



COMPONENT ACCESS AND REMOVAL

This section explains how to adjust, access and/or remove components.

This section is arranged as follows: **Page:**

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- Refrigerator Interior Cosmetic / Mechanical Components 7-8
- Freezer Interior Cosmetic / Mechanical Components 7-15
- Compressor Area Mechanical Components 7-20
- Sealed System Components 7-21

An attempt has been made to arrange these procedures in such a way as to simulate which components would need to be removed first in order to gain access to other components. When following a component removal procedure, it may be necessary to reference another component removal procedure earlier in this section.

NOTE: Before continuing, please take note of the **WARNINGS** and **CAUTIONS** below.

▲ WARNING

- IF IT IS NECESSARY TO REMOVE A UNIT FROM ITS INSTALLATION, REMEMBER THAT THE UNIT COULD TIP WHEN PULLED FORWARD BEYOND THE ANTI-TIP COMPONENTS, RESULTING IN SERIOUS INJURY OR DEATH. PULLING A UNIT FROM ITS INSTALLATION SHOULD ONLY BE PERFORMED BY AN AUTHORIZED SERVICE TECHNICIAN OR INSTALLER.
- TO AVOID ELECTRIC SHOCK, POWER TO THE UNIT MUST BE DISCONNECTED WHENEVER ACCESSING AND/OR REMOVING COMPONENTS POWERED BY ELECTRICITY OR COMPONENTS NEAR OTHER ELECTRICAL COMPONENTS. IF THE UNIT IS PLUGGED IN, BUT HAS NOT BEEN SWITCHED ON BY PRESSING THE UNIT ON/OFF KEY, AC VOLTAGE IS STILL PRESENT AT THE CONTROL BOARD.
- IF REMOVING A DOOR OR DRAWER, REMEMBER THAT DOORS AND DRAWERS ARE HEAVY. IF THEY WERE TO FALL, THEY COULD CAUSE SERIOUS PERSONAL INJURY.

▲ CAUTION

- If working in the compressor area, remember that compressors and tubing may be hot.
- If working on or around an evaporator or condenser, remember that evaporator and condenser fins are sharp.

Exterior Cosmetic and Mechanical Components

Kickplate Removal

The kickplate is located on the bottom of unit, between the base assemblies.

To remove the kickplate, extract screws from left and right corners of kickplate, then pull kickplate forward (See Figure 7-1).

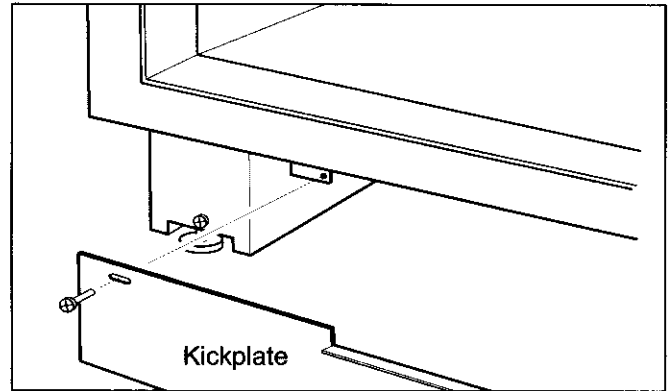


Figure 7-1. Kickplate Removal

Drain Pan Removal

The drain pan slides in from the front of unit on two side brackets, coming to rest on a rear bracket. A locking feature was formed into the drain pan, that drops into notches at the front of the side brackets.

To remove the drain pan (See Figure 7-2):

1. Remove kickplate.
2. Push front of drain pan up slightly and pull forward.

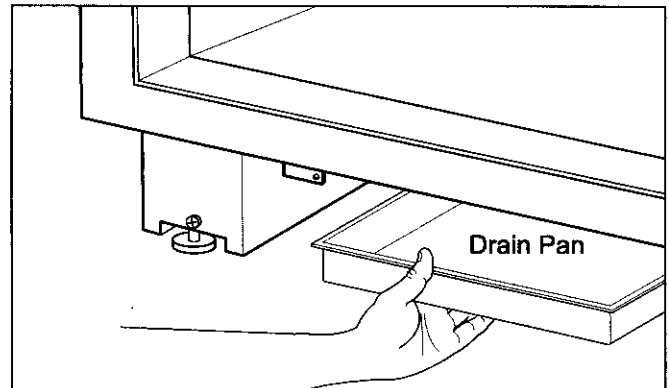


Figure 7-2. Drain Pan Removal

Door/Drawer Handle Assembly Removal

A screw through the handle standoff into the handle secures the handle to the standoff. The standoff then slides over a threaded stud that is attached to the door shell. A socket head set-screw inserted through the standoff secures the standoff to the stud.

To remove a handle assembly (See Figure 7-3):

1. Use a 3/32" Allen-wrench to loosen the set-screw in each handle standoff.
2. Pull handle assembly off of the threaded studs.

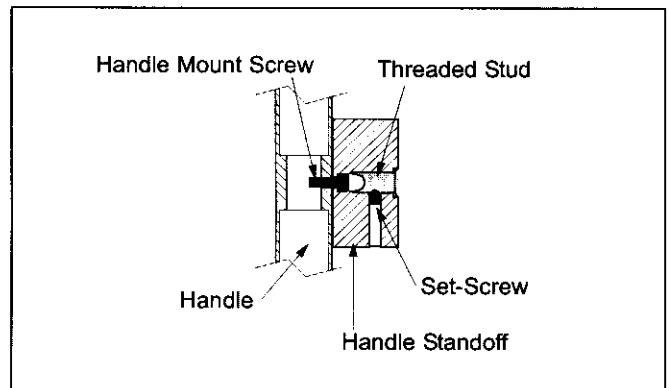


Figure 7-3. Handle and Standoff Cut-Away View

Door Removal

To remove a door (See Figure 7-4):

NOTE: See **WARNING** at beginning of this section.

1. Open door to ninety (90) degrees.
3. Lift door up off off hinge pins.

NOTE: Hinge pins sit loosely in hinge assemblies. Take care to not drop the hinge pins during this procedure.

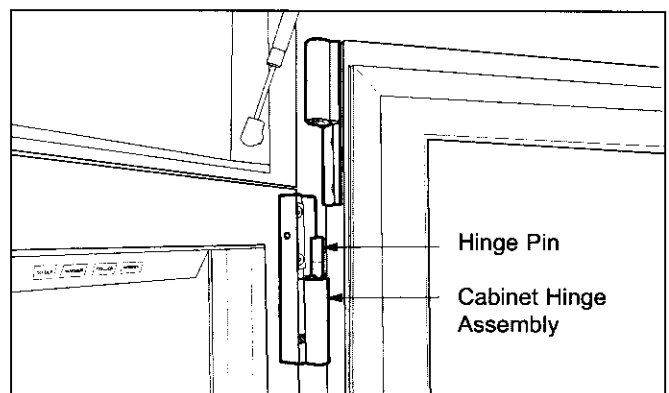


Figure 7-4. Door Removal

Drawer Assembly Removal

To remove a drawer assembly (See Figure 7-5):

1. Open drawer until the slides are fully extended.
2. Lift front of drawer up, then continue pulling drawer forward, off of slides.

Door and Drawer Gasket Removal

A dart at the back of the door and drawer gaskets fit into channels built into the door and drawer liners.

NOTE: To remove a drawer gasket, the drawer must be removed from the unit.

To remove a door, or drawer gasket, pull the gasket dart from the channel in the door, or drawer (See Figure 7-6).

NOTE: On older models, silicone may have been used at the corners of the gasket to help hold it in place.

Cabinet Hinge Assembly Removal

Cabinet hinge assemblies are mounted to the exterior of the appliance. The upper hinge assemblies house the door light switches.

To remove a cabinet hinge assembly:

1. Remove door.
2. Extract hinge mounting screws (See Figure 7-7).
3. Disconnect wire leads from unit (See Figure 7-8).

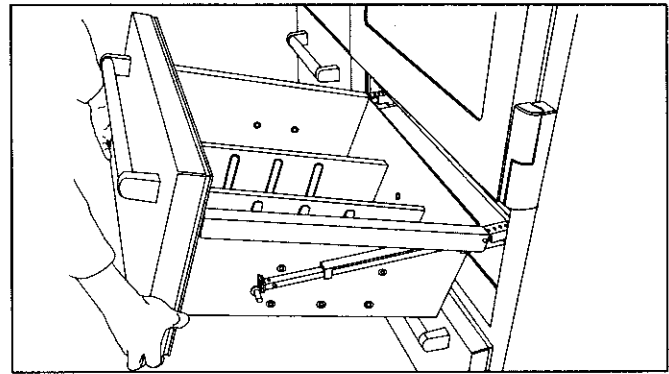


Figure 7-5. Drawer Assembly Removal

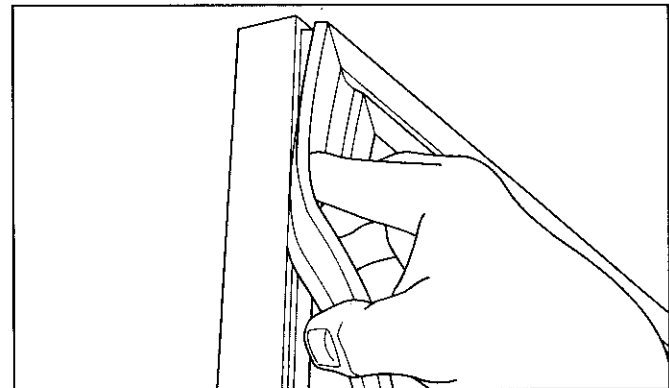


Figure 7-6. Door/Drawer Gasket Removal

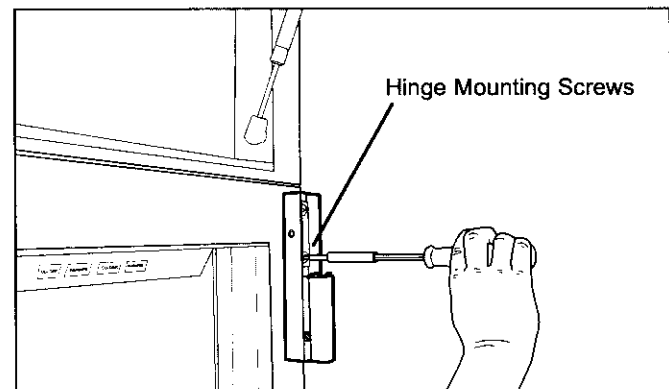


Figure 7-7. Cabinet Hinge Assembly Removal

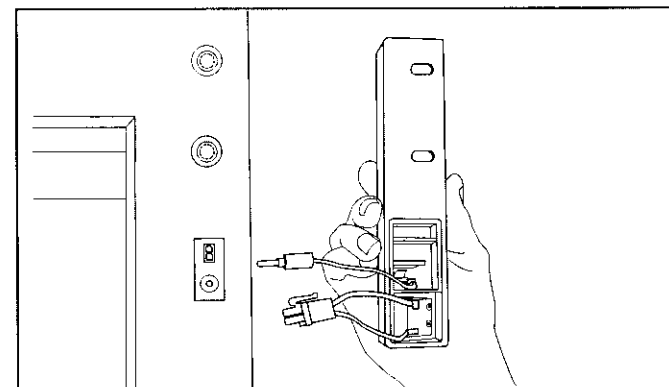


Figure 7-8. Disconnect Wire Leads

Water Filter Removal

The water filter is located behind the grille assembly.

