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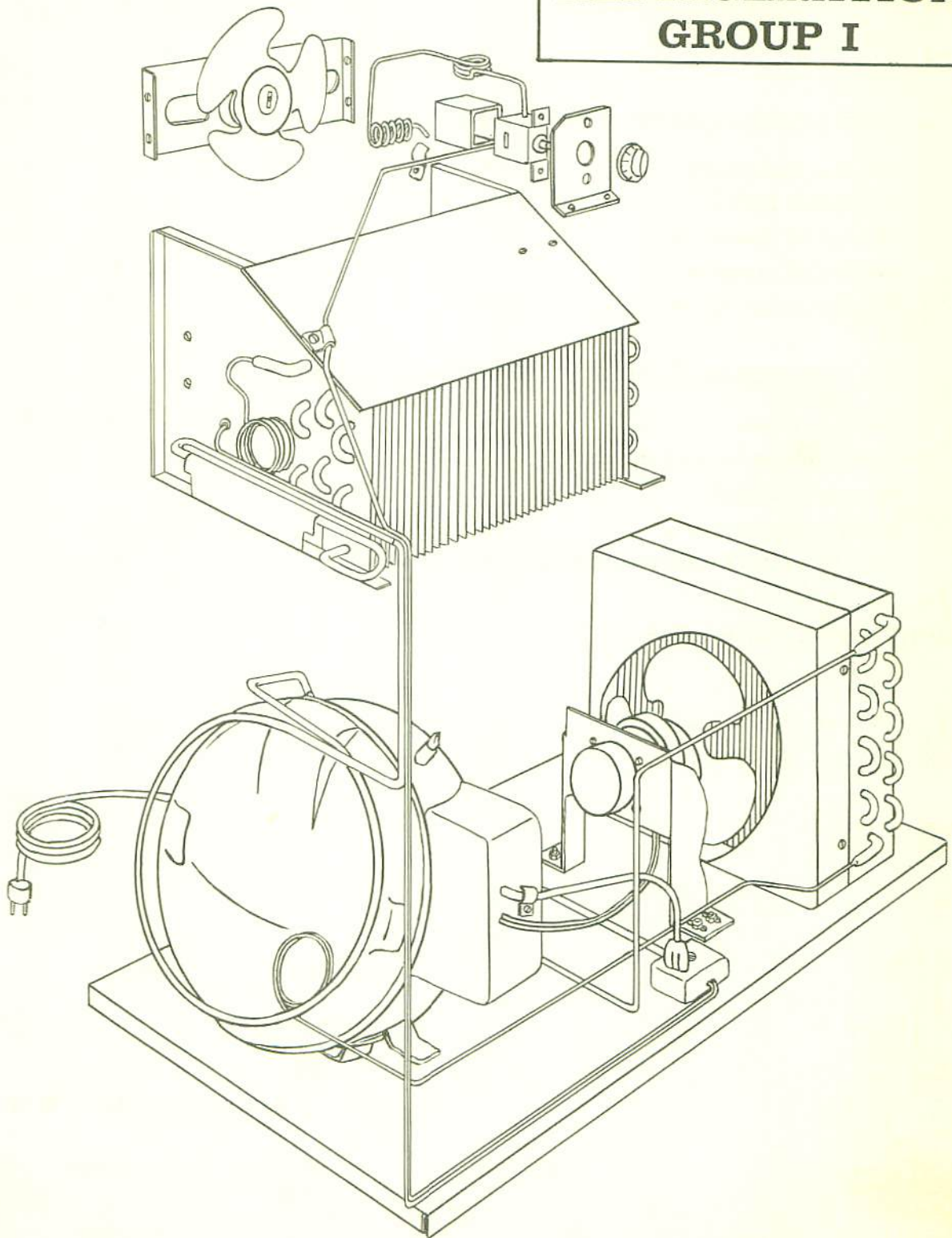
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## Service Manuals



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**REFRIGERATION  
GROUP I**



4

**c o n t e n t s**

**HOW THE REFRIGERATION SYSTEM WORKS**

mechanical parts . . . . .	3
electrical parts . . . . .	4
electrical operation . . . . .	5
electrical circuits . . . . .	6
refrigeration cycle . . . . .	8

**HOW TO TAKE CARE OF THE REFRIGERATION SYSTEM**

what to clean . . . . .	9
when and what to lubricate . . . . .	9
things to adjust . . . . .	9
wiring diagrams . . . . .	9
how to correct common refrigeration troubles . . . . .	10

**REFRIGERATION PARTS LIST**

VT-17 . . . . .	15
VT-1 & VT-7 . . . . .	16
VK-1 & VK-7 . . . . .	18
	20

**WIRING DIAGRAM 9**  
**TROUBLE CHART 11**

**4**

# HOW THE REFRIGERATION SYSTEM WORKS

## MECHANICAL PARTS

### COMPRESSOR

The compressor (sealed in the compressor housing) sucks in cold low pressure refrigerant gas and blows out hot high pressure refrigerant gas. The compressor motor (sealed in the compressor housing) drive the compressor with a shaft that is shared by both parts.

### CAPILLIARY TUBE

The capillary tube (next to the evaporator, in the cooler cabinet) slows down the flow of the liquid refrigerant to keep pressure from building up in the evaporator.

### CONDENSER

The condenser (to one side of the compressor) takes heat out of the hot, high-pressure refrigerant gas that has come from the compressor. While going through the condenser coils, the refrigerant gas loses more heat, and changes into a high-pressure liquid.

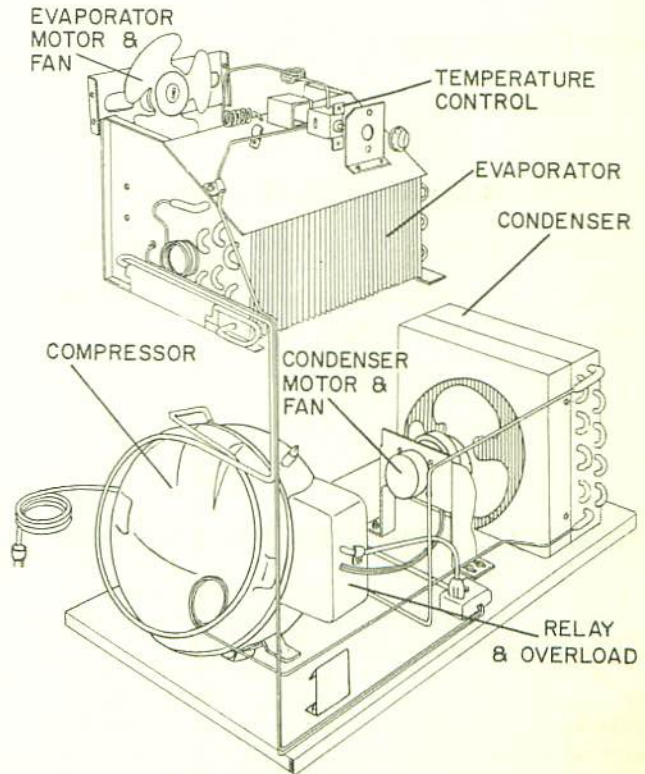
### EVAPORATOR

The evaporator (in the cooler cabinet) heats up the low-pressure, liquid refrigerant. The liquid refrigerant is evaporated (boiled off) into a cold, low-pressure refrigerant gas.

### CONDENSER FAN

The condenser fan (between the compressor housing and the condenser) pulls cool air from outside the vendor then blows it between the condenser coils and out again. The air takes heat away from the coils as it goes between them.

