Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
ONE CAPITOL HILL
PROVIDENCE RI 02908

CREATION DATE : 30-JAN-12
BID NUMBER: 7449428
TITLE: HEATERS FOR LINCOLN CAMPUS

BID CLOSING DATE AND TIME:23-FEB-2012 10:00:00

BUYER: Mosca, Gary
PHONE #: 401-574-8124

BILL TO
CCRI CONTROLLER'S OFFICE
ACCOUNTS PAYABLE
400 EAST AVENUE
WARWICK, RI 02886
US

SHIP TO
CCRI FLANAGAN CAMPUS
1762 LOUISQUISSET PIKE
LINCOLN, RI 02865-4585
US

Requistion Number: 1257011
Note to Bidders: Questions concerning this solicitation may be emailed to gary mosca@purchasing.ri gov no later than 02/10/12 @ 12:00 NOON EST

Questions should be submitted in a Microsoft word attachment Please reference the RFQ # on all correspondence. Questions received if any, will be posted on the internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

Line	Description	Quantity	Unit	Unit Price	Total
1	SUPPLY AND INSTALL TWELVE (12) RECESSED HEATERS IN THE CCRI LINCOLN CAMPUS MAIN ENTRY VESTIBULES ***REPLACEMENT OF THESE 12 HEATERS IS URGENT TO AVOID DELAYS IN THE LINCOLN ARRA FIRE SPRINKLER PROJECT *** ***NO-SUBSTITUTE***	12.00	Each		

Delivery: _____

Terms of Payment: _____

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed The signed Certification Cover Form must be attached to the front of the offer

REPLACEMENT OF THESE 12 HEATERS IS URGENT TO AVOID DELAYS IN THE LINCOLN ARRA FIRE SPRINKLER PROJECT

INSTALL TWELVE (12) RECESSED HEATERS IN THE
CCRI LINCOLN CAMPUS MAIN ENTRY VESTIBULES PER FOLLOWING :

1 VENDOR TO REMOVE AND DISPOSE OFF SITE EXISTING 12 HEATERS IN MAIN ENTRANCES A,B,C,D,E AND F

2. NEW MARLY 935 SERIES 5 KW/17,065 BTU/480V/3PH

3 VENDOR RESPONSIBLE FOR ALL PERMITS

4 WORK TO BE SCHEDULED WITH PHYSICAL PLANT.
5 WORK TO BE COMPLETED WITHIN 30 DAYS OF AWARD.
6. VENDOR RESPONSIBLE FOR ALL ELECTRICAL AND MUST BE LICENSED IN RI.
7 ALL MATERIAL AND LABOR TO BE WARRANTED FOR ONE YEAR;
FIVE YEARS ON ALL HEATING COILS
8 INSTALLATION TO BE APPROVED BY PHYSICAL PLANT
9. SEE ATTACHED PRODUCT SPECIFICATIONS

Contract Terms and Conditions

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Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

INSPECTION REQUIREMENTS

BIDDERS ARE RESPONSIBLE FOR INSPECTION OF EQUIPMENT AND/OR LOCATION, TAKING MEASUREMENTS* WHEN REQUIRED, AND MAKING THEMSELVES AWARE OF THE TOTAL REQUIREMENT BEFORE SUBMITTING A BID. *MEASUREMENTS PROVIDED WITH ANY BID ARE FOR REFERENCE PURPOSES AND ARE NOT GUARANTEED TO BE COMPLETELY ACCURATE.

INSURANCE REQUIREMENTS

AN INSURANCE CERTIFICATE IN COMPLIANCE WITH PROVISIONS OF ITEM 31 (INSURANCE) OF THE GENERAL CONDITIONS OF PURCHASE IS REQUIRED FOR COMPREHENSIVE GENERAL LIABILITY, AUTOMOBILE LIABILITY, AND WORKERS' COMPENSATION AND MUST BE SUBMITTED BY THE SUCCESSFUL BIDDER(S) TO THE DIVISION OF PURCHASES PRIOR TO AWARD THE INSURANCE CERTIFICATE MUST NAME THE STATE OF RHODE ISLAND AS CERTIFICATE HOLDER AND AS AN ADDITIONAL INSURED. FAILURE TO COMPLY WITH THESE PROVISIONS MAY RESULT IN REJECTION OF THE OFFEROR'S BID. ANNUAL RENEWAL CERTIFICATES MUST BE SUBMITTED TO THE AGENCY IDENTIFIED ON THE PURCHASE ORDER. FAILURE TO DO SO MAY BE GROUNDS FOR CANCELLATION OF CONTRACT.

NOTE: IF THIS BID COVERS CONSTRUCTION, SCHOOL BUSING, HAZARDOUS WASTE, OR VESSEL OPERATION, APPLICABLE COVERAGES FROM THE FOLLOWING LIST MUST ALSO BE SUBMITTED TO THE DIVISION OF PURCHASES PRIOR TO AWARD: * PROFESSIONAL LIABILITY INSURANCE (AKA ERRORS & OMISSIONS) - $1 MILLION OR 5% OF ESTIMATED PROJECT COST, WHICHEVER IS GREATER. * BUILDER'S RISK INSURANCE - COVERAGE EQUAL TO FACE AMOUNT OF CONTRACT FOR CONSTRUCTION. * SCHOOL BUSING - AUTO LIABILITY COVERAGE IN THE AMOUNT OF $5 MILLION * ENVIRONMENTAL IMPAIRMENT (AKA POLLUTION CONTROL) - $1 MILLION OR 5% OF FACE AMOUNT OF CONTRACT, WHICHEVER IS GREATER. * VESSEL OPERATION - (MARINE OR AIRCRAFT) - PROTECTION & INDEMNITY COVERAGE REQUIRED IN THE AMOUNT OF $1 MILLION

DELIVERY PER AGENCY

DELIVERY OF GOODS OR SERVICES AS REQUESTED BY AGENCY.

RIVIP INFO - BID SUBMISSION REQUIREMENTS

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed The signed Certification Cover Form must be attached to the front of the offer. When delivering offers in person to One Capitol Hill, vendors are advised to allow at least one hour additional time for clearance through security checkpoints

AWARD

THE STATE, AT ITS SOLE DISCRETION, SHALL RESERVE THE RIGHT TO MAKE ONE OR

MULTIPLE AWARDS FOR THIS REQUIREMENT AND/OR TO REJECT ANY OR ALL BIDS

LICENSE REQUIREMENTS

VENDOR (OWNER OF COMPANY) IS RESPONSIBLE TO COMPLY WITH ALL LICENSING OR STATE PERMITS REQUIRED FOR THIS TYPE OF SERVICE. A COPY OF LICENSE/PERMIT SHOULD BE SUBMITTED WITH THIS BID. IN ADDITION TO THESE LICENSE REQUIREMENTS, BIDDER, BY SUBMISSION OF THIS BID, CERTIFIES THAT ANY/ALL WORK RELATED TO THIS BID, AND ANY SUBSEQUENT AWARD WHICH REQUIRES A RHODE ISLAND LICENSE(S), SHALL BE PERFORMED BY AN INDIVIDUAL(S) HOLDING A VALID RHODE ISLAND LICENSE.