To remove the water filter:

1. Lift Louvered section of grille assembly up (See Figure 7-9).
2. Rotate filter counterclockwise to remove it (See Figure 7-10); clockwise to install it.

NOTE: The water filter timer will reset to a one year countdown when the filter is replaced. If the water filter was removed only to service other components, press the filter switch five times within five seconds to allow the filter timer to continue the original countdown. A beep will be emitted indicating the original countdown has been resumed.

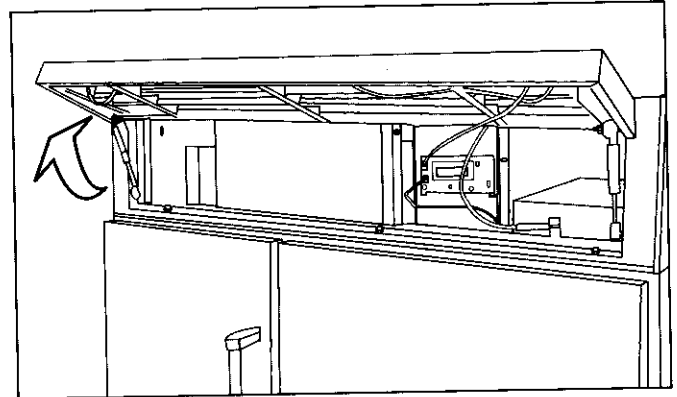


Figure 7-9. Lift Grille Louvers

Water Valve Removal

The water valve is attached to the back side of the water valve bracket, located behind the grille assembly.

NOTE: Before continuing, disconnect or switch off water supply.

To remove the water valve (See Figure 7-11):

1. Lift Louvered section of grille assembly up.
2. Rotate water filter counterclockwise to remove it.
3. Extract mounting screws from mounting bracket.
4. Disconnect wire leads from valve.
5. Disconnect water lines from valve.
6. Extract mounting screws from valve mounting bracket.

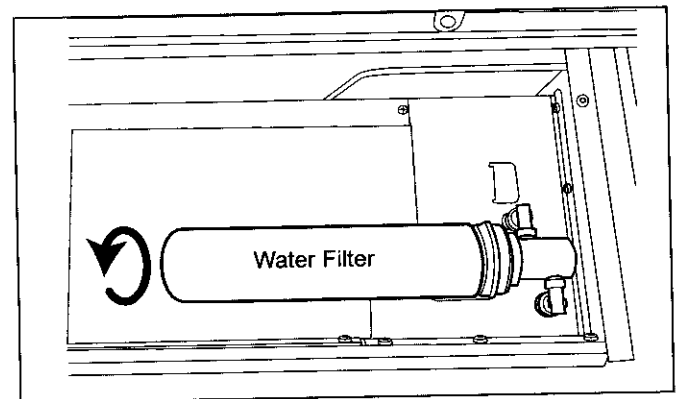


Figure 7-10. Water Filter Removal

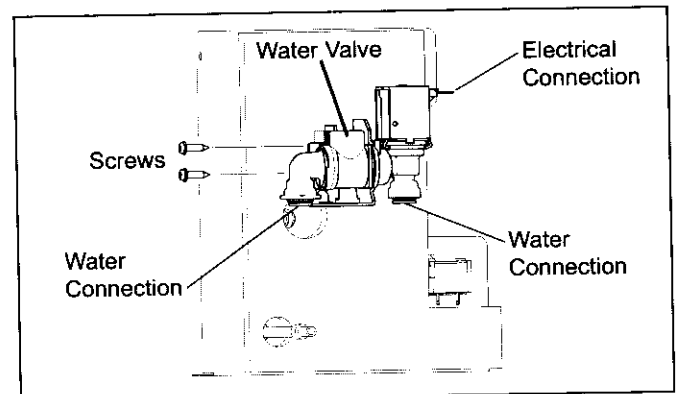


Figure 7-11. Water Valve Removal (Rear View)

Grille Assembly Removal

The grille assembly is located at top front of the unit. The grille Louvers can be lifted up to provide access to the technician display and sealed system components.

To remove the grille assembly (See Figure 7-12):

1. Lift Louvered section of grille assembly up.
2. Disconnect communication cable from behind the Technician display cover, and remove any cable tie-downs.
3. Extract the bolts holding the grille assembly to the top of the refrigerator.
4. Extract the mounting screw to right of center, then lift the assembly from the top of the appliance.

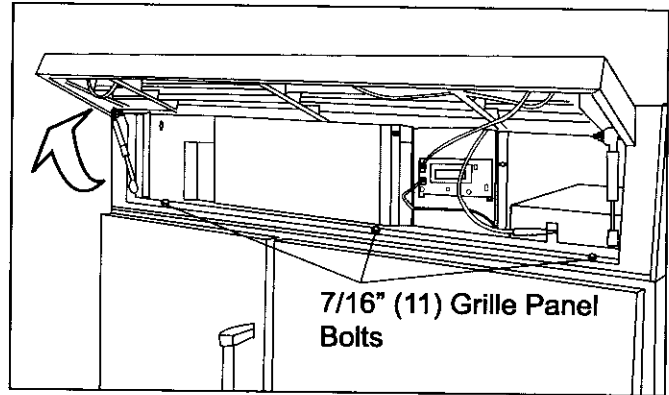


Figure 7-12. Grille Assembly Removal

Gas Grille Spring Cylinder Valve Removal

To remove a gas grille spring cylinder valve (See Figure 7-13):

1. With small flat bladed screwdriver, expand the retaining clips at each end of the gas grille spring away from the stud mounts.
2. Then, pull each end from the mounts.

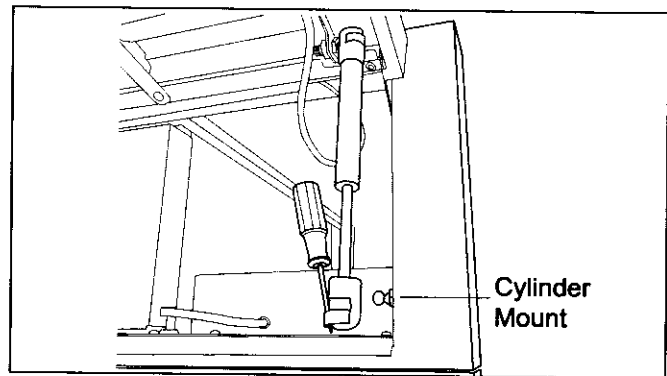


Figure 7-13. Cylinder Valve Removal

User Display Removal

The two User Displays are mounted in the grille assembly. The left User Display is for the freezer zone and the right User Display is for the two refrigerator zones.

To remove a User Display (See Figure 7-14):

1. Remove the grille assembly.
2. Disconnect the communication cables from display being removed.
3. Extract mounting screws securing the displays to the grille assembly.

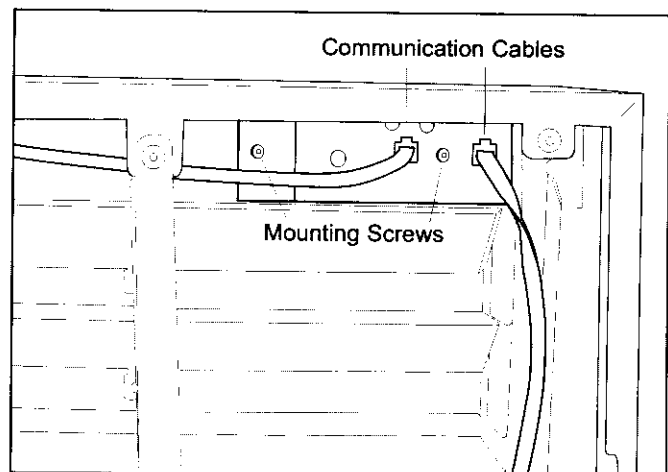


Figure 7-14. User Display Removal (Rear View)

Main Controller Board Removal

NOTE: Electrical shock hazard. Refer to **WARNING** at beginning of section.

The main control board is located on top of the unit, behind the grille assembly, to the right of the condenser, and is covered by a control cover.

To remove the main controller board (See Figure 7-15):

1. Extract screws along front flange of cover.
2. Work wire leads and grommets down and out through key-hole slots in sides of cover, while lifting front of cover up.
3. Disconnect wire leads from DC power supply located inside the control cover. Control cover is now free to be removed.
4. Disconnect all wire leads from main controller board.
5. Extract mounting screws securing control board to unit top, then lift board out.

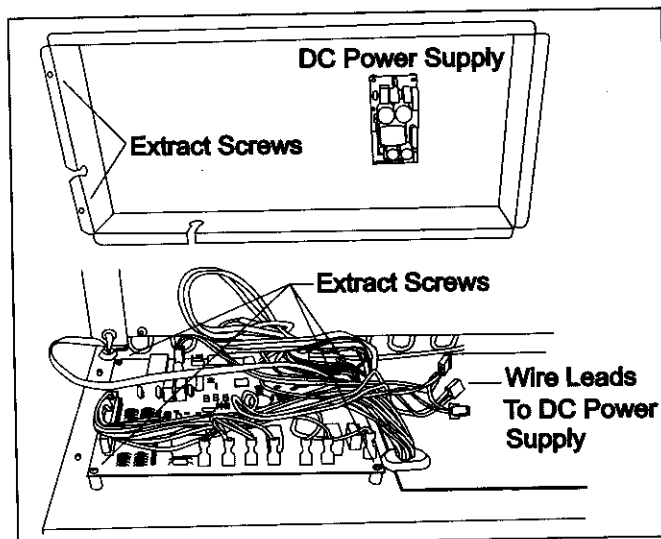


Figure 7-15. Control Board (Right Side View)

Unit Shroud Removal

The unit shroud houses the sealed system and technician display.

To remove the unit shroud (See Figure 7-16):

1. Remove the grille assembly.
2. Extract screws along left side and rear flange of unit shroud.
3. Extract screws from top of unit shroud, above condenser.
4. Lift shroud from top of unit.

