

SECTION 1

GENERAL INFORMATION

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INTRODUCTION

This manual has been prepared for your use in servicing Sub-Zero 700 Series units. Included are helpful facts on service, troubleshooting, specifications and parts information.

It is important that you familiarize yourself with the product as much as possible before initiating any maintenance, troubleshooting or repairs.

IMPORTANT: Always refer to the 700 Series Parts Price List Book for any parts that have been superseded by serial number.

The model and serial number tag is located above the top left drawer slide assembly. Always have this information available when ordering parts.

We encourage you to review this manual and get acquainted with the information. If you should have any questions regarding this equipment, please contact:

Sub-Zero Freezer Co., Inc.
Service Department
PO Box 44130
Madison, WI 53744-4130
1-800-222-7820
or
1-800-919-8324

Technical Assistance Facsimile
608-271-5692

Parts/Warranty Claims Facsimile
608-271-0704

Office Hours
7:00 AM to 7:00 PM Central Time
Monday - Friday

This manual is designed to be used by Authorized Service Personnel only. Sub-Zero Freezer Co., Inc. assumes no responsibility for any repairs made on Sub-Zero refrigeration units by anyone other than Authorized Service Technicians.

IMPORTANT SAFETY INFORMATION

At right are the Product Safety Labels used in this manual. The “Signal Words” used are WARNING or CAUTION.

Below the Product Safety Labels is a description of the precautions to be taken when the signal word is observed.

When reviewing this manual, please note these different safety labels places in areas where awareness of personal safety and product safety should be taken.

⚠ WARNING
Indicates that hazards or unsafe practices could result in severe personal injury or death.

⚠ CAUTION
Indicates hazards or unsafe practices could result in minor personal injury or product and/or property damage.

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).

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.

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).

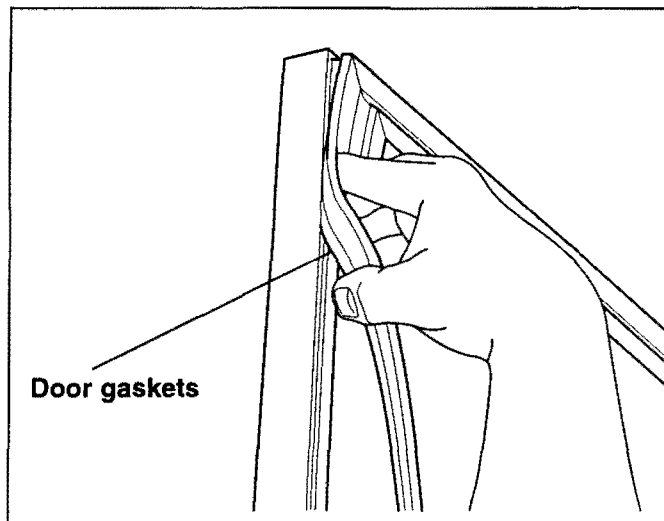


Figure 2-1. Door Gaskets

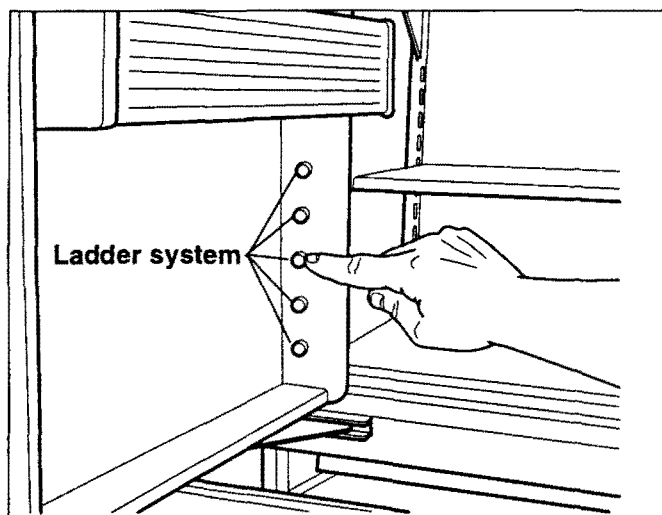


Figure 2-2. Door Shelves and Dairy Compartment

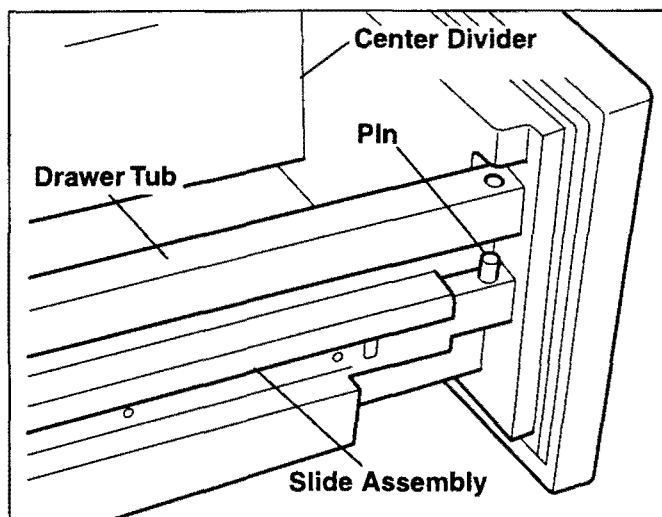


Figure 2-3. Drawer Removal

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.

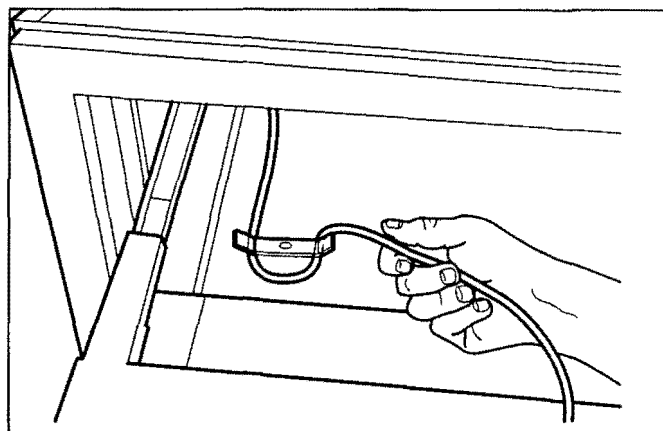


Figure 2-4. Display Cable

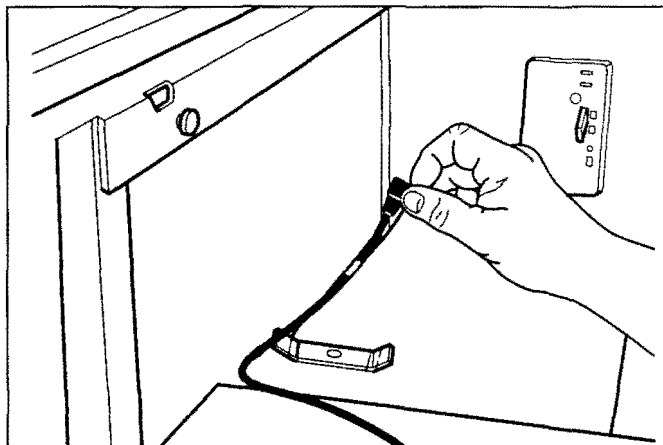


Figure 2-5. Display Cable

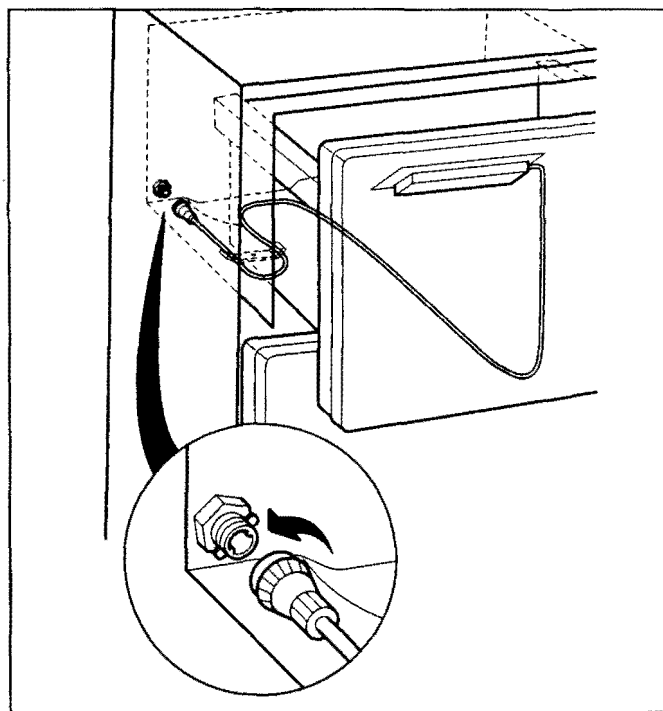


Figure 2-6. Display Cable

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).

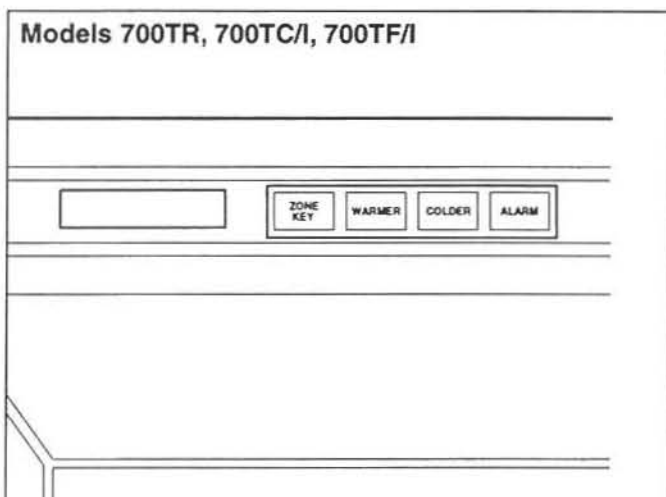


Figure 2-7. Electronic Control Panel

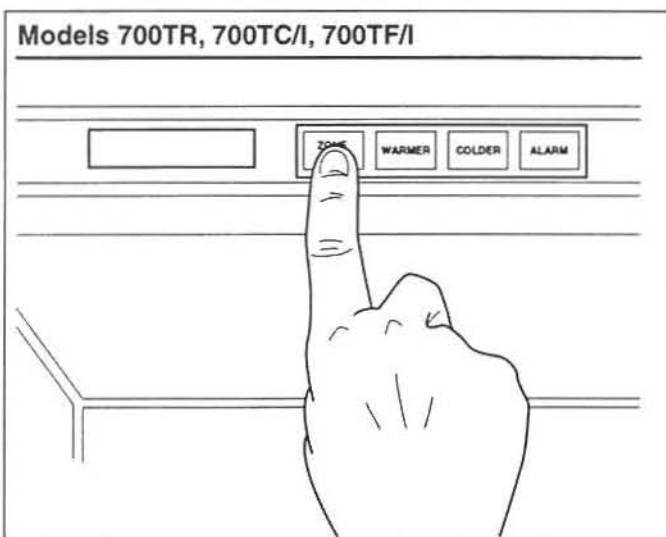


Figure 2-8. Control Panel

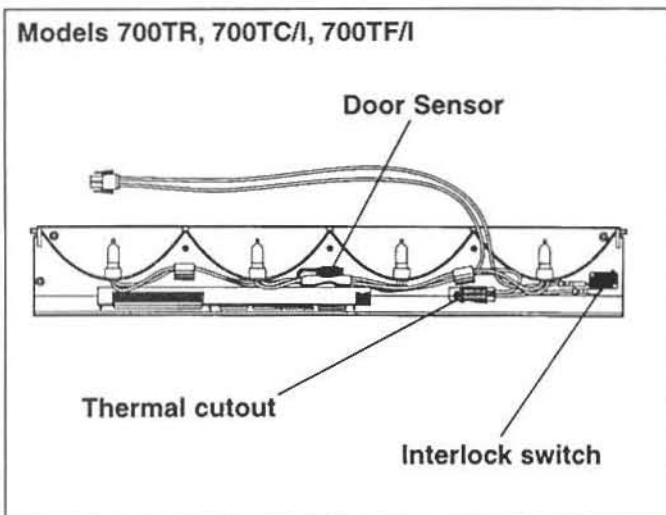


Figure 2-9. Control Panel Electrical Connections

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.

Models 700BR, 700BF/I

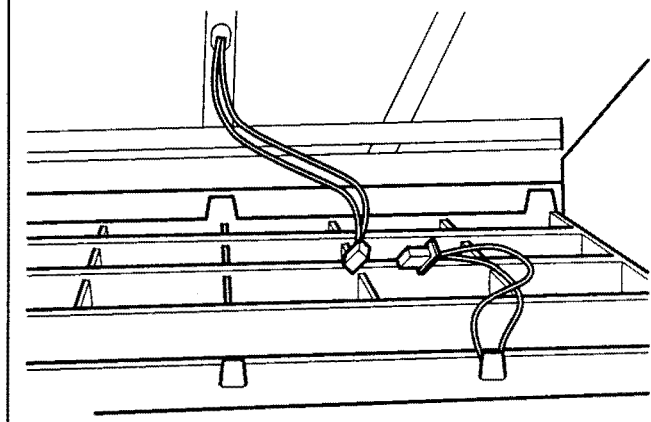


Figure 2-10. Control Panel Electrical Supply

Models 700BR, 700BF/I

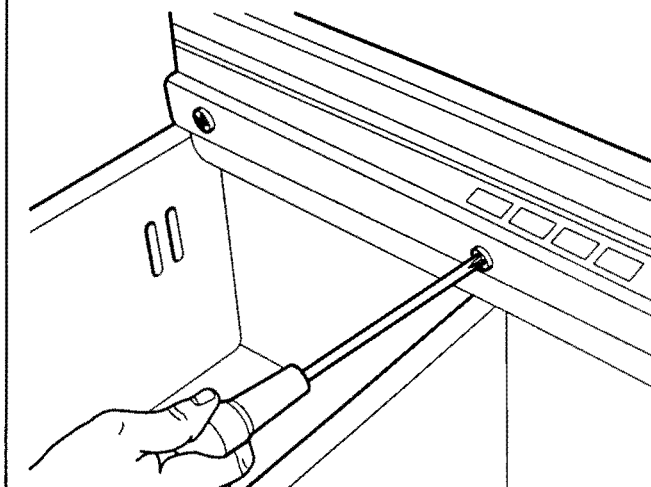


Figure 2-11. Control Panel Screws

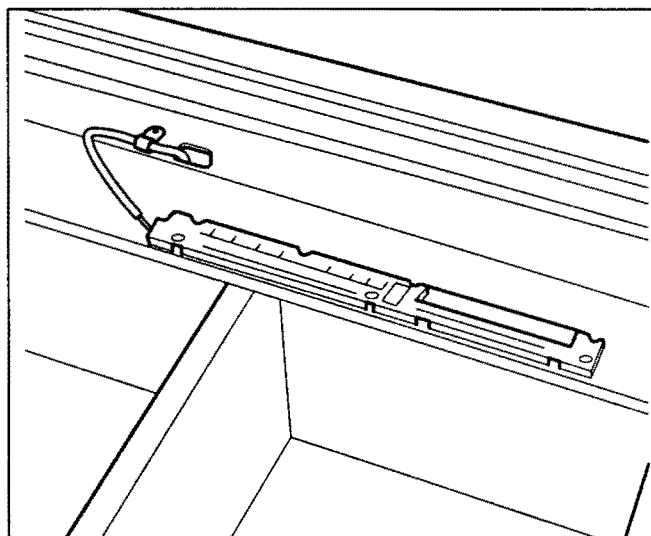


Figure 2-12. Control Panel Power Supply

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.

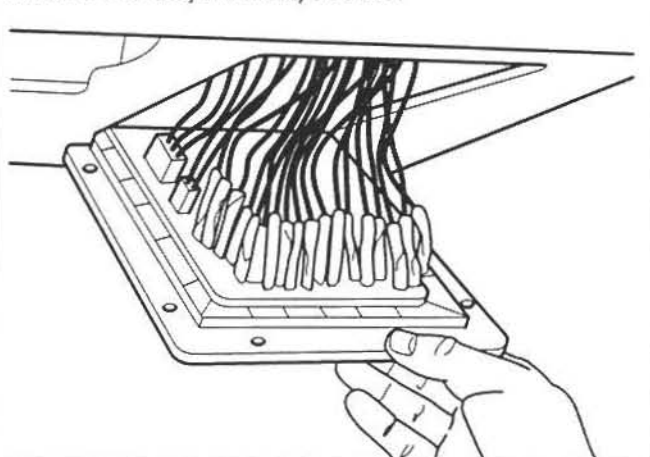
Models 700TR, 700TC/I, 700TF/I

Figure 2-13. Control Board Location

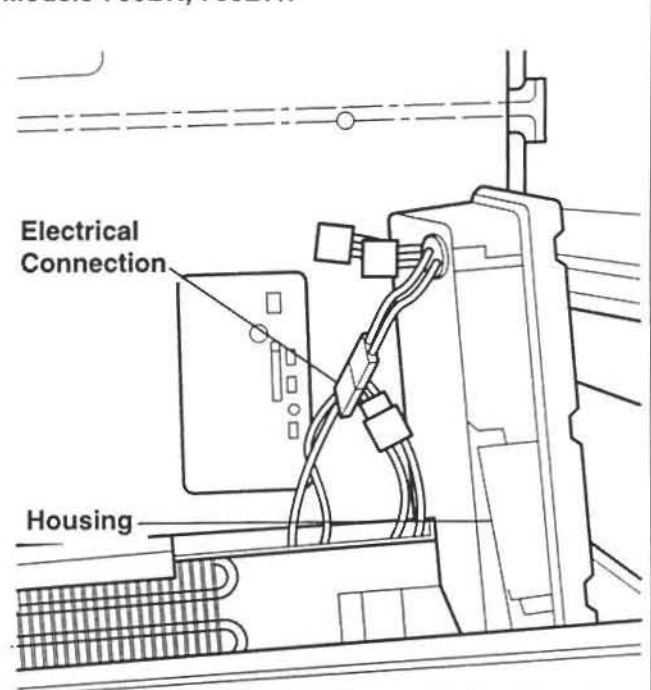
Models 700BR, 700BF/I

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 resistors 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 $+5^{\circ}\text{F}$, 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

Models 700TF/I, 700BF/I

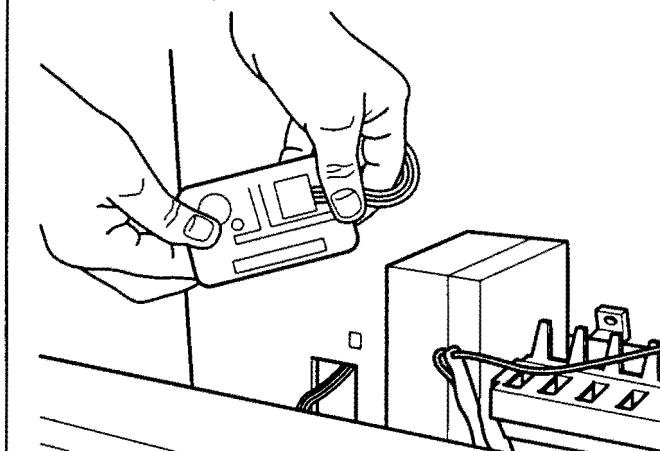


Figure 2-15. Thermistor Location

Models 700TR, 700TC/I, 700TF

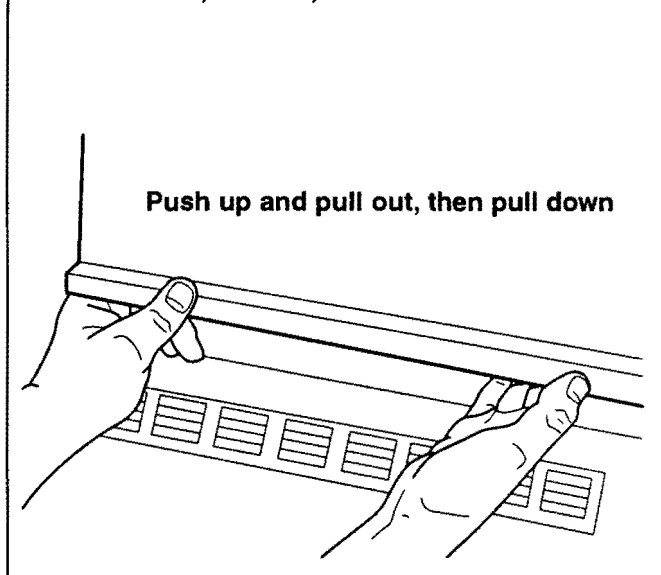


Figure 2-16. Back Duct Removal

Models 700TR, 700BR

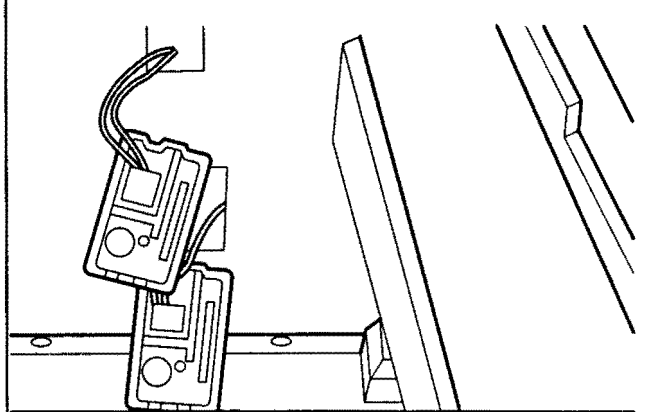


Figure 2-17. Thermistors In Reed Switch

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/

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

Models 700TR, 700BR			
Can be set between 32°F - 45°F			
Example - 38°			
No colder than 35°		Can be set between 32°F - 45°F	
		Example - 38°	
No colder than 32°		No colder than 35°	

Figure 2-18. Thermistor Control Example

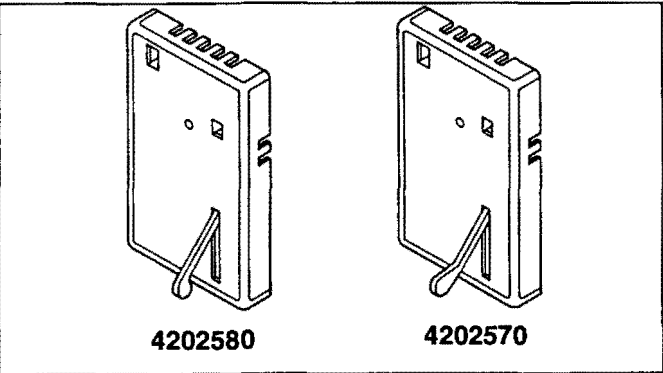


Figure 2-19. Reed Switches

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).

Models 700TR, 700BR

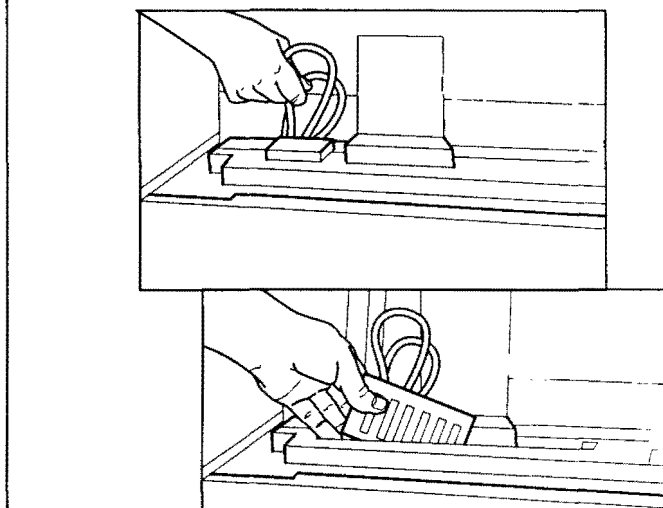


Figure 2-20. Baffle Mount Assembly

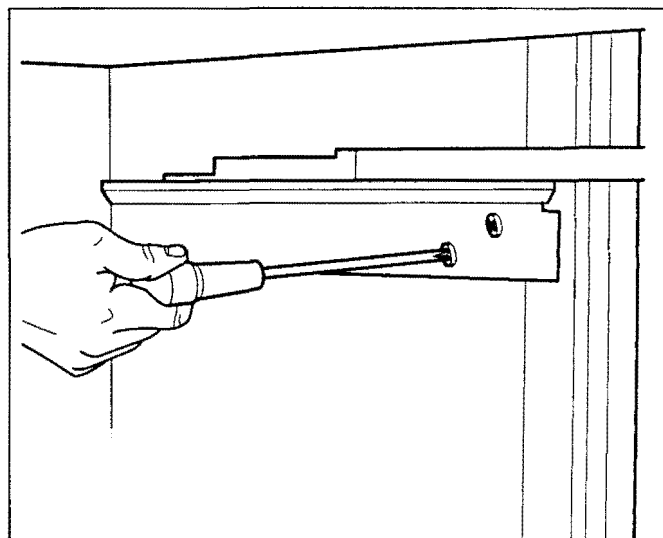


Figure 2-21. Drawer Slides

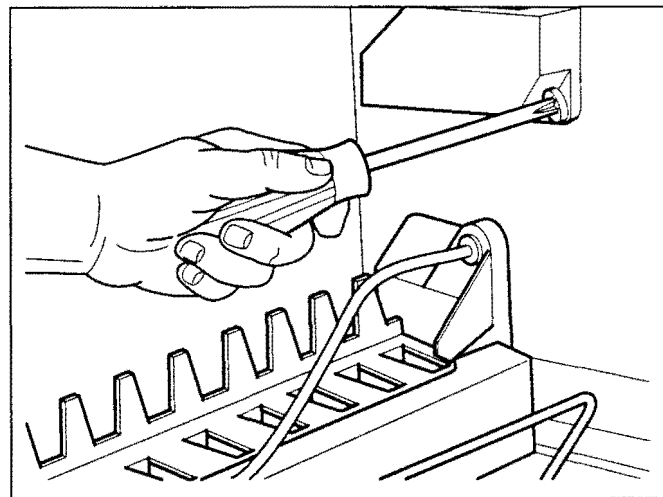


Figure 2-22. Drawer Closer

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).

