

INSTALLATION INSTRUCTIONS

MODULAR MASTER WALL MOUNTED PACKAGED HEAT PUMPS

MODELS

MHP30A

MHP36A

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BARD MANUFACTURING COMPANY
BRYAN, OHIO

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FIGURE 1

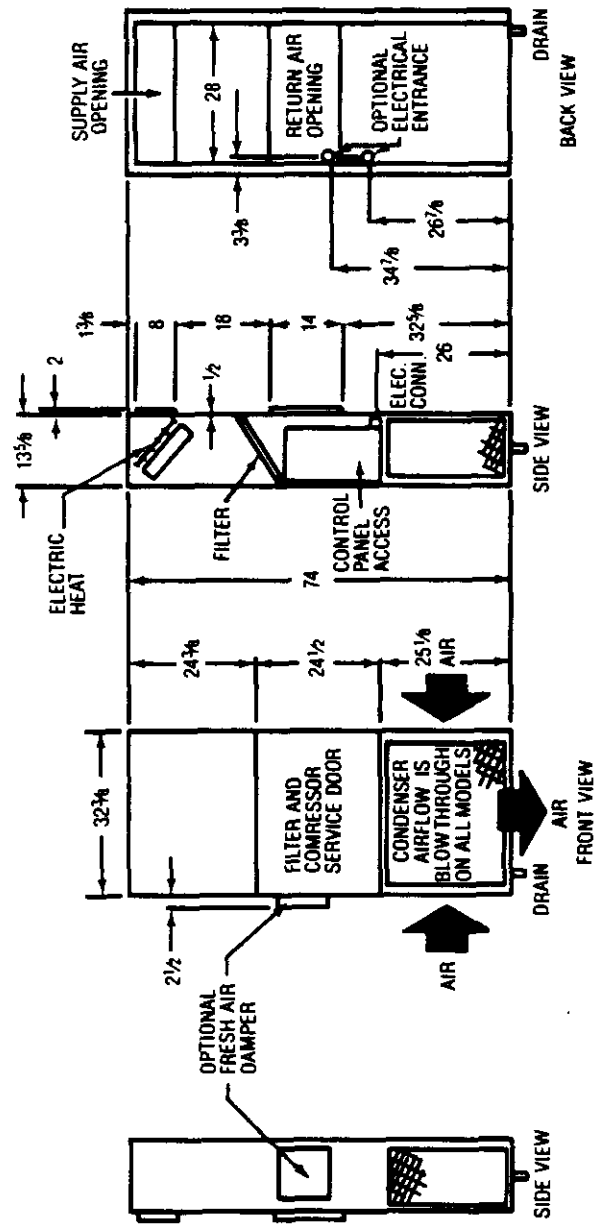


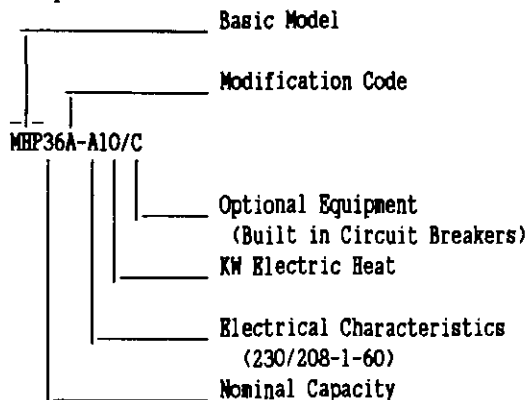
TABLE 1

SPECIFICATIONS						
MODEL	MHP30A-A00	MHP30A-A05	MHP30A-A10	MHP36A-A00	MHP36A-A05	MHP36A-A10
Cooling Capacity BTUH	28,000	28,000	28,000	33,600	33,600	33,600
Hi Temperature Htg. BTUH (47 dq)	30,600	30,600	30,600	36,000	36,000	36,000
Supplemental Heat Strip KW	None	5	10	None	5	10
Supplemental Heat Strip BTUH	---	17065/12800	34130/25600	---	17065/12800	34130/25600
Electrical Rating--60 HZ.	230/208-1	230/208-1	230/208-1	230/208-1	230/208-1	230/208-1
Operating Voltage Range	197-253	197-253	197-253	197-253	197-253	197-253
Minimum Circuit Ampacity	25	51	77	31	57	83
No. Field Power Ckts.	1	1	1	1	1	1
**Field Wire Size	#10	#6	#3	#8	#4	#3
Ground Wire Size	#10	#10	#8	#10	#10	#8
***Req'd. Max. External Fuses	40	60	80*	50	60	90*
Total Unit Amps	18.3/20.8	39.1/38.9	59.9/57.0	23.3/25.8	44.1/43.9	64.9/62
Internal Fuses (Standard)	None	None	60/30	None	None	60/30
Internal Circuit Breakers (Option C)	40	60	60,30	50	60	60,30
Compressor--Circuit A						
Volts	230/208		230/208		230/208	
Rated Load Amps 230/208	13/15.5		18/20.5		18/20.5	
Branch Circuit Selection Current	15.5		20.5		20.5	
Lock Rotor Amps	76/76		97/97		97/97	
Fan Motor & Condenser						
Fan Motor--HP/RPM	1/5/1050		1/5/1050		1/5/1050	
Fan Motor--Amps	1.4		1.4		1.4	
Fan--DIA/CFM	20"/1800		20"/1800		20"/1800	
Face Area	4.72/2/12		4.72/2/12		4.72/2/12	
Motor and Evaporator						
Blower Motor--HP/RPM	1/2/1600		1/2/1600		1/2/1600	
Blower Motor--Amps	3.9		3.9		3.9	
CFM Cooling & E.S.P. w/Filter (Rated) (Hi)	1000/.30		1060/.15		1060/.15	
Face Area	2.7		2.7		2.7	
Filter Sizes (inches)	14x25x1		14x25x1		14x25x1	
Refrigerant 22--oz.	88		83		83	
Shipping Weight--lbs.	330		330		330	
*Sizes 70A or greater are not HACR type.						
**60 degree C copper wire size.						
***Maximum time delay fuse or HACR type circuit breaker.						

Specifications subject to change without notice.

Nomenclature Explanation

Example:



IMPORTANT

The equipment covered in this manual is to be installed by trained, experienced service and installation technicians. Any heat pump is more critical of proper operating, charge and an adequate duct system than a straight air conditioning unit. All duct work supply and return, must be properly sized for the design air flow requirement of the equipment. ACCA is an excellent guide to proper sizing. All duct work or portions thereof not in the conditioned space should be properly insulated in order to both conserve energy and prevent condensation or moisture damage.

SHIPPING DAMAGE

Upon receipt of equipment, the carton should be checked for external signs of shipping damage. If damage is found, the receiving party must contact the last carrier immediately, preferably in writing, requesting inspection by the carrier's agent.

GENERAL

The refrigerant system is completely assembled and charged. All internal wiring is complete.

The unit is designed for use with or without duct work. Flanges are provided for attaching the supply and return ducts.

These instructions explain the recommended method to install the air cooled self-contained unit and the electrical wiring connections to the unit.

These instructions and any instructions packaged with any separate equipment required to make up the entire air conditioning system should be carefully read before beginning the installation. Note particularly "Starting Procedure" and any tags and/or labels attached to the equipment.

While these instructions are intended as a general recommended guide, they do not supersede any national and/or local codes in any way. Authorities having jurisdiction should be consulted before the installation is made.

