

TTS /TGS/TTH/TGH Spare Part Kit

KIT HEATSINK COOLING MANIFOLD SCR ASSEMBLY

100309-1, -5, -7, -8, -9, -10, -13, & -14



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 LLC Service Manual on www.turbocoroem.com for detailed service instructions.</p>	<p>Never power compressor without covers in place and secured.</p> <p>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.</p> <p>Before removing top cover, wait at least 20 minutes after isolating AC power to allow the high voltage capacitors to discharge.</p>	<p>Always wear appropriately rated safety equipment when working around equipment and/or components energized with high voltage.</p> <p>This equipment contains hazardous voltages that can cause serious injury or death.</p>	<p>Recover all refrigerant from compressor in accordance with local codes and ensure pressure is fully vented before the removal of refrigerant containing components.</p>
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1 - Introduction:
SCR COOLING MANIFOLD replacement.

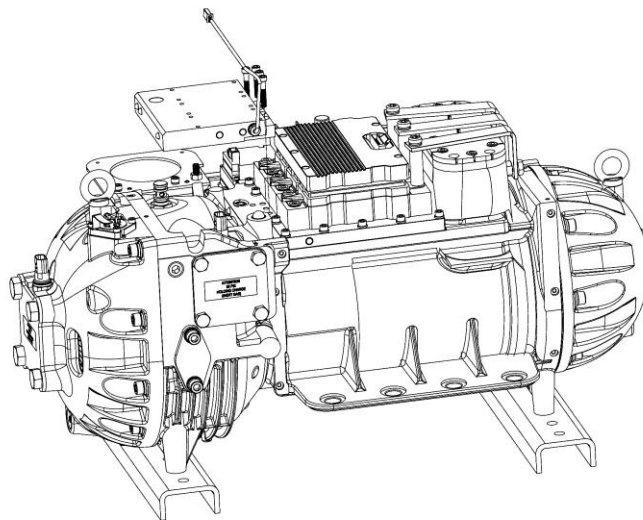


Figure 1 – SCR Cooling Manifold Example

This kit contains the SCR Cooling Manifold as well as the required O-rings and fasteners.

Please refer to our Service Manual for the replacement instructions.

We have made the **TTS/TGS/TTH/TGH Service Manual** available to anyone. To access the manual, you may scan the applicable QR code below or you may go to our website at www.turbocoroem.com. At the top of the page there is a pull-down menu called "Quick Links." Click this menu and select the appropriate service manual.

Refer to the applicable QR code below to download the TTS/TGS/TTH/TGH Service Manual.

English



Chinese



2 - General Information:

1. Isolate compressor power as described in Section "Electrical Isolation of the Compressor" of the Service Manual (M-SV-001) prior to performing any service procedures.
2. Kits 100309-13 and 100309-14 do not include the Temperature Sensor as these sensors are no longer required. After installing the new SCR Cooling Manifold, secure the remaining connector on the compressor with a cable tie.

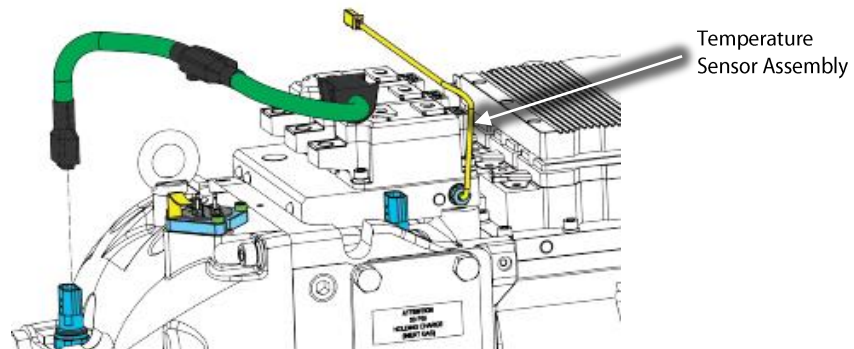


Figure 2 – Temperature Sensor

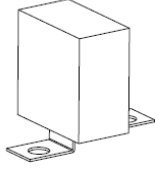
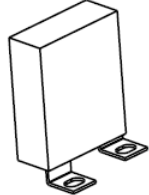
3 - High SST Option – Kit 100309-8:

This kit can be used to provide a high SST option for the following Revision H Turbocor compressors:

- TTS350 & TGS310
- TTS400 & TGS390
- TTS700 & TGS520
- TGS490

To convert to the High SST option, the snubber capacitors and the BMCC with software (4.3.0) will need to be changed. These items are not included in this kit; therefore, they must be purchased separately. The below instructions illustrate the component swap for the brass return plug and the return fitting. The remainder of the instructions can be found in the TTS/TGS Service Manual.

In the table below, the two different style snubber capacitors are shown for comparison.

Required for High SST Upgrade	Not for Use on High SST Compressors
	
Kit 100417 – This style required for High SST Option	Snubber capacitors installed on standard temperature compressors.

