Models 150, 152, 162, 168

Taylormate Freezers

Service Manual

028749-S

TAYLOR®

5/99

Table of Contents

Section 1: Introduction 1
- Safety 2
- Refrigerant 2
- Model 150 Specifications 4
- Model 152 Specifications 5
- Model 162 Specifications 6
- Model 168 Specifications 7
- Running Specifications 8
- Installation Instructions 9

Section 2: Controls and Systems 11
- Refrigeration Schematic 12
- Separate Hopper Refrigeration (SHR) 13
- Temperature Control 14
- Viscosity Control 16
- TQC Control 19

Section 3: Troubleshooting Guide 21
- General Troubleshooting 22
- Control Troubleshooting 25
- Watt Control Troubleshooting 26

Section 4: Parts 27
- Warranty Explanation 28
- Model 150 Exploded View 30
- Model 150 Panel Identification 32
- Model 152 Exploded View 34

Model 152 Panel Identification 36
Model 162 Exploded View 38
Model 162 Panel Identification 40
Model 168 Exploded View 42
Model 168 Panel Identification 44
Beater & Door A. (Models 150/152) 46
Beater & Door A. (Models 162/168) 47
Control A.–Upper – X51544–27 (Models 150 & 152) 48
Control A. – X51543–27 (Model 152) 49
Control A. – X50146–27 (Model 162 Left) 50
Control A. – X50147–27 (Model 162 Right) 51
Control A. – X51730–27 (Models 162 & 168 Front) 52
Control A. – X50342–27L (Model 168 Left) 53
Control A. – X50342–27R (Model 168 Right) 54
Box A.–Cap & Relay – X50198–27 (Model 150) 55
Relay A.–Timer Stir – X51685–27 (Model 150) 56
Relay A.–Timer Stir – X51633–27 (Model 162) 57
Relay A.–Timer Stir – X51323–27 (Model 168) 58
Parts List 59
Wiring Diagrams 67

Note: Continuing research results in steady improvements; therefore, information in this manual is subject to change without notice.

CAUTION: Information in this manual is intended to be used by Taylor Authorized Service Technicians only.

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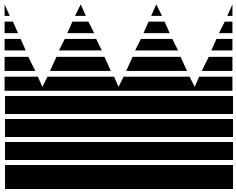


Section 1: Introduction

- **Specifications**
- **Running Specifications**
- **Installation Instructions**

Safety

We at Taylor Company, are committed to manufacturing safe operating and serviceable equipment. The many built-in safety features that are part of all Taylor equipment are aimed at protecting operators and trained service technicians alike.

This manual is intended exclusively for Taylor Company authorized service personnel.

 Stationary appliances which are not equipped with a power cord and a plug or other device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 3 mm installed in the external installation. Failure to follow this instruction may result in electrocution.

 These machines must be placed on a level surface. Failure to comply may result in personal injury or equipment damage.

 **DO NOT** install the unit in an area where a water jet could be used to clean or rinse the freezer. Failure to follow this instruction may result in serious electrical shock.

These machines are designed to operate indoors, under normal ambient temperatures of 70°-75°F (21°-24°C). The machines have successfully performed in high ambient temperatures of 104°F (40°C) at reduced capacities.

NOISE LEVEL: Airborne noise emission does not exceed 78 dB(A) when measured at a distance of 1.0 meter from the surface of the machine and at a height of 1.6 meters from the floor.

Refrigerant

Taylor Company uses R404A refrigerant. This refrigerant is generally considered non-toxic and non-flammable; however, any gas under pressure is potentially hazardous.

 NEVER fill any refrigerant cylinder completely with liquid. Filling the cylinder to approximately 80% will allow for normal expansion.

 Refrigerant liquid sprayed onto the skin may cause serious damage to tissue. Keep eyes and skin protected. If refrigerant burns should occur, flush immediately with cold water. If burns are severe, apply ice packs and contact a physician immediately.

The Taylor Company reminds technicians to be cautious of government laws regarding refrigerant recovery, recycling, and reclaiming systems. If you have any questions regarding these laws, please contact the factory Service Department.

WARNING: R404A refrigerant used in conjunction with polyolester oils is extremely moisture absorbent. When opening a refrigeration system, the maximum time the system is open must not exceed 15 minutes. Cap all open tubing to prevent humid air or water from being absorbed by the oil.

Compressor Warranty Disclaimer

The refrigeration compressor(s) on this machine are warranted for the term indicated on the warranty card accompanying this machine. However, due to the Montreal Protocol and the U.S. Clean Air Act Amendments of 1990, many new refrigerants are being tested and developed; thus seeking their way into the service industry. Some of these new refrigerants are being advertised as drop-in replacements for numerous applications. It should be noted that, in the event of ordinary service to this machine's refrigeration system, only the refrigerant specified on the affixed data label should be used. The unauthorized use of alternate refrigerants will void your compressor warranty. It will be the owners' responsibility to make this fact known to any technicians they employ.

It should be noted, that Taylor does not warrant the refrigerant used in its equipment. For example, if the refrigerant is lost during the course of ordinary service to this machine, Taylor has no obligation to either supply or provide its replacement either at billable or unbillable terms. Taylor does have the obligation to recommend a suitable replacement if the original refrigerant is banned, obsoleted, or no longer available during the five year warranty of the compressor.

The Taylor Company will continue to monitor the industry and test new alternates as they are being developed. Should a new alternate prove, through our testing, that it would be accepted as a drop-in replacement, then the above disclaimer would become null and void. To find out the current status of an alternate refrigerant as it relates to your compressor, call the local Taylor Distributor or the Taylor Factory. Be prepared to provide the model/serial number of the unit in question.

Model 150 Specifications

Freezing Cylinder

One, 1.5 quart (1.4 liter).

Mix Hopper

One, 8 quart (7.6 liter).

Beater Motor

One, 0.5 hp.

Refrigeration Unit

One, approximately 3,000 btu/hr. compressor. Refrigerant: R404A.
One, independent SHR compressor, approximately 400 btu/hr. R134a. (BTU's may vary based on compressor used.)

Electrical

Electrical	Total Amps	Supplied With
115/60/1 Air	16.0	20 amp. cord and plug
208-230/60/1 Air	10.2	15 amp. cord and plug

This unit is manufactured in other electrical characteristics. Refer to the Distributor Data Book for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

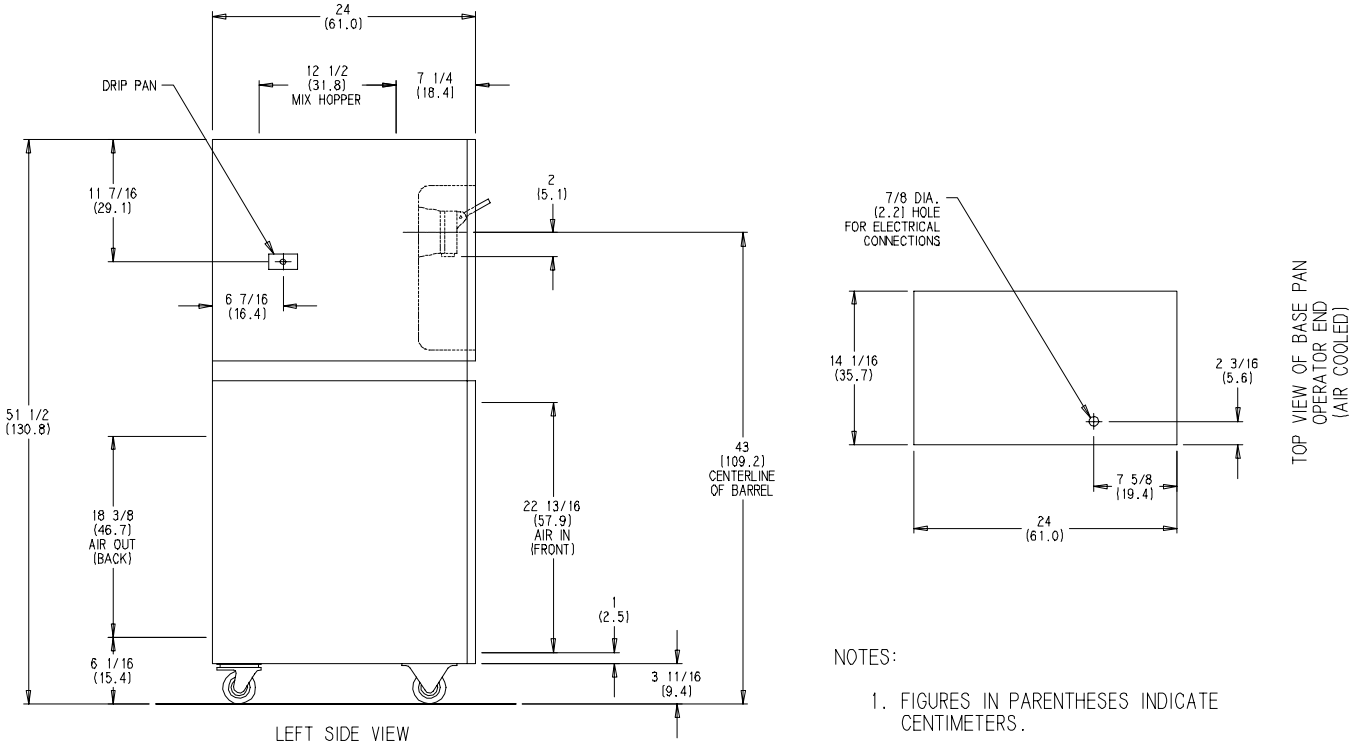
Clearance: 6" (15.2 cm.) around both sides. Install the skirt provided on the right side of the unit and place the back of the unit against a wall to prevent recirculation of warm air.

Dimensions

Width: 14-1/16" (35.7 cm.)
Depth: 24" (61.0 cm.)
Height: 51-1/2" (130.8 cm.)
Floor Clearance: 3-11/16" (9.4 cm.) mounted on standard casters.

Approximate Weights

Net: 250 lbs. (113.4 kgs.)
Crated: 310 lbs. (140.6 kgs.)
23.0 cu. ft. (.65 cu. m.)



Model 152 Specifications

Freezing Cylinder

One, 1.5 quart (1.4 liter).

Mix Hopper

One, 8 quart (7.6 liter).

Beater Motor

One, 0.5 hp.

Refrigeration Unit

One, approximately 3,000 btu/hr. compressor. Refrigerant: R404A.
One, independent SHR compressor, approximately 400 btu/hr. R134a. (BTU's may vary based on compressor used.)

Electrical

Electrical	Total Amps	Supplied With
115/60/1 Air	14.8	20 amp. cord and plug
208-230/60/1 Air	7.4	15 amp. cord and plug

This unit is manufactured in other electrical characteristics. Refer to the Distributor Data Book for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

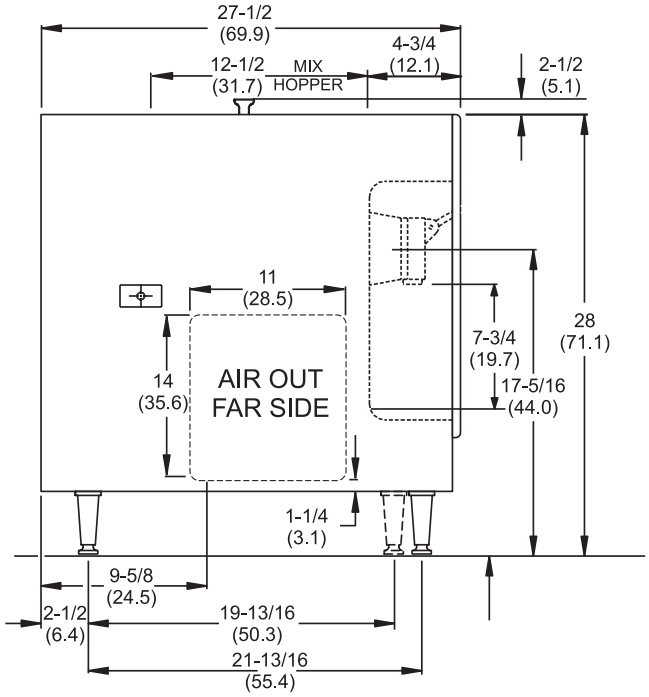
Clearance: 6" (15.2 cm.) on both sides. Install the skirt provided on the right side of the unit and place the back of the unit against a wall to prevent recirculation of warm air.

Dimensions

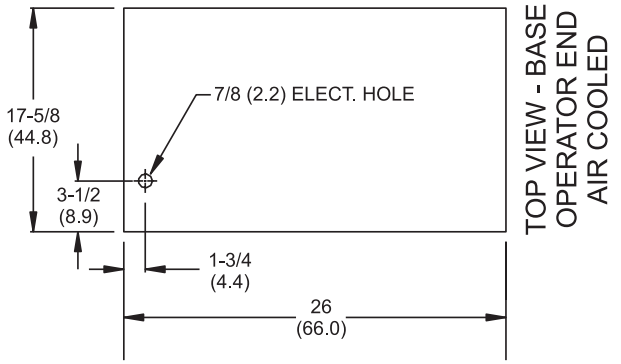
Width: 16-5/16" (41.8 cm.)
Depth: 27-1/2" (69.9 cm.)
Height: 28" (71.1 cm.)
Counter Clearance: 4" (10.2. cm.) mounted on standard legs.

Approximate Weights

Net: 201 lbs. (91.2 kgs.)
Crated: Cardboard – 241 lbs. (109.3 kgs.)
14.5 cu. ft. (.40 cu. m.)
Crated: Wood – 262 lbs. (118.8 kgs.)
20.0 cu. ft. (.56 cu. m.)



LEFT SIDE VIEW



NOTE:
1. FIGURES IN PARENTHESES INDICATE CENTIMETERS.

Model 162 Specifications

Freezing Cylinder

Two, 1.5 quart (1.4 liter).

Mix Hopper

Two, 8 quart (7.6 liter).

Beater Motor

Two, 0.5 hp.

Refrigeration Unit

Two, approximately 3,000 btu/hr. compressors. Refrigerant: R404A.
One, independent SHR compressor, approximately 400 btu/hr. R134a. (BTU's may vary based on compressor used.)

Electrical

Electrical	Two dedicated connections.			
	Maximum Fuse Size		Minimum Circuit Ampacity	
115/60/1 Air	Left	Right	Left	Right
	25	20	20	16

Electrical	One dedicated connection.	
	Maximum Fuse Size	Minimum Circuit Ampacity
208-230/60/1 Air	20	19

This unit is manufactured in other electrical characteristics. Refer to the Distributor Data Book for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

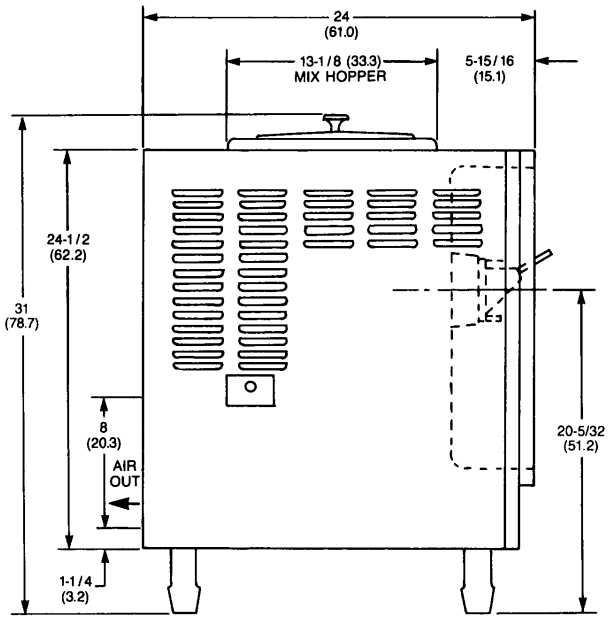
Clearance: 3" (7.6 cm.) on all sides. Install the skirt provided on the rear of the unit to prevent recirculation of warm air.

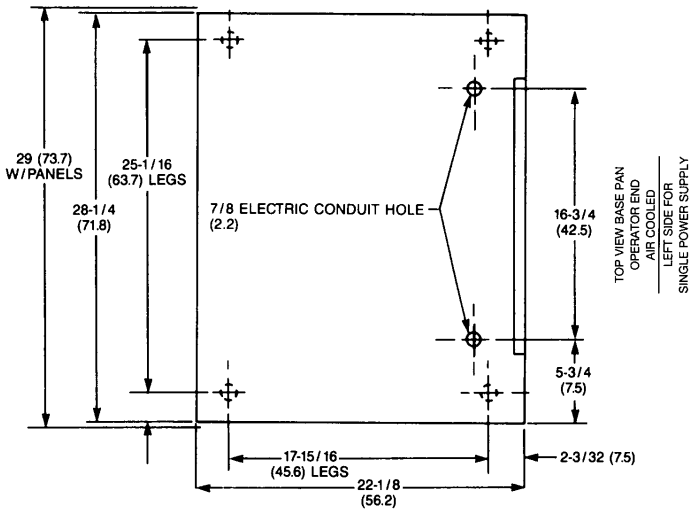
Dimensions

Width: 29" (73.7 cm.)
Depth: 24" (61.0 cm.)
Height: 31" (78.7 cm.)
Counter Clearance: 4-1/4" (10.8 cm.) mounted on standard legs.

Approximate Weights

Net: 410 lbs. (186.0 kgs.)
Crated: 460 lbs. (209.0 kgs.)
23.2 cu. ft. (.65 cu. m.)





Model 168 Specifications

Freezing Cylinder

Two, 1.5 quart (1.4 liter).

Mix Hopper

Two, 8 quart (7.6 liter).

Beater Motor

Two, 0.5 hp.

Refrigeration Unit

Two, approximately 3,000 btu/hr. compressors. Refrigerant: R404A.
One, independent SHR compressor, approximately 400 btu/hr. R134a. (BTU's may vary based on compressor used.)

Electrical

Electrical	Two dedicated connections.			
	Maximum Fuse Size		Minimum Circuit Ampacity	
115/60/1 Air	Left	Right	Left	Right
	25	20	20	16

Electrical	One dedicated connection.	
	Maximum Fuse Size	Minimum Circuit Ampacity
208-230/60/1 Air	20	19

This unit is manufactured in other electrical characteristics. Refer to the Distributor Data Book for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

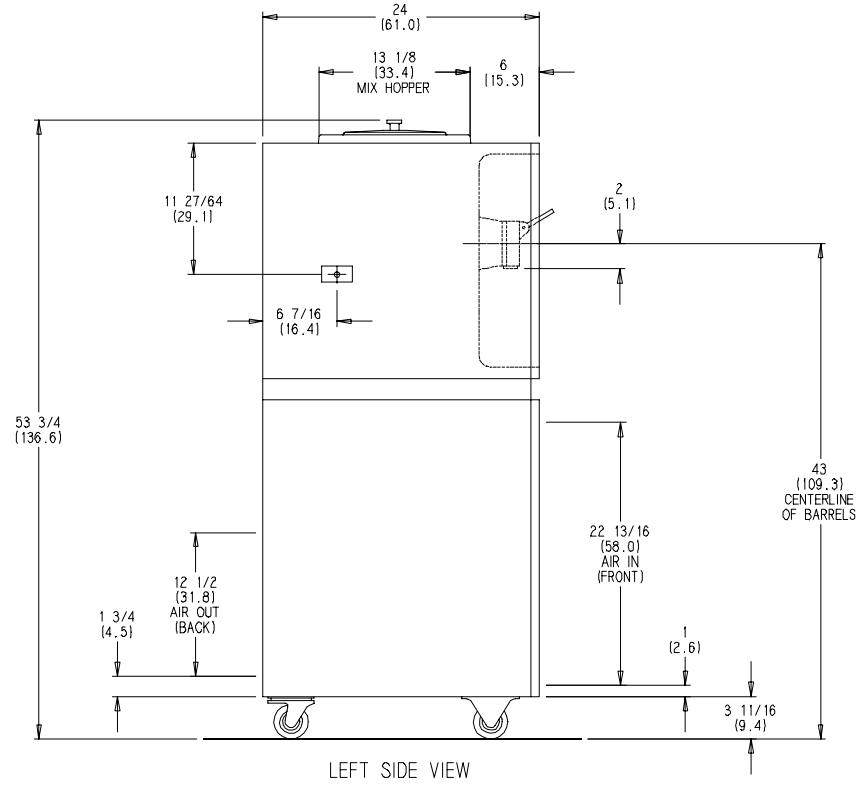
Clearance: 3" (7.6 cm.) on all sides. Install the skirt provided on the rear of the unit to prevent recirculation of warm air.

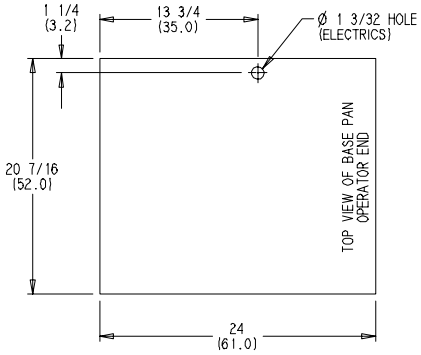
Dimensions

Width: 20-7/16" (51.9 cm.)
Depth: 24" (61.0 cm.)
Height: 53-3/4" (136.5 cm.)
Floor Clearance: 3-11/16" (9.4 cm.) mounted on standard casters.

Approximate Weights

Net: 425 lbs. (192.8 kgs.)
Crated: 482 lbs. (218.6 kgs.)
31.4 cu. ft. (.88 cu. m.)





NOTES:

1. FIGURES IN PARENTHESES INDICATE CENTIMETERS.

Running Specifications

The following are the pressure and temperature settings recommended by the Taylor Company and apply to all models covered in this manual.

Expansion Valve

Pressure setting: 502 = 18 to 20 PSI (124 to 138 kPa).
HP62 & HP 81 = 20 to 22 PSI (138 to152 kPa)

Normal product temperature should range between 18°F to 20°F (-7.8°C to -6.7°C).

Mix hopper and standby temperature should range between 38°F to 40°F (3.3°C to 4.4°C).

High Side

Head pressure on air cooled units varies depending on ambient temperatures.

Air Cooled: The following chart indicates normal operating head pressures at various ambient temperatures.

Ambient Temperature		Normal Operating Head Pressures
F.	C.	PSI
70°	21.1°	240 - 270 (1,655 - 1,862 kPa)
80°	26.7°	270 - 300 (1,862 - 2,069 kPa)
90°	32.2°	300 - 340 (2,069 - 2,344 kPa)
100°	37.8°	340 - 380 (2,344 - 2,620 kPa)

Note: This chart applies to units using R502 or 404A refrigerant.

Low Side

Low side pressure is determined by the expansion valve setting. Adjust the pressure higher or lower by turning the adjustment knob on the expansion valve.

Clockwise adjustments will raise the pressure, and counterclockwise adjustments will lower the pressure.

Note: Make expansion valve adjustments with mix in the freezing cylinder and with the machine in the **"AUTO"** mode. Allow adequate time for pressure to stabilize.

Installation Instructions

Air Cooled Units

Air cooled units require a minimum of 6” (15.2 cm) of clearance on all sides of the freezer. Failure to allow for adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause damage to the compressor.

Water Cooled Units

An adequate cold water supply with a hand shut-off should be provided.

Step 1
Flush all water lines.

Step 2
Connect the water supply line to the inlet (water in) connection.

Note: If local codes permit, use flexible water lines.

Step 3
Install the drain line into an open trap drain so that the water flow can be observed.

IMPORTANT: Do not install a shut-off valve on the drain line.

Note: Drain water should be warm during normal operation.

Refrigeration

Model	R502		404A / HP62
	Air Cooled	Water Cooled	Air Cooled
150 Temp. Control	40		
150 TQC	34		18
152 Temp. Control	40		
152 TQC	34		
162 TQC	34	23	18
168 TQC	34	20	18

Separate Hopper Refrigeration

Single Hopper: R12 = 7 oz., 134A = 4.5 oz.
Double Hopper: R12 = 8 oz., 134A = 4.5 oz.

Note: Refrigerant charges are subject to change. Always refer to the freezer data plate.

Beater Rotation

 **TURN THE POWER SWITCH OFF!** Failure to follow this instruction may result in electrocution.

Step 1
Remove the door assembly and the beater. Press the push button switch on the underside of the control channel. This switch is a latching relay system and will only drop out if the power is disconnected, or if a beater motor overload occurs.

Step 2
Place the power switch in the **“WASH”** position. This activates the beater motor only.

Step 3
Look into the freezing cylinder. The female hex drive coupling should be turning clockwise.

Step 4
If rotation is not correct, follow the directions on the beater motor to reverse the rotation.

 **REMEMBER TO DISCONNECT ALL POWER TO THE FREEZER!** Failure to follow this instruction may result in electrocution.

Electrical Connections

Each freezer requires one dedicated power supply. Check the data label on the freezer for fuse, circuit ampacity and electrical specifications. Refer to the wiring diagram, provided inside the control box, for proper power connections.