INSTALLATION

Size of unit for a proposed installation should be based on heat loss calculation made according to methods of Air Conditioning Contractors of America (ACCA). The air duct should be installed in accordance with the Standards of the National Fire Protection Association for the Installation of Air Conditioning and ventilating systems of Other Than Residence Type, NFPA No. 90A, and Residence Type Warm Air Heating and Air Conditioning System, NFPA No. 90B. Where local regulations are a variance with instructions, installer should adhere to local codes.

DUCT WORK

Design the duct work according to methods given by the Air Conditioning Contractors of America. When duct runs through unheated spaces, it should be insulated with a minimum of one inch of insulation. Use insulation with a vapor barrier on the outside of the insulation. Flexible joints should be used to connect the duct work to the equipment in order to keep the noise transmission to a minimum.

A one-inch clearance to combustable material for the first three feet of duct attached to the outlet air frame is required. See Figure 5, Page 9 for further details.

FILTER

A one inch throwaway filter is supplied with each unit. The filter slides into position making it easy to service. This filter can be serviced from the outside by removing the service door.

FRESH AIR INTAKE

All units are built with a fresh air inlet opening punched in the left unit side. This opening is covered by a factory installed blank off plate, model BOP20.

A fresh air damper assembly, model FAD20, may be ordered separately to accommodate the variety of state and local codes requiring fresh air capability.

All capacity, efficiency and cost of operation information as required for Department of Energy "EnergyGuide" fact sheets is based on the fresh air blank off plate being in place and is recommended for maximum energy efficiency.

WALL MOUNTING

1. Two holes, for the supply and return air openings must be cut through the wall as shown in Figure 5.
2. On wood-frame walls, the wall construction must be strong and rigid enough to carry the weight of the unit without transmitting any unit vibration. **WARNING:** Fire hazard can result if one inch clearance to combustible material for supply air duct is not maintained. See Figure 5.
3. Concrete block walls must be thoroughly inspected to insure that they are capable of carrying the weight of the installing unit.
4. Ducts through the walls must be insulated and all joints taped or sealed to prevent air or moisture entering the wall cavity.
5. Some installations may not require any return air duct. It is recommended that on this type of installation that a filter grille be located in the wall. Filters must be of sufficient size to allow a maximum velocity of 400 FPM.

NOTE: If no return air duct is used, applicable installation codes may limit this cabinet to installation only in a single story structure.

WIRING--MAIN POWER

Refer to the unit rating plate for wire sizing information and maximum fuse or "HACR Type" circuit breaker size. Each outdoor unit is marked with a "Minimum Circuit Ampacity." This means that the field wiring used must be sized to carry that amount of current. Some models are suitable for connection with copper wire, while others can be wired with either copper or aluminum wire. Each unit and/or wiring diagram will be marked "Use Copper Conductors Only" or "Use Copper or Aluminum Conductors." These instructions **MUST BE** adhered to. Refer to the National Electrical Code for complete current carrying capacity data on the various insulation grades of wiring material.

The electrical data lists fuse and wire sizes (60 degree C copper) for all models, including the most commonly used heater sizes.

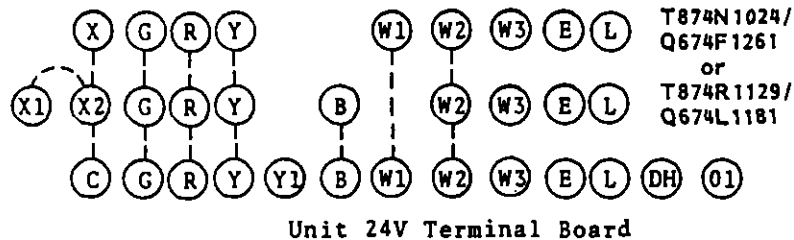
Field conduit connections must be to the control box and not terminate at the cabinet.

The unit rating plate lists a "Maximum Time Delay Relay Fuse" or "HACR Type" circuit breaker that is to be used with the equipment. The correct size must be used for proper circuit protection and also to assure that there will be no nuisance tripping due to the momentary high starting current of the compressor motor.

WIRING--24V CONTROL CIRCUIT

Seven (7) wires should be run from thermostat subbase to the 24V terminal board in the unit. An 18 gauge copper, color-coded thermostat cable is recommended. The connection points are shown on most of the wiring diagrams and are also shown below.

FIGURE 2



IMPORTANT NOTE: Only the thermostat and subbase combinations as shown above will work with this equipment. The thermostat and subbase **MUST** be matched, and the correct operation can be assured only by proper selection and application of these parts.

CONDENSATE DRAIN

A plastic drain hose extends from the drain pan at the top of the unit down to the unit base. There are openings in the unit base for the drain hose to pass through. In the event the drain hose is connected to a drain system of some type, it must be an open or vented type system to assure proper drainage.

PRESSURE SERVICE PORTS

High and low pressure service ports are installed on all units so that the system operating pressures can be observed. Pressure charts can be found later in the manual in Tables 6 and 7 covering all models on both cooling and heating cycles. It is imperative to match the correct pressure chart to the unit by model number.

SEQUENCE OF OPERATION

COOLING--Circuit R-Y makes at thermostat pulling in compressor contactor, starting the compressor and outdoor motor. The G (indoor motor) circuit is automatically completed on any call for cooling operation, or can be energized by manual fan switch on subbase for constant air circulation.

HEATING--A 24V solenoid coil on reversing valve controls heating cycle operation. Two thermostat options, one allowing "Auto" changeover from cycle to cycle and the other constantly energizing solenoid coil during heating season and thus eliminating pressure equalization noise except during defrost, are to be used. On "Auto" option, a circuit is completed from R-W1 and R-Y on each heating "on" cycle, energizing reversing valve solenoid and pulling in compressor contactor starting compressor and outdoor motor. R-G also make starting indoor blower motor. Heat Pump heating cycle now in operation. The second option has no "Auto" changeover position, but instead energizes the reversing valve solenoid constantly whenever the system switch on subbase is placed in "Heat" position, the "B" terminal being constantly energized from R. A thermostat demand for heat completes R-Y circuit, pulling in compressor contactor starting compressor and outdoor motor. R-G also make starting indoor blower motor.

COMPRESSOR CUT-OFF THERMOSTAT AND OUTDOOR THERMOSTATS

Heat pump compressor operation at outdoor temperatures below 0 degrees F are neither desirable nor advantageous in terms of efficiency. Since most equipment at time of manufacture is not designated for any specific destination of the country, and most of the equipment is installed in areas not approaching the lower outdoor temperature range, the compressor cut-offs are not factory installed.

Outdoor thermostats are available to hold off various banks of electric heat until needed as determined by outdoor temperature. The set point of either type of thermostat is variable with geographic region and sizing of the heating equipment to the structure. Utilization of the Heating Application Data and the heat loss calculation of the building are useful in determining the correct set points.

COMPRESSOR CUT-OFF AND OUTDOOR THERMOSTAT WIRING

See specific wiring information on page 11.

HEAT ANTICIPATION

Both of the thermostats shown below have a fixed heat anticipator for stage 1 with no adjustment required. Stage 2 has an adjustable anticipator for the W2 connection and fixed for the W3 connection. Both the W2 and W3 circuits are controlled by the stage 2 bulb. The only heat anticipator that needs to be checked is stage 2 and it should be set to match the load carried by the W2 circuit. The normal factory wiring provides for only one electric heat contactor to be controlled by W2, and the anticipator should be set at .40A. If special field wiring is done, it is best to actually measure the load but a good rule is .40A for EACH heat contactor controlled by W2.

