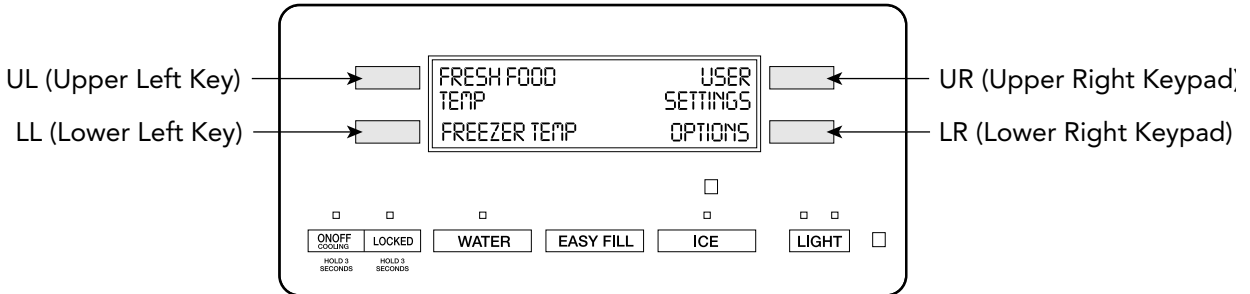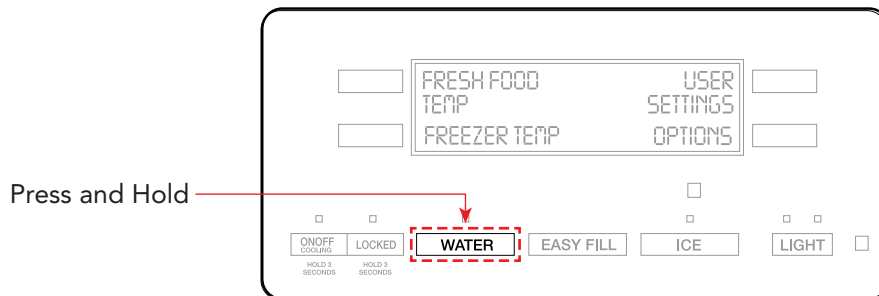## Main Control Menu

To access the main control menu, press any of the four touch pads located on either side of the display. Then, touch the pad next to the desired option or user setting to access the various features.
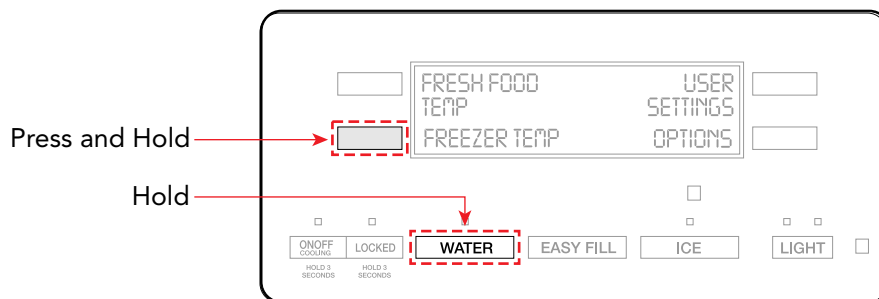
UL (Upper Left Key) ———→ ☐   FRESH FOOD   USER   ☐ ←——— UR (Upper Right Keypad)
                                TEMP   SETTINGS
LL (Lower Left Key) ———→ ☐   FREEZER TEMP   OPTIONS ☐ ←——— LR (Lower Right Keypad)

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS

Note: Press only the touch pads next to your selection on the display screen, not the screen itself.

## Entering Programming Mode

1. Press and hold the "WATER" button.

Press and Hold ———————→ FRESH FOOD   USER
                          TEMP   SETTINGS
                          FREEZER TEMP   OPTIONS

ONOFF COOLING | LOCKED | **WATER** | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS

2. Then press and hold the "LL" button. Both buttons are now being held in.

Press and Hold ———————→ ☐   FRESH FOOD   USER
                             TEMP   SETTINGS
                             FREEZER TEMP   OPTIONS

Hold ———————————————→   FRESH FOOD

ONOFF COOLING | LOCKED | **WATER** | EASY FILL | ICE | LIGHT
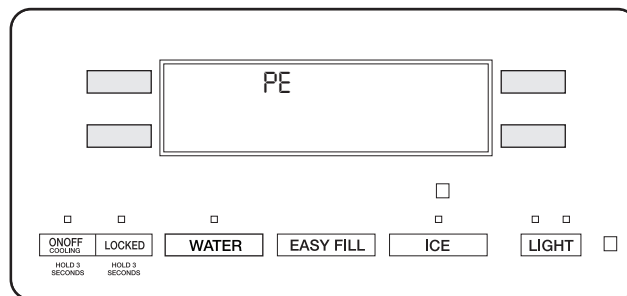HOLD 3 SECONDS   HOLD 3 SECONDS

Entering Programming Mode (continued)

3. While still holding the LL button, release the "WATER" button and wait 3 seconds.

Hold

Release
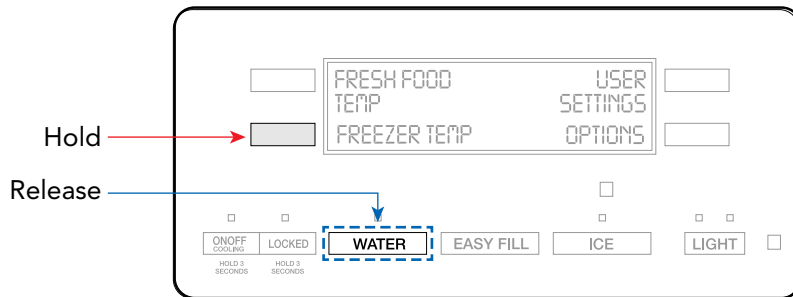
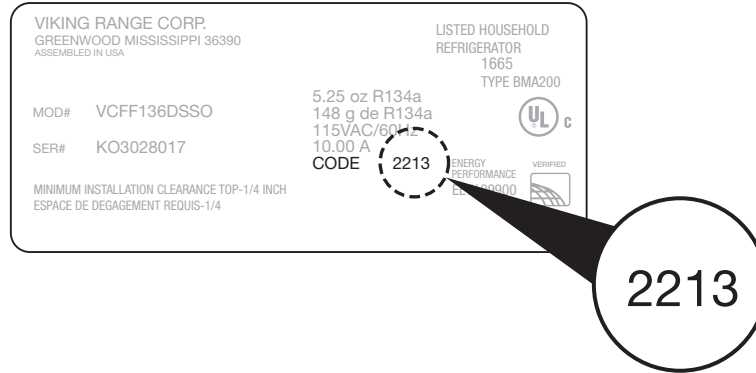4. When entered successfully, the letter PE will be displayed on the screen.

5. Entry is confirmed by pressing the "LL" button. There will be a number next to the PE and then on the right side of the display will be a three digit number. These four numbers are the current programming code for this unit. The example below shows code 2213.

   Note: There is a DOT under the first number. This will be explained later

Press
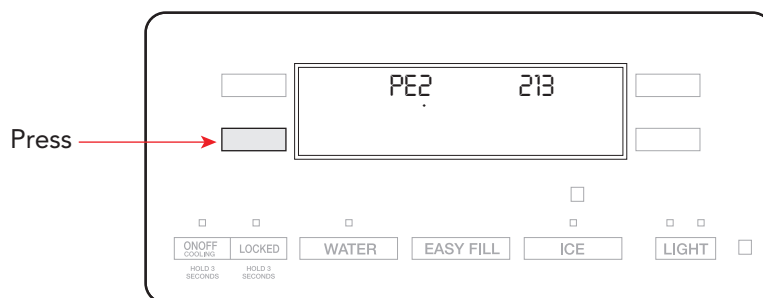
Entering Programming Mode (continued)

6. This code can be verified with the Program CODE printed on the unit serial plate as shown in the example below. The code in the display and the code on the data plate match.

