to and from the Bridge Control Unit are properly mounted with enough slack.
- The Bridge Control Unit is properly grounded.

Observe the installation shipyard's procedures for workmanship, installation of physical units, and installation and termination of cables.

**Procedure**

- 1 Verify that the Bridge Control Unit is installed in the correct location, and that it is suitably oriented for easy maintenance and replacement of parts.
- 2 Make sure that the unit is not physically damaged, and that the paint-work is clean without dents or scratches.  
  
 The physical handling of the unit during the installation may have caused some minor scratches to the paint-work. This can be accepted. However, if rough handling has caused serious damage to the unit, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.
- 3 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.
- 4 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 5 Make sure that the physical installation of the unit has been completed.
  - a Make sure that ample space is provided around the unit to allow for maintenance and replacement of parts.
  - b Make sure that the bolts, screws or studs holding the unit are of the correct size.
  - c Make sure that the correct flat and shake-proof washers have been used.
  - d Make sure that all nuts have been tightened properly.
- 6 Make sure that the unit is firmly connected to ship's ground.
  - a Make sure that the unit is securely connected to the ship's ground with an earthing strap. The strap must be in addition to any incidental electrical contact made by the mounting lugs on the unit.
  - b Use a standard multimeter to check that the resistance between the unit and the ship's ground is approximately 0 (zero)  $\Omega$ .
- 7 Make sure that cable installation has been completed.
  - a Make sure that all cables leading to and from the unit have been properly mounted and secured.
  - b Make sure that enough slack has been provided on each cable to allow for maintenance and replacement.

**Result**

Test requirements	Results
The Bridge Control Unit is correctly installed with easy access for maintenance and replacement of parts.	
The Bridge Control Unit is free from scratches, dents or other physical damage.	

Test requirements	Results
Free access to all the connectors on the Bridge Control Unit are provided.	
All cables to and from the Bridge Control Unit are properly mounted with enough slack.	
The Bridge Control Unit is properly grounded.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

## Visual inspection of the camera

A visual inspection of the camera is required to verify that the unit has not been physically damaged during transport, unpacking and installation.

### Prerequisites

Neither tools nor instruments are required.

### Context

The following requirements must be met:

- The camera is installed in the correct location.
- The camera is free from scratches, dents or other physical damage.
- Free access to the connector on the camera is provided.

Observe the installation shipyard’s procedures for workmanship, installation of physical units, and installation and termination of cables.

### Procedure

- 1 Make sure that the camera is installed in the correct location.
- 2 Make sure that the unit is not physically damaged, and that the paint-work is clean without dents or scratches.

The physical handling of the unit during the installation may have caused some minor scratches to the paint-work. This can be accepted. However, if rough handling has caused serious damage to the unit, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.

- 3 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.

- 4 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 5 Make sure that the physical installation of the unit has been completed.
  - a Make sure that ample space is provided around the unit to allow for maintenance and replacement of parts.
  - b Make sure that all nuts have been tightened properly.
- 6 Make sure that cable installation has been completed.
  - a Make sure that all cables leading to and from the unit have been properly mounted and secured.
  - b Make sure that enough slack has been provided on each cable to allow for maintenance and replacement.

### Result

Test requirements	Results
The camera is installed in the correct location.	
The camera is free from scratches, dents or other physical damage.	
Free access to the connector on the camera is provided.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

## Visual inspection of the lamp

A visual inspection of the lamp is required to verify that the unit has not been physically damaged during transport, unpacking and installation.

### Prerequisites

Neither tools nor instruments are required.

### Context

The following requirements must be met:

- The lamp is installed in the correct location.
- The lamp is free from scratches, dents or other physical damage.
- Free access to the connector on the lamp is provided.

Observe the installation shipyard's procedures for workmanship, installation of physical units, and installation and termination of cables.

### Procedure

- 1 Make sure that the lamp is installed in the correct location.
- 2 Make sure that the unit is not physically damaged, and that the paint-work is clean without dents or scratches.  
  