START DATE

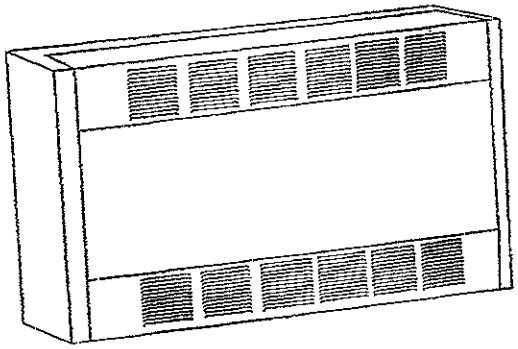
STARTING DATE _____ NO. OF WORKING DAYS REQUIRED FOR COMPLETION _____

WAGE REQUIREMENTS

BIDDERS ARE ADVISED THAT ALL PROVISIONS OF TITLE 37 CHAPTER 13 OF THE GENERAL LAWS OF RHODE ISLAND APPLY TO THE WORK COVERED BY THIS REQUEST, AND THAT PAYMENT OF THE GENERAL PREVAILING RATE OF PER DIEM WAGES AND THE GENERAL PREVAILING RATE FOR REGULAR, OVERTIME, AND OTHER WORKING CONDITIONS EXISTING IN THE LOCALITY FOR EACH CRAFT, MECHANIC, TEAMSTER, OR TYPE OF WORKMAN NEEDED TO EXECUTE THIS WORK IS A REQUIREMENT FOR BOTH CONTRACTORS AND SUBCONTRACTORS. THE PREVAILING WAGE TABLE MAY BE OBTAINED AT THE RI DIVISION OF PURCHASES HOME PAGE BY INTERNET at www.purchasing.state.ri.us. SELECT "INFORMATION" AND THEN SELECT "PREVAILING WAGE TABLE". THE STATE OF RHODE ISLAND USES THE GENERAL DECISION NUMBER RI20100001. PRINTING THE ENTIRE DOCUMENT AVERAGES APPROXIMATELY ONE MINUTE PER PAGE - YOU MAY WANT TO PRINT ONLY THE PAGES APPLICABLE TO YOUR BID BIDDERS NOTE: IN THE EVENT THIS BID SPECIFIES PRICE OFFERS ON A TIME-AND-MATERIALS BASIS, i.e., AN HOURLY RATE, ANY OR ALL BIDS SUBMITTED IN AN AMOUNT LESS THAN THE PREVAILING RATE IN EFFECT FOR THE WORK COVERED BY THIS REQUEST AS OF THE DATE OF BID ISSUANCE SHALL BE REJECTED BY THE DIVISION OF PURCHASES.

Marley
Engineered Products

900 Series Cabinet Unit Heaters Model B



Installation & Maintenance Instructions

⚠ WARNING ⚠

Read carefully - These instructions are written to help you prevent difficulties that might arise during installation of heaters. Studying the instructions first may save you considerable time and money later. Observe the following procedures and cut your installation time to a minimum

TO REDUCE RISK OF FIRE AND ELECTRIC SHOCK:

1. Disconnect all power coming to the heater at main service panel before wiring or servicing
   Note: More than one disconnect may be required.
2. All wiring must be in accordance with national and local electric codes and the heater must be grounded.
3. Verify the power supply voltage coming to heater matches the ratings printed on the heater nameplate before energizing.
4. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.
5. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause electric shock, fire, or damage to heater
6. Do not block air intakes or exhaust in any manner Keep combustible materials at least 24" (610 mm) away from heater. Keep drapes at least 6" (153 mm) above top of front discharge grille. Do not use drapes above top discharge units. Do not install behind doors, furniture, towel rack, or boxes.
7. A heater has hot and arcing (sparking) parts inside Do not use in areas where gasoline, paint, or flammable liquids are used or stored.
8. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury
9. This heater is not approved for use in corrosive atmospheres such as marine, green house, or chemical storage areas.
10. FOR DUCT CONNECTED HEATERS, Do not exceed 0 2" wg external static pressure and do not mount heater on end panels.
11. Do not use OPTIONAL 0-100% OUTSIDE AIR DAMPER with bottom air inlet

SAVE THESE INSTRUCTION SHEETS

Specifications

HEATING CAPACITY KW	HEATING CAPACITY BTU/hr	Series	Cabinet Length (in)	CFM*	Total Line Amperage (includes motor amps) 208 1 ph 60 Hz	208 3 ph 60 Hz	240 1 ph 60 Hz	240 3 ph 60 Hz	277 1 ph 60 Hz	347 1 ph 60 Hz	380 3 ph 60 Hz	480 3 ph 60 Hz	600 3 ph 60 Hz
2	6,826	935	35	250	10	6	9	6	8	7	4	3	3
3	10,239				15	9	13	8	12	9	5	4	4
4	13,652				20	12	17	10	15	12	7	6	5
5	17,065				25	15	22	13	19	15	8	7	6
6	20,478				30	17	26	15	22	18	10	8	7
7	23,891				34	20	30	18	26	21	11	9	7
8	27,304				39	23	34	20	30	24	13	10	8
4	13,652	945	45	500	20	12	18	11	16	13	7	6	5
6	20,478				30	18	26	16	23	18	10	8	7
8	27,304				40	23	34	20	30	24	13	11	9
10	34,130				48	29	43	25	37	30	16	13	11
12	40,956				59†	34	51†	30	44	36	19	16	13
14	47,785				68†	40	59†	35	52†	41	22	18	15
16	54,608				78†	46	68†	40	59†	47	25	20	17
6	20,478	958	58	750	30	18	26	16	23	18	10	8	7
8	27,304				40	23	34	20	30	24	13	11	9
10	34,103				48	29	43	25	37	30	16	13	11
12	40,956				59†	34	51†	30	44	36	19	16	13
14	47,782				68†	40	59†	35	52†	41	22	18	15
16	54,608				78†	46	68†	40	59†	47	25	20	17
6	20,478	968	68	750	31	19	27	16	24	19	11	9	8
9	30,717				45	27	39	24	34	28	16	13	11
12	40,956				60	35	52†	31	45	36	20	16	13
15	51,195				74	44	64†	38	56†	45	25	20	16
18	61,434				88	52†	77†	45	67†	n/a	29	24	19
21	71,673				n/a	60†	89†	52†	78†	n/a	34	27	22
24	81,912				n/a	69†	n/a	60†	n/a	n/a	38	31	25
8	27,304	978	78	1,000	41	24	36	21	31	25	14	12	10
12	40,956				60†	36	52†	31	46	37	20	17	14
16	54,608				79†	47	69†	41	60†	48	27	21	18
20	68,260				n/a	58†	86†	50†	74†	n/a	33	26	21
24	81,912				n/a	69†	n/a	60†	n/a	n/a	39	31	15
28	95,564				n/a	80†	n/a	70†	n/a	n/a	45	36	29
32	109,216				n/a	91†	n/a	79†	n/a	n/a	n/a	41	33

