



# KIT IGV HERMETIC FEEDTHROUGH - 4 PIN

100321 and 100321-1



**Installation and servicing of Danfoss Turbocor® compressors by qualified and product trained personnel only. Follow these instructions and sound refrigeration/electrical/servicing practices relating to installation, commissioning, maintenance and service.**

|  |   |   |   |
|--|---|---|---|
| <p>Consult the appropriate Danfoss Turbocor Compressors Inc. (DTC) Service Manual on <a href="http://turbocor.danfoss.com">turbocor.danfoss.com</a> for detailed service instructions.</p> | <p><b>Never power compressor without covers in place and secured.</b></p> <p><b>Removing the mains input cover will expose you to a voltage hazard of up to 575V. Ensure the mains input power is off and locked out before removing cover.</b></p> <p><b>Before removing top cover, wait at least 20 minutes after isolating AC power to allow the high voltage capacitors to discharge.</b></p> | <p>Always wear appropriately rated safety equipment when working around equipment and/or components energized with high voltage.</p> <p><b>This equipment contains hazardous voltages that can cause serious injury or death.</b></p> | <p><b>Recover all refrigerant from compressor in accordance with local codes and ensure pressure is fully vented before the removal of refrigerant containing components.</b></p> |
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1 - Introduction:

IGV HERMETIC FEEDTHROUGH - 4 Pin Removal and Installation Instructions.

2 - Removing Refrigerant from Compressor:

- Recover refrigerant from compressor in accordance with local codes and practices.

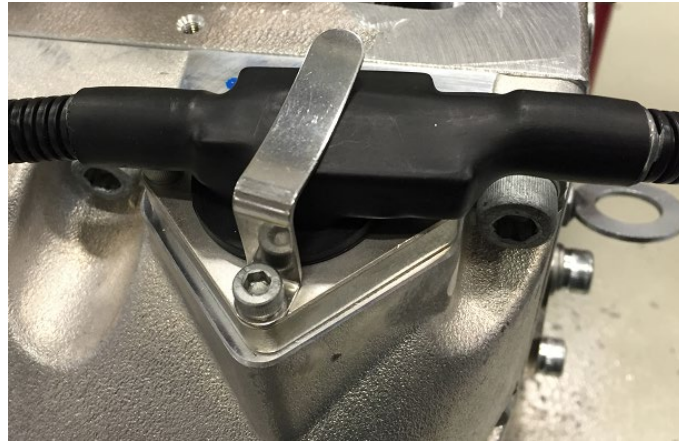
3 - Suggested Tools:

The following tools are suggested to disassemble and reassemble IGV assemblies:

- 4 mm hex socket bit
- Torque wrench – Must be able to measure a torque of 5 Nm (3.7 ft.lb)
- Turbocor Service Monitoring Tool

4 - Disassembly Instructions:

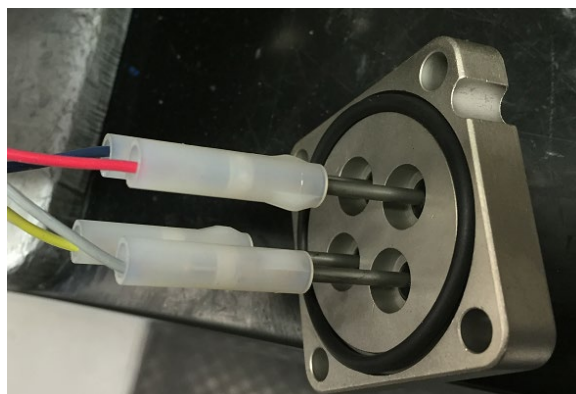
1. Remove the fastener and cable clamp holding the Inlet Guide Vane (IGV) harness in place (Figure 1).

**Figure 1**

2. Pull up on the IGV harness to remove it from the IGV feed through.
3. Remove the remaining three (3) fasteners from the IGV feed through.
4. Lift up on the IGV feed through to expose the wires on the back side of the feed through. Make note of the wire orientation on the connector. There are numbers on the corresponding pins for identification purposes (Figure 2).

