

Description of MTS LVD kit Mk II

What does this instruction cover

A quick reference for installation of the LVD Kit (Dantherm P/N 046276) for use with both MTS2 and MTS4.

Item description

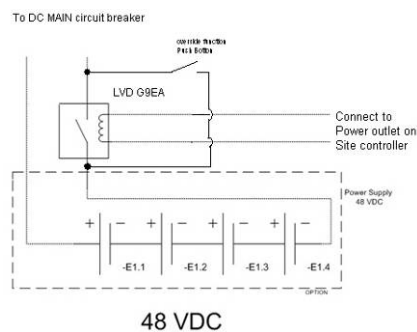
Aluminium housing including Power relay and push button for hot activation of LVD and controller cable for plugging the LVD to a MTS base station.

The kit when installed enables a low voltage disconnection option of batteries connected to a MTS backup system, as a discharge of a battery pack below 40,5V can cause permanent damage.

The LVD also offers a push bottom which gives an override function, which will 1) activate cabin light and 2) power up the Base station power supply, which also will enable normal activation of the LVD.



Relay connection in diagram (LVD G9EA)



Tools needed

- PZ2 and PH2 screwdriver
- Hammer
- Cutting tool for cable ties etc.
- Optional: 2 Nm torque tool and crimp tool for ring terminal.

BOM of kit: (Bill of material)

- Aluminium housing containing the Relay
- Omron G9EA-1-B DC power relay
- Protection cap for relay
- Control cable (Y) for LVD relay
- Push button for short-circuiting the relay after the LVD has been activated and AC is still not back.
- Cable relief fasteners (2 housings with cable ties)
- 2 rivet plugs (Skiffy) for mounting the kit.
- 5 strips for securing cable
- 2 of Ø6 ring terminals for 16mm² wire (battery cable)
- This Instruction

Kit installation

Step by step

1. Unpack the kit and check if all items.

Warning : Working on live system is hazardous, switch off power!

2. Connect the battery cables. (Ø6 ring terminals apply) using a PH2 screwdriver.
Recommended torque is max 2Nm.

Two spare Ø6 terminals for 16 mm² cable are included. Special crimp tool apply on fitting these (not included).

Click the protection cap on. (additional break away windows are available on cap allowing multiple entry of cables.

Make sure no damage are done on cables by sharp edges on the cap.

Check that cables are secured properly and tighten the included cable tie retainers.

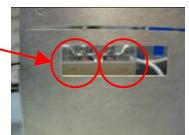
The cables shall not touch the metal housing.

Warning: carefully not to short circuit the battery poles.



3. Note the small + and – signs on the side of the relay.

The pole with the – sign is recommended to be connected to the – pole on the battery.



4. Flip the backplate by hand, and insert the 2 rivet plugs as on photo to the right



4. Mount the LVD housing to the intended location.
I.E. on top of the MTS as photo on the right using a hammer for snapping in the screw.

(the plug fits into any Ø7mm hole. Center diameter between the two rivet plugs is 90mm).



7. Locate the Power connector on the sitecontroller located to the lower right of the MTS and disconnect this



8. Plug the LVD controller cable into the now empty power slot and plug the existing power plug just removed in 7. into the empty socket on the controller cable (Y-cable).



9. Secure LVD controller cable using cable ties to the best possible routing toward the LVD relay. Avoid any potential damages on cable due to sharp edges etc.
 10. Switch power on
 11. Check if the relay is engaged, when MTS 4 is powered up.
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