**4**



**ELECTRICAL PARTS**

**TEMPERATURE CONTROL SWITCH**

The temperature control switch can complete or break three circuits -- the Running Winding Circuit, the Starting Winding Circuit and the Condenser Fan Circuit. When the cabinet temperature gets up to the cut-on setting, the temperature control switch closes all three circuits. When the cabinet temperature gets down to the cut-off setting (33° F.), the temperature control opens all three circuits.

**STARTING RELAY SWITCH**

The starting relay switch (in the terminal box on the compressor housing) can complete or break the Starting Winding Circuit. When the compressor motor first starts, the starting relay switch closes and completes the Starting Winding Circuit. After the compressor motor gets up to speed, the starting relay switch opens and breaks the Starting Winding Circuit.

**COMPRESSOR MOTOR**

The compressor motor (sealed in the compressor housing) runs the compressor. It is turned on and off by the temperature control switch and the thermal overload switch.

**THERMAL OVERLOAD SWITCH**

The thermal overload switch (in the terminal box on the compressor housing) can complete or break the compressor motor's starting winding and running winding circuits as well as the condenser fan motor circuit. When the compressor motor gets warm, the thermal overload switch opens the compressor motor's running winding (and in some cases its starting winding) circuit and the con-

**THERMAL OVERLOAD SWITCH (CONT'D.)**

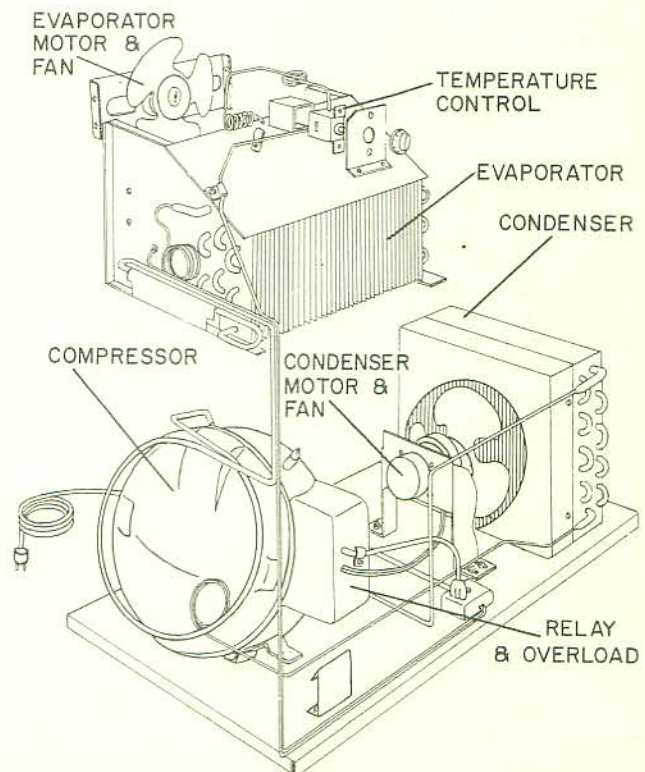
denser fan motor circuit. When the compressor has cooled enough to run safely, the thermal overload switch closes the compressor motor's running winding and the starting winding circuits as well as the condenser fan motor circuit.

**CONDENSER FAN MOTOR**

The condenser fan motor (in front of the condenser) runs a small fan that blows air through the condenser coils. It is started and stopped by the temperature control switch or the thermal overload switch.

**EVAPORATOR FAN MOTOR**

The evaporator fan motor (behind the evaporator) runs a small fan that pulls air through the evaporator coils.



**ELECTRICAL OPERATION**

**WHAT DOES IT**

**WHAT HAPPENS**

**WHEN THE CABINET TEMPERATURE GETS UP TO THE CUT-ON SETTING**

- The temperature control switch Closes in the running winding circuit of the compressor motor and completes that circuit.
- Closes in the starting relay coil circuit, and completes that circuit.
- Closes in the starting winding circuit of the compressor motor.
- Closes in the condenser fan motor circuit, completing that circuit.

**THE HEAVY CURRENT, DRAWN BY THE RUNNING WINDING, ALSO FLOWS IN THE STARTING RELAY COIL, AND;**

- The starting relay coil Closes the starting relay contacts in the starting winding circuit of the compressor motor, completing that circuit.

**WHEN THE COMPRESSOR MOTOR GETS UP SPEED**

- The force of gravity Pulls the starting relay contacts apart because,
- The starting relay coil No longer gets enough current to hold the contacts closed, and
- The starting relay contacts Open in the starting winding circuit of the compressor motor, and break that circuit.

**4**

**IF EITHER THE COMPRESSOR MOTOR OR THE CONDENSER FAN MOTOR DRAWS TOO MUCH CURRENT AND CAUSES THE THERMAL OVERLOAD ASSEMBLY TO GET TOO WARM**

- The thermal overload switch Opens in the running winding circuit and the starting winding circuit of the compressor motor, and breaks both those circuits.
- Opens in the condenser fan motor circuit, and breaks that circuit.

**WHEN THE THERMAL OVERLOAD ASSEMBLY COOLS DOWN AGAIN**

- The thermal overload switch Closes in both the running winding circuit and the starting winding circuit of the compressor motor.
- Closes in the condenser fan motor circuit, and completes that circuit.

**WHEN THE CABINET TEMPERATURE GETS DOWN TO THE CUT OFF SETTING**

- The temperature control switch Opens in the running winding circuit of the compressor motor, and breaks that circuit.
- Opens in the starting relay coil circuit, and breaks that circuit.
- Opens in the starting winding circuit of the compressor motor.

**ELECTRICAL CIRCUITS**  
**CONDENSER FAN CIRCUIT**

<b>SWITCHES IN THE WIRING</b>	<b>WHAT THE SWITCHES DO</b>	<b>WHAT MAKES THE SWITCHES WORK</b>
Temperature control switch	Turns on and off the condenser fan motor	The temperature in the cabinet has come up to the cut-on point set on the temperature knob.
Thermal overload switch	Turns off and on the condenser fan motor	Current drawn by the condenser fan motor and compressor motor or heat from the compressor, can make the temperature of the thermal overload assembly come up and makes the thermal overload switch cut off.

**COMPRESSOR RUNNING WINDING CIRCUIT**

Temperature control switch	Turns on and off the compressor's Running Winding Circuit	The temperature in the cabinet has come up to the cut-on point set on the temperature control knob.
Thermal Overload switch	Turns off and on the compressor's Running Winding Circuit	Current drawn by the condenser fan motor and compressor motor or heat from the compressor, can make the temperature of the thermal overload assembly come up and makes the thermal overload switch cut off.

