SECTION 2

COMPONENT INFORMATION

DOOR ASSEMBLY

The door assembly consists of the
- door liner
- frame
- sheet metal pan
- solid foam core.

A magnet is installed beneath the door liner at the top of the door. As the door opens and closes, the magnet aligns with a sensor located behind the control panel at the top of the compartment. This sensor activates the lights and door alarm.

The door gaskets on a 700 Series are pressed into a retaining channel in the door liner (Figure 2-1).

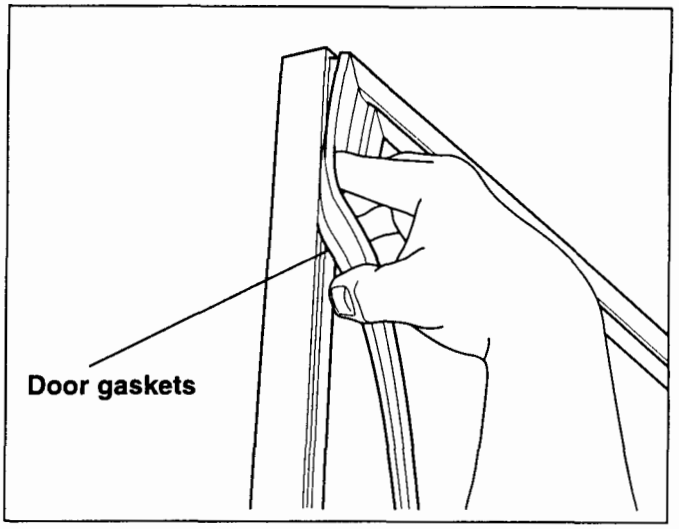


Figure 2-1. Door Gaskets

There are molded grooves in the end caps of the adjustable door shelves and dairy compartment assembly. To position the adjustable door shelves and dairy compartment assembly, slide the grooves in the end caps over the knobs formed in the door liner (Figure 2-2).

NOTE: Only models 700TC/I and 700TR come equipped with the dairy compartment assembly.

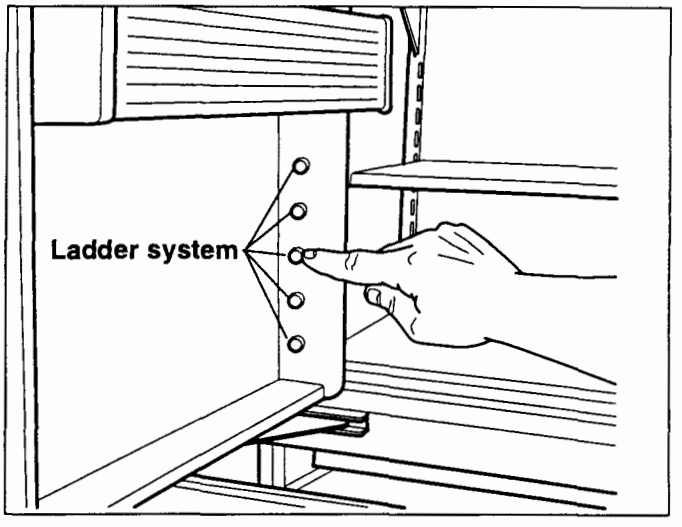


Figure 2-2. Door Shelves and Dairy Compartment

DRAWER ASSEMBLY

General

Drawer assemblies consist of
- a drawer front liner
- drawer front frame
- drawer front sheet metal pan
- solid foam core
- coated steel drawer tub
- removable drawer divider
- electronic control panel*

** On models 700BR and 700 BF/I, the upper drawer assembly contains the electronic control panel.*

NOTE: Freezer drawer tubs (700TC/I, 700TF/I, 700BF/I) have air vents necessary for proper air flow, and are not interchangeable with solid refrigerator drawer tubs (700TR, 700BR).

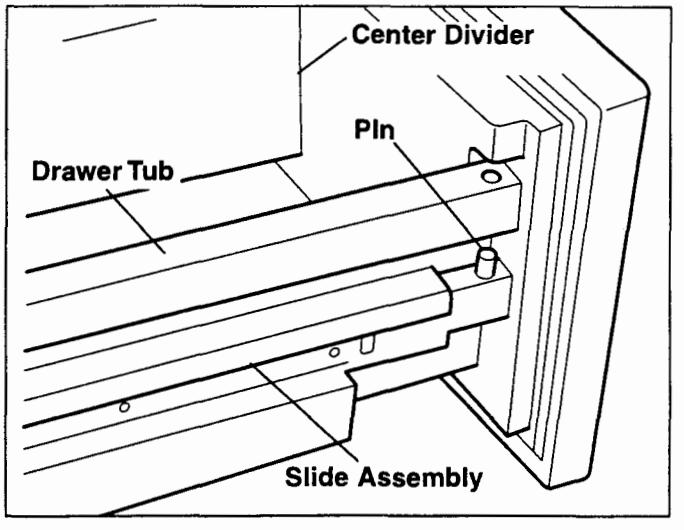


Figure 2-3. Drawer Removal

Drawer Removal and Installation

⚠CAUTION

On 700BR and 700BF/I, the top drawer has a control cable that must be disconnected before drawer removal.

1. Base-Unit Top Drawer Removal:
   a. Pull top drawer forward 6" to 10", lift up off of the pins at front. Continue to pull drawer forward while pushing slide assemblies back. Then lie drawer face down, directly in front of unit.
   b. Disconnect display cable from left of rear duct by turning counterclockwise and pulling (Figures 2-4, 2-5 & 2-6).
2. Drawer Removal: To remove all other drawers, pull drawer forward 6" to 10", lift up off of the pins at front. Continue to pull drawer forward off of slide assembly (Figure 2-3).
3. Drawer Re-installation: Extend slide assemblies forward and lay drawer tub side flanges over slide assemblies. From underneath, pull slide assembly forward until pins at front line up with drawer tub locating holes.

NOTE: Right slide assembly must be positioned between right side drawer tub flange and peg at back right corner of drawer assembly.