† - CIRCUIT BREAKERS or FUSED DISCONNECT required
* - Value shown for HIGH SPEED on two speed units

General Information

900 Series Cabinet Unit Heaters are designed and UL & cUL Listed to be applied as Standard Free Air heaters with both louvered intake and louvered discharge panels for recess or surface installation: a) on the floor, with front inlet and up flow air movement in the up flow, down flow, left or right direction or b) on the ceiling, or Ducted (0 2" wg external static pressure) flange for direct connection of field supplied ductwork to the inlet, discharge, or both inlet and discharge. Ducted heaters can be installed for recess or surface installation: a) on the floor, with front inlet and up flow air movement, b) on the wall, with air movement in the up flow or down flow direction or c) on the ceiling.

See Figure 1 for Mounting Clearances

Note: Keep all furniture or any other blocking material at least 24" (610mm) away from front of heater

When draperies are used, hang them so that when in use they are at least 6" (153mm) above the top of front discharge heater.

Do not use draperies with top discharge heaters

See Figure 2 for Mounting Dimensions

See Figure 3 for Duct Collar Dimensions and Installation Details

FLOOR MOUNTING

1 Heaters with front inlet and up flow air movement may be mounted directly on any floor surface including carpeting Where wall to wall carpeting is installed after heater installation the carpeting can be run up to the front and around the heater body See Figure 1 for mounting clearances

2 Heaters can be mounted on either end with air movement left or right directly on any floor surface including carpeting See Figure 1 for mounting clearances

3 If optional kick plate is not used, proceed to "HEATER INSTALLATION" section

INSTALLATION OF OPTIONAL 900 SERIES BASE KIT

1 If desired, the heaters may be mounted off the floor with optional kick plate panel.

2 Align panel on bottom of heater (Inlet side only)

3. There should be a 1" (25mm) space from the panel to the front and sides of the heater.

4 Match drill 140" (3 55 mm) diameter holes in the bottom of the heater and secure with screws provided.

5 Proceed to "HEATER INSTALLATION" section

WALL OR CEILING RECESS MOUNTING

CAUTION ⚠

TO PREVENT HEATER FROM FALLING AND CAUSING PERSONAL INJURY, EACH FASTENER, AS APPLIED, SHOULD HAVE THE HOLDING POWER OF AT LEAST 100 POUNDS (45 kg).

1. Create an opening in the wall 26-5/8" (676mm) high by the width of the heater plus 1/4" (6 4mm) **Example:** If the heater was 68 inches long, the opening should measure 26-5/8" high x 68 1/4" long).

2 The depth of the recess will vary with the desired amount of heater recess.

3 Proceed to "HEATER INSTALLATION" section

INSTALLATION OF OPTIONAL 900 SERIES RECESS TRIM KIT

1. Determine depth of heater recess

2. Align recess trim frame so that the trim frame front edge will touch wall when heater is installed.

3. Match drill 140" (3.55mm) diameter holes in all four sides of the heater and secure trim frame with screws provided

4 Proceed to "HEATER INSTALLATION" section

HEATER INSTALLATION

1 Rough-in electrical wiring See Figure 2 for knockout locations.

2. Remove the proper knockout in the heater or punch the proper size hole in the bottom or right side of the heater as shown in Figure 2

3. Remove the front cover by rotating the lock(s) counter-clockwise (ccw).

4 Remove Top (Discharge) Louver Panel by removing 2 screws (one on each end) that attach the louver panel to the end panels

5. Refer to Figure 3 for location of mounting holes

6 Mark and drill holes for heater attachment in wall or ceiling

7. Install heater in opening and tighten screws (field supplied) to insecure tight fit of the heater against the mounting surface.

NOTE: Tightening the heater against an irregular wall will cause distortion of the back panel of the heater. If this is the case, shims should be used behind the back panel to keep it straight

8. Reinstall the Top (Discharge) Louver Panel by sliding the panel into the heater Position the panel tabs of the louver panel to rest on the top of the lip of the heater back. Position the louver panel top even with the top of the end panels Tap the louver panel at the top front (both sides) to seat the panel Reinstall 2 screws (one on each side) that attach louver panel to the end panels.

9. WIRING - See wiring section.

10 After wiring is complete, insure that the control box cover is closed and fastened and that the filter is installed

11 Adjust the thermostat to the desired set point

12 Adjust the heat selector to the heat and fan speed desired

13 Replace front cover and secure by turning the locks clockwise (cw) until tight. Replace plug buttons provided

14 Leave the heater running a few hours before making any further change in thermostat setting

DUCTED APPLICATIONS

1. See Figure 3 for duct flange size and location
2. Duct collars have been factory located (Bottom Inlet, Front Inlet, Top discharge, Front discharge) as ordered

⚠ WARNING ⚠

TO REDUCE RISK OF FIRE AND ELECTRICAL SHOCK: DO NOT EXCEED 0.2" WG EXTERNAL STATIC PRESSURE DO NOT MOUNT HEATER ON END PANEL (LEFT OR RIGHT AIR FLOW).

3. To change duct collar location:

A. Heater duct panels are supplied with a duct collar attached to one surface and a blank-off plate attached to the other surface. The location of the duct collar and the blank-off plate can reversed

B. Remove screws holding blank-off plate and remove blank off plate.

C. Remove screws holding duct collar and remove duct collar

D. Position duct collar to location desired, align screws holes, insert and tighten screws to secure duct collar to duct panel

E. Position blank-off plate to location desired, align screw holes, insert and tighten screws blank-off plate to duct panel

4. Position field ductwork to outside of heater duct flange.
5. Mark and drill starting holes in duct and flange.
6. Install and tighten screws (field supplied) to provide a secure seal

⚠ WARNING ⚠

TO REDUCE RISK OF FIRE AND ELECTRICAL SHOCK: DO NOT USE 100% OUTSIDE AIR DAMPER OPTION WITH BOTTOM AIR INLET. USE ONLY FRONT AIR INLET WITH 100% OUTSIDE AIR DAMPER OPTION.