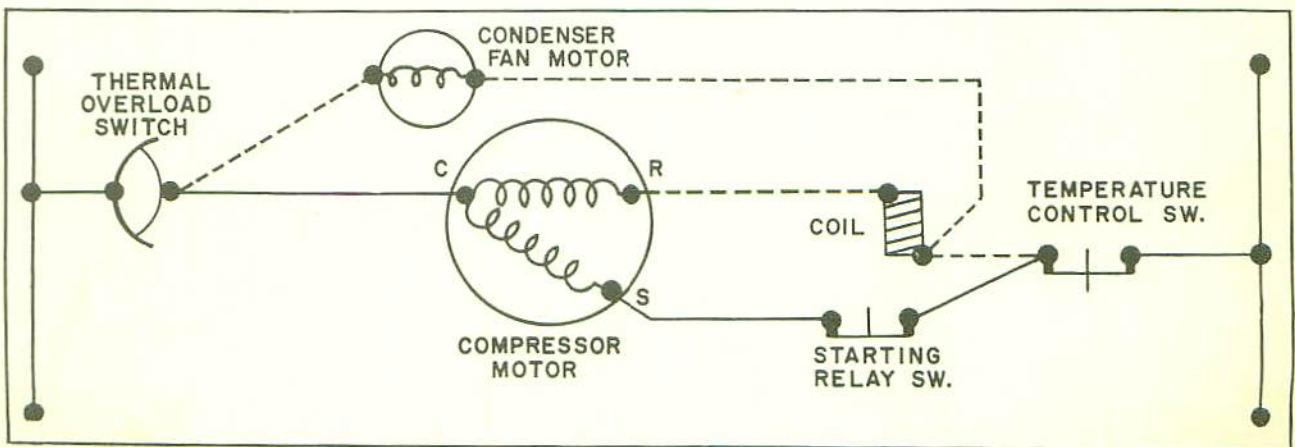
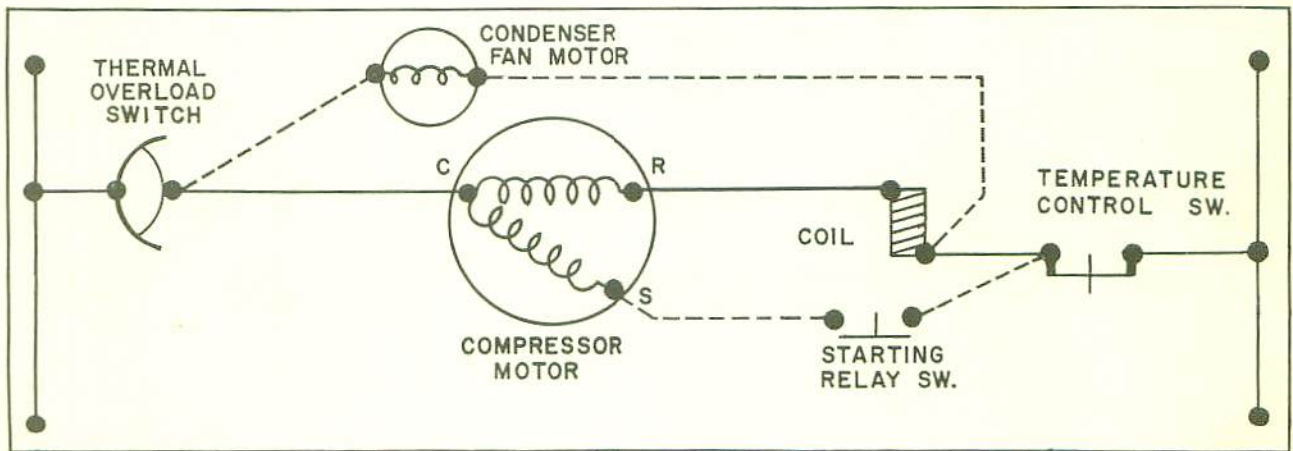
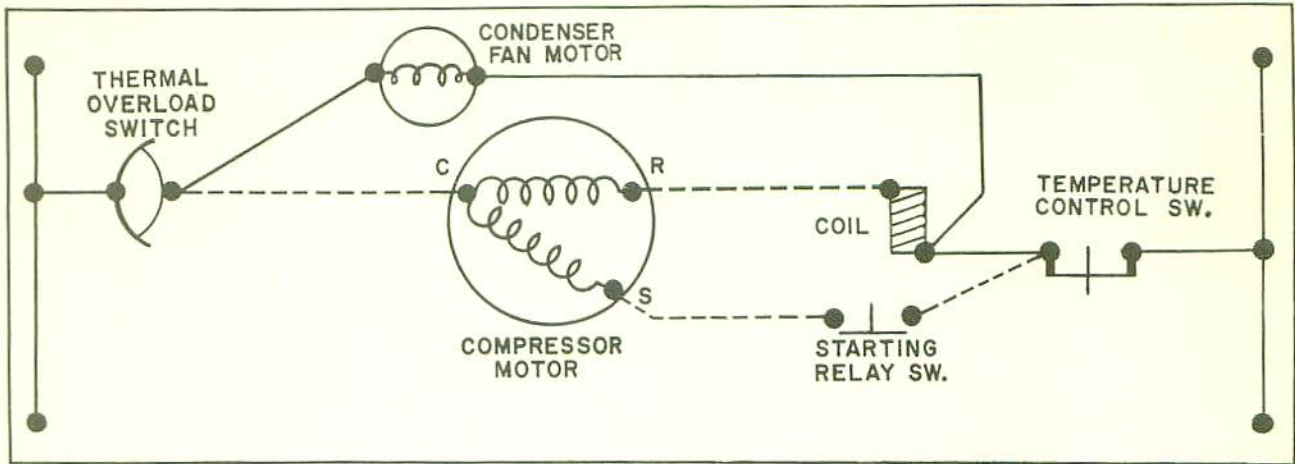
**COMPRESSOR STARTING WINDING CIRCUIT**

Temperature control switch	Turns on and off the compressor's starting winding circuit	The temperature in the cabinet has come up to the cut on point set on the temperature knob.
Starting Relay Switch	Turns on and off the compressor's starting winding circuit	The heavy draw of current by the running winding of the compressor motor also flows thru the starting relay coil, giving it enough power to close the starting relay switch. The Starting relay switch is turned off by the force of gravity when the starting relay coil no longer gets enough current.
Thermal overload switch	Turns off and on the compressor's starting winding circuit	Current drawn from the refrigeration assembly or heat from the compressor, can make the temperature of the overload come up and makes the thermal overload switch cut off.

**EVAPORATOR FAN CIRCUIT**

None	None	None
------	------	------

CIRCUIT DIAGRAMS



4



**REFRIGERATION CYCLE**

**WHAT DOES IT**

**WHAT HAPPENS**

The rising temperature in the cooler cabinet	Warms the temperature control bulb and the liquid in it.
The liquid in the control bulb	Expands and pushes through the control tube and stretches the temperature control bellows.
The bellows	Moves, and closes the temperature control switch.
The temperature control switch	Turns the compressor motor on. Turns the condenser fan motor on.
The compressor motor	Drives the compressor.
The condenser fan motor	Drives the condenser fan
The condenser fan	Sucks air through the condenser, cooling it.
The compressor	Sucks low pressure refrigerant gas from the evaporator, compresses the gas, and pumps it to the condenser.
The cooled condenser	Takes heat out of the high pressure refrigerant gas.
The cooled gas	Turns into liquid refrigerant.
More hot gas, coming from the compressor	Pushes the liquid refrigerant into the capillary tube.
The capillary tube	Lets only a certain amount of liquid refrigerant run into the evaporator.

# HOW TO TAKE CARE OF THE REFRIGERATION SYSTEM

## WHAT TO CLEAN

Clean dirt from the condenser and evaporator with a brush, vacuum cleaner, or compressed air.

## WHEN AND WHAT TO LUBRICATE

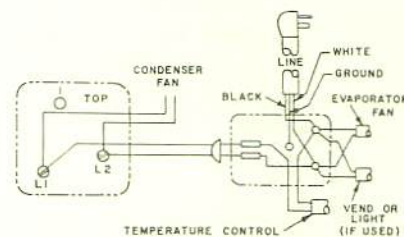
The Vendo Refrigeration System is sealed up, and does not have to be oiled or greased. Enough oil and grease are put into the condenser and evaporator fan motors when they are made, to last as long as the motors will run.

