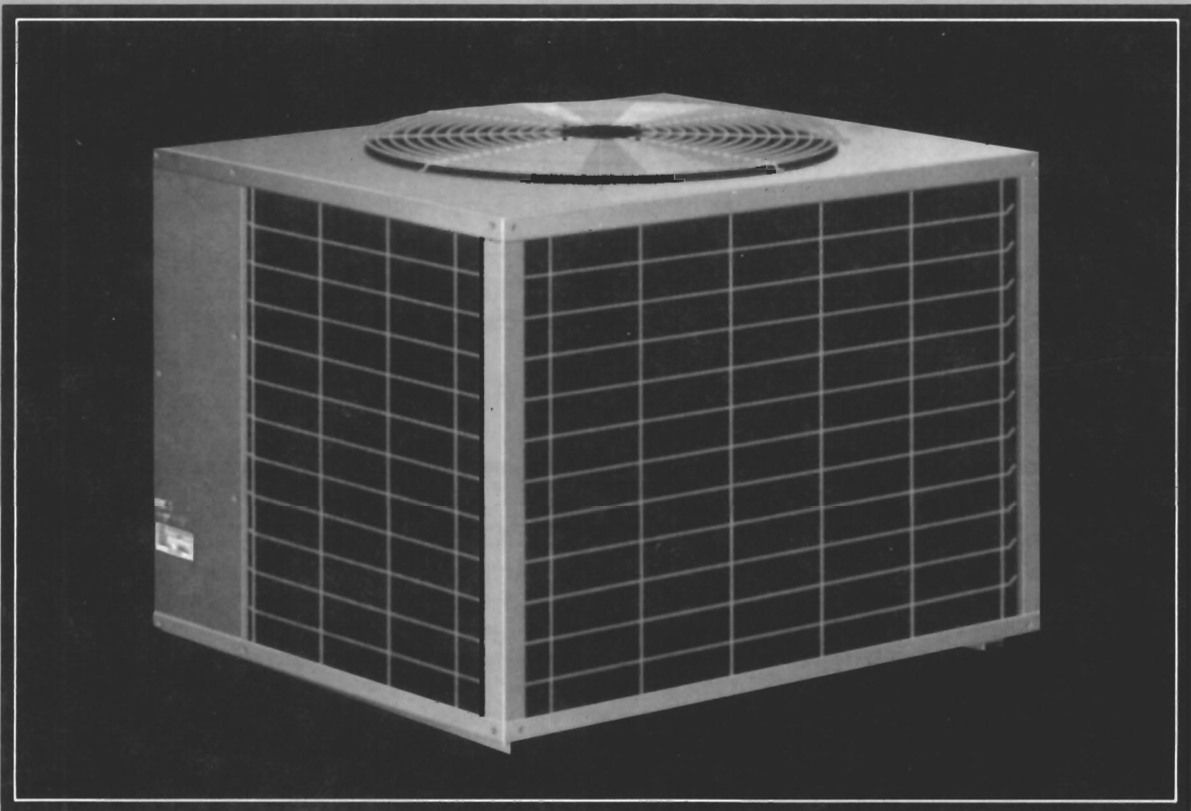


The
ENERGY  **KNIGHT**®

Split System High Efficiency Air Conditioning

1.5 THRU 5 TON

Installation, Operations and Parts Manual



HEAT CONTROLLER, INC.

1900 WELLWORTH AVENUE • JACKSON, MICHIGAN 49203

THE QUALITY LEADER IN CONDITIONING AIR

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CONGRATULATIONS

You should look forward to the utmost in cooling comfort with the air conditioning system installed in your home or business.

We constantly try to improve the quality of our products consistent with the price at which the product is sold. We believe our products represent the best possible value available.

This equipment installed in your home has been built with care and undergoes several individual inspections. Finally, each unit is run and tested in our plant.

After taking all possible steps to insure the quality of our products, we make every effort to sell our products through qualified heating and cooling dealers or contractors.

Satisfactory air conditioning depends greatly on the quality of installation. The dealer or contractor who installs your equipment is well aware of this, and if your unit is in fact giving the satisfaction to which you are entitled, it has been properly installed.

This cooling system has the capacity to control both humidity and temperature and maintain these conditions at a specific predetermined point.

It can only do these functions well if all factors involved in this process are maintained at their high points of efficiency.

YOU HAVE A MAJOR INVESTMENT IN A FINE PIECE OF EQUIPMENT. KEEP YOUR INVESTMENT SOUND.

This can be done with a reasonable amount of time and effort. It is entirely possible for you, the owner of this comfort machine, to make it as dependable as your new car, if you will give it the same kind of care you give your car. Although its maintenance is somewhat different from that of a car, a bit of effort will keep it an efficient, economical and trouble-free piece of equipment. See the maintenance section of this manual.

Should the unit need service, call an experienced organization, preferably the dealer or contractor who made the initial installation.

OPERATING INSTRUCTIONS

1. If the furnace and air conditioner are on separate thermostats, turn the furnace thermostat to the "off" position during the cooling season to prevent simultaneous operation of the heating and cooling systems. Reverse the procedure during the heating season.

Set the desired temperature on your thermostat temperature dial and set the fan switch to "on" (for continuous air circulation) or to automatic (for air circulation only when the air conditioning system is operating). If you desire to vary the thermostat temperature setting during the day for energy conservation (for example, while you are at work), do not vary the setting more than 5 degrees of your normal temperature setting. Changing the temperature more than 5 degrees or turning the thermostat off for periods less than 12 hours can actually cost you more in energy consumption than keeping the temperature constant. You should also consider indoor plants and pets when varying the temperature off of the normal comfort level.

2. IMPORTANT: Wait at least 3 minutes after turning the air conditioner off before trying to restart. If an attempt is made to start the compressor before the refrigerant pressures are equalized, the compressor motor may trip on its overload. An additional waiting period will be required before restarting.

MAINTENANCE

1. Always install and keep filters clean. Check filters every 10 days to 2 weeks. Clean or replace if necessary.

2. Keep the condenser (outdoor coil) clean. Wash it down with a garden hose if necessary. (BE SURE UNIT DISCONNECT IS IN THE OFF POSITION AND THAT ALL ELECTRICAL POWER TO THE UNIT IS TURNED OFF, BEFORE CLEANING THE SYSTEM. **WARNING:** SERIOUS INJURY MAY RESULT IF WATER SPRAY IS DIRECTED TOWARD LIVE ELECTRICAL CONNECTIONS OR POWER SOURCES). Remove any loose grass, leaves, papers, etc., from the area around the condenser coil. These could reduce the air supply through the coil and reduce the amount of cooling.

