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TECHNICAL **DIAGRAMS**

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United Technologies

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SERVICE MANUAL

Model 150, 152, 162 & 168 Soft Serve Freezers

Service Manual

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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.

Note: Only instructions originating from the factory or its authorized translation representative(s) are considered to be the original set of instructions.

TAYLOR
United Technologies

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a division of Carrier Commercial Refrigeration, Inc.
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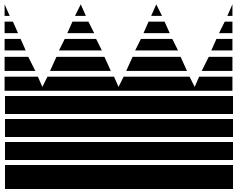


Section 1: Introduction

- **Safety**
- **Specifications**
- **Running Specifications**
- **General Installation Instructions**
- **Environmental Notices**

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 authorized service personnel.


DO NOT attempt to run the equipment unless you have been properly trained to do so.


CAUTION: THIS EQUIPMENT MUST BE PROPERLY GROUNDED! Do not operate this freezer unless it is properly grounded and all service panels and access doors are restrained with screws. Failure to do so can result in severe personal injury from electrical shock!

- **DO NOT** attempt any repairs unless the main power supply to the freezer has been disconnected.
- **DO NOT** operate the freezer with larger fuses than specified on the data label.
- 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.
- Appliances that are permanently connected to fixed wiring and for which leakage currents may exceed 10 mA, particularly when disconnected, not used for long periods, or during initial installation, shall have protective devices such as a GFI to protect against the leakage of current and be installed by authorized personnel to the local codes.
- Supply cords used with this unit shall be oil−resistant, sheathed flexible cable, not lighter than ordinary polychloroprene or other equivalent synthetic elastomer−sheathed cord (Code designation 60245 IEC 57) installed with the proper cord anchorage to relieve conductors from strain, including twisting, at the terminals and protect the insulation of the conductors from abrasion.

Failure to follow these instructions may result in electrocution or damage to the machine.


This unit is provided with an equipotential grounding lug that is to be properly attached to either the rear of the frame or the under side of the base pan near the entry hole for incoming power, by the authorized installer. The installation location is marked by the equipotential bonding symbol (5021 of IEC 60417-1) on both the removable panel and the equipment's frame, as well as on the diagram.


DO NOT remove the freezer door or any internal operating parts (examples: beater, scraper blades, etc.) unless all control switches are in the OFF position. Failure to follow these instructions may result in severe personal injury from hazardous moving parts.


THIS UNIT HAS MANY SHARP EDGES THAT CAN CAUSE SEVERE INJURIES.

Examples:

- scraper blades
- condenser fins


This unit must be installed on a level surface to avoid the hazard of tipping. Extreme care should be taken in moving this equipment for any reason.

Two or more people are required to safely move this unit. Failure to comply may result in personal injury or equipment damage.


This unit must **NOT** be installed in an area where a water jet or hose can be used. **NEVER** use a water jet or hose to rinse or clean this unit. Using a water jet or hose on or around this equipment may result in electrocution to the user or damage to the equipment.


Cleaning and sanitizing schedules are governed by your state or local regulatory agencies and must be followed accordingly. Please refer to the cleaning section of the Operator Manual for the proper procedure to clean this unit.

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 may be manufactured in other electrical characteristics. Refer to the local Taylor Distributor for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

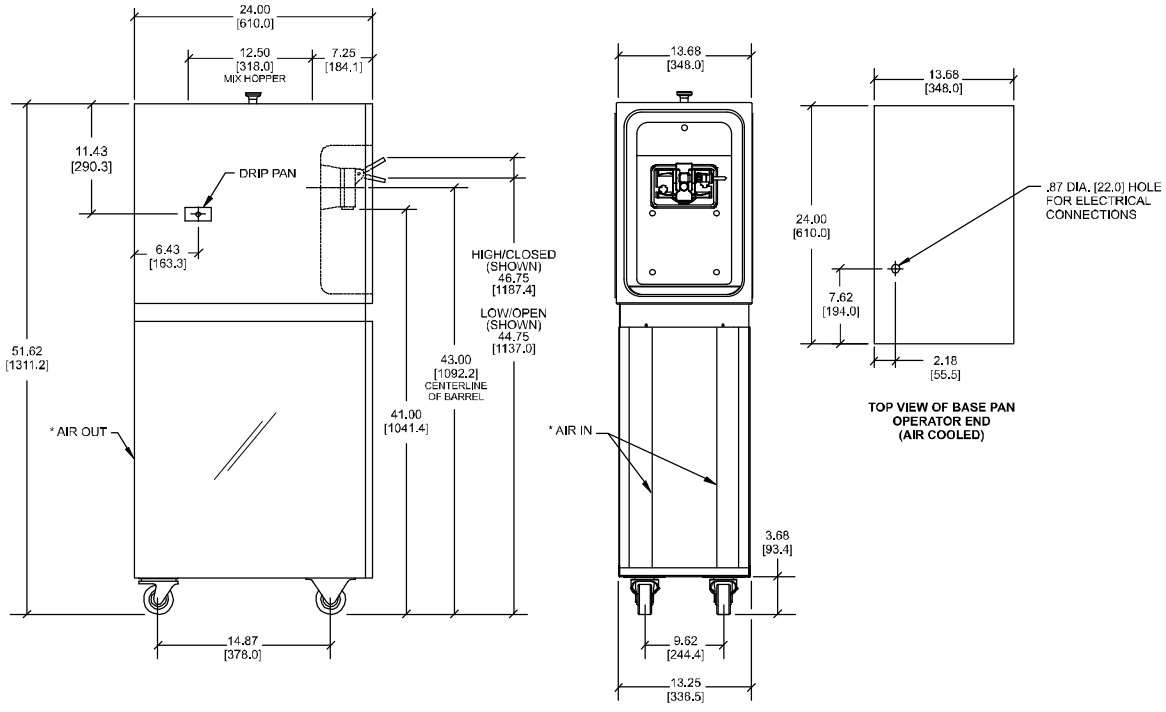
Clearance: 6" (152 mm) around both sides. Install the skirt provided on the right side of the unit and place the back of the unit against a wall to prevent recirculation of warm air.

Dimensions

Width: 14-1/16" (357 mm)
Depth: 24" (610 mm)
Height: 51-1/2" (1308 mm)
Floor Clearance: 3-11/16" (94 mm) mounted on standard casters.

Approximate Weights

Net: 250 lbs. (113.4 kgs.)
Crated: 292 lbs. (132.4 kgs.)
Volume: 21.1 cu. ft. (.60 cu. m.)



FIGURES IN BRACKETS INDICATE MILLIMETERS / DECIMAL AND FRACTIONAL DIMENSIONS EQUAL TO (PLUS OR MINUS 1/16 INCH [1.5mm]). **NOTE:** * AIR COOLED ONLY

Figure 1

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 NEMA Cord
115/60/1 Air	16.0	5–20P
208-230/60/1 Air	10.2	6–15P
220–240/50/1 Air	7.8	– – –

This unit may be manufactured in other electrical characteristics. Refer to the local Taylor Distributor for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

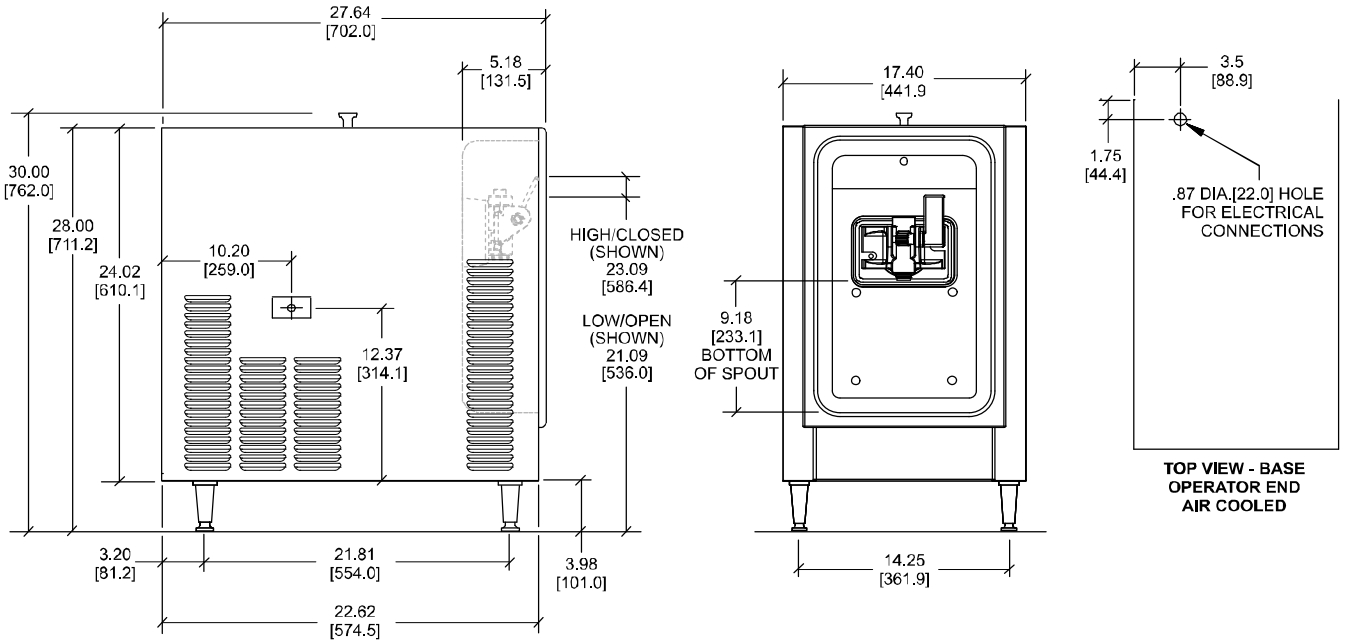
Clearance: 6" (152 mm) on both sides. Install the skirt provided on the right side of the unit and place the back of the unit against a wall to prevent recirculation of warm air.

Dimensions

Width: 17–7/16" (441.9 mm)
Depth: 27-11/16" (702.0 mm)
Height: 30" (711.2 mm)
Counter Clearance: 3–15/16" (101.0 mm)
(Mounted on standard legs.)

Approximate Weights

Net: 212 lbs. (96.2 kgs.)
Crated: 243 lbs. (110.2 kgs.)
Volume: 21.1 cu. ft. (.60 cu. m.)



FIGURES IN BRACKETS INDICATE MILLIMETERS / DECIMAL AND FRACTIONAL DIMENSIONS EQUAL TO (PLUS OR MINUS 1/16 INCH [1.5mm]).

Figure 2

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 may be manufactured in other electrical characteristics. Refer to the local Taylor Distributor for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

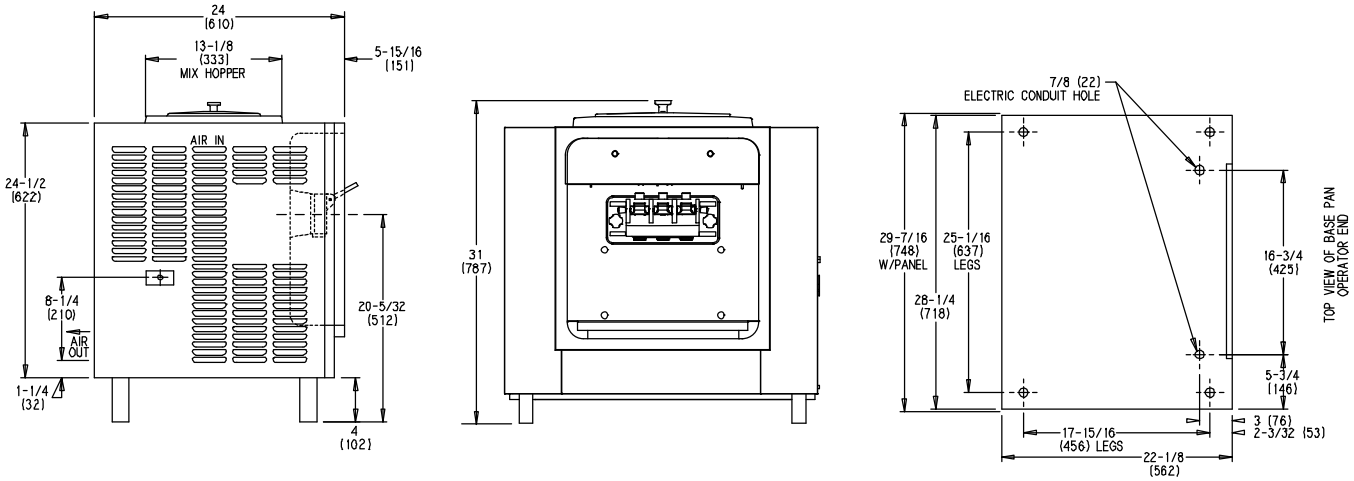
Clearance: 3" (76 mm) on all sides. Install the skirt provided on the rear of the unit to prevent recirculation of warm air.

Dimensions

Width: 29" (737 mm)
Depth: 24" (610 mm)
Height: 31" (787 mm)
Counter Clearance: 4-1/4" (108 mm) 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.)



NOTE: FIGURES IN PARENTHESES INDICATE MILLIMETERS.

Figure 3

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 may be manufactured in other electrical characteristics. Refer to the local Taylor Distributor for availability. (For exact electrical information, always refer to the data label of the unit.)

Air Cooled

Clearance: 3" (76 mm) on all sides. Install the skirt provided on the rear of the unit to prevent recirculation of warm air.

Dimensions

Width: 20-7/16" (519 mm)
Depth: 24" (610 mm)
Height: 53-3/4" (1365 mm)
Floor Clearance: 3-11/16" (94 mm) 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.)

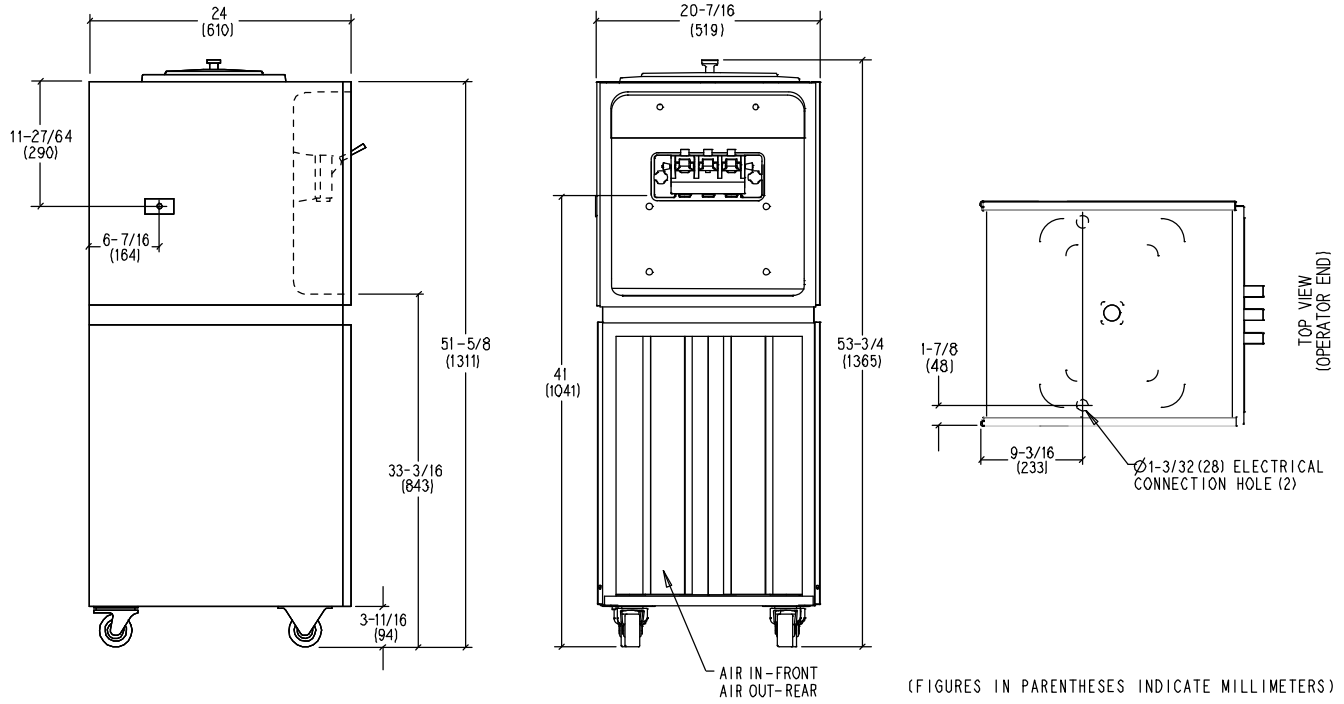


Figure 4

Running Specifications

The following are the pressure and temperature settings recommended by Taylor, 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.

General Installation Instructions

The following are general installation instructions. For complete installation details, please see the checkout card.