## THINGS TO ADJUST TEMPERATURE CONTROL

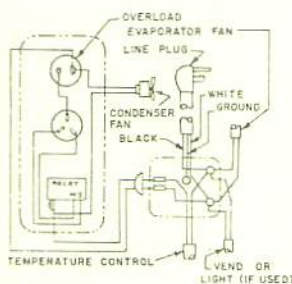
The temperature control is in the cabinet on the evaporator cover. The purpose of the adjustment is to raise or lower the temperature in the cabinet. The adjustment should be made if bottles are not cooled to about 32 to 34° F. Made in one direction, to the right, the adjustment will make the bottles colder. Made in the other direction, to the left, the adjustment will make the bottles warmer. To make the adjustment, turn the knob on this temperature control one numbered position at a time. Each position changes the temperature in the cabinet 2°. To be sure that the temperature control is adjusted correctly, let the cooler run for about 2 hours. Temperature should be between 32 to 34° F. If the temperature control is set to give too low a temperature,

frost may build up heavily enough on the evaporator to keep air from flowing freely in the evaporator coils. This can cause bottles to be vended at a higher temperature than might be thought (because less cold air is able to reach them).

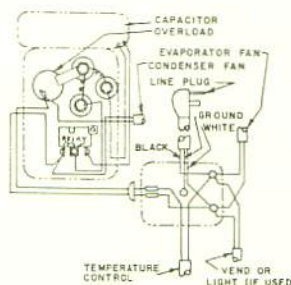
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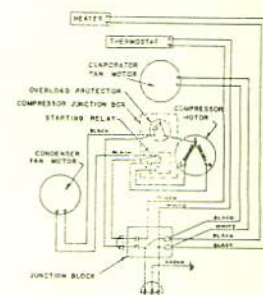
**VK-1 & VK-7 WIRING DIAGRAM**



**VT-1 REFRIGERATION WIRING DIAGRAM**

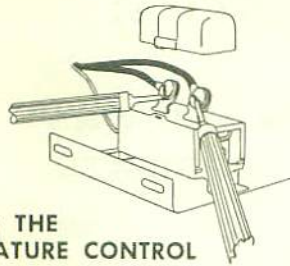


**VT-7 REFRIGERATION WIRING DIAGRAM**

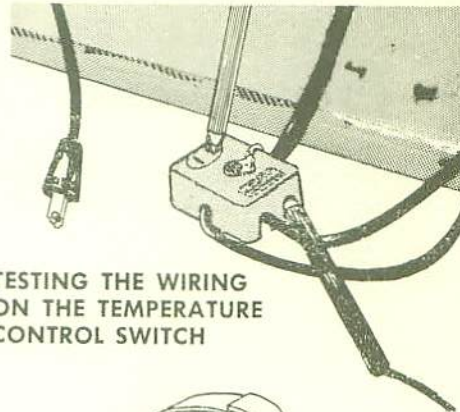


**VT-17 REFRIGERATION WIRING DIAGRAM**

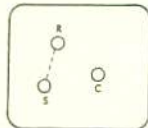
## HOW TO CORRECT COMMON REFRIGERATION TROUBLES



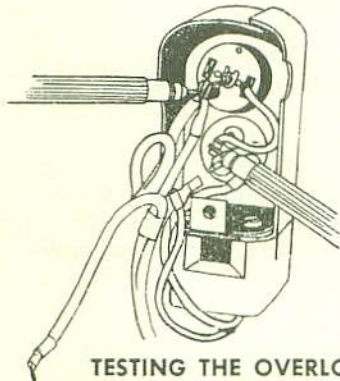
TESTING THE TEMPERATURE CONTROL



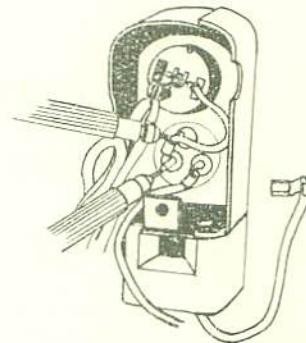
TESTING THE WIRING ON THE TEMPERATURE CONTROL SWITCH



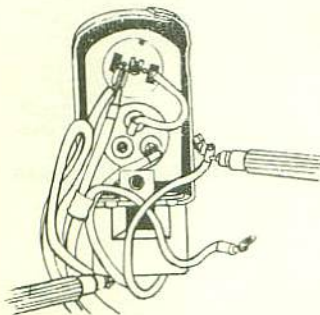
TESTING OF COMPRESSOR



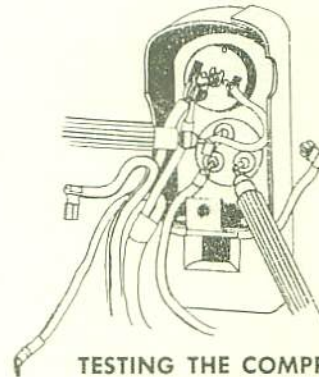
TESTING THE OVERLOAD SWITCH



TESTING THE STARTING WINDING OF THE COMPRESSOR



TESTING THE RELAY COIL



TESTING THE COMPRESSOR

4

	Page
The Compressor Will Not Run At All	11
Compressor Runs But Bottles Are too Warm	12
The Bottles Are Too Cold	13
The Refrigeration Unit Is Noisy	13
The Compressor Motor Never Stops Running	13

## HOW TO CORRECT COMMON REFRIGERATION TROUBLES

<b>COMPRESSOR WILL NOT RUN AT ALL</b>		
<b>A POSSIBLE CAUSE IS</b>	<b>TO MAKE SURE</b>	<b>THIS IS WHAT TO DO</b>
1. Cooler is not plugged in.	Look, if it isn't	Plug it in.
2. The power is off.	Unplug the cooler. Then plug in test lamp into the outlet. If it doesn't light when the two prods make contact with each other	Have someone who knows how, get power to the outlet.
3. A wire in the supply cord is broken.	Unplug machine, then take off the supply cord connections at the terminal box on the service cord harness and tie together, touch prods to the plug, lamp should light; if it doesn't	Replace supply cord.
4. Temperature control not working.	Disconnect wiring at temperature control and warm the control bulb with your hand. Then touch prods as shown on drawing for "Testing the Temperature Control." If lamp doesn't light	Put in a new Temperature Control.
5. Temperature control wiring with a broken line.	Warm the control bulb with your hand. Touch the prods to the terminal shown on drawing for "Testing the Wiring on the Temperature Control." Lamp should light, if it doesn't,	Put in new wiring to the control.
6. The overload switch	Touch prods to the common terminal of the compressor and the overload's screw terminal. See drawing for "Testing Overload Switch." Lamp should light, if it doesn't,	Put in a new thermal overload assembly.
7. The relay coil	Touch prods to the relay terminal and the running winding connection on the relay (red wire) see drawing for "Testing the Relay Coil." If the lamp does not light,	Put in a new relay.
8. In the running winding of the compressor	Touch prods to the common contact and the running contact on the compressor, see drawing for "Testing the Compressor." If lamp doesn't light,	Replace the compressor.
9. The starting winding of the compressor.	Touch prods to common and starting (white) contacts on the compressor, see drawing for "Testing the Starting Winding of the Compressor." If lamp doesn't light (will be dim),	Replace the compressor.