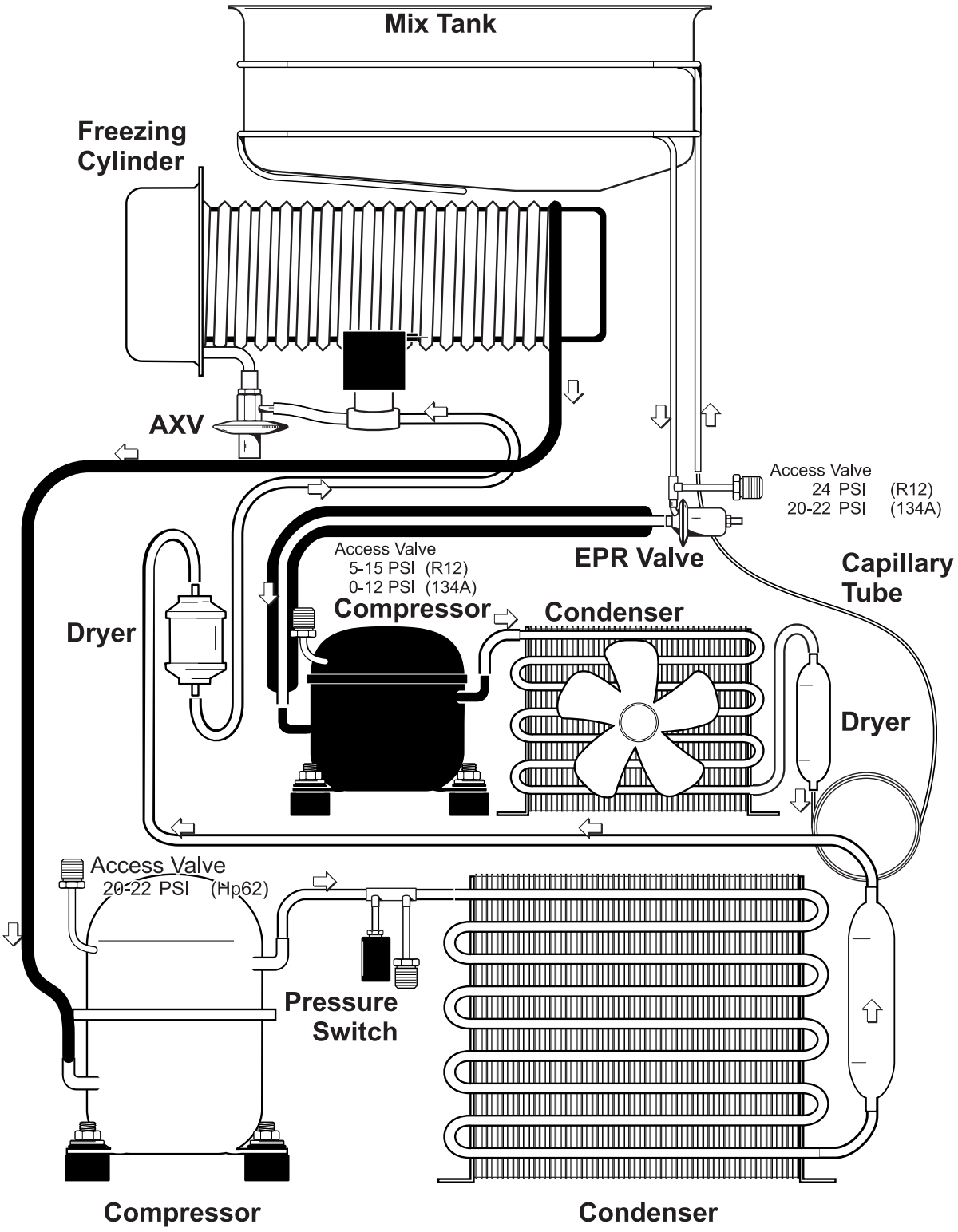
This equipment is intended to be installed in accordance with the National Electric Code (NEC), NFPA 70. The purpose of this code is the practical safeguarding of persons and property from hazards arising from the use of electricity. This code contains provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard.

Notes:

Section 2: Controls and Systems

- **Refrigeration Schematic**
- **Separate Hopper Refrigeration (SHR)**
- **Temperature Control**
- **Viscosity Control**
- **TQC Control**

Refrigeration Schematic



Separate Hopper Refrigeration (SHR)

Function

Maintains mix storage temperature below 41°F (5.0°C).

Operation

The compressor circulates refrigerant around the coil wrapped mix hopper(s). An EPR valve (Evaporator Pressure Regulator) regulates the refrigerant pressure in the hopper coil, thereby determining the refrigerant temperature. A sensing probe monitors the gas temperature and the system cycles according to the temperature control setting.

Running Specifications

Refrigerant	R12	134A
EPR setting	24-26 PSI	20-21 PSI
Suction pressure at compressor	12-20 PSI	1-15 PSI
Compressor running amps approx.	.8 amps	.8 amps
Compressor lock rotor amps approx.	2.2 amps	6.5 amps

Overcharge System

A refrigerant overcharge results in inadequate run times and, consequently, high hopper temperatures and exaggerated bacteria growth.

When first starting an overcharge compressor system, operation may seem normal. However, suction pressures will be higher than necessary, causing higher amp draw and additional operating heat. The dome of the compressor will be hotter than normal. After sufficient running time, the compressor will cycle off on the temperature control. On subsequent cycles before the compressor cycles off on the temperature control, it may terminate by use of the compressor overload. At this time the short cycles begin. From this point, each time the compressor is called upon to operate, the accumulated heat combined with the additional amp draw from the higher suction pressure causes the overload to stop operation prematurely. At this time, the temperature will never be satisfied. This means the compressor operation will operate by use of the overload. Under normal conditions, total amp draw of the compressor and fan is approximately 0.8 amp. Under lock rotor, the amperage will raise.

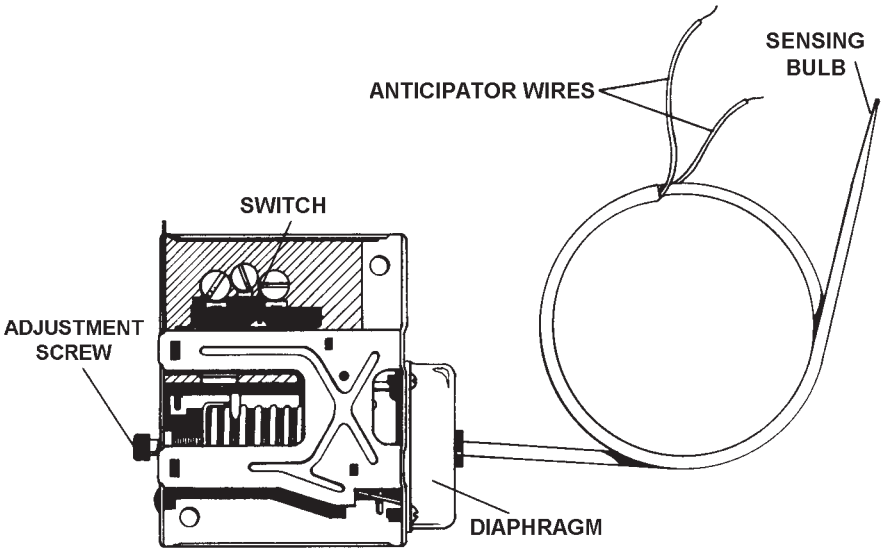
During an overload condition, there are two circumstances which may exist. During the **"OFF"** mode, pressures may equalize and the overload switch closes. The system may start, but terminate shortly when the overload re-opens. The overload may cool and re-close, but pressures may not have equalized. The system then will not start, and may eventually re-open the overload. The only way to correct the compressor operation would be to switch off the power and allow the system to cool sufficiently before re-establishing power.

Another area to consider is the operating voltage and how it effects overload operation. During a lock rotor condition, it requires up to 20 minutes to trip the overload with 208 operating volts. With 240 operating volts, this time requirement may be as little as 5 minutes.

The following method best describes how to adjust the refrigerant charge to achieve proper operation from the system. Fill the hopper(s) half full of mix to achieve a 40°F (4.4°C) established hopper temperature. Start the refrigeration with the EPR valve set to 24 PSI/164.5 kPa (R12) or 20 PSI/138 kPa (134A). Refrigerant charge should now be adjusted to establish a 20 PSI/138 kPa (R12) or 15 PSI/103 kPa (134A), or slightly below. Never adjust refrigerant charges or EPR pressure with a hopper medium above 40°F (4.4°C). With a hopper of 40°F (4.4°C) or below, suction pressures should never read above 20 PSI/138 kPa (R12) or 15 PSI/103 kPa (134A). As hopper temperatures lower, the suction pressure will drop but should never drop below 12 PSI/83 kPa (R12) or 1 PSI/7 kPa (134A). Remember, if hopper medium exceeds 40°F (4.4°C), suction pressure will also rise. When operating correctly, the compressor dome will measure room temperature and the suction line will be cool, but not frosted.

Note: The dryer must be installed vertically, with the capillary tube at the bottom.

Temperature Control



Function

The temperature control maintains product temperature in the freezing cylinder.

Specifications

Temperature differential: cut in = 2°F (1.1°C) above cut out. Temperature adjustment screw: 1/4 turn = approximately 2°F (1.1°C). Clockwise adjustments are colder and counterclockwise adjustments are warmer.

Anticipator resistance – approximately 25 OHMS.

Operation

The gas filled sensing bulb is positioned in the bulb-well, located at the front of the freezing cylinder. As the temperature lowers in the freezing cylinder, the gas in the sensing bulb decreases in pressure. When the desired product temperature setting is achieved, the spring activated switch overcomes the pressure on the diaphragm, the switch points open (terminal #2 opens to #1), and L1 power supplied to the compressor relay coil deactivates.

When the product temperature has risen 2°F (1.1°C) above the control's temperature setting, the increased gas pressure on the diaphragm overcomes the switch spring tension. The switch points close (terminal #2 closed to #3) and L1 power is supplied to the compressor relay coil.

Anticipator

When the temperature control is not calling for refrigeration and product is drawn from the freezer, the anticipator circuit activates the refrigeration system. When the freezer draw switch is activated, a transformer supplies 24 volts to the anticipator leads. The sensing bulb is heated by the 24 volts, and the refrigeration system will operate when the 2°F (1.1°C) temperature differential is achieved.

Note: When the draw switch activates, the compressor will start within 15 seconds.

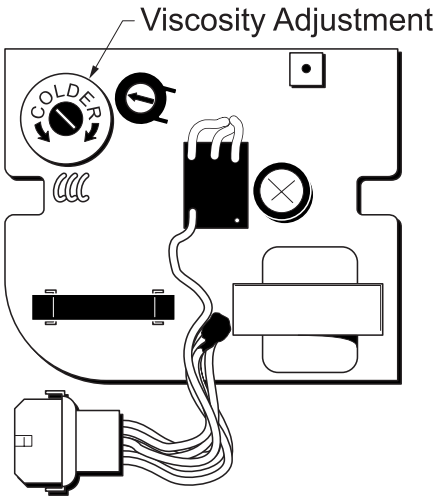
Setting Temperature

When the freezer is properly primed with fresh mix, place the control switch in the **"AUTO"** position. During the freeze-down cycle, monitor the product appearance and temperature by drawing samples. Remove the temperature control knob. When the desired product temperature is attained, slowly turn the temperature adjustment screw counterclockwise (warmer) until the refrigeration system cycles off. Draw additional samples after, and adjust if necessary.

Replace the temperature control knob with the indicator mark pointing away from the freezer, to allow for a 2° adjustment warmer or colder.

Never adjust the temperature control without checking the product temperature with an accurate thermometer. Random temperature adjustments often result in freeze-up conditions, overload conditions, and severe wear on components in the freezing cylinder.

Viscosity Control



A new style watt control board was introduced in January of 1990. The old style board required color coded wires to be cut to determine the correct amperage range. The new board has a 25-turn potentiometer for setting the amperage range and has no wires to cut. Turning the potentiometer clockwise increases the amperage range and counterclockwise adjustments decrease the amperage range.

The following information pertains to both boards, except where noted.

Function

Maintains product quality in the freezing cylinder by electronically monitoring product viscosity.

Specifications

Part No.	Function	Voltage
037260-12	Supply voltage	115 VAC - 60 Hz
037260-27	Supply voltage	208-240 VAC - 50/60 Hz

Viscosity Adjustment Range Selections
(Old Style Only)

1.2 – 2.4	Amps
2.3 – 4.6	Amps
4.0 – 8.0	Amps
5.7 – 11.4	Amps

Operation

The watt control monitors product viscosity or thickness by constantly reading the wattage consumed by the beater motor. By monitoring wattage, the control can precisely determine product viscosity is attained. The watt control cancels the operation of the refrigeration system.

Freezer operation with the watt viscosity control is very similar to TQC models. The watt control becomes operational when power is supplied to the freezer and the latching relay is engaged. With the freezer properly primed and the necessary control switches placed in the **"AUTO"** position, the draw lever is manually raised to start the main refrigeration system.

Note: The solid state timer in the control circuit will also activate the main refrigeration system once the off-cycle time has elapsed.

The L1 power supplied to the compressor contactor coil passes through the watt control relay (socket connection #2 and #3).

The L1 power supplied to the beater motor must first pass through the watt control (socket connection #5 and #6).

When the viscosity setting is attained, the watt control relay is activated (#2 and #3 open) to discontinue sending power to the compressor contactor coil. The refrigeration system cycles off and the watt control relay relaxes (#2 and #3 closed).

Once the refrigeration system has cycled off, the solid state timer is activated. When the off-cycle time has elapsed, the solid state timer sends L1 power through the watt control (socket connection #2 and #3) to the coil of the compressor contactor. The compressor contactor initiates compressor operation and also supplies L1 power to the beater motor. The solid state timer re-sets to zero each time the compressor contactor closes.

Setting the Viscosity Control

(Also see Control Range Selection.)

Step 1
Locate the L1 power path passing through the watt control to the beater motor (socket connection #5 and #6). Install an amp meter on the L1 power path to monitor the amperage of the beater motor.

(Old Style Only)

Step 2
Turn the viscosity adjustment potentiometer clockwise to the coldest setting.

Step 3
With the freezer properly primed, activate the refrigeration system.

Step 4
During the freezing process, draw samples and inspect the product appearance. When the desired product viscosity is achieved, note the beater motor amperage.

Step 5
Slowly turn the viscosity adjustment pot counterclockwise (warmer) to cycle off the refrigeration system.

Step 6
Draw several samples to verify the amperage at cycle-off time and the product appearance remains consistent.

Control Range Setting

The watt control is used in many different freezer models which have a variety of electrical specifications. For this reason, the watt control must be set to operate in an amperage range which relates to the beater motor amperage and the desired product viscosity setting.

Note: Although the watt control monitors beater motor wattage, the beater motor amperage is used as a reference to set the control and check the operation.

The selected amperage range simply determines the adjustment span of the viscosity adjustment potentiometer on the face of the control.

There are four range selections to choose from as shown on the range selection chart.

Range Selection Chart (Old Style Only)

1.2 – 2.4	None
2.3 – 4.6	White
4.0 – 8.0	White and Blue
5.7 – 11.4	White, Blue and Yellow

Note: The range selection is not the same as the TQC range selection.

(Old Style Only)

On the front of the watt control there are three colored jumper wires (white, blue, and yellow). The proper range selection is determined by running the freezer to determine the beater motor amperage when product reaches the desired viscosity and cutting the jumper wire(s) indicated on the range selection chart.

With no jumper wires cut, use the following procedure to determine the proper range selection.

Step 1
Locate the L1 power path passing through the control to the beater motor (socket connection #5 and #6). Install an ampmeter on the L1 power path to monitor the amperage of the beater motor.

Step 2
Turn the viscosity adjustment potentiometer clockwise to the coldest setting.

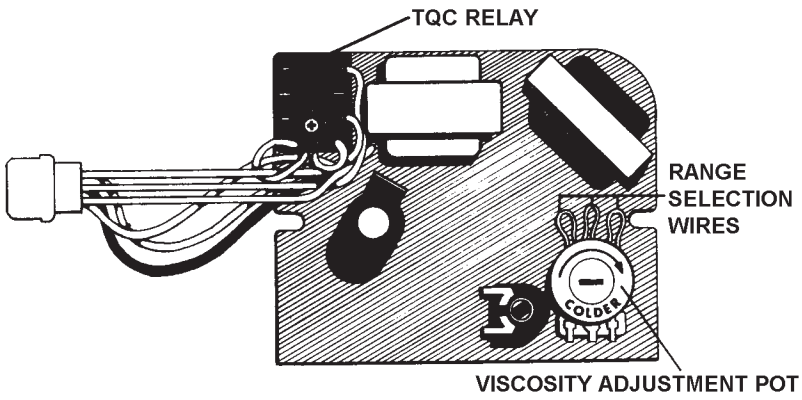
Step 3
During the freezing process, draw samples and inspect the product until the desired appearance is achieved, note the beater motor amperage. Slowly turn the viscosity adjustment potentiometer counterclockwise to **"WARMER"** until the refrigeration system cycles off.

Note: If the refrigeration system cycles off before the desired product viscosity is achieved, the watt control range selection must be adjusted. Check the range selection chart and advance to the next higher range by cutting the prescribed jumper wire(s). Repeat Step 3 until the correct adjustment is set.

Step 4
Draw several samples to verify that the off-cycle setting and the product appearance remains consistent.

Note: On old style controls, if the wrong wire is cut when setting the amperage range selection, simply solder the wire back together.

TQC Control



Function:

The TQC maintains product quality in the freezing cylinder by electronically monitoring the product viscosity.

Specifications:

Part No.	Function	Voltage
028022-12	Supply voltage	115 VAC - 60 Hz
028022-27	Supply voltage	208-240 VAC - 50/60 Hz

Viscosity Range Selections

1.2 – 2.4 Amps
2.5 – 5.0 Amps
4.0 – 8.0 Amps
5.7 – 11.4 Amps

Operation

The TQC monitors product viscosity (thickness) by constantly reading the amperage draw from the beater motor. As the product freezes, the beater motor works harder to turn the beater assembly through the frozen product. This causes a gradual increase in beater motor amperage. When the desired product viscosity is attained, the TQC cancels the refrigeration system.

Note: The solid state timer in the control circuit will also activate the main refrigeration system. The freezer draw switch or solid state timer reactivates the refrigeration system when necessary.

The TQC becomes operational when power is supplied to the freezer. With the freezer properly primed and the necessary control switches placed in the AUTO position, the draw lever is manually raised to start the main refrigeration system once the off-cycle time has elapsed.

The L1 power supplied to the compressor contactor coil passes through the TQC (socket connection #2 and #3).

The L1 power supplied to the beater motor must first pass through the TQC relay (socket connection #5 and #6).

When the viscosity setting is attained, the TQC relay is activated (#2 and #3 is open) to discontinue sending L1 power to the compressor coil. the refrigeration system cycles off, the beater motor amperage drops to zero amps, and the TQC relay relaxes (#2 and #3 closed).

Once the refrigeration system has cycled off, the solid state timer is activated. When the off-cycle time has elapsed, the solid state timer sends L1 power through the TQC (socket connection #2 and #3) to the coil of the compressor contactor. The compressor contactor initiates compressor operation and also supplies L1 power to run the beater motor. The solid state timer resets to zero each time the compressor contactor closes.

Setting the TQC

Step 1
Locate the L1 power path passing through the TQC to the beater motor (socket connection #5 and #6). Install an amp meter on the L1 power path to monitor the amperage of the beater motor.

Step 2
Turn the viscosity adjustment potentiometer clockwise to the coldest setting.

Step 3
With the freezer properly primed, activate the refrigeration system.

Step 4
During the freezing process, draw samples and inspect the product appearance. When the desired product viscosity and appearance is achieved, note the beater motor amperage.

Step 5
Slowly turn the viscosity adjustment potentiometer counterclockwise (warmer) to cycle off the refrigeration system.

Step 6
Draw several samples to verify the amperage at cycle-off time and the product appearance remains consistent.

TQC Range Setting

The same TQC is used in many different freezer models which have a variety of electrical specifications. For this reason, the TQC must be set to operate in an amperage range which relates to the beater motor amperage and the desired product viscosity setting.

The selected amperage range simply determines the adjustment span of the viscosity adjustment potentiometer on the face of the TQC.

There are four range selections to choose from as shown on the range selection chart.

Range Selection Chart

Range (Amps)	Cut Jumpers
1.2 – 2.4	White, Blue and Yellow
2.5 – 5.0	White and Blue
4.0 – 8.0	White
5.7 – 11.4	None

On the front of the TQC, there are three colored jumper wires (white, blue and yellow). The proper range selection is determined by running the freezer to determine the beater motor amperage when product reaches the desired viscosity, and cutting the jumper wire(s) indicated on the range selection chart.

Before jumper wires are cut, use the following procedure to determine the proper range selection.

Step 1
Locate the L1 power path passing through the TQC to the beater motor (socket connection #5 and #6). Install an amp meter on the L1 power path to monitor the amperage of the beater motor.

Step 2
Turn the viscosity adjustment potentiometer clockwise to the coldest setting.

Step 3
With the freezer properly primed, activate the refrigeration system.

Step 4
During the freezing process, draw samples and inspect the product appearance. When the desired product viscosity and appearance is achieved, note the beater motor amperage and then place the freezer control switch in the **"OFF"** position.

Step 5
Compare this amperage reading with the range selection chart. Determine the range to which the amperage reading applies.

Note: Select the center of the range that is closest to the noted amperage.

Step 6
Cut the jumper wire(s) which correspond with the range selection.

Step 7
Start the refrigeration system again, and observe the beater motor amperage. When the amperage reading reaches the desired product viscosity, slowly turn the viscosity adjustment potentiometer counterclockwise (warmer) until the refrigeration system cycles off.

Step 8
Draw several samples to verify that the amperage at the off-cycle and the product appearance remain consistent.

Note: If the wrong wire is cut when setting the amperage range selection, simply solder the wire back together.

Section 3: Troubleshooting Guide

- **General Troubleshooting**
- **Control Troubleshooting**

General Troubleshooting

PROBLEM	PROBABLE CAUSE	REMEDY
1. No product being dispensed.	a. The power switch is in the **"OFF"** position.	a. Place the power switch in the **"AUTO"** position.
	b. The mix level is inadequate in the mix hopper.	b. Fill the mix hopper with mix.
	c. The beater motor overloaded.	c. Reset the freezer.
	d. The unit is unplugged at the wall receptacle.	d. Plug in the power cord. Press the push-button switch.
	e. The circuit breaker is tripped or the fuse is blown.	e. Place the circuit breaker in the **"ON"** position, or replace the fuse. Press the push-button switch.
	f. The freezer door is incorrectly assembled.	f. See the Operator's Manual for proper assembly.
	g. Product is being drawn off in excess of the freezer's capacity.	g. Stop drawing product and allow the unit to recover.
2. The machine will not operate in the **"AUTO"** mode.	a. The unit is unplugged.	a. Plug in the power cord; press the push-button switch.
	b. The refrigeration system is not activated.	b. On T.Q.C. units, momentarily raise the draw switch to activate the refrigeration system.
	c. The circuit breaker is tripped, or the fuse is blown.	c. Place the circuit breaker in the **"ON"** position, or replace the fuse. Press the push-button switch.
	d. The beater motor overloaded, causing a loss of power to the power switch.	d. Reset the freezer.
3. The product is too stiff.	a. The temperature control or the T.Q.C. is set too cold.	a. Adjust the temperature control. Do not set the temperature colder than 18°F (-8°C).
4. The product is too soft.	a. The temperature control or the T.Q.C. is set too warm.	a. Adjust the temperature control.
	b. The air tube is not installed.	b. Install the air tube in the mix inlet hole at the bottom of the mix hopper.
	c. Out-drawing the freezer's capacity.	c. Two 4 oz. (113.4 gram) servings in one minute.
5. The freezing cylinder walls are scored.	a. Operating freezer without the front bearing on the freezer door.	a. Install the front bearing on the freezer door.
	b. The gear unit or the direct drive is out of alignment.	b. Align the gear unit or the direct drive.

PROBLEM	PROBABLE CAUSE	REMEDY
6. Excessive leakage in rear drip pan.	a. A worn or defective o-ring is on the beater drive shaft.	a. Replace o-rings every 3 months.
	b. The rear shell bearing is worn.	b. Replace the rear shell bearing.
	c. Incorrect lubricant was used.	c. Use food grade lubricant (example: Taylor Lube).
	d. Inadequate lubrication of beater drive shaft.	d. Lubricate the beater drive shaft properly.
7. The draw valve is leaking.	a. Incorrect lubricant was used.	a. Use food grade lubricant (example: Taylor Lube).
	b. Worn or defective o-rings are on the draw valve.	b. Replace o-rings every 3 months.
	c. Inadequate lubrication of draw valve.	c. Lubricate the draw valve properly.
8. Product is not feeding into the freezing cylinder.	a. The mix level is inadequate in the mix hopper.	a. Fill the mix hopper with mix.
9. The unit goes out on overload excessively.	a. There are too many appliances plugged into the circuit.	a. A **separate** 20 amp. circuit is needed for the freezer to operate properly.
	b. An extension cord has been placed between the power cord and the wall receptacle.	b. If the extension cord is used, it must match the power cord in size of circuit ampacity.
10. **Models 162 and 168:** Mix from one freezing cylinder bleeds over to the second cylinder.	a. The center draw valve seal is worn, or is improperly lubricated.	a. Lubricate properly and replace seal every 3 months.
11. Compressor does not run.	a. Control switches.	a. Place switches in correct position for compressor operation.
	b. Fuse blown or circuit breaker.	b. Replace fuse or turn breaker on.
	c. Tripped overload.	c. Allow to cool. Check for high head pressure, tight bearings, stuck pistons, clogged air cooled condenser.
	d. Compressor contactor in open position.	d. Repair or replace the contactor.
	e. Faulty capacitor relay.	e. Replace the relay.
12. Compressor will not start. Hums intermittently. Cycling on overload.	a. Improperly wired.	a. Check wiring against diagram.
	b. Low line voltage.	b. Check main line voltage. Locate the voltage drop.
	c. Open starting capacitor.	c. Replace the starting capacitor.
	d. Faulty capacitor relay.	d. Replace the relay.

PROBLEM	PROBABLE CAUSE	REMEDY
13. Compressor starts but motor will not get off start winding.	a. Low line voltage.	a. Raise voltage.
	b. Improperly wired.	b. Check wiring against diagram.
14. Capacitor relay is inoperative.	a. Defective relay.	a. Replace.
	b. Incorrect relay.	b. Use relay properly selected for motor characteristics.
15. Unit operates long or continuously. Inferior product.	a. Shortage of refrigerant.	a. Repair leak and recharge.
	b. Dirty condenser.	b. Clean the condenser.
	c. Location is too warm.	c. Change to a cooler location.
	d. Starved evaporator.	d. Keep correct mix level in hopper.
16. Head pressure is too high.	a. Refrigerant is overcharged or undercharged.	a. Correct the refrigerant charge.
	b. Dirty condenser.	b. Clean the condenser.
	c. The location is too warm.	c. Change to a cooler location.
	d. The fan is not operating.	d. Repair or replace.
17. Head pressure is too low.	a. Refrigerant shortage.	a. Repair leak.
	b. Compressor suction or discharge valves inefficient.	b. Replace compressor.
18. The compressor loses oil.	a. Shortage of refrigerant.	a. Repair leak.
	b. Plugged expansion valve or strainer.	b. Clean or replace.
19. Hot liquid line.	a. Shortage of refrigerant.	a. Repair leak.
20. Frosted liquid line.	a. Restricted dryer or tubing.	a. Replace or remove restrictions.
21. Excessive mix leakage through rear of unit into drip pan.	a. Worn or missing drive shaft o-ring.	a. Replace if worn, nicked, or missing.
	b. Inadequate lubrication of drive shaft o-ring.	b. Lubricate properly.
	c. Worn rear shell bearing.	c. Replace rear shell bearing.
	d. Incorrect o-ring on drive shaft.	d. Replace with proper size o-ring.
	e. Wrong type of lubricant was used.	e. Use proper lubricant (example: Taylor Lube).
22. Oil logged evaporator.	a. Bent beater.	a. Replace the beater.
	b. Incorrect beater rotation.	b. Refer to diagram.
	c. Faulty expansion valve.	c. Replace.
	d. Starved evaporator.	d. Keep sufficient amount of mix in hopper.

