



**INSTALLATION & SERVICE
INSTRUCTIONS
FOR**

HD – HS – HDF-8

Ice Cream Dipping and Storage Chest



First Call for help (US and Canada):

1-800-922-1919

Soporte Técnico y Asistencia (México):

01-800-522-1900

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Information visit us at**

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**P/N OII – HD-HS-8HDF
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INTRODUCTION –

The HS and HD models have been designed to give maximum performance with minimum energy consumption. They have the versatility in product temperature range to be used for storage at sub zero to dipping at desired above zero temperatures. All cabinets are UL and UL sanitation listed.

INSPECTION –

Upon receipt of the cabinet, carefully examine the crating for damage. If damage is found make a note on the delivery ticket before signing. Carefully remove shipping crate and examine cabinet for “concealed” damage. If damage is found contact the delivering carrier immediately and have his agent prepare an inspection report for the purpose of filing a claim **THIS IS YOUR RESPONSIBILITY.**

SPECIFICATIONS –

BASE –

The cabinet base is an all welded assembly of very heavy gauge steel to establish a strong foundation on which the rest of the cabinet is built.

EXTERIOR SHELL –

The shell is formed from heavy gauge steel and is welded together as an assembly and then welded to the cabinet base assembly to give complete strength and durability. This assembly is processed through a chemical treatment and painted

with an enamel powder paint for a lasting finish.

INTERIOR LINER –

The liner is an all welded steel assembly. Copper evaporator tubing is fastened to the exterior of the liner; and maximum heat transfer is further enhanced with the addition of a conductive material on both top and bottom of the tubing. The liner is also chemical treated and painted with an enamel powder paint for a lasting finish.

SUB-TOP –

The sub-top is an all welded heavy gauge galvanized assembly with integral molded plastic breakers. The sub top ties the shell and liner assemblies together and serves as a back up for the main top to prevent denting.

INSULATION –

The shell, liner and sub top assemblies are foamed in place with a polyurethane insulation providing outstanding insulating qualities and solid unitized construction.

MAINTOP –

The main top is a one piece design of heavy gauge 18-8 rust proof stainless steel. It has a brush satin finish to minimize scratching and maintain a lasting clean appearance.

CONDENSING UNIT –

All models incorporate a slide-out condensing unit for easy access to all components. All have a bare tube condenser design to minimize field maintenance.

CABINET DIMENSIONS, ELECTRICAL DATA, CABINET CAPACITIES

Cabinet	OUTSIDE			INSIDE		
	Length	Width	Height	Length Overall	Width Deep End	Height
2-HS	30 1/2	19 7/16	32 1/2	26 3/8	15 5/16	25 5/8
4-HD	30 1/2	30 1/2	32 1/2	26 3/8	26 3/8	25 5/8
6-HD	43	30 1/2	32 1/2	38 7/8	26 3/8	25 5/8
8-HD	54 1/16	30 1/2	32 1/2	49 15/16	26 3/8	25 5/8
10-HD	66 9/16	30 1/2	32 1/2	62 7/16	26 3/8	25 5/8
8-HDF	54 1/16	30 1/2	32 1/2*	49 15/16	26 3/8	25 5/8

* Add 8" to top for syrup rail

ELECTRICAL					CAPACITY		
Volts	Run Amps	Breaker Size	Ship Wt.	Cubic Feet	2 1/2 gal.	3 gal.	# of Lids
115	3.4	15 amp	188	4.5	4	4	1-S
115	3.5	15 amp	238	7.8	13	8	1-D
115	6.0	15 amp	307	12.7	21	14	1-S, 1-D
115	7.8	15 amp	355	17.0	33	21	2-D
115	7.6	15 amp	419	21.9	41	29	2-D, 1-S
115	7.8	15 amp	386	17.0	33	21	2-S

D=Double Lids

S=Single Lids

The step end of each HD is the same height and length with both being 13 3/4.

Check the unit serial plate location in the condensing unit compartment for the type of refrigerant used. The charges are listed below for the respective refrigerants.