Since the air conditioner is located outdoors, it is exposed to all weather elements. Treat it with a good automobile paste wax twice a year (in the spring and fall).

NOTE TO INSTALLER: These instructions are for the use of qualified individuals specially trained and experienced in installation of this type equipment and related system components. Installation and service personnel are required by some states to be licensed. Persons not qualified shall not install this equipment nor interpret these instructions.

WARNING: Improper installation may damage equipment, can create a hazard and will void the warranty.
NOTE - the words "SHALL" and "MUST" indicate a requirement which is essential to satisfactory and safe product performance. The words "SHOULD" and "MAY" indicate a recommendation or advice which is not essential and not required, but which may be useful or helpful.

DANGER: Before performing any work on this equipment, the electrical power supply must be turned OFF at the household service box to avoid the possibility of shock injury or damage to equipment.

INSPECTION AND UNPACKING

A thorough inspection of the shipping container should be made immediately upon receiving your unit. Look for any punctures or openings, and if it appears damage has occurred, it should be noted on the freight bill before signing name. The delivering carrier should be contacted immediately to inspect damage, and no installation work should begin until this inspection is completed.

NOTICE: This Installation and Maintenance Manual is provided to insure the proper installation and most satisfactory performance of your Heat Controller equipment. The instructions contained herein shall not be deemed to extend, modify, alter or expand any of the representations contained in the Heat Controller LIMITED WARRANTY PLAN.

INSTALLATION

A. LOCAL CODES - The installer shall comply with all local codes and/or regulations pertaining to this type of equipment and its installation. Such codes and/or regulations shall take precedence over any recommendations contained herein in lieu of local codes. Installations shall be made in accordance with the National Electrical Code and recommendations made by the National Board of Fire Underwriters.

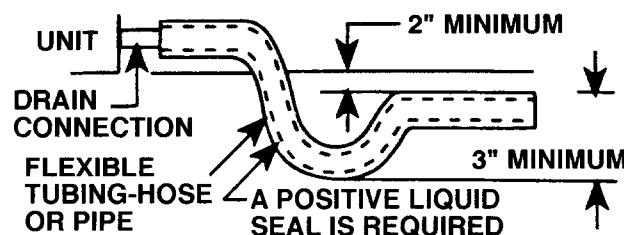
B. INSTALLATION OF CONDENSING UNIT

The condensing unit should be located outdoors as close as possible to the evaporator, consistent with the desires of the customer. Consider the following factors:

1. The air inlet shall be located at least 12" from a wall or other obstruction for unrestricted air flow.
2. The air outlet shall be located so as to direct discharged warm air away from the building. (Avoid low overhanging roofs to avoid recirculation of condenser discharge air on vertical discharge models.)
3. Mount the unit on a sturdy base approximately 4" to 6" above the ground. A concrete slab is recommended. If concrete blocks are used, be sure to use well-tamped gravel fill beneath the blocks to prevent settling. If timbers are used, use at least 6" x 6" timbers plus gravel fill to prevent settling.
4. A concrete slab should not be in contact with the building foundation to prevent possible sound or vibration transmission.
5. Locating the condenser as close as possible to the evaporator will increase the system capacities by reducing the line set refrigerant pressure drop and will make the system less susceptible to liquid migrations due to less refrigerant charge.

C. INSTALLATION OF EVAPORATOR AND CONDENSATE DRAIN

1. Refer to the instructions supplied with the evaporator coil.
2. When installing the evaporator, refer to page 10 for condenser evaporator match-up. The evaporator should be installed in an insulated plenum of proper size to accommodate the coil, whether it be of the "A" coil or "H" coil type design. Be sure no air can bypass the coil as this can seriously hamper unit operation.
3. Install condensate drain as shown below. Use drain connection size or larger.
4. Emergency drain facilities shall be installed on any application where water damage may occur due to overflow, leaking or sweating of condensate drain pan.



DO NOT OPERATE WITHOUT TRAP. UNIT MUST BE LEVEL OR SLIGHTLY INCLINED TOWARD DRAIN.

D. INSTALLATION OF COPPER SUCTION AND LIQUID LINES

REFER TO THE CHART ON PAGE 9 AND 10 FOR THE RECOMMENDED TUBE O.D. SIZES ON LIQUID AND SUCTION LINES.

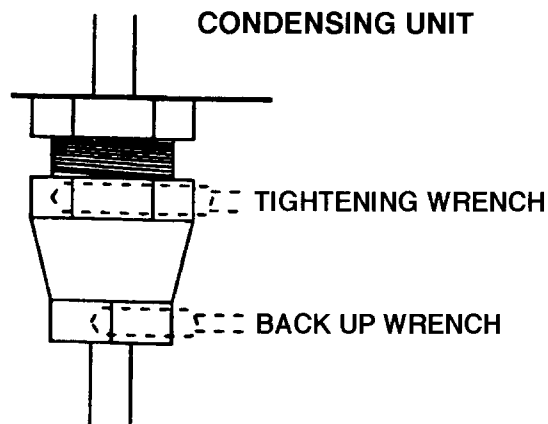
Undersized line sets will increase the refrigerant pressure drop between the indoor evaporator and outdoor unit resulting in a decrease in system capacity. Oversizing the line sets may result in excessive refrigerant charge, thereby making the system more susceptible to liquid migration.

Heat Controller condensing units are available in two types of copper connecting arrangements: sweat fittings, precharged quick connect fittings, or precharged sweat type refrigerant valves. The following instructions cover all both types.

1. Aeroquip fittings: (1) Remove dust caps and plugs. (2) If necessary, carefully wipe coupling seals and threaded surfaces with a clean cloth to prevent the inclusion of dirt or any foreign materials in the system. (3) Lubricate male half diaphragm and synthetic rubber seal with refrigeration oil. Thread coupling halves together by hand to insure proper mating of threads. (4) It is imperative that the properly located backup wrenches be used when tightening these couplings. Failure to do so will cause internal restrictions and leaky fittings. Hold backups as shown below for outdoor unit and fittings. Use proper size wrenches (on coupling body hex and on union nut) and tighten until coupling bodies "bottom" or a definite resistance is felt. (5) Using a marker or ink pen, mark a line lengthwise from the coupling union nut to the bulkhead. Then tighten an additional 1/4 turn to insure the formation of a leakproof joint. If a torque wrench is used, the following torque values are recommended:

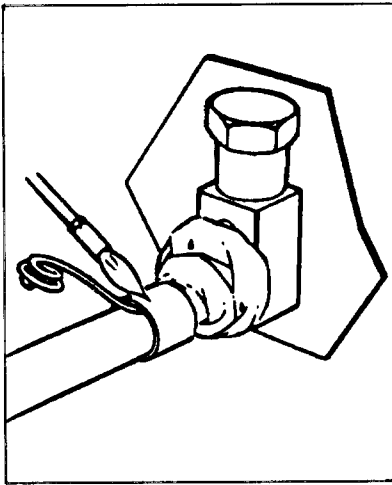
COUPLING SIZE	FT. LBS.
-6	10 - 12
-10	35 - 45
-11	35 - 45
-12	50 - 65

BE SURE TO USE BACKUP WRENCHES AS SHOWN!