**4**

## HOW TO CORRECT COMMON REFRIGERATION TROUBLES

### COMPRESSOR WILL NOT RUN AT ALL (CONT'D.)

A POSSIBLE CAUSE IS	TO MAKE SURE	THIS IS WHAT TO DO
<p>10. Relay may be defective. VK-1 and VK-7 only.</p>	<p>Disconnect power source about 10 minutes to make sure overload is not open. Remove relay from the compressor. Plug in straight cord with two insulated prods at the other end. Touch prods to terminal C and the other to terminal R and also momentarily to terminals S (about 1 second). See Testing Of Compressor page 10. If compressor runs,</p>	<p>Put in a new relay. If compressor doesn't run put in a new compressor.</p>

### COMPRESSOR RUNS BUT BOTTLES ARE TOO WARM

<p>1. The temperature control is set too warm.</p>	<p>Look, and if set at 2,</p>	<p>Change setting to 3 or the next colder number.</p>
<p>2. The temperature control is set too cold.</p>	<p>Look, No. 2 is the normal setting.</p>	<p>Set the control knob to the next warmer number.</p>
<p>3. The temperature control bulb is touching the evaporator.</p>	<p>Look closely to see if it is.</p>	<p>Move the temperature control bulb away from the evaporator.</p>
<p>4. Coil of the control is touching the coil of the evaporator.</p>	<p>Look closely to see if it is.</p>	<p>Reshape tube away from the coil.</p>
<p>5. Not enough air is getting thru the condenser.</p>	<p>Look for dirt in the condenser.</p>	<p>Clean condenser using compressed air or a vacuum cleaner.</p>
<p>6. No air is getting thru the condenser</p>	<p>Look to see if the condenser fan motor runs when the compressor does. If it doesn't touch the prods of the test lamp to the leads of the fan motor. If it doesn't light,</p>	<p>Put in a new fan motor.</p>
<p>7. The door doesn't seal against the cabinet</p>	<p>Close the door with a piece of paper between the gasket and cabinet. If the paper can be pulled out easily at the top, sides and bottom of door</p>	<p>Adjust the door to close more tightly (See "Things To Adjust" of this section.)</p>
<p>8. The refrigeration tubing is kinked or bent sharply.</p>	<p>Look and if it is,</p>	<p>Try to get the kink out. If it can't be taken out put in a new refrigeration system.</p>
<p>9. Not enough refrigerant.</p>	<p>See if the coils in back of the evaporator are frosted and the coils in front are not. If so,</p>	<p>Put in a new refrigeration system.</p>

## HOW TO CORRECT COMMON REFRIGERATION TROUBLES

<b>COMPRESSOR RUNS BUT THE BOTTLES ARE TOO WARM (CONT'D.)</b>		
<b>A POSSIBLE CAUSE IS</b>	<b>TO MAKE SURE</b>	<b>THIS IS WHAT TO DO</b>
<p>10. The voltage at the cooler is too high or too low</p>	<p>(When an extension is not used on the supply cord.) While the compressor is running put one prod to the screw terminal on the overload and the other prod to the running winding connection (red line). If the voltage is not between 105 and 126. (When an extension is used on the supply cord.) Put a double socket on the end of the extension and plug it into the outlet. While the compressor is running put the prods of a volt meter into one of the other sides of the double socket. If voltage is not between 105 and 126. If the voltage is between 105 and 126 (while the compressor is running) put one prod to the screw terminal on the overload and the other prod to the running winding connection (red line). If the voltage is not between 105 and 126.</p>	<p>Tell the person in charge of the vendor that the vendor will not work right with that extension cord.</p>
<p>11. Not enough air is getting to the condenser.</p>	<p>See if there is anything around the outside of the cooler; if there is,</p>	<p>Take it away.</p>
<b>THE BOTTLES ARE TOO COLD</b>		
<p>1. The temperature control bulb is not fastened tightly in place.</p>	<p>Try moving it. If you can,</p>	<p>Tighten the clamp on the control bulb.</p>
<p>2. The temperature knob is set too cold.</p>	<p>Turn the temperature knob to a warmer setting and let it run over night. If bottles are just right, (33° F.)</p>	<p>Leave the temperature knob at that setting.</p>
<b>THE REFRIGERATION UNIT IS NOISY</b>		
<p>1. The refrigerant lines rattle</p>	<p>Hold them between your fingers. If the rattle stops</p>	<p>Bend them gently away from whatever they are hitting.</p>
<b>THE COMPRESSOR MOTOR NEVER STOPS RUNNING</b>		
<p>1. Not enough refrigerant in the system.</p>	<p>See if the coils in back of the evaporator are frosted and the coils in the front are not. If this is the case,</p>	<p>Put in a new refrigeration system.</p>
<p>2. Water or water vapor is in the refrigeration system.</p>	<p>Warm the temperature control bulb tube with a candle. Keep the flame moving. If you hear gas flow suddenly, or if part of the tubing close to the drier gets cold quickly.</p>	<p>Put in a new refrigeration system.</p>

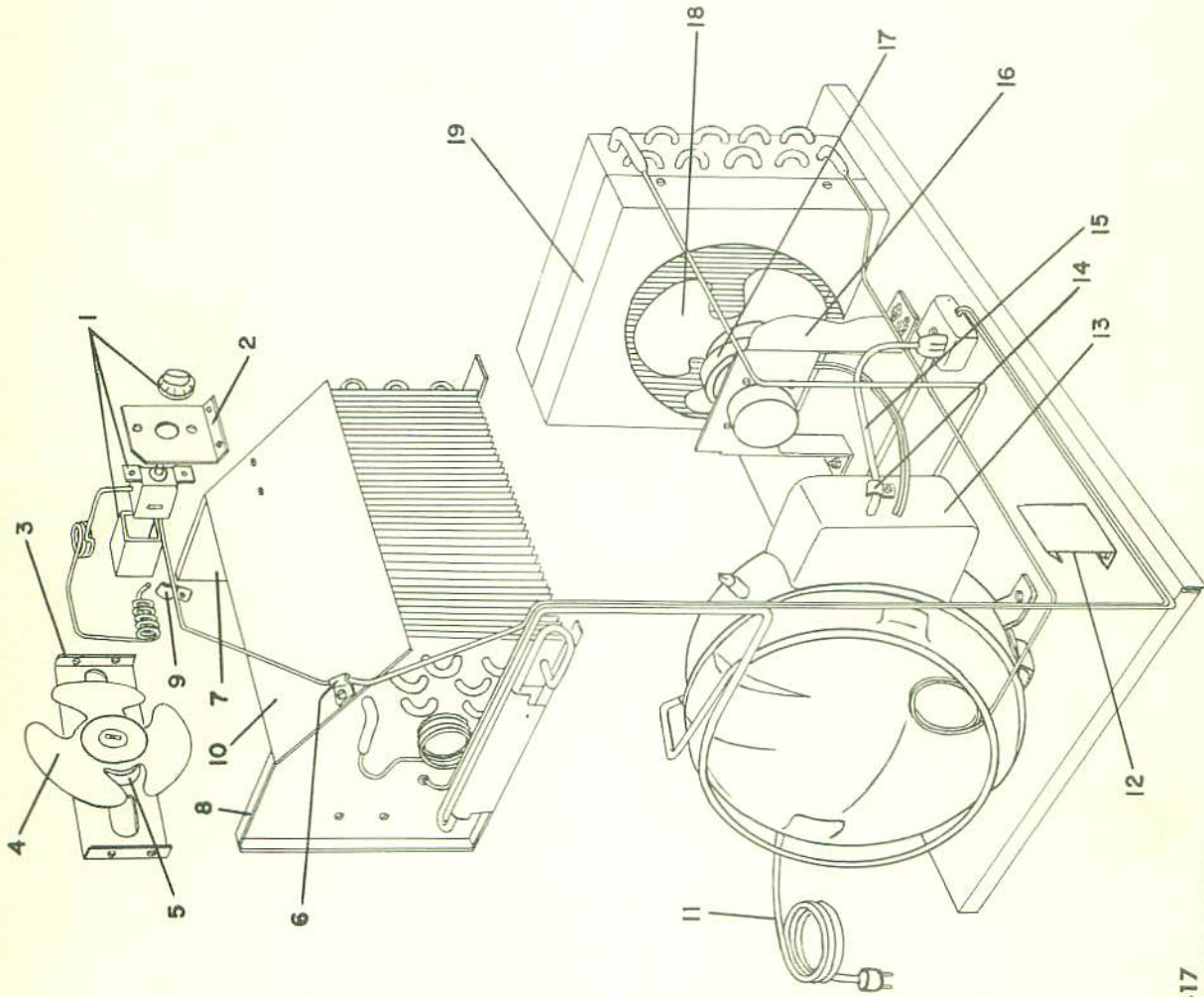
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# REFRIGERATION PARTS LIST