1. Begin with the disassembly process described in the Service Manual.
2. Remove the SCR Cooling Manifold as described in the Service Manual. Refer to Figure 3 – SCR Cooling Manifold Removal.

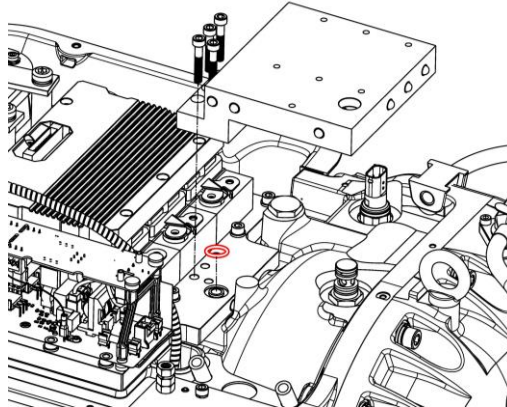


Figure 3 – SCR Cooling Manifold Removal

3. Remove the Plug and the SCR Manifold Return Brass Fitting. Refer to Figure 4 – Plug and SCR Manifold Return Brass Fitting Removal.

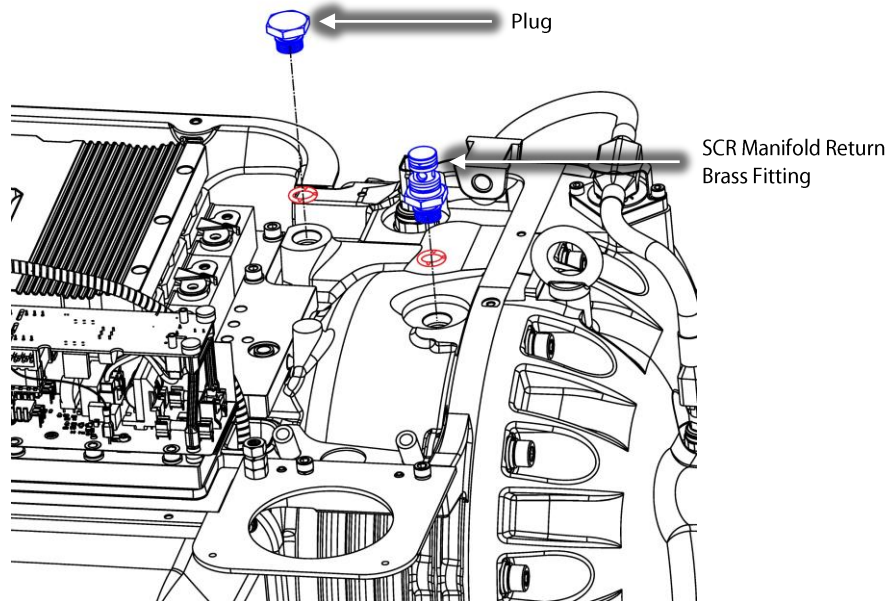


Figure 4 – Plug and SCR Manifold Return Brass Fitting Removal

4. Remove the O-rings from the Plug and SCR Manifold Return Brass Fitting.
5. Clean the O-ring grooves in the Plug and SCR Manifold Return Brass Fitting. Refer to Figure 5 – O-Ring Grooves.

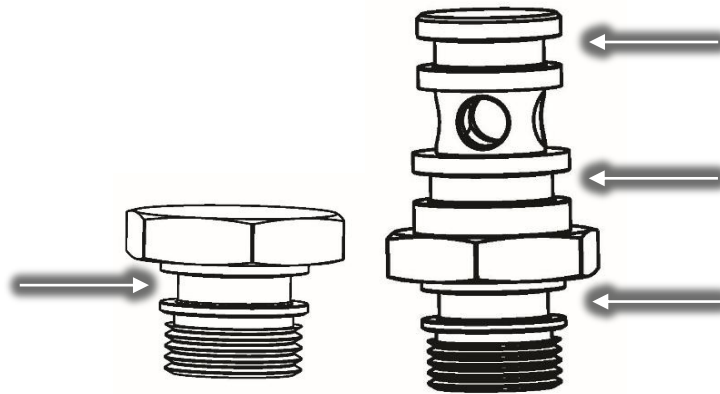


Figure 5 – O-Ring Grooves

6. Ensure the threads and surface area in the compressor housing are clean.
7. Apply the included O-lube to the four (4) new O-rings and then carefully install them onto the fittings.

NOTE: The bottom two O-rings on the SCR Manifold Return Fitting are larger than the top O-ring.

8. Install the Plug and SCR Manifold Return Brass Fitting in the locations shown in Figure 6 – Swapped Fittings. Fingertighten the fittings and then torque them to 7 Nm (62 in.lb.).