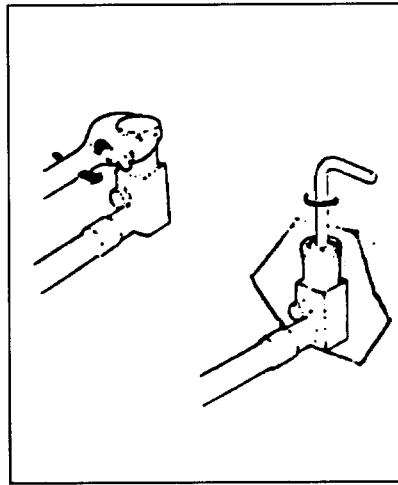
CONDENSING UNIT FITTINGS

INSTALLATION SWEAT-TYPE VALVES

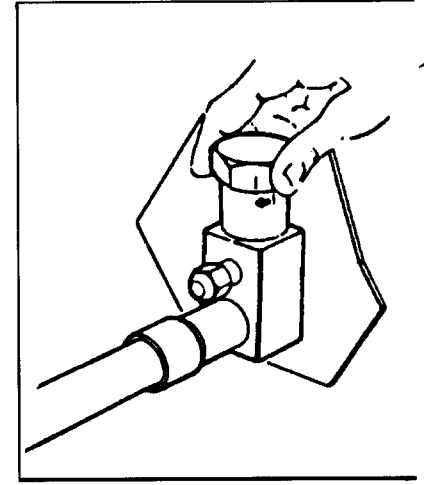


1. Remove the valve core from the schrader port. Wrap a wet rag around the copper stud. Flux the joint and braze with silphos rod containing at least 10% silver. **DO NOT USE SOFT SOLDER.**

2. Leak-check all braze joints at approximately 80 psi pressure, purge, and evacuate the lines. **NOTE: DO NOT USE AIR TO LEAK-CHECK BRAZE JOINTS. USE DRY NITROGEN.**



3. This is not a back seating valve. To open the valve cap use an adjustable wrench. To open the valve, insert a hex wrench (3/16" for the liquid line, 5/16" for the vapor line) into the stem and back out counterclockwise until the valve stem just touches the retaining ring. Do not over tighten.



4. Replace the valve cap finger-tight, then tighten an additional 1/12 turn or 1/2 hex flat. A metal-to-metal seal is now complete.

EVACUATION - if the installer is making up his own line sets, he must make sure the tubing is clean of any impurities or moisture. To insure a clean system free of any contaminant's purging with dry nitrogen and a deep vacuum is necessary on all stub-type models and on the uncharged portions of all models not incorporating precharged lines. It is desirable to pull a vacuum to 1,000 microns (29.96" Hg) to insure trouble-free operation of the system.

E. SPECIAL INSTRUCTIONS FOR REPLACEMENT APPLICATION:

When replacing an existing system, it is mandatory that a liquid line filter dryer (if not provided with the condensing unit) and a suction line filter conforming to the dryer selection chart below be installed in the new system if any of the original refrigerant-bearing components are to be used in the new installation. This is to assure that any contaminants left in the original components will not harm the new system. If any other evaporator coils other than those manufactured or approved by Heat Controller are used in the installation, **THE CLAIMED PERFORMANCE AND WARRANTY WILL BE VOID** without written notification and approval of such coils by Heat Controller.

DRYER SELECTION CHART (Alco, Parker Hannifin, Sporlan)

TONNAGE	LIQUID LINE FILTER DRYER	ALCO	SUCTION LINE FILTER PARKER HANIFIN	SPORLAN
2	053	35S5	SLD 8-5SV	C-165
2.5	053	35S5	SLD 8-5SV	C-305
3	083	45S6	SLD 13-6SV	C-306
3.5	163	45S6	SLD 13-6SV	C-306
4	163	45S6	SLD 13-6SV	C-307
5	165	45S7	SLD 13-7SV	C-307

Selection of dryers smaller than recommended will cause unsatisfactory pollution protection, excessive refrigerant charge and pressure drop. High pressure drops will result in reduced system capacities, higher system operating cost and increased failure rate.

F. ELECTRICAL HOOK-UP:

1. The installer shall check available power to make certain it matches the unit (Name Plate Rating) and that constant voltage can be maintained to the unit. Unsatisfactory performance would otherwise result. The local power company should be contacted on any problems or questions concerning power supply.

2. Install a line service disconnect switch within sight of the condensing unit. The line voltage service wiring for the condensing unit should include a fused disconnect switch.
3. Use correct wire size and fuse size. To insure that adequate voltage will be available at the condensing unit, the line voltage service wiring must be of adequate size. Minimum recommended wire ampacities and maximum fuse sizes are listed on the unit name plate.
4. Two holes are provided in the control box.
 - a. One is for the connection of the line voltage conduit or cable. The hole is sized for 3/4" Conduit.
 - b. One is for low-voltage wiring. (Refer to the wiring diagram for connection.)
5. Be sure to ground the condensing unit by securing the ground wire to the grounding lug inside the control box.