The physical handling of the unit during the installation may have caused some minor scratches to the paint-work. This can be accepted. However, if rough handling has caused serious damage to the unit, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.
- 3 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.
- 4 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 5 Make sure that the physical installation of the unit has been completed.
  - a Make sure that ample space is provided around the unit to allow for maintenance and replacement of parts.
  - b Make sure that all nuts have been tightened properly.
- 6 Make sure that cable installation has been completed.
  - a Make sure that all cables leading to and from the unit have been properly mounted and secured.
  - b Make sure that enough slack has been provided on each cable to allow for maintenance and replacement.

### Result

Test requirements	Results
The lamp is installed in the correct location.	
The lamp is free from scratches, dents or other physical damage.	
Free access to the connector on the lamp is provided.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

## Visual inspection of the Communication Hub

A visual inspection of the Communication Hub is required to verify that the unit has not been physically damaged during transport, unpacking and installation.

### Prerequisites

You must be equipped with a standard set of tools. This tool set must comprise the normal tools for electronic and electromechanical tasks. This includes different screwdriver types, pliers, spanners, a cable stripper, a soldering iron, etc. Each tool must be provided in various sizes. We recommend that all tools are demagnetized to protect your equipment.

### Context

The following requirements must be met:

- The Communication Hub is installed in the correct location.
- The Communication Hub is free from scratches, dents or other physical damage.
- Free access to the connectors on the Communication Hub is provided.

Observe the installation shipyard's procedures for workmanship, installation of physical units, and installation and termination of cables.

### Procedure

- 1 Open the Trawl Unit.
- 2 Make sure that the Communication Hub is installed in the correct location.
- 3 Make sure that the unit is not physically damaged, and that the paint-work is clean without dents or scratches.

The physical handling of the unit during the installation may have caused some minor scratches to the paint-work. This can be accepted. However, if rough handling has caused serious damage to the unit, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.
- 4 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.
- 5 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 6 Make sure that the physical installation of the unit has been completed.
  - a Make sure that ample space is provided around the unit to allow for maintenance and replacement of parts.
  - b Make sure that all nuts have been tightened properly.
- 7 Make sure that cable installation has been completed.

- a Make sure that all cables leading to and from the unit have been properly mounted and secured.
  - b Make sure that enough slack has been provided on each cable to allow for maintenance and replacement.
- 8 Close the Trawl Unit.

### Result

Test requirements	Results
The Communication Hub is installed in the correct location.	
The Communication Hub is free from scratches, dents or other physical damage.	
Free access to the connectors on the Communication Hub is provided.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

## Turning on the FX80 Catch monitoring system to start the test

Prior to testing the FX80, the complete system must be turned on. You are not going to deploy the trawl.

### Prerequisites

The FX80 is turned off. Neither tools nor instruments are required.

### Context

Observe the cabling and assembly instructions in the FX80 end user documentation. A selection of basic operating procedures for the FX80 are provided in the *Secondary procedures* chapter in this Harbour Acceptance Test. The following requirements must be met:

- The FX80 is assembled according to the instructions in the relevant FX80 end user documentation.
- The FX80 starts when it is turned on from the Processor Unit.
- The FX80 presentation appears after a few minutes.
- No error messages are presented.



### Procedure

- 1 Verify that the FX80 units are correctly connected together.
- 2 Power up the Processor Unit and the Bridge Control Unit.

For a detailed procedure, see the relevant FX80 end user manual. A selection of basic operating procedures for the FX80 are provided in the *Secondary procedures* chapter in this Harbour Acceptance Test.

- 3 Verify that the Processor Unit and the Bridge Control Unit starts.
- 4 On the Processor Unit desktop, double-click the FX80 icon to start the program.
- 5 Verify that the FX80 presentation appears after a few minutes.
- 6 Verify that no error messages are presented during start-up.

### Result

Test requirements	Results
The FX80 is assembled according to the instructions in the relevant FX80 end user documentation.	
The FX80 starts when it is turned on from the Processor Unit.	
The FX80 presentation appears after a few minutes.	
No error messages are presented.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

[Powering up the FX80, page 33](#)

## Verifying that the live video feed is operational

The main purpose of the FX80 is to provide a real-time video feed from the chosen location on the fishing net. Provided that the FX80 units have been powered up with the necessary items correctly positioned, you can easily start and stop the video feed. It is important to verify that the camera and the video feed is operational.

