

Ceiling-Suspended Fan Coil Units 1½ to 5 Tons Accessory Condensate Pump

Cancels: New

IJK 619C-24-2
8/15/03

Installation Instructions

Part No. 53DS900-081

GENERAL

NOTE: Read and become familiar with these instructions before beginning installation.

The Condensate Pump Accessory kit is for use with 1½ to 5 ton ceiling-suspended fan coil units. The condensate pump is designed to control condensate removal from the fan coil unit. A float switch will prevent overflow while in use and act as a safety device. This pump is designed to provide a 20 in. maximum lift of condensate in situations where space and construction prevent gravity drainage. The pump will run at all times when unit is operating in Cooling mode. Refer to Table 1 for a list of parts included in this kit.

⚠ CAUTION

Failure to follow instructions properly may result in unit failure and damage.

SAFETY CONSIDERATIONS

Installing and servicing air-conditioning equipment can be hazardous due to system pressures and electrical components. Only trained and qualified service personnel should install or service air-conditioning equipment. When working on air-conditioning equipment, observe the precautions provided in literature and on tags and labels attached to the fan coil unit.

⚠ WARNING

Electrical shock can cause personal injury or death. Before beginning any modification or installation of this kit, be sure the main electrical disconnect is in the off position. Ensure power is disconnected to the fan coil unit. On some systems both the fan coil and outdoor unit may be on the same disconnect. Tag the disconnect switch with a suitable warning label.

Table 1 — Accessory Condensate Pump Kit Contents

ITEM	QTY
Condensate Pump Assembly*	1
Screw (No. 10 Size)	2
Condensate Pan Cap	1
Wire Ties	1

*Includes float switch assembly and spacer/filter.

NOTE: The following items are field-supplied and needed for installation:

- 1 — ½-in. ID flexible plastic condensate discharge hose
- 1 — Hose clamp

INSTALLATION

NOTE: For ease of installation, it is recommended that the condensate pump be installed prior to installation of fan coil.

1. Turn off all power to unit.
2. Remove decorative plastic end cap by pushing cap forward until it disengages from mounting brackets.
3. Locate condensate pump access cover and remove the 3 mounting screws as shown in Fig. 1. Save cover and screws.
4. Route electrical wires for the float switch assembly and the pump assembly (Fig. 2) into the piping connection access area. Connect the 2 white wires from the float switch assembly to TB3 on front of control box (Fig. 3). Remove white jumper and connect the Molex plug from pump assembly to PL8, also on front of control box. Use the wire tie provided to secure wires, as needed.
5. Secure condensate pump assembly as shown in Fig. 4, using the 2 no. 10 screws provided. Be sure pump intake and float is properly seated in condensate well of drain pan.
6. Cap off existing drain on condensate pan using cap provided in kit.

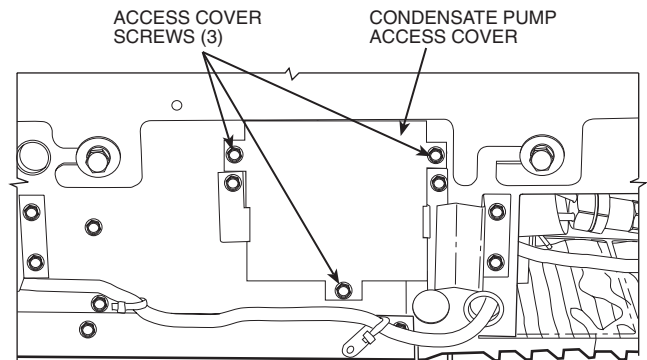


Fig. 1 — Condensate Pump Access Cover

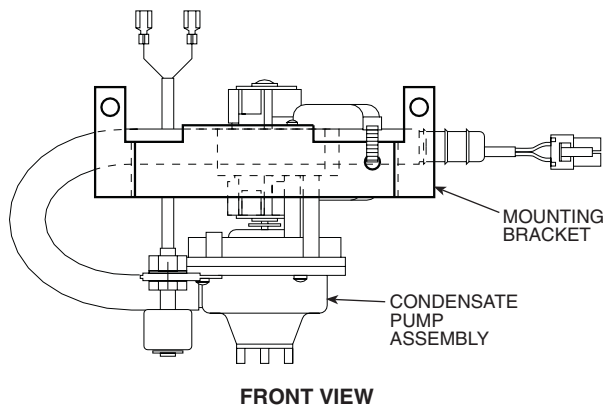
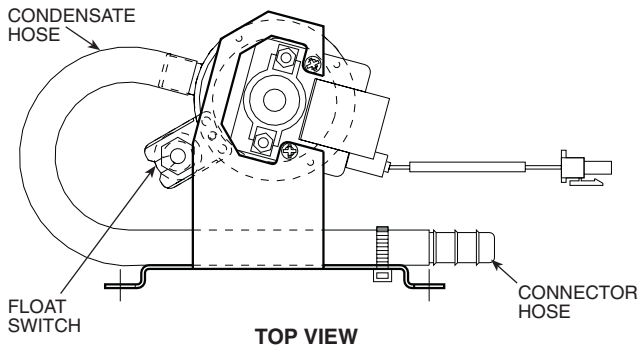


