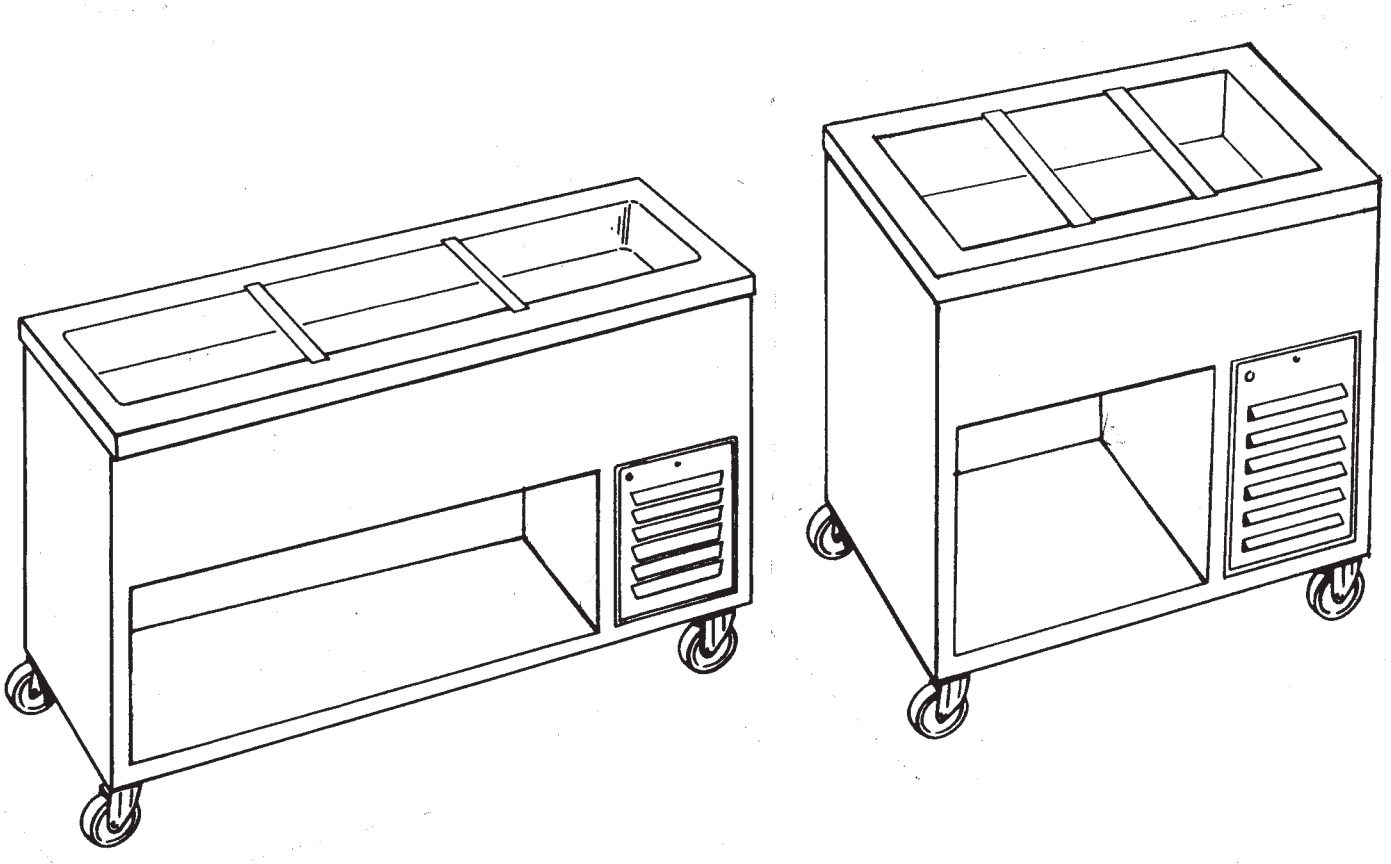
Aladdin Temp-Rite®

P.O. Box 2978, Hendersonville, TN 37077-2978
1-800-888-8018 or 615-537-3600
Fax 1-888-812-9956 www.aladdintemprite.com

...better by degrees.

J713 SERIES COLD FOOD COUNTERS



INSTALLATION, OPERATION & MAINTENANCE MANUAL

Manual P/N 93336
Rev. D 02/12/2013

J713 SERIES COLD FOOD COUNTERS

CONTENTS

J713 SERIES COLD FOOD COUNTERS

I. MODELS

The Aladdin® J713 series Cold Food Counters contains four different models in the J713 line and two different models in the J713 "Slim-Line" series.

These Aladdin Cold Food Counters are mobile/free standing modularly designed products which are able to stand independently or be used in conjunction with other units in a cafeteria line arrangement.

Aladdin Sales Codes	J713	J713A	J713B	J713C
Description	3-well	4-well	5-well	6-well
Overall Dimensions:				
Length	48"	62"	76"	90"
Width**	30"	30"	30"	30"
Counter Height	37"	37"	37"	37"
Height with optional 1 tier	51¼"	51¼"	51¼"	51¼"
Height with optional 2 tiers	64"	64"	64"	64"
Electrical Requirements:				
Voltage	120V	120V	120V	120V
Amperage	8AMPS	8AMPS	8AMPS	11AMPS
Compressor horsepower	1/3	1/3	1/3	1/2
Standard NEMA Plug	5-15P			
Approximate Shipping Weight without options	445 lbs.	485 lbs.	525 lbs.	575 lbs.