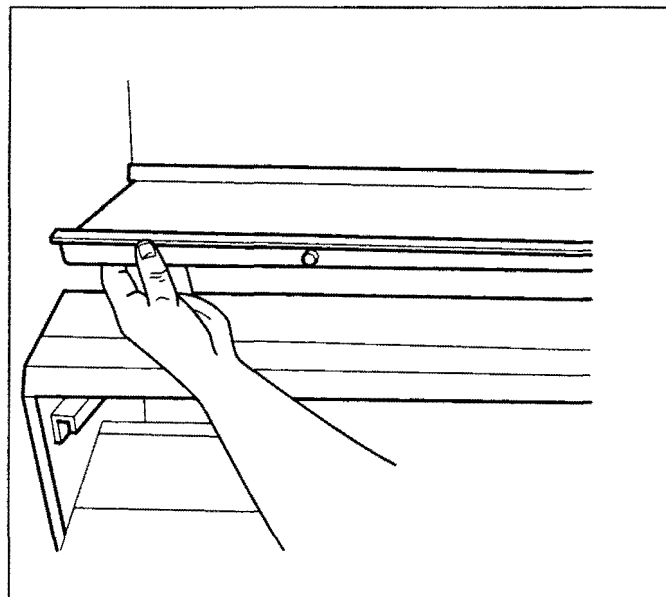


Figure 2-23. Center Divider

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 (styro-foam 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

Models 700TR, 700BR

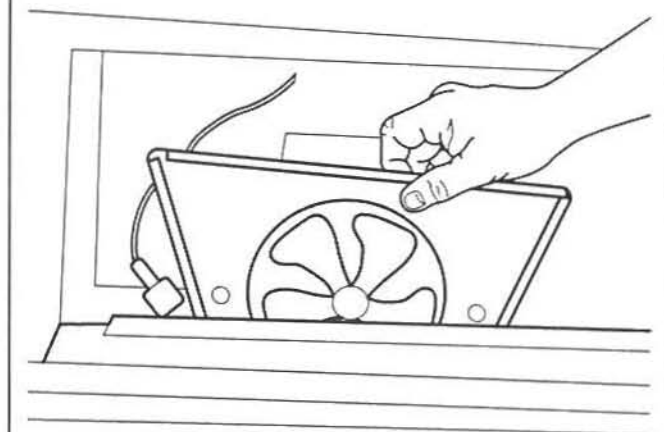


Figure 2-24. Evaporator Fan Motor Assembly

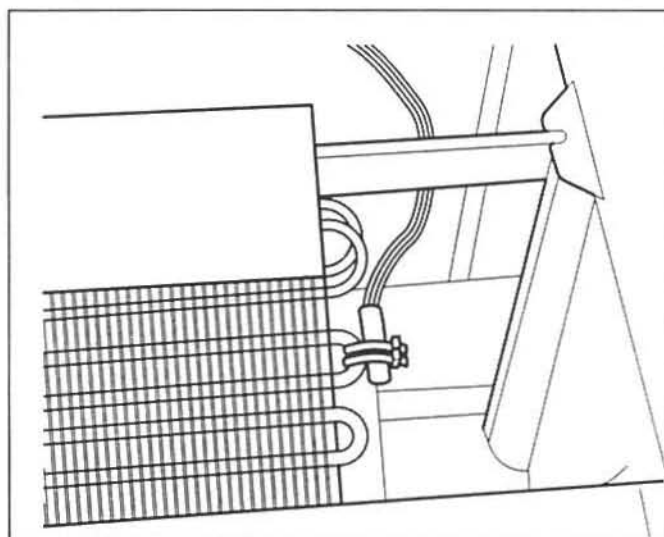


Figure 2-25. Evaporator

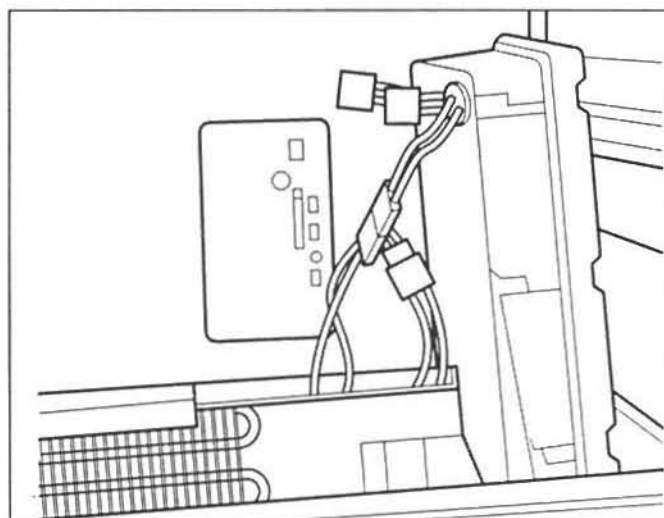


Figure 2-26. Microprocessor Assembly

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 loca-

tion), 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.

<u>MODEL</u>	<u>COMPARTMENT</u>
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

POWER



110V

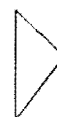
LIGHTS



12V

MAIN
BOARD
aka
CONTROL
BOARD

AIR BAFFLES



18V

DOOR OPEN/
CLOSED SIGNAL

COIL TEMP

ZONE TEMP(S)

KEY PAD



5V

COMPRESSOR
HEATERS
FAN MOTORS
ICEMAKERS



110V

DISPLAY



5V

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.

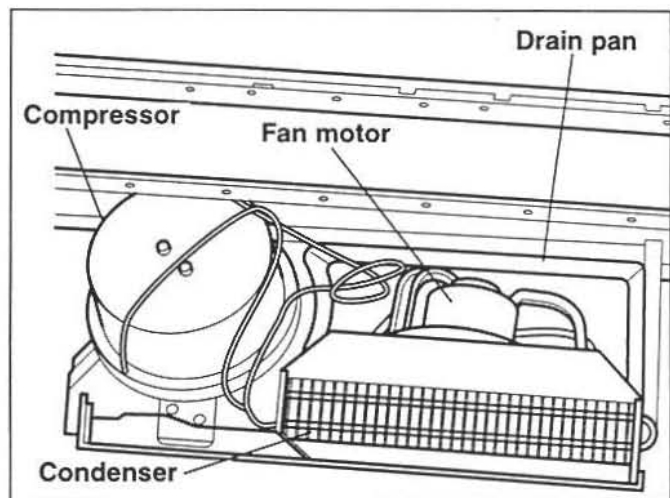


Figure 2-27. Unit Tray Assembly

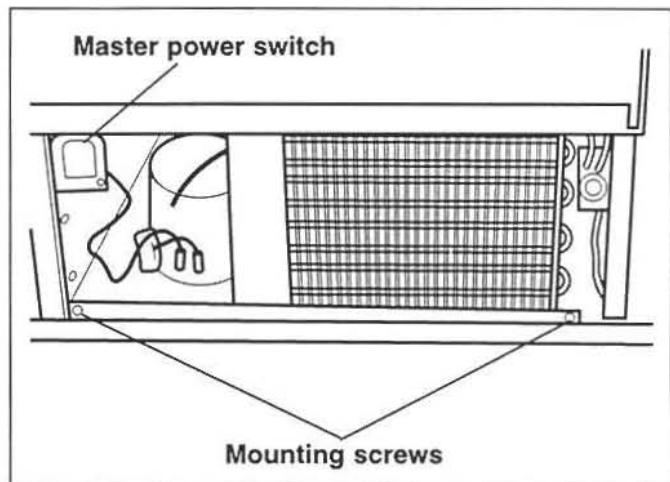


Figure 2-28. Mounting Screws

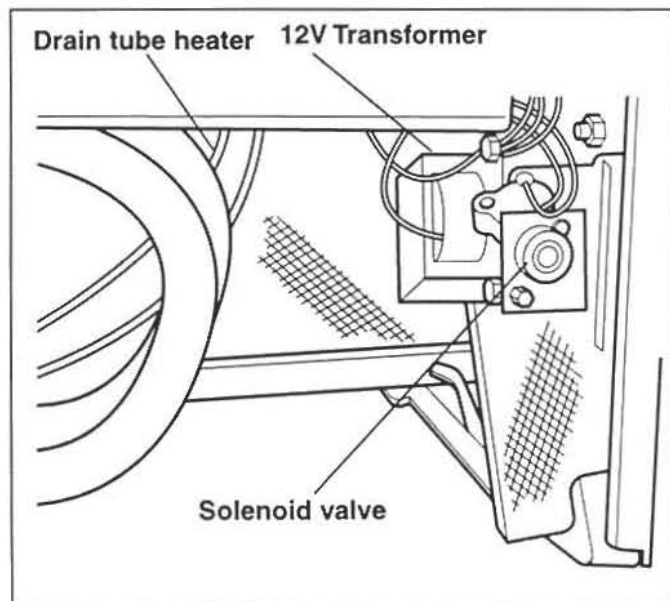


Figure 2-29. Solenoid

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.

SECTION 3

AIR FLOW

AIR FLOW

NOTE: In all the following air flow illustrations the white arrow  signifies Pushed Air, while the shaded arrow  signifies Returned Air.

Model 700TR (Figure 3-1)

The temperature for each compartment, or zone, in the 700TR can be independently controlled (up to 3°F colder than the zone above it) by the air baffle/duct divider system. Depending on the different zone requirements, the air baffles in each zone open and close as needed.

Air to the *bottom drawer zone* is directed behind the lower air duct, up the left side and through the air baffle behind the bottom drawer. The air then returns to the evaporator sump area through the vents in the evaporator cover.

Air to the *upper drawer zone* is directed behind the lower air duct, up the left side and through the air baffle behind the upper drawer. Air then returns through an opening in the lower air duct (at bottom right of upper drawer zone), back down behind the right side of the lower air duct to the evaporator sump area.

Air to the *top refrigerator zone* is directed behind the lower air duct, up the left side and continues up behind the upper duct in the top refrigerator zone where it is forced out at the top. The air then returns through an opening at the bottom right hand corner of the top duct, back down behind the right side of the lower air duct to the evaporator sump area.

Model 700TC/I (Figure 3-2)

The *freezer zone* has two vertical duct dividers behind the lower rear duct which separate the air to the refrigerator from air to the freezer.

Air to the *refrigerator zone* is directed through a baffle in the left side of evaporator sump area, then ducted up the left side to the refrigerator compartment. Air travels up behind the back duct in the

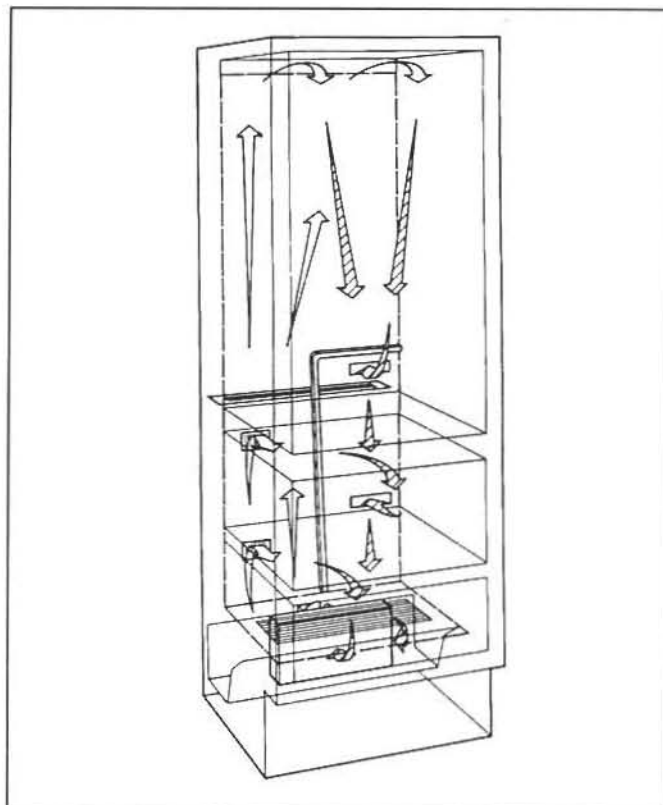


Figure 3-1. Model 700TR Air Flow

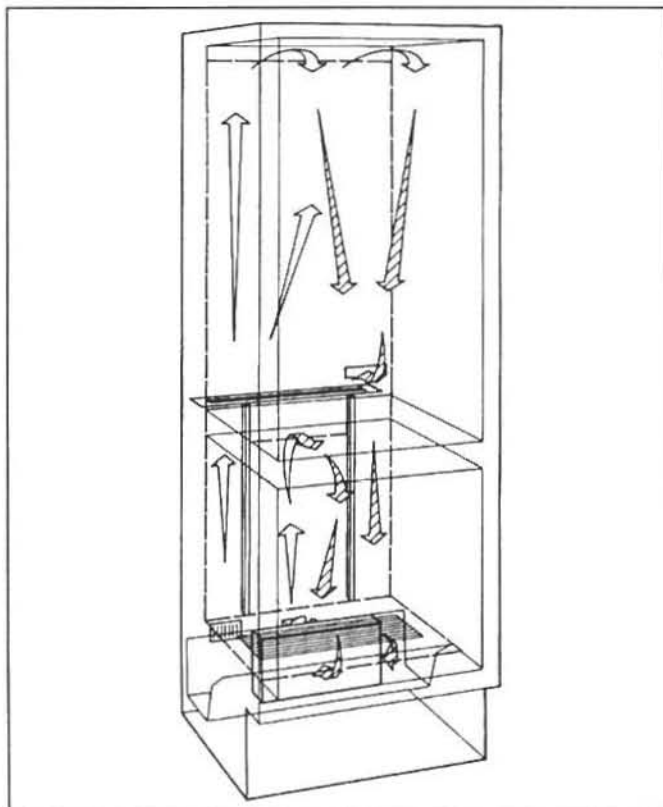


Figure 3-2. Model 700TC/I Air Flow

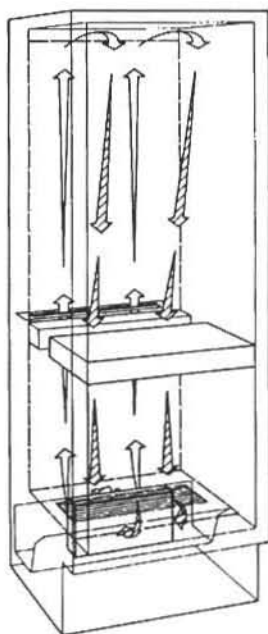


Figure 3-3. Model 700TF/I Air Flow

refrigerator compartment and is forced out at the top. Air then returns through an opening at the bottom right hand corner of the top duct, back down behind the right side of the lower air duct, to the evaporator sump area.

Air to the *lower freezer zone* travels up behind the center of the lower air duct, between the two vertical duct dividers. Air is then forced out at the top of the freezer compartment and returns to the evaporator sump area through the vents in the evaporator cover.

Model 700TF/I (Figure 3-3)

Air travels up behind the lower air duct and then behind the upper air duct where it is forced out at the top in the *upper freezer zone*. The air drops to the *lower freezer zone* through the mullion wall vent between the upper and lower compartments. Then the air returns to the evaporator sump area through the vents in the evaporator cover.

Model 700BR (Figure 3-4)

Air to the upper drawer zone travels up behind the left hand side of the rear duct and is forced out at the top. Air is then returned to the sump area,

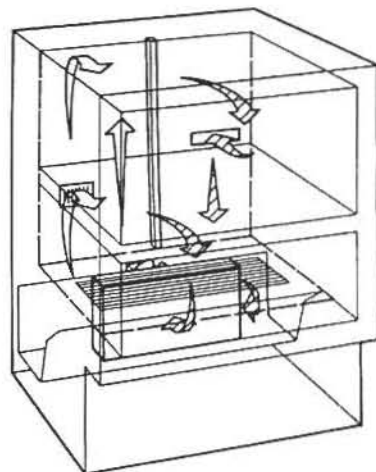


Figure 3-4. Model 700BR Air Flow

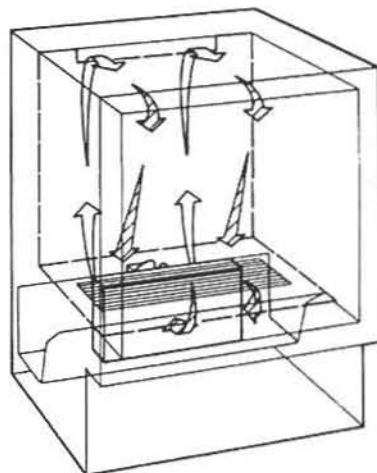


Figure 3-5. Model 700BF/I Air Flow

through the opening at the bottom right of the upper drawer zone.

Air to the lower drawer zone travels up behind the left hand side of the rear duct where the air baffle opens and closes as needed. The air then returns to the sump area through the evaporator cover.

Model 700BF/I (Figure 3-5)

Air travels up behind the air duct and is then forced out at the top of the *freezer zone*. The air then returns to the evaporator sump area through the vents in the evaporator cover.

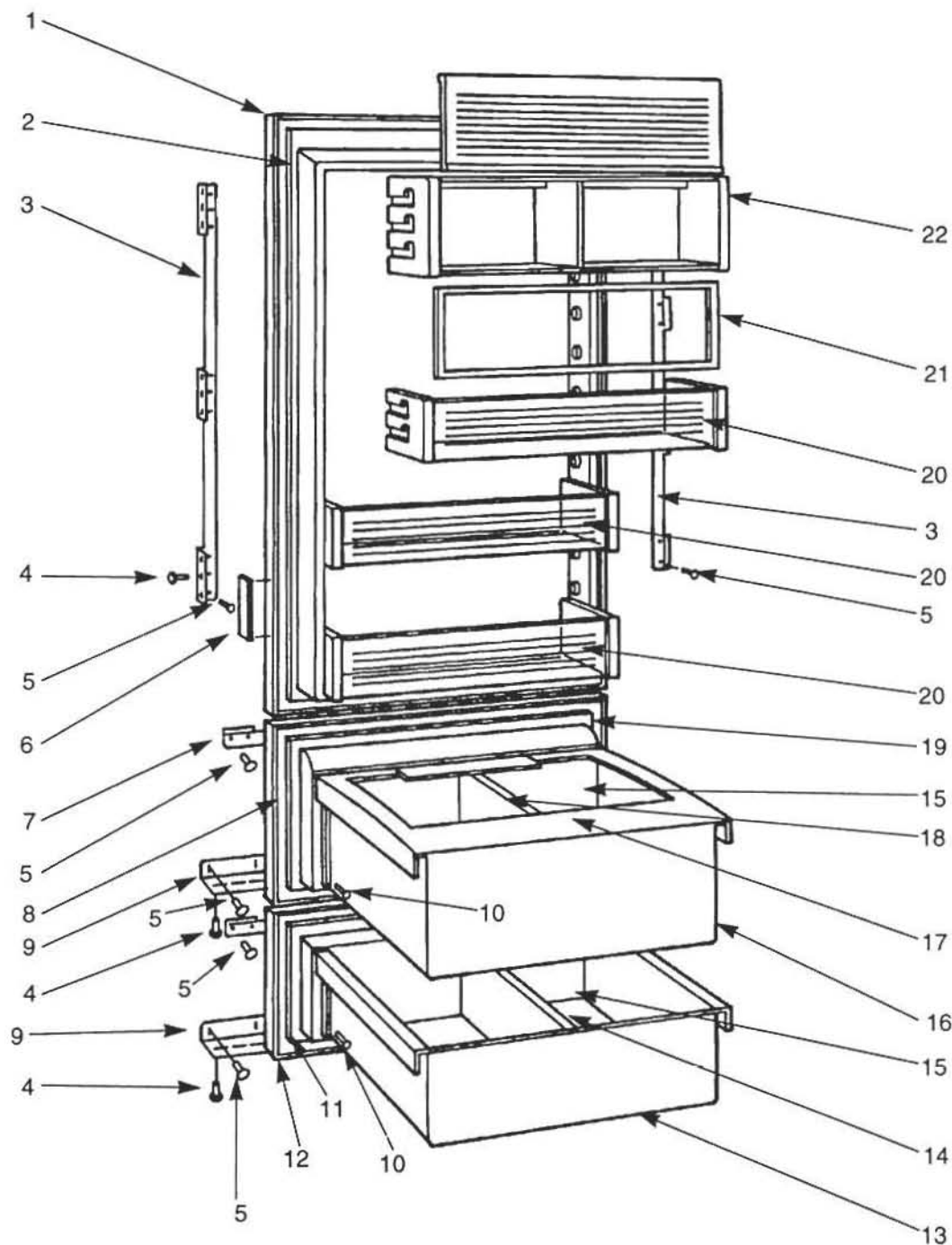
SECTION 4

PARTS LISTS & EXPLODED VIEWS

700TR DOOR VIEW

- | | |
|--|--------------------------------------|
| 1. 4202011 Door Assembly, RH | 11. 3211540 Lower Drawer Gasket |
| 4202012 Door Assembly, LH | 12. 4131740 Lower Drawer Front Assy. |
| 2. 3211510 Door Gasket | 13. 4131780 Lower Drawer Tub |
| 3. 0183610 Door Panel Bracket-Hinge Side | 14. 3601350 Lower Drawer Divider |
| 0183600 Door Panel Bracket-Side | 15. 4202020 Drawer Tub Seal |
| 4. 6200780 Screw, #10-24 x 1/2 PH Hex Washer | 16. 4131760 Upper Drawer Tub |
| 5. 6200720 Screw, #8-18 x 1/2 PH Truss HD | 17. 3470320 Crisper Lid Assy. |
| 6. 3421490 Door Panel Bracket Screw Cover | 18. 3601340 Upper Drawer Divider |
| 7. 0183580 Drawer Panel Bracket-Upper | 19. 4131710 Upper Drawer Front Assy. |
| 8. 3211520 Upper Drawer Gasket | 20. 4181270 Door Shelf Assembly |
| 9. 0183590 Drawer Panel Bracket-Lower | 21. 3211550 Dairy Compartment Seal |
| 10. 6200110 Screw, #10-12 x 5/8 Truss SS | 22. 4181260 Dairy Compartment Assy. |

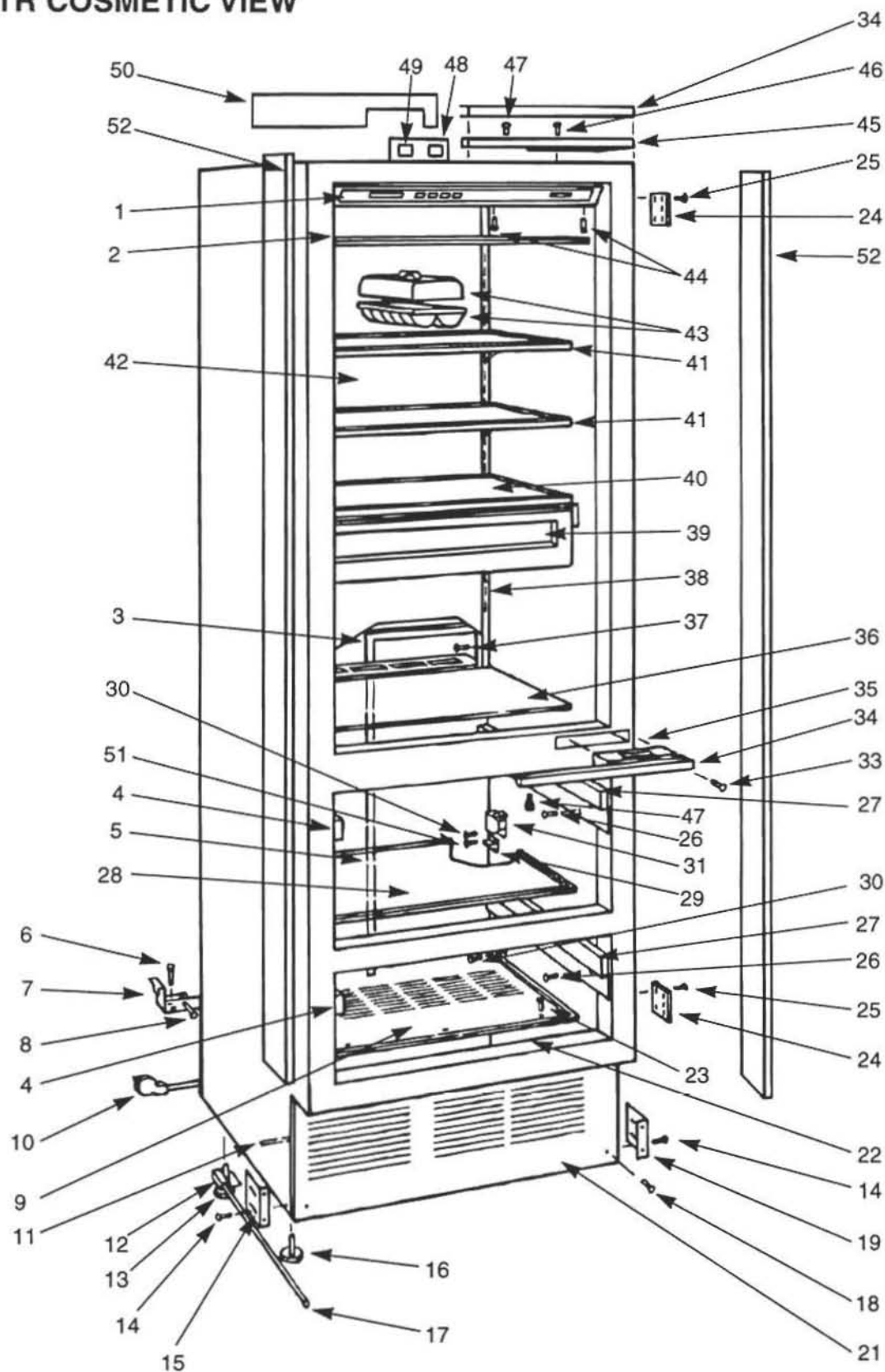
700TR DOOR VIEW



700TR COSMETIC VIEW

- | | | | |
|-------------|-------------------------------|-------------|-------------------------------|
| 1. 4202100 | Upper Control Panel Assy. | 29. 3412220 | Divider Support |
| 2. 4202100 | Light Diffuser | 30. 6200110 | Screw, #10-12 x 5/8 Truss HD |
| 3. 3211590 | Duct Divider-Top L Shape | 31. 3541020 | Drawer Closer |
| 4. 3412032 | Drawer Slide-Left Side | 32. 4151580 | Lower Air Duct Assy. |
| 1228600 | Drawer Mount Extrusion | 33. 6201140 | Screw, #1/4-20 x 1/2 Sem |
| 5. 3211600 | Duct Divider - Vertical | 34. 3541050 | Hinge Cover |
| 6. 6110620 | Wedge Anchor, 3/8-16 x 3-3/4 | 35. 3541041 | Lower Hinge Assy., RH |
| 7. 0167550 | Anti-Tip Bracket | 3541042 | Lower Hinge Assy., LH |
| 8. 6201190 | Screw, #12 x 2 1/2 PH Pan Hd | 36. 4181320 | Lower Glass Tray |
| 9. 0167640 | Evaporator Sump Cover | 37. 6200710 | Screw, #8-18 x 1/2 PH SS |
| 10. 4323540 | Power Cord | 38. 3601411 | Shelf Ladder, Right Side |
| 11. 4323540 | Power Cord Retractor | 3601412 | Shelf Ladder, Left Side |
| 12. 4202000 | Leveler Assembly | 39. 4181300 | Roll-Out Deli Basket, 4" |
| 13. 3570070 | Leveler Bolt, Rear | 40. 4181291 | Roll-Out Deli Shelf Assy., RH |
| 14. 6200780 | Screw, #10-24 x 1/2 PH Hex | 4181292 | Roll-Out Deli Shelf Assy., LH |
| 15. 0167662 | Kickplate Bracket, Left Side | 41. 3601390 | Glass Shelf Assembly |
| 16. 3570060 | Leveler Bolt, Front | 42. 4151600 | Upper Air Duct Assy. |
| 17. 3421500 | Leveler Rod | 43. 3412270 | Egg Tray |
| 18. 6200050 | Screw, #10-12 x 1/2 Pan HD | 3412280 | Egg Tray Cover |
| 19. 0167661 | Kickplate Bracket, Right Side | 4131810 | Egg Tray w/Cover |
| 21. 3530430 | Kickplate | 44. 6200700 | Screw, #6-20 x 5/8 PH FL HD |
| 22. 3211491 | Sump Cover Seal, Right Side | 45. 3541031 | Upper Hinge Assy., RH |
| 3211492 | Sump Cover Seal, Left Side | 3541032 | Upper Hinge Assy., LH |
| 3211493 | Sump Cover Seal, Rear | 46. 6200780 | Screw, #10-24 x 1/2 PH Hex |
| 23. 6200080 | Screw, #8-15 x 1/2 Truss HD | 47. 6110610 | Screw, #10-24 x 3/4 FL Socket |
| 24. 3421510 | Bracket, Unit to Cabinet | 48. 0167580 | Top Molding Bracket |
| 3421460 | Bracket, Unit to Unit | 49. 3450760 | Dual Lock Fastener |
| 25. 6200720 | Screw #8-18 x 1/2 PH Truss HD | 50. 3516001 | Top Molding - RH |
| 26. 6201140 | Screw, #1/4 20 x 1/2 Sems | 3516002 | Top Molding - LH |
| 27. 3412031 | Drawer Slide, Right Side | 51. 6200080 | Screw, #8-15 x 1/2 Truss Hd. |
| 1228600 | Drawer Mount Extrusion | 52. 3516010 | Side Molding |
| 28. 4151550 | Lower Mullion Divider Assy. | --- 3580170 | Nameplate (not shown) |