G. FIELD CHARGING:

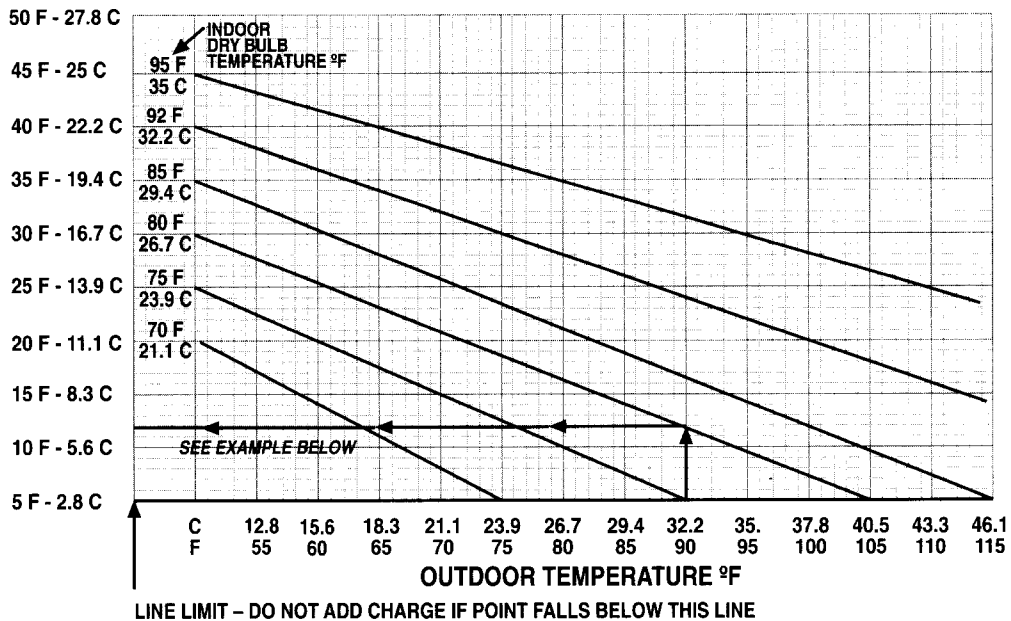
The use of the superheat method is highly recommended for field charging or checking the existing freon charge in a system. Because each installation is different in terms of indoor air flow, refrigerant line length, duct variations, etc., the factory charge may not be correct for every application. To assure the best performance from the air conditioner, the freon charge should be checked and adjusted if need be on each installation.

For proper superheat readings, a standard low side refrigerant gauge and an accurate thermometer is needed. A mercury or stem type thermometer is not adequate for suction line temperatures. We recommend electronic thermocouple thermometers (available at most refrigeration wholesalers); however, an accurate remote bulb thermometer can be used. When measuring the line temperature, be sure the thermometer is well insulated to assure accurate measurements. The chart below gives superheat values at various outdoor temperatures. Allow a least 5 minutes running time between charge adjustment for the unit to stabilize.

After the superheat adjustments have been made, refer to the pressure charts (pages 13 and 14) for the system in question. The system pressures should be similar to those referenced in the pressure charts, at like ambient temperatures.

SUPERHEAT CHARGING CHART

Chart based on 360 to 400 cfm/ton indoor airflow and 50% relative humidity, use on systems that cool with fixed restrictor.



SUCTION PRESSURE is 65 PSI which equals 38° F / 3.3° C on the R-22 scale of the low side gauge.
SUCTION LINE temperature taken at the unit is 70° F / 21.1° C. 70° F / 21.1° C minus 38° F / 3.3° C equals 32° F / 17.8° C superheat.
OUTDOOR TEMPERATURE is 90° F / 32.2° C indoor temperature is 80° F / 26.7° C.
INTERSECTION of the indoor temperatures and outdoor temperature lines occurs on the 12° F / 6.7° C superheat line.
ADD CHARGE to obtain 12° F / 6.7° C superheat.

INSTRUCTIONS:

1. Measure suction pressure and determine evaporator refrigerant temperature on R-22 scale of low side gauge.
2. Measure suction line temperature on suction line at the unit.
3. Measure outdoor and indoor temperature.
4. Determine from the table what the superheat should be for the indoor and outdoor temperature. (Example indicates 12° F / 6.7° C superheat.)
5. Adjust charge if needed. Be sure unit is running at stabilized condition.

NOTE: if operating superheat is more than 5° F / 2.8° C above the chart value, add refrigerant. If below the chart value, remove refrigerant. If below the limit line, remove refrigerant.

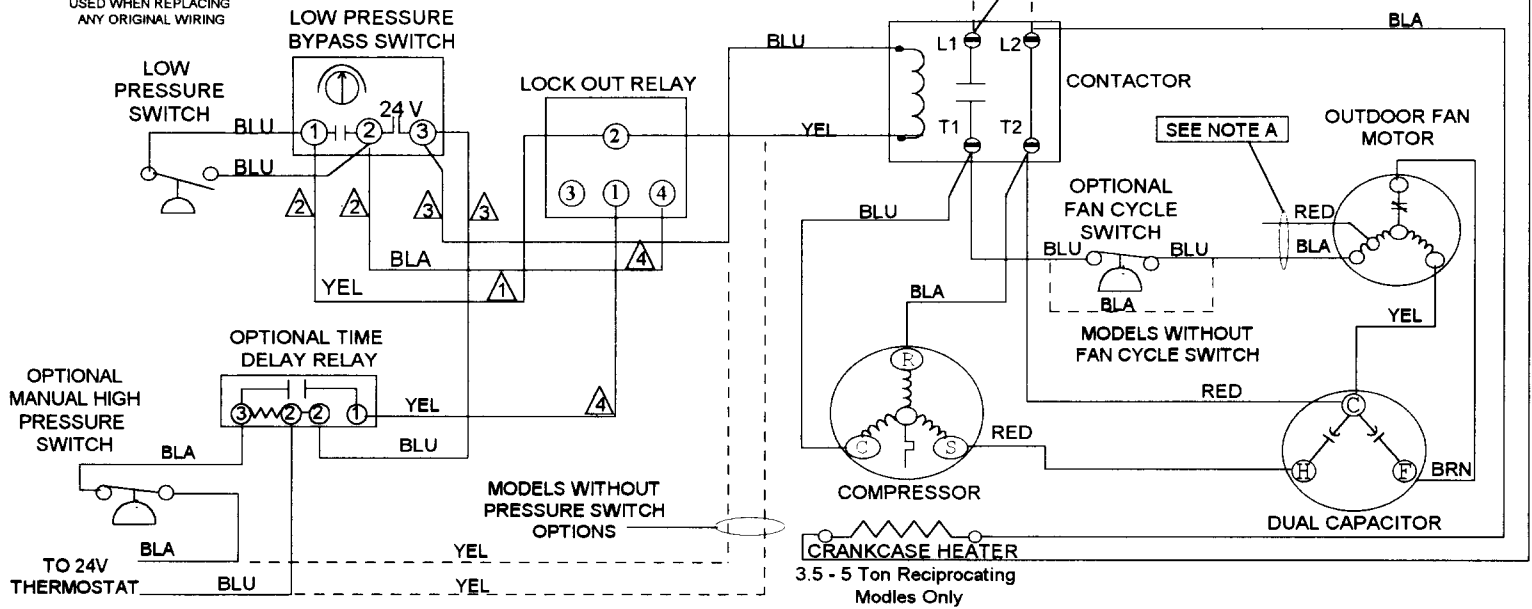
1 PHASE, 220 VOLT 50 HZ., 230 VOLT 60 HZ. OUTDOOR UNITS