OPTIONAL 100% OUTSIDE AIR DAMPER

1. Flange brackets for the rear mounted duct collar are packaged unassembled in the heater carton
2. See Figure 2 for location of damper opening
3. Position the top flange bracket with the flange at the top of the damper opening and holes in the flange align with holes in the cabinet back
4. Attach flange to cabinet with screws provided
5. Position and attach remaining three (3) flange brackets around damper opening
6. Position field ductwork to outside of flange brackets.
7. Mark and drill starting holes in duct and flange
8. Install and tighten screws (field supplied) to provide a secure seal

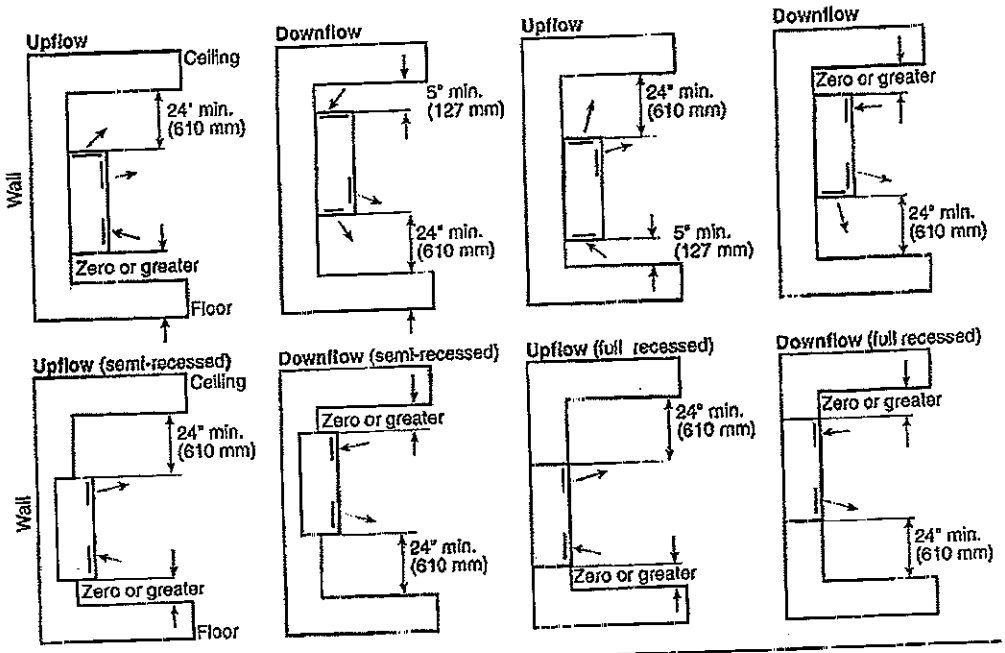
OPERATION OF OPTIONAL 100% OUTSIDE AIR DAMPER

1. Controls, consisting of an "OPEN CLOSED" switch and 100% positioning potentiometer, are located on the control panel door.
2. Place switch in OPEN position
3. The damper will remain open until; the "OPEN-CLOSED" switch is moved to the closed position

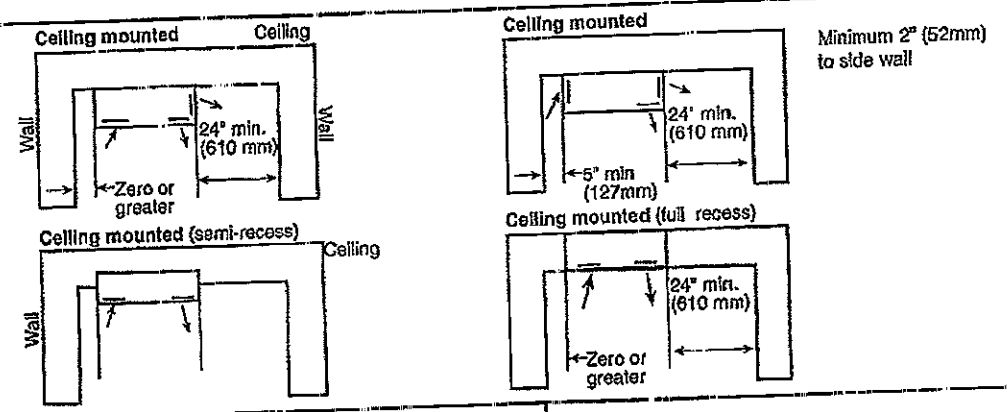
Figure 1

HEATER:
Wall Mounted

AIR FLOW:
Up or Down



HEATER:
Ceiling Mounted



HEATER:
Wall Mounted on End Panel

AIR FLOW:
Left or Right

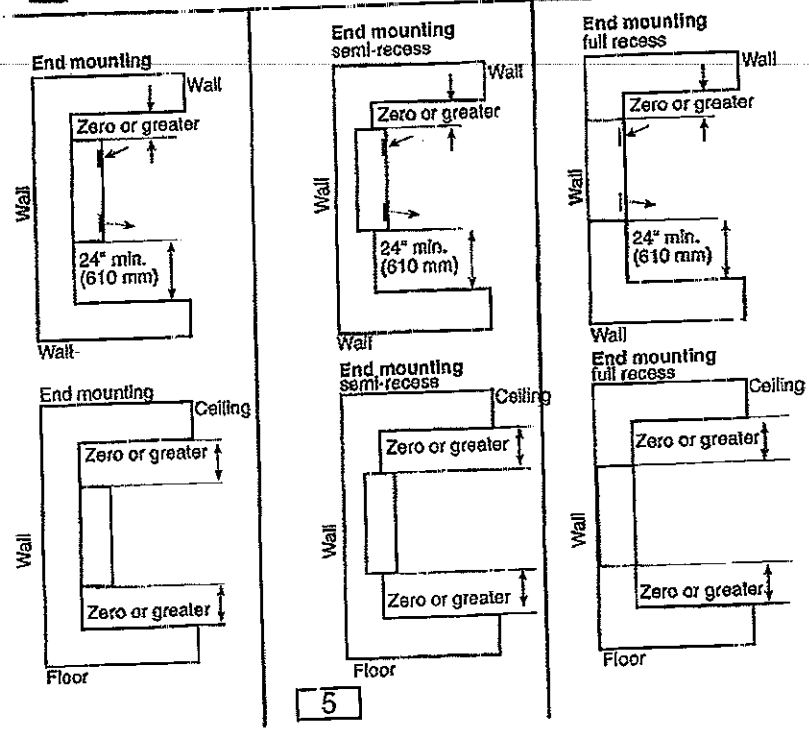
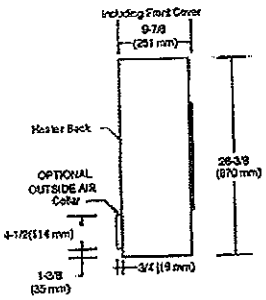
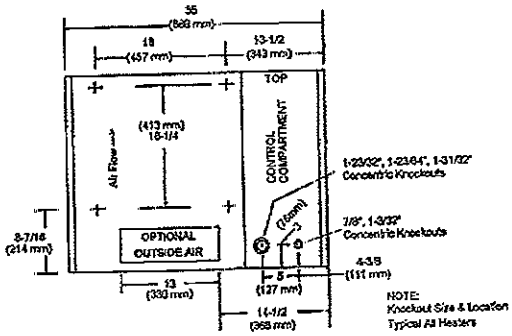