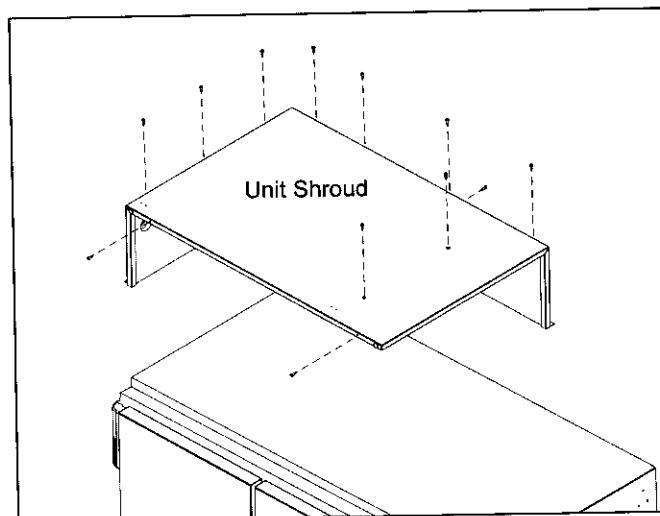


Figure 7-16. Top Cover Removal

Refrigerator Interior Cosmetic and Mechanical Components

Refrigerator Slide Bin Removal

Slide bins fit into guideways under either side of any of the refrigerator shelves.

To remove a slide bin, pull it forward, out of the guideways (See Figure 7-17).

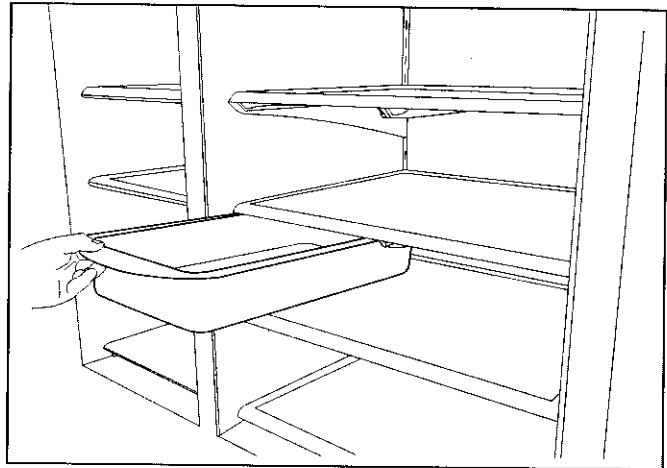


Figure 7-17. Slide Bin Removal

Refrigerator Shelf Adjustment and/or Removal

To adjust and/or remove a refrigerator shelf, lift up at front slightly, then lift back up and out of shelf ladders (See Figure 7-18).

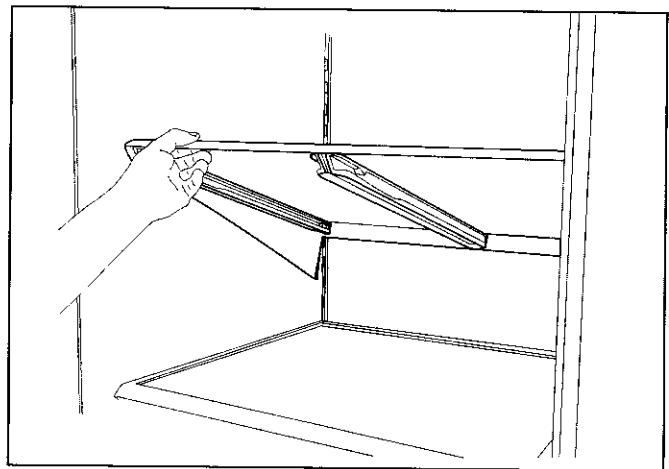


Figure 7-18. Refrigerator Shelf

Upper Refrigerator Light Diffuser Removal

The refrigerator light diffuser is located at the top of the compartment. The light diffuser is held in place by C-shaped clamps fitting over pegs protruding from the side walls (See Figure 7-19).

To remove the light diffuser, push diffuser toward rear of unit to disengage C-shaped clamps from the pegs in the side wall, then lower the diffuser down and pull from the compartment.

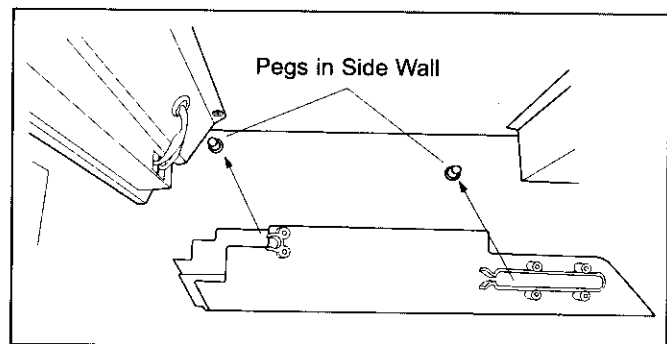


Figure 7-19. Light Diffuser Removal

LED Accent Lighting (Side Lights) Removal

To access and remove the accent lights:

1. Use a small flat bladed screwdriver to pry accent light diffuser out of the breaker strip, taking care not to damage the edges of diffuser or the breaker strip (See Figure 7-20).
- NOTE:** On earlier models the side light diffusers were glued in place. In this case, the glue must be broken loose in order to remove the diffuser.
2. Bow the diffuser out, then extract both ends from the top and bottom of the breaker strip.
 3. With the diffuser removed, use a needle-nose pliers, starting at bottom of light strip, to depress the plastic tabs securing light strip to pocket in breaker strip.
 4. Now, pull the light strip past the tabs (See Figure 7-21).

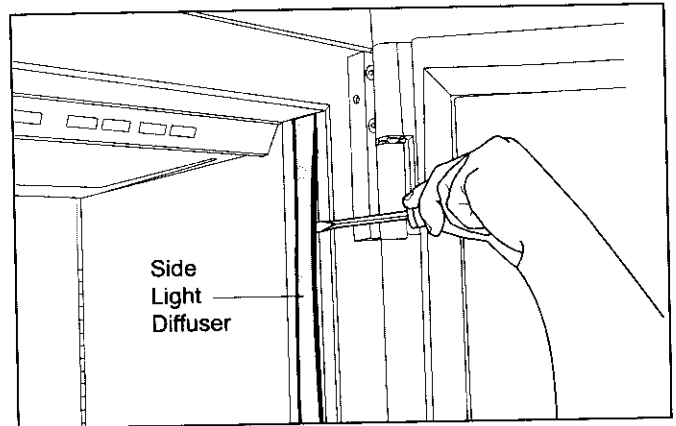


Figure 7-20. Side Light Diffuser Removal

Control Keypad Interface (Control Panel) Removal

The Control Keypad Interface (AKA Control Panel) is located on the top front of the refrigerator compartment.

To remove the control panel:

1. Remove the top light diffuser.
2. Disconnect the communication cables from **the left rear side of the control panel**. (See Figure 7-22)
3. Extract screws from the top rear of the control panel and pull the assembly down and out..

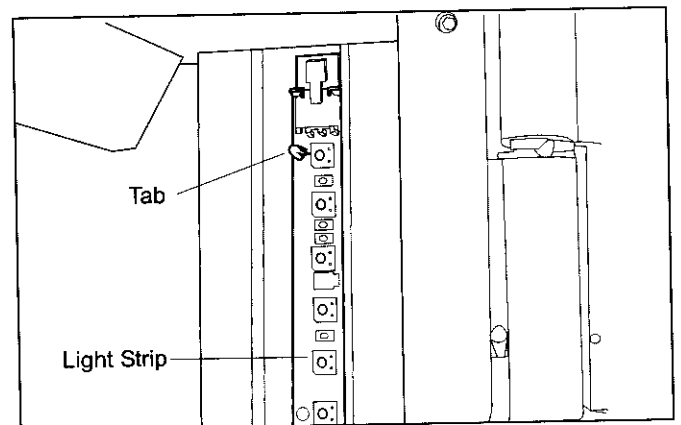


Figure 7-21. LED Light Strip Removal

Upper Refrigerator (Zone 3) Light Assembly Removal

To remove the upper refrigerator light assembly, the control panel must first be removed, then:

(Not Illustrated)

1. Extract the screws at each end of the assembly.
2. Lower the light assembly down, and disconnect the wire leads behind the right side.
3. Now, push the communication cable grommet from the hole at the left end and remove the communication cables from the hole.

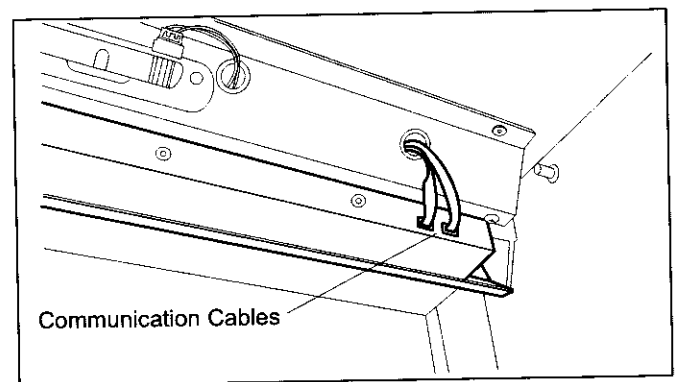


Figure 7-22. Control Panel Removal

Upper Refrigerator (Zone 3) Evaporator Cover Removal

The bottom of the evaporator cover is secured by slots in the side flanges that fit over pegs at the bottom of each shelf ladder. The top is secured by screws holding it to the evaporator fan shroud.

To remove an evaporator cover, the light diffuser must be removed first, then (See Figure 7-23):

1. Extract screws from top of evaporator cover.
2. Tilt cover forward and lift off of locating pegs.

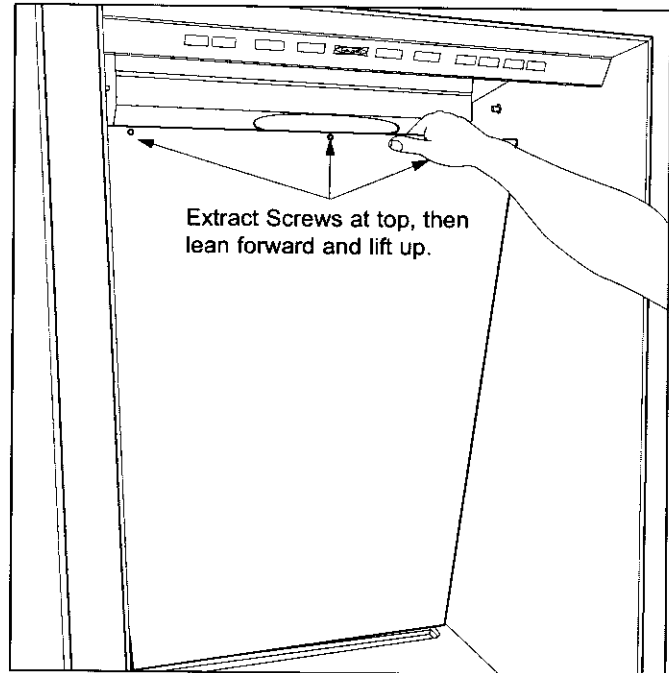


Figure 7-23. Zone 3 Evaporator Cover Removal

Upper Refrigerator (Zone 3) Evaporator Fan Shroud Assembly Removal

The evaporator fan shroud assembly is secured to the ceiling with screws.