Site Preparation

Review the area the unit is to be installed in before uncrating the unit. Make sure that all possible hazards the user or equipment may come into have been addressed.

Clearance: Air Cooled Units

Please see the “Model Specifications” pages for the minimum clearance requirements of the freezers.

DO NOT obstruct air intake and discharge openings. If provided, install the deflector to prevent recirculation of warm air.

Failure to allow proper clearance and airflow may cause poor freezer performance and damage to the machine.

For Indoor Use Only: This unit is designed to operate indoors, under normal ambient temperatures of 70° - 75°F (21° - 24°C). The freezer has successfully performed in high ambient temperatures of 104°F (40°C) at reduced capacities.

 This unit must **NOT** be installed in an area where a water jet or hose can be used. **NEVER** use a water jet or hose to rinse or clean this unit. Using a water jet or hose on or around this equipment may result in electrocution to the user or damage to the equipment.

 This unit must be installed on a level surface to avoid the hazard of tipping. Extreme care should be taken in moving this equipment for any reason.

Two or more people are required to safely move this unit. Failure to comply may result in personal injury or equipment damage.

Uncrate the machine. Inspect the unit for damage. Report any damage to the Taylor factory immediately.

This piece of equipment is made in the USA and has USA sizes of hardware. All metric conversions are approximate and vary in size.

Installer Safety

 In all areas of the world, equipment should be installed in accordance with existing local codes. Please contact your local authorities if you have any questions.

Care should be taken to ensure that all basic safety practices are followed during the installation and servicing activities related to the installation and service of Taylor equipment.

- Only authorized Taylor service personnel should perform installation and repairs on the equipment.
- Authorized service personnel should consult OSHA Standard 29CFRI910.147 or the applicable code of the local area for the industry standards on lockout/tagout procedures before beginning any installation or repairs.
- Authorized service personnel must ensure that the proper PPE is available and worn when required during installation and service.
- Authorized service personnel must remove all metal jewelry, rings, and watches before working on electrical equipment.

 **THIS UNIT HAS MANY SHARP EDGES THAT CAN CAUSE SEVERE INJURIES.**

Examples:

- scraper blades
- condenser fins

Electrical Connections

 In the United States, this equipment is intended to be installed in accordance with the National Electrical Code (NEC), ANSI/NFPA 70-1987. The purpose of the NEC 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.

In all other areas of the world, equipment should be installed in accordance with the existing local codes. Please contact your local authorities.

Each unit requires one power supply for each data label on the unit. Check the data label(s) on the freezer for branch circuit overcurrent protection or fuse, circuit ampacity, and other electrical specifications. Refer to the wiring diagram provided inside of the electrical box for proper power connections.

 **FOLLOW YOUR LOCAL ELECTRICAL CODES!**

 **CAUTION: THIS EQUIPMENT MUST BE PROPERLY GROUNDED! FAILURE TO DO SO CAN RESULT IN SEVERE PERSONAL INJURY FROM ELECTRICAL SHOCK!**

 **Note:** This unit is provided with an equipotential grounding lug that is to be properly attached to either the rear of the frame or the under side of the base pan near the entry hole for incoming power, by the authorized installer. The installation location is marked by the equipotential bonding symbol (5021 of IEC 60417-1) on both the removable panel and the equipment's frame, as well as on the diagram.

- **DO NOT** operate the freezer with larger fuses than specified on the data label.
- Stationary appliances which are not equipped with a power cord and a plug or another 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.
- Appliances that are permanently connected to fixed wiring and for which leakage currents may exceed 10 mA, particularly when disconnected, not used for long periods, or during initial installation, shall have protective devices such as a GFI to protect against the leakage of current, installed by authorized personnel to the local codes.
- Supply cords used with this unit shall be oil-resistant, sheathed flexible cable, not lighter than ordinary polychloroprene or other equivalent synthetic elastomer-sheathed cord (Code designation 60245 IEC 57) installed with the proper cord anchorage to relieve conductors from strain, including twisting, at the terminals and protect the insulation of the conductors from abrasion.

Failure to follow these instructions may result in electrocution or damage to the machine.

Beater Rotation

 Beater rotation must be **clockwise** as viewed looking into the freezing cylinder.

The following repairs must be performed by an authorized Taylor Service Technician.

 **Disconnect all power to the unit.** Failure to follow this instruction may result in electrocution.

To correct rotation on a three-phase unit, interchange any two incoming power supply lines at the freezer main terminal block only.

To correct rotation on a single-phase unit, change the leads inside the beater motor by following the diagram printed on the motor label.

Water Connections

(Water Cooled Units, Only)

An adequate cold water supply must be provided with a hand shut−off valve. The water inlet and drain connections are located on the right side or the underside of the base. These connections are either 3/8” or 1/2” FTP, depending on the model of the unit. (Refer to “Model Specifications”.)

Flexible lines are recommended, if local codes permit. In Europe, hose sets for connection of appliances to the water mains must comply to the international IEC 61770 standard.

The water expansion valve setting should be set at 255 PSIG (1758 kPa).

Depending on local water conditions, it may be advisable to install a water strainer to prevent foreign substances from clogging the automatic water valve. There will be only one water “in” and one water “out” connection.

DO NOT install a hand shut−off valve on the water “out” line! Water should always flow in this order: first, through the automatic water valve; second, through the condenser; and third, through the outlet fitting to an **open trap drain.**

A back flow prevention device is required on the incoming water connection side. Please refer to the applicable National, State, and local codes for determining the proper configuration.

Refrigerant

In consideration of our environment, Taylor proudly uses only earth friendly HFC refrigerants. The HFC refrigerant used in this unit is R404A. This refrigerant is generally considered non-toxic and non-flammable, with an Ozone Depleting Potential (ODP) of zero (0). However, any gas under pressure is potentially hazardous and must be handled with caution.

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

Use only R134a refrigerant that conforms to the AHI standard 700 specification. The use of any other refrigerant may expose users and operators to unexpected safety hazards.

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.

Taylor 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.

Taylor 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.

Environmental Notices

In consideration of our environment, Taylor proudly uses only earth friendly HFC refrigerants. The HFC refrigerant used in this unit is R404A. This refrigerant is generally considered non-toxic and non-flammable, with an Ozone Depleting Potential (ODP) of zero (0).

However, any gas under pressure is potentially hazardous and must be handled with caution.

If the crossed out wheeled bin symbol is affixed to this product, it signifies that this product is compliant with the EU Directive as well as other similar legislation in effect after August 13, 2005. Therefore, it must be collected separately after its use is completed, and cannot be disposed as unsorted municipal waste.

The user is responsible for returning the product to the appropriate collection facility, as specified by your local code.

For additional information regarding applicable local laws, please contact the municipal facility and/or local Taylor Distributor.

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.

Section 2: Controls and Systems

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

Refrigeration Schematic

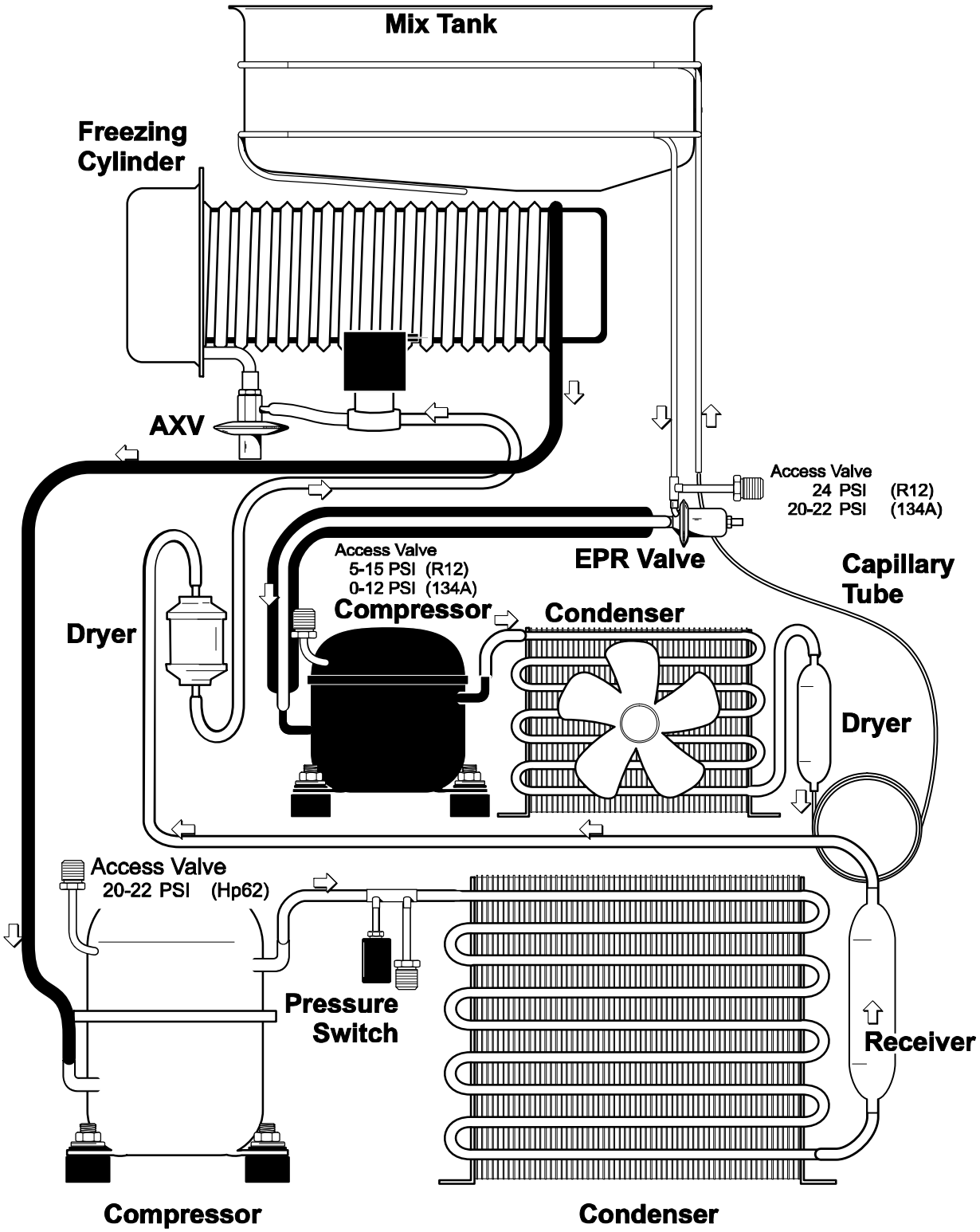


Figure 5

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

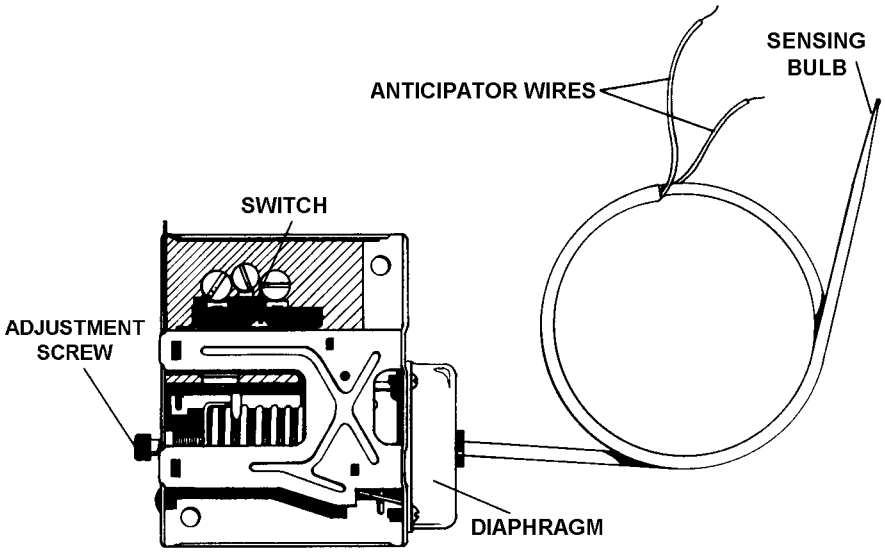


Figure 6

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

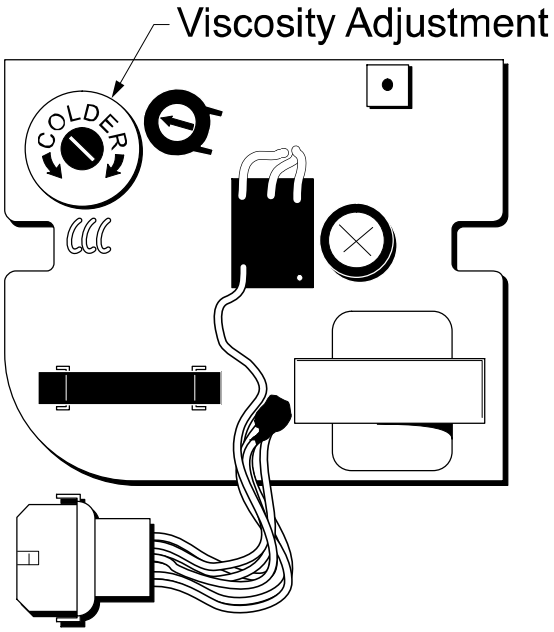


Figure 7

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

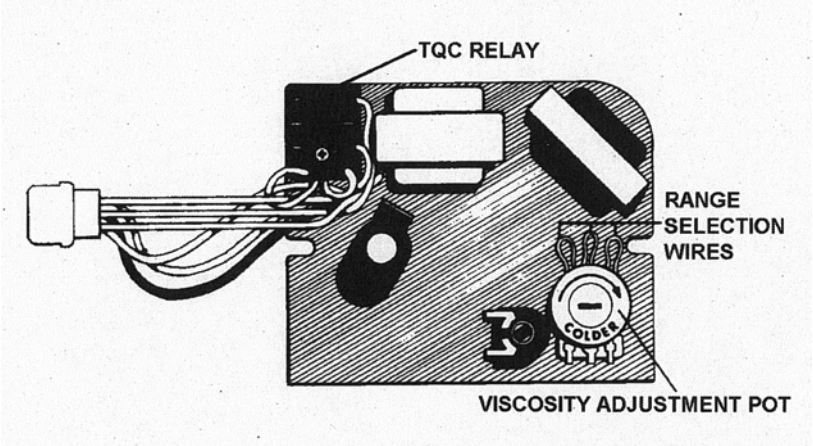


Figure 8

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.

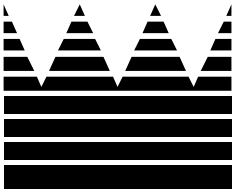
Note: Select the center of the range that is closest to the noted amperage.

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**
- **Watt 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.

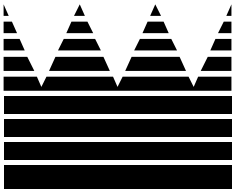
If the beater motor is not active, the voltage will measure between 0 and 10 millivolts. The typical value is 0. If the voltage is greater than 10 millivolts, there is excess current leakage through the beater motor or the control is defective.