### Prerequisites

Neither tools nor instruments are required.

## Context

The **Live Feed** functions allow you to control the presentation of the video information from the camera. Several additional functions are provided when the **Live Feed** is activated. You can start and stop video recording. You can also control the intensity of the lamp, or switch it off.

The following requirement must be met:

- The live video feeds is operational.

## Procedure

- 1 Select the **Operation** icon.

The icon is located under the **Main** menu. It is used to open the **Operation** menu.

- 2 Select **Live Feed** to open the video functions.



- 3 Click the left button [▶] to start the video feed.



- 4 Select the middle button [■] to stop the live video feed.
- 5 Verify that the live video feed is operational.

## Result

Test requirements	Results
The live video feeds is operational.	
Date and signature:	

## Related topics

[Customer acceptance form, page 32](#)

[Starting the live video feed, page 35](#)

## Verifying that the lamp is operational

A powerful LED lamp is provided to illuminate the area close to the camera. By means of the **Camera Lamp** function you can adjust the intensity of the floodlight, or switch it off altogether. It is important to verify that the lamp is operational.

### Prerequisites

Neither tools nor instruments are required.

### Context

The ambient light conditions may be poor in deep water. For this reason, the FX80 Camera Unit has been fitted with a powerful LED lamp.

The following requirements must be met:

- The lamp is operational.
- The intensity of the lamp can be adjusted.

### Procedure

- 1 Select the **Operation** icon to open the menu.
- 2 On the **Operation** menu, select **Live Feed** to open the video functions.



- 3 Click the middle of the **Camera Lamp** button to switch the light off or on.
- 4 Click either side ([+] and [-]) of the **Camera Lamp** button to decrease and increase the intensity of the light.



- 5 Verify that the lamp is operational.

### Result

Test requirements	Results
The lamp is operational.	
The intensity of the lamp can be adjusted.	
Date and signature:	

### Related topics

[Customer acceptance form, page 32](#)

[Controlling the ambient light conditions for the camera, page 36](#)

## Recording video sequences

The main purpose of the FX80 is to provide a real-time video feed from the chosen location on the fishing net. The **Record** function allows you to record the video feed received by the camera.

### Prerequisites

The FX80 is installed as specified in the *FX80 Installation manual*. The FX80 system is turned on and operates normally. Neither tools nor instruments are required.

### Context

Before you start recording, make sure that you have defined where you wish to store the data files. The **Video** dialog box allows you to control the file locations and file names for the video and screen capture files.

Video data files will normally become very large. If you wish to record large amounts of FX80 data, make sure that you have enough space on your hard disk. Unless your Processor Unit is equipped with a very large disk, we recommend that you save the data to an external storage device. If the FX80 detects that you have less than 500 Mb available on your hard disk, it will automatically stop the recording and provide a message.

The following requirement must be met:

- The video data recording and playback is operational.

### Procedure

1 If relevant, define the recording parameters.

2 Select the **Operation** icon.

The icon is located under the **Main** menu. It is used to open the **Operation** menu.

3 Select **Live Feed** to open the video functions.



4 Click the left button [▶] to start the video feed.

5 To start recording, click the red **Record** icon.



- 6 Allow the data recording to run approximately five minutes.
- 7 Stop the recording.
- 8 Select the middle button [■] to stop the live video feed.
- 9 Use a file manager, and verify that the recorded file(s) have been saved on the chosen disk.
- 10 Click the **Replay** button to open the playback functions.



- 11 Click the **Open** button to open the video file you wish to play back.



- 12 Click the **Play** button [▶] to start the playback.
- 13 Verify that the playback is operational.
- 14 To stop the playback, click the **Stop** button [■].



