Amana Technical Information—Refrigerator

ARS2365A PARS2365AB0
PARS2365AC0
PARS2365AW0

ARS2665A PARS2665AB0
PARS2665AC0
PARS2665AW0

- 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	ARS2365A	ARS2665A
Capacity	23.1 cu ft	25.8 cu ft
Electrical requirements separate circuit	115 VAC 60 Hz 15 amps	115 VAC 60 Hz 15 amps
Refrigerant type	R134a	R134a
Width without side extrusions	35.75"	35.75"
Depth without handle includes door extrusions	29.75"	32.5"
Height including top hinge cap	68.5"	68.5"

No Load Performance Controls in Normal Position															
	Kw/24 hr ±0.4			Percent Run Time ±10%			Cycles/24 hr ±25%			Refrigerator Center Compartment Food Average Temperature ±3°F			Freezer Compartment Food Average Temperature ±3°F		
Ambient °F	65°	90°	110°	65°	90°	110°	65°	90°	110°	65°	90°	110°	65°	90°	110°
ARS2365A	1.4	2.5	4	35	62	100	28	21	0	38	41	36	3	1	-10
ARS2665A	1.4	2.5	4	34	60	100	31	23	0	36	37	35	2	1	-0.3

Temperature Relationship Test Chart												
	T-1 Outlet ±3°F		T-2 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°
ARS2365A	-13	-17	-18	-15	73	100	156	165	0	1	80	126
ARS2665A	-14	-17	-20	-16	73	98	156	165	0	1	82	131

Component Specifications

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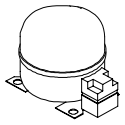
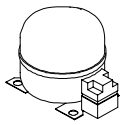
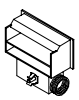
Illustration	Component	Test Procedure	
A0282807 	Bulb, refrigerator/freezer	Volts Watts	115/125 VAC 60 watts
A3079001 	Bulb, lower refrigerator	Volts Watts	115 VAC 40 watts
M0360001 	Bulb, cavity light	Volts Watts	115/125 VAC 6 watts
C8931608 	Capacitor, auger motor & compressor (used with compressor 12049711)	Volts Capacitance	220 VAC 15 Mfd +10% -5%
C8931612 	Capacitor (used with compressor 12049751)	Volts Capacitance	220 VAC 15 Mfd +10% -5%
12049711 	Compressor	Type BTUH Volts Watts Current: Lock rotor Full load Resistance: Run windings Start windings	Fan Cooled, R134a refrigerant 970 BTUH 115 VAC, 60 Hz 170 watts 21.3 amps 1.6 amps 2.6 ohms 4.35 ohms
12049751 	Compressor	Type BTUH Volts Watts Current Lock rotor Full load Resistance Run Windings Start Windings	Fan Cooled, R134a refrigerant 970 BTUH 115 VAC, 60 Hz 170 watts 21.3 amps 1.6 amps 2.6 ohms 4.35 ohms
R9900109 	Control, damper	Settings #1 #4 #7	Closing temperatures 47°F 40°F 30°F

Component Specifications

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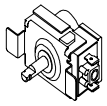
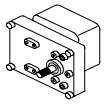
Illustration	Component	Test Procedure	
R0161092 	Control, freezer temperature	Settings #1–in #1–out #4–in #4–out #7–in #7–out	Closing temperatures 21.0°F 4.5°F 13.3°F 5.9°F 9.8°F 11.0°F
B2150504 	Drier	Drier must be changed every time the system is opened for testing or compressor replacement. Desiccant	 (20) 8 x 12 4AXH - 7 M>S> -Grams
12432006	Heater, cavity	Volts Watts Resistance	115 VAC 1.33 ±7.5% watts 6.61K ±7.5% ohms
12049801 	Heater, evaporator	Volts Watts Resistance	115 VAC 450 ±5% watts 29 ±5% ohms
12501001 	Motor, auger	Volts Rotation (facing end opposite shaft) RPM Watts Bimetal cut-out Opens Closes	115VAC, 60 Hz Power to blue and white leads is clockwise. Power to white and orange leads is counterclockwise. 17 ±3 RPM 120 ±20 watts 194°F ±9° 149°F ±9°
10522102 	Motor, condenser (psc)	Volts Rotation (facing end opposite shaft) RPM Watts Current Resistance	115 VAC, 60 Hz Clockwise 1300 RPM 6.4 watts 0.05 amps 480 ±10% ohms
10513803 	Motor, evaporator fan (Used on all units with serial No. prefix 0006 through June 2000. Diameter of fan blade on these units is 5.25”)	Volts Rotation (facing end opposite shaft) RPM Watts	115 VAC, 60 Hz Clockwise 2500 RPM 12 ±15% watts
10449505 	Motor, evaporator fan (Used on all units with serial No. prefix 0007, starting July 2000. Diameter of fan blade on these units is 3.85”)	Volts Rotation (facing end opposite shaft) Speed Watts	115 VAC, 60 Hz Clockwise 2900 RPM 9.1 ±15% watts