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

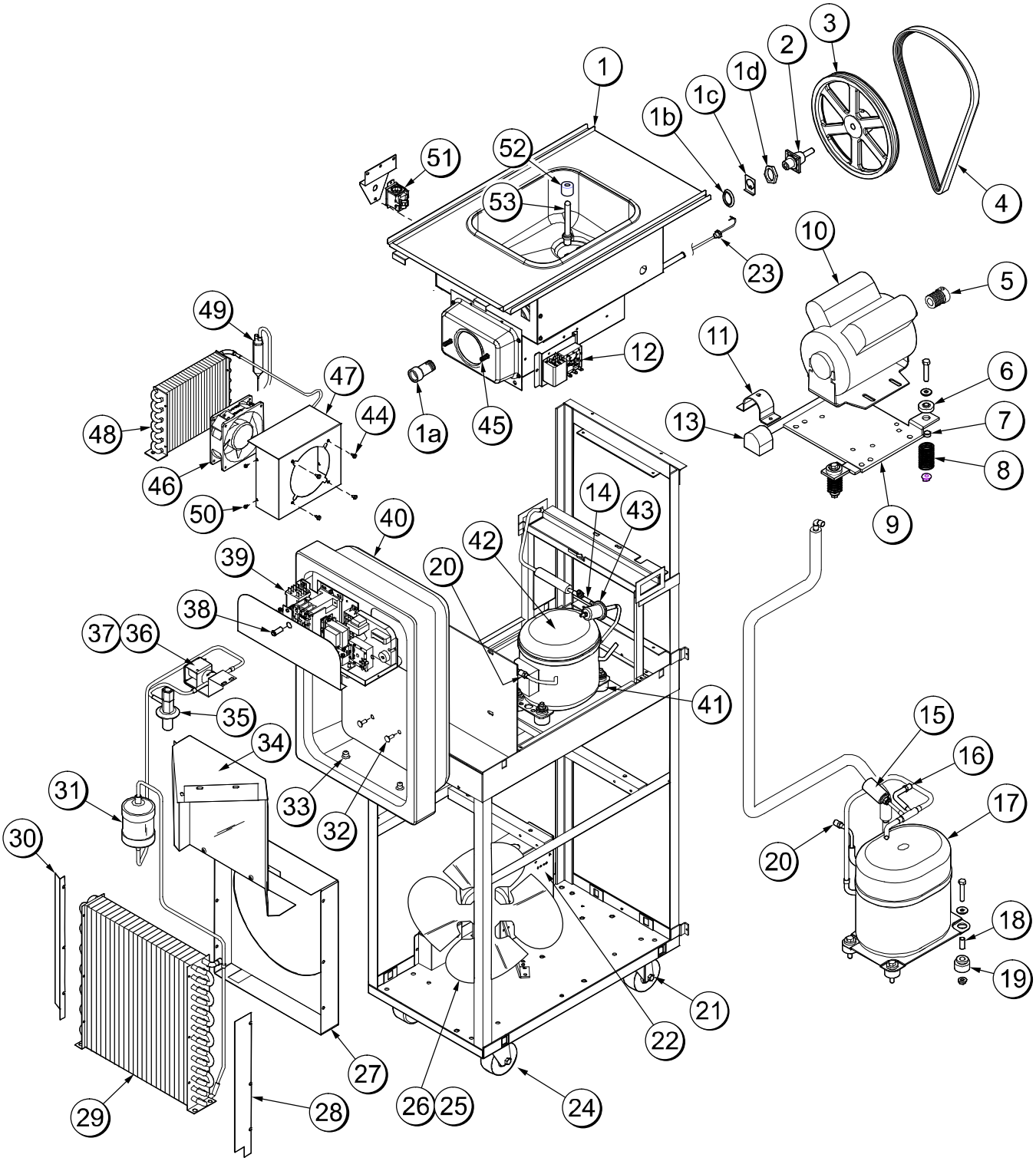


Figure 9

160210

Model 150 Exploded View Parts Identification

ITEM	DESCRIPTION	PART NO.
1	SHELL A.–INSULATED	X58792–SER
1a	BEARING–REAR SHELL	023648
1b	COLLAR–BEARING–REAR	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–5/8	028857
6	CAP–RUBBER MOUNT	011844
7	GROMMET–7/16 X 5/16 SHOCK ABSB	016212
8	SPRING–COMP.970X.115X2.00	025707
9	HINGE A.–MOTOR	X25731
10	MOTOR–1/2 HP	059742–
11	CLAMP–MOUNTING	012257
12	RELAY A.–TIMER STIR	SEE PG 54
13	BUSHING–RUBBER MOUNT	012258
14	TEE–ACCESS 1/4	026686
15	SWITCH–PRESSURE 440 PSI	048230
16	VALVE–ACCESS–1/4FL X 3/8SDR–90	044455
17	COMPRESSOR AKA9462ZXD–AK172ET	049302–
18	SLEEVE–MOUNTING–COMP	039920
19	GROMMET–COMPRESSOR MOUNT–AE–AK	039919
20	VALVE–ACCESS–1/4 MFLX1/4 S–90	047016
21	CASTER–3” SWV W/4 HOLE	058500
22	BOX A.–CAP&RELAY	X50198–27
23	SWITCH A.–REED INTERLOCK	X65658–5
24	CASTER–3” RIGID – 4 HOLE	058501
25	MOTOR–FAN	027817–

ITEM	DESCRIPTION	PART NO.
26	FAN–4 BLADE 11 ” PULL 30DEG CW	028405
27	SHROUD–CONDENSER	047511–SPN
28	SHROUD–CONDENSER	047508
29	CONDENSER–AC 12LX14HX1.87T 3RW	046556
30	SHROUD–CONDENSER	047507
31	DRYER–FILTER–HP62–3/8	048901
32	BOLT–CARRIAGE 1/4–20X3/4	012347
33	HOLDER–DRIP TRAY	035866
34	SHROUD A.–CONDENSER	X47506
35	VALVE–EXP–AUTO–1/4S X1/4	046365
36	BRACKET–SOLENOID VALVE	047538
37	VALVE–SOLENOID 7/64ORF	043449–
38	LIGHT–AMBER–ROUND–12V–MIX LOW	039707
39	CONTROL A.	X51544SER1
40	PANEL A.–FRONT	X25036
41	KIT–MOUNTING–COMPRESS	047704
42	COMPRESSOR TL2.5F–R134A	047701–
43	VALVE–EPR 1/4S	022665
44	SCREW–6X3/8 SLTD HEX W	001825
45	STUD–NOSE CONE–5/16–18X5/16–18	013496
46	MOTOR–FAN 95.3 CFM 2700 RPM	062253–12
47	SHROUD–DANFOSS	027386
48	CONDENSER–AC 7X6X1.25–2 ROW	027155
49	DRYER–CAP. TUBE .026 ID X 11FT	048894
50	SCREW–8X1/4 SLTD HX WSH	009894
51	CONTROL–TEMPERATURE	028914
52	FLOAT A.–MIX LEVEL	X39690
53	SENSOR A.–MIX LEVEL	X39688

Model 150 Operator Parts Identification

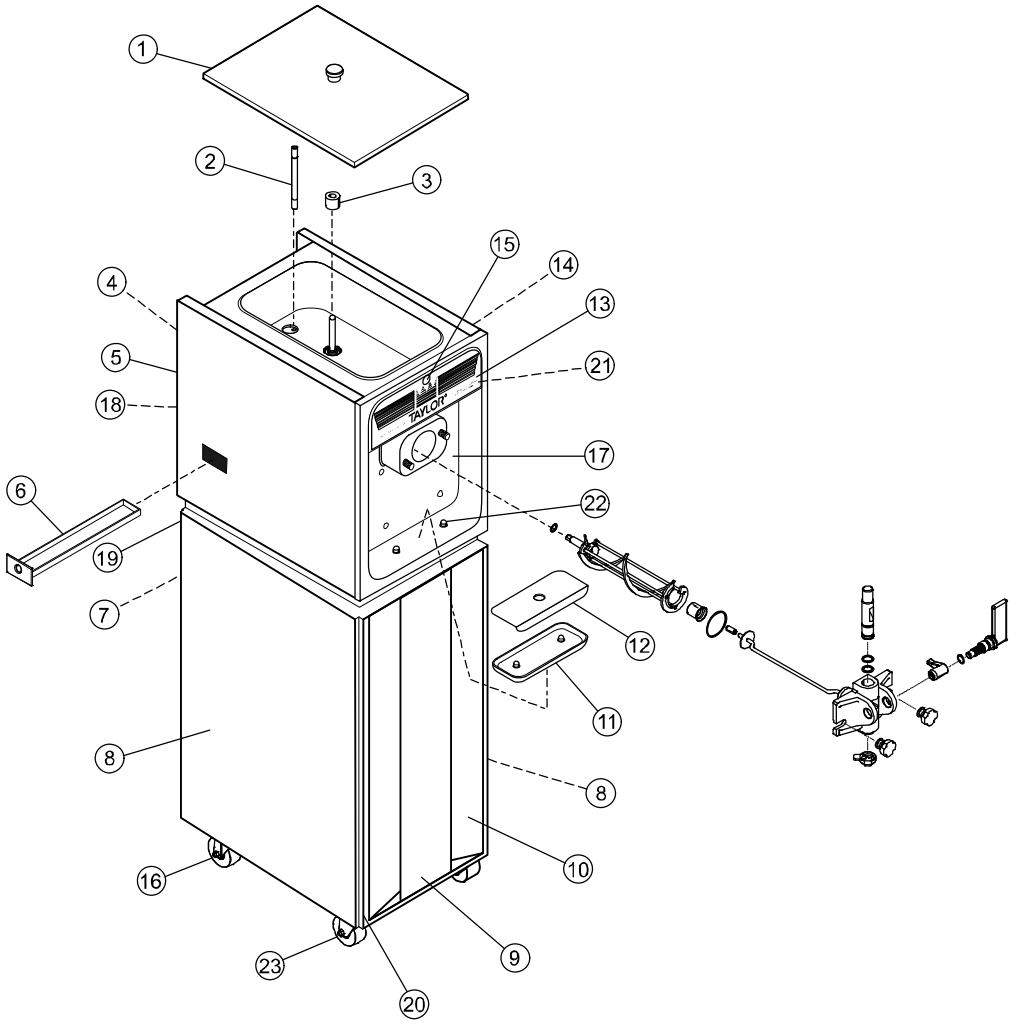


Figure 10

ITEM	DESCRIPTION	PART NO.
1	COVER A.–HOPPER	X48690
2	TUBE–FEED–.166 HOLE–SS	035819
3	FLOAT A.–MIX LEVEL	X39690
4	PANEL–BACK TOP	050429
5	PANEL–UPPER SIDE LEFT	030783–SS
6	PAN–DRIP 11–5/8 LONG	027503
7	PANEL–BACK BOTTOM	050430
8	PANEL–LOWER SIDE	030792–SS
9	PANEL–INSERT	025533–SS
10	PANEL A.–LOWER FRONT	X25518
11	TRAY–DRIP	025062
12	SHIELD–SPLASH	025063

ITEM	DESCRIPTION	PART NO.
13	DECAL–DEC	047667
14	PANEL–UPPER SIDE RT	030784–SS
15	LIGHT–AMBR–RND–12V–MIX LOW	039707
16	CASTER–3” SWV 4 HOLE/BRK	058500
17	PANEL A.–FRONT	X25036
18	TRIM–TOP BACK PANEL	025536
19	TRIM–MIDDLE BACK PANEL	025537
20	TRIM–SIDE & FRONT	025528
21	PLATE–DEC	041034–SS
22	HOLDER–DRIP TRAY	035866
23	CASTER–3” RGD–4 HLE PLATE	058501

160210

Model 152 Operator Parts Identification

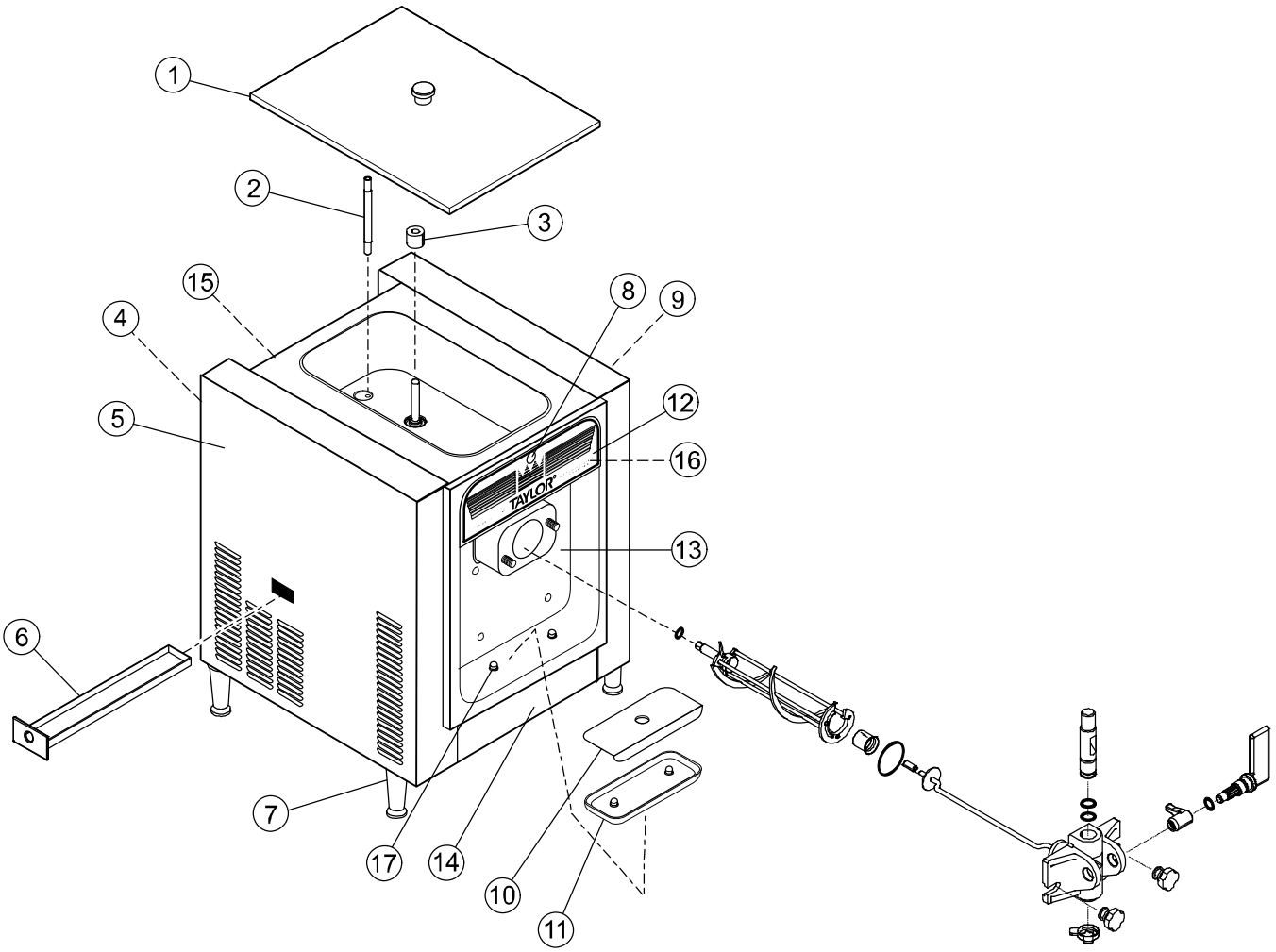


Figure 11

ITEM	DESCRIPTION	PART NO.
1	COVER A.–HOPPER	X48690
2	TUBE–FEED–.166 HOLE–SS	035819
3	FLOAT A.–MIX LEVEL	X39690
4	PANEL–REAR	051556
5	PANEL–SIDE	051557
6	PAN–DRIP 11–5/8 LONG	027503
7	LEG–4" 3/8–16 STUD–PLAST	024755
8	LIGHT–AMBER–ROUND–12V–MIX LOW	039707
9	PANEL–SIDE	051558

ITEM	DESCRIPTION	PART NO.
10	SHIELD–SPLASH 11–1/4 X 4–13/16	025063
11	TRAY–DRIP	025062
12	DECAL–DEC	047667
13	PANEL A.–FRONT	X25036
14	TRIM–FRONT	025862–SS
15	TRIM–MIDDLE BACK PANEL	025860
16	PLATE–DEC	041034–SS
17	HOLDER–DRIP TRAY	035866