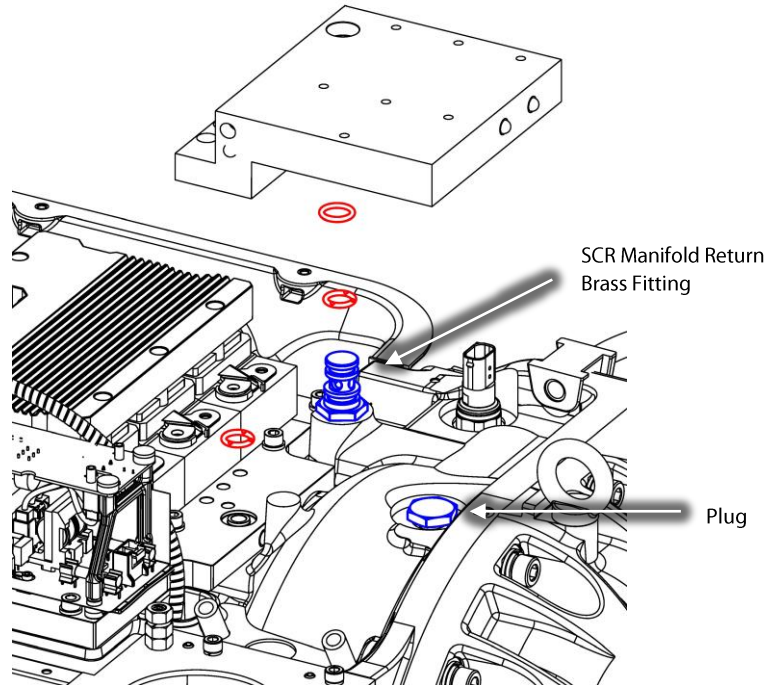
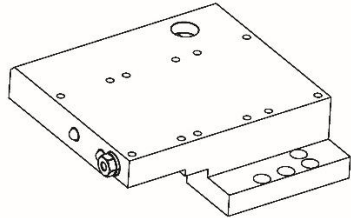






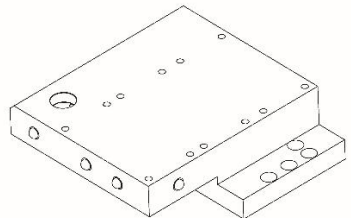


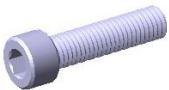

Figure 6 – Swapped Fittings

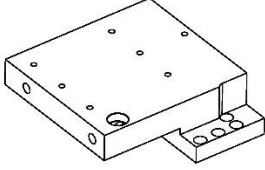


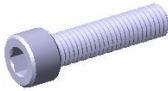

9. Continue with the assembly process per the Service Manual.

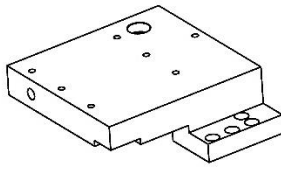




4 - Kit Contents:

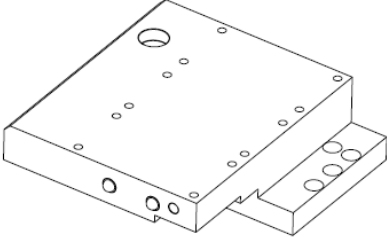


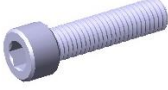

Note: Any part numbers included in the kit contents are internal part numbers only. Please refer to our Spare Parts Manuals for any kit part numbers.

KIT	100309-1, -5	
QTY	Part(s) Description	Picture(s)
1	SCR HEATSINK ASSEMBLY	
1	O-RING, SCR COOLING ADAPTER – 901862	
2	O-RING, SCR COOLING ADAPTER – 901850	
4	SCREW, M6X35, SOCKET HEAD CAP – 901850	
1	LUBRICATION-SUPER-O-LUBE-2G	

KIT	100309-7	
QTY	Part(s) Description	Picture(s)
1	SCR COOLING MANIFOLD	
2	O-RING, SCR COOLING ADAPTER - 901862	
1	O-RING, SCR COOLING ADAPTER - 901850	
4	SCREW M6X35, SOCKET HEAD CAP	
1	LUBRICATION-SUPER-O-LUBE-2G	

KIT	100309-8	
QTY	Part(s) Description	Picture(s)
1	SCR HEATSINK ASSEMBLY	
3	O-RING, SCR COOLING ADAPTER - 901862	
2	O-RING, SCR COOLING ADAPTER - 901850	
4	SCREW, M6X35, SOCKET HEAD CAP - 902821	
1	LUBRICATION-SUPER-O-LUBE-2G	

KIT	100309-9, 10	
QTY	Part(s) Description	Picture(s)
1	SCR HEATSINK ASSEMBLY	
2	O-RING, SCR COOLING ADAPTER - 901862	
1	O-RING, SCR COOLING ADAPTER - 901850	
4	SCREW, M6X35, SOCKET HEAD CAP - 902821	
1	LUBRICATION-SUPER-O-LUBE-2G	

KIT	100309-13, 14	
QTY	Part(s) Description	Picture(s)
1	SCR HEATSINK ASSEMBLY	
2	O-RING, SCR COOLING ADAPTER - 901862	
1	O-RING, SCR COOLING ADAPTER - 901850	
4	SCREW, M6X35, SOCKET HEAD CAP - 902821	
1	LUBRICATION-SUPER-O-LUBE-2G	

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