VIKING RANGE CORP.
GREENWOOD MISSISSIPPI 36390
ASSEMBLED IN USA

LISTED HOUSEHOLD
REFRIGERATOR
1665
TYPE BMA200

MOD#   VCFF136DSSO

5.25 oz R134a
148 g de R134a
115VAC/60Hz
10.00 A

SER#   KO3028017

CODE   2213

ENERGY
PERFORMANCE

VERIFIED

MINIMUM INSTALLATION CLEARANCE TOP-1/4 INCH
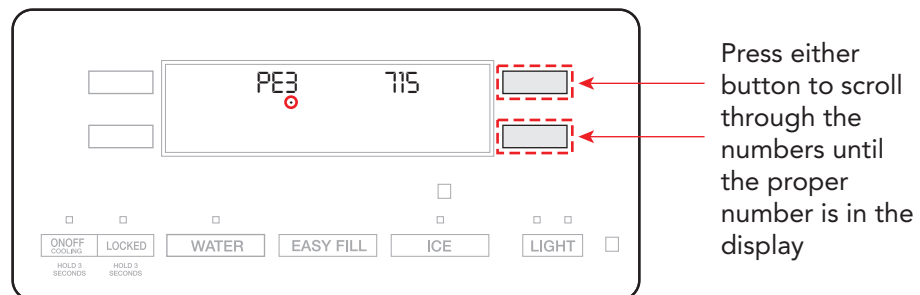ESPACE DE DEGAGEMENT REQUIS-1/4

2213

7. If the code does NOT match, you must enter the proper code into the controller. Below is an example of an improperly programmed controller. The code is showing 3715 which does not match the data plate above.

PE3   715

ONOFF   LOCKED   WATER   EASY FILL   ICE   LIGHT
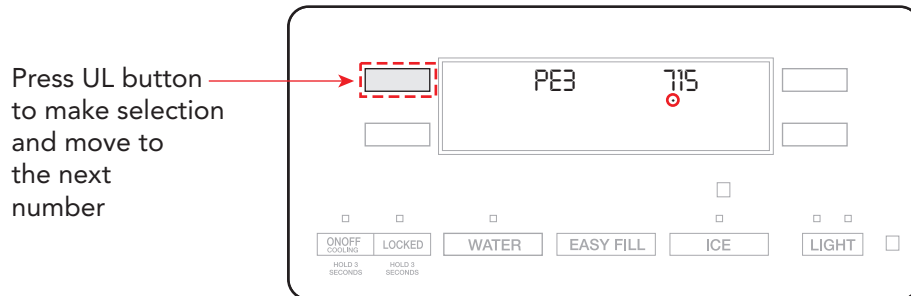COOLING
HOLD 3   HOLD 3
SECONDS SECONDS
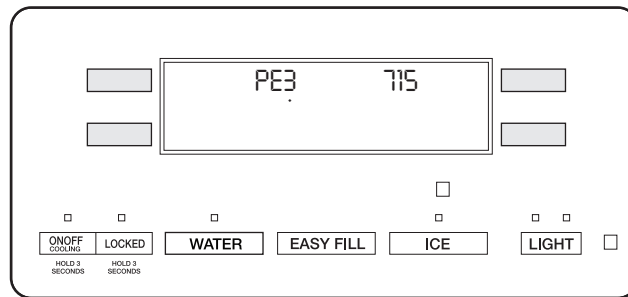
Incorrect code shown above

8. As mentioned before, the first digit has a dot below it. This indicates that the First digit is in programming mode. Using either the UR or LR buttons, this digit can be changed from 0-9.

PE3   715

ONOFF   LOCKED   WATER   EASY FILL   ICE   LIGHT
COOLING
HOLD 3   HOLD 3
SECONDS SECONDS

Press either button to scroll through the numbers until the proper number is in the display
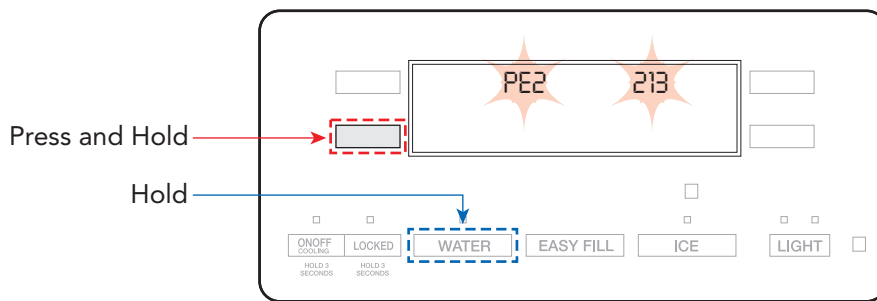
Entering Programming Mode (continued)

9. Once the proper first digit is in the display, depress the "UL" button to lock in the selection and move to the next digit. The example below shows the first number has been changed from "3" to number "2" and with the "UL" button depressed, the dot is now under the second digit "7".

Press UL button to make selection and move to the next number

PE3   715

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS

10. Continue to change the three remaining digits until the code on the display matches the code on the data plate. When you are finished, press and hold the "LL" button until the program code begins flashing. This indicates that the changes have been saved.

Press and Hold

Hold

PE2   213

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS

11. To EXIT the programming mode, press and hold the "WATER" button for three seconds. If not depressed, it will automatically exit after 4 minutes..

Defrost Operation

The Control Board adapts the compressor run time between defrosts to achieve optimum defrost intervals by monitoring the length of time the defrost heater is on. After initial power up, defrost interval is 4 hours compressor run time. Defrost occurs immediately after the 4 hours.
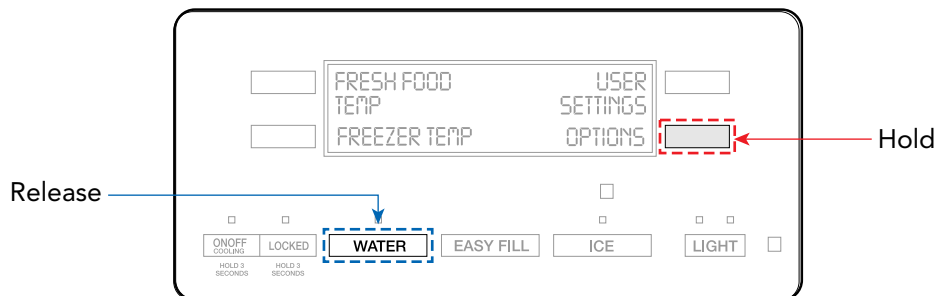
Entering Forced Defrost Mode

1. Press and hold the "WATER" button.
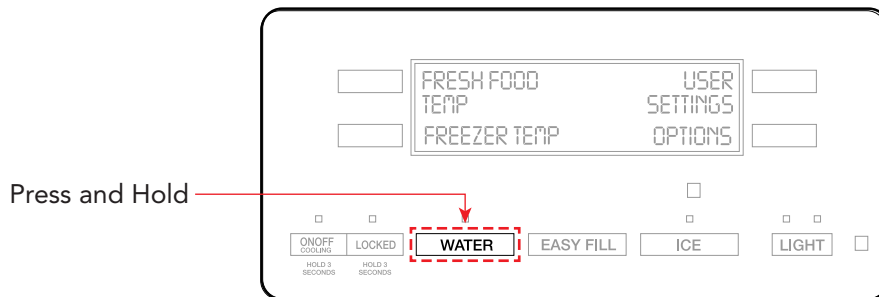
2. Then press and hold the "LR" button. Both buttons are now being held in.
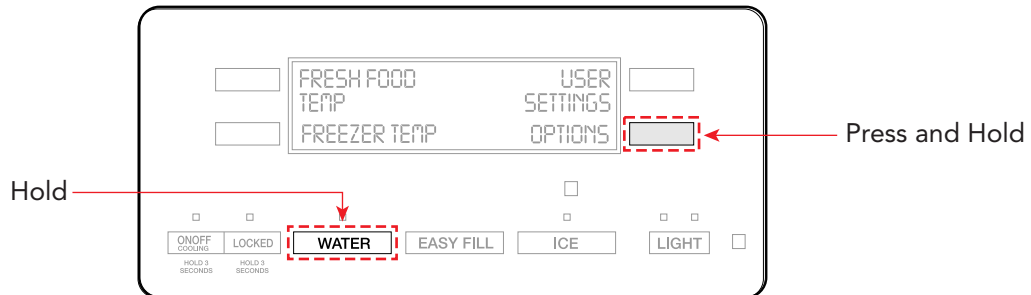
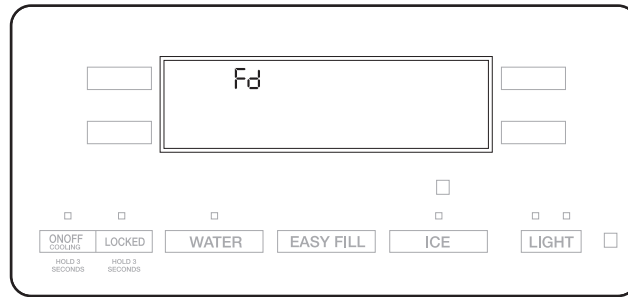3. While still holding the LR button, release the "WATER" button and wait 3 seconds.
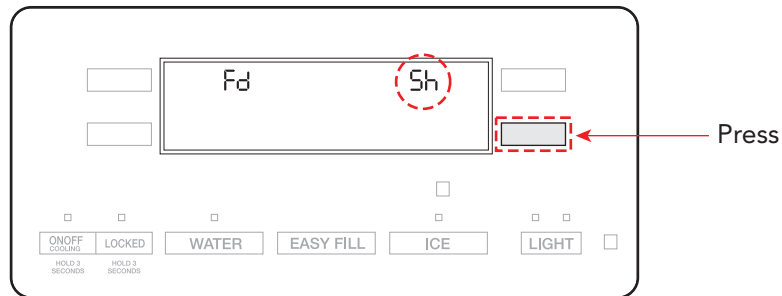
Entering Forced Defrost Mode (continued)

