

SECTION 7

COMPONENT REMOVAL / ADJUSTMENT

PRIMARY PARTS REMOVAL AND ADJUSTMENTS

This section explains how to remove and adjust the primary 600 Series parts (upper light diffuser, door shelves, cabinet shelves, etc.). In most cases, removal of these parts is necessary in order to gain access to the more functional components during a service call.

When possible, units with similar primary part removal procedures are grouped together under the appropriate heading. The units covered will be listed between brackets after the heading.

Upper Light Diffuser Removal (All models)

The side frames of the light diffuser have four inverted "T" shaped slots (two each side) which slide up over pegs protruding from the side walls. For safety purposes, retaining clips by the rear slots secure the light diffuser to the rear studs. (See Figure 7-1)

To remove the light diffuser, slide a finger over the top of the retaining clips and rotate down. With the clips open, lift diffuser up and slide it towards the rear of the unit until the center of the "T" slots line up with the pegs. Then lower the light diffuser and remove from unit. (See Figure 7-2).

Light Bulb Access and Removal (All Models)

The light diffuser will need to be removed to access the light bulbs. Screw bulb counter clockwise to remove, clockwise to install.

Door Shelf & Dairy Compartment Assembly Removal and Adjustment (All Models)

Removal and adjustment of door shelves and dairy compartment assemblies is achieved by sliding the grooves in the end caps over the molded retaining ribs of the door liner. Lift up and out to remove, push in and down to install. (See Figure 7-3.)

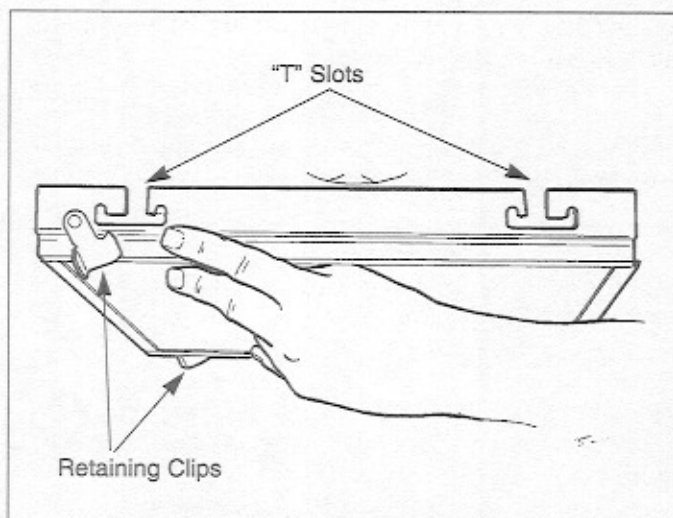


Figure 7-1. Slots & Retaining Clips

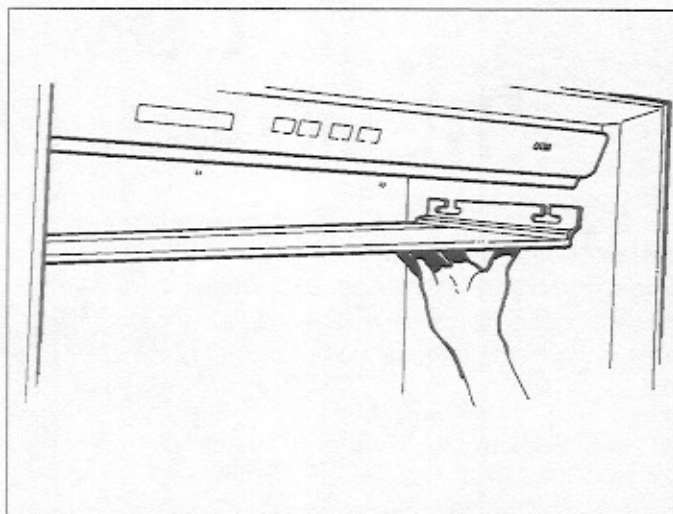


Figure 7-2. Light Diffuser Removal

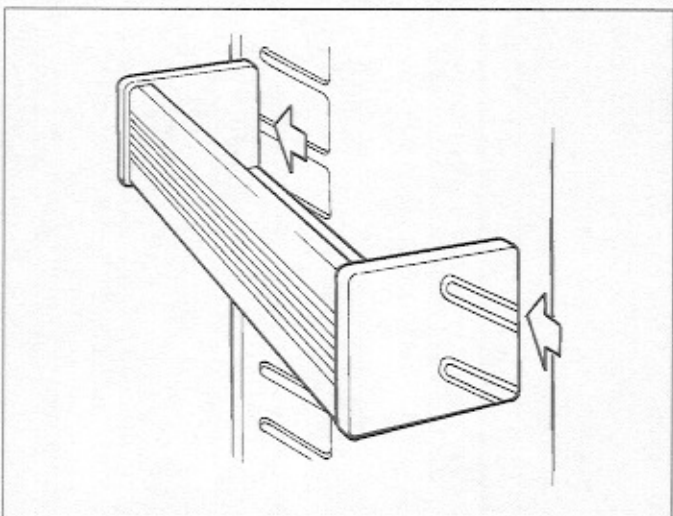


Figure 7-3. Door Shelf Removal

Refrigerator & Freezer Compartment Shelf Removal and Adjustment (All Models)

⚠ CAUTION

Light bulbs are hot and could cause minor personal injury.

⚠ WARNING

Electric shock hazard. If bulb should separate from base. Disconnect power to unit before attempting to remove base from socket.

Remove and adjust shelf by tilting up at front while lifting the back up and out of the shelf ladders. (See Figure 7-4.)

To reinstall, tilt front of shelf up and align hooks at back corners with slots in shelf ladders, then insert hooks into slots and lower front of shelf.

Utility Basket Removal

(Models 601R, 611, 632, 642, 650, 690)

Remove the utility basket from under the shelf assembly by pulling the basket out and lifting at the front. Reverse to reinstall. (See Figure 7-5.)

Crisper Glass Shelf Removal

(Models 601R, 611, 632, 642, 650, 690)

Remove crisper glass shelf assembly by opening top drawer and lifting assembly off of crisper glass supports.

Large High Humidity Drawer Removal

(Models 601R, 611, 632, 642, 650, 690)

Remove high humidity drawer assembly by pulling open until drawer stops, then lift front of drawer while pulling out. (See Figure 7-6.)

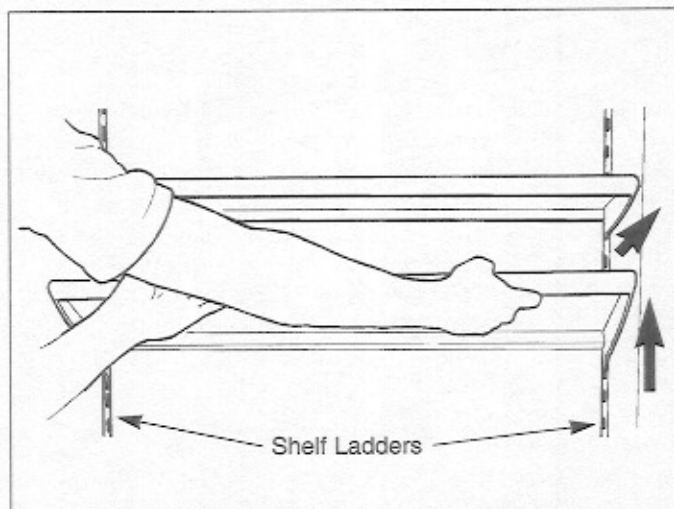


Figure 7-4. Shelf Removal

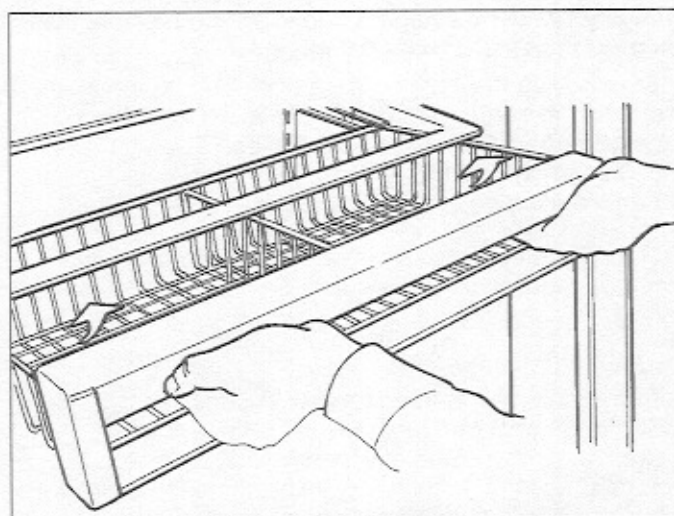


Figure 7-5. Utility Basket Removal

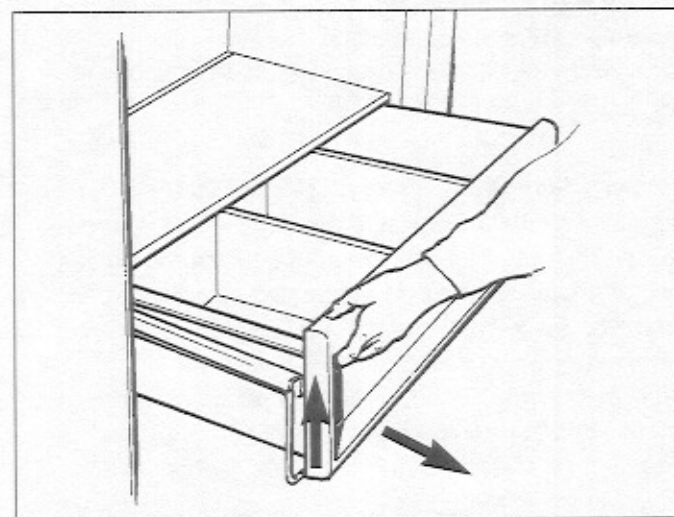


Figure 7-6. High Humidity Drawer Removal

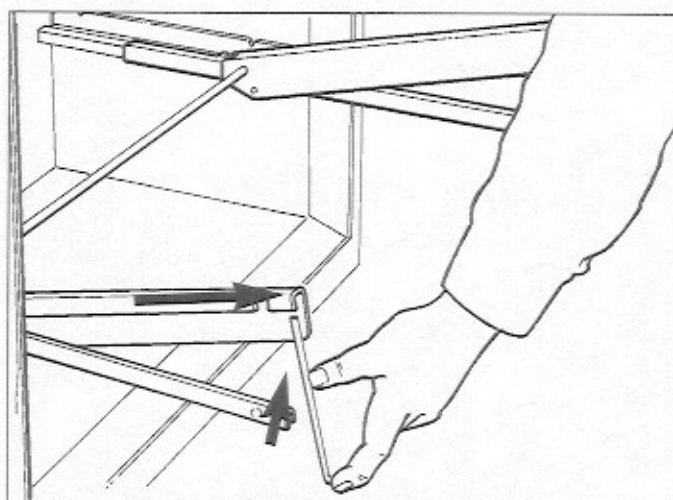


Figure 7-7. Drawer Carriage Assembly Removal

Humidity Drawer Carriage Assembly Removal (Models 601R, 611, 632, 642, 650, 690)

After removing the crisper glass shelf and high humidity drawer, lift carriage assembly up at front to disengage from the tab on slide assemblies. Then pull carriage assembly forward to disengage from hooks at rear of slide assemblies. (See Figure 7-7.)

NOTE: The silicone seal between carriage and slide arm may need to be broken with a knife.

Small Storage Drawer Removal (Models 632, 642, 690)

Remove the small storage drawer assemblies by pulling open until drawer stops (1). Raise front of drawer (2) while pulling out further to bypass stop (3), then drop front of drawer down while lifting rear drawer rollers out of the roller/slide assemblies (4). (See Figure 7-8.)

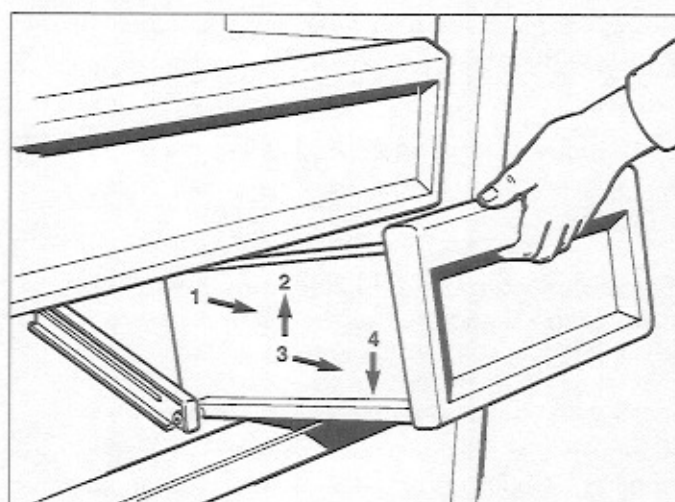


Figure 7-8. Small Storage Drawer Removal

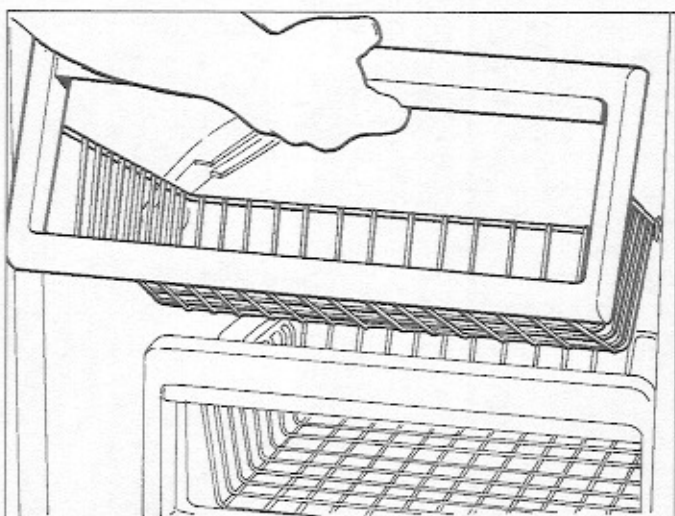


Figure 7-9. Freezer Basket Removal

Freezer Basket Removal

(Models 601F, 632, 642, 690)

Remove freezer baskets by pulling open until basket stops, then lift up at the front and pull out. (See Figure 7-9.)

Freezer Glass Shelf Removal (Model 601F)

The glass shelf is secured to the side walls by screws through the side frames. To remove the freezer glass shelf, the two top freezer baskets will first need to be removed. Now, from underneath the glass shelf, remove the two front mounting screws, and loosen the two rear screws. (The rear screws fit into slots, so they do not need to be fully removed.) Then pull shelf forward slightly and lift up and out. (See Figure 7-10.)

NOTE: When reinstalling freezer glass shelf, be sure that the flange at top of freezer basket center slide support sets into the channel in the freezer glass shelf front. (See Figure 7-10.)

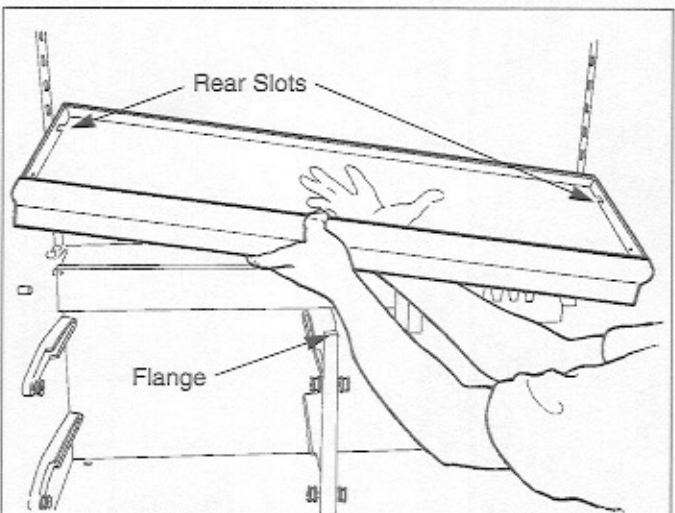
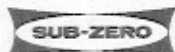


Figure 7-10. Model 601F Freezer Glass Shelf Removal

**Ice Bucket Removal (Model 601F)**

Remove ice bucket by lifting out of top right freezer basket.

Ice Bucket Removal (Model 611 and 650)

Remove ice bucket by lifting out of left rear corner of upper freezer basket.

Ice Bucket Assembly Removal (Model 632 and 642)

Remove ice bucket assembly by pulling ice bucket open until it stops, then lift up and pull forward. (See Figure 7-11.) When reinstalling, the ice bucket carriage assembly must be pulled fully forward, then hook rear flange of ice bucket over carriage assembly and push ice bucket assembly in.

Juice Can Rack Removal (Model 690)

Remove juice can rack by lifting up and pulling out. (See Figure 7-12.)

Ice Bucket Assembly Removal (Model 690)

To remove the ice bucket assembly, the juice can rack must first be removed. Then lift ice bucket assembly up and pull out. (See Figure 7-13.)

NOTE: When reinstalling ice bucket, the drive yoke of the auger motor must engage ice bucket auger correctly so that ice bucket assembly can be fully installed.

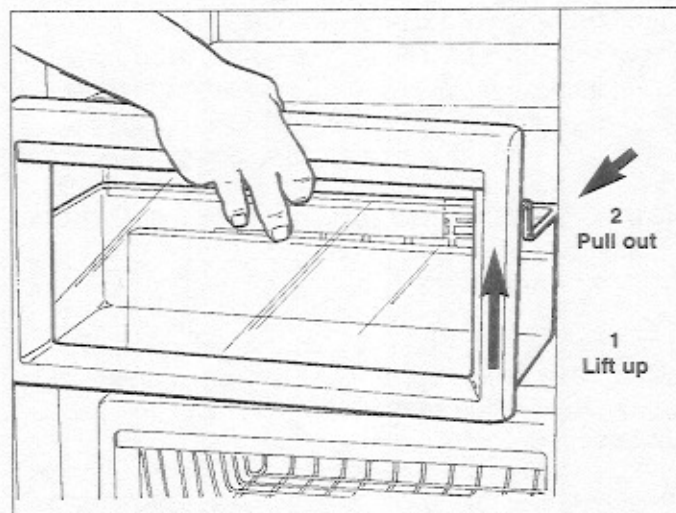


Figure 7-11. Model 632, 642 Ice Bucket Removal

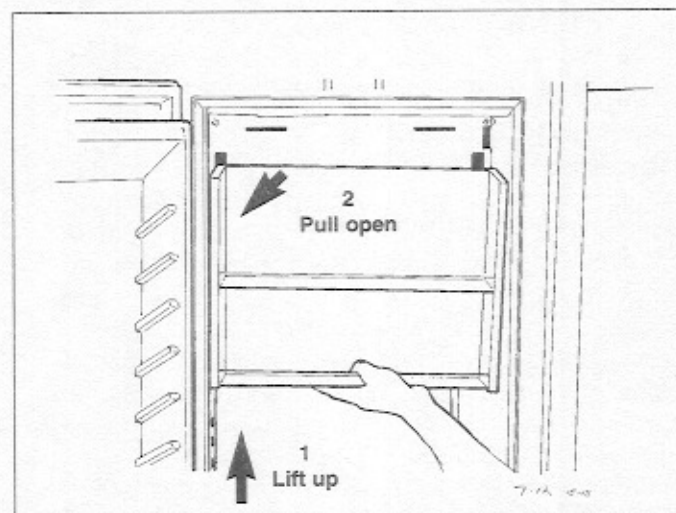


Figure 7-12. Model 690 Juice Can Rack Removal

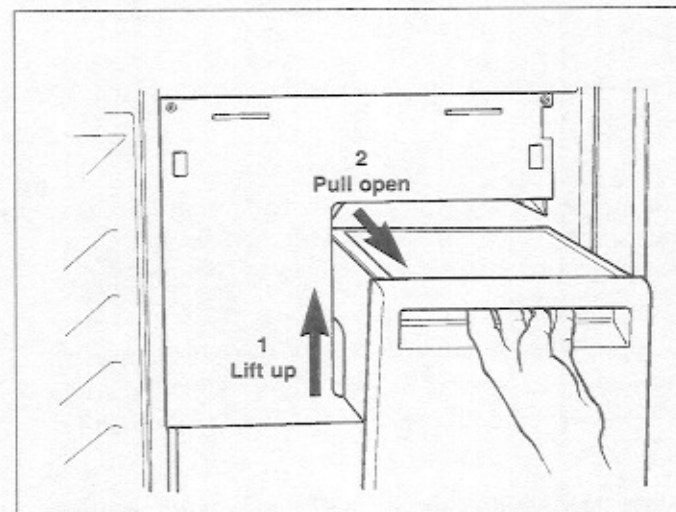


Figure 7-13. Model 690 Ice Bucket Removal

Standard Louvered Grille Removal (Models 601R/F, 601R/O, 601F/F, 601F/O)

The standard louvered grille on models 601R & 601F consists of an upper grille section and a lower grille section. To remove the lower grille section, extract the screws at the bottom left and right corners. Then, tilt the bottom of lower grille section out and up to release it from the upper grille section. (See Figure 7-14.)