Figure 2

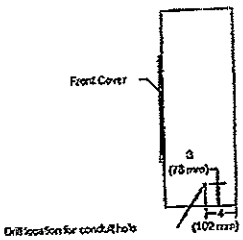
MOUNTING DIMENSIONS



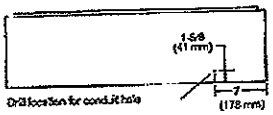
LEFT SIDE VIEW
(Typ all lengths)



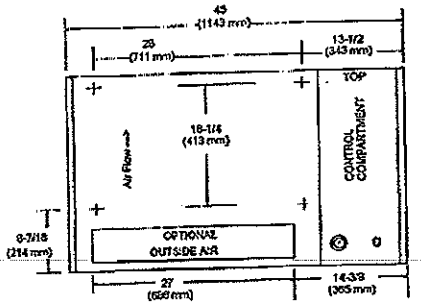
FRONT VIEW
35" (889 mm) CABINET



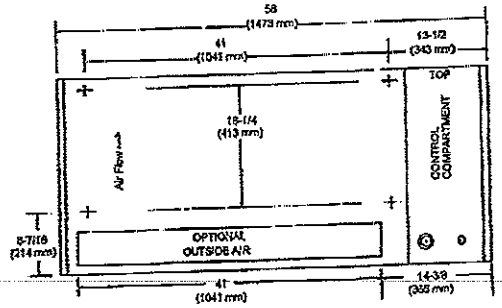
RIGHT SIDE VIEW
(Typ all lengths)



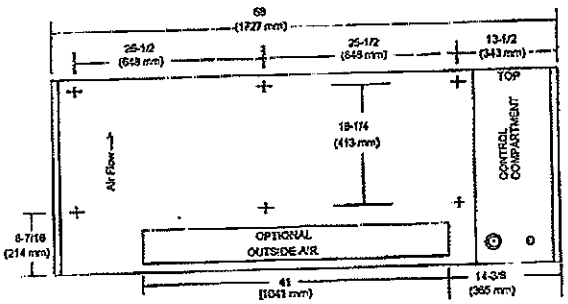
BOTTOM VIEW
(Typ all lengths)



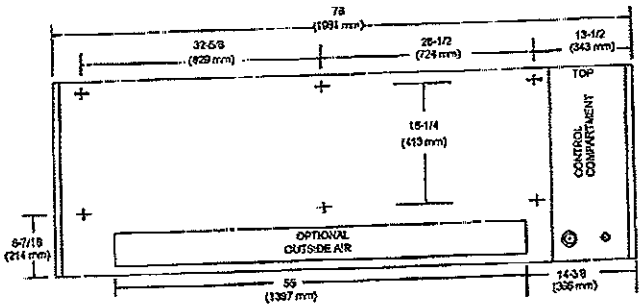
FRONT VIEW
45" (1143 mm) CABINET



FRONT VIEW
58" (1473 mm) CABINET



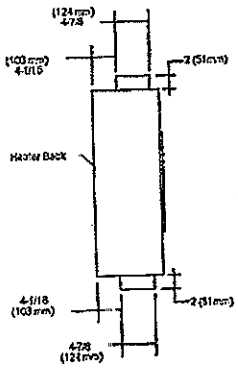
FRONT VIEW
68" (1727 mm) CABINET



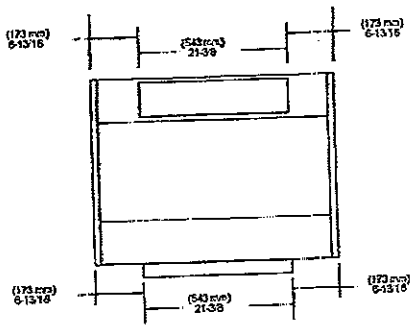
FRONT VIEW
78" (1981 mm) CABINET

Figure 3

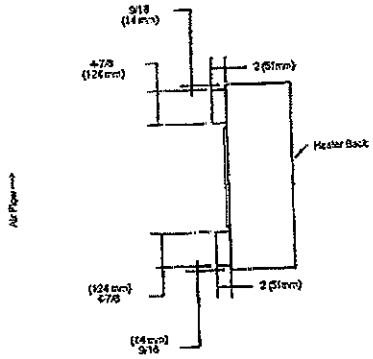
DUCT COLLARS
DIMENSIONS and INSTALLATION DETAILS



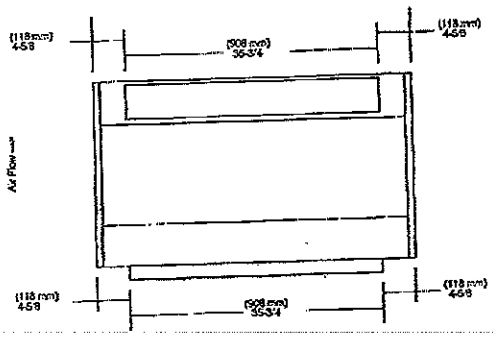
LEFT SIDE VIEW
BOTTOM INLET /
TOP DISCHARGE
(Typ. all lengths)



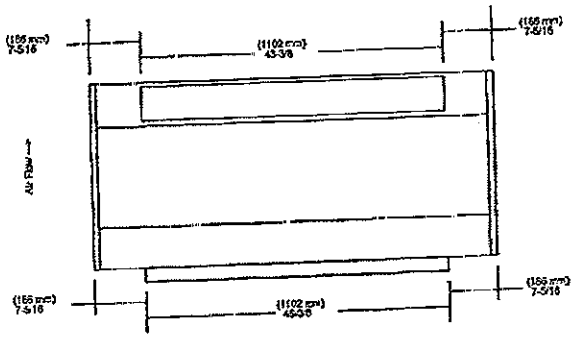
FRONT VIEW
35" (889 mm) CABINET



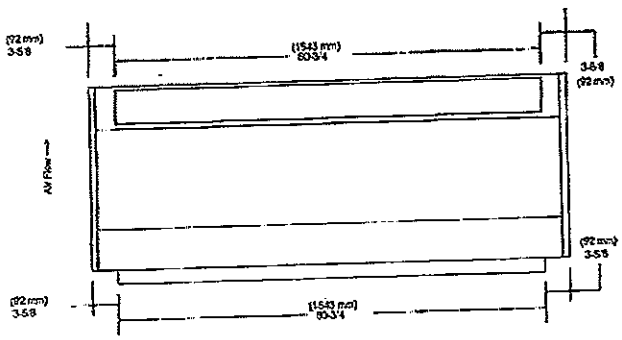
RIGHT SIDE VIEW
FRONT INLET /
FRONT DISCHARGE
(Typ. all lengths)



