

CHAPTER 11

ENVIRONMENT CONTROL |

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CHAPTER 11

ENVIRONMENT CONTROL

11-00 Description

Fresh air vents are located in each door and in the nose. Door vents are opened and closed using the knob near the vent door hinge. On earlier aircraft, pushing in on the knob will seal and lock the door vents closed. On later aircraft, a rotating knob is provided to lock the vents. For maximum ventilation, open door vents wide during hover but only one inch or less during cruise. The rotating knob can be used to hold vents partially open.

The fresh air inlet in the nose is opened by pulling the cabin air knob on the console face. Air from the nose inlet is directed along inside surface of the windshield for defogging as well as for ventilation.

A cabin heater is optional. It consists of an air outlet mounted on the left side of the engine cooling fan scroll, a muffler heat shroud, a control valve at the firewall, an outlet grille forward of the pilot's seat or forward of the tail rotor pedals, and interconnecting ducting. Earlier heaters used an electric blower, located on the left side of the engine compartment, and a blower switch, located on the ledge forward of the pilot's seat, for air. A push-pull control, located on the ledge forward of the pilot's seat, actuates a valve which directs heat either into the cabin or out an overboard discharge on the cabin underside.

NOTE

For earlier heaters that use an electric blower for air, the heater shroud may be removed during warm seasons (when heater is not in use) to prolong muffler life. Current production heaters provide constant cooling air to muffler via the cooling fan scroll and are designed to remain installed.