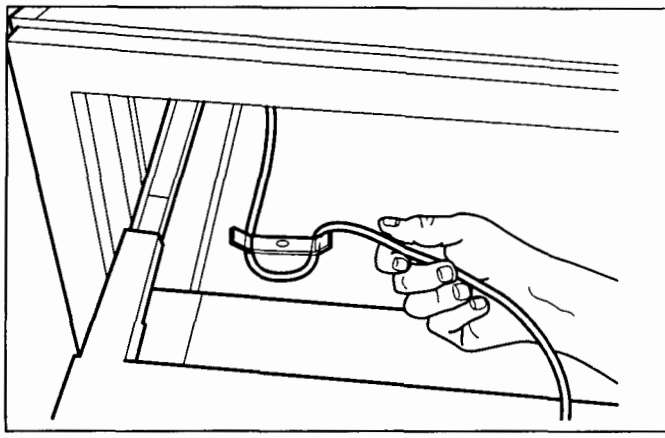


Figure 2-4. Display Cable

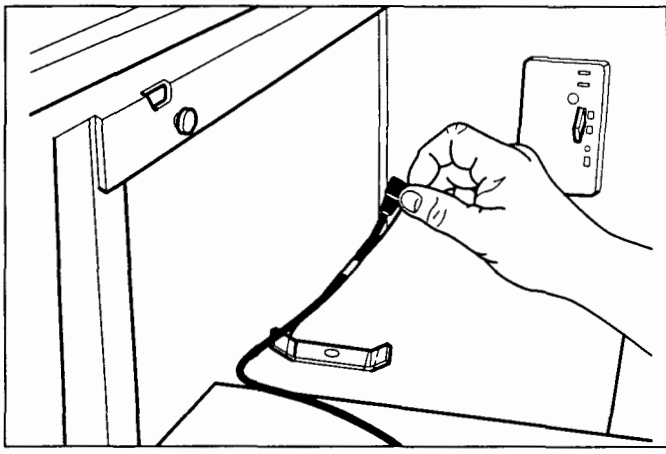


Figure 2-5. Display Cable

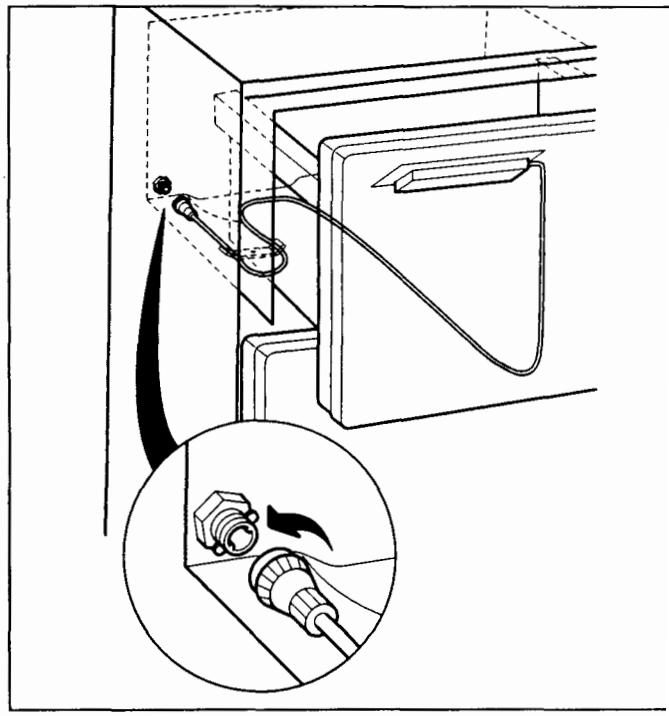


Figure 2-6. Display Cable

ELECTRONIC CONTROL SYSTEM

The 700 Series electronic control system consists of a control board and a display board. The control board includes the microprocessor relays, low voltage transformers, electrical connections and an alarm buzzer. The display board, which is part of the control panel, includes an LCD (Liquid Crystal Display), input buttons for setting controls, and an alarm button. Below are instructions for setting temperatures and for control panel removal.

NOTE: If the door is open for more than 15 seconds the alarm will sound. The alarm can be disabled by pushing the ALARM button (Figure 2-7). The alarm will default to ON after a power outage.

Temperature Settings

Normal operation of the display shows the temperature of each zone (or compartment) at five second intervals. The appropriate zone indicator lights up when the corresponding temperature is displayed. The following steps are necessary to adjust temperatures.

1. Press ZONE key to show the temperature set point for each zone (See Figure 2-8). Press the zone key until the desired zone is flashing on the LCD.
2. Press the WARMER or COLDER key to achieve the desired temperature (Figure 2-8). When setting is complete, wait for five seconds and the control will return to normal operation.

NOTE: To adjust temperatures in next zone, repeat steps 1 and 2 above.

Upper Control Panel Removal Models 700TR, 700TC/I, 700TF/I

1. Remove the rear mounting screws at the back of the light diffuser.

NOTE: Do not remove the light diffuser to access the mounting screws. Look behind the diffuser panel (Figure 2-7).

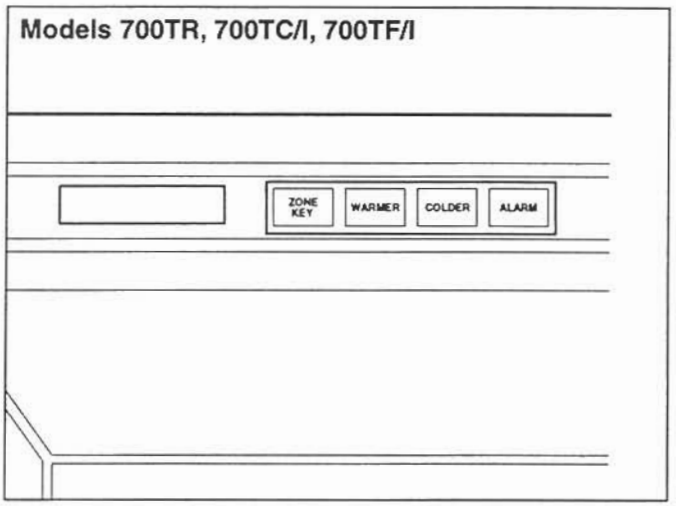


Figure 2-7. Electronic Control Panel

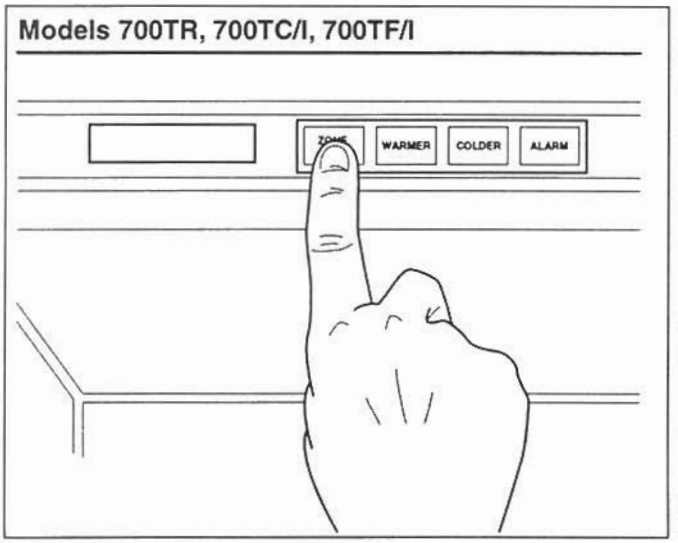


Figure 2-8. Control Panel

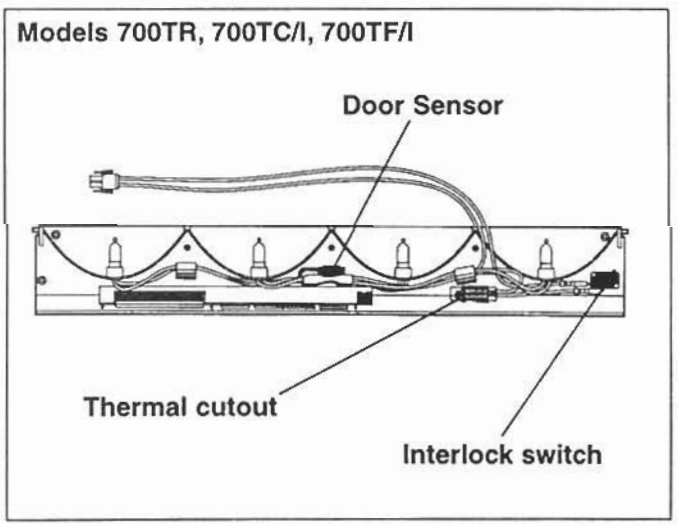


Figure 2-9. Control Panel Electrical Connections

2. To open the upper control panel front, grasp the outer top corners and pull down.
3. Disconnect the leads supplying power to the control panel. Remove the three front mounting screws. The center screw is the ground screw (Figure 2-9).
4. Pull the complete upper control assembly forward and down, (which includes the control board, glass light diffuser, reflectors and halogen lamps (Figure 2-9).
5. Disconnect electrical supply at the top of upper control panel assembly (Figure 2-10).

NOTE: Reverse steps 1 - 5 to reassemble. Make sure ground screw is used at front center only.

⚠WARNING

Halogen lamps are extremely hot! Allow lamp to cool before attempting to handle.

⚠CAUTION

Do not touch lamp with bare hands. Oils from skin will reduce the life of the lamp. If lamp is touched with bare hands, clean lamp with denatured alcohol and wipe dry with lint free cloth.

Control Panel Removal Models 700BR, 700BF/I

1. Remove the three screws inside top drawer assembly (Figure 2-11). Then tilt control panel towards back of the drawer tub.
2. Now disconnect the power supply to the control panel (Figure 2-12).

NOTE: Reverse steps to reassemble.