**The overall width with optional 6" wide workshelf is 36".

Aladdin Sales Codes "Slim-Line"	J713D	J713E	
Description	2-well		3-well
Overall Dimensions:			
Length	54"	74"	
Width*	19"	19"	
Counter Height	37"	37"	
Electrical Requirements:			
Voltage	120V		120V
Amperage	8AMPS		8AMPS
Compressor horsepower	1/3	1/3	
Standard NEMA Plug	5-15P		5-15P
Approximate Shipping Weight without options	415 lbs.		485 lbs.

*Models manufactured prior to July 1, 1999 have an overall width of 22"

II. RECEIVING INSPECTIONS

NOTE:
All Aladdin units are factory tested for performance and certified free from defects.

ALADDIN DAMAGED GOODS POLICY

There are two types of damaged merchandise:

● Visual Damage ● Concealed Damage

Visual Damage – When the product being received is visibly damaged.

1. Receiver should not accept merchandise with visual damage.
2. Receiver must sign delivery receipt “refused merchandise due to damage” and specify damage.
3. Receiver should call Aladdin Customer Service immediately after refusal.
4. Carrier will notify Aladdin Traffic Department and a claim will be filed.
5. Carrier will send acknowledgement of claim within 7 days after receiving.

Concealed Damage – When damaged merchandise cannot be externally detected.
Any receiving operation should be looking for this type of damage. Sometimes, however, depending on the type of product, it is almost impossible to notice.

1. Merchandise must not be removed from point of delivery and all packaging must be kept intact.
2. Receiver must contact Aladdin customer service to report damage.
3. Aladdin traffic department will request inspection based on the dollar value of the cargo.
4. Aladdin traffic department will file a claim based on the findings of the inspection.

Failure to comply with these policies will result in the customer’s responsibility to file claims.

III. INSTALLATION INSTRUCTIONS

The Aladdin J713, J713A, J713B, J713C, J713D, and J713E Series Refrigerated Cold Food Counters are self-contained units designed to be used as cold food serving counters. The design of these units allows for maximum mobility, where the units can be arranged in the most productive position and easily moved for cleaning or maintenance purposes.

Simply position the unit in its operating position, connect to the proper power supply, and the unit is ready for operation. Refer to the "Operating Instructions" before energizing the unit.

IV. OPERATING INSTRUCTIONS

The Aladdin J713 Series Cold Food counters are delivered pre-charged and ready for operation at your facility. Simply place your new unit in its operating position and plug it into the proper power supply. Turn on the switch located in the louvered panel covering the compressor compartment. In approximately sixty (60) minutes it will be ready for service. The surface of the cold pan should form a heavy frost pattern when it is ready to be used.

NOTE: The Aladdin J713 Series Cold Food Counters are refrigerated serving/assembly units and are not designed for long term storage.

The refrigeration system supplied with these systems are of the hermetic type. Refrigerant is metered by expansion valves which are located in the compressor housing of the J713 series. Each refrigeration system is self contained and has been leak tested, charged with refrigerant and operated to ensure the proper operation and setting of the controls.

Energize the unit by attaching the plug to an appropriate electrical supply (NEMA 5-15, 115Vac, 60HZ, single phase, 12 amp) and turning on the service switch located in the compressor compartment. After approximately one (1) hour of operation the unit will be ready for use.

OPERATION: The system temperature is controlled by a thermostat which is located inside the compressor housing. The thermostat controls a liquid line solenoid which controls the flow of refrigerant to the cooling coils. A low pressure control (physically located in the front of the compressor compartment) is used to cycle off the compressor. The low pressure control settings should not be changed from the preset factory settings. The adjustment of this control may cause performance problems with the unit. The temperature of the unit is directly controlled by the thermostat.

V. CLEANING

HOW TO CLEAN STAINLESS STEEL

1. WHEN TO CLEAN
   It is recommended that all stainless steel equipment be cleaned on a regular basis. Any piece of stainless steel equipment that is soiled should be cleaned daily to ensure the long life of the equipment. Routine cleaning will lessen stainless steel abrasion.

2. HOW TO CLEAN

To remove most soil, use a non-abrasive, non-chlorinated soap solution. Rinse thoroughly with warm water and wipe dry using an absorbent cloth TO REMOVE HEAVY SOIL, RUB THE AREA WITH A NON-METALLIC, FINE GRAIN SCOURING CLOTH. Be sure to rub in the same direction as the metal grain. Rinse thoroughly with warm water and wipe using a soft absorbent cloth. As a final step, a stainless steel polish may be used. The polish will shine the stainless steel and provide a protective finish that will reduce future soiling.

3. CLEANING SAFEGUARDS

Always rub with the metal grain.
NEVER USE STEEL WOOL OR METALLIC SCOURING CLOTHS. This will help prevent scratching and possible damage to the surface finish.