⚠ WARNING

The upper grille section holds the fan and light switch. To avoid electrical shock, disconnect power to unit before attempting to remove upper grille section

To remove the upper grille section, open cabinet door and extract the screws at the top left and right corners. Pull upper grille section forward slightly and disconnect fan and light switches electrical leads. (See Figure 7-14.)

Stainless Steel Grille Removal (Models 601R/S, 601F/S)

The stainless steel grille on models 601R/S & 601F/S consists of an upper grille section and a lower grille section. The lower grille section is secured at the bottom by a "catch and strike" retention system. To remove the lower grille section, grasp bottom of grille and tilt out and up to release it from the catch and strike at the bottom. Continue to tilt out and up to release it from the upper grille section. (See Figure 7-15.)

To remove the upper grille section, open cabinet door and extract the screws at the top left and right corners. Pull upper grille section forward slightly and disconnect fan and light switches electrical leads. (See Figure 7-15.)

Drain Pan Access and Removal (Models 601R, 601F)

⚠ WARNING

The upper grille section holds the fan and light switch. To avoid electrical shock, disconnect power to unit before attempting to remove upper grille section

To access the drain pan, the kickplate and lower grille section must first be removed. Then push the drain pan up and out from underneath. (See Figure 7-16.)

⚠ CAUTION

When reinstalling drain pan be sure drain pan is secure and level. Failure to reinstall drain pan properly could result in drain pan overflowing.

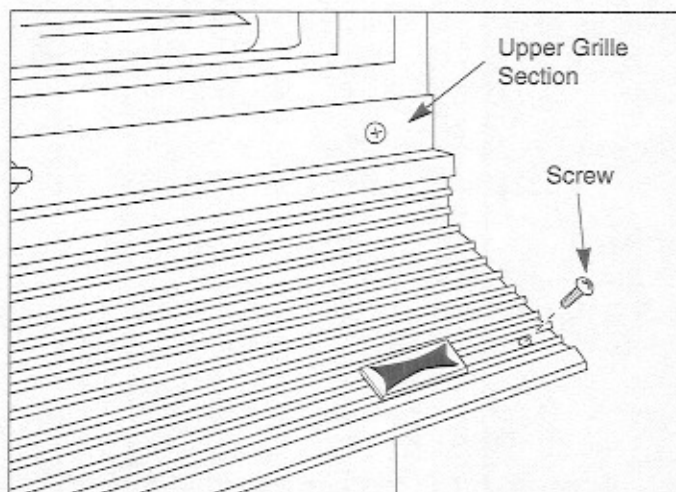


Figure 7-14. Model 601R, 601F Standard Louvered Grille

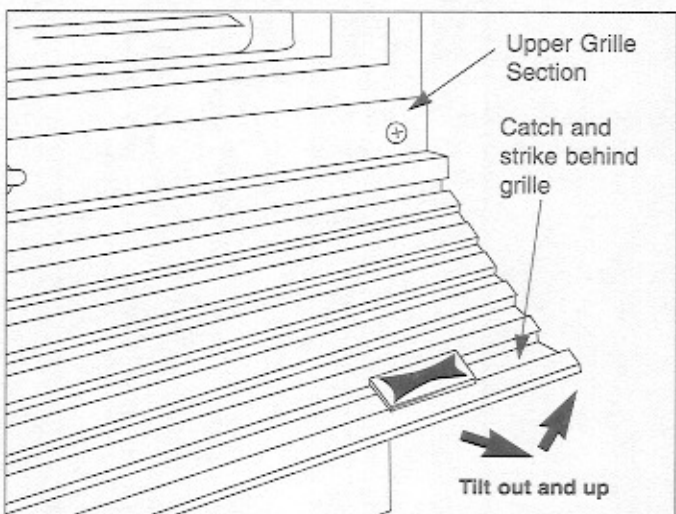


Figure 7-15. Model 601R, 601F Stainless Steel Grille

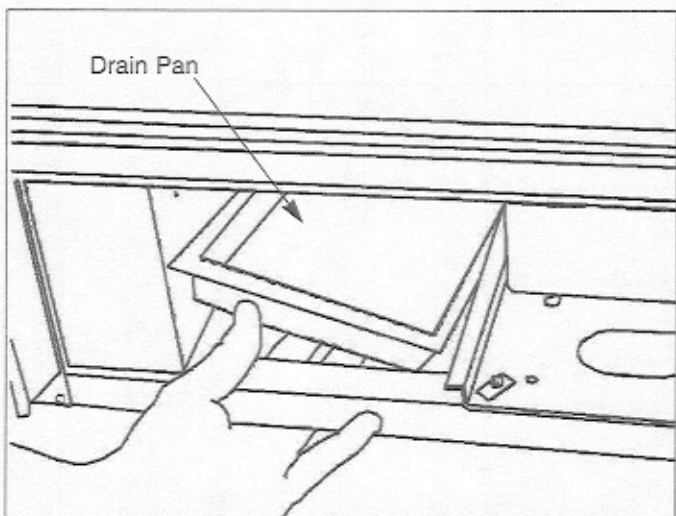


Figure 7-16. Model 601R, 601F Drain Pan Removal

Standard Louvered Grille and Stainless Steel Grille Assembly Removal

(Models 611/F, 611/S, 632/F, 632/S, 642/F, 642/S, 650/F, 650/S, 690/F, 690/S)

Removal procedures for the standard louvered grille and stainless steel grille are the same. To remove the louvered grille assembly, open unit door(s) and extract the grille screws which pass up through the top main-frame extrusion into brackets at bottom rear of grille assembly. Now, tilt the top of grille forward and release the grille springs from the grille hooks at the back side of the grille. Then lift grille assembly off. (See Figure 7-17.)

Panel Grille Assembly Removal

(Models 611/O, 632/O, 642/O, 650/O)

The panel grille assembly consists of an outer and an inner grille frame. The outer grille frame attaches to the unit, while the inner grille frame (which accepts a decorative panel) is easily removable for condenser cleaning purposes. There are pegs on the back side of the inner grille frame which fit in key-hole slots in the outer grille frame. To remove the inner grille frame, lift assembly up (1) and pull out of key-hole slots at the bottom (2). Then, pull down and out of key-hole slots at the top (3). (See Figure 7-18.)

To remove the outer grille frame, remove the inner grille frame first. Now, opening unit door(s) and extract the grille screws which pass up through the top mainframe extrusion into bottom extrusion of outer grille frame. Now, extract the screws at the top front of outer grille frame and lift frame off.

Kickplate Removal

To remove the kickplate, extract the retaining screws near each upper corner, then pull the kickplate forward. (See Figure 7-19.)

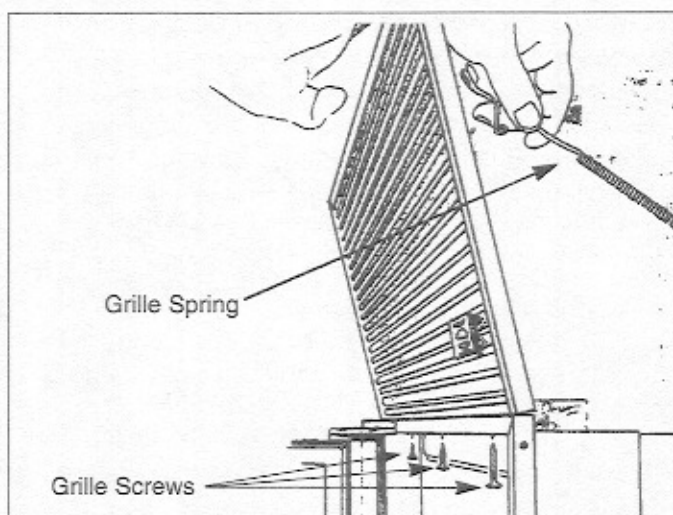


Figure 7-17. Grille Removal

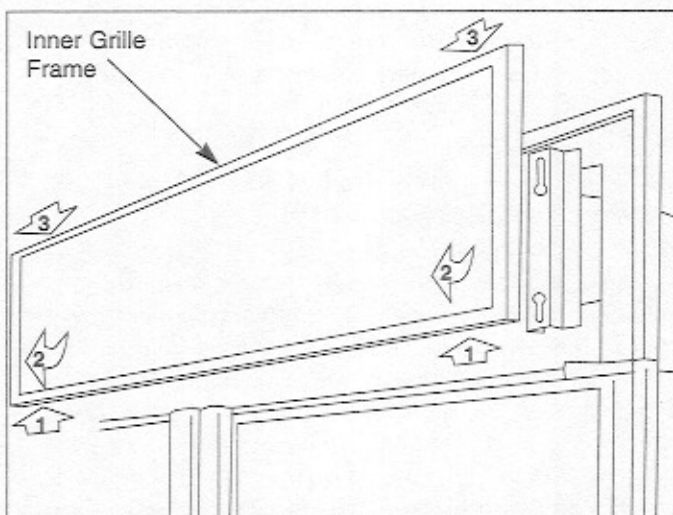


Figure 7-18. Inner Grille Frame Removal

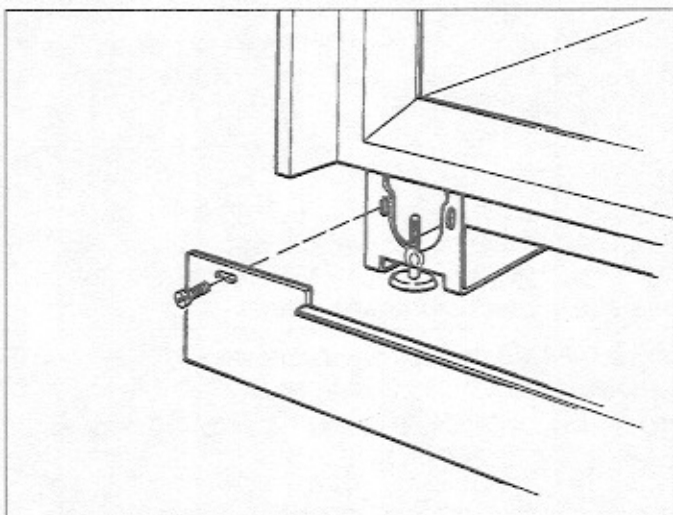


Figure 7-19. Kickplate Removal

Drain Pan Access and Removal (Models 611, 632, 642, 650, 690)

To access the drain pan, the kickplate must first be removed. Now push the front of the drain pan back and down. (This flexes the drain pan slightly, releasing the top flange from the tab in the kickplate support.) Then, pull the drain pan forward. (See Figure 7-20.)

When reinstalling, the tapered end of drain pan must be inserted on top of the drain pan holder at rear. Then push the front of the drain pan up until the top front flange engages the tab in the kickplate support. Also, make sure the drain hoses are over the drain pan, and the foam air seals which direct air over drain pan are in position and in good shape. (See Figure 7-20.)

⚠ CAUTION

When reinstalling drain pan be sure drain pan is secure and level. Failure to reinstall drain pan properly could result in drain pan overflowing.

REFRIGERATOR COMPARTMENT MECHANICAL AND ELECTRICAL COMPONENT REMOVAL

This section explains how to access and remove mechanical and electrical components from refrigerator sections of 600 Series units. In most cases it is necessary to remove primary parts in order to gain access to these components. The manner in which this section was written assumes that the Primary Part Removal section has been studied and understood. If necessary, refer to the Primary Part Removal section before attempting to remove mechanical and/or electrical components.

When possible, units with similar component removal procedures were grouped together under the appropriate heading. The units covered will be listed between brackets after the heading.

⚠ WARNING

Whenever accessing or removing electrical components, disconnect power to unit to avoid electrical shock. When unit is in OFF mode, 115 Volts are still present at control board.

Control Board Access and Removal (Models 601R, 611, 632, 642, 650)

NOTE: Model 690 control board access and removal is covered later in this section.

⚠ WARNING

Disconnect power to unit to avoid electrical shock before attempting to remove control board.

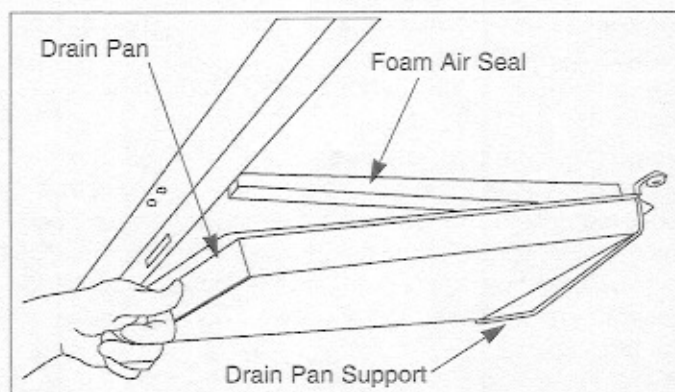


Figure 7-20. Model 611, 632, 642, 650, 690 Drain Pan Removal

The control board is held in position by two sets of tabs behind the left side of the control panel. The two forward tabs position the LCD in the control panel window, while the other two tabs secure the middle of the control board. The control board is then shielded by a control enclosure, and concealed by the light diffuser.

To access and remove the control board, the light diffuser must first be removed. Now extract the screws securing the control enclosure to the ceiling of the compartment. Then, lower the back of the enclosure while pulling it toward the rear of the unit. Disconnect all electrical leads attached to the control board, including the membrane switch ribbon cable. Expand the two tabs at the middle of the control board outward while pulling the back of the board down slightly. Then, expand the two forward tabs outward that hold the LCD in position, and pull the control board down and toward the rear of the unit. (See Figures 7-21 & 7-22.)

⚠ WARNING

When reconnecting membrane switch ribbon cable to control board, be sure label on ribbon cable terminal housing is oriented toward arrow on control board connection. (See Figure 7-22)

Control Panel Access and Removal (Models 601R, 611, 632, 642, 650)

NOTE: Model 690 vertical control panel access and removal is covered later in this section.

⚠ WARNING

Disconnect power to unit to avoid electrical shock before attempting to remove control board.

The control panel, which houses the membrane switch, is secured to the ceiling of the compartment by two rows of screws. The front row of screws are through keyhole slots in the assembly. To access and remove the control panel, the light diffuser and control enclosure must be removed first.

NOTE: It is recommended, but not necessary, to remove the control board in order to remove the control panel. If leaving the control board secured to the control panel, all electrical leads attached to the control board must be disconnected.

Now, extract the back row of screws at the back of the control panel. Push the panel back to release it from the front row of screws, then lower the panel down and pull out. (See Figure 7-21.)

Refrigerator Evaporator Cover Access and Removal (Models 601R, 611, 632, 642, 650)

The bottom of the refrigerator evaporator cover is secured by slots in the side flanges fitting over pegs at the bottom of each shelf ladder. At the top, screws hold the evaporator cover to the evaporator fan shroud. To access and remove the evaporator cover, the light diffuser must first be removed. Then extract the screws at the top of the evaporator cover, tilt it forward and lift out. (See Figure 7-23.)

Refrigerator Evaporator Cover Access and Removal (Model 690)

The bottom of the refrigerator evaporator cover is secured by slots in the side flanges fitting over pegs at the bottom of each shelf ladder. Below the water reservoir area is a screw holding the evaporator cover to a bracket at the back wall. And, at the top, screws hold the evaporator cover to the evaporator fan shroud. (See Figure 7-23.)

To access and remove the evaporator cover, the light diffuser must first be removed. Now extract the screws at the top of the evaporator cover and below the water reservoir area. Then, tilt the evaporator cover forward and lift out.

Refrigerator Evaporator Fan Shroud Access and Removal (Models 601R, 611, 632, 642, 650, 690)

⚠ WARNING

Disconnect power to unit to avoid electrical shock before attempting to remove evaporator fan shroud assembly.

To access the evaporator fan shroud assembly, the light diffuser and evaporator cover will need to be removed first. Now extract the mounting screws which secure the fan shroud assembly to the ceiling of the refrigerator compartment. Then lower the assembly and disconnect the wiring for the lights from the wire harness. (See Figure 7-21 and 7-24.)

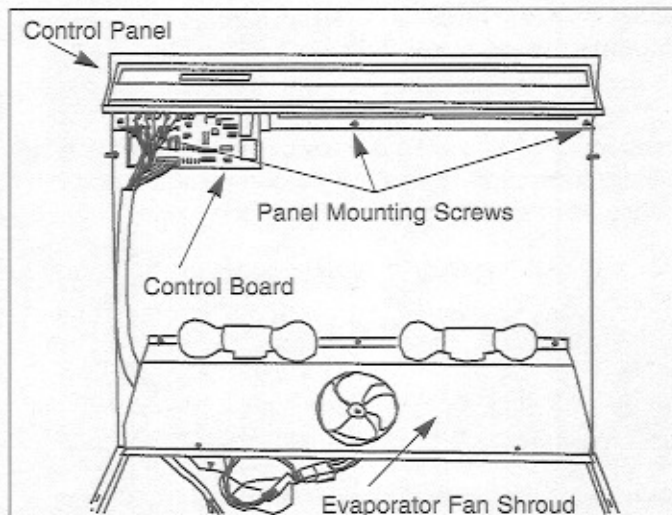


Figure 7-21. Upper Refrigerator Compartment Area

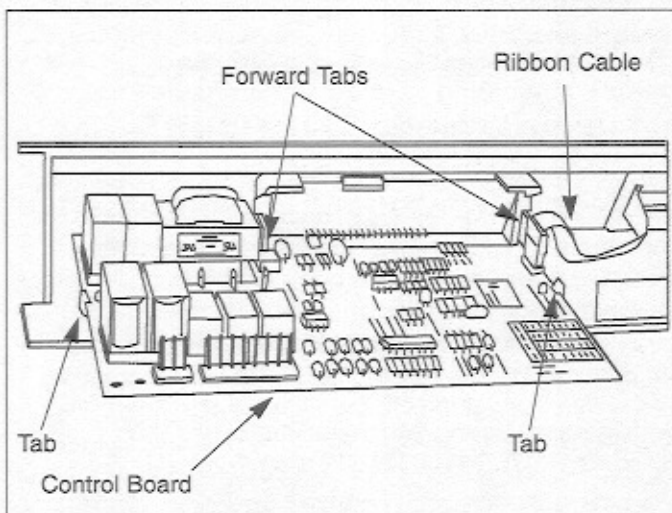


Figure 7-22. Control Board Removal

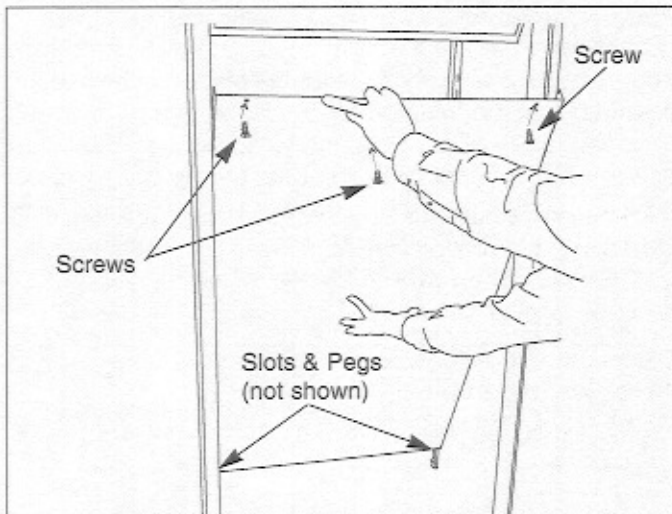


Figure 7-23. Evaporator Cover Removal

Refrigerator Evaporator Fan Assembly Access and Removal (Models 601R, 611, 632, 642, 650, 690)

⚠ WARNING

Disconnect power to unit to avoid electrical shock before attempting to remove evaporator fan shroud assembly.

To access the evaporator fan assembly, the light diffuser, evaporator cover, and evaporator fan shroud assembly will need to be removed. Now, disconnect the fan motor wire leads from the wire harness, and extract the mounting screws which secure the fan assembly to the ceiling. (See Figure 7-25.)

Refrigerator Compartment Thermistor (Models 601R, 611, 632, 642, 650, 690)

⚠ WARNING

Disconnect power to unit to avoid electrical shock before attempting to remove thermistor.

The refrigerator compartment thermistor is located behind the evaporator cover, and attached to the wall just above the evaporator. To access and remove the refrigerator compartment thermistor, the light diffuser and evaporator cover must be removed first. Now disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the rear wall. (See Figure 7-26.)

