DOMETIC Refrigerators

- Classic
- Americana
- RM1350
- RM3762 & RM3962
- DMR702
- 8-Series

Mobile living made easy.
CLASSIC

RM2620

- 6 cubic ft.
- 49 ½ x 21 ¾ x 24 (Recess Dimensions)
- Fits most openings for older model refrigerators
- Optional panel inserts (wood grain or black acrylic)
- Efficient operation
- 2-Way (LP/120 VAC) operation
- Climate control system saves energy and helps prevent condensation
- Standby feature keeps refrigerator operating in case of a malfunction
Americana & Americana Plus

Americana
(No Temp Adjustment on eyebrow board)

Americana Plus
(Temp Adjustment built onto upper eyebrow controls)

- DM2652
- DM2662
- DM2852
- DM2862
- DM2663
- RM2351
- RM2354
- RM2451
- RM2454
- RM2551
- RM2554
- RM2663

- From 3.0 Cu. Ft. single doors to 8 Cu. Ft. double doors, plus multiple power options
- A wider range, a better value
- Flexible, efficient design
- Size and style options
- A variety of applications
- Over 10 models to choose from
Americana - Compressor Refrigerators

DMC2641/DMC2642/DMC2841/DMC2842

- 6 or 8 cu. Ft. capacity
- Fits the same cutout dimensions as similarly sized Americana absorption models
- Powerful, efficient, variable-speed compressor cooling
- Increased storage space
- Smooth internal surfaces for easier loading & cleaning
- Bright LED illumination
- Electronic controls positioned at eye level
- Three operational modes to meet your needs: Standard, Silent/Eco, and Power
- Models available in 115VAC or dual-voltage 115VAC/12VDC
**RM1350 XXXXX**

- 13.5 cubic ft.
- Optional water/ice in door or ice maker
- Pass through freezer
- Automatic Frost Reduction
- Automatic or manual door lock

**RM1350 SLM**

- Reduced install depth by 2”
- Vacuum Panels
- New gaskets with winged edges

Digital Display at the upper right hand corner of the unit will display modes of operation and average Fresh Food temperature.
New Generations 3762 & 3962

**RM3762**
- 7 cubic ft.
- 53 ¾ x 23 11/16 x 24 (recess dimensions)
- Direct replacement for RM2652 and RM2662

**RM3962**
- 9 cubic ft.
- 62 63/64 x 23 11/16 x 24 (recess dimensions)
- Digital read out
- Optional icemaker
- Auto climate control
- Auto low ambient control

DOMETIC
DMR702
Renaissance

- DMR702 (flat surface)
- DMC702 (curved surface)
- 7 cubic ft.
- Direct replacement for RM2652 and RM2662
- 53 ¾ x 23 11/16 x 24 (recess dimensions)
- Plastic coated shelving
- Blue/White LED interior light
- Upper controls between freezer and fresh food

Residential Style Grab Handles

Blue Interior Light

White Interior Light

White Light Replacement:

4450010552
8-Series

• 3.7 Cu. Ft or 4.3 Cu. Ft
• Manual and Automatic energy selections available
• Removable Freeze Compartment

Interior Lighting/Locking Mechanism

Upper Control Panel
Absorption System & Proper Installation

Mobile living made easy.

DOMETIC
Compressor vs. Absorption Refrigerators

- Compressor units will create more noise than silent absorption systems
- Controlled environment vs. changing environment
- Initial cool down period is longer on absorption than compressor
  - Absorption units should pre-cool for 24-48 hours before use
- Recovery time is vastly different
  - 30-45 minutes for a compressor refrigerator
  - 1-2 hours for an absorption refrigerator
- Ventilation requirements differ
  - Compressor units can run without the need to vent outside
  - Absorption systems will need to have upper and lower outside vents
- Power/operating sources differ
  - Absorption offers the possibility to operate off of 120V, 12V, or Gas
  - Compressor units will mostly operate on 120V with some 12V options
- Standards are different - FDA vs. ANSI
The Absorption System

Solution is made up of a unique formula including:

- Ammonia
- Water
- Hydrogen
- Rust Inhibitor
  - Sodium Chromate
Cooling Unit Sequence:
Other than the mixture moving from gas to liquid, the cooling unit has no moving parts and is a silent system.

Three Criteria have to be met:
• Unit Must Be Level
• Proper Ventilation
• Heat Source (Gas/Electric)
Verify the Refrigerator is Level

Use a bubble level in the freezer and level the RV to the fridge.

Leveling the fridge as much as possible will maximize cooling and prolong the life of the unit.

Tolerances are as follows:

3° Left to Right
6° Front to Back

This is refrigerator leveling, not the vehicle.

Running the unit out of level for too long is one way blockages form in the cooling unit.
Does the unit have to be level during travel?

It is not critical to level the refrigerator while the vehicle is moving. The rolling and pitching movement of the RV helps keep the refrigerator operating efficiently.
Ventilation

Make sure that you check ventilation and air flow

- 0” clearance on the sides and top. Any open air space on the top, left, or right side of the unit should be filled with insulation.
- No more than 1” from the back of the cooling unit to the sidewall. (A box baffle may need to be installed to help direct air through the coils).
- If there is an auxiliary fan, check that it is working properly and installed in the correct position.
Airflow over the Condenser Fins is **Critical!**

- Warm Air Out
- Cool Air In
- Upper Vent
- Lower Vent
- Slide out Installation w/ two side wall vents
- Box Baffles created to assist with air flow
- Roof Cap Ventilated

Box Baffles created to assist with air flow
Installation with Roof Cap

When a Box Baffle is needed to keep the space between the cooling unit and the sidewall 1” or less, the box should start at the top of the Lower Sidewall vent and lead up and past the upper Condenser Fins.

The Box Baffle can also be installed as such that it would lead up to within ½” – ¼” of the bottom of the upper Condenser Fins.

These types of installations maintain airflow and force air up and through the Condenser. Too much open air space between the Cooling Unit and the Sidewall would allow warm air to collect and become stagnant.
Slide Out Installation with Two Sidewall Vents

All installations with two sidewall vents must have at least one ventilator fan. Two fans for the RM1350 (Can be up to 4 fans).

Extending off of the Box Baffle should be a “False Wall” leading up to within ¼” – ¼” of the bottom of the Condenser Fins. This will maintain good airflow up and force the air through the upper fins.
Improper Ventilation

Too much open air space on the top side of the fridge will allow warm air to collect, become stagnant, and overheat the unit.