4. When entered successfully, Fd will be displayed on the left side of the screen.

5. Press the "LR" button again. Sh appears in right side of the display.

Press

6. Press "LR" again to force defrost.
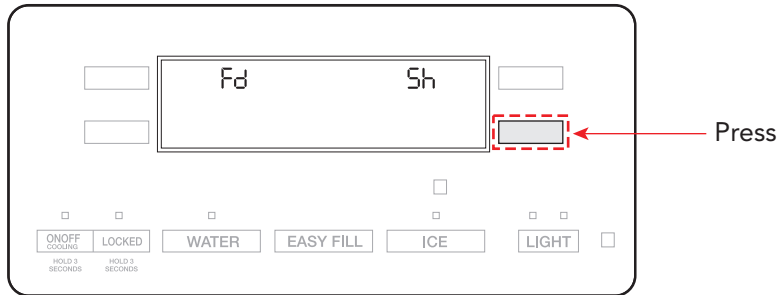
Press

7. Fd and Sh will flash in display indicating unit is in defrost.
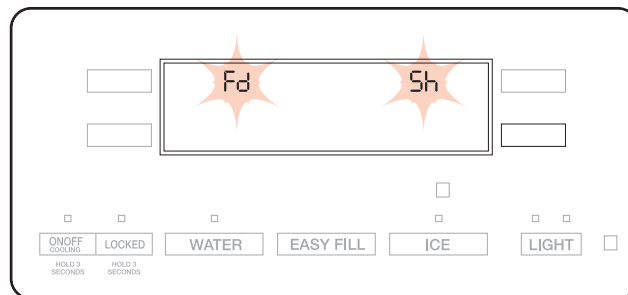
Entering Service Test Mode

1. Press and hold the "WATER" button.
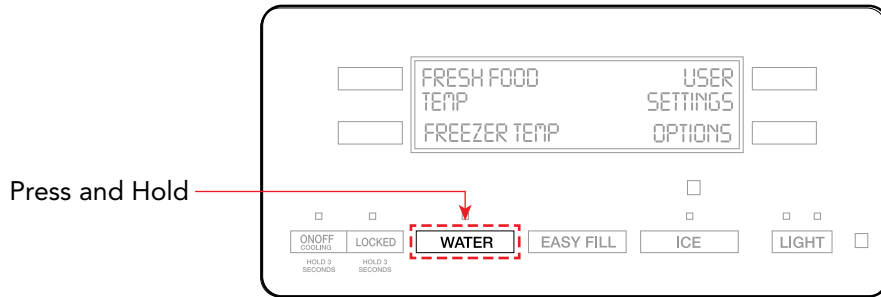
Press and Hold

2. Then press and hold the "UR" button. Both buttons are now being held in.

Press and Hold
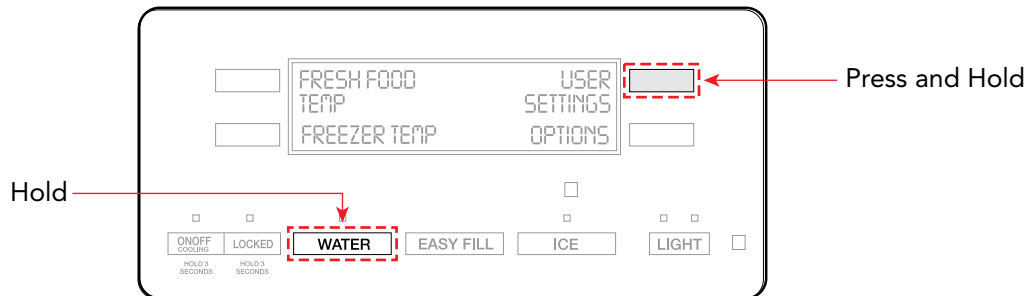
Hold

3. While still holding the UR button, release the "WATER" button and wait 3 seconds.

Hold

Release
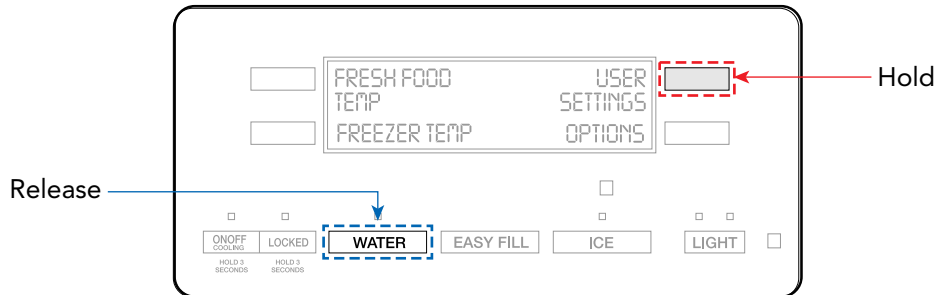
4. The display will show SE confirming entry in the Service Mode.
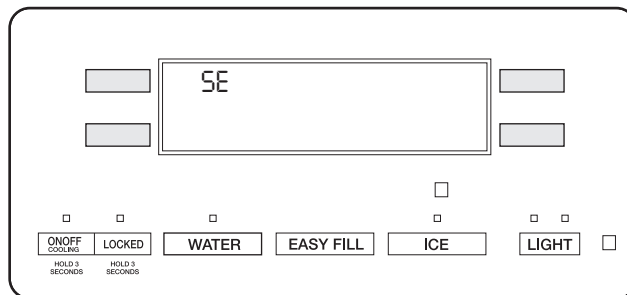
Entering Service Test Mode (continued)

5. Press the "UR" button again to confirm entry in the service mode.

Press
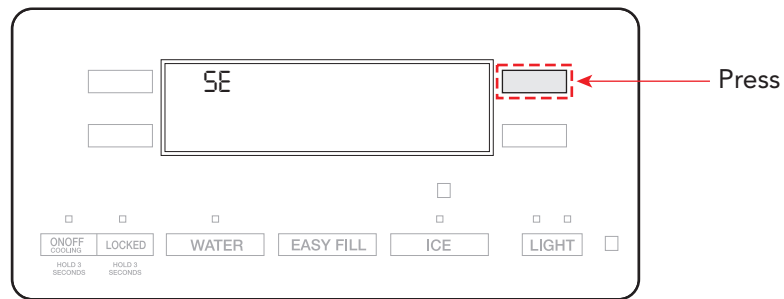
6. Display will show 101 in left display and numeric or dashes in right display.
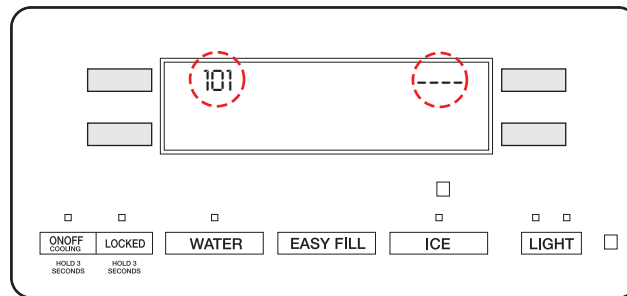
7. To exit service test mode, open and close refrigerator door or hold door alarm for 3 seconds.
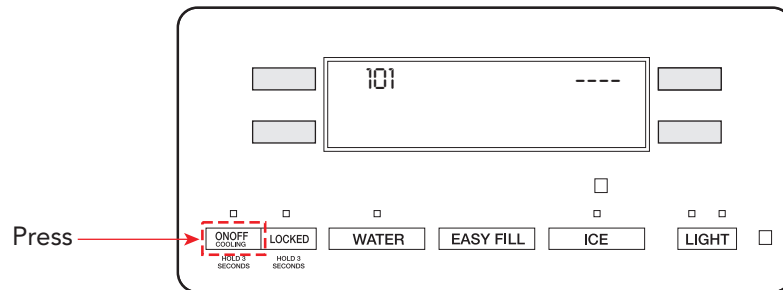
Press

Service Tests

When the test mode has been entered, the first test will be for the defrost test.