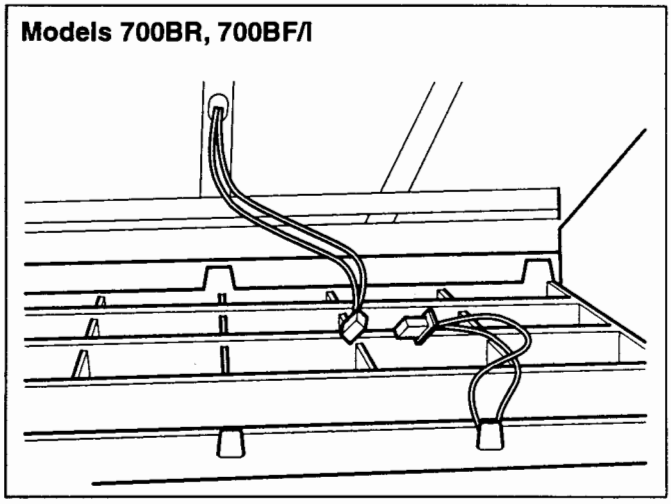


Figure 2-10. Control Panel Electrical Supply

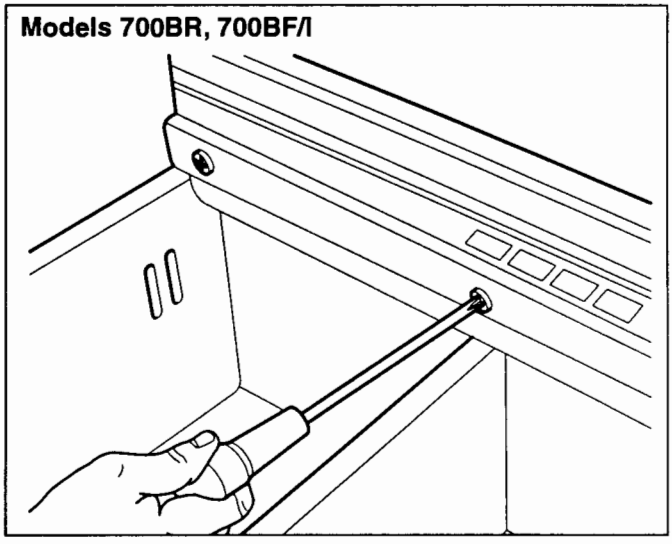


Figure 2-11. Control Panel Screws

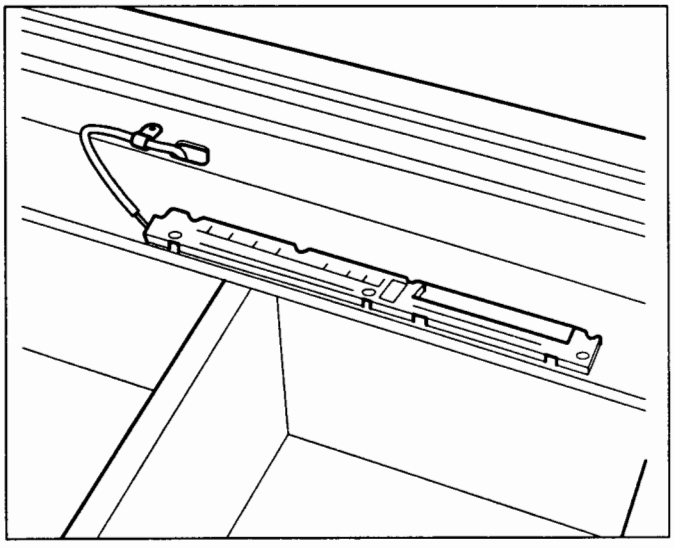


Figure 2-12. Control Panel Power Supply

CONTROL BOARD/MICROPROCESSOR

The control board contains the microprocessor which processes information throughout the rest of the cabinet, through thermistors, wiring and relays. The control board is also equipped with terminals to test for failed or failing components. For proper testing, please refer to the Troubleshooting Guide. The location of the control board is described below, along with the procedure for accessing it.

NOTE: Removing both drawers (all models) and the lower mullion divider (700TR & 700BR only) will allow more room for control board access.

Control Board Location and Access

MODELS 700TR, 700TC/I, 700TF/I

The control board is located in the ceiling of the upper drawer compartment (Figure 2-13).

1. To access the control board, pull top drawer forward 6" to 10", lift up off of the pins at front. Continue to pull drawer forward off of slide assembly.
2. Remove eight screws from the microprocessor cover and let the cover drop down to expose the control board (Figure 2-13).

MODELS 700BR, 700BF/I

The control board is located on the right hand side of the evaporator sump area (Figure 2-14).

1. To access the control board assembly, first remove the drawer assemblies by pulling forward and lifting off of pins at front.

⚠ CAUTION

The top drawer of the 700BR & 700BF/I have a control cable that must be disconnected before drawer removal (See Drawer Removal Instructions).

2. Now remove the evaporator cover by removing six retaining screws, then pull the evaporator cover towards you to expose the sump area.
3. Disconnect the electrical connections and slide the gray control board housing up and out of the sump.

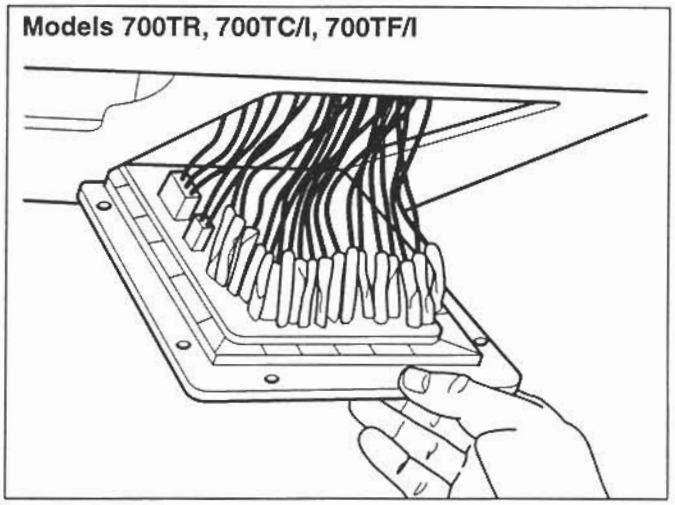


Figure 2-13. Control Board Location

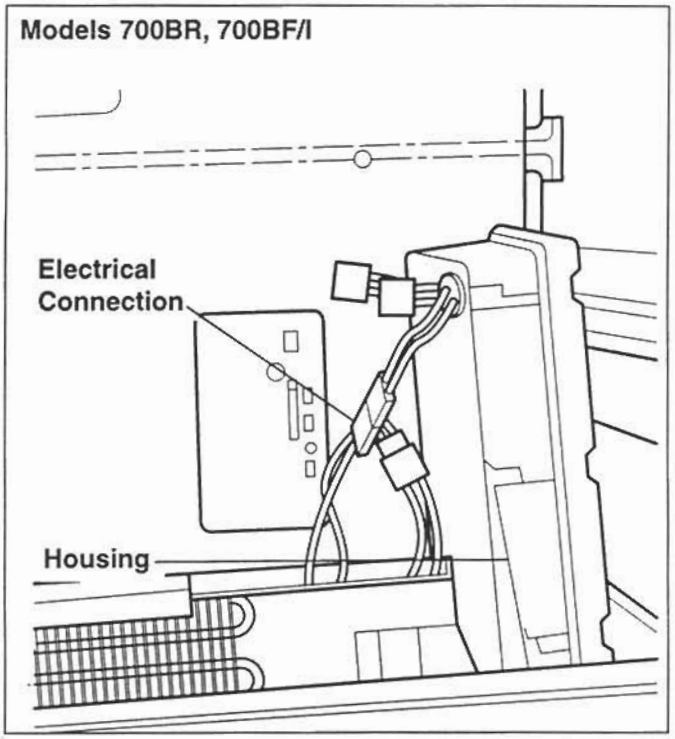


Figure 2-14. Evaporator/Sump Area

ZONE THERMISTORS

In the 700 series, it is possible to independently control temperatures in each zone. This is accomplished in part by thermistors, which are simply resisters that change resistance as the surrounding temperature changes. The microprocessor constantly monitors the thermistor's electronic signal and, as resistance changes, the microprocessor electronically reads the signal as temperature. In turn, the microprocessor initiates compressor and condenser fan run time, evaporator fan motor run time, when the baffles open and close for proper air flow, and determines the proper timing and duration of defrost. Zone thermistor location is described below, along with an explanation of their function, and the procedure for their replacement.

Zone Thermistor Location and Removal

MODELS 700TF/I, 700BF/I

The input temperature range in all these freezer models is from -5°F to +5°F, and is uniform throughout the cabinet. In other words, there is one zone and one thermistor for that zone. The thermistor is located behind the upper drawer in the reed switch assembly (Figure 2-15).

1. To replace the thermistor, the complete reed switch assembly must be replaced. Remove the mounting screw, tilt the top of the reed switch assembly forward and disconnect the electrical connector.

⚠ CAUTION
The top drawer in the 700BF/I has a control cable that must be disconnected before drawer removal (See Drawer Removal Instructions).

NOTE: Be sure to check Troubleshooting Guide for proper thermistor testing procedures.

