

KIT Temperature Sensor SCR

100268.



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 DTC Service Manual on turbocor.danfoss.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</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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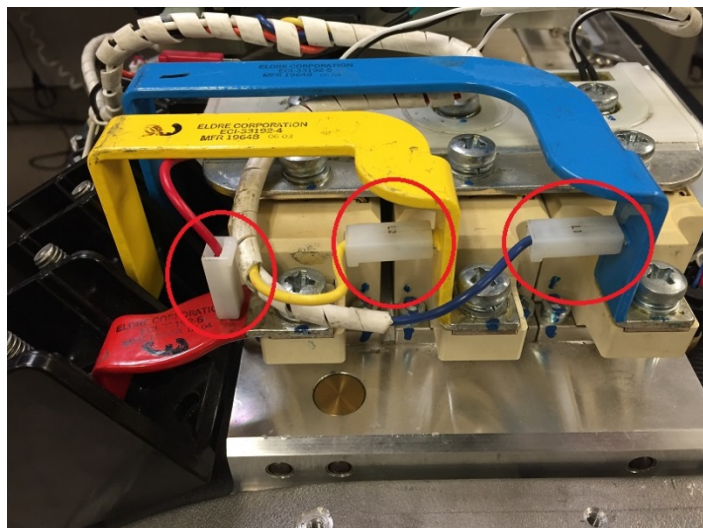
1 - Introduction

SCR Temperature Sensor removal and installation.

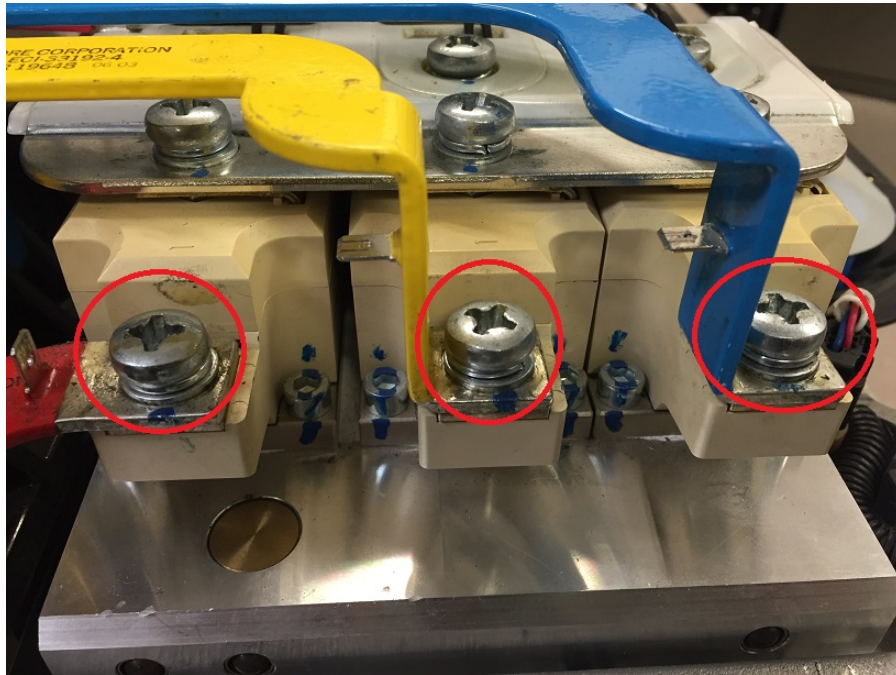
2 - SCR Temperature Sensor Removal Instructions: All TT/TG models other than TT300/TG230

- NOTE: Refer to the current Installation Manual and Service Manual for more details in removal and installation.
- 1. Isolate compressor power and lock out in accordance with local codes and practices. Remove topside covers.
- 2. Disconnect 3 phase mains input wiring.
- 3. Disconnect the soft start AC wires from the AC bus bars. See figure 1.

