RPI Industries, Inc.

AIR SCREEN and SELF-SERVE

OPERATION AND SERVICE MANUAL

WARRANTY INFORMATION

For Model

OLYMPUS MILK CASE

SCAS36R-III MC
SCAS48R-III MC
SCAS60R-III MC

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

220 Route 70, Medford, NJ 08055

Phone: (609) 714-2330 Fax: (609) 714-2331

IMPORTANT: THE FOLLOWING INFORMATION SHOULD BE RETAINED FOR FUTURE REFERENCE

RPI Industries, Inc.

Congratulations, you have just purchased the finest air screen/self-serve display case available. RPI Industries, Inc. development of an exclusive humidity and temperature control system insures product shelf life and enticing displays, which leads to a better bottom line. We at RPI Industries, Inc. hope you are satisfied with your case for many years to come.

IMPORTANT **IMPORTANT** **IMPORTANT**

Controls are pre-set at our factory. Please consult our refrigeration service department at (609) 714-2330 if setting changes are required.

ADJUSTING CONTROLS WITHOUT PRIOR AUTHORIZATION FROM RPI INDUSTRIES MAY VOID YOUR WARRANTY

Please consult your operation and service manual for proper care of your case.

For Your Records Enter Model And Serial Number of the Product You Purchased.

Model:_____

Serial No.:_____

CASES ARE DESIGNED TO OPERATE IN AN ENVIRONMENT OF 75 DEGREES FAHRENHEIT AMBIENT AND 55% HUMIDITY.

TABLE OF CONTENTS

GENERAL INFORMATION

RPI Industries, Inc. Recommends That A Qualified Refrigeration Technician perform The Installation, Inspection and Start-Up of Refrigeration Equipment.

RPI Industries, Inc. Makes No Other Expressed Or Implied Warranty, And No Person or Representative Of The Seller Is Authorized To Add To The Seller's Liabilities in Connection With Its Products Other Than What Is Expressed.

Warranties Listed Here Are For Equipment Located Inside The Continental United States.

All Services Labor And/Or Part Charges Are Subject to Approval By RPI Industries, Inc. Contact the Service Department in Writing or Call (609) 714-2330, E-mail www.regalpinnacle.com.

All Claims Must Contain The Following Information:

* The model and serial number of the equipment.

* The date of the equipment failure and place of installation.

* The name and address of the agency which will perform the service work.

- A complete description of the equipment failure, circumstances relating to that failure, parts replaced and itemized list of all labor charges to be incurred.

RPI Industries, Inc. Shall Not Be Liable For Any Default Or Delay In Performance Caused By Any Contingency Beyond Its Control.

Warranties Do Not Include Any Food or Business Loss and Transportation Charges To Or From RPI Industries' factory.

Serial Number Nomenclature: Eight Digits (XXXXXXXX)

* First Two Digits = Month

* Second Two Digits = Year

* Last Four Digits = Case number

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INTRODUCTION

REFRIGERATED AIR SCREENS and SELF SERVE CASES
OPERATION & SERVICE MANUAL

1. Temperature of case is controlled by Digital Control Cases are pre-set at factory. Settings should not be touched, without first notifying the factory.

2. Condensing unit is 115/60 or 208/230V/60 cycle/single phase air-cooled or equal.

3. Refrigerant: R134A, R404A

4. Average case temperature in Air Screens and Self-Serve cases is between 37 and 40 degrees Fahrenheit.

5. Make certain that the drain pan on refrigerated cases is checked weekly. Calcium deposits may accrue depending on area and water quality. The float on the drain pan should be cleaned weekly for proper operation.

6. Brush out or vacuum condenser (looks like a black radiator) once a month for efficient operation. (When the condenser is clogged with dirt and dust, the case looses its efficiency.

7. Do not store packages against blower (evaporator coils) so airflow is not impeded.

8. Do not block airflow inside display area over front and back grill.

9. Provide adequate airflow in and around condensing unit inlet and discharge areas.

10. Tracks and sliding door fixtures should be cleaned and lubricated periodically.

11. Check inside cooling coil housing to be certain that it is free of debris.

12. Replace any malfunctioning parts as soon as possible.

Important: Failure to comply with any of above may void warranty.

RECEIVING & INSPECTION PROCEDURE

1. Transportation companies assume all liability from the time a shipment is received by them until the time it is delivered to the consumer. Our liability ceases at the time of shipment.

2. All shipments leaving our plant have been carefully inspected. If a shipment arrives with the crating or packaging damaged, have the carrier note the condition on the receipt. Check as soon as possible for concealed damage.