Fig. 2 — Condensate Pump

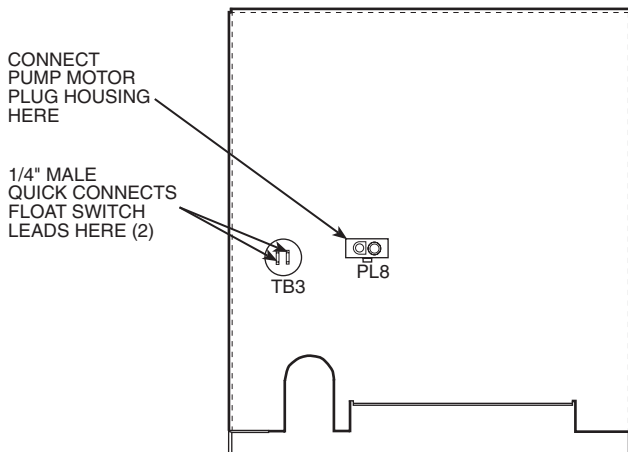


Fig. 3 — Control Box Wiring Connections

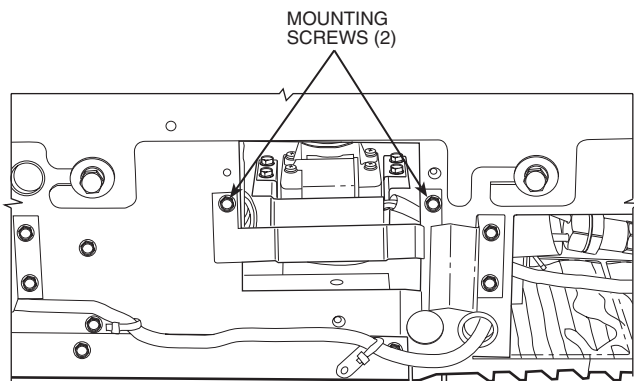


Fig. 4 — Condensate Pump Mounting

7. Attach a 1/2-in. ID flexible plastic condensate discharge hose (field-supplied) condensate pump assembly. Clamp hose to pump with hose clamp (field-supplied), if required. Route hose through piping connection access area. Provide a proper pitch from the hose to an external drain to allow for adequate drainage. See Fig. 5.

▲ WARNING

Do not exceed 20 in. height limit from pump inlet to highest discharge hose position or condensate will not drain properly.

8. Reinstall condensate pump access cover using the screws removed in Step 3 (Fig. 1).
9. Snap plastic end cap into position.
10. Test the unit. When the unit is mounted in place, the condensate pump system **must** be tested.
 - a. Be sure the unit is installed level. If possible, a slight pitch toward the condensate pump is best.
 - b. Turn the unit on. Set the thermostat below the current room temperature to run the unit in Cooling mode.
 - c. Fill the drain pan with water. Watch the tubing to ensure pump is operating. The pump should begin to operate when the water level is approximately 3/4 inch in the drain pan.

If the pump is not pumping condensate through the line, check to be sure the condensate line is not too high, plugged, or kinked. If the pump is still not working, reposition the pump to ensure the pump intake touches the bottom of the condensate pan.

- d. When the pump is working properly, test the float switch. Turn off unit power. Disconnect one of the power wires from the pump and electrically insulate the connection. Turn the unit back on and wait 3 minutes. When the unit is in Cooling mode, fill the condensate pan with water. Float switch should shut off unit cooling before the pan overflows. Reconnect power wire. If the float switch is not working properly, check wiring connections and float switch position.

For wiring information, refer to the electrical diagram on the unit control box.

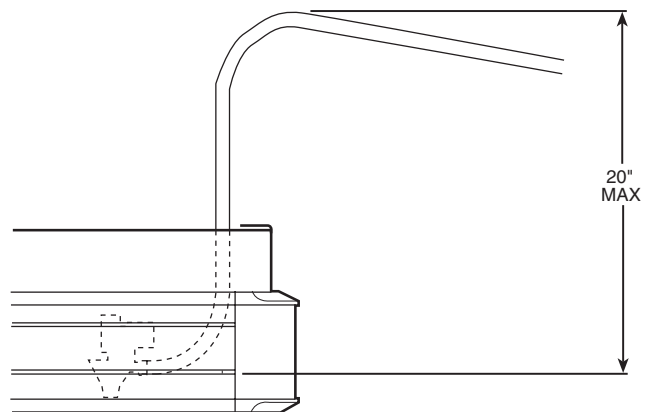


Fig. 5 — Condensate Drain