

Installation **CDC** Information

A I R C O N D I T I O N I N G C O N V E R S I O N

All 1973, '74, '75 and early '76 GMC Motorhomes had one major fault in common. The dash air conditioning system did not create sufficient cold air flow to cool the coach even on moderate days. In late 1976 General Motors solved this problem by reducing the system on all later coaches at the time of original manufacture. The basic problem was not with the condenser, compressor or the mechanics of the airconditioning system, but rather the way the system was vented and ducted. GM engineered and manufactured a retro fit kit which could be installed on the earlier model coaches to greatly improve the cold air flow.

CLASCO Manufacturing has remanufactured this obsolete update kit and offer it for those who would wish to update their old system to the later GM standard. This is not a simple job for amateurs, but can be accomplished by any reasonably competent mechanic with ordinary tools. It does require removing the evaporator housing, but does not require anything more complex than any ordinary workshop can perform. The installation of this conversion kit nearly triples the apparent cold air flow in your Motorhome. The savings obtained by not having to run your generator and roof air to cool the coach on moderate days can very quickly pay for the cost of this conversion.

Everything necessary for the installation of this conversion is provided in the conversion kit.

A new field service procedure for improved efficiency of the chassis air conditioning system has been developed. This additional ducting basically reroutes conditioned air over the evaporator coil when the system is set on the "Recirc" mode.

PROCEDURE

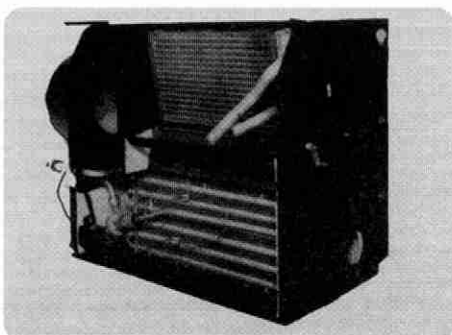


Figure 1

1. Remove the evaporator and heater core assembly as outlined in Section 1, Page 1-62, of the GMC Motor-Home Maintenance Manual.
NOTE: For easy access, remove grill.
2. Remove the evaporator and heater core assembly as outlined in Section
3. Remove plastic bottom and steel holding strap (Figure 2).

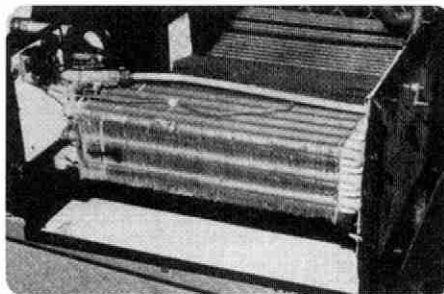


Figure 2

4. Carefully remove thermostat sensing tube from the evaporator core and bend it out of the way. Remove the heater core and evaporator core. The evaporator is best removed leaving the expansion valve connected (Figure 3).

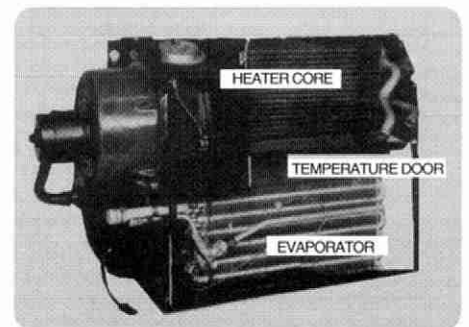


Figure 3

5. Remove screws holding the vertical center support panel. Be careful not to lose the temperature control door stop (Figure 4).