Use recommended dilution. Do not exceed concentration levels which may cause long term deterioration of surface. Be certain to rinse thoroughly to prevent build-up of cleanser.

NEVER USE CHLORINE OR BLEACH SOLUTIONS. Check the ingredients of cleaning solutions or disinfectants used as they may contain chlorinated solvents.

Always read the label of the cleaning solutions. Check for warnings about use on stainless steel products. Repeated use of chlorinated solvents may cause a chemical reaction with the stainless steel, which may damage the surface and cause rusting.

NOTE: If stainless steel products are shipped in a corrugated container which is received in a wet condition, the product should be immediately unpacked and cleaned.
Prolonged storage in a wet corrugated container may cause rusting due to a reaction with chemicals in the container.

4. STERILIZING STAINLESS STEEL

When sterilizing stainless steel equipment, pay particular attention to agents containing chlorine compounds such as potassium hypochlorite. These compounds may break down and release free chlorine, or hydrolyze to form hydrochloric acid. Stainless steel resists attack by the compounds for up to two hours. Severe localized pitting may occur with longer exposure. For safe use of the agents, keep contact time short, flush thoroughly with water, and operate equipment normally between applications. Using these precautions, the sterilization process can be repeated any number of times.

VI. TROUBLESHOOTING

CAUTION: MAINTENANCE AND REPAIR OF THIS REFRIGERATOR-FREEZER SHOULD BE PERFORMED ONLY BY QUALIFIED REFRIGERATION PERSONNEL

COMPLAINT	POSSIBLE CAUSE	POSSIBLE SOLUTION
Compressor will not start (no hum)	1. Service switch open. 2. Unit is unplugged. 3. Fuse removed or blown or circuit breaker tripped or switched off. 4. Compressor motor protector open. 5. Low pressure control is stuck in open position.	1. Close service switch. 2. Plug in unit. 3. Replace fuse or reset circuit breaker. 4. Replace protector. 5. Repair or replace low pressure control.
Compressor will not start, hums and trips fuse or breaker	1. Low voltage to unit. 2. Start capacitor defective. 3. Start relay fails to close. 4. Compressor motor has a winding open or shorted. 5. Internal mechanical trouble in compressor.	1. Call power supplier. 2. Replace capacitor. 3. Replace relay. 4. Replace compressor. 5. Replace compressor.
Compressor starts but does not switch off of start winding	1. Low voltage to unit. 2. Start relay failing to open. 3. Excessively high discharge pressure due to A. Discharge shut-off valve partially closed. B. Refrigerant overcharge. C. Insufficient cooling of condenser. D. Air in system. E. Restriction in refrigeration system. 4. Compressor motor has a winding open or shorted. 5. Internal mechanical trouble in compressor.	1. Call power supplier. 2. Replace relay. 3. A. Turn stem counter clockwise to open. B. Reduce system charge. C. Clean condenser. D. Evacuate system and recharge. E. Check filter and see-all. Replace as necessary. Check expansion valves. Clean or replace as necessary. 4. Replace compressor. 5. Replace compressor.
Compressor starts and runs but short cycles on the overload protector (CONTINUED ON NEXT PAGE)	1. Low voltage to unit. 2. Overload protector defective. 3. Excessively high discharge pressure due to A. Turn stem counter clockwise to open. closed. B. Refrigerant overcharge. C. Insufficient cooling on condenser. D. Air in system. E. Restriction in refrigeration system.	1. Call power supplier. 2. Replace overload protector. A. Discharge shut-off valve partially B. Reduce system charge. C. Clean condenser D. Evacuate system and recharge. E. Check filter and see-all. Replace as necessary. Check expansion valves Clean or replace as necessary.

COMPLAINT	POSSIBLE CAUSE	POSSIBLE SOLUTION
CONTINUED	4. Compressor too hot, return gas hot. 5. Compressor has shorted motor winding. 6. Compressor has mechanical damage. 7. Start relay defective. 8. Start capacitor defective.	4. Check refrigerant charge, fixing leaks if necessary. 5. Replace compressor. 6. Replace compressor. 7. Replace relay. 8. Replace capacitor.
Compressor starts and runs, but short cycles on low pressure control	1. Differential setting too close on low pressure control. 2. Compressor valve leak. 3.System undercharged. 4.Restriction in expansion valve.	1. Widen differential setting on low pressure control. 2. Replace compressor valve. 3. Check for leaks and add refrigerant. 4. Clean or replace as necessary.
Compressor operates long or continuously	1. System undercharged. 2. Low pressure control contacts stuck. 3. Magnetic gasket on door loose, flattened or mispositioned. 4. Evaporator coil iced. (should not be below 35). 5. Dirty condenser. 6. Restriction in refrigeration system.	1. Check for leaks and add refrigerant. 2. Clean contacts or replace control. 3. Position gasket properly, adjust door latch or replace gasket. 4. Defrost coil. Check out setting on EPR valve 5. Clean condenser. 6. Check filter and see-all. Replace as necessary. Check expansion valves, clean or replace as necessary. Check inlet strainer on compressor and clean as needed.
Start capacitor open, shorted or blown	1. Relay contacts not opening properly. 2. Prolonged operation on start cycle due to: A. Low voltage. B. Improper relay. C. Improper capacitor. D. Starting load too high. 3. Excessive short cycling.	1. Clean contacts or replace relay. 2. A. Call power supplier. B. Install correct relay. C. Install correct capacitor. D. Reduce starting load. 3. Determine reason for short cycling and correct.
Refrigerated compartment temperature too high	1. EPR valve setting too high. 2. Inadequate air circulation in refrigerated compartment. 3. Refrigerant shortage.	1. Reset EPR valve to a lower setting. 2. Improve air movement. 3. Check for leaks and recharge.
Cold pan temperature too high	1. Low pressure control setting too high. 2. Refrigerant shortage. 3. Restriction in refrigeration system.	1. Reset control to a lower setting. 2. Check for leaks. 3. Check filter and see-all. Replace as necessary. Check expansion valves, clean or replace as necessary. Check inlet strainer on compressor and clean as needed.

