Amana Technical Information—Refrigerator

SQD23V P1315302W L; P1315302W W SCD23VB P1315305W L; P1315305W W
SCD23V P1315303W L; P1315303W W

- Due to a possibility of personal injury or property damage, always contact an authorized technician for servicing or repair of this refrigerator.
- Refer to Service Manual RS1300004 for installation, disassembly, icemaker, safety, testing, and troubleshooting information.

⚠ CAUTION

All safety information must be followed as provided in Service Manual RS1300004.

⚠ WARNING

To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

Model	**SQD23V, SCD23V & SCD23VB**
Capacity	22.7 cu ft
Electrical requirements separate circuit	115 VAC 60 Hz 15 amps
Refrigerant type	R134a
Width without side extrusions	35.75"
Depth without handle (includes door extrusions)	29.75"
Height (including top hinge cap)	68.5"

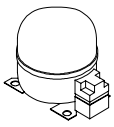
No Load Performance Controls in Normal Position															
	Kw/24 hr ±0.4			**Percent Run Time ±10%**			**Cycles/24 hr ±25%**			**Refrigerator Compartment Average Food Temperature ±3°F**			**Freezer Compartment Average Food Temperature ±3°F**		
Ambient °F	65°	90°	110°	65°	90°	110°	65°	90°	110°	65°	90°	110°	65°	90°	110°
SQD23V, SCD23V & SCD23VB	1.4	2.8	4.7	32	62	100	28	21	0	38	41	36	3	1	-1

Temperature Relationship Test Chart												
	T-1 Outlet ±3°F		**T-1 Inlet ±3°F**		**T-3 Suction Line ±7°F**		**Average Total Wattage ±10%**		**Suction Pressure ±2 PSIG**		**Head Pressure ±5 PSIG**	
Ambient °F	65°	90°	65°	90°	65°	90°	65°	90°	65°	90°	65°	90°
SQD23V, SCD23V & SCD23VB	-13	-17	-18	-15	73	100	171	179	0	1	80	126

Component Specifications

⚠ WARNING

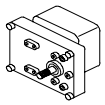
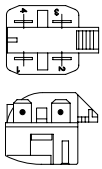
To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

Illustration	Component	Test Procedure	
A0282803 	Bulb, refrigerator/freezer	Volt Watt	115/125 VAC 40 watts
M0360001 	Bulb, cavity light	Volt Watt	115/125 VAC 6 watts
C8931604 	Capacitor, auger motor	Volt Capacitance	220 VAC 17 Mfd +10% -5%
12049712 	Compressor	Type BTUH Volt Watt Current Lock rotor Full load Resistance Run Windings Start Windings	Fan Cooled, R134a refrigerant 970 BTUH 115 VAC, 60 Hz 196 watts 25.5 amps 2.4 amps 1.88 ohms 8.73 ohms
D7547411 	Control, damper	Settings #1 #4 #7	Closing temperatures 47°F 40°F 30°F
R0161092 	Control, freezer temperature	Settings #1–in #1–out #4–in #4–out #7–in #7–out	Closing temperatures 21.0°F 4.5°F 13.3°F 5.9°F 9.8°F 11.0°F
B2150504 	Drier	Drier must be changed every time the system is opened for testing or compressor replacement. Desiccant	(20) 8 x 12 4AXH - 7 M>S> -Grams

Component Specifications

⚠ WARNING

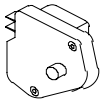
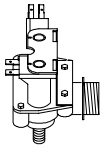
To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

Illustration	Component	Test Procedure	
12049801 	Heater, evaporator	Volt Wattage Resistance	115 VAC 450 ±5% watts 29 ±5% ohms
10114804 	Motor, auger	Volt Rotation (facing end opposite shaft) RPM Watt Bimetal cut-out Opens Closes	115VAC, 60 Hz Power to blue and white leads is clockwise Power to white and orange leads is counterclockwise 13–17 RPM 165–175 watts 266° ±9°F 185° ±9°F
10884501 	Motor, condenser	Volt Rotation (facing end opposite shaft) RPM Watt Current Resistance	115 VAC, 60 Hz Clockwise 1300 RPM 10.0 watts 0.15 amps 220 ±10% ohms
10513803 	Motor, evaporator fan	Volt Rotation (facing end opposite shaft) RPM Watt	115 VAC, 60 Hz Clockwise 2500 RPM 12 ±15% watts
10377023 	Overload, 4TM	Volt Ult. Trip amps @ 158°F (70°C) Close temperature Open temperature Short time trip (seconds) Short time trip (amps @77°F (25°C))	115 VAC 3.51 amps 142°F (61°C ±9°) 230°F (110°C ±9°) 10 seconds ±5 16 amps
10097202 	Relay, ptc	Resistance With power off check: Across terminals 2 & 3 Shorted Open	 4–6 ohms 0 ohms Very high or infinite ohms
10166002 	Switch, crushed/cubed	Type Volt Current	SPDT 125 VAC 6 amps
C3680308 	Switch, refrigerator light	Type Volt Current	DPST, NC 125 VAC 5.0 amps

