VANHOOL

Service Bulletin No. 1049

MODEL: T2100 Series

TYPE: Service information

MANUAL &

SECTION: Maintenance Manual: Chapter 10 - HVAC system

Spare Parts Manual: Section 772309: Air conditioning

DATE : July 31 st, 2000

SUBJECT: K21M condenser relay

CONDITIONS: Parts may be purchased from your nearest International Coach Parts Inc. Dealer. This Bulletin is not a part of a campaign. Note that claims with reference to this Bulletin will only be accepted for coaches with K21M relays malfunctioning during the warranty period.

DESCRIPTION:

The condenser fans are switched by relay K21M, located on the HVAC switchboard, at the back of the luggage compartment. Two versions of this relay have been used in production: earlier coaches have a 50 amp black plastic box type fitted (VH 10627940 see Figure 1); on later coaches an 80 amp zinc plated cylinder type (VH 660752200 see Figure 2) has been installed. The chart below shows the units from which onwards the change is effective.

Whenever a malfunctioning black box type relay is replaced, it is recommended to use the zinc plated cylinder type relay as a service replacement part.

Old and new parts are interchangeable, provided minor modifications are made. Refer to the service procedure in this Bulletin for modification instructions.

Туре	Engine	Old switchboard #	New switchboard #	VIN cut in
T2100	Cummins	Sütrak 6550.20055-03-3	Sütrak 6550.20055-04-3	44058
T2100	Detroit Diesel	Sütrak 6550.20055-03-3	Sütrak 6550.20055-04-3	43959

PARTS:

Part No.	Description	Qty.
VH 10627940	Condenser relay K21M, 50 amp Sütrak # 26.01.17.111	1
/H 660752200 Condenser relay K21M, 80 amp Sütrak # 26.01.12.206		1

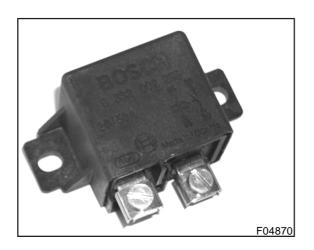


Figure 1 : old style condenser relay (VH10627940)

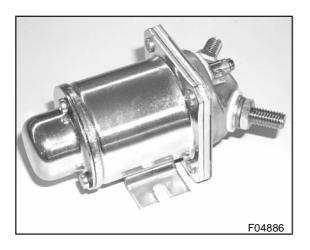


Figure 2 : new style relay (VH 660752200 - recommended)

SERVICE PROCEDURE: To replace K21M relay

CAUTION
OBSERVE SAFE SHOP PRACTICES AT ALL TIMES. READ ENTIRE PROCEDURE BEFORE BEGINNING TO WORK.

1. Park the coach safely on a level surface, apply the parking brake, shut-down the engine and turn-off the battery master switch. Put a "DO NOT OPERATE" tag on the instrument panel.

- 2. At the back of the main luggage compartment, open the access door to the switchboard in the HVAC junction box. Locate the K21M condenser fan relay on the upper right-hand part of the board.
- 3. Pull back the cover of the wire duct below the relay. Temporarily tie up the bundle of red 14AWG wires going from the right-hand relay terminal to the fuses below the cable duct (see 1, Figure 3).

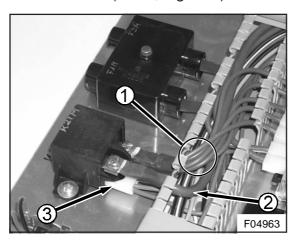


Figure 3 : old style relay

- 1. Red 14AWG wire bundle
- 2. Red 4AWG wire
- 3. Multiwire connector

- 4. With cutter pliers, cut-off all wires attached to the K21M relay, as close as possible to the two ring terminals and the multiwire connector (see 1, 2 and 3, Figure 3).
- 5. Undo and remove the two sheet metal screws and plain washers securing the relay to the switchboard. Remove the relay.
- 6. On the same spot where the old relay used to be, drill two new 1,5 mm / 1/16 inch holes in the switchboard and attach the replacement relay with the sheet metal screws and the plain washers as shown in Figure 4.

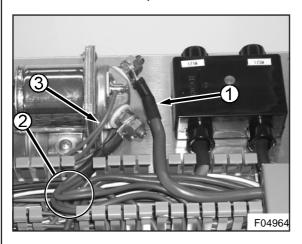


Figure 4: new style relay installation

- 1. Red 4AWG wire
- 2. Red 14AWG wire bundle
- 3. Twin green wires

- 7. Strip back the wires. With a crimping tool, fit a new ring terminal (8mm / 21/64 inch) to the bundle of 14AWG red wires and to the 4AWG red wire respectively. Insulate the ring terminal bodies with shrinking sleeve. Connect these wires to the relay stud terminals (see Figures 4 and 5).
- 8. Connect the two green wires from the multiwire connector to terminal # 50 of the new relay. Connect the brown wire to terminal # 31 (see Figures 4 and 5).

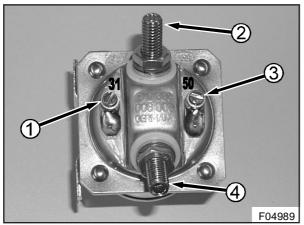


Figure 5 : new style relay connections

- 1. Brown wire to terminal #31
- 2. Red 14 AWG wire bundle terminal (no mark)
- 3. Twin green wires to terminal # 50
- 4. Red 4 AWG wire bundle terminal (no mark)

9. Refit the cable duct cover. Check the condenser fan operation. Close the access door to the HVAC junction box.

Service procedure complete.

SERVICE INFORMATION:

- 1. Old and new parts are interchangeable, provided minor modifications are made.
- 2. Only new parts will be offered as service replacements for this application.