101 Defrost Heater and Defrost Circuit

Press either the UR or LR keypads to energize or de-energize the Defrost circuit. The display will read **OFF** when de-energized as shown below. **OP** when energized with open defrost thermostat and **CL** when energized with closed defrost thermostat.

Press either button to toggle through test cycles

101   OFF

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to cycle defrost ON and OFF
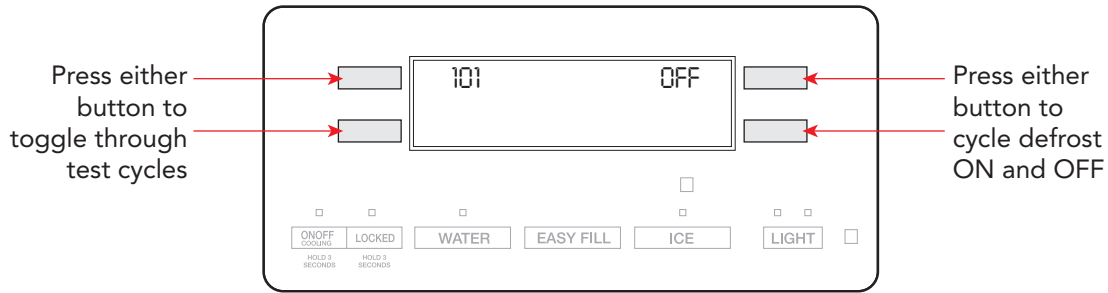
102 Compressor/Condenser Fan

Press the "UR" keypad or "LR" keypad to toggle Compressor/Condenser fan **On** and **Off**.

Press either button to toggle through test cycles

102   OFF

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to cycle compressor and condenser fan motor ON and OFF

112 Freezer Fan

Press the "UR" keypad or "LR" keypad to toggle Freezer Fan OFF, High or Low speed.
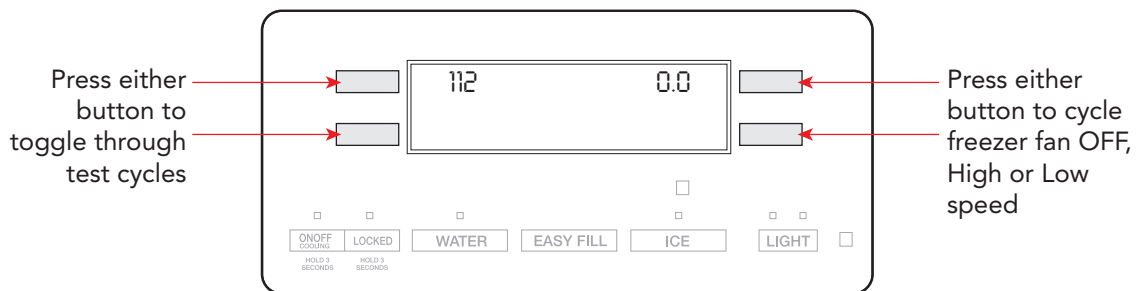
Press either button to toggle through test cycles

112   0.0

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to cycle freezer fan OFF, High or Low speed

Note: Display will show 11.0-14.0 volts for HIGH and 7.75-8.25 volts for LOW. When off 0.0 will be displayed.

Service Tests (continued)

113 Ice Compartment Fan
Press the "UR" keypad or "LR" keypad to toggle ice compartment fan OFF, high or low speed.
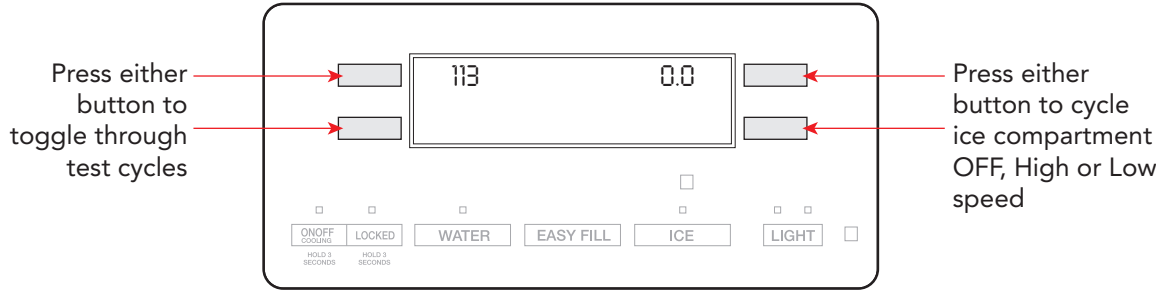
Press either button to toggle through test cycles

```
113            0.0
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to cycle ice compartment OFF, High or Low speed

*Note: Display will show **11.0-14.0** volts for HIGH and **7.75-8.25** volts for LOW. When off 0.0 will be displayed.*

121 Damper Operation
Press the "UR" keypad or "LR" keypad to toggle Damper **OP** (open) or **CL** (Closed).

Press either button to toggle through test cycles

```
121            OP
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either buttonto cycle Damper OPEN or CLOSED
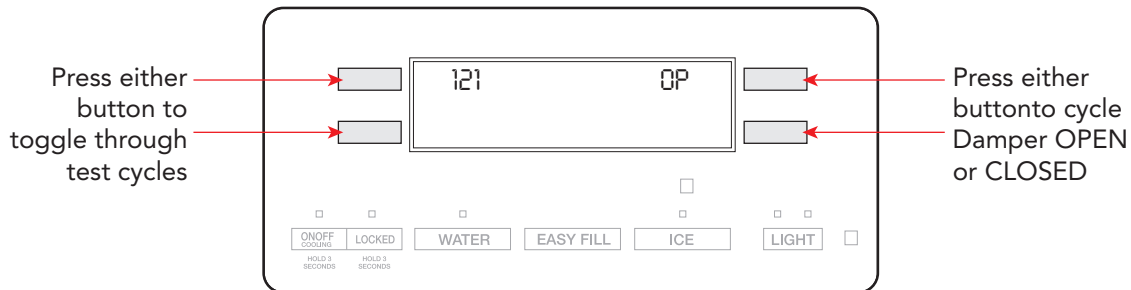
Note: When damper is opening or closing it will display–if damper state is unknown. It can also show *DP* if damper is moving when initially entering service mode.

131 Mullion Heater
Press the "UR" keypad or "LR" keypad to toggle Mullion Heater **Off** and **On**.

Press either button to toggle through test cycles

```
131            OFF
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to cycle Mullion Heater ON or OFF
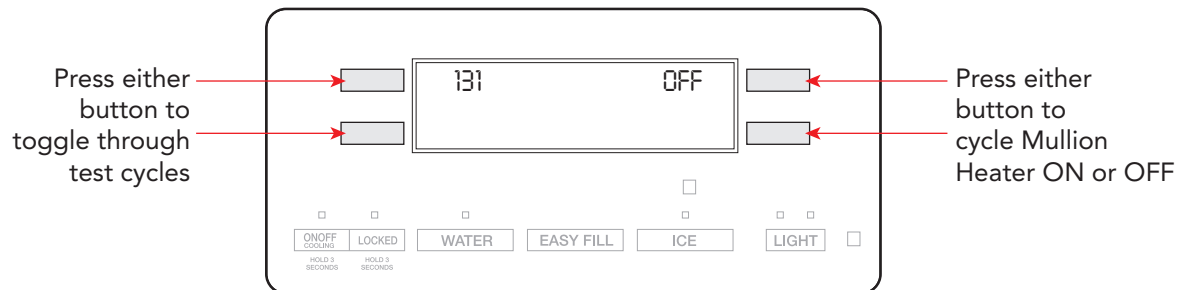
Service Tests (continued)

141 Fresh Food Thermistor
This test will check the temperature form the fresh food thermistor. You will see the actual temperature, **OP** for open thermistor, or **SH** for shorted thermistor.

Press either button to toggle through test cycles

```
141          41
```

ON/OFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Actual temperature in food compartment, OP, or SH
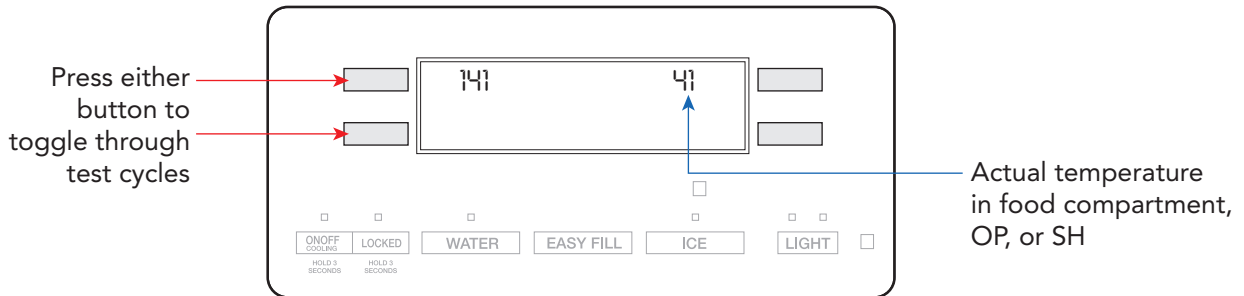
142 Freezer Thermistor
This test will check the temperature from the freezer thermistor. You will see the actual temperature, **OP** for open thermistor, or **SH** for shorted thermistor.

Press either button to toggle through test cycles