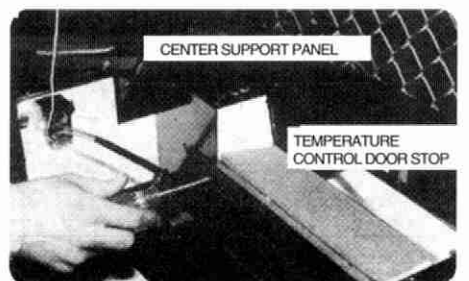
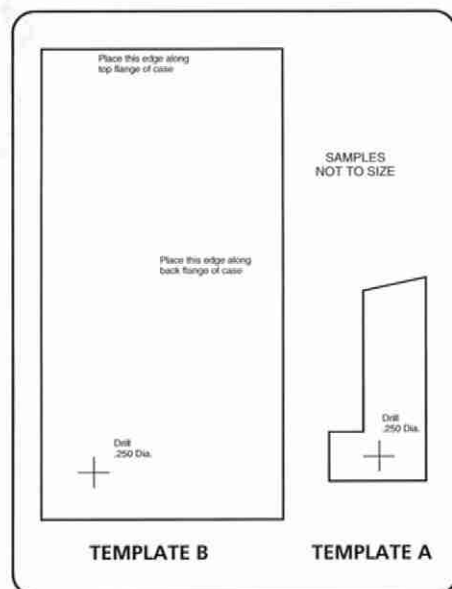


Figure 4

6. Remove "recirc" door vacuum actuator and bracket. Remove the spring nut and linkage connecting the "recirc" door and the actuator. (Figure 5).



Figure 5



7. Gently pry the front of the center support panel to the left, and the rear of the panel to the right. This will cause the panel to come free and the "recirc" and temperature control doors to drop out of their supporting holes in the center support panel (Figure 6).

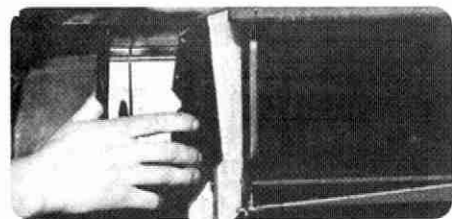


Figure 6

8. Place template "A" so its tapered edge lines up with the bottom edge of the inside of the center support panel at the lower rear corner as shown



Figure 7

(Figure 7). Punch and drill a 1/4" hole where indicated by the template. Using the same template "A", fold the "L" portion of the template over the edge and mark with an awl as shown in (Figure 8). Cut this piece away to give clearance for new bell crank which will be installed later.



Figure 8

9. Plate template "B" on the evaporator housing right end panel (opposite the blower motor) as indicated on the template and shown in Figure 9. Punch and drill a 1/4" hole where indicated.

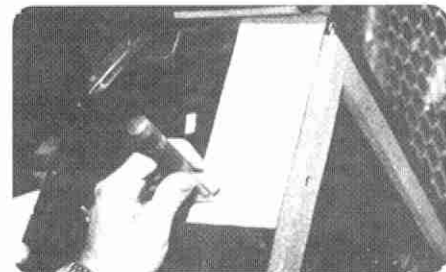


Figure 9

10. Lay the evaporator housing so the inboard portion, the side facing the firewall, is up. Starting at the lower left corner, mark off a 2-1/2" x 11-3/4" slot. You may wish to drill the corners for easier cutting. Cut the slot out (Figure 10).

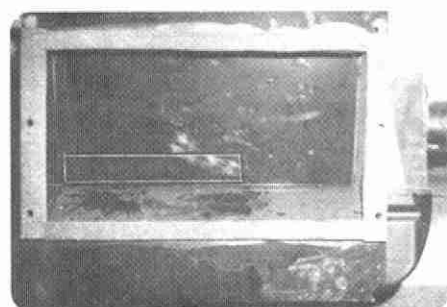


Figure 10

11. Enlarge the hole in the vacuum actuator lever to 15/16" (Figure 11). This is done to accommodate the new linkage which will be attached from the actuator to the new auxiliary temperature control door.



Figure 11

12. Pop rivet end baffle to top baffle. Using the assembled baffles as a template, mark and drill 1/8" holes into the inner wall of the evaporator housing and pop rivet into place over the hole cut in Step 10 (Figure 12).



Figure 12

13. Rubber cement foam rubber seals into place on the installed baffle assembly (Figure 13).

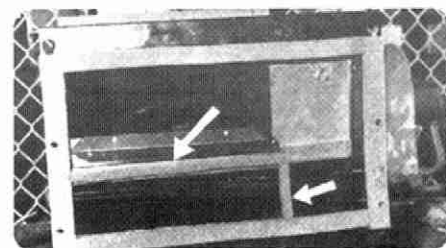


Figure 13

14. Install new auxiliary temperature door to the center support panel. This is done by putting the door shaft with the flat end through the 1/4" hole drilled in Step 8 and attaching the new bell crank to it by tapping it on (Figure 14).