COMPLAINT	POSSIBLE CAUSE	POSSIBLE SOLUTION
Suction line sweating or frosted	1. Expansion valve stuck open. 2. Evaporator fan not running. 3. System overcharged.	1. Clean or replace as required. 2. Check for power at fan motor, fan blade blockage, or fan motor failure. 3. Reduce system charge.
Liquid line sweating or frosted	1. Restriction in drier, liquid level, or expansion valve. necessary. 2. Liquid shut-off valve closed.	1. Check filter and see-all. Replace as necessary. Check expansion valves, clean or replace as 2. Open valve fully (Turn counterclockwise).
Condensing unit noisy	1. Loose parts or mounting. 2. Tubing rattle. 3. Bent fan blade causing vibration. 4. Fan motor bearings worn.	1. Locate and tighten. 2. Reform to be free of contact. 3. Replace fan blade. 4. Replace fan motor.

VII. SERVICE

In the event service is required on your Aladdin J713 Series Cold Food Counters, please call

ALADDIN TEMP RITE
SERVICE DEPARTMENT
1-800-888-5426

VIII. DIAGRAMS/DRAWINGS

BASIC REFRIGERATION DRAWING & WIRING DIAGRAM FOR J713 SERIES
(see page 14 for corresponding parts list)

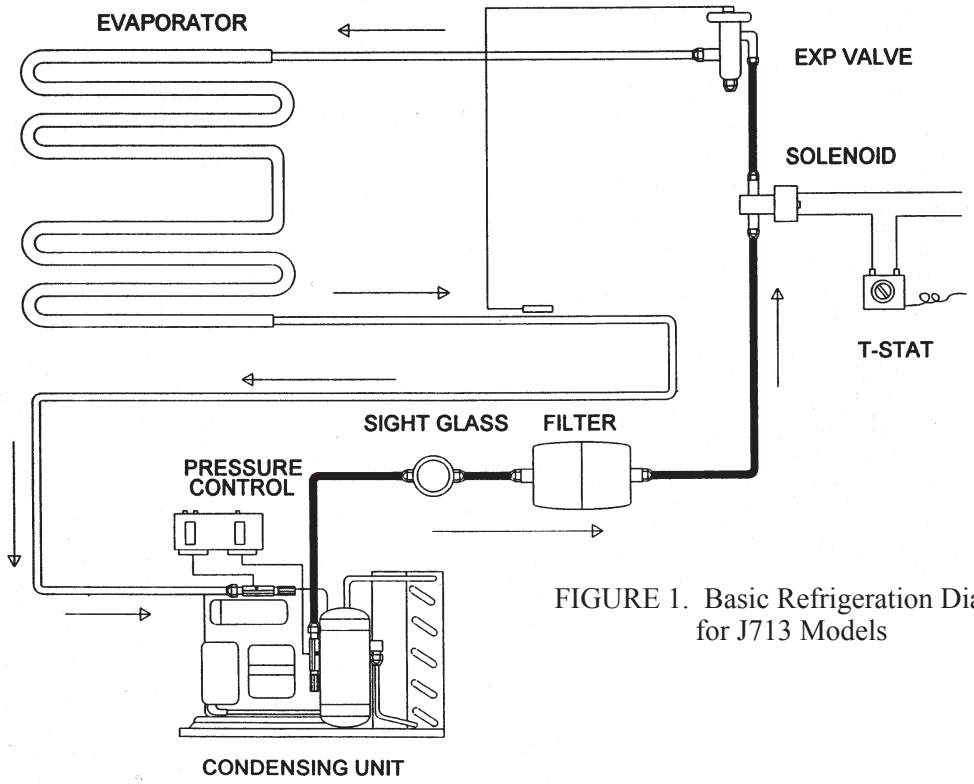


FIGURE 1. Basic Refrigeration Diagram for J713 Models

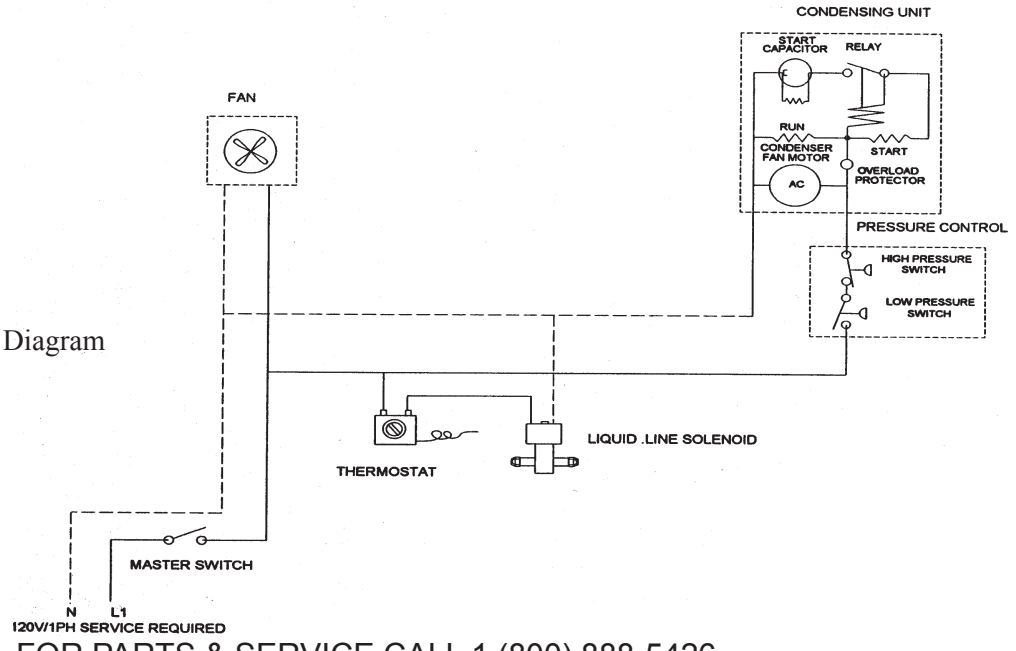
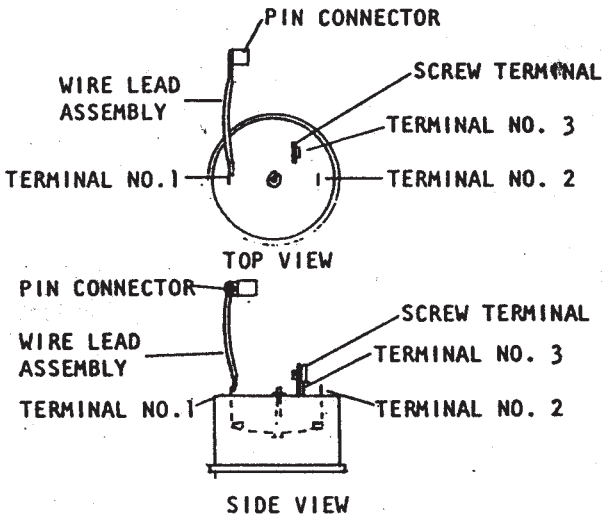


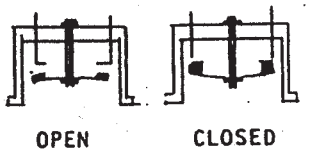
FIGURE 2. Wiring Diagram

COMPRESSOR MOTOR OVERLOAD

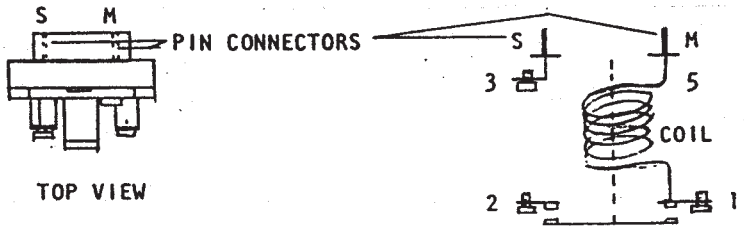


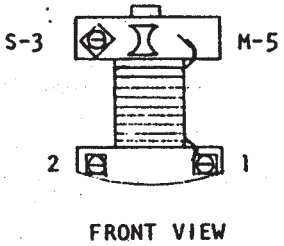
This condensing unit is provided with a surface mounted temperature/current sensing protector. This unit employs a bi-metal element which will react to both temperature rise and excessive current draw.

Always replace this unit with the exact part specified in the part list found on page 14 of this manual.



COMPRESSOR MOTOR STARTING RELAY





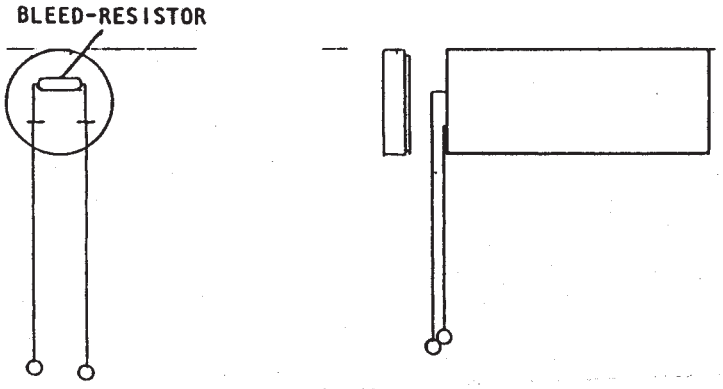
The compressor motor starting relay is a switching device used to remove the start winding and the motor starting capacitor from the circuit after the motor current approaches normal full load conditions.