The “false wall” baffle is also too far up in this installation. It should lead to 1/4” - 1/2” away from the bottom of the fins, not pass beyond them.
Improper Ventilation

Excessive Insulation

Remember: The key to airflow is that the air not only gets to the upper condenser fins but can pass through the fins and out of the upper vent.
Improper Ventilation

Several things incorrect with this example:

- Condenser fins are so high up within the cutout that air cannot pass through and out of the vent. (There is a fix for this on the next slide.)
- Too much open air space on the sides allowing warm air to collect and overheat the unit.
- Ventilator fan is installed too high. Should be located in the middle of upper and lower vents.
- Missing “false wall” or baffle box extension leading up to within ¼” – ½” of the bottom of the condenser fins.
The correction for the upper fins located so high up within the side wall cutout in the previous slide would be the following…

Make sure the “False Wall” baffle is high enough, again ¼” – ½” from the bottom of the condenser fins.

…since the air cannot pass through the condenser fins, fans should be installed at the upper vent to pull the air off of them.

Be sure the fans are blowing the right direction. They should be blowing out, pulling the air off of the fins, not blowing in which would fight the middle ventilator fan.

Correct!

Incorrect!

Correct!

Incorrect!

Make sure the “False Wall” baffle is high enough, again ¼” – ½” from the bottom of the condenser fins.
In the example to the left, it appears as though this fridge is installed well enough to work in mild conditions (50-70 F).

It is missing a “turning vein” though and would probably not be able to vent well enough on very warm days (80-100 F)...

...however, looking at the same fridge from a different angle, we now see there is a large gap between the top baffle wall and the fridge. This would allow warm air to collect on the top of the fridge and in turn overheat the unit since the environment is not being controlled around the top.
Proper Ventilation

Baffle “False Wall” installed to within $\frac{1}{4}$ - $\frac{1}{2}$ inch of condenser fins.

“Turning Vein” installed above the condenser fins to help deflect air out.
Pre-installed Ventilator Fans

Pre-installed Fans Part Numbers
- 3” fan size
- P/N 3851183016 fan only
- 8 series
  - Limit switch P/N 2412906204

Requirements
If the refrigerator is installed in a slide room it must have 1 fan.
RM1350 installed in a slide room must have 2-4 fans.

Limit Switch
These fans are controller by a limit switch that will open and close at specific temps.
After Market Ventilator Fans

Aftermarket Kits

• 5” fan size

• Will draw .5 amps each

• 3108705.751 for single door refrigerators
  • Fan limit switch will close at 105°F and open at 90°F
  • Limit switch only P/N 3104723.006

• 3108705.744 for double door refrigerators
  • Fan limit switch will close at 150°F and open at 120°F
  • Limit switch only P/N 3104133.016
Ventilator Fans

Upon complaints of fans being too loud or noisy.

First and foremost, fans are a moving part and will always make some noise. Use your best judgment, if a fan is excessively loud, it will be one of two things, either the fan bearings have gone bad and the complete fan will need to be replaced, or the fan is vibrating against the mounting bracket.

If it is a vibration issue, simply install some rubber washers/grommets between the fan casing and the mounting bracket to absorb the vibration. NEVER install an on/off switch for the customer. This will void the warranty.
Heat Source

• During operation check the AC amp draw of the element.

• When testing the cooling unit, test on the AC side. There are too many variables when testing on LP.

• Measure the ohms value of the heating element at room temperature.

• Never OVER or UNDER size your heat source!

• It is okay to have wiggle room up and down – not side to side.
Proper Cooling Unit Testing

Before going any further in diagnosing a fridge that has a complaint of not cooling properly, use your senses... See, Smell, Hear.

See:
• If you can see a visible leak on or around the cooling unit (yellow or green residue). In this case, clean the area if only a small amount is present (Sodium Chromate will dissolve in warm water), if the residue appears again overnight there is a compromise in the sealed system and the cooling unit will need to be replaced.

Smell:
• If there is a strong smell of ammonia present there is a leak within the cooling unit and it will need to be replaced.

Hear:
• If you can hear a “gurgle” sound coming from the cooling unit, there is a pin hole leak in the sealed system and the cooling unit will need to be replaced.

If any of these issues are present, your diagnosis is done. DO NOT perform any further testing, the cooling unit has been compromised and will need to be replaced.
Proper Cooling Unit Testing
Three Criteria have to be met:

**Leveling:**
- The unit must be level in order for the mixture within the cooling unit to cycle through and gravity feed down to repeat.

**Heat Source:**
- There must be a source of heat to boil the mixture in the cooling unit to have the proper heat transfer. We require testing to be done on the AC side, not LP.

**Ventilation:**
- The proper clearances and baffling must be in place in order to have good air movement over the coils, through the condenser fins, and expel out of the upper vent.

Once these three criteria have been verified and met, if there is a complaint of the fridge not cooling properly, then we can move on to the **Cooling Unit Bypass Test**...
To Perform a Bypass Test of the Cooling Unit

**Americana/Americana Plus**
Disconnect the thermistor from the control board at P2 (with the thermistor unplugged no temperature is sensed, therefore, it will run continuously). This was designed intentionally so that if the thermistor fails the unit will get as cold as it possibly can since there are no error codes to display and warn the customer that the thermistor has failed.
To Perform a Bypass Test of the Cooling Unit

RM3762/RM3962/RM1350/ & DMR702

• RM1350 with water in the door—drain the bladder first

• Disconnect the thermistor from the control board. Connect a secondary test thermistor and let it hang out the lower sidewall vent to sense outside ambient temperature. This will trick the system to run “wide open” and never feel satisfied.

Note: This can only be done when the outside/shop ambient temperature is 50° F or warmer.
Cooling Unit Testing Continued

• Place a glass of water in the refrigerator along with a thermometer.
• Plug unit into 115 VAC and allow to run “wide open” for a minimum of 6 hours in the AC mode.
• Record the substance temperature in the refrigerator and the freezer compartments. (DO NOT record surface or air temps as this will not give an accurate average food temp.)
Results

Afer 6-8 hours check the liquid substance temperature

Industry (ANSI) Standards With Thermistor Plugged In

- 8 cubic ft. and larger should be 43°F or less at 110°F ambient temperature.
- 6 cubic ft. and smaller should be 43°F or less at 90°F ambient temperature.