Control Troubleshooting

Temperature Control Service Tips

Fill the bulb well with antifreeze before installing the temperature control sensing bulb.

Use pliers to install the sensing bulb carefully into the bulb-well. Feed one inch (2.5 cm) of the bulb into the well at a time. This will help prevent the sensing bulb from becoming kinked and more difficult to install.

Be sure the sensing bulb is installed completely into the bottom of the bulb-well.

Viscosity Service Tips

The amount of mix in the freezing cylinder will affect the finished product viscosity and temperature.

Example #1

The cylinder is overloaded with mix. The beater motor wattage is increased and the set point on the control is reached too soon. When the freezer cycles off, the product is warm and appears wet.

Example #2

Not enough mix is in the freezing cylinder. With less amperage load on the beater motor, the product must become much thicker than normal to reach the control set-point and to cycle off the freezer. Extremely long running times and a loss of ejection indicate that the cylinder is “starved” of mix.

The Watt control will compensate for voltage fluctuation within the controls operating electrical specification (±10%). In order to maintain a consistent product viscosity, the amperage at cycle-off will vary slightly when the voltage supply to the freezer changes.

(Old Style Only)

On the front of the Watt control, next to the viscosity adjustment potentiometer, there are two additional potentiometers. ***CAUTION: DO NOT ATTEMPT TO ADJUST THESE POTENTIOMETERS***, as this will alter the operating ranges and differential in the control.

The Watt viscosity control will cycle the compressor off when drawing product if the viscosity setting is achieved. The Watt control relay will re-close (socket connection #2 and #3) to bring the compressor back on when the beater motor amperage drops approximately .25 amps below the viscosity set-point.

Check the wire connections to the Watt control before replacing a suspected faulty control. If a poor connection interrupts L1 or L2 power to the control, the Watt control relay will always remain closed and a freeze-up condition will occur.

TQC Service Tips

The amount of mix in the freezing cylinder will affect the finished product viscosity and temperature.

Example #1

The cylinder is overloaded with too much mix. The beater motor amperage is increased and the set-point on the TQC is reached too soon. The freezer cycles off at a warmer temperature and the product appearance is too soft.

Example #2

Not enough mix is in the freezing cylinder. With less load on the beater motor, the product must get thicker than normal to reach the TQC setpoint and cycle the freezer off. Extremely long running times and a loss of ejection indicate that the cylinder is “starved” of mix.

The TQC cycle-off amperage setting should never exceed the FLA rating of the beater motor.

The TQC will cycle the compressor off when drawing product, if the viscosity setting is achieved. The TQC relay will re-close (socket connection #2 and #3) to activate the compressor when the beater motor amperage drops 1/2 amp below the TQC viscosity setting.

On the front of the TQC, next to the viscosity adjustment potentiometer, there is another small adjustment potentiometer. ***CAUTION: DO NOT ATTEMPT TO ADJUST THE SMALL POTENTIOMETER*** as this will alter the operating ranges of the control.

Check the TQC wire connections before replacing a control that is suspected to be faulty.

Example: If a poor connection interrupts L1 or L2 power to the control, the TQC relay will always remain closed and a freeze-up condition will occur.

Extreme voltage fluctuations will affect beater motor amperage and, in turn, influence the product appearance.

To change the off-cycle time on the solid state timer, refer to the following resistance chart for the necessary resistor.

Resistance Chart (for X31959-12/27 Timer Assembly)

Time	Ohms	Color Code		
16 minutes – 40 seconds	1,000,000	Black	Brown	Green
15 minutes – 10 seconds	910,000	White	Black	Yellow
13 minutes – 40 seconds	820,000	Gray	Red	Yellow
12 minutes – 30 seconds	750,000	Violet	Green	Yellow
11 minutes – 20 seconds	680,000	Blue	Gray	Yellow
9 minutes – 20 seconds	560,000	Green	Blue	Yellow
8 minutes – 30 seconds	510,000	Green	Black	Yellow
7 minutes – 50 seconds	470,000	Yellow	Violet	Yellow

Watt Control Troubleshooting

Tools Required: A meter capable of measuring millivolts.

Procedure: To verify proper operation of the Watt control, connect the negative side of the meter to the voltage regulator heat sink as indicated by the white arrow that is printed near the center of the control. Connect the positive side of the meter to the center terminal of the viscosity potentiometer as indicated by the black arrow.

If the beater motor is not active, the voltage will measure between 0 and 10 millivolts. The typical value is 0. If the voltage is greater than 10 millivolts, there is excess current leakage through the beater motor or the control is defective.

If the beater motor is active, the voltage measurement will be greater than 50 millivolts. If the voltage is less than 10 millivolts, there is a fault connection between the Watt control and the rest of the control circuit, or the control is defective.

In addition to the appropriate voltage measurement, the following criteria must be met:

- The compressor should cycle off at the same voltage consistently.
- The voltage should increase as product gets thicker.
- The compressor should cycle off once the voltage stops increasing.

If these critera are not met, the control is defective and must be replaced.

Section 4: Parts

- **Parts Warranty**
- **Exploded Views**
- **Parts List**

Warranty Explanation

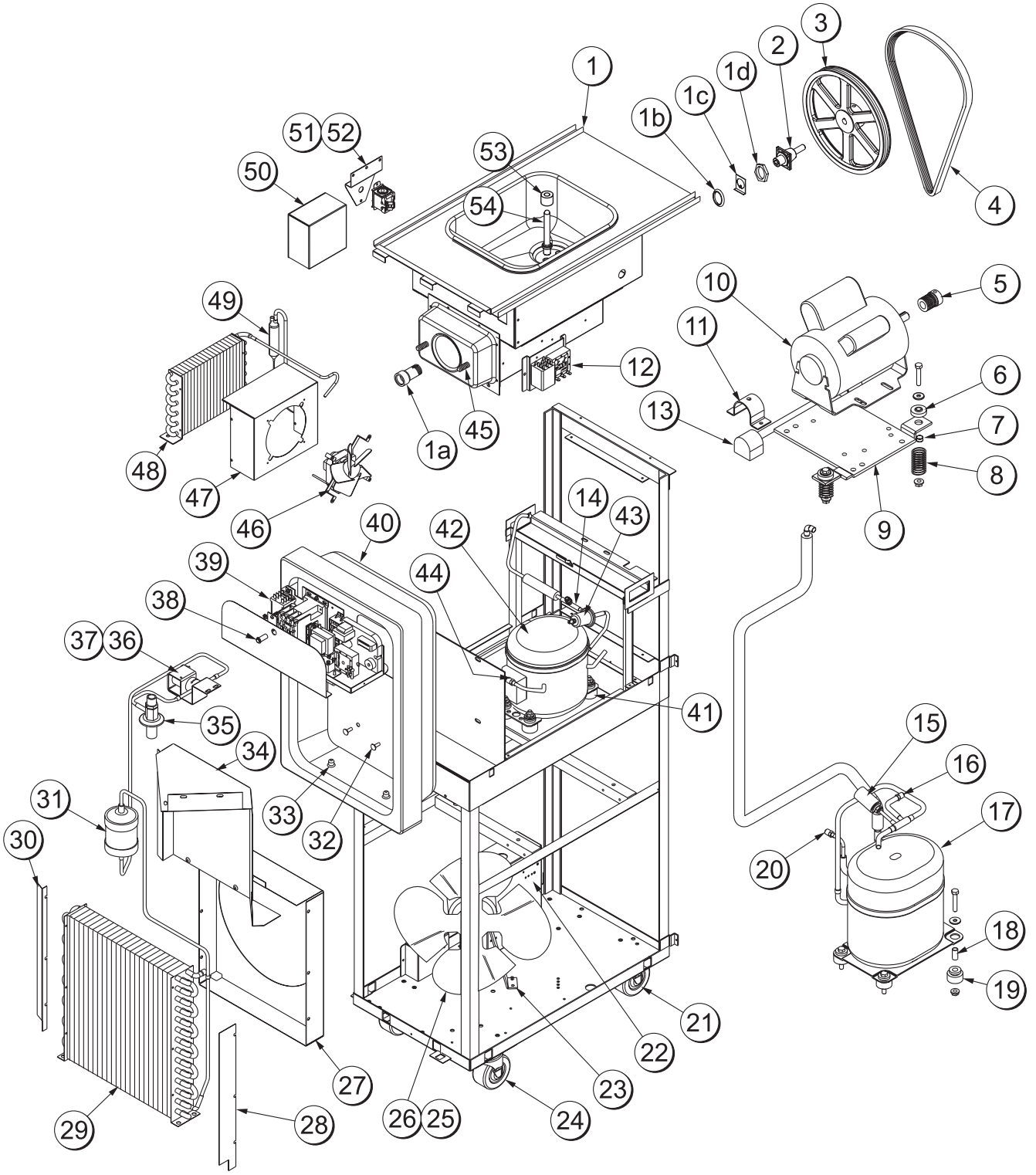
Class 103 Parts:	Warranty is extended for 1 year from the original date of freezer installation.
Class 212 Parts:	Warranty is extended for two years from the original date of freezer installation.
Class 512 Parts::	This item is covered for five years from the original date of installation.
Class 000 Parts:	Wear Items - no warranty.

CAUTION: Warranty is valid only if required service work is provided by an Authorized Taylor Service Technician.

NOTE: Taylor reserves the right to deny warranty claims on equipment or parts if a non-approved refrigerant was installed in the machine, system modifications were performed beyond factory recommendations, or it is determined that the failure was caused by neglect or abuse.

Notes:

Model 150 Exploded View

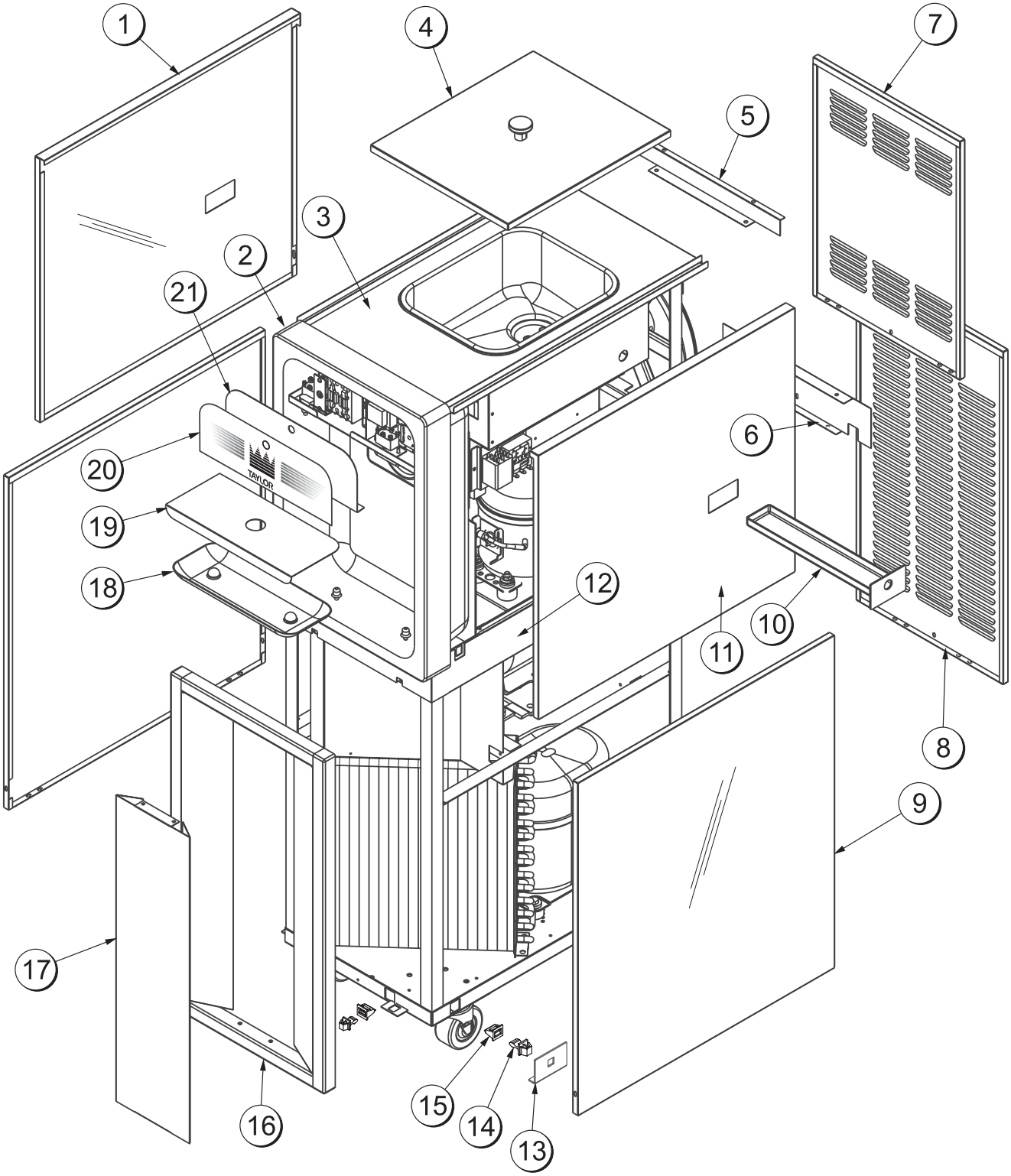


Model 150 Exploded View Parts Identification

ITEM	DESCRIPTION	PART NO.
1	SHELL A.-INSULATED	X50378
1a	BEARING-REAR SHELL	023648
1b	COLLAR-REAR BEARING	025564
1c	TAB-BEARING LOCK	025027
1d	NUT-REAR BEARING	023647
2	BEARING-UNIT REAR	024764
3	PULLEY-10J-12”PD-5/8BORE	025480
4	BELT-POLY V-580J10	025551
5	PULLEY-10J- 1.125PD-5/8BORE	028857
6	GROMMET-7/16 X 5/16 SHOCK	016212
7	CAP-RUBBER MOUNT	011844
8	SPRING-COMP.970X.115X2.00	025707
9	HINGE A.-MOTOR	X25731
10	MOTOR-1/2 HP	024839-
11	CLAMP-MOUNTING	012257
12	RELAY A.-TIMER STIR	X51685-
13	BUSHING-MOUNTING RUBBER	012258
14	TEE-ACCESS 1/4	026686
15	SWITCH-PRESSURE 440 PSI	048230
16	VALVE-ACCESS 1/4FL X 3/8	044455
17	COMPRESSOR AKA9462ZXD	049302-
18	SLEEVE-MT COMPRESSOR	039920
19	GROMMET-COMPRESSOR MT	039919
20	VALVE-ACCESS-1/4 MFLX1/4	047016
21	CASTER-SWIVEL 3 IN. WHEEL	012227
22	BOX A.-CAP & RELAY	X50198
23	BRACKET-FAN	025675
24	CASTER-RIGID 3 IN. WHEEL	012226
25	MOTOR-FAN 35W-40”LEADS	027817-

ITEM	DESCRIPTION	PART NO.
26	FAN-4 BLADE 11 ” PULL 30DEG	028405
27	SHROUD-CONDENSER	047511
28	SHROUD-CONDENSER-FRT-R	047508
29	CONDENSER-AC-12LX14	046556
30	SHROUD-CONDENSER-FRT-L	047507
31	DRYER-FILTER-HP62-3/8 X 1/4	048901
32	BOLT-CARRIAGE 1/4-20 X 3/4ST	012347
33	HOLDER-DRIP TRAY	035866
34	SHROUD A.-CONDENSER	X47506
35	VALVE-EXP-AUTO-1/4S X 1/4	047232
36	BRACKET-SOLENOID VALVE	047538
37	VALVE-SOLENOID 7/64ORF	043449-
38	LIGHT-AMBER-RND-MIX LOW	039707
39	CONTROL A.	X51544-
40	PANEL A.-FRONT	X25036
41	KIT-MOUNTING	047704
42	COMPRESSOR TL3G-R134A	047701-
43	VALVE-EPR 1/4	022665
44	VALVE-ACCESS-1/4 MFLX1/4	047016
45	STUD-NOSE CONE-5/16-18	013496
46	MOTOR-FAN 105CFM 3000RPM	027309-
47	SHROUD-DANFOSS	027386
48	CONDENSER-AC-7X6X1.25-	027155
49	DRYER-CAP. TUBE .026 ID X 8F	048725
50	BOX-ELECTRIC 4 IN SQ PANEL	012128
51	BRACKET-TEMP. CONTROL	035461
52	CONTROL-TEMPERATURE	028914
53	FLOAT A.-MIX LEVEL	X39690
54	SENSOR A.-MIX LEVEL	X39688

Model 150 Panel Identification

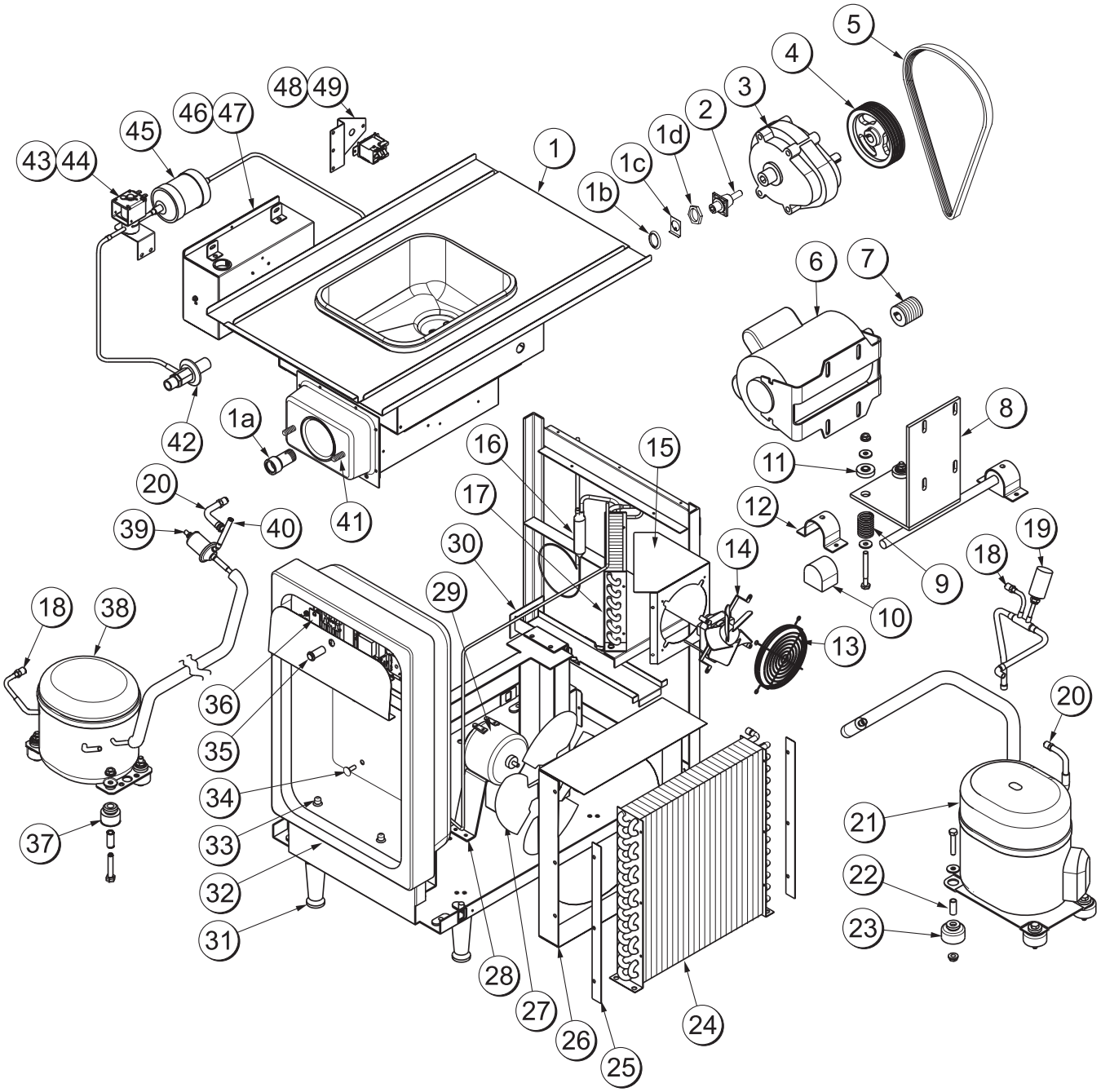


Model 150 Panel Parts Identification

ITEM	DESCRIPTION	PART NO.
1	PANEL-UPPER SIDE LEFT	030783-
2	PANEL A.-FRONT	X25036
3	HOOD A.	X49063
4	COVER A.-HOPPER	X48690
5	TRIM-TOP BACK PANEL	025536
6	TRIM-MIDDLE BACK PANEL	025537
7	PANEL-BACK TOP	050429
8	PANEL-BACK BOTTOM	050430
9	PANEL-LOWER SIDE	030792-
10	PAN-DRIP 11-5/8 LONG	027503
11	PANEL-UPPER SIDE RIGHT	030784-

ITEM	DESCRIPTION	PART NO.
12	TRIM-SIDE & FRONT	025528
13	BRACKET-PANEL	030786
14	FASTENER-DOOR STRIKE	030788
15	FASTENER-DOOR LATCH	030787
16	PANEL A.-LOWER FRONT	X25518
17	PANEL-INSERT	025533-
18	TRAY-DRIP 10-7/8 X 4-7/16	025062
19	SHIELD-SPLASH 11-1/4 X 4	025063
20	DECAL-DEC-TAYLOR	047667
21	PLATE-DEC-MIX LOW	041034-

Model 152 Exploded View

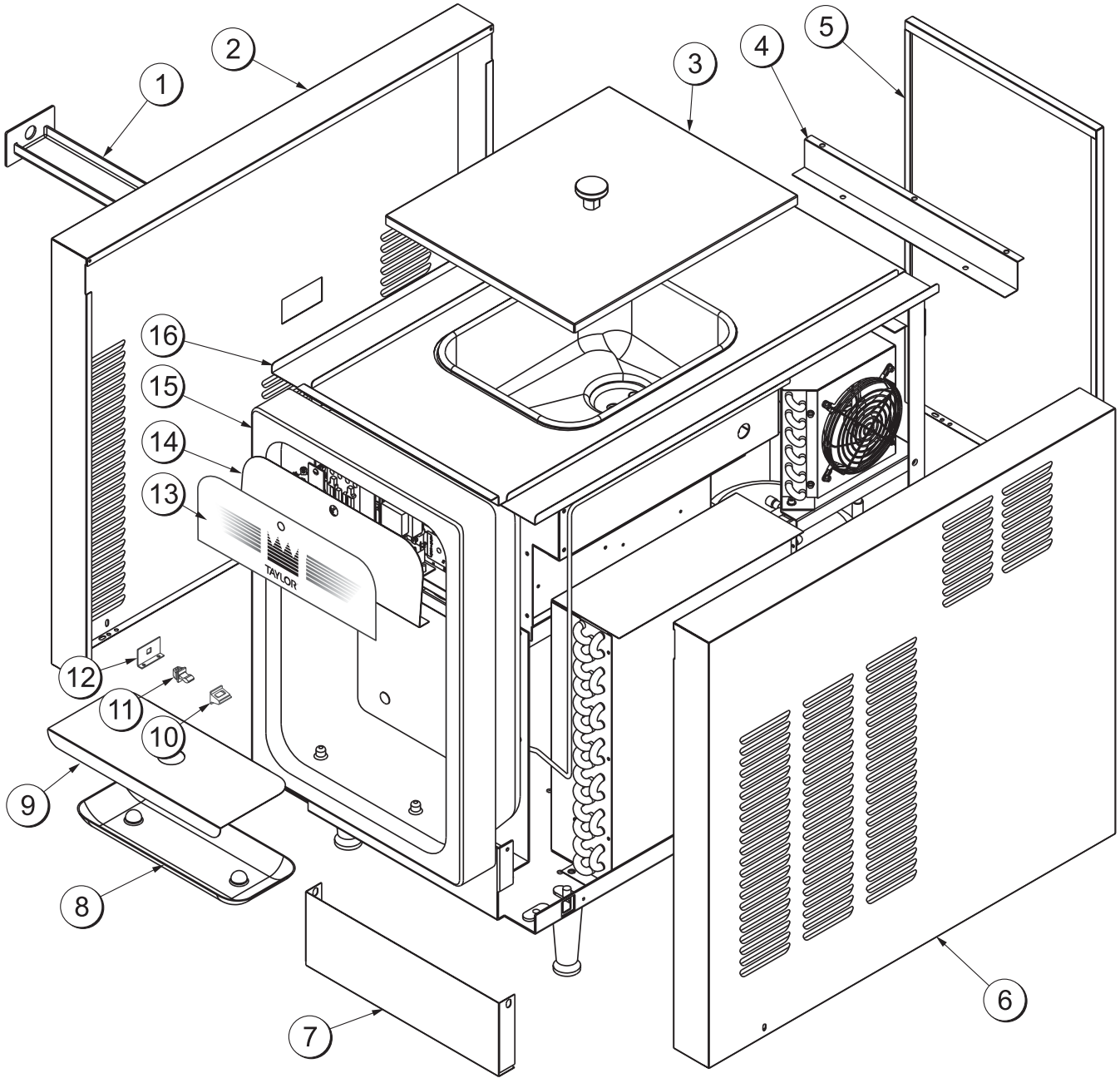


Model 152 Exploded View Parts Identification

ITEM	DESCRIPTION	PART NO.
1	SHELL A.-INSULATED	X50378
1a	BEARING-REAR SHELL	023648
1b	BEARING-UNIT REAR	024764
1c	TAB-BEARING LOCK	025027
1d	NUT-REAR BEARING	023647
2	COLLAR-REAR BEARING	025564
3	GEAR A.*REDUCER 4 TO 1	025770
4	PULLEY-10J-4.50PD-5/8BORE	030455
5	BELT-POLY V-280J10	025776
6	MOTOR-1/2 HP	024839-
7	PULLEY-10J- 1.5PD-5/8BORE	025479
8	HINGE A.-MOTOR	X25896
9	SPRING-COMP.970X.115X2.00	025707
10	BUSHING-MOUNTING RUBBER	012258
11	CAP-RUBBER MOUNT	011844
12	CLAMP-MOUNTING	012257
13	GUARD-FAN	028534-
14	MOTOR-FAN 105CFM 3000RPM	027309-
15	SHROUD-CONDENSER	051542
16	DRYER-CAP. TUBE .026 ID X 8F	048725
17	CONDENSER-AC 7X6X1.25	027155
18	VALVE-ACCESS-1/4 MFLX1/4	047016
19	SWITCH-PRESSURE 440 PSI	048230
20	VALVE-ACCESS 1/4FL X 3/8	044455
21	COMPRESSOR AKA9462ZXD	049302-
22	SLEEVE-MOUNTING-COMP.-AH	039924
23	GROMMET-COMPRESSOR MT	039923