Component Specifications

⚠ WARNING

To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

Illustration	Component	Test Procedure	
C3680312 	Switch, freezer light/auger interlock	Type Volt Current	SPDT 125/250 VAC 5.0/5.0 amps
12419601 	Switch, limit	Type Volt Current	SPST, NO 125/250 VAC 10.0 amps
10166101 	Switch, cavity light	Type Volt Current	SPST 250 VAC 2 amps
12017823 	Thermostat	Volt Watt Current Resistance across terminals Above 48° ±5°F Below 15° ±7°F Between 48° ±5°F and 15° ±7°F	120/240 VAC 1000 watts 10/5 amps Open Closed Will stay in current state (open or closed) until either 48° ±6°F or 15° ±8°F is reached.
10530703 	Timer, defrost	Volt Defrost period (minutes) Defrost cycle (hours)	120 VAC, 60 Hz 33 ±3.6 8
12195504 	Valve, water	Volt Watt Water pressure (inlet) Max Min Fill rate	120 VAC, 60 Hz 20 watts 120 PSI 20 PSI 140 ±10 CC at 7.5 seconds

Component Specifications

⚠ WARNING

To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

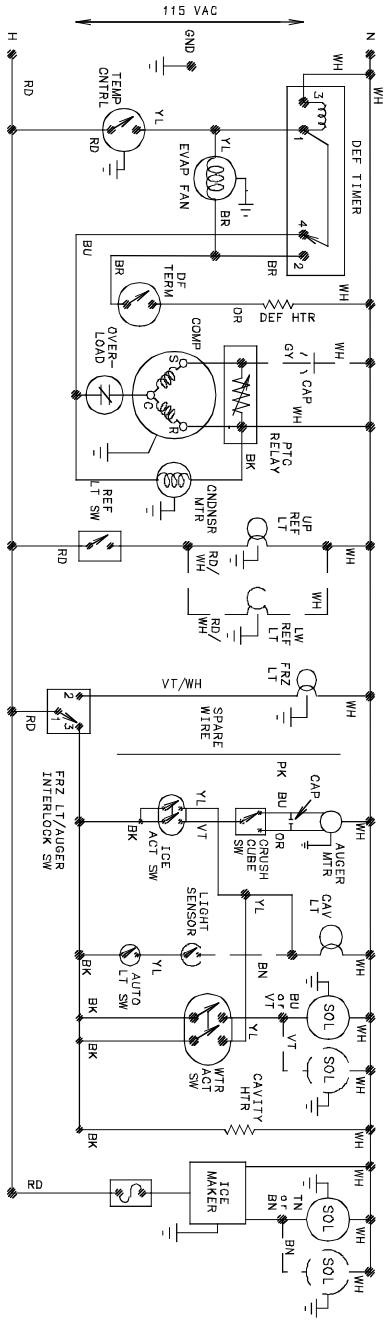
Component	Location	Replacement Procedure
Door Gasket	Door gaskets foamed in place between inner door liner and door pan during manufacturing.	If gasket is damaged, replace with appropriate service gasket kit (see Parts Manual for kit part numbers). Follow instructions in kit.
Refrigerator and freezer door	Foamed as an assembly during manufacturing.	Inner door liner and outer door pan are not replaceable. If damaged, entire door must be replaced.
Water line	Water line to dispenser runs through conduit in freezer door.	To replace water line: 1. Remove toe grille. 2. Remove plastic union nut at water-line splice below freezer door and pull water line out of "P" clip. 3. Attach nylon cord or fishing line to one end of water line. 4. Pull water line out of conduit from bottom being sure to leave end of cord dangling. 5. Attach new water line to free end of cord and pull water line through conduit using cord to draw new water line into place.

Schematic Drawing

⚠ WARNING

To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.