```
142          28
```

ON/OFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Actual temperature in freezer compartment, OP, or SH

144 Ambient Thermistor
This test will check the temperature from the outside temperate thermistor. You will see the actual temperature, **OP** open thermistor, or **SH** shorted thermistor.

Press either button to toggle through test cycles

```
144          70
```

ON/OFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Actual temperature outside the unit

Service Tests (continued)

145 Ice Box Thermistor
This test will check the temperature from the Ice Maker box thermistor. You will see the actual temperature, **OP** open thermistor, or **SH** shorted thermistor.

Press either button to toggle through test cycles

145   28

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
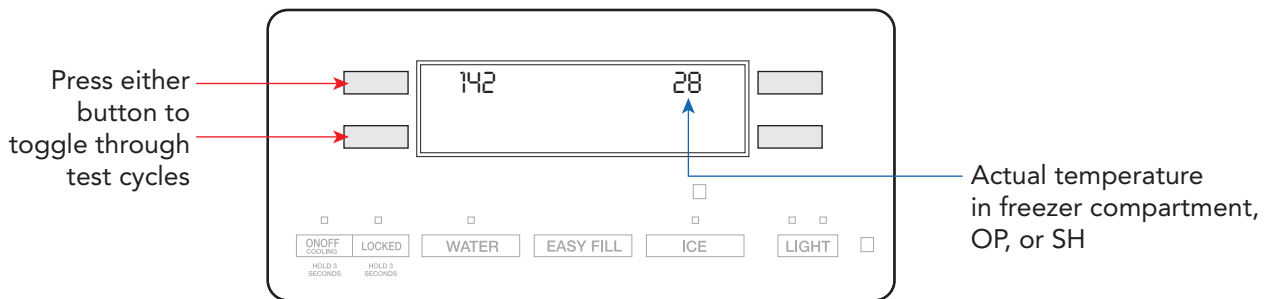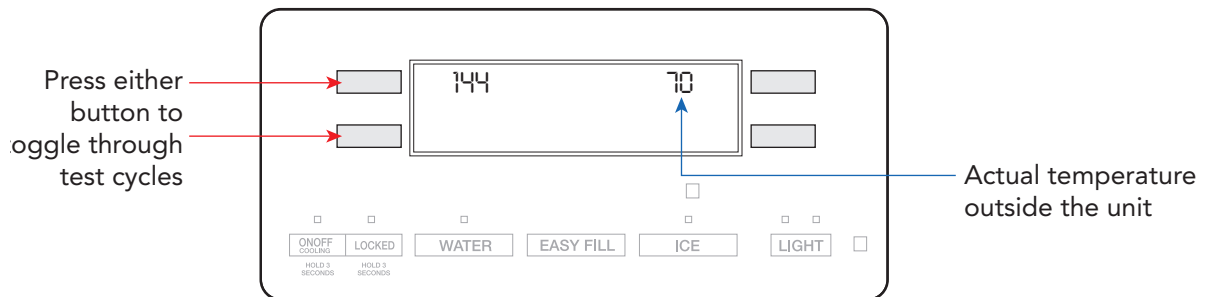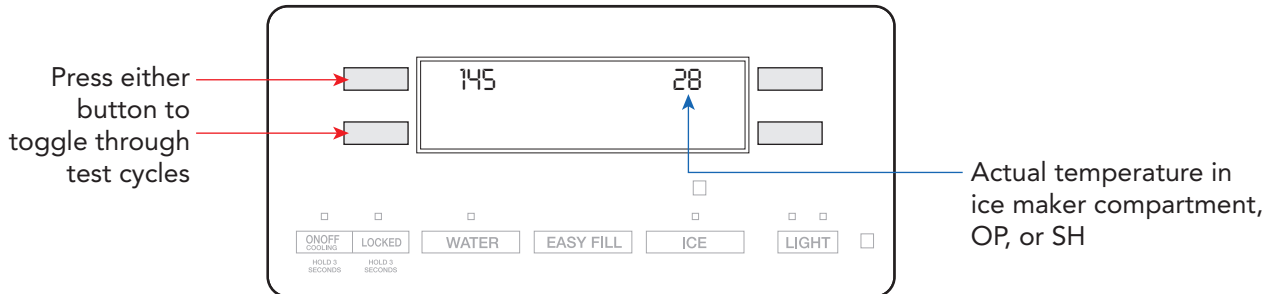HOLD 3 SECONDS | HOLD 3 SECONDS

Actual temperature in ice maker compartment, OP, or SH

151 Fresh Food Door State
This test will check the Fresh food door switches. When either door is open, the display should read **OP** (open) and when both doors are closed, the display should read **CL** (closed).

Press either button to toggle through test cycles

151   CL

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS
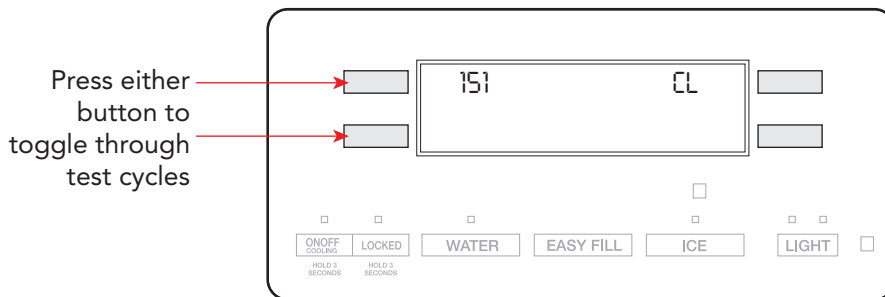
*Note: By pushing either fresh food door switches you can toggle state from **OP** (open) to **CL** (closed).*

152 Freezer Food Door State
This test will check the Freezer door switches. When the door is open, the display should read **OP** (open) and when the door is closed, the display should read **CL** (closed).

Press either button to toggle through test cycles

152   CL

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS
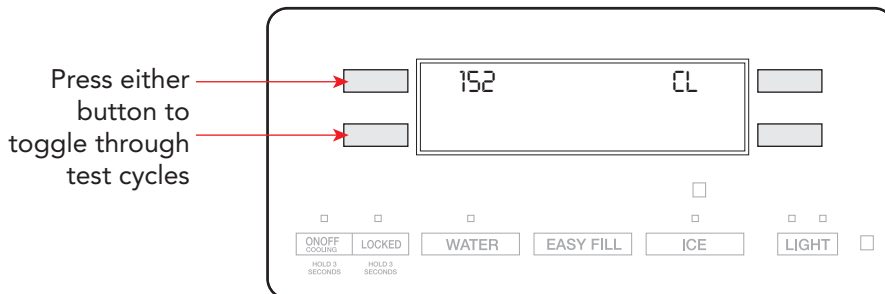
*Note: By pushing freezer door switch you can toggle state from **OP** (open) to **CL** (closed).*

Service Tests (continued)

153 Disable Internal Lights
Press the "UR" keypad or "LR" keypad to toggle (enable) En and (disable) dIS internal lights.

Press either
button to
toggle through
test cycles

153   En

Press either
button to
cycle internal
lights En or dIS

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS
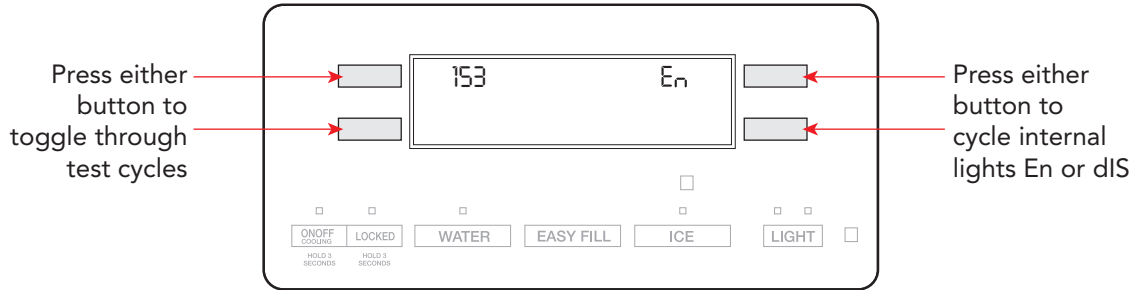
163 Water Dispenser
This test shows the state of the water dispenser valve (On or OFF).

Press either
button to
toggle through
test cycles

163   ON

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS
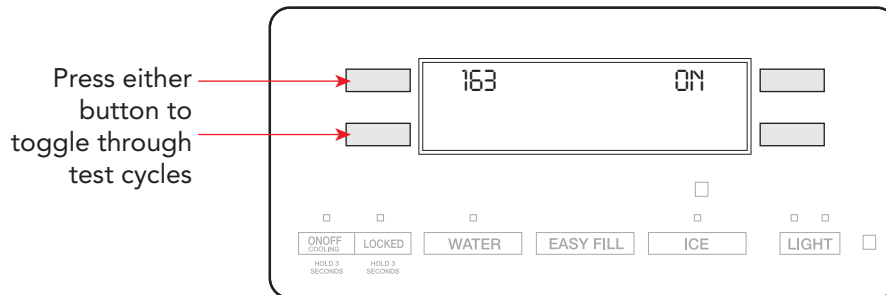
Note: By pushing actuator pad or easy fill keypad you can control state of water dispenser valve.

164 External Ice Chute Door