160210

Model 152 Exploded View

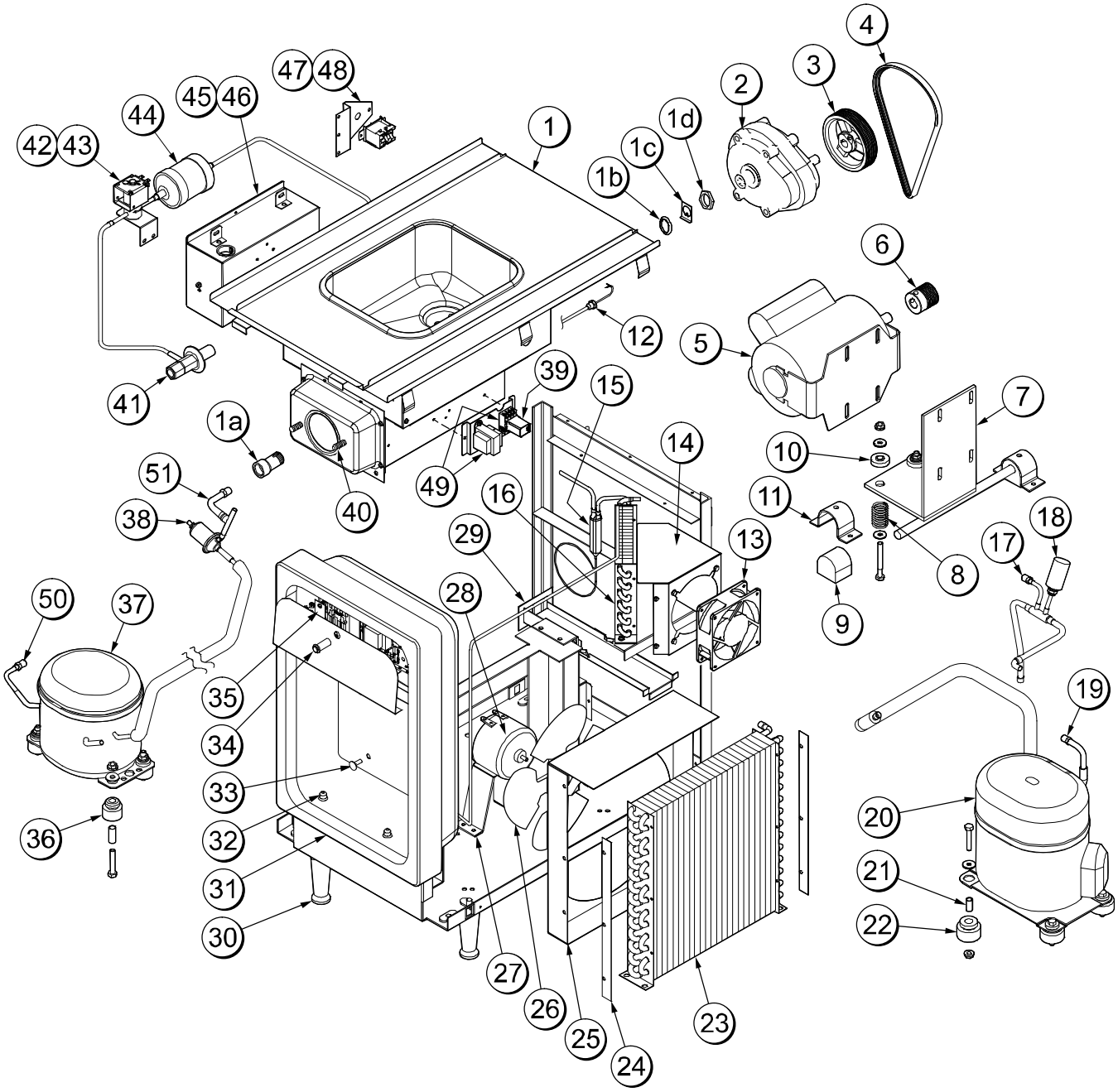


Figure 12

Model 152 Exploded View Parts Identification

ITEM	DESCRIPTION	PART NO.
1	SHELL A.- INSULATED	X59120- SER
1a	BEARING- REAR SHELL	023648
1b	COLLAR- BEARING- REAR	025564
1c	TAB- BEARING LOCK	025027
1d	NUT- REAR BEARING	023647
2	GEAR A.*REDUCER 4 TO 1	025770- SER
3	PULLEY- 10J- 4.50PD- 5/8B	030455
4	BELT- POLY V- 280J10	025776
5	MOTOR- 1/2 HP	059742-
6	PULLEY- 10J- 1.5 PD- 5/8BORE	025479
7	HINGE A.- MOTOR	X25896
8	SPRING- COMP.970X.115X2.00	025707
9	BUSHING- RUBBER MOUNT	012258
10	CAP- RUBBER MOUNT	011844
11	CLAMP- MOUNTING	012257
12	SWITCH A.- REED INTERLOCK DOOR	X65658- 5
13	KIT A.- MOTOR- FAN	X62253- 27
14	SHROUD- CONDENSER	051542
15	DRYER- CAP. TUBE .026 ID X 8	048725
16	CONDENSER- AC 7X6X1.25	027155
17	VALVE- ACCESS- 1/4 MFLX1/4	047016
18	SWITCH- PRESSURE 440 PSI	048230
19	VALVE- ACCESS- 1/4FL X 3/8	044455
20	COMPRESSOR AKA9462ZXC- AK172J	049302-
21	SLEEVE- MT- COMP- AE	039920
22	GROMMET- COMPRESSR MT	039919
23	CONDENSER- AC 12LX14HX1.87T 3RW	046556

ITEM	DESCRIPTION	PART NO.
24	TRIM- SHROUD- FAN	051560
25	SHROUD- FAN	051559
26	FAN- 4 BLADE 11 ” PUSH 30	027818
27	BRACKET- FAN	025631
28	MOTOR- FAN 23.2W 50HZ	027817-
29	GUIDE A.- DRIP PAN	X28593
30	LEG- 4” 3/8- 16 STUD- PLAST	024755
31	PANEL A.- FRONT	X25036
32	HOLDER- DRIP TRAY	035866
33	BOLT- CARRIAGE 1/4- 20X3/4	012347
34	LIGHT- AMBER- ROUND- 12V- MIX LOW	039707
35	CONTROL A.	X51544SER1
36	KIT- MOUNTING- COMPRES	047704
37	COMPRESSOR TL3G- R134A	047701-
38	VALVE- EPR 1/4S	022665
39	RELAY- DPDT 1MA- 7A 1/6HP	052111- 03
40	STUD- NOSE CONE	013496
41	VALVE- EXP- AUTO- 1/4S X1/4	046365
42	VALVE- SOLENOID 7/64ORF	043449-
43	BRACKET- SOLENOID	051551
44	DRYER- FILTER- HP62- 3/8	048901
45	CONTROL A.	X51543-
46	COVER- CONTROL BOX	051552
47	CONTROL- TEMPERATURE	028914
48	BRACKET- CONTROL- TMP	035461
49	HARNESS- TRANS RELY A.	083829- 27
50	VALVE- ACCESS- 1/4 MFLX1/4	047016
51	VALVE- ACCESS- 1/4FL X 1/4	044404

Model 162 Exploded View

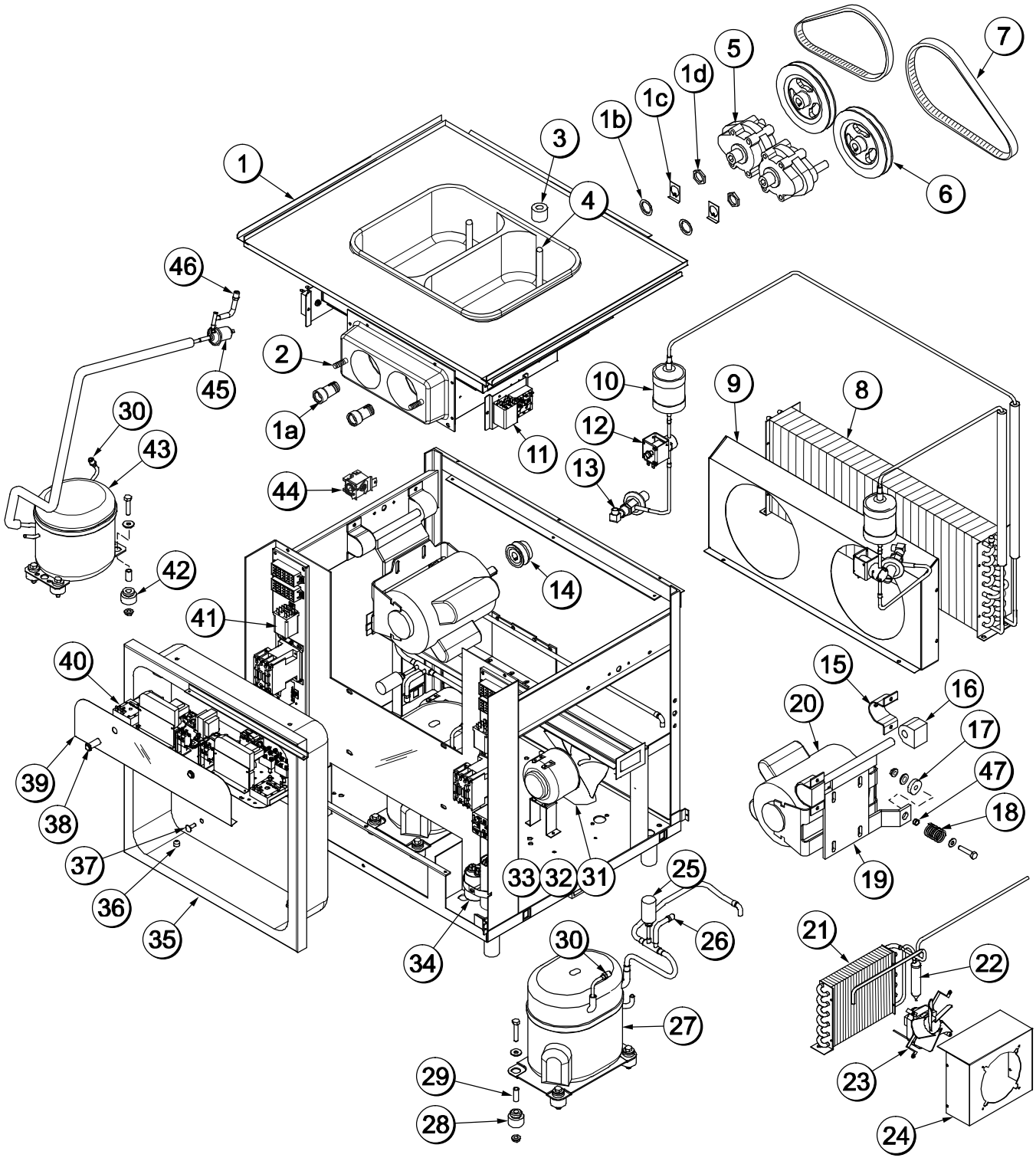


Figure 13

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	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	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 1/4 FL X 3/8	044455
47	CAP-RUBBER MOUNT	011844

Model 162 Operator Parts Identification

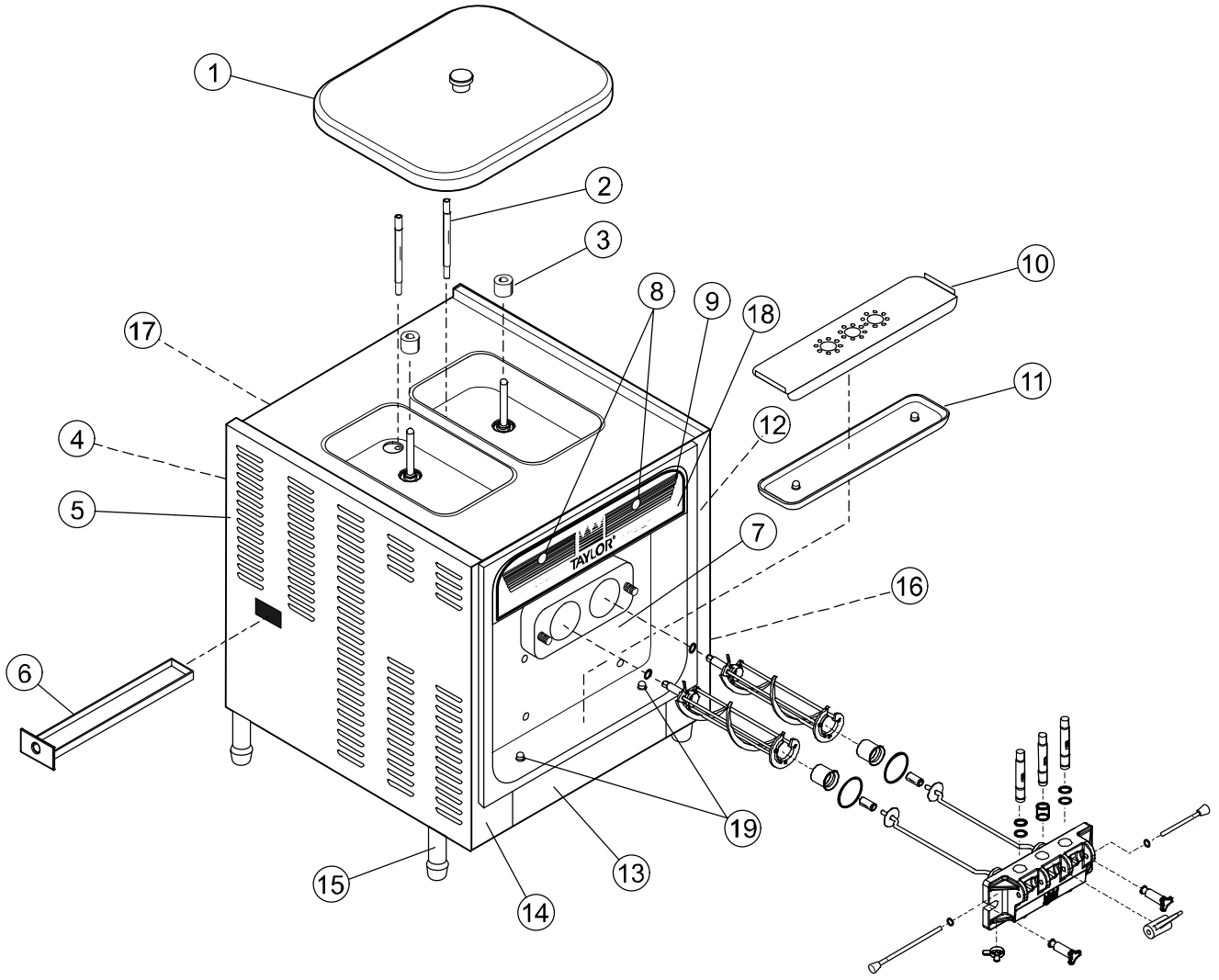


Figure 14

ITEM	DESCRIPTION	PART NO.
1	COVER A.–HOPPER	X37963–SER
2	TUBE–FEED .166 HOLE	030797
3	FLOAT A.–MIX LEVEL	X39690
4	PANEL–REAR	047276–SS
5	PANEL–SIDE–LEFT	050213–SS
6	PAN–DRIP 19–1/2 LONG	035034
7	PANEL A.–FRONT	X30711
8	LIGHT–AMBER–MIX LOW	039707
9	DECAL–DECORATIVE	047666
10	SHIELD–SPLASH	030789

ITEM	DESCRIPTION	PART NO.
11	TRAY–DRIP–16–7/8 x 4–3/8	030565
12	PANEL–FRONT RIGHT	035933–SS
13	TRIM–FRONT	050212–SS
14	PANEL–FRONT LEFT	035932–SS
15	LEG–4.250” (WITH O–RING)	013458
16	PANEL–SIDE RIGHT	050214–SS
17	TRIM–PANEL–REAR	035923
18	PLATE–DECORATIVE	039723–SS
19	HOLDER–DRIP TRAY	035866

Model 168 Operator Parts Identification

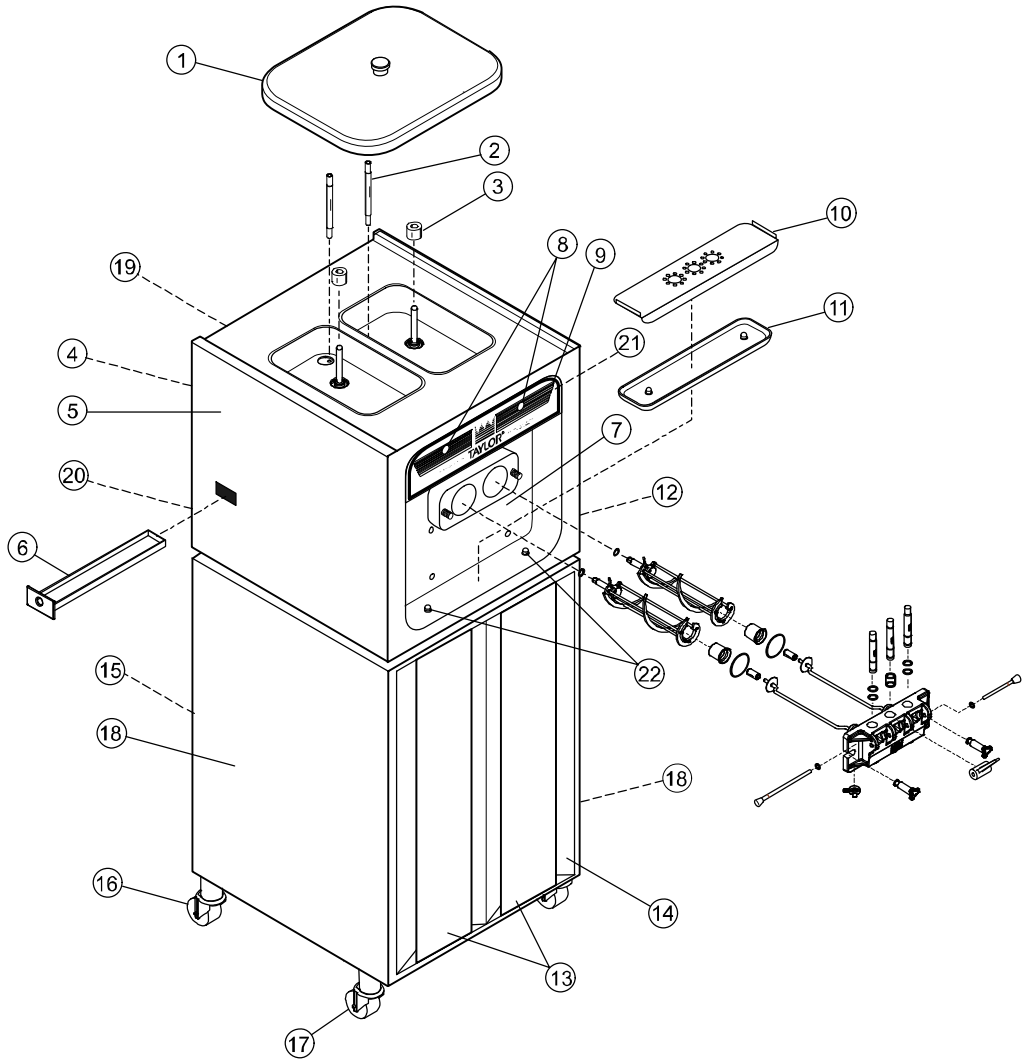


Figure 15

ITEM	DESCRIPTION	PART NO.
1	COVER A.–HOPPER	X37963–SER
2	TUBE–FEED .166 HOLE	030797
3	FLOAT A.–MIX LEVEL	X39690
4	PANEL–TOP BACK	030790–SS
5	PANEL–UPPER SIDE LEFT	030783–SS
6	PAN–DRIP 17–1/4" LONG	027504
7	PANEL A.–FRONT	X30711
8	LIGHT–AMBER MIX LOW	039707
9	DECAL–DECORATIVE	047666
10	SHIELD–SPLASH 17–5/8	030789
11	TRAY–DRIP 16–7/8	030565