Refrigerator Evaporator Thermistor (Models 601R, 611, 632, 642, 650, 690)

⚠ WARNING

Disconnect power to unit to avoid electrical shock before attempting to remove thermistor.

The refrigerator evaporator thermistor is attached to the center of the right evaporator bracket. To access and remove the refrigerator evaporator thermistor, the light diffuser and evaporator cover must be removed first. Now disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the right evaporator bracket. (See Figure 7-26.)

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

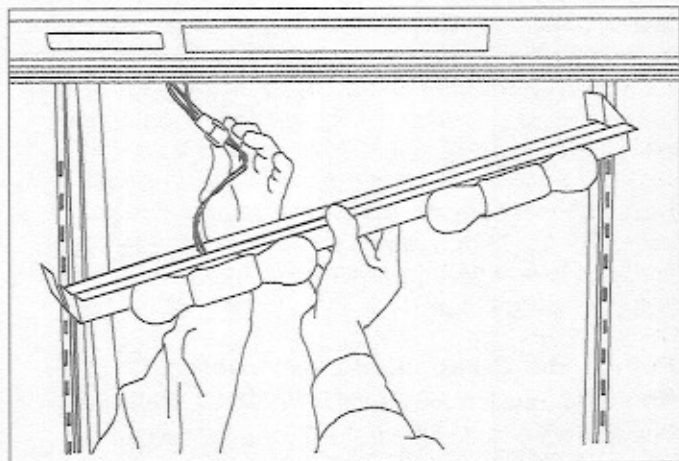


Figure 7-24. Fan Shroud Assembly Removal

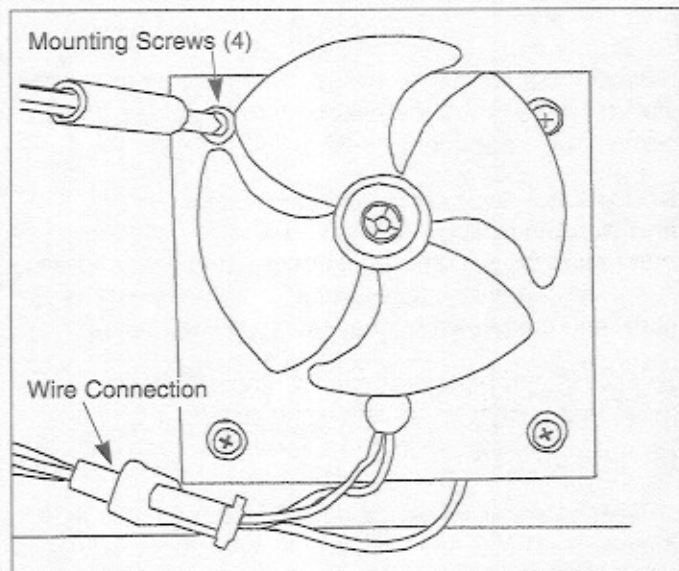


Figure 7-25. Refrigerator Evaporator Fan Removal

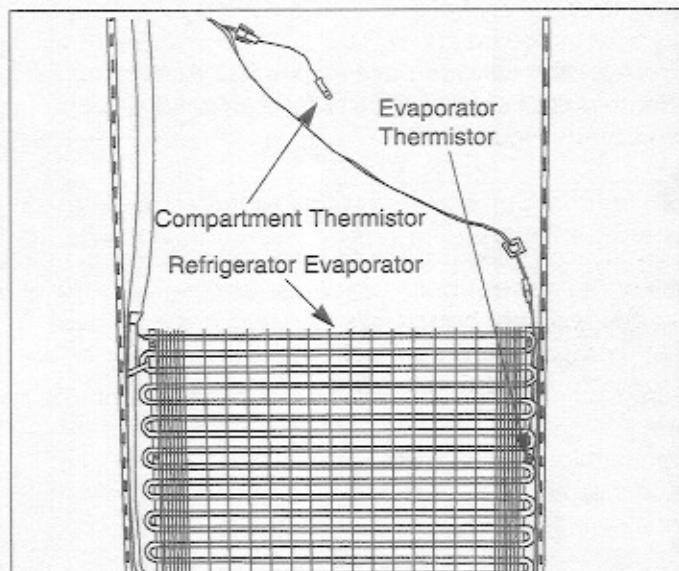
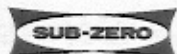


Figure 7-26. Refrigerator Thermistors

**Water Reservoir Tank Cover Removal (Model 690)**

To remove the water reservoir tank cover, the light diffuser and upper front panel must be removed first.

NOTE: The procedure for removing the upper front panel in a model 690 is the same as removing an upper control panel.

Now, extract the retaining screw at the bottom rear of vertical control panel, and the retaining screw at top center of the tank cover. Then, grasp the bottom of the reservoir tank cover and slide it backwards to depress the mounting springs. Swing the front edge out and pull forward. (See Figure 7-27.)

Control Board Access and Removal (Model 690)**⚠ WARNING**

Disconnect power to unit to avoid electrical shock before attempting to remove the control board.

The control board is held in position by two sets of tabs behind the control panel. The two forward tabs position the LCD in the control panel window, while the other two tabs secure the middle of the control board. The control board is then shielded by a control enclosure, and concealed by the water reservoir tank cover.

To access and remove the control board, the light diffuser, upper front panel and water reservoir tank cover must first be removed. Now extract the screws securing the control enclosure to the mullion wall of the compartment. Then, pull the back of the enclosure out and toward the rear of the unit. Disconnect all electrical leads attached to the control board, including the membrane switch ribbon cable. Expand the two tabs at the middle of the control board outward while pulling the back of the board out slightly. Then, expand the two forward tabs outward that hold the LCD in position, and pull the control board out and toward the rear of the unit. (See Figure 7-28.)

⚠ CAUTION

When reconnecting membrane switch ribbon cable to control board, be sure label on ribbon cable terminal housing is oriented toward arrow on control board connection. Also, care should be taken to not kink the ribbon cable.

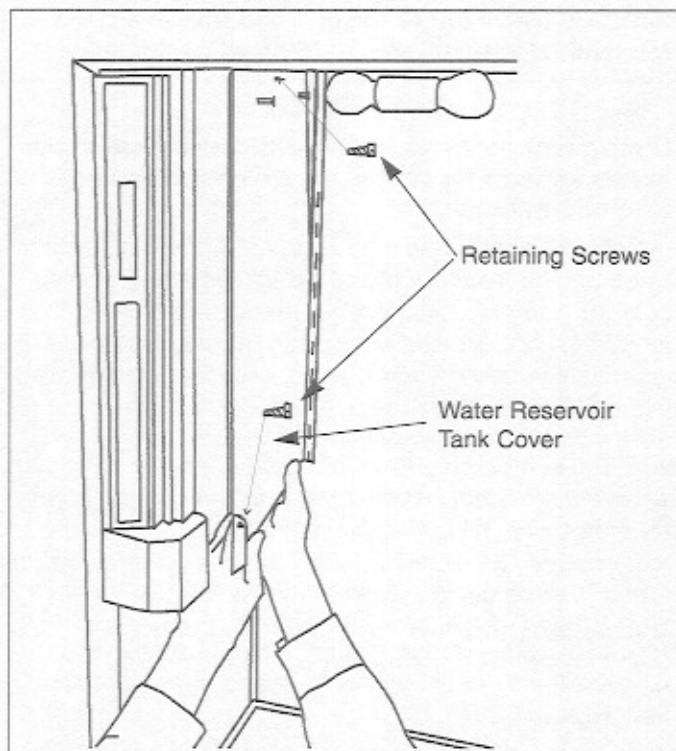


Figure 7-27. Water Tank Cover Removal

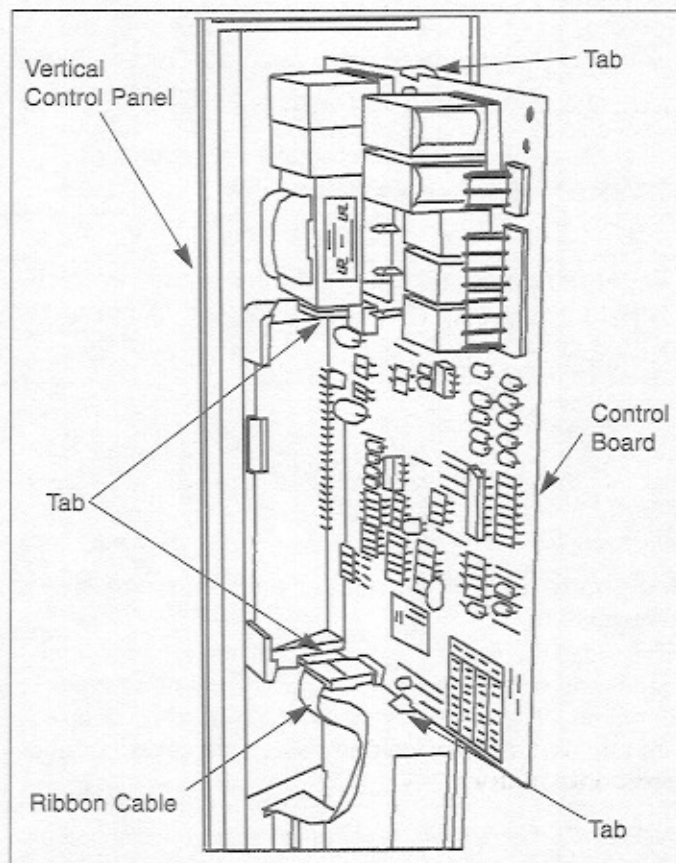


Figure 7-28. Control Board Removal

**Vertical Control Panel Access and Removal
(Model 690)****⚠ WARNING**

Disconnect power to unit to avoid electrical shock before attempting to remove the control panel.

The control panel, which houses the membrane switch, is secured to the mullion wall by screws and a sheet metal retainer. To access and remove the control panel, the light diffuser, upper front panel, water reservoir tank cover and control enclosure must be removed first.

NOTE: It is recommended, but not necessary, to remove the control board in order to remove the control panel. If leaving the control board secured to the control panel, all electrical leads attached to the control board must be disconnected.

Now, extract the screws at the back of the control panel and pull panel forward from sheet metal retainer. (See Figure 7-29.)

**Water Reservoir Tank Access and Removal
(Model 690)**

To access and remove the water reservoir tank, the light diffuser, upper front panel and water reservoir tank cover will need to be removed first. Now disconnect the compression fittings at the inlet and outlet of the water reservoir tank. Then remove the mounting screws and lift out. (See Figure 7-30.)

⚠ CAUTION

Water in reservoir tank will drain from lower inlet when compression fitting is removed. A container with a volume of at least 1/2 gallon should be used to catch the draining water.

NOTE: After reinstalling a water reservoir tank, the WATER button at the door dispenser must be depressed for approximately two minutes to refill the tank.

**Ice Chute Component Access and Removal
(Model 690)**

To access the ice chute, the light diffuser, upper front panel and water reservoir tank cover will need to be removed. The ice chute cover is removed by depressing the tabs at the sides and pulling the cover out and back. (See Figure 7-30.)

NOTE: The ice chute door in the mullion wall is accessible at this point.

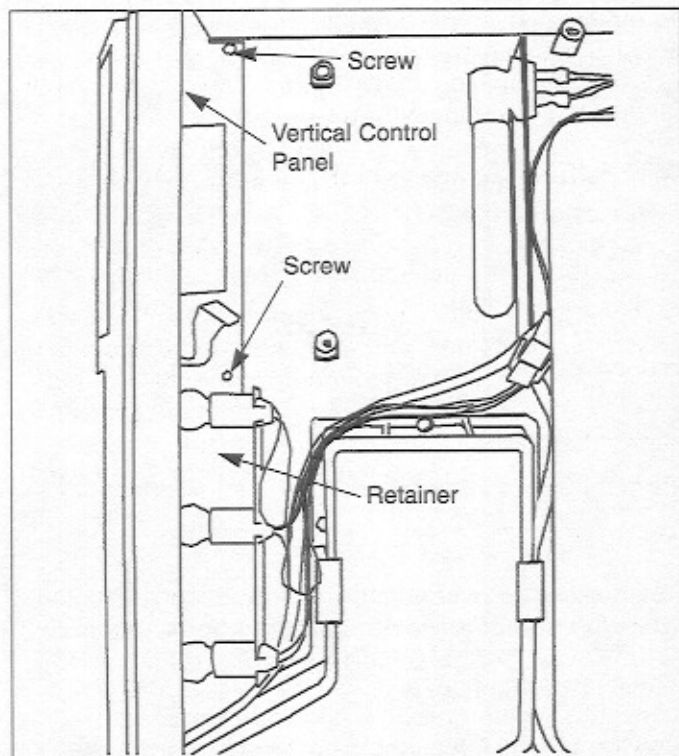


Figure 7-29. Vertical Control Panel Removal

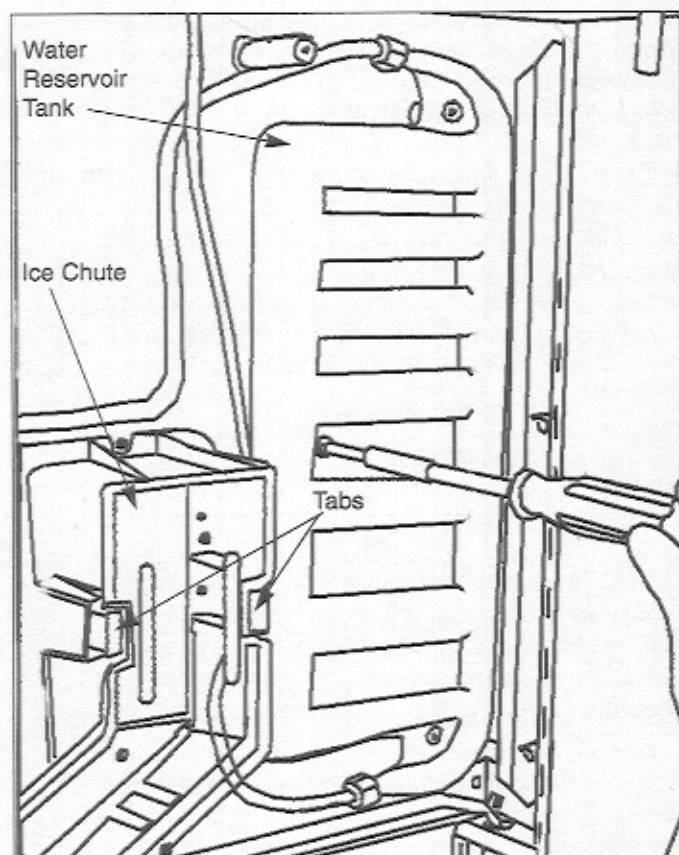


Figure 7-30. Water Tank & Ice Chute Removal

To remove the ice chute/water nozzle assembly, disconnect the water line from the water nozzle, then extract the mounting screws and pull the assembly out and back. (See Figure 7-30.)

FREEZER COMPARTMENT MECHANICAL AND ELECTRICAL COMPONENT REMOVAL

This section explains how to access and remove mechanical and electrical components from freezer sections of 600 Series units. In most cases it is necessary to remove primary parts in order to gain access to these components. The manner in which this section was written assumes that the Primary Part Removal section has been studied and understood. If necessary, refer to the Primary Part Removal section before attempting to remove mechanical and/or electrical components.

When possible, units with similar component removal procedures were grouped together under the appropriate heading. The units covered will be listed between brackets after the heading.

Control Board Access and Removal (Model 601F)

⚠ WARNING

Whenever accessing or removing electrical components, disconnect power to unit to avoid electrical shock. When unit is in OFF mode, 115 Volts are still present at control board.

The control board is held in position by two sets of tabs behind the left side of the control panel. The two forward tabs position the LCD in the control panel window, while the other two tabs secure the middle of the control board. The control board is then shielded by a control enclosure, and concealed by the light diffuser.

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove control board.

To access and remove the control board, the light diffuser must first be removed. Now extract the screws securing the control enclosure to the ceiling of the compartment. Then, lower the back of the enclosure while pulling it toward the rear of the unit. Disconnect all electrical leads attached to the control board, including the membrane switch wire harness. Expand the two tabs at the middle of the control board outward while pulling the back of the board down slightly. Then, expand the two forward tabs outward that hold the LCD in position, and pull the control board down and toward the rear of the unit. (See Figures 7-31 & 7-32.)

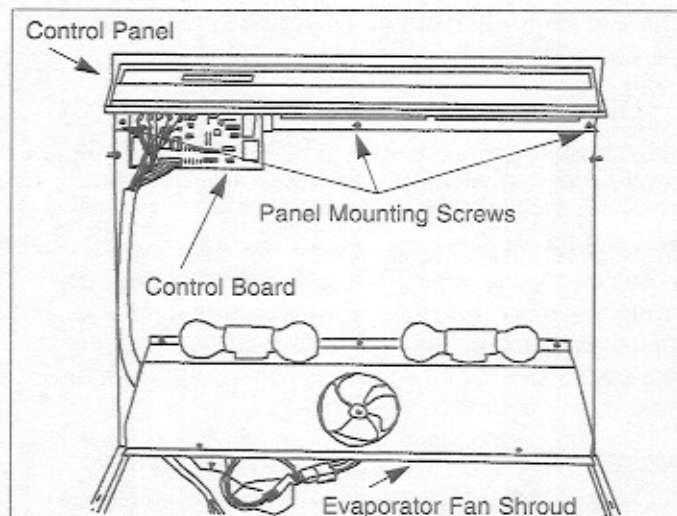


Figure 7-31. Upper Freezer Compartment Area

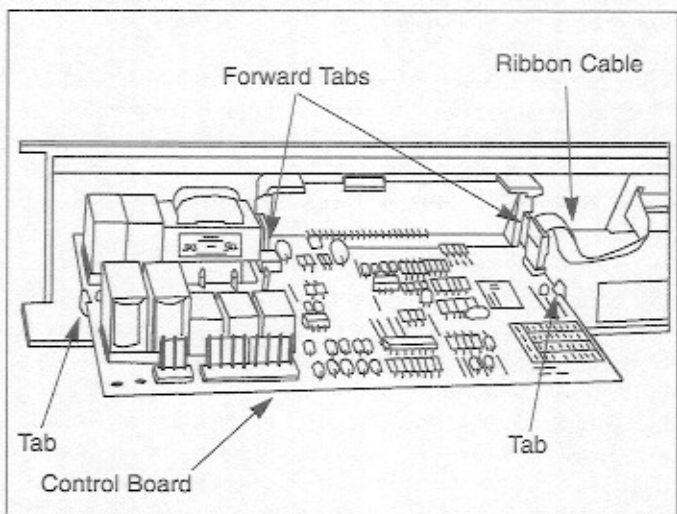


Figure 7-32. Control Board Removal

⚠ CAUTION

When reconnecting ribbon cable to control board, be sure label on ribbon cable terminal housing is oriented toward arrow on control board connection. Also, care should be taken to not kink the ribbon cable.

Control Panel Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove control panel.

The control panel, which houses the membrane switch, is secured to the ceiling of the compartment by two rows of screws. The front row of screws are through keyhole slots in the assembly. To access and remove the control panel, the light diffuser and control enclosure must be removed first.

NOTE: It is recommended, but not necessary, to remove the control board in order to remove the control panel. If leaving the control board secured to the control panel, all electrical leads attached to the control board must be disconnected. (See Figure 7-32.)

Now, extract the screws at the back of the control panel. Then, loosen the screws in the keyhole slots toward the front of the control panel. Push the panel back, then lower the panel down and out. (See Figure 7-31.)

Freezer Evaporator Cover Access and Removal (Model 601F)

The bottom of the freezer evaporator cover is secured by slots in the side flanges fitting over pegs at the bottom of each shelf ladder. At the top, screws hold the evaporator cover to the evaporator fan shroud. To access and remove the evaporator cover, the light diffuser and freezer glass shelf must first be removed. Then extract the screws at the top of the evaporator cover, tilt it forward and lift out. (See Figure 7-33.)

Freezer Evaporator Fan Shroud Assembly Access and Removal (Model 601F)

To access and remove the evaporator fan shroud assembly, the light diffuser and evaporator cover will need to be removed first. Now extract the mounting screws which secure the fan shroud assembly to the ceiling of the refrigerator compartment. Then lower the assembly and disconnect the wiring for the lights from the wire harness. (See Figure 7-34.)

Freezer Evaporator Fan Assembly Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove evaporator fan assembly.

