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ENGLISH

## **REMOTE AUXILIARY AIR CONDITIONING AND AIR DISTRIBUTION FOR PETERBILT 379 CHASSIS**

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### **INSTALLATION GUIDELINES**

for Peterbilt Truck Model 379 with a 70" Sleeper

Dometic Environmental Corporation

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## **INTRODUCTION**

This document contains supplemental guidelines for installing the Qt-series control and air distribution for the Dometic auxiliary air conditioning system on a Peterbilt 379 chassis with a 70" sleeper. It is intended to be used in conjunction with the standard installation manual, which covers all other aspects of installing, testing and operating this system.

These are suggestions based on previous installations. Please be creative in your installation, but keep functionality and safety in mind. Key issues are: evaporator discharge venting, evaporator return air and condenser air flow. Other issues include: controls accessibility, condensate removal and wire and hose chafe protection.

Do not attempt to install any components until you read and understand the instructions in both manuals.

**LOCATING THE COMPONENTS**

The Dometic remote auxiliary air conditioning system consists of two basic components: an outside condensing unit, which contains the condenser and an exhaust fan, and an inside unit, which contains the compressor, heater, evaporator and blower (CHEB). The two units are connected by precharged refrigerant lines with quick-connect fittings.

Determine where best to install the CHEB (Fig. 1). Refer to the manual that came with the CHEB for more information. Keep in mind that the driver's side luggage box is probably one of the most used storage areas, so for your ongoing storage convenience, consider the passenger's side luggage box, then the center storage area, and lastly the driver's side box for CHEB installation. Use the CHEB template to determine the best place to mount the unit.

The Dometic condenser may be installed either under or behind the sleeper (Figs. 2a-2b).

**IMPORTANT!**  
**Refer to the Dometic installation manual for details on installing and connecting the CHEB and condensing unit.**



Figure 1 - CHEB installed in luggage compartment



Figure 2a - Condensing unit mounted under truck



Figure 2b - Condensing unit mounted on back of sleeper

### INSTALLING THE CONTROL

#### Installing the Control/Display Panel

Mount the control in such a location as to give the driver good access. The suggested location would be near the current HVAC controls, however, that may be very tough on some models (Figs. 3a-3b). Route the CXP cable through the wall or cabinet and into the luggage compartment, then to the rear of the bunk for later connection.



Figure 3a - Control/Display panel mounted



Figure 3b - Alternative Control/Display panel mounting location

**Installing the Power Logic Box**

The Power Logic Box (PLB) is commonly mounted on the front wall of the driver's side luggage box (Fig. 4). The PLB should be mounted in a relatively accessible location, within about 4 feet of the CHEB unit. The PLB comes with a mounting plate for mounting to a vertical surface. If you want to mount to a floor or other horizontal surface, remove the mounting plate (Fig. 5). The PLB must be mounted in a vertical position, see the label on the box for more information.



Figure 4 - Possible PLB mounting location

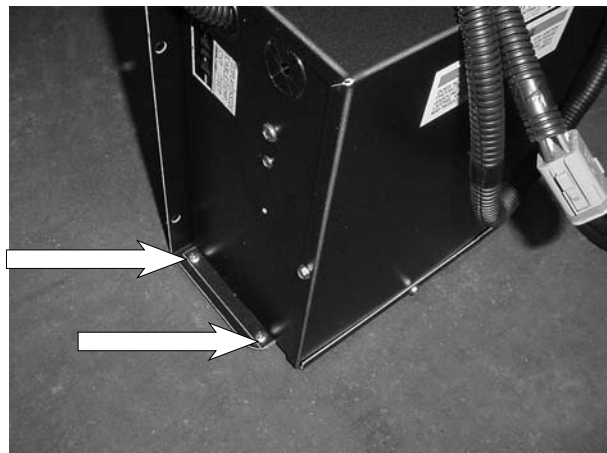


Figure 5 - Fastener location on PLB

## ROUTING CABLES

The box contains several types of cables:

- Wires enclosed in split loom
- Flexible power cables
- Phone-type cables

The wires in split loom go to the CHEB unit. The flexible power cables go to the power distribution panel. The phone cable mounted on the CHEB unit plugs into the hole marked TSEP. The phone cable from the Control/Display plugs into the hole marked Display.

All cables should be neatly routed and clipped to prevent chafing.

### ***IMPORTANT!***

***Refer to the Dometic installation manual for details on routing and connecting cables from the Control/Display panel to the PLB and CHEB.***



**INSTALLING THE RETURN AIR VENT**

The supplied return air vent(s) should be installed under the bunk, in the same area where the CHEB will be mounted. Your package may contain either one large grill with a mounting frame or two smaller 12.5" x 5.5" surface-mount grills. We suggest using a hole saw and reciprocating saw to cut out the hole for the large grill. If you received the two 12.5" x 5.5" grills instead of the one large grill, use a 4" hole saw to cut at least two holes behind each grill. Use of the reciprocating saw is optional for those grills (Figs. 6-8).