ITEM	DESCRIPTION	PART NO.
24	CONDENSER-AC-12LX14H	046556
25	TRIM-SHROUD-FAN	051560
26	SHROUD-FAN	051559
27	FAN-4 BLADE 11” PUSH 30DEG	027818
28	BRACKET-FAN	025631
29	MOTOR-FAN 35W-40”LEADS	027817-
30	GUIDE A.-DRIP PAN	X28593
31	LEG-4”-3/8-16 STUD-PLASTIC	024755
32	PANEL A.-FRONT	X25036
33	HOLDER-DRIP TRAY	035866
34	BOLT-CARRIAGE 1/4-20 X 3/4	012347
35	LIGHT-AMBER-12V-MIX LOW	039707
36	CONTROL A.*UPPER*	X51544-
37	KIT-MOUNTING COMPRESSOR	047704
38	COMPRESSOR TL3G-R134A	047701-
39	VALVE-EPR 1/4S	022665
40	TEE-ACCESS 1/4	026686
41	STUD-NOSE CONE-5/16-18	013496
42	VALVE-EXP-AUTO-1/4S X 1/4	047232
43	VALVE-SOLENOID 7/64 ORF	043449-
44	BRACKET-SOLENOID	051551
45	DRYER-FILTER-HP62-3/8 X 1/4S	048901
46	CONTROL A. LOWER	X51543-
47	COVER-CONTROL BOX	051552
48	CONTROL-TEMPERATURE	028914
49	BRACKET-TEMP. CONTROL	035461

Model 152 Panel Identification

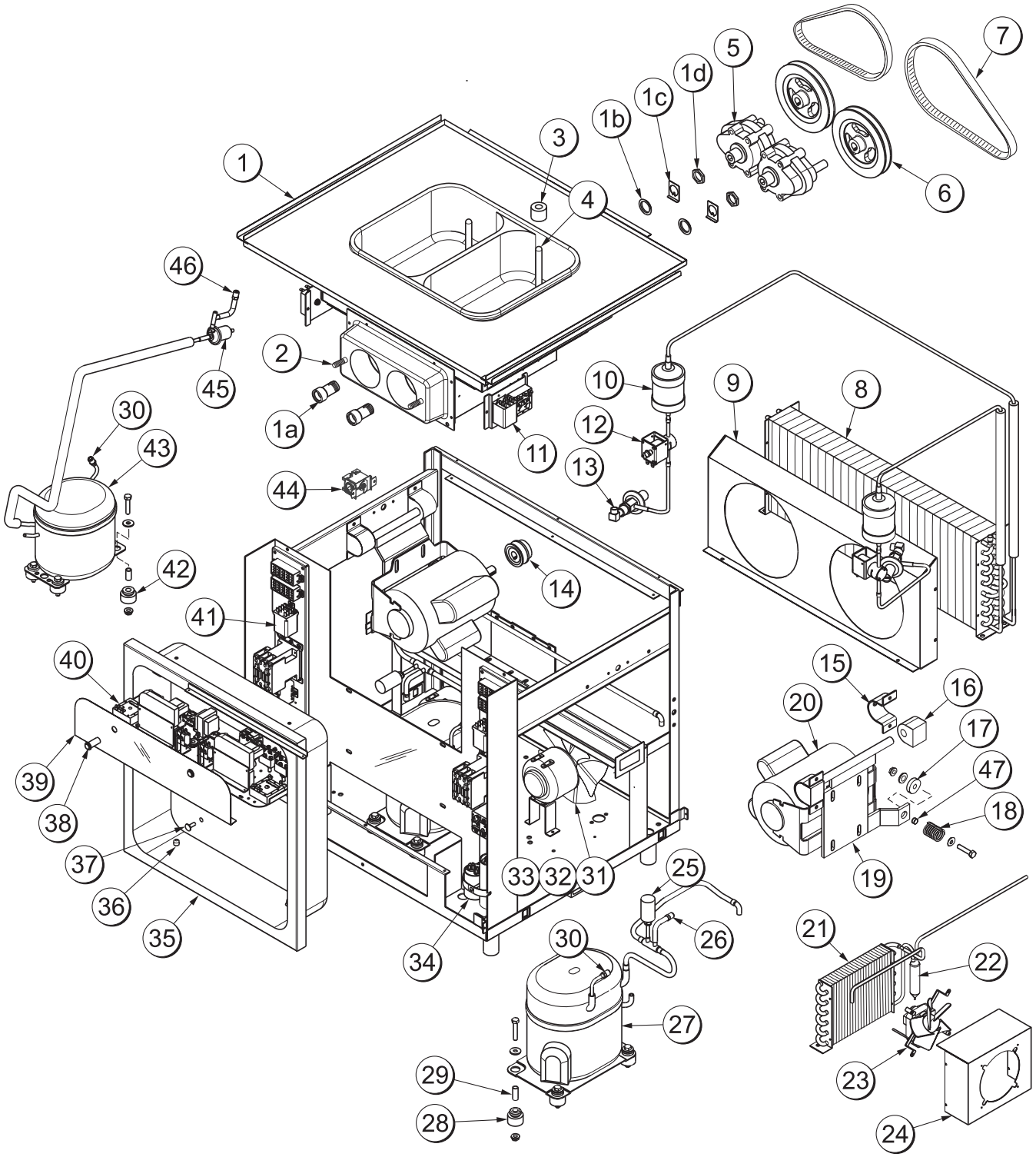


Model 152 Panel Parts Identification

ITEM	DESCRIPTION	PART NO.
1	PAN-DRIP 11-5/8 LONG	027503
2	PANEL-SIDE *LEFT*	051557
3	COVER A.-HOPPER	X48690
4	TRIM-TOP BACK	025866
5	PANEL-REAR	051556
6	PANEL-SIDE *RIGHT*	051558
7	TRIM-FRONT-SS	025862-
8	TRAY-DRIP 10-7/8 X 4-7/16	025062

ITEM	DESCRIPTION	PART NO.
9	SHIELD-SPLASH 11-1/4 X 4-13	025063
10	FASTENER-DOOR LATCH	030787
11	FASTENER-DOOR STRIKE	030788
12	BRACKET-PANEL	030786
13	DECAL-DEC-TAYLOR	047667
14	PLATE-DEC-*MIX LOW	041034
15	PANEL A.-FRONT	X25036
16	HOOD A.	X49065

Model 162 Exploded View

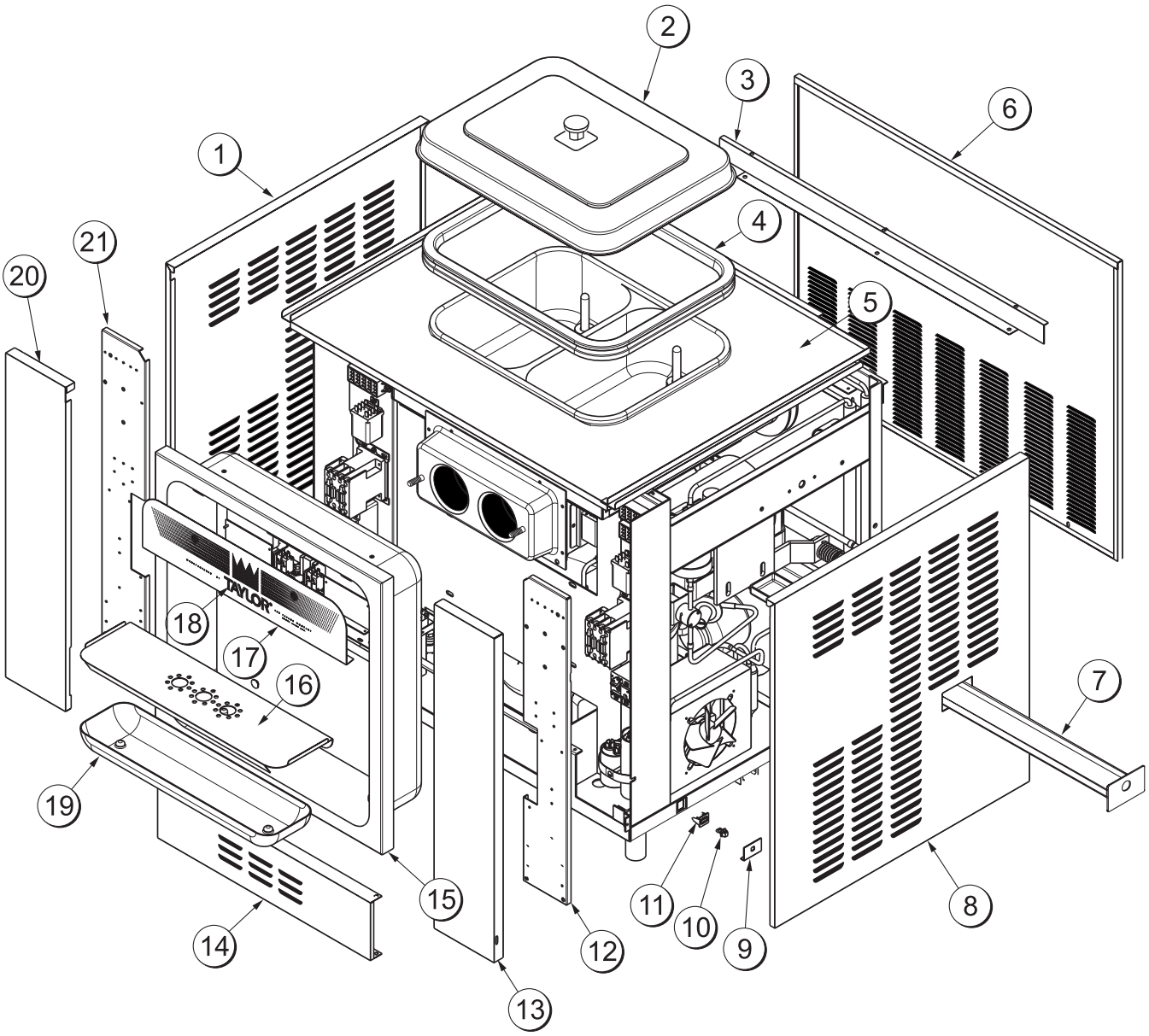


Model 162 Exploded View Parts Identification

ITEM	DESCRIPTION	PART NO.
1	SHELL A.-INSULATED	X50150
1a	BEARING-REAR SHELL	023648
1b	COLLAR-REAR BEARING	025564
1c	TAB-BEARING LOCK	025027
1d	NUT-REAR BEARING	023647
2	STUD-NOSE CONE-5/16-18	013496
3	FLOAT A.-MIX LEVEL	X39690
4	SENSOR A.-MIX LEVEL	X39688
5	GEAR A.-REDUCER 4 TO 1	025770
6	PULLEY-5.7” PITCH DIA X 5/8	041498
7	BELT-AX23	041137
8	CONDENSER-AC-9HX24WX2.5	047146
9	SHROUD-CONDENSER	047274
10	DRYER-FILTER-HP62-3/8 X 1/4	048901
11	RELAY A.-TIMER STIR	X51633-
12	VALVE-SOLENOID 7/64ORF	043449-27
13	VALVE-EXP-AUTO-1/4 X 1/4FPT	047232
14	PULLEY-AK20X5/8	041162
15	CLAMP-MOUNTING	012257
16	BUSHING-MOUNTING RUBBER	012258
17	GROMMET-7/16 X 5/16	016212
18	SPRING-COMP.970X.115X2.00	025707
19	HINGE A.-MOTOR RIGHT	X35899
19	HINGE A.-MOTOR LEFT	X35900
20	MOTOR-1/2 HP	024839-
21	CONDENSER-AC-7X6X1.25	027155

ITEM	DESCRIPTION	PART NO.
22	DRYER-CAP. TUBE .026ID X 13F	047699
23	MOTOR-FAN 105CFM 3000RPM	027309-
24	SHROUD-DANFOSS	027386
25	SWITCH-PRESSURE 440 PSI	048230
26	VALVE-ACCESS 1/4FL X 1/4	044404
27	COMPRESSOR AKA9462ZXD	049302-
28	GROMMET-COMPRESSOR MT	039919
29	SLEEVE-MOUNTING-COMP	039920
30	VALVE-ACCESS-1/4 MFLX1/4	047016
31	FAN-5 BLADE 8” PUSH 37 DEG	047231
32	MOTOR-FAN-25W 230V	015184-
33	BRACKET-FAN	047273
34	CONTROL A.-*SGL PWR*RIGHT	X50147-
35	PANEL A.-FRONT	X30711
36	HOLDER-DRIP TRAY	035866
37	BOLT-CARRIAGE 1/4-20 X 1/2ST	036620
38	LIGHT-AMBER-12V-MIX LOW	039707
39	PLATE-DEC	039723-
40	CONTROL A. FRONT	X51730-
41	CONTROL A.-*LEFT	X50146-
42	KIT-MOUNTING-COMPRESSOR	047704
43	COMPRESSOR TL3G-R134A	047701-
44	CONTROL-TEMPERATURE	028914
45	VALVE-EPR 1/4S	022665
46	VALVE-ACCESS 1/4FL X 3/8SDR	044455
47	CAP-RUBBER MOUNT	011844

Model 162 Panel Identification

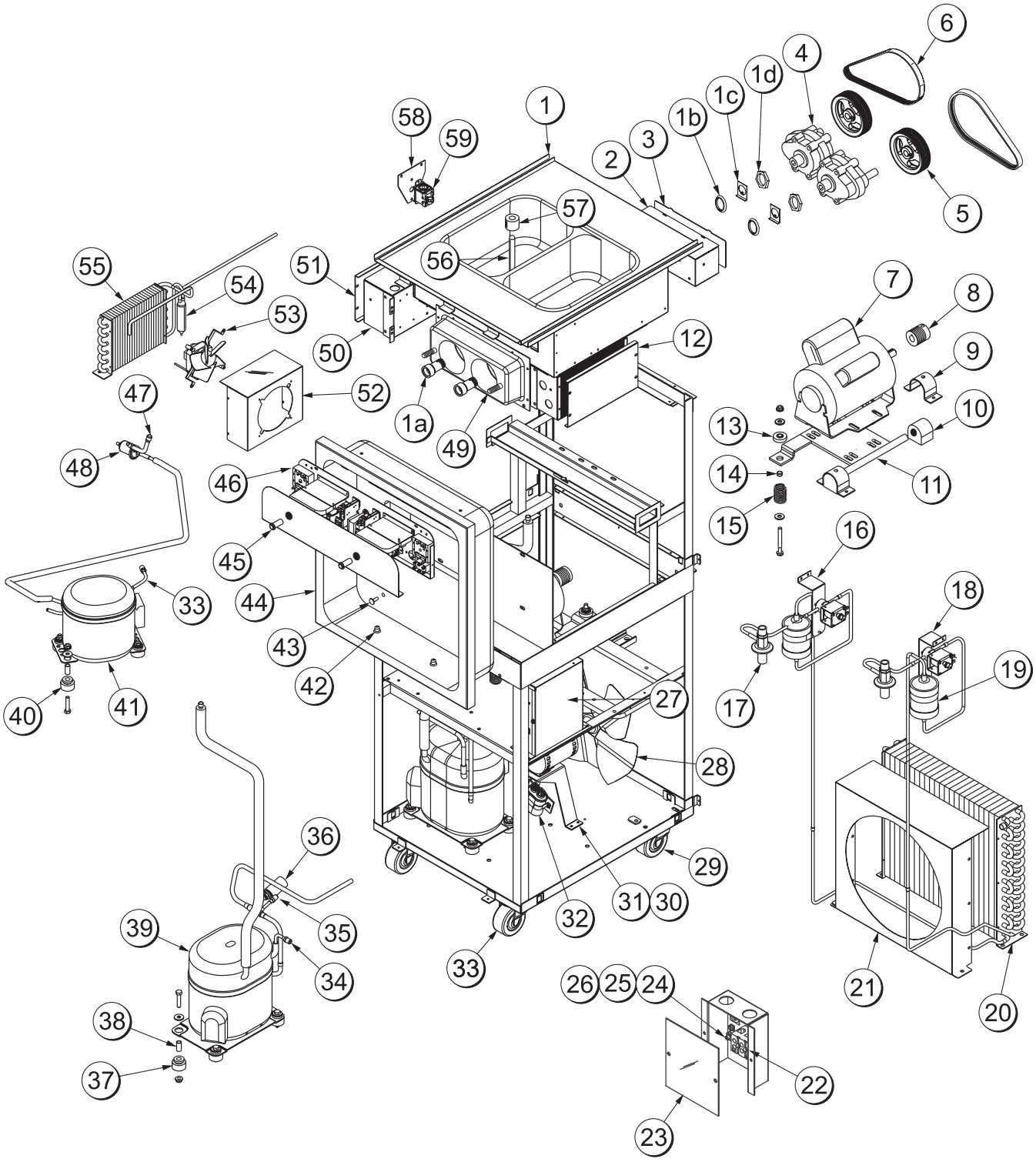


Model 162 Panel Parts Identification

ITEM	DESCRIPTION	PART NO.
1	PANEL-SIDE *LEFT	050213-
2	COVER A.-HOPPER	X37963
3	TRIM-PANEL REAR	035923
4	GASKET-HOPPER COVER-8QT	037042
5	HOOD A.	X35918
6	PANEL-REAR	047276-
7	PAN-DRIP 19-1/2 LONG	035034
8	PANEL-SIDE *RIGHT	050214-
9	BRACKET-PANEL	030786
10	FASTENER-DOOR STRIKE	030788
11	FASTENER-DOOR LATCH	030787

ITEM	DESCRIPTION	PART NO.
12	PANEL A.-CONTROL RIGHT	X37191
13	PANEL-FRONT RIGHT	035933-
14	TRIM-FRONT	050212-
15	PANEL A.-FRONT	X30711
16	SHIELD-SPLASH	030789
17	PLATE-DEC	039723-
18	DECAL-DEC	047666
19	TRAY-DRIP-16-7/8L X 4-3/8	030565
20	PANEL A.-CONTROL LEFT	X37190
21	PANEL-FRONT LEFT	035932-

Model 168 Exploded View

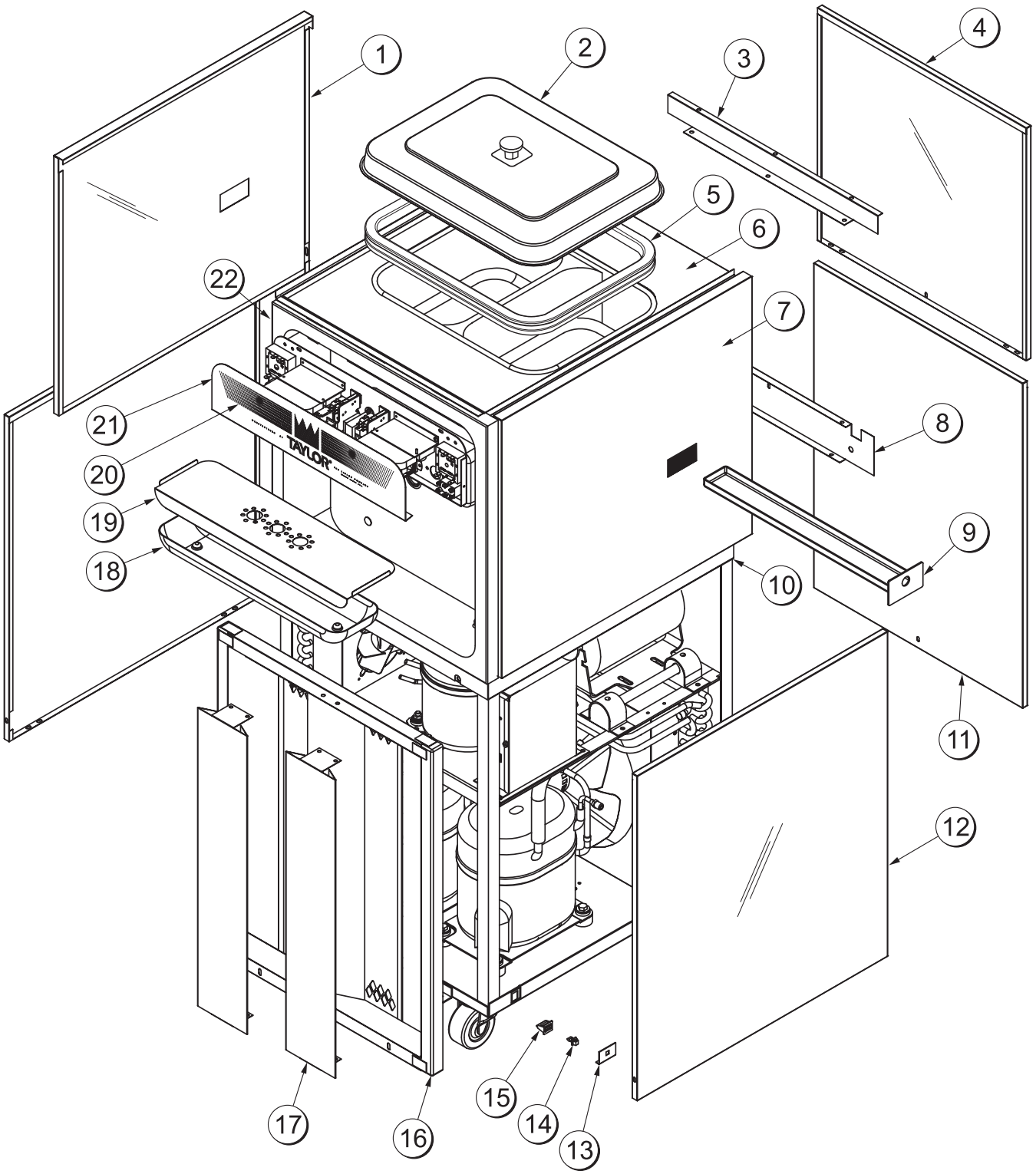


Model 168 Exploded View Parts Identification

ITEM	DESCRIPTION	PART NO.
1	SHELL A.-INSULATED	X50150
1a	BEARING-REAR SHELL	023648
1b	COLLAR-REAR BEARING	025564
1c	TAB-BEARING LOCK	025027
1d	NUT-BRASS BEARING	023647
2	RELAY A.-STIR TIMER	X51323-
3	COVER-BOX STIR RELAY	051703
4	GEAR A.-REDUCER 4 TO 1	025770
5	PULLEY-10J-4.50PD-5/8BORE	030455
6	BELT-POLY V-460J10	028182
7	MOTOR-1/2 HP	024839-
8	PULLEY-10J- 1.5PD-5/8BORE	025479
9	CLAMP-MOUNTING	012257
10	BUSHING-MOUNTING RUBBER	012258
11	HINGE A.-MOTOR *LEFT	X30812
	HINGE A.-MOTOR *RIGHT	X31173
12	CONTROL A. *RIGHT	X50342-
13	GROMMET-7/16 X 5/16	016212
14	CAP-RUBBER MOUNT	011844
15	SPRING-COMP.970X.115X2.00	025707
16	VALVE A.-SOLENOID *LEFT	X50259-
17	VALVE-EXP-AUTO-1/4S X 1/4FPT	047232
18	VALVE A.-SOLENOID *RIGHT	X50260-
19	DRYER-FILTER-HP62-3/8 X 1/4S	048901
20	CONDENSER-AC-15LX14H	047255
21	SHROUD A.-CONDENSER *AIR	X47370
22	BLOCK-TERMINAL 2P-L1,L2	039422
23	COVER-SPLICE BOX	028224
24	LUG-GROUNDING 260	020928
25	SCREW-10-32 X 1/2 MF HEX	020982
26	NUT-10-32 MF LOCK	020983
27	BOX A.-CAP&RELAY	X50237-

ITEM	DESCRIPTION	PART NO.
28	FAN-5 BLADE 12”PUSH 32DEG	047279
29	CASTER-RIGID 3 IN. WHL	012226
30	BRACKET-FAN	050239
31	MOTOR-FAN 120W 208/230V 60H	041401-
32	CAPACITOR-RUN-4UF-370V	019624
33	CASTER-SWIVEL 3 IN. WHEEL	012227
34	VALVE-ACCESS-1/4 MFLX1/4 S-9	047016
35	VALVE-ACCESS 1/4FL X 1/4S	044404
36	SWITCH-PRESSURE 440 PSI	048230
37	GROMMET-COMPRESSOR MT	039919
38	SLEEVE-MOUNTING-COMP-AE	039920
39	COMPRESSOR AKA9462ZXD	049302-
40	KIT-MOUNTING COMPRESSOR	047704
41	COMPRESSOR TL3G-R134A	047701-
42	HOLDER-DRIP TRAY	035866
43	BOLT-CARRIAGE 1/4-20 X 3/4ST	012347
44	PANEL A.-FRONT	X30711
45	LIGHT-AMBER-12 V-MIX LOW	039707
46	CONTROL A. FRONT	X51730-
47	VALVE-ACCESS 1/4FL X 3/8S	044455
48	VALVE-EPR 1/4S	022665
49	STUD-NOSE CONE-5/16-18	013496
50	CONTROL A. *LEFT	X50342-
51	COVER-CONTROL BOX	047378
52	SHROUD-DANFOSS	027386
53	MOTOR-FAN 105CFM 3000RPM	027309-
54	DRYER-CAP TUBE .026 ID X 13F	047699
55	CONDENSER-AC-7X6X1.25	027155
56	SENSOR A.-MIX LEVEL	X39688
57	FLOAT A.-MIX LEVEL	X39690
58	BRACKET-TEMP CONTROL	020115
59	CONTROL-TEMPERATURE	028914