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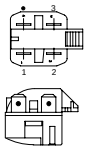
Illustration	Component	Test Procedure	
10377015 	Overload, 4TM	Volts Ult. Trip amps @ 158°F (70°C) Close temperature Open temperature Short time trip (seconds) Short time trip (amps @77°F (25°C))	115 VAC 3.51 amps 142°F ±16° (61°C ±9°) 257°F ±9° (125°C ±5°) 10 seconds ±5 14 amps
10097202 	Relay, ptc	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 Volts Current	SPDT 125 VAC 6 amps
12466101 	Switch, freezer light/auger interlock	Type Volts Current	SPST, NC 125 VAC 5.0 amps
12466102 	Switch, refrigerator light	Type Volt Current	SPDT, NO/NC 125 VAC 5.0 amps
12419601 	Switch, limit	Type Volts Current	SPST, NO 125/250 VAC 10.0 amps
10166004 	Switch, cavity light	Type Volts Current	SPST 125 VAC 6 amps
12017823 	Thermostat	Volts Watts 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.

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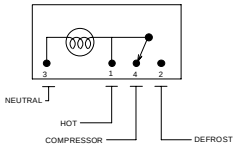
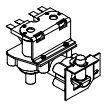
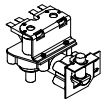
10530703 	Timer, defrost	Volts Defrost period (minutes) Defrost cycle (hours)	120 VAC, 60 Hz 33 ±3.6 8 
12313403 	Valve, water, secondary	Volts Watts: Purple coil Brown coil Water pressure (inlet): Max Min Fill Rate	120 VAC, 60 Hz 20 watts 20 watts 120 psi 20 psi 4 to 5 ounces (137 +14 –24 cc) in 7.5 sec
12313404 	Valve, water, primary	Volts Watts: Purple coil Brown coil Water pressure (inlet): Max Min Fill rate	120 VAC, 60 Hz 20 watts 20 watts 120 PSI 20 PSI 4 to 5 ounces (137 +14 –24 cc) in 7.5 sec