	R-12	R404A
HS-2	15	13
HD-4	16	14
HD-6	17	16
HD-8/HDF-8	16	16
HD-10	23	23

INSTALLATION and START UP

LEVELING –

Level case front to back and end to end, shimming where necessary upon installation to assure proper operation of drains and refrigeration systems.

PLUMBING –

To simplify cleaning and for sanitary purposes, we suggest that a connection be made from the cabinet drain tube to a floor drain. A hose fitting is supplied for that purpose.

The HS and HD models are equipped with three wire grounded service cords. For your own protection, connection must be made to a 115 volt grounded receptacle and a power supply with a fifteen ampere rating minimum.

The cabinets are designed to operate on 115 volts, single phase, 60 cycle current. A separate circuit is recommended to prevent product loss due to overloading or malfunction of other equipment on the same circuit. Use a 15 amp time delay fuse. The supply circuit must conform to National and local electrical codes.

A wiring diagram is provided on the condenser shroud for case refrigeration.

VOLTAGE, AS MEASURED AT THE COMPRESSOR TERMINAL DURING OPERATION, MUST NOT VARY MORE THAN 5% FROM CABINET SERIAL PLATE RATING.

NOTE: DO NOT DRILL ANY HOLES IN SIDE OF CABINET WITHOUT FIRST GETTING INSTRUCTIONS FROM FACTORY SERVICE DEPARTMENT.

A space of 4 inches must be left open at the front and back of the cabinet to insure proper air flow over the condensing unit.

Cabinets should not be installed in direct sunlight or near/under heat ducts for proper operation.

******* IMPORTANT *******

Cabinet should be started and allowed to cool down to normal operating temperature before loading any products.

OPERATION and NORMAL MAINTENANCE

TEMPERATURE CONTROL –

The temperature control which senses the cold wall temperature, and is located behind the removable louvered grille at the side of the case, is factory set at the 3:00 o'clock position. Adjustment of the control is done by turning the knob clockwise for colder temperatures and counterclockwise for warmer temperatures.

DEFROSTING –

Defrosting is accomplished manually by scraping frost from areas where it has collected on cabinet interior. Remove excess ice and water. After washing and drying thoroughly reconnect power supply.

CONDENSING UNIT –

The condensing unit is mounted on a slide-out base, accessible by removing the access panel. The condenser is of the bare-tube design. The condenser fan motor draws air through the condenser and passes over the condenser for its cooling and it is expelled out the back of the unit compartment.

CLEANING CONDENSER –

The bare-tube condenser is designed to require minimum maintenance. However, to keep the unit at top efficiency, check periodically, and remove any accumulated dust and debris.

To clean condenser, a soft, nylon brush should be used to loosen dirt and lint. Then vacuum up the dirt or blow condenser out with a high pressure gas such as nitrogen. Never use a wire brush to clean condenser tubes.

CLEANING EXTERIOR –

When cleaning the exterior of the cabinet use a soft cloth or sponge with water and a mild detergent. Rinse and wipe dry.

CLEANING INTERIOR –

For cleaning the interior of the liner storage area, a flush out drain has been provided with a standard hose fitting located in the front of the cabinet in the base area.

Disconnect the electrical power cord

and wash using a soft cloth or sponge and a mild detergent. **DO NOT USE AN ABRASIVE CLEANER OR STEEL WOOL – THESE WILL MAR THE FINISH.**

Wipe dry before restarting the cabinet. Allow the cabinet to cool down to proper temperature before reloading product.

PRESSURE CONTROL –

The 10-HD with R-404A utilizes a high pressure control as a safety device to ensure the system is not subjected to excessive pressures. It trips out the compressor at approx. 440 psi. and has an automatic reset to restart at 350 psi.

High pressures normally result from high ambient conditions and / or dirty condensers. Correct such application problems as soon as possible.