**Figure 2**

5. Remove the wires from the back side of the feed through (Figure 3). Grab the pin connectors to remove the wires. Do not pull directly on the wires themselves otherwise damage to the harness could occur. Do not allow the wires to fall back into the feed through hole.

**Figure 3**

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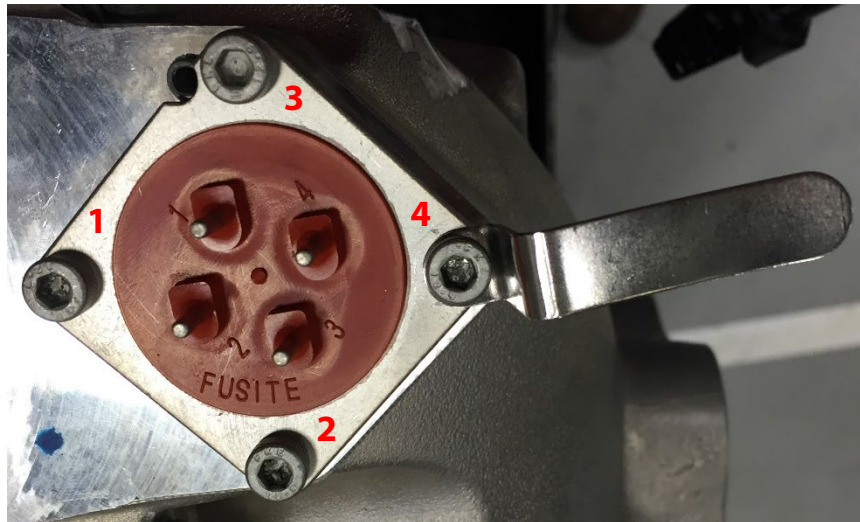
## 5 - Assembly Instructions:

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1. If necessary, clean both mating surfaces with a lint-free cloth.
2. Install the supplied O-ring into the groove of the supplied IGV feed through.

**NOTE:** There are different styles of bearing power feed throughs. Older versions have a removable black neoprene gasket. This was later replaced on Major Revision "E" compressors with a non-removable red neoprene gasket.





3. Install the wires to the back side of the supplied feed through in the same orientation that they were removed from the original IGV feed through.
4. Feed the wires down while lowering the IGV feed through into the hole. Make sure to line up the notch of the feed through plate with the roll pin.
5. Install the supplied fasteners and cable clamp to secure the feed through.
6. Secure the feed through by tightening in the order shown in Figure 4. Only tighten 1, 2, and 3 and torque to 3 Nm (2.2 ft. lb.) on the first pass and then to a final torque of 5 Nm (3.7 ft. lb.).



**Figure 4**

7. Attach the IGV harness to the feed through. Rotate the new cable clamp over the cable and tighten the 4th fastener to the final torque specification listed above.
8. Leak test and vacuum as per industry standards.
9. Charge the compressor with refrigerant.
10. Apply mains power to the compressor.
11. Using the Service Monitoring Tool go to the Compressor Configurator, change the Control Mode to Manual Control Mode.
12. In the Compressor Monitor, type in 110% into the IGV Open Percentage. Verify the IGV responds by looking at the IGV Position Indicator. If IGV doesn't respond as expected, troubleshoot accordingly with the Service Manual.
13. Return the Control Mode to its previous setting. Isolate the compressor from mains power.

6 - Kit Contents

| QTY | Part(s) Description                      | Picture(s)   |
|-----|--|--|
| 1   | HERMETIC FEEDTHROUGH - 4 PIN with O-RING |    |
| 4   | SCREW M5X16 SOCKET HEAD CAP              |   |
| 1   | CLAMP                                    |   |
| 1   | LUBRICATION-SUPER "O" LUBE-2G            |  |

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