To access the evaporator fan assembly, the light diffuser, evaporator cover, and evaporator fan shroud

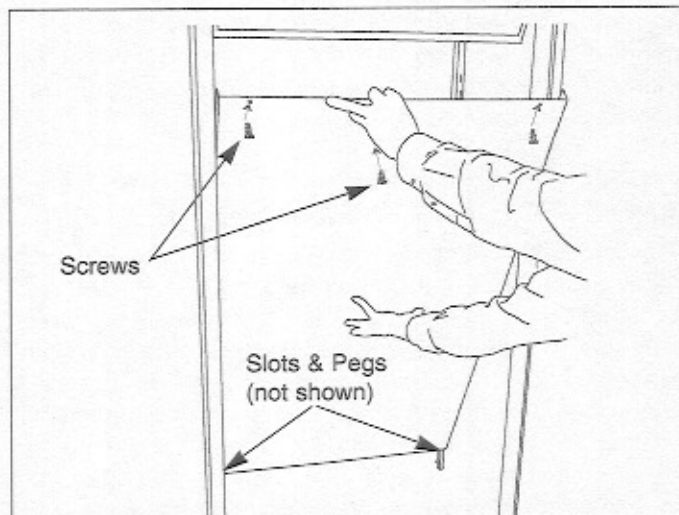


Figure 7-33. Evaporator Cover Removal

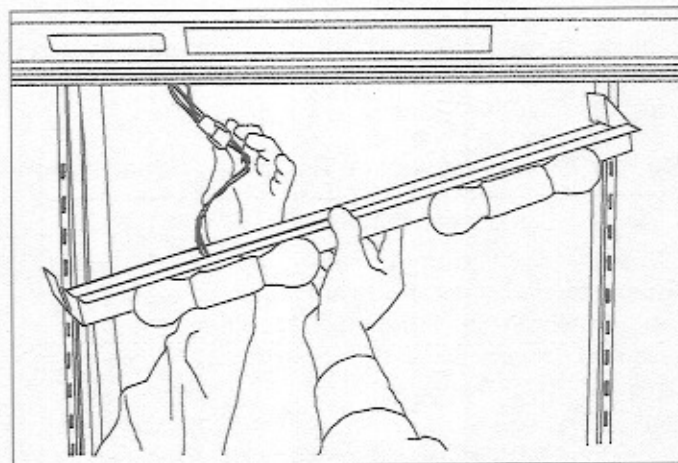


Figure 7-34. Model 601F Fan Shroud Removal

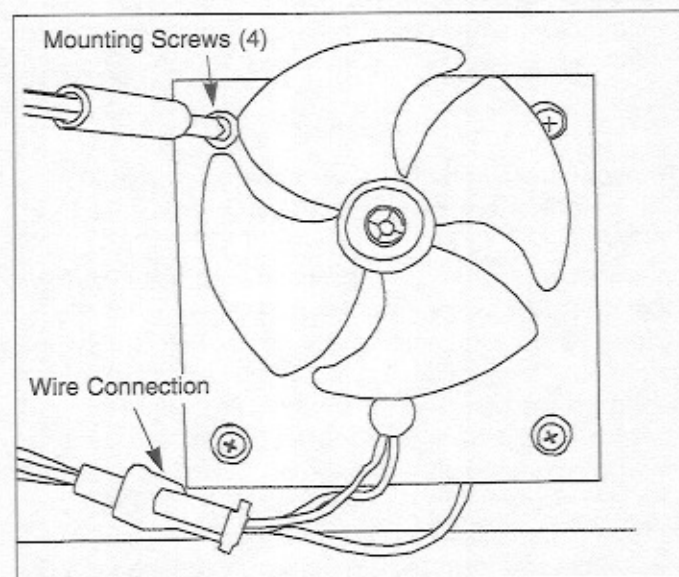


Figure 7-35. Model 601F Evaporator Fan Removal

assembly will need to be removed. Now, disconnect the fan motor wire leads from the wire harness, and extract the mounting screws which secure the fan assembly to the ceiling. (See Figure 7-35.)

Freezer Evaporator Thermistor (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury

The freezer evaporator thermistor is attached to the left evaporator bracket. To access and remove the freezer evaporator thermistor, the light diffuser and evaporator cover must be removed first. Now disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the left evaporator bracket. (See Figure 7-36.)

Defrost Terminator (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove defrost terminator.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury

The defrost terminator is attached to the top center pass of the evaporator. To access and remove the defrost terminator, the light diffuser and evaporator cover must be removed first. Now disconnect the defrost terminator wire leads from the wire harness, and pull the terminator off of the evaporator tubing. (See Figure 7-36.)

Evaporator Defrost Heater Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove defrost heater.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury

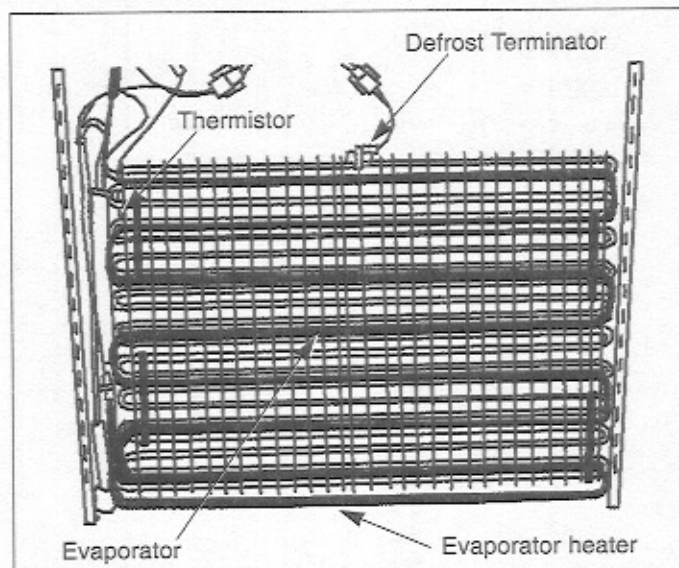


Figure 7-36. Model 601F Evaporator Area

To access and remove the freezer evaporator defrost heater, the light diffuser and evaporator cover will need to be removed first. The heater clips which secure the heater to the evaporator now need to be removed. Dislodge the heater clips by pulling the tab of the clip down and out. Then disconnect the heater wires from the wire harness, and gently pull the heater from the fins of the evaporator. (Figure 7-36.)

Icemaker Assembly Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker.

The icemaker assembly is located behind the top right freezer basket, just below the glass shelf. (See Figure 7-37.) To access and remove the icemaker assembly, remove the top right freezer basket which contains the ice bucket first. The ice level mechanism now needs to be detached from the icemaker. This is done by sliding the connecting rod to the right, off of the icemaker shut-off arm, allowing the ice level arm to drop out of the way. Now remove the mounting screw at the bottom left of the icemaker which secures the icemaker

bracket to the drain trough enclosure. Extract the two mounting screws at the top rear, above the icemaker mold; pull the icemaker assembly forward and disconnect the electrical leads from the icemaker. (See Figure 7-38.)

Drain Trough Enclosure Access and Removal (Model 601F)

The drain trough enclosure is located at the rear of the compartment, just below the freezer glass shelf. (See Figure 7-37.)

NOTE: To access the drain trough enclosure it is recommended, but not necessary, to remove the freezer glass shelf.

To remove the drain trough enclosure, extract the mounting screw at the top of each corner and the mounting screws along the bottom. Then, pull enclosure forward.

NOTE: It is not necessary to remove the icemaker nor freezer compartment thermistor in order to detach the drain trough enclosure from the rear wall. But, the icemaker wire harness and thermistor electrical leads behind the drain trough enclosure will need to be disconnected in order to remove enclosure completely.

Icemaker Fill Tube Heater Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker fill tube heater.

The icemaker fill tube and fill tube heater are located at top right of icemaker, just below the freezer glass shelf and above the drain trough enclosure. (See Figure 7-38.) The icemaker fill tube heater plugs into the wire harness behind the drain trough enclosure.

NOTE: To access the fill tube heater it is recommended, but not necessary, to remove the freezer glass shelf.

To remove the fill tube heater, first remove the drain trough enclosure. Disconnect the fill tube heater from the wire harness and pull the fill tube and heater out as one. Then, cut the cable tie which holds the heater to the fill tube.

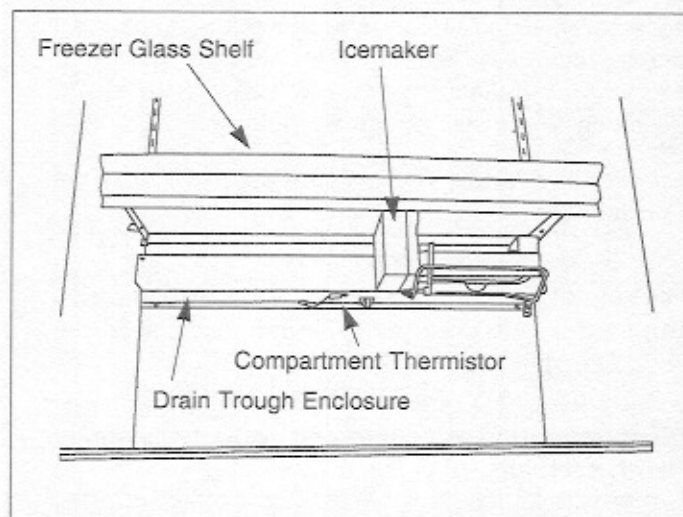


Figure 7-37. Model 601F Icemaker/Drain Trough Area

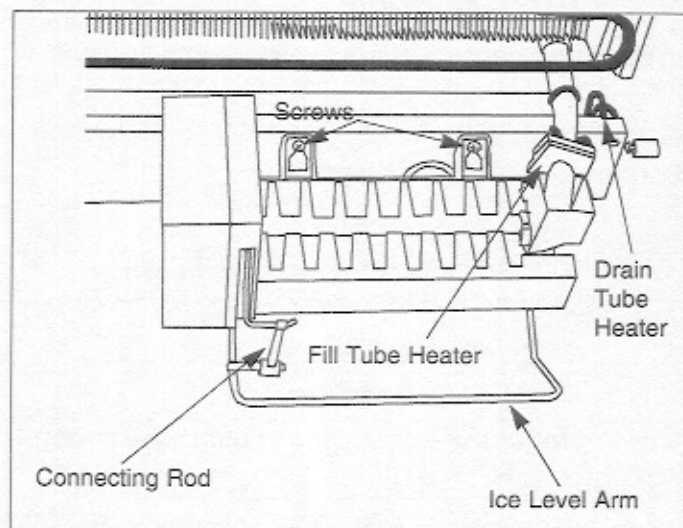


Figure 7-38. Model 601F Icemaker Area

Freezer Compartment Thermistor (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

The freezer compartment thermistor is attached to the bottom center of the drain trough enclosure, just above the top center freezer basket slide. (See Figure 7-37.) The thermistor wire leads attach to the wire harness behind the drain trough enclosure. To access and remove freezer compartment thermistor, the drain trough enclosure must first be detached from the back wall. Now, disconnect the thermistor wire leads from

the wire harness. Then extract the screw which secures the thermistor to the drain trough enclosure.

Drain Tube Heater Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove drain tube heater.

The braided wire drain tube heater is connected to the wire harness behind the drain trough enclosure. To access and remove the drain tube heater, the drain trough enclosure will need to be removed first. Now, disconnect the heater from the wire harness, remove the clamp which holds the heater in place, and pull the drain tube heater from the drain tube. (See Figures 7-38 & 7-39.)

NOTE: When replacing the drain tube heater, it is necessary to insert it a minimum of 3" into the drain tube.

Drain Trough Heater Access and Removal (Model 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove drain trough heater.

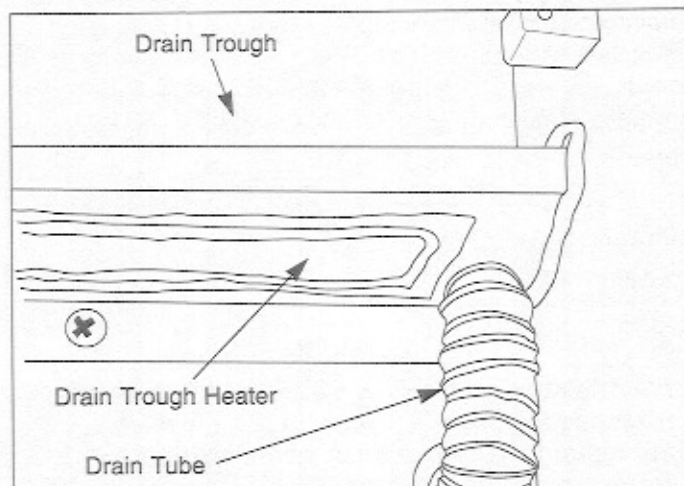


Figure 7-39. Model 601F Freezer Drain Area

The drain trough heater consists of a braided wire heater between two strips of aluminum foil, one of which has adhesive on the outside. This adhesive side holds the drain trough heater to the bottom of the drain trough. To access and remove the drain trough heater, the drain trough enclosure will need to be removed first. Now, disconnect the heater wires from the wire harness, and peel the heater from the bottom of the drain trough. (See Figure 7-39.)

NOTE: When replacing the drain trough heater, the bottom of the drain trough must be dry in order for the heater to stick properly.

Freezer Light Bulb Access**(Models 611, 650)**

There is no light diffuser in the freezer of these models. The light bulbs are located directly behind the top breaker strip. (See Figure 7-40.)

⚠ CAUTION

Light bulbs are hot and could cause minor personal injury.

⚠ WARNING

Electric shock hazard. If bulb should separate from base, disconnect power to unit before attempting to remove base from socket.

Icemaker Assembly Removal**(Models 611, 650)****⚠ WARNING**

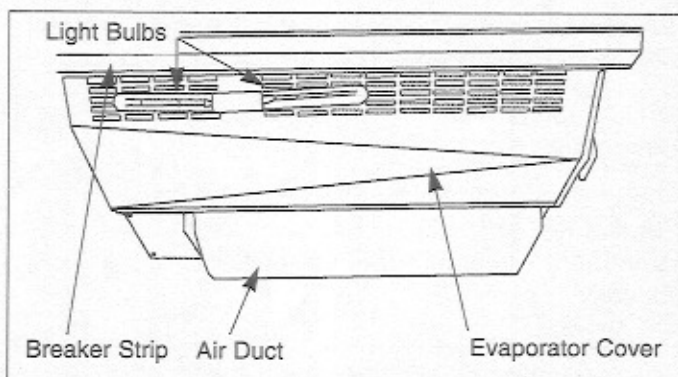
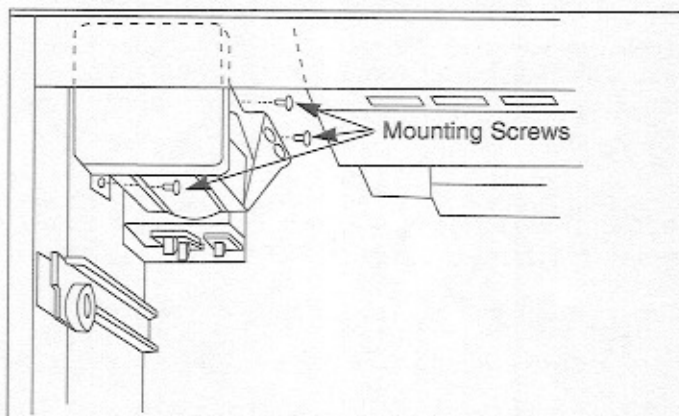
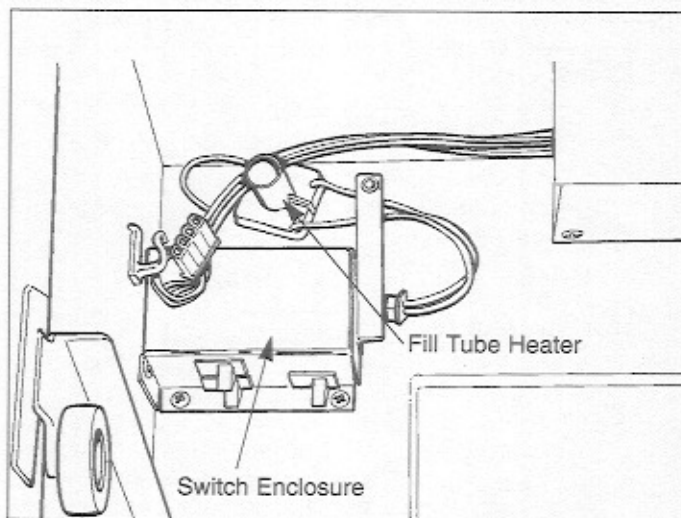
To avoid electrical shock, disconnect power to unit before attempting to remove icemaker.

To remove the icemaker, extract the mounting screw at the bottom of the icemaker which secures the icemaker bracket to the left side wall. Then extract the two mounting screws at the top, above the icemaker mold. Pull the icemaker assembly down, disconnect the electrical leads from the icemaker, and remove the ice level arm from the bracket. (See Figure 7-41.)

Icemaker Fill Tube Heater Access and Removal**(Models 611, 650)****⚠ WARNING**

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker fill tube.

The icemaker fill tube and fill tube heater are located at the top left rear corner of the freezer compartment, just above the switch enclosure. The fill tube heater plugs into the right side of the switch enclosure. To access the fill tube heater, first remove the icemaker. Then, disconnect the fill tube heater from the switch enclosure and pull the fill tube and heater out as one. (See Figure 7-42.)

**Figure 7-40. Model 611, 650 Freezer Lighting****Figure 7-41. Models 611, 650 Icemaker****Figure 7-42. Model 611, 650 Icemaker Fill Tube/Heater & Switch Enclosure**

Freezer Light, Fan and Icemaker Switches Access and Removal (Models 611, 650)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove switches.

The freezer light, fan and icemaker switches are located inside the switch enclosure at the top left rear corner of the freezer compartment. (See Figure 7-41.) To access and remove a freezer light, fan and/or icemaker switch, the icemaker should first be removed. Now extract the screws securing the switch enclosure to the top left rear corner of the freezer compartment. Then, lower the enclosure and disconnect the wire leads from the switch being removed. Depress the tabs on the side of the switch and push the switch out of the enclosure. (See Figures 7-42 and 7-43.)

Freezer Compartment Thermistor Access and Removal (Models 611, 650)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

The freezer compartment thermistor is located inside the switch enclosure at the top left rear corner of the freezer compartment. (See Figure 7-41.) To access and remove the freezer compartment thermistor, the icemaker should first be removed. Now extract the screws securing the switch enclosure to the top left rear corner of the freezer compartment. Then, lower the enclosure and disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the inside of the enclosure. (See Figures 7-42 & 7-43.)

Freezer Air Duct Removal (Models 611, 650)

The freezer air duct is located at the top rear of the freezer compartment, directly behind the evaporator cover. To remove the air duct, extract the two mounting screws at the front flange; pull the front down and forward.

NOTE: When reinstalling freezer air duct, the rear flange of air duct must sit on top of two lower white pegs in the rear wall.

Freezer Evaporator Cover Removal (Models 611, 650)

The freezer evaporator cover is located at the top of

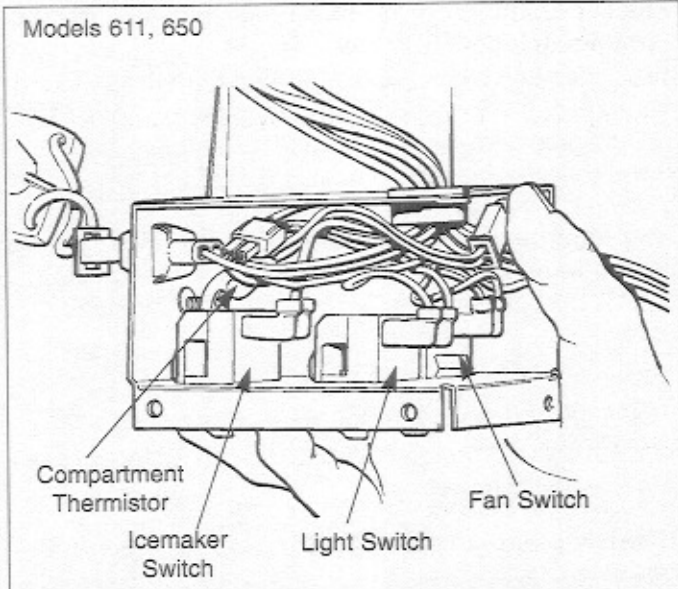


Figure 7-43. Model 611, 650 Switch Enclosure

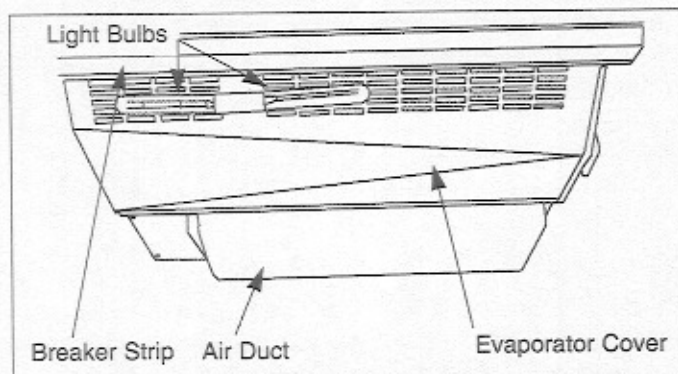


Figure 7-44. Model 611, 650 Freezer Compartment, Top

the freezer compartment, and the right side is sealed to the right wall with silicone. (See Figures 7-44 & 7-45.)