This test shows the state of the external ice chute door CL (closed) or OP (open).

Press either
button to
toggle through
test cycles

164   CL

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS
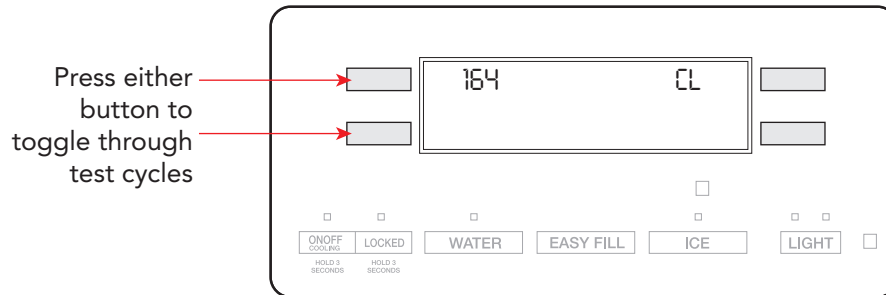
Note: By pushing actuator pad you can control state of external ice chute door.

Service Tests (continued)

165 Dispenser Lamp
This test shows the state of the dispenser lamp (On or OFF).

Press either
button to
toggle through
test cycles

| 165 | OFF |

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS
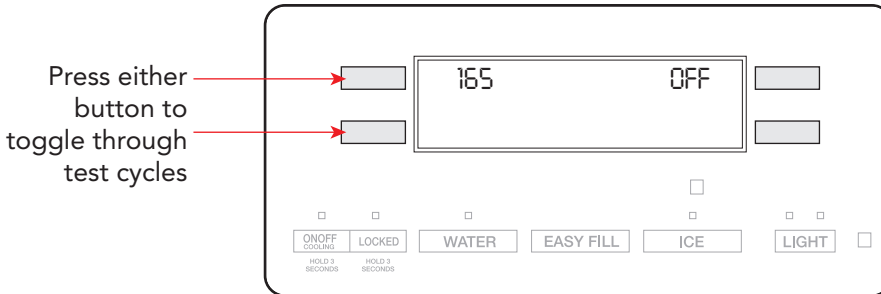
Note: By pushing actuator pad or express fill keypad you can control state of dispenser lamp.

167 Cavity Heater Test
Press the "UR" keypad or "LR" keypad to toggle cavity heater On or OFF.

Press either
button to
toggle through
test cycles

| 167 | OFF |

Press either
button to cycle
cavity heater
OFF or ON

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Note: Pushing UR or LR keypads toggles the cavity heaters state to On or OFF.

168 Cube Dispenser and Internal Ice Chute Door Operation
This test shows the state of the ice auger motor and the internal ice chute door (On or OFF).

Press either
button to
toggle through
test cycles

| 168 | On |

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS
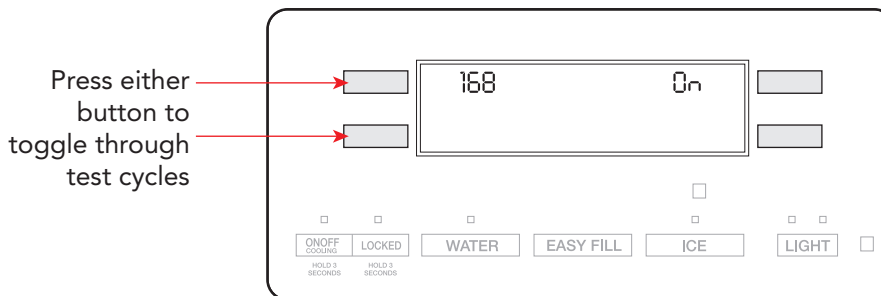
Note: By pushing actuator pad you can control state of the ice auger motor and the internal ice chute door.

Service Tests (continued)

171 Actuator Pad
Display shows the state of the actuator pad (On or OFF).

Press either button to toggle through test cycles

`171`   `OFF`

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT

HOLD 3 SECONDS   HOLD 3 SECONDS
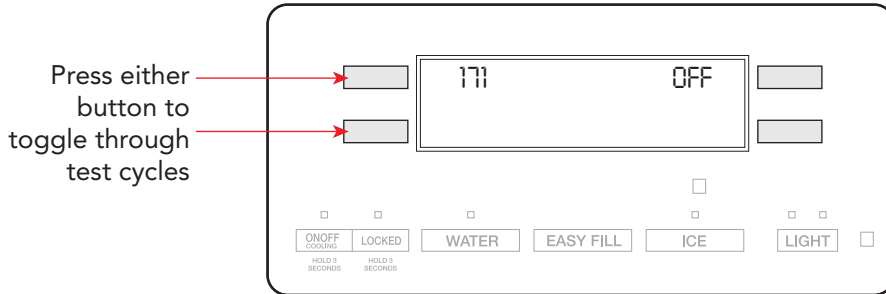
172 Front Fill
Display shows the state of the front fill (On or OFF).

Press either button to toggle through test cycles

`172`   `OFF`

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT

HOLD 3 SECONDS   HOLD 3 SECONDS
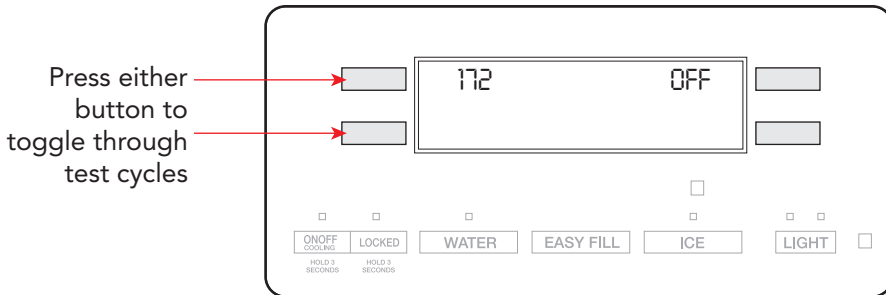
173 Ambient Light
Display shows the state of the light sensor measurement (Hi or Lo). Night light will turn on when light sensor measures Lo. By changing the sensor's exposure to ambient light you can control the sensor measurement.

Press either button to toggle through test cycles

`173`   `Lo`

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT

HOLD 3 SECONDS   HOLD 3 SECONDS
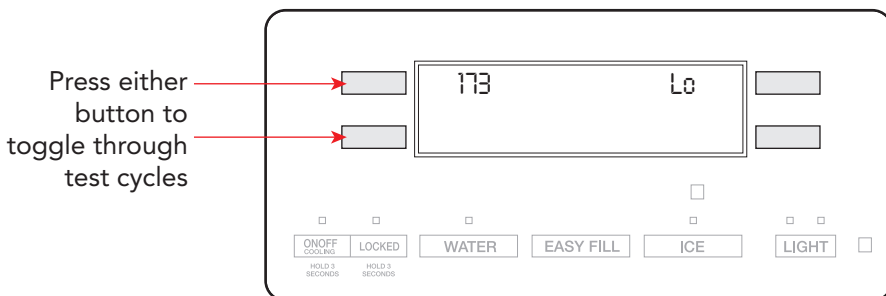
Service Tests (continued)

175 Dispenser Switch
Display shows the state of the dispenser switch (ON or OFF).

Press either button to toggle through test cycles

```
175            ON
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Note: By pushing actuator pad or easy fill keypad you can change state of dispenser switch.