## Result

Test requirements	Results
The video data recording and playback is operational.	
Date and signature:	

## Related topics

[Customer acceptance form, page 32](#)

[Recording video sequences, page 36](#)

[Replaying previously recorded video sequences, page 37](#)

## Verifying the communication with a navigation system (GPS)

Accurate and reliable information from navigation systems are useful for the FX80 operation. The information from the navigation sensors are shown on the top bar.

### Prerequisites

The FX80 system is turned on and operates normally. All relevant external sensors are connected to the FX80. The sensors are turned on and operate normally. Neither tools nor instruments are required.

### Context

Most global positioning system (GPS) receivers provide NMEA 0183 datagrams containing geographical latitude and longitude information, as well as current speed and sailed distance. Some GPS systems will also provide the current heading, but this information is normally taken from the gyro.

The ship's navigation system is connected to the Bridge Control Unit using a serial port. This connects directly to an NMEA converter that transmits data as UDP packets. These packets - containing the navigation information - are sent to the FX80 Processor Unit on the Ethernet line.

The communication parameters defined for NMEA 0183 are:

- **Baud rate:** 4800 bit/s
- **Data bits:** 8
- **Parity:** Even
- **Stop bits:** 1

You can not change any of the serial line communication parameters in the FX80 user interface. These are fixed to the standard NMEA settings.

The following requirements must be met:

- Position data is provided.
- Speed data is provided.
- Heading data is provided.
- The relevant communication parameters are recorded.

### Procedure

- 1 Select the **Setup** icon.

The icon is located under the **Main** menu. It is used to open the **Setup** menu.

- 2 Select **Navigation** to open the dialog box.
- 3 Open the **NMEA Sentences** page.
  - a Verify the datagram choices.
  - b Record the settings in the result table.
- 4 Select **Cancel** to close the dialog box without making any changes.
- 5 Observe the top bar.

The FX80 top bar is located at the top of the display presentation and stretches from the far left to the far right. The top bar gives you fast access to key functionality and navigational information.

- 6 Verify that the information from the ship's navigation system is shown.

**Result**

Sensor	Source sensor	Datagram
Position		
Speed		
Heading		

Test requirements	Results
Position data is provided.	
Speed data is provided.	
Heading data is provided.	
The relevant communication parameters are recorded.	
Date and signature:	

**Related topics**

[Customer acceptance form, page 32](#)

# Customer acceptance form

Fill in and sign this form for formal acceptance of the Simrad FX80 Catch monitoring system.

The Simrad FX80 system is ( <i>tick relevant column</i> ):		
<b>Accepted</b>	<b>Accepted with comments</b>	<b>Not accepted</b>
<b>Vessel/Customer</b>		
<b>Place and date</b>		
<b>Comments</b>		
<b>Test done by (name)</b>	<b>Company/Position</b>	<b>Date and signature</b>
<b>Test accepted by (name)</b>	<b>Company/Position</b>	<b>Date and signature</b>
When this test procedure has been completed with all relevant signatures and applicable forms filled in, the document must be sent to the Simrad Support Department at Strandpromenaden 50, P.O.Box 111, 3191 Horten, Norway. Alternatively, scan all the pages to PDF using minimum 200 DPI resolution, and send the file to <a href="mailto:simrad.support@simrad.com">simrad.support@simrad.com</a> .		



# Secondary procedures

## Topics

[Powering up the FX80, page 33](#)

[Starting the live video feed, page 35](#)

[Controlling the ambient light conditions for the camera, page 36](#)

[Recording video sequences, page 36](#)

[Replaying previously recorded video sequences, page 37](#)

[Turning off the FX80, page 39](#)

## Powering up the FX80

In order to use the FX80, you must first turn it on. You must first power up the Bridge Control Unit, and then the Processor Unit. After this you can start the FX80 program. If you have a Sonar Head connected to your FX80 system, it is usually started once the Communication Hub is online and operational.

### Prerequisites

All items have been installed as specified in the relevant end-user documentation. The Trawl Unit (with the Communication Hub and the optional Sonar Head), the camera and the lamp are located on the aft deck. The Bridge Control Unit is connected to the Communication Hub with the third-wire cable.