This unit employs a current relay type which is normally open when not turned on, and the coil is wound so that the contacts close when starting current is being drawn.

When replacing a current starting relay, always select the appropriate relay from the parts list. (see pg. 14). Do not size a relay on general horsepower ratings.

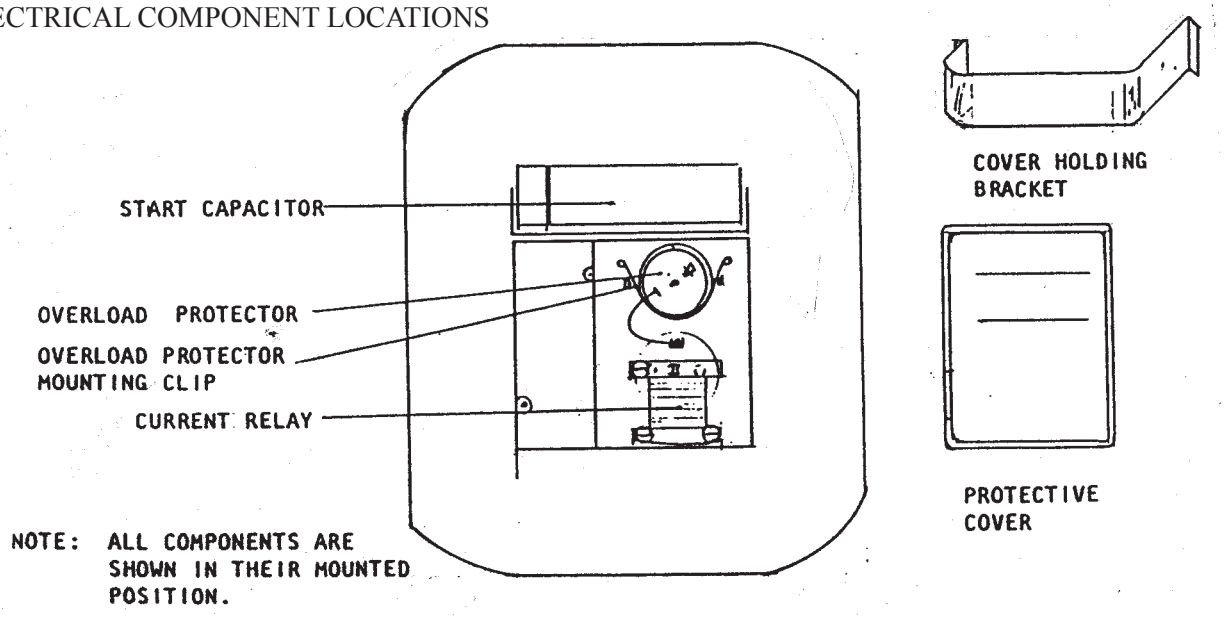
COMPRESSOR MOTOR START CAPACITOR

Start capacitors are used to provide added starting torque to the motor. In this type system the compressor motor may be required to start against a high head pressure. Without a start capacitor the motor would not have enough starting torque to overcome the load. All Copeland capacitors are provided with a bleed-resistor. The use of capacitors without bleed-resistors will probably result in sticking relay contacts and/or erratic relay operation, especially where short cycling is likely to occur. This erratic operation or sticking will occur due to the capacitors discharging through the relay contacts duringshort cycle situations. The resistor will allow the capacitor to discharge at a much greater rate.



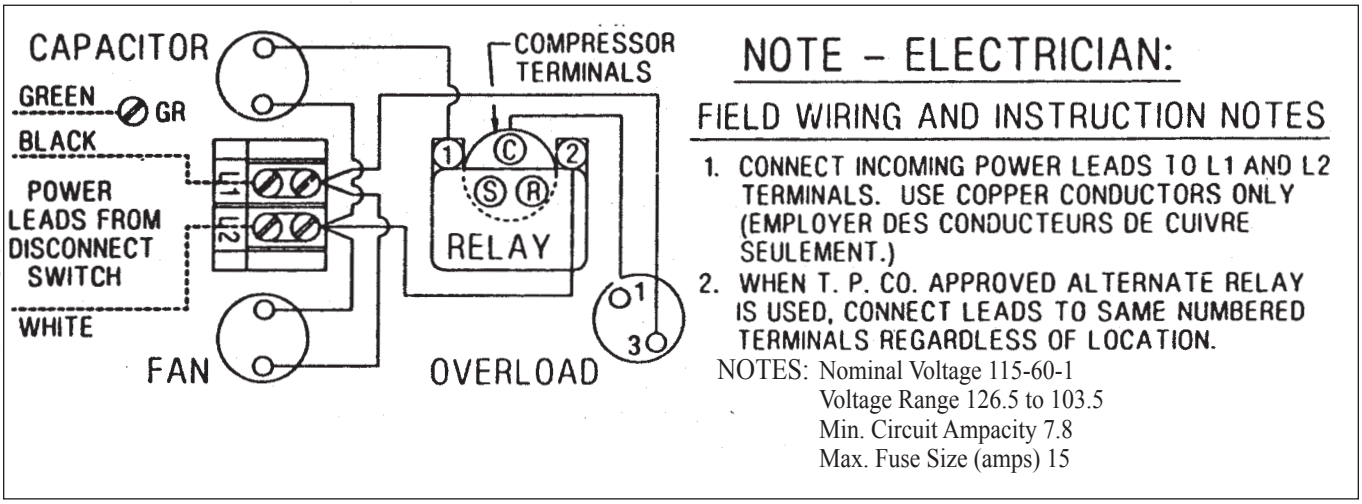
It is recommended that only Copeland capacitors be supplied with Copeland units, but in an emergency a 15,000-18,000 Ohm, two watt resistor should be soldered across the terminals of the start capacitor.