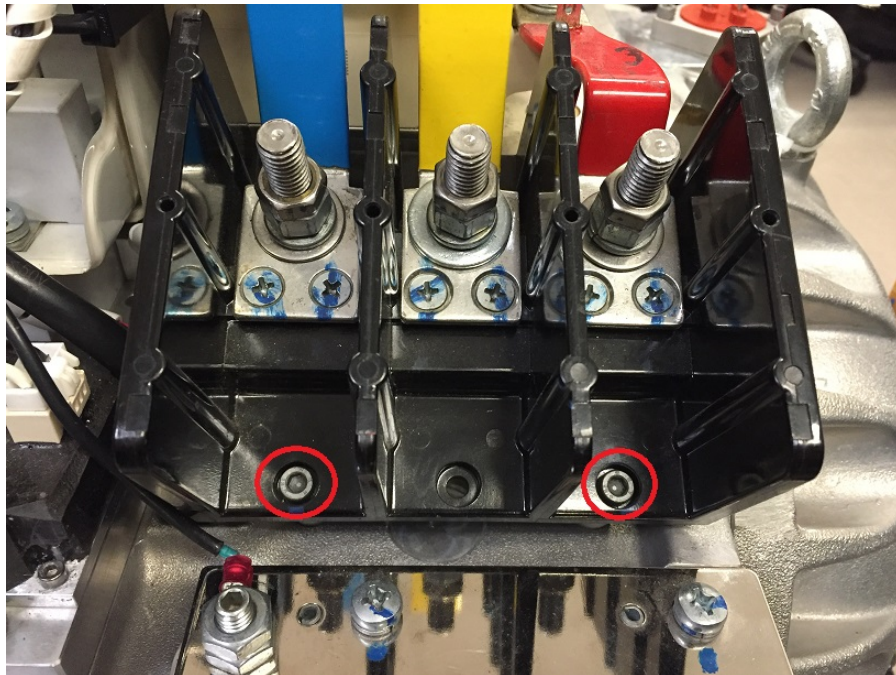
Figure 1:



4. Remove the fasteners that secure the AC bus bars to the SCR inputs. See figure 2.
Figure 2:

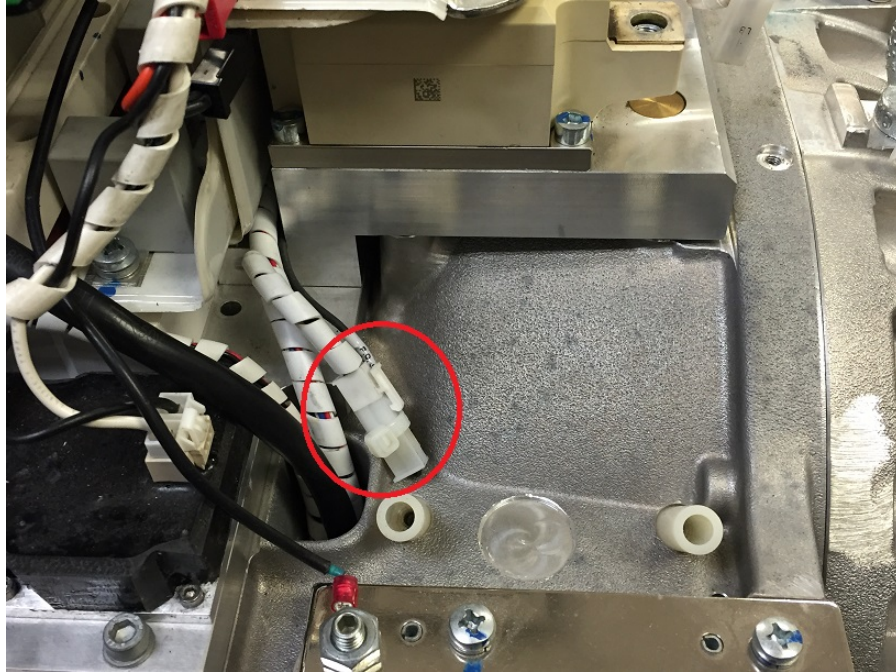


5. Remove the terminal block and AC bus bars as an assembly by removing the mounting fasteners. See figure 3.
Figure 3:



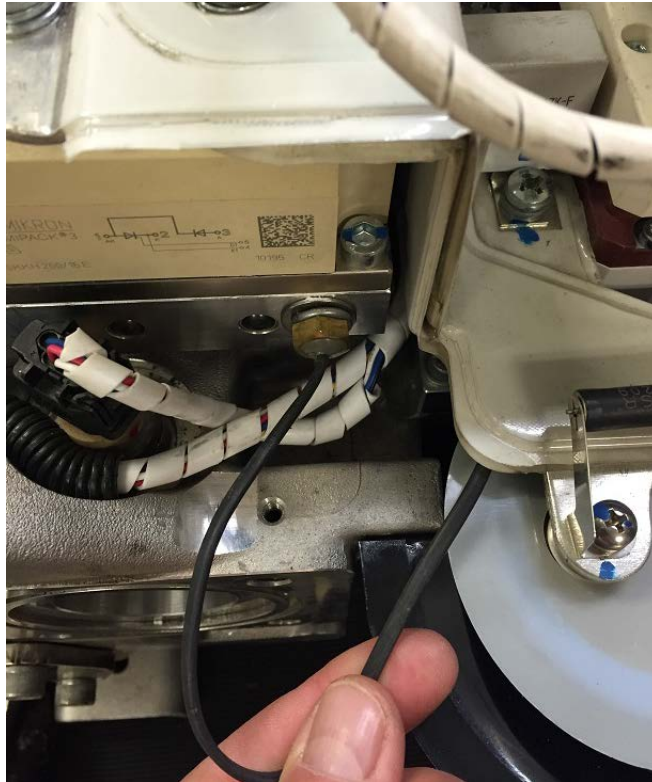
6. Cut the wire tie securing the SCR cable and disconnect the SCR cable from the compressor controller harness. See figure 4.

Figure 4:



7. Gently pull the SCR temperature sensor cable from under the DC bus assembly from the discharge side of the compressor. See figure 5.

Figure 5:



8. Being mindful of the discharge pressure/temperature transducer, remove the SCR temperature sensor from the dry well using an appropriate wrench.

3 - SCR Temperature Sensor Installation Instruction:

1. Install the new SCR temperature sensor into the dry well. Torque to 6Nm (4.4lbf-ft).
2. Snake a reasonably stiff and dull item under the DC bus assembly from the service side to the discharge side of the compressor. For demonstration purposes an eight inch wire tie was used for these instructions.
3. Using a small amount of tape attach the new SCR temperature sensor connector to the item. See figure 6.
Figure 6:

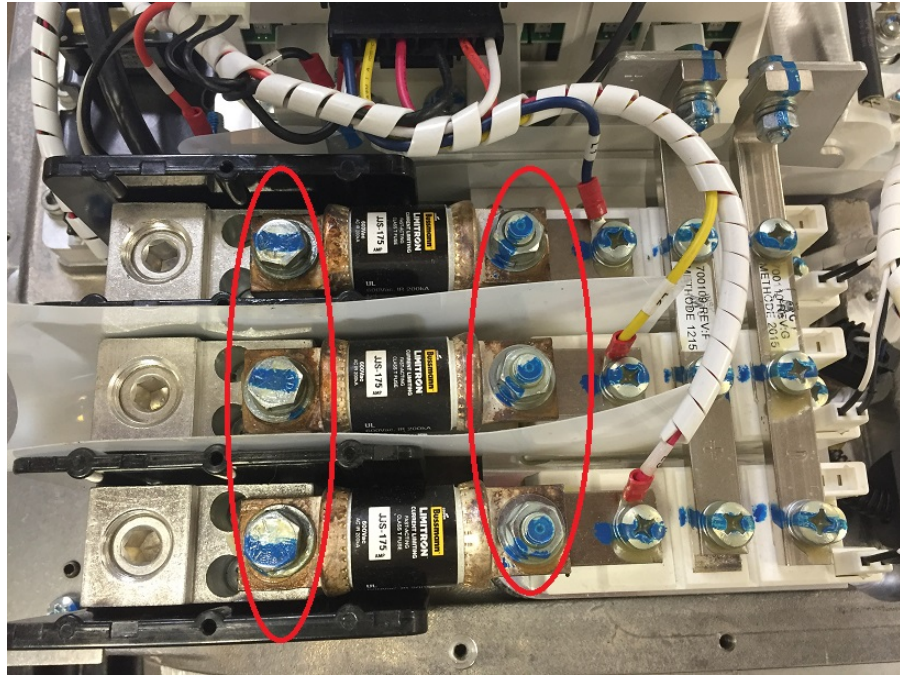


4. Carefully, pull the “snake” from the service side while feeding the SCR temperature sensor harness from the opposite side.
5. Connect the SCR temperature sensor harness to the compressor control harness and secure with a wire tie.
6. Reattach the terminal block and AC bus bars to the compressor. Keep all fasteners loose until all have been started. Torque terminal block to compressor housing to 4Nm (3lbf-ft). Torque AC bus bars to SCR to 9Nm (6.6lbf-ft).
7. Install topside covers.

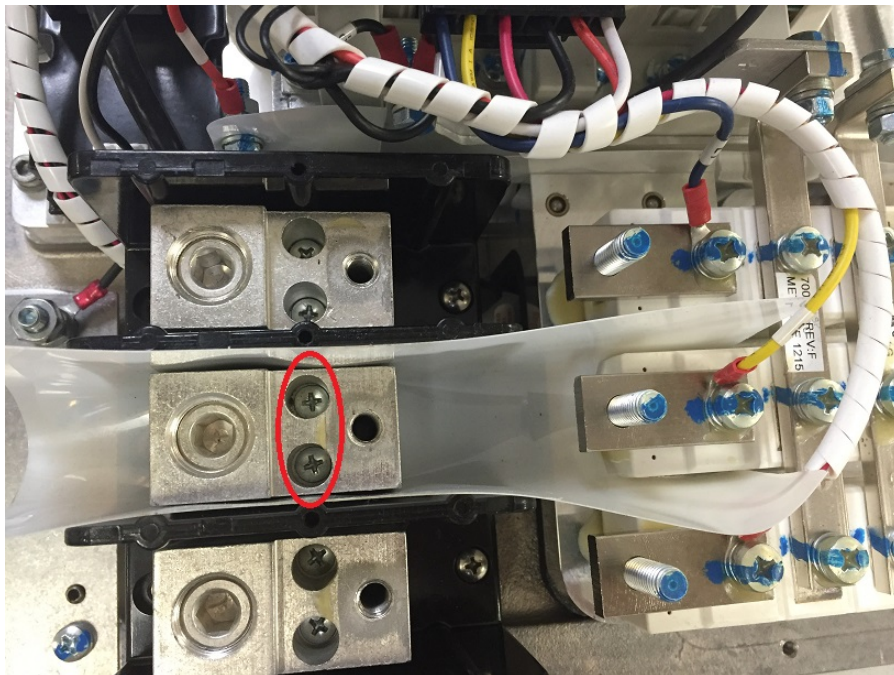
Component	Torque Value
Temperature Sensor SCR	6Nm (4.4lbf-ft)
Terminal block to compressor housing	4Nm (3lbf-ft)
AC bus bar to SCR	9Nm (6.6lbf-ft)