⚠ DANGER
HIGH VOLTAGE



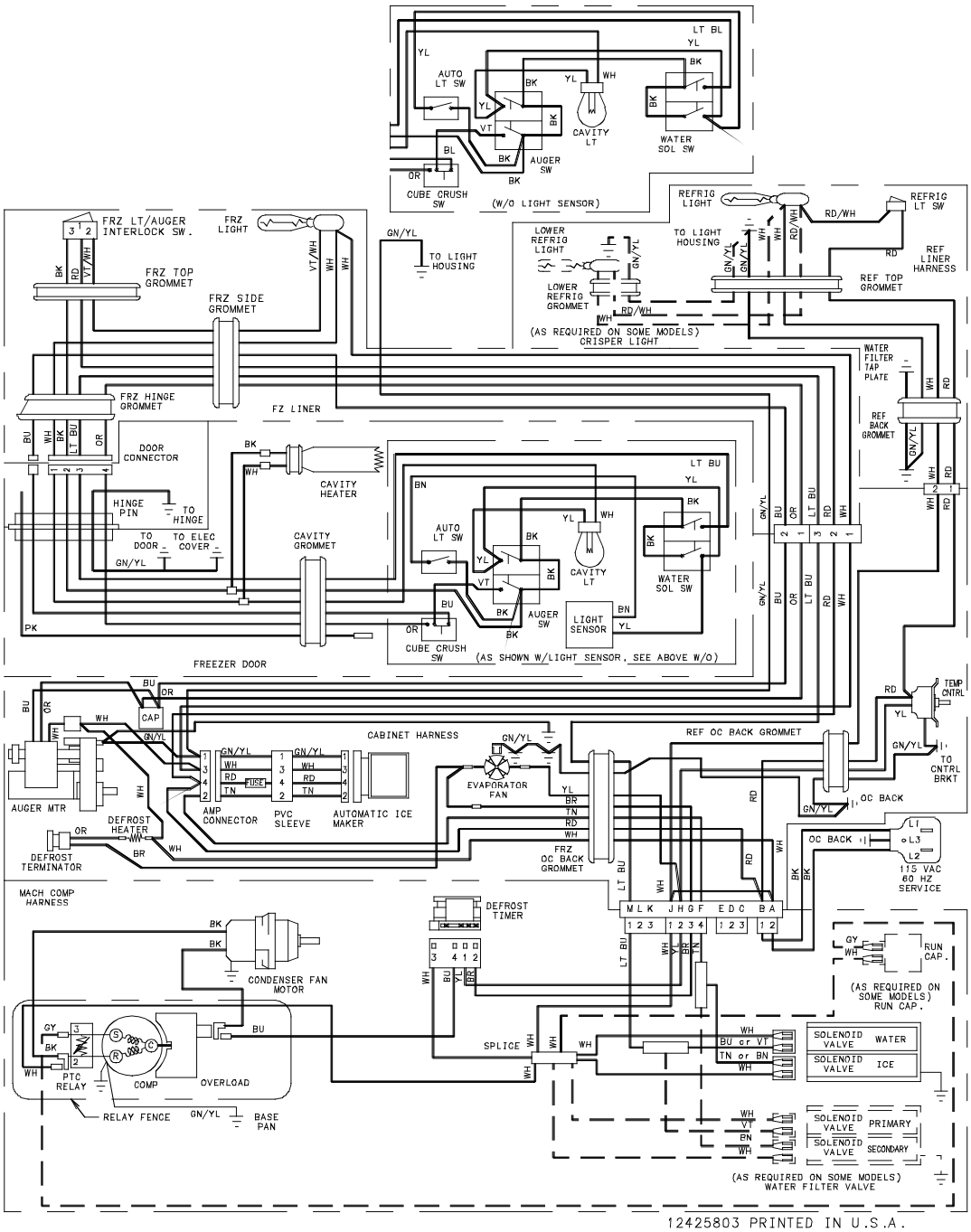
NOTE: Pink wire in freezer door harness is spare wire for service use only. Freezer door wiring harness is not replaceable.

SQD23V P1315302W L; P1315302W W SCD23VB P1315305W L; P1315305W W
SCD23V P1315303W L; P1315303W W

Wiring Diagram

⚠ WARNING

To avoid risk of electrical shock that can cause death or severe personal injury, disconnect unit from power before servicing unless tests require power. Discharge capacitors through a 10,000-ohm resistor before handling. Wires removed during disassembly must be replaced on correct terminals to ensure proper grounding and polarization.



SQD23V P1315302W L; P1315302W W SCD23VB P1315305W L; P1315305W W
SCD23V P1315303W L; P1315303W W