NOTE: The upper and lower reed switches are not interchangeable in the models 700 TF/I and 700BF/I (Figure 2-19).

MODELS 700TR, 700BR

The input temperature range in all these refrigerator models is from 34°F to 45°F. Each compartment, or zone, can be independently temperature controlled up

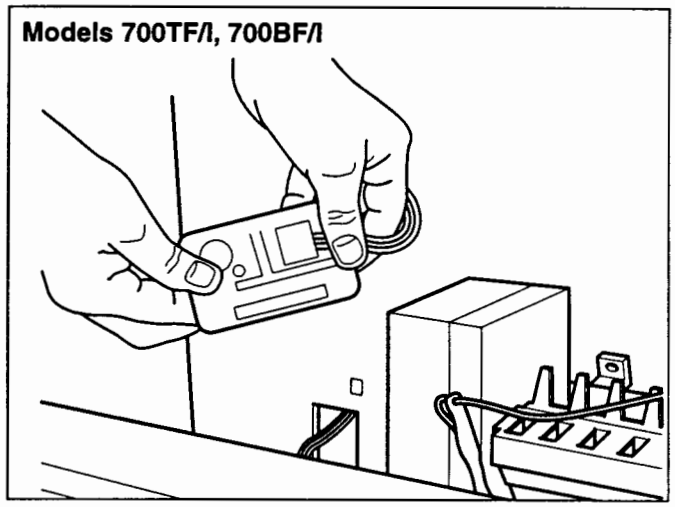


Figure 2-15. Thermistor Location

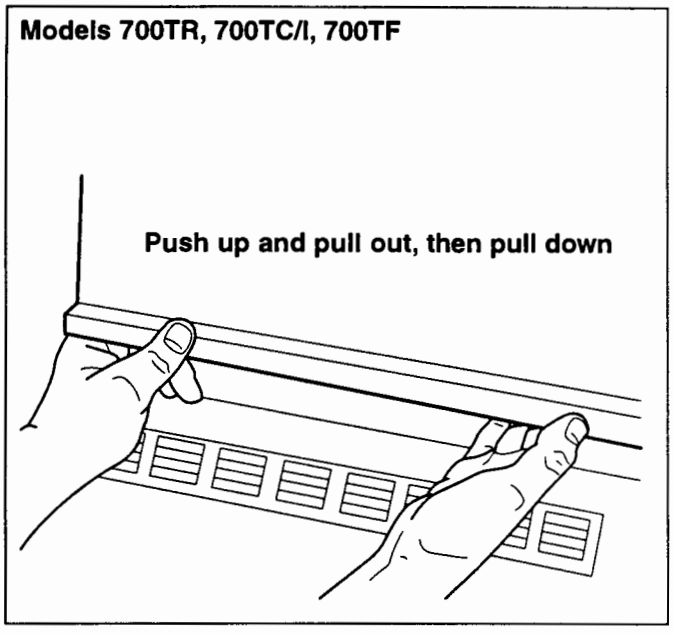


Figure 2-16. Back Duct Removal

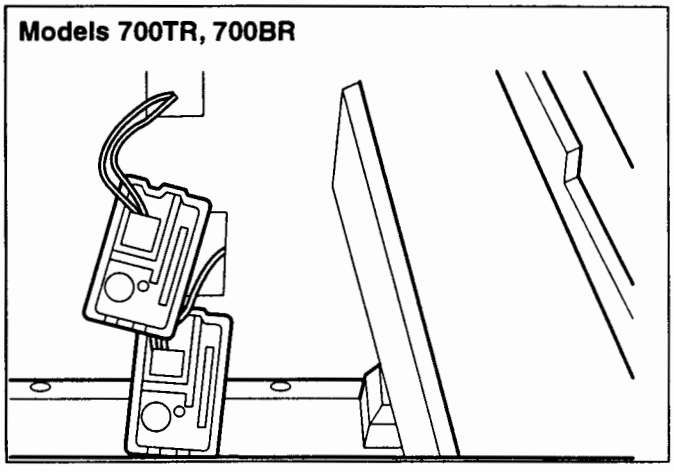


Figure 2-17. Thermistors In Reed Switch

to 3°F colder than the zone above it. Therefore a thermistor is used in each compartment (three thermistors in the 700TR and two in the 700BR). (See example, Figure 2-18). The thermistor in the upper cabinet zone of the 700TR (behind the back duct cover) and the thermistor in the upper drawer zone of the 700BR (inside the reed switch) govern compressor run time .

1. To access the thermistor in the upper cabinet zone of the 700TR, lift the bottom of the back duct cover up, then pull forward and down (Figure 2-16). Once the cover is removed, the thermistor is exposed at the bottom right rear wall, remove the clamp and disconnect the electrical connection to remove.

NOTE: Be sure to check Troubleshooting guide for proper thermistor testing procedures.

2. Thermistors are located in each reed switch behind the drawer assemblies of each compartment (Figure 2-17). To replace the thermistor the complete reed switch assembly must be replaced. Simply remove the reed switch mounting screw, tilt the top of the reed switch assembly forward and disconnect the electrical connector.

⚠ CAUTION

The top drawer in the 700BR has a control cable that must be disconnected before drawer removal (See Drawer Removal Instructions).

NOTE: Be sure to check Troubleshooting Guide for proper thermistor testing procedures.

MODEL 700TC/I

The input temperature range in the combination refrigerator/freezer model is from 34°F to 45°F in the upper refrigerator zone, and -5°F to +5°F in the freezer drawer zone. Though the thermistor in the freezer operates the compressor, both zones can be independently temperature controlled. This is possible because the thermistor in the upper refrigerator zone (behind the back duct cover) regulates an air baffle in the sump area. If the freezer drawer zone has reached its setpoint, yet the upper refrigerator zone is warm, the compressor will cycle off but the evaporator fan will continue to run, forcing cool air through the baffle up to the refrigerator

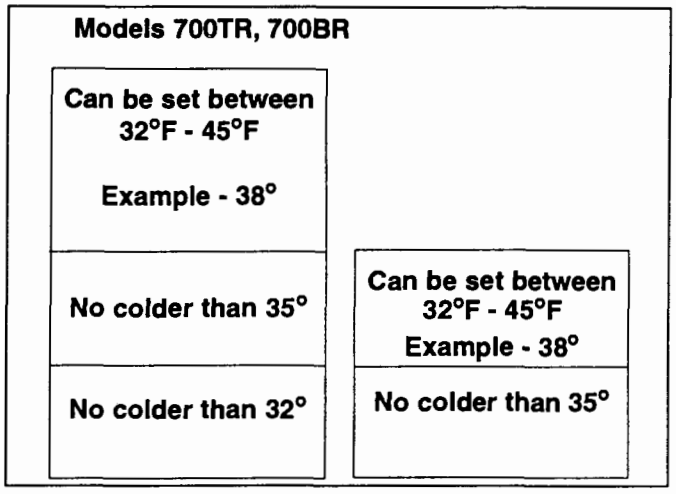


Figure 2-18. Thermistor Control Example

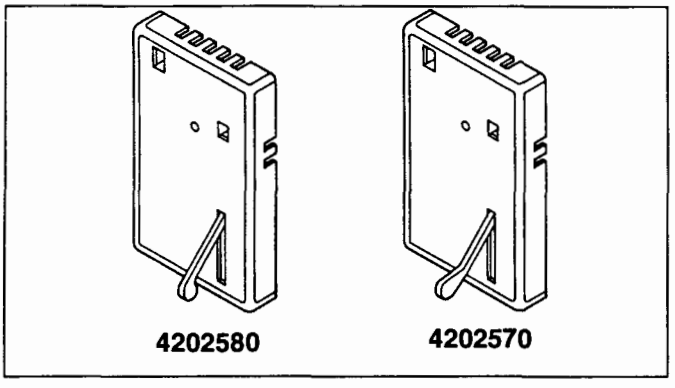


Figure 2-19. Reed Switches

zone until it reaches its setpoint. If the refrigerator zone has reached setpoint, but the freezer zone has not, the baffle is closed.

1. To access the thermistor in the upper refrigerator zone, lift the bottom of the back duct cover up, then pull forward and down (Figure 2-16). Once the cover is removed, the thermistor is exposed at the bottom right rear wall, remove the clamp and disconnect the electrical connection to remove.

