Installation Instructions

Top-entry Sub D9 Connector Kit for D1h–D8h and E1–E2 with PROFIBUS Option
FC Series FC 102, FC 103, FC 202, and FC 302

The top-entry sub D9 connector kit is designed for D1h–D8h and E1–E2 enclosure sizes with the VLT® PROFIBUS DP MCA 101 option for the following frequency converters:

- VLT® HVAC Drive FC 102
- VLT® Refrigeration Drive FC 103
- VLT® AQUA Drive FC 202
- VLT® AutomationDrive FC 302

This kit provides a top-entry sub D9 PROFIBUS connection that maintains the IP protection rating of the frequency converter up to IP54.

The kit contains the following parts:

- Ground strap (1)
- Cover plate (1)
- Gasket, cover plate (1)
- Sub D9 connector with wire assembly (1)
- Sub D9 rubber cover (1)
- Strain relief (1)
- M4 screw, thread forming (1)
- Jack screws (2)

Kit Part Numbers

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<th>Part number</th>
<th>Kit description</th>
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<td>176F1742</td>
<td>Top-entry sub D9 connector kit for D1h–D8h and E1–E2 enclosure sizes with the VLT® PROFIBUS DP MCA 101 option</td>
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Safety Instructions

Only qualified personnel who are authorized by Danfoss are allowed to install the parts described in these installation instructions. Read and save these instructions. Disassembly and reassembly of the frequency converter must be done in accordance with the corresponding service manual.
Installation

1. Remove the front cover from the frequency converter.
2. Remove the LCP.
3. Remove the LCP cradle by pulling the cradle straight out. See Illustration 1.1.

**NOTICE**

**STRAIN RELIEF**

If a sub D9 connector is not used, a strain relief can be used to support the individual conductors. At the upper right corner of the VLT® PROFIBUS DP MCA 101 module, secure the strain relief using the provided M4 thread-forming screw. See Illustration 1.2.

Illustration 1.2 Installing the Strain Relief

4. Remove the left top cover from the frequency converter. Do not discard the M5 nuts.
5. Assemble the sub D9 cover plate.
   5a Place the gasket on the bottom side of the sub D9 cover plate. See Illustration 1.3.
   5b Fit the sub D9 assembly into the cover plate and secure with the 2 jack screws. See Illustration 1.4.
   5c Ensure proper sealing by checking that the face of the sub D9 connector is seated firmly on the metal surface of the plate.
   5d Install the sub D9 cover plate assembly into the opening on the top of the frequency converter. See Illustration 1.5.
6. Install the braided ground strap. See Illustration 1.6.

6a Attach the smaller hole of the braided ground strap to the M4 thread-forming screw. Secure the M4 screw above the LCP.

6b Attach the other end of the ground strap to the screw securing the sub D9 cover plate with an M5 nut.

6c Secure the other cover plate screw with an M5 nut.
7. Plug in the Phoenix connector into the PROFIBUS module. See Illustration 1.7.

**NOTICE**
For easier connector installation, remove the PROFIBUS module before plugging in the Phoenix connector. Then reinstall the PROFIBUS module.

8. Secure the rubber sub D9 cover to the top cover plate when the connector is not in use. See Illustration 1.8.

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