To remove the freezer evaporator cover, the freezer air duct will first need to be removed. Now, cut the silicone seal at the right side with a knife. Then, extract the mounting screws from the back and front of the evaporator cover. Pull the left side of the evaporator cover down and disconnect the electrical leads to the lights. Continue to pull the evaporator cover down and to the left.

NOTE: When replacing the evaporator cover it is important to reseal the right side with silicone. Failure to seal the right side could cause an icing situation in the freezer compartment. (See Figure 7-45.)

Freezer Evaporator Fan Assembly Access and Removal (Models 611, 650)

To access and remove the evaporator fan assembly, the freezer air duct and evaporator cover will need to be removed first. Now, remove the mounting screws at the left side of the fan shroud. Tilt the front edge of the assembly down and disconnect the fan motor wiring from the wire harness. (See Figure 7-46.) Continue to tilt the assembly forward and pull out. The freezer evaporator fan can now be removed from the fan shroud.

NOTE: When reinstalling freezer evaporator fan assembly, the oblong holes in the rear flange of the fan shroud must be placed over the two upper white pegs in the rear wall.

Freezer Evaporator Thermistor (Models 611, 650)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove evaporator fan assembly.

The freezer evaporator thermistor is attached to the left evaporator bracket. To access and remove the freezer evaporator thermistor, the freezer air duct, evaporator cover and evaporator fan motor/fan shroud assembly will need to be removed first. Now, disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the left evaporator bracket. (See Figure 7-47.)

Defrost Terminator (Models 611, 650)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to defrost terminator.

The defrost terminator is attached to the evaporator outlet, after the accumulator. To access and remove the defrost terminator, the freezer air duct, evaporator cover and evaporator fan motor/fan shroud assembly will need to be removed first. Now, disconnect the defrost terminator wire leads from the wire harness, and pull the terminator off of the tubing. (See Figure 7-47.)

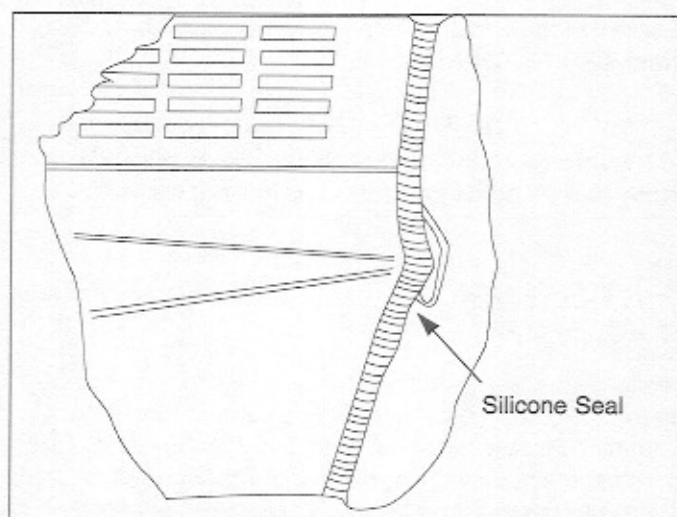


Figure 7-45. Model 611, 650 Silicone Seal

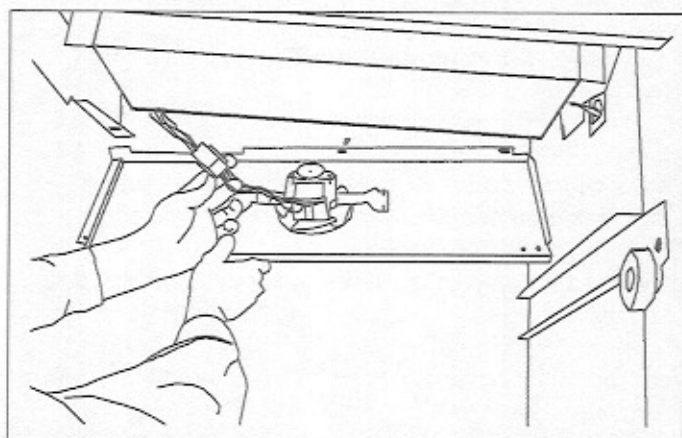


Figure 7-46. Model 611, 650 Freezer Evaporator Fan and Shroud

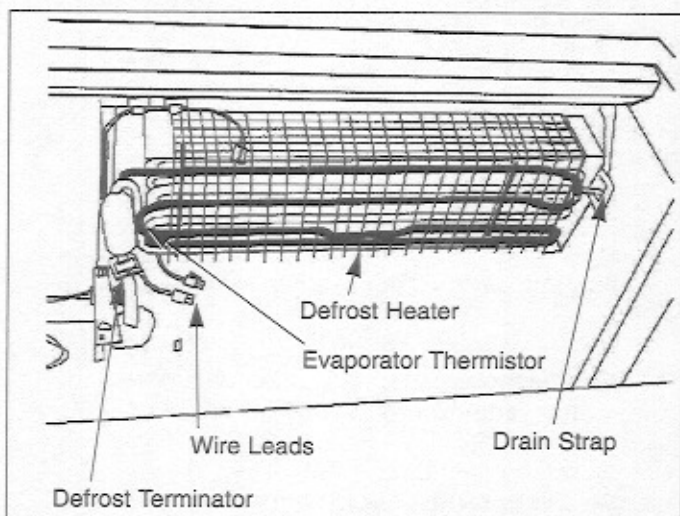


Figure 7-47. Model 611, 650 Freezer Evaporator Area

**Evaporator Defrost Heater Access and Removal
(Models 611, 650)**

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove defrost heater.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

To access and remove the freezer evaporator defrost heater, the freezer air duct, evaporator cover and evaporator fan motor/fan shroud assembly will need to be removed first. The heater clips which secure the heater to the evaporator now need to be removed. Dislodge the heater clips by pulling the tab of the clip down and out. Then disconnect the heater wires from the wire harness and gently pull the heater down and to the left from the fins of the evaporator. (See Figure 7-47.)

NOTE: There is a heater strap in the drain cup that is wrapped around the defrost heater. This heater strap conducts heat into the drain cup during defrost to avoid a frozen drain cup situation. This strap must be reinstalled when replacing the defrost heater. (See Figure 7-47.)

Freezer Lower Light Diffuser Removal (Models 632, 642)

To access and remove the lower light diffuser, the top freezer basket needs to be removed first. Push top of diffuser down, causing it to flex from top to bottom. This will release the top of the diffuser from the top channel of the diffuser retainer. Then, pull diffuser forward. (See Figure 7-48.)

NOTE: To reinstall, place bottom of diffuser in bottom channel of diffuser retainer; flex diffuser from top to bottom while lining up top of diffuser in top channel of retainer.

Freezer Compartment Thermistor (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

The freezer compartment thermistor is attached to the left side wall in the icemaker area. (See Figure 7-49 & 7-50.)

NOTE: To access and remove the freezer compartment thermistor it is recommended, but not necessary,

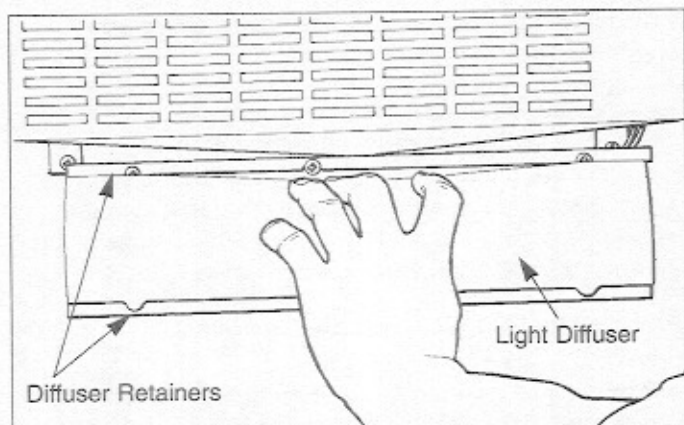


Figure 7-48. Model 632, 642 Lower Light Diffuser

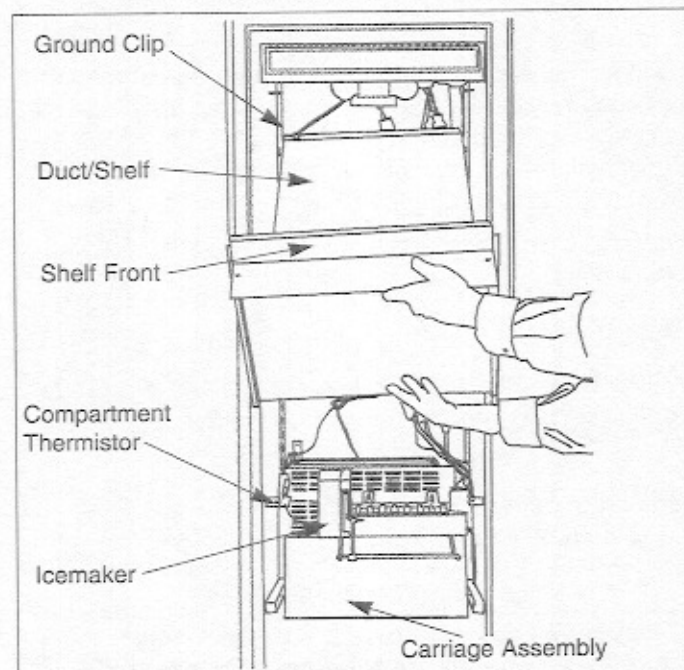


Figure 7-49. Model 632, 642 Freezer Compartment

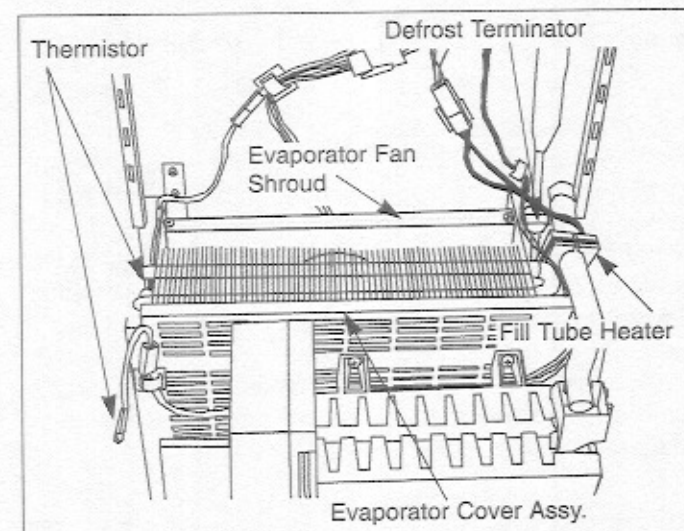


Figure 7-50. Model 632, 642 Evaporator Area

to remove the icemaker, as long as an offset screwdriver is used.

To access and remove the freezer compartment thermistor, the ice bucket must be removed first, and the ice bucket carriage assembly slid back out of the way. Then, disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to left side wall. (See Figures 7-49 & 7-50.)

Freezer Duct/Shelf Assembly Removal (Models 632, 642)

NOTE: It is recommended, but not necessary, to remove the light diffuser in order to remove the air duct/shelf.

The freezer duct/shelf assembly is secured at the top by slots in the side flanges fitting over pegs at the top of each shelf ladder. Screws at the shelf front hold the duct/shelf to supports in the side walls. To remove the duct/shelf, the ice bucket must first be removed. Now, extract the screws at left and right of shelf front, and pull the duct/shelf forward and down slightly. Then, pull the grounding clip terminal from the top flange of the duct/shelf and pull duct/shelf out. (See Figure 7-49.)

NOTE: When reinstalling freezer duct/shelf, be sure to reattach grounding clip terminal to top flange. (See Figure 7-49.)

Icemaker Access and Removal (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker.

NOTE: It is recommended, but not necessary, to remove the air duct/shelf in order to remove the icemaker.

To remove the icemaker, the ice level mechanism needs to be detached from the icemaker. This is done by sliding the connecting rod to the right, off of the icemaker shut-off arm, allowing the ice level arm to drop out of the way. Now remove the mounting screw at the bottom left of the icemaker which secures the icemaker bracket to the evaporator cover assembly. Then extract the two mounting screws at the top rear, above the icemaker mold. Pull the icemaker assembly forward and disconnect the electrical leads from the icemaker. (See Figures 7-50 & 7-51.)

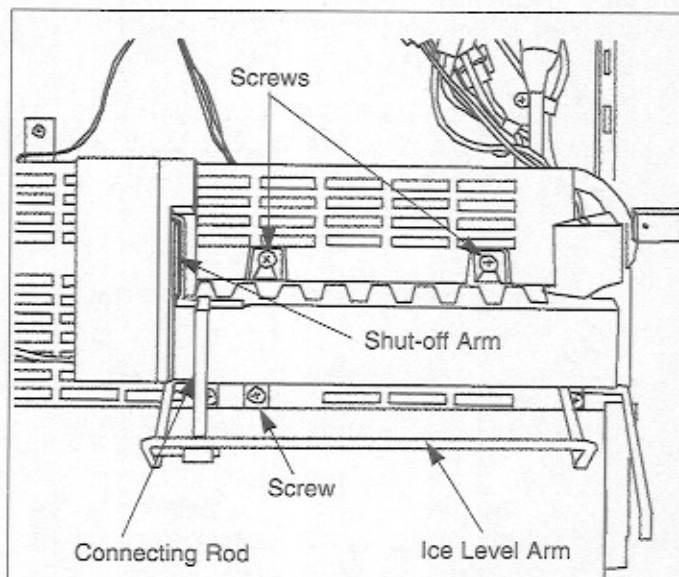


Figure 7-51. Model 632, 642 Icemaker

Icemaker Fill Tube Heater Access and Removal (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker fill tube heater.

To access and remove the icemaker fill tube heater, first remove the air duct/shelf. Now disconnect the heater wire leads from the wire harness and pull the fill tube and heater out as one. Then, cut the cable tie which holds the heater to the fill tube. (See Figure 7-50.)

Freezer Evaporator Fan Assembly Access and Removal (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove evaporator fan assembly.

To access and remove the freezer evaporator fan assembly, first remove the air duct/shelf. Now disconnect the fan motor wire leads from the wire harness. Then, extract the two retaining screws which secure the evaporator fan shroud to the evaporator brackets; pull the fan assembly up, slightly forward, and out. (See Figure 7-49 & 7-50.)

Defrost Terminator (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove defrost terminator.

The defrost terminator is attached to the evaporator outlet, after the accumulator.

To access and remove the freezer defrost terminator, first remove the air duct/shelf. Now, disconnect the defrost terminator wire leads from the wire harness, and pull the terminator off of the tubing. (See Figures 7-50 & 7-52.)

Ice Bucket Carriage Assembly Removal (Models 632, 642)

The rollers of the ice bucket carriage assembly are captivated by the ice bucket slides attached to each side wall. To remove the carriage assembly, push it as far back as possible so that the screws in the ice bucket slides are accessible. Extract the two front most screws from each ice bucket slide. Then, pull the slides and carriage assembly forward and out.

NOTE: It is not necessary to completely remove the ice bucket slides rear retaining screws. They fit into slots at the top rear of each slide.

Freezer Evaporator Cover Access and Removal (Models 632, 642)

NOTE: Depending on the purpose for gaining access to this area, it is recommended, but not necessary, to remove the air duct/shelf assembly first, in order to remove the evaporator cover assembly.

A grounding screw secures the evaporator cover to a bracket at the front of the evaporator. The evaporator cover also bends back underneath the evaporator to act as the drain trough.

To access and remove the evaporator cover, the ice bucket carriage assembly and icemaker will need to be removed first. Now disconnect the ice level mechanism and extract the ground screw at front center of the evaporator cover. Then, tilt the evaporator cover forward to gain access to the drain tube heater. Pull the drain tube heater from the drain tube. Then, pull the evaporator cover forward while pulling the drain tube off of the drain spout. (See Figures 7-51 & 7-52.)

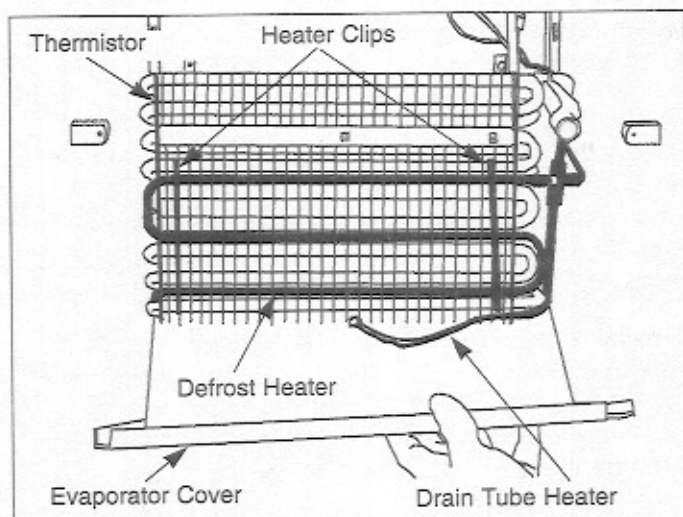


Figure 7-52. Model 632, 642 Evaporator Access

Defrost Heater Access and Removal (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove defrost heater.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

To access and remove the evaporator defrost heater, the air duct/shelf assembly, ice bucket carriage assembly, icemaker and evaporator cover will need to be removed first. Now, disconnect the heater wire leads from the wire harness. Then, dislodge the heater clips by pulling the tab of the heater clips down and out. Gently pull the heater from the fins of the evaporator. (See Figure 7-52.)

Freezer Drain Tube Heater Access and Removal (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove drain tube heater.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

To access and remove the drain tube heater, the air duct/shelf assembly, ice bucket carriage assembly, ice-

maker and evaporator cover will need to be removed first. Now, disconnect the drain tube heater wire leads from the wire harness. Then, extract the screws which secure the evaporator to the rear wall of the freezer compartment. Pull the bottom of the evaporator up while rotating to the left to gain access to the clamp holding the heater at the bottom right rear of the evaporator. Extract the screw holding the clamp and pull heater up. (See Figure 7-52.)

Freezer Evaporator Thermistor (Models 632, 642)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

The freezer evaporator thermistor is attached at the top of the left evaporator bracket. To access and remove the evaporator thermistor, the air duct/shelf assembly, ice bucket carriage assembly, icemaker and evaporator cover will need to be removed first. Now, disconnect the thermistor wire leads from the wire harness. Then, extract the screws which secure the evaporator to the rear wall of the freezer compartment and pull the bottom of the evaporator up while rotating to the right. Extract the screw which secures the thermistor to the top of the left evaporator bracket. (See Figure 7-52.)

Light Bulb Access (Model 690)

⚠ CAUTION

Light bulbs are hot and could cause minor personal injury.

⚠ WARNING

Electrical shock hazard. If bulb should separate from base, disconnect power to unit before attempting to remove base from socket.

There is no upper light diffuser in the freezer of this model. The light bulbs are located directly behind the upper front panel. (See Figure 7-53.)

NOTE: See Upper Front Panel Removal procedure below.

Upper Front Panel Removal (Model 690)

The upper front panel is secured to the ceiling of the compartment by two rows of screws. The front row of screws are accessed through keyhole slots in the assembly. To remove the upper front panel, extract the

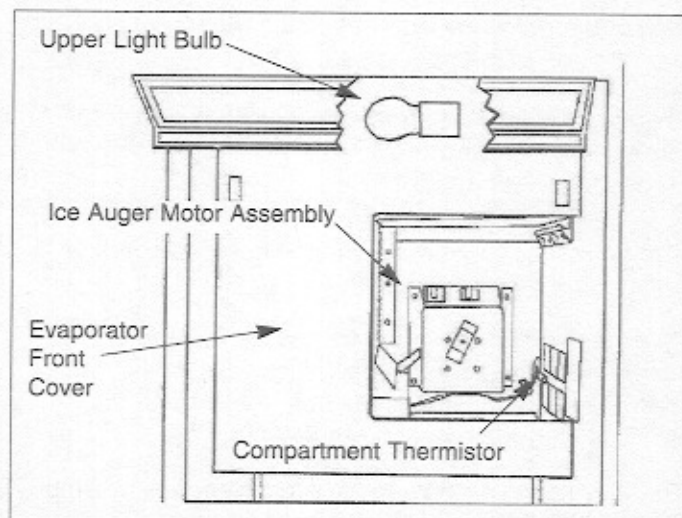


Figure 7-53. Model 690 Upper Freezer Area

rear row of screws at the back of the panel. Push the panel back to release it from the front row of screws, then lower the panel down and pull out.