BRN = BROWN, BLA = BLACK
 ORG = ORANGE, BLU = BLUE
 YEL = YELLOW, WHT = WHITE
 RED = RED, GRN = GREEN

△ WIRES CONNECT TOGETHER WHEN ACCESSORY IS NOT PRESENT

TYPE 105C THERMOPLASTIC OR EQUIVALENT MUST BE USED WHEN REPLACING ANY ORIGINAL WIRING

NOTE A OUTDOOR MOTOR 60 HZ., APPLICATIONS:
 18, 24, 30, 36 MODELS USE RED WIRE. ALL OTHER MODELS USE BLACK WIRE.
50 HZ APPLICATIONS:
 ALL MODELS USE BLACK WIRE.



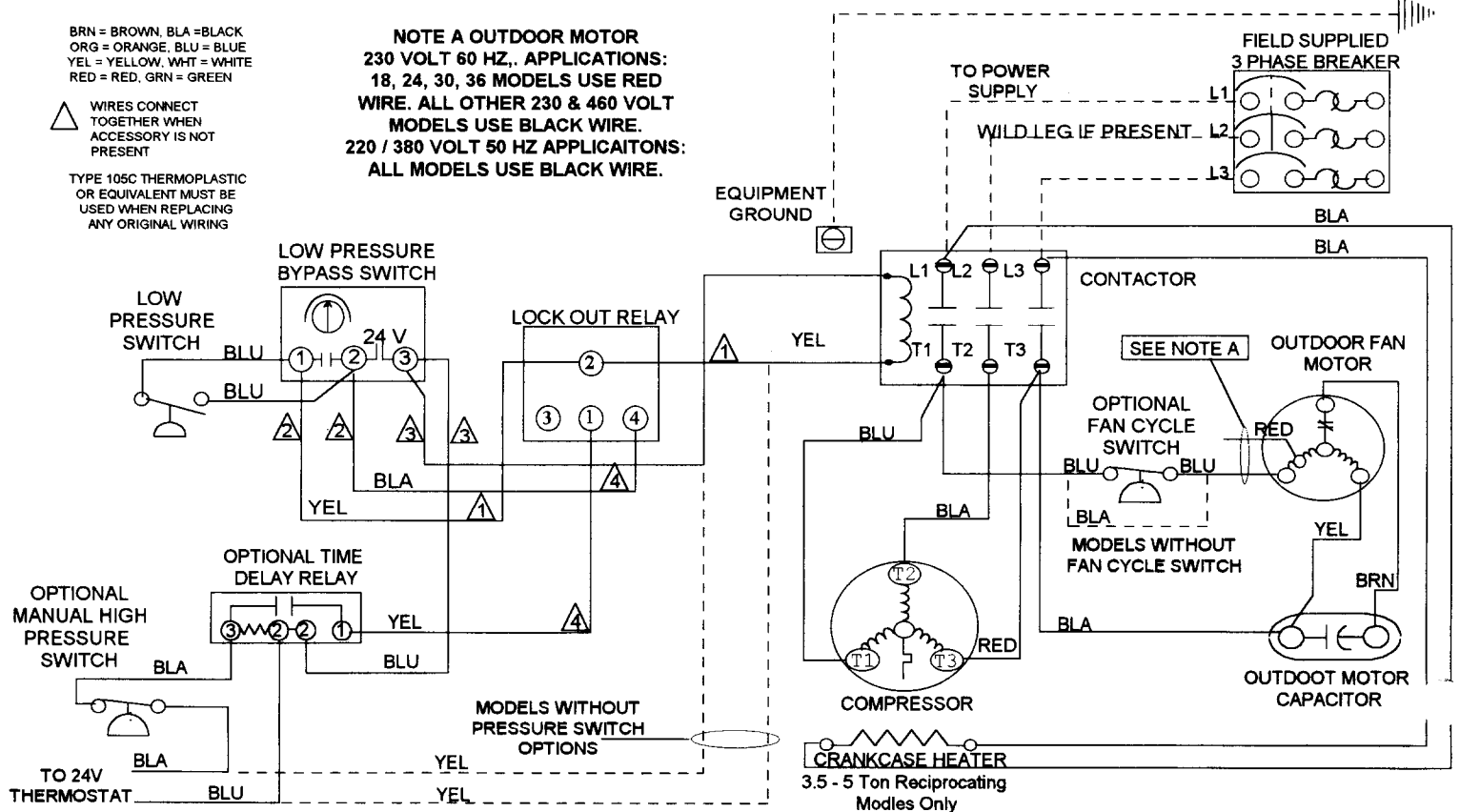
3 PHASE, 220 / 380 VOLT 50 HZ., 230 / 460 VOLT 60 HZ. OUTDOOR UNITS

BRN = BROWN, BLA = BLACK
 ORG = ORANGE, BLU = BLUE
 YEL = YELLOW, WHT = WHITE
 RED = RED, GRN = GREEN

△ WIRES CONNECT TOGETHER WHEN ACCESSORY IS NOT PRESENT

TYPE 105C THERMOPLASTIC OR EQUIVALENT MUST BE USED WHEN REPLACING ANY ORIGINAL WIRING

NOTE A OUTDOOR MOTOR 230 VOLT 60 HZ., APPLICATIONS:
 18, 24, 30, 36 MODELS USE RED WIRE. ALL OTHER 230 & 460 VOLT MODELS USE BLACK WIRE.
220 / 380 VOLT 50 HZ APPLICATIONS:
 ALL MODELS USE BLACK WIRE.