ELECTRICAL COMPONENT LOCATIONS

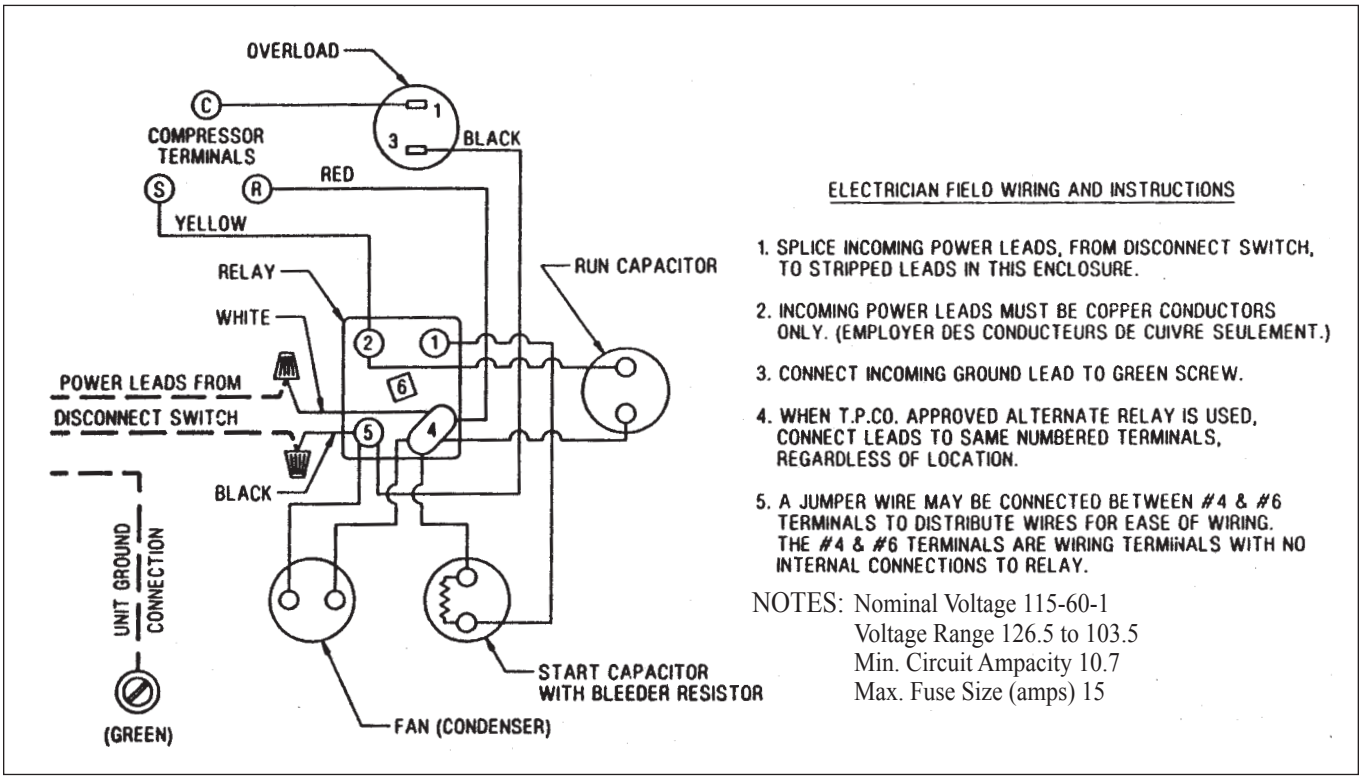


J713 SERIES COLD FOOD COUNTERS

1/3 H.P. Copeland or Tecumseh Electrician Field Wiring and Instructions.