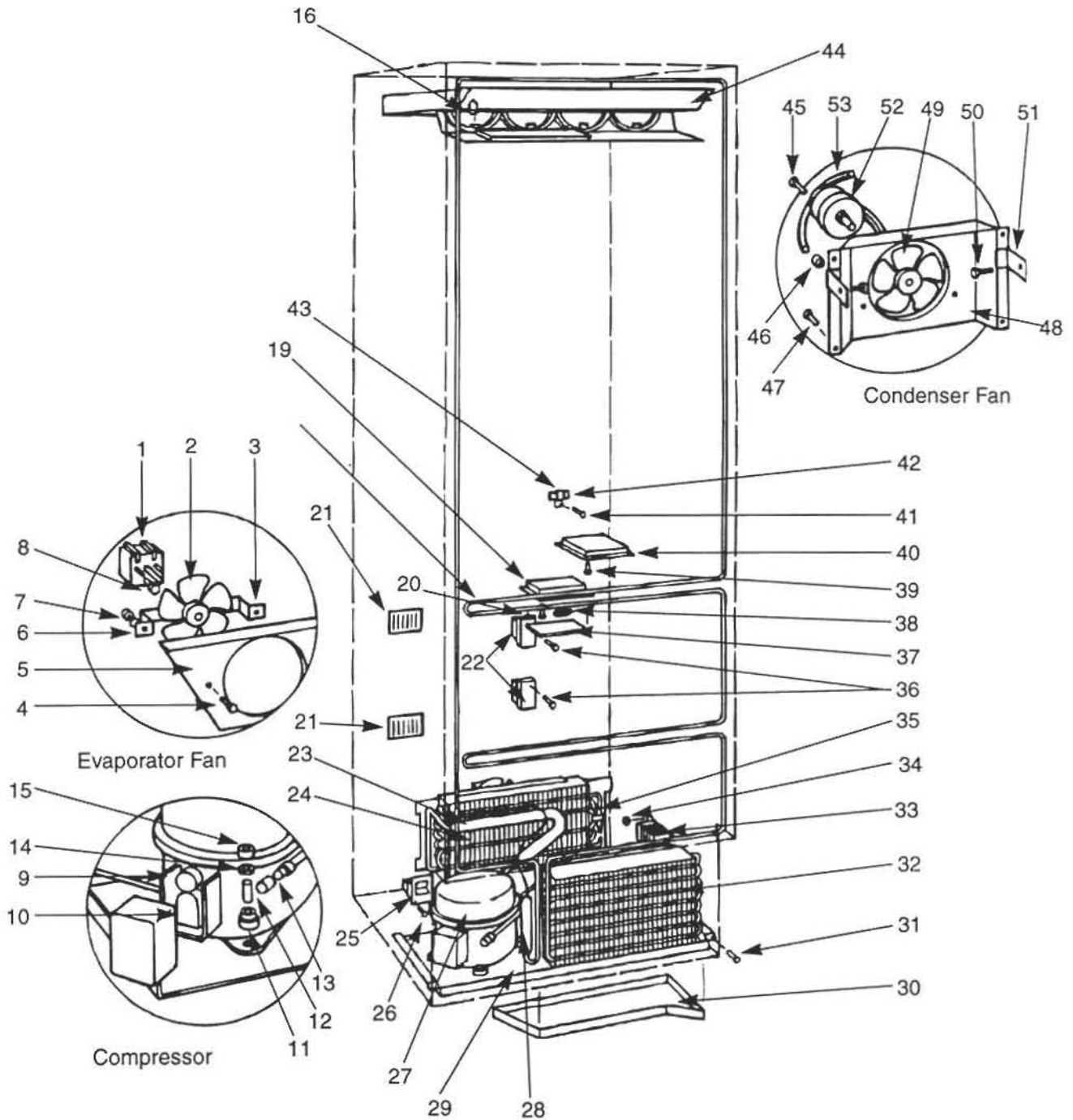
700TR COSMETIC VIEW



700TR SYSTEM VIEW

1. 4201940	Evaporator Fan Motor Assy.	28. 3014230	Drier
2. 4201940	Evaporator Fan Blade	29. 0140340	Unit Sliding Tray
3. 0235500	Evaporator Fan Bracket	30. 0167450	Drain Pan
4. 6110020	Screw Grommet	31. 6200780	Screw, #10-24 x ½ PH Hex
5. 4201940	Evaporator Fan Shroud	32. 3120310	Condenser Coil
6. 6240060	Star Washer, 1/4	33. 3090170	Transformer
7. 6150030	Nut, #10-24 Hex SS	34. 6150790	Nut, #10-24 Sems
8. 6110270	Bolt, #10-32 x 1/4 RD HD	35. 4323800	Coil Sensor/Thermistor Assy.
9. 3111410	Overload	36. 6200280	Screw, #8-18 x 1 Pan HD
10. 3111370	Relay	37. 3500410	Light Lens
11. 3150170	Grommet	38. 3030090	Halogen Lamp, 20W
12. 6160070	Sleeve	39. 6201120	Screw, #8-18 x 1.75 Truss SS
13. 6240050	Washer, 5/16	40. 4201991	Micro-Processor Assy.
14. 3090090	Schrader Valve	41. 6200120	Screw, #10-12 x ½ Truss HD
15. 6150220	Nut, 5/16-18 Hex Zinc	42. 4323800	Coil Sensor/Thermistor Assy.
16. 3030100	Halogen Lamp, 35W	43. 6120070	Clamp
19. 4201980	Drawer Light Fixture Assy.	44. 4202100	Upper Control Panel Assy.
20. 6200080	Screw, #8 x ½ Truss HD	45. 6200490	Screw, #8-32 x 3/8 Hex Slot
21. 3014140	Baffle Control	46. 3220360	Condenser Fan Brkt Grommet
3211440	Baffle Control Gasket	47. 6200060	Screw, #8-32 x ½ Pan HD
22. 4202580	Reed Switch, Short	48. 0167440	Condenser Fan Shroud
23. 4201890	Evaporator/Heat Exch Assy.	49. 3150320	Condenser Fan Blade
24. 4201890	Evaporator/Heat Exch Assy.	50. 6200010	Screw, #10-12 x 3/4 Pan HD
25. 3060240	Master Power Switch	51. 3450290	Angle Brackets
26. 6200780	Screw, #10-24 x ½ PH Hex	52. 3150500	Condenser Fan Motor
27. 4201880	Compressor Assembly	53. 0167430	Condenser Fan Bracket

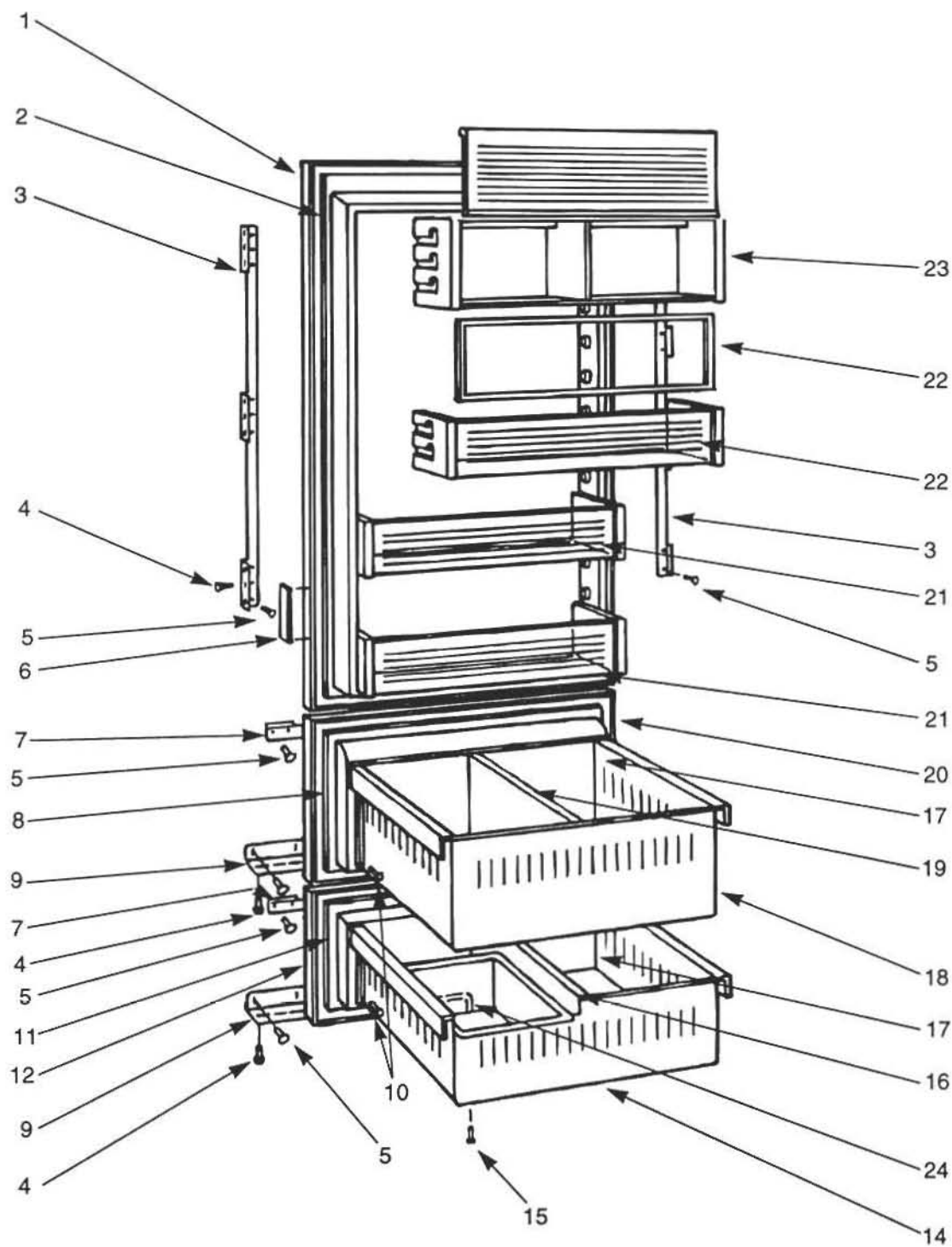
700TR SYSTEM VIEW



700TC/I DOOR VIEW

- | | |
|--|---------------------------------------|
| 1. 4202011 Door Assembly, RH | 12. 4131750 Lower Drawer Front Assy. |
| 4202012 Door Assembly, LH | 13. 4181340 Ice Bucket Assembly |
| 2. 3211510 Door Gasket | 14. 4131800 Lower Drawer Tub |
| 3. 0183600 Door Panel Bracket-Side | 15. 6200080 Screw, #8-15 x ½ Truss HD |
| 0183610 Door Panel Bracket-Hinge Side | 16. 3601420 Lower Drawer Divider |
| 4. 6200780 Screw, #10-24 x ½ PH Hex Washer | 17. 4202020 Drawer Tub Seal |
| 5. 6200720 Screw, #8-18 x ½ PH Truss HD | 18. 4131770 Upper Drawer Tub |
| 6. 3421490 Door Panel Bracket Screw Cover | 19. 3601340 Upper Drawer Divider |
| 7. 0183580 Drawer Panel Bracket-Upper | 20. 4131720 Upper Drawer Front Assy. |
| 8. 3211520 Upper Drawer Gasket | 21. 4181270 Door Shelf Assembly |
| 9. 0183590 Drawer Panel Bracket-Lower | 22. 3211550 Dairy Compartment Seal |
| 10. 6200110 Screw, #10-12 x 5/8 Truss SS | 23. 4181260 Dairy Compartment Assy. |
| 11. 3211540 Lower Drawer Gasket | 24. 3511040 Plastic 3" Wire Pull |

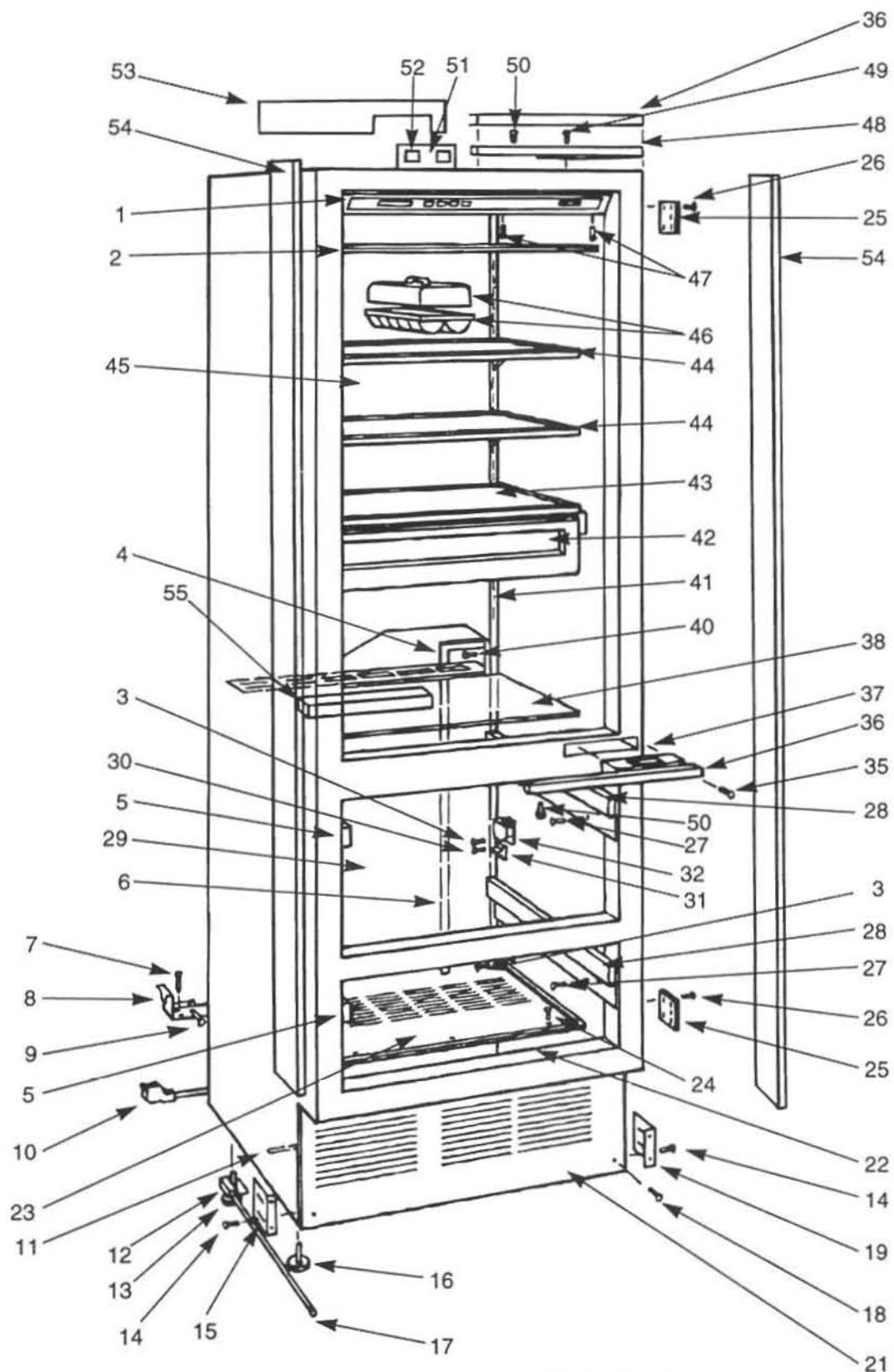
700TC/I DOOR VIEW



700TC/I COSMETIC VIEW

1. 4202100	Upper Control Panel Assy.	29. 4151590	Lower Air Duct Assy.
2. 4202100	Light Diffuser	30. 6200080	Screw, #8-15 x ½ Truss Hd.
3. 6200110	Screw, #10-12 x 5/8 Truss Hd.	31. 3412220	Divider Support
4. 3211590	Duct Divider, Top L Shape	32. 3541020	Drawer Closer
5. 3412032	Drawer Slide, Left Side	35. 6201140	Screw, 1/4-20 x ½ Sems
1228600	Drawer Mount Extrusion	36. 3541050	Hinge Cover
6. 3211600	Duct Divider, Vertical	37. 3541041	Lower Hinge Assy., RH Swing
7. 6110620	Wedge Anchor 3/8-16 x 3-3/4	3541042	Lower Hinge Assy., LH Swing
8. 0167550	Anti-Tip Bracket	38. 4181330	Lower Glass Tray
9. 6201190	Screw, #12 x 2½ PH Pan HD.	39. 3150580	Duct Foam
10. 4323540	Power Cord	40. 6200710	Screw, #8-18 x ½ PH SS
11. 4323540	Power Cord Retractor	41. 3601411	Shelf Ladder, Right Side
12. 4202000	Rear Leveler Assembly	3601412	Shelf Ladder, Left Side
13. 3570070	Leveler Bolt, Rear	42. 4181280	Roll-Out Crisper Drawer, 8"
14. 6200780	Screw, #10-24 x ½ PH Hex	43. 4181311	Roll-Out Crisper Shelf Assy., RH
15. 0167662	Kickplate Bracket, Left Side	4181312	Roll-Out Crisper Shelf Assy., LH
16. 3570060	Leveler Bolt, Front	44. 3601390	Glass Shelf Assy.
17. 3421500	Leveler Rod	45. 4151600	Upper Air Duct Assy.
18. 6200050	Screw, #10-12 x ½ Pan HD.	46. 3412270	Egg Tray
19. 0167661	Kickplate Bracket, Right Side	3412280	Egg Tray Cover
20. 6200780	Screw, #10-24 x ½ PH Hex	4131810	Egg Tray w/Cover
21. 3530430	Kickplate	47. 6200700	Screw, #6-20 x 5/8 PH FL HD.
22. 3211491	Sump Cover Seal, Right Side	48. 3541031	Upper Hinge Assy., RH Swing
3211492	Sump Cover Seal, Left Side	3541032	Upper Hinge Assy., LH Swing
3211493	Sump Cover Seal, Rear	49. 6200780	Screw, #10-24 x ½ PH Hex
23. 0167470	Evaporator Sump Cover	50. 6110610	Screw, #10-24 x 3/4 Fl Socket
24. 6200080	Screw, #8-15 x ½ Truss HD.	51. 0167580	Top Molding Bracket
25. 3421510	Bracket, Unit to Cabinet	52. 3450760	Dual Lock Fastener
3421460	Bracket, Unit to Unit	53. 3516001	Top Molding - RH
26. 6200720	Screw, #8-18 x ½ PH Truss HD.	3516002	Top Molding - LH
27. 6201140	Screw, 1/4-20 x ½ Sems But HD.	54. 3516010	Side Molding
28. 3412031	Drawer Slide, Right Side	55. 3211580	Transition Duct Block
1228600	Drawer Mount Extrusion	--- 3580170	Nameplate (not shown)

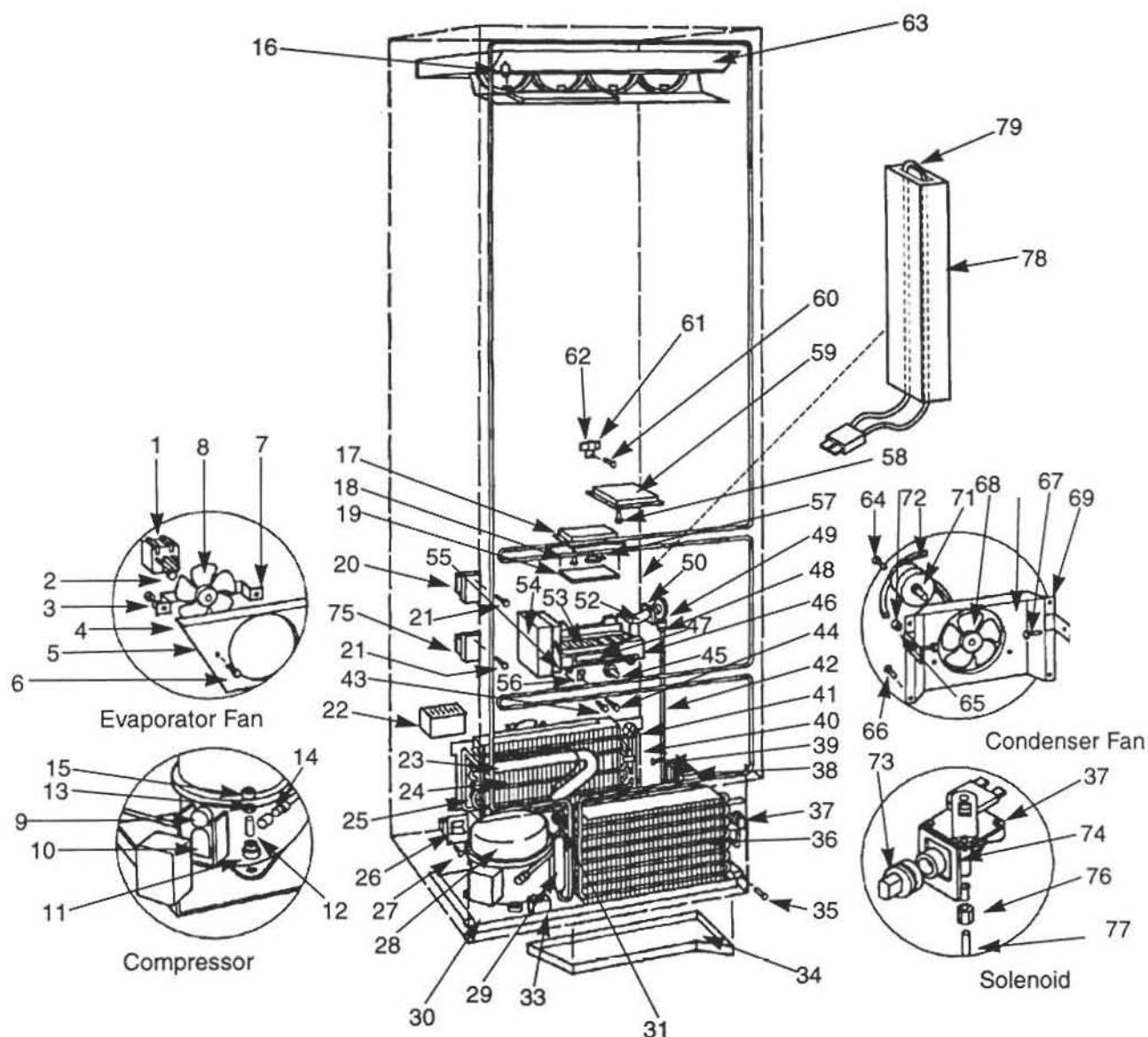
700TC/I COSMETIC VIEW



700TC/I SYSTEM VIEW

1.	4201940	Evaporator Fan Motor Assy.	42.	2600617	Water Line
2.	6110270	Bolt #10-32 X 1/4 RD HD	43.	6201120	Screw, #8-18 x 1.75 Truss SS
3.	6150030	Nut, #10-24 Hex SS	44.	6200080	Screw, #8-15 x 1/2 Truss HD
4.	6240060	Star Washer, 1/4	45.	3060130	Icemaker Switch
5.	4201940	Evaporator Fan Shroud	46.	3140280	Icemaker Control Arm
6.	6110020	Bolt, #10-24 x 3/8 Truss HD	47.	3140200	Icemaker Shut-Off Arm
7.	0233500	Evaporator Fan Bracket	48.	628356	Bearing & Inlet
8.	4201940	Evaporator Fan Blade	49.	6220470	Fill Tube Clamp
9.	3111380	Overload	50.	1607600	Water Inlet Tube
10.	3111350	Relay	51.	3013820	Fill Tube Heater
11.	3150170	Rubber Grommet	52.	2605405	Fill Tube Extension
12.	6160070	Sleeve	53.	6201120	Screw, #8-18 x 1.75 Truss SS
13.	6240050	Washer, 5/16	54.	4202090	Complete Icemaker Assy.
14.	3090090	Schrader Valve		3140160	Icemaker Cover
15.	6150220	Nut, 5/16-18 Hex Zinc		628366	Motor Modular Assy.
16.	3030100	Halogen Lamp, 35W	55.	3421070	Icemaker Connecting Rod
17.	4201980	Drawer Light Fixture Assy.	56.	6220220	Screw Grommet
18.	6200080	Screw, #8 x 1/2 Truss HD	57.	3030090	Halogen Lamp, 20W
19.	3500410	Light Lens	58.	6201130	Screw, #8 x 1/2 PH FL HD SS
20.	4202580	Reed Switch, Short	59.	4201992	Micro-Processor Assy.
21.	6200280	Screw, #8-18 x 1 Pan HD	60.	6200120	Screw, #10-12 x 1/2 Truss HD
22.	4151790	Baffle Mount Assembly	61.	4323800	Coil Sensor/Thermistor Assy.
23.	4201900	Evaporator /Heat Exch Assy.	62.	6120070	Clamp
24.	4201900	Evaporator /Heat Exch Assy.	63.	4202100	Upper Control Panel Assy.
25.	4201970	Defrost Heater Assy.	64.	6200490	Screw, #8-32 x 3/8 Hex Slot
26.	3060240	Mater Power Switch	65.	3220360	Condenser Fan Brckt Grommet
27.	6200780	Screw, #10-24 x 1/2 PH Hex	66.	6200060	Screw, #8-32 x 1/2 Pan HD
28.	4201860	Compressor Assembly	67.	6200010	Screw, #10-12 x 3/4 Pan HD
29.	3014230	Drier	68.	3150320	Condenser Fan Blade
30.	0140340	Unit Sliding Tray	69.	3450290	Angle Bracket
31.	3013540	Drain Tube Heater	70.	0167440	Condenser Fan Shroud
33.	3111270	Capacitor	71.	3150500	Condenser Fan Motor
	0167620	Capacitor Mounting Bracket	72.	0167430	Condenser Fan Bracket
34.	0167450	Drain Pan	73.	3520350	Water Inlet Fitting Assy.
35.	6200780	Screw, #10-24 x 1/2 PH Hex	74.	0166200	Solenoid Retainer
36.	3120310	Condenser Coil		6200780	Screw, #10-24 1/2 PH Hex
37.	4201450	Solenoid Valve	75.	4202570	Reed Switch, Long
38.	3090170	Transformer	76.	3520050	Brass Insert
39.	6150790	Nut, #10-24 Sems	77.	3520030	Nylon Nut
40.	4323800	Coil Sensor/Thermistor Assy.	78.	3150580	Foam Duct
41.	3082090	Defrost Terminator	79.	3013550	Braided Wire Heater