Model 168 Panel Identification

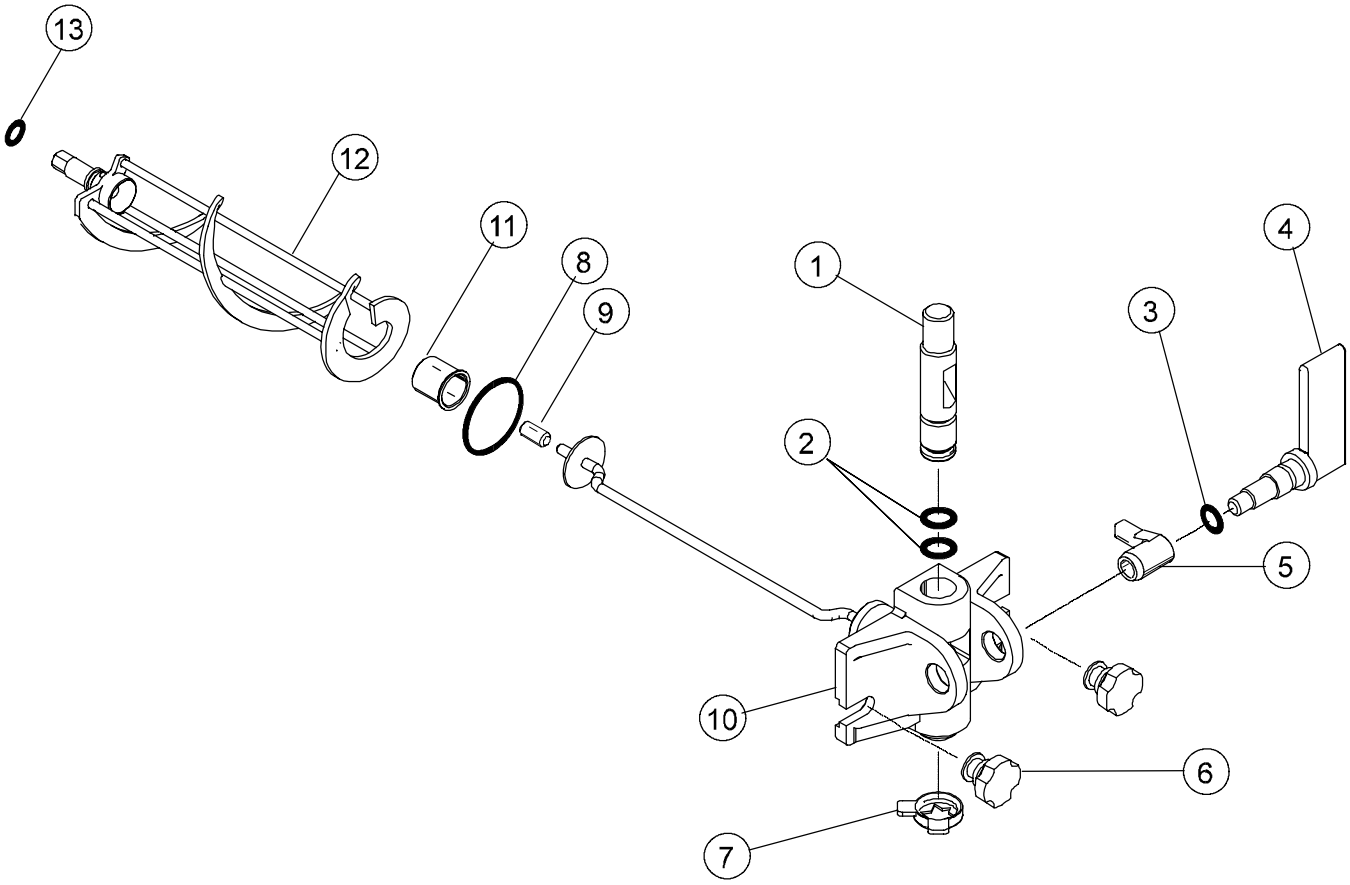


Model 168 Panel Parts Identification

ITEM	DESCRIPTION	PART NO.
1	PANEL-UPPER SIDE LEFT	030783-
2	COVER A.-HOPPER	X37963
3	TRIM-PANEL TOP BACK	030775
4	PANEL-TOP BACK	030790-
5	GASKET-HOPPER COVER-8QT	037042
6	HOOD A.	X34846
7	PANEL-UPPER SIDE RIGHT	030784-
8	TRIM-MIDDLE BACK PANEL	030795
9	PAN-DRIP 17-1/4”LONG	027504
10	TRIM-SIDE & FRONT	030774
11	PANEL-BOTTOM BACK	050244-

ITEM	DESCRIPTION	PART NO.
12	PANEL-LOWER SIDE	030792-
13	BRACKET-PANEL	030786
14	FASTENER-DOOR STRIKE	030788
15	FASTENER-DOOR LATCH	030787
16	PANEL A.-LOWER FRONT	X30747
17	INSERT-FRONT·PANEL	030773-
18	TRAY-DRIP-16-7/8L X 4-3/8	030565
19	SHIELD-SPLASH	030789
20	DECAL-DEC-TAYLOR	047666
21	PLATE-DEC	039723-
22	PANEL A.-FRONT	X30711

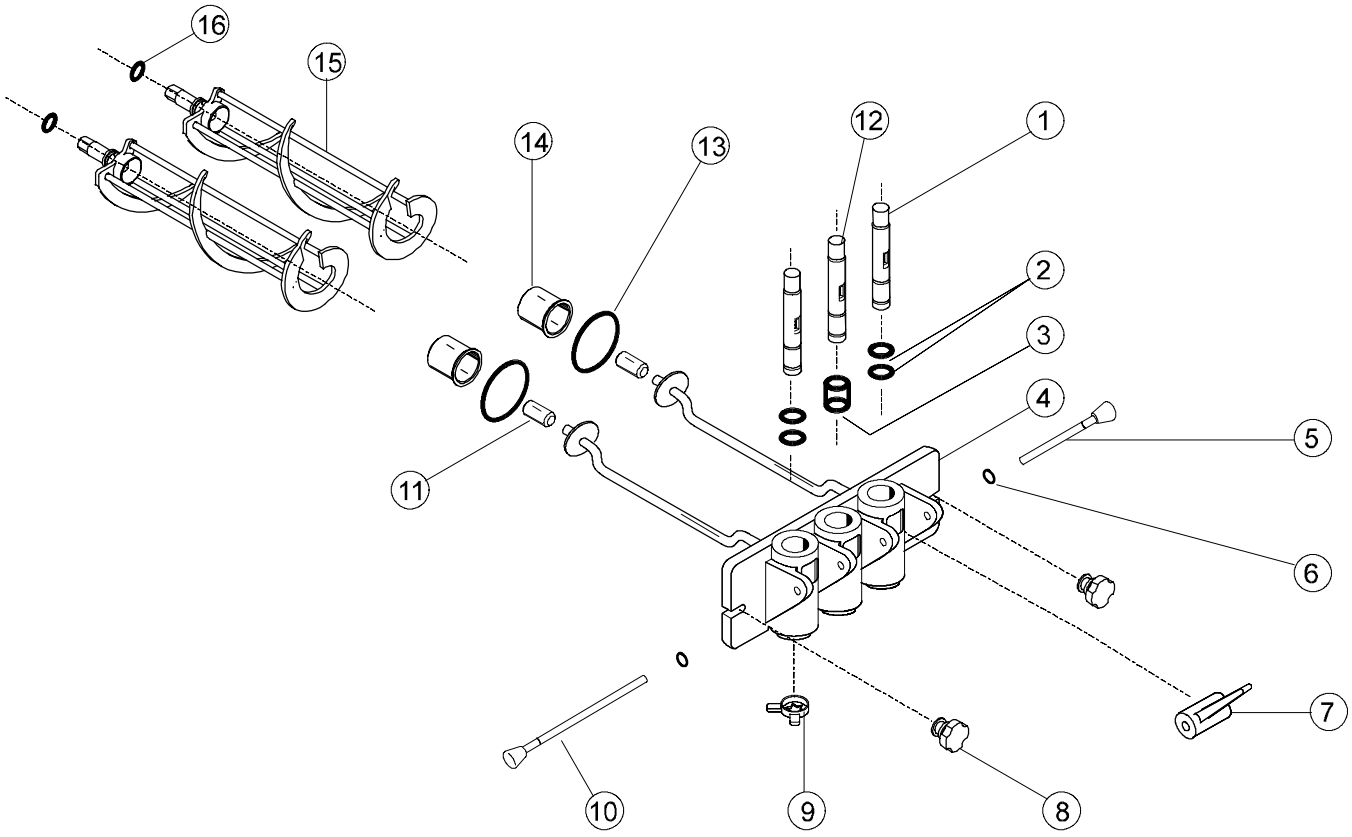
Beater & Door A. (Models 150/152)



ITEM	DESCRIPTION	PART NO.
1	DRAW VALVE	024763
2	O-RING-7/8 OD x .103 W	014402
3	O-RING-3/4 OD x .103 W	015835
4	DRAW VALVE HANDLE	024762
5	VALVE LIFTER ARM	024761
6	HAND SCREW (STUD NUT)	034829
7	DESIGN CAP	014218

ITEM	DESCRIPTION	PART NO.
8	O-RING-2-3/4 OD x .139 W	019998
9	GUIDE BEARING	014496
10	DOOR A.-1 SPOUT	X38959-SER
11	FRONT BEARING	023262
12	BEATER ASSEMBLY	X24689
13	O-RING-13/16 OD .139 W	021278

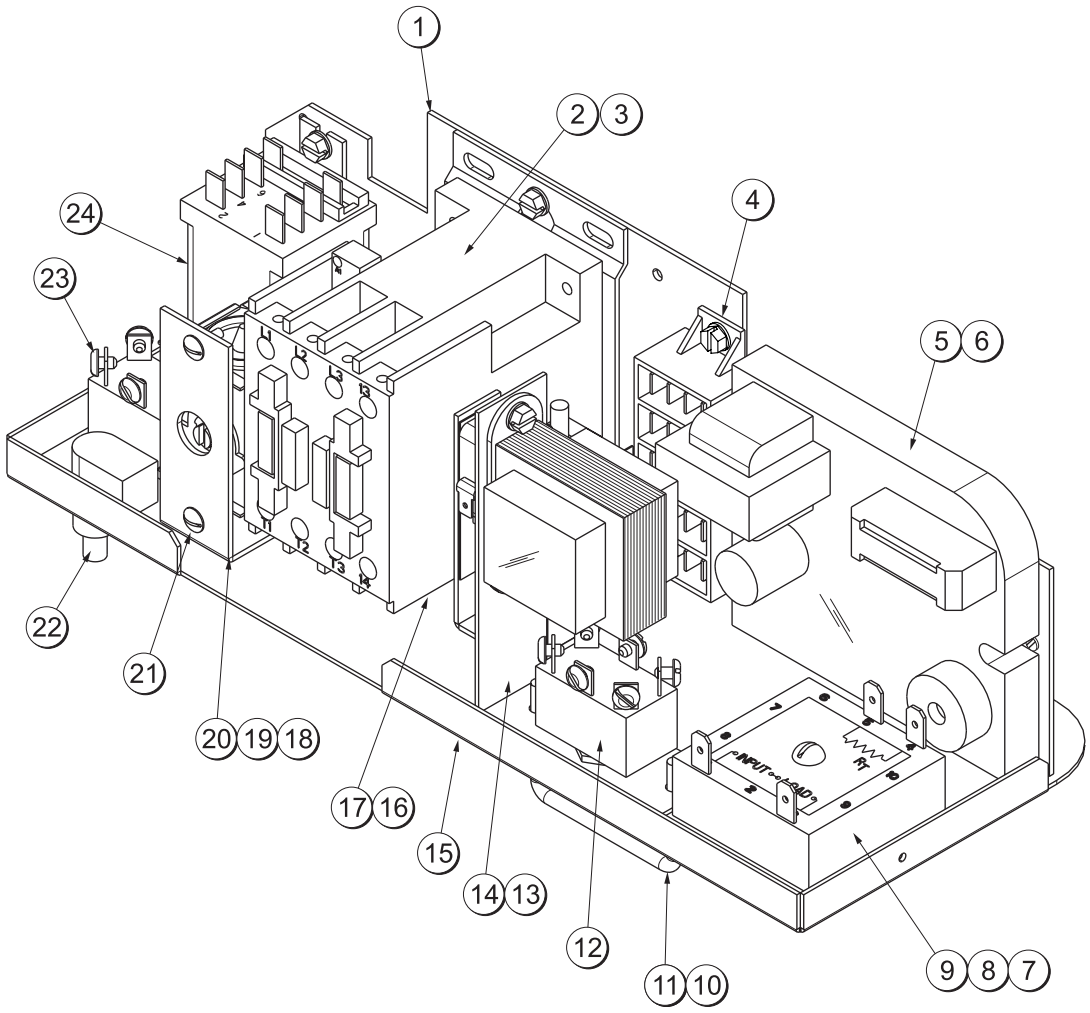
Beater & Door A. (Models 162/168)



ITEM	DESCRIPTION	PART NO.
1	DRAW VALVE	024763
2	O-RING-7/8 OD x .103 W	014402
3	SEAL-VALVE	030930
4	DOOR A.-3 SPOUT	X30753-SER
5	PIVOT PIN A.-SHORT	X38539
6	O-RING-5/16 OD x .070 W	016272
7	DRAW VALVE HANDLE	030564
8	HAND SCREW (STUD NUT)	034829

ITEM	DESCRIPTION	PART NO.
9	DESIGN CAP	014218
10	PIVOT PIN A.-LONG	X38538
11	GUIDE BEARING	014496
12	CENTER DRAW VALVE	031164
13	O-RING-2-3/4 OD x .139 W	019998
14	FRONT BEARING	023262
15	BEATER ASSEMBLY	X24689
16	O-RING-13/16 OD x .139 W	021278

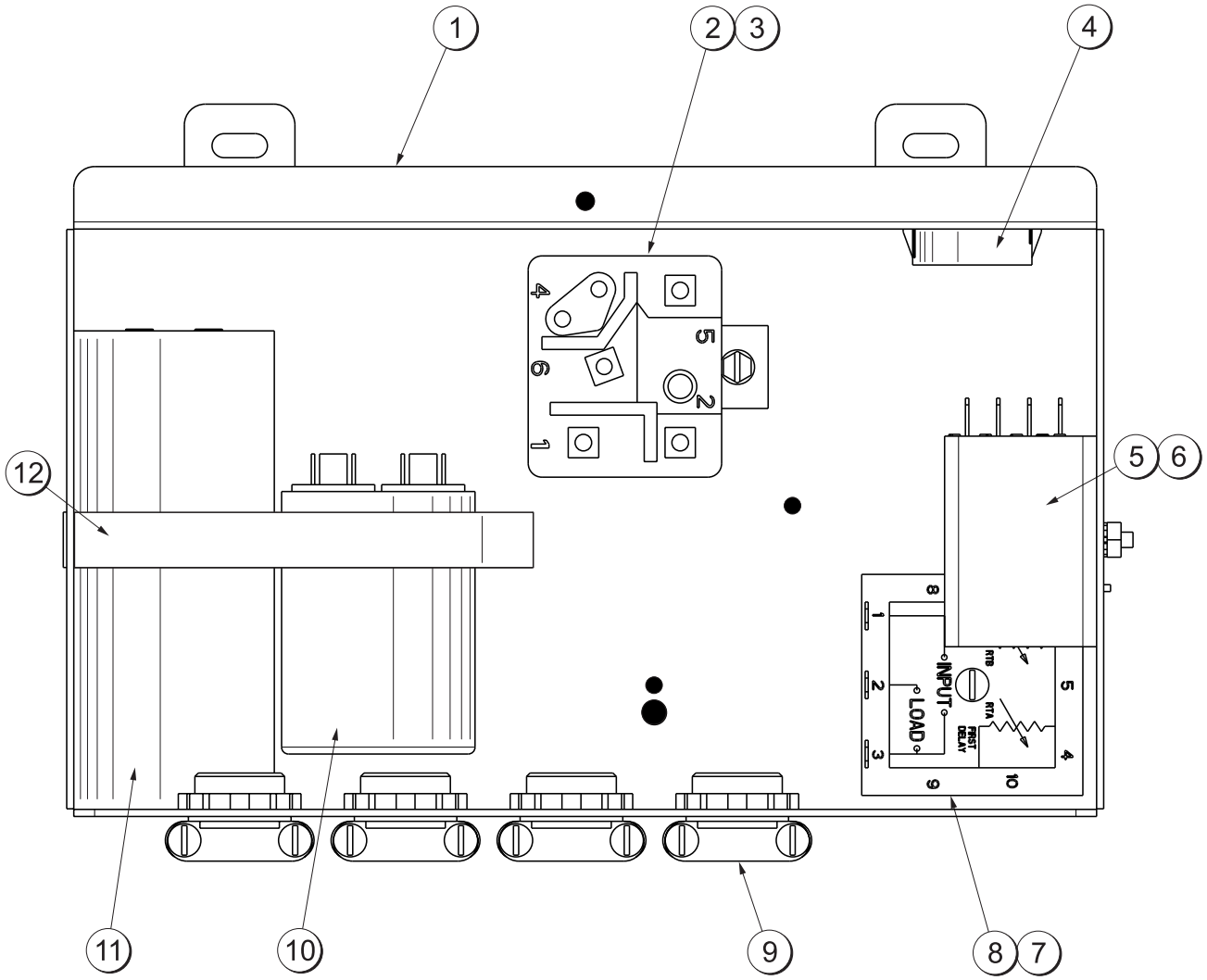
Control A.-Upper - X51544-27 (Models 150 & 152)



ITEM	DESCRIPTION	PART NO.
1	MOUNT-CONTROL	029506
2	RELAY-3 POLE-20A-208/240	012725-
3	SCREW-8X1/4 SL HEX HD TYP B	009894
4	BLOCK-TERMINAL 5 POLE	024329
5	CONTROL-VISCOSITY-WATT	037260-
6	SCREW-8 X 7/8 TYPE B SLOT	026925
7	NUT-10-32 HEX	005598
8	SCREW-10-32X1 RHM ZP STEEL	004455
9	TIMER A.-CYCLE-14 MIN	X31959-
10	NUT-8-32 HEX	000969
11	GUARD-SWITCH	025496
12	SWITCH A.-TOGGLE	X35441

ITEM	DESCRIPTION	PART NO.
13	TRANS-CONT-ANTICIPATOR	010246-
14	BRACKET-TRANSFORMER	041258
15	CHANNEL-CONTROL	029507-
16	INSULATION-SWITCH	034780
17	SWITCH A.-DRAW SS W/TIMER	X32245
18	SCREW-8-32 X 1/4 RHM	000953
19	BRACKET-STANDBY	034454
20	CONTROL-TEMPERATURE	028914
21	SCREW-6-32X3/8 BIN.HD SLOT	002201
22	SWITCH-PUSHBUTTON-SPST	016530
23	SWITCH A.-TOGGLE	X51579
24	RELAY-DPDT-20 A-230 V	026581-

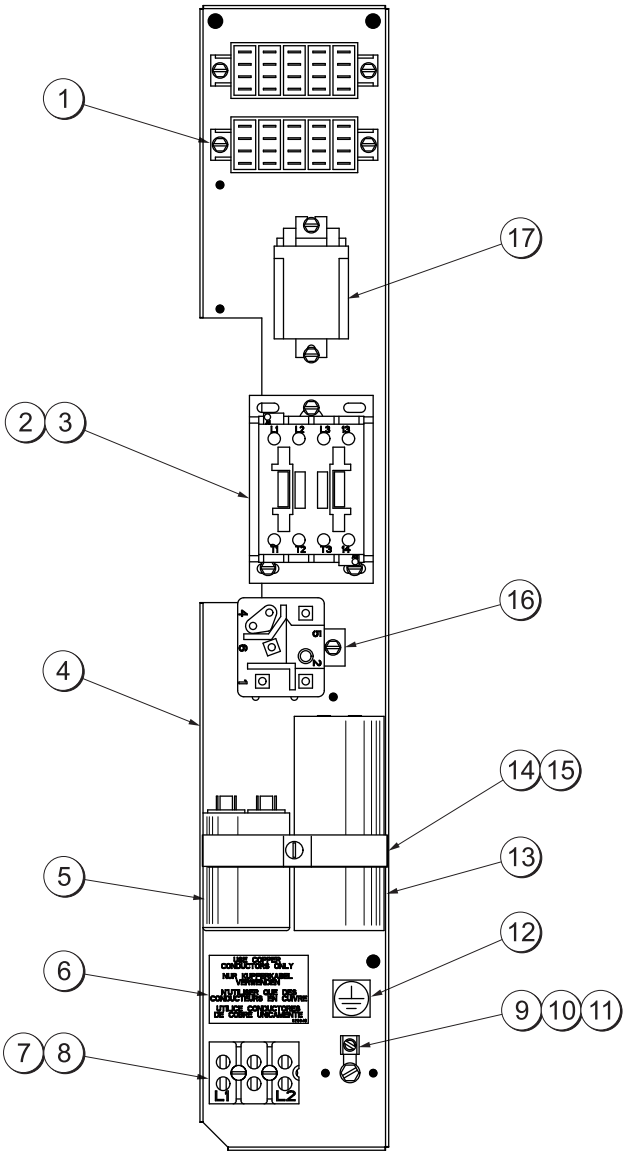
Control A. – X51543-27 (Model 152)



ITEM	DESCRIPTION	PART NO.
1	BOX A.-CONTROL	X51562
2	RELAY-START-COMPRESSOR	048150
3	SCREW-8X1/4 SL HEX HD TYP B	009894
4	BUSHING-SNAP 15/16 ID	023396
5	RELAY-3PDT-10A-208/240V	023845-
6	NUT-6-32 HEX	000927

ITEM	DESCRIPTION	PART NO.
7	SCREW-8 X 1 PAN HD TYPE A	017817
8	TIMER-CYCLE 5SEC ON/120SEC	037188-
9	CONNECTOR-BX 3/8 STR	014569
10	CAPACITOR-RUN- 15UF/370V	027087
11	CAPACITOR-START- 72-88UF	039567
12	STRAP-CAPACITOR 5-5/8 IN.	030258

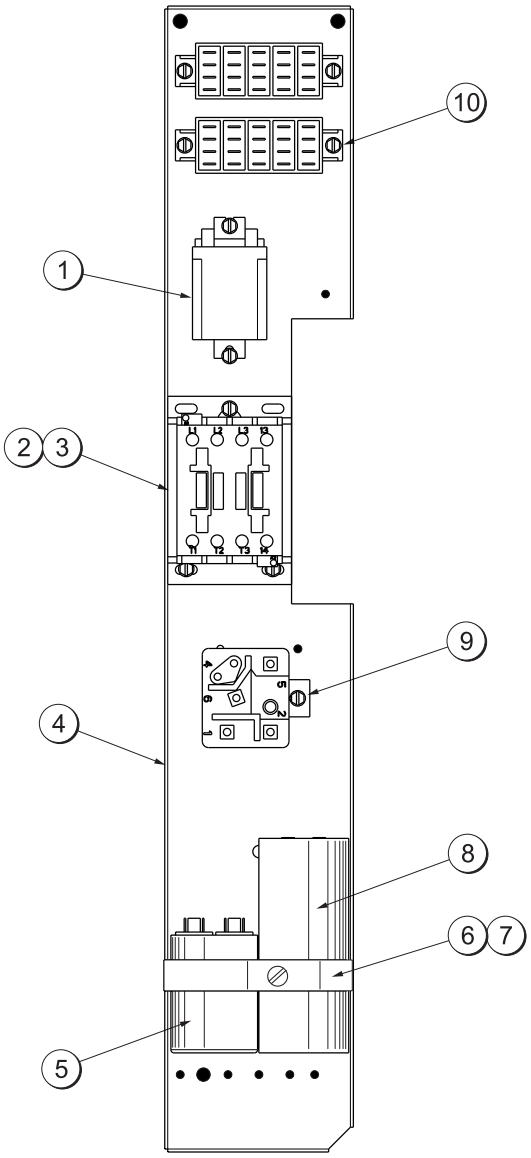
Control A. – X50146–27 (Model 162 Left)



ITEM	DESCRIPTION	PART NO.
1	BLOCK-TERMINAL 5 POLE	024329
2	RELAY-3 POLE-20A-208/240	012725-33
3	SCREW-8X1/4 SL HEX HD	009894
4	PANEL A.-CONTROL LEFT	X37190
5	CAPACITOR-RUN- 15UF/370V	027087
6	LABEL-COPPER COND ONLY	025948
7	BLOCK-TERMINAL 2P-L1,L2	039422
8	SCREW-8 X 1-1/4 RD HD TYP B	039420
9	LUG-GROUNDING 260	020928

ITEM	DESCRIPTION	PART NO.
10	SCREW-10-32X1/2 MF HEX CAP	020982
11	NUT-10-32 MF LOCK	020983
12	LABEL-GROUNDING SYMBOL	017669
13	CAPACITOR-START- 72-88UF	039567
14	STRAP-CAPACITOR U-SHAPE	035904
15	SCREW-10-32X1-3/4 RHM-SS	013195
16	RELAY-START-COMPRESSOR	048150
17	RELAY-DPDT-20 A-230 V	026581-

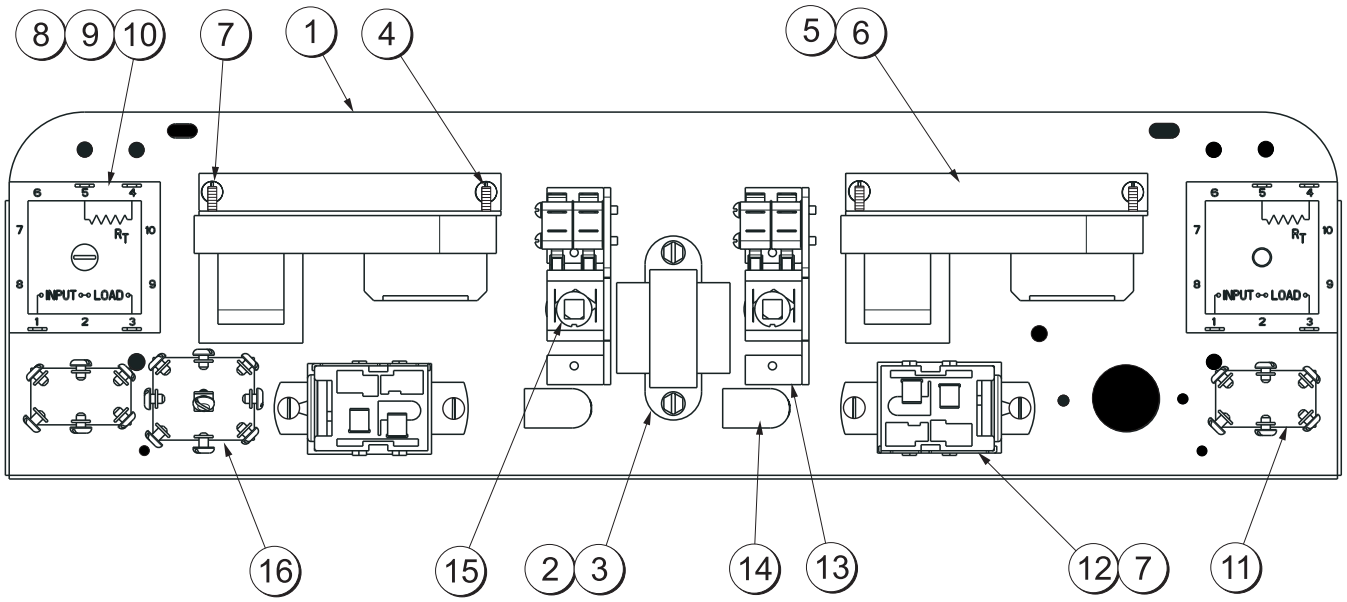
Control A. – X50147–27 (Model 162 Right)