3. If it is found that the shipment has been damaged in transit, please **DO NOT** return it to us, but notify and file a claim with the carrier at once. **FAILURE TO FOLLOW THIS PROCEDURE WILL RESULT IN REFUSAL BY THE CARRIER TO HONOR ANY CLAIM WITH A CONSEQUENT LOSS TO THE CUSTOMER**

LOCATING THE FIXTURE

1. Locate refrigerator or freezer in a dry, cool and well-ventilated area. When possible, do not locate any fixture in the direct rays of the sun, near heating ducts, radiators, stoves, doors or any device which will hinder the airflow as designed.

2. There must be at least 24 inches of unobstructed clearance from the condensing unit compartment.

3. Locate the electrical outlet in such a manner that you may plug in the service cord (when furnished) direct, without the use of an extension cord. On models not furnished with a service cord, a permanent electrical connection is required. Make sure that no other electrically operated appliances are connected to the circuit operating this fixture, which will cause an overload. Overloaded circuits are extremely hazardous. **THE VOLTAGE MUST BE MAINTAINED TO WITHIN 5% OF VOLTAGE INDICATED ON THE NAMEPLATE FOR PROPER OPERATION.**

4. This unit is intended to be sealed to the floor with a NSF approved sealant, unless supplied with castors or legs, In addition, RPI Air screen display cases may be installed flush against the rear wall.

5. This unit is for use in a max. 75F (24C) and 55% humidity room ambient conditions. Higher room temperature will effect the operation and warranty of this unit.

INSTALLATION

It is always good practice to have a competent refrigeration service person perform the start-up. It is also advisable to obtain a service contract from this same individual to be assured of reliable and efficient service in case of any future problems.

1. It is mandatory that a direct, properly fused line of proper size wire be installed from the main supply to your refrigerator. It is most important that a voltage reading be made at the compressor- motor electrical connections, or as close to the compressor-motor as possible at start-up and while the refrigerator is in operation, to insure that the correct voltage required by the compressor is supplied.

2. Check serial and rating plate for voltage and current requirements, then make electrical hook-up.

3. Make certain that the fixture is level in all directions. This is especially important for proper door closure, correct water drainage and efficient operation of evaporator.

4. Place drain line in evaporator pan, or directly into floor drain.

5. Check vibrations or any objectionable noises.

6. Check operation of lights.

7. Inspect door for proper operation. (If applicable)

8. Adjust defrost time clock to coincide with the local time

9. After installing shelves, be certain that they are in their proper place. Do not lay products against the rear of the display area. This will restrict airflow from storage area. Make sure light cord plugs and receptacles are properly seated and secured. Loose cords may short out and void warranty.

OPERATING INSTRUCTIONS

TEMPERATURE CONTROL

Temperature is regulated by a digital control.

This control is activated by temperature sensors and is used to cycle the compressor on and off to maintain proper temperatures in the cabinet. This control is pre-set at the factory; this may be adjusted when colder or warmer temperature is needed. Consult RPI Industries, Inc. refrigeration service department at (609-714-2330) for assistance.

STOCKING THE CABINET

After the equipment is running, it should be operated for a 24-hour period of time to bring the storage temperature to the proper temperature. This unit should not be turned off and on during the day.

The evaporator fans draw air from the storage area through the intake grille circulates it through the evaporator and discharges it up through the display section of the case and returns via the perforated grill at the front of the display deck. Be certain that products do not block air circulation vents and evaporator intake grill in storage compartment. **Products must be refrigerated prior to loading unit.**

It is also a good idea to keep the lights turned off during initial pull down and loading of the fixture to prevent overloading of the condensing unit.

Load Level Recommendations: A space of 1.5 to 2.0 inches should be provided between the top of product and the bottom of the next shelf. In addition product should be held back a minimum of 1 inch from the front air baffle.

DRAIN EVAPORATOR PAN

When specified, a condensate evaporator pan heater is furnished to dissipate the water collected from the coil during defrost or "off" cycle. This condensate evaporator heater is installed and is equipped with a power cord for plugging into 115 volts AC separate outlet (3ft models only). 208-230 volt models; the condensate evaporator heater plugs into a receptacle provided in the condensing unit compartment. (This does not apply to cases with floor drains.) **The condensate heater is designed for a maximum 75^{o}F and 55% relative humidity. The pan may overflow if these limits are exceeded.**

MAINTENANCE INFORMATION

Cleaning

Case Exterior

Clean surfaces frequently with warm water and mild detergent. **Do not** use strong alkali solutions, steel wool, or abrasive cleaners.

Case Interior

All shelving and lower deck can be removed for cleaning. Check to make sure the drain(s) are not clogged. Clean interior with warm water and a mild detergent. A sanitizer should be used after washing to eliminate bacteria. Rinse thoroughly being careful not to flood drain system and the condensate evaporator pan heater. Avoid spraying water directly into electrical connections. **DO NOT USE A HIGH PRESSURE WATER HOSE. MAKE SURE FANS AND LIGHTS ARE SHUT OFF WHEN CLEANING THE INTERIOR OF THE CASE.**

Plexiglas

Do not use strong alkali solutions, steel wool, and abrasive cleaners.