To remove an evaporator fan shroud assembly, the light diffuser and evaporator cover must be removed first, then (See Figure 7-24):

1. Extract mounting screws along front flange and middle sides of shroud.
2. Lower assembly and disconnect wire harness.

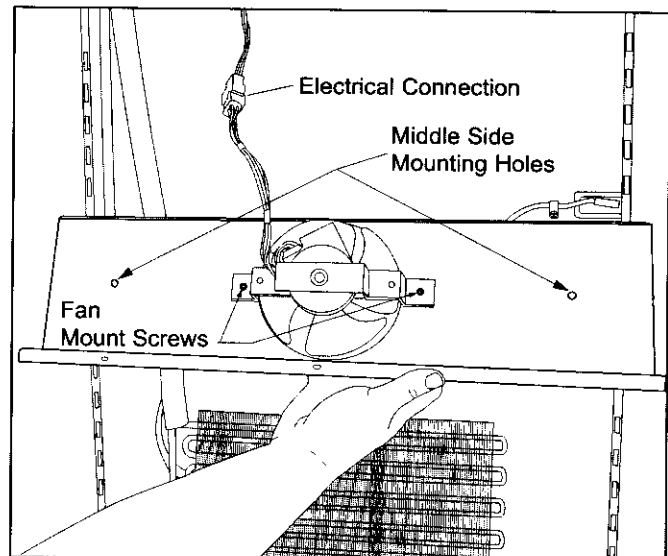


Figure 7-24. Zone 3 Fan Shroud Removal

Upper Refrigerator (Zone 3) Evaporator Fan Assembly Removal

The fan assembly is secured to the shroud with screws.

To remove an evaporator fan assembly, the light diffuser, evaporator cover and fan shroud must be removed first, then extract the fan assembly mounting screws from the shroud and pull the fan assembly from the shroud (See Figure 7-24):

Upper Refrigerator (Zone 3) Compartment Thermistor

The upper refrigerator compartment thermistor is located behind the evaporator cover, and attached to the rear wall with a screw.

To remove the compartment thermistor, the light diffuser and evaporator cover must be removed first, then (See Figure 7-25):

1. Extract thermistor mounting screw.
2. Cut thermistor's wire leads six (6) to twelve (12) inches from the back wall, then pull thermistor from compartment.

Upper Refrigerator (Zone 3) Evaporator Thermistor

The upper refrigerator evaporator thermistor is inserted into the third opening from the top in the evaporator fins left side, and extending approximately to the center of the evaporator.

To remove the evaporator thermistor, the light diffuser and evaporator cover must be removed first, then (See Figure 7-25):

1. Pull thermistor from evaporator fins.
2. Cut thermistor's wire leads six (6) to twelve (12) inches from the back wall, then pull thermistor from compartment.

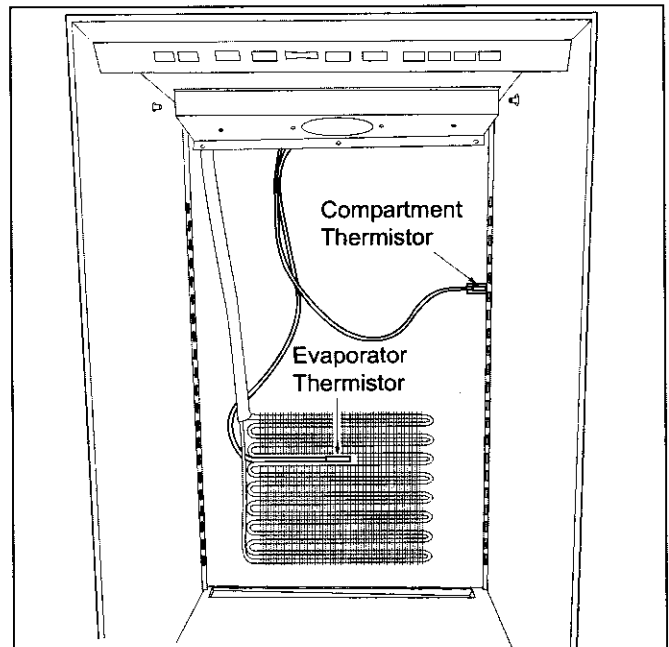


Figure 7-25. Zone 3 Thermistors

Refrigerator Crisper Lid Assembly Removal

To remove the crisper lid assembly (See Figure 7-26):

1. Open top drawer until the slides are fully extended.
2. Pull glass crisper lid forward.
3. Lift front of crisper lid up and out.

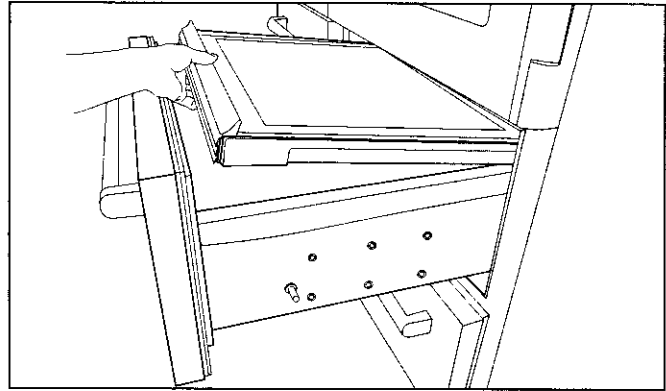


Figure 7-26. Crisper Lid Assembly

Drawer Light and Socket Removal

The drawer lights are located at the top front of each drawer compartment.

To remove the drawer light or replace the light socket, the drawer assembly must first be removed, then (See Figure 7-27):

1. Remove light bulb from socket by turning the light bulb counterclockwise.
2. Extract screws from light socket mounting bracket.
3. Disconnect wire leads from light socket.
4. The light socket is held in place with retaining clips. Depress the retaining clips and extract socket from mounting bracket.

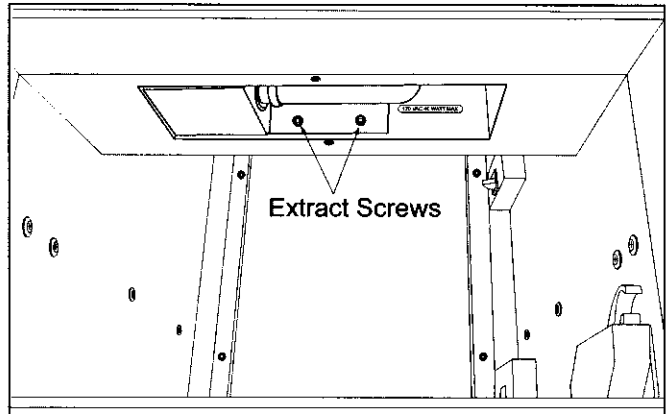


Figure 7-27. Drawer Light Socket Removal

Drawer Closer Removal

Drawer closer assemblies are located at the front right side wall of the drawer compartments. Screws secure each drawer closer to the wall.

To removal a drawer closer assembly (See Figure 7-28):

1. Remove appropriate drawer assembly.
2. Extract screws that secure the drawer closer to side wall.

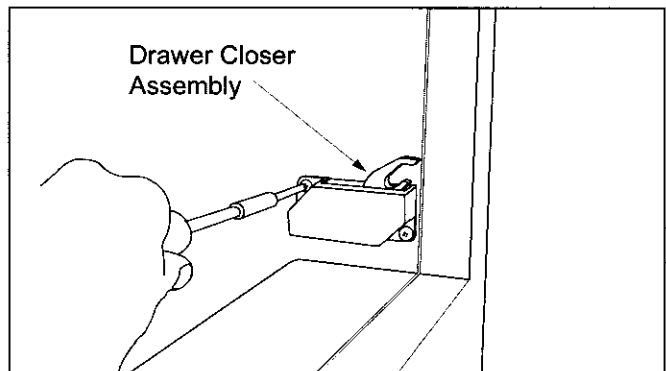


Figure 7-28. Drawer Closer Removal

Drawer Slide Assembly Removal

To remove a drawer slide assembly (See Figure 7-29):

1. Extract drawer slide assembly mounting screws.
2. Pull assembly from side wall.

NOTE: When removing drawer slides and their associated components, it is important to keep track of their original location. Failure to do so may lead to misaligned drawers when reinstalled.

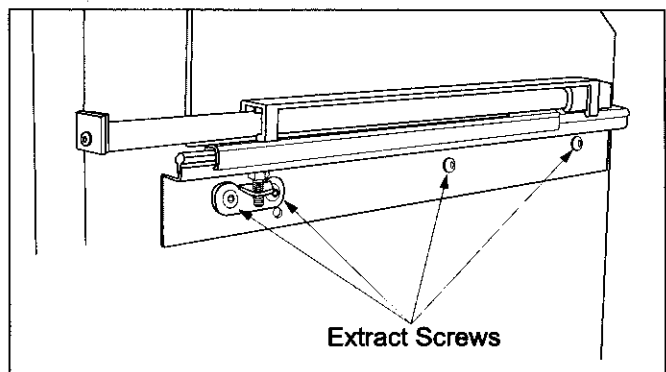


Figure 7-29. Carriage Assembly

Lower Refrigerator (Zone 4) Evaporator Fan Shroud

The lower refrigerator evaporator fan shroud is secured to the evaporator cover assembly with screws.

To remove the lower evaporator fan shroud, extract its mounting screws and pull it from the compartment (See Figure 7-30).

Lower Refrigerator (Zone 4) Evaporator Cover Assembly

The lower refrigerator evaporator cover assembly includes the evaporator fan assembly, and is attached to the back wall with screws.

To remove the evaporator cover assembly, the left drawer slide assemblies and fan shroud must be removed first, then (See Figure 7-30):

1. Extract evaporator cover mounting screws.
2. Work the compartment thermistor wires through the key-hole slot in the left side of the evaporator cover.
3. Lean evaporator cover assembly forward and disconnect evaporator fan wire leads, then pull assembly from the compartment.

Lower Refrigerator (Zone 4) Evaporator Fan Assembly

The lower refrigerator evaporator fan assembly is attached to the evaporator cover with screws.

To remove the evaporator fan assembly, the left drawer slide assemblies, fan shroud and evaporator cover assembly must be removed first, then extract evaporator fan assembly mounting screws and pull fan assembly from evaporator cover (See Figure 7-30):

Lower Refrigerator (Zone 4) Light Switch Removal

The light switches for the lower refrigerator zone are located in the right rear switch enclosure. The enclosure is held to the back wall with screws.

To remove a light switch, the right drawer slide assemblies, fan shroud and evaporator cover assembly must be removed first. Then, (See Figure 7-30)::

1. Extract switch enclosure mounting screw.
2. Pull enclosure forward and disconnect switch electrical leads.
3. Depress tabs at back side of switch and push switch from switch enclosure.