Ice Auger Motor Assembly Access and Removal (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove ice auger motor assembly.

The ice auger motor assembly is attached to the rear wall, directly behind the ice bucket assembly. To access and remove the ice auger motor assembly, the juice can rack, and ice bucket will need to be removed first. Now, extract the four screws securing the ice auger motor assembly to the rear wall. Then, disconnect the auger motor and ice bucket switch electrical leads and pull assembly out. (See Figure 7-53.)

NOTE: The ice bucket switches may be removed at this time by depressing the tab on the side of the switch while pushing the switch out of the opening.

Freezer Evaporator Front Cover Access and Removal (Model 690)

The freezer evaporator front cover is held in place by two screws at the top corners, and two screws through the bottom flange into the lower evaporator cover assembly. To access and remove the freezer evaporator front cover, the juice can rack and upper front panel first need to be removed.

NOTE: The procedure for removing the upper front panel is the same as removing an upper control panel.

Now, extract the two screws at the top front of the front cover and two screws at the bottom flange of the front cover, and pull front cover out. (See Figure 7-53.)

Freezer Evaporator Fan Assembly Access and Removal (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove evaporator fan assembly.

The rear flange of the freezer evaporator fan assembly fits into a slot in the rear evaporator bracket. The front of the evaporator fan assembly is secured by two screws through the front flange into the front evaporator bracket. See Figure 7-49.

To access and remove the freezer evaporator fan assembly, the juice can rack, upper front panel and evaporator front cover will first need to be removed. Now, extract the two screws which secure the fan bracket to the front evaporator bracket. Then, pull the assembly out of the slot at the rear evaporator bracket and disconnect the fan motor electrical leads. (See Figure 7-54.)

Freezer Compartment Thermistor (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

The freezer compartment thermistor is located on the mullion wall by the icemaker. To access and remove the freezer compartment thermistor, the juice can rack, upper front panel and evaporator front cover will first need to be removed. Now disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the wall. (See Figure 7-54.)

Freezer Evaporator Thermistor (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove thermistor.

The freezer evaporator thermistor is attached to the front evaporator bracket. To access and remove the freezer evaporator thermistor, the juice can rack, upper

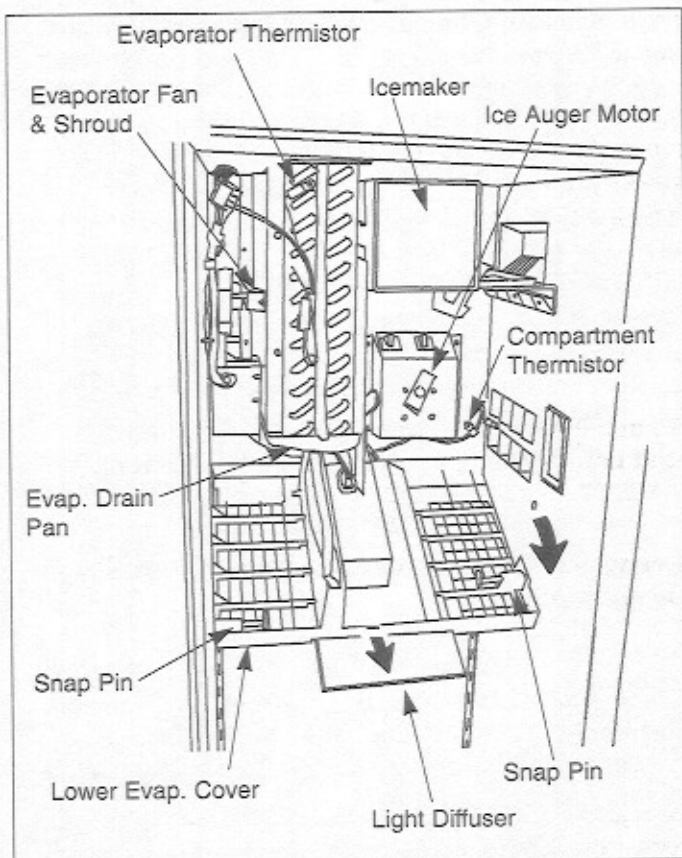


Figure 7-54. Model 690 Freezer Evaporator Area

front panel and evaporator front cover will first need to be removed. Now disconnect the thermistor wire leads from the wire harness, and extract the screw which secures the thermistor to the front evaporator bracket. (See Figure 7-54.)

Freezer Lower Light Diffuser Removal (Model 690)

The lower light diffuser slides into a channel in the lower evaporator cover assembly. To access and remove the lower light diffuser, the juice can rack, upper front panel and evaporator front cover will need to be removed first. Then, slide the diffuser glass forward and out. (See Figure 7-54.)

Freezer Rear Duct Removal (Model 690)

The bottom of the freezer rear duct is secured by slots in the side flanges fitting over pegs at the bottom of each shelf ladder. At the top, screws hold the rear duct to the lower evaporator cover assembly. To remove the rear duct, extract the screws at the top, tilt the duct forward and lift out. (See Figure 7-55.)

Freezer Lower Evaporator Cover Assembly Access and Removal (Model 690)

The lower evaporator cover assembly has two pegs at

the rear which fit into pockets in the rear wall. Snap pins toward the front sides of the cover slide into pockets in the side wall.

⚠ CAUTION

While removing the lower evaporator cover assembly, hold the light diffuser as it may slide out.

To access and remove the lower evaporator cover assembly, the juice can rack, upper front panel, evaporator front cover and rear duct will need to be removed first. Now, pull the snap pins out of the pockets in the side walls and lean the evaporator cover down. Then, disconnect the electrical leads to the lighting and pull the assembly forward. (See Figure 7-54.)

Icemaker Carriage Assembly Access and Removal (Model 690)

⚠ WARNING

The icemaker is attached to the icemaker carriage assembly. To avoid electrical shock, disconnect power to unit before attempting to remove icemaker carriage assembly.

The icemaker carriage assembly is secured to the side wall by three screws, and three screws at the rear wall. To access and remove the icemaker carriage assembly, the juice can rack, upper front cover, evaporator front cover, rear duct and lower evaporator cover assembly will need to be removed first. Now, extract the mounting screws from the rear and side walls. Then, pull the carriage assembly down slightly and disconnect the electrical leads to the icemaker. (See Figure 7-56.)

Icemaker Access and Removal (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker .

The icemaker is attached to the icemaker carriage assembly. To access and remove the icemaker, the juice can rack, upper front panel, evaporator front cover, rear duct, lower evaporator cover assembly and icemaker carriage assembly will need to be removed first. Then, extract the mounting screw which secure the icemaker to the carriage assembly. (See Figure 7-56.)

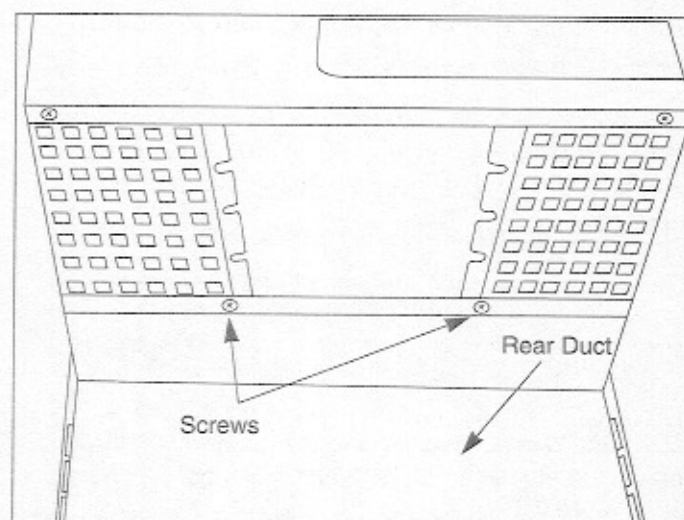


Figure 7-55. Model 690 Rear Duct Removal

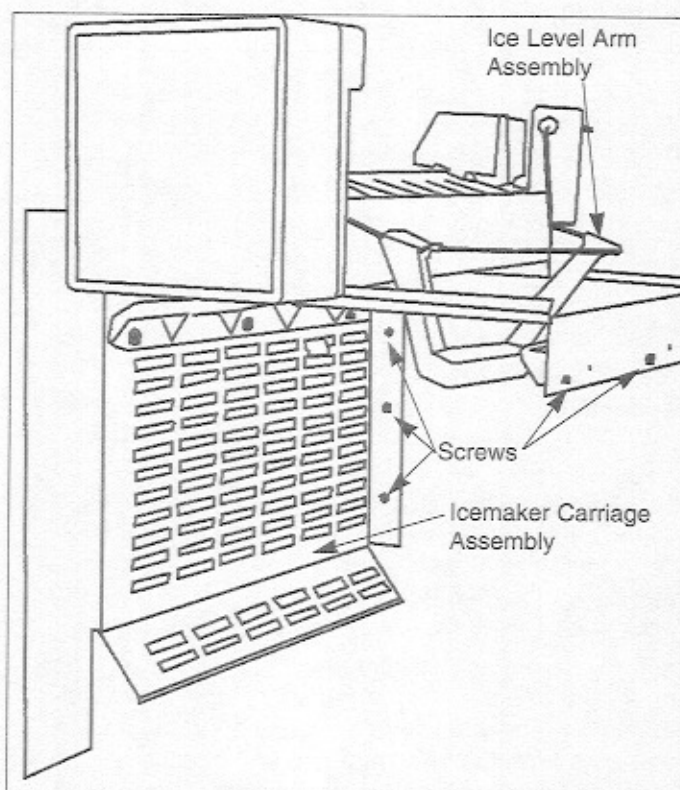


Figure 7-56. Model 690 Icemaker and Carriage Assembly

Icemaker Fill Tube Heater Access and Removal (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove icemaker fill tube heater.

To access and remove the icemaker fill tube heater, the juice can rack, upper front panel, evaporator front cover, rear duct, lower evaporator cover assembly and icemaker carriage assembly will need to be removed first. Then, disconnect the heater electrical leads, extract the retaining screw and clamp, and pull the heater and aluminum fill tube extension out as one. (See Figure 7-57.)

Freezer Drain Tube Heater Access and Removal (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove drain tube heater.

To access and remove the drain tube heater, the juice can rack, upper front panel, evaporator front cover, rear duct, lower evaporator cover assembly and icemaker carriage assembly will need to be removed first. Now, extract the screws at the right side of the freezer evaporator drain pan, lower the front of the drain pan down and pull the drain tube heater from the drain tube. Then, extract the screws which secure the evaporator front bracket to the ceiling of the freezer. Pull evaporator down and rotate it to the right to gain access to the rear. Then, disconnect the freezer drain tube heater electrical leads from the wire harness. (See Figures 7-58 & 7-59.)

NOTE: When replacing the drain tube heater, it is necessary to insert it a minimum of 3" into the drain tube.

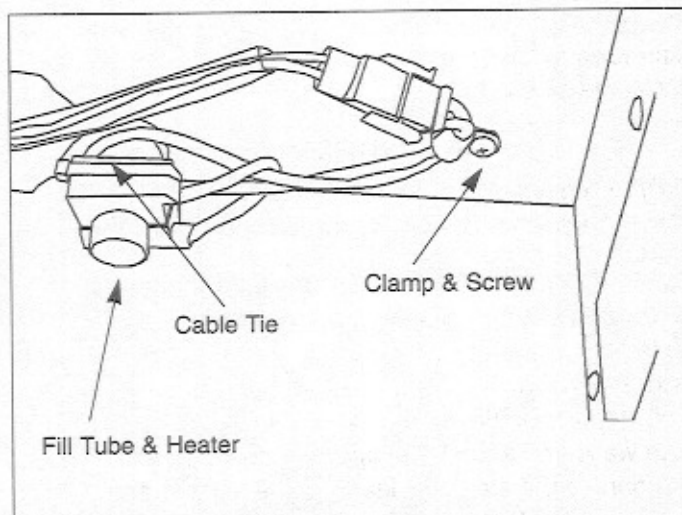


Figure 7-57. Model 690 Fill Tube Heater Removal

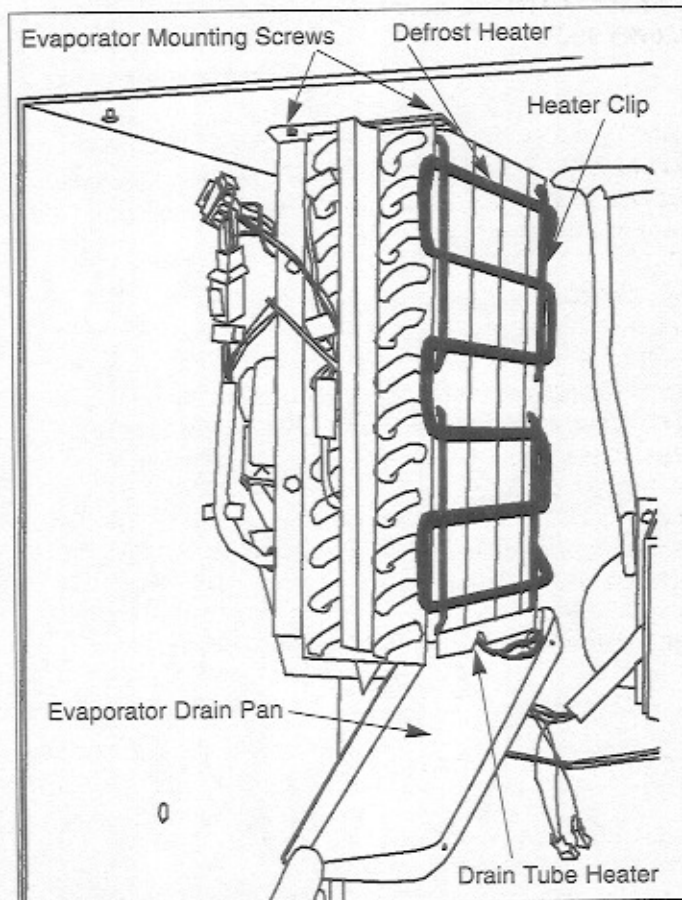


Figure 7-58. Model 690 Freezer Evaporator, Front

Freezer Evaporator Defrost Heater Access and Removal (Model 690)**⚠ WARNING**

To avoid electrical shock, disconnect power to unit before attempting to remove defrost heater.

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

To access and remove the freezer evaporator defrost heater, the juice can rack, upper front panel, evaporator front cover, rear duct, lower evaporator cover assembly and icemaker carriage assembly will need to be removed first. The heater clips which secure the heater to the evaporator now need to be removed. Dislodge the heater clips by pulling the tab of the clip down and out. Then, extract the screws which secure the evaporator front bracket to the ceiling of the freezer. Pull evaporator down and rotate it to the right to gain access to the rear. Then, disconnect the heater electrical leads from the wire harness and gently pull the defrost heater from the fins of the evaporator. (See Figure 7-58 & 7-59.)

Defrost Terminator (Model 690)**⚠ WARNING**

To avoid electrical shock, disconnect power to unit before attempting to remove defrost terminator.

The defrost terminator is attached to the evaporator outlet, after the accumulator, at the back side of the evaporator. To access and remove the defrost terminator, first remove the juice can rack, upper front panel, evaporator front cover, rear duct, lower evaporator cover assembly and icemaker carriage assembly. Now, extract the screws which secure the evaporator front bracket to the ceiling of the freezer. Pull evaporator down and rotate it to the right to gain access to the rear. Then, disconnect the defrost terminator wire leads from the wire harness, and pull the terminator off of the tubing. (See Figure 7-59.)

LOWER COMPRESSOR AREA MECHANICAL AND ELECTRICAL COMPONENT ACCESS AND REMOVAL

This section covers the Models 601R and 601F, explaining how to access and remove mechanical and electrical components in the lower compressor area. This will include access and removal of the light and fan switches, water valve and condenser fan motor.

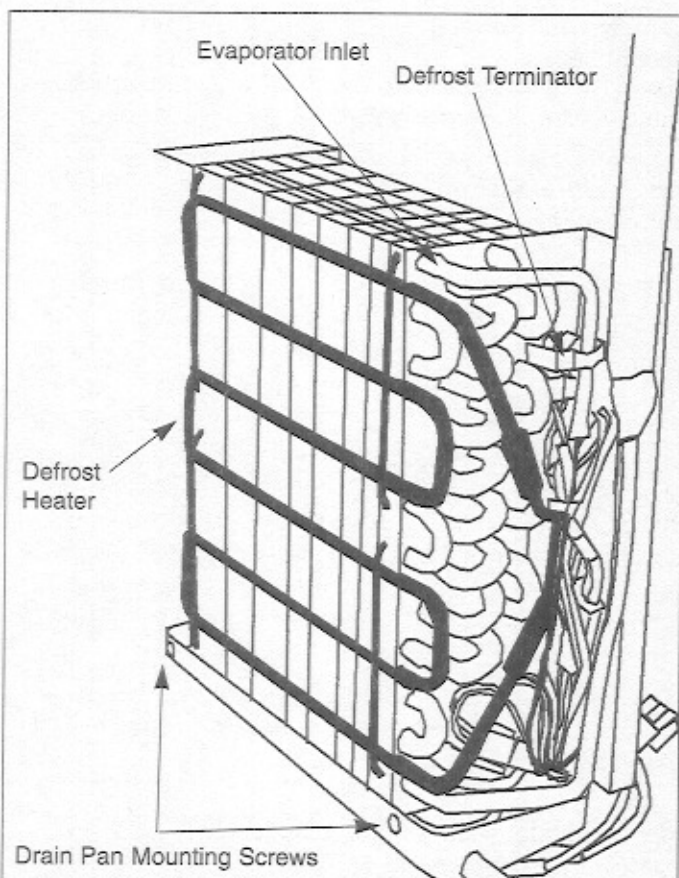


Figure 7-59. Model 690 Freezer Evaporator, Rear

Light and Fan Switch Access and Removal (Models 601R, 601F)**⚠ WARNING**

To avoid electrical shock, disconnect power to unit before attempting to remove light and fan switches.

The light and fan switches are mounted to the top section of the unit grille. To access and remove the light and/or fan switches, the lower section of unit grille will need to be removed first. Now, open cabinet door and extract the screws at the top left and right corners. Pull upper grille assembly forward slightly and disconnect the electrical leads from the switch being removed. Depress the tabs on each side of the switch while pushing the switch out of the opening in the grille top section. (See Figure 7-60.)

Water Valve Access and Removal (Model 601F)**⚠ WARNING**

To avoid electrical shock, disconnect power to unit before attempting to remove water valve.

⚠ CAUTION

To avoid water damage, shut off water supply to unit before attempting to remove water valve.

NOTE: To access the water valve it is recommended, but not necessary, to remove the top section of the unit grille assembly after removing the bottom section.

The water valve is mounted to a bracket at the right hand side of the compressor area. To access and remove the water valve, first remove the lower section of the unit grille. (See note above.) Now disconnect the water inlet compression fitting. Loosen the mounting screw which secures the valve to the bracket, and push the bracket up until the screw head aligns with the larger section of the keyhole slot. Push valve back until the screw head clears the hole, then pull the valve out. Disconnect the electrical leads from the solenoid, and the plastic water line from the valve outlet. (See Figure 7-61.)

Condenser Fan Access and Removal (Models 601R, 601F)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove condenser fan assembly.

The condenser fan motor is attached to a three legged condenser fan bracket by screws. The rear leg of the condenser fan bracket hooks over a spacer toward the back of the fan shroud. The two front legs of the bracket are secured to the fan shroud by screws into wellnuts. To access and remove the condenser fan assembly, first remove the lower and upper sections of the unit grille, and remove the compressor baffle. Now, disconnect the fan motor electrical leads from the compressor. Extract the screws from the two front legs of the fan bracket. Then, unhook the rear leg by pushing the condenser fan assembly back slightly, then lift up and pull forward. The condenser fan motor can now be removed from the bracket by extracting the screws in the back side of the fan motor. (See Figure 7-62.)