VT-1 - VT-3 - VT-7  
VK-1 - VK-7  
VT-17





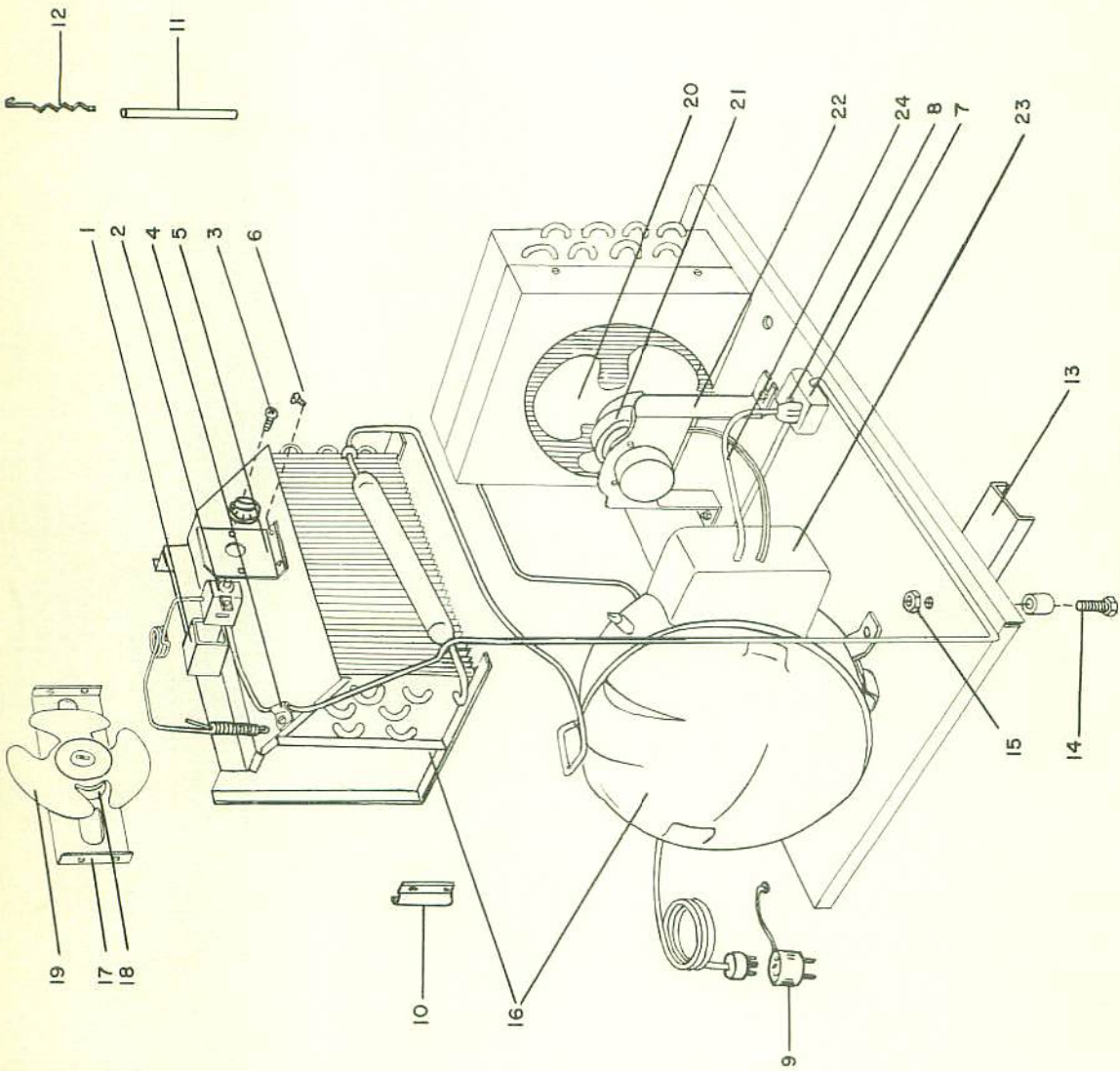
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VT-17  
REFRIGERATION UNIT ASSEMBLY

## REFRIGERATION UNIT ASSEMBLY

Number of Part On Opposite Page	PART NUMBER	PART NAME AND DESCRIPTION
	VT-17	
-	155008	Refrigeration System
1	935200	Control, Temperature
-	V620-8*	Lockwasher (#8)
-	V108-8R8*	Screw (#8-32x1/2 Phil. Binding Hd. Mach.)
2	520040	Bracket, Temperature Control
-	V217-8R8*	Screw (#8-18x1/2 Type B Phil. Pan Hd. Sh. Mtl.)
3	520038	Support for Evaporator Fan Motor
-	V217-8R8*	Screw (#8-32x1/2 Phil Pan Hd. Type B Sh Mtl.)
4	936196	Blade, Evaporator Fan
5	915129-2	Motor, Evaporator Fan
-	None	Screw Mach. Rd. Hd. (#8-36x3/8)
-	None	Lockwasher (#8)
-	GE#111A-438-1	Spacer
-	1/4-20	Nut, Tinnerman
6	902665	Clip for Evaporator Fan Wiring
7	914152	Plate, Evaporator Right
8	914151	Plate, Evaporator Left
-	V108-8R8*	Screw (#8-32x1/2 Phil. Binding Hd. Machine)
-	C700-832	Nut, Tinnerman (#8)
9	914161	Clip for Temperature Control Coil
-	901358	Fastener, Wire
10	520036	Cover, Evaporator
--	V217-8R8*	Screw (#8-32x1/2 Type Phil Pan Hd. Sh. Mt.)
11	520045	Cord, Supply
--	V216-8R20*	Screw (#8-15x1 1/4 Type A Phil. Pan Hd. Sh. Mtl.)
12	520048	Bracket, Condensate Pan
--	V217-8R8*	Screw (#8-32x1/2 Phil. Pan Hd. Sh. Mtl.)
13	C6360-1497	Relay, Starting
--	MRA-2918	Overload Assembly, Thermal
14	902665	Clip for Relay and Overload Cover
15	520044	Cord, Compressor
--	V100B6-4*	Screw (#6-32x1/4 Slot Hd. Rd. Brass)
16	914432-1	Bracket for Condenser Fan Motor
--	V108-416R8*	Bolt, Machine (#1/4-20x1/2 Phil. Binding Hd.)
--	V600-416*	Washer, Flat (#1/4 Carbon Steel)
--	V620-416*	Lockwasher (#1/4 Carbon Steel)
--	V404-516*	Nut, Hex (#1/4-20 UNC-28 Thd. Carbon Steel)
17	915129-1	Motor for Compressor Fan
--	None	Lockwasher (#8)
--	None	Screw Rd. Hd. Machine (#8-36x3/8)
--	None	Nut, Tinnerman (1/4x20)
18	915127	Blade, Compressor Fan
19	915468	Shroud Assembly, Condenser
--	V217-8R8*	Screw (#8-32x1/2 Type B Phil. Pan Hd. Sh. Mtl.)