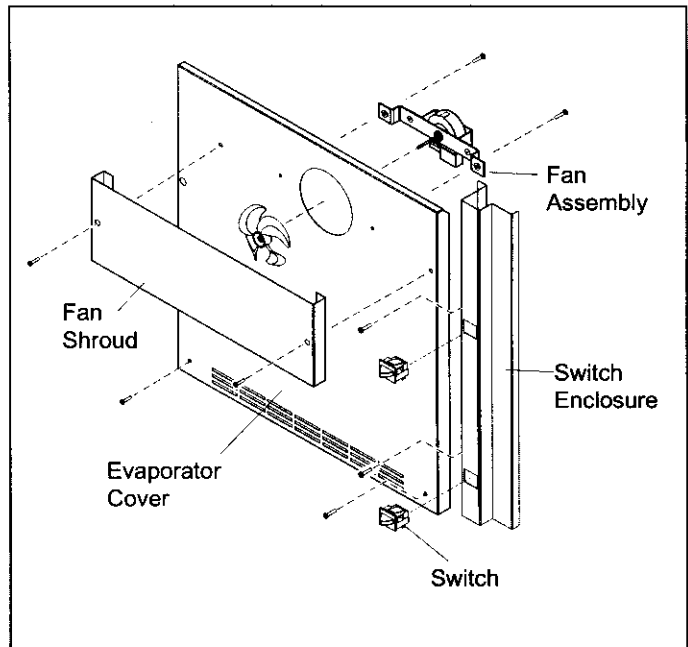


Figure 7-30.
Zone 4 Fan Shroud, Evaporator Cover Assembly and Light Switch Assembly

Lower Refrigerator (Zone 4) Compartment Thermistor

The lower refrigerator compartment thermistor is attached to the left side wall with screws and tube clamps.

To remove the compartment thermistor, the left drawer slide assemblies, fan shroud and evaporator cover assembly must be removed first, then (See Figure 7-31):

1. Extract screws and clamps holding thermistor to left side wall.
2. Cut thermistor's wire leads six (6) to twelve (12) inches from the back wall, then pull thermistor from compartment.

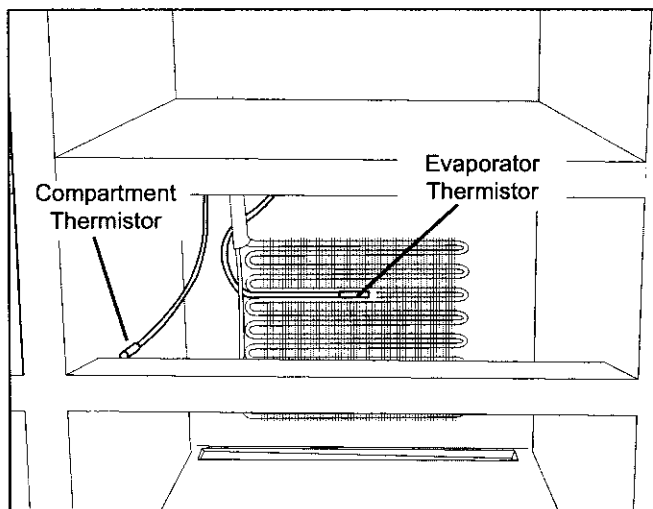


Figure 7-31. Zone 4 Thermistors

Lower Refrigerator (Zone 4) Evaporator Thermistor

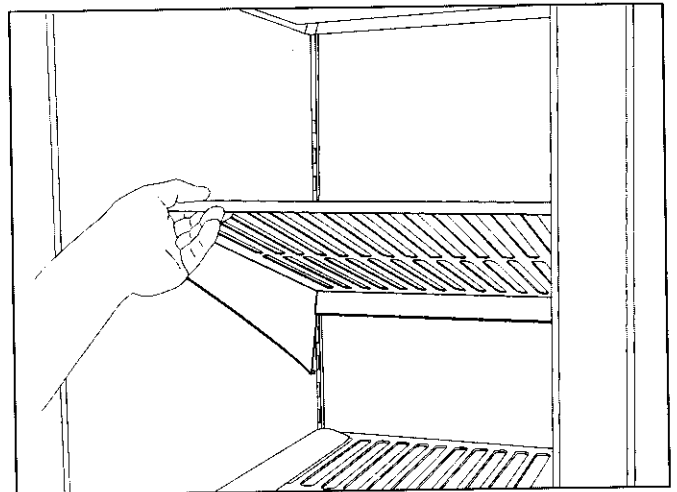
The lower refrigerator evaporator thermistor is inserted into the third opening from the top in the evaporator fins left side, and extending approximately to the center of the evaporator.

To remove a evaporator thermistor, the left drawer slide assemblies, fan shroud and evaporator cover assembly must be removed first, then (See Figure 7-31):

1. Pull thermistor from evaporator fins.
2. Cut thermistor's wire leads six (6) to twelve (12) inches from the back wall, then pull thermistor from compartment.

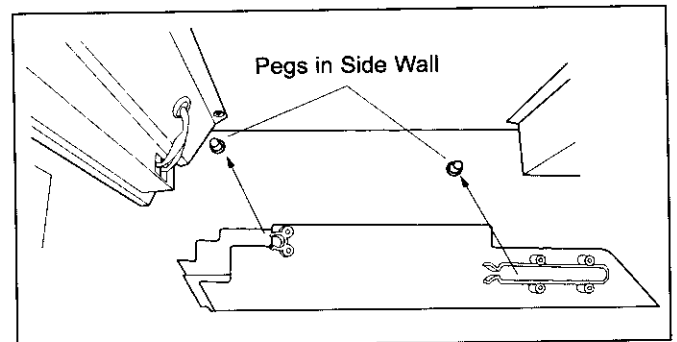
Freezer Interior Cosmetic and Mechanical Components
Freezer Shelf Adjustment and/or Removal

To adjust and/or remove a freezer shelf, lift up at front slightly, then lift back up and out of shelf ladders (See Figure 7-32).


Figure 7-32. Freezer Shelf
Light Diffuser Removal

The freezer light diffuser is located at the top of the compartment. The light diffuser is held in place by C-shaped clamps fitting over pegs protruding from the side walls (See Figure 7-33).

To remove the light diffuser, push diffuser toward rear of unit to disengage C-shaped clamps from the pegs in the side wall, then lower the diffuser down and pull from the compartment.


Figure 7-33. Light Diffuser Removal
Upper Freezer Light Assembly Removal

To remove the upper freezer light assembly (*Not Illustrated*):

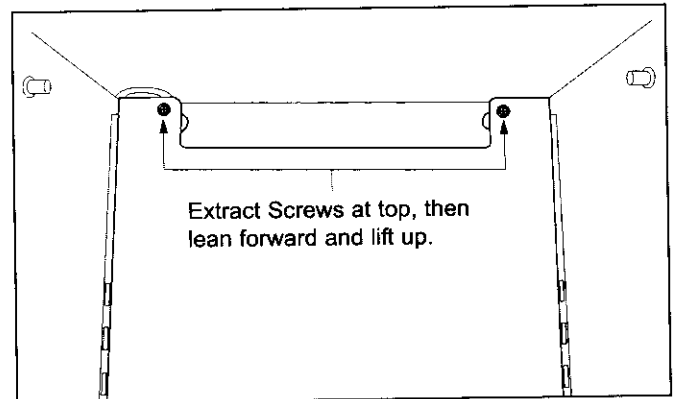
1. Extract the screws at each end of the assembly.
2. Lower the light assembly down, and disconnect the wire leads.
3. Now, push the communication cable grommet from the hole at the left end and remove the communication cables from the hole.

Upper Freezer Evaporator Duct/Cover

The bottom of the upper freezer duct/cover is secured by slots in the side flanges that fit over pegs at the bottom of each shelf ladder. The top is secured by screws holding it to the back wall.

To remove the upper freezer duct/cover, the light diffuser must be removed first, then (See Figure 7-34):

1. Extract screws from top of duct/cover.
2. Tilt duct/cover forward and lift off of locating pegs.


Figure 7-34. Upper Freezer Duct/Cover Removal

Freezer Bottom Shelf Assembly Removal

At the bottom of the upper freezer compartment is a shelf separating the top compartment from the drawer compartments.

To remove the shelf, lift the front up, then lift the back off of the locating pegs in the rear side walls of the compartment. (See Figure 7-35)

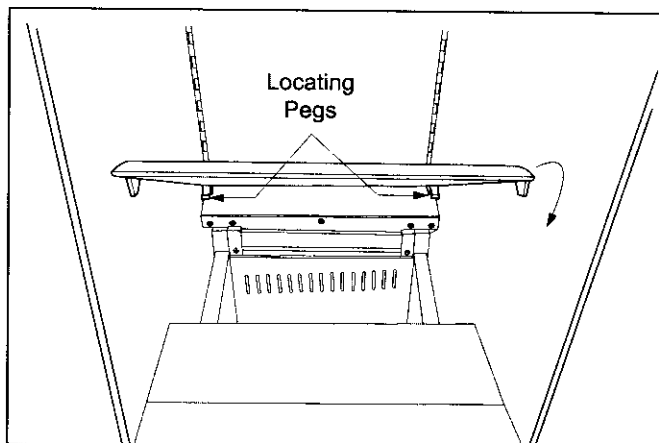


Figure 7-35. Freezer Bottom Shelf Removal

Freezer (Zone 1) Compartment Thermistor Removal

The freezer thermistor is located behind the upper duct/cover and attached to the back wall with a screw and tube clamp.

To remove the freezer thermistor, the light diffuser and upper duct/cover must be removed, then (See Figure 7-36):

1. Extract screw and clamp holding thermistor to back wall.
2. Cut thermistor's wire leads six (6) to twelve (12) inches from the back wall, then pull thermistor from compartment.

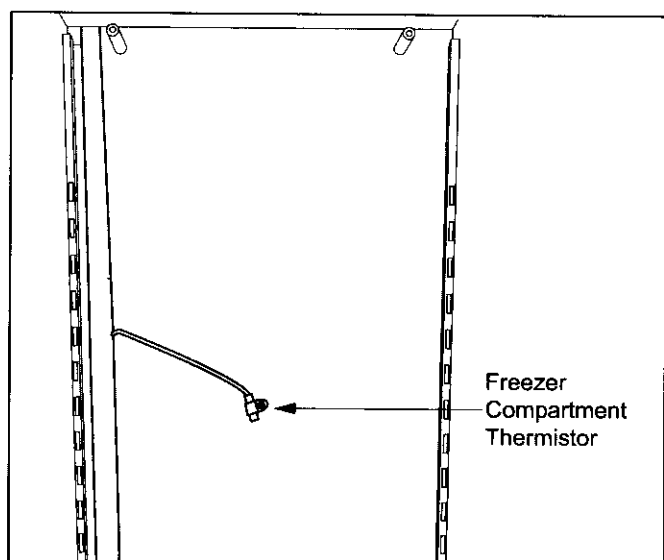


Figure 7-36. Freezer Compartment Thermistor

Ice Bucket Removal

The ice bucket sits in the bottom freezer drawer.