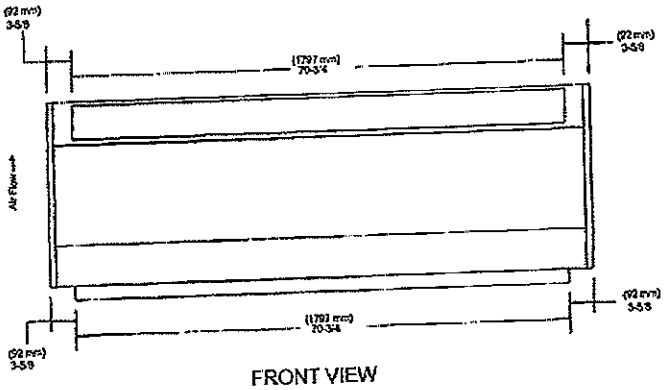
FRONT VIEW
45" (1143 mm) CABINET



FRONT VIEW
58" (1473 mm) CABINET



FRONT VIEW
68" (1727 mm) CABINET



FRONT VIEW
78" (1981 mm) CABINET

WIRING

SEE WARNING STEPS 1, 2 & 3 ON PAGE 1 OF THIS INSTRUCTION SHEET

1 Figure 4 shows a typical wiring diagram
2. For actual wiring, see the diagram located on the inside of the front cover.
3 All field wiring must be 75° C min

TO CONVERT 208, 240, 480 & 600 VOLT STOCK 5 & 10 KW HEATERS
From Three Phase To Single Phase

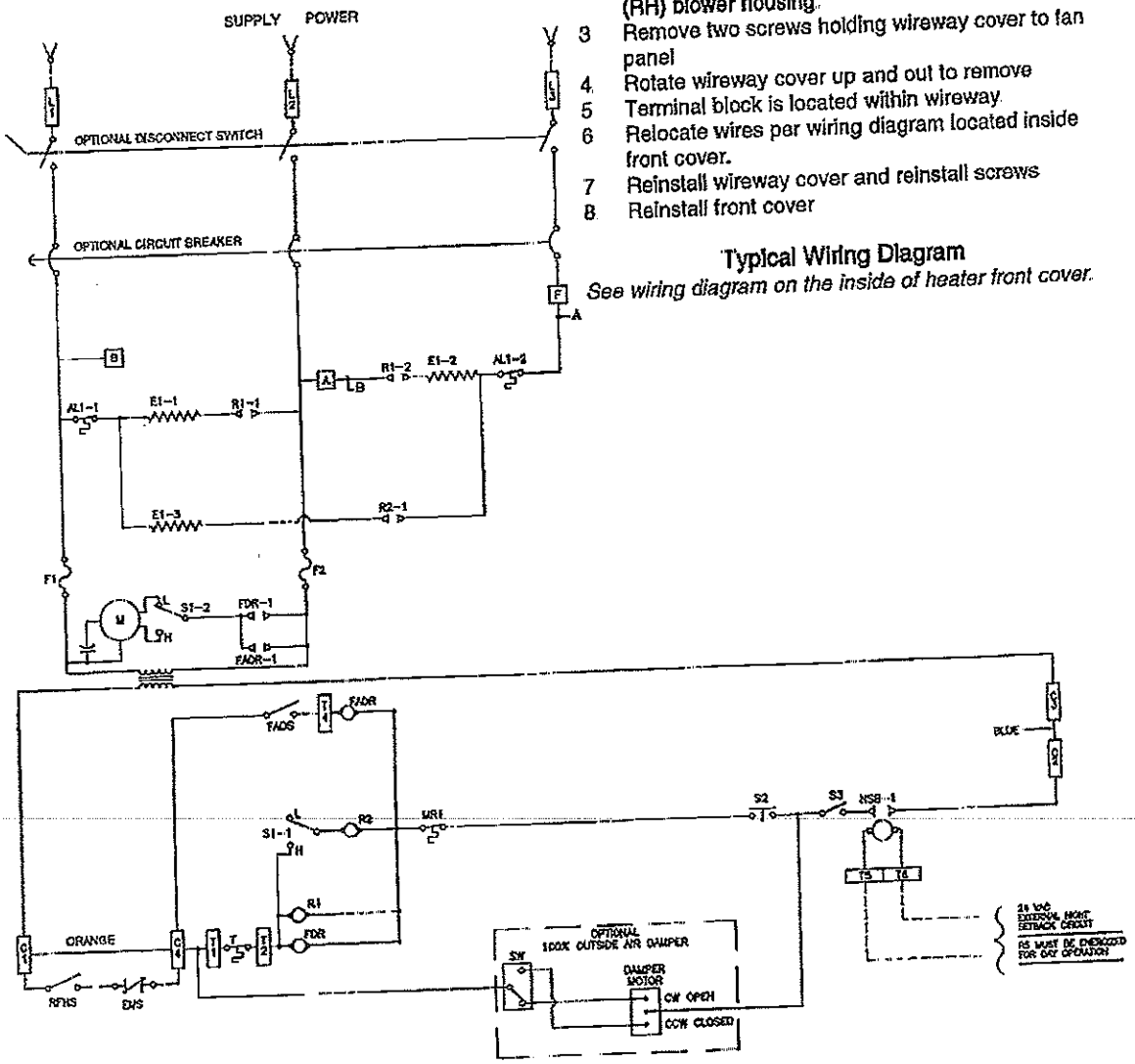
1 Remove front cover
2 Refer to wiring diagram located located inside front cover.

NOTE: Terminal block and wires that need to be changed are located in wire way above right hand (RH) blower housing.

3 Remove two screws holding wireway cover to fan panel
4. Rotate wireway cover up and out to remove
5 Terminal block is located within wireway
6 Relocate wires per wiring diagram located inside front cover.
7 Reinstall wireway cover and reinstall screws
8. Reinstall front cover

Typical Wiring Diagram

See wiring diagram on the inside of heater front cover.