\* Buy at a local store.

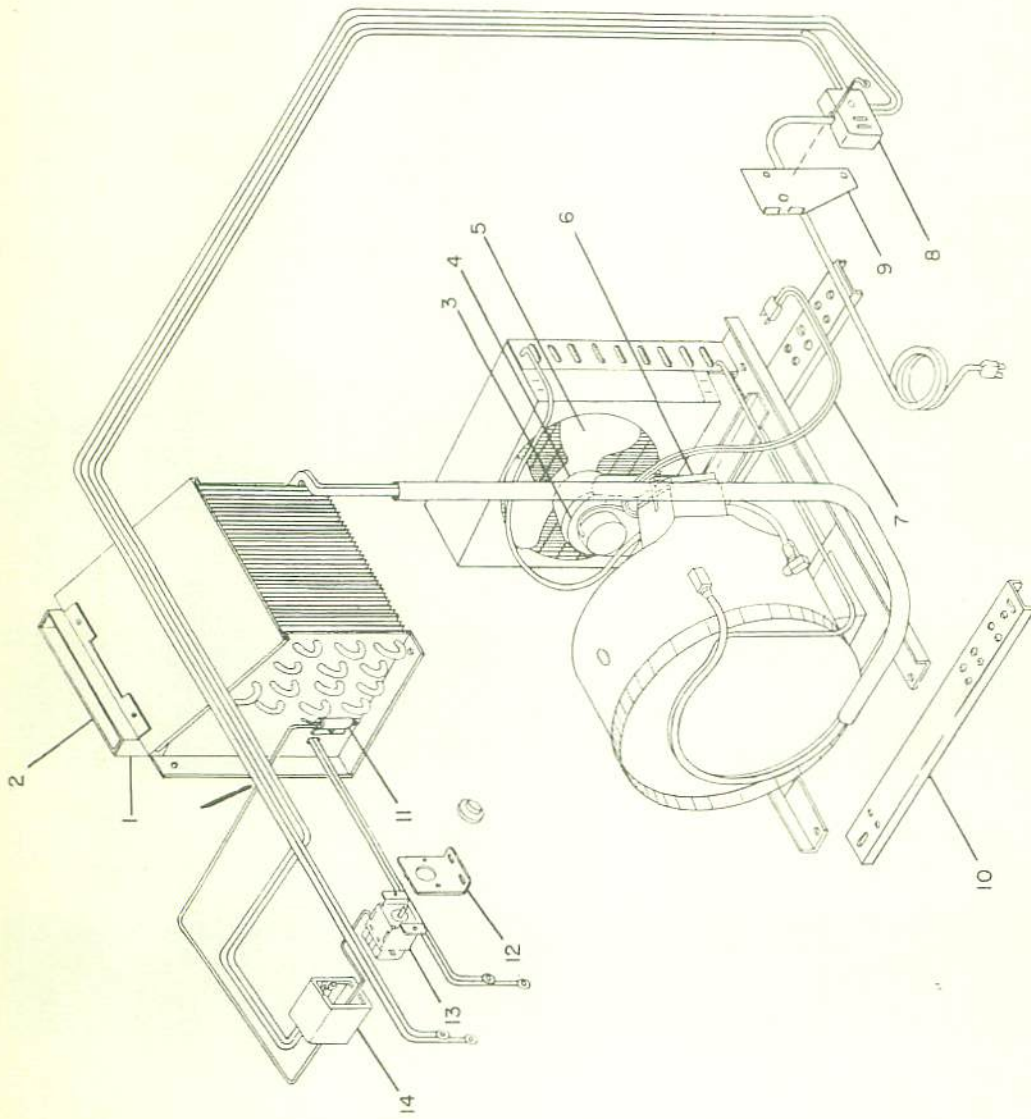


VT-1, VT-3, VT-7  
REFRIGERATION UNIT ASSEMBLY

## REFRIGERATION UNIT ASSEMBLY

Number of Part On Opposite Page	PART NUMBER							PART NAME AND DESCRIPTION
	VT-1	VT-1B	VT-1C	VT-1D	VT-1E	VT-3	VT-7	
1				42118				Seal, Boot
2			44961-1			42298	44961-1	Control, Temperature
3				V160-8R6*				Screw (#8-32x3/8" Phil. Truss Hd. Lockwasher)
4				42219				Clamp
5				V200-8R6*				Screw (#8-15x3/8" Type A Phil. Rd. Hd. Sh. Mtl.)
6				42127				Bracket, Temperature Control
7				41741				Screw
8		V201-10R24*		42308-1	None		V201-10R24*	Harness, Supply Cord
9				None	V241-10R20*			Screw (#10-16x1 1/2 Type B Phil. Rd. Hd. Sh. Mtl.)
10				None		42222	None	Screw (#10-32x1 1/4" Type 1 Phil. Rd. Hd. Tapping)
11			42485					Nut, Tinnerman
12			41741					Three Wire Adaptor
13			None			None	42485	Bracket for Temperature Control Bulb
14			None			42300	None	Screw, Bracket
15			None			37022	None	Guard, Bulb
16			44251					Retainer, Bulb
17			35725					Screw for Evaporator Mounting
18			V114-516-24*					Channel, Mounting (not used in V-81)
19			35788					Screw (#5/16-18x1 1/2 Slot Hex Hd. Mach.)
20			V436-16*					Spacer, Mounting Channel
21			None					Nut, Mounting Channel
22			34129					Channel Mounting to Basic Cabinet
23			V600-516*					Spacer, Mounting Channel
24			V436-516					Washer, Mounting Channel
25	42210	44122	45041	46161	105114	18412	46266	Nut, Mounting Channel
26		42320			320266	None	42320	Refrigeration Unit
27	42321-6		42321-8			42321-2	42321-5	Bracket, Evaporator Motor
28			V151-8-6*					Motor, Evaporator Fan
29	42325		44190			42332	42325	Screw (#8-36x3/8" Slot Rd. Hd. Lockwasher Unit)
30			42323					Blade, Evaporator Fan
31	42329		44190			42329		Speed Nut for Evaporator Fan Blade
32			42323					Blade, Condenser Fan
33	42321-1		42321-8			42321-1	42321-5	Speed Nut for Condenser Fan Blade
34			V151-8-6*					Motor, Condenser Fan
35			42322					Screw (#8-36x3/8" Slot Rd. Hd. Lockwasher Unit)
36	42328		44191			42328		Gasket for Condenser Fan
37	42326-1		45052-1	45052-3		42326-1	45052-3	Bracket, Motor Mounting
38	4237-2		45051-1	45051-3		42327-2	45051-3	Overload Assembly, Thermal
39			42575			42333-1	42575	Relay
40			None				45596	Cord, Compressor
41								Capacitor

\* Buy at a local store.



