

# Technical Data

**⚠ WARNING Service Technicians Only**

**⚠ AVERTISSEMENT Techniciens d'entretien uniquement**

**⚠ ADVERTENCIA Técnicos del Servicio Únicamente**

**⚠ WARNING Electrical Shock Hazard**

Death or serious injury can result from failure to follow these instructions.

- Repairs must be performed by a qualified Service Professional.
- Disconnect power before servicing this product.
- Reconnect all grounding devices after service.
- Replace all parts and panels before operating.

**⚠ AVERTISSEMENT Risque**

**d'électrocution**

L'omission d'observer ces instructions peut occasionner des blessures graves ou mortelles.

- L'entretien doit être effectué par un technicien d'entretien qualifié uniquement.
- Débranchez l'alimentation électrique avant d'entretenir ce produit.
- Rebranchez tous les dispositifs de mise à la terre après l'entretien.
- Remplacez toutes les pièces et les panneaux avant l'utilisation.

**⚠ ADVERTENCIA Riesgo de**

**Descarga Eléctrica**

Se podrá producir la muerte o daños graves como resultado de no seguir estas instrucciones.

- El servicio técnico deberá ser realizado por un técnico calificado del servicio únicamente.
- Desconecte el cable de corriente antes de realizar el servicio técnico de este producto.
- Vuelva a conectar todos los dispositivos de conexión a tierra luego de realizar el servicio técnico.
- Vuelva a colocar todas las piezas y paneles antes del uso.

**IMPORTANT SAFETY NOTICE**

This information is intended for use by individuals possessing adequate backgrounds of electrical, electronic and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

**AVIS DE SÉCURITÉ IMPORTANT**

Ces informations sont destinées à être utilisées par des personnes possédant une expérience suffisante en électricité, électronique et mécanique. Toute tentative de réparation d'un appareil défectueux peut entraîner des blessures et des dommages matériels. Le fabricant ou le vendeur décline toute responsabilité quant à l'interprétation de ces informations et à leur utilisation.

**IMPORTANTE AVISO DE SEGURIDAD**

Esta información está destinada a personas con experiencia adecuada en electricidad, electrónica y mecánica. Cualquier intento de reparar un electrodoméstico defectuoso puede provocar lesiones personales y daños materiales. El fabricante o el vendedor no se responsabilizan de la interpretación de esta información ni de su uso.

**ELECTRICAL SPECIFICATIONS**

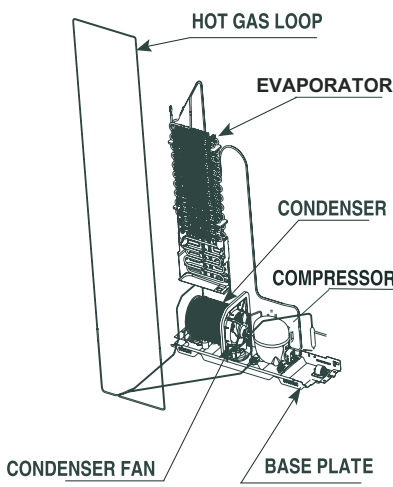
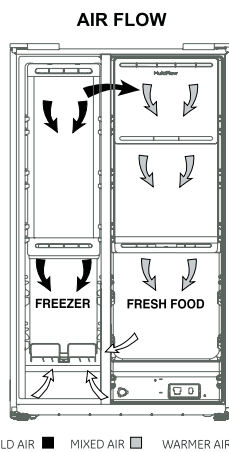
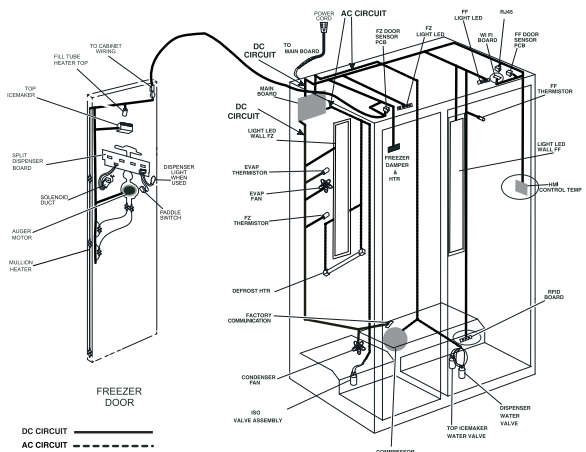
Temperature Control (recommended settings): ..... Fresh Food 37°F  
 ..... Freezer 0°F  
 Thermistor kilo-ohm resistance  
 @0°F ..... 42.5k  
 @37°F ..... 14k  
 @70°F ..... 5k  
 Electrical Rating: 115 V AC 60 Hz ..... 1.70 A