UNIT MODEL NUMBER	MATCHING COIL MODEL NO.	REFRIGERANT 22 CHARGE IN OUNCES			MINIMUM RECOMMENDED TUBE O.D. LIQUID LINE SUCTION LINE		
		15 FT.	20 FT.	25 FT.	15 FT.	20 FT.	25 FT.
RSA1018-1	CSA1853	46 OZ.	50 OZ.	53 OZ.	5/16 / 5/8	5/16 / 5/8	3/8 / 3/4
RQA1018-1	CSH1853	49 OZ.	53 OZ.	56 OZ.			
RSA1024-1	CSA2459	47 OZ.	50 OZ.	54 OZ.	5/16 / 5/8	5/16 / 5/8	3/8 / 3/4
RQA1024-1	CSH2459	50 OZ.	53 OZ.	57 OZ.			
RSA1030-1	CSA3063	50 OZ.	54 OZ.	57 OZ.	5/16 / 3/4	5/16 / 3/4	3/8 / 3/4
RQA1030-1	CSA3663	55 OZ.	59 OZ.	62 OZ.			
	CSH3663						
RSA1036-1	CSA3670	59 OZ.	63 OZ.	66 OZ.	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8
RQA1036-1	CSH3670						
RSA1036-3	CSA3670	69 OZ.	72 OZ.	76 OZ.	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8
RSA1036-4	CSH3670						
RSA1042-1Z	CSA4076	66 OZ.	71 OZ.	74 OZ.	3/8 / 3/4	3/8 / 3/4	3/8 / 7/8
	CSA4278	71 OZ.	75 OZ.	78 OZ.			
	CSA4278						
RS1048-1Z	CSA4884	74 OZ.	78 OZ.	81 OZ.	3/8 / 7/8	3/8 / 7/8	3/8 / 7/8
RS1048-3Z	CSA5084	91 OZ.	95 OZ.	98 OZ.			
RS1048-4Z	CSA6084	77 OZ.	81 OZ.	84 OZ.			
	CSH6084						
RS1060-1Z	CSA6094	103 OZ.	107 OZ.	110 OZ.	3/8 / 7/8	3/8 / 7/8	3/8 / 1-1/8
RS1060-3Z	CSH6094						
RS1060-4Z							

ADJUST CHARGE .415 OZ. PER FOOT OF VARIATION FROM CHART FOR 5/16" AND 5/8" LINE SET
ADJUST CHARGE .65 OZ. PER FOOT OF VARIATION FROM CHART FOR 3/8" AND 3/4" LINE SET
ADJUST CHARGE .674 OZ. PER FOOT OF VARIATION FROM CHART FOR 3/8" AND 7/8" LINE SET
ADJUST CHARGE .722 OZ. PER FOOT OF VARIATION FROM CHART FOR 3/8" AND 1-1/8" LINE SET

IMPORTANT!!

All pressures listed in the preceding charts are applicable only for the exact condensing unit/evaporator coil combination listed with each chart. Do not use these charts if the evaporator coil or ambient temperatures vary from those listed with each chart.

CAUTION: DO NOT CHARGE THE SYSTEM TO MATCH THE PRESSURE CHARTS IF THIS LOWERS THE SUPERHEAT BELOW THE VALUES TAKEN FROM THE SUPERHEAT CHARGING CHART.

UNIT MODEL NUMBER	MATCHING COIL MODEL NO.	REQUIRED PISTON CHANGE	REFRIGERANT 22 CHARGE IN OUNCES			MINIMUM RECOMMENDED TUBE O.D. LIQUID LINE SUCTION LINE		
			15 FT.	20 FT.	25 FT.	15 FT.	20 FT.	25 FT.
RSA1218	CSA2459	.055	54 OZ.	56 OZ.	64.5 OZ.	5/16 / 5/8	5/16 / 5/8	3/8 / 3/4
	CSA2459	.055	55 OZ.	57 OZ.	65.5 OZ.			
RSA1224	CSA3670	.065	72 OZ.	74 OZ.	82 OZ.	5/16 / 5/8	5/16 / 5/8	3/8 / 3/4
	CSH3670	.065						
RSA1230	CSA3670	NONE	67 OZ.	69 OZ.	77 OZ.	5/16 / 3/4	5/16 / 3/4	5/16 / 3/4
	CSH3670	NONE						
	CSA4278	.070						
RSA1236	CSA4074	NONE	79.5 OZ.	82 OZ.	86 OZ.			
	CSA4278	.074						
	CSA4278	.074	75.5 OZ.	78.5 OZ.	82 OZ.			
	CSH4278	.071						
RSA1242	CSA4884	.082	86 OZ.	89 OZ.	93 OZ.			
	CSH4278	.082						
RSA1248	CSA48E4	NONE	107 OZ.	110 OZ.	114 OZ.			
	CSH6094	.090	115 OZ.	118 OZ.	122 OZ.			

ADJUST CHARGE .415 OZ. PER FOOT OF VARIATION FROM CHART FOR 5/16" AND 5/8" LINE SET
ADJUST CHARGE .65 OZ. PER FOOT OF VARIATION FROM CHART FOR 3/8" AND 3/4" LINE SET
ADJUST CHARGE .674 OZ. PER FOOT OF VARIATION FROM CHART FOR 3/8" AND 7/8" LINE SET
ADJUST CHARGE .722 OZ. PER FOOT OF VARIATION FROM CHART FOR 3/8" AND 1-1/8" LINE SET

IMPORTANT!!

