Procedure for Packing, Preserving
Handling and Shipping of Jumpers/Harness
with or without Sensors
## Revision List

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1 SCOPE

This procedure shall cover the packing, unpacking, preserving, handling and shipping activities for the Jumpers/Harness with or without Sensors.

2 PURPOSE

The purpose of this procedures is to ensure proper performance of activities mentioned in item 1 above.

3 RESPONSIBILITY

Department Manager is responsible that the contents of this procedure is known to the personnel engaged in above mentioned activities and that the necessary documentation is accompanying the goods.

4 HEALTH AND SAFETY

Manual Handling, Lifting and Carrying are known to be the largest contributors to occupational ill-health. Ensure that mechanical handling aids are used whenever possible to avoid manual handling. Where manual handling is considered appropriate for the task safe lifting guidelines must be followed, e.g. adopt correct posture, consider team lifting, employ safe lifting technique, etc.

5 PACKING

- Every item must be accounted for and discrepancies raised immediately.
- For packing, Wooden Crates with appropriate size shall be used.
- The packing shall ensure that the equipment is lying stable during transportation.
- Special care is to be taken to prevent metal to metal contact. Multiple items are to be laid out at an appropriate distance apart to avoid metal to metal contact.
- Large or heavy components should be fastened securely in place using wooden battens and / or covered metal straps.
- Sensors shall have the ring groove/probe plastic cover fitted before packing. Sensor probe ends shall not be less than 20mm from the packing box wall. This is to prevent damage from external box impacts and ease install and removal.
- If returning previously dispatched goods in customers own packaging, check for damage and ensure required standards are met using additional packing if required.
- Multiple items are to be laid out at an appropriate distance apart to avoid metal to metal contact. Bubble wrap may be used to protect exposed parts.
- Larger products (harness etc.) will have any end connectors, junction boxes etc. wrapped in bubble wrap. These will then be strapped down to the base of the crate using a metal strap which has a plastic coating (to avoid damaging the product).
- Wooden battens on top of the products may also be used as a way of restraining product whilst in transit.
- Multiple harnesses may be packed together in one box / crate if practical – where this happens, appropriate packing and protection will be added.
- Ensure staples used to attach labels do not protrude through to the inside of any crate.
6 UNPACKING

**CAUTION:** THE JUMPER/HARNESS SHALL ONLY BE REMOVED FROM ITS PACKAGING BY PERSONNEL AUTHORISED BY THE CUSTOMER REFERRED TO IN THE PACKING LIST AND CONSIGNMENT NOTE!

6.1. Ensure that the crates are positioned flat on the floor with the correct side uppermost.

6.2. Open the hard case lid, remove the insulation/padding holding the sensors.

6.3. Handle the jumper/harness and any sensors with care during operations.

7 STORAGE

7.1. Equipment shall be stored in a covered and dry area, humidity control is not required.

   Storage temperature: -20 to +50°C.

7.2. The equipment should be stored in the hard case used for transportation.

7.3. The equipment is to be stored away from any vibration sources.

7.4. The equipment is to be stored away from high voltage sources.

8 CRITERIA FOR PRESERVATION

8.1 The Crates shall be labelled as follows:

   ELECTRONIC EQUIPMENT
   HANDLE WITH CARE
   MADE IN NORWAY

8.2 The equipment shall not be stored in vibrating areas.

8.3 Fork lift’s shall be used with care and only when strictly required.

8.4 All shock loads shall be avoided.
9 HANDLING

9.1 The Sensors are measuring instruments utilising very sensitive sensor elements.

**CAUTION:** HANDLE THE JUMPER/HARNESS AND ANY SENSORS WITH CARE THROUGH ALL ACTIVITIES, SUCH AS TERMINATION, HYP TEST ETC., UNTIL READY FOR FINAL ASSEMBLY.

Note:
All sensors shall have installed, a protective cover for the ring gasket surface/probe and the electrical connector if applicable.
The sensors are also marked with a warning sign indicating that no mechanical object should be placed into the probe tip.

9.2 DO NOT DROP.

9.3 DO NOT expose the equipment to vibration and shock.

9.4 DO NOT expose the equipment to high voltage sources.

9.5 DO NOT expose the equipment to environment conditions beyond the storage specifications. ref. item 7 above, or the operational environment specification, if operational.

9.6 To assist with the lifting of heavier jumpers/harness and sensors, a suitable rated and certified soft fabric strop should be used in a double hitch (to prevent slippage) attachment just behind the flange. Before any lifting is carried out it is recommended that the probe and flange sealing areas are suitably protected.

10 SHIPPING AND MARKING

10.1 The jumper/harness and sensors shall be shipped in the Wooden crates and packed as described in Ch. 5.

10.2 All markings shall be legible, permanent and un-obscured.