ITEM	DESCRIPTION	PART NO.
12	PANEL–UPPER SIDE RIGHT	030784–SS
13	INSERT–FRONT PANEL	030773–SS
14	PANEL A.–LOWER FRONT	X30747
15	PANEL–BOTTOM BACK	055833
16	CASTER–3" RIGID (REAR)	012226
17	CASTER–3" SWIVEL (FRONT)	012227
18	PANEL–LOWER SIDE	030792–SS
19	TRIM–TOP BACK PANEL	030775
20	TRIM–MIDDLE BACK PANEL	030795
21	PLATE–DECORATIVE	039723–SS
22	HOLDER–DRIP TRAY	035866

Model 168 Exploded View

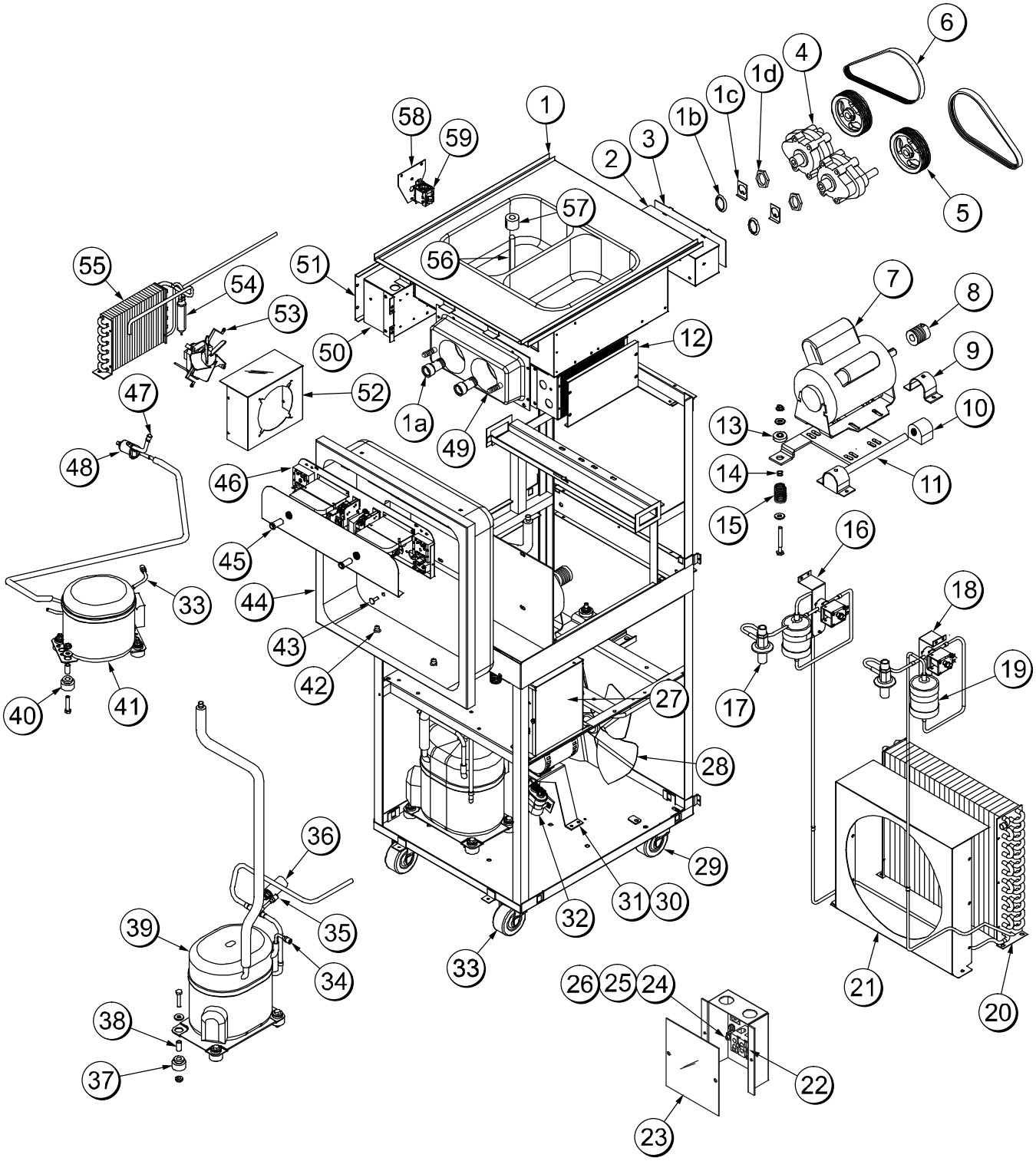


Figure 16

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	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

Beater & Door A. (Models 150/152)

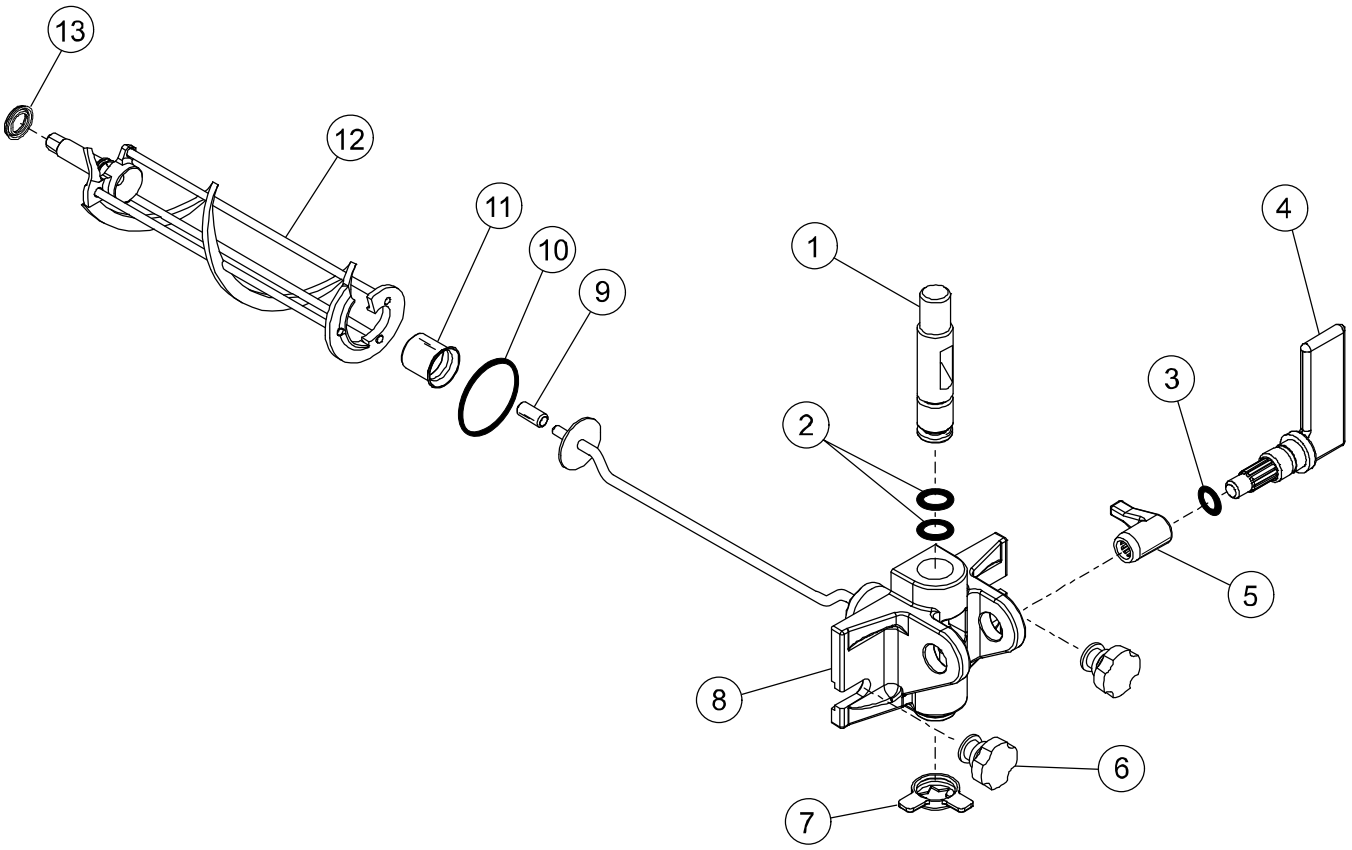


Figure 17

Item	Description	Part No.
1	Valve–Draw	024763
2	O–Ring–7/8 OD x .103 W	014402
3	O–Ring–3/4 OD x .103 W	015835
4	Handle–Draw	024762
5	Arm–Valve Lifter	024761
6	Nut–Stud	034829
7	Cap–Design 1.010” ID – 6 Point	014218

Item	Description	Part No.
8	Door A.–1 Spout	X38959–SER
9	Bearing–Guide	014496
10	O–Ring–2–3/4 OD x .139 W	019998
11	Bearing–Front	023262
12	Beater A.	X24689
13	Seal–U–Cup	080534

Beater & Door A. (Models 162/168)

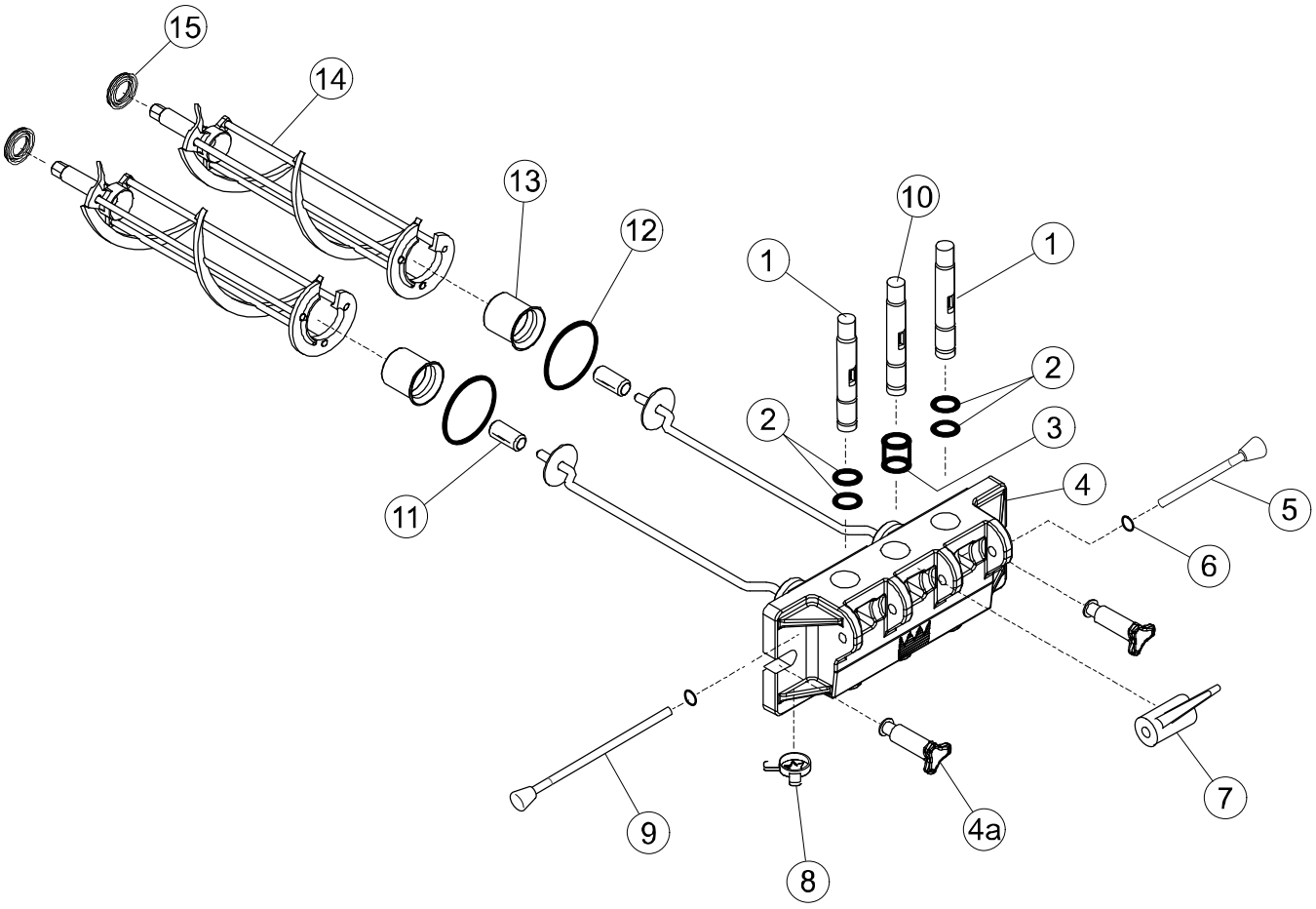


Figure 18

Item	Description	Part No.
1	Valve–Draw	024763
2	O–Ring–7/8 OD x .103 W	014402
3	Seal–Draw Valve (H–Ring)	030930
4	Kit A.–Door 3 Spt 1.5 Qt. Valox	X56906–SER
4a	Nut–Stud	056802
5	Pin A.–Pivot Short	X38539
6	O–Ring–5/16 OD x .070 W	016272
7	Handle–Draw Valve	030564

Item	Description	Part No.
8	Cap–Design 1.010” ID – 6 Point	014218
9	Pin A.–Pivot Long	X38538
10	Valve–Draw–Center	031164
11	Bearing–Guide	014496
12	O–Ring–2–3/4 OD x .139 W	019998
13	Bearing–Front	023262
14	Beater A.	X24689
15	Seal–U–Cup	080534

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

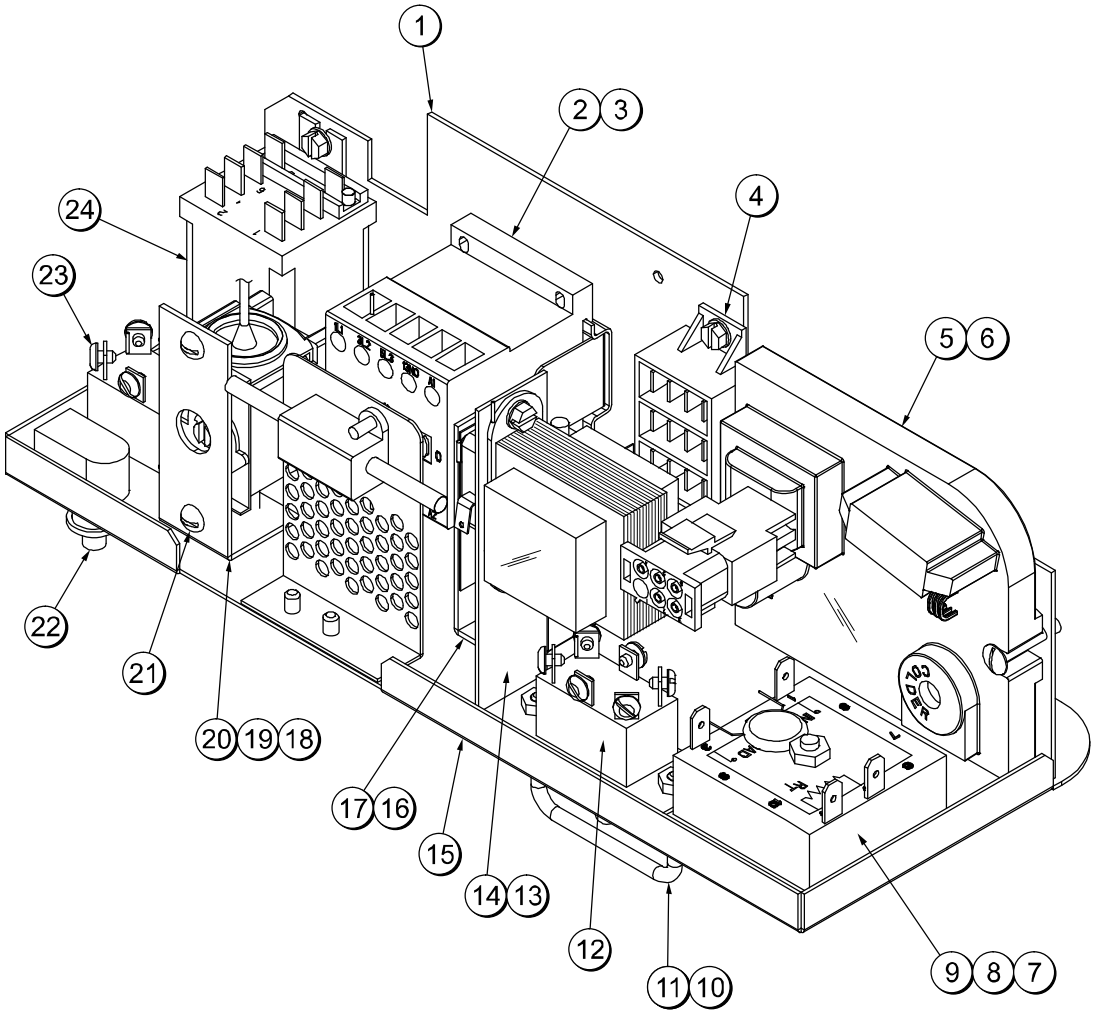


Figure 19

ITEM	DESCRIPTION	PART NO.
1	MOUNT-CONTROL	068981
2	CONTACTOR 230VAC 1PH	055248-27
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)