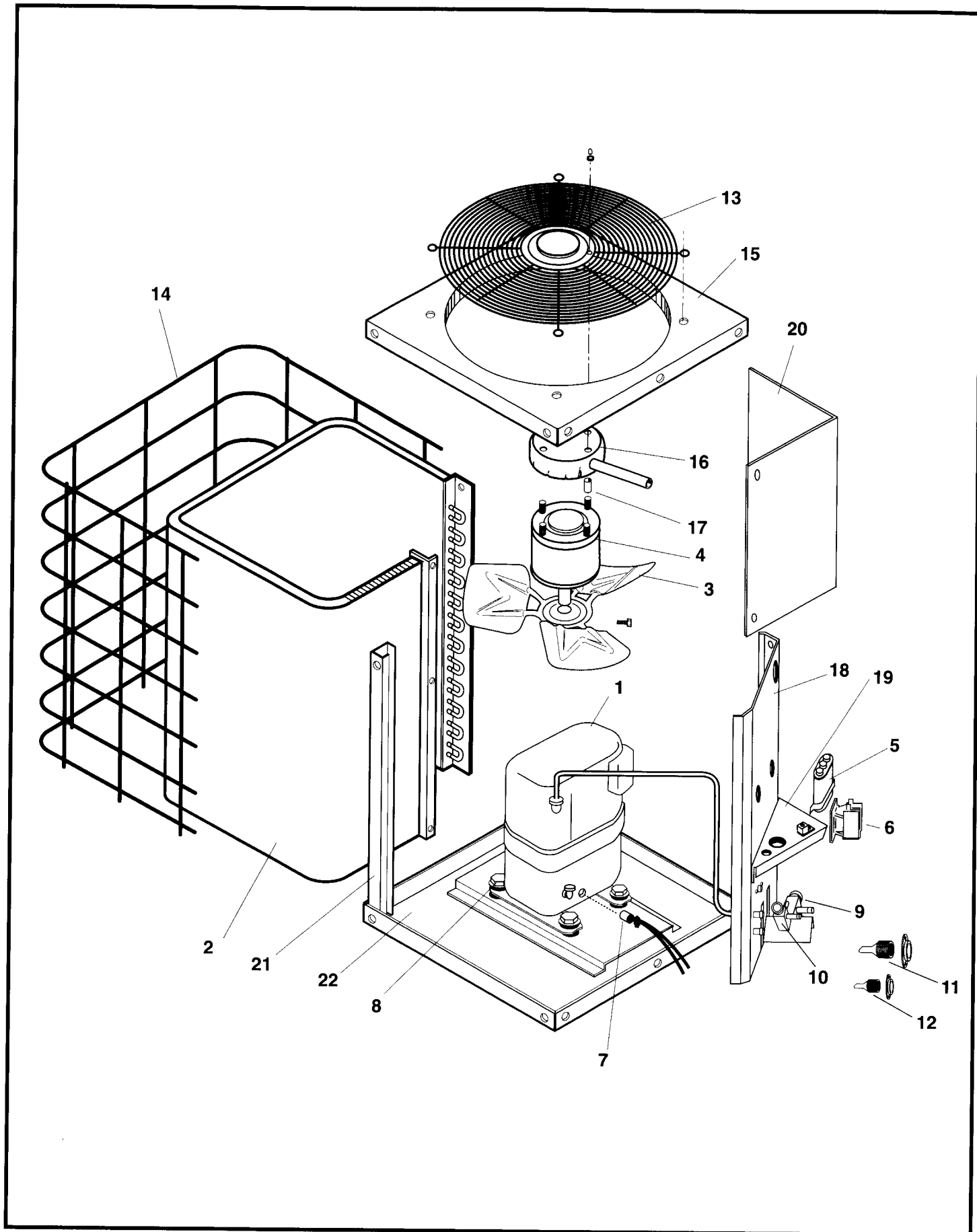
All pressures listed in the preceding charts are applicable only for the exact condensing unit/evaporator coil combination listed with each chart. Do not use these charts if the evaporator coil or ambient temperatures vary from those listed with each chart.

CAUTION: DO NOT CHARGE THE SYSTEM TO MATCH THE PRESSURE CHARTS IF THIS LOWERS THE SUPERHEAT BELOW THE VALUES TAKEN FROM THE SUPERHEAT CHARGING CHART.

#	PART #	DESCRIPTION	RS/Q A10 18-1	RS/Q A10 24-1	RS/Q A10 30-1	RS/Q A10 36-1	RS/Q A10 36-3	RS/Q A10 36-4	RS/Q A10 40-1	RS/Q A10 48-1	RS/Q A10 48-3	RS/Q A10 48-4	RS/Q A10 60-10	RS/Q A10 60-3	RS/Q A10 60-4
1	054085	COMPRESSOR H29B16UABCA	1												
1	054084	COMPRESSOR H29B22UABCA		1											
1	054086	COMPRESSOR H29B28UABCA			1										
1	054089	COMPRESSOR H29B33UABCA				1									
1	054037	COMPRESSOR CR34K6TF5270					1								
1	054038	COMPRESSOR CR34K6TFD270						1							
1	053230	COMPRESSOR ZR40KCPFV230							1						
1	053253	COMPRESSOR ZR47KCPFV235								1					
1	053249	COMPRESSOR ZR47KCTF5235									1				
1	053252	COMPRESSOR ZR47KCTFD235										1			
1	053264	COMPRESSOR ZR61KCPFV230											1		
1	053258	COMPRESSOR ZR61KCTF5230												1	
1	053259	COMPRESSOR ZR61KCTFD230													1
2	153324	OUTDOOR COIL	1	1											
2	153326	OUTDOOR COIL			1										
2	153328	OUTDOOR COIL				1	1								
2	153363	OUTDOOR COIL						1	1						
2	153067	OUTDOOR COIL								1	1	1			
2	153074	OUTDOOR COIL											1	1	1
3	251505	FAN BLADE T10S08G-1824.5 CCW	1	1	1	1	1	1	1						
3	251450	FAN BLADE T10S95A-2224.5 CCW								1	1	1	1	1	1
4	351115	OUTDOOR MOTOR 1/6 HP CCW	1	1	1	1	1	1	1						
4	351410	OUTDOOR MOTOR 1/4 HP CCW								1	1		1	1	
4	351412	OUTDOOR MOTOR 1/4 HP CCW						1				1			1
5	450361	DUAL CAPACITOR 7.5 / .30 @ 370	1	1											
5	450362	DUAL CAPACITOR 7.5 / 35 @ 370			1										
5	450368	DUAL CAPACITOR 7.5 / 40 @ 370				1			1						
5	450071	DUAL CAPACITOR 6 / 40 @ 440						1							
5	450368	DUAL CAPACITOR 7.5 / 40 @ 370											1		
5	450205	CAPACITOR 7.5 @ 370				1				1				1	1
6	453150	CONTACTOR 25 AMP	1	1	1	1				1					
6	453212	CONTACTOR 40 AMP											1		
6	453772	CONTACTOR 25 AMP					1	1			1	1		1	1
7	060000	CRANKCASE HEATER (OPTIONAL)	1	1	1	1	1	1							
8	454200	COMPRESSOR GROMMET ASSEMBLY	4	4	4	4	4	4							
8	454250	COMPRESSOR GROMMET ASSEMBLY							4	4	4	4	4	4	4
		V MODELS ONLY													
9	550801	VAPOR SHUT-OFF VALVE 3/4"	1	1	1	1	1	1							
9	550800	VAPOR SHUT-OFF VALVE 7/8"						1	1	1	1	1	1	1	1
10	550802	LIQUID SHUT-OFF VALVE 3/8"	1	1	1	1	1	1	1	1	1	1	1	1	1
		LIQUID DRIER 25 GRAM (NOT SHOWN)													
		LIQUID DRIER 30 GRAM (NOT SHOWN)							1	1	1	1	1	1	1
		Q MODELS ONLY													
11	555048	VAPOR QC FITTING #12-11	1	1	1	1	1	1							
11	555047	VAPOR QC FITTING #14-11							1	1	1	1			
11	555075	VAPOR QC FITTING #14-12											1	1	1
12	555200	LIQUID QC FITTING #6-6	1	1	1	1	1	1	1	1	1	1	1	1	1
13	653110	FAN GUARD MOUNT	1	1	1	1	1	1	1						
13	653115	FAN GUARD MOUNT								1	1	1	1	1	1
14	654040	OUTDOOR COIL GUARD	1	1											
14	654042	OUTDOOR COIL GUARD			1										
14	654044	OUTDOOR COIL GUARD				1	1								
14	653122	OUTDOOR COIL GUARD						1	1	1	1	1			
14	654018	OUTDOOR COIL GUARD											1	1	1
		SHEET METAL CABINET SPECIFY													
15	TOP PANEL		1	1	1	1	1	1	1	1	1	1	1	1	1
16	MOTOR RAIN SHIELD									1	1	1	1	1	1
17	SPACERS 1/2" X 1/4" X 5/32"									4	4	4	4	4	4
18	CABINET BACK PANEL		1	1	1	1	1	1	1	1	1	1	1	1	1
19	ELECTRICAL BOX SHELF		1	1	1	1	1	1	1	1	1	1	1	1	1
20	ELECTRICAL ACCESS PANEL		1	1	1	1	1	1	1	1	1	1	1	1	1
21	CORNER POST		2	2	2	2	2	3	3	3	3	3	3	3	3
22	CABINET BASE PANEL		1	1	1	1	1	1	1	1	1	1	1	1	1