182 LED Indicator Operation
Press the "UR" keypad or "LR" keypad to toggle operation of LED Indicators. All LED Indicators will flash. Press again and LED will stop flashing.
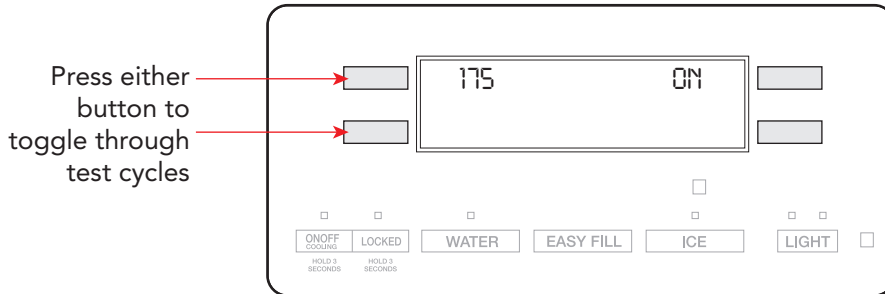
Press either button to toggle through test cycles

```
182            ON
```

Press either button to show all indicators flashing. Press second time to stop all indicators flashing.

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS
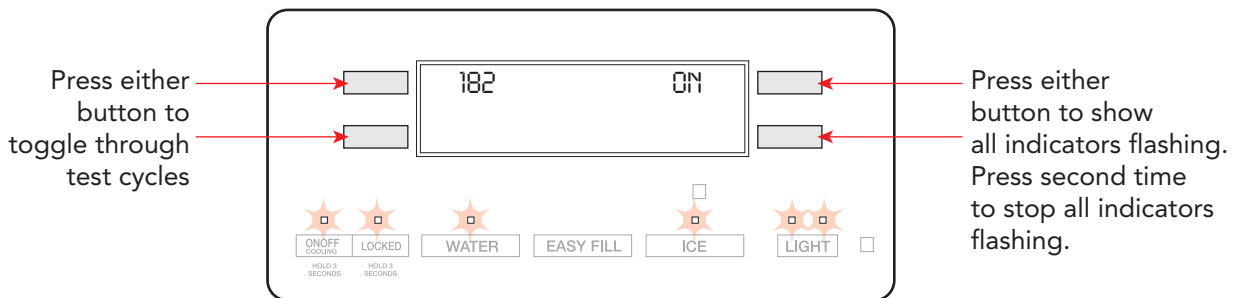
183 Keypad Operation
Display shows a numeric or letter display indicating the last key pressed.

Press either button to toggle through test cycles

```
183            2
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS
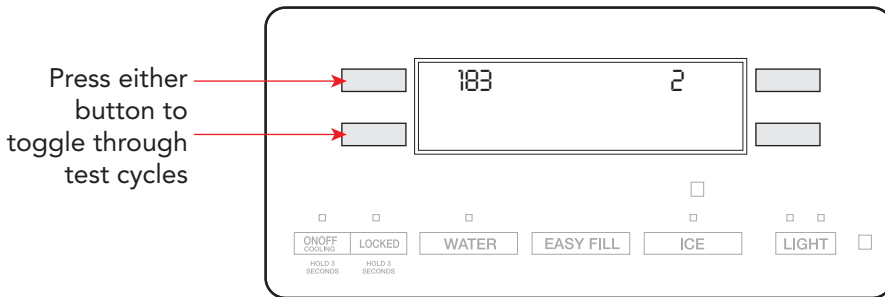
Note: UR and LR keypads have no effect when pressed and UL and LL keypads remain operational.

Service Tests (continued)

192 Ice Maker State Test

Display shows **dr** if left fresh food door switch is in the door open position. Display shows **OFF** if ice maker power switch is in the off position and door closed. Display shows **On** if the ice maker power switch is in the on position and the door closed and heater is off. Display shows **OnH** if icemaker power switch is in the on position and harvest heater is on and door closed.

Press either
button to
toggle through
test cycles

| 192 | dr |

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
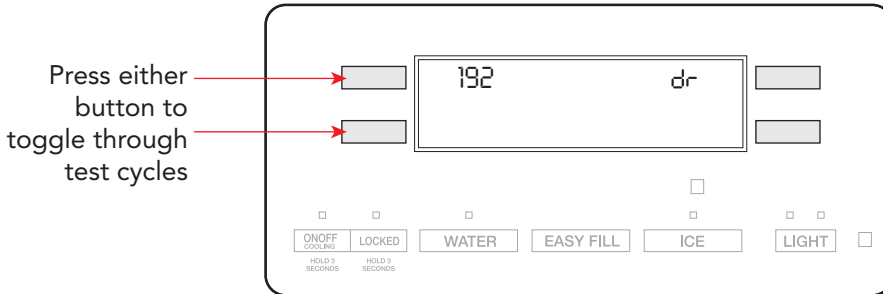HOLD 3 SECONDS   HOLD 3 SECONDS

193 Ice Maker Relay

Press the "UR" keypad or "LR" keypad to toggle the ice maker relay on and off.

Press either
button to
toggle through
test cycles

| 193 | OFF |

Press either
button to
cycle ice maker
relay On or OFF

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS

Note: This tests the M-4 relay on the control board.

The following are programmable changes that can be made to suit the customers requirements for proper operation

201 Mullion Heater Override

Press the "UR" keypad or "LR" keypad to cycle this function. When set to OFF, the mullion heater will only operate when the compressor is in the OFF cycle. When set to ON, the heater will operate 100% of the time.

Press either
button to
toggle through
test cycles

| 201 | OFF |

Press either
button to
cycle mullion
heater On (100%) or
OFF (compressor off

ONOFF COOLING   LOCKED   WATER   EASY FILL   ICE   LIGHT
HOLD 3 SECONDS   HOLD 3 SECONDS
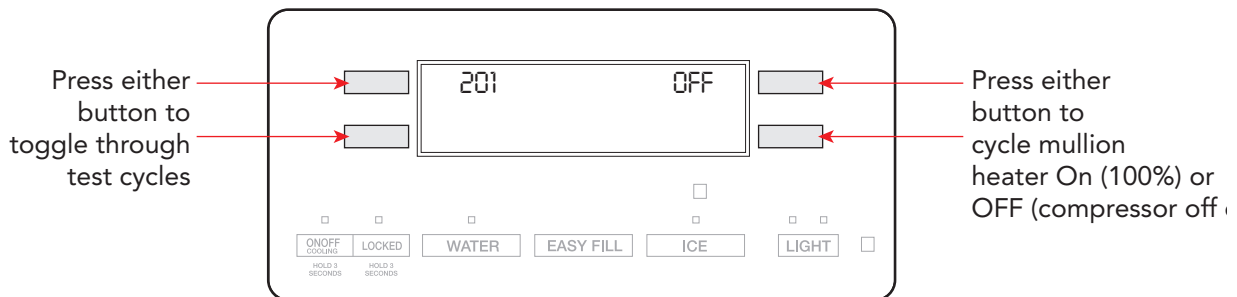
Service Tests (continued)

202 Default Defrost Operation
Press the "UR" keypad or "LR" keypad to toggle defrost operation from normal adaptive defrost (off position) to minimum time between defrosts (on position).

Press either button to toggle through test cycles

202   OFF

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to cycle normal adaptive defrost (OFF) to minimum time between defrosts (ON)
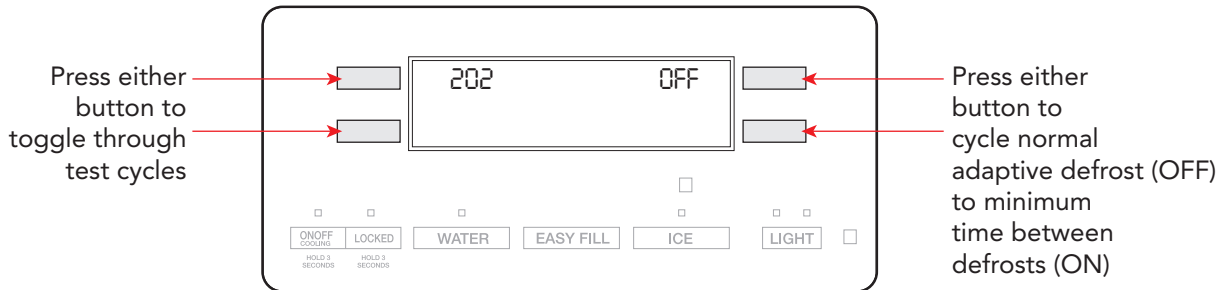
203 Show Temperature Set points–Disregard this Test (unit will not display actual-temperature only set temperature).
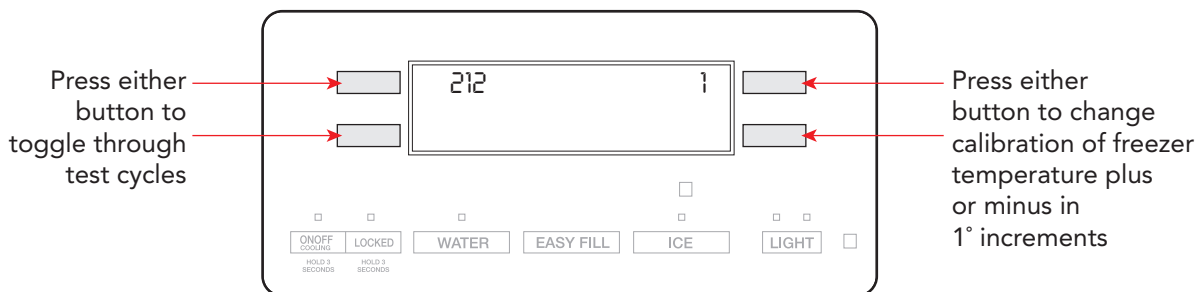
211 Fresh Food Temperature Offsets
Press the "UR" keypad or "LR" keypad to toggle calibration of fresh food temperature plus or minus in 1°F increments up to 6°F.

Press either button to toggle through test cycles

211   1

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to change calibration of fresh food temperature plus or minus in 1° increments

Note: Temperature will read in fahrenheit regardless of what current temperature scale is being used.

212 Freezer Temperature Offsets
Press the "UR" keypad or "LR" keypad to toggle calibration of freezer temperature plus or minus 1°F in increments up to 6°F.

Press either button to toggle through test cycles

212   1

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

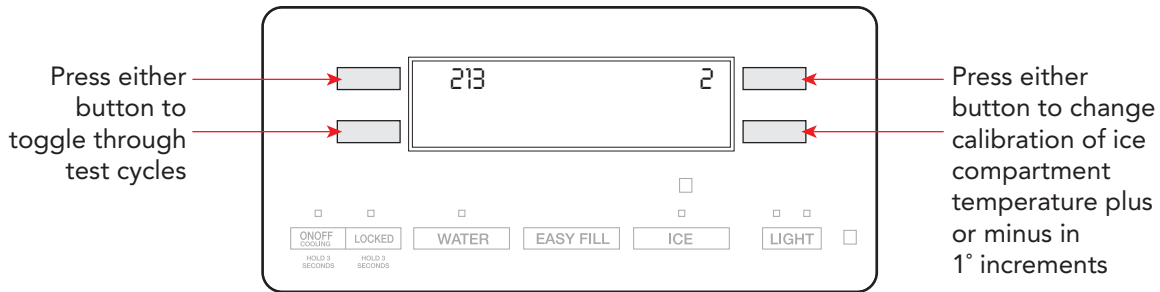Press either button to change calibration of freezer temperature plus or minus in 1° increments

Note: Temperature will read in fahrenheit regardless of what current temperature scale is being used.

Service Tests (continued)
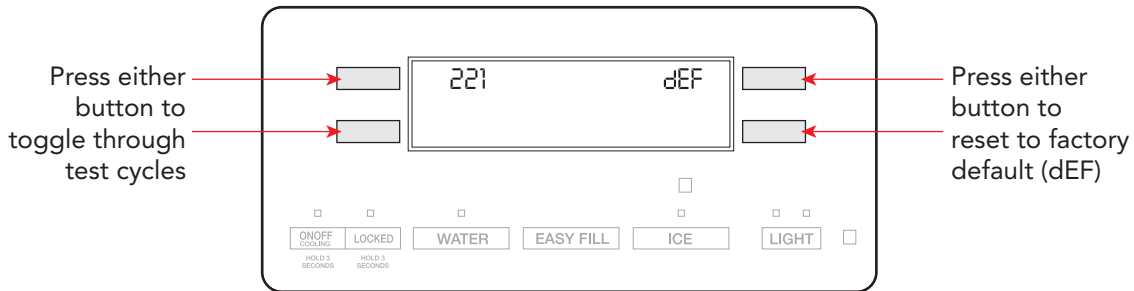
213 Ice Compartment Temperature Offsets

Press the "UR" keypad or "LR" keypad to toggle calibration of ice maker compartment temperature plus or minus 1°F in increments up to + 0 / + 8°F.

Press either button to toggle through test cycles