Component Specifications

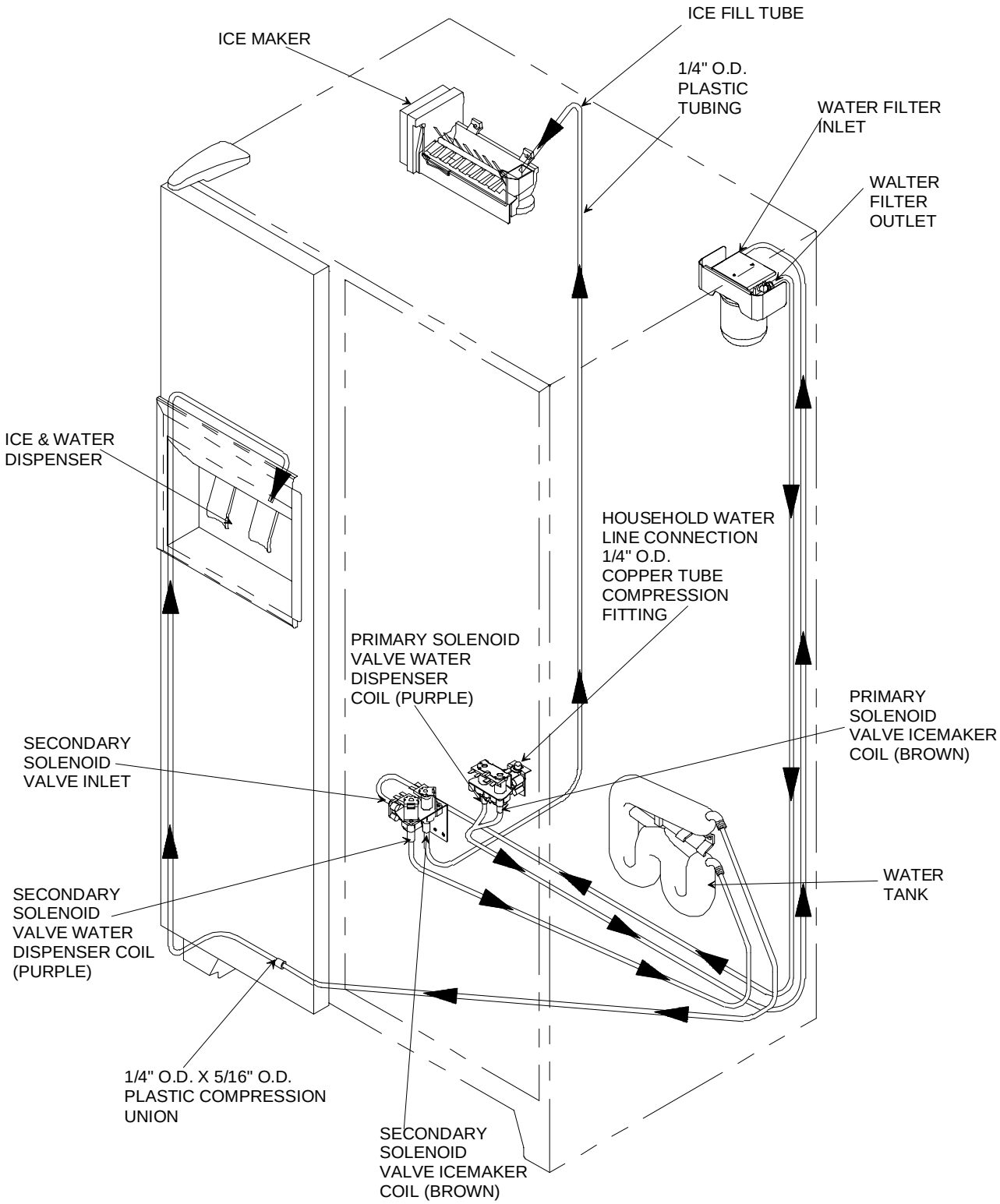
Door Gasket	Door gaskets foamed in place between door liner and door pan during manufacture.	If gasket is damaged, replace with appropriate service gasket kit (see Parts Manual for kit part numbers) following instructions in kit.
Refrigerator and freezer door	Foamed as an assembly during manufacture.	Inner door liner and outer door pan are not replaceable. If damaged, entire door must be replaced.
Water tube	Water tube for dispenser runs through conduit in freezer door.	To replace water tube: 1. Remove toe grille. 2. Remove plastic union nut at water tube connection below freezer door. 3. Attach nylon cord or strong fishing line to dispenser end of water tube. 4. Pull water tube out of conduit from bottom. When finished be sure that a foot or more of cord dangles from both ends of conduit. 5. Attach new water tube to end of cord. Grasp other end of cord and pull water tube through conduit, into place.
Filter and Water Head Assembly	Unit ships with bypass plug in water head assembly and filter canister in crisper. Bypass plug should be retained in case filter becomes plugged and new canister is not readily available.	To remove bypass plug or filter from head assembly: • Turn bypass or filter ¼ turn left and pull down. • It is not necessary to turn water supply off in order to change filter. To remove filter bracket and head assembly: • Loosen two screws securing filter bracket to compartment liner. • Slide bracket forward about ½". Bracket will drop down. • Remove screws holding filter head to bracket and lay bracket aside. • Detach tubes from filter head by pushing in on collars while pulling out on tubes.

Water Dispenser Rates

	Seconds to dispense 10 Oz. Water					
Supply Pressure	20 psig*	30 psig*	40 psig*	50 psig*	60 psig*	70 psig*
Filter model with bypass installed.	18.1	14.3	12.2	10.8	9.8	9.0
Filter model with new filter installed.	22.0	17.3	14.2	12.8	11.5	10.4

*Amana specifies a minimum supply pressure of 35 psig for water filter units. Minimum pressure requirement is to insure water valves close and sufficient water volume is available to fill ice maker. Proper fill is 140 cc of water in 7.5 seconds. Failure of water valves to close because of low pressure will result in fill-tube freeze-up or dripping at cavity.

Component Specifications



Water-Flow Diagram

Schematic Drawing

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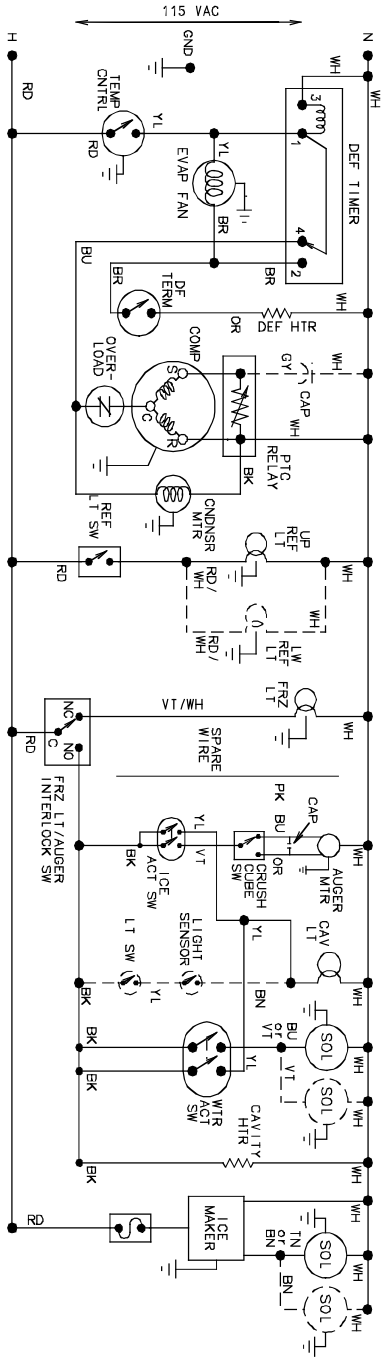
⚠ DANGER
High Voltage