To remove the ice bucket, open bottom freezer drawer and lift bucket out of drawer. (See Figure 7-37)

NOTE: When reinstalling the ice bucket, make sure its rear flange is not sitting up on the back edge of the drawer. If this happens, the ice level arm will be held in the up position, stopping ice production.

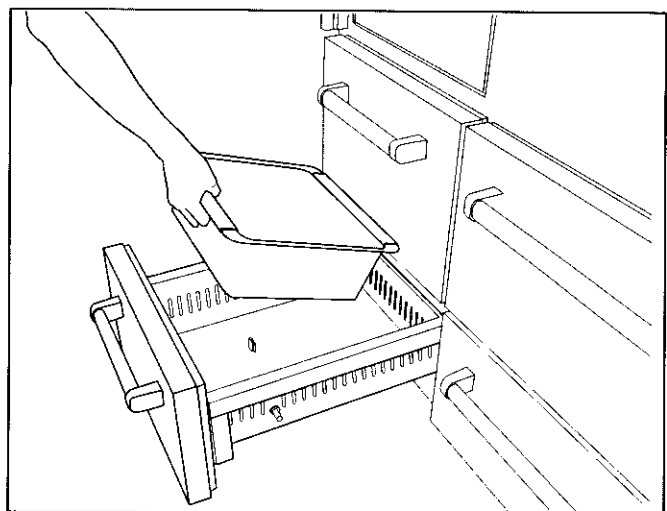


Figure 7-37. Ice Bucket Removal

Drawer Light and Socket Removal

The drawer lights are located at the top front of each drawer compartment.

To remove the drawer light or replace the light socket, the drawer assembly must first be removed, then (See Figure 7-38):

1. Remove light bulb from socket by turning the light bulb counterclockwise.
2. Extract screws from light socket mounting bracket.
3. Disconnect wire leads from light socket.
4. The light socket is held in place with retaining clips. Depress the retaining clips and extract socket from mounting bracket.

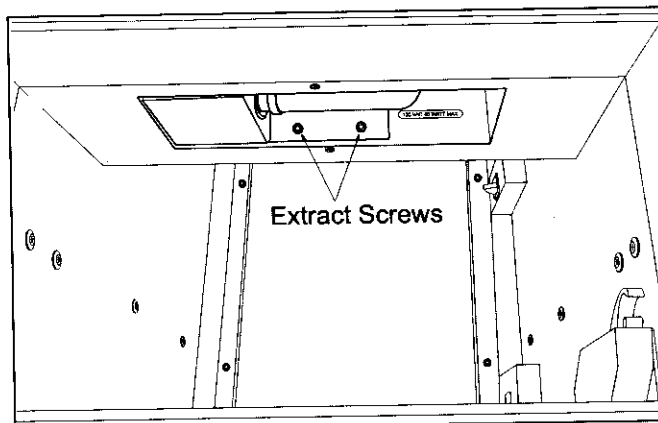


Figure 7-38. Drawer Light Socket Removal

Upper Freezer Evaporator Fan Shroud Removal

The upper freezer evaporator fan shroud is located under the freezer bottom shelf and is mounted over the top of the evaporator fan assembly with screws.

To remove the upper freezer evaporator fan shroud, the freezer bottom shelf must be removed first, then (See Figure 7-43):

1. Extract screws securing shroud to fan assembly.
2. Lift fan shroud out of unit.

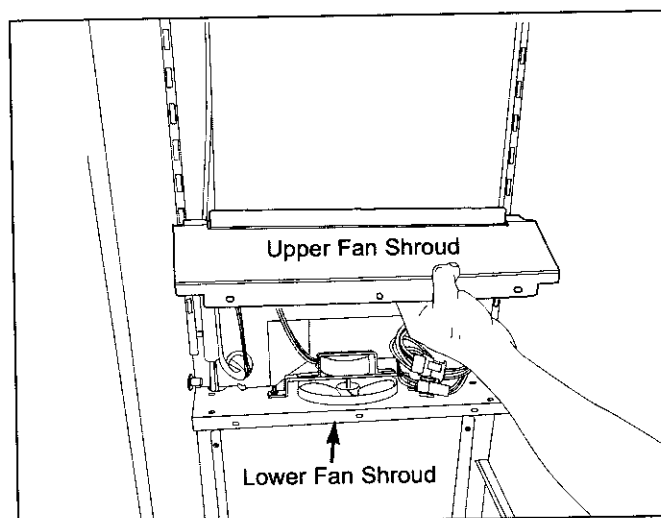


Figure 7-43. Freezer Evaporator Fan Shrouds

Lower Freezer Evaporator Fan Shroud Removal

The lower freezer evaporator fan shroud is located under the freezer bottom shelf, and is mounted in front of the evaporator fan assembly with screws.

To remove the lower freezer evaporator fan shroud, the freezer bottom shelf must be removed first, then (See Figure 7-43):

1. Extract screws securing shroud to fan assembly.
2. Tilt top of shroud down, then lift shroud out of unit.

Freezer Evaporator Fan Assembly Removal

The freezer evaporator fan assembly is located behind the freezer evaporator fan shrouds.

To remove the freezer evaporator fan assembly, the freezer bottom shelf and both fan shrouds must be removed first, then (See Figure 7-44):

1. Disconnect wire leads from fan assembly.
2. Extract fan assembly mounting screws.
3. Lift assembly from the compartment.

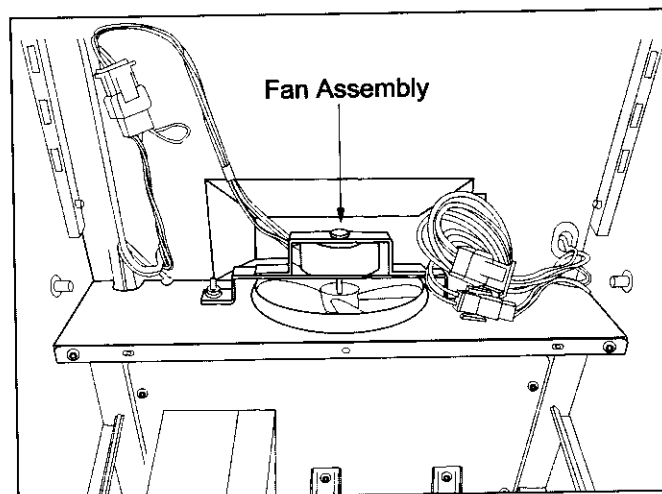


Figure 7-44. Freezer Evaporator Fan Assembly

Icemaker Assembly Removal

The icemaker is located behind the bottom freezer drawer, mounted on a plate that is attached to the back wall.

To remove ice maker the freezer drawers must be removed first, then (See Figure 7-45):

1. Extract icemaker mounting screws from below and above ice maker.
2. Pull ice maker forward and disconnect icemaker electrical leads.
3. Pull icemaker forward, out of the compartment.

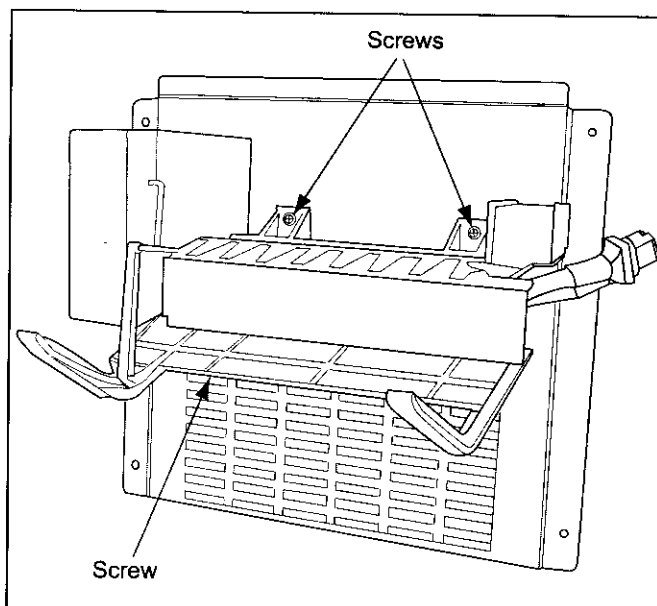


Figure 7-45. Icemaker Removal

Freezer Evaporator Cover Removal

The freezer evaporator cover is located behind the top freezer drawer compartment.

To remove the freezer evaporator cover, the freezer bottom shelf needs to be removed first, then (See Figure 7-46):

1. Extract evaporator cover mounting screws.
2. Pull cover forward and out of compartment.

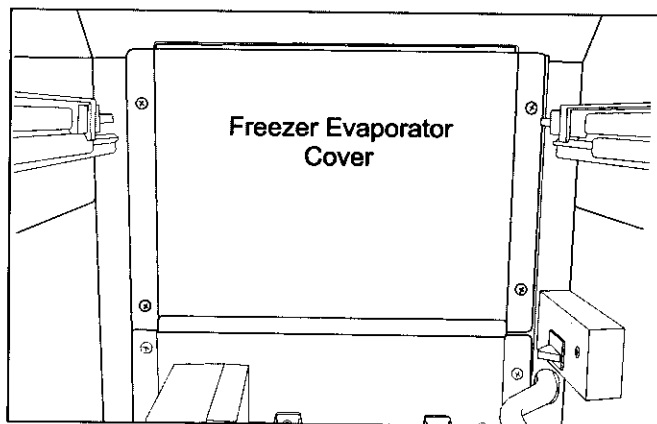


Figure 7-46. Evaporator Cover Removal

Freezer Evaporator Thermistor Removal

The freezer evaporator thermistor is inserted into the third opening from the top in the evaporator fins left side, and extending approximately to the center of the evaporator.

To remove the evaporator thermistor (See Figure 7-47):

1. Pull thermistor from evaporator fins.
2. Cut thermistor's wire leads six (6) to twelve (12) inches from the back wall, then pull thermistor from compartment.

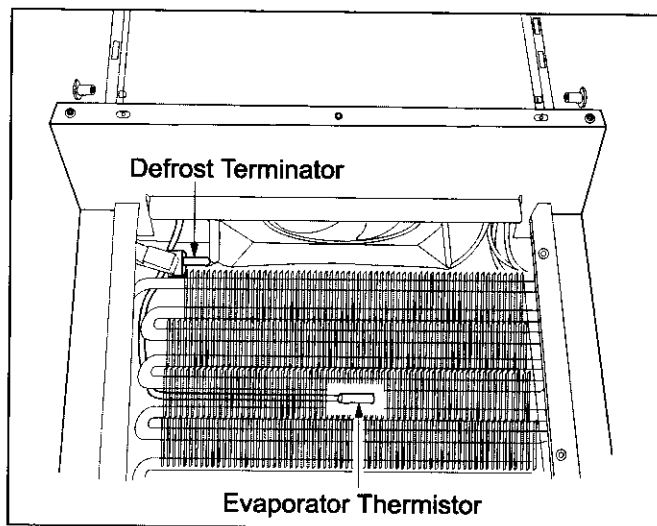


Figure 7-47. Freezer Evaporator Thermistor & Defrost Terminator

Freezer Defrost Terminator Removal

The freezer defrost terminator sits on the tubing at the upper left hand side of the evaporator.