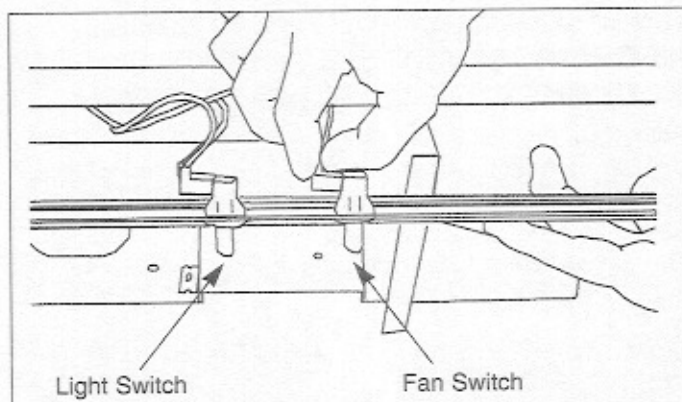


Figure 7-60. Model 601F Light Fan & Switches

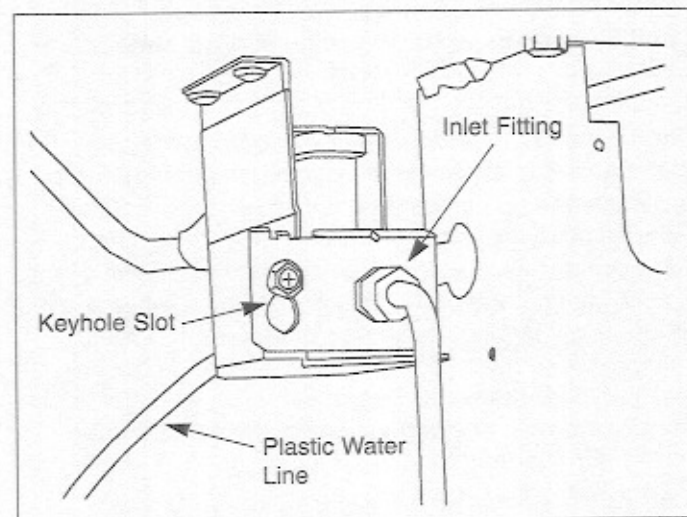


Figure 7-61. Model 601F Water Valve Removal

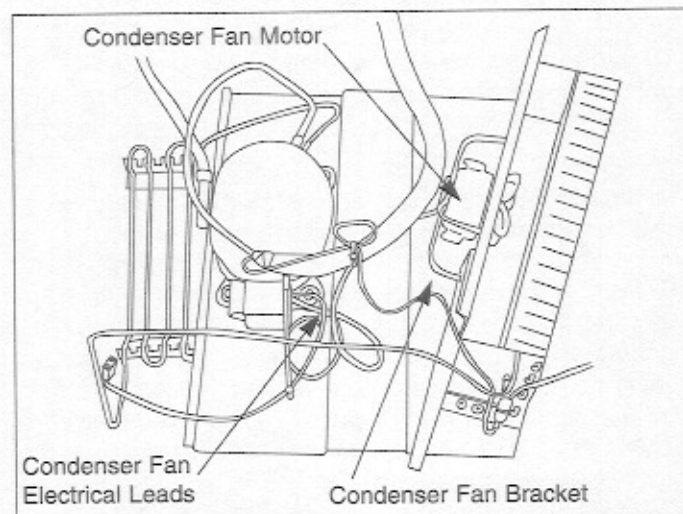


Figure 7-62. Model 601R, 601F Condenser Fan Removal

UPPER COMPRESSOR AREA MECHANICAL AND ELECTRICAL COMPONENT ACCESS AND REMOVAL

This section covers the Models 611, 632, 642, 650 and 690, explaining how to access and remove mechanical and electrical components from the upper compressor area. This will include access and removal of the light and fan switches, dual water valve (Model 690 only) and condenser fan motors.

Light and Fan Switch Access and Removal (Models 611, 632, 642, 650, 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove light and fan switches.

The light and fan switches are mounted to the top mainframe. To access and remove the light and/or fan switches, the unit grille will need to be removed first. Now, remove the switch enclosure directly behind the top mainframe extrusion by extracting the retaining screw, tilt the back of the switch enclosure forward and lift up. Now unplug the wires from the switch being removed. Open the refrigerator or freezer below the switch being removed. Depress the tab on the side of the switch while pushing the switch down, out of the opening in the mainframe extrusion. (See Figure 7-63.)

Dual Water Valve Removal (Model 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove water valve.

⚠ CAUTION

To avoid water damage, shut off water supply to unit before attempting to remove water valve.

NOTE: Though the water valve on the model 690 is at the top of the unit, the water line inlet connection for hooking up the house water supply is located in the drain pan area. A copper tube leads from this connection beneath the unit, up the rear wall to the dual water valve.

To access and remove the dual water valve, the unit grille and compressor baffle must first be removed. Now, disconnect the wire leads from both solenoids. Slide the spray cover off of the inlet compression fitting and disconnect the inlet water line from the dual water valve. Then, disconnect the outlet water lines.

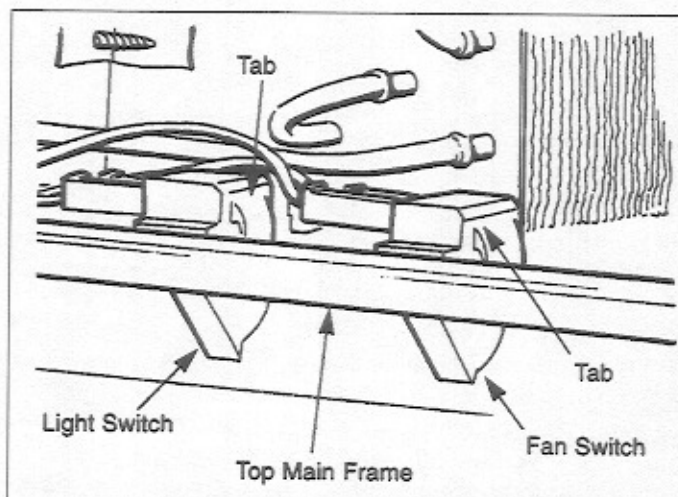


Figure 7-63. Model 611, 632, 642, 650, 690 Light & Fan Switches

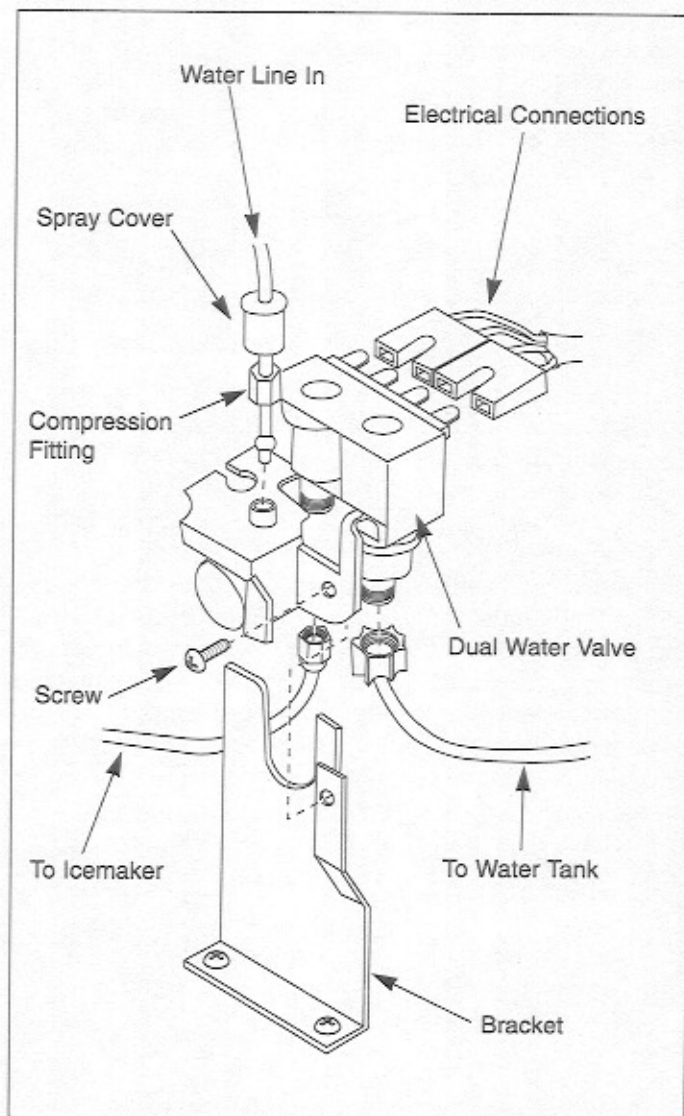


Figure 7-64. Model 690 Dual Water Valve

Remove the screw which holds the valve to the bracket and lift the valve up and out. (See Figure 7-64.)

Condenser Fan Access and Removal (Models 611, 632, 642, 650, 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove condenser fan assembly.

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

The condenser fan motor is attached to a three legged condenser fan bracket by screws. The rear leg of the condenser fan bracket hooks over a spacer towards the back of the fan shroud. The two front legs of the bracket are secured to the fan shroud by screws into wellnuts. To access and remove the condenser fan motor, the unit grille and compressor baffle must first be removed. Now, disconnect the fan motor electrical leads from the wire harness. Then, extract the screws from the two front legs of the fan bracket. Unhook the rear leg by pushing the condenser fan assembly back slightly, then lift up and pull forward. The condenser fan motor can now be removed from the bracket by extracting the screws in the back side of the fan motor. (See Figure 7-65.)

WATER VALVE ACCESS AND REMOVAL - DRAIN PAN AREA (MODELS 611, 632, 642, 650)

This section covers the Models 611, 632, 642 and 650, explaining how to access and remove the water valve from the drain pan area.

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove water valve.

⚠ CAUTION

To avoid water damage, shut off water supply to unit before attempting to remove water valve.

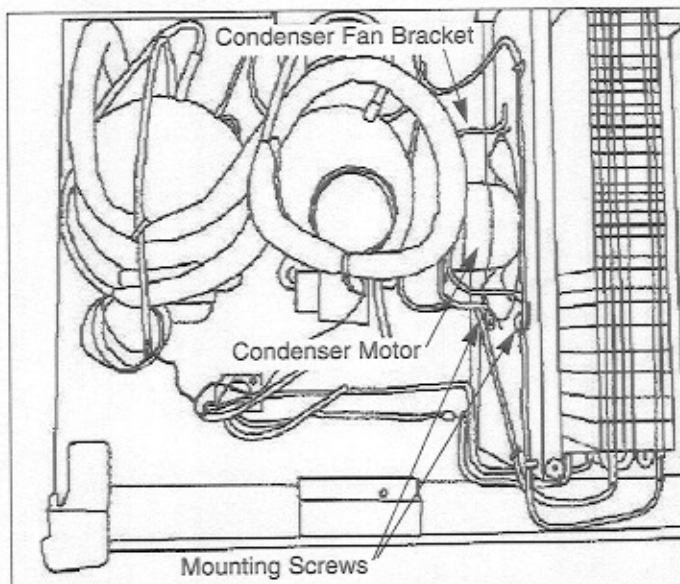


Figure 7-65. Model 611, 632, 642, 650, 690 Condenser Fan

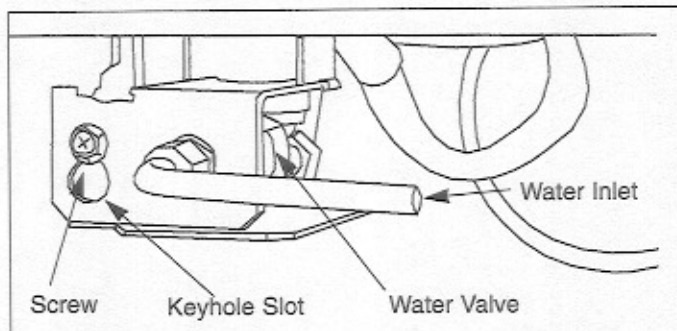


Figure 7-66. Model 611, 632, 642, 650, 690 Water Valve Removal

The water valve is mounted to a bracket at the left hand side of the drain pan area. To access and remove the water valve, first remove the kickplate. Now, loosen the mounting screw which secures the valve to the bracket, and push the valve up until the screw head aligns with the larger section of the keyhole slot. Push valve back until the screw head clears the hole, then pull forward. Then, disconnect the water inlet compression fitting from valve. Disconnect the electrical leads from the solenoid, and the plastic water line from the valve outlet. (See Figure 7-66.)

SEALED SYSTEM COMPONENT REMOVAL

This section explains how to remove sealed system components during a sealed system repair on 600 Series units. In most cases it is necessary to remove primary parts, and in some cases mechanical & electrical components, in order to gain access to these components. The manner in which this section was written assumes that the PRIMARY PART REMOVAL and MECHANICAL & ELECTRICAL COMPONENT REMOVAL sections have been studied and understood. If necessary, refer to these sections in this manual before attempting to remove sealed system components.

When possible, units with similar component removal procedures were grouped together under the appropriate heading. The units covered will be listed between brackets after the heading.

⚠ WARNING

If it is necessary to disconnect electrical components in order to remove a sealed system component, disconnect power to unit to avoid electrical shock.

NOTE: 600 Series units are produced without process valves on the compressor and filter-driers. Solder-on process valves must be installed in order to service the sealed system. Sub-Zero does not authorize the use of bolt-on saddle valves.

Filter-Drier Removal (Models 601R, 601F)

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

NOTE: To access the filter-drier it is recommended, but not necessary, to remove the top section of the unit grille assembly after removing the bottom section.

The filter-drier is attached to the condenser outlet. (See Figure 7-67.) To remove a filter-drier, first remove the lower sections of the unit grille. Then, after capturing the refrigerant from the sealed system, use a file to score a line around the capillary tube approximately one inch from the filter-drier outlet. Fatigue the capillary tube at this line until it separates. Then, with a tube cutter, cut the filter-drier inlet tube.

NOTE: Check the end of the remaining capillary tube for internal burrs. If burrs exist or tubing has been pinched closed while fatiguing, re-score capillary tube approximately one inch from the end. Then, fatigue the capillary tube at this new line until it separates, and recheck.

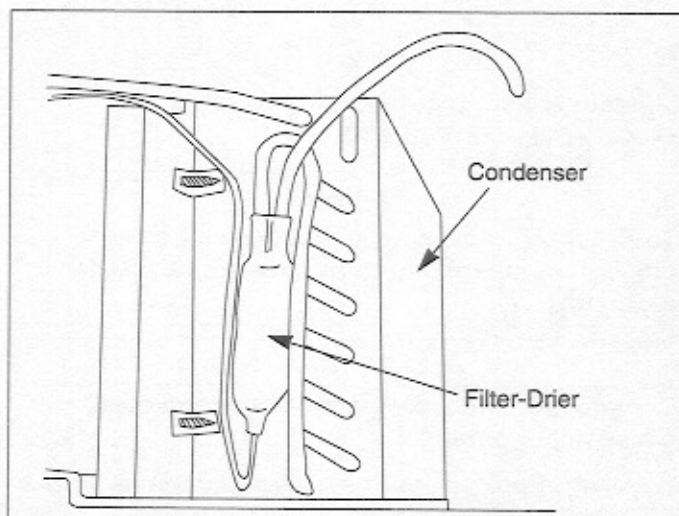


Figure 7-67. Model 601R, 601F Filter-Drier Location & Position

NOTE: When installing the replacement filter-drier, insert capillary tube until it touches the screen. Then, pull capillary tube out away from the screen approximately 3/8" before brazing.

NOTE: The outlet of the filter-drier must be facing downward in order to function properly. (See Figure 7-67.)

Compressor Removal (Models 601R, 601F)

NOTE: When replacing compressor, the filter-drier must also be replaced.

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove a compressor.

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

The Compressor is secured to the unit tray by bolts into grommets. To remove the compressor, the upper and lower section of the unit grille along with the compressor baffle must be removed first. Then, after capturing the refrigerant from the sealed system, remove the compressor electrical cover and disconnect the electricals from the compressor. Now, remove the bolts from the grommets at each corner of the compressor base, and pull compressor forward and rotate to the right to gain access to the suction and discharge lines. Using a tube cutter, cut the suction and dis-

charge lines approximately one inch from the compressor, then pull compressor out. (See Figure 7-68.)

Drain Pan Condensate Heater Loop Removal (Model 601R)

⚠ WARNING

It is not necessary to pull unit from its installation in order to replace the condensate heater loop. If unit is pulled from installation, it will be very top heavy at this time and could tip.

⚠ CAUTION

If unit is pulled from installation, floor must be covered to protect against damaging the floor.

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

NOTE: When replacing the condensate heater loop, the filter-drier must also be replaced.

NOTE: It is recommended that a suction line drier be added to the sealed system when replacing the condensate heater loop.

On the model 601R, the drain pan condensate heater loop is located in the compressor area, and sits in the drain pan. To remove condensate heater loop, the upper and lower section of the unit grille along with the compressor baffle must be removed first. Then, after capturing the refrigerant from the sealed system, remove the bolts from the grommets at each corner of the compressor base and pull compressor forward and rotate to the right. Un-braze or cut the condensate loop inlet and outlet, and pull condensate loop out. (See Figure 7-68.)

Condenser Removal (Models 601R, 601F)

⚠ WARNING

It is not necessary to pull unit from its installation in order to replace the condenser. If unit is pulled from installation, it will be very top heavy at this time and could tip.

⚠ CAUTION

If unit is pulled from installation, floor must be covered to protect against damaging the floor.

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

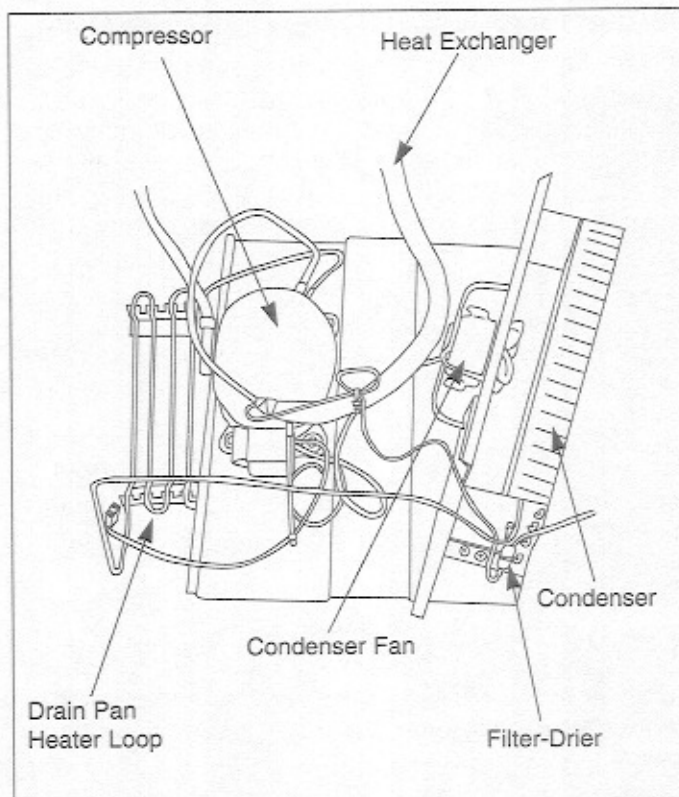
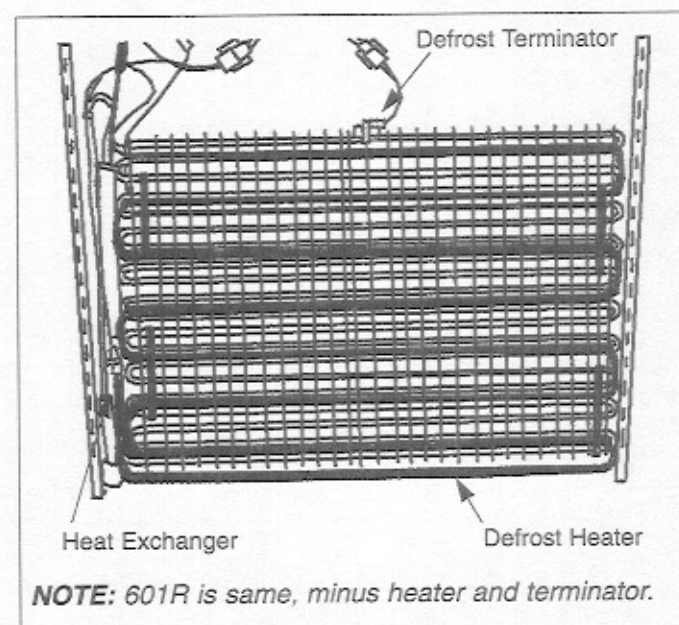


Figure 7-68. Model 601R Compressor Area Layout



NOTE: 601R is same, minus heater and terminator.

Figure 7-69. Model 601R, 601F Evaporator Area

⚠ CAUTION

Condenser fins are sharp and could cause minor personal injury.

NOTE: When replacing condenser, the filter-drier must also be replaced.