ITEM	DESCRIPTION	PART NO.
1	RELAY-DPDT-20 A-230 V	026581-
2	RELAY-3 POLE-20A-208/240	012725-
3	SCREW-8X1/4 SL HEX HD	009894
4	PANEL A.-CONTROL RIGHT	X37191
5	CAPACITOR-RUN- 15UF/370V	027087

ITEM	DESCRIPTION	PART NO.
6	STRAP-CAPACITOR U-SHAPE	035904
7	SCREW-10-32X1-3/4 RHM-SS	013195
8	CAPACITOR-START-72-88UF/330	039567
9	RELAY-START-COMPRESSOR	048150
10	BLOCK-TERMINAL 5 POLE	024329

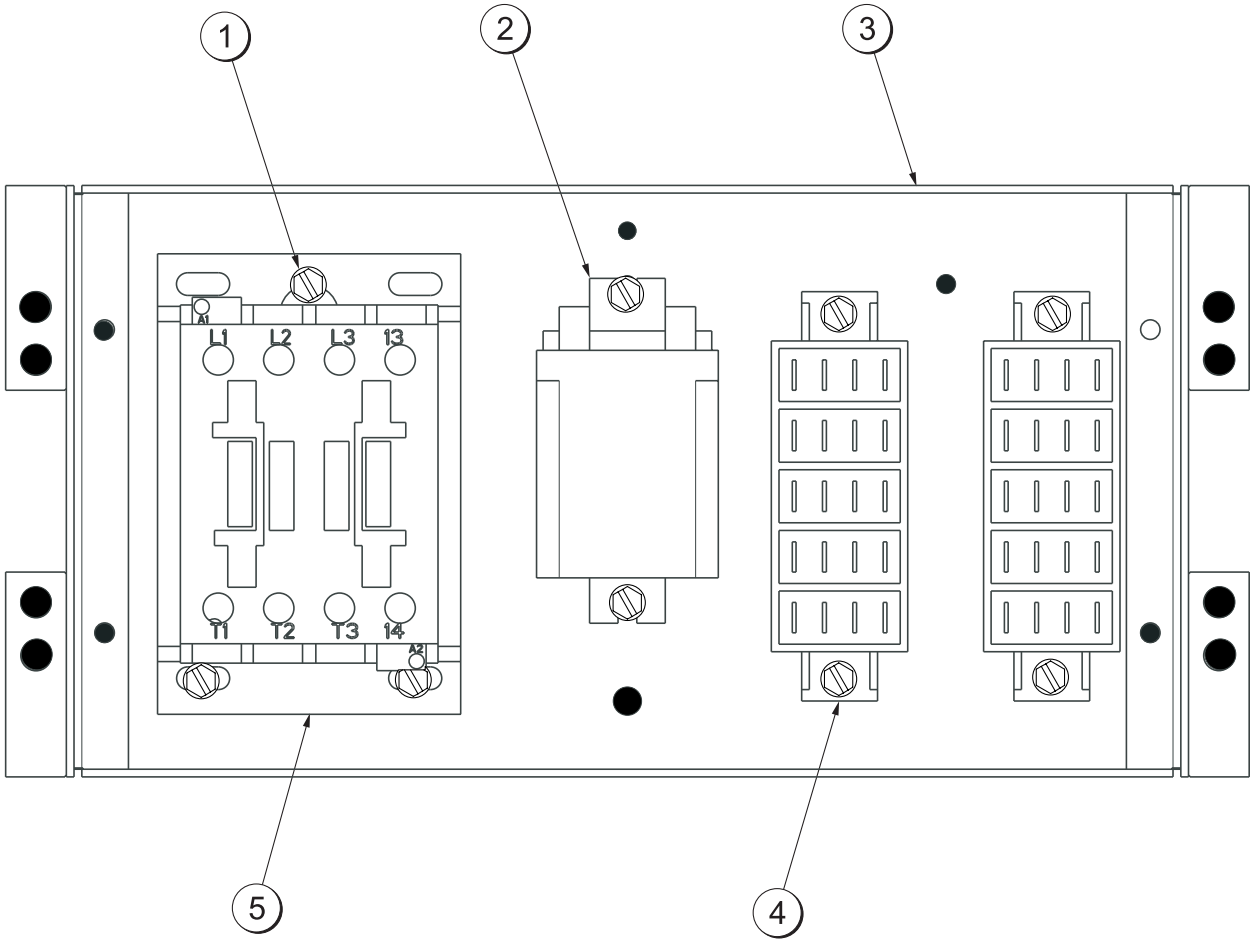
Control A. – X51730–27 (Models 162 & 168 Front)



ITEM	DESCRIPTION	PART NO.
1	RELAY-DPDT-20 A-230 V	026581-
1	CHANNEL-CONTROL	030742
2	TRANS-CONT-ANTICIPATOR	010246-
3	SCREW-8X1/4 SL HEX HD TYP B	009894
4	SCREW-8 X 7/8 TYPE B SLOT	026925
5	CONTROL-VISCOSITY-WATT	037260-
6	BRACKET-CONTROL	030807
7	SCREW-6-32X3/8 BIN.HD SLOT	002201
8	TIMER A.-CYCLE-14 MIN	X31959-

ITEM	DESCRIPTION	PART NO.
9	NUT-10-32 HEX	005598
10	SCREW-10-32X1-1/4 TRUSS HD	032936
11	SWITCH-TOGGLE-DPDT	014464
12	CONTROL-TEMPERATURE	028914
13	SWITCH A.-DRAW	X32106
14	SWITCH-PUSHBUTTON-SPST	016530
15	ARM A.-SWITCH	X30736
16	SWITCH A.-MIX REFRIG.	X51635

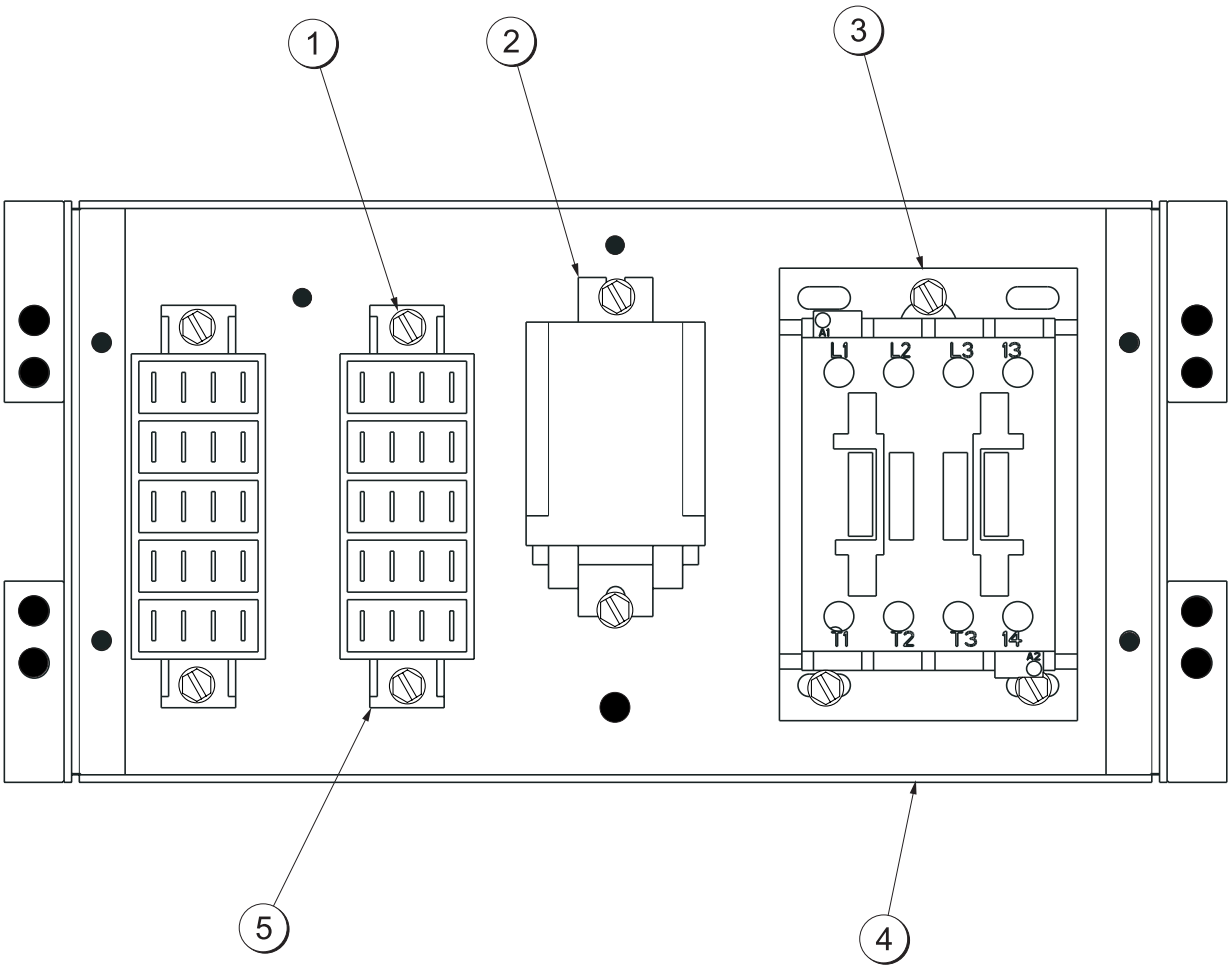
Control A. – X50342–27L (Model 168 Left)



ITEM	DESCRIPTION	PART NO.
1	SCREW-8X1/4 SL HEX HD TYP B	009894
2	RELAY-DPDT-20 A-230 V	026581-
3	BOX A.-CONTROL	X47398

ITEM	DESCRIPTION	PART NO.
4	BLOCK-TERMINAL 5 POLE	024329
5	RELAY-3 POLE-20A-208/240	012725-

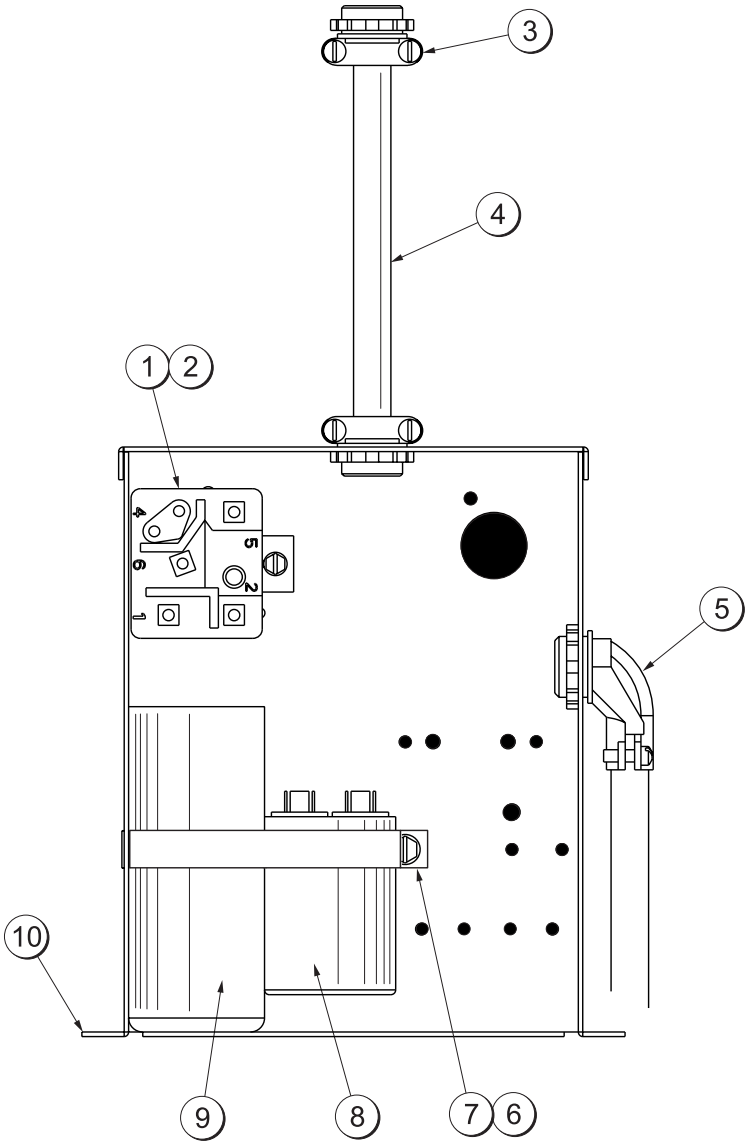
Control A. – X50342–27R (Model 168 Right)



ITEM	DESCRIPTION	PART NO.
1	SCREW-8X1/4 SL HEX HD TYP B	009894
2	RELAY-DPDT-20 A-230 V	026581-
3	RELAY-3 POLE-20A-208/240	012725-

ITEM	DESCRIPTION	PART NO.
4	BOX A.-CONTROL	X47398
5	BLOCK-TERMINAL 5 POLE	024329

Box A.-Cap & Relay - X50198-27 (Model 150)

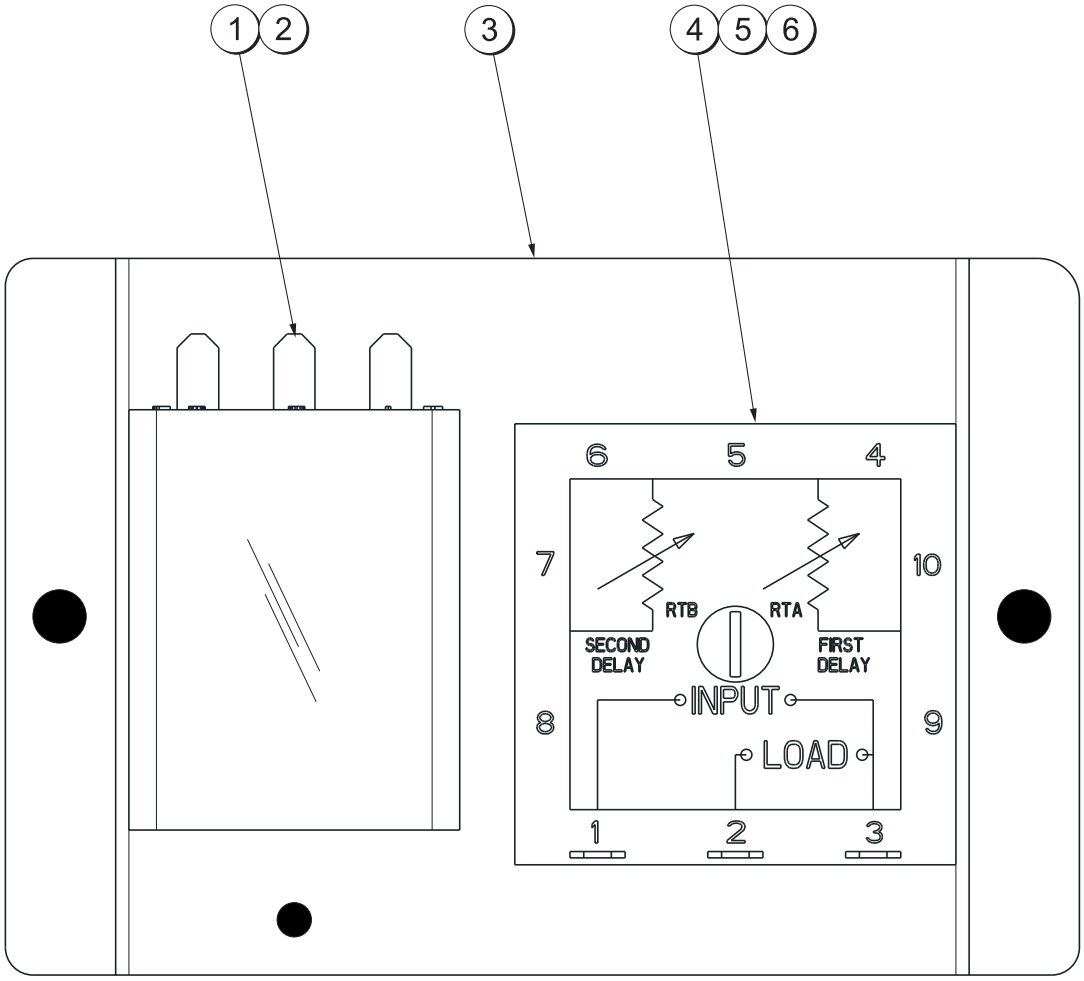


ITEM	DESCRIPTION	PART NO.
1	RELAY-START-COMPRESSOR	048150
2	SCREW-8X1/4 SL HEX HD TYP B	009894
3	CONNECTOR-BX 3/8 STR	014569
4	SLEEVE-WIRE 7/16 ID	020919-
5	CONNECTOR-BX 3/8 90D	001793
6	STRAP-CAPACITOR 5-5/8 IN.	030258

ITEM	DESCRIPTION	PART NO.
7	SCREW-8-32X5/16 BIND. HD	008399
8	CAPACITOR-RUN- 15UF/370V	027087
9	CAPACITOR-START- 72-88UF	039567
10	BOX-CAPACITOR RELAY	030183
*	COVER-CAP. RELAY BOX	030315
*	LABEL-WIRING SINGLE PHASE	036880-2

*NOT SHOWN

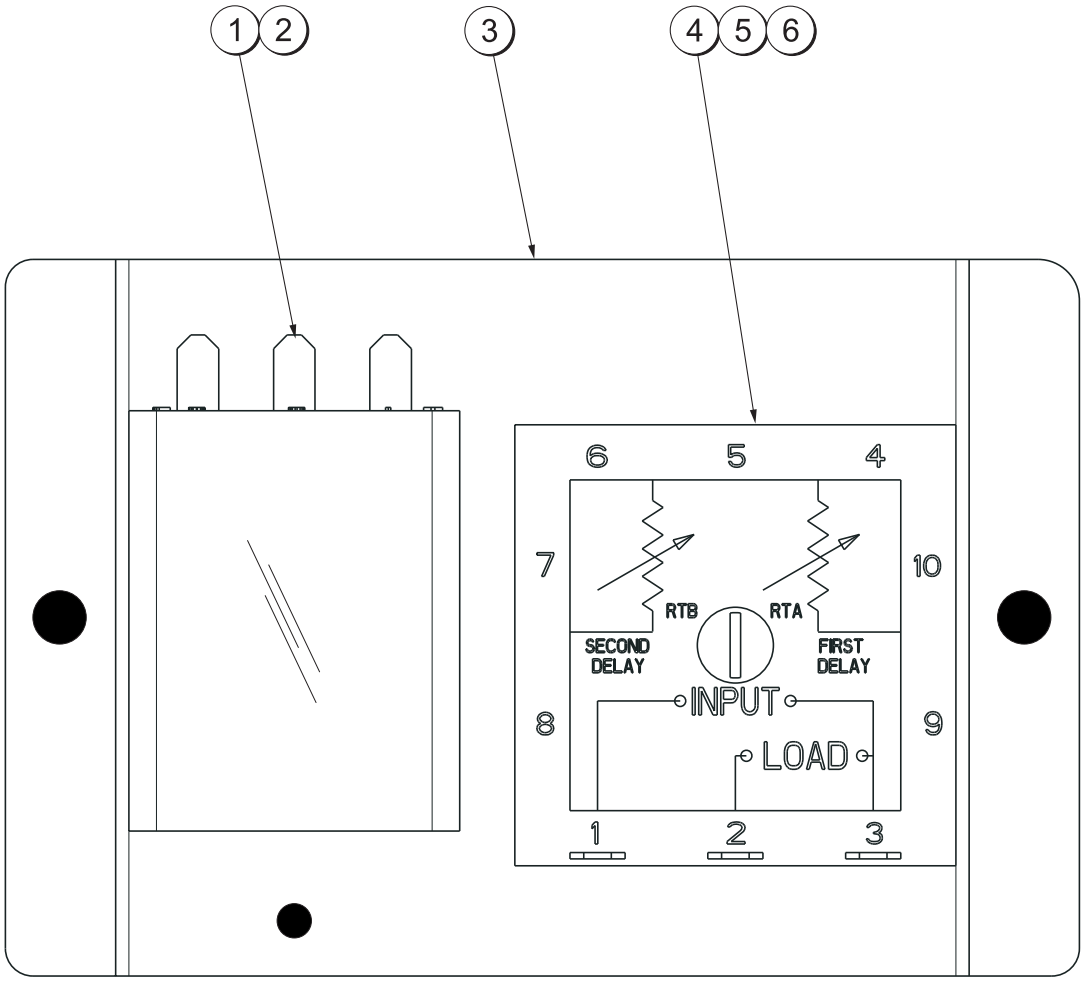
Relay A.–Timer Stir – X51685–27 (Model 150)



ITEM	DESCRIPTION	PART NO.
1	RELAY-3PDT-10A-208/240V	023845-
2	NUT-6-32 HEX	000927
3	BRACKET-RELAY TIMER STIR	051634

ITEM	DESCRIPTION	PART NO.
4	TIMER-CYCLE 5SEC ON/120SEC	037188-
5	SCREW-10-32X1 RHM ZP STEEL	004455
6	NUT-10-32 MF LOCK	020983

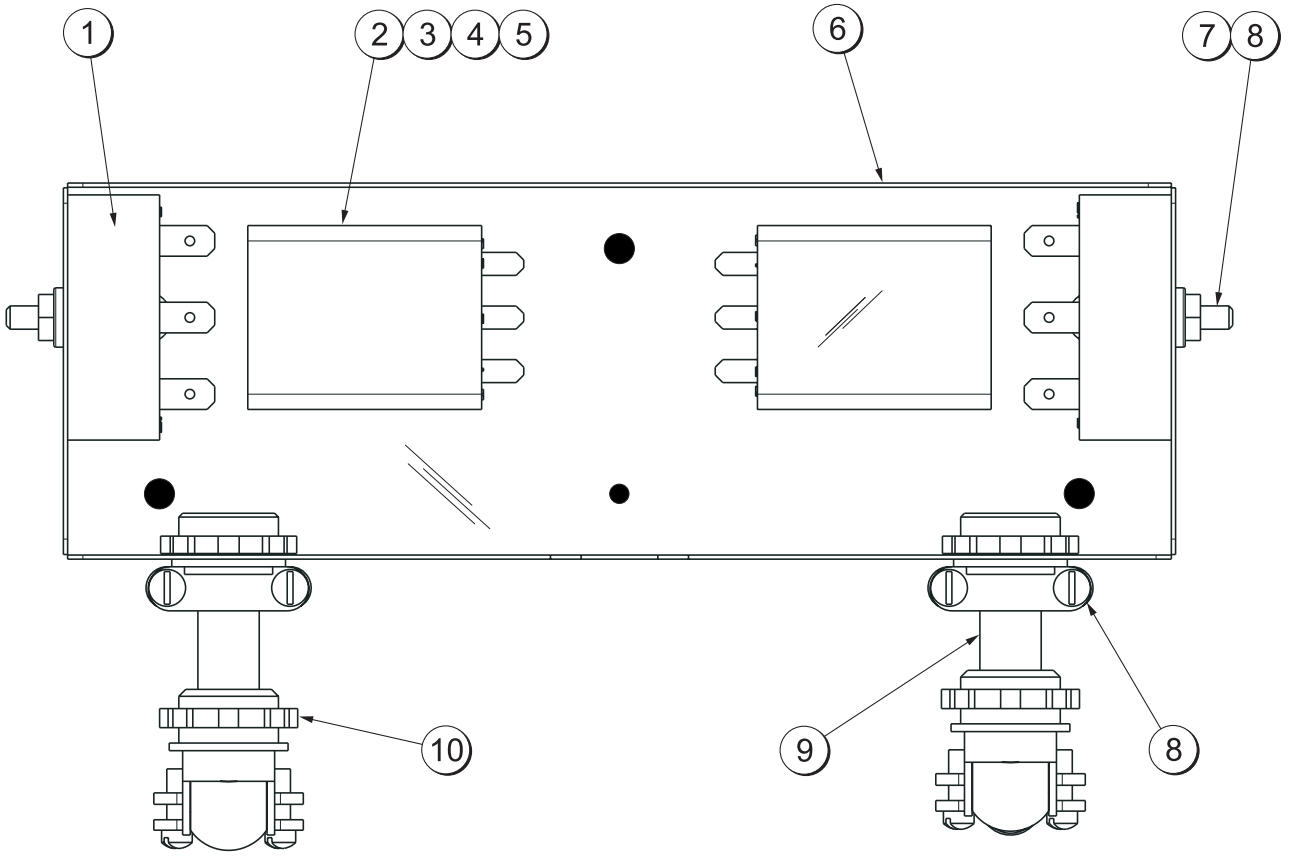
Relay A.–Timer Stir – X51633–27 (Model 162)



ITEM	DESCRIPTION	PART NO.
1	RELAY-3PDT-10A-208/240V	023845-
2	NUT-6-32 HEX	000927
3	BRACKET-RELAY TIMER STIR	051634

ITEM	DESCRIPTION	PART NO.
4	TIMER-CYCLE 5SEC ON/120SEC	037188-
5	SCREW-10-32X1 RHM ZP STEEL	004455
6	NUT-10-32 MF LOCK	020983

Relay A.–Timer Stir – X51323–27 (Model 168)



ITEM	DESCRIPTION	PART NO.
1	TIMER-CYCLE 5 SEC ON/120	037188-
2	RELAY-3PDT-10A-208/240V	023845-
3	WASHER-#6 SHAKEPROOF	024541
4	NUT-6-32 HEX	000927
5	BOX-RELAY STIR	051704