TROUBLE SHOOTING CHART

TROUBLE	PROBABLE CAUSE	SOLUTION
Compressor will not start, no noise	1. Power disconnected	1. Check service cord for proper connection
	2. Blown fuse or breaker	2. Replace fuse or reset breaker
	3. Defective or broken wiring	3. Repair or replace
	4. Defective overload	4. Replace
	5. Defective temperature	5. Replace
Compressor will not cuts out on overload	1. Low voltage	1. Correct see serial plate for proper electrical requirements.
	2. Defective compressor	2. Replace
	3. Defective relay	3. Replace
	4. Restriction pinched cap tube	4. Repair or replace
	5. Restriction moisture	5. Leak check replace drier evacuate and recharge
	6. Inadequate air over condenser	6. Move cabinet so it has 4" front and back of unit compartment opening
	7. Defective condenser fan motor	7. Replace
High head pressure	1. Cabinet location too warm	1. Relocate cabinet remove air flow restriction
	2. Defective condenser fan motor	2. Replace
	3. Air or non condensable gases in system	3. Leak check-change drier, evacuate and recharge

Warm storage temperatures	1. Temperature control not set properly	1. Reset control
	2. Short of refrigerant	2. Leak check - change drier, evacuate and recharge
	3. Cabinet location too warm	3. Relocate cabinet
	4. Too much refrigerant	4. Change drier evacuate and recharge
	5. Low voltage, compressor cycling on overload	5. Check voltage supply
Compressor runs continuously – product too cold	1. Defective control	1. Replace
	2. Control feeler tube not installed in well	2. Push control feeler tube into well
	3. Short on refrigerant	3. Leak check change drier and recharge
Compressor runs continuously – product too warm	1. Short on refrigerant	1. Leak check – change dryers evacuate and recharge
	2. Inefficient compressor	2. Replace

LID GASKET REPLACEMENT –

Remove lids

Grasp the bottom of the gasket with the fingers and pull outward

Work the bottom of gasket from the retainer all around the perimeter openings.

**Lift up the gasket and remove the phillips head screws holding the retainer in place. Note :
Mark retainer location so when reinstalling the screws, the screw holes will line up.**

Lift gasket and retainer from opening and remove gasket.

•
Install gasket on retainer and insert in opening.

Putting downward pressure on gasket-retainer. Reinstall phillips head screws

Stretch gasket downward and install gasket bottom flange over retainer flange.

HOW TO REPLACE HEATERS –

Disconnect power to cabinet, remove collar as shown.

Lift off collar and retainer, being careful not to put stress on the heater connections.

Remove old heater from slot and carefully remove leads from cavity and disconnect.

Remove old heater from slot with leads aligned with connector cavity.

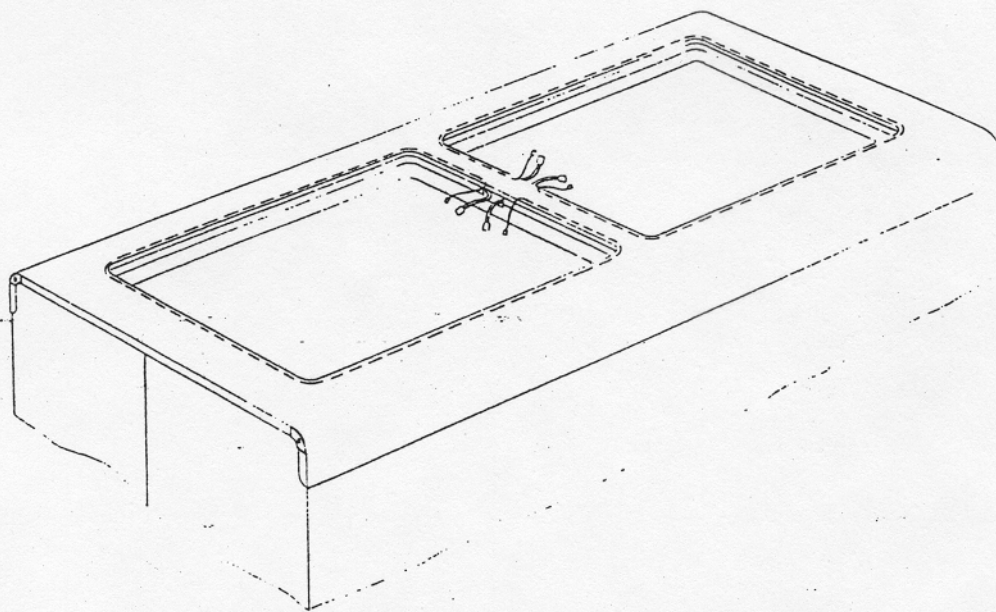
Connect heater leads and push excess leads into cavity. Avoid bending of heater and connections other than required for installation. Replace retainer and collar on cabinet.

