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Linde
LTG-HE
Telemetry Unit

INSTALLATION GUIDE

Part Number:
DPW984-33218808-0000

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NOTICE

Review this manual and all applicable safety information prior to installing this equipment. Ensure that the ratings of this equipment satisfy the requirements for the location where the equipment will be mounted. This equipment is intended for installation by qualified installers only.

CUSTOMER SUPPORT

Anova Customer Support should be contacted for installation support at one of the following numbers:
North America 1-866-626-8425 (8:00AM-6:30 PM EST)
Europe +44-1536-264-777 (8:00-17:00 GMT)
Germany +49-(0)631-205-777-22 (9:30-17:30 GMT)
Asia +60-3-6207-1659 (16:00-24:00 GMT)

PRODUCT OVERVIEW

The LTG-HE remote telemetry product is custom designed to replace LTG88 units on tank systems within the existing control cabinet. It was designed to provide a solution with connectivity that enables a simple and efficient installation process by using the existing cabling in place for the analog and digital inputs. By providing the same set of connectors on the LTG-HE as on the existing LTG88, the solution becomes a plug-and-play installation solution.

The LTG-HE product consists of a stacked printed circuit board assembly using a standard Hawkeye unit along with an EX587 expansion card. The product supports 8-channel analog and 8-channel digital inputs. In contrast to the LTG88, however, it has no digital outputs.

Power Supply:

- The LTG-HE product is powered by a 24V DC supply from within the existing control cabinet. No other power supply options are supported.

Radio technology:

- 4G/3G/2G LTE/GSM Wide Area Cellular Communications network
- Devices should be located where a good cellular signal is available and not blocked by large metal objects and away from large motors or other sources of Radio Frequency Interference.

Antenna options:

- External - An existing external antenna can be connected to the FME connector on the EX587 expansion card of the LTG-HE product. The FME connector is connected to the internal radio by default.
- Internal - If there is no external antenna available, the internal antenna of the Hawkeye unit is available. The product is delivered with the internal antenna connector capped with a plastic cap. To use this antenna, the FME connector antenna cable should be disconnected from the radio module and be capped with the same plastic cap. The internal antenna should then be connected to the radio module. Make sure this connection is tight and secure – you should hear or feel it click into place.

IN THE BOX

1. LTG-HE PCBA Assembly
2. 2 spacers
3. 2 nylon washers
4. 2 threaded studs

INSTALLATION PROCESS

GENERAL CONSIDERATIONS

Only suitably trained service personnel may install units and have access to the internal parts for installation or maintenance. There are no user serviceable parts within the unit.

The installation of the LTG-HE device is only possible in LTG88 standard control cabinets. It is **NOT** intended for DIN rail mounting!

COMMISSIONING PROTOCOL

Please prepare the commissioning protocol for Anova as a first step.

IMPORTANT!!!!

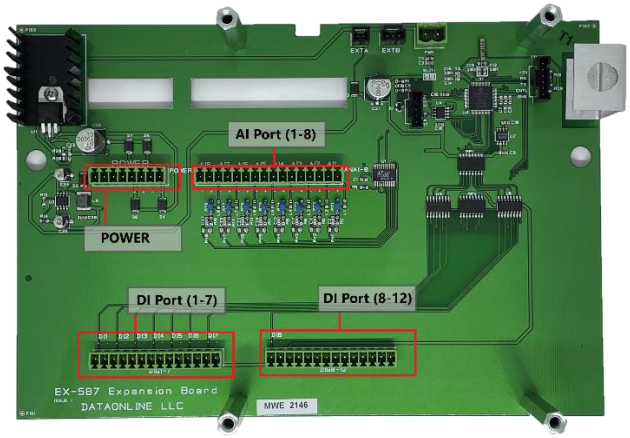
Please enter “LTG-HE” in the additional card field of the protocol!

INSTALLATION INSTRUCTIONS

Once the commissioning protocol has been completed, follow these steps to complete the LTG-HE product installation:

1. Inform DISPO about the conversion.
2. Disconnect power from the LTG88 control box.
3. Tighten the nuts of the two lower 8mm grub screws of the circuit board holder in the LTG88 control cabinet.
    a. They must hold the entire circuit board for a short moment.
4. Unplug the connector on the LTG88 and take the LTG88 off the top-hat rail.
    a. Remove the SIM card and keep/send it according to current regulations.

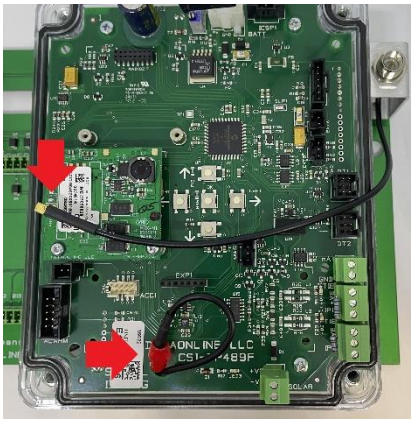
5. Disconnect all plugs that were connected to the LTG88 and remember their position.



6. Loosen the top two nuts of the 8mm grub screws of the board holder.
7. Take one of the two new threaded pins.
8. Unscrew the first of the upper threaded pins. Before the pin is completely unscrewed, ensure that the washer under the circuit board does not get lost by pressing on the circuit board.
9. While the circuit board is still being pressed, screw in the new, longer threaded pin.
    a. It can only be done by hand, as it has no slot for a screwdriver.
10. Replace the second upper threaded pin in the same way.
11. Put the two enclosed 8mm spacers on the pins.

12. Loosen the 4 screws securing the LTG-HE Hawkeye cover.
13. Place the LTG-HE on the 8 mm threaded pins.
14. Place the two nylon washers on the grub screws.
15. Put on the metal washers and fix the board with the nuts.

16. Plug in the connection cable between the motherboard and the LTG-HE again.
17. Screw the Hawkeye cover back on.
18. Reconnect the antenna cable. Make sure this connection is tight and secure – you should hear or feel it click into place.



19. Switch on the power supply again.
20. Put the LTG-HE into operation like a Hawkeye.
21. Send commissioning report to DISPO.
22. Check with DISPO whether the device delivers the correct values.

Please refer to the Hawkeye Installation Guide for additional installation information as needed.