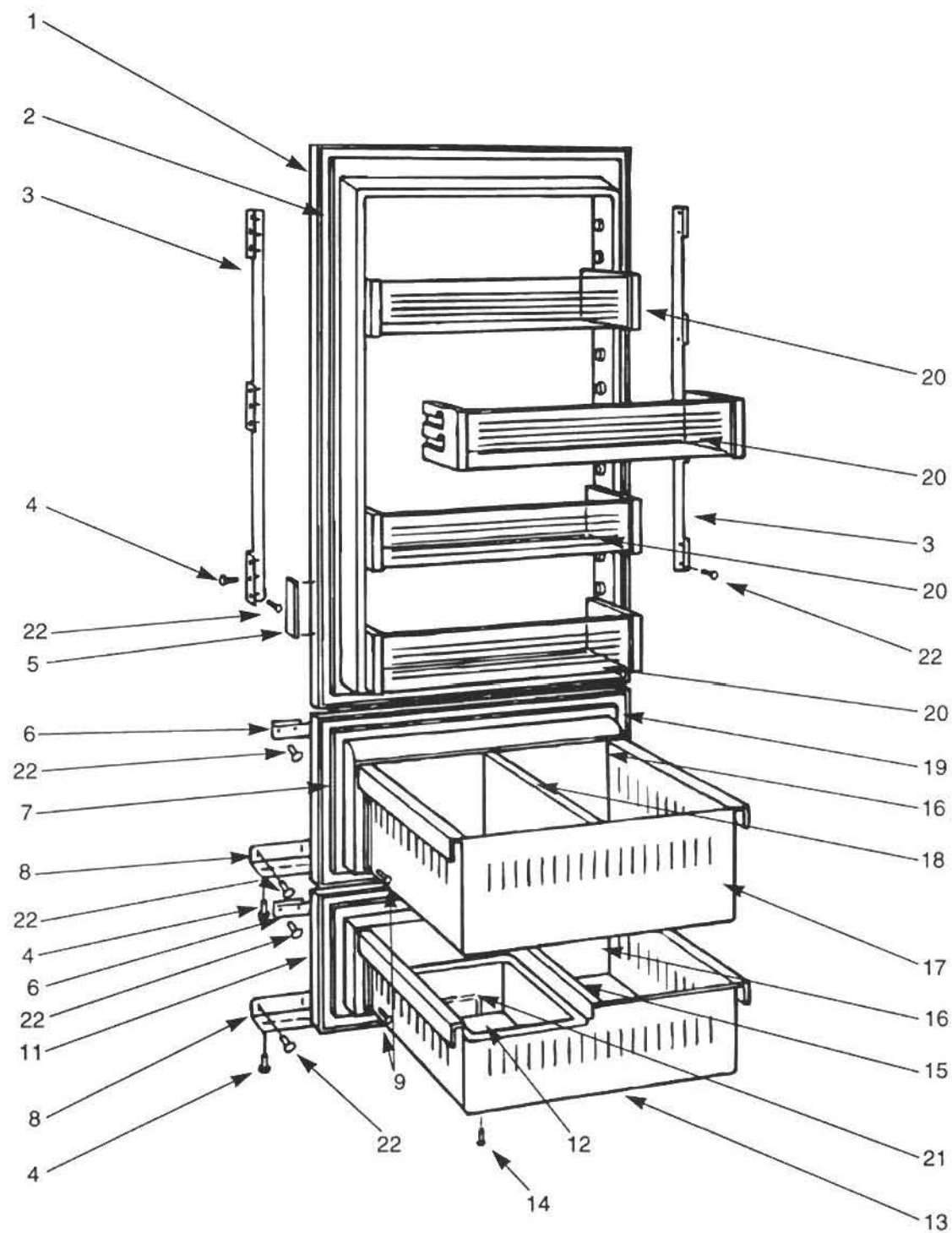
700TC/I SYSTEM VIEW



700TF/I DOOR VIEW

- | | |
|--|--|
| 1. 4202011 Door Assembly, RH | 11. 4131750 Lower Drawer Front Assy. |
| 4202012 Door Assembly, LH | 12. 4181340 Ice Bucket Assembly |
| 2. 3211510 Door Gasket | 13. 4131800 Lower Drawer Tub |
| 3. 0183600 Door Panel Bracket-Side | 14. 6200080 Screw, #8-15 x 1/2 Truss HD |
| 0183610 Door Panel Bracket-Hinge Side | 15. 3601420 Lower Drawer Divider |
| 4. 6200780 Screw, #10-24 x 1/2 PH Hex Washer | 16. 4202020 Drawer Tub Seal |
| 5. 3421490 Door Panel Bracket Screw Cover | 17. 4131770 Upper Drawer Tub |
| 6. 0183580 Drawer Panel Bracket-Upper | 18. 3601340 Upper Drawer Divider |
| 7. 3211520 Upper Drawer Gasket | 19. 4131720 Upper Drawer Front Assy. |
| 8. 0183590 Drawer Panel Bracket-Lower | 20. 4181270 Door Shelf Assembly |
| 9. 6200110 Screw, #10-12 x 5/8 Truss SS | 21. 3511040 Plastic 3" Wire Pull |
| 10. 3211540 Lower Drawer Gasket | 22. 6200720 Screw, #8-18 x 1/2 PH Truss HD |

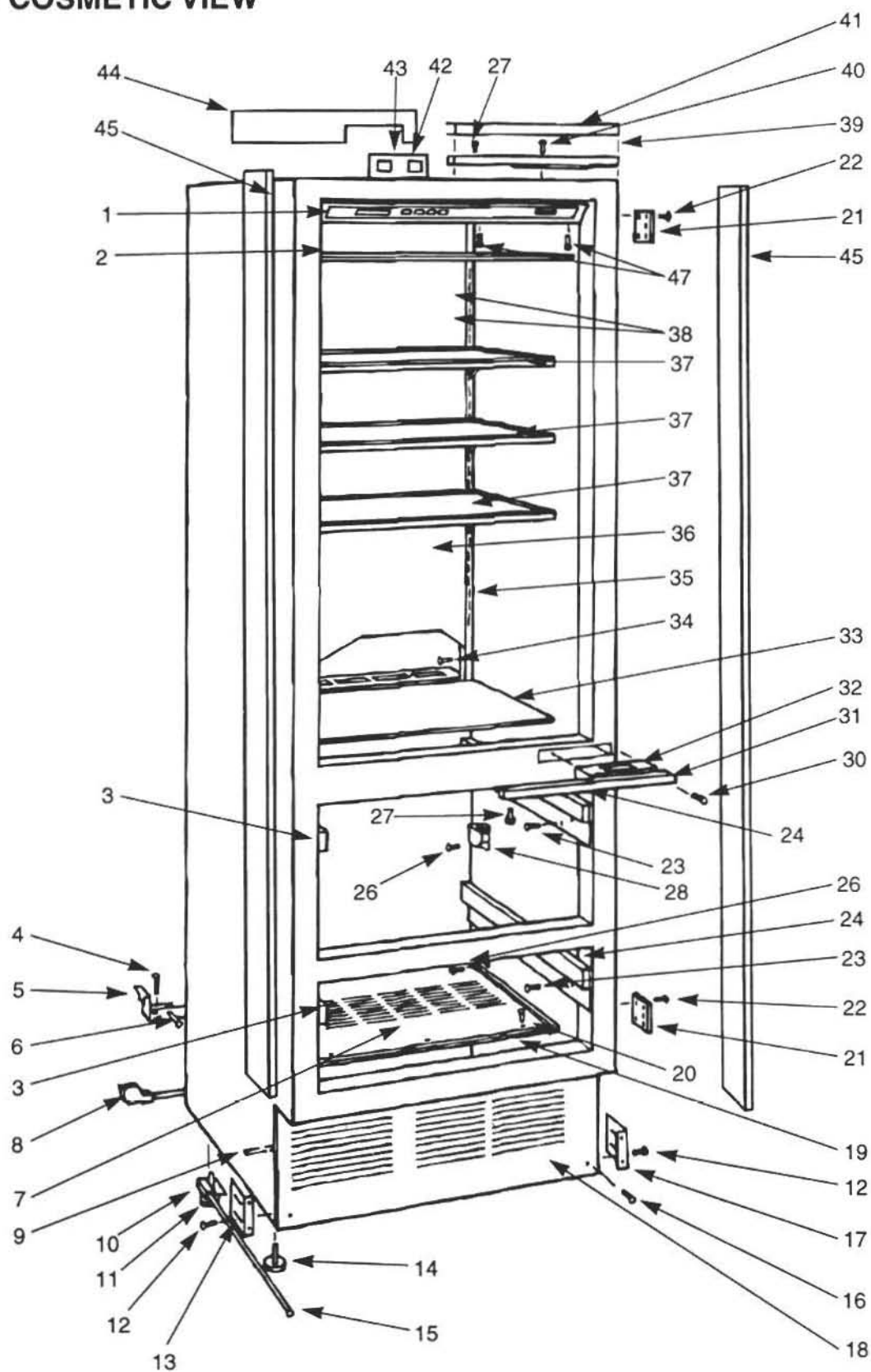
700TF/I DOOR VIEW



700TF/I COSMETIC VIEW

1. 4202100	Upper Control Panel Assy.	24. 3412031	Drawer Slide, Right Side
2. 4202100	Light Diffuser	1228600	Drawer Mount Extrusion
3. 3412032	Drawer Slide, Left Side	25. 4151570	Lower Air Duct Assy.
1228600	Drawer Mount Extrusion	26. 6200110	Screw, #10-12 x 5/8 Truss Hd.
4. 6110620	Wedge Anchor, 3/8-16 x 3 3/4	27. 3110610	Screw, #10-24 x 3/4 Fl Socket
5. 0167550	Anti-Tip Bracket	28. 3541020	Drawer Closer
6. 6201190	Screw, #12 x 2 1/2 PH Pan HD	30. 6201140	Screw, #1/4-20 x 1/2 Sems
7. 0167470	Evaporator Sump Cover	31. 3541050	Hinge Cover
8. 4323540	Power Cord	32. 3541041	Lower Hinge Assy., RH
9. 4323540	Power Cord Retractor	3541042	Lower Hinge Assy., LH
10. 4202000	Leveler Assy.	33. 4181330	Lower Glass Tray
11. 3570070	Leveler Bolt, Rear	34. 6200710	Screw, #8-18 x 1/2 PH SS
12. 6200780	Screw, #10-24 x 1/2 PH Hex	35. 3601411	Shelf Ladder, Right Side
13. 0167662	Kickplate Bracket, Left Side	3601412	Shelf Ladder, Left Side
14. 3570060	Leveler Bolt, Front	36. 4151610	Upper Air Duct Assy.
15. 3421500	Leveler Rod	37. 3601390	Glass Shelf Assy.
16. 6200050	Screw, #10-12 x 1/2 Pan HD	38. 6200700	Screw, #6-20 x 5/8 PH FL HD
17. 0167661	Kickplate Bracket, RS	39. 3541031	Upper Hinge Assy., RH
18. 3530430	Kickplate	3541032	Upper Hinge Ass., LH
19. 3211491	Sump Cover Seal, RS	40. 6200780	Screw, #10-24 x 1/2 PH Hex
3211492	Sump Cover Seal, Left Side	41. 3541050	Hinge Cover
3211493	Sump Cover Seal, Rear	42. 0167580	Top Molding Bracket
20. 6200080	Screw, #8-15 x 1/2 Truss HD	43. 3450760	Dual Lock Fastener
21. 3421510	Bracket, Unit to Cabinet	44. 3516001	Top Molding - RH
3421460	Bracket, Unit to Unit	3516002	Top Molding - LH
22. 6200720	Screw, #8-18 x 1/2 PH Truss HD	45. 3516010	Side Molding
23. 6201140	Screw, #1/4-20 x 1/2 Sems	--- 3580170	Nameplate (not shown)

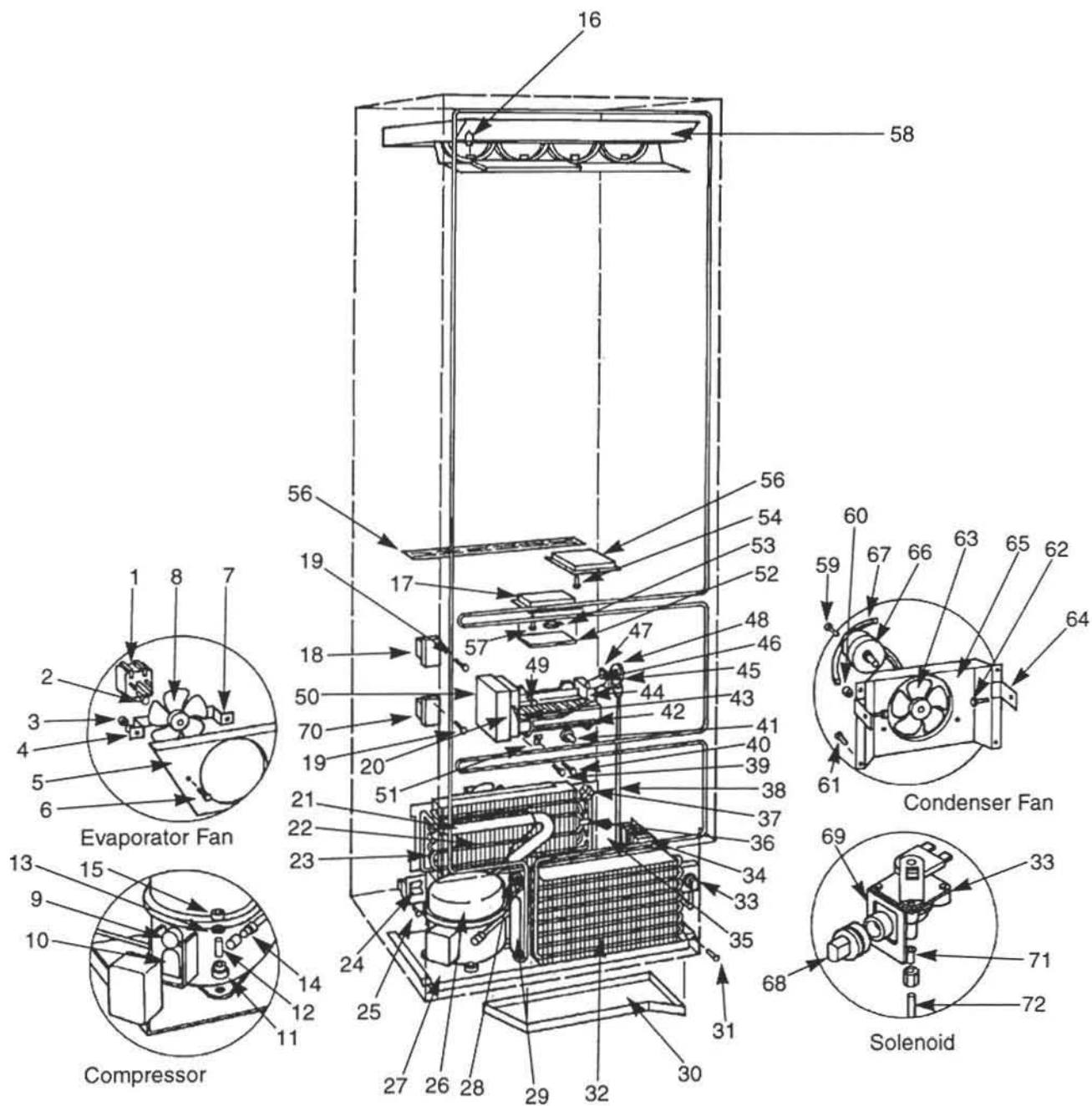
700TF/I COSMETIC VIEW



700TF/I SYSTEM VIEW

1. 4201940	Evaporator Fan Motor Assy.	39. 6201120	Screw, #8-18 x 1.75 Truss SS
2. 6110270	Bolt, #10-32 x 1/4 RD HD	40. 6200080	Screw, #8-15 x 1/2 Truss HD
3. 6150030	Nut, #10-24 Hex SS	41. 3060130	Icemaker Switch
4. 6240060	Star Washer, 1/4	42. 3140280	Icemaker Control Arm
5. 4201940	Evaporator Fan Shroud	43. 3421070	Icemaker Connecting Rod
6. 6110020	Bolt, #10-24 x 3/8 Truss HD	44. 628356	Bearing & Inlet
7. 0233500	Evaporator Fan Bracket	45. 6220470	Fill Tube Clamp
8. 4201940	Evaporator Fan Blade	46. 2605405	Fill Tube Extension
9. 3111390	Overload	47. 3013820	Fill Tube Heater
10. 3111350	Relay	48. 1607600	Water Inlet Tube
11. 3150170	Grommet	49. 6201120	Screw, #8-18 x 1.75 Truss SS
12. 6160070	Sleeve	50. 4202090	Complete Icemaker Assy.
13. 6240050	Washer, 5/16	3140160	Icemaker Cover
14. 3090090	Schrader Valve	628366	Motor Modular Assy.
15. 6150220	Nut, 5/16-18 Hex Zinc	51. 6220220	Screw Grommet, 1/32 x 3/8 Sq.
16. 3030100	Halogen Lamp, 35W	52. 3500410	Light Lens
17. 4201980	Drawer Light Fixture Assy.	53. 3030090	Halogen Lamp, 20W
18. 4202580	Reed Switch, Short	54. 6201130	Screw, #8 x 1/2 PH FL HD SS
19. 6200780	Screw, #10-24 x 1/2 PH Hex	55. 4201993	Control Board Assy.
20. 3140200	Icemaker Shut-Off Arm	56. 3412370	Mullion Grille
21. 4201910	Evaporator/Heat Exch Assy.	57. 6200080	Screw, #8 x 1/2 Truss HD
22. 4201910	Evaporator/Heat Exch Assy.	58. 4202100	Upper Control Panel Assy.
23. 4201970	Defrost Heater Assy.	59. 6200490	Screw, #8-32 x 3/8 Hex Slot
24. 3060240	Master Power Switch	60. 3220360	Condenser Fan Brckt Grommet
25. 6200780	Screw, #10-24 x 1/2 PH Hex	61. 6200060	Screw, #8-32 x 1/2 Pan HD
26. 4201870	Compressor Assy.	62. 6200010	Screw, #10-12 x 3/4 Pan HD
27. 0140340	Unit Sliding Tray	63. 3150320	Condenser Fan Blade
28. 3013540	Drain Tube Heater	64. 3450290	Angle Bracket
29. 3014230	Drier	65. 0167440	Condenser Fan Shroud
30. 0167450	Drain Pan	66. 3150500	Condenser Fan Motor
31. 6200780	Screw, #10-24 x 1/2 PH Hex	67. 0167430	Condenser Fan Bracket
32. 4201910	Evaporator Assy.	68. 3520350	Water Inlet Fitting Assy.
33. 4201450	Solenoid Valve	69. 0166200	Solenoid Retainer
34. 3090170	Transformer	6200780	Screw, #10-24 x 1/2 PH Hex
35. 6150790	Nut, #10-24 Sems	70. 4202570	Reed Switch, Long
36. 4323800	Coil Sensor/Thermistor Assy.	71. 3520050	Brass Insert
37. 3082090	Defrost Terminator	72. 3520030	Nylon Nut
38. 2600617	Water Line		

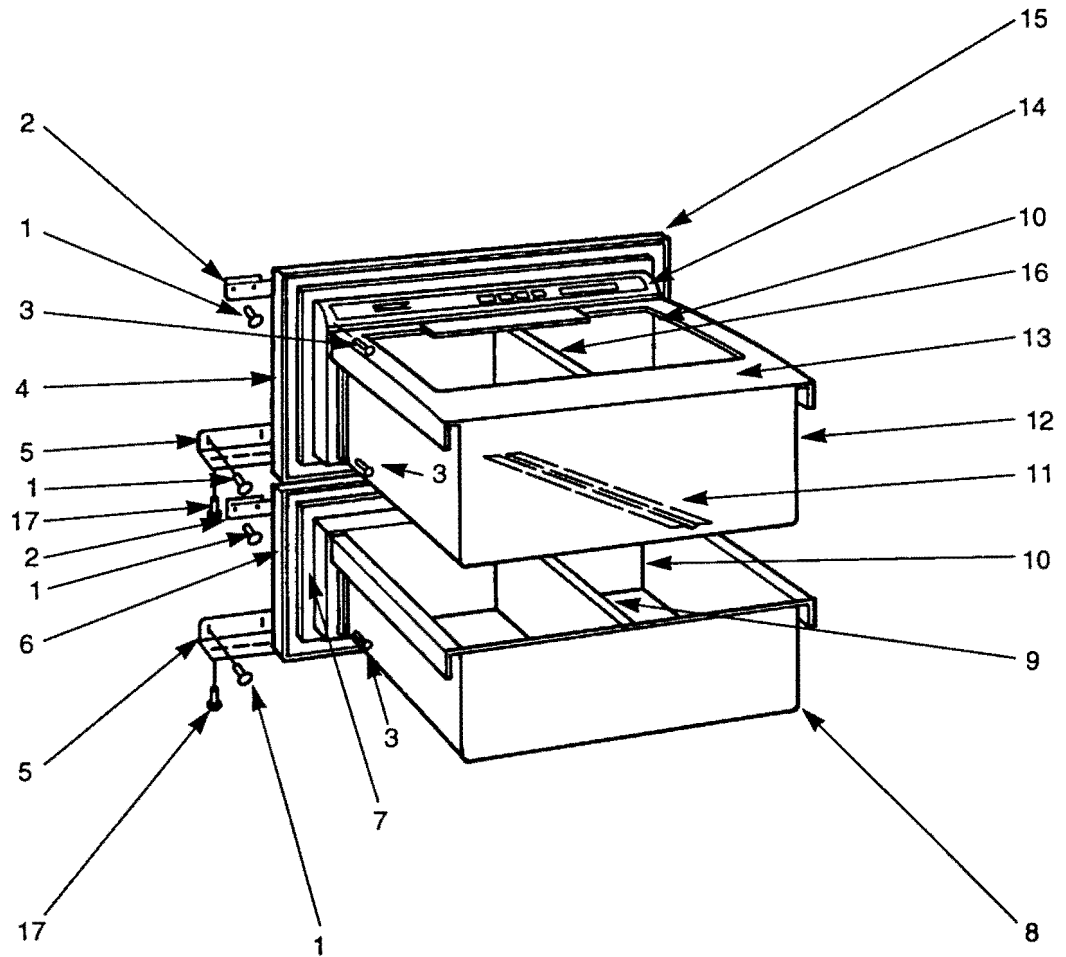
700TF/I SYSTEM VIEW



700BR DOOR VIEW

- | | | | |
|------------|-------------------------------|-------------|---------------------------------|
| 1. 6200720 | Screw, #8-18 x ½ PH Truss Hd. | 10. 4202020 | Drawer Tub Seal |
| 2. 0183580 | Drawer Panel Bracket, Upper | 11. 4202060 | Upper Drawer Wire Channel |
| 3. 6200110 | Screw, #10-12 x 5/8 Truss SS | 12. 4131760 | Upper Drawer Tub |
| 4. 3211520 | Upper Drawer Gasket | 13. 3470320 | Crisper Lid Assy. |
| 5. 0183590 | Drawer Panel Bracket, Lower | 14. 4202030 | Drawer Control Panel Assy. |
| 6. 4131740 | Lower Drawer Front Assy. | 15. 4131730 | Upper Drawer Front Assy. |
| 7. 3211540 | Lower Drawer Gasket | 16. 3601340 | Upper Drawer Divider |
| 8. 4131780 | Lower Drawer Tub | 17. 6200780 | Screw, #10-24 x ½ PH Hex Washer |
| 9. 3601350 | Lower Drawer Divider | | |

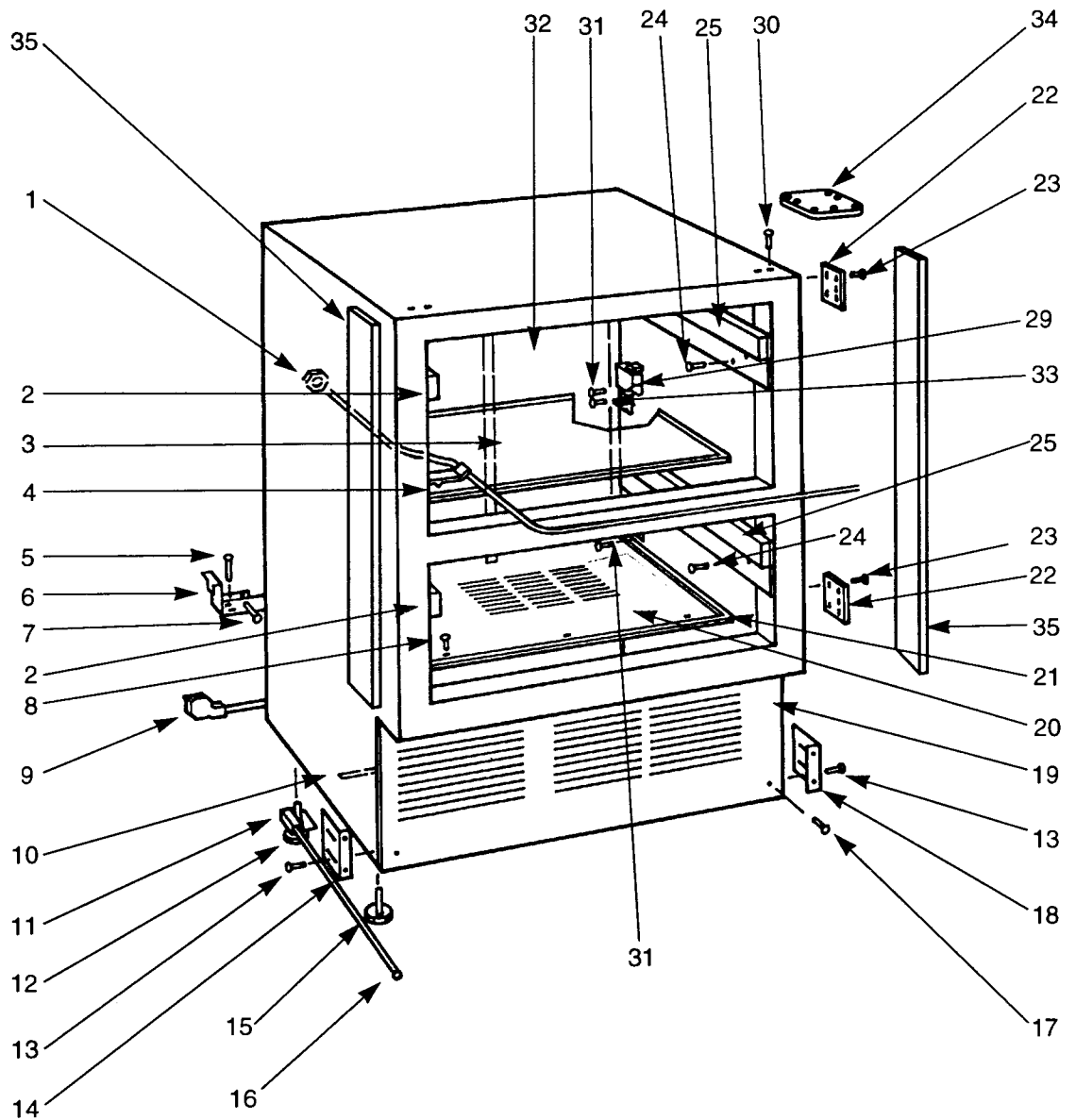
700BR DOOR VIEW



700BR COSMETIC VIEW

1.	6150800	Plastic Hex Nut, 5/8-27 UNS-2A	21.	3211491	Sump Cover Seal, Right Side
2.	3412032	Drawer Slide, Left Side		3211492	Sump Cover Seal, Left Side
	1228600	Drawer Mount Extrusion		3211493	Sump Cover Seal, Rear
3.	4151560	Lower Mullion Divider Assy.	22.	3421510	Bracket, Unit to Cabinet
4.	3450780	Wire Clip		3421460	Bracket, Unit to Unit
5.	6110620	Wedge Anchor, 3/8-16 x 3 3/4 Trubolt	23.	6200720	Screw #8-18 x 1/2 PH Truss HD
6.	0167550	Anti-Tip Bracket	24.	6201140	Screw, #1/4-20 x 1/2 Sems BUT HD
7.	6201190	Screw, #12 x 2 1/2 Type AB PH Pan HD Zinc	25.	3412031	Drawer Slide, Right Side
8.	6200080	Screw, #8-15 x 1/2 Truss HD		1228600	Drawer Mount Extrusion
9.	4323540	Power Cord	26.	3022950	Cable Assembly
10.	4323540	Power Cord Retractor		4202770	Cabinet Wire Harness (Behind Rear Duct)
11.	4202000	Leveler Assy.	27.	3211600	Duct Divider, Vertical
12.	3570070	Leveler Bolt, Rear	28.	3412220	Divider Support
13.	6200780	Screw, #10-24 x 1/2 PH Hex Washer	29.	3541020	Drawer Closer
14.	0167662	Kickplate Bracket, Left Side	30.	6200720	Screw, #8-18 x 1/2 PH Truss HD
15.	3570060	Leveler Bolt, Front	31.	6200110	Screw, #10-12 x 5/8 Truss SS
16.	3421500	Leveler Rod	32.	4151620	Lower Air Duct Assy.
17.	6200050	Screw, #10-12 x 1/2 Pan HD	33.	6200080	Screw, #8-15 x 1/2 Truss Hd.
18.	0167661	Kickplate Bracket, Right Side	34.	0167630	Bracket, Unit to Counter Top
19.	3530430	Kickplate	35.	3516020	Side Molding
20.	0167640	Evaporator Sump Cover	---	3580170	Nameplate (not shown)