To remove the condenser, the upper and lower section of the unit grille along with the compressor baffle must be removed first. Then, after capturing the refrigerant from the sealed system, remove the screws which secure the condenser fan shroud to the condenser. Now, un-braze or cut the condenser inlet and outlet tubing. Extract the mounting screws which secure the condenser side brackets to the unit tray. Slide the condenser to the right, then pull forward. (See Figure 7-68.)

Evaporator Removal (Models 601R, 601F)

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

NOTE: When replacing the evaporator, the filter-drier must also be replaced.

NOTE: When removing the evaporator from a model 601F, the defrost heater and defrost terminator must be removed first.

The evaporator is attached to the rear wall, behind the evaporator cover. After capturing the refrigerant from the sealed system, remove the screws which secure the evaporator to the rear wall. Pull the bottom of the evaporator up while rotating the heat exchanger out. Now, un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment. (See Figure 7-69.)

Heat Exchanger Removal (Models 601R, 601F)

⚠ CAUTION

One end of heat exchanger is connected to evaporator. Evaporator fins are sharp. One end of heat exchanger is connected to compressor and filter drier. compressor and tubing may be hot.

NOTE: When replacing a heat exchanger, the filter-drier must also be replaced.

NOTE: It is not necessary to pull the unit from its installation in order to replace the heat exchanger. The heat exchanger travels through a tubing channel which is foamed into the rear wall of the unit.

To remove the heat exchanger, the compressor area and evaporator area will need to be accessed, and the refrigerant captured from the sealed system. Now,

extract the screws which secure the evaporator to the rear wall, and pull the left side of the evaporator up and out. Un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment. Now, pull the armaflex from the heat exchanger in the compressor area, and cut the heat exchanger in the compressor area as close as possible to the tubing channel. cut the suction line from the compressor suction extension, and the capillary tube from the drier. Then, pull the remaining heat exchanger up and out of the tubing channel. (See Figures 7-68 and 7-69.)

NOTE: When replacing the heat exchanger, it is recommended to attach it at the evaporator end first, then feed the heat exchanger down through the tubing channel.

Filter-Drier Removal

(Models 611, 632, 642, 650, 690)

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

The filter-driers are secured to a drier bracket in the compressor area by a cable tie. (See Figures 7-70 & 7-71.) To remove a filter-drier, the unit grille and compressor baffle must first be removed. Then, after capturing the refrigerant from the sealed system, cut the cable tie which secures the filter-driers to the drier bracket. Now, use a file to score a line around the capillary tube approximately one inch from the filter-drier outlet. Fatigue the capillary tube at this line until it separates. Then, with a tube cutter, cut the filter-drier inlet tube.

NOTE: Check the end of the remaining capillary tube for internal burrs. If burrs exist or tubing has been pinched closed while fatiguing, re-score capillary tube approximately one inch from the end. Then, fatigue the capillary tube at this new line until it separates, and recheck.

NOTE: When installing the replacement filter-drier, insert capillary tube until it touches the screen. Then, pull capillary tube out away from the screen approximately 3/8" before brazing.

NOTE: The outlet of the filter-drier must be facing downward in order to function properly. (See Figure 7-70.)

Compressor Removal
(Models 611, 632, 642, 650, 690)

⚠ WARNING

To avoid electrical shock, disconnect power to unit before attempting to remove compressor.

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

NOTE: When replacing a compressor, the filter-drier must also be replaced.

The Compressors are secured to the top of the unit with nuts over stud-bolts. The left compressor is the freezer compressor, and the right is the refrigerator compressor. (See Figure 7-71.) To remove a compressor, the unit grille and compressor baffle must first be removed. Then, remove the screws which secures the drier bracket to the top of the unit so that the bracket may be easily shifted during compressor removal. After capturing the refrigerant from the sealed system, remove the compressor electrical cover and disconnect the electricals from the compressor. Now, remove the nuts from the stud-bolts at each corner of the compressor base. Lift the compressor until it clears the stud-bolts and pull it forward slightly to gain better access to the suction and discharge lines. Using a tube cutter, cut the suction and discharge lines approximately one inch from the compressor, then pull compressor out.

Condenser Removal
(Models 611, 632, 642, 650, 690)

⚠ WARNING

It is necessary to pull the unit from the installation to replace the condenser. The unit is very top heavy and could tip.

⚠ CAUTION

When moving unit, floor must be covered to protect against damaging the floor.

⚠ CAUTION

Compressor and tubing may be hot and could cause minor personal injury.

⚠ CAUTION

Condenser fins are sharp and could cause minor personal injury.

NOTE: When replacing the condenser, both filter-driers must also be replaced.

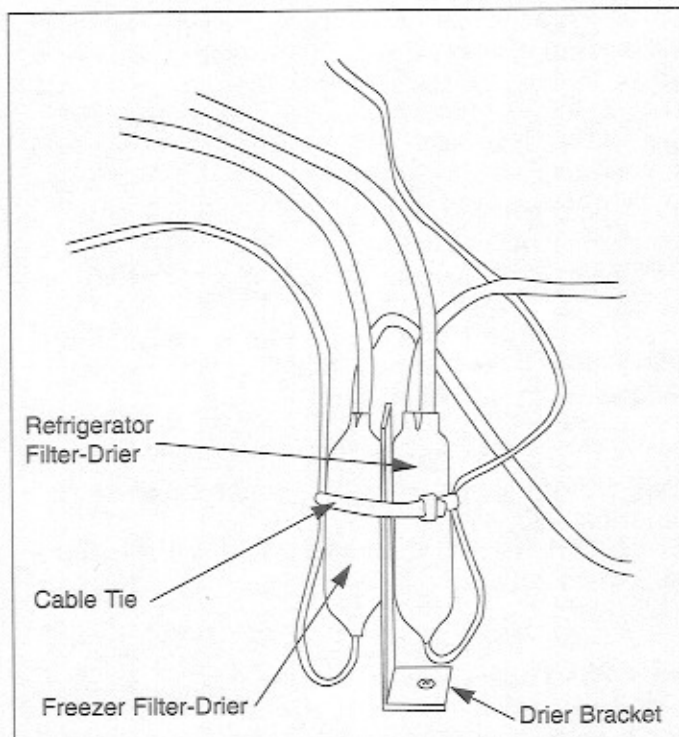


Figure 7-70. Models 611, 632, 642, 650, 690 Filter-Drier Location & Position

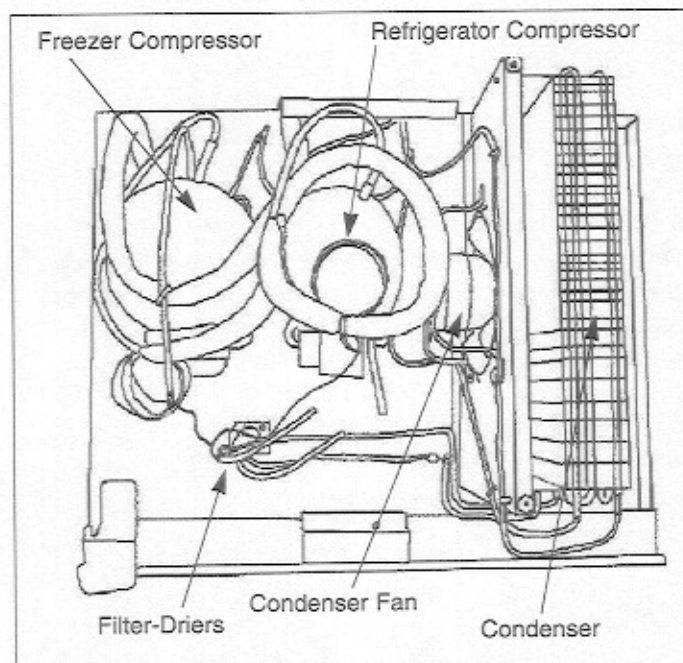


Figure 7-71. Models 611, 632, 642, 650, 690 Upper Compressor Area

To remove a condenser, the unit grille and compressor baffle must be removed first. Then, after capturing the refrigerant from the sealed system, pull the unit from its installation (see **WARNING** above), and remove the unit shroud. Now, remove the screws which secure the condenser fan shroud to the condenser, and un-braze or cut the condenser inlet and outlet tubing. Then, extract the mounting screws which secure the condenser side brackets to the top of the unit, and lift condenser off. (See Figure 7-71.)

Refrigerator Evaporator Removal (Models 611, 632, 642, 650, 690)

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

NOTE: When replacing the evaporator, the filter-drier must also be replaced.

The refrigerator evaporator is attached to the rear wall, behind the evaporator cover. After capturing the refrigerant from the sealed system, remove the screws which secure the evaporator to the rear wall. Pull the bottom of the evaporator up while rotating the heat exchanger out. Now, un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment. (See Figure 7-72.)

Refrigerator Heat Exchanger Removal (Models 611, 632, 642, 650, 690)

⚠ CAUTION

One end of heat exchanger is connected to evaporator. Evaporator fins are sharp. One end of heat exchanger is connected to compressor and filter drier. Compressor and tubing may be hot.

NOTE: When replacing a heat exchanger, the filter-drier must also be replaced.

NOTE: It is not necessary to pull the unit from its installation in order to replace the heat exchanger. The heat exchanger travels through the compartment ceiling to the compressor area.

To remove the heat exchanger, the compressor area and evaporator area will need to be accessed, and the refrigerant captured from the sealed system. Now, extract the screws which secure the evaporator to the rear wall, and pull the bottom of the evaporator up while rotating the heat exchanger out. Un-braze or cut the evaporator inlet and outlet tubing, and pull evapora-

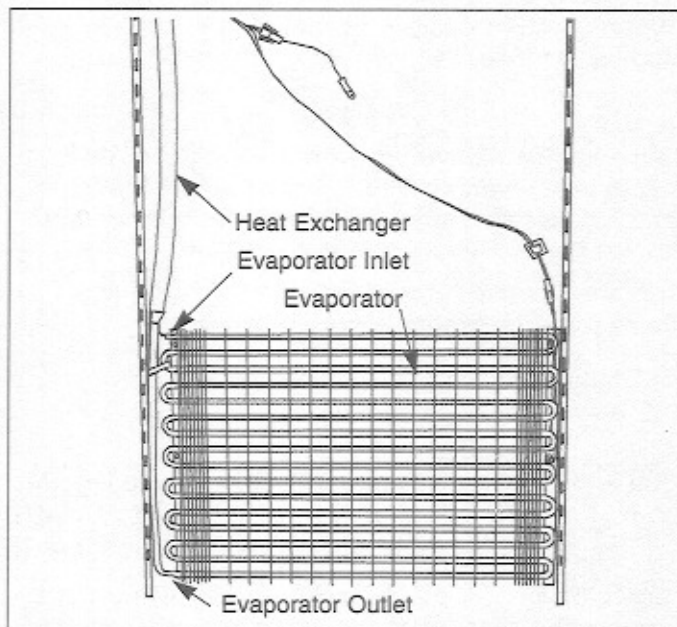


Figure 7-72. Model 611, 632, 642, 650, 690 Refrigerator Evaporator Area

tor from compartment. Then, cut the suction line from the compressor, and the capillary tube from the drier. Clear any permagum from inside and out side of the heat exchanger hole. Now, pull the heat exchanger down out of the heat exchanger hole. (See Figures 7-71 and 7-72.)

NOTE: When replacing the heat exchanger, it is recommended to attach it at the evaporator end first, then feed the heat exchanger up through the heat exchanger hole.

Freezer Evaporator Removal (Models 611, 650)

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

NOTE: When replacing the evaporator, the filter-drier must also be replaced.

The freezer evaporator is attached at the ceiling of the freezer compartment. (See Figure 7-73.) After capturing the refrigerant from the sealed system, remove the defrost heater from the evaporator. Now, extract the screws which secure the evaporator to the ceiling of the freezer compartment. Pull the evaporator down, un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment.

Freezer Heat Exchanger Removal (Models 611, 650)

⚠ WARNING

It is necessary to pull the unit from the installation to replace the freezer heat exchanger. The unit is very top heavy and could tip. See Tip Warning in the Installation Section of this manual.

⚠ CAUTION

When moving unit, floor must be covered to protect against damaging the floor.

⚠ CAUTION

One end of heat exchanger is connected to evaporator. Evaporator fins are sharp. One end of heat exchanger is connected to compressor and filter drier. Compressor and tubing may be hot.

NOTE: When replacing a heat exchanger, the filter-drier must also be replaced.

To remove the heat exchanger, the compressor area and evaporator area will need to be accessed. Then, after capturing the refrigerant from the sealed system, pull the unit from its installation (see previous **WARNING**). Now, remove the unit shroud and rear duct. Then, disconnect the defrost heater electrical leads and extract the screws which secure the evaporator to the ceiling of the freezer compartment. Pull the evaporator down, un-braze or cut the heat exchanger from the evaporator inlet and outlet, and pull evaporator from compartment. Then, cut the suction line from the compressor, and the capillary tube from the drier. Clear any permafrost from inside and out side of the heat exchanger hole. Now, pull the heat exchanger out of the heat exchanger hole. (See Figures 7-71 & 7-73.)

NOTE: When replacing the heat exchanger, it is recommended to attach it at the evaporator end first, then feed the heat exchanger out through the heat exchanger hole.

Freezer Evaporator Removal (Models 632, 642)

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

NOTE: When replacing the evaporator, the filter-drier must also be replaced.

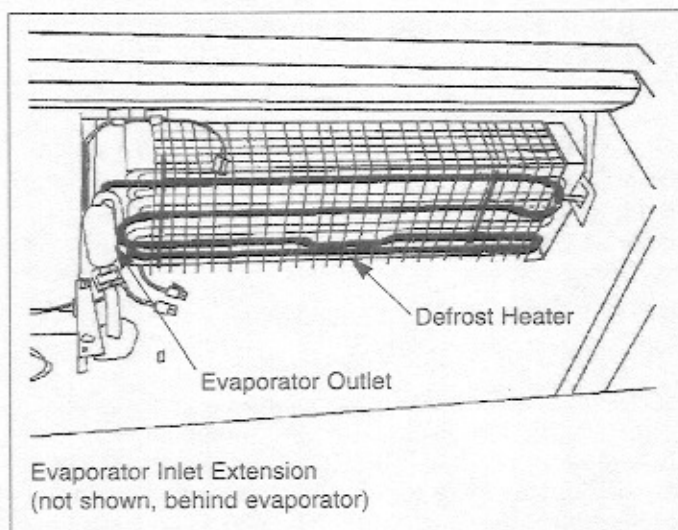


Figure 7-73. Model 611, 650 Freezer Evaporator Area

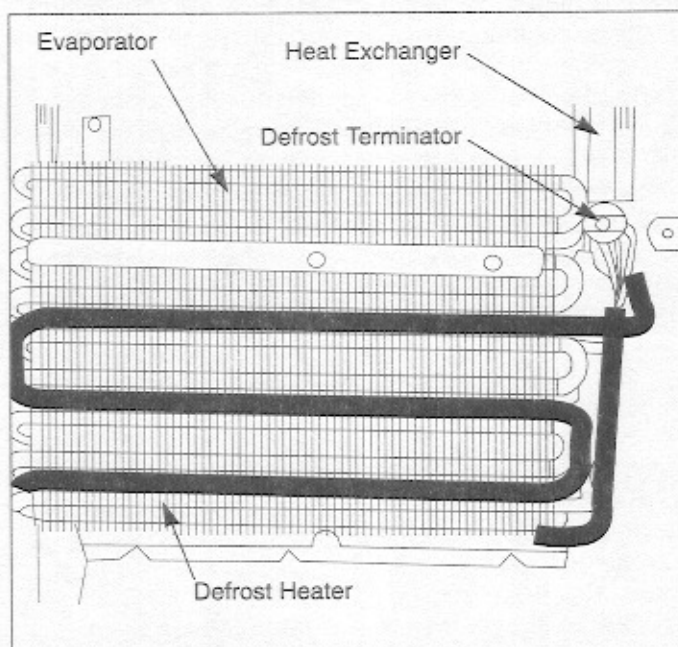


Figure 7-74. Model 632, 642 Freezer Evaporator Area

The freezer evaporator is attached to the rear wall, located below the air duct/shelf, behind the ice bucket area. After capturing the refrigerant from the sealed system, remove the evaporator fan assembly and defrost heater from the evaporator. Then remove the lower light diffuser and the diffuser retainer. Now, extract the screws which secure the evaporator to the rear wall of the freezer compartment. Pull the bottom of the evaporator up while rotating the heat exchanger out, then remove the drain tube heater. Un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment. (See Figures 7-74.)

Freezer Heat Exchanger Removal (Models 632, 642)

⚠ CAUTION

One end of heat exchanger is connected to evaporator. Evaporator fins are sharp. One end of heat exchanger is connected to compressor and filter drier. Compressor and tubing may be hot.

NOTE: When replacing a heat exchanger, the filter-drier must also be replaced.

NOTE: It is not necessary to pull the unit from its installation in order to replace the heat exchanger. The heat exchanger travels through the compartment ceiling to the compressor area.

To remove the heat exchanger, the compressor area and evaporator area will need to be accessed, and the refrigerant captured from the sealed system. Then, extract the screws which secure the evaporator to the rear wall of the freezer compartment. Now, disconnect all electrical leads above the evaporator. Pull the bottom of the evaporator up while rotating the heat exchanger out, un-braze or cut the heat exchanger from the evaporator inlet and outlet, and pull evaporator from compartment. Now, cut the suction line from the compressor, and the capillary tube from the drier. Clear any permagum from inside and outside of the heat exchanger hole. Then, pull the heat exchanger down out of the heat exchanger hole. (See Figures 7-71 and 7-74.)

NOTE: When replacing the heat exchanger, it is recommended to attach it at the evaporator end first, then feed the heat exchanger up through the heat exchanger hole.

Freezer Evaporator Removal (Model 690)

⚠ CAUTION

Evaporator fins are sharp and could cause minor personal injury.

NOTE: When replacing the evaporator, the filter-drier must also be replaced.

After capturing the refrigerant from the sealed system, remove the evaporator fan assembly and extract the two evaporator retaining screws at top front of evaporator bracket. Pull evaporator down and rotate it to the right to gain access to the rear. Disconnect all electrical leads at back of evaporator. Then, un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment. (See Figure 7-75.)

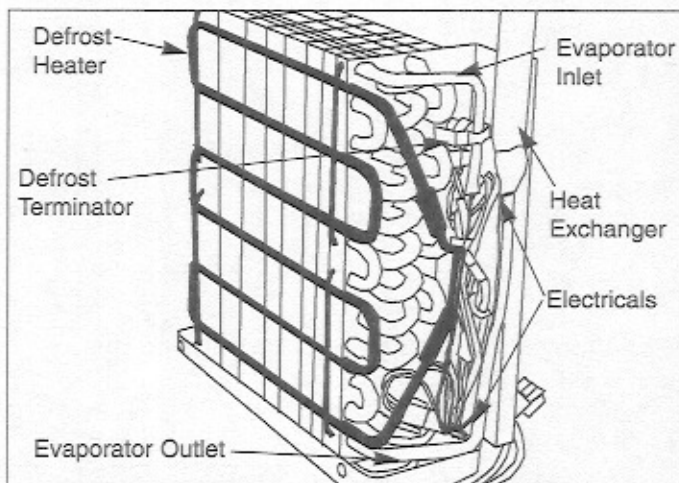


Figure 7-75. Model 690 Freezer Evaporator (Rear View)

Freezer Heat Exchanger Removal (Model 690)

⚠ CAUTION

One end of heat exchanger is connected to evaporator. Evaporator fins are sharp. One end of heat exchanger is connected to compressor and filter drier. Compressor and tubing may be hot.

NOTE: When replacing a heat exchanger, the filter-drier must also be replaced.

NOTE: It is not necessary to pull the unit from its installation in order to replace the heat exchanger. The heat exchanger travels through the compartment ceiling to the compressor area.

To remove the heat exchanger, the compressor area and evaporator area will need to be accessed, and the refrigerant captured from the sealed system. Now, remove the evaporator fan assembly and extract the two evaporator retaining screws at top front of evaporator bracket. Pull evaporator down and rotate it to the right to gain access to the rear. Disconnect all electrical leads at back of evaporator. Then, un-braze or cut the evaporator inlet and outlet tubing, and pull evaporator from compartment. Now, un-braze or cut the suction line from the compressor, and the capillary tube from the drier. Clear any permagum from inside and out side of the heat exchanger hole and pull the heat exchanger out of the heat exchanger hole. (See Figures 7-71 and 7-75.)

NOTE: When replacing the heat exchanger, it is recommended to attach it at the evaporator end first, then feed the heat exchanger up through the heat exchanger hole.