Install screws through retainer into cabinet.

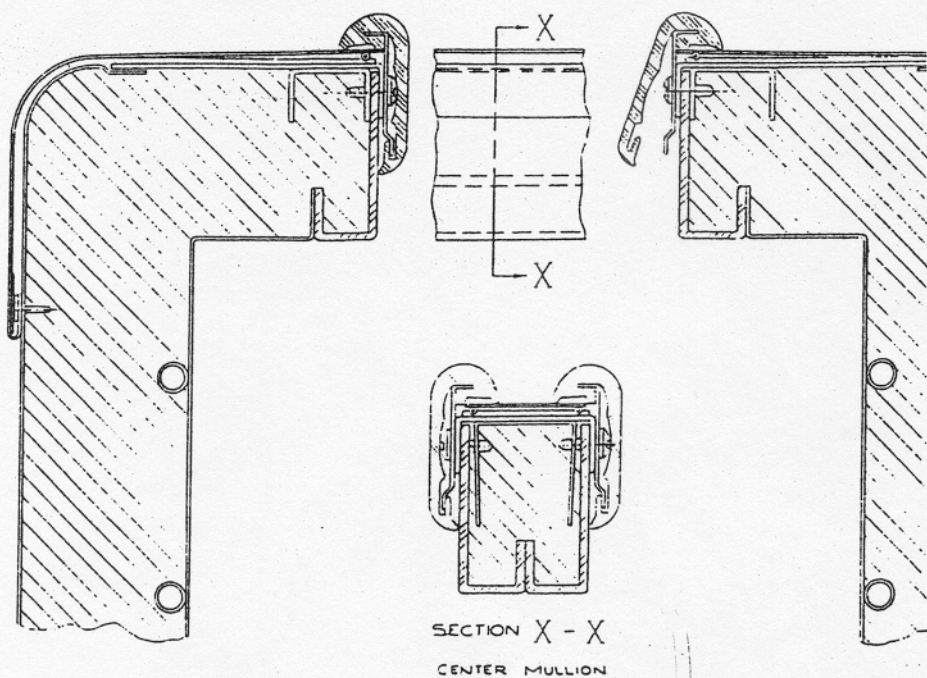
Pull rubber collar down over bottom edge of collar retainer, being certain retainer is in collar groove.