EMS=ENERGY MANAGEMENT SYSTEM TIE-IN (CONTACTS MUST BE CLOSED FOR DAY OPERATION)
RFHS=REMOTE MOUNTED FAN/HEAT ON-OFF SWITCH (FIELD SUPPLIED)
NOTE: IF EMS AND/OR RFHS ARE INSTALLED REMOVE ORANGE WIRE BETWEEN C1 AND C4

FOR EXTERNAL CONTROL SUPPLY:
1. REMOVE BLUE JUMPER BETWEEN C2 AND C3.
2 CONNECT EXTERNAL CONTROL (24 VAC STANDARD, 120 VAC OPTIONAL) TO C1 AND C2

S1 = FAN/HEAT HIGH-LOW SELECTOR SWITCH
S2 = DOOR INTERLOCK SWITCH
S3 = FAN/HEAT ON-OFF SWITCH (FACTORY INSTALLED OPTION)
NSB = NIGHT SETBACK RELAY (FACTORY INSTALLED OPTION)

AL = AUTO RESET LIMIT
MR = MANUAL RESET LIMIT (FACTORY INSTALLED OPTION)
T = BUILT-IN OR REMOTE MOUNTED SINGLE POLE THERMOSTAT
FAOS = FAN AUTO-ON SWITCH (BUILT-IN = FACTORY INSTALLED OPTION)
(REMOTE MOUNTED = FIELD INSTALLED OPTION)
FDR = FAN DELAY RELAY
FAOR = FAN AUTO-ON RELAY (FACTORY INSTALLED OPTION)

1609-2081-020

CIRCUIT BREAKERS

ORDER PART NO. 410086+VAR NOTED BELOW

CABINET LENGTH	KW	208 1 PH 60HZ		208 3PH 60HZ		240 1PH 60HZ		240 3PH 60HZ		277 1PH 60HZ		347 1PH 60HZ		380 3PH 60HZ		480 3PH 60HZ		600 3PH 60HZ	
		QTY	VAR	QYT	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR
35 in	2	1	041	1	050	1	041	1	050	1	024	1	017	1	010	1	010	1	059
	3	1	042	1	050	1	042	1	050	1	024	1	017	1	010	1	010	1	059
	4	1	043	1	050	1	043	1	050	1	025	1	018	1	010	1	010	1	059
	5	1	045	1	051	1	044	1	051	1	026	1	018	1	010	1	010	1	059
	6	1	046	1	052	1	045	1	051	1	026	1	019	1	010	1	010	1	059
	7	1	047	1	053	1	046	1	052	1	027	1	020	1	010	1	010	1	059
	8	1	048	1	053	1	047	1	052	1	027	1	020	1	010	1	010	1	059
48 in	4	1	044	1	051	1	043	1	050	1	025	1	018	1	010	1	010	1	059
	6	1	046	1	052	1	045	1	051	1	026	1	019	1	010	1	010	1	059
	8	1	048	1	053	1	047	1	053	1	027	1	021	1	011	1	010	1	059
	10	1	049	1	055	1	048	1	054	1	007	1	022	1	012	1	011	1	059
	12	2	046	1	056	2	045	1	055	1	007	1	023	1	012	1	011	1	060
	14	2	046	1	057	2	045	1	056	1	021	1	068	1	013	1	012	1	060
	16	2	048	1	058	2	047	1	057	1	022	1	068	1	014	1	013	1	061
58 in	6	1	046	1	052	1	045	1	051	1	026	1	019	1	010	1	010	1	059
	8	1	048	1	053	1.	047	1	053	1	027	1	021	1	011	1	010	1	059
	10	1	049	1	055	1	048	1	054	1	027	1	021	1	011	1	010	1	059
	12	2	046	1	056	2	045	1	055	1	007	1	023	1	012	1	011	1	060
	14	2	046	1	057	2	045	1	056	1	021	1	068	1	013	1	012	1	060
	16	2	048	1	058	2	047	1	057	1	022	1	068	1	014	1	013	1	061
68 in	6	1	046	1	052	1	045	1	052	1	026	1	019	1	010	1	010	1	059
	9	1	049	1	054	1	048	1	053	1	028	1	021	1	011	1	011	1	059
	12	2	046	1	056	2	046	1	055	1	007	1	008	1	013	1	012	1	060
	15	1 1	048 045	1	058	1 1	048 044	1	057	1 1	007 026	1	068	1	014	1	012	1	061
	18	3	046	1 1	056 052	3	045	1	058	1 1	028 026	N/A	N/A	1	014	1	013	1	061
	21	N/A	N/A	1 1	057 053	3	046	1 1	056 052	1	015	N/A	N/A	1	015	1	014	1	062
	24	N/A	N/A	1 1	058 053	N/A	N/A	1 1	057 053	N/A	N/A	N/A	N/A	1	009	1	014	1	063
78 in	8	1	049	1	054	1	047	1	054	1	027	1	021	1	011	1	010	1	059
	12	2	046	1	056	2	045	1	055	1	007	1	008	1	013	1	012	1	060
	16	2	048	1	058	2	047	1	058	1	022	1	068	1	014	1	013	1	061
	20	N/A	N/A	2	055	2	049	2	054	1	066	N/A	N/A	1	015	1	014	1	062
	24	N/A	N/A	2	055	N/A	N/A	2	054	N/A	N/A	N/A	N/A	1	009	1	014	1	063
	28	N/A	N/A	2	057	N/A	N/A	2	056	N/A	N/A	N/A	N/A	1	016	1	015	1	064
	32	N/A	N/A	2	058	N/A	N/A	2	057	N/A	N/A	N/A	N/A	N/A	N/A	1	016	1	065