1/2 H.P. Tecumseh Electrician Field Wiring and Instructions



IX. PARTS LIST

No.	PN	Item Name	Stock No.	Description	Manufacturer
1		Condensing Unit 1/3 H.P.	311938	M4YL-0035-1AA	Copeland
1A		Condensing Unit 1/3 H.P.	311936	AE2413ZC-2D388-1	Tecumseh
1B		Condensing Unit 1/2 H.P.	311937	AJ2422ZC2D253-1	Tecumseh
2	92245	Pressure Control	280610	012-4834-000 Low pressure Control	Ranco
3	24864	Drier/Filter	282300	C-052-T-HH Line filter 1/4" Sweat	Sporlan
4	24865	Sight Glass	282400	SA-12S Liquid Indicator 1/4" Sweat	Sporlan
5	24862	Expansion Valve	282575	Q-0(1/6T)RZ-5' TXV 1/4" Sweat	Sporlan
6		Axial Fan (in pan)	312390	12 Volt	Mechatronics
7	11924	Power supply	360773		
7a		120V/12V Transformer (for units before SN C11C33917A)	312391	50355	Motor & Armatures
7b		Bridge Rectifier (for units before SN C11C33917A)	312392	FB2500	Newark Electronics
8	11923	Thermal probe	280865		
9	11925	Rocker Switch	335912		
9a		Toggle Switch (for units before SN C11C33917A)	335900	TA205-PWB Single Pole Throw	Carling
10		Casters	130810	2-4056-43 5" Plate type swivel w/ brakes	Jarvis & Jarvis
11		Axial Fan	312400	028021	Comair-Rotran
12	11922	Thermostat	280860		
12a		Thermostat (for units before SN C11C33917A)	280810	A12-700	Ranco
13		Liquid Line Solenoid	281610	E3S120w/MCK-1-120V	Sporlan
14		Cord & Plug Set	2512	Type 14/3	

Note: Models J713, J713A, J713D and J713E employ all items except Item 1B
Note: Models J713B and J713C employ all items except item 1A.

Condensing Unit Data
(all data is for 120v/60hz/1ph condensing units)

Condensing Unit Model No.	Motor Amps		Winding Resistance in Ohms	
	Rated Load.	Locked Rotor	Start Winding	Run Winding
Copeland M4YL-0035-IAA 6.3	6.4	33.0	1.90	
Tecumseh AE2413ZC-2D388-1	5.9	40.0	8.15	1.05

X. WARRANTY

ALADDIN TEMP-RITE
EQUIPMENT
LIMITED WARRANTY

Effective June, 1995

Aladdin Temp-Rite ("ATR") warrants to the original purchaser that the equipment listed below shall be free from defects in material and workmanship under normal use for the applicable warranty term set forth below. ATR's obligation under this warranty is limited to the repairor replacement, at the sole option of ATR, of any part which upon inspection and examination by ATR or its authorized agent is found to be defective. A written description detailing the nature of the claimed defect, together with the equipment claimed to be defective if required by ATR, must be delivered to ATR or its authorized agent within 30 days of discovery of the claimed defect (but in no event later than 30 days after the expiration of the applicable warranty term).

EQUIPMENT	WARRANTY TERM*		COMPRESSOR WARRANTY TERM* PARTS ONLY**
	PARTS	LABOR	
J713 Series Cold Food Counters	1 Year	90 Days	5 Years

*The warranty term commences 30 days after the date of ATR's invoice for the equipment.
**The compressor warranty covers the compressor only and does not include any shipping charges, other transportation costs, any external parts or electrical components, labor, refrigerants and taxes.

THE WARRANTIES AND REPRESENTATIONS OF ATR CONTAINED HEREIN ARE EXPRESSLY IN LIEU OF, AND THE BUYER WAIVES, ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY OTHER REMEDIES AGAINST ATR, WHETHER BASED UPON CONTRACT, NEGLIGENCE STRICT LIABILITY OR OTHERWISE. ALADDIN SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR ECONOMIC LOSS OF ANY NATURE (INCLUDING WITHOUT LIMITATION LOSS OF REVENUES AND/OR PROFITS) THAT MAY BE CLAIMED TO RESULT FROM ANY NEGLIGENCE OR BREACH OF WARRANTY OR CONTRACT BY ATR.

Exceptions and Exclusions

This warranty is issued only to the original purchaser, and is not transferable and applies only to the products installed within the United States of America, its territories and Canada. During the term of any labor warranty, ATR will pay all preapproved shipping charges incurred in returning defective equipment to ATR and labor costs incurred in the removal and reinstallation of such equipment. Contact ATR before returning any claimed defective equipment or otherwise performing warranty repairs. ATR assumes no liability for any work or repair performed without its prior approval. After the expiration of any labor warranty, the original purchaser is responsible for all shipping charges incurred in returning defective equipment to ATR and labor for removing and reinstalling such equipment. ATR shall not be responsible for the replacement of expendable items like lamps and fuses or product failure resulting from normal wear and tear, improper installation, misuse, sabotage, abuse, neglect, accident, unauthorized alterations or repair, or other factors beyond the control of ATR. Neither this warranty nor the liability of ATR may be modified or extended by action of any agent, distributor or other person or by custom or practice.

CALL ALADDIN TEMP-RITE TOLL FREE AT 1-800-888-5426 IF YOU HAVE ANY QUESTIONS ABOUT THIS WARRANTY OR YOUR ATR PRODUCT.