

ADDRESSEES	: ABC Customer Care and Parts Source Owners and operators of coaches listed under 'Application'
VEHICLE MODEL	: CX45
SYSTEM/SUBSYSTEM	: 08.14 Climate control – Condenser
BULLETIN TYPE	: Field Change Program
DATE	: October 07, 2015
SUBJECT	: Condenser fan relay failure
TERMS & CONDITIONS	: Refer to the warranty section further in this Bulletin.

APPLICATION:

Model	VIN
CX45	48200→48774, 48875→48924

DESCRIPTION:

- Field reports have determined that there is a frequent failure of the 50 Ampere condenser fan relay K21M located in the junction box EKV.
- To address this issue, Van Hool is conducting a Field Change Program, the terms and conditions of which are explained further on under "Warranty".
- Owners and operators of the affected units should follow the procedure below to replace the condenser fan relay.
- From vehicle 48925 onwards, the vehicles are factory equipped with the new 150 Ampere relay (VH11374693) for the condenser fan control.

NOTE: If you have already performed this retrofit or you have used relay VH660752200 as replacement, no action is required.

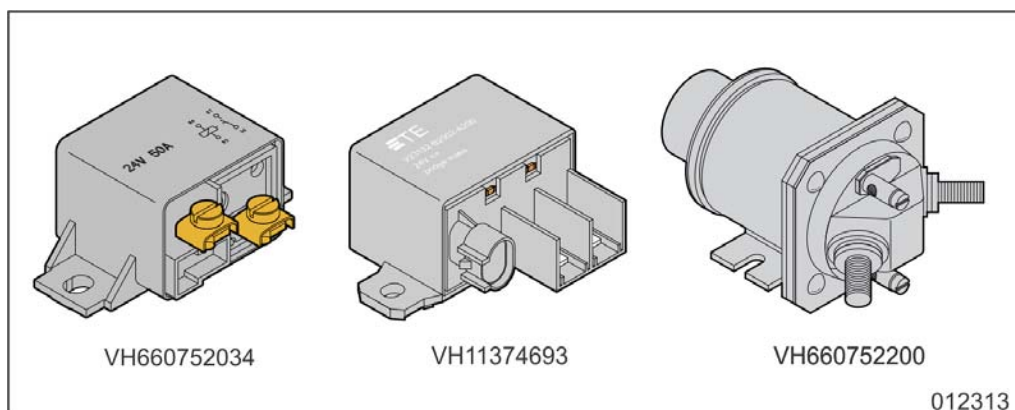


Figure 1: Condenser fan relay (left: 50 amp version; center: 150 amp version; right: 80 amp version)

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MATERIAL:

Old parts

VH Reference	Description	Qty.
660752034	Relay (50A)	1

New parts (retrofit kit 11480894)

VH reference	Description	Qty.
11374693	Relay (150A)	1
10970029	Connecting plug	1
10970074	Contact pin	2
10970038	Seal	2
11392122	Ring terminal (M6/16mm ²)	1
11060889	Ring terminal (M6/6mm ²)	1
660203101	Nut	2
660636300	Helical lock spring washer	2
660777436-100	Heat shrink tubing (red)	1