TABLE 2

WALL THERMOSTAT AND SUBBASE COMBINATIONS			
Group	Thermostat	Subbase	Predominant Features
A	8403-017 (T874R1129)	8404-009 (O674L1181)	Heat or Cool ① No Auto
B	8403-018 (T874N1024)	8404-010 (O674F1261)	Automatic Heat-Cool ② Changeover Position

- ① No automatic changeover position--must manually place in heat or cool. Reversing valve remains energized at all times system switch is in heat position (except during defrost cycle). No pressure equalization noise when thermostat is satisfied on either heating or cooling.
- ② Allows thermostat to control both heating and cooling operation when set in "Auto" position. Reversing valve de-energizes at end of each "On" heating cycle.

IMPORTANT NOTE: Both thermostat and subbase combinations shown above incorporate the following features: Man-Auto fan switch, Off-Heat-Cool-Em. Heat Switch, and two (2) indicator lamps--one for emergency heat and one for compressor malfunction.

THERMOSTAT INDICATOR LAMPS

The red lamp marked "Em.Ht." comes on and stays on whenever the system switch is placed in the emergency heat position. The green lamp marked "check" will come on if there is any problem that prevents the compressor from running when it is supposed to be.

EMERGENCY HEAT POSITION

The operator of the equipment must manually place the system switch in this position. This is done when there is a known problem with the indoor section, or when the green "check" lamp comes on indicating a problem.

DEFROST CYCLE

The defrost cycle is controlled by time and temperature. The 24 volt timer motor runs all the time the compressor is in operation. When the outdoor temperature is in the lower 40 degree F temperature range or colder, the outdoor coil temperature is 32 degree F or below. This temperature is sensed by the defrost thermostat mounted near the bottom of the outdoor coil on a return bend. The defrost thermostat closes at approximately 32 degree F. Every 60 (or 30) minutes that the compressor is running, contacts 3 - 5 close for 7 minutes. If the defrost thermostat is closed, the defrost relay energizes and places the system in defrost mode. An interlocking circuit is created with timer contacts 3 - 5 and defrost relay contacts 7 - 9 in series.

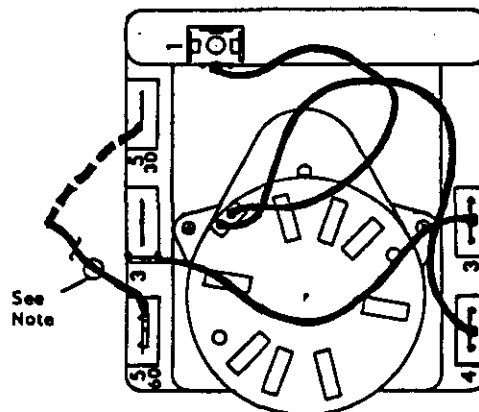
During the defrost mode, the refrigerant cycle switches back to the cooling cycle, the outdoor motor stops, electric heaters are energized, and hot gas passing through the outdoor coil melts any accumulated frost. When the temperature rises to approximately 57 degree F, the defrost thermostat opens, de-energizing the defrost relay and returning the system to heating operation.

If some abnormal or temporary condition such as a high wind causes the heat pump to have a prolonged defrost cycle, contacts 3 - 5 of the defrost timer will open after 7 minutes and restore the system to heating operations automatically.

There are two time settings on the defrost timer--30 minutes and 60 minutes. Most models are shipped wired on the 60 minute setting for greatest operating economy. If special circumstances require a change to the shorter time, remove wire connected to terminal 5/60 and reconnect to terminal 5/30.

There is a manual advance knob located on the timer. This can be used to advance timer to contact closure point if it is desired to check out defrost cycle operation, without waiting for time to elapse.

FIGURE 3
DEFROST TIMER WIRING



NOTE: All models are connected to 5/60 terminal (60 minute). Any model can be changed from 60 minutes to 30 minutes by unplugging from 5/60 terminal and reconnecting to 5/30 terminal as shown by dotted line.

SERVICE HINTS

1. Caution homeowner to maintain clean air filters at all times. Also, not to needlessly close off supply and return air registers. This reduces air flow through the system, which shortens equipment service life as well as increasing operating costs.
2. Switching to heating cycle at 75 degree F or higher outside temperature may cause a nuisance trip of the manual reset high pressure switch.
3. The heat pump wall thermostats perform multiple functions. Be sure that all function switches are correctly set for the desired operating mode before trying to diagnose any reported service problems.

4. Check all power fuses or circuit breakers to be sure they are the correct rating.
5. Periodic cleaning of the outdoor coil to permit full and unrestricted airflow circulation is essential.

IMPORTANT INSTALLER NOTE

For improved start-up performance, wash the indoor coil with a dishwasher detergent.

CRANKCASE HEATERS

All units are provided with some form of compressor crankcase heat. Some single phase units utilize the compressor motor start winding in series with a portion of the run capacitor to generate heat within the compressor shell to prevent liquid refrigerant migration.

Some three phase units utilize a wraparound type of crankcase heater that warms the compressor oil from the outside.

Some single and three phase models have an insertion well-type heater located in the lower section of the compressor housing. This is a self-regulating type heater that draws only enough power to maintain the compressor at a safe temperature.

Some form of crankcase heat is essential to prevent liquid refrigerant from migrating to the compressor, causing oil pump out on compressor start-up and possible valve failure due to compressing a liquid.

Refer to unit wiring diagram to find exact type of crankcase heater used.

The decal in Figure 4 is affixed to all outdoor units detailing start-up procedure. This is very important. Please read carefully.

FIGURE 4

IMPORTANT

THESE PROCEDURES MUST BE FOLLOWED AT INITIAL START-UP AND AT ANY TIME POWER HAS BEEN REMOVED FOR 12 HOURS OR LONGER.