2. The temperature in the freezer drawer zone is uniform between both drawers, therefore only one thermistor is used. The thermistor is located behind the upper drawer in the reed switch assembly (Figure 2-15). To replace the thermistor, the complete reed switch assembly must be replaced. Simply remove the mounting screw, tilt the top of the reed switch assembly forward and disconnect the electrical connector.

NOTE: Be sure to check Troubleshooting Guide for proper thermistor testing procedures.

AIR BAFFLES
Models 700TR, 700TC/I, 700BR Only

OPERATION

A baffle will normally be closed until the corresponding zone calls for cooling.

A baffle will default to open if the corresponding thermistor is defective or unplugged.

Generally, all baffles will be closed when the compressor is off. But, if a zone is warmer than its setpoint, and the compressor cycles off, the baffle for that zone will remain open and the evaporator fan will continue to run.

All baffles will be closed during defrost and the fan delay period following a defrost.

LOCATION

MODELS 700TR, 700BR

There are two baffles attached on the left hand side of the lower air duct, one behind each drawer.

MODEL 700TC/I

There is one baffle mount assembly located at top left of the evaporator sump area (Figure 2-20).

MODELS 700TF/I, BF/I

These models have no baffles.

REMOVAL

MODELS 700TR, 700BR

1. Remove both drawer assemblies.
2. Now remove the lower mullion divider by pushing up from underneath, then remove both mullion divider supports (Figure 2-23).

⚠ CAUTION

The top drawer in the 700BR has a control cable that must be disconnected before drawer removal (See Drawer Removal Instructions).

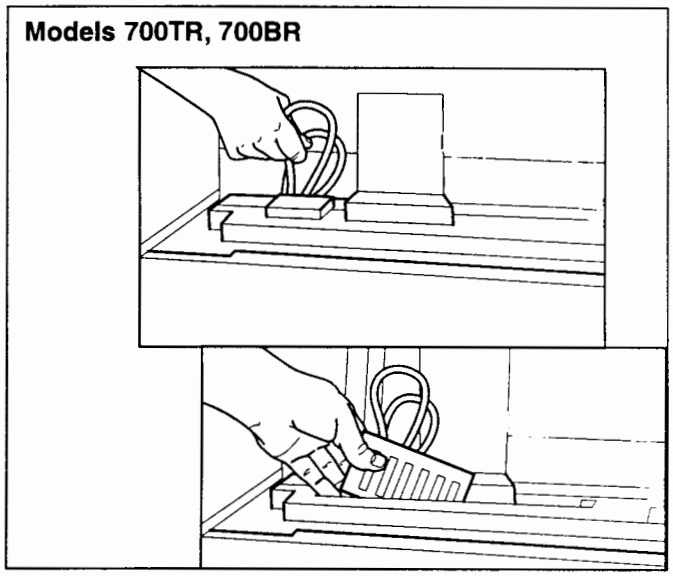


Figure 2-20. Baffle Mount Assembly

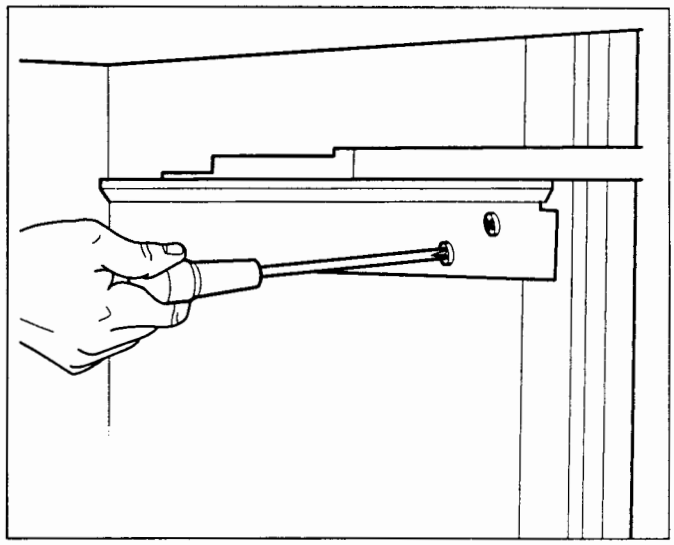


Figure 2-21. Drawer Slides

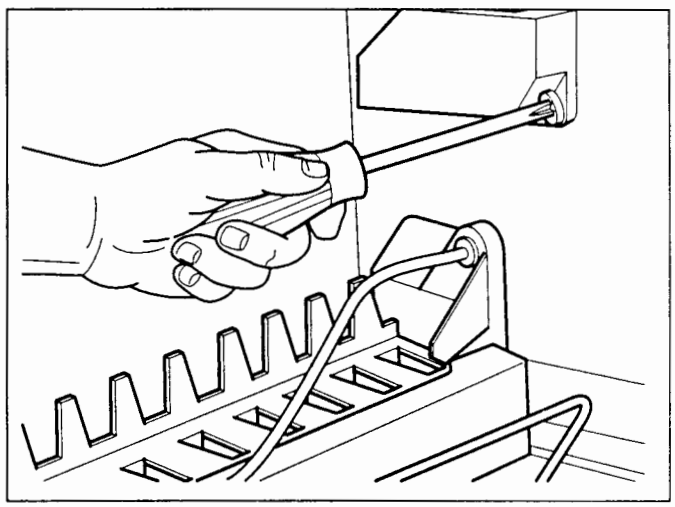


Figure 2-22. Drawer Closer

3. Detach all four drawer slides by removing four mounting screws (Figure 2-21).
4. Remove both drawer closers by removing two mounting screws (Figure 2-22).
5. Remove both reed switches by unscrewing the mounting screw, tilt the top of the reed switch assembly forward and disconnect the electrical connector (Figure 2-17).
6. Now remove three screws at the front and back of the evaporator cover, then remove the evaporator cover. Remove the air duct retaining screw by the bottom left corner. Pull the bottom of the air duct forward and disconnect the electrical connectors to the air baffles, then remove the air duct from the unit.

NOTE: The baffles are applied with double stick tape to the back of the air duct and will need to be pried off.

NOTE: On 700BR the cabinet harness will need to be disconnected from the air duct assembly by turning the retaining nut counterclockwise at the connector.

MODEL 700TC/I

1. Remove both drawer assemblies. Now detach all four drawer slides by removing four mounting screws (Figure 2-21).
2. Remove the icemaker if applicable.
3. Remove both drawer closers by removing two mounting screws (Figure 2-22).

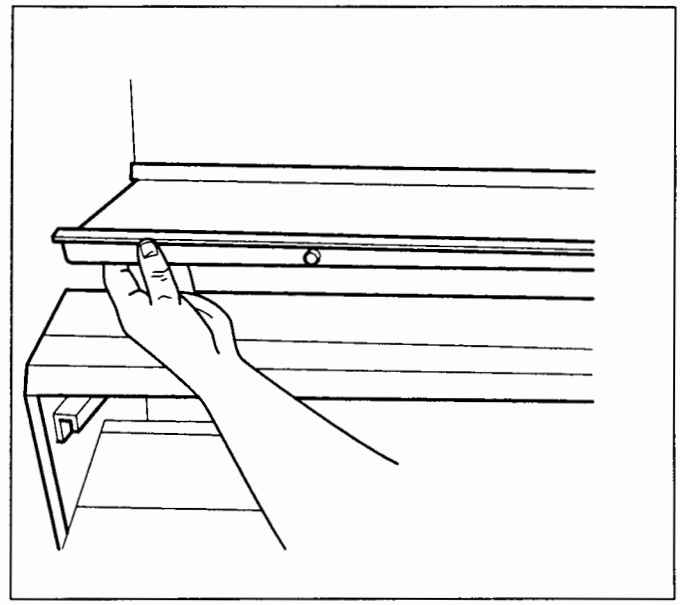


Figure 2-23. Center Divider

4. Remove both reed switches by unscrewing the mounting screw, tilt the top of the reed switch assembly forward and disconnect the electrical connector (Figure 2-17).
5. Remove three screws at the front and back of the evaporator cover, then remove the evaporator cover. Remove the air duct retaining screw by the bottom left corner. Pull the bottom of the air duct forward and remove the air duct from the unit.

   The air baffle or baffle mount assembly (styrofoam block) is located at top left of the evaporator sump area (Figure 2-20). Lift the baffle mount assembly up and unplug the electrical connection.

EVAPORATOR SUMP

The evaporator sump area consists of the following components.