Evaporator Coil

Clean if needed.

Condenser Coil

Failure to clean coils will void warranty. Clean condenser coil once a moth or as needed with a whiskbroom or vacuum. **Disconnect power when servicing. Fins on condenser coil are sharp!**

Condensate Heater

Add a teaspoon of scale remover or white vinegar to the condensate heater pan once every three months or as needed.

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REMOTE MODELS

Refrigerant Piping

Refrigerant Line connection sizes:

Suction Line 5/8" O.D. Liquid Line 3/8" O.D.

These connections are made at the right hand end of the cases (facing front) beneath the refrigerated display area in the base compartment. Refrigerant lines should be sized as shown on the refrigeration legend (furnished by the owner).

LINE SIZING

Refrigerant lines should be sized in accordance to ASHRAE standards per the information provided on the refrigerator requirements of the RPI fixture.

OIL TRAPS

P-traps (oil traps) must be installed at the base of the suction line vertical risers.

PRESSURE DROP

Pressure drop reduces capacity of the refrigeration system. To minimize pressure drop, use proper size tubing, keep the refrigeration lines as short as possible and use a minimum number of elbows. Where elbows are needed, use long radius elbows only.

EXPANSION VALVE ADJUSTMENT

Expansion valves must be adjusted to fully feed the evaporator. Before attempting to adjust valves, make sure the evaporator is either clear / or only lightly covered with frost, and that the fixture is within 10^{o} F of it's expected operating temperature.

Adjust the valve as follows:

A. Attach a probe to the suction line near the expansion valve bulb.
B. Obtain a pressure reading from the factory installed schraeder valve. Convert the pressure to a saturated temperature for the appropriate refrigerant.

Temperature A minus Temperature B = Superheat

Some "hunting" of the expansion valve is normal. The valve should be adjusted so that during the hunting **the greatest difference between the two temperatures is 3^{o} F to 5^{o} F**

With this adjustment during a portion of the hunting the temperature difference between the probes will be less than 3^{o} F (at times as low as 0^{o} F)

Make adjustments of no more than (1/2) turn of the valve stem at a time and wait for at least fifteen minutes before rechecking the probe temperature and making further adjustments.

REFRIGERATION & DEFROST CONTROLS FOR CONVENTIONAL OPERATION (Single Compressor systems)

Refrigeration temperatures may be controlled by ether the condensing unit's low pressure control or by refrigeration control (optional / one per condensing unit). Thermostatic control is preferred since it will provide a more constant year-round control of temperatures. The thermostat may be field or factory installed, must have a differential of 3^{o} F to 6^{o} F and have its sensing bulb located to monitor the air leaving the evaporator. One thermostat per condensing unit is required and should be wired into the compressor motor contactor control circuit

A pump down system is recommended for outdoor condensing units.

Defrost:

RPI models have defrost cycles that are controlled by the digital control Defrost time should be increased if coils are not clear at the end of defrost cycle.

*Lengths of defrost time varies with humidity conditions.

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WARRANTY

PARTS: One Year

RPI Industries, Inc. warrants to the original purchasers, the equipment manufactured by it to be free from defects in material and workmanship under normal use and service within 12 months from the date of original shipment from the factory.

Any items returned to the factory must be authorized by RPI Industries, Inc. refrigeration service department and shipped prepaid. Replacements will be shipped collect.

This warranty does not include any materials, which have been subject to misuse, neglect, and damage in transit, accident, negligence or alterations.

LABOR: One Year

RPI Industries, Inc. warrants to the original purchasers, the equipment manufactured by it. RPI Industries, Inc. will for a period of 12 months from the date of original shipment from the factory pay the cost of labor for repairs and replacement of parts that it has determined to be defective.

This warranty does not include the cost of labor for initial installation, start-up, correction of improper installations, by contractors other than RPI Industries, Inc. misapplications, repair due to abuse and negligence, by buyer, modifications, normal adjustments, drive time to and from repair site. The cost of service labor reimbursed will be based on straight-time rate and reasonable time for the repair of defect.

All service labor charges are subject to approval by RPI Industries, Inc. service department.

MOTOR-COMPRESSOR LABOR – One Year

RPI Industries, Inc. warrants to the original purchasers, the motor-compressor assembly. RPI Industries, Inc. will for a period of one year from the date of original shipment from factory pay the cost of labor for repairs and replacement of motor-compressor assembly when it has been determined to be defective.