***Remember, good air flow from the return air grill to the CHEB evaporator coil is critical for your air conditioning system to perform correctly. Do not allow anything to block this air flow.***

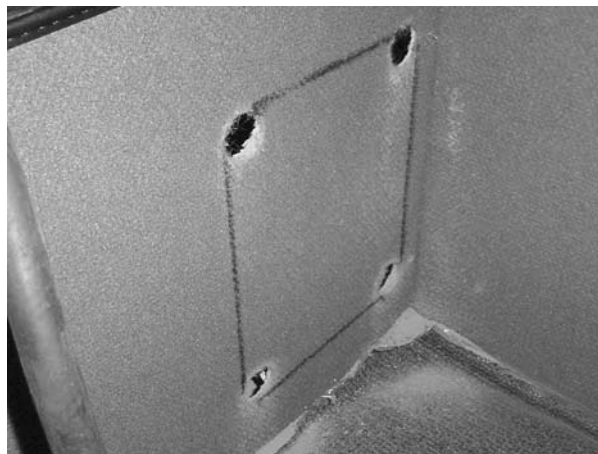


Figure 6 - Location for cutting return air vent



Figure 7 - Return air vent hole cut



Figure 8 - Return air grill flange installed

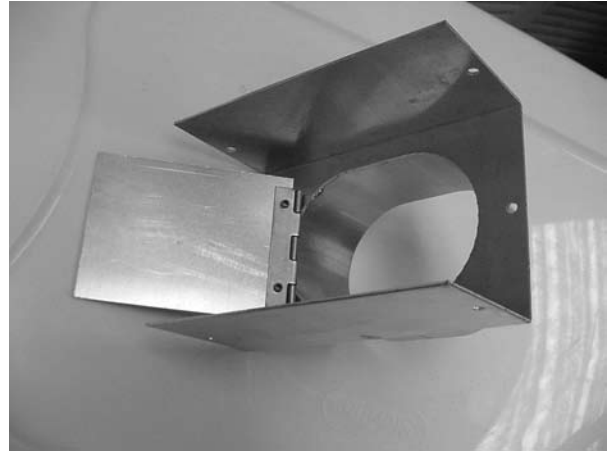
### INSTALLING THE SUPPLY AIR DISTRIBUTION

For this installation, we will install 4" ducts. Depending on the capacity of the system, you may have two or three vents supplied. You must use all vents supplied with the kit to get the rated air flow out of the system.

This kit comes with a duct combiner that allows one 4" duct to be vented into the truck's pre-existing air distribution system. Find the combiner (Fig. 9), and mount to the bottom of the plastic duct that runs from the truck's HVAC unit to the rear wall of the sleeper. You will have to cut out the duct so that the flapper damper can operate. Secure with screws.

The remaining 4" grill(s) can be located wherever you choose, however, be aware that cold air falls and hot air rises. It is best to install at least one vent high in the cab. Be creative. Use existing features to mount grills or hide ductwork, such as: cabinets, closets, bunk tray at the foot of the bed, wire chases, etc. The bunk tray is a good way to use what is existing:

- On the 379, 70" sleeper, remove the bunk tray at the foot of the bed. Cut a 5" hole in the metal below, and a 4" hole in the bunk tray in the same area. Mount one 4" vent into the bunk tray. Run the 4" duct up through the hole in the metal, and connect to the grill with a hose clamp. Replace the bunk tray.



*Figure 9 – Duct combiner*

**Installing the Plenum on the CHEB**

Using a 1/4" nut driver, remove the plastic 7" (or 5") oval hose adaptor. Find the 4" x 4" x 4" (or 4" x 4") distribution plenum. Reinstall the screws into the new plenum (Fig. 10).

***IMPORTANT!***

***Refer to the Dometic installation manual for details in connecting ductwork to the discharge grills.***

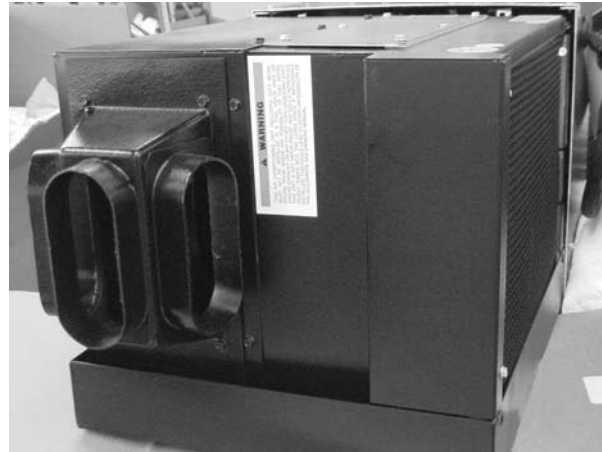


Figure 10 - Installing the plenum on the CHEB



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