RSA / RQA 1018 THROUGH RS / RQ 1060

EXPLODED PARTS DRAWING



#	PART #	DESCRIPTION	RSA 1218-1	RSA 1224-1	RSA 1230-1	RSA 1236-1	RSA 1236-3	RSA 1236-4	RSA 1242-1	RSA 1248-1	RSA 1248-3	RSA 1248-4
1	054085	COMPRESSOR H29B16UABCA	1									
1	054084	COMPRESSOR H29B22UABCA		1								
1	053152	COMPRESSOR ZR28K3PFV230			1							
1	053202	COMPRESSOR ZR34K3PFV230				1						
1	053205	COMPRESSOR ZR34K3TF5230					1					
1	053206	COMPRESSOR ZR34K3TFD230						1				
1	053246	COMPRESSOR ZR40K3PFV230							1			
1	053248	COMPRESSOR ZR47K3PFV235								1		
1	053270	COMPRESSOR ZR47K3TF5235									1	
1	053271	COMPRESSOR ZR47K3TFD235										1
2	153328	OUTDOOR COIL	1	1								
2	153363	OUTDOOR COIL			1							
2	153067	OUTDOOR COIL				1	1	1				
2	153069	OUTDOOR COIL							1			
2	153074	OUTDOOR COIL								1	1	1
3	251505	FAN BLADE T10S08G-1824.5 CCW	1	1	1	1	1	1				
3	251450	FAN BLADE T10S95A-2224.5 CCW							1	1	1	1
4	351115	OUTDOOR MOTOR 1/6 HP CCW	1	1	1							
4	351400	OUTDOOR MOTOR 1/5 HP CCW				1	1					
4	351410	OUTDOOR MOTOR 1/4 HP CCW							1	1	1	1
4	351412	OUTDOOR MOTOR 1/4 HP CCW						1				1
5	450361	DUAL CAPACITOR 7.5 / .30 @ 370	1	1								
5	450362	DUAL CAPACITOR 7.5 / 35 @ 370			1							
5	450072	DUAL CAPACITOR 6 / 50 @ 370				1						
5	450372	DUAL CAPACITOR 7.5 / 55 @ 370							1			
5	450369	DUAL CAPACITOR 7.5 / 60 @ 370								1		
5	450069	CAPACITOR 6 @ 370					1	1				
5	450205	CAPACITOR 7.5 @ 370									1	1
6	453150	CONTACTOR 25 AMP	1	1	1	1			1	1		
6	453772	CONTACTOR 25 AMP					1	1			1	1
7	060000	CRANKCASE HEATER (OPTIONAL)	1	1								
8	454200	COMPRESSOR GROMMET ASSEMBLY	4	4								
8	454250	COMPRESSOR GROMMET ASSEMBLY V MODELS ONLY			4	4	4	4	4	4	4	4
9	550801	VAPOR SHUT-OFF VALE 3/4"	1	1	1	1	1					
9	550800	VAPOR SHUT-OFF VALVE 7/8"							1	1	1	1
10	550802	LIQUID SHUT-OFF VALVE 3/8"	1	1	1	1	1	1	1	1	1	1
		LIQUID DRIER 25 GRAM (NOT SHOWN)	1	1	1	1	1					
		LIQUID DRIER 30 GRAM (NOT SHOWN) Q MODELS ONLY							1	1	1	1
11	555048	VAPOR QC FITTING #12-11	1	1	1	1	1	1	1			
11	555047	VAPOR QC FITTING #14-11								1	1	1
11	555075	VAPOR QC FITTING #14-12								1	1	1
12	555200	LIQUID QC FITTING #6-6	1	1	1	1	1	1	1	1	1	1
13	653110	FAN GUARD MOUNT	1	1	1							
13	654016	FAN GUARD MOUNT				1	1	1				
13	653115	FAN GUARD MOUNT							1	1	1	1
14	654044	OUTDOOR COIL GUARD	1	1								
14	653122	OUTDOOR COIL GUARD			1	1	1	1				
14	654016	OUTDOOR COIL GUARD							1			
14	654018	OUTDOOR COIL GUARD								1	1	1
		SHEET METAL CABINET SPECIFY										
15	TOP PANEL		1	1	1	1	1	1	1	1	1	1
16	MOTOR RAIN SHIELD					1	1	1	1	1	1	1
17	SPACERS 1/2" X 1/4" X 5/32"					4	4	4	4	4	4	4
18	CABINET SIDE PANEL		1	1	1	1	1	1	1	1	1	1
19	CABINET BACK PANEL		1	1	1	1	1	1	1	1	1	1
20	ELECTRICAL BOX SHELF		1	1	1	1	1	1	1	1	1	1
21	ELECTRICAL ACCESS PANEL		1	1	1	1	1	1	1	1	1	1
22	CORNER POST		2	2	2	3	3	3	3	3	3	3
23	CABINET BASE PANEL		1	1	1	1	1	1	1	1	1	1

HEAT CONTROLLER, INC.

1900 WELLWORTH AVENUE • JACKSON, MICHIGAN 49203

THE QUALITY LEADER IN CONDITIONING AIR