ORDER PART NO. 1802-2083+VAR NOTED BELOW

ELEMENTS

CABINET LENGTH	KW	208 1 PH 60HZ		208 3PH 60HZ		240 1PH 60HZ		240 3PH 60HZ		277 1PH 60HZ		347 1PH 60HZ		380 3PH 60HZ		480 3PH 60HZ		600 3PH 60HZ	
		QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR	QTY	VAR
35 in.	2	1	100	1	100	1	101	1	101	1	102	1	103	1	100	1	102	1	103
	3	1	107	1	107	1	114	1	114	1	104	1	105	1	107	1	104	1	105
	4	1	106	1	106	1	107	1	107	1	108	1	109	1	106	1	108	1	109
	5	1	110	1	110	1	111	1	111	1	112	1	113	1	110	1	112	1	113
	6	2	107	2	107	2	108	2	108	2	104	2	105	2	107	2	104	2	105
	7	1 1	107 106	1 1	107 106	1 1	108 107	1 1	108 107	1 1	104 108	1 1	105 109	1 1	107 106	1 1	104 108	1 1	105 109
	8	1 1	107 110	1 1	107 110	1 1	108 111	1 1	108 111	1 1	112 112	1 1	113 113	1 1	110 110	1 1	112 112	1 1	113 113
48 in.	4	2	100	2	100	2	101	2	101	2	102	2	103	2	100	2	102	2	103
	6	2	107	2	107	2	108	2	108	2	104	2	105	2	107	2	104	2	105
	8	2	106	2	106	2	107	2	107	2	108	2	109	2	106	2	108	2	109
	10	2	110	2	110	2	111	2	111	2	112	2	113	2	110	2	112	2	113
	12	4	107	4	107	4	108	4	108	4	104	4	105	4	107	4	104	4	105
	14	2 2	107 106	2 2	107 106	2 2	108 107	2 2	108 107	2 2	104 108	2 2	105 109	2 2	107 106	2 2	104 108	2 2	105 109
	16	2 2	107 110	2 2	107 110	2 2	108 111	2 2	108 111	2 2	104 112	2 2	105 113	2 2	107 110	2 2	104 112	2 2	105 113
58 in	6	2	107	2	107	2	108	2	108	2	104	2	105	2	107	2	104	2	105
	8	2	106	2	106	2	107	2	107	2	108	2	109	2	106	2	108	2	109
	10	2	110	2	110	2	111	2	111	2	112	2	113	2	110	2	112	2	113
	12	4	107	4	107	4	108	4	108	4	104	4	105	4	107	4	104	4	105
	14	2 2	107 106	2 2	107 106	2 2	108 107	2 2	108 107	2 2	104 108	2 2	105 109	2 2	107 106	2 2	104 108	2 2	105 109
	16	2 2	107 110	2 2	107 110	2 2	108 111	2 2	108 111	2 2	104 112	2 2	105 113	2 2	107 110	2 2	104 112	2 2	105 113
68 in	6	3	100	3	100	3	101	3	101	3	102	3	103	3	100	3	102	3	103
	9	3	107	3	107	3	108	3	108	3	104	3	105	3	107	3	104	3	105
	12	3	106	3	106	3	107	3	107	3	108	3	109	3	106	3	108	3	109
	15	3	110	3	110	3	111	3	111	3	112	3	113	3	110	3	112	3	113
	18	6	107	6	107	6	108	6	108	6	104	N/A	N/A	6	107	6	104	6	105
	21	N/A	N/A	3 3	107 106	3 3	108 107	3 3	108 108	3 3	104 108	N/A	N/A	3 3	107 106	3 3	104 108	3 3	105 109
	24	N/A	N/A	3 3	107 110	N/A	N/A	3 3	108 111	N/A	N/A	N/A	N/A	3 3	107 110	3 3	104 112	3 3	105 113
78 in.	8	4	100	4	100	4	101	4	101	4	102	4	103	4	100	4	102	4	103
	12	4	107	4	107	4	108	4	108	4	104	4	105	4	107	4	104	4	105
	16	4	106	4	106	4	107	4	107	4	108	4	109	4	106	4	108	4	109
	20	N/A	N/A	4	110	4	111	4	111	4	112	N/A	N/A	4	110	4	112	4	113
	24	N/A	N/A	8	107	N/A	N/A	8	108	N/A	N/A	N/A	N/A	8	107	8	104	8	105
	28	N/A	N/A	4 4	107 106	N/A	N/A	4 4	108 107	N/A	N/A	N/A	N/A	4 4	107 106	4 4	104 108	4 4	105 109
	32	N/A	N/A	4 4	107 110	N/A	N/A	4 4	108 111	N/A	N/A	N/A	N/A	N/A	N/A	4 4	104 112	4 2	105 113

REPLACEMENT PARTS LIST (cont)

Basic Model Series

Description	935		945		958		968		978	
	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N
Filter (Permanent)	1	2010-7008-006	1	2010-7008-007	1	2010-7008-008	1	2010-7008-006	2	2010-7008-007
							1	2010-7008-007		
Filter (Throw-Away)	1	2010-7009-008	1	2010-7009-007	1	2010-7009-008	1	2010-7009-006	2	2010-7009-007
							1	2010-7009-007		
Motor	1	3900-2032-000	1	3900-2033-000	1	3900-2033-000	1	3900-2033-000	2	3900-2033-000
							1	3900-2032-000		
Manual Reset Limit	1	4520-2017-000	1	4520-2017-000	1	4520-2017-000	1	4520-2017-001	1	4520-17-002
Auto Reset Limit	4520-2048-000									
Power Relay (24V Control) (120V Control)	410101001 410101003									
Fan Delay Relay Single Stage Heater (24V Control) (120V Control) Two Stage Heater (24V Control) (120V Control)	410171001 410171002 410101001 410101003									
Transformer (Power) 277V Heater 347V Heater 380V Heater 480V Heater 600V Heater	490015025 490015026 490015011 490015025 490015026						490015024 490015027 490015023 490015024 490015027			
Transformer (Control) (24V Control) (120V Control)	490026007 49002604									
Thermostat (Built-In) Single Stage Heater Two Stage Heater	410127001 5813-2008-000 5216-2029-000									
High-Low Heat Switch	5216-2029-001									
Heat On-Off Switch										

LIMITED WARRANTY

All products manufactured by Marley Engineered Products are warranted against defects in workmanship and materials for one year from date of installation, except heating elements which are warranted against defects in workmanship and materials for five years from date of installation. This warranty does not apply to damage from accident, misuse, or alteration; nor where the connected voltage is more than 5% above the nameplate voltage; nor to equipment improperly installed or wired or maintained in violation of the product's installation instructions All claims for warranty work must be accompanied by proof of the date of installation.

The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including labor costs, and shipping costs incurred to return products to Marley Engineered Products Service Center. Within the limitations of this warranty, inoperative units should be returned to the nearest Marley authorized service center or the Marley Engineered Products Center, and we will repair or replace, at our option, at no charge to you with return freight paid by Marley It is agreed that such repair or replacement is the exclusive remedy available from Marley Engineered Products

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Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For the address of your nearest authorized service center, contact Marley Engineered Products in Bennettsville, SC, at 1-800-642-4328. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from Marley Engineered Products When requesting return authorization, include all catalog numbers shown on the products

HOW TO OBTAIN WARRANTY SERVICE AND WARRANTY PARTS PLUS GENERAL INFORMATION

1. Warranty Service or Parts 1-800-642-4328
2. Purchase Replacement Parts 1-800-654-3545
3. General Product Information www.marleymep.com

Note: When obtaining service always have the following:

1. Model number of the product
2. Date of manufacture
3. Part number or description

Marley Engineered Products

470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA

5200-2386-002

ECR 37677
5/08