**NO LOAD PERFORMANCE**

Compressor Wattage..... 80 - 92 watts  
 Control Position ..... 0°F/37°F  
 Run Time @ 70°F Ambient.....40 - 55 %  
 Run Time @ 90°F Ambient.....60 - 75 %

**REFRIGERANT CHARGE (R600a)**

24,25, 28 cu. ft. models ..... 1.66 ounces (47 g)



**Service Diagnostic Functions**

Entering Service Diagnostics

**Multi-Key Table**

For any Multi-Key function, the controls must be held for 3 seconds simultaneously to enter the mode.

Key	Fridge	Freezer	Door Alarm	Control lock	Icemaker
Turbo Cool	Hold				
Turbo Freeze		Hold			
Sound Adjustment			Hold		
Control Lock				Hold	
°Fahrenheit to °Celsius		Hold	Hold		
WiFi Enter / Exit			Hold		Hold
Global Exit	Hold				Hold
Cooling System Off	Hold	Hold			
Service Mode			Hold	Hold	Hold
Sabbath Mode	Hold			Hold	
Sabbath Mode		Hold		Hold	
Demo Mode	Hold	Hold			

**Service Tests Table**

For models supporting this feature	Display	Mode	Comments
	00	Show F Codes	Use up down arrows to scroll through list 'o' is occurrences and 'd' is days ago
	01	Clear F Codes	Clears all stored codes
	02	Control Board Self-Test Mode	Turns on all LEDs and 7 Segments on the Control board for testing. To exit test, use same key presses as for entering service mode
For Dispenser Models with Multidoor style control	03	Presence Detection Test	Test it presence sensing is functional. When an object is detected, "PS" is displayed. After 3 seconds of no object detection display will go blank.
	14	Start Defrost FF and FZ	Start FZ defrost, reset control board and resume normal operation
	15	Exits All Defrost	Terminate all defrost, reset control board and resume normal operation
	16	EXIT SERVICE MODE	Resets all boards in the system and return to normal operation
External Ice Dispenser	18	Dispenser Board Version Test	Displays Software version. "-.-" if no communication
Models with Internal Temperature control in FF	20	Internal Temperature Control Board Version Test	
For models with Wifi Board	21	Wi-Fi Module Version Test	Display unfiltered instantaneous thermistor temperature. If thermistor is out of range, it will display "-.-"
	23	Main Control Board Version Test	
	24	FF Thermistor Test	
	27	FZ Cabinet Thermistor Test	
	28	FZ Evaporator Thermistor Test	
	29	Ambient Temp Sensor Test	
Primary Icemaker	31	FZ Icemaker Body Thermistor test	
	40	Humidity Sensor Test	Displays current humidity in %
Models with Autofill Pitcher	41	Flow Meter Test	Returns flow from last dispense before entering service mode (in ounces x10)
External Ice Dispenser	43	Cycle Duct Door	Opens duct door for 10 sec. and then closes
	44	Cycle FF Damper test	*Cycles damper between closed and open positions, stopping for 2 seconds at each position. There may be more than one open position per software. Displays damper position in steps/100 "
	48	FZ Fan Test	Display fan speed at low, medium, and high speed (20 sec each speed)
	49	Condenser Fan Test	
	55	Isolation valve test	Isolation water valve on. Stops at maximum on time (3 minutes)
Models with water dispenser	57	Dispenser Valve Test	Dispenser water valve on. Stops at maximum on time (3 minutes)
Primary Icemaker	58	FZ Icemaker Water Valve Test	Dispenser water valve on. Stops at maximum on time (3 minutes)
Primary Icemaker	59	FZ Twist tray Icemaker Motor test	The Ice tray moves to harvest position and return to home position.