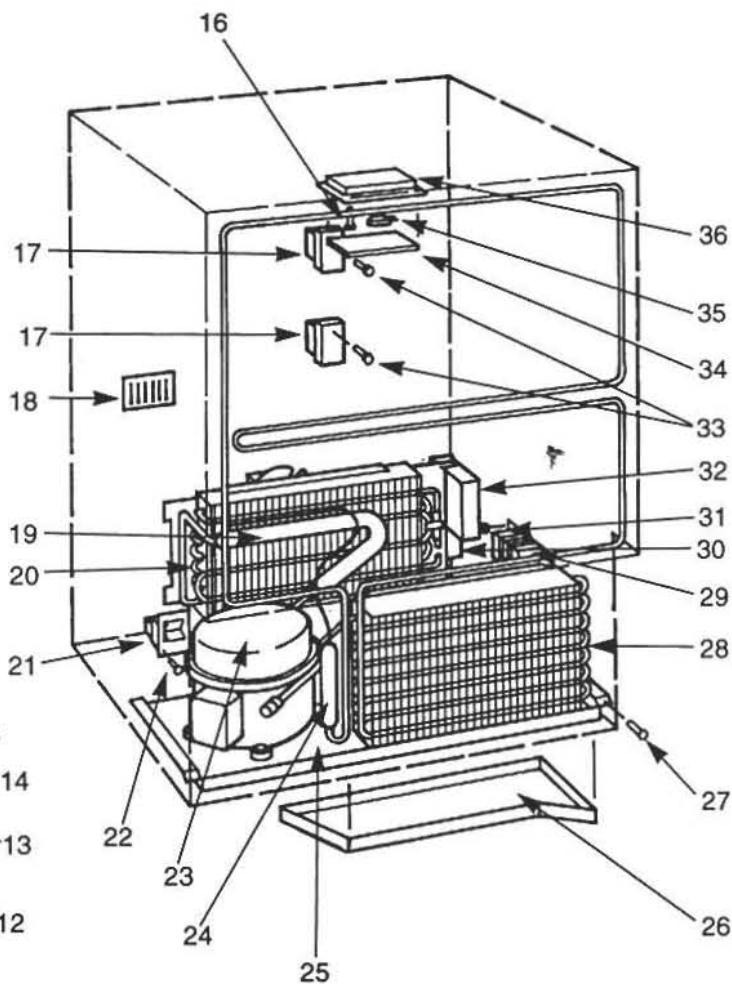
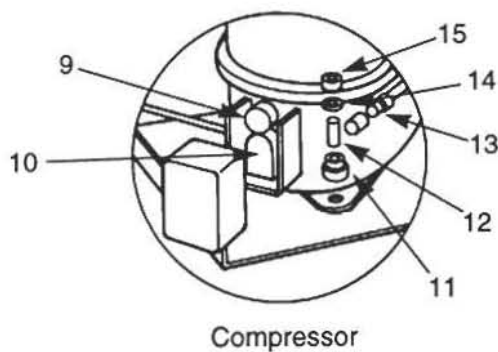
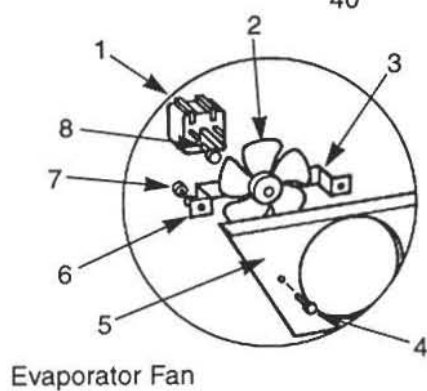
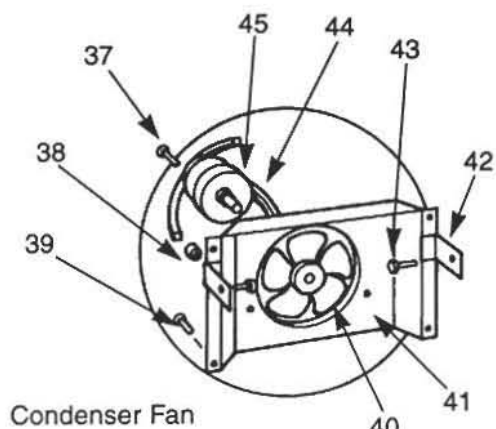
700BR COSMETIC VIEW



700BR SYSTEM VIEW

1. 4201940	Evaporator Fan Motor Assy.	23. 4201880	Compressor Assy.
2. 4201940	Evaporator Fan Blade	24. 3014230	Drier
3. 0233500	Evaporator Fan Bracket	25. 0140340	Unit Sliding Tray
4. 6110020	Screw Grommet	26. 0167450	Drain Pan
5. 4201940	Evaporator Fan Shroud	27. 6200780	Screw, #10-24 x ½ PH Hex
6. 6240060	Star Washer, 1/4	28. 3120310	Condenser Coil
7. 6150030	Nut, #10-24 Hex SS	29. 3090160	Transformer
8. 6110270	Bolt, #10-32 x 1/4 RD HD	30. 3012970	Coil Sensor/Thermistor
9. 3111410	Overload	31. 6150790	Nut, #10-24 Sems
10. 3111370	Relay	32. 4201994	Control Board Assy.
11. 3150170	Grommet	33. 6200280	Screw, #8-18 x Pan HD
12. 6160070	Sleeve	34. 3500410	Light Lens
13. 3090090	Schrader Valve	35. 3030090	Halogen Lamp, 20W
14. 6240050	Washer, 5/16	36. 4201980	Drawer Light Fixture Assy.
15. 6150220	Nut, 5/16-18 Hex Zinc	37. 6200490	Screw, #8-32 x 3/8 Hex Slot
16. 6200080	Screw, #8-15 x ½ Truss HD	38. 3220360	Condenser Fan Brckt Grommet
17. 4202580	Reed Switch, Short	39. 6200060	Screw, #8-32 x ½ Pan HD
18. 3014140	Baffle Control	40. 0167440	Condenser Fan Shroud
3211440	Baffle Control Gasket	41. 3150320	Condenser Fan Blade
19. 4201920	Evaporator/Heat Exch Assy.	42. 3450290	Angle Bracket
20. 4201920	Evaporator/Heat Exch Assy.	43. 6200010	Screw, #10-12 x 3/4 Pan HD
21. 3060240	Master Power Switch	44. 0167430	Condenser Fan Bracket
22. 6200780	Screw, #10-24 x ½ PH Hex	45. 3150500	Condenser Fan Motor

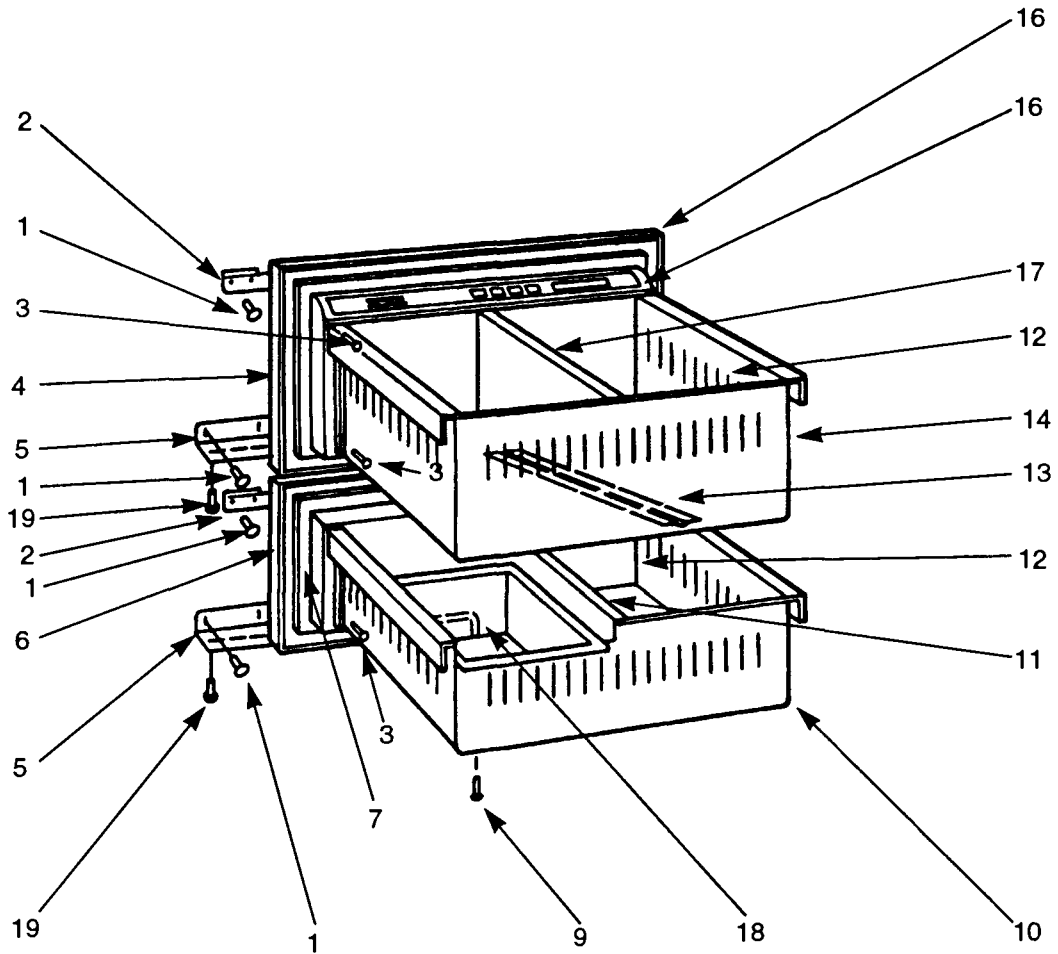
700BR SYSTEM VIEW



700BF/I DOOR VIEW

- | | | | |
|-------------|---------------------------------|-------------|---------------------------------|
| 1. 6200720 | Screw, #8-18 x 1/2 PH Truss HD. | 11. 3601420 | Lower Drawer Divider |
| 2. 0183580 | Drawer Panel Bracket, Upper | 12. 4202020 | Drawer Tub Seal |
| 3. 6200110 | Screw, #10-12 x 5/8 Truss SS | 13. 4202060 | Upper Drawer Wire Channel |
| 4. 3211520 | Upper Drawer Gasket | 14. 4131770 | Upper Drawer Tub |
| 5. 0183590 | Drawer Panel Bracket, Lower | 15. 4202030 | Drawer Control Panel Assy. |
| 6. 4131750 | Lower Drawer Front Assy. | 16. 4131730 | Upper Drawer Front Assy. |
| 7. 3211540 | Lower Drawer Gasket | 17. 3601340 | Upper Drawer Divider |
| 8. 3412080 | Ice Bucket | 18. 3511040 | Plastic 3" Wire Pull |
| 9. 6200080 | Screw, #8-15 x 1/2 Truss HD | 19. 6200780 | Screw, #10-24 x 1/2 PH Truss HD |
| 10. 4131800 | Lower Drawer Tub | | |

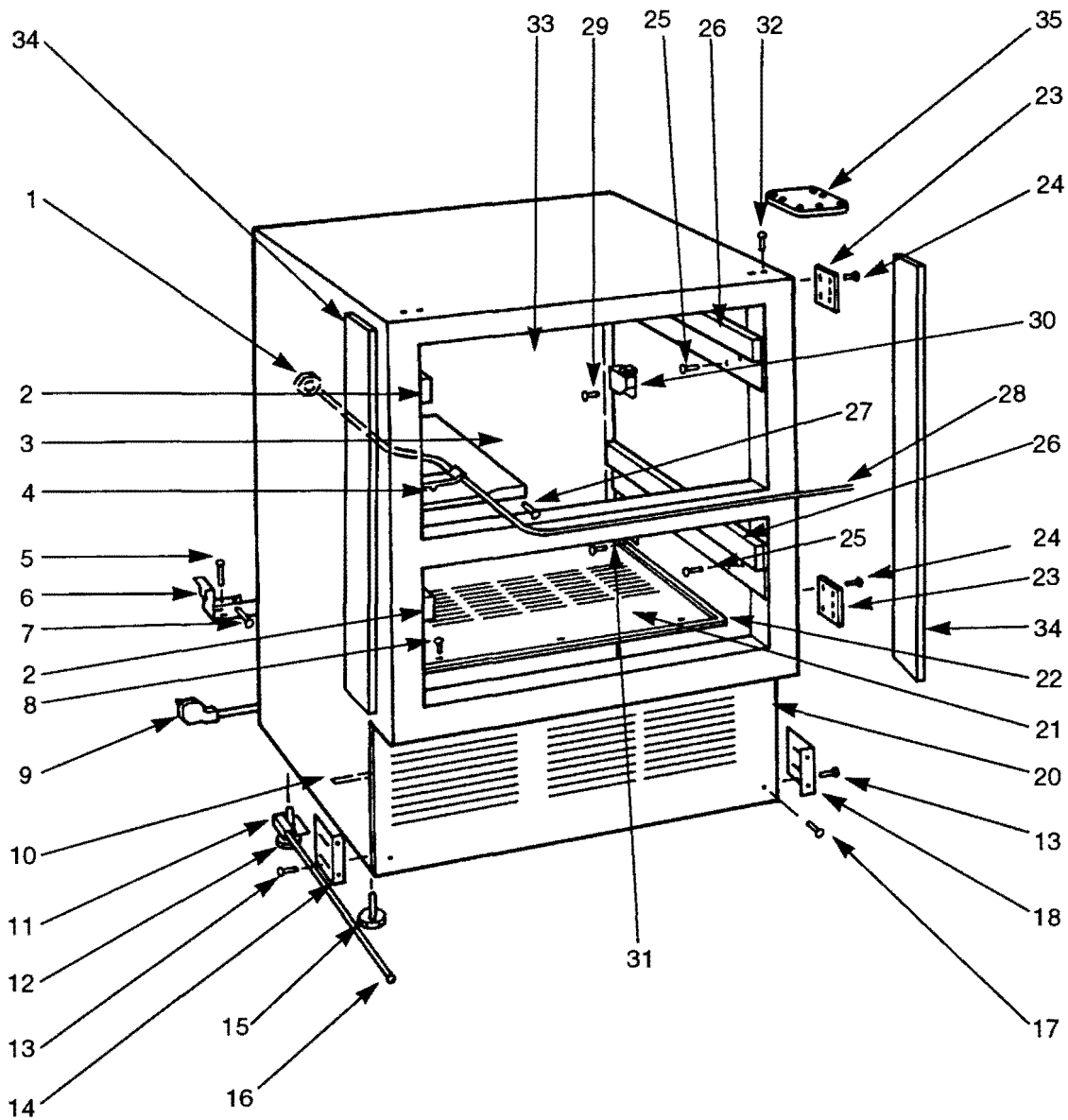
700BF/I DOOR VIEW



700BF/I COSMETIC VIEW

- | | |
|--|---|
| 1. 6150800 Plastic Hex Nut, 5/8-27 UNS-2A | 20. 3530430 Kickplate |
| 2. 3412032 Drawer Slide, Left Side | 21. 0167470 Evaporator Sump Cover |
| 1228600 Drawer Mount Extrusion | 22. 3211491 Sump Cover Seal, Right Side |
| 3. 0233490 Wire Tray | 3211492 Sump Cover Seal, Left Side |
| 4. 3450780 Wire Clip | 3211493 Sump Cover Seal, Rear |
| 6150760 Fastener | 23. 3421510 Bracket, Unit to Cabinet |
| 5. 6110620 Wedge Anchor, 3/8-16 x 3 3/4 Trubolt | 3421460 Bracket, Unit to Unit |
| 6. 0167550 Anti-Tip Bracket | 24. 6200720 Screw, #8-18 x 1/2 PH Truss HD |
| 7. 6201190 Screw, #12 x 2 1/2 Type AB PH Pan HD Zinc | 25. 6201140 Screw, #1/4-20 x 1/2 Sems BUT HD |
| 8. 6200080 Screw, #8-15 x 1/2 Truss HD | 26. 3412031 Drawer Slide, Right Side |
| 9. 4323540 Power Cord | 1228600 Drawer Mount Extrusion |
| 10. 4323540 Power Cord Retractor | 27. 6200080 Screw, #8-15 x 1/2 Truss HD |
| 11. 4202000 Leveler Assy. | 28. 3022950 Cable Assy. |
| 12. 3570070 Leveler Bolt, Rear | 4202770 Cabinet Wire Harness (Behind Rear Duct) |
| 13. 6200780 Screw, #10-24 x 1/2 PH Hex Washer | 29. 6200110 Screw, #10-12 x 5/8 Truss HD |
| 14. 0167662 Kickplate Bracket, Left Side | 30. 3541020 Drawer Closer |
| 15. 3570060 Leveler Bolt, Front | 32. 6200720 Screw, #8-18 x 1/2 PH Truss HD |
| 16. 3421500 Adjusting Rod | 33. 4151630 Lower Air Duct Assy. |
| 17. 6200050 Screw, #10-12 x 1/2 Pan HD | 34. 3516020 Side Molding |
| 18. 0167661 Kickplate Bracket, Right Side | 35. 0167630 Bracket, Unit to Counter Top |
| 19. 6200780 Screw, #10-24 x 1/2 PH Hex Washer | --- 3580170 Nameplate (not shown) |

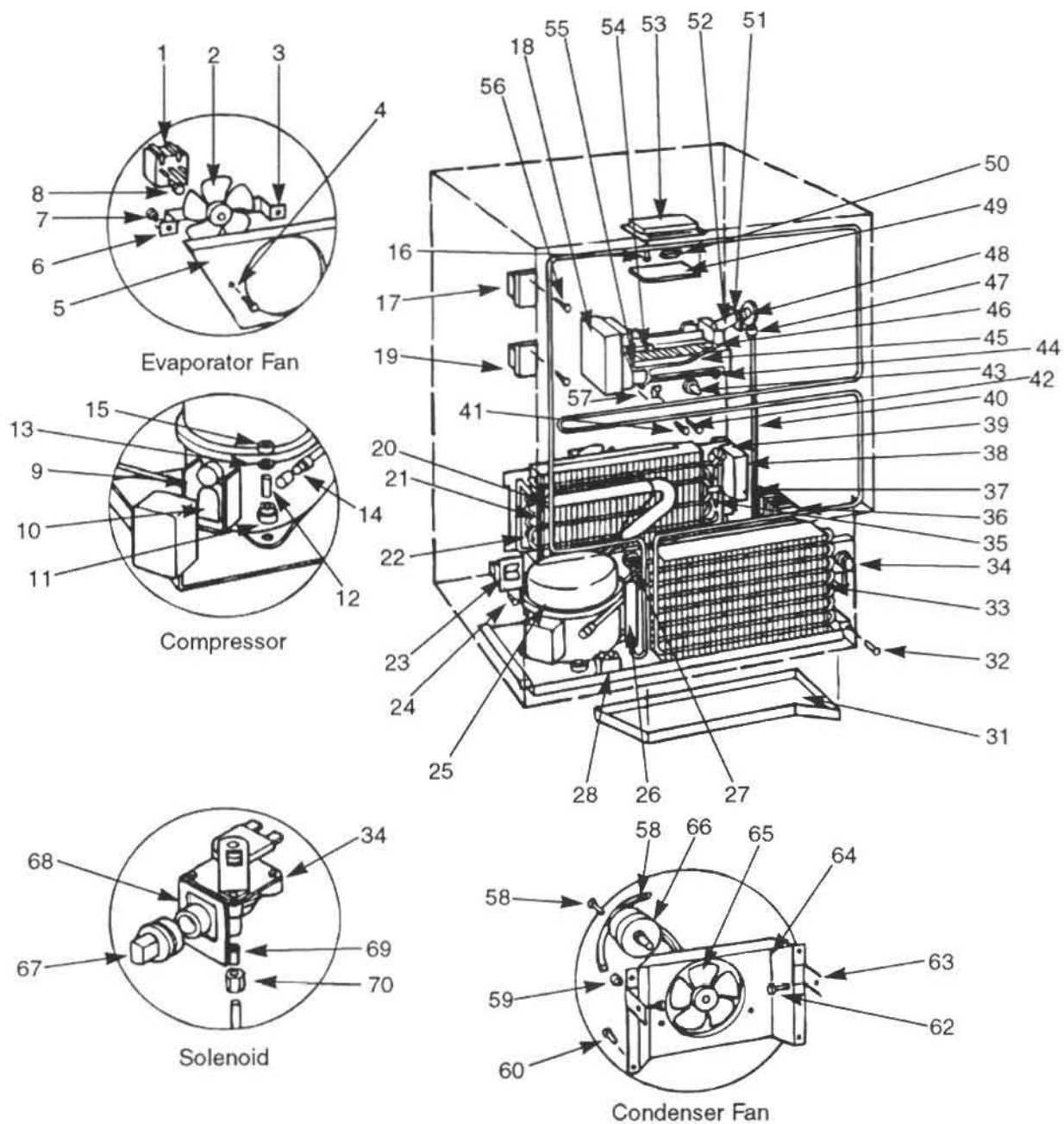
700BF/I COSMETIC VIEW



700BF/I SYSTEM VIEW

1. 4201940	Evaporator Fan Motor Assy.	36. 3090160	Transformer
2. 4201940	Evaporator Fan Blade	37. 6200780	Screw, #10-24 x 1/2 PH Hex
3. 0233500	Evaporator Fan Bracket	38. 4201995	Control Board Assy.
4. 6110020	Screw Grommet	39. 3082090	Defrost Terminator
5. 4201940	Evaporator Fan Shroud	40. 2600617	Water Line
6. 6240060	Star Washer, 1/4	41. 6201120	Screw, #8-18 x 1.75 Truss SS
7. 6150030	Nut, #10-24 Hex SS	42. 6200080	Screw, #8-15 x 1/2 Truss HD
8. 6110270	Bolt, #10-32 x 1/4 RD HD	43. 3060130	Icemaker Switch
9. 3111380	Overload	44. 3140280	Icemaker Control Arm
10. 3111350	Relay	45. 3140200	Icemaker Shut-Off Arm
11. 3150170	Grommet	46. 628356	Bearing & Inlet
12. 6160070	Sleeve	47. 6220470	Fill Tube Clamp
13. 6240050	Washer, 5/16	48. 1607600	Water Inlet Tube
14. 3090090	Schrader Valve	49. 3500410	Light Lens
15. 6150220	Nut, 5/16-18 Hex Zinc	50. 3030090	Halogen Lamp, 20W
16. 6200080	Screw, #8-15 x 1/2 Truss HD	51. 3013820	Fill Tube Heater
17. 4202580	Reed Switch, Short	52. 2605405	Fill Tube Extension
18. 4202090	Complete Icemaker Assy.	53. 4201980	Drawer Light Fixture Assy.
3140160	Icemaker Cover	54. 6201120	Screw, #8-18 x 1.75 Truss SS
628366	Motor Module Assy.	55. 3421070	Icemaker Connecting Rod
19. 4202570	Reed Switch, Long	56. 6200280	Screw, #8-18 x 1 Pan HD
20. 4201930	Evaporator/Heat Exch Assy.	57. 6220220	Screw Grommet
21. 4201930	Evaporator/Heat Exch Assy.	58. 6200490	Screw, #8-32 x 3/8 Hex Slot
22. 4201960	Defrost Heater Assy.	59. 3220360	Cond Fan Bracket Grommet
23. 3060240	Master Power Switch	60. 6200060	Screw, #8-32 x 1/2 Pan HD
24. 6200780	Screw, #10-24 x 1/2 PH Hex Washer	61. 3150320	Condenser Fan Blade
25. 4201860	Compressor Assy.	62. 6200010	Screw, #10-12 x 3/4 Pan HD
26. 3014230	Drier	63. 3450290	Angle Bracket
27. 3013540	Drain Tube Heater	64. 0167440	Condenser Fan Shroud
28. 3111270	Capacitor	65. 0167430	Cond Fan Mounting Bracket
0167620	Capacitor Mounting Bracket	66. 3150500	Condenser Fan Motor
30. 0140340	Unit Sliding Tray	67. 3520350	Water Inlet Fitting Assy.
31. 0167450	Drain Pan	68. 0166200	Solenoid Retainer
32. 6200780	Screw, #10-24 x 1/2 PH Hex Washer	6200780	Screw, #10-24 1/2 PH Hex
33. 3120310	Condenser Coil	69. 3520050	Brass Insert
34. 4201450	Solenoid Valve	70. 3520030	Nylon Nut
35. 4323800	Coil Sensor/Thermistor Assy.		