ITEM	DESCRIPTION	PART NO.
6	NUT-10-32 MF LOCK	020983
7	SCREW-10-32 X 1-1/4 TRUSS	032936
8	CONNECTOR-BX 3/8 STR	014569
9	SLEEVE-WIRE 1/2 I.D. X .031	022175-
10	CONNECTOR-BX 3/8 90D	001793

Parts List

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
BEARING-FRONT	023262	1	1	2	2	000		
BEARING-GUIDE	014496	1	1	2	2	000		
BEARING-REAR SHELL *150-52-68*	023648	1	1	2	2	000		
+COLLAR-REAR BEARING	025564	1	1	2	2	000		
+NUT-REAR BEARING *150-52-68*	023647	1	1	2	2	000		
+TAB-BEARING LOCK *150-2-68*	025027	1	1	2	2	000		
BEARING-UNIT REAR	024764	1				103		
BEATER A. *150-2-162-168*	X24689	1	1	2	2	103		
+O-RING-13/16 OD X .139W	021278	1	1	2	2	000		
BELT-AX23	041137			2		000		
BELT-POLY V-280J10	025776		1			000		
BELT-POLY V-580J10	025551	1				000		
BELT-POLY V-460J10	028182				2	000		
BLOCK-TERMINAL 2P	039422			1	1	103		
BLOCK-TERMINAL 5 POLE	024329	1	1	4	4	103		
BLOCK-TERMINAL 7 POLE	025156			1		103	115-60-1	
BRUSH-DOUBLE ENDED-PUMP&FEED TUBE	013072	1	1	1	1	000		
BRUSH-DRAW VALVE 1"ODX2"X17"L	013073	1	1	1	1	000		
BRUSH-MIX PUMP BODY-3"X7"WHITE	023316	1	1	1	1	000		
BRUSH-REAR BRG 1IN.DX2IN.LGX14	013071	1	1	1	1	000		
CAP-DESIGN-1.010"ID-6 POINT	014218	1	1	3	3	000		
CASTER-RIGID 3 IN. WHL	012226	2			2	103		
CASTER-SWIVEL 3 IN. WHEEL	012227	2			2	103		
COMPRESSOR AKA9462ZXD-AK172ET	049302-	1	1	2	2	512	MAIN - TECUMSEH	
+CAPACITOR-RUN- 25UF/370VAC	023739	1	1	2	2	103	115-60-1	
+CAPACITOR-START- 72-88UF/250V	039557-27	1	1	2	2	103	115-60-1	
+RELAY-START-COMPRESSOR	045432-12	1	1	2	2	103	115-60-1	
+CAPACITOR-RUN- 15UF/370V	027087	1	1	2	2	103	230-60-1	
+CAPACITOR-START- 72-88UF/330	039567	1	1	2	2	103	230-60-1	
+RELAY-START-COMPRESSOR	048150	1	1	2	2	103	230-60-1	
COMPRESSOR-TL2.5F-R134A	047701-	1	1	1	1	512	SHR - DANFOSS	
+RELAY-START-COMPRESSOR	027714-12	1	1	1	1	103	115-60-1	
+RELAY-START-COMPRESSOR-TL3G	047702-27	1	1	1	1	103	230-60-1	
+CAPACITOR-START-60UF-220/275V	047703	1	1	1	1	103	230-60-1	
CONDENSER-AC-7X6X1.25-2 ROW	027155	1	1	1	1	103	SHR	

+ Available Separately

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
CONDENSER-AC-12LX14HX1.87T 3RW	046556	1	1			103		
CONDENSER-AC-9HX24WX2.5T-4 ROW	047146			1		103		
CONDENSER-AC-15LX14HX2.57-4R	047255				1	103		
CONTROL-TEMP.	028914	2	2	2	2	103	SHR & STANDBY	
CONTROL-VISCOSITY-WATT	X37260SER1	1	1	2	2	103	115 VOLT	
CONTROL-VISCOSITY-WATT	X37260SER2	1	1	2	2	103	230 VOLT	
CORD-POWER	045666	1	1			103	115-60-1	
CORD-POWER	025340-27	1	1			103	230-60-1	
COVER A.-HOPPER *M150-152	X48690	1	1			103		
COVER A.-HOPPER *162-168*	X37963-SER			1	1	103	INCLUDES KNOB	
KNOB-MIX COVER	025429	1	1	1	1	103		
DAMPER A.-FOR USE ON 25W ONLY	X20320	1				103		
DECAL-CLEAN INST.-HOPPER	019029	1	1	1	1	000		
DECAL-DEC-TAYLOR 150/152	047667	1	1			000		
DECAL-DEC-TAYLOR 162/168	047666			1	1	000		
DECAL-MIX REF. STANDBY OFF-ON	022177	1	1	1	1	000		
DECAL-TROUBLESHOOTING	038374	1	1	1	1	000		
DECAL-WARNING *PANEL*	036529	3	3	3	3	000		
DECAL-WASH-OFF-AUTO	014502	1	1	2	2	000		
DIAGRAM-WIRING *150*	050416-	1	1			000		
DIAGRAM-WIRING	050205-			1	1	000		
DOOR A.-1 SPOUT-1.5 QT	X38959-SER	1	1			103		
ARM-VALVE LIFTER	024761	1	1			103		
HANDLE-DRAW	024762	1	1			103		
O-RING-2-3/4 OD X .139W	019998	1	1			000		
O-RING-3/4 OD X .103W	015835	1	1			000		
O-RING-7/8 OD X .103W	014402	2	2			000		
VALVE-DRAW *150-2*	024763	1	1			103		
DOOR A.-3 SPOUT	X30753-SER			1	1	103		
HANDLE-DRAW VALVE	030564			3	3	103		
O-RING-2-3/4 OD X .139W	019998			2	2	000		
O-RING-5/16 OD X .070W	016272			2	2	000		
PIN A.-PIVOT-LONG	X38538			1	1	103		
PIN A.-PIVOT-SHORT	X38539			1	1	103		
SEAL-DRIVE SHAFT	030930			1	1	000		
VALVE-DRAW *150-2*	024763			2	2	103		

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
VALVE-DRAW -CENTER	031164			1	1	103		
DRYER-CAP. TUBE .026 ID X 11FT	048894	1	1			000	SHR	
DRYER-CAP. TUBE-HP62/R134A	047699			1	1	000	SHR	
DRYER-CAP. TUBE-HP62/R134A	048255			1	1	000	SHR 115-60-1 ONLY	
DRYER-FILTER-HP62-3/8 X 1/4S	048901	1	1	2	2	000		
FLOAT A.-MIX LEVEL *142*	X39690	1	1	2	2	103		
GASKET-HOPPER COVER-8QT	037042			1	1	000		
GEAR-REDUCER	025770		1	2	2	103		
GUARD-SWITCH *150-2*	025496	1	1			103		
GUARD-POWER & DANFOSS SWITCH	035548			1	1	103		
GUIDE A.-DRIP PAN	X28593		1			103		
HARNESS A.-WIRE *150*162*LQSOL	X50224			1		103		
HOLDER-DRIP TRAY*150-2-68-756M	035866	2	2	2	2	103		
HOOD A. *150*	X49063	1				103		
HOOD A. *152*	X49065		1			103		
HOOD A. *162*	X35918			1		103		
HOOD A. *168*	X34846				1	103		
INSERT-FRONT PANEL *168*	030773-SS				1	103		
KIT A.-TUNE UP*150-152*	X25802	1	1			000		
CAP-DESIGN-1.010"ID-6 POINT	014218	1	1			000		
O-RING-7/8 OD X .103W	014402	2	2			000		
BEARING-GUIDE	014496	1	1			000		
O-RING-3/4 OD X .103W	015835	1	1			000		
O-RING-2-3/4 OD X .139W	019998	1	1			000		
O-RING-13/16 OD X .139W	021278	1	1			000		
BEARING-FRONT	023262	1	1			000		
TOOL- 0-RING REMOVAL	048260-WHT	1	1			000		
KIT A.-TUNE UP*162-168*	X31167			1	1	000		
BEARING-FRONT	023262			2	2	000		
BEARING-GUIDE	014496			2	2	000		
CAP-DESIGN-1.010"ID-6 POINT	014218			3	3	000		
O-RING-13/16 OD X .139W	021278			2	2	000		
O-RING-2-3/4 OD X .139W	019998			2	2	000		
O-RING-5/16 OD X .070W	016272			2	2	000		
O-RING-7/8 OD X .103W	014402			4	4	000		
SEAL-VALVE	030930			1	1	000		

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
TOOL- 0-RING REMOVAL	048260-WHT			1	1	000		
LABEL-CAUTION GROUND CORD UNIT	032165	1				000		
LABEL-DOOR CAUTION	032749	1				000		
LABEL-MIX COOLING ADJ.	020217	1	1	1	1	000		
LABEL-MOVING PARTS WARNING	024315	6	3	3	6	000		
LABEL-STD BY BARREL TEMP ADJ	029092			2	2	000		
LEG-4”-3/8-16 STUD-PLASTIC	024755		4			103		
LEG-4” SS-W/ORING	013458			4		103		
LIGHT-MIX LOW-AMBER ROUND-12V	039707	1	1	1	1	103		
LUBRICANT-TAYLOR 4 OZ.	047518	1	1	1	1	000		
MAN-OPER 150/152/162/168	028749-M	1	1	1	1	000		
MOTOR-1/2 HP	024839-	1	1	2	2	212		
MOTOR-FAN 17W/60HZ 2900RPM-CCW	027309-	1	1	1	1	103	SHR	
MOTOR-FAN 35W-40”LEADS	027817-	1	1			103		
+FAN-4 BLADE 11 ” PULL 30DEG CW	028405	1				103		
+FAN-4 BLADE 11 ” PUSH 30DEG CW	027818		1			103		
MOTOR-FAN-25W	015184-			2		103		
+FAN-5 BLADE 8” PUSH 37 DEG CCW	047231			2		103		
MOTOR-FAN 120 W 208/230V 60H	041401-27				1	103		
+BOOT-CAPACITOR INSULATING	031324				1	000		
+CAPACITOR-RUN- 4UF-370V	019624				1	103		
+FAN-5 BLADE 12”PUSH 32DEG CC	047279				1	103		
NUT-STUD *150-152-162-168*	034829	2	2	2	2	103	HANDSCREWS	
PAIL-6 QT.	023348	1	1	1	1	000		
PAN-DRIP 11-5/8 LONG	027503	1	1			103		
PAN-DRIP 17-1/4”LONG	027504				1	103		
PAN-DRIP 19-1/2 LONG	035034			1		103		
PANEL A.-CONTROL LEFT *162*	X37190			1		103		
PANEL A.-CONTROL RIGHT *162*	X37191			1		103		
PANEL A.-FRONT *150-152*	X25036	1	1			103		
PANEL A.-FRONT *162-168	X30711			1	1	103		
PANEL A.-LOWER FRONT *150*	X25518	1				103		
PANEL A.-LOWER FRONT *168*	X30747				1	103		
PANEL-BACK BOTTOM *150*	050430	1				103		
PANEL-BACK TOP *150*	050429	1				103		
PANEL-REAR	051556		1			103		

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
PANEL-BOTTOM BACL *168*	050244-SS				1	103		
PANEL-INSERT *150*	025533-SS	1				103		
PANEL-TOP BACK *168*	030790-SS				1	103		
PANEL-LOWER SIDE *150-168*	030792-SS	2			2	103		
PANEL-REAR *162AC*	047276-SS			1		103		
PANEL-SIDE-LEFT-162	050213-SS			1		103		
PANEL-SIDE-RIGHT-152	051558		1			103		
PANEL-SIDE-LEFT-152	051557		1			103		
PANEL-SIDE-RIGHT-162	050214-SS			1		103		
PANEL-FRONT LEFT *162*	035932-SS			1		103		
PANEL-FRONT RIGHT *162*	035933-SS			1		103		
PANEL-UPPER SIDE LEFT *150-68*	030783-SS	1			1	103		
PANEL-UPPER SIDE RIGHT *150-68*	030784-SS	1			1	103		
HARDWARE TO MOUNT PANELS								
+BRACKET-PANEL *150-2*162-8* (HOLDS MALE)	030786	12	6	4	12	103		
+FASTENER-DOOR LATCH (FEMALE)	030787	12	6	4	12	000		
+FASTENER-DOOR STRIKE (MALE)	030788	12	6	4	12	000		
PLATE-DEC-150-152*MIX LOW	041034-SS	1	1			103		
PLATE-DEC-162-168*	039723-SS			1	1	103		
PLUG-DRIP TRAY HOLE	029595	1		1	1	000		
PULLEY-10J- 1.125PD-5/8BORE	028857	1				103	BEATER MOTOR	
PULLEY-10J-12”PD-5/8BORE	025480	1				103	DIRECT DRIVE	
PULLEY-10J- 1.5PD-5/8BORE	025479		1		2	103	BEATER MOTOR	
PULLEY-10J-4.50PD-5/8BORE	030455		1		2	103	GEAR REDUCER	
PULLEY-AK20X5/8	041162			2		103	BEATER MOTOR	
PULLEY-5.7” PITCH DIA X 5/8	041498			2		103	GEAR REDUCER	
RELAY-3 POLE	012725-	1	1	2	2	103		
RELAY-DPDT-20 A-120V	026581-	1	1	2	2	103		
RELAY-3 POLE-10 AMP.	023845-	1	1	2	2	103	STIR CYCLE	121
SANITIZER KAY-5 125 PACKETS	041082	1	1	1	1	000		
SENSOR A.-MIX LEVEL	X39688	1	1	2	2	103		
SHELL A.-INSULATED *150*	X50378	1	1			512		
SHELL A.-INSULATED *162/168*	X50150			1	1	512		
+STUD-NOSE CONE-5/16-18X5/16-18	013496	2	2	2	2	103		
SHIELD-SPLASH 11-1/4 X 4-13/16	025063	1	1			103		
SHIELD-SPLASH *162-168*	030789			1	1	103		

+ Available Separately

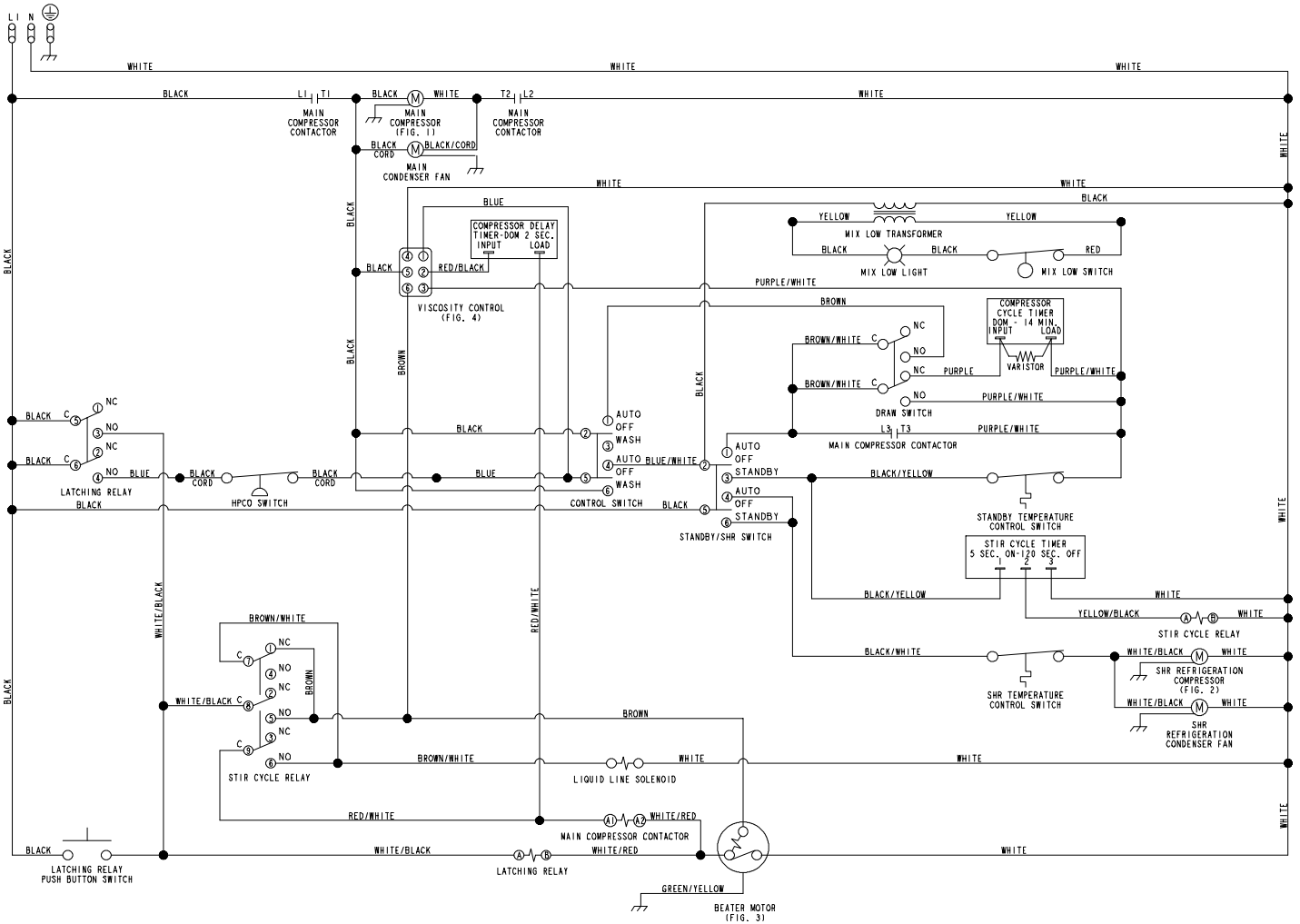
DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
SHROUD A.-CONDENSER *150*UPPER	X47506	1				103		
SHROUD A.-CONDENSER *168*AIR	X47370				1	103		
SHROUD-CONDENSER *150*	047511	1				103		
SHROUD-CONDENSER *150*FRT/LEFT	047507	1				103		
SHROUD-CONDENSER *150*FRT/RT	047508	1				103		
SHROUD-CONDENSER *152*	051559		1			103		
SHROUD-CONDENSER	047274			1		103	MAIN	
SHROUD-DANFOSS	027386	1		1	1	103	SHR	
SHROUD-DANFOSS	051542		1			103	SHR	
SHROUD-REAR	030779				1	103		
SKIRT-AIR FLOW *162*HP62	049977			1		103		
SKIRT-AIR FLOW *162/168*	050243				1	103		
SWITCH A.-DRAW *150 SS W/TIMER	X32245-SER	1	1			103		
ACTUATOR-SWITCH	032247	1	1			103		
BRACKET-SWITCH *150*	032246	1	1			103		
E-RING 5/16	016422	1	1			000		
ROD-SWITCH *150-2*	029500	1	1			103		
SPRING-COMP.480X.047X2.00 SS	025452	1	1			103		
SWITCH-PLUNGER-SPDT15A125-250V	032260	2	2			103		
SWITCH A.-DRAW *168*	X32106-SER			2	2	103		
+ARM A.-SWITCH *162-168*	X30736			2	2	103		
BEARING-SWITCH	029244			2	2	000		
BRACKET-SWITCH *168*	035524			1	1	103		
+E-RING-1/4 IN-ZD	034962			2	2	000		
INSULATOR-SWITCH 1/64 ARMITE	029099			2	2	000		
NUT-PUSH ON-1/2DIA. SHAFT	039735			2	2	000		
SCREW-4-40X1 RH HD STEEL-ZP	028890			2	2	000		
+SPRING-COMP.720X.063X2.00	023664			2	2	103		
+SWITCH-ACTUATOR	035609			2	2	103		
SWITCH-LEVER-SPDT-15A-125-25	027214			2	2	103		
SWITCH-PRESSURE 440 PSI-SOLDER	048230	1	1	2	2	103		
SWITCH-PUSHBUTTON-SPST	016530	1	1	2	2	103		
SWITCH-TOGGLE-DPDT*ON-OFF-ON	014464	2	2	2	2	103		
SWITCH-TOGGLE-3PDT	017184			1		103	MIX CAN COOLING	
TEE-ACCESS 1/4	026686	1				103	SHR	
TIMER A.-CYCLE-14 MIN	X31959-	1	1	1	1	103		

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
TIMER-DELAY ON MAKE 2 SEC.	030667-12	1	1	1	1	103	115-60-1 ONLY	
TIMER-CYCLE-5 SEC ON/120 SEC OFF	037188-	1	1	2	2	103	STIR CYCLE	121
TRANS.-CONT.-ANTICIPATOR 10 VA	010246-	1	1	1	1	103		
TRAY-DRIP 10-7/8 X 4-7/16	025062	1	1			103		
TRAY-DRIP-16-7/8L X 4-3/8	030565			1	1	103		
TRIM-MIDDLE BACK PANEL *168	030795				1	103		
TRIM-FRONT-SS	025862-SS		1			103		
TRIM-FRONT-SS	050212-SS			1		103		
TRIM-MIDDLE BACK PANEL *150*	025537	1				103		
TRIM-PANEL REAR *162*	035923			1		103		
TRIM-PANEL TOP BACK *168*	030775				1	103		
TRIM-SIDE & FRONT *150*	025528	1				103		
TRIM-SIDE & FRONT *168*	030774				1	103		
TRIM-TOP BACK	025866		1			103		
TRIM-TOP BACK PANEL *150*	025536	1				103		
TUBE-FEED-150-DANFOSS-.166HOLE	035819	1	1			103		
TUBE-FEED-SS-TM-TWIN	030797			2	2	103		
VALVE-ACCESS 1/4FL X 1/4S	044404				1	103		
VALVE-ACCESS 1/4FL X 3/8SDR-90	044455	1	1	1	1	103		
VALVE-ACCESS-1/4 MFLX1/4 S-90	047016	2	2	3	3	103		
VALVE-ACCESS-1/4FL X 3/8SDR-90	046903			1		103		
VALVE-EPR 1/4S	022665	1	1	1	1	103	SHR	
VALVE-EXP-AUTO-1/4S X 1/4FPT	047232	1	1	2	2	103		
+BOOT-EXPANSION VALVE	027137	1	1	2	2	000		
VALVE-SOLENOID 7/64ORF X 1/4S	043449-	1	1	2	2	103		
VIDEO-TRAIN FILM-SS-TAYLORMATE	037665-V	1	1	1	1	000		

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
50Hz								
BLOCK-TERMINAL-7 POLE GREEN	024156	1	1	1	3	103		
COMPRESSOR AKA9462ZXC-AK172JT	049302-40	1	1	2	2	512	MAIN 230-50-1	
+CAPACITOR-RUN- 15UF/370V	027087	1	1	2	2	103	230-50-1	
+CAPACITOR-START- 72-88UF/330V	039567	1	1	2	2	103	230-50-1	
RELAY-START-COMPRESSOR	041064	1	1	2	2	103	230-50-1	
DIAGRAM-WIRING	050205-40S			1	1	000		
DIAGRAM-WIRING	050205-40			1	1	000	DUAL POWER	
MOTOR-FAN 100W 220-240V 50HZ	047178-34				1	000		
VIDEO-TRAIN FILM-SS-TAYLORMATE	037665-PAL	1	1	1	1	000		
SELF SERVE								
BLOCK-BACKUP-HOPPER LOCK	041176			2	2	103		
BLOCK-PIVOT-HOPPER LOCK	041175			1	1	103		
DECAL-MAG-FLAVOR PADS	044022			1	1	000		
DECAL-MAG-SLF SRV-TM-TWIN	044021			1	1	000		
GUARD-POWER SWITCH	034830			2	2	103		
HOOD A.*162 W/HOPPER LOCK STD.	X41195			1	1	103		
LOCK-KEY STYLE #1289	037362			1	1	103		
PCB A.-MIX LOW CHIME	X41243SER1			1	1	103	115 AND 230 VOLT APPLICATIONS	
PIVOT-HOPPER LOCK	039035			1	1	103		
PLUG-BACKUP BLOCK	041177			4	4	103		



VISCOSITY CONTROL TERMINALS:

1 LI SUPPLY VOLTAGE
2 NC CONTACT
3 NC CONTACT
4 L2 SUPPLY VOLTAGE
5 LINE - BEATER MOTOR CURRENT
6 LOAD - BEATER MOTOR CURRENT