- Evaporator/Heat Exchanger Assembly
- Evaporator Fan Motor Assembly
- Cal Rod Defrost Heater (700TC/I, 700TF/I, 700BF/I Only)
- Defrost Terminator (700TC/I, 700TF/I, 700BF/I Only)
- Evaporator Thermistor
- Control Board Assembly (700BR, 700BF/I Only)
- Baffle Mount Assembly (700TC/I Only)

Sump Area Access

1. Remove both drawer assemblies.

> **⚠ CAUTION**
>
> **The top drawer in the 700BR and 700 BF/I has a control cable that must be disconnected before drawer removal (See Drawer Removal Instructions).**

2. Remove the lower mullion divider by pushing up from underneath (Figure 2-23), then remove both mullion divider supports (700TR & 700BR Only).
3. Remove the icemaker if applicable.
4. Detach all four drawer slides by extracting four mounting screws (Figure 2-21).
5. Remove both drawer closers by extracting two mounting screws (Figure 2-22).
6. Remove both reed switches by unscrewing the mounting screw, tilt the top of the reed switch assembly forward and disconnect the electrical connector (Figure 2-17).
7. Remove three screws at the front and back of the evaporator cover, then remove the evaporator cover. Remove the air duct retaining screw

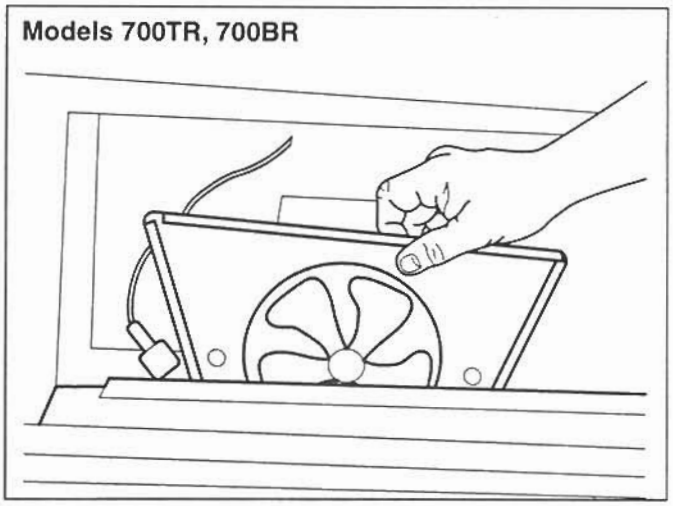


Figure 2-24. Evaporator Fan Motor Assembly

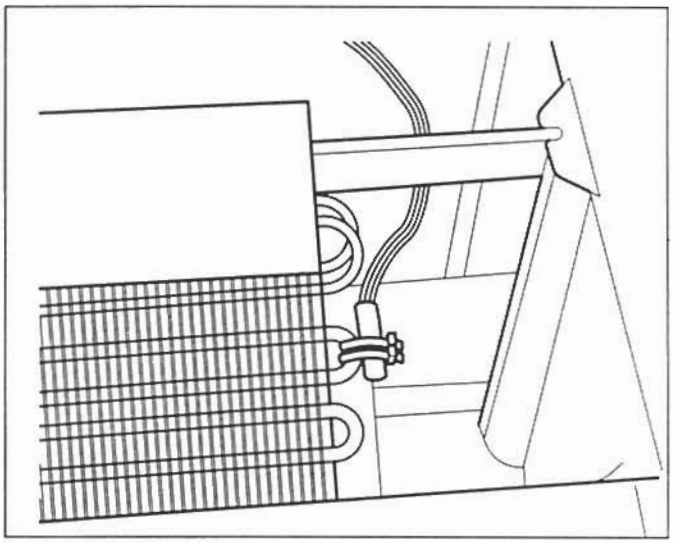


Figure 2-25. Evaporator

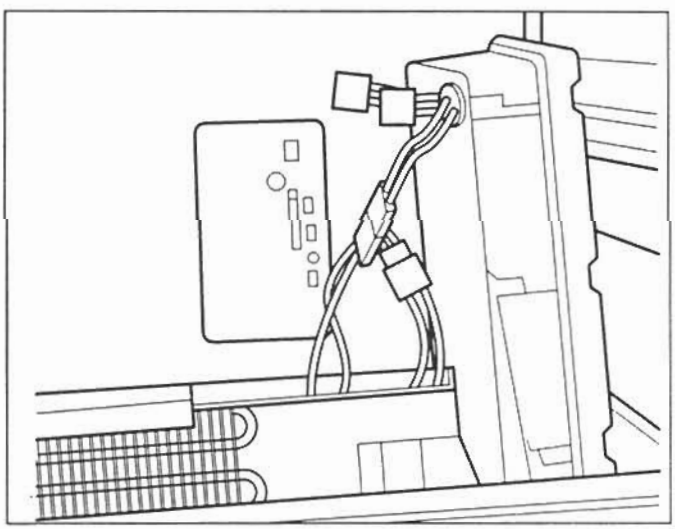


Figure 2-26. Microprocessor Assembly

by the bottom left corner. Pull the bottom of the air duct forward and disconnect the electrical connectors to the air baffles (700TR & 700BR Only), then remove the air duct from the unit.

NOTE: On 700BR & 700 BF/I the cabinet harness will need to be disconnected from the air duct assembly by turning the retaining nut counter clockwise at the Methode Connector.

Sump Component Removal

NOTE: Before attempting any service in the sump area, you must follow the steps in SUMP AREA ACCESS on the previous page.

EVAPORATOR FAN MOTOR ASSEMBLY

NOTE: On 700BR & 700 BF/I the cabinet harness will need to be disconnected from the air duct assembly by turning the retaining nut counter clockwise at the Methode Connector.

1. Disconnect electrical connector at top rear of fan motor assembly, then slide the evaporator fan motor up and out (Figure 2-24).
2. To reinstall, insert bottom of fan assembly into slot, being sure that bottom flange is secured, and that there is no play front to back.

DEFROST TERMINATOR (700TC/I, 700TF/I, 700BF/I ONLY)

Unclip terminator at right of evaporator (note location), disconnect electrical connection and lift out.

EVAPORATOR THERMISTOR

Cut cable ties holding thermistor to evaporator (note location), disconnect electrical connection and lift out. (Figure 2-25).

CONTROL BOARD ASSEMBLY (700BR & 700BF/I ONLY)

To remove the control board assembly simply disconnect the electrical connections and slide the assembly up and out (Figure 2-26).

BAFFLE MOUNT ASSEMBLY (700 TC/I ONLY)

The baffle mount assembly (styrofoam block) is located at top left of the evaporator sump area. Lift the baffle mount assembly up and unplug the electrical connection. (Figure 2-20).

EVAPORATOR ASSEMBLY

1. Unplug evaporator fan assembly and remove.
2. Unplug defrost heater, terminator, and coil sensor/thermistor (if applicable), but **DO NOT** remove from evaporator.
3. Cut tubing to and from evaporator, at evaporator. Pull evaporator assembly up out of sump.

NOTE: Complete evaporator replacement instructions are supplied with replacement evaporator.

DEFROST SYSTEM

Models 700TC/I, TF/I, BF/I

The electronic control in the 700TC/I, TF/I, BF/I regulates defrost intervals with what is called "Adaptive Defrost." With adaptive defrost, the length of time that the heater actually stays on to defrost the evaporator and satisfy the defrost terminator is sensed by the evaporator thermistor. The length of heater ON time determines the number of hours before the next defrost. For instance, if the heater stays on for a shorter time than normal, the electronic control increases the time between the next defrost. If the heater stays on for a longer time than normal, the electronic control decreases the time between the next defrost. This is an ongoing process whereby the defrost time and the defrost interval will vary by unit use.

NOTE: *To initiate a manual defrost, turn OFF master power switch for 10 seconds then turn back ON. The control will initiate defrost upon power up, provided the evaporator temperature is below 20°F. If the evaporator is warmer than 20°F, the evaporator thermistor must be disconnected before initiating defrost.*

NOTE: *If the evaporator thermistor fails, the electronic control will initiate defrost at 6 hour intervals and 20 minute defrost dwell. To test the evaporator thermistor, refer to Troubleshooting Guide.*

Models 700TR, 700BR

Since the 700TR and 700BR do not have defrost heaters, the evaporator defrosts during the compressor off cycle. If the compartment thermistor calls for cooling, but the evaporator thermistor is not sensing temperatures greater than 40°F, the evaporator fan will be energized but the compressor will not. This ensures complete evaporator defrost. As soon as the evaporator temperature reaches 40°F, the compressor is also energized.

