

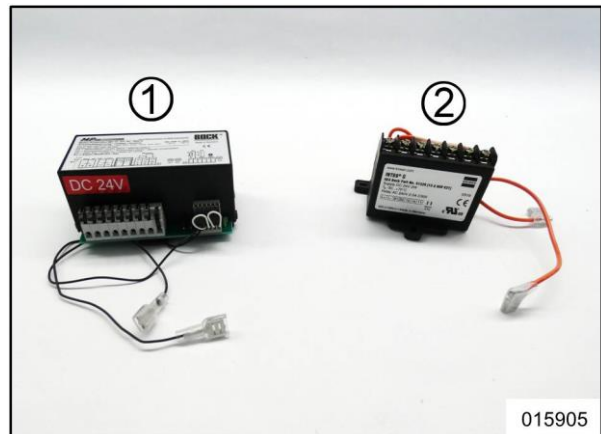
<b>ADDRESSEES</b>	: Owners and operators
<b>VEHICLE MODELS</b>	: Vehicles with electrically driven refrigerant compressor BOCK HGX
<b>MANUAL CHAPTER</b>	: 08.14 Climate control – Refrigerant circuit
<b>BULLETIN TYPE</b>	: <b>Service information</b>
<b>DATE</b>	: January 03th, 2023
<b>SUBJECT</b>	: <b>Introduction of new motor protection switch for refrigerant compressor electric motor</b>
<b>CONDITIONS</b>	: This service bulletin does not entitle to any reimbursement.

## DESCRIPTION:

In its production process, Bock, manufacturer of refrigerant compressors, has switched to a new type of motor protection switch for the electric motor of the refrigerant compressor. As the MP10 motor protection switch (VH11472802) is no longer made available as a spare part, as of now you will receive the new INT69G motor protection switch (VH11691810) when ordering. The MP10 and the INT69G are interchangeable, but fastening and electric connection are different. Consult the step-by-step instructions in this service bulletin for a correct installation.



**Figure 1: Bock HGX.. refrigerant compressor (typical)**



**Figure 2: Motor protection switch**

1. MP10 protection switch
2. INT69G protection switch

## JOB QUALIFICATION:

The task has to be carried out by an experienced automotive technician, trained in the operations at hand.

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## PREPARATIONS:

- Park the vehicle on a level floor. Apply the parking brake. Switch off the traction system. Switch off all systems and turn off the battery isolation switch on the dashboard.
- Put a "DO NOT START" warning message on the instrument panel before starting the checks or repairs.
- Put chocks in front of and behind the drive axle wheels.
- Read the entire procedure before starting to work.



## **WARNING!**

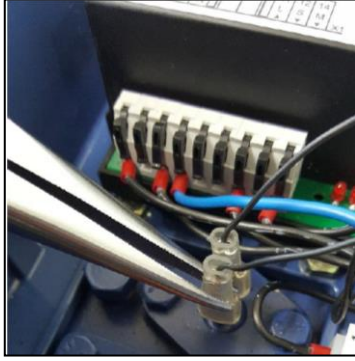
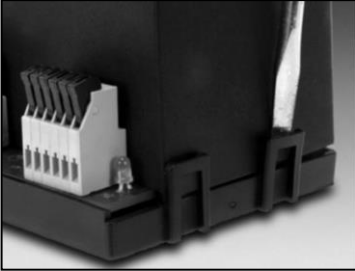
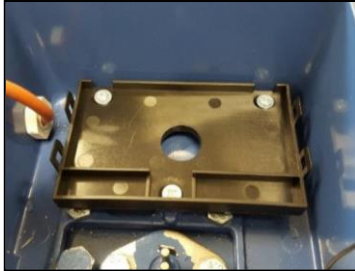

Observe safe shop practices at all times.

The refrigerant compressor is a 400Vac high-voltage component. Before working on the refrigerant compressor, the high-voltage circuit has to be de-energised (Follow the instructions under "To de-energise traction system" in chapter 2.1 of the maintenance manual).

## PROCEDURE:

Step	Action
1	<p>Remove the cover of the junction box on the refrigerant compressor. The motor protection switch is now accessible.</p> <p>With a multimeter, check the absence of voltage on the terminals of the electric motor. If the multimeter indicates a voltage, it is strictly forbidden to continue working (Potentially lethal!). Close the junction box and contact Van Hool.</p>
2	<p><i>NOTE: Mark the electrical wires on the motor protection switch. This mark will help you to connect the wires to the INT69G motor protection switch further on in the procedure.</i></p> <p>Disconnect the wires from the motor protection switch. To this end, put a flatblade screwdriver in the recess of the locking handle and move the handle upward to release the wire (see figure 3).</p> <div data-bbox="528 1319 1315 1713" data-label="Image"> </div> <p><b>Figure 3: Disconnection of wire with a flatblade screwdriver (figure shows a 110/230V version of the M10 motor protection switch)</b></p>