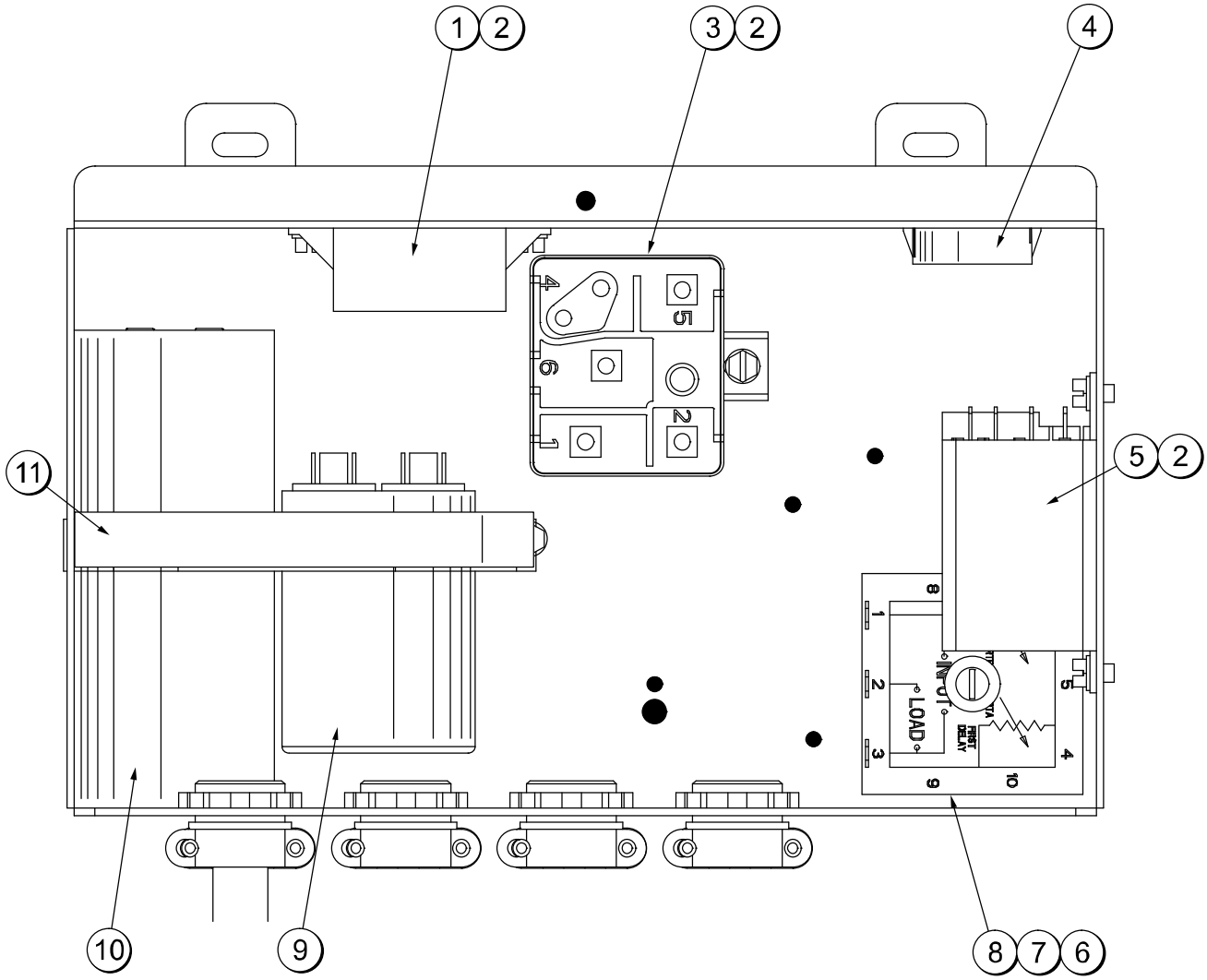


Figure 20

ITEM	DESCRIPTION	PART NO.
1	BLOCK–TERMINAL 1P	073423
2	SCREW–8X1/4 SL HEX HD	009894
3	RELAY–START–COMPRESS0R	048150
4	BUSHING–SNAP 15/16 ID	023396
5	RELAY–3PDT–16AMP–1HP	062074–27
6	WASHER–#10 STEEL BACKED	051021

ITEM	DESCRIPTION	PART NO.
7	SCREW–8X1–1/4 PHLP HD RD B	039420
8	TIMER–CYCLE 5SEC ON/120SEC OFF	037188–
9	CAPACITOR–RUN– 15UF/370V	027087
10	CAPACITOR–START– 72–88UF	039567
11	STRAP–CAPACITOR 5–5/8 IN.	030258

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

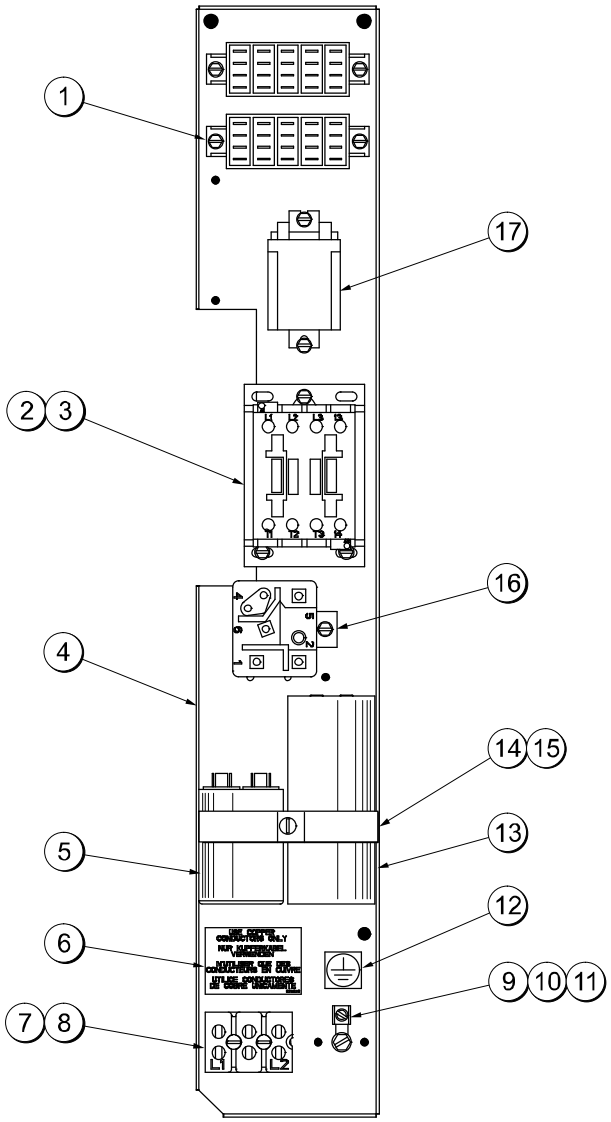


Figure 21

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-10-32X2 SLTD ROUND	051200
16	RELAY-START-COMPRESSOR	048150
17	RELAY-DPDT-20 A-230 V	026581-

160212

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

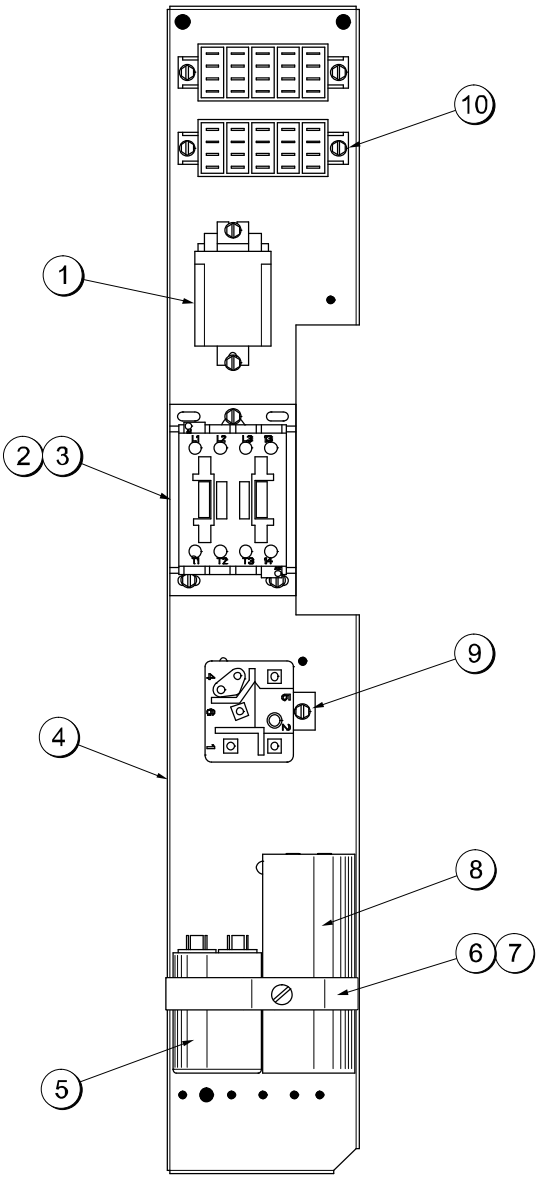


Figure 22

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-10-32X2 SLTD ROUND	051200
8	CAPACITOR-START- 72-88UF	039567
9	RELAY-START-COMPRESSOR	048150
10	BLOCK-TERMINAL 5 POLE	024329

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

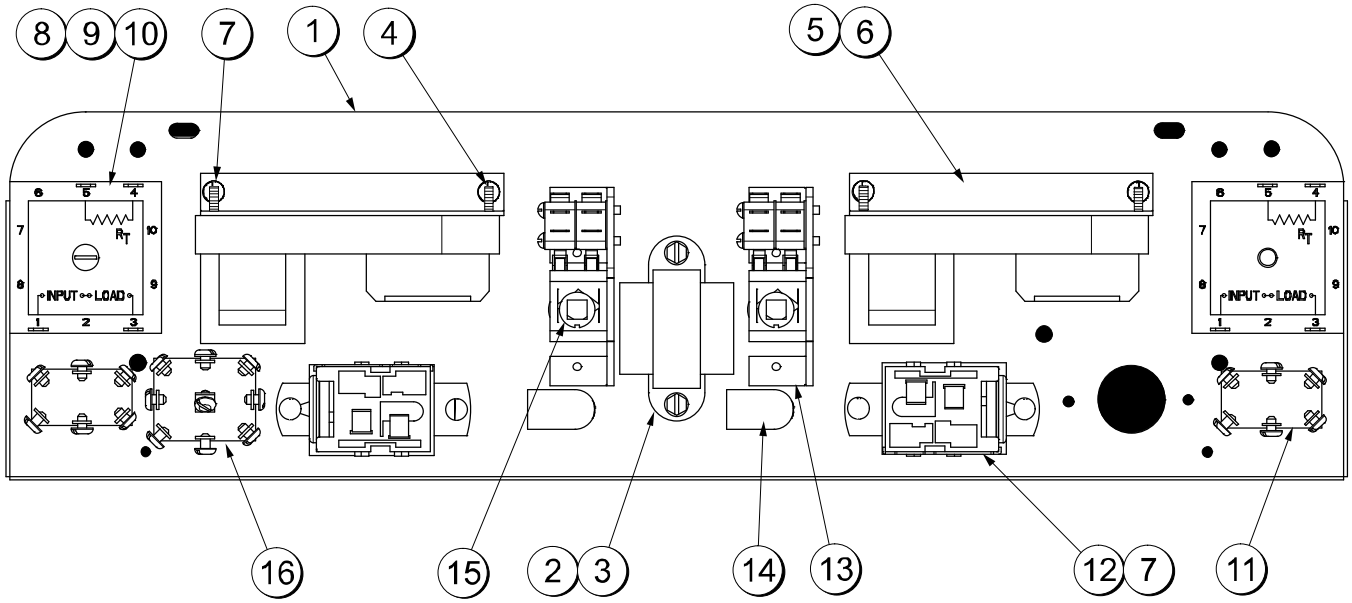


Figure 23

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)

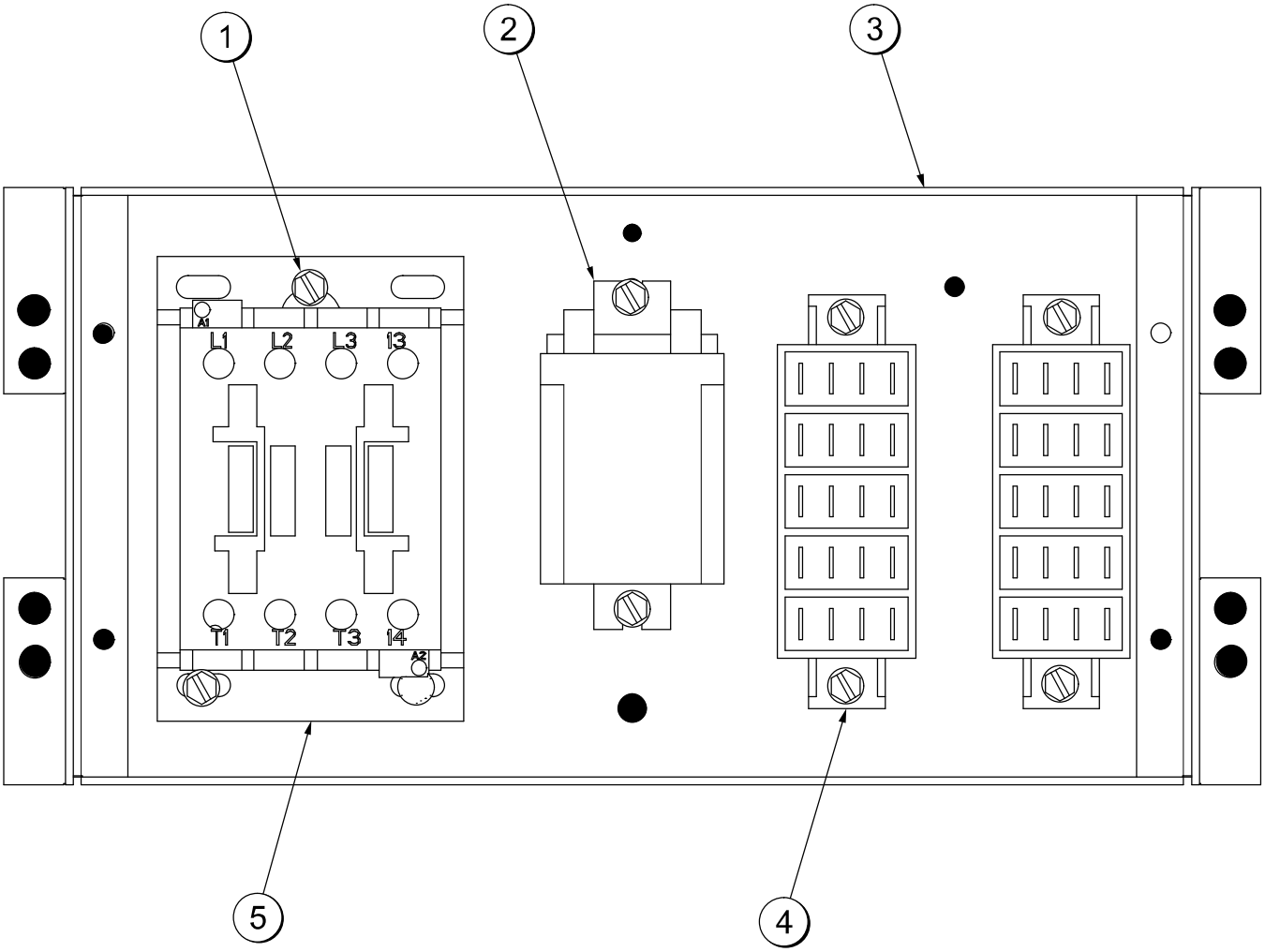


Figure 24

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)