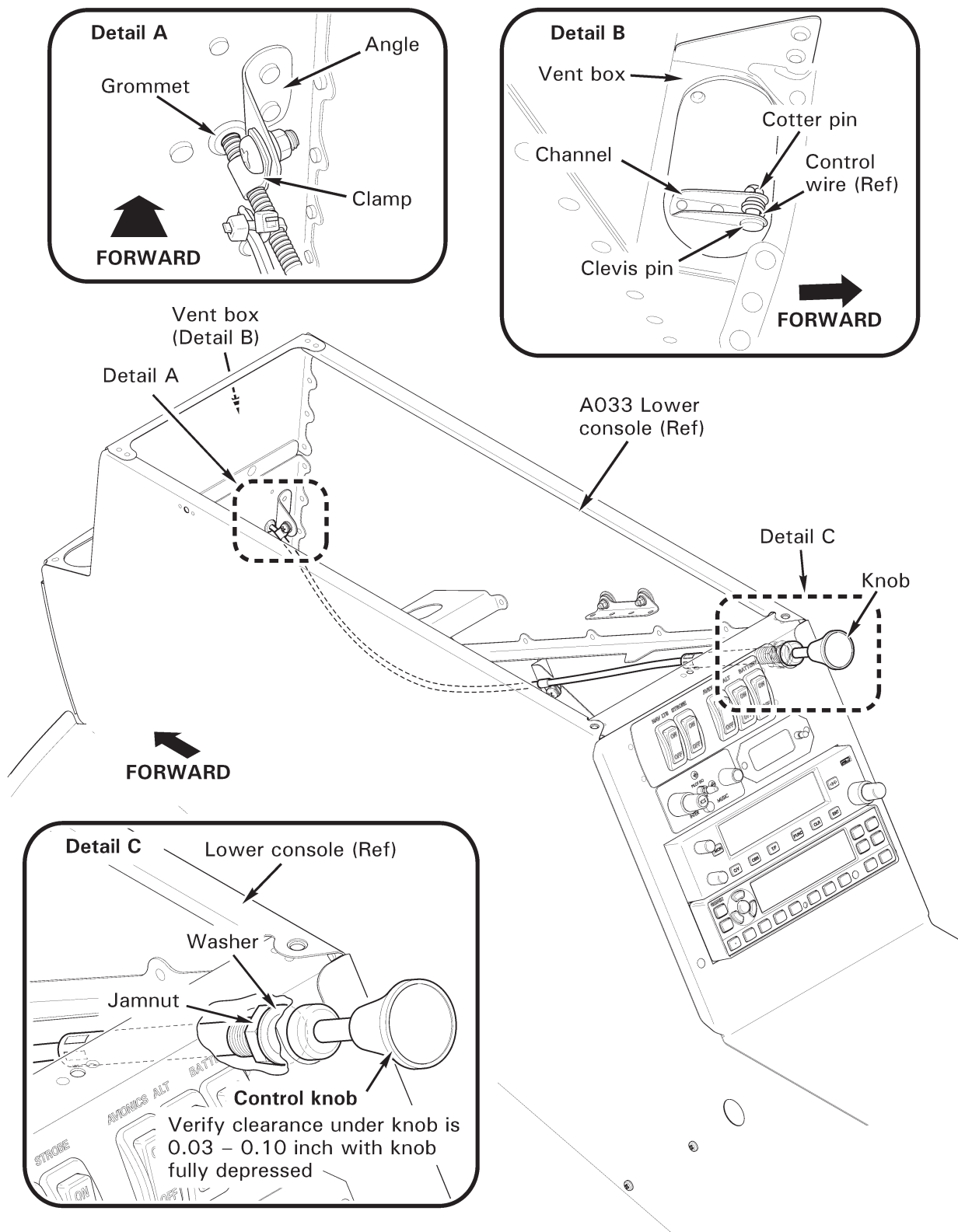


FIGURE 11-1 NOSE VENT

11-10 Ventilation

11-11 Nose Vent

A. Removal

1. Refer to Figure 11-1. Remove Aspen PFD per § 13-61, if installed. Remove screws securing upper console to lower console and tilt upper console aft. Protect instrument face with foam support or equivalent.
2. Remove battery per § 33-10 as required.
3. Remove and discard cotter pin securing clevis pin and A522-1 (air vent) control inner wire to vent box flap assembly. Remove and retain clevis pin.
4. Remove hardware securing AN742-3 clamps and control housing to lower console assembly.
5. Remove jam nut and lockwasher securing control (at knob) to lower console assembly; remove clamps and grommet as required and remove control.

B. Installation

1. Refer to Figure 11-1. Position A522-1 (air vent) control in lower console, install lockwasher and jam nut on control, and tighten nut against console support assembly. Verify security.
2. Install MS35489-4 grommet in vent box flap assembly.
3. Secure control inner wire to vent box flap assembly using clevis pin and (new) cotter pin. Verify security.
4. Install hardware securing AN742-3 clamps and control housing to lower console assembly. Verify security.
5. Actuate vent and adjust clamp position as required for proper vent operation. Verify control housing does not slip through clamp when opening and closing vent. Verify clearance under knob is 0.03–0.10 inch with knob fully depressed (closed).
6. Install battery per § 33-10 if removed.
7. Tilt console forward and install screws securing upper console to lower console. Verify security. Install Aspen PFD per § 13-61, if removed.

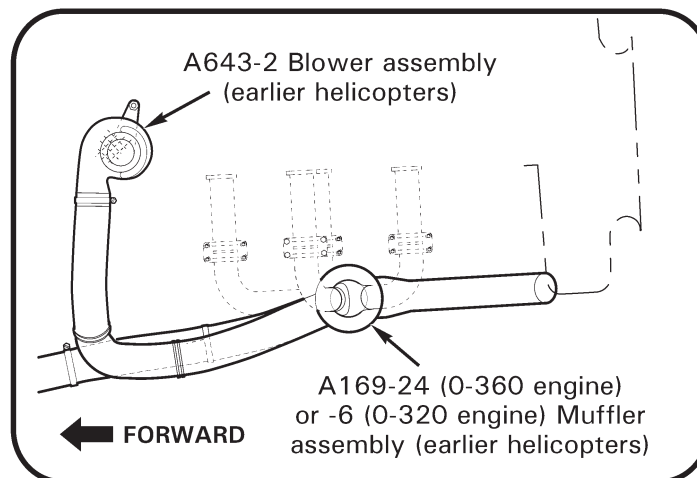
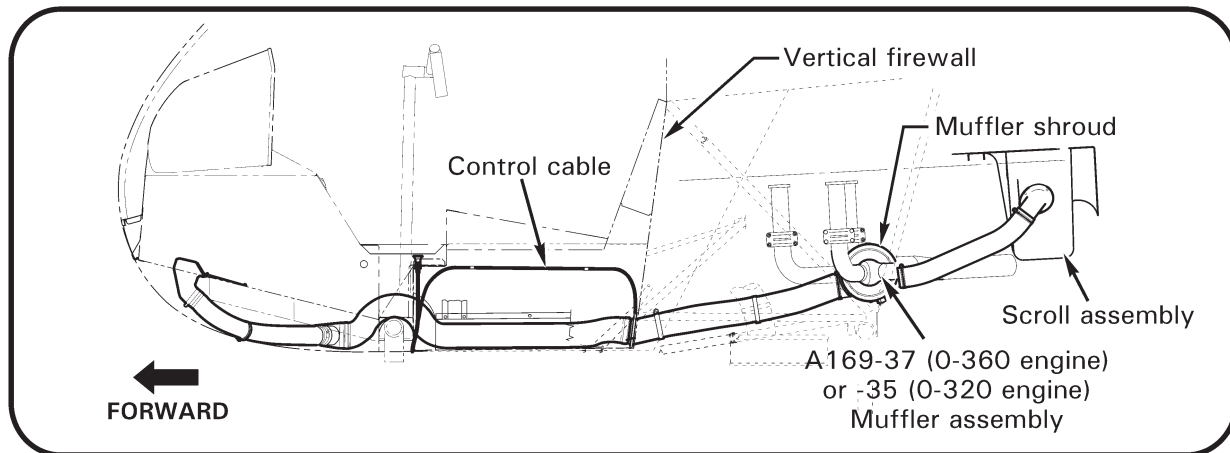
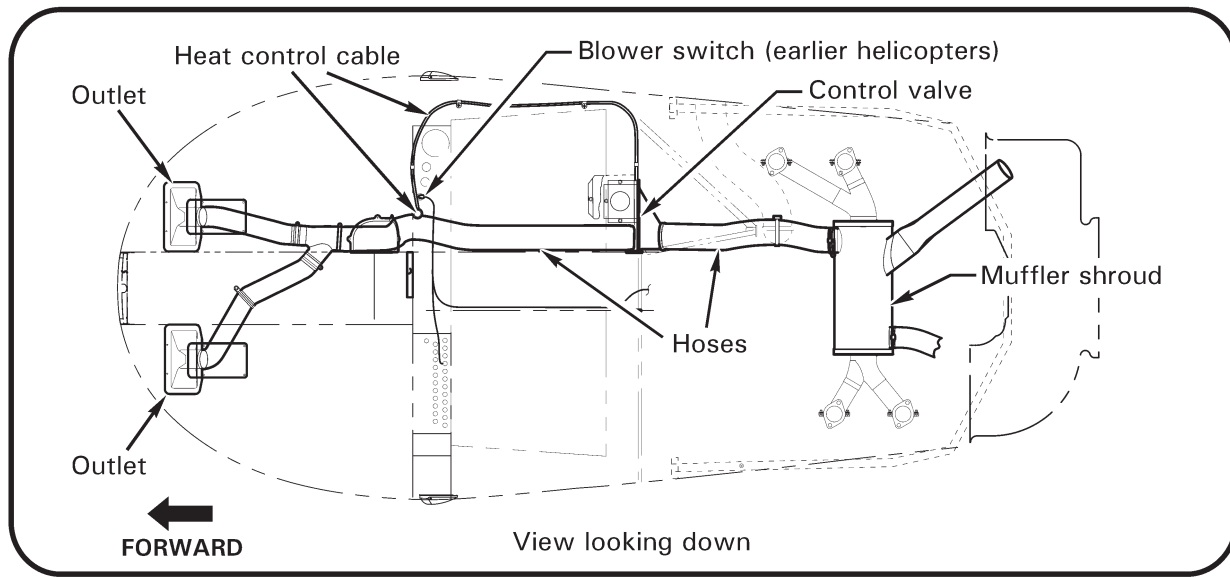