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<p><b>3</b></p>	<p>Carefully disconnect the two black wires of the PTC temperature sensor with a pair of long-nose pliers.</p>  <p><b>Figure 4: Disconnection of wires at PTC temperature sensor</b></p>
<p><b>4</b></p>	<p>Release the motor protection switch from the mounting base by prying the two fastening lips from one side with a flatblade screwdriver to separate them from the locking hooks and by lifting the motor protection switch. Repeat this now for the other side and remove the MP10 motor protection switch.</p>  <p><b>Figure 5: Releasing motor protection switch from mounting base.</b></p>
<p><b>5</b></p>	<p>Remove the mounting base of the MP10 motor protection switch.</p>  <p><b>Figure 6: Mounting foot of MP10</b></p>
<p><b>6</b></p>	<p>Fit the mounting base of the INT69G motor protection switch.</p>  <p><b>Figure 7: Mounting foot of INT69G</b></p>

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Fasten the INT69G motor protection switch on the mounting plate by clicking.

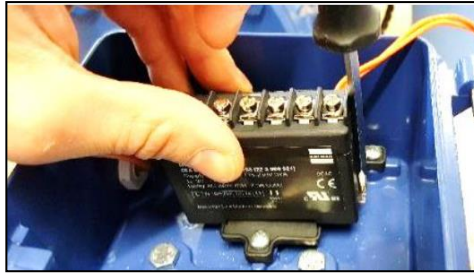


Figure 8

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Connect the INT69G motor protection switch electrically. The two orange wires are connected to the PTC temperature sensor.

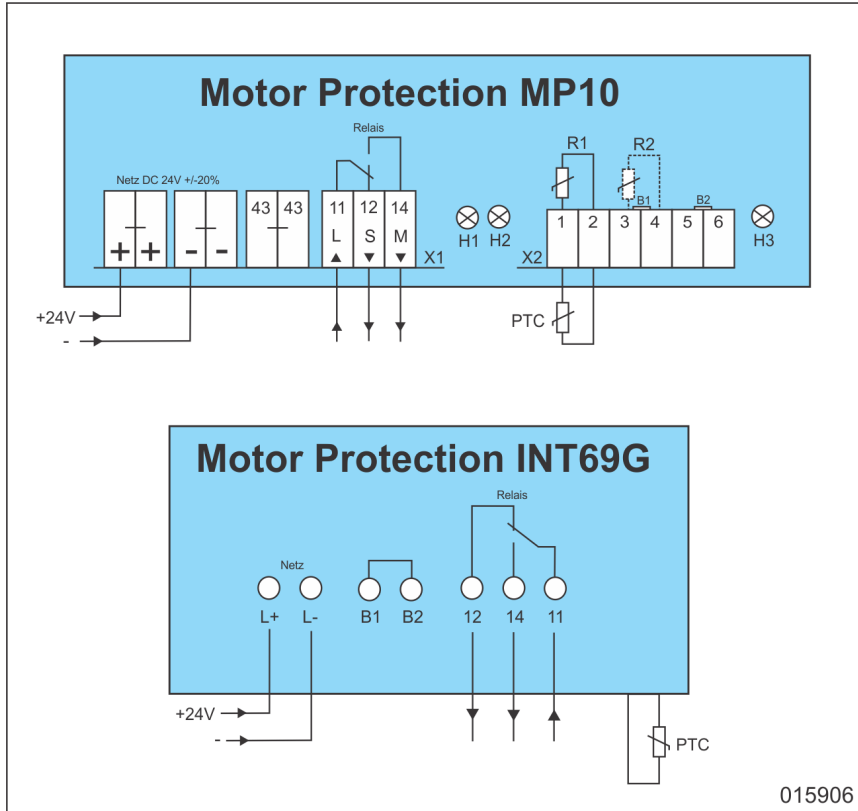


Figure 9

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Close the junction box of the refrigerant compressor.

End of procedure.

**HELP DESK:**

If there are any questions, please call ABC Customer Care & Parts Source toll-free for guidance on 1-877-427-7278. Listen for the prompts for warranty and select that option.

**DISCLAIMER:**

The procedures contained herein are not exclusive. Van Hool cannot possibly know, evaluate, or advise the transportation industry of all conceivable ways in which a procedure may be undertaken or of the possible consequences of each such procedure. Other procedures may be as good, or better, depending upon the particular circumstances involved. Each carrier who uses the procedures herein must first satisfy itself thoroughly that neither the safety of its employees or agents, nor the safety or usefulness of any products, will be jeopardized by any procedure selected.

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### **INFORMATION HANDLING:**

Important supplements to and modifications of technical information not yet included in the manual, are communicated by means of Service Bulletins.

### **VAN HOOL CUSTOMER PORTAL:**

Consult the customer portal regularly for the latest service documentation. In addition to the maintenance manual, you will also find the operating manual and the spare parts catalogue of your vehicle **on** the customer portal. The customer portal is accessible through [www.vanhool.be](http://www.vanhool.be), and only with a code (password) from Van Hool. If you do not have a password yet, request it by using the link on the Van Hool website.