





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;">  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 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 style="text-align: center;">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: 2px; margin: 5px 0;"> ⚠ CAUTION! Low voltage. DO NOT apply 115 volts. </div> <p>NOTE: Evaporator thermistor terminates defrost at 52°F (700TC/I, 700TF/I, 700BF/I only).</p> 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> 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; margin: 5px 0;">  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; margin: 5px 0;">  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). <div>  CAUTION! Low voltage. DO NOT apply 115 volts. </div> | 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. <div>  CAUTION! Low voltage. DO NOT apply 115 volts. </div> | 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. <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> 3. Zone thermistor malfunction. <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> 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. <p>NOTE: Resistance of thermistor should be approximately 32500 ohms at 32°F, 10000 ohms at 77°F.</p> 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.

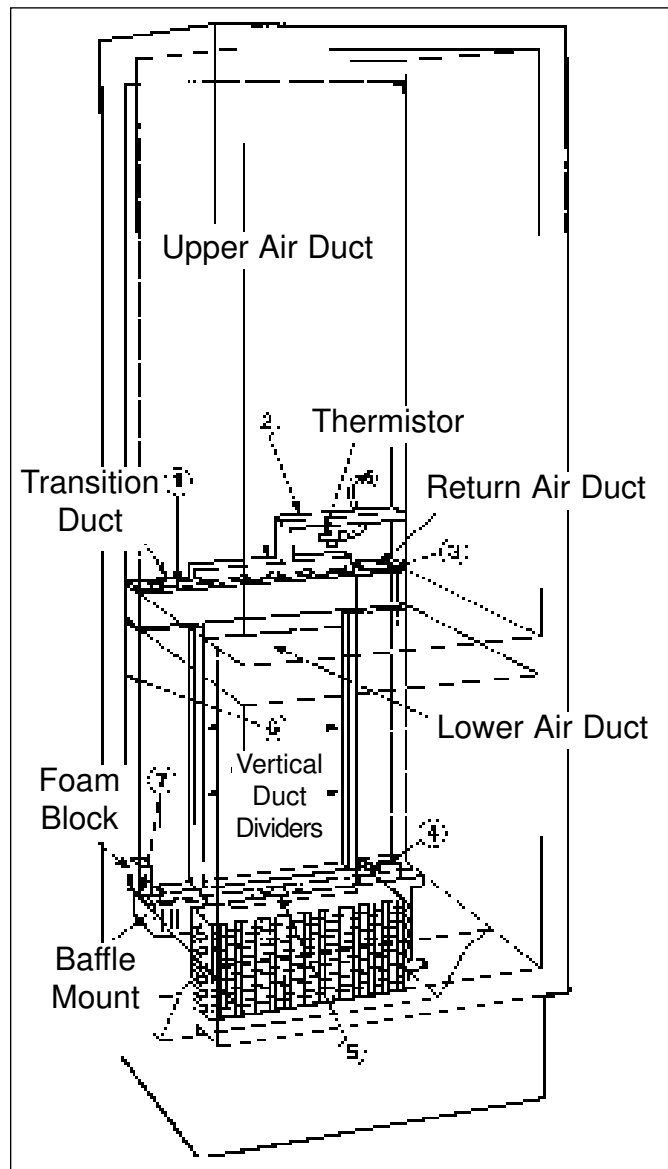


Figure 5-1. 700TC/I Air Seals

- 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.