After Running 6-8 Hours “Wide Open”

- Refrigerator compartment should be approximately in the lower 30’s, if there is not excessive heat and ventilation has been confirmed.
- Freezer compartment should be at 12° F or less. This is due to ice makers installed in Dometic fridge units. Ice makers will not call for ice unless it is 12° or less.
Electronic Components

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DOMETIC
Electronic Components

Upper Eyebrow Board/Control

3/5/6 Wire Harness
Universal Board
Integrated Ignition Board

Heating Element
Thermistor
Thermodisc Fuse
Thermal Melt Fuse
Sequence of Operation (Electric)

(F) Thermodisc Fuse

(U) Thermal Melt Fuse
Electronic Specifications

• A minimum of 10.5 VDC at terminal block for controls to operate properly (Max 22 VDC).

• Best directly from a battery, if not from the battery then filtered side of the converter.

• A maximum of 6 VAC ripple on the DC line (Dirty Voltage).

• A dedicated fused circuit – Nothing else tied into the circuit!
Thermistor

The function of the thermistor is to monitor the temperature inside the refrigerator box using resistance.

Symptom: Over cooling (low Ohms) or under cooling (high Ohms)

Check the ohms value of the thermistor. In a glass of ice water at approx. 34°F you should see between 8,500 and 9,500 ohms +/- 10%.

Note: NDA 1402 has a different value. At approx. 34°F you should see between 5,000 and 6,000 ohms +/- 10%.

Note: 8-Series also has different values. At approx. 34°F you should see between 26,000 and 27,000 ohms +/- 10%

Thermistor adjuster P/N 2932164011
Plugs in between the thermistor and board making it read 5° warmer, in turn, making the unit run about 5° cooler.
# Thermistor Ohms Values

If you are not able to test the thermistor in a glass of ice water, you can refer to this chart for the ohms resistance you should see at specific temperatures. Remember there is always a +/- 10% tolerance when testing ohms resistance.

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<td>88</td>
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<td>37.78</td>
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<td>38.33</td>
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<td>1494</td>
</tr>
<tr>
<td>40.00</td>
<td>104</td>
<td>1460</td>
</tr>
</tbody>
</table>
Thermistor Locations

**Americana & Americana Plus**
Far right fin, probe in the middle of the clip.

**RM1350/RM3762/RM3962**
Bracket on the left hand sidewall.

**DMR702**
Bracket below the second shelf on the back wall.

**8 Series**
Installed at far left fin on the bottom
Heating Element

The function of the heating element is to provide the boiler with a specific amount of BTU’s of heat

**AC Heating Element 6-10 cubic ft.**
- Ohms – Approx. 44 +/- 10% (At room temp.)
- Amps – Approx. 2.7 (During operation)
- Watts – 325

**Series AC Heating Element for Side by Side**
- Ohms – Approx. 34.3 +/- 10% (At room temp.)
- Amps – Approx. 3.5 (During operation)
- Watts – 420

**DC Heating Element (not shown) 6 cubic ft.**
- Continuity – yes or no
- Amps – Approx. 18 (During operation)
- Watts – Approx. 215

**Note:** Only use DC heating element when driving from location to location or to maintain temperature.
Climate Control “Frame” Heater
Prevents condensation around the frame

• Switched option on older models (up to roughly late 2008).
• Built in on all current models (since 2009).
• Heater is built into the frame.
• 0.5 amp
• 24 ohms +/- 10%
Low Ambient Temperature Control
Allows the refrigerator to cycle in cold temperatures.

- Switched option on older models
- Currently built into the RM3762, RM3962, RM1350, & Renaissance
- 0.5 amps & 24 ohms +/- 10%

Switched Models
- Turning the switch on allows the interior light to turn on, creating heat on the thermistor and causing the cooling unit to cycle. Prevents frozen foods from thawing.
Low Ambient Cont.

RM3762, RM3962, & RM1350

• Timed cycle. If no cooling for 30-45 minutes, a signal is sent to activate the interior light to create heat on the thermistor. Thermistor sends a signal to the control board to activate the cooling unit. Once the cooling unit is activated, the interior light turns off. Timer will reset at the end of the cooling cycle.

DMR702

• LED interior light = no heat. This model is equipped with a heater built into the lighting mechanism, which when activated, will create heat on the thermistor. Cycle is the same as the RM3762, RM3962, & RM1350.
RF Interference (Radio Frequency)

With symptoms of weird or erratic operation, and all other electronics test good, you will need to eliminate the possibility of RF interfering with the lower control board. To test, completely deaden the RV (unplug shore power and disconnect the batteries), bring an alternate 12VDC source to the back of the fridge and run the unit isolated. This will essentially bench test the fridge without the need to remove it from the RV. If the problem persists, replace the lower control board.

Examples of some appliances that can put off RF:

- DC Brush Motors (fans)
- LED/Florescent Lights
- Cell Phone Chargers
- CB & HAM Radios
- Water Purifiers
Electronics Testing – Works on LP

- Minimum of 10.5 VDC to maximum of 22 VDC
- Minimum of 9.6 VDC for initial opening of gas valve
- Upper control board will stay lit at 4 VDC, but no commands will be sent to the lower board
- Check incoming AC voltage – 120V +/- 10%
- Test Heating Element – Ohms & visual inspection
- Double check wiring – refer to wiring diagram
- Unplug the thermistor from the lower control board (P2) during lower board testing to assure unit is calling for operation

If all of the above tests within specifications and is correct but the problem is persistent, replace the lower control board.
Gas Components
(Except 8-Series)

- Gas Valve Solenoid
- Orifice
- Burner Housing
- Burner
- Manual shut off and test port
- Thermocouple
- Electrode
- Igniter
- Spiral Baffle
Sequence of Operation (Gas)

(F) Thermodisc Fuse

(U) Thermal Melt Fuse
Gas Solenoid

The function of the gas solenoid is to allow gas to flow through the gas valve assembly.

Symptom: Check light or no LP (gas)

- Needs at least 9.6 VDC to open
- Ohms: 49 +/- 10%
Manual Shut Off Valve & Test Port
The gas valve is responsible for allowing gas to the burner chamber

Symptom: Check light or no LP (gas)
• Check the manual shut off valve
• Horizontal = open
• Vertical = closed

Test Port: When checking the gas pressure in the system always check at the gas valve test port.
Orifice

The orifice provides a pre-determined amount of gas to the burner.