TO PREVENT COMPRESSOR DAMAGE WHICH MAY RESULT FROM THE PRESENCE OF LIQUID REFRIGERANT IN THE COMPRESSOR CRANKCASE

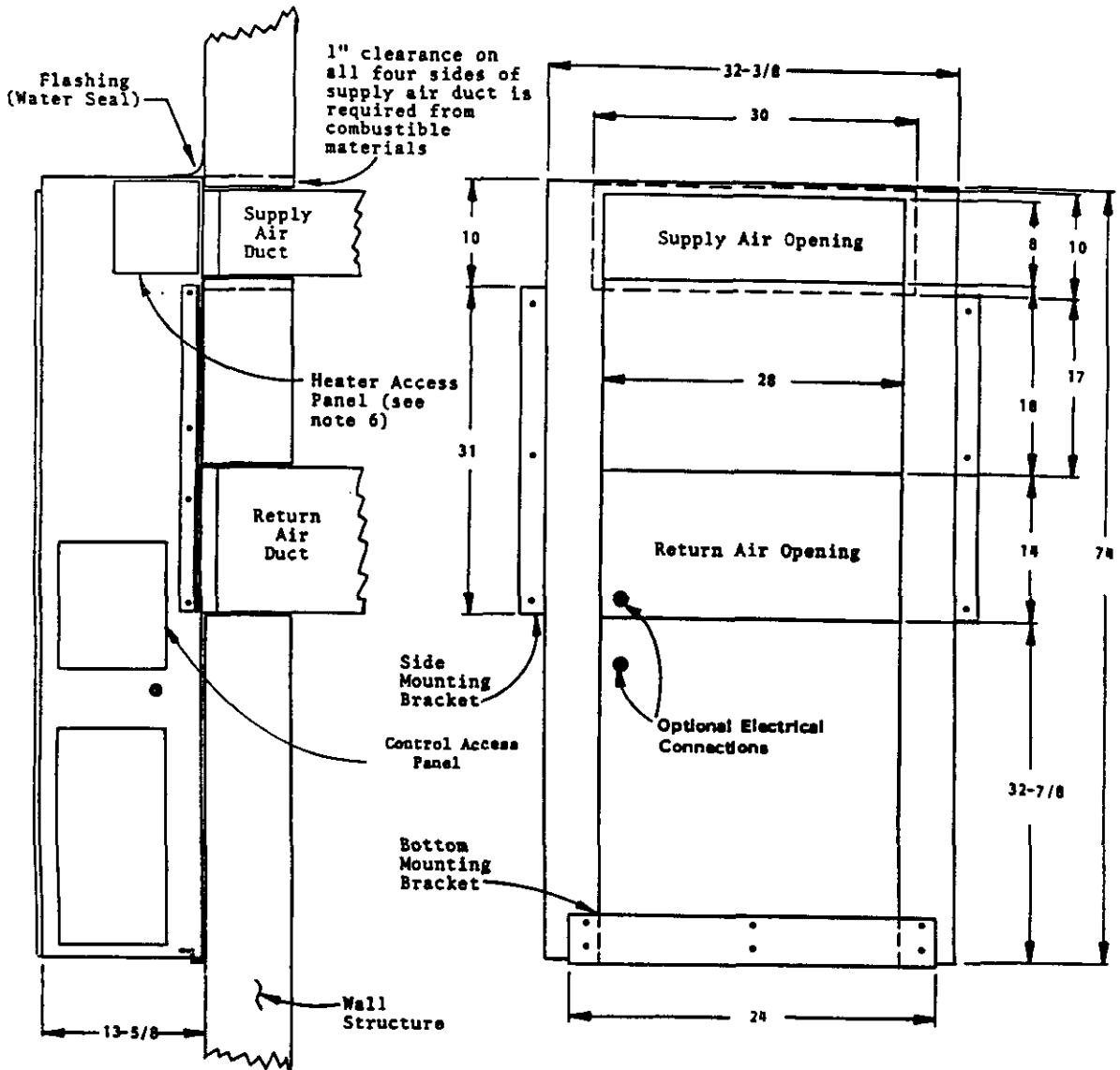
1. MAKE CERTAIN THE ROOM THERMOSTAT IS IN THE "OFF" POSITION. (THE COMPRESSOR IS NOT TO OPERATE).
2. APPLY POWER BY CLOSING THE SYSTEM DISCONNECT SWITCH. THIS ENERGIZES THE COMPRESSOR HEATER WHICH EVAPORATES THE LIQUID REFRIGERANT IN THE CRANKCASE.
3. ALLOW 4 HOURS OR 60 MINUTES PER POUND OF REFRIGERANT IN THE SYSTEM AS NOTED ON THE UNIT RATING PLATE. WHICHEVER IS GREATER.
4. AFTER PROPERLY ELAPSED TIME THE THERMOSTAT MAY BE SET TO OPERATE THE COMPRESSOR.
5. EXCEPT AS REQUIRED FOR SAFETY WHILE SERVICING — DO NOT OPEN SYSTEM DISCONNECT SWITCH.

7961-061

RIGHT SIDE VIEW

WALL VIEW

FIGURE 5



MOUNTING INSTRUCTIONS

1. These units are secured by wall mounting brackets which secure the unit to the outside wall surface at both sides and at the bottom.
2. The unit itself is suitable for "0" inch clearance, but the supply air duct flange and the first three feet of supply air duct require 1 inch clearance to combustible material. If combustible wall, use 30" x 10" dimensions for sizing, if non-combustible, use 28" x 8" dimensions.

WARNING: Failure to provide the one inch clearance for the first three feet between the supply duct and a combustible surface can result in fire.

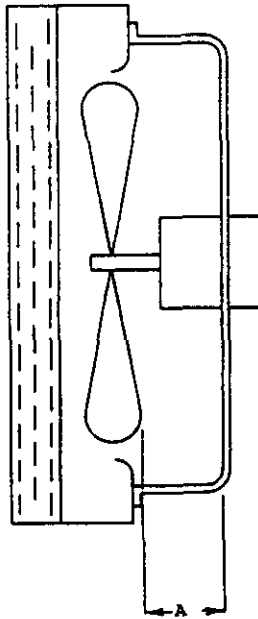
3. After the wall opening positions have been selected, lay out the position for the bottom and side brackets. Fasten the brackets securely to the wall (type of fasteners will depend on wall construction).
4. Be sure to observe the 10" dimension when attaching the side brackets. This will assure that no screws are driven into the unit sides damaging any internal parts. One-half inch sheet metal screws are recommended.
5. For additional mounting rigidity, the return air and supply air (depending upon wall construction) frames or collars can be drilled and screwed or welded to the structural wall itself. Be sure to observe required clearance if combustible wall.
6. Maintain 30 inches minimum clearance on right side of unit to allow access to heat strip and control panel.

FAN BLADE SETTING DIMENSIONS

Shown in the drawing below are the correct fan blade setting dimensions for proper air delivery across the outdoor coil.

Any service work requiring removal or adjustment in the fan and/or motor area will require that the dimensions below be checked and blade adjusted in or out on the motor shaft accordingly.

FIGURE 6



Model	Dimension A
MHP30A	2-1/4
MHP36A	2-1/4

REFRIGERANT CHARGE

The correct system R-22 charge is shown on the unit rating plate. Optimum unit performance will occur with a refrigerant charge resulting in a suction line temperature (6" from compressor) as shown in the following table:

TABLE 3

Model	Rated Airflow	° 95 F OD Temperature	° 82 F OD Temperature
MHP30A	1000	59 - 61	71 - 73
MHP36A	1060	50 - 52	63 - 65

The above suction line temperatures are based upon 80 degrees F dry bulb/67 degrees F wet bulb (50% R.H.) temperature and rated airflow across the evaporator during cooling cycle.

TABLE 4

INDOOR BLOWER PERFORMANCE CFM--DRY COIL WITH FILTER		
E.S.P. In H ₂ O	Models MHP30A - MHP36A	
	Low	High
.0	950	1200
.1	910	1150
.2	875	1115
.3	--	1065
.4	--	1015
.5	--	965

TABLE 5

RATED CFM AND E.S.P. (WET COIL--COOLING)			
Model	Rated *CFM	Rated *E.S.P.	Recommended Airflow Range
MHP30A	1000	.22	850 - 1100
MHP36A	1060	.15	900 - 1160

*Rated CFM and E.S.P. on high speed tap.