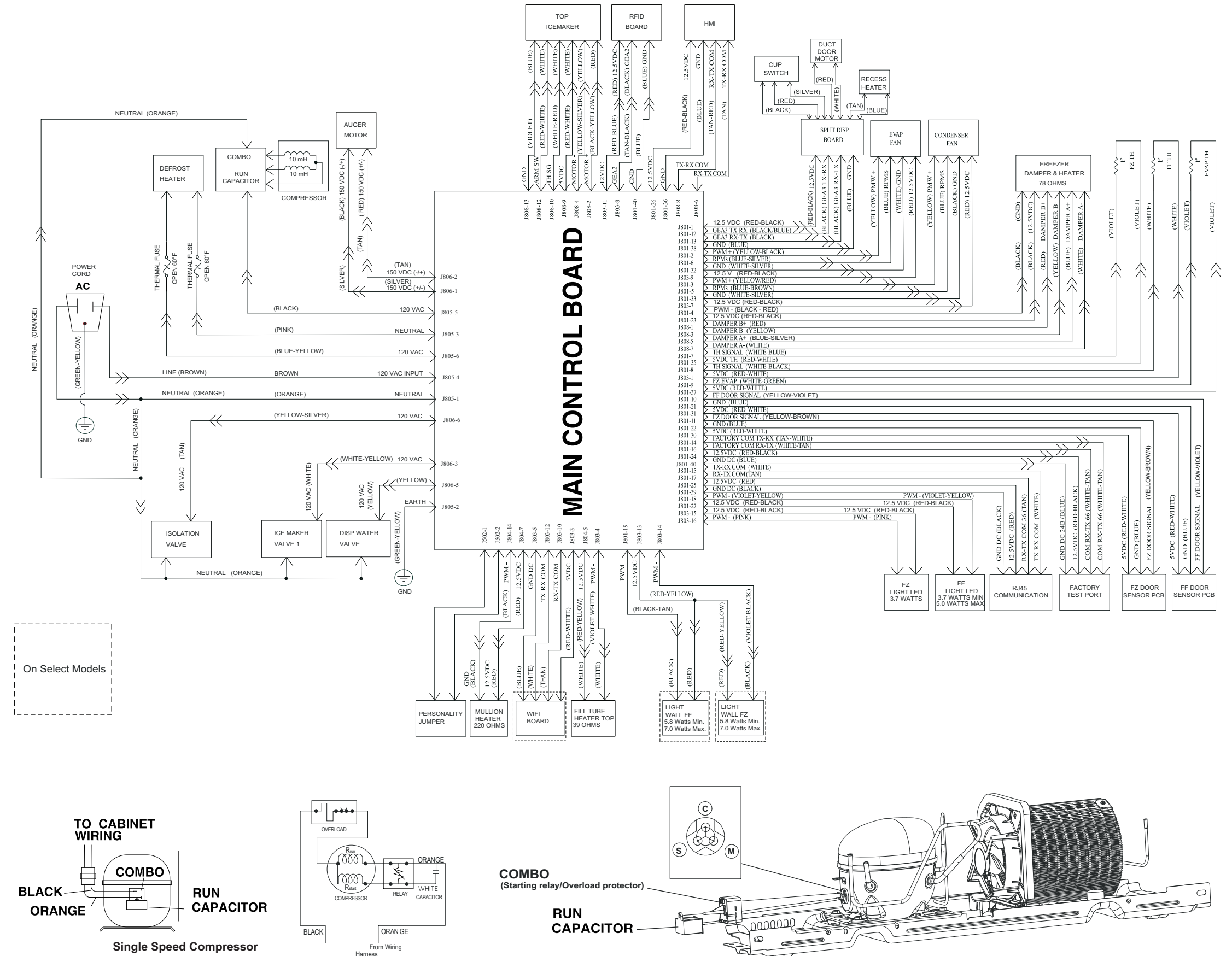
For models supporting this feature	Display	Mode	Comments
	61	Compressor Relay Test	Turns on load.
Primary Icemaker	64	Turn ON Fill tube heater	Turns on load. Displays watts for heater (wait about 10 seconds for stabilized reading)
	71	Read FF Door Status	Returns input status (0 = Closed, 1 = Open)
	72	Read FZ Door Status	Returns input status (0 = Closed, 1 = Open)
Models with water dispenser	78	Read Cold Water Cup Switch	Returns input status (0 = Not Pressed, 1 = Pressed)
External Ice Dispenser	85	Turn ON Dispenser Recess Heater	Turns on load.
	88	FF Damper Heater Test	Turns on load.
	91	Turn on FF Lights	Turns on lights
	92	Turn on FZ Lights	
	93	FZ Defrost Heater Test with Feedback	Turns on defrost heater and displays evaporator thermistor temperature. The test will automatically terminate when evaporator temperature reaches 60°F or maximum ON time (30 minutes)
	96	FZ Cooling Test	Compressor (High) - Condenser Fan (High) - FZ Fan (Low) - FF damper closed. Display FZ Evap Temperature
Primary Icemaker	100	Icemaker Full Cycle Test	*Test completes a harvest followed by a water fill. Displays "1" or "On" while test is running and a "0" when test completes. Displays "2" if motor movement is complete but waiting to fill (due to the fill tube heater delay). Displays "h" for temperature sensor fault. Displays "t" for switch or motor fault"
Not applicable to Non-dispenser models	101	Water Filter RFID Board Version Test	"Displays software version. "-.-" if no communication"
External Ice Dispenser	103	Auger Motor Crush Mode Test	Turns on load
External Ice Dispenser	104	Auger Motor Cube Mode Test	Turns on load
	110	Main Control Board parameter	"Displays software version. "-.-" if no communication"
Primary Icemaker	112	Turn on isolation valve & IM valve	Isolation valve and IM valve on. Stops at maximum on time (3 minutes)