• The orifice has a man made ruby inset that allows LP to mix with air in order to get combustion.

Symptom: Check light or no LP (gas)

• Check to make sure orifice is the correct size
  • Only authentic Dometic parts should be used, otherwise voids the warranty.

• Check the orifice for debris.
  • The smell of LP attracts many insects; nats, flies, mud daubers, spiders, ect…

• Use **ONLY** alcohol based solvent to clean.
  • **DO NOT** blow compressed air or stick anything into the ruby.

• Soak in solvent & allow to air dry.
Re-Igniter

The function of the re-igniter is to sense resistance through the flame between the electrode and the burner

• No flame = high resistance, causing the igniter to spark.
• Flame lit = decreased resistance, causing the igniter to stop clicking (flame rectification)
• 12V transformer, puts out 17K volts

Symptom: Check light or no flame. No sparking sound or continuous sparking sound.
• Verify voltage at + yellow and – black (ground)

Note: 2 versions, igniter on board or separate.
Electrode

The electrode passes the spark to the burner to ignite the fuel

Flame Rectification

Symptom: Check light or no spark

• Check for cracks or breaks in the ceramic
• Check for moisture
• Make sure it is in the proper location
  • 3/16 above the 3rd slot on the burner (thickness of a nickel)
Thermocouple

The thermocouple tells the circuit board that a flame is present

• Not used on units with an integrated board

Symptom: Check light or won’t stay lit

• Millivolts test while in flame, should produce 25 to 35 negative millivolts.

• Thermocouple will sense a lack of flame at approx. 18 millivolts.
Flue Tube & Flue Baffle

The flue baffle helps slow the process of heat rise in the flue tube. The flue tube is where heat is transferred to the boiler at the weld point.

Symptom: Cools on 110 but not on LP

• Check that baffle is present (new baffles do not come with replacement cooling units)
• Clean flue tube/baffle of carbon build up
• Check water column (gas pressure)
Troubleshooting A Check Light

- **DC power supply** – If DC voltage drops below 9.6 VDC
- **AC ripple on DC line**, max of 6 VAC (dirty voltage)
- **Gas Supply** – Low pressure (less than 11” water column), or failure of a gas component.
- **Grounds** – Often a bad or loose ground can cause a check light. Disconnect and re-strip new grounds at:
  - Lower Control Board
  - Gas Valve
  - Convertor
If a lower control board has recently been replaced and the check light comes on at start up, review the wiring diagram and installation instructions of the new control board. In some cases a wiring harness needs to be replaced and a ground wire need to be removed.

P3 harness needs replaced and ground removed on old board

New universal board wiring
Americana & Americana Plus

Mobile living made easy.
The function of the upper control board is to send commands to the lower control board.

- Upper Boards are interchangeable between standard Americana and Plus.
- Automatic or adjustable.
- 2-way or 3-way.

Americana - 2-Way

Americana Plus - 2-Way

Americana Plus - 3-Way
5/6 Wire Harness

Allows communication from the lower control board to the upper control board

- Test Harness by unplugging from P1 and checking continuity through each wire to chassis ground.
- Test communication with the harness plugged into P1 at the lower board.
- Turn on refrigerator.
- Check DC voltage at the 5/6 wire harness plugged into the P1 terminal on the lower board.
- Check from - red to + orange (power up to the eyebrow).
  - Note: If no voltage, check 3 amp fuse and also power at terminal block.
- Check from - red to + green (gas down) and - red to + black (electric down).
Lower Control Boards

- 2 & 3 way compatible
- Uses a separate relay for DC heater
- 3 try ignition system
Universal Lower Control Board

- **P2** - Thermistor Harness (2 Pin)
- **P1** - 5/6 Wire Harness (comm)
- **J9 & J10** - Grounds
- **J1** - 12VDC + from battery
- **J2 & J3** - Interior Light & Frame Heater
- **J4** - Negative Thermocouple Lead
- **J5** - AC Line (incoming)
- **J6 & J7** - AC Neutral in & to Heater
- **J8** - AC Output to Heater
- **P3** - Gas Valve Relay (Ground)
- **5 AMP 120V Fuse**
- **3AMP 12V Fuse**
Integrated Ignition Lower Control Board

- P1 – 5/6 Wire Harness (comm)
- P2 - Thermistor Harness (2 Pin)
- 3AMP 12V Fuse
- P3 - Gas Valve Relay (Ground)
- Integrated Built in re-igniter
- 5 AMP 120V Fuse
- J10 Ground
- J2 - Interior Light & Frame Heater
- J4 - 12VDC + from battery
- J5 – AC Line (incoming)
- J6 & J7 – AC Neutral in & to Heater
- J8 – AC Output to Heater
Mobile living made easy.

RM3762
RM3962
RM1350
&
DMR702
3 Wire Display Harness

- **Positive**, negative & communication

- Test for continuity on the **brown** communication wire

- Test for power on the + **red** and - **black** wire at the upper control board

- With both ends (top and bottom) unplugged, check each wire to chassis ground to verify the harness is not grounded, you should not have continuity
## LED Display Panel

<table>
<thead>
<tr>
<th>LED PANEL INDICATIONS</th>
<th>STATUS INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display is on</td>
<td>Refrigerator on</td>
</tr>
<tr>
<td>Display is off</td>
<td>Refrigerator off</td>
</tr>
<tr>
<td>The AUTO indication dot is lit.</td>
<td>AUTO mode and AC operation</td>
</tr>
<tr>
<td>The AUTO and LP indication dots are lit.</td>
<td>AUTO mode and LP gas operation</td>
</tr>
<tr>
<td>The AUTO indication dot is lit. LP indication dot flashes slowly.</td>
<td>Temporary gas lockout function. Only in AUTO mode. It delays LP gas operation by 15 minutes when ignition switch is turned OFF. This is for stopping at a refueling station.</td>
</tr>
<tr>
<td>The LP indication dot is lit.</td>
<td>Manual LP gas operation mode.</td>
</tr>
<tr>
<td>Digits e.g.</td>
<td>Fresh food temperature.</td>
</tr>
<tr>
<td>Note: Fresh Food temp is an average over time – not actual</td>
<td>Thermostat range setting indication (1 - 5). Temporary during setting. The thermostat settings are stored automatically after 5 seconds of inactivity.</td>
</tr>
<tr>
<td>Message indications:</td>
<td></td>
</tr>
<tr>
<td>“60” is displayed.</td>
<td>Fresh food compartment temperature is above measurement range.</td>
</tr>
<tr>
<td>“LP” is flashing (The message alternates between “LP” and the fresh food compartment temperature.)</td>
<td>LP gas operation lock out. (Check LP gas.)</td>
</tr>
</tbody>
</table>
Lower Board (Hydra Board)

Single Try Ignition

Thermistor Harness (2 Pin)
- Blue
- Brown

Three wire comm harness.
- 12+
- 12-
- Comm.