To remove the defrost terminator (See Figure 7-47):

1. Disconnect the terminator clip from the evaporator tubing.
2. Cut the cable ties at the back wall.
3. Disconnect terminator electrical leads, then pull the terminator from the freezer compartment.

Freezer Defrost Heater Removal

The freezer defrost heater is located under the freezer evaporator, and is held in place by a heater bracket that is screwed to the back wall.

To remove the freezer defrost heater (See Figure 7-48):

1. Cut heater electrical leads at wiring junction points.
2. Extract heater bracket mounting screws.
3. Lift defrost heater from freezer compartment.

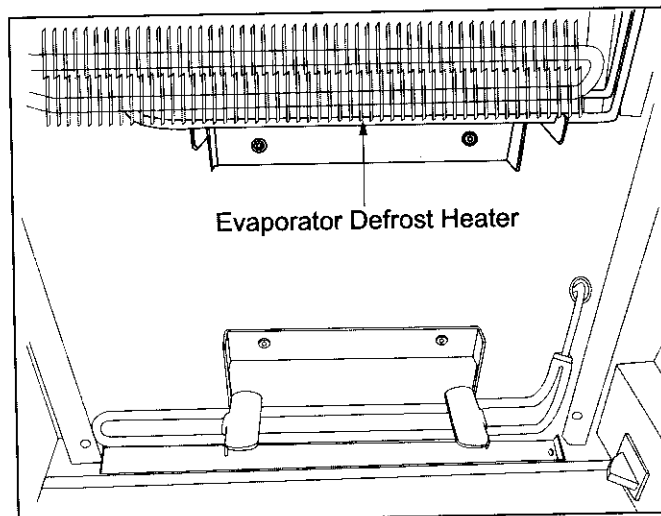


Figure 7-48. Freezer Defrost Heater Removal

Freezer Drain Trough Heater Removal

The drain trough heater is located at the bottom rear of the freezer compartment, behind the lower freezer evaporator cover assembly.

To remove the drain trough heater, access the drain trough heater the freezer drawers and the icemaker assembly must be removed first, then (See Figure 7-49):

1. Cut heater wire leads at their junction points
2. Extract heater bracket mounting screws.
3. Lift drain trough heater from the freezer compartment.

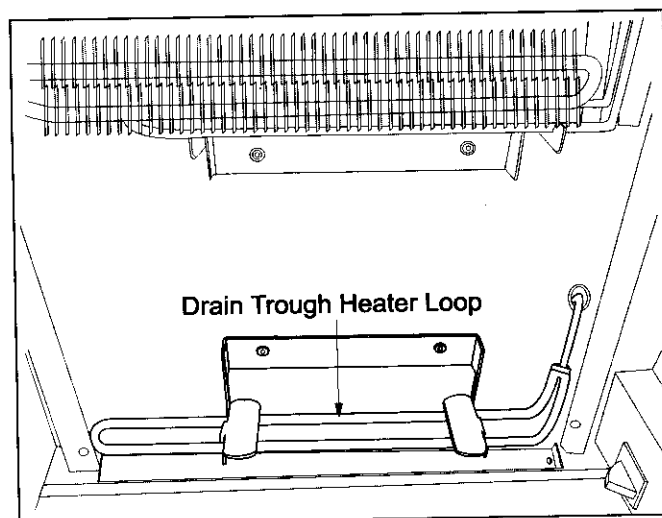


Figure 7-49. Drain Trough Heater

Compressor Area Mechanical Components

Water Filter Removal

The water filter is located behind the grille assembly.

To remove the water filter:

1. Lift Louvered section of grille assembly up
2. Rotate filter counterclockwise to remove it (See Figure 7-50); clockwise to install it.

NOTE: The water filter timer will reset to a one year countdown when the filter is replaced. If the water filter was removed only to service other components, press the filter switch five times within five seconds to allow the filter timer to continue the original countdown. A beep will be emitted indicating the original countdown has been resumed.

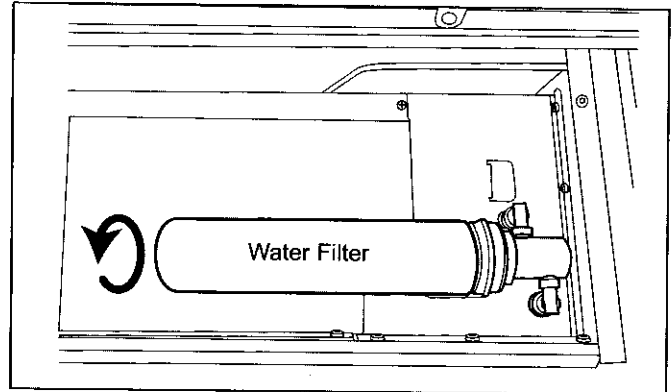


Figure 7-50. Water Filter Removal

Water Valve Removal

The water valve is attached to the back side of the water valve bracket, located behind the grille assembly.

NOTE: Before continuing, disconnect or switch off water supply.

To remove the water valve (See Figure 7-51):

1. Lift Louvered section of grille assembly up.
2. Rotate water filter counterclockwise to remove it
3. Extract mounting screws from mounting bracket.
4. Disconnect wire leads from valve.
5. Disconnect water lines from valve.
6. Extract mounting screws from valve mounting bracket.

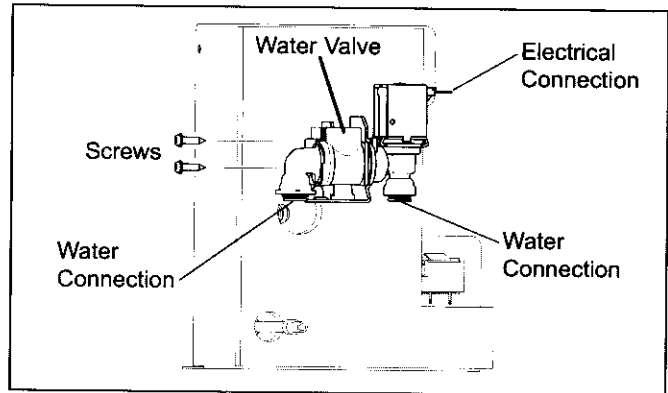


Figure 7-51. Water Valve Removal (Rear View)

Condenser Fan Removal

The condenser fan is mounted to the condenser fan shroud with three (3) fan brackets that hook into grommets holes in the fan shroud. Screws passing through these brackets secure the fan motor to the brackets.

To remove the condenser fan (See Figure 7-52):

1. Disconnect electrical leads from fan motor.
2. Extract screws securing motor to brackets.

NOTE: Brackets will unhook from grommets holes in condenser fan shroud after screws are removed.

3. To remove fan blade from fan motor:
 - a. Grab blade and motor while turning nut counterclockwise.
 - b. Pull blade from the motor shaft.

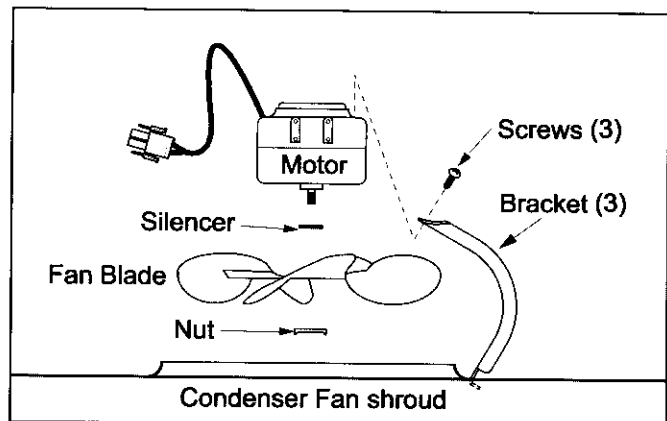


Figure 7-52. Condenser Fan Removal (Top View)

Sealed System Components

NOTE: When entering the sealed system, always use solder-on process valves. Do **NOT** use bolt-on process valves as they are prone to leak.

NOTE: Whenever servicing the sealed system, the high-side filter-drier must be replaced.

Freezer High-Side Filter-Drier Removal

To remove the freezer high-side filter-drier, first capturing the refrigerant from sealed system, then (See Figure 7-53):

1. With a file, score a line around capillary tube 1" or less from drier outlet, then fatigue capillary tube at this line until it separates.
2. With a tube-cutter, cut inlet tube 1" or less from drier inlet.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

NOTE: After capillary tube separates, check tubing for internal burrs. If burrs exist, repeat step 1 above.

NOTE: When installing replacement filter-drier, insert capillary tube until it touches screen inside drier, then pull capillary tube away from screen approximately 3/8" before brazing. (See Figure 7-54).

NOTE: Filter-drier outlet must be facing downward in order to function properly.

Refrigerator High-Side Filter-Drier/Refrigerant Valve Assembly Removal

To remove the refrigerator drier/valve assembly, first capturing the refrigerant from sealed system, then (See Figure 7-55):

1. With a file, score a line around capillary tubes 1" or less from drier/valve outlet tubes, then fatigue capillary tubes at these lines until they separate.
2. With a tube-cutter, cut inlet tube 1" or less from drier inlet.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

NOTE: After capillary tube separates, check tubing for internal burrs. If burrs exist, repeat step 1 above.