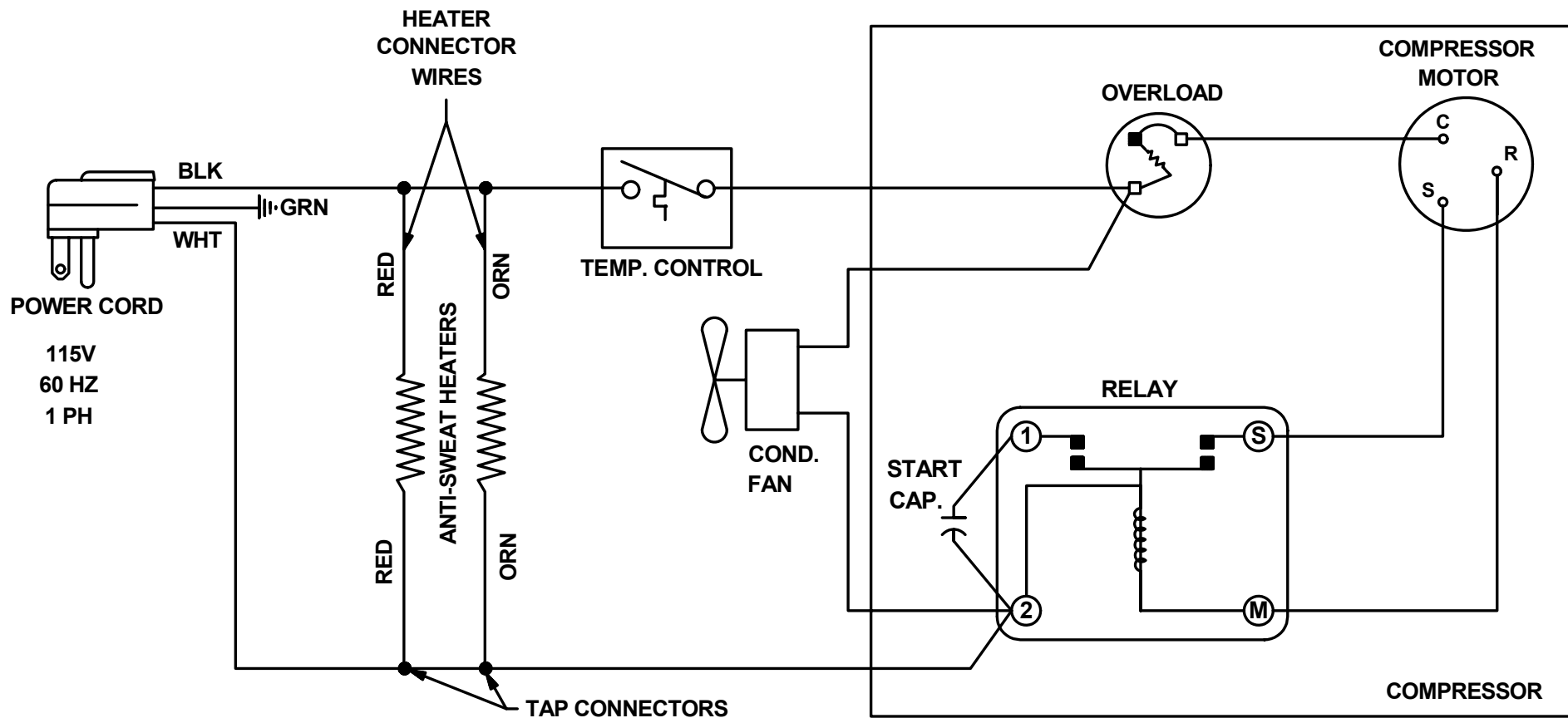
Re-connect cabinet power.