FIG. 4

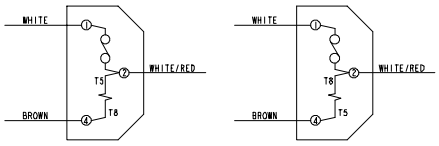


FIG. 3

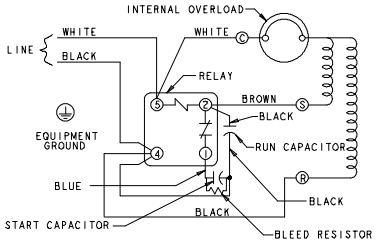


FIG. 1
TECUMSEH COMPRESSOR WIRING

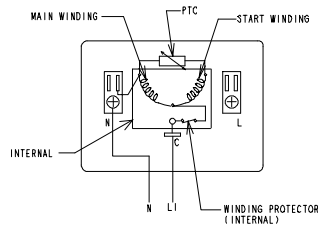
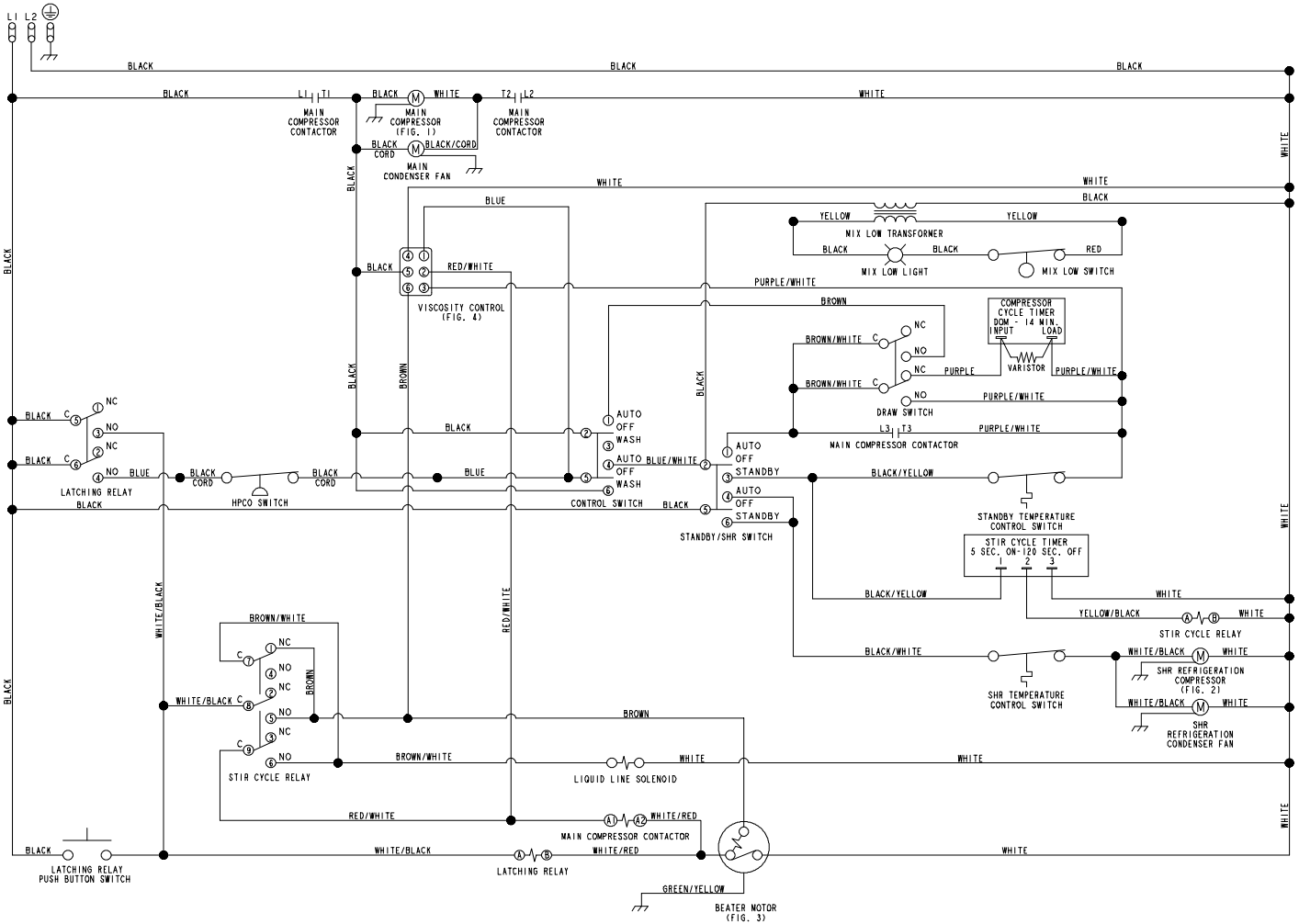


FIG. 2
SHR COMPRESSOR WIRING
(MODEL TL2A <OR> TL2.5F W/LST)

Models 150/152
050416-12



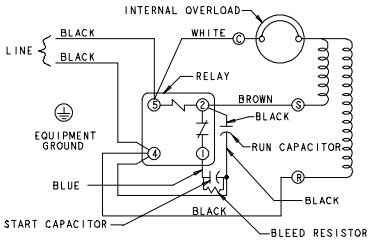


FIG. 1
TECUMSEH COMPRESSOR WIRING

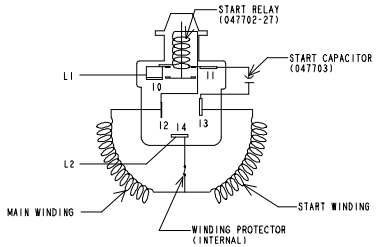


FIG. 2
SHR COMPRESSOR WIRING
(MODEL TL3G W/HST)

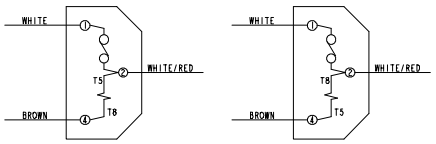


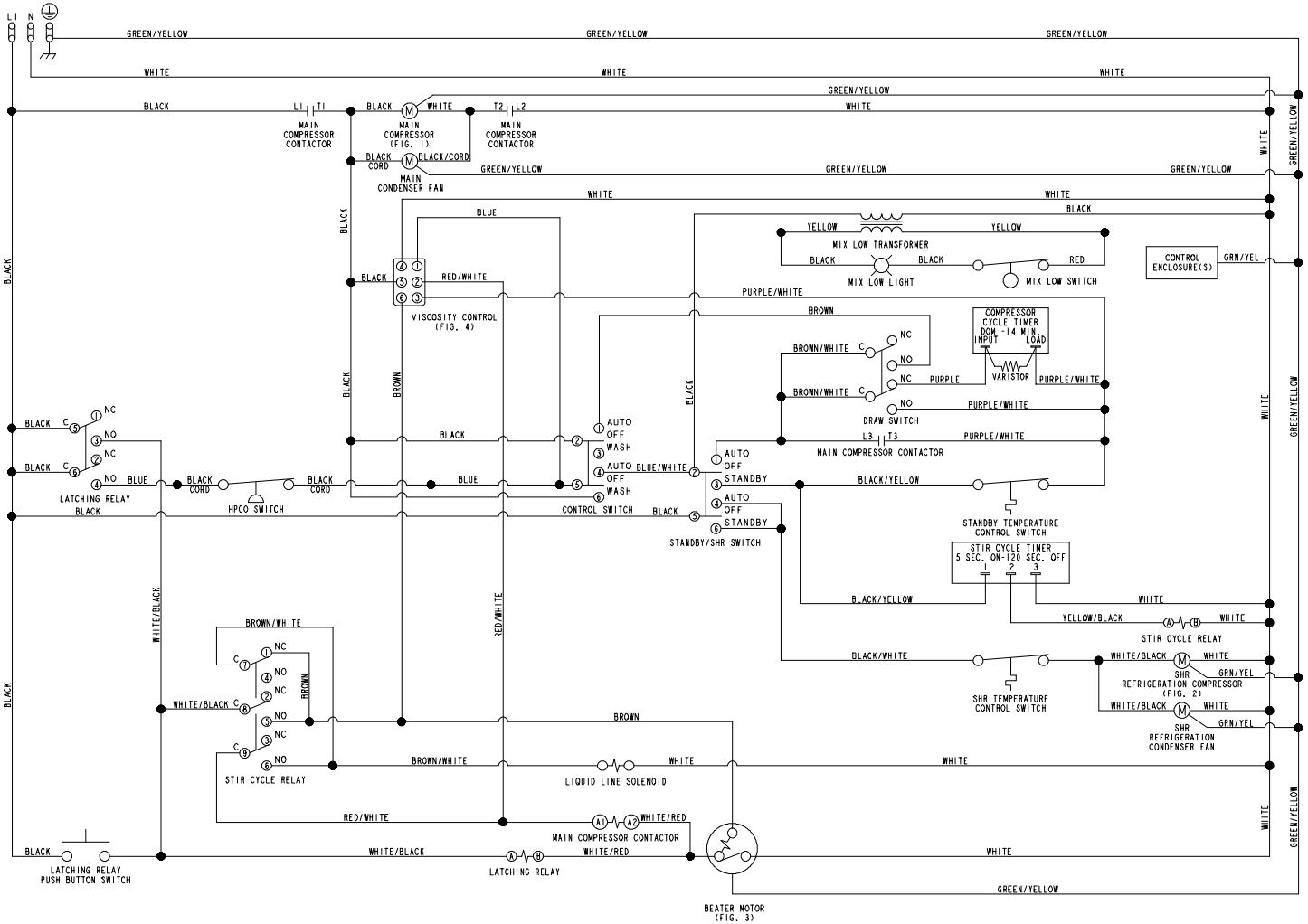
FIG. 3

VISCOSITY CONTROL TERMINALS:

1 L1 SUPPLY VOLTAGE
2 NC CONTACT
3 NC CONTACT
4 L2 SUPPLY VOLTAGE
5 LINE - BEATER MOTOR CURRENT
6 LOAD - BEATER MOTOR CURRENT

FIG. 4

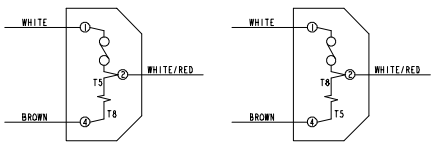
Models 150/152
050416-27



VISCOSITY CONTROL TERMINALS:

1 LI SUPPLY VOLTAGE
2 NC CONTACT
3 NC CONTACT
4 L2 SUPPLY VOLTAGE
5 LINE - BEATER MOTOR CURRENT
6 LOAD - BEATER MOTOR CURRENT

FIG. 4



LEESON BEATER MOTOR CONNECTIONS FOR MODEL 150 CW ROTATION

LEESON BEATER MOTOR CONNECTIONS FOR MODEL 152 CCW ROTATION

FIG. 3

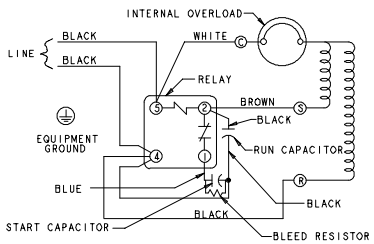


FIG. 1
TECUMSEH COMPRESSOR WIRING

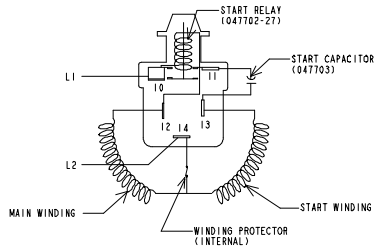
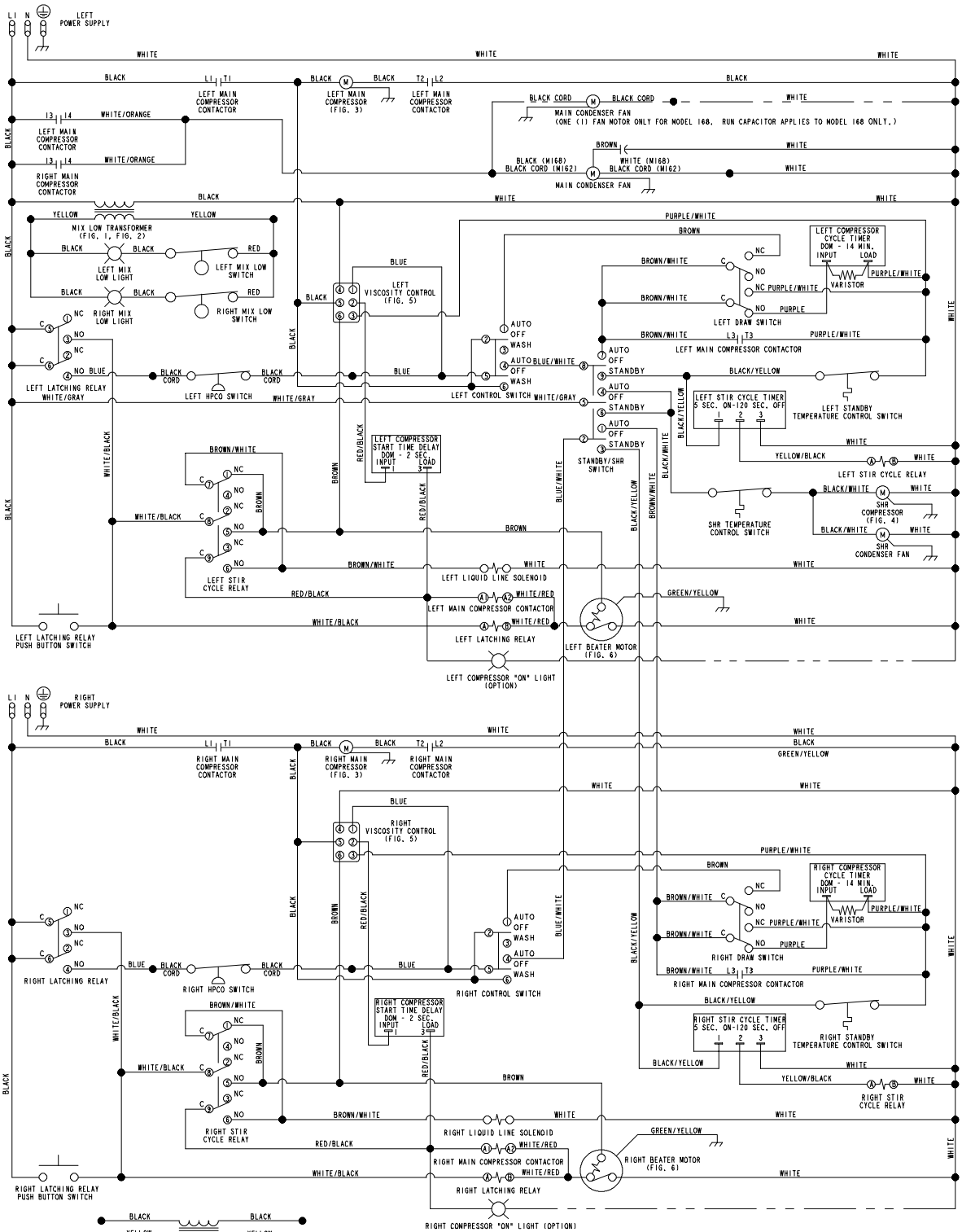
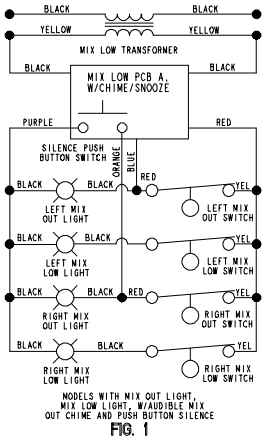


FIG. 2
SHR COMPRESSOR WIRING
(MODEL TL3G W/HST)

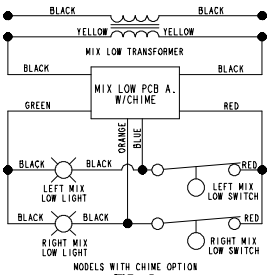
Models 150/152
050416-40





NODELS WITH MIX OUT LIGHT, MIX LOW LIGHT, W/AUDIBLE MIX OUT CHIME AND PUSH BUTTON SILENCE

FIG. 1



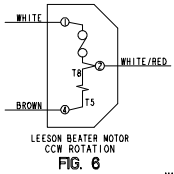
MODELS WITH CHIME OPTION

FIG. 2

1 L1 SUPPLY VOLTAGE
2 NC CONTACT
3 NC CONTACT
4 L2 SUPPLY VOLTAGE
5 LINE - BEATER MOTOR CURRENT
6 LOAD - BEATER MOTOR CURRENT

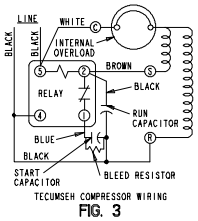
VISCOSITY CONTROL TERMINALS

FIG. 5



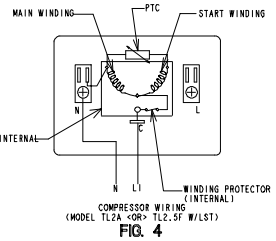
LEESON BEATER MOTOR CCW ROTATION

FIG. 6



TECUMSEH COMPRESSOR WIRING

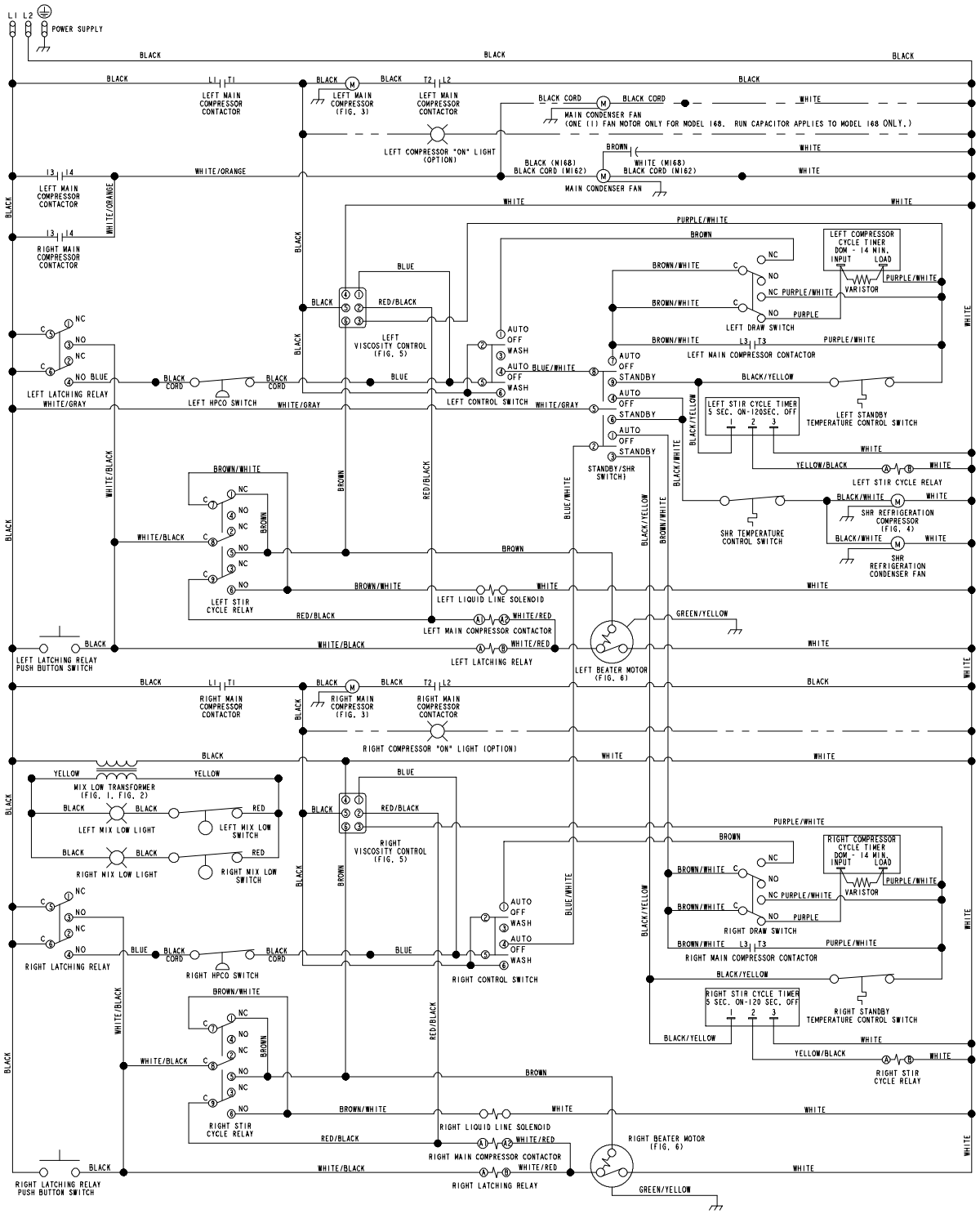
FIG. 3

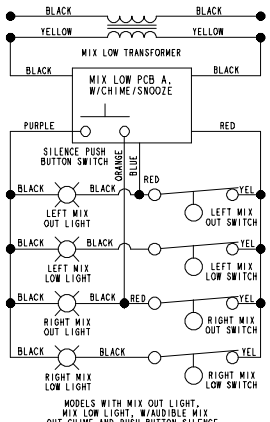


COMPRESSOR WIRING (MODEL TL2A <OR> TL2.5F W/LST)

FIG. 4

Models 162/168
050205-12





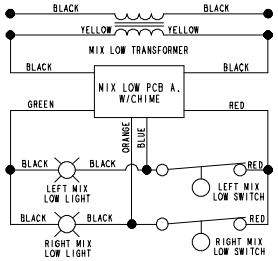
MODELS WITH MIX OUT LIGHT, MIX LOW LIGHT, W/AUDIBLE MIX OUT CHIME AND PUSH BUTTON SILENCE

FIG. 1

1 L1 SUPPLY VOLTAGE
2 NC CONTACT
3 NC CONTACT
4 L2 SUPPLY VOLTAGE
5 LINE - BEATER MOTOR CURRENT
6 LOAD - BEATER MOTOR CURRENT

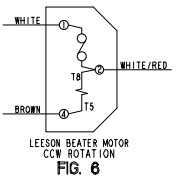
VISCOSITY CONTROL TERMINALS

FIG. 5



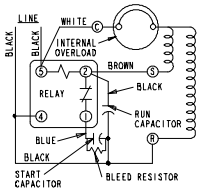
MODELS WITH CHIME OPTION

FIG. 2



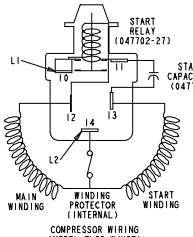
LEESON BEATER MOTOR CCW ROTATION

FIG. 6



TECUMSEH COMPRESSOR WIRING

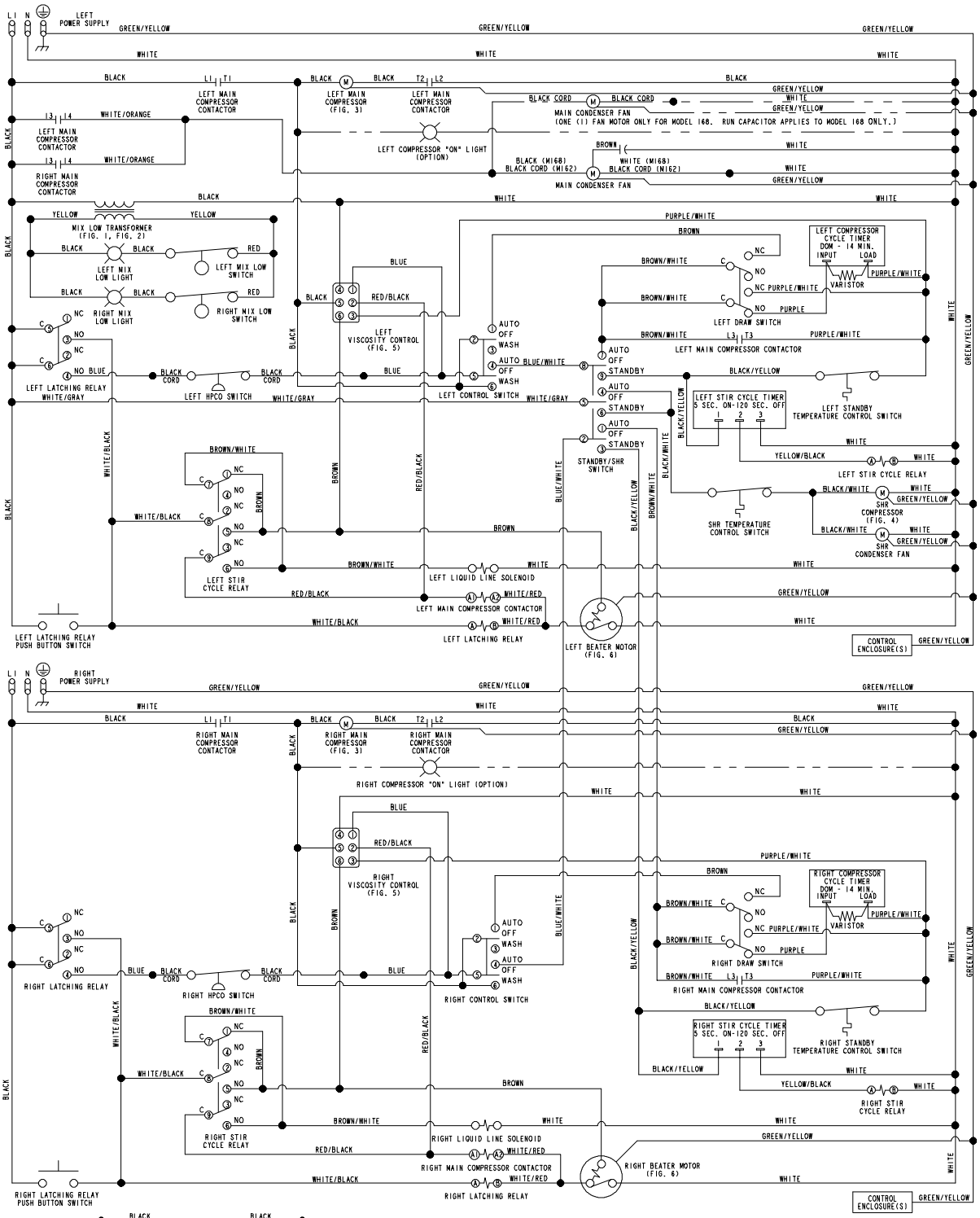
FIG. 3

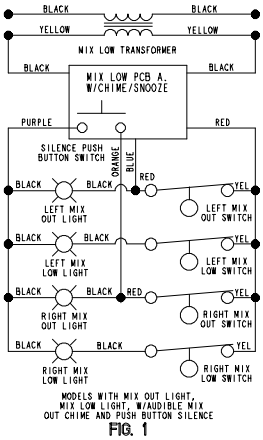


COMPRESSOR WIRING (MODEL TL3G W/HST)

FIG. 4

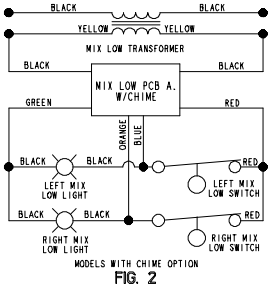
Models 162/168
050205-27





MODELS WITH MIX OUT LIGHT, MIX LOW LIGHT, W/AUDIBLE MIX OUT CHIME AND PUSH BUTTON SILENCE

FIG. 1



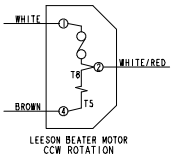
MODELS WITH CHIME OPTION

FIG. 2

1 L1 SUPPLY VOLTAGE
2 NC CONTACT
3 NC CONTACT
4 L2 SUPPLY VOLTAGE
5 LINE - BEATER MOTOR CURRENT
6 LOAD - BEATER MOTOR CURRENT

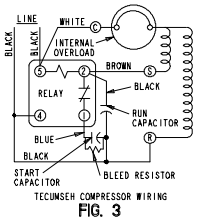
VISCOSITY CONTROL TERMINALS

FIG. 5



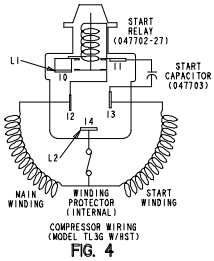
LEESON BEATER MOTOR CCW ROTATION

FIG. 6



TECUMSEH COMPRESSOR WIRING

FIG. 3



COMPRESSOR WIRING (MODEL TL3G W/HST)

FIG. 4

Models 162/168
050205-40S