700BF/I SYSTEM VIEW



SECTION 5

TROUBLESHOOTING GUIDES

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
<p>Warm compartment temperatures.</p> <p><i>Questions:</i></p> <p><i>What are zone temperatures and setpoints?</i></p> <p><i>Is zone indicator flashing?</i></p> <p><i>Is compressor running?</i></p> <p><i>Is door alarm beeping with door shut?</i></p> <p><i>Is condenser dirty?</i></p>	<p>Electronic Control function.</p> <ol style="list-style-type: none"> Control shut off. Control setpoint is too warm. Zone thermistor malfunction. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>⚠ CAUTION! Low voltage. DO NOT apply 115 volts.</p> </div> <p>NOTE: If a thermistor is unplugged or replaced, the unit must be turned OFF at the master power switch, then back ON to clear the error mode.</p>	<ol style="list-style-type: none"> If "--" is displayed, unit is off. Press "COLDER" key to start the unit. Press "ZONE" key to check setpoints. Zone indicator will flash. Displayed temperature is now the setpoint. Set zone(s) to colder temperature(s). If "-20-" is displayed with zone indicator flashing, thermistor in that zone is unplugged or faulty. Repair wiring or replace thermistor. If "-55-" is displayed with zone indicator flashing, thermistor in that zone is shorted. Repair wiring or replace thermistor. <p>NOTE: Resistance of thermistor should be approximately 32500 ohms at 32°F, 10000 ohms at 77°F.</p>
	<p>Insufficient condenser air,</p> <ol style="list-style-type: none"> Clogged condenser. Condenser fan obstructed or faulty. Kickplate/grille restricted. 	<ol style="list-style-type: none"> Clean condenser and instruct customer. Check condenser fan, clear obstruction or replace. Remove restriction.
	<p>Door/drawer air leak.</p> <ol style="list-style-type: none"> Food obstructing door/drawer closing. Door/drawer gasket twisted or torn. Door hinge binding (700TR, 700TC/I, 700TF/I only). Drawer close tripped backwards. 	<ol style="list-style-type: none"> Remove obstruction. Repair or replace gasket. See DOOR CLOSING CHECK AND REPAIR PROCEDURES at end of Troubleshooting Guide. Trip drawer closer forward.
	<p>Poor air ducting.</p> <ol style="list-style-type: none"> Air leakage past vertical duct dividers. Air duct restriction. 	<ol style="list-style-type: none"> See TC/I Air Seals at the end of Troubleshooting Guide. Adjust vertical duct divider(s) and/or remove blockage.

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Warm compartment temperatures (continued).	<p>Incomplete defrost Poor evaporator air flow.</p> <p>NOTE: To initiate a manual defrost, see defrost section at front of Troubleshooting Guide.</p> <ol style="list-style-type: none"> Faulty door sensor (700 TC/I, 700TF/I only), or faulty reed switch (all models). Evaporator fan faulty. Evaporator fan blade obstructed. Defrost terminator faulty. Defrost heater faulty. Evaporator thermistor faulty. <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>⚠ CAUTION! Low voltage. DO NOT apply 115 volts.</p> </div> <p>NOTE: Evaporator thermistor terminates defrost at 52°F (700TC/I, 700TF/I, 700BF/I only).</p> <ol style="list-style-type: none"> Evaporator sump drain tube blocked. Drain tube heater faulty (700TC/I, 700TF/I, 700BF/I only). 	<ol style="list-style-type: none"> With door shut and reed switches depressed, check for 115V across P7 & P5 at control board. If 115V is present, repair wiring at door sensor or reed switch, or replace door sensor or reed switch. With door shut and reed switches depressed, check for 115V across P9 & P5 at control board. If no 115V, repair wiring at evaporator fan or replace evaporator fan. Clear obstruction. Check wiring to terminator, then check terminator resistance. If the evaporator is below 30°F, terminator should be closed. If above 70°F, it should be open. Repair wiring or replace terminator if faulty. Check for power to heater, then check resistance of heater. Resistance should be 20-30 ohms. Repair wiring or replace evaporator assy. Check wiring and resistance of evaporator thermistor. Resistance should be approximately 32500 ohms at 32°F, 10000 ohms at 77°F. Repair wiring or replace evaporator thermistor. <p>NOTE: For models 700TC/I, 700TF/I, 700BF/I prior to serial #1201766, remove evaporator thermistor. This will defrost evaporator every 6 hours of compressor run time with a 20 minute dwell.</p> <ol style="list-style-type: none"> Clear foreign material from drain tube. Check wiring and resistance of drain tube heater. Resistance should be 1900 ohms. Repair wiring or replace.

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Warm compartment temperature (continued).	Poor Air Baffle operation 700TR, 700TC/I, 700BR only. <ol style="list-style-type: none"> Air baffle obstruction. Air baffle faulty. <div> ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. </div>	<ol style="list-style-type: none"> Clean foreign material from baffle so it slides freely. At control board, with baffle harness disconnected from P4, check resistance of baffle coils (2 per baffle). Resistance across any two leads of baffle should be between 5-25 ohms. (See wiring diagram for unit being serviced.) If resistance is outside range, repair wiring or replace baffle.
	Sealed system issue.	See SEALED SYSTEM TROUBLESHOOTING GUIDE.
Compartment temperature too cold.	Electronic Control function. <ol style="list-style-type: none"> Control set too cold. Zone thermistor shorted. <div> ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. </div> <p>NOTE: If a thermistor is unplugged or replaced, the unit must be turned OFF at the master power switch, then turned back ON to clear the error mode.</p>	<ol style="list-style-type: none"> Press "ZONE" key to check setpoints. Zone indicator will flash. Displayed temperature is now the setpoint. Set zone(s) to warmer temperature(s). If "-55-" is displayed with zone indicator flashing, thermistor in that zone is shorted. Repair wiring or replace thermistor. <p>NOTE: Resistance of thermistor should be approximately 32500 ohms at 32°F, 10000 ohms at 77°F.</p>
	Poor air ducting. <ol style="list-style-type: none"> Air leakage past vertical duct dividers. Air duct restriction. 	<ol style="list-style-type: none"> See TC/I Air Seals at end of Troubleshooting Guide. Adjust vertical duct divider(s) and/or remove blockage.
Lighting inoperative. <i>Questions:</i> <i>Are the lights out?</i> <i>Is door alarm beeping with door shut?</i>	Halogen lamp(s) faulty. <ol style="list-style-type: none"> Lamp(s) burnt out. <div> ⚠ CAUTION! Lamps very hot. Allow to cool before inspecting. </div>	<ol style="list-style-type: none"> Visually inspect the lamp(s) for signs of burn-out and replace if required.

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Lighting inoperative (continued). <div style="border: 1px solid black; padding: 5px; width: fit-content;"> ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. </div>	Poor door closing 700TR, 700TC/I, 700TF/I only. 1. Food obstructing door closing. 2. Door hinge binding, door not closing.	1. Remove obstruction. 2. See DOOR CLOSING CHECK AND REPAIR at end of Troubleshooting Guide.
	Poor drawer reed switch operation. 1. Reed switch stuck closed. <div style="border: 1px solid black; padding: 5px; width: fit-content;"> ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. </div> 2. Reed switch unplugged or faulty.	1. Verify that reed switch actuator extends forward when drawer opens, if not, replace reed switch assy. 2. With door shut and reed switches depressed, check resistance of harness at P2 of control panel. If open, repair wiring or replace reed switch assy.
	Upper control panel assy. component malfunction 700TR, 700TC/I, 700TF/I only. 1. Thermal cut-out faulty. 2. Interlock switch faulty.	1. Cut power at master power switch. Then, at upper control panel, check resistance across thermal cut-out. If open, replace upper control panel assy. NOTE: Thermal cut-out must be cool. 2. Cut power at master power switch. Then, at upper control panel, check resistance across interlock switch while interlock switch depressed. If open, replace upper control panel assy.
	Light transformer malfunction. 1. Transformer primary winding faulty. 2. Transformer secondary winding faulty.	1. Cut power at master power switch. Then check resistance across orange and white wires at P7 & P5. If open, repair wiring or replace transformer and control board. 2. 700TR, 700TC/I, 700TF/I only. Restore power to unit and check the transformer secondary winding for 15V across P11 and the pink wire in the control board area. If no 15V, repair wiring or replace transformer.

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Lighting inoperative (continued). ⚠ CAUTION! Low voltage. DO NOT apply 115 volts.	2. Transformer secondary winding faulty (continued).	2. 700BR, 700BF/I only. Check the transformer secondary winding for 15VAC at any light socket. If no 15VAC, repair wiring or replace transformer.
	Control board faulty.	Check for 115V across P6 & P5 at control board. If no 115V, check wiring to unit and to control board. Repair if faulty.
Lighting ON with doors and drawers shut. Door alarm keeps beeping. ⚠ CAUTION! Low voltage. DO NOT apply 115 volts.	Faulty door sensor/reed switch. 1. Faulty door sensor (700TR, 700TC/I, 700TF/I only), or faulty reed switch (all models).	1. With door shut and reed switches depressed, check for 115V across P7 & P5 at control board. If 115V is present, repair wiring at door sensor or reed switch, or replace door sensor or reed switch.
Display problems: 1. "--" on LCD. 2. "-20" on LCD and indicator flashing. 3. "55" on LCD and indicator flashing. 4. "Su" on LCD and top lights off. 5. "-88" on LCD, top lights off and keys inoperative. 6. Top lights off and keys inoperative.	1. Control is shut off. 2. Zone thermistor malfunction. ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. NOTE: If a thermistor is unplugged or replaced, the unit must be turned OFF at the master power switch, then turned back ON to clear the error mode. 3. Zone thermistor malfunction. ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. NOTE: If a thermistor is unplugged or replaced, the unit must be turned OFF at the master power switch, then turned back ON to clear the error mode. 4. Blue wire of display cable is unhooked or faulty. 5. Red wire of display cable is unhooked or faulty. 6. Black, white, or yellow wire of display cable is unhooked or faulty.	1. Unit is OFF. Press COLDER key to start unit. 2. Thermistor in indicated zone is unplugged or faulty. Repair wiring or replace thermistor. NOTE: Resistance of thermistor should be approximately 32500 ohms at 32°F, 10000 ohms at 77°F. 3. Thermistor in indicated zone is shorted. Repair wiring or replace thermistor. 4. Repair wiring. 5. Repair wiring. 6. Repair wiring.

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Display problems(continued): 7. Segment of a number missing on LCD. 8. LCD off, unit running. 9. LCD too dark (700BR, 700BF/I only).	7. LCD faulty. 8. Display cable is unhooked or faulty. 9. Normal. There is no lighting behind LCD of 700BR or 700BF/I (see CORRECTION for units prior to serial #1257640).	7. Replace control panel assy. 8. Repair wiring. 9. If 700BR or 700BF/I was manufactured prior to serial #1257640, replace control panel assy.
Door alarm on with doors and drawers shut.	Faulty door sensor/reed switch. 1. Faulty door sensor (700TR, 700TC/I only), or faulty reed switch (all models).	1. With door and reed switches depressed, check for 115V across P7 & P5 at control board. If 115V is present, repair wiring at door sensor or reed switch, or replace door sensor or reed switch.
Door alarm reactivates itself.	Power outage. 1. Alarm defaults to ON after a power outage or voltage spike.	1. Press ALARM key.
Door/drawer not closing.	Poor door/drawer operation. 1. Food obstructing door/drawer closing. 2. Door/drawer gasket twisted or torn. 3. Door hinge binding (700 TR, 700TC/I, 700TF/I only). 4. Drawer close tripped backwards. 5. Drawer not engaging slide locating pins.	1. Remove obstruction. 2. Repair or replace gasket. 3. See DOOR CLOSING CHECK AND REPAIR at end of Troubleshooting Guide. 4. Trip drawer closer forward. 5. Pull slide forward, lining up holes in drawer with locating pins on slides.
Internal moisture. <i>Questions:</i> <i>Where is the moisture?</i> <i>What are ambient conditions?</i>	Air infiltration/high humidity. 1. Door/drawer not closing. 2. Frequent door openings. 3. High relative humidity.	1. See DOOR/DRAWER NOT CLOSING above. 2. Instruct customer. 3. Instruct customer.

GENERAL TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
<p>External moisture.</p> <p><i>Questions:</i></p> <p><i>Where is the moisture?</i></p> <p><i>What are the ambient conditions?</i></p> <p><i>Are two units installed side-by-side?</i></p>	<p>Air infiltration/high humidity.</p> <ol style="list-style-type: none"> 1. Door/drawer not closing. 2. High usage. 3. High relative humidity. 4. Dual unit install package not used or faulty. 	<ol style="list-style-type: none"> 1. See DOOR/DRAWER NOT CLOSING above. 2. Instruct customer. 3. Instruct customer. 4. Check for dual unit install package. If present, check for 115V at wire harness by compressor. If no 115V, repair wiring. If 115V is present, check resistance of heater (263-313 ohms tall unit heater, 540-640 ohms base unit heater). If resistance is outside range, repair wiring or replace heater.
No ice.	<p>Inoperative or faulty icemaker system.</p> <ol style="list-style-type: none"> 1. No water line run to unit. 2. Ice maker system shut off. 3. Freezer too warm. 4. Jammed ice cube. 5. Ice bucket out of position. 6. Icemaker/drawer switch faulty. 7. Ice maker faulty. 	<ol style="list-style-type: none"> 1. Instruct customer to contact plumber. 2. Press ICE key. 3. Press COLDER key. 4. Remove jammed cube. 5. Make sure ice bucket depresses ice maker/drawer switch below icemaker when drawer closes. 6. Check resistance of icemaker/drawer switch with switch depressed. If open while depressed, replace switch. If switch is OK, check and repair wiring. 7. See ICEMAKER TROUBLESHOOTING GUIDE.

700 SERIES DOOR CLOSING CHECK AND REPAIR PROCEDURES

TOP DOOR HINGE:

- 1: Open door approximately 1", then let door go to see if it closes on its own. Repeat this three times.
- 2: If door fails to close, remove the top hinge cover from the top hinge arm, and remove the one top door hinge screw closest to the pivot point of the hinge. Then loosen the three remaining top door hinge screws almost all the way out.
- 3: Open door approximately 1", then let door go to see if it closes on its own. Repeat this three times.

- 4: If door closes all three times, install 700 Series Top Hinge Shims Package, part #4202290.
- 5: If door fails to close, remove the three remaining screws from the top door hinge and check the closing action of the hinge on its own. If it seems weak, replace it.

BOTTOM DOOR HINGE:

- 1: Open door approximately 1", then let door go to see if it closes on its own. Repeat this three times.
- 2: If door fails to close, remove the bottom hinge cover from the bottom hinge arm, and remove all bottom door hinge screws. Then check the closing action of the hinge on its own. If it seems weak, replace it.

700TC/I AIR SEALS

If Refrigerator Section Is Too Warm

- Make sure upper air duct is positioned in slot of transition duct. If not, reposition upper air duct (see #1, Figure 5-1).
- Check that all foam blocks are in position at top of transition duct, and are making a good seal against upper air duct (see #2, Figure 5-1). Reposition foam blocks as required, or order Foam Tape (3/4" x 1/8"), part no. 6230730, and apply to top of blocks.
- Make sure return air duct is not blocked by ice or frost (#3). Replace if defective with part no. 3013550.
- Check that right rear sump baffle is positioned tightly against back of sump (#4). Reposition baffle assembly if required and/or apply a bead of silicone sealant where baffle meets back of sump.
- Make sure evaporator fan assembly is correctly positioned with no play front to back (#5). Reposition if required.
- Check baffle operation by clenching refrigerator thermistor firmly in one hand to warm it. The baffle should open after 1-2 minutes.

If Refrigerator Section Is Too Cold

- Check that all foam blocks are in position at top of transition duct, and are making a good seal against upper air duct (see #2, Figure 5-1). Reposition foam blocks as required, or order Foam Tape (3/4" x 1/8"), part no. 6230730, and apply to top of blocks.
- Make sure the lower air duct is firmly against back wall and vertical duct dividers (#6). If not, tighten lower duct mounting screw and/or reposition vertical duct dividers and/or order Foam Tape (3/4" x 1/8"), part no. 6230730, and apply to top of vertical duct dividers and along side of flange of lower air duct.

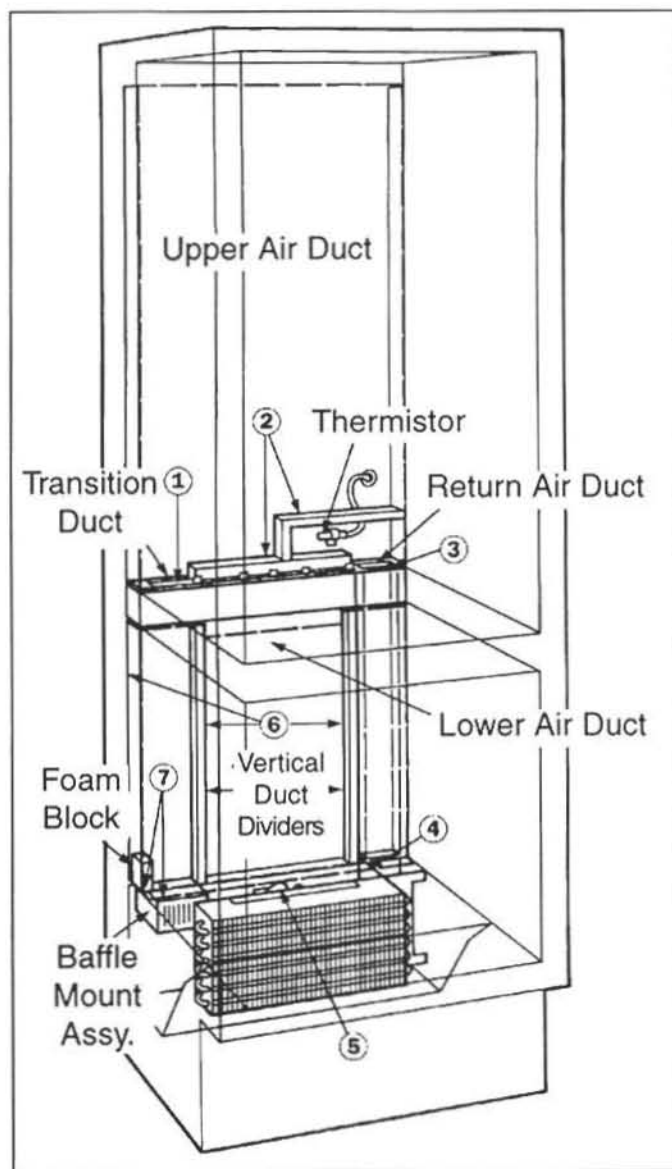


Figure 5-1. 700TC/I Air Seals

- Check that the baffle mount assembly is positioned firmly against bottom flange of air duct and foam block inside left corner of air duct. If necessary, reposition baffle mount assembly and/or order Foam Tape (3/4" x 1/8"), part no. 6230730, and apply to top of baffle mount assembly.
- Check baffle operation by placing refrigerator thermistor in a glass of ice water. The baffle should close after 1-2 minutes.

SEALED SYSTEM TROUBLESHOOTING GUIDE

Operating System Pressures

70°F AMBIENT

90°F AMBIENT

MODEL	LOW SIDE	HIGH SIDE	LOW SIDE	HIGH SIDE
700TR	8 to 18	85 to 95	9 to 19	105 to 115
700 TC/I	-2 to 2	75 to 85	-1 to 3	115 to 120
700TF/I	-2 to 2	80 to 90	-2 to 2	115 to 120
700BR	10 to 20	70 to 80	10 to 20	110 to 120
700 BF/I	-3 to 2	80 to 90	-2 to 3	110 to 120

Complaint	Possible Cause	Correction
<p>Compressor runs excessive amount.</p> <p>Questions:</p> <p><i>Is ambient temperature high?</i></p> <p><i>What is displayed on LCD?</i></p> <p><i>Are doors closing and sealing properly.</i></p> <p><i>When was condenser last cleaned?</i></p>	<p>Usage issue.</p> <ol style="list-style-type: none"> 1. High ambient temperature. 2. Excessive door openings. 	<ol style="list-style-type: none"> 1. Allow unit to adjust or ambient temperatures to decrease. 2. Allow unit to pull down to temperature with door closed.
	<p>Insufficient condenser air flow.</p> <ol style="list-style-type: none"> 1. Clogged condenser. 2. Condenser fan obstructed or defective. 	<ol style="list-style-type: none"> 1. Clean condenser and instruct customer. 2. Check condenser fan; clear obstruction or replace if faulty.

SEALED SYSTEM TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Compressor runs excessive amount (continued).	Kickplate/grille restricted.	Remove restriction.
	Sealed system leak or low charge.	<p>Check sealed system operating pressures. If low side and high side pressures are low, locate leak, flush system and repair or replace part. If leak is on low side, replace compressor and drier also.</p> <p>See OPERATING PRESSURES at beginning of Sealed System Troubleshooting Guide.</p>
	Sealed system high side restriction.	<p>Check sealed system operating pressures. If low side pressure is low, and high side pressure is high, locate high side restriction (crimped tubing, etc.) and repair.</p> <p>If restriction caused by low side leak allowing moisture into system, locate leak, flush system and repair or replace part. Replace compressor and drier also.</p> <p>See OPERATING PRESSURES at beginning of Sealed System Troubleshooting Guide.</p>
	Inefficient compressor.	<p>Check sealed system operating pressures. If low side pressure is high, and high side pressure is low, replace compressor.</p> <p>See OPERATING PRESSURES at beginning of Sealed System Troubleshooting Guide.</p>
Compressor runs, but not cooling.	See COMPRESSOR RUNS EXCESSIVE AMOUNT.	See COMPRESSOR RUNS EXCESSIVE AMOUNT.
Compressor kicks out on overload. <i>Questions:</i> <i>When was condenser last cleaned?</i>	Insufficient condenser air flow. <ol style="list-style-type: none"> 1. Clogged condenser. 2. Condenser fan obstructed or faulty. 3. Kickplate/grille restricted. 	<ol style="list-style-type: none"> 1. Clean condenser and instruct customer. 2. Check condenser fan, clear obstruction or replace if faulty. 3. Remove restriction.

SEALED SYSTEM TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Compressor kicks out on overload (continued).	Compressor malfunction. <ol style="list-style-type: none"> 1. Relay and/or overload faulty. 2. Compressor rotor locked. 	<ol style="list-style-type: none"> 1. Use a starting cord to start compressor direct. If compressor starts, replace relay and overload. 2. Use a starting cord to start compressor direct. If compressor does not start, replace compressor. <p>NOTE: If compressor has just cycled off, pressures will need to equalize before compressor will start.</p>
	Sealed system overcharge.	<p>Check sealed system operating pressures. If low side and high side pressures are high, evacuate system and recharge.</p> <p>See OPERATING PRESSURES at front of Sealed System Troubleshooting Guide.</p>
	Heat exchanger separated. <div> ⚠ CAUTION! Line voltage must be between 105VAC to 125VAC. Improper line voltage could cause compressor to overheat. </div>	<p>Check for 115V across P6 & P5 at control board. If voltage is outside of range (105VAC to 125VAC), have line voltage corrected.</p>
Compressor will not start.	Compressor malfunction. <ol style="list-style-type: none"> 1. Relay and/or overload faulty. 2. Compressor rotor locked. 	<ol style="list-style-type: none"> 1. Use a starting cord to start compressor direct. If compressor starts, replace relay and overload. 2. Use a starting cord to start compressor direct. If compressor does not start, replace compressor. <p>NOTE: If compressor has just cycled off, pressures will need to equalize before compressor will start.</p>

ICEMAKER TROUBLESHOOTING GUIDE

⚠ WARNING! Disconnect power to icemaker before attempting repairs.

⚠ CAUTION! Do not attempt to jump start the icemaker through any ports other than "T" & "H". Probing the other ports while the unit is powered may cause the icemaker to short out.

Note: For detailed information on the modular icemaker, see the Icemaker Service Manual.

Complaint	Possible Cause	Correction
No ice/low ice production	1. Freezer not cold enough.	1. See GENERAL TROUBLESHOOTING GUIDE.
	<p>2:00 ejector position (PARK):</p> <ol style="list-style-type: none"> No run when jumped between "T" & "H" ports. Open thermostat. No power to icemaker. Jammed cube. Little or no water to icemaker. <ol style="list-style-type: none"> Frozen fill tube (leaky water valve, inoperative fill tube heater). Kinked water line between water valve & fill tube. Water line to unit obstructed. Clogged screen in water valve. No power to water valve. Low water pressure (must be between 20 - 120 psi). NOTE: jump between "T" & "H" ports for 10 seconds. Remove jumper & catch water. Should be 130cc's. High water pressure (must be between 20-120 psi). Open heater circuit (ports "L" & "H" = 72 ohms). Closed thermostat. 	<ol style="list-style-type: none"> Replace icemaker modular head. Check/replace thermostat (apply fresh alumilastic). Trace power, repair wiring. Unjam cube and check fill cup and fill alignment tube. Check/replace water valve, check/replace fill tube heater or repair wiring. Un-kink water line or replace. Clear obstruction. Replace water valve. Trace power, check wiring, repair wiring. Increase supply water pressure. Decrease supply water pressure. Replace mold and heater assembly. Check/replace thermostat (apply fresh alumilastic).

ICEMAKER TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
No ice/low ice production (continued)	5j. Damaged heater or thermostat tulips on module.	5j. Replace icemaker modular head.
	5k. Heater pins too short, not contacting module.	5k. Replace mold and heater assembly.
	6. Ice level locked in UP position.	6. Lower ice level arm.
	7. Ice level arm binds.	
	7a. Ice in actuator/ice level arm hole.	7a. Remove module, clear ice from hole and dry housing.
	7b. Housing hole small or burred.	7b. De-burr hole or replace icemaker.
	7c. Actuator O.D. large or burred.	7c. Replace icemaker modular head.
	7d. Module housing damaged.	7d. Replace icemaker modular head.
	7e. Ice level arm misformed.	7e. Replace ice level arm.
	7f. Hole in fill cup small, misformed or burred.	7f. Clear burrs or replace fill cup.
	8. Little or no aluminastic on thermostat.	8. Apply fresh aluminastic.
	9. Module not properly secured to housing.	9. Tighten screws (20-26 in/lbs).
	10. Heater not staked into mold completely.	10. Replace mold and heater assembly.
	11. Wrong heater voltage.	11. Replace mold and heater assembly.
	12. Broken cam follower.	12. Replace icemaker modular head.
	3:00 ejector position:	
	1. No run when jumped between "T" & "H" ports.	1. Replace icemaker modular head.
	2. Jammed cube.	2. Unjam cube and check fill cup and fill tube alignment.
	3. Icemaker and/or unit not level.	3. Level as necessary.
	4. No power to icemaker.	4. Trace power, repair wiring.
	5. Excessive water fill volume.	5. Adjust water fill, or replace water valve, or decrease supply water pressure.
	6. Cubes fell back on mold during eject.	6. Check fill cup and fill tube alignment.
	4:00 ejector position:	
	1. Thermostat out of calibration.	1. Replace thermostat (apply fresh aluminastic).

ICEMAKER TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
No ice/low ice production (continued)	2. Open heater circuit (module gear should be turning). 3. Heater not staked into mold completely. 4. Broken cam follower.	2. Replace mold and heater assembly. 3. Replace mold and heater assembly. 4. Replace icemaker modular head.
	6:00 ejector position: 1. No run when jumped between "T" & "H" ports. 2. Hollow cubes. 3. Insufficient water volume to icemaker.	1. Replace icemaker modular head. 2. See HOLLOW CUBES below. 3. See LITTLE OR NO WATER TO ICE-MAKER above.
	7:30 ejector position: 1. No run when jumped between "T" & "H" ports. 2. Ice level arm stuck in ice or obstructed. 3. "Pac-Man" cubes.	1. Replace icemaker modular head. 2. Clear obstruction. 3. Check fill cup and fill tube alignment.
	11:00 - 2:00 ejector position: 1. No run when jumped between "T" & "H" ports. 2. Damaged contact fingers. 3. Cubes frozen to fill cup, mold or ice level arm.	1. Replace icemaker modular head. 2. Replace icemaker modular head. 3. Unjam and restart.
Overproduction of ice	1. Ice bucket out of position. 2. Ice level arm not in actuator. 3. Shut-off lever broken or bypassing. 4. Broken module actuator.	1. Reposition ice bucket. 2. Press ice level arm into actuator. 3. Replace icemaker modular head. 4. Replace icemaker modular head.
Hollow cubes	1. Water fill volume too low. 2. Improper freezer air flow. 3. Thermostat out of calibration.	1. Adjust water fill, or increase supply water pressure. 2. See GENERAL TROUBLESHOOTING GUIDE. 3. Replace thermostat (apply fresh alumi- lastic).