COMPRESSOR CUT-OFF AND OUTDOOR THERMOSTAT WIRING

FIGURE 7

5 & 10XN 1-ph --- 1-ph

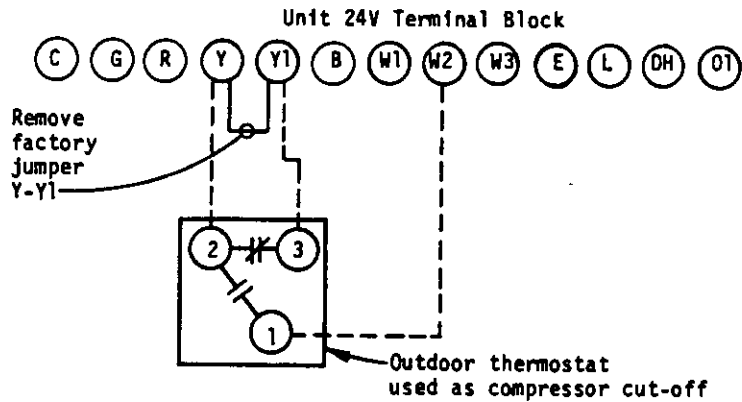


TABLE 6

COOLING

Air Temperature Entering Outdoor Coil Degree F

Model	Return Air Temperature	Pressure	°	°	°	°	°	°	°	°	°
			75	80	85	90	95	100	105	110	115
MHP30A	75 deg. DB	Low Side	66	68	71	73	76	78	79	82	84
	62 deg. WB	High Side	204	220	236	252	269	285	300	316	333
	80 deg. DB	Low Side	71	73	76	78	81	83	85	88	90
	67 deg. WB	High Side	209	226	242	258	276	292	308	324	342
	85 deg. DB	Low Side	76	78	82	84	87	89	91	95	97
	72 deg. WB	High Side	216	234	250	267	286	302	319	335	354
MHP36A	75 deg. DB	Low Side	60	63	65	67	70	72	75	78	80
	62 deg. WB	High Side	216	233	251	267	284	299	317	333	351
	80 deg. DB	Low Side	64	67	69	72	75	77	80	83	86
	67 deg. WB	High Side	222	239	257	274	291	307	325	342	360
	85 deg. DB	Low Side	69	72	74	77	81	83	86	89	92
	72 deg. WB	High Side	230	247	266	284	301	318	336	354	373

TABLE 7

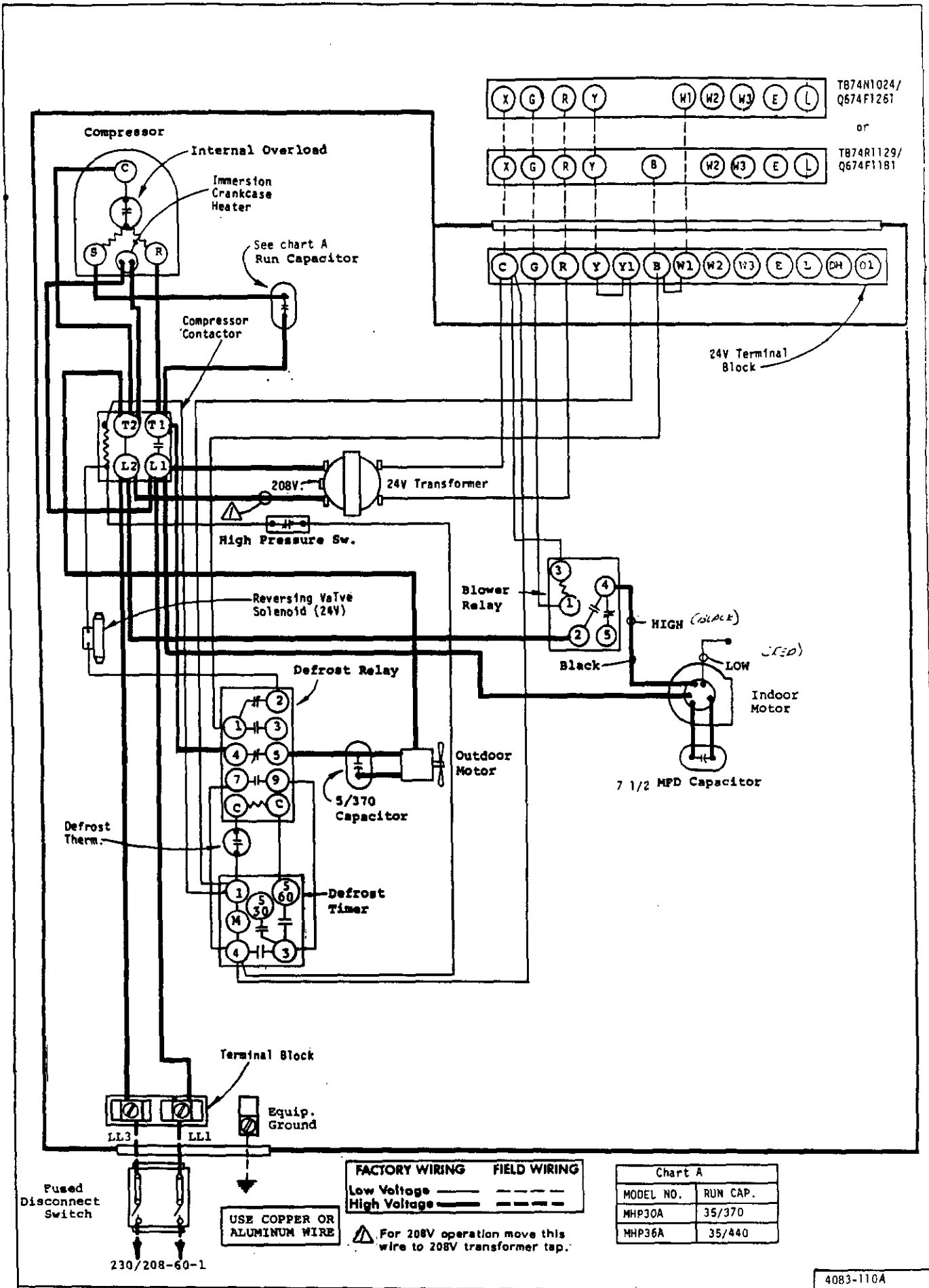
HEATING

Air Temperature Entering Outdoor Coil Degree F

Model	Return Air Temperature	Pressure	0	5	10	15	17	20	25	30	35	40	45	47	50	55	60
			MHP30A	70 degree	Low Side	20	23	27	31	33	35	39	43	47	51	54	56
High Side	136	150			166	182	188	197	214	230	243	260	276	282	292	307	322
MHP36A	70 degree	Low Side	15	20	24	27	29	31	35	39	43	47	51	52	54	58	62
		High Side	143	158	173	185	191	202	218	232	248	263	276	283	293	308	323

Low side pressure \pm 2 PSIGHigh side pressure \pm 5 PSIG

Tables are based upon rated CFM (airflow) across the evaporator coil and should be found under section titled "Refrigerant Charge" elsewhere in manual. If there is any doubt as to correct operating charge being in the system, the charge should be removed, system evacuated, and recharged to serial plate instructions.



