

Context

This test procedure is only applicable when the display is provided by Kongsberg Maritime as a part of the EK80 delivery.

Procedure

- 1 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 2 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 applicable: 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 that have been used are all of the correct size.
 - f Make sure that the correct flat and shake-proof washers have been used.
 - g Make sure that all the nuts have been tightened properly.
 - h Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
- 3 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.
- 4 Make sure that the unit is not physically damaged, and that the surfaces and paint-work are clean without dents or scratches.

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

- 5 Make sure that the unit is firmly connected to ship's ground.
 - a The unit must be 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) Ω .
- 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.
- 7 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.

Result

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:	 7/10/2021

Related topics

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Visual inspection of the Processor Unit

A visual inspection of the EK80 Processor Unit is required to verify that the unit has not been physically damaged during the installation.

Prerequisites

The EK80 is installed as specified in the EK80 *Installation manual*. The EK80 is turned off. You need the following equipment:

- Multimeter

Context

This test procedure is only applicable when the Processor Unit is provided by Kongsberg Maritime as a part of the EK80 delivery.

Procedure

- 1 Make sure that the unit's serial number has been recorded in the list of hardware items.

- 2 Make sure that the computer is installed in the correct location, and that it is suitably oriented for replacement and cabling.
- 3 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 applicable: 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 that have been used are all of the correct size.
 - f Make sure that the correct flat and shake-proof washers have been used.
 - g Make sure that all the nuts have been tightened properly.
 - h Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
- 4 Make sure that the unit is not physically damaged, and that the surfaces and paint-work are clean without dents or scratches.

The physical handling during the installation may have caused some minor scratches to the surfaces or paint-work. This can be accepted. However, if rough handling has caused serious damage, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.
- 5 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) Ω .
- 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.
- 7 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.

Result

Requirements	Results
The Processor Unit is correctly installed with easy access for maintenance and replacement of parts.	OK
The Processor Unit is free from scratches, dents or other physical damage.	OK
Free access to all the connectors on the Processor Unit is provided. All cables are properly mounted with enough slack.	OK
The Processor Unit can be fully opened for access to the internal parts.	OK
The Processor Unit is properly earthed.	OK
Date and signature:	 7/10/2021

Related topics

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Visual inspection of the Wide Band Transceiver (WBT)

A visual inspection of the Wide Band Transceiver (WBT) is required to verify that the unit has not been physically damaged during the installation. If more than one Wide Band Transceiver (WBT) is used, each must be inspected separately.

Prerequisites

The EK80 is installed as specified in the EK80 *Installation manual*. The EK80 is turned off. You need the following equipment:

- Multimeter

Context

The steps in this procedure must be repeated for each Wide Band Transceiver (WBT) that is installed.

Procedure

- 1 Make sure that the unit's serial number has been recorded in the list of hardware items.
- 2 Make sure that the Wide Band Transceiver (WBT) is installed in the correct location, and that it is suitably oriented for easy maintenance and replacement of parts.
- 3 Make sure that the physical installation of the unit has been completed.

- a Make sure that the compartment ("sonar room") is provided with ample ventilation to prevent system units from overheating.
 - b Make sure that the compartment ("sonar room") is clean and dry.
 - c Make sure that the bulkhead structure to which the Wide Band Transceiver (WBT) is fastened is substantial enough to hold the unit securely under all operating conditions.
 - d Make sure that ample ventilation is provided to avoid overheating.
 - e Make sure that you have free access to all the connectors on the Wide Band Transceiver (WBT) for maintenance purposes.
 - f Make sure that the bolts, screws or studs that have been used are all of the correct size.
 - g Make sure that the correct flat and shake-proof washers have been used.
 - h Make sure that all the nuts have been tightened properly.
 - i Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
- 4 Make sure that the unit is not physically damaged, and that the surfaces and paint-work are clean without dents or scratches.
- The physical handling during the installation may have caused some minor scratches to the surfaces or paint-work. This can be accepted. However, if rough handling has caused serious damage, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.
- 5 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) Ω .
 - 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.
 - 7 Make sure that the unit has been identified with the relevant product label(s), and that one label includes the part and serial numbers.