Water dispenser only	113	Turn on isolation valve & water dispenser valve	Isolation valve and water fill valve on. Stops at maximum on time (3 minutes)
Autofill pitcher	116	Autofill Pitcher Board version test	"Displays software version. "-.-" if no communication"
Autofill pitcher	117	Autofill Pitcher Presence status	Returns the Input Status (0 = Not Present, 1 = Present)
Autofill pitcher	118	Autofill Pitcher Level status	Returns the Input Status (0 = Not Full, 1 = Full)
On models with Wifi Board	119	Initiate Service mode connection using Wifi	Sends command to Wifi combo module to enter mode to pair with service module. Dispenser board resets and appliance returns to normal operation.
	121	Main Control Board Personality test	Displays personality number of appliance as 4 digits ('0000' is an invalid value)
	124	Water Filter RFID Tag check	Shows continuous RFID tag status (1=Valid TAG read, 0= Valid Tag not read, "-.-" = Communication not present)
	127	FZ Door Heater Test	Turns on load. Displays watts for heater (wait about 10 seconds for stabilized reading)
Secondary Icemaker	133	Icemaker Full Cycle Test	*Test completes a harvest followed by a water fill. Displays "1" or "On" while test is running and a "0" when test completes. Displays "2" if motor movement is complete but waiting to fill (due to the fill tube heater delay). Displays "h" for temperature sensor fault. Displays "t" for switch or motor fault"
Secondary Icemaker	134	FZ Icemaker Body Thermistor test	Display unfiltered instantaneous thermistor temperature. If thermistor is out of range, it will display "-.-"
Secondary Icemaker	141	Turn on isolation valve & IM valve	Isolation valve and IM valve on. Stops at maximum on time (3 minutes)
Secondary Icemaker	143	Turn ON Fill tube heater	Turns on load. Displays watts for heater (wait about 10 seconds for stabilized reading)