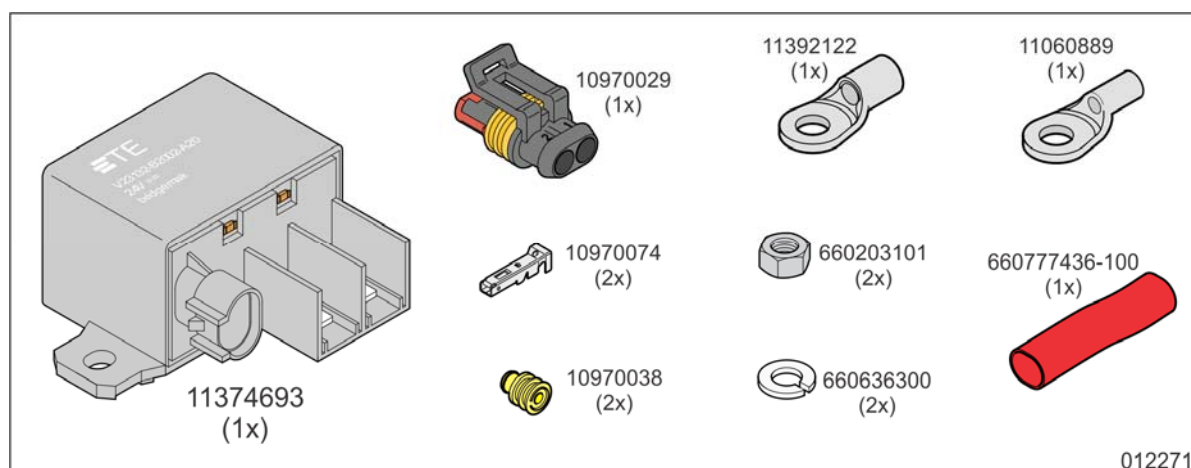


Figure 2: Identification of retrofit kit parts

- Material may be purchased through regular channels.
- Once the minor modifications are made, the 50 amp relay is no longer usable.
- Parts/Waste disposal: discard old material according to applicable environmental regulations.

PROCEDURE:

1. General:

- This job has to be carried out by a technician proficient in automotive electrics.
- If you do not have the expertise to carry out present procedure, do not hesitate to go to your nearest ABC Customer Care & Parts Source service center.

2. Special tools, equipment or services:

This job requires the use of special crimping tools.

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3. Preparations:

- Park the coach safely, apply the parking brake, stop the engine, switch off all systems and turn off the battery master switch. Turn off the mechanical battery switch.
- Read the entire procedure before beginning to work.



WARNING!

Observe safe shop practices at all times.

4. To change condenser relay K21M:

- Open the luggage compartment door giving access to the EKV junction box. Remove the bottom plate of the junction box and locate the K21M condenser fan relay.
- With cutter pliers, cut-off all wires attached to the K21M relay, as close as possible to the two ring terminals and the multi-wire connector.
- Undo and remove the two screws securing the relay to the switchboard. Remove the relay.
- On the same spot where the old relay used to be, drill two new 5/32 inch (4 mm) holes in the switchboard and attach the replacement relay with the screws removed in step 3.
- For the red wires:** slide a piece of red heat shrink tubing 660777436 from the kit on both red wires. Strip back the wires. With a crimping tool, fit ring terminal 11392122 from the kit to the thickest red wire, ring terminal 11060889 from the kit to the other red wire. Insulate the ring terminal bodies by heating the shrink tubing. Connect the red wires to the relay stud terminals by using helical spring lock washers 660636300 and nuts 660203101 from the kit. Tighten the nuts to a torque of 3.5 ft.lbf (5 Nm).
- For the green and brown wires (refer to figure 3):** slide a wire seal 10970038 from the kit over each wire. Strip back the wires, and crimp a terminal 10970074 from the kit onto each wire. Insert the terminal of the brown wire in contact number 2 of the connecting plug, the green wire in contact number 1. After insertion of a terminal, pull back the wire lightly to check if the terminal is securely locked in position. Push the red anti-back out device into the connecting plug. Connect the connecting plug to the relay.

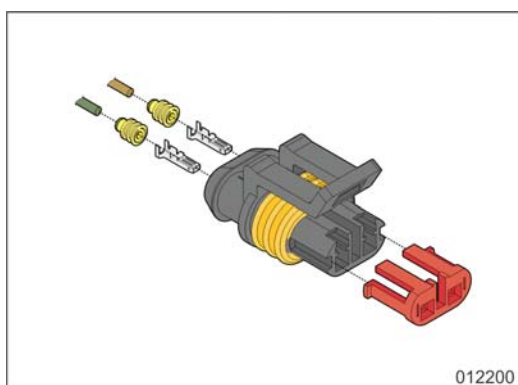


Figure 3

Procedure complete.

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WARRANTY:

1. Terms and conditions:

Van Hool will accept warranty claims for this repair as follows:

Parts: parts will be supplied through regular channels, free of charge.

Labor allowance: 30 minutes for labor will be awarded per coach repaired.

Campaign expiration date: Service Bulletin issue date + 1 year.

2. Claim references:

- Causal part: 660752034
- Job code: O06110N

Claim submission: Contact ABC Customer Care Warranty Department for guidance.

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.

INFORMATION HANDLING:

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

File the Service Bulletins at the back of your manual, in numerical order.

To make sure that you will be reminded of the Bulletins that have appeared in the meantime while paging the manual, mark the pages concerned by hand with the Service Bulletin number.

VAN HOOL CUSTOMER PORTAL:

Consult the Van Hool customer portal for the latest service documentation. Beside 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, under menu point "Service" 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.