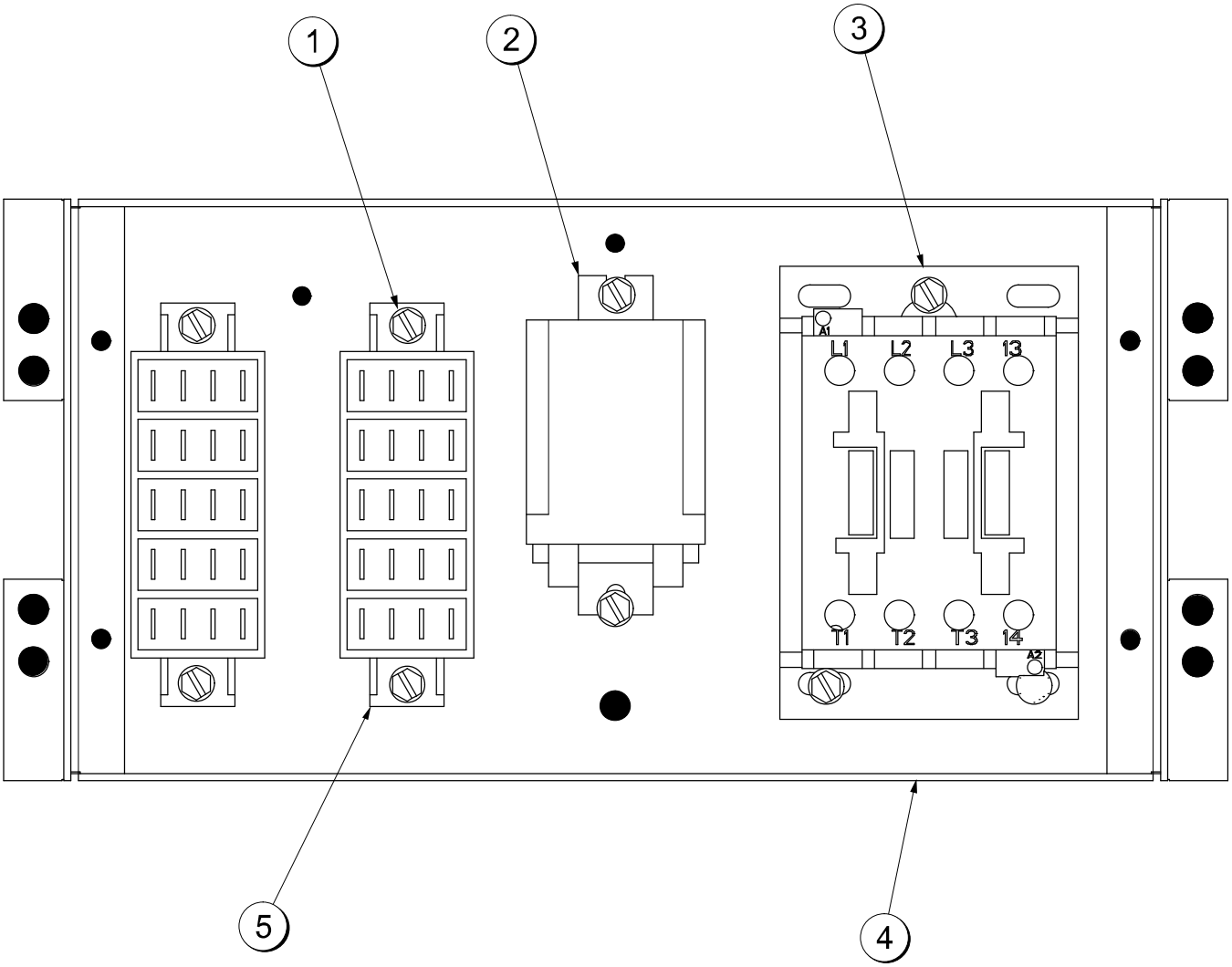


Figure 25

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)

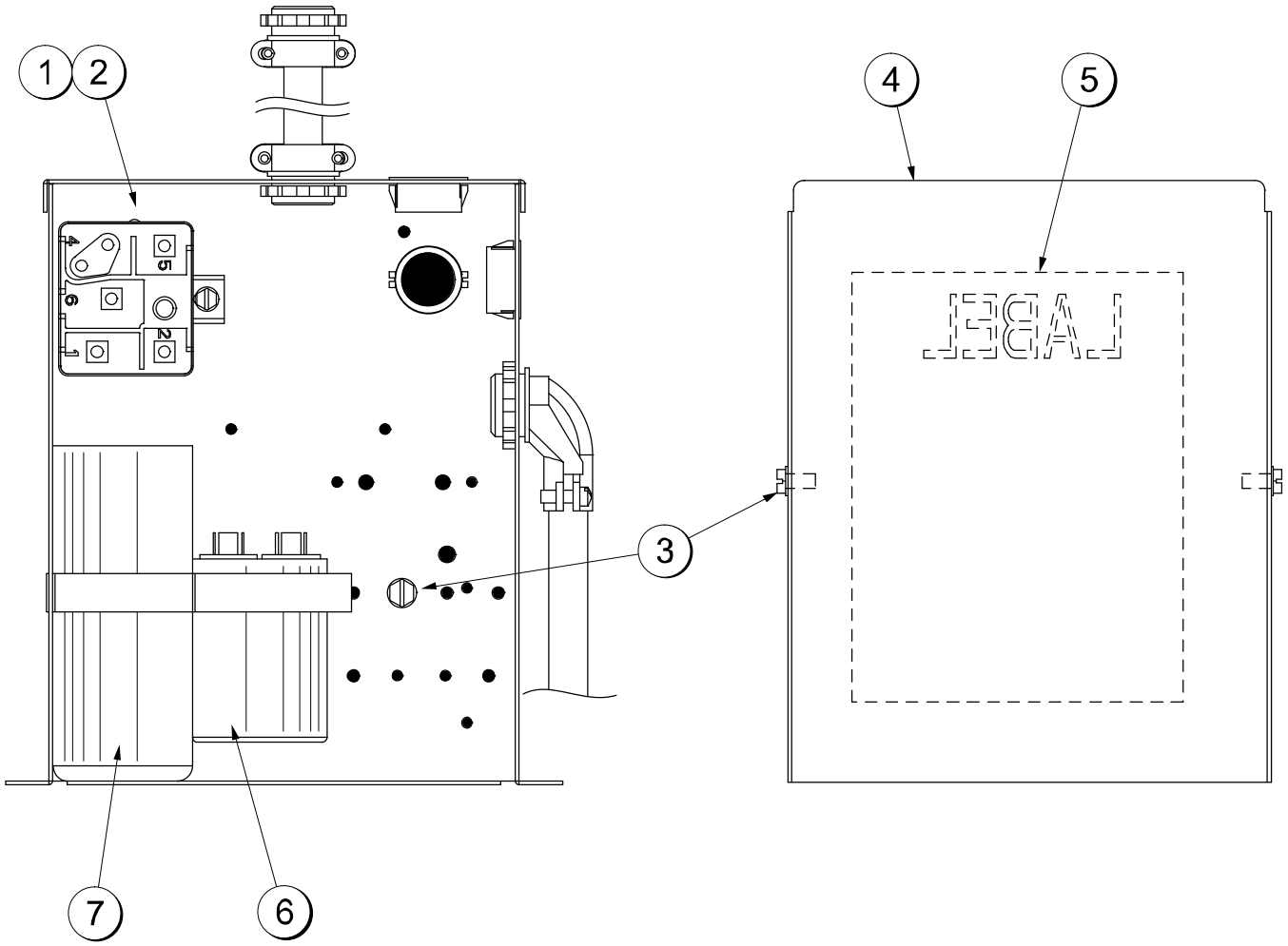


Figure 26

ITEM	DESCRIPTION	PART NO.
1	RELAY–START–COMPRESSOR	048150
2	SCREW–8X1/4 SLTD HEX WASH	009894
3	SCREW–10X3/8 SLOTTED HEX	015582
4	COVER–CAP.RELAY BOX	030315

ITEM	DESCRIPTION	PART NO.
5	LABEL–WIRING SINGLE PHASE	036880–2
6	CAPACITOR–RUN 15UF/370V	027087
7	CAPACITOR–START 72–88UF/330V	039567

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

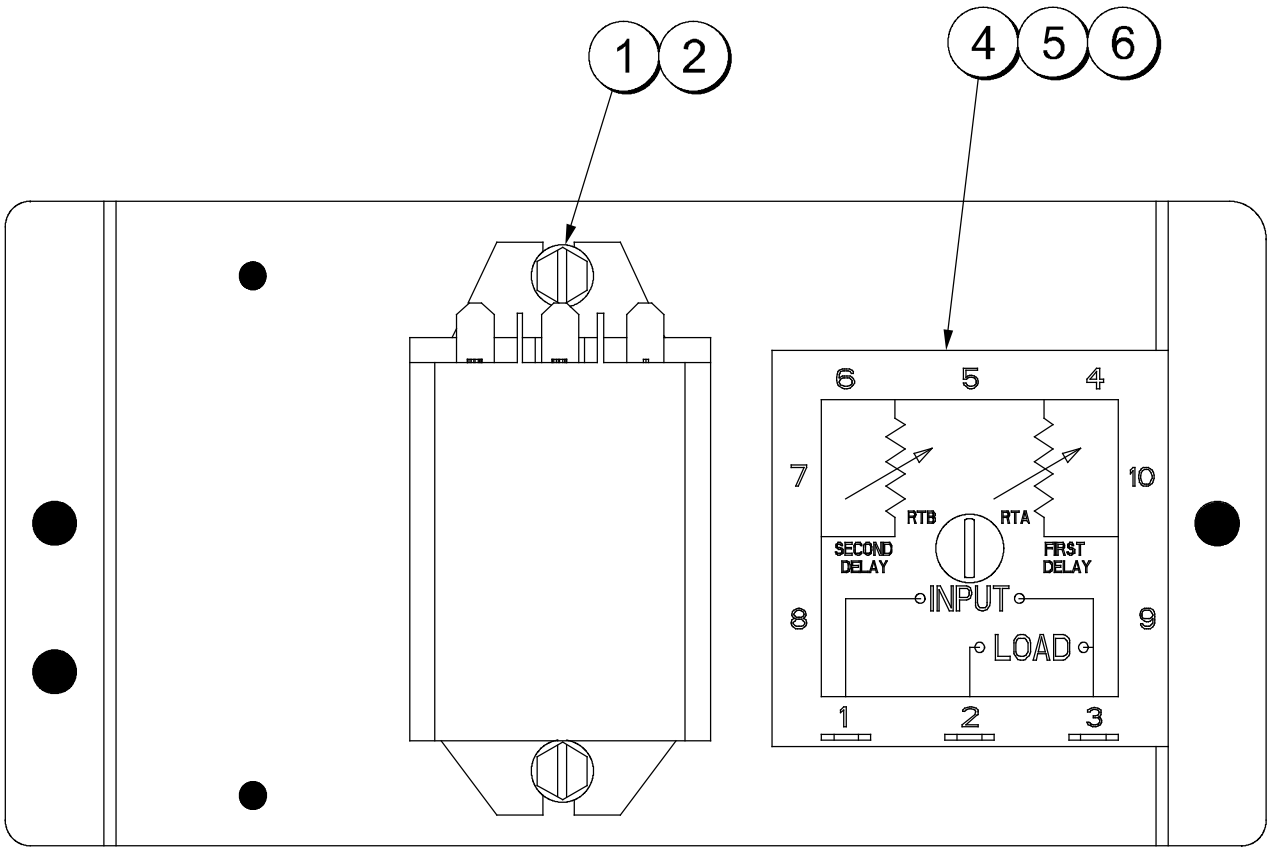


Figure 27

ITEM	DESCRIPTION	PART NO.
1	RELAY- 3PDT- 16AMP- 1HP	062074- 27
2	SCREW- 8X1/4 SLTD HEX WASH	009894
3	BRACKET- RELAY TIMER STIR	051634

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

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

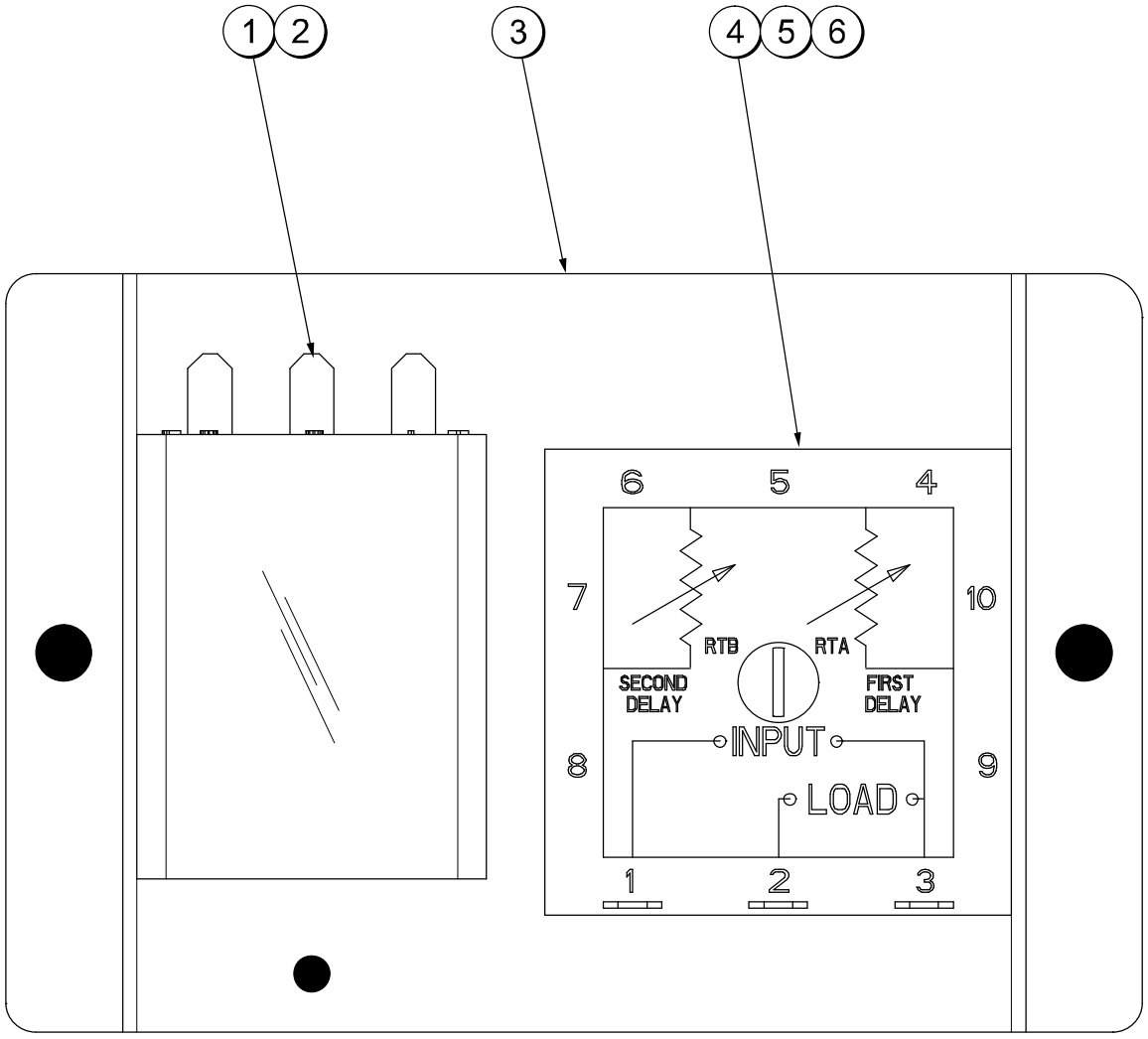


Figure 28

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)