This warranty does not include the cost of labor for initial installation, start-up, correction of improper installations, by contractors other than RPI Industries, Inc. misapplications, repairs caused by abuse and negligence, by buyer, modifications, normal adjustments, drive time to and from repair site and freon recovery. The cost of service labor reimbursed will be based on straight-time rate and reasonable time for the repair of defect.

All service labor charges are subject to approval by RPI Industries', Inc. service department.

MOTOR-COMPRESSOR – FOUR YEAR (OPTIONAL):

RPI Industries, Inc. warrants to the original purchasers, that it will repair or exchange at our option at anytime during the four years following the date of original shipment from the factory a motor-compressor assembly or any part thereof is returned prepaid to nearest authorized jobber and is proved to our satisfaction to be inoperative due to defects in material or factory workmanship.

This warranty does not apply to any electrical controls, condenser, evaporator, fan motors, overload switch, starting relay, temperature control, dryer, accumulator or wiring harnesses.

Replacement of the motor-compressor assembly must receive prior approval from RPI Industries' Inc. service department. Purchaser must have model number, serial number and date of shipment.

No claims can be made against this warranty for spoilage of product.

These Warranties DO NOT apply to Remote (compressors or condensing units supplied by others)

SPECIFICATION

EXTERIOR DIMENSIONS

Model	Length	Width	Height
SCAS36R-III	36″	29 3/4″	91″
SCAS48R-III	48″	29 3/4″	91″
SCAS60R-III	60″	29 3/4″	91″

ELECTRICAL INFORMATION

Model	Evap Fans	Lights	HP	Voltage	RLA/LRA	Cond Heater	Evap Pan	Nema Plug
SCAS36R-III	0.72	.91	1/2	115	6.9/51.0	0.5	8.3	2-5-15P
SCAS48R-III	0.72	1.2	3/4	115/208 -230	10.36/48.2	0.5	4.8	L14-20P
SCAS60R-III	1.08	1.5	11/4	115/208 -230	10.36/48.2	0.5	4.8	L14-30P

BTU CAPACITY

Model	BTU	Evap Temp °F	Refrigerant	Self Contained Charge oz.
SCAS36R-III	4230	+20	R134A	36
SCAS48R-III	6740	+20	R404A	46
SCAS60R-III	10,500	+20	R404A	64

* Rating Temperature 90°F Ambient

Trouble Shooting Charts

TROUBLE	PROBLEM CAUSE	SOLUTION
Compressor will not start no noise	1. Switch turned off	1. Check power switch in unit compartment.
	2. Power disconnected	2. Check service cord wiring connections
	3. Blown fuse or breaker	3. Replace fuse or reset breaker
	4. Defective or broken wire	4. Repair or replace
	5. Defective overload	5. Replace
	6. Defective temperature control	6. Replace
Compressor will not start, cuts out on overload	1. Low voltage	1. Check voltage at cabinet; should not be more than 5% below rating voltage
	2. Defective compressor	2. Replace
	3. Restriction (moisture)	3. Leak check, replace drier evacuate and recharge
	4. Condenser blocked with dust and dirt	4. Clean condenser
	5. Defective relay	5. Replace
	6. Defective condenser fan motor	6. Replace
Warm storage temperature	1. Temperature control not set properly	1. Reset control
	2. Short of refrigerant	2. Leak check, replace drier evacuate and recharge
	3. Cabinet location too warm	3. Move to cooler location or correct excessive heat source.
	4. Refrigerant overcharge	4. Purge system, evacuate and recharge.
	5. Low voltage, compressor cycling on overload	5. Check voltage at compressor; should not be more than 5% below rating.

Compressor runs continuously, product too warm	1. Short of refrigerant	1. Leak check, replace drier evacuate and recharge.
	2. Inefficient compressor	2. Replace.
Compressor runs continuously, product too cold	1. Defective control	1. Replace.
	2. Short of refrigerant	2. Leak check, replace drier, evacuate and Recharge.

TROUBLE SHOOTING FOR LIGHT CHART

Problem	**Solution**
Lights won't start	1. Check light switch 2. Check continuity to ballast 3. Check to see if bulbs inserted properly in socket 4. Check voltage
Lights flicker	1. Allow lamps to warm up 2. Check lamp sleeve for cracks 3. Check sockets for moisture and proper contact. 4. Bulb replacement may be necessary. 5. Check voltage.

WARNING

ALWAYS DISCONNECT THE ELECTRICAL POWER AT THE MAIN DISCONNECT WHEN SERVICING OR REPLACING ANY ELECTRICAL COMPONENT OF THIS REFRIGERATOR. THIS INCLUDES, BUT IS NOT LIMITED TO SUCH ITEMS AS FANS AND THERMOSTATS.