SEE THE DIAGRAMS ON THE FOLLOWING PAGE FOR MORE REFERENCE



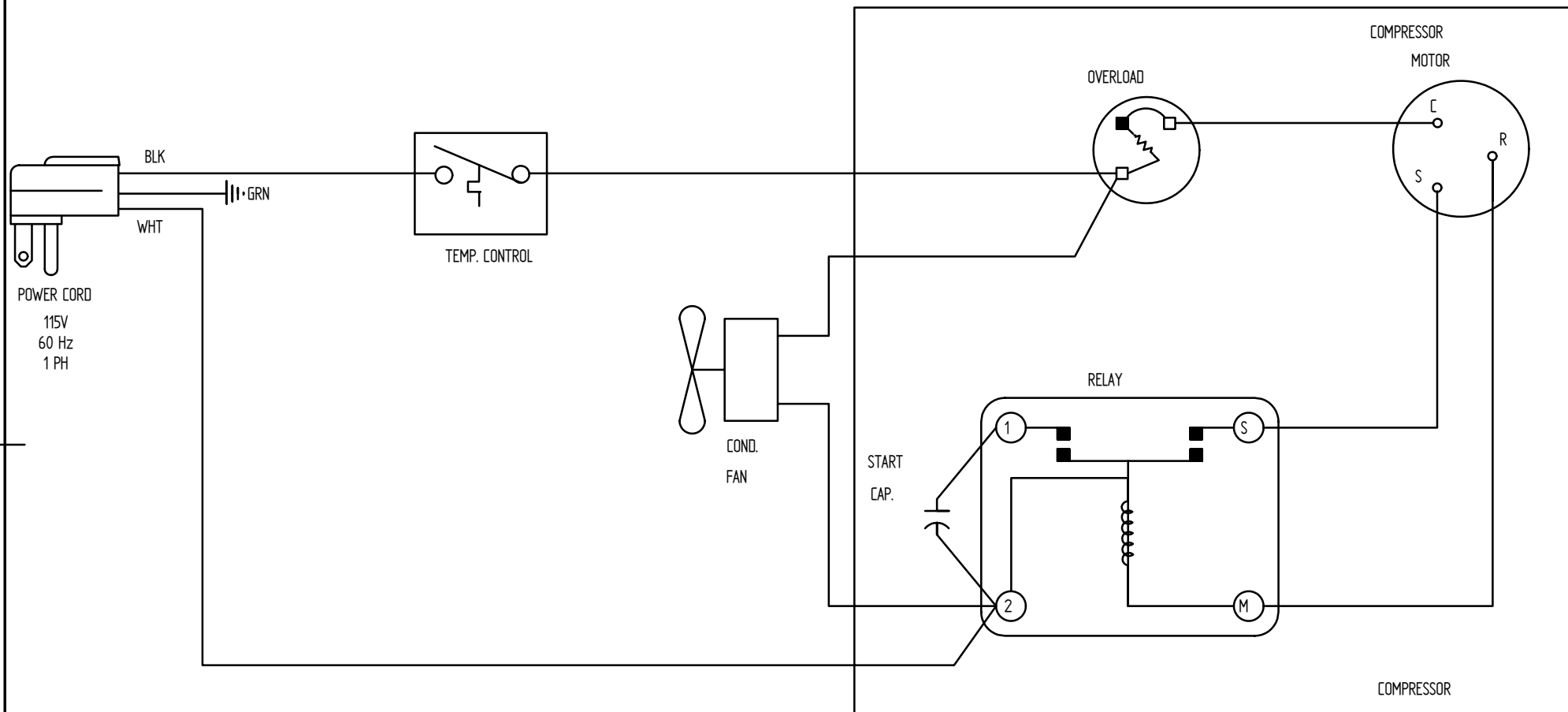
LID GASKET REPLACEMENT





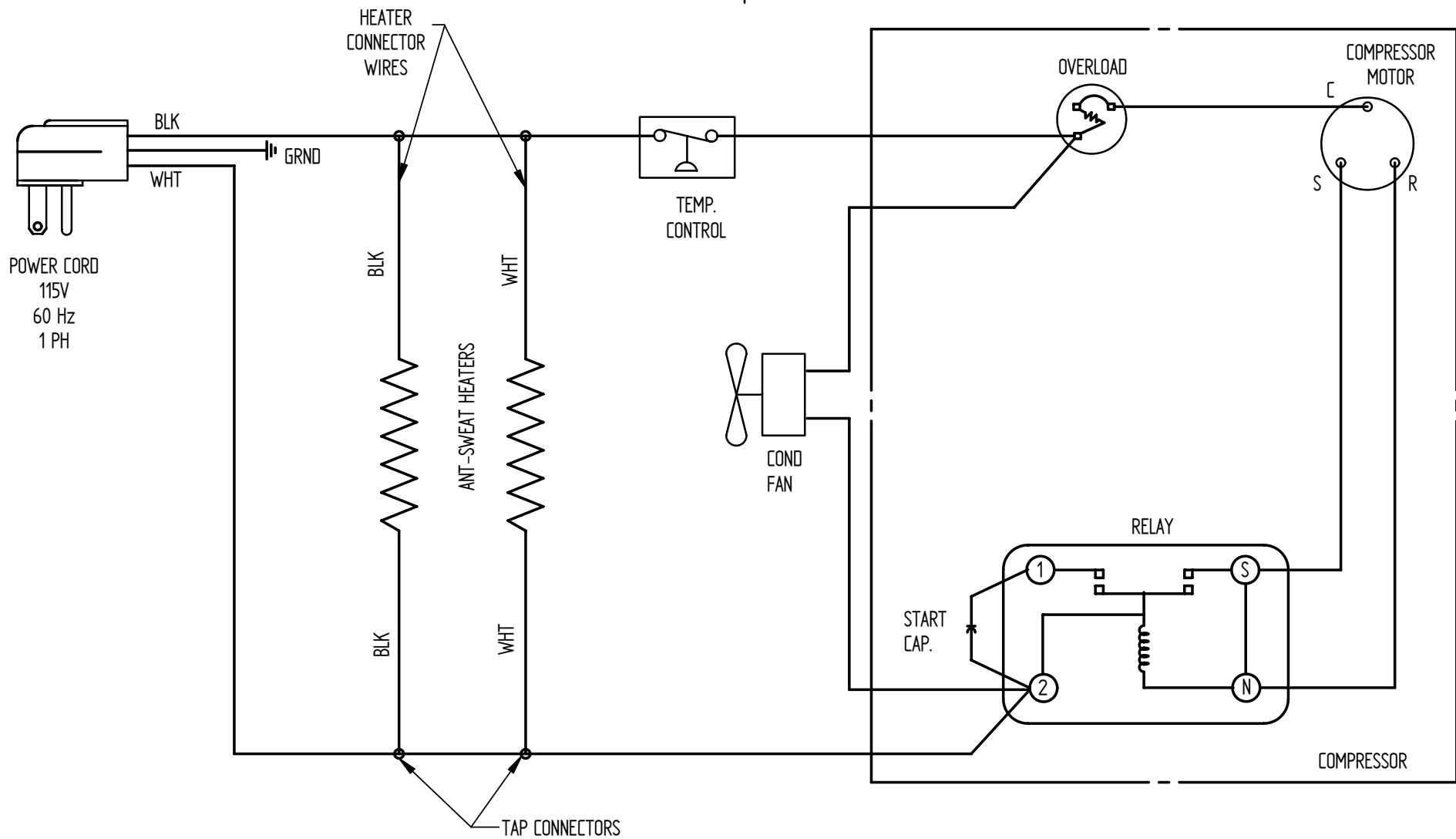
HD-6, R-404A

				MATERIAL: XXXXXX-XX	SHEET SIZE B	TOLERANCES UNLESS OTHERWISE SPECIFIED. FRACTIONAL <input type="checkbox"/> 1/32" DECIMAL <input type="checkbox"/> 0.031" ANGULAR <input type="checkbox"/> 10 HOLE LOCATION & SPACING <input type="checkbox"/> 1/64"		HUSSmann <small>Gloversville, N.Y. 12078</small>			
				SIZE XXXXXXXXXX		SCALE:		TITLE WIRING DIAGRAM			
REV.	DATE	BY	E.C.N.	DIE NO.	XXXX-XXXX	FINISH	XXXXXXXXXX	TYPE CODE E	DRAWN JWL	DWG. NUMBER M100-2018	REV. X
								CHECKED	XXX		





HS-2, HD-4, R-404A

REV	ED #	REV DATE	REV BY	TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONAL 1/32" DECIMAL 0.031" ANGULAR 1° HOLE LOCATION & SPACING 1/64"		HUSMANN® GLOVERSVILLE, NY 12078	
-	-	-	-	ED NUMBER		WIRING DIAGRAM	
APPROVED BY				-		M100-2017	
DRAWN BY				JWL		SCALE INCHES	
DATE DRAWN				12/19/95		SHEET # 1 OF 1	
APPROVED BY				-			



HD-8, HDF-8 (R-404A)

REV	ED #	REV DATE	REV BY	TOLERANCES UNLESS OTHERWISE SPECIFIED: FRACTIONAL 1/32" DECIMAL 0.031" ANGULAR 1° HOLE LOCATION & SPACING 1/64"			 GLOVERSVILLE, NY 12078	
-	-	-	-	-			WIRING DIAGRAM	
APPROVED BY				ED NUMBER				M100-2019
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DRAWN BY				SCALE		INCHES	SHEET # 1 OF 1	
DATE DRAWN				12/19/95				
APPROVED BY				-				