### Context

The Bridge Control Unit provides all the interface and power supply functionality for the Simrad FX80 system.

The program is not automatically started when the Processor Unit is turned on. Once the operating system has started, select the program icon on the desktop.

### Procedure

- 1 Power up the Bridge Control Unit.

Observe that the DSL Link button light briefly turns on, then turns off.

#### Note

---

*There are two power switches on the Bridge Control Unit, one on the front panel and one on the rear panel. Both switches must be set to "On". During normal operation, you only need to use the front mounted switch to power on (and off) the unit.*

---

- 2 Turn on the display.

If required, refer to the instructions provided by the display manufacturer.

- 3 Turn on the Processor Unit.

Wait while the operating system loads.

- 4 On the Processor Unit desktop, double-click the FX80 icon to start the program.

#### Note

---

*The FX80 program is not automatically started when the Processor Unit is turned on.*

---

- 5 Once the program has started, observe that the presentation fills the entire screen.

The program starts up using the same settings as the last time you used it. If these settings are acceptable, continue operation. If you wish to alter any of the settings, see the relevant procedures.

- 6 Press **HV Start** on the Bridge Control Unit.

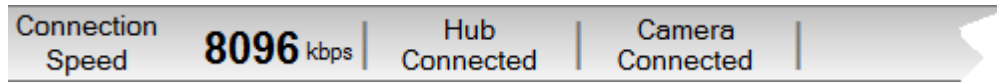
Observe that the **HV On** light turns on. Wait for the **Link Status** light to flash slowly, then quickly, then turn solid. When lit continuously, the **Link Status** light indicates that a communication link is established between the Communication Hub and the Bridge Control Unit.

- 7 Make sure that the blue indicator light on the Communication Hub is lit.

This light indicates that the high voltage from the Bridge Control Unit is present.

- 8 At the bottom of the FX80 presentation, verify that the camera is connected.

The current connection speed between the Bridge Control Unit and the Communication Hub is also shown. The speed depends on the length and quality of the third-wire cable.



- 9 If applicable, start the DFS75 Trawl sonar. See the relevant procedure.

### Related topics

[Turning on the FX80 Catch monitoring system to start the test, page 24](#)

## Starting the live video feed

The main purpose of the FX80 is to provide a real-time video feed from the chosen location on the fishing net. Provided that the FX80 units have been powered up with the necessary items correctly positioned, you can easily start and stop the video feed.

### Context

The **Live Feed** functions allow you to control the presentation of the video information from the camera. Several additional functions are provided when the **Live Feed** is activated. You can start and stop video recording. You can also control the intensity of the lamp, or switch it off.

### Procedure

- 1 Select the **Operation** icon.  
It is used to open the **Operation** menu.
- 2 Select **Live Feed** to open the video functions.
- 3 Click the left button [▶] to start the video feed.



- 4 Select the middle button [■] to stop the live video feed.

### Related topics

[Verifying that the live video feed is operational, page 25](#)

## Controlling the ambient light conditions for the camera

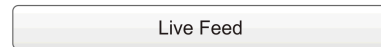
A powerful LED lamp is provided to illuminate the area close to the camera. By means of the **Camera Lamp** function you can adjust the intensity of the floodlight, or switch it off altogether.

### Procedure

- 1 Select the **Operation** icon.

It is used to open the **Operation** menu.

- Select **Live Feed** to open the video functions.
- 2 Click the middle of the **Camera Lamp** button to switch the light off or on.



- 3 Click either side ([+] and [-]) of the **Camera Lamp** button to decrease and increase the intensity of the light.

### Related topics

[Verifying that the lamp is operational, page 27](#)

## Recording video sequences

The main purpose of the FX80 is to provide a real-time video feed from the chosen location on the fishing net. The **Record** function allows you to record the video feed received by the camera.

### Prerequisites

Before you start recording, make sure that you have defined where you wish to store the data files. The **Video** dialog box allows you to control the file locations and file names for the video and screen capture files.