VK-1 and VK-7  
REFRIGERATION UNIT ASSEMBLY

## REFRIGERATION UNIT ASSEMBLY

Number of Part On Opposite Page	PART NUMBER		PART NAME AND DESCRIPTION
	VK-7	VK-1	
-	43137	44253	Refrigeration System
-	42321-5	42321-7	Motor, Evaporator Fan
-	42322		Gasket, Evaporator Fan
-	42323		Speed Nut for Evaporator Fan Blade to Motor
-	42325	44190	Blade, Evaporator Fan
-	V151-8-6*		Screw (#8-36x3/8 Phil. Rd. Hd. Lockwasher Unit)
1	43052	None	Extension, Evaporator
	V200-8R6*	None	Screw (#8-15x3/8 Type A Phil. Rd. Hd. Sh. Mtl.)
2	42320		Bracket for Evaporator Fan Motor
3	42328	44191	Bracket for Condenser Fan Motor
4	42321-5	42321-7	Motor, Condenser Fan
-	42322		Gasket, Condenser
-	V151-8-6*		Screw (#8-36x3/8" Slotted Rd. Hd.)
5	42329	44190	Blade, Condenser Fan
6	42580-4	42580-5	Relay Starting
6	42580-4	42580-5	Thermal Overload Assembly
-	43822		Clamp for Relay and Overload Assembly
7	42575		Cord, Compressor
8	42308-2		Harness, Service Cord
-	42578		Tag, Refrigeration Wiring Diagram
-	V201-10R24*		Screw (#10-16x1 1/2" Type Z Phil. Rd. Hd. Sh. Mtl.)
9	None	44317	Bracket, Junction Box Mounting
-	None	V201-10R8*	Screw (#10-16x1/2 Type B Phil. Rd. Hd. Sh. Mtl.)
-	None	41338	Nut, Tinnerman
10	35725		Channel, Mounting
--	V114-516-10*		Screw (#5/16-18x5/8 Slot Hex Hd. Mach.)
--	V400-516*		Nut (#5/61-18 UNC-38 Thd. Carbon Steel Self-Locking)
--	34129		Spacer
--	V600-516*		Washer (#5/16 Carbon Steel)
11	42485		Clamp, Bulb
--	41741		Screw (#8x1/2 Type A Phil. Washer Hd. Sh. Mtl.)
--	V200-8R6*	None	Screw (#8-15x3/8" Type A Phil Rd. Hd. Sh. Mtl.)
12	42127		Bracket, Temperature Control
--	V160-8R6*		Screw (#8-32x3/8 Phil. Truss Hd. Lockwasher Unit)
13	4961		Control, Temperature
14	42118		Seal, Boot

\* Buy at a local store.



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## Coin Mech Bypass / Free Vend Kits



One of the most frequent questions we get asked here at ColaMachines is how to set a coin mech to free vend. On machines that did not use an electric mech bypassing is fairly simple. You typically just need to adjust a few screws. The real challenge is bypassing the electric mechs that were typically used in machines after the mid 1950's .

Most of the electric mechs used in the old coke machines can't be set to vend for free. To solve this problem we now offer bypass switch kits in our online store. To install all you need to do is remove your old mech and plug in our bypass kit. Our bypass switch takes less than five minutes to install and does not require you to cut any wires or solder any connections. All you have to do is plug it in. Once its installed you will never have to use coins, repair, or replace your coin mech again. To vend a drink all you do is press a small microswitch. Its that simple.

[You can purchase the kits in our online store by clicking here.](#)



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## How to Remove Decals.

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### Water Release Decals

1. Clean the surface of the machine, fountain, cooler, etc before removing the decal.
2. If its a water release decal you will want apply hot water to it for a few minutes. To do this simply use a rag or towel that has been soaked in hot water.
3. After a few minutes try to get under the surface of the decal using a razor blade, credit card, or something else that is thin. Note: Be careful not to scratch the surface of your machine. The goal is to lift the decal edges up.
4. Grab hold of the decal edges and slowly pull outwards. Note: You may have to continue to add to the decal to loosen it. A spray bottle or the towel should work.
5. When the decal is removed clean the area with Windex.

### Adhesive Backed Decals

Adhesive backed decals can sometimes be tough to remove.

1. Heat the decal up slowly using a hot towel.
2. Spray all the edges of the decal with Windex.
3. After a few minutes try to get under the surface of the decal using a razor blade, credit card, or something else that is thin. Note: Be careful not to scratch the surface of your machine.
4. The goal is to lift the decal edges up. Grab hold of the decal edges and slowly pull outwards. Note: You may have to continue to add heat to the decal to loosen it. A spray bottle or the towel should work.
5. When the decal is removed clean the area with Windex.
6. For tough decals try using a hair blow dryer on low heat. Be careful not to make the surface to hot.
7. You may have to experiment a little bit but eventually you should be able to remove the old decal. Note: When decals are removed the paint under them is typical a different shade than the surrounding area. This is because the decal has protected the paint from fading. I am not sure how you can purposely fade this area back to the original color. Rubbing compound may work but I would test it on a hidden area on the machine first. In any case I would in recommend placing another decal of similar or larger size over the original location.

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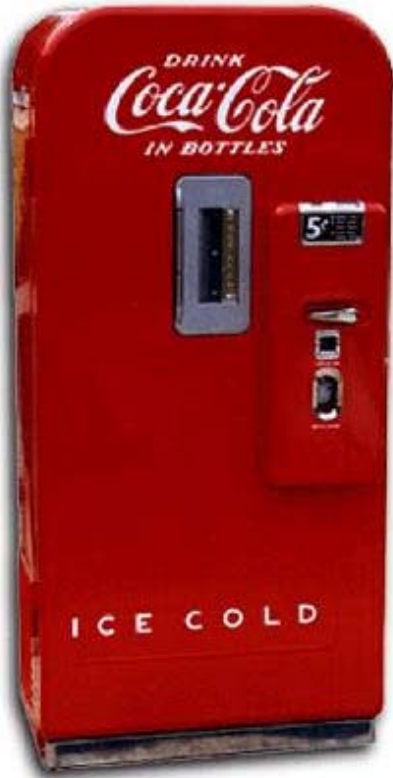
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Paint Manufacturer	Paint Code	Paint Color	Notes
Dupont Centari Acrylic enamel	60807-A	Red	<p>This paint code was posted on our message boards.</p> <p>The paint codes on this site are accurate. Keep in mind that in the 50's, if the plant painting a machine ran out of the red that they normally used, they'd use what was available. We have found there to be several shades of reds on originally painted machines. So if you don't like the bright "Porsche" red color you can go up to the darker reds that are almost a Burgundy and still be authentic. However, Dupont Fleet Red 60807AH is one color that is very true to what most collectors think of as Coke Red. Don't use what is currently called Coke Red from the 60's and later because it's an Orange Red.</p> <p>God's blessings over your projects!</p> <p>Krissy Larry's Unique Collectibles Abbott, TX 254-582-2411</p>
Dupont Centari Acrylic Enamel	6731-A	White	
Dupont Centari	77968A M Alt	Red	I am told that this is a great color for restoring the older Coke Machines. It is not quite as dark as the original color but it is still a great looking color.
Dulux	93-24314-R	Red	Used to paint the body of the machine. This is the color code from the original refinishing guide that Coca-Cola published back in the 50's. The color codes would need to be cross referenced with todays numbers in order to insure that you get the right color.

Dulux	95-967	White	Used for the White lettering on single color machines! This is the color code from the original refinishing guide that Coca-Cola published back in the 50's. The color codes would need to be cross referenced with today's numbers in order to insure that you get the right color.
Dulux	91-6731	White	Used for the white top paint on the two tone machines! This is the color code from the original refinishing guide that Coca-Cola published back in the 50's. The color codes would need to be cross referenced with today's numbers in order to insure that you get the right color.
Dulux	93024314	Red	Used for red lettering on white top two tone machines! This is the color code from the original refinishing guide that Coca-Cola published back in the 50's. The color codes would need to be cross referenced with today's numbers in order to insure that you get the right color.
Dupont	60807/Acrylic Enamel	Red	Great restoration color that can used used to paint the early models of Cola Machines.
Dupont	6731A/Acrylic Enamel	White	Great restoration color that can used used to paint the early models of Cola Machines.
Dupont "Intense Blue"	1014 L.R.V. 31%	Blue	Great Color to restore the old Ideal Pepsi Sliders and other Pepsi machines that had the dark blue tone.

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