4 - SCR Temperature Sensor Removal Instructions: TT300/TG230 only

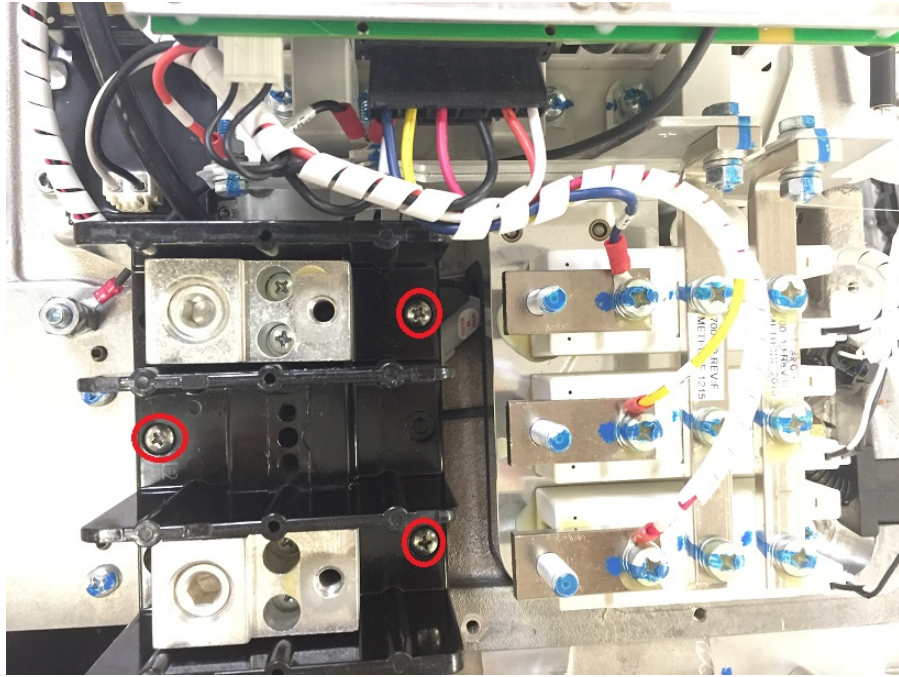
- NOTE: Refer to the current Installation Manual and Service Manual for more details in removal and installation.
1. Isolate compressor power and lock out in accordance with local codes and practices. Remove topside covers.
 2. Disconnect 3 phase mains input wiring.
 3. Remove the fasteners that secure the AC input fuses to the SCRs and the terminal block. See figure 7.
- Figure 7:



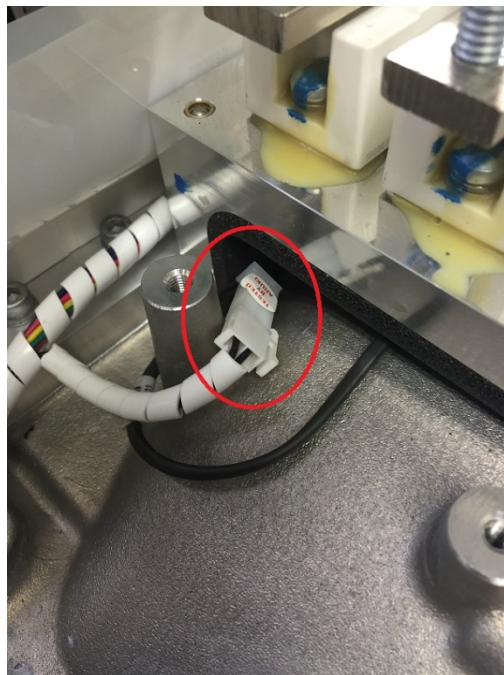
4. Remove the fasteners that secure the center AC input terminal. See figure 8.
Figure 8:



5. Remove the Mylar insulator.
6. Remove the AC input terminal block by removing the fasteners. See figure 9.
Figure 9:



7. Disconnect the SCR temperature sensor from the compressor controller harness and gently pull the sensor cable under the SCR cooling manifold from the discharge side of the compressor. See figure 10.
Figure 10:






8. Being mindful of the discharge pressure/temperature transducer, remove the SCR temperature sensor from the dry well using an appropriate wrench.

1. Install the new SCR temperature sensor into the dry well. Torque to 6Nm (4.4lbf-ft).
2. "Snake" the connector end of the SCR temperature sensor under the SCR cooling manifold and connect to the compressor control harness.
3. Reattach the AC input terminal block to the compressor housing. Keep all fasteners loose until all have been started. Torque to 3Nm (2.2lbf-ft).
4. Insert the Mylar insulator into its original position.
5. Reattach the center AC input terminal. Torque to 3Nm (2.2lbf-ft).
6. Reattach the AC input fuses to the SCR's and the terminal block. Leave all fasteners loose until all have been started. Torque to 20Nm (14.75lbf-ft).
7. Install topside covers.

Component	Torque Value
Temperature Sensor SCR	6Nm (4.4lbf-ft)
Terminal block to compressor housing	3Nm (2.2lbf-ft)
AC input terminal	3Nm (2.2lbf-ft)
AC input fuses	20Nm (14.75lbf-ft)

6 - Kit Contents

Kit numbers	Compressor models
100268	All TT/TG models

QTY	Part(s) Description	Picture(s)
1	Temperature Sensor SCR	
1	WASHER LOCK 5/16"	
1	WASHER FLAT 5/16"	

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