FIGURE 11-2 CABIN HEATER

11-20 Cabin Heater

11-21 Heater Shroud

A. Removal

1. Loosen clamps and disconnect hoses from heater shroud. Temporarily cover open hoses to protect system from contamination.
2. Remove exhaust system per § 6.510.
3. Remove screws securing shroud to muffler and remove shroud.

B. Installation

1. Install shroud on muffler and install screws. Verify security.
2. Install exhaust system per § 6.520.
3. Remove temporary covers and connect hoses to shroud. Tighten clamps and verify security.

C. Configuration for Flight with Heater Shroud Removed (Earlier Helicopters):

NOTE

For earlier heaters that use an electric blower for air, the heater shroud may be removed during warm seasons (when heater is not in use) to prolong muffler life. Current production heaters provide constant cooling air to muffler via the cooling fan scroll and are designed to remain installed.

1. Remove electric blower per § 11-22 Part A.
2. Remove heater shroud per Part A.
3. Remove hoses and attaching hardware from inside engine compartment.
4. Pull out HEATER circuit breaker (10 amp) at panel, and placard as required.

11-22 Electric Blower (Earlier Helicopters)**A. Removal**

1. Remove hardware securing screen, spacer, and inlet to LH engine side skirt and blower assembly, and remove screen, spacer, and inlet. Remove LH engine side skirt.
2. Turn battery switch off and pull out HEATER circuit breaker (10 amp) at panel. Disconnect blower assembly wiring from airframe electrical harness at connectors.
3. Loosen clamp securing hose to blower assembly and disconnect hose. Temporarily cover open hose to protect system from contamination.
4. Remove hardware securing blower assembly and ground wire to frame and remove blower assembly.

B. Installation

1. Install hardware securing blower assembly and ground wire to frame, but do not torque.
2. Remove temporary cover and connect hose to blower assembly. Tighten clamp and verify security.
3. Turn battery switch off and pull out HEATER circuit breaker (10 amp) at panel. Connect blower assembly wiring to airframe electrical harness at connectors; verify security.
4. Install LH engine side skirt; install hardware securing screen, spacer, and inlet to LH engine side skirt and blower assembly (adjusting position of blower as required). Verify security. Standard torque hardware securing blower assembly and ground wire to frame, and torque stripe per Figure 2-1.