### Context

Video data files will normally become very large. If you wish to record large amounts of FX80 data, make sure that you have enough space on your hard disk. Unless your Processor Unit is equipped with a very large disk, we recommend that you save the data to an external

storage device. If the FX80 detects that you have less than 500 Mb available on your hard disk, it will automatically stop the recording and provide a message.

### Procedure

- 1 Select the **Operation** icon.

The icon is located under the **Main** menu. It is used to open the **Operation** menu.

- 2 Select **Live Feed** to open the video functions.



- 3 Click the left button [▶] to start the video feed.



- 4 To start recording, click the red **Record** icon.
- 5 To stop recording, click the red **Record** icon one more time.

Tip \_\_\_\_\_  
*You can also use the **Record** button on the top bar to start and stop recording.*



### Related topics

[Recording video sequences, page 28](#)

## Replaying previously recorded video sequences

The **Replay** function allows you to recall any previously recorded video file to see it one more time. The video playback is controlled from the **Replay** function on the **Operation** menu.

### Context

During replay, the phrase "REPLAY" is shown with red characters at the bottom of the FX80 presentation.

### Procedure

- 1 Select the **Operation** icon.

It is used to open the **Operation** menu.

- 2 Select **Live Feed** to open the video functions.



- 3 Select the middle button [■] to stop the live video feed.

- 4 Click the **Replay** button to open the playback functions.



- 5 Click the **Open** button to open the video file you wish to play back.



A standard operating system dialog box opens to let you choose the folder and file.

- 6 Click the **Play** button [▶] to start the playback.

During the playback, you can click the **Play** button [▶] one more time to pause the video. The symbol in the button then changes to a **Pause** button. To restart the playback, click one more time.

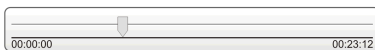
- 7 Use the dedicated replay control buttons to control the replay.



These dedicated buttons are provided to control the progress of the playback. The controls are (from left):

- Jump to start of video file
- Play slow
- Play fast
- Jump to end of video file

- 8 Use the progress bar to move to specific places in the video sequence.



The progress bar is provided to offer a visual presentation of the progress. You can click on the small arrow and drag it in horizontal direction to move the view in the video file.

- 9 To stop the playback, click the **Stop** button [■].



### Related topics

[Recording video sequences, page 28](#)

## Turning off the FX80

You must never turn off the FX80 by means of the on/off switch on the Processor Unit. You must always close the FX80 program by selecting **Exit** on the top bar.

### Context

When you do not use the FX80, turn off the display and the Processor Unit. It is important that you disconnect the high voltage power to the Communication Hub. To disconnect the high voltage power, switch off the Bridge Control Unit.

### Caution

---

*Do not connect or disconnect any cables while the system is turned on. Do not leave power on to ports that aren't connected to anything (even if there are dummy plugs installed).*

---

### Procedure

- 1 If applicable, power off the DFS75 Trawl sonar.
  - a In the DATSS software, click the **System** button to see the available choices.
  - b Select **Stop** to stop the operation.

Neither transmission nor reception takes place, and there is no communication between the Processor Unit and the Sonar Head.
  - c Select **Off** to close the program.

- 2 In the FX80 software, click the **Aux 1** button to disable Auxiliary Port 1.

### Note

---

***Aux 1** is the default label for this button. If you create a custom button label (**Setup**→**System Setup**→**Aux 1**→**Button Label**), then this button will have a different name.*

---

- 3 Select **Exit** on the top bar.

Observe that the FX80 program closes down.
- 4 Press **HV Stop** on the Bridge Control Unit.

This removes the high voltage power to the Communication Hub in the Trawl Unit.
- 5 Power off the Bridge Control Unit.

There are two power switches on the Bridge Control Unit, one on the front panel and one on the rear panel. During normal operation, you only need to use the front mounted switch to power on (and off) the unit.

- 6 If the Processor Unit does not turn itself off automatically, use the functionality provided by the operating system to turn it off manually.
- 7 Turn off the display.  
If required, refer to the instructions provided by the display manufacturer.
- 8 Retrieve the trawl.
- 9 Disconnect the cables between the units, and remove each unit from the gear.





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