3AMP 12V Fuse

Electrode Wire

5AMP 120V Fuse

AC Heating Element (line & neutral)

12+ Output Interior Light
12+ Output Frame Heater
LAC Heat Output

12V+ supply input
12V- Ground
Gas Valve solenoid low side output

Eight Wire 12V
1. DC relay (current sink)
2. 12V Out to Safety Link
3. 12V Return from Safety Link
4. Gas Valve solenoid high side output
5. D+ supply input
6. Gas Valve solenoid low side output

AC 120V (line & neutral)

3AMP 12V Fuse

12+ Output Interior Light
12+ Output Frame Heater
LAC Heat Output

Dometic
Error Codes (RM3762, RM3962, & RM1350)
Reset by disconnecting 12 VDC power for 5 minutes

• **E0** – No communication between display & power module
  • Test 3 wire harness. Make sure you have continuity and good contact. Check each wire to chassis ground
  • Clean all grounds
  • Try straight-line DC voltage and deaden the coach (this will eliminate interference or RF [Radio Frequency])
  • If problem continues, replace lower control board

• **E1** – Hardware fault in the gas operation system
  • Test gas solenoid
  • Clean all grounds, Lower Board, Gas Valve, & Convertor. E1 error codes are often due to loose or bad ground connections
  • Test wire harness and upper control board
  • Try straight-line DC voltage and deaden the coach
  • If problem continues, replace lower control board
Error Codes Cont.

• **E2** – A failure of the temperature sensor or associated electronic circuitry has occurred.
  - Make sure the thermistor is plugged in
  - Test thermistor by taking an ohms reading
  - Test each wire to chassis ground
  - On rare occasions the lower board cannot detect the thermistor

• **E3** – Overheating thermostat is disconnected/one of the two safety fuses has popped or lost continuity.
  - Trace 12V through both thermal and thermo fuses to find where the break is
  - Check for poor ventilation
  - If happening on AC only, make sure the heating element is in the pocket. Also try rotating the flue shielding to move the sensor further away from the heating element.
  - If occurring on both modes, replace the thermo disc.

• **E4** – DC voltage out of range. Below 8 or above 18 VDC
Error Codes – DMR702

The DMR702 uses the same lower control board as the New Gen. (RM3762, RM3962, & RM1350) but does not have the digital display in the upper right hand corner of the unit. It will display any error codes via the temperature bar as the lights blink in the following sequences...

<table>
<thead>
<tr>
<th>ERROR CODES</th>
<th>INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬤⬤⬤ E1</td>
<td>Disconnected gas valve or hardware fault in the gas operation system.</td>
</tr>
<tr>
<td>⬤⬤⬤ E3</td>
<td>Overheating thermostat is disconnected. Note: Could be 2 &amp; 3 or 1 &amp; 2 (only error with 2)</td>
</tr>
<tr>
<td>⬤⬤⬤ E2</td>
<td>A faulty temperature sensor device or a fault in the associated electronic circuitry has occurred. Make sure the sensor wire is connected.</td>
</tr>
<tr>
<td>⬤⬤⬤ E4</td>
<td>DC voltage is out of range (exceeds or drops below the limit values approx. 8-18V DC).</td>
</tr>
<tr>
<td>⬤⬤⬤ E0</td>
<td>No communication between display and power module.</td>
</tr>
</tbody>
</table>
Diagnostic Mode (RM3762, RM3962, & RM1350 Only)

To enter the diagnostic mode:
- Turn off the refrigerator
- Press and hold the TEMP SET button and then press the ON/OFF button
- Release the TEMP SET button
- Use TEMP SET button to toggle the list of functions step by step
## Diagnostic Mode (RM3762, RM3962, & RM1350 Only)

<table>
<thead>
<tr>
<th>Number</th>
<th>Test Function</th>
<th>Test Indication</th>
<th>Test Results</th>
<th>Test Results Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All outputs off</td>
<td>F</td>
<td>E 0 Communication Fault</td>
<td>The actual temperature at the sensor (°F)</td>
</tr>
<tr>
<td>2</td>
<td>Turn LAC heater on</td>
<td>L H</td>
<td>E 0 Communication Fault</td>
<td>0 N LAC heater on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Press the lamp switch. The lamp should still be on.</td>
</tr>
<tr>
<td>3</td>
<td>Turn AC heater on</td>
<td>A C</td>
<td>E 0 Communication Fault</td>
<td>0 N AC heater on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“ ” AC heater off, AC not available</td>
</tr>
<tr>
<td>4</td>
<td>D+ status (if D+ is connected) Not available on all models</td>
<td>D P</td>
<td>E 0 Communication Fault</td>
<td>0 N D+ high</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“ ” D+ low</td>
</tr>
<tr>
<td>5</td>
<td>Run gas (one attempt only)</td>
<td>L P</td>
<td>E 0 Communication Fault</td>
<td>E 1 Igniter &amp; valve off, gas hardware fault</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0 N Igniter &amp; valve on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F L Igniter off &amp; valve on flame detected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“ ” Igniter &amp; valve off, gas problem (check gas) (If flame is not ignited within 45 seconds)</td>
</tr>
</tbody>
</table>

© Dometic
8-Series
RM8
RMD
RML

Mobile living made easy.