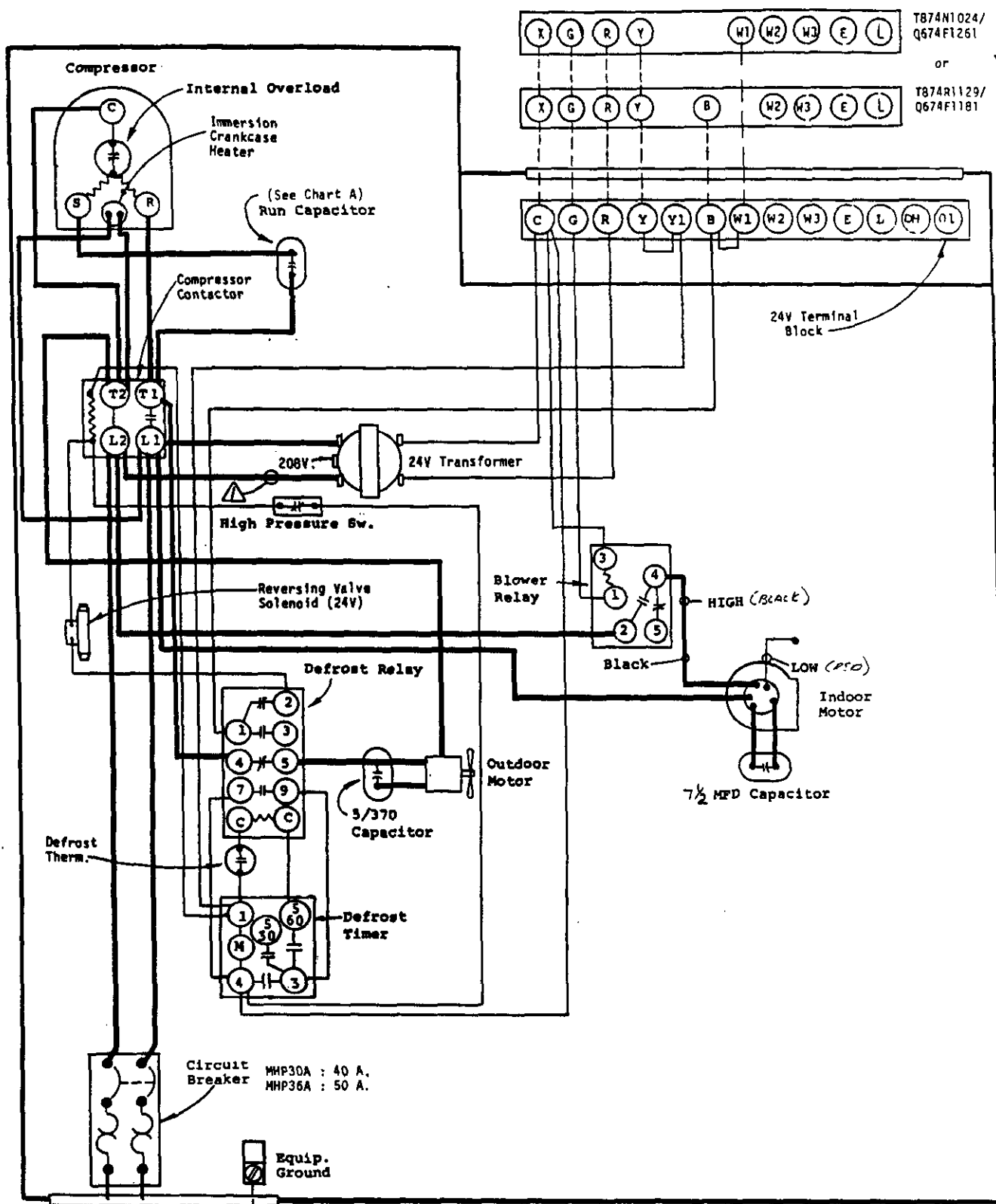
	FACTORY WIRING	FIELD WIRING
Low Voltage	————	-----
High Voltage	-----	-----

⚠ For 208V operation move this wire to 208V transformer tap.

Chart A	
MODEL NO.	RUN CAP.
MHP30A	35/370
MHP36A	35/440

USE COPPER OR ALUMINUM WIRE

230/208-60-1



T874N1024/
Q674F1261

or

T874R1129/
Q674F1181

24V Terminal
Block

Circuit Breaker MHP30A : 40 A.
MHP36A : 50 A.

Equip.
Ground

USE COPPER OR
ALUMINUM WIRE

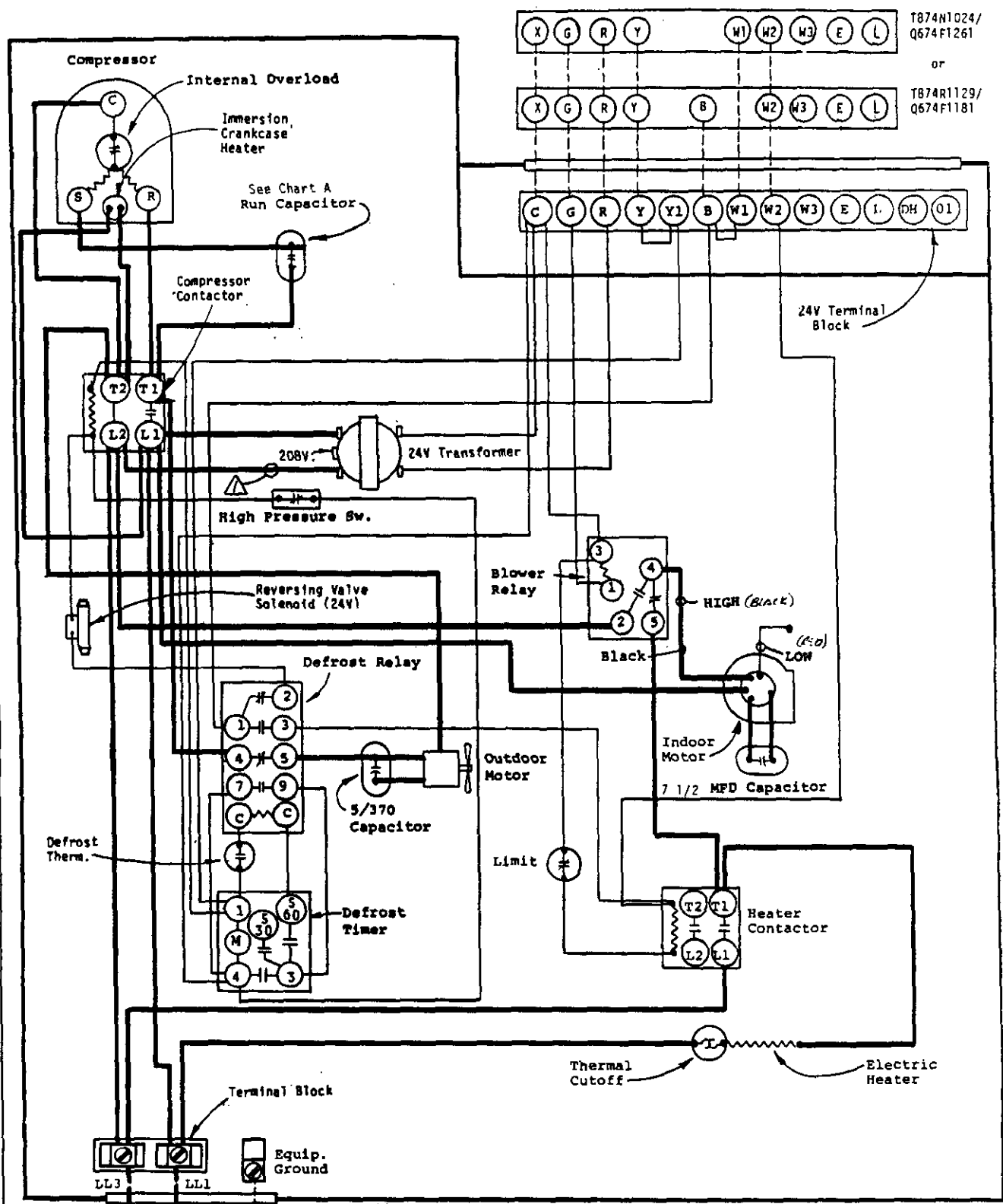
FACTORY WIRING **FIELD WIRING**
 Low Voltage ————
 High Voltage ————

⚠ For 208V operation move this wire to 208V transformer tap.