Result

Requirements	Results
The Wide Band Transceiver (WBT) is correctly installed with easy access for maintenance and replacement of parts.	OK
The Wide Band Transceiver (WBT) is free from scratches, dents or other physical damage.	OK
Free access to all the connectors on the Wide Band Transceiver (WBT) are provided. All cables connected to the Wide Band Transceiver (WBT) are properly mounted with enough slack.	OK
The welds and brackets that support the Wide Band Transceiver (WBT) are strong enough to hold the unit securely in place under all operating conditions. The welds and brackets have been painted with the correct preservation medium to prevent corrosion.	OK
The Wide Band Transceiver (WBT) is properly grounded.	OK
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Related topics

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Visual inspection of the WBT Cabinet

A visual inspection of the WBT Cabinet is required to verify that it has not been physically damaged during the installation.

Prerequisites

The EK80 is installed as specified in the EK80 *Installation manual*. The EK80 is turned off. You need the following equipment:

- Multimeter

Procedure

- 1 Make sure that the WBT Cabinet is installed in the correct location, and that it is suitably oriented for easy maintenance and replacement of parts.
- 2 Make sure that the physical installation of the cabinet has been completed.
 - a Make sure that the compartment ("sonar room") is provided with ample ventilation to prevent system units from overheating.
 - b Make sure that the compartment ("sonar room") is clean and dry.

- c If applicable: Make sure that the bulkhead structure to which the cabinet is fastened is substantial enough to hold it securely in place under all operating conditions.
 - d If applicable: Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
 - e Make sure that the bolts, screws or studs that have been used are all of the correct size.
 - f Make sure that the correct flat and shake-proof washers have been used.
 - g Make sure that all the nuts have been tightened properly.
- 3 If the Wide Band Transceiver (WBT) units have been installed during the EK80 system installation:
- a Make sure that each drawer label has been positioned correctly and reflects the relevant transceiver.
 - b Make sure that all the power supplies have been installed on the dedicated bottom drawer(s).
 - c Make sure that all the power cables are fastened to the front vertical rail on the left side.
 - d Makes sure that all the transducer cables are installed on the same side of the WBT Cabinet, and the opposite side of the power cables.
 - e Makes sure that the entire installation allows for maintenance and replacements.
- How to install the cables in the WBT Cabinet is described on drawing 444425. The drawing can be downloaded from our website. The drawing is also included on the EK80 USB.
- 4 Make sure that the cabinet is not physically damaged, and that the paint-work is clean without dents or scratches.
- The physical handling during the installation may have caused some minor scratches to the surfaces or paint-work. This can be accepted. However, if rough handling has caused serious damage, this must be recorded with a written statement and necessary photos, so that corrective actions can be made.
- 5 Make sure that the cabinet is firmly connected to ship's ground.
- a Make sure that the cabinet 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 cabinet.
 - b Use a standard multimeter to check that the resistance between the cabinet and the ship's ground is approximately 0 (zero) Ω .
- 6 Make sure that the cabinet has been identified with the relevant product label(s).

Result

Requirements	Results
The cabinet is correctly installed with easy access for maintenance and replacement of parts.	
The cabinet is clean and free from scratches, dents or other physical damage.	
All transceivers, power supplies and cables have been installed according to the drawing.	
The welds and brackets that support the cabinet are strong enough to hold the unit securely in place under all operating conditions. The welds and brackets have been painted with the correct preservation medium to prevent corrosion.	
The cabinet is properly grounded.	
Date and signature:	 7/10/2021

Related topics

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Visual inspection of the EC150-3C Power Supply Unit

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

Prerequisites

The EK80 is installed as specified in the EK80 *Installation manual*. The EK80 is turned off. You need the following equipment:

- Multimeter

Procedure

- 1 Verify that the Power Supply 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 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 cabinet door can be fully opened for unrestricted access.
 - c Make sure that the bolts, screws or studs that have been used are all of the correct size.

- d Make sure that the correct flat and shake-proof washers have been used.
 - e Make sure that all the nuts have been tightened properly.
 - f Make sure that all welds and brackets have been painted with the correct preservation medium to prevent corrosion.
- 3 Make sure that the unit is not physically damaged, and that the surfaces and paint-work are clean without dents or scratches.
- The physical handling during the installation may have caused some minor scratches to the surfaces or paint-work. This can be accepted. However, if rough handling has caused serious damage, 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 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) Ω .
 - 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.
 - 7 Make sure that the unit's serial number has been recorded in the list of hardware items.

Result

Requirements	Results
The Power Supply Unit is correctly installed with easy access for maintenance and replacement of parts.	
The Power Supply Unit is free from scratches, dents or other physical damage.	
Free access to all the connectors on the Power Supply Unit is provided. All cables connected to the Power Supply Unit are properly mounted with enough slack.	
The Power Supply Unit can be fully opened, and you have full access to the circuit boards and modules inside the unit.	