ICEMAKER TROUBLESHOOTING GUIDE

Complaint	Possible Cause	Correction
Water or ice slab in ice bucket or freezer compartment	<ol style="list-style-type: none"> 1. Thermostat out of calibration. 2. Jammed cubes during water fill (11:00 ejector position). 3. Leaky water valve. 4. Excessive fill volume. 5. Motor stalled during water fill (11:00 ejector position). 6. fill tube not properly installed in fill cup. 7. Fill cup broken. 8. Ice cubes fell over back of icemaker or missed ice bucket. 9. White and brown wires reversed on harness. 10. Shorted water fill track on module. 	<ol style="list-style-type: none"> 1. Replace thermostat (apply fresh aluminum). 2. Remove jam, determine reason for cube stall. 3. Replace water valve. 4. Adjust water fill, or replace water valve, or decrease supply water pressure. 5. Replace icemaker modular head. 6. Adjust fill tube. 7. Replace fill cup. 8. Adjust fill tube and/or ice bucket. 9. Repair wiring and replace icemaker. 10. Replace icemaker modular head.
Noisy	<ol style="list-style-type: none"> 1. Motor or gear grinding during production. 2. Screeching during ejection. 3. Excessive noise during water fill. 4. Water flowing through valve, ice falling in ice bucket, ice level arm falling to down position. 	<ol style="list-style-type: none"> 1. Replace icemaker modular head. 2. Lubricate vertical cam end or replace icemaker modular head. 3. Replace water valve or adjust water supply line. 4. Normal operation, no repairs needed, instruct customer.
Jammed cubes	<ol style="list-style-type: none"> 1. Cubes hollow or too small. 2. Cubes fell back into mold (Pac-Man). 3. Mound on top of cubes. 4. Icemaker and/or unit not level. 	<ol style="list-style-type: none"> 1. See HOLLOW CUBES section above. 2. Check fill cup and fill tube alignment. 3. Cubes freezing too fast, adjust freezer temperature and/or air flow. 4. Level as needed.

SECTION 6

TECHNICAL DATA

COMPONENT TECHNICAL INFORMATION

Model	700TR	700TC/I	700TF/I	700BR	700BF/I
Refrigerant	134a(8 oz.)	134a(8 oz.)	134a(8 oz.)	134a(6 oz.)	134a(6 oz.)
Compressor	Embraco (EMI30HER) 280BTU .9 AMPS	Embraco (FHS70HA) 715BTU 1.2 AMPS	Americold (RH108) 840BTU 1.4 AMPS	Embraco (EMI30HER) 280BTU .9 AMPS	Embraco (FHS70HA) 715BTU 1.2 AMPS
Sealed System Pressures	*	*	*	*	*
Drain Tube Heater		1900 OHMS	1900 OHMS		1900 OHMS
Defrost Heater		21 OHMS	21 OHMS		27 OHMS
Defrost Terminator		70°F cut-out 30°F cut-in	70°F cu-tout 30°F cut-in		70°F cu-tout 30°F cut-in
Thermistor	32500 OHMS at 32°F 10000 OHMS at 77°F	32500 OHMS at 32°F 10000 OHMS at 77°F	32500 OHMS at 32°F 10000 OHMS at 77°F	32500 OHMS at 32°F 10000 OHMS at 77°F	32500 OHMS at 32°F 10000 OHMS at 77°F
Air Baffle Coils	5-25 OHMS	5-25 OHMS		5-25 OHMS	

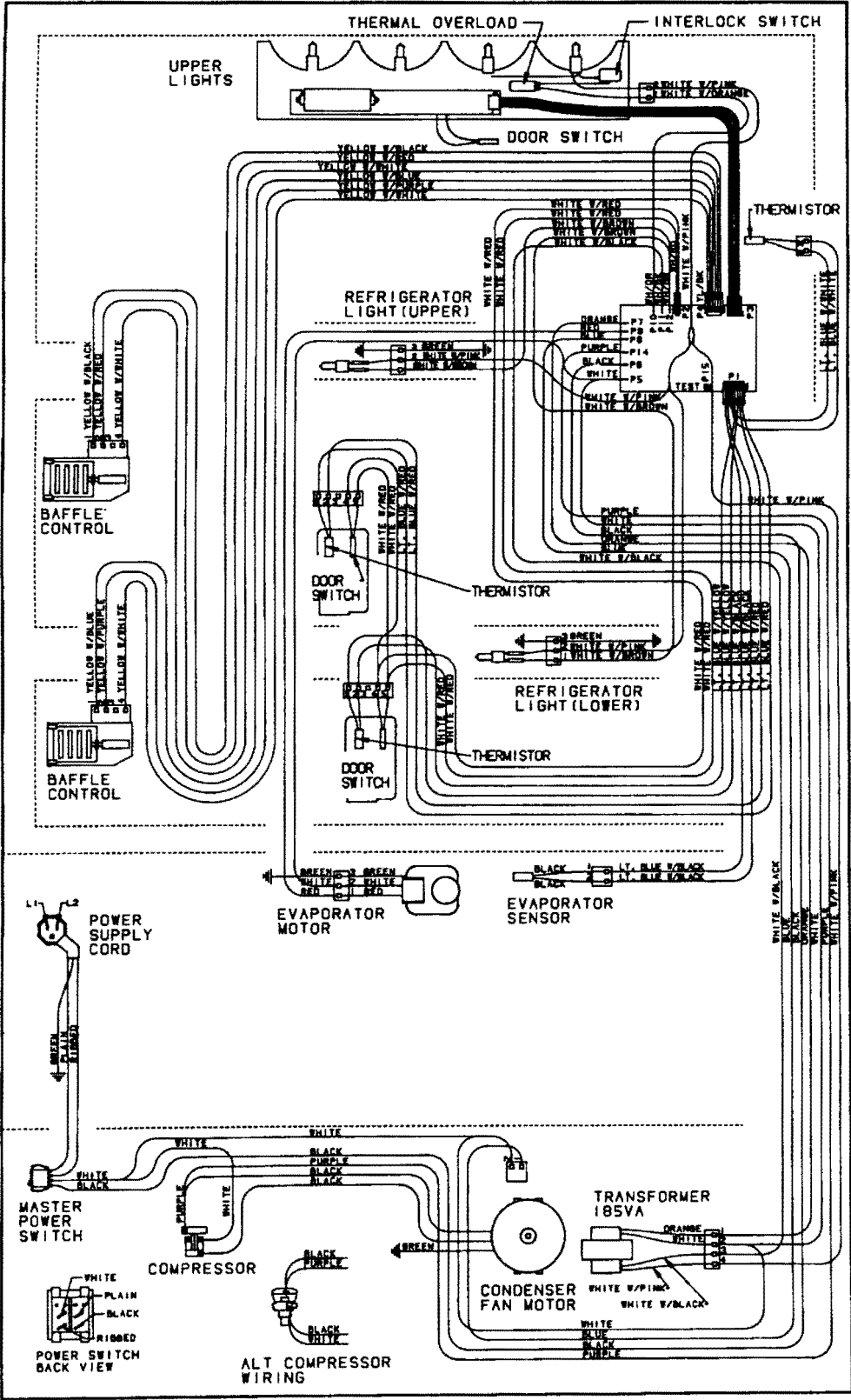
* See front of SEALED SYSTEM TROUBLESHOOTING GUIDE.

SECTION 7

WIRING DIAGRAMS & SCHEMATICS

WIRING DIAGRAM - 700TR

WIRING DIAGRAM - MODEL 700TR



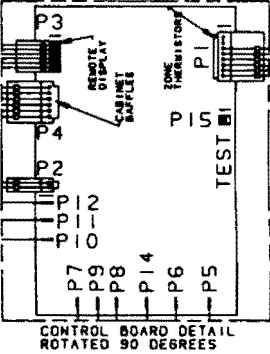
WARNING

This wiring information is provided for use by qualified service personnel only.

Disconnect appliance from electrical supply before beginning service.

Be sure all grounding devices are connected when service is completed.

Failure to observe the above warnings may result in severe electrical shock.



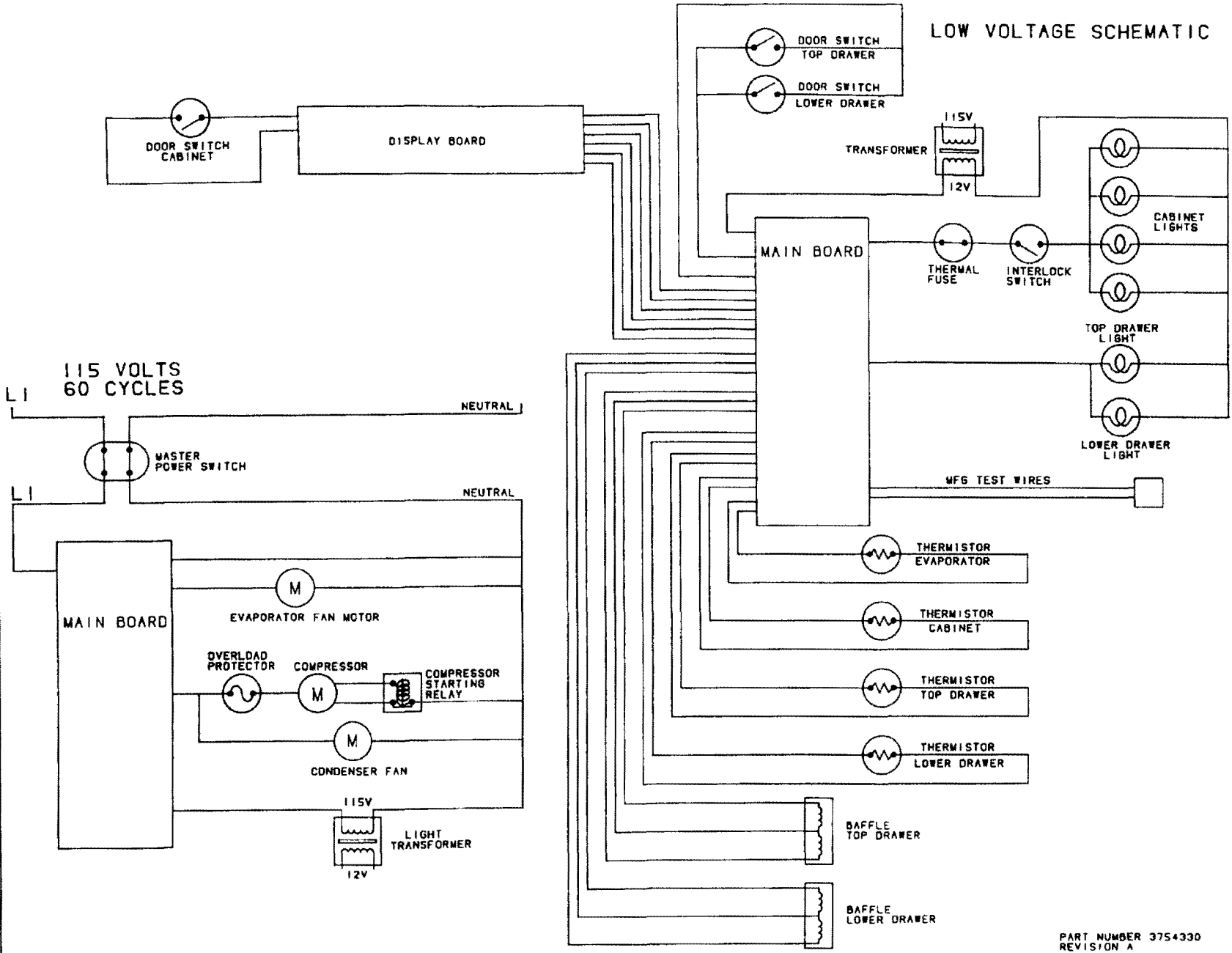
TERM.	WIRE COLOR
P1	WHITE
P2	WHITE
P3	WHITE
P4	WHITE
P5	WHITE
P6	WHITE
P7	WHITE
P8	WHITE
P9	WHITE
P10	WHITE
P11	WHITE
P12	WHITE
P13	WHITE
P14	WHITE
P15	WHITE

TERM.	DESCRIPTION	COLOR	ABBR.
P1	TERMINALS	SEE AUX. CHART	WH/WH
P2	LIGHT SWITCH	WHITE/RED	WH/RED
P3	REMOTE DISPLAY	SEE AUX. CHART	---
P4	BAFFLES	SEE AUX. CHART	---
P5	L2-NEUTRAL 115	WHITE	WHITE
P6	L1-HOT 115	BLACK	BLACK
P7	L1-HOT 120V	ORANGE	ORANGE
P8	EVAPORATOR FAN	RED	RED
P9	LIGHT ZONE 1	WHITE/ORANGE	WH/OR
P10	TRANSFORMER IN-12V	WHITE/BLACK	WH/BK
P11	LIGHTS-LOWER-12V	WHITE/BROWN	WH/BR
P12	COMPRESSOR	PURPLE	PURPL
P13	MANUFACTURING TEST	---	TEST

PART NUMBER 3754330
REVISION A

WIRING SCHEMATIC - 700TR

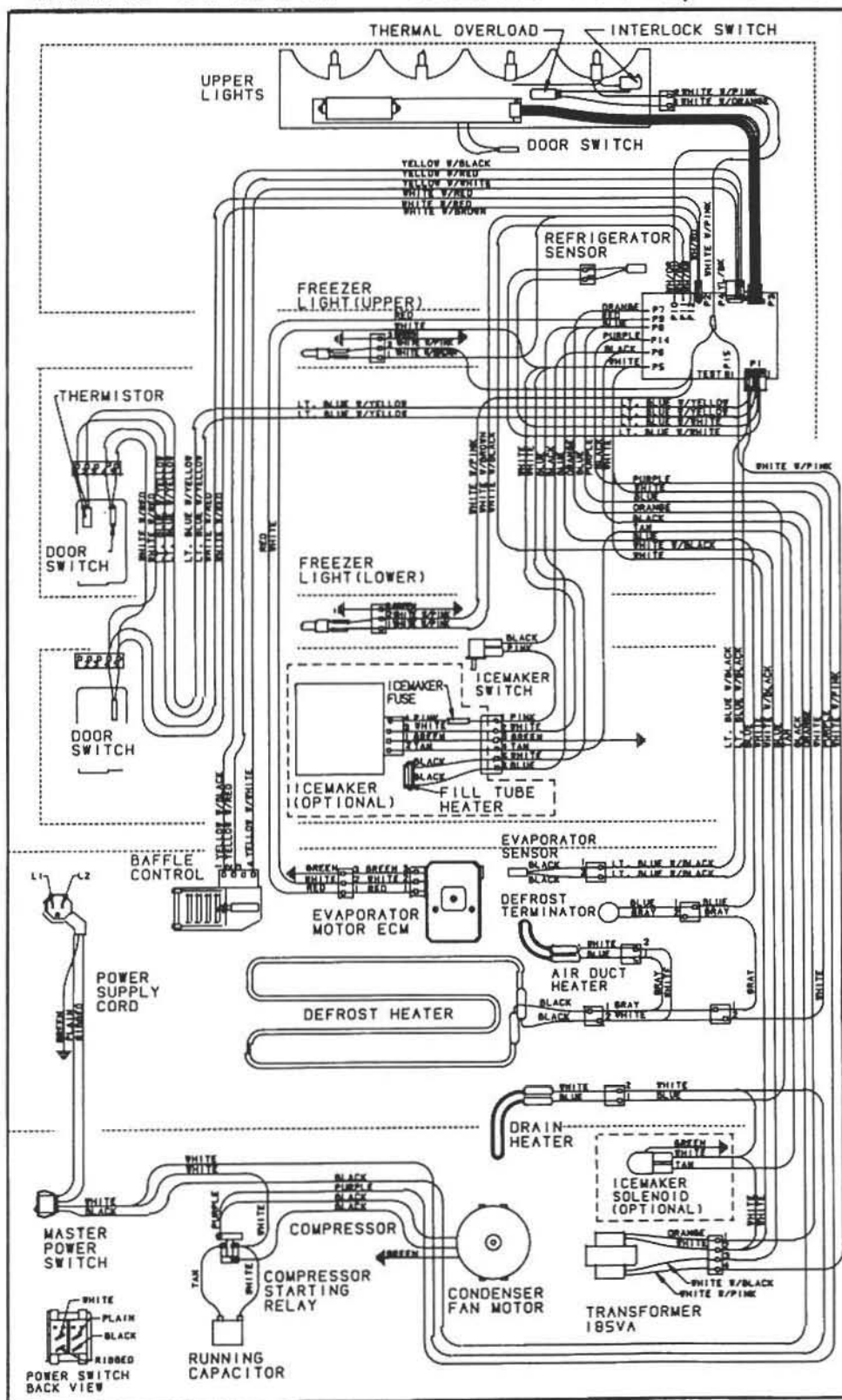
LOW VOLTAGE SCHEMATIC



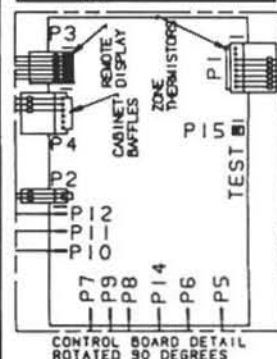
PART NUMBER 3754330
REVISION A

WIRING DIAGRAM - 700TC/I

WIRING DIAGRAM - MODEL 700TC, 700TCI

**WARNING**

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Failure to observe the above warnings may result in severe electrical shock.

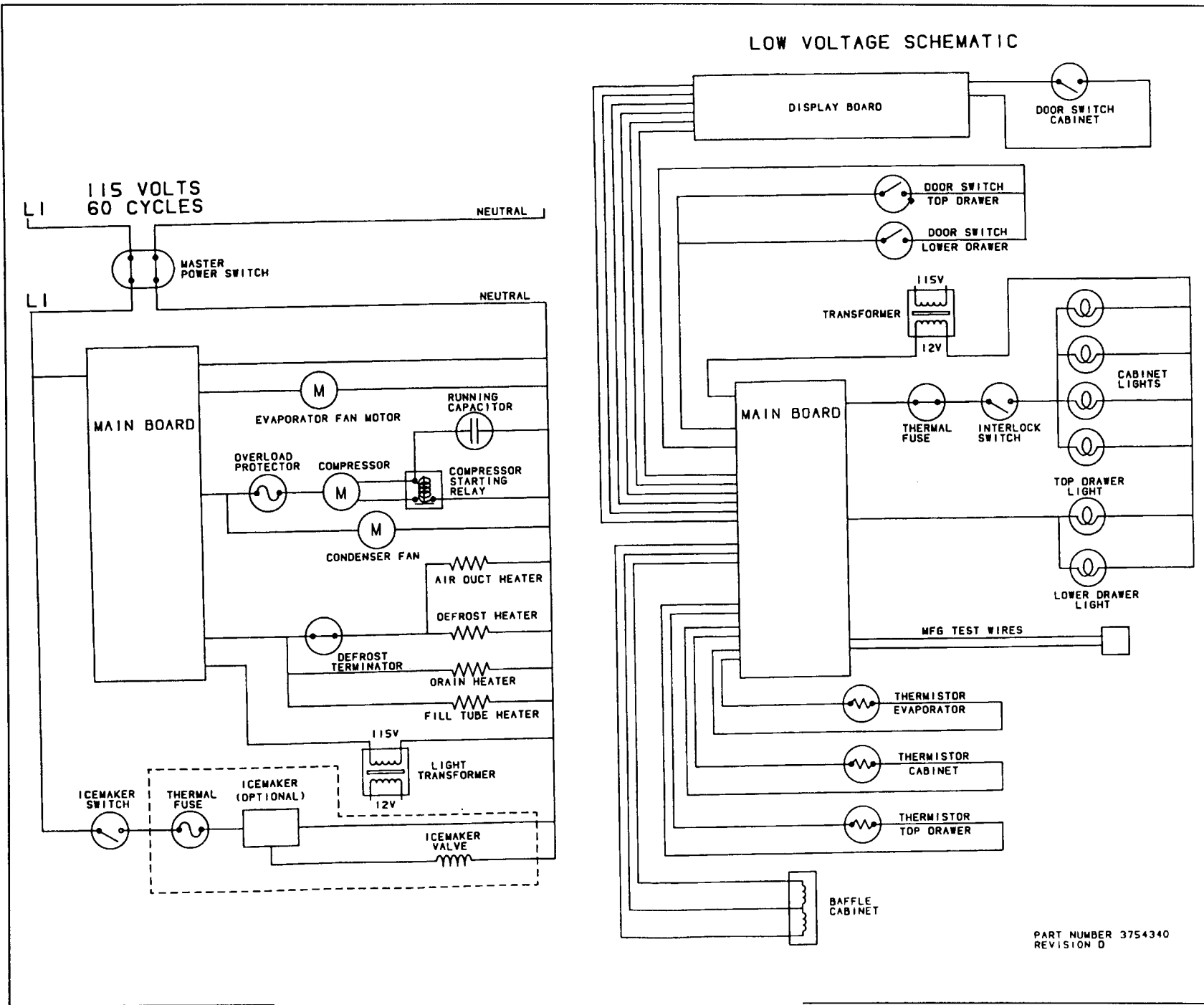


TERM.	WIRE COLOR	WIRE COLOR
P1	WHITE	WHITE
P2	WHITE	WHITE
P3	WHITE	WHITE
P4	WHITE	WHITE
P5	WHITE	WHITE
P6	WHITE	WHITE
P7	WHITE	WHITE
P8	WHITE	WHITE
P9	WHITE	WHITE
P10	WHITE	WHITE
P11	WHITE	WHITE
P12	WHITE	WHITE
P13	WHITE	WHITE
P14	WHITE	WHITE

TERM.	DESCRIPTION	COLOR	ABBR.
P1	THERMISTORS	SEE ADR. CHART	WH/RED
P2	LIGHT SWITCH	WHITE/RED	WH/RED
P3	REMOTE DISPLAY	SEE ADR. CHART	---
P4	BAFFLES	SEE ADR. CHART	---
P5	L2-NEUTRAL IIS	WHITE	WHITE
P6	L1-HOT IIS	BLACK	BLACK
P7	LIGHTS-120V OUT	ORANGE	ORANG
P8	DEFROST HEATER	BLUE	BLUE
P9	EVAPORATOR FAN	RED	RED
P10	DEFROST HEATER	WHITE/ORANGE	WH/OR
P11	TRANSFORMER IN-12V	WHITE/BLACK	WH/BK
P12	LIGHTS-120V-12V	WHITE/BROWN	WH/BR
P13	COMPRESSOR	PURPLE	PURPL
P14	ICE MAKER SOLENOID (OPTIONAL)	PURPLE	PURPL

PART NUMBER 3754340
REVISION D

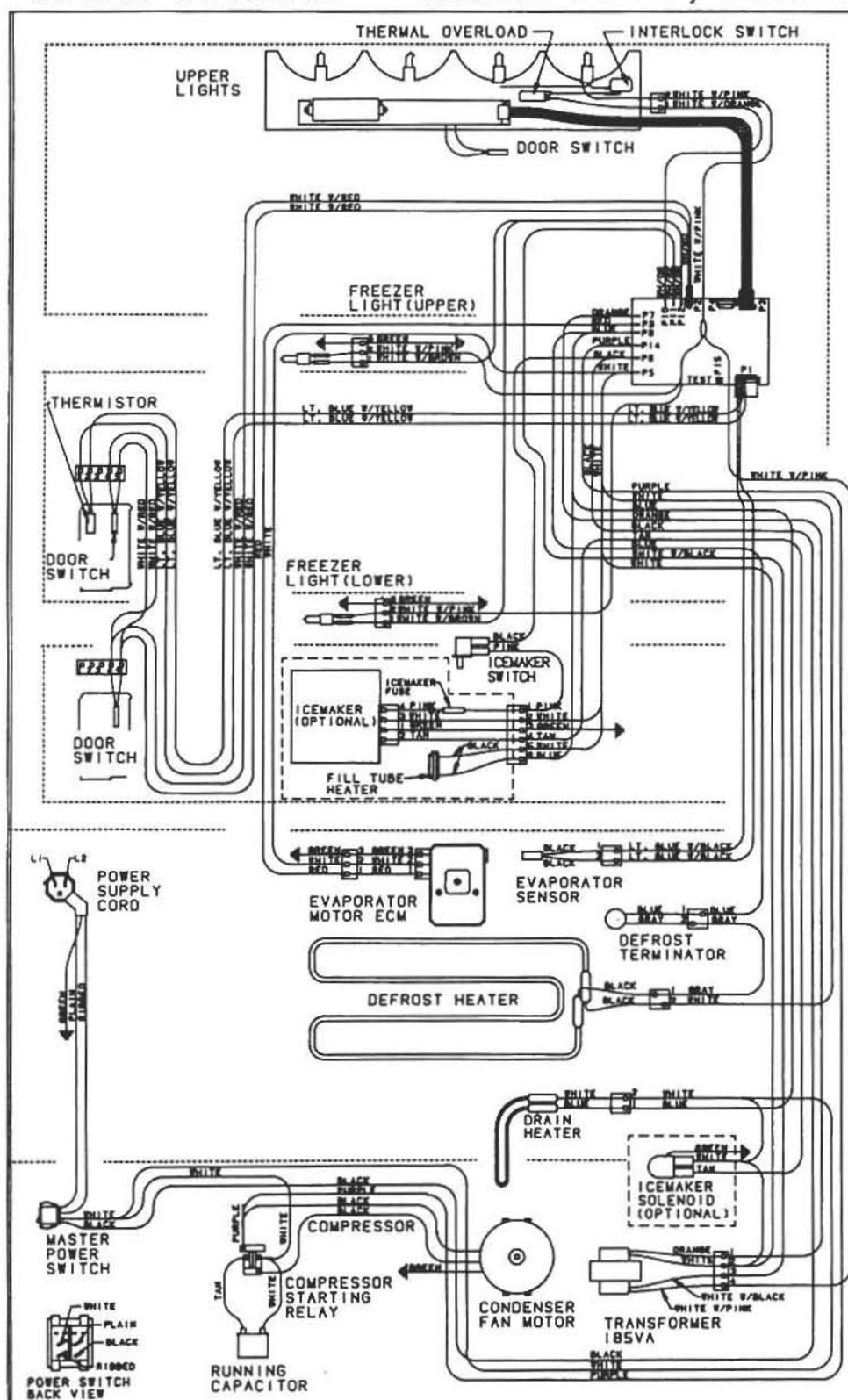
WIRING SCHEMATIC - 700TC/I



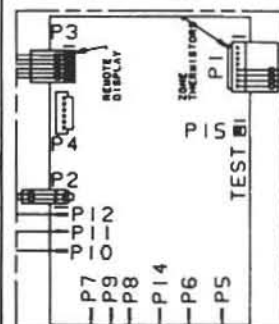
PART NUMBER 3754340
REVISION D

WIRING DIAGRAM - 700TF/I

WIRING DIAGRAM - MODEL 700TF, 700TFI


WARNING

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Disconnect appliance from electrical supply before beginning service.
Be sure all grounding devices are connected when service is completed.
Failure to observe the above warnings may result in severe electrical shock.