CHART A	
MODEL NO.	RUN CAP.
MHP30A	35/370
MHP36A	35/440

230/208-60-1

4083-111A



Fused Disconnect Switch

Terminal Block

Equip. Ground

LL3 LL1

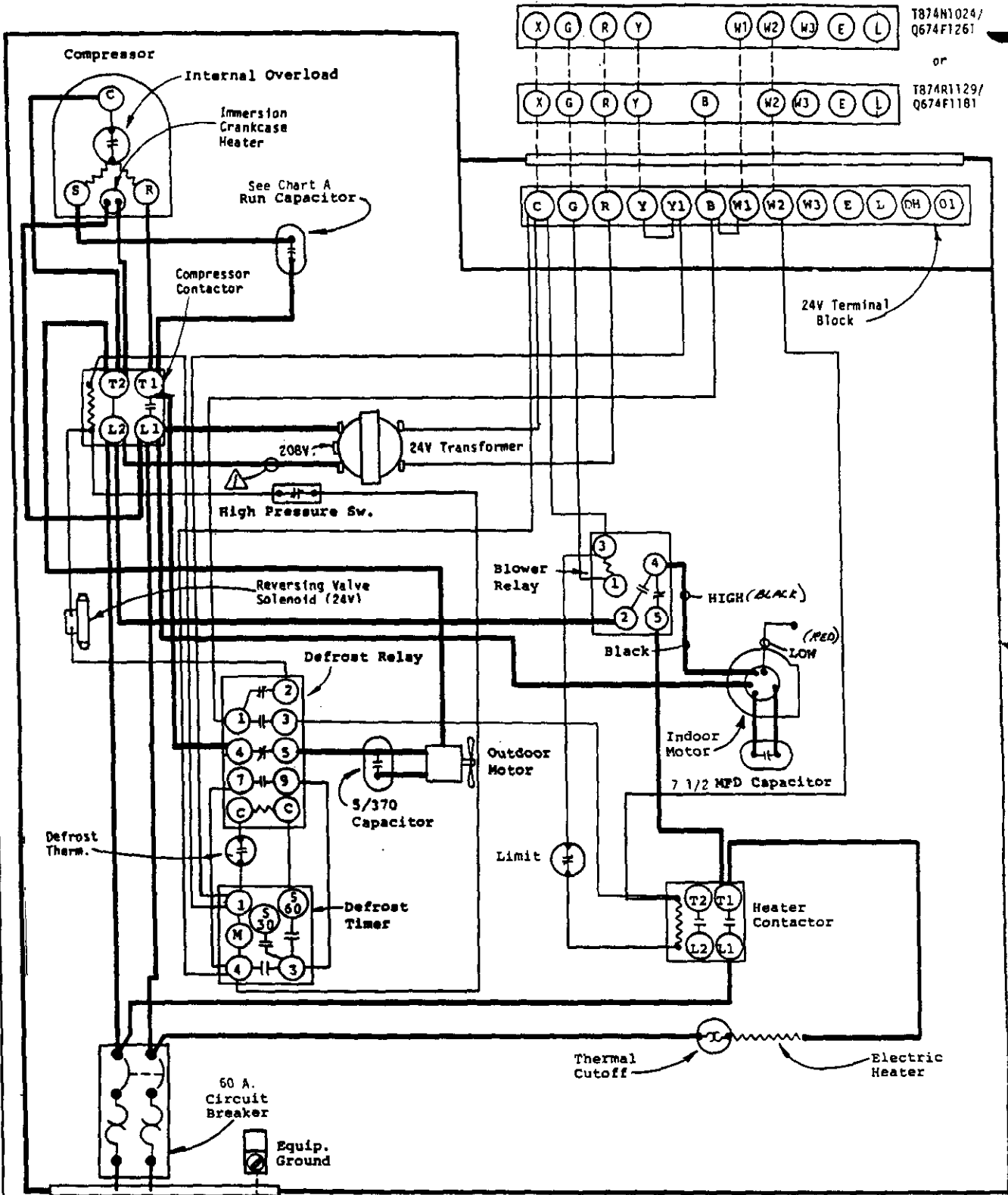
230/208-60-1

USE COPPER OR ALUMINUM WIRE

	FACTORY WIRING	FIELD WIRING
Low Voltage	————	-----
High Voltage	-----	————

CHART A	
MODEL NO.	RUN CAP.
MHP30A	35/370
MHP36A	35/440

⚠ For 208V operation move this wire to 208V transformer tap.



T874N1024/
Q674F1261

or
T874R1129/
Q674F1181

24V Terminal
Block

See Chart A
Run Capacitor

208V 24V Transformer

High Pressure Sw.

Reversing Valve
Solenoid (24v)

Defrost Relay

Blower
Relay

Black

HIGH (BLACK)

(RED)
LOW

Indoor
Motor
7 1/2 MFD Capacitor

Outdoor
Motor

Limit

Heater
Contactor

Defrost
Therm.

Defrost
Timer

60 A.
Circuit
Breaker

Equip.
Ground

Thermal
Cutoff

Electric
Heater

FACTORY WIRING	FIELD WIRING
Low Voltage	-----
High Voltage	-----

⚠ For 208V operation move this wire to 208V transformer tap.