**F Code Table**

For models supporting this feature	Display	Failure Code Definition
	1	FF Thermistor Invalid
	3	FZ Cabinet Thermistor Invalid
	4	FZ Evaporator Thermistor
	8	Ambient Temperature Invalid
	9	Ambient Humidity Invalid
Primary Icemaker	10	Primary (upper) Icemaker Mold body thermistor Invalid
Secondary Icemaker	19	Secondary (lower) Icemaker Mold body thermistor Invalid
	100	FZ Fan Feedback Missing when Fan is running
	101	FZ Fan Feedback Present when Fan is off.
	102	FZ Fan cannot reach target RPM.
	103	Condenser Fan Feedback missing when fan is running
	104	Condenser Fan Feedback present when fan is off.
	105	Condenser Fan cannot reach target RPM.
	200	FZ Defrost Heater on for Max Time.
	202	5 consecutive FZ abnormal defrosts.
	300	Excessive Compressor Run Time.
	301	Compressor off for 3 hours with Cooling System turned on.
	302	FF No Freeze Limit Tripped
	303	FF Temp Exceeded (Setpoint + 20°F)
	304	FZ Temp Exceeded (Setpoint + 20°F)
	305	FF Damper stuck closed
	306	FF Damper stuck open
	401	Ice/water stops dispensing based on time (7 Minute Timeout).
Primary Icemaker	654	Primary (upper) IM No water supply detected
Secondary Icemaker	659	Secondary (lower) IM No water supply detected
Primary Icemaker	664	Primary (upper) IM continues to sense bucket full after ice dispense
Secondary Icemaker	665	Secondary (lower) IM continues to sense bucket full after ice dispense
Primary Icemaker	661	IM0 Twist Tray Motor Fault
Secondary Icemaker	662	IM2 Twist Tray Motor Fault
Models with Internal Temperature control in FF	700	Stuck keys on Internal Temperature Control
External Ice Dispenser	701	Stuck keys on dispenser UI
Models with Internal Temperature control in FF	703	Key Inputs on Internal Temperature Control with Door closed
	709	Dispenser Switch Circuit Error
	713	FF Door open for 15 minutes without closing
	714	FF Door open for 60 min. in the last 24 hours
	715	100 FF Left Door Openings in the last 24 hours.
	716	100 FF Right Door Openings in the last 24 hours.
	717	FZ Door open for 15 minutes without closing
	718	FZ Door open for 60 min. in the last 24 hrs.
	719	100 FZ Door Openings in the last 24 hours.
Models with Autofill external dispenser (Multidoor style control)	721	AutoFill Sensor Coupling Detected
Models with Autofill Pitcher	724	Global timeout for autofill pitcher
Models with Autofill Pitcher	725	Autofill pitcher full/ no pitcher present
External Ice Dispenser	733	Dispenser UI board communication error
Models with Autofill external dispenser	737	AutoFill termination by no water level change
Models with Autofill external dispenser	739	AutoFill terminated by target removal before fill completed
Models with Autofill external dispenser	740	AutoFill terminated by EMI noise
Models with Autofill Pitcher	744	No flowmeter signal received during dispense /IM fill
Models with Autofill Pitcher	745	Flowmeter signal received with no dispense/IM fill
Models with Autofill Pitcher	746	Flow rate too low during icemaker fill
Models with Autofill Pitcher	747	Flow rate reduction detected during dispense
Models with Autofill Pitcher	748	Flow rate too low during dispense
Models with Autofill Pitcher	749	Autofill Pitcher Potential Leak
For models with Wifi Board	758	Embedded WiFi Communication Fault
Models with Internal Temperature control in FF	759	Internal Temperature UI board communication error
Models with Autofill Pitcher	768	Autofill pitcher board presence sensor error
Models with Autofill Pitcher	769	Autofill pitcher board full sensor error
Not applicable to Non-dispenser models	800	RFID board hardware failure/ check filter and filter orientation
Not applicable to Non-dispenser models	801	RFID board failed to respond to MB
Not applicable to Non-dispenser models	803	RFID filter authentication failed / check filter and filter orientation
Not applicable to Non-dispenser models	805	Water leak Near RFID board

SXS

**Technical Data**



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