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

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Wiring Diagram

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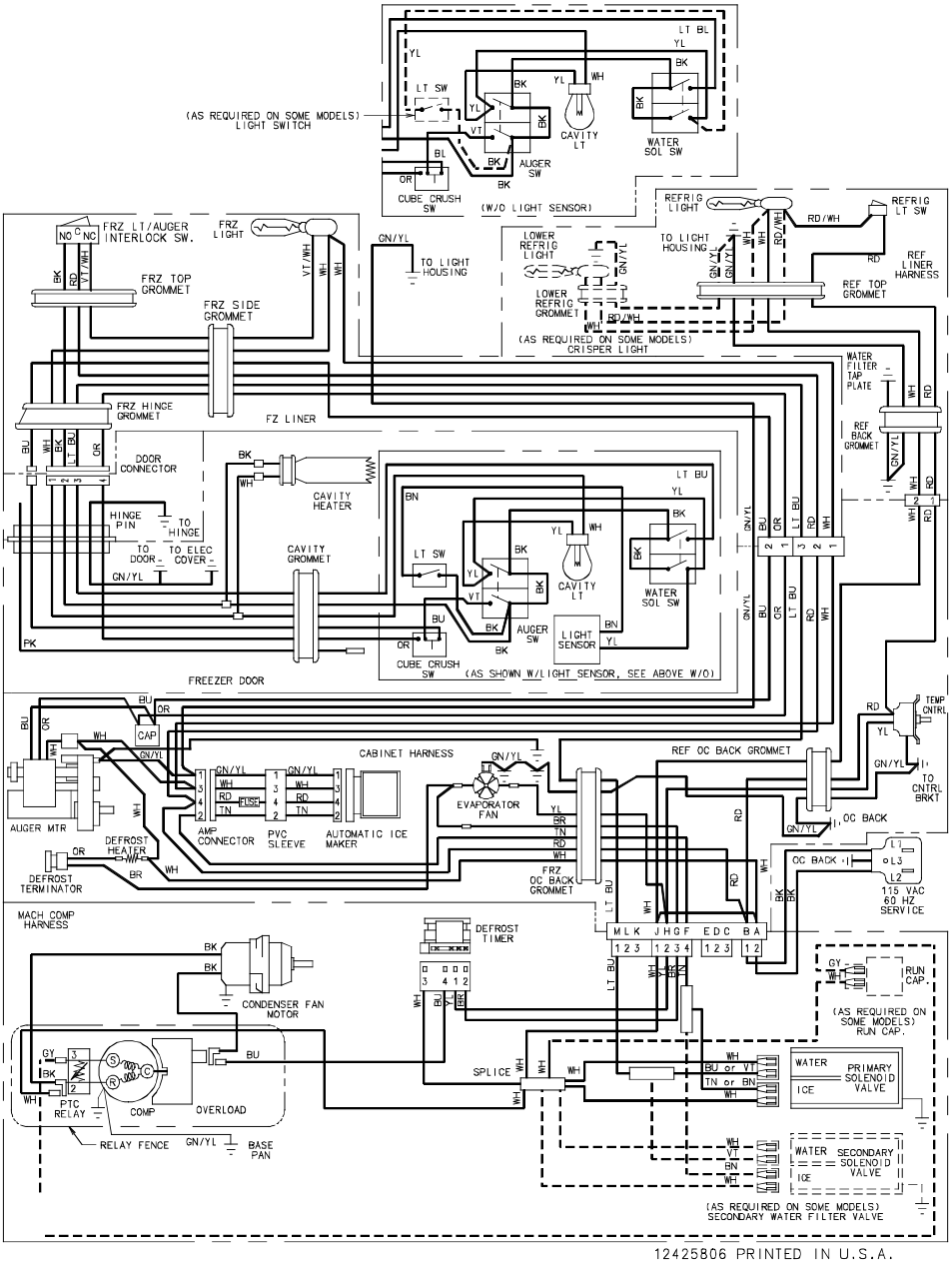

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