DOMETIC
Refrigerators – 8-Series
RM8501/RM8505/RM8551/RM8555/RML8330/
RML8555/RMD8555

• Euro-style design
• Reduced weight – up to 10% less than preceding models
• Patented removable freezer compartment provides more room for refrigerated food
• Eye-level, backlit soft touch controls
• Fingertip door opening and locking
• No-heat, cool blue interior LED lights
• Full-width, radius doors with insert panel
• Flexible shelving system
• Covered crisper with two dividers
• Ergonomic door shelves with leak protection

OPT – AES automatic energy selection
OPT – Extra Slim RML8330

RMD8555 double door
Original 8-Series Display MES
(Manual Energy Selection)

Description of the Display:
1. Pushing the button ON/OFF and mode selection- button longer than 2 seconds = ON/OFF Pushing the button <2 Seconds = Selection next Mode (120V, 12V, GAS, Auto)
2. LED Fault indication
3. LED Mode-Indication
4. 5-step LED-Indication for inner temperature selection (5 LEDs = max. Setting)
5. LED-Indication for „Door locked“ (only for electrical lock) Option
6. Button for temperature selection
Description of the Display:

1. Pushing the button ON/OFF and Mode selection-button longer than 2 seconds = ON/OFF Pushing the button <2 Seconds = Selection next mode (120V, 12V, GAS, Auto)
2. LED Fault indication
3. Segment Mode-Indication:
   GAS = Gas mode
   12 = 12 V DC Mode
   120=120 V AC Mode
   Selecting the automatic mode, the display shows AU alternating gas, 12 or 120 (AU = automatic mode)
4. 5-step LED-Indication for inner temperature selection (5 LEDs =max. Setting)
5. LED- Indication for “Door locked“ (only for electrical lock)
6. Button for temperature selection
Operation of Original MES & AES

• **Interior Light**
  • MES - If the door is left opened, the light switches off automatically after 2 minutes.
  • AES – If the door stays open for longer than 2 minutes, there is an audible warning for approx. 15 seconds which repeats every 2 minutes.
    • There are two cylindrical magnets that would line up when the door is in the closed position. When these are not aligned correctly a signal is sent to the board to activate the alarm that the door is left open. One magnet is installed within the door itself and the other would be installed in a clip in the upper eyebrow area. In the event of the door alarm, verify the magnet in the eyebrow is still in its clip and possibly shim the door upward to sense the upper magnet better.

• **Dimming Function on the Operating Panel**
  • 10 seconds after the button has been pushed for the last time, the indication (LED) switches into the dim mode. The dim mode is reversed by pushing a button. The desired function is activated by pushing the button again.
Operation Cont.

• **Mode Selection**
  • To activate an operation mode (AC/DC/Gas/Auto) you will push the mode button until the LED next to the desired operation mode is lit.

• **Automatic Operation Mode**
  • Automatically chooses the best mode of operation available.
  • Priority: 1) 120 VAC  2) 12 VDC (only if D+ terminal is active)  3) Gas

• **Gas Mode Ignition**
  • The electronics will initiate a max of 3 ignition attempts in the following cycle:
    • 25 second ignition, if not ok, 2 minute ventilation break
    • 25 second ignition, if not ok, 2 minute ventilation break
    • 25 second ignition, if not ok, fault indicator LED and gas operation LED will flash.

• **Gas Lockout Function**
  • If operating in 12 VDC mode, and the D+ terminal is deactivated, the changeover to gas will be delayed by 15 minutes. Safety feature in case the customer is refueling.
Original 8-Series Power Module MES

- **X105**: 12 V Supply / - Wiring Recognition of heating element
- **X114**: Reed switch or alt. electric. Lock optional
- **X108**: Temperature sensor (NTC)
- **X110**: Connection burner control device (+/-, failure)
- **X111**: alt. 2. electric. Lock or reed switch optional
- **X109**: Lighting
- **J4/J5**: Frame heating
- **J1**: +12 V IN for heating element
- **J2**: +12 V Heating element
- **X102**: Heating element mains power AC
- **X101**: mains power inlet 120 VAC

**Fuse**: 1A (250V)

**Connection to Display**
8-Series MES Wiring

Should be black, white, violet →

Diagram showing wiring connections for the 8-Series MES, with labels for terminals and connections.
Original 8-Series Power Module AES

Fuse 1A (250V) for burner Control device

Connection to Display

Beeper

X105 = 12 V Supply / - Wiring
  Recognition of heating element
X114 = Reed switch or alt. electric. Lock optional
X108 = Temperature sensor (NTC)
X110 = Connection to burner control device
  (+/-, failure)
X111 = alt. 2. electric. Locks or reed switch optional

X106 = D+/Solar optional
X109 = Interior light
J4/J5 = Frame heating
J1 = +12 V IN for heating element
J2 = +12 V Heating element
X102 = Heating element mains power AC
X101 = Mains power inlet AC
8-Series AES Wiring

Should be black, white, violet →
8-Series Thermistor

- NTC Sensor (Negative Temperature Coefficient)
- Installed at far left fin on the bottom
- All operation modes (DC/AC/GAS) are controlled thermostatically

<table>
<thead>
<tr>
<th>Temp - °C/F</th>
<th>kOhms</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/32</td>
<td>27.7</td>
</tr>
<tr>
<td>5/41</td>
<td>22.29</td>
</tr>
<tr>
<td>10/50</td>
<td>18.07</td>
</tr>
<tr>
<td>15/59</td>
<td>14.74</td>
</tr>
<tr>
<td>20/68</td>
<td>12.11</td>
</tr>
<tr>
<td>25/77</td>
<td>10.00</td>
</tr>
</tbody>
</table>
8-Series Heating Element

3.7 CF AC
Ohms – 107
Amps – 1.13
Watts – 135

4.3 CF AC
Ohms – 76
Amps – 1.6
Watts – 190

DC Heater
Amps – 11 to 14
Ohms - .8 to 1.1
Watts – 130 to 170
Current 8-Series Display

AES
1. Power
2. 120 VAC
3. Gas
4. 12 VDC
5. Automatic
6. Temperature Selection
7. Fault Indicator Light

MES
1. Power
2. 120 VAC
3. Gas
4. 12 VDC
5. Temperature selection
6. Fault Indicator Light
Current 8-Series Display Connections

- Battery power supply (internal battery) connection
- P860 (P870) connection
- External operating display connection (only RMD 8XXX)
- NTC (temperature sensor) connection
Current 8-Series Operation

AES & MES

**Normal Operating Mode**

- The active buttons are backlit when pressed and go into dim mode after approximately 10 seconds. The backlighting is completely activated when pressed again; the function is initiated during the second press. An audible confirmation is made by the beeper for each button press.