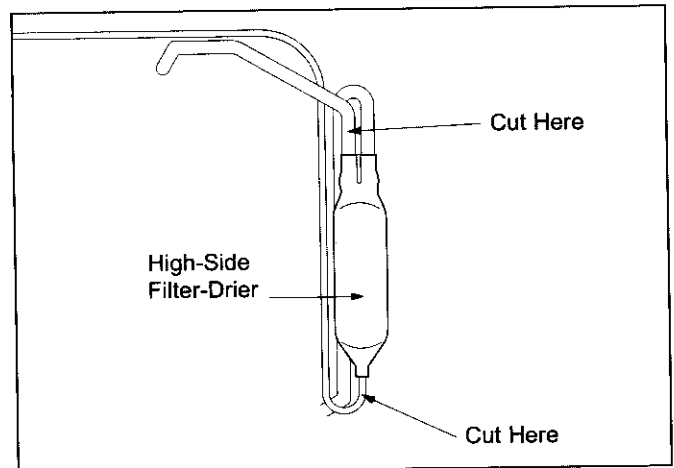


Figure 7-53. Freezer Filter-Drier Removal

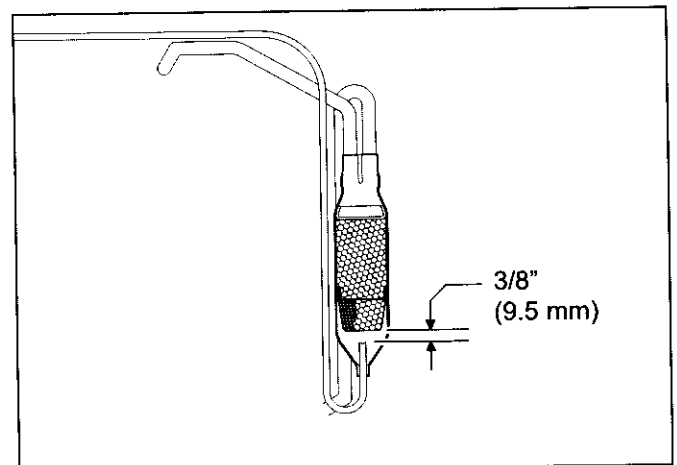


Figure 7-54. Capillary Tube Insertion Note

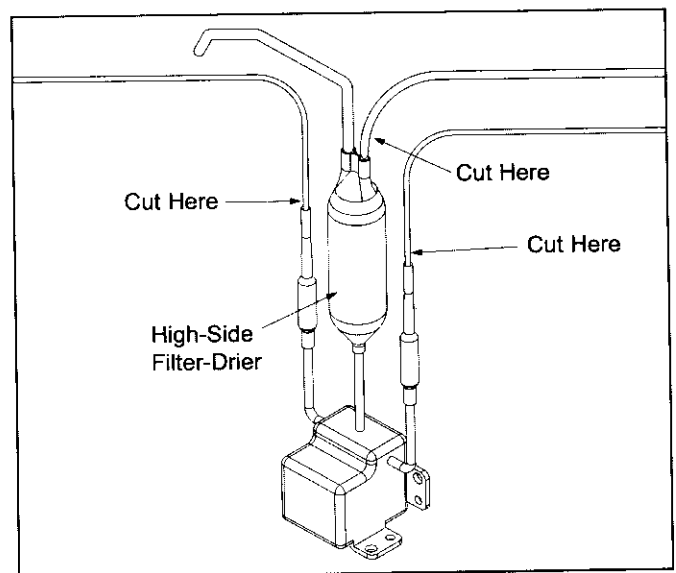


Figure 7-55. Refrigerator Drier / Valve Assembly

Compressor Removal

Compressors are secured to the top of the unit with nuts over stud-bolts. The left compressor is the freezer compressor, the right compressor is the refrigerator compressor.

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

After capturing the refrigerant from sealed system, (See Figure 7-56):

1. Disconnect electricals from compressor.
2. Extract nuts from stud-bolts at each corner of compressor base.
3. Lift compressor up and pull forward to gain access to suction and discharge lines.
4. Using a tube cutter, cut suction and discharge lines approximately 1" from compressor.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

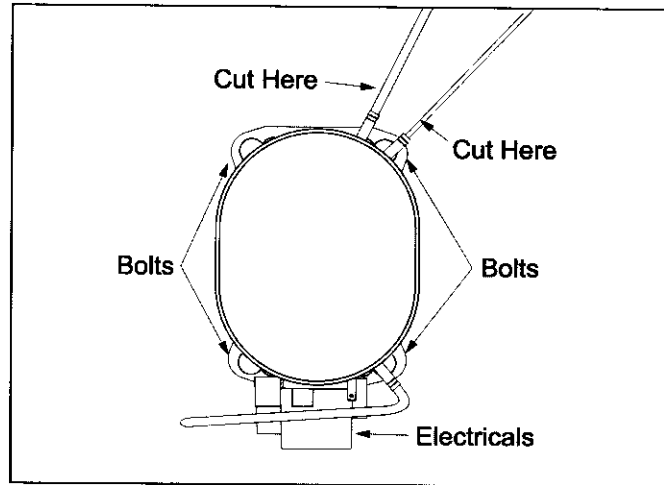


Figure 7-56. Compressor Top View

Condenser Removal

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

To remove the condenser the unit shroud will need to be removed first, then after capturing the refrigerant from sealed system, (See Figure 7-57):

1. From control board side of condenser, extract screws which hold condenser side brackets to condenser.
2. Cut cable-ties holding thermistors to condenser outlet tubes.
3. Using a tube cutter, cut condenser inlet and outlet tubes.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

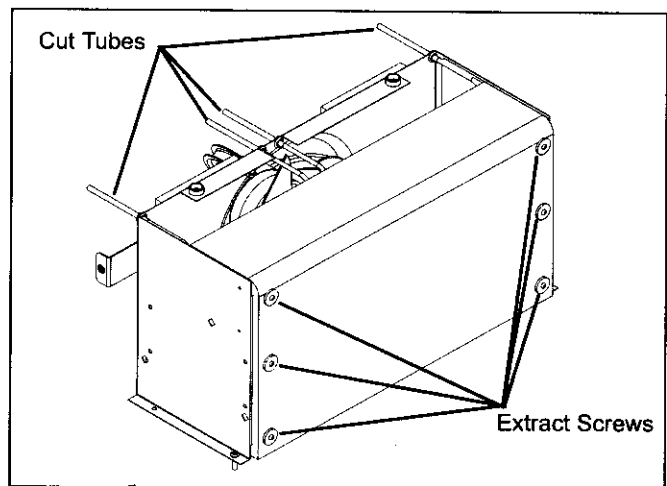


Figure 7-57. Condenser Removal

4. Lift condenser off of unit.

Evaporator Removal

Evaporators are attached to rear walls of the compartments with screws, behind evaporator covers which must be removed first.

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

NOTE: When removing a freezer evaporator, the evaporator thermistor, defrost terminator and defrost heater must also be removed and reused on new evaporator.

After capturing the refrigerant from the sealed system (See Figure 7-58):

1. Extract screws which hold evaporator to rear wall of compartment.
2. Pull and rotate evaporator so heat exchanger is accessible.
3. With a file, score a line around capillary tube, 1" or less from evaporator inlet, then fatigue capillary tube at this line until it separates.
4. With a tube-cutter, cut evaporator outlet 1" or less from accumulator (if applicable), or 1" or less from suction line connection point.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

NOTE: After capillary tube is fatigue until it separates, check tubing for internal burrs. If burrs exist, repeat step 3 above.

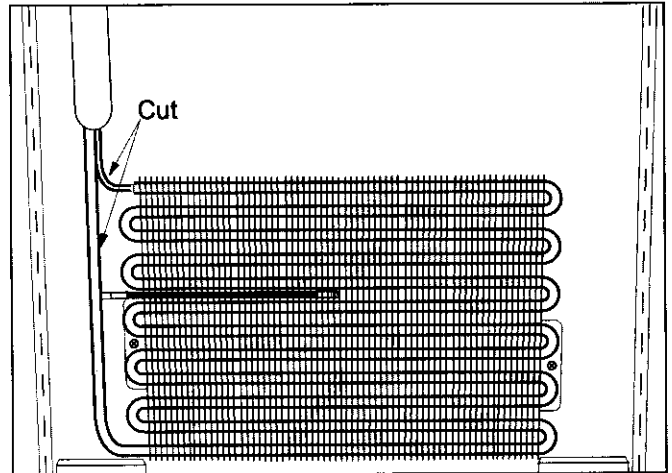


Figure 7-58. Refrigerator Evaporator

NOTE: Freezer evaporator removal not illustrated.

Heat Exchanger

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

To remove the heat exchanger the top cover and evaporator cover must be removed, then after capturing the refrigerant from the sealed system (See Figures 7-59):

1. Extract screws which hold evaporator.
2. Remove insulation from heat exchanger.
3. With a file, score a line around capillary tube, 1" or less from evaporator inlet, then fatigue capillary tube at this line until it separates.
4. With a tube-cutter, cut evaporator outlet 1" or less from accumulator (if applicable), or 1" or less from suction line connection point.
5. With a tin snips, or similar tool, cut heat exchanger in compartment as close as possible to wall or ceiling where heat exchanger passes through.
6. In upper compressor area, use a tube-cutter to cut drier from condenser.
7. Extract nuts from stud-bolts at each corner of compressor base.
8. Lift compressor up and pull forward to gain access to suction line.
8. Using a tube cutter, cut suction line approximately 1" from compressor.
9. Pull remaining heat exchanger from unit.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

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

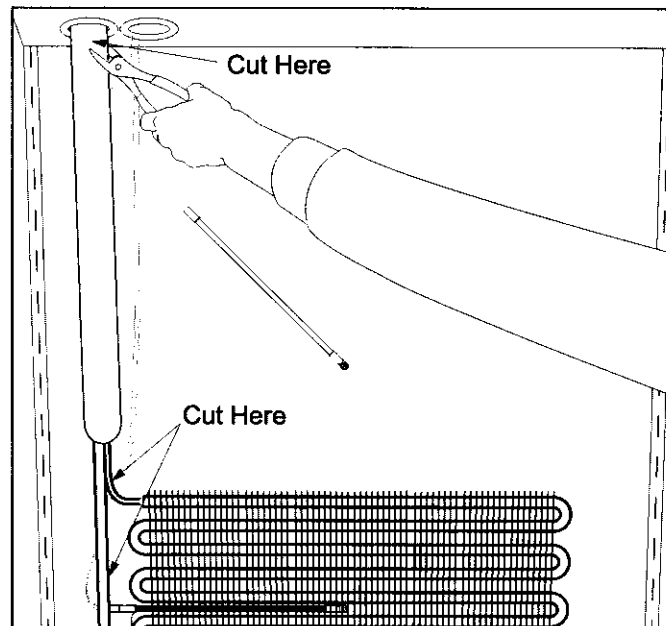


Figure 7-59. Heat Exchanger

Drain Pan Heater Loop Removal

The drain pan heater loop is located on the underside of the bottom panel of unit and above the drain pan.

NOTE: When replacing a 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.

To remove the drain pan heater loop, the drain pan must be removed first, then after capturing the refrigerant from sealed system, (See Figure 7-60):

1. Using a tube cutter, cut condensate loop inlet and outlet.

NOTE: It is not recommended to sweat tubing apart. Doing so will induce moisture into the sealed system.

2. Extract tubing from heater loop brackets.

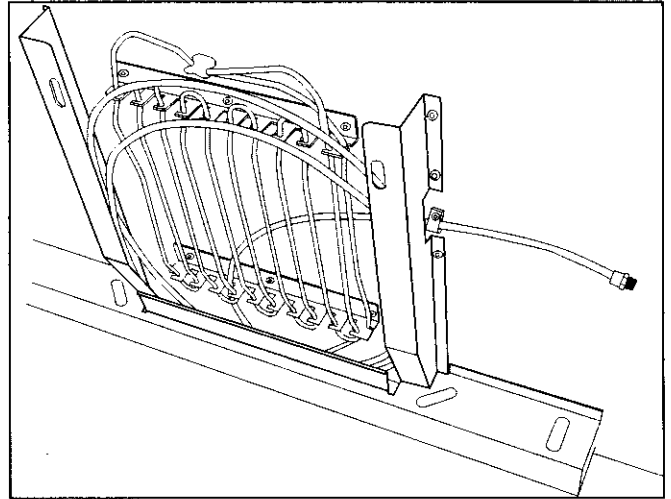


Figure 7-59. Drain Pan Heater Loop Removal