NOTE: *If the evaporator coil is iced up and the compressor does not start, check the evaporator thermistor and replace if faulty. To test the evaporator thermistor, refer to the Trouble Shooting Guide.*

LIGHTING

The 700 Series utilizes Halogen lamps for interior lighting.

Power for the lights is supplied through a 12 volt transformer, which is controlled by a 5 volt circuit through a relay on the control board. This 5 volt circuit consists of the reed switches behind each drawer, the sensor behind the control panel (700TR, 700TC/I, 700TF/I only), the microprocessor and relays on the control board. When the microprocessor senses an "open door" signal from a reed switch or the sensor behind the control panel, power is relayed to the 12 volt transformer which then supplies power to the lighting in the appropriate compartment.

If the lights in the upper compartment of the 700TR, 700TC/I, or 700TF/I get too hot, a thermal cut-out in the upper control panel will interrupt power to lighting system. The lighting system will not operate until the lights cool back down.

NOTE: *There is no light terminator in the drawer area of 700 Series units.*

⚠WARNING

Halogen lamps are extremely hot! Allow lamp to cool before attempting to handle.

⚠CAUTION

Do not touch lamp with bare hands. Oils from skin will reduce the life of the lamp. If lamp is touched with bare hands, clean lamp with denatured alcohol and wipe dry with lint free cloth.

ELECTRONIC CONTROL SUMMARY

SetPoints Available

ALL REFRIGERATOR (700TR)

- Upper Cabinet Zone Temperature Range is 34°F to 45°F.
- Upper Drawer Zone can be controlled up to 3°F colder than Upper Cabinet Zone.
- Bottom Drawer Zone can be controlled up to 3°F colder than Upper Drawer Zone.

NOTE: A lower zone can not be set warmer than the zone above it.

ALL REFRIGERATOR (700BR)

- Upper Drawer Zone Temperature Range is 34°F to 45°F.
- Bottom Drawer Zone can be controlled up to 3°F colder than Upper Drawer Zone.

NOTE: The lower zone can not be set warmer than the upper zone.

COMBINATION REFRIGERATOR / FREEZER (700TC/I)

- Upper Cabinet Refrigerator Zone Temperature Range is 34°F to 45°F.
- Freezer Drawer Zone Temperature Range is -5°F to +5°F.

ALL FREEZER (700TF/I, 700BF/I)

- Unit Temperature Range -5°F to +5°F

Modes Displayed

SET MODE

Pushing the "ZONE" key will activate "SET MODE". This will display the set-point and the corresponding zone indicator will flash. Temperatures can then be adjusted in that zone by pushing the "WARMER" or "COLDER" keys. To advance to the next zone, press the zone key again. The set mode will remain active for five seconds after the last key stroke.

ERROR MODE

If a zone thermistor is defective or unplugged, the corresponding zone indicator will flash and either "-20" or "55" will be displayed.

NOTE: To clear the error mode after a thermistor is replaced, the unit must be turned off for ten seconds, then back on.

SHUTDOWN MODE

Attempting to set temperatures warmer than control limits causes a "SHUTDOWN MODE". In shutdown mode "--" will be displayed. All unit functions will be suspended except the lights and door alarm. To end shutdown mode, press the "COLDER" key.

Baffle Operation (700TC/I, 700BR Only)

- A baffle will normally be closed until the corresponding zone calls for cooling.
- A baffle will default to open if the corresponding thermistor is defective or unplugged.
- Generally all baffles will be closed when the compressor is off. But, if a zone is warmer than its setpoint, and the compressor cycles off, the baffle for that zone will remain open and the evaporator fan will continue to run.
- All baffles will be closed during defrost and the fan delay period following a defrost.

Compressor and Evaporator Fan Operation

COMPRESSOR NOTE: The thermistor in the following compartments controls the compressor.

MODEL	COMPARTMENT
700TF	Top drawer
700TC	Top Drawer
700TR	Cabinet
700BF	Top Drawer
700BR	Top Drawer

EVAPORATOR FAN NOTE: The evaporator fan is turned off when any door or drawer is opened. The fan is also off during a defrost and post-defrost period (fan delay period).

ALL REFRIGERATOR (700TR, 700BR)

When the Upper Cabinet Zone in the 700TR or the Upper Drawer Zone in the 700BR calls for cooling, the evaporator temperature is checked. If the evaporator temperature is less than 40°F the compressor remains off, but the evaporator fan is started. With the evaporator fan running the temperature of the evaporator will rise. When the evaporator temperature rises above 40°F, the compressor is started.

NOTE: A defective evaporator thermistor will result in a 10 minute fan delay before the compressor can start.

COMBINATION REFRIGERATOR / FREEZER (700TC/I)

When the freezer drawer zone calls for cooling, the evaporator fan cycles on with the compressor, except after a defrost. After a defrost the evaporator fan will not run until the evaporator temperature falls below 35°F. This is to avoid circulating warmer moist air from the evaporator condensation.

If the freezer drawer zone reaches its temperature set-point, but the upper cabinet refrigerator zone has not reached its temperature set-point, the compressor is cycled off, but the evaporator fan will continue to run.

NOTE: A defective evaporator sensor will result in a five minute fan delay before the compressor can start.

ALL FREEZER (700TF/I, 700BF/I)

The evaporator fan cycles on and off with the compressor, except after defrost. After defrost the evaporator fan will not run until the evaporator temperature falls below 35°F. This is to avoid circulating warmer moist air from the evaporator condensation.

NOTE: A defective evaporator sensor will result in a five minute fan delay before the compressor can start.

Defrost Operation

REFRIGERATOR MODELS (700TR, 700BR)

The 700TR and 700BR utilize an "off-cycle defrost". When the unit reaches the temperature setpoint, the compressor cycles off and the evaporator begins to defrost.

NOTE: If refrigerator runs 100% for six hours or more (due to a door left open), compressor will be turned off. This will allow for evaporator defrosting.

FREEZER MODELS (700TC/I, 700TF/I, 700BF/I)

The electronic control in the 700TC/I, 700TF/I and 700BF/I regulates defrost intervals with what is called "Adaptive Defrost". With adaptive defrost, the length of time that the heater actually stays on to defrost the evaporator, and satisfy the defrost terminator, is sensed by the evaporator thermistor. The length of heater ON time determines the number of hours before the next defrost.