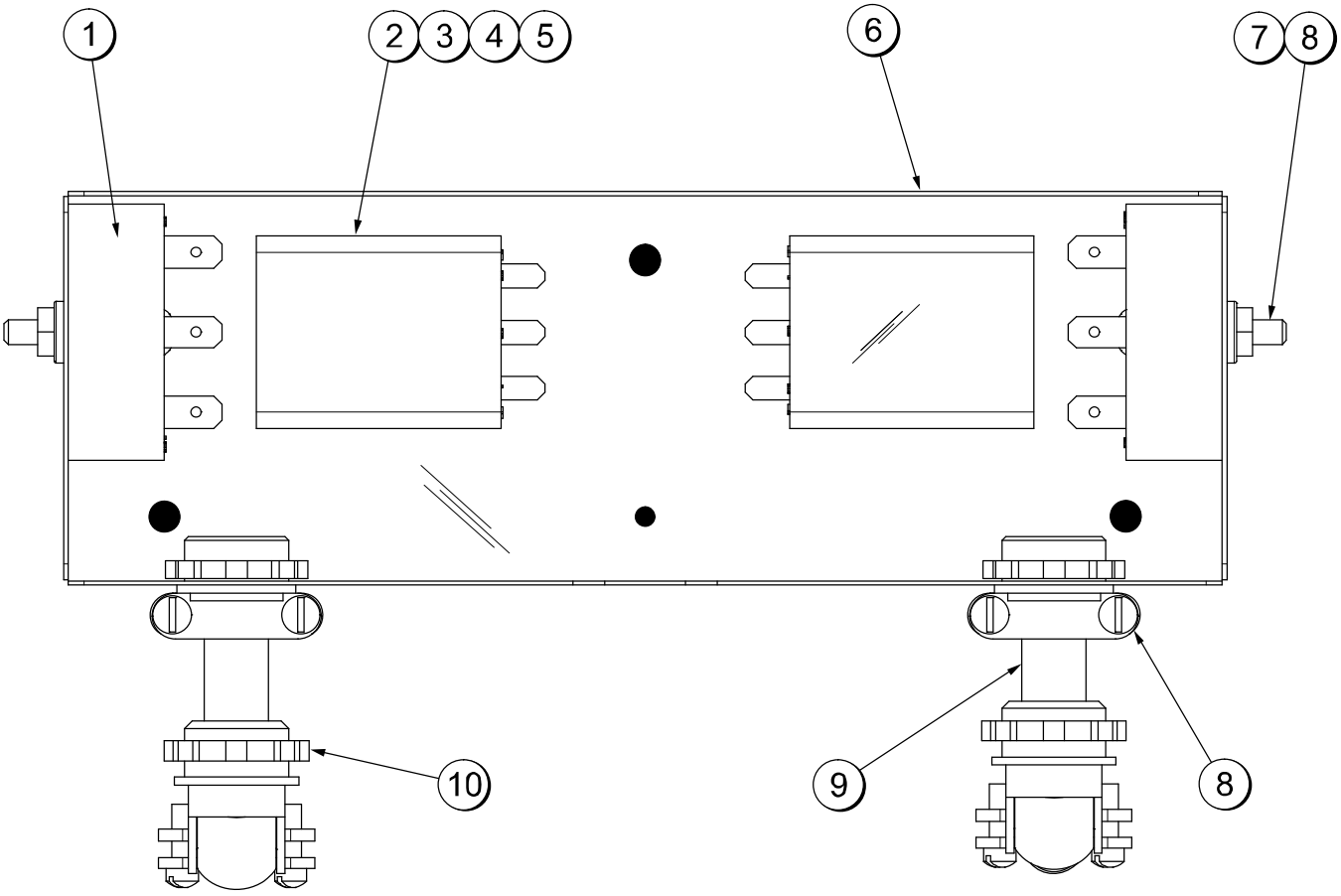


Figure 29

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

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
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 L1,N	039421			2		103	
BLOCK-TERMINAL 2P	039422				2	103	
BLOCK-TERMINAL 2P .25 SPADE	069015	1				103	ADDED 5/7/15
BLOCK-TERMINAL 5 POLE	024329	1	1	2	4	103	
BLOCK-TERMINAL 1P	073423		1			103	
BLOCK-TERMINAL 7 POLE	025156			2	2	103	115-60-1
BRUSH-DOUBLE ENDED-PUMP&FEED T	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-3" SWV W/4 HOLE PLT/BRK	058500	2				103	9/14/2010 REPLACED 012227
CASTER-3" RIGID - 4 HOLE PLATE	058501	2				103	9/14/2010 REPLACED 012226
CASTER-RIGID 3 IN. WHL	012226	*			2	103	
CASTER-SWIVEL 3 IN. WHEEL	012227	*			2	103	
COMPRESSOR AKA9462ZXD-AK172ET	049302-	1	1	2	2	512	MAIN - TECUMSEH HP62
+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

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
+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			512	SHR - DANFOSS
+RELAY-START-COMPRESSOR	027714-12	1	1			103	115-60-1
+RELAY-START-COMPRESSOR-TL3G	047702-27	1	1			103	230-60-1
+CAPACITOR-START-60UF-220/275V	047703	1	1			103	230-60-1
CONDENSER-AC-7X6X1.25-2 ROW	027155	1	1			103	SHR
CONDENSER-AC-12LX14HX1.87T 3RW	046556	1	1			103	A/C MAIN
CONDENSER-AC-9HX24WX2.5T-4 ROW	047146			1		103	
CONDENSER-AC-15LX14HX2.57-4R	047255				1	103	
CONTACTOR 120VAC 50/60HZ	055248-12	1	1			103	150/152 115V 60HZ 1PH - M0114949 & UP REPLACES 012725-12 & 066795-12 RELAYS
CONTACTOR 230VAC 1PH 50/60HZ	055248-27	1	1			103	150/152 208-230V - M0114972 & UP REPLACES 012725-27 & 066795-27 RELAYS
+RESISTOR A.-5K OHM 20 WAT	X68908	1	1			103	150/152-12 S/N M0114949 & UP
+BASE-TERMINAL	500187-2	1	1			103	150/152-12 S/N M0114949 & UP
+MOUNT-CONTROL *150-2*	068981	1	1			103	150/152-12 S/N M0114949 & UP
CONTROL-TEMP.	028914	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	FAN MOTOR
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	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
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	
ROD A.-BAFFLE	X57200	1	1			103	
+O-RING-2-3/4 OD X .139W	019998	1	1			000	
+ARM-VALVE LIFTER	024761	1	1			103	
+HANDLE-DRAW	024762	1	1			103	
+O-RING-3/4 OD X .103W	015835	1	1			000	
VALVE-DRAW *150-2*	024763	1	1			103	
+O-RING-7/8 OD X .103W	014402	2	2			000	
DOOR A.-3SPT 1.5QT VALOX W/BAF	X56906SER1			1	1	103	S/N J3010000 & UP - IF PRIOR TO J301 USE X56906-SER KIT W/STUD NUTS
ROD A.-BAFFLE	X57200			2	2	103	
+HANDLE-DRAW VALVE	030564			3	3	103	
+O-RING-2-3/4 OD X .139W	019998			2	2	000	DOOR GASKET/SEAL
+PIN A.-PIVOT-LONG	X38538			1	1	103	
+O-RING-5/16 OD X .070W	016272			1	1	000	
+PIN A.-PIVOT-SHORT	X38539			1	1	103	
+O-RING-5/16 OD X .070W	016272			1	2	000	
+VALVE-DRAW *150-2*	024763			2	2	103	
+O-RING-7/8 OD X .103W	014402			4	4	000	
+VALVE-DRAW -CENTER	031164			1	1	103	
+SEAL-DRIVE SHAFT	030930			1	1	000	
DOOR A.-3 SPOUT	X30753-SER			1	1	103	S/N J212 & PRIOR MUST USE X56906-SER KIT TO UPDATE TO NEW STYLE DOOR
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-SER		1	2	2	103	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
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		1		103	
HARNESS-TRANS RELAY A.	083829-27	1	1				
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				2	103	
LABEL-CAUTION-GRD-PERM-ENG/SP	032164	1	1	1	1	000	
LABEL-CAUTION GROUND CORD UNIT	032165	1	1	1	1	000	
LABEL-DOOR CAUTION	032749	1	1	1	1	000	
LABEL-MIX COOLING ADJ.	020217	1	1	1	1	000	
LABEL-MOVING PARTS WARNING	051433	6	3	3	6	000	REPLACES 024315
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	2	2	103	
LUBRICANT-TAYLOR 4 OZ.	047518	1	1	1	1	000	
KIT A.-MOTOR-FAN	X62253-27	1	1	1	1	103	208-230V 60HZ 1PH
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	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
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	162 & 168 S/N K6030000 & UP
O-RING-7/8 OD X .103W	014402			4	4	000	162 & 168 S/N K6030000 & UP
SEAL-VALVE	030930			1	1	000	
TOOL- 0-RING REMOVAL	048260-WHT			1	1	000	
MAN-OPER 150/152/162/168	028749-M	1	1	1	1	000	
MOTOR-1/2 HP	059742-12	1	1	2	2	212	150/152 K4126184 & UP - 162/168 DUAL POWER(115V 60 1PH)
+CAPACITOR-RUN 35UF/370V	059756	1	1	2	2	103	
+CAPACITOR-START 460-552UF/165V	059758	1	1	2	2	103	
MOTOR-1/2 HP	059742-27	1	1	2	2	212	150 & 152 S/N K4126184 & UP REPLACES 024839- (208-230V 60 1PH)
+CAPACITOR-RUN 10UF/370V	059998	1	1	2	2	103	
+CAPACITOR-START 72-88UF/330V	059757	1	1	2	2	103	
MOTOR-1/2 HP	024839-12			*	*	212	150/152 S/N K4126183 162/168 S/N K3020000 & PRIOR (115V)
MOTOR-1/2 HP	024839-27			*	*	212	(208-230V 60 1PH)
+CAPACITOR-RUN 35UF/220V	033048	1	1			103	
+CAPACITOR-START 161-193UF/115V	046568	1	1			103	
MOTOR-FAN 17W/60HZ 2900RPM-CCW	027309-	*	*	*	*	103	SHR - 115V USE 062253-12 / 208-230V USE X62253-27 KIT
MOTOR-FAN 95.3 CFM 2700 RPM	062253-12	*	*	*	*	103	SHR - 115V USE 062253-12 / 208-230V USE X62253-27 KIT
KIT A.-MOTOR-FAN	X62253-27	1	1	1	1	103	208-230V 60HZ 1PH
MOTOR-FAN 35W-40"LEADS	027817-12	1	1			103	115V 60HZ 1PH
MOTOR-FAN	027817-27	1	1			103	208-230V 60HZ 1PH
+FAN-4 BLADE 11 " PULL 30DEG CW	028405	1				103	
+FAN-4 BLADE 11 " PUSH 30DEG CW	027818		1			103	
MOTOR-FAN-25W	015184-12			2		103	115V 60HZ 1PH
+FAN-5 BLADE 8" PUSH 37 DEG CCW	047231			2		103	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
MOTOR-FAN-25W	015184-27			2		103	208-230V 60HZ 1PH
+FAN-5 BLADE 8" PUSH 37 DEG CCW	047231			2		103	
MOTOR-FAN 50 WATT W/GROUNDWIRE	029770-27				1	103	
+FAN-5 BLADE 12"PUSH 32DEG CCW	047279				1	103	
NUT-STUD *161-162-168*	056802				2	103	S/N K3010000 & UP - FOR USE WITH X56906SER1 DOOR
NUT-STUD *150-152-162-168*	034829	2	2	2		103	168 S/N K2120000 & PRIOR - USED WITH X38959-SER DOOR
PAIL-6 QT.	023348	1	1	1	1	000	
PAN-DRIP 11-5/8 LONG	027503	1	1			103	
PAN-DRIP 19-1/2 LONG	035034			1		103	
PAN-DRIP 17-1/4"LONG	027504				1	103	
PANEL A.-FRONT *150-152*	X25036	1	1			103	
PANEL A.-LOWER FRONT *150*	X25518	1				103	
PANEL-BACK BOTTOM *150*	050430	1				103	
PANEL-BACK TOP *150*	050429	1				103	
PANEL-INSERT *150*	025533-SS	1				103	
PANEL-LOWER SIDE *150-168*	030792-SS	2			2	103	
PANEL-UPPER SIDE LEFT *150-68*	030783-SS	1			1	103	
PANEL-UPPER SIDE RIGHT *150-68*	030784-SS	1			1	103	
PANEL-REAR	051556		1			103	
PANEL-SIDE *152*LEFT*HP62	051557		1			103	
PANEL-SIDE *152*RIGHT*HP62*	051558		1			103	
PANEL A.-CONTROL LEFT *162*	X37190			1		103	
PANEL A.-CONTROL RIGHT *162*	X37191			1		103	
PANEL A.-FRONT *162-168	X30711			1	1	103	
PANEL-FRONT LEFT *162*	035932-SS			1		103	
PANEL-FRONT RIGHT *162*	035933-SS			1		103	
PANEL-REAR *162AC*	047276-SS			1		103	
PANEL-SIDE-LEFT-162	050213-SS			1		103	
PANEL-SIDE-RIGHT-162	050214-SS			1		103	
PANEL A.-LOWER FRONT *168*	X30747				1	103	
PANEL-BOTTOM BACK *168*	055833				1	103	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
PANEL-TOP BACK *168*	030790-SS				1	103	
BRACKET-PANEL (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 115V	066795-12	1	1	2	2	103	*NOT GOOD FIT FOR 150 & 152 SEE CONTACTOR
RELAY-3 POLE	012725-	*	*	*	*	103	N/A 150-12 & 152-12 USE 066795-12 OR -27
RELAY-3PDT-16AMP-1HP @120 VAC	062074-12	1	1	2	2	103	STIR CYCLE - 7-2-2013
RELAY-3PDT-16AMP-1HP @230 VAC	062074-27	1	1	2	2	103	STIR CYCLE - 7-2-2013
RELAY-3 POLE-10 AMP.	023845-	*	*	*	*	103	N/A USE 062074-12 OR -27 - STIR CYCLE
RELAY-DPDT 1MA TO 7A 1/6HP	052111-03	1	1	1	1	103	
RELAY-DPDT-20 A-120V	026581-	*	*	*	*	103	
RESISTOR A.-5K OHM 20 WAT	X68908	1				103	S/N M0114949 & UP
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*	X58792-SER	1				512	
SHELL A.-INSULATED *152*	X59120-SER		1			512	
SHELL A.-INSULATED *162/168*	X50150-SER			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	
SHROUD A.-CONDENSER *150*UPPER	X47506	1				103	
SHROUD A.-CONDENSER *168*AIR	X47370				1	103	
SHROUD-CONDENSER *150*	047511-SPN	1				103	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
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	
BEARING-SWITCH	029244			2	2	000	
BRACKET-SWITCH *168*	035524			1	1	103	
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	
SWITCH-LEVER-SPDT-15A-125-25	027214			2	2	103	
+ARM A.-SWITCH *162-168*	X30736			2	2	103	
+E-RING-1/4 IN-ZD	034962			2	2	000	
+SPRING-COMP.720X.063X2.00	023664			2	2	103	
+SWITCH-ACTUATOR	035609			2	2	103	
SWITCH A.-REED INTERLOCK DOOR	X65658-5	1	1			103	S/N M5055358
SWITCH-PRESSURE 440 PSI-SOLDER	048230	1	1	2		103	
SWITCH-PRESSURE 405 PSI-SOLDER	052663				2	103	K0020000/UP (REPLACES 048230)
SWITCH-PUSHBUTTON-SPST	016530	1	1	2	2	103	
SWITCH-TOGGLE-DPDT*ON-OFF-ON	014464	1	1	2	2	103	
SWITCH-TOGGLE-3PDT	017184	1	1	1	1	103	MIX CAN COOLING

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
TEE-ACCESS 1/4	026686	*				103	SHR
TIMER A.-CYCLE-14 MIN	X31959-12	1	1	1	1	103	115V 60HZ 1PH
TIMER-DELAY ON MAKE-30-1000S	031958-12	1	1	1	1	103	
TIMER A.-CYCLE-14 MIN	X31959-27	1	1	1	1	103	208-230V 60HZ 1PH
TIMER-DELAY ON MAKE-30-1000S	031958-27	1	1	1	1	103	
TIMER-DELAY ON MAKE 2 SEC.	030667-12	1	1	1	1	103	
TIMER-DELAY ON MAKE 2 SEC.	030667-27	1	1	1	1	103	
TIMER-CYCLE-5 SEC ON/120 SEC OFF	037188-12	1	1	2	2	103	115V 60HZ 1PH - STIR CYCLE
TIMER-CYCLE 5SEC ON/120SEC OFF	037188-27	1	1	2	2	103	208-230V 60HZ 3PH - STIR CYCLE
TRANS.-CONT.-ANTICIPATOR 10 VA	010246-12	1	1	1	1	103	115V 60HZ