CONTROL BOARD DETAIL
ROTATED 90 DEGREES

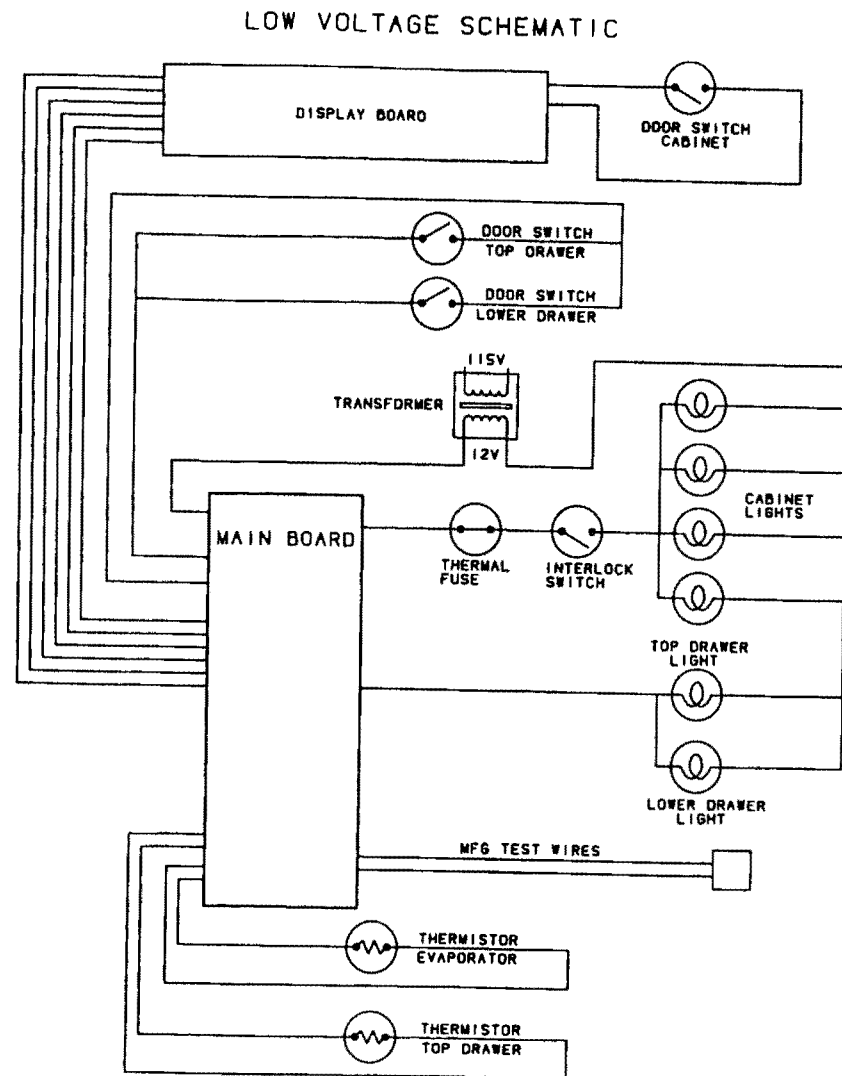
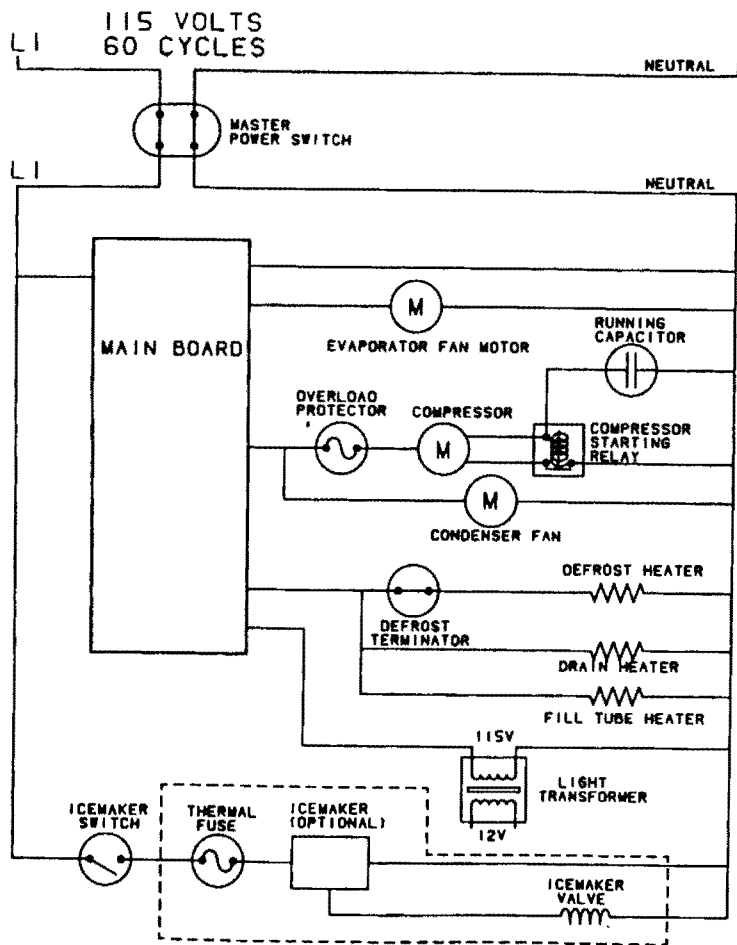
TERM.	NO.	COLOR
P1	1	EMPTY
P2	2	EMPTY
P3	3	EMPTY
P4	4	EMPTY
P5	5	LT. BLUE W/YELLOW
P6	6	LT. BLUE W/BLACK
P7	7	LT. BLUE W/BLACK
P8	8	LT. BLUE W/BLACK
P9	9	BLACK
P10	10	WHITE
P11	11	RED
P12	12	YELLOW
P13	13	ORANGE
P14	14	BLUE
P15	15	BLUE

AUXILIARY CHART

TERM.	DESCRIPTION	COLOR	ABBR.
P1	TERMINALS	SEE AUX. CHART	WH/RED
P2	LIGHT SWITCH	WHITE/RED	WH/RED
P3	REMOTE DISPLAY	SEE AUX. CHART	---
P4	---	---	---
P5	LR-NEUTRAL 115	WHITE	---
P6	LI-HOT 115	BLACK	---
P7	LIGHTS-120V OUT	ORANGE	---
P8	DEFROST HEATER	BLUE	---
P9	EVAPORATOR FAN	RED	---
P10	LIGHT ZONE 1	WHITE/ORANGE	WH/OR
P11	TRANSFORMER IN-12V	WHITE/BLACK	WH/BLK
P12	LIGHTS-LOWER-12V	WHITE/BROWN	WH/BR
P13	---	---	---
P14	COMPRESSOR	PURPLE	PURPL
P15	MANUFACTURING TEST	---	---

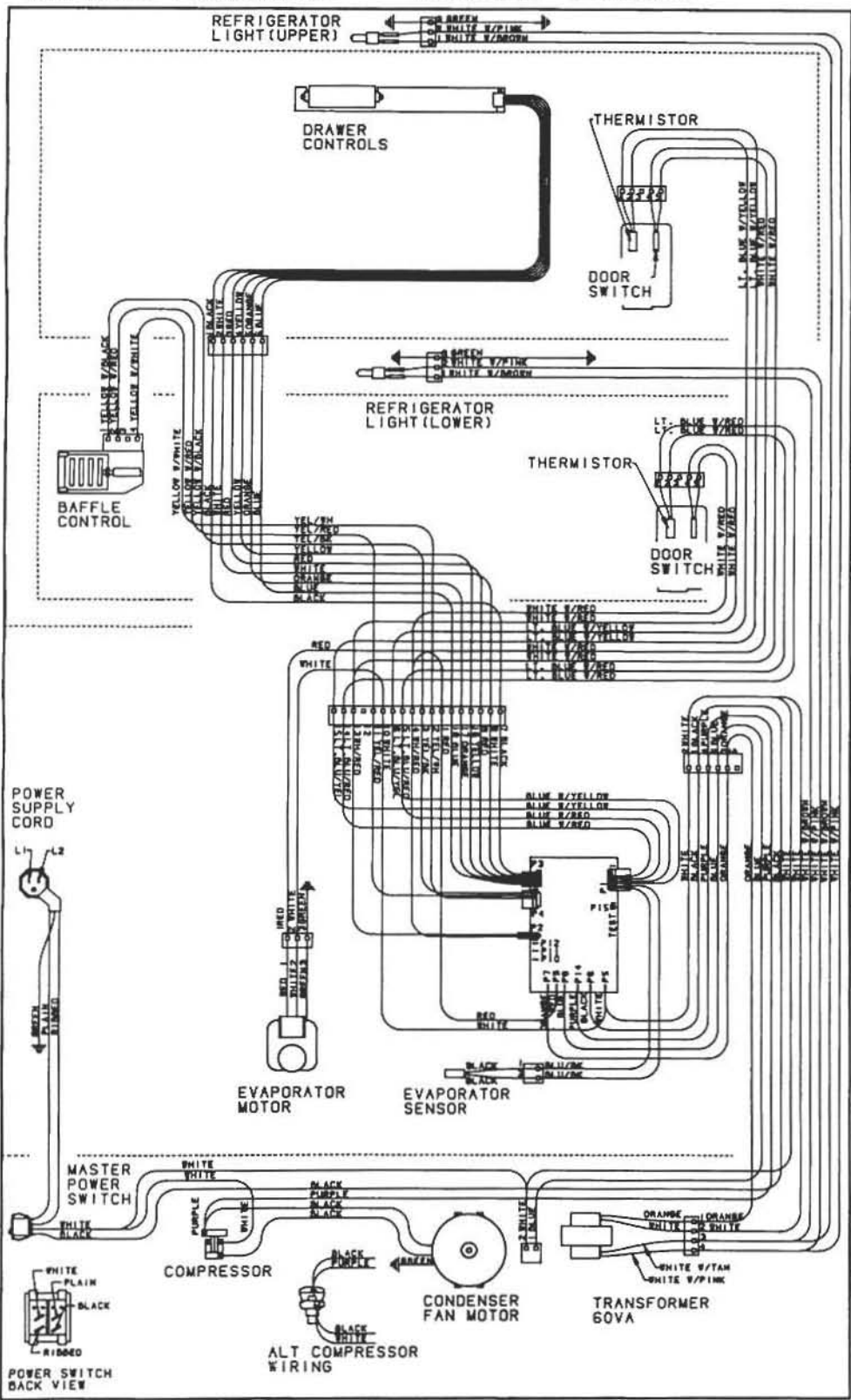
PART NUMBER 3754350
REVISION C

WIRING SCHEMATIC - 700TF/I



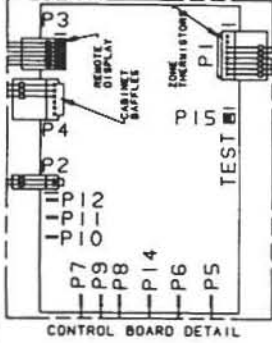
WIRING DIAGRAM - 700BR

WIRING DIAGRAM - MODEL 700BR



WARNING

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Disconnect appliance from electrical supply before beginning service.
Be sure all grounding devices are connected when service is completed.
Failure to observe the above warnings may result in severe electrical shock.



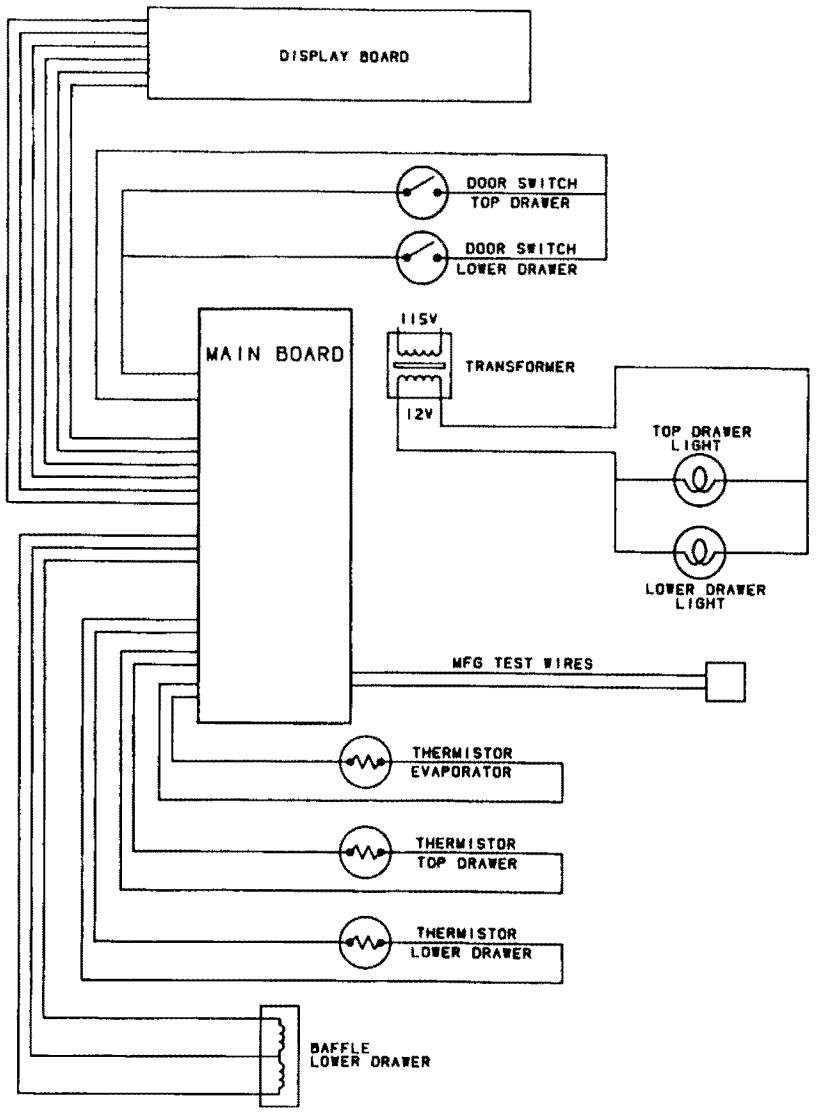
TERM.	WIRE COLOR
P1	WHITE
P2	WHITE
P3	WHITE
P4	WHITE
P5	WHITE
P6	WHITE
P7	WHITE
P8	WHITE
P9	WHITE
P10	WHITE
P11	WHITE
P12	WHITE
P13	WHITE
P14	WHITE
P15	WHITE

TERM.	DESCRIPTION	COLOR	ABBR.
P1	REFRIGERATORS	SEE AUX. CHART	WH/TL
P2	REFRIGERATORS	WHITE/RED	WH/RD
P3	REMOTE SWITCH	SEE AUX. CHART	---
P4	CABINET BAFFLES	SEE AUX. CHART	---
P5	L2-NEUTRAL I15	WHITE	WHITE
P6	L1-HOT I15	BLACK	BLACK
P7	L1-HOT I15	BLACK	BLACK
P8	L1-HOT I15	BLACK	BLACK
P9	EVAPORATOR FAN	RED	RED
P10	---	---	---
P11	---	---	---
P12	---	---	---
P13	---	---	---
P14	COMPRESSOR	PURPLE	PURPL
P15	MANUFACTURING TEST	---	TEST

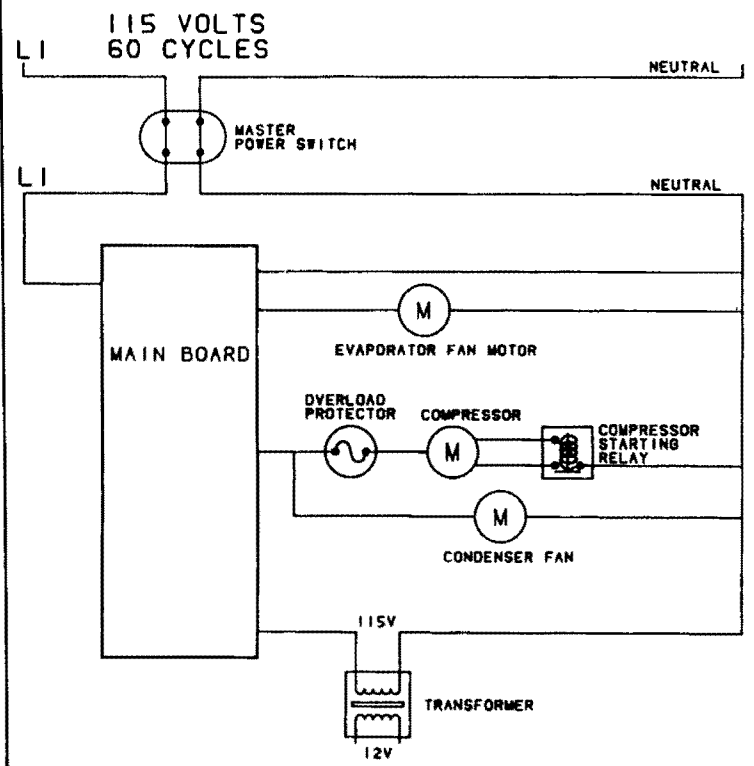
PART NUMBER 3754360
REVISION A

WIRING SCHEMATIC - 700BR

LOW VOLTAGE SCHEMATIC

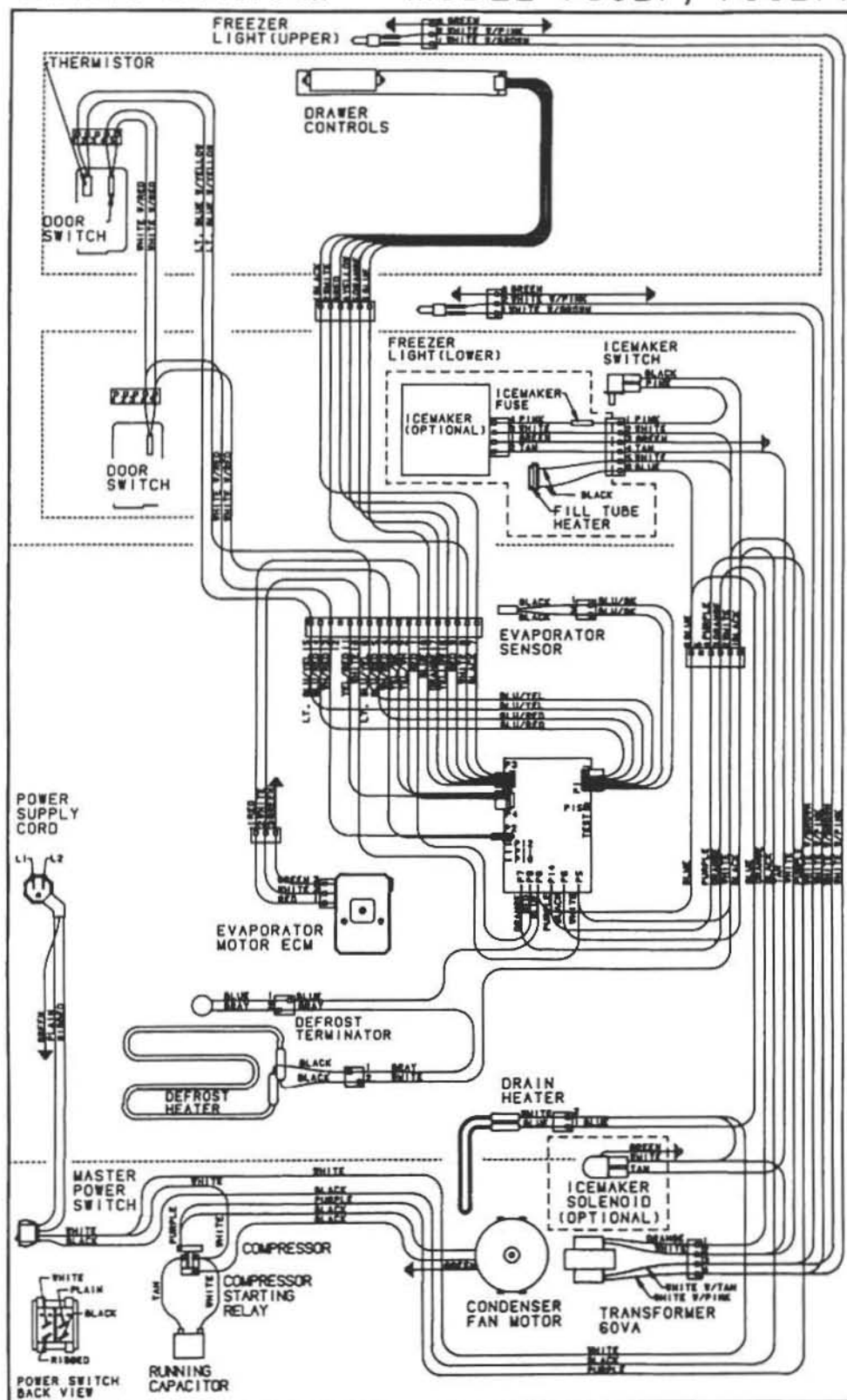


7-9



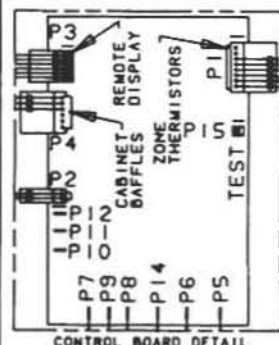
WIRING DIAGRAM - 700BF/I

WIRING DIAGRAM - MODEL 700BF, 700BF/I



WARNING

This wiring information is provided for use by qualified service personnel only.
Disconnect appliance from electrical supply before beginning service.
Be sure all grounding devices are connected when service is completed.
Failure to observe the above warnings may result in severe electrical shock.



TERM.	NO.	COLOR
P1	1	EMPTY
	2	EMPTY
	3	LT. BLUE W/WHITE
	4	LT. BLUE W/YELLOW
	5	LT. BLUE W/WHITE
	6	LT. BLUE W/YELLOW
	7	LT. BLUE W/BLACK
	8	LT. BLUE W/BLACK
P3	1	BLACK
	2	WHITE
	3	RED
	4	YELLOW
	5	ORANGE
	6	BLUE

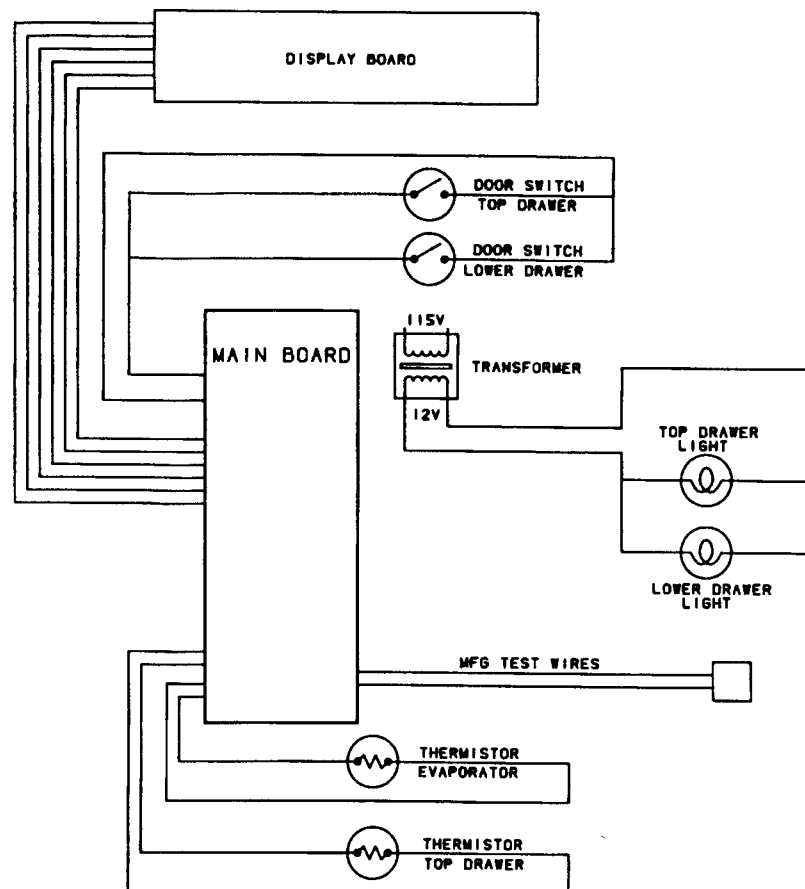
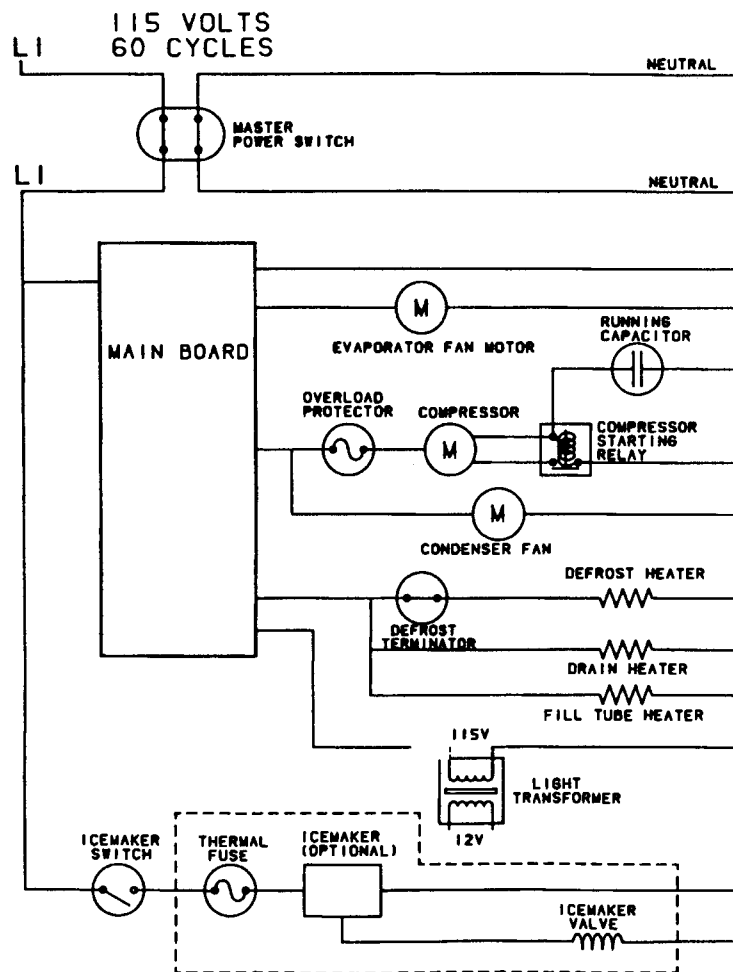
AUXILIARY CHART

TERM.	DESCRIPTION	COLOR	ABBR.
P1	1 THERMISTORS	SEE AIR, DWMT	WH/RO
P2	2 LIGHT SWITCH	WHITE/RED	WH/RO
P3	3 REMOTE DISPLAY	SEE AIR, DWMT	---
P4	4 Baffles	SEE AIR, DWMT	---
P5	5 L2-NEUTRAL IIS	WHITE	WHITE
P6	6 L1-HOT IIS	BLACK	BLACK
P7	7 LIGHTS-120V OUT	ORANGE	ORANGE
P8	8 DEFROST HEATER	BLUE	BLUE
P9	9 EVAPORATOR FAN	RED	RED
P10	10	---	---
P11	11	---	---
P12	12	---	---
P13	13	---	---
P14	14 COMPRESSOR	PURPLE	PURPLE
P15	15 MANUFACTURING TEST	---	TEST

PART NUMBER 3754370
REVISION C

WIRING SCHEMATIC - 700B/F/I

LOW VOLTAGE SCHEMATIC



PART NUMBER 3754370
REVISION C