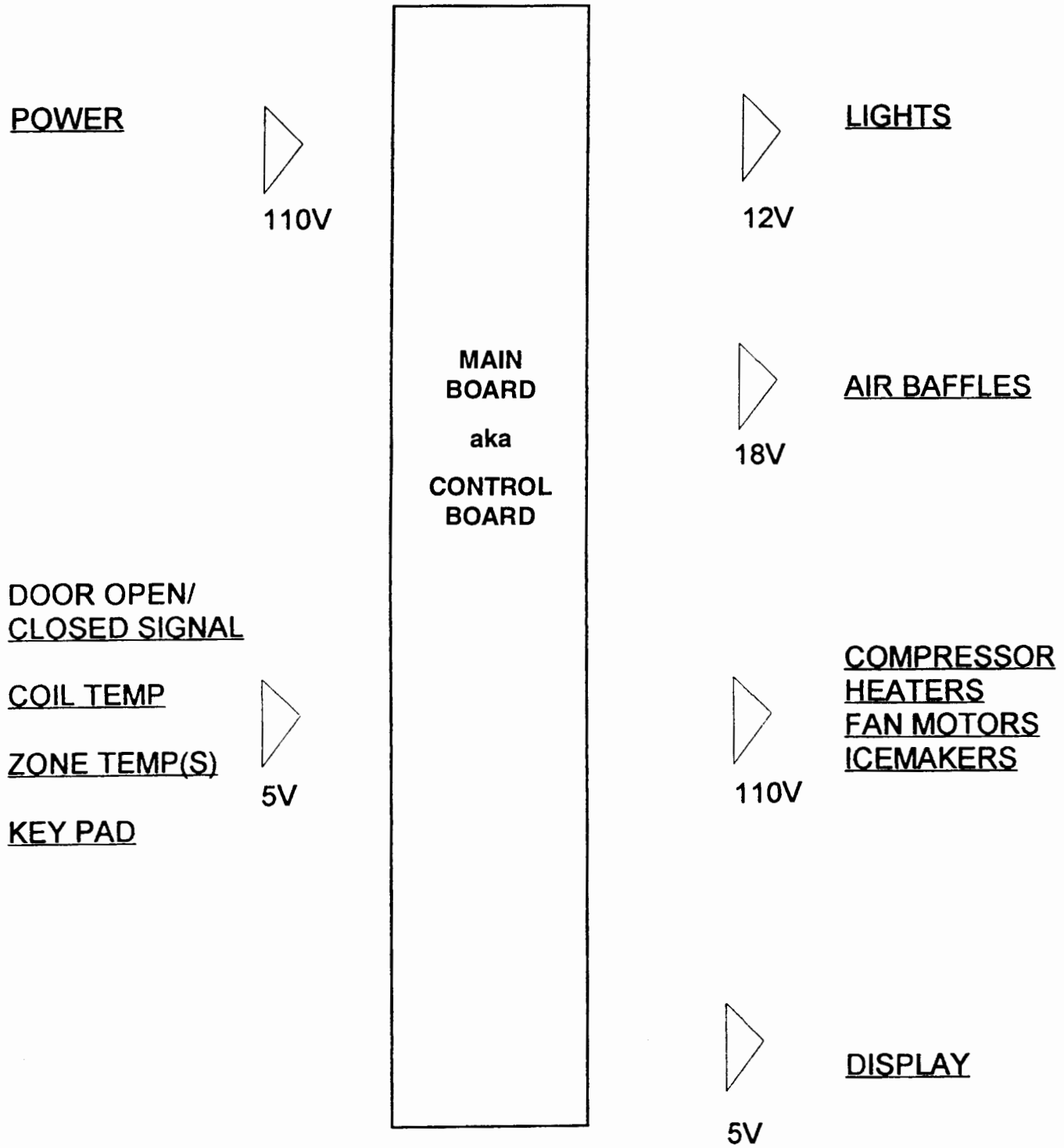
MANUAL DEFROST

To initiate a manual defrost, turn OFF master power switch for 10 seconds then back ON. The control will then initiate a defrost upon power up, provided the evaporator temperature is below 20°F.

NOTE: If the evaporator is warmer than 20°F, the evaporator thermistor must be disconnected before initiating defrost.

The compressor will not cycle back on for 20 minutes (20 minute defrost dwell) if the evaporator thermistor has been disconnected (TC/I, TF/I, BFI Only).

ELECTRICAL SYSTEM OVERLAY



UNIT TRAY COMPARTMENT

The Unit Tray Compartment consists of the unit tray assembly, master power switch, icemaker solenoid valve (700TFI, 700TCI, 700BFI only), 12 volt transformer, and evaporator sump drain tube heater.

Unit Tray Assembly

The removable unit tray assembly was designed for easy access to the compressor, condenser, condenser fan motor, and drain pan (Figure 2-27).

To remove the unit tray assembly, extract two screws (Figure 2-28) that secure the tray to the cabinet, located at the bottom left and right corner of the cabinet. After the screws are removed, the complete tray assembly can be slid forward to expose the components.

⚠ CAUTION

When pulling the tray forward care must be taken to not kink any tubing or rupture any weld joints.

Master Power Switch

The master power switch is located at the front left of the unit tray compartment and is removed by releasing the tabs at the back of the mounting bracket, then unplugging (Figure 2-28).

NOTE: It is not necessary to slide the unit tray assembly out to access the master power switch.

Icemaker Solenoid Valve (700TFI, 700TCI, 700BFI Only)

The solenoid valve is located at the top right of the unit compartment. To remove the solenoid valve, extract the retaining screw and remove the solenoid retainer (Figure 2-29). After the retainer is removed, slide the solenoid to the left. Then pull forward slightly, unplug the electrical connectors and disconnect the water line.

NOTE: It is not necessary to slide the unit tray out to access the icemaker solenoid valve.

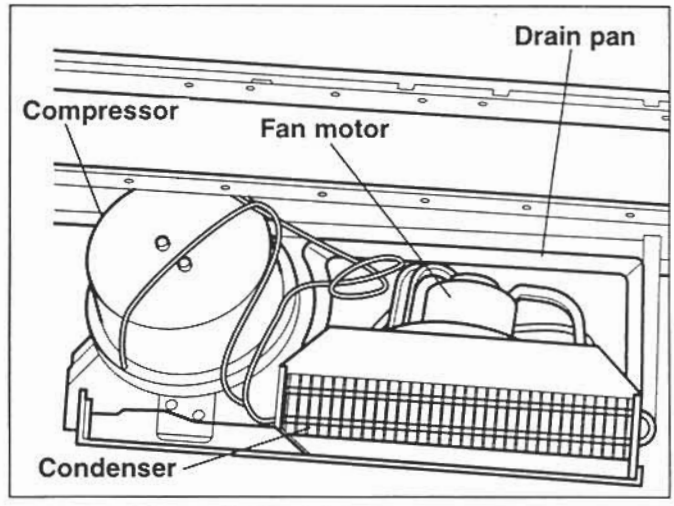


Figure 2-27. Unit Tray Assembly

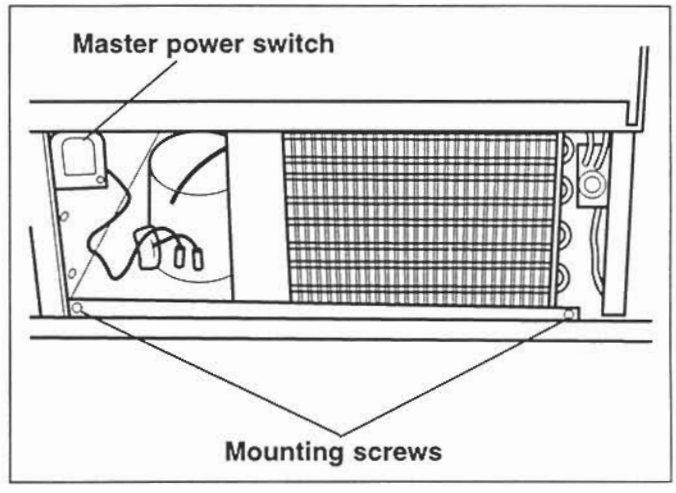


Figure 2-28. Mounting Screws

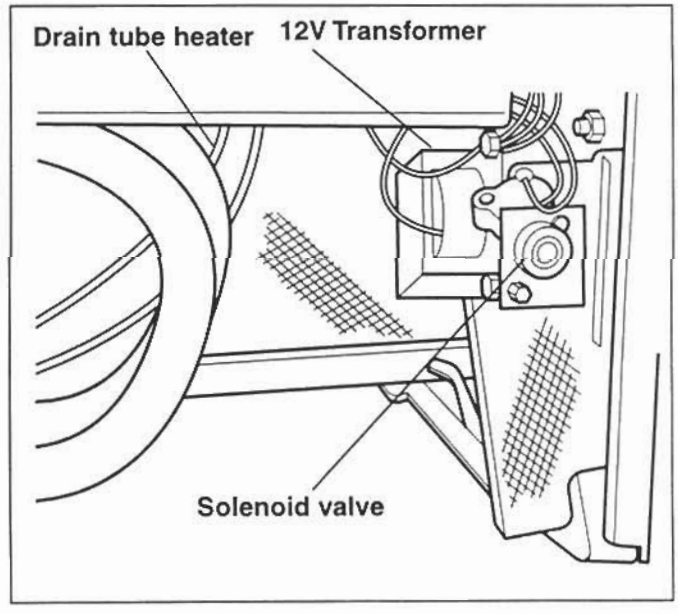


Figure 2-29. Solenoid

12-Volt Transformer

To access the transformer, slide the unit tray assembly out, then locate the transformer at the upper right side behind the water valve (if applicable). To remove the transformer, first remove two nuts, one in front and one in back of the transformer (Figure 2-29), then disconnect the electrical connection.

Evaporator Sump Drain Tube Heater

To access the drain tube heater, the unit tray assembly must be slid out. The drain tube heater is located in the unit tray area at the bottom of the evaporator sump (Figure 2-29). To remove the drain tube heater, pull it out of the sump drain tube, then disconnect the electrical connection located at the upper rear of the unit compartment.

NOTE: *When replacing the drain tube heater, it is necessary to feed the heater in through the drain tube, under the evaporator, approximately seven inches.*