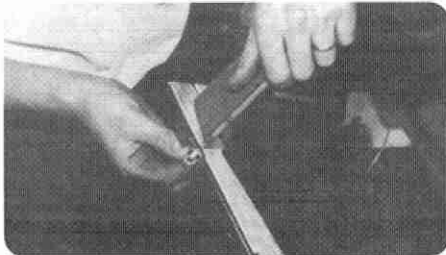


Figure 14

15. With the auxiliary temperature door installed to the center support panel, put the center support panel back into position. At the same time, make sure that the other end of the auxiliary temperature door shaft fits into the 1/4" hole drilled into the housing end panel created in step 9. Also make sure the temperature control door shaft goes back into its position in the center support panel (Figure 15).

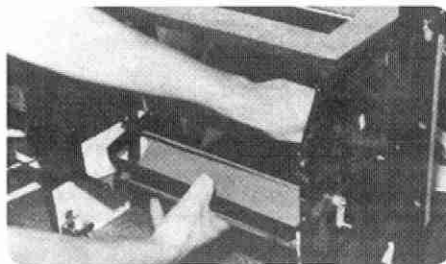


Figure 15

16. Screw center support back into place, making sure not to forget the temperature control door stop. Do not install the two screws behind the "recirc" door as they will be used later to hold the "recirc" door in position.

17. Install evaporator.

18. Install heater core.

19. Install vacuum actuator and bracket.

20. Install plastic bottom panel and metal shop

21. Install thermostat probe into the evaporator core.

22. Install plastic connecting link clip onto vacuum actuator lever (Figure 16).

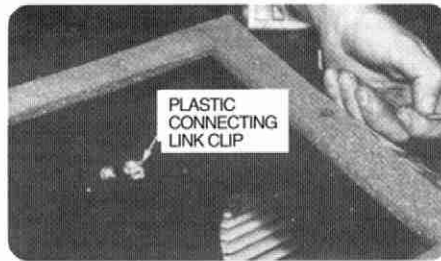


Figure 16

23. Install plastic clip to the new bell crank on the auxiliary temperature door.

24. Make sure the auxiliary temperature is held in the closed position and install the connecting link rod with a slight preload tension on the actuator to make sure the door remains closed. Install retainer clip over the clip (Figure 17).

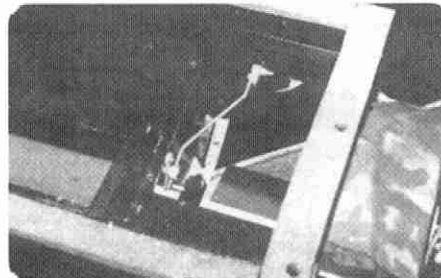


Figure 17

25. Cut the end of the "recirc" door pivot off. Place the "recirc" door, with the foam insulation down, over the former "recirc" hole on the inner wall of the evaporator assembly (Figure 18).



Figure 18

26. Using the remaining two center support panel screws, add a flat washer and reinstall from the inside to hold the "recirc" door in place (Figure 19).

All necessary modifications to the evaporator assembly are now complete.

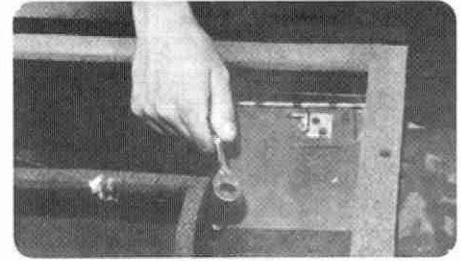


Figure 19

27. Before reinstalling the evaporator assembly to the motor home, it will be necessary to cut a 5/8" x 11-3/4" section out of the existing air passage hole in the firewall (Figure 20). The remainder of the hole should be covered by pop riveting a piece of sheet metal over it (Figure 21).