**On/Off**

- The refrigerator is switched on using the on/off symbol; the button must be kept pressed for more than 1 second for the button to activate. The symbol is backlit when on.

**Energy Selection**

- The energy type is selected by pressing the respective energy type symbol button. The symbol lights after it has been pressed.

- When the automatic symbol is active, the automatically selected energy type symbol is also active.

- Auto mode priority selection: 1.) 120 VAC 2.) 12 VDC if D+ terminal active 3.) Gas
Operation Cont.

**Refueling Delay**
- After switching off the D+ signal, the changeover to gas is delayed by 15 minutes.

**Cooling Temperature Selection**
- Select the temperature using the 5 stage temperature symbol. The respective bars are lit (ex. Temperature level 3 = 3 bars from left to right are backlit).

**Interior Lighting/Door Open Check**
- The interior light is activated by opening the door. It is switched off by closing the door. If the door stays open for longer than 2 minutes, there is an audible warning for approx. 15 seconds, which repeats every 2 minutes.

**Fault Indicator**
- If the energy type is not available or 3 ignition attempts in gas operation were unsuccessful, the fault indicator flashes in parallel with the energy types symbol. An audible alarm also sounds for approx. 20 seconds. This alarm repeats every 30 minutes.
Internal Battery/Self Sufficient

• Gas operation with units that have the internal battery power supply option can only be activated if the external 12 VDC power supply is not available.

• If the unit is set to gas operation when the internal 12 VDC power supply is available and the external 12 VDC power supply fails, the unit automatically switches to internal battery power supply.

• The internal battery power supply consists of 8 AA batteries and has a service life of approx. 2 weeks.

• The self-sufficient operation also functions with 4 AA batteries and has a service life of 1 week.

Weak Battery Indicator (still approx. 10 hours operation possible)
• If the battery is weak, the beeper beeps every 15 seconds.
Current 8-Series Power Module

- Monitoring Electrode
- Ignition Electrode
- +/− 12 VDC Power Supply
- Heating Element
- +/− DC Heating Element Connection
- Lighting Output +/− 12VDC
- Solar Input
- +/− 12V and D+ Connection
- Gas Valve Connection
- Case Ground Connection
- Main AC Power Connection L/N
- AC Heating Element Connection
- Display Connection
- 12V Out

Dometic
289 0241-10
CE-0085 AU 0268

Typ: P-870
P670.2
145490000002
SN 1315000015

Display Connection
12V Out
# Current 8-Series Error Messages

<table>
<thead>
<tr>
<th>Fault</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 120V or under 95V tolerance</td>
<td>Fault LED flashing with plug LED; audible signal for 20 sec repeats every 30 min.</td>
</tr>
<tr>
<td>No 12V or under 10.5V tolerance</td>
<td>Fault LED flashing with battery LED; audible signal for 20 sec repeats every 30 min.</td>
</tr>
<tr>
<td>Gas empty or ignition attempt failed</td>
<td>Fault LED flashing with gas LED; audible signal for 20 sec repeats every 30 min.</td>
</tr>
<tr>
<td>Thermistor defective or removed</td>
<td>All temp bars flash; unit goes into mode of 45 min on / 15 min off</td>
</tr>
<tr>
<td>AC heating element defective (Unit will not be switched off)</td>
<td>Fault LED flashing with plug LED and all temp bars; audible signal for 20 sec repeats every 60 min.</td>
</tr>
<tr>
<td>DC heating element defective (Unit will not be switched off)</td>
<td>Fault LED flashing with battery LED and all temp bars; audible signal for 20 sec repeats every 60 min.</td>
</tr>
<tr>
<td>Door open longer than 2 min</td>
<td>Audible Signal for 20 sec and repeats every 5 min</td>
</tr>
</tbody>
</table>
Current 8-Series Service Mode

To enter the Service Mode:
With the unit turned ON, press and hold the temp set button and then hit the power button.

The third temp graph LED will light, release the temp set button and wait for the third temp graph LED to go out.

Hit the temp set button once more and the fault indicator light should illuminate solid (not blink) and you should now be in Service Mode.
## Current 8-Series Service Mode

<table>
<thead>
<tr>
<th>Step</th>
<th>Function</th>
<th>Display/Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activates the AC relay</td>
<td>Fault LED solid along with the 1&lt;sup&gt;st&lt;/sup&gt; bar on the temperature graph</td>
</tr>
<tr>
<td>2</td>
<td>Activates the DC relay</td>
<td>Fault LED solid along with the 2&lt;sup&gt;nd&lt;/sup&gt; bar on the temperature graph</td>
</tr>
<tr>
<td>3</td>
<td>Activates the Gas LED and internal gas safety software</td>
<td>Fault LED solid along with the GAS LED and the 3&lt;sup&gt;rd&lt;/sup&gt; bar on the temperature graph (in the event of a fault in the gas operation, the 3&lt;sup&gt;rd&lt;/sup&gt; temperature LED would not come on)</td>
</tr>
<tr>
<td>4</td>
<td>Activates all LED symbols to verify they are working</td>
<td>All LED symbols light up</td>
</tr>
<tr>
<td>5</td>
<td>Activates the DC relay only if D+ is active</td>
<td>Fault LED solid along with the 1&lt;sup&gt;st&lt;/sup&gt; &amp; 2&lt;sup&gt;nd&lt;/sup&gt; bars on the temperature graph</td>
</tr>
<tr>
<td>6</td>
<td>Activates the frame heater</td>
<td>Fault LED solid along with the 1&lt;sup&gt;st&lt;/sup&gt;, 2&lt;sup&gt;nd&lt;/sup&gt;, &amp; 3&lt;sup&gt;rd&lt;/sup&gt; bars on the temperature graph</td>
</tr>
<tr>
<td>7</td>
<td>Activates AC relay only if AC is present</td>
<td>Fault LED solid along with the 1&lt;sup&gt;st&lt;/sup&gt;, 2&lt;sup&gt;nd&lt;/sup&gt;, 3&lt;sup&gt;rd&lt;/sup&gt;, &amp; 4&lt;sup&gt;th&lt;/sup&gt; bars on the temperature graph</td>
</tr>
</tbody>
</table>
| 8    | Displays software version                                    | Version 6 = temperature bar graphs 3 & 4  
Version 7 = temperature bar graphs 3, 4, & 5  
Version 8 = temperature bar graph 2  
Version 9 = temperature bar graphs 2 & 5 |

After the last step (step 8) the system exits service mode
Current 8-Series Service Mode

1. Activates the AC relay
2. Activates the DC relay
3. Activates the Gas LED and internal gas safety software
4. Activates all LED symbols to verify they are working
5. Activates the DC relay only if D+ is active
6. Activates the frame heater
7. Activates AC relay only if AC is present
8. Displays software version
8-Series Gas Components
Burner Control Device

Includes:

• Igniter (20-30) seconds
• Flame control & flame failure device
• Gas valve control
  • Stops ignition and gas input in the event of a gas fault

Power Supply & Testing

• Approximately 1.3 VDC to activate
• Measure between pin 2 and pin 3 for voltage.