```
213                    2
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Press either button to change calibration of ice compartment temperature plus or minus in 1˚ increments

Note: Temperature will read in fahrenheit regardless of what current temperature scale is being used.

221 Reset Default Settings
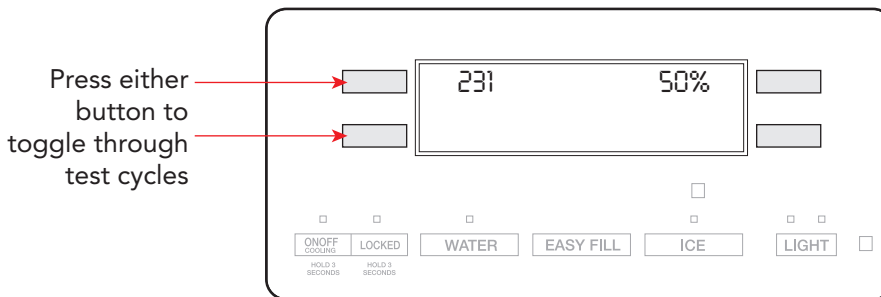
Press the "UR" keypad or "LR" keypad to toggle reset to factory default settings dEF.

Press either button to toggle through test cycles

```
221                  dEF
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

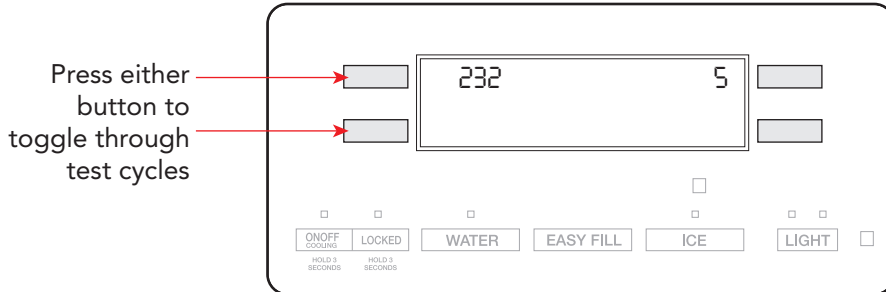Press either button to reset to factory default (dEF)

231 Water Filter Usage

Display shows the percent water filter consumption since water filter was reset. 100% indicates the filter should be replaced.
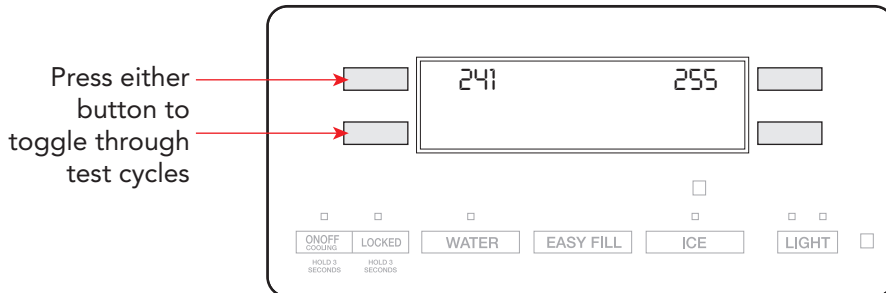
Press either button to toggle through test cycles

```
231                  50%
```

ONOFF COOLING | LOCKED | WATER | EASY FILL | ICE | LIGHT
HOLD 3 SECONDS | HOLD 3 SECONDS

Service Tests (continued)

232 Water Filter Days In Use
The display shows the number of days since the water filter was reset.

Press either button to toggle through test cycles

| | 232 | 5 | |

ON/OFF COOLING HOLD 3 SECONDS | LOCKED HOLD 3 SECONDS | WATER | EASY FILL | ICE | LIGHT

241 Software Revision Main Control Board
The display shows the software revision of the main control board.

Press either button to toggle through test cycles

| | 241 | 255 | |

ON/OFF COOLING HOLD 3 SECONDS | LOCKED HOLD 3 SECONDS | WATER | EASY FILL | ICE | LIGHT

244 Software Revision Display Board
The display shows the software revision of the display board.

Press either button to toggle through test cycles

| | 244 | 2 | |

ON/OFF COOLING HOLD 3 SECONDS | LOCKED HOLD 3 SECONDS | WATER | EASY FILL | ICE | LIGHT