USE COPPER OR
ALUMINUM WIRE

CHART A	
MODEL NO.	RUN CAP.
MHP30A	35/370
MHP36A	35/440

230/208-60-1

4083-121 B

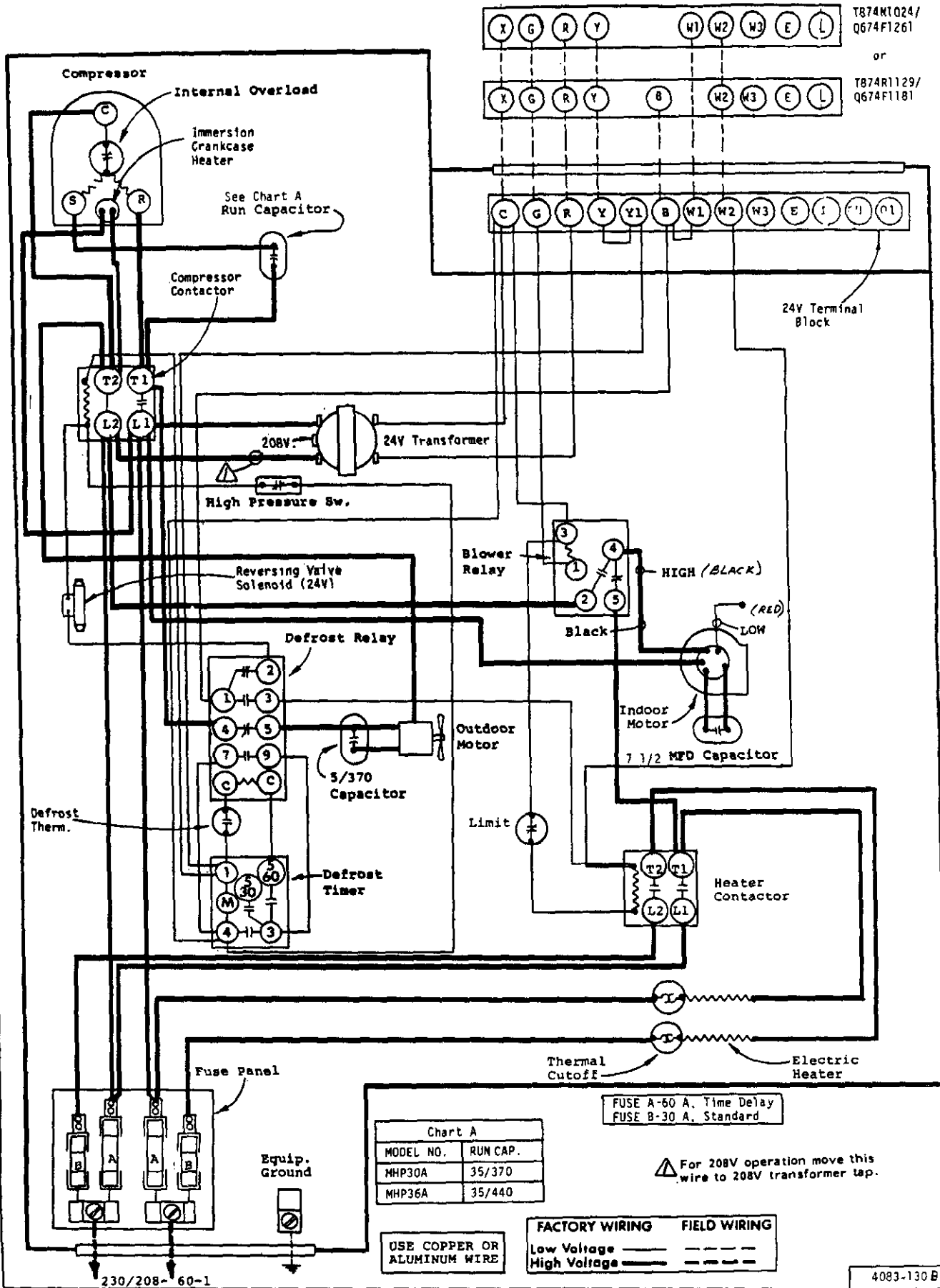


Chart A

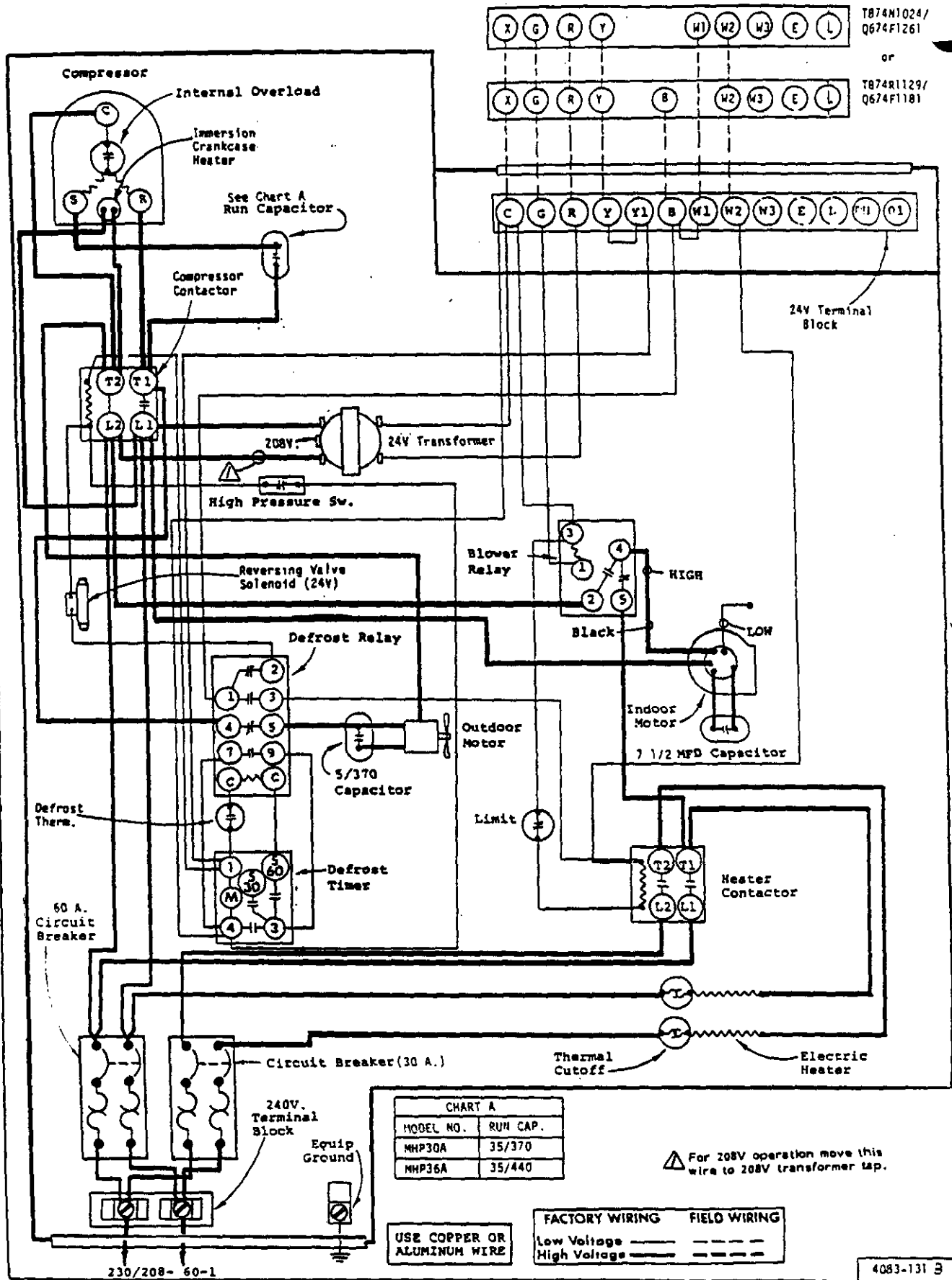
MODEL NO.	RUN CAP.
MHP30A	35/370
MHP36A	35/440

FUSE A-60 A. Time Delay
FUSE B-30 A. Standard

⚠ For 208V operation move this wire to 208V transformer tap.

USE COPPER OR ALUMINUM WIRE

	FACTORY WIRING	FIELD WIRING
Low Voltage	————	- - - -
High Voltage	————	- - - -



T874M1024/
Q674F1261

or

T874R1129/
Q674F1181

CHART A	
MODEL NO.	RUN CAP.
MHP30A	35/370
MHP36A	35/440

⚠ For 208V operation move this wire to 208V transformer tap.

	FACTORY WIRING	FIELD WIRING
USE COPPER OR ALUMINUM WIRE	Low Voltage _____	High Voltage _____