P810 used on original 8-Series

P860 – Current
8-Series Gas Valve Assembly

- 2 serial mounted gas valves
- Approx. 1.3-1.5 volts per valve (if switched on approx. 0.7-0.9 volts)
- Measure volts and resistance
  - Valve 1: Pin 1- Ground (Housing)
  - Valve 2: Pin 2- Ground (Housing)
  - 28.5 ohms +/- 10% per valve
Burner Assembly

1 - Igniting electrode (sparker)
2 - Ionization electrode (flame sensor)
3 - Ground contact on burner chassis
4 - Stamp style orifice
   • Check for soot and debris if not cooling on gas
Optional Ice Makers & Water Dispenser

Mobile living made easy.
Ice Makers

• All ice makers require 120 VAC to operate. Even though the freezer will get cold enough in gas operation, the ice maker will not operate unless plugged into a 120 VAC source.

• If working conditions are met, will dump approximately 5-6 times in a 24 hour period, making approximately ½ to ¾ of a bucket total.

• Allow refrigerator to pre-cool before starting the ice maker
Symptom: No operation/not making ice

- What is the temperature at the ice maker?
- Verify 120 volt power at the ice maker
- Verify bail arm is down
- Verify manual shut off valve is open
- Check water line for damage
Mold Thermostat

- Bi-metal switch.
- Starts an ejection cycle by closing at 12°F
- The reset temperature is 50°F +/- 5°.
- To test:
  - Put a glass of water or anti-freeze on the shelf by the ice maker. Take the temperature of the liquid.
  - Bypass the thermostat by turning the large white plastic gear clockwise a half of a turn and forcing the ice maker into a cycle.

To remove the protective cover from the ice maker mechanism. Using a flat-head screwdriver, place the tip of the screwdriver in the slot. Twist the screwdriver blade gently to loosen the cover.
Adjusting The Water Fill

- Turn screw as necessary toward the “+” or the “-” side.
- One FULL turn either way will make a 18cc change in the amount of water.
- Do NOT turn the screw more than one full turn at a time.
### Water Valves

**WID Single Coil Water Valve:**
Units that have Water Dispenser installed in the door will use a single coil water valve that is 12V operated and can be checked by measuring the ohms resistance.

| Ohms resistance | 14.4 +/- 10% |

**Dual Coil Water Valve:**
Units that have water at the door dispenser will use a dual coil water valve. Both Coils are 120VAC and can be tested by measuring the resistance.

<table>
<thead>
<tr>
<th>W1 - Blue</th>
<th>400 Ohms +/- 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>W2 - Red</td>
<td>200 Ohms +/- 10%</td>
</tr>
</tbody>
</table>
Icemaker Water Valve

- Valve is solenoid operated
- Ohms Resistance 200-500
- 10-15 watts will energize the coil
- When the solenoid is energized, a voltage drop may occur

Symptom: No water in mold. Have already manually cycled ice maker.

Test: Check ohms on solenoid coil, see if solenoid is energized when ice maker is calling for water.
Water & Ice Dispenser in Door

The water/ice dispenser built into the door is controlled by a separate module board. It not only controls the functions of the water and ice to be dispensed but also works as a safety shutoff for those operations if the door is opened.

### Troubleshooting Control Module:

#### Problem 1
The water or Ice paddle is pushed but nothing happens, the LED light is off.

**Action**
1. Remove the front cover of the dispenser and check that the paddle mechanism activates the tactile switch. The switch can also be checked by pushing it with a finger.
2. Remove the 2-pole Molex connector in the dispenser and check the voltage. It should be slightly lower than the battery voltage. If power is there, but still no function, replace front control unit.
3. Check the voltage on the copper tabs in the spring-loaded connector on the hinge side of the door.
4. Check the voltage at the 2-pin connector on the back control unit.
5. Check the system supply voltage at the 4-pin connector on the back control unit.

#### Problem 2
The water paddle is pushed but nothing happens, the LED light is on.

**Action**
1. Check the heater connection in the dispenser. The resistance of the heater should be 68 ohms +/- 10%.
2. Check the voltage on the water valve. If no voltage, replace the back control unit. If still no function, replace the front control unit.

#### Problem 3
The ice paddle is pushed but nothing happens, the LED light is on.

**Action**
1. Check the heater connection in the dispenser. The resistance of the heater should be 68 ohms +/- 10%.
2. Check the 5 amp fuse in the back control unit.
3. If fuse is OK replace the back control unit. If still no function replace front control unit.

#### Problem 4
The icemaker is not working

**Action**
1. Check the 5 amp fuse in the back control unit.
How To Drain The Ice Maker  
(for winterization)

- Close the shutoff valve
- Place a pan under the solenoid valve
- Remove the inlet fitting from the water solenoid valve
- Drain water from the water line
- Remove the plastic nut and water line from the outlet side, then drain.
- Cycle ice maker several times while blowing compressed air through the solenoid
  - Up to 40 PSIG
## ANY QUESTIONS?

<table>
<thead>
<tr>
<th>Department</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Department (Dealers Only)</td>
<td>1-800-366-3842</td>
</tr>
<tr>
<td>Technical Services (Dealers Only)</td>
<td>1-800-216-5115</td>
</tr>
<tr>
<td>Warranty Authorization (Dealers Only)</td>
<td>1-888-867-4188</td>
</tr>
<tr>
<td>Retail (Retail Customers Only)</td>
<td>1-800-544-4881</td>
</tr>
</tbody>
</table>

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