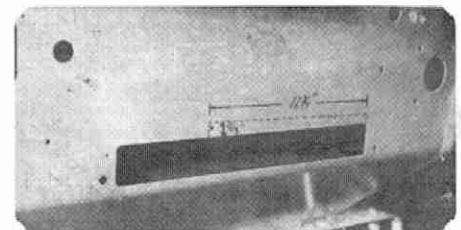


Figure 20

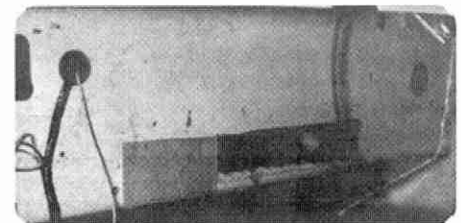


Figure 21

28. Reinstall the evaporator housing to the firewall and make all electrical and refrigerant hose connections.

29. Install "U" nut in duct assembly (Figure 22).



Figure 22

30. Before reinstalling trim pieces and bezels into duct assembly, place the duct assembly in position under the dash and, using an awl, mark the

location of the "U" nut on the glovebox where marked (Figure 24).

31. Install bezels into duct assembly (Figure 25).

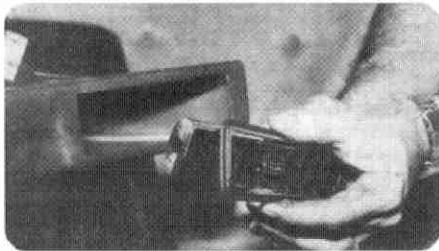


Figure 23



Figure 24

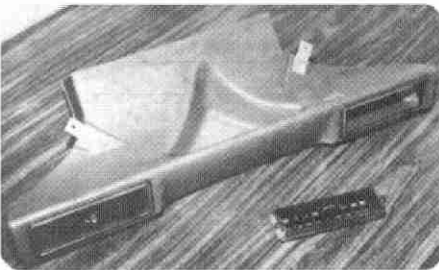


Figure 25

32. Remove lower left glovebox screw (Figure 26). This screw will be used to hold the right side attaching tab on the duct assembly.

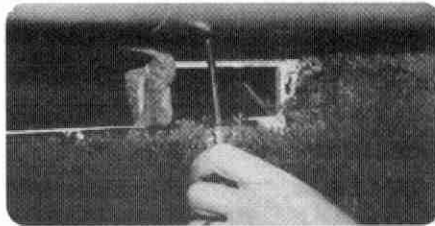


Figure 26

33. Remove and discard carpet trim strip around "recirc" hole (Figure 27).

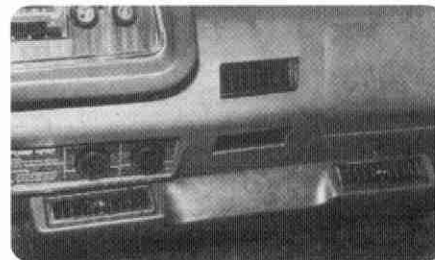


Figure 27

34. Install duct assembly making sure to get it through the enlarged hole in the firewall to prevent air loss. It may be necessary to trim some excess carpet. Left tab is screwed into instrument panel. Don't forget to install screw into "U" nut from inside the glovebox (Figure 28). Installation of duct assembly is now complete (Figure 29).

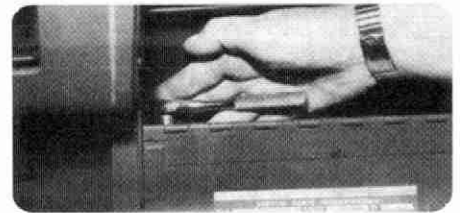


Figure 28

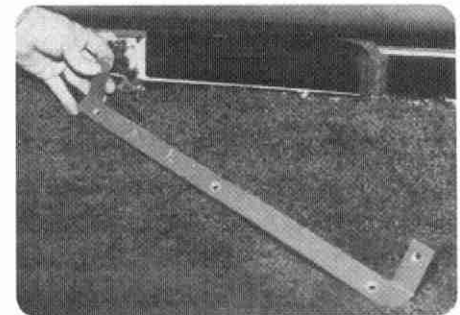


Figure 29

35. Remove the instrument panel cover; exposing the back of the temperature control panel. If equipped, disconnect the wire leading from the lower blade on the blower switch to the rotary switch. Disconnect it at the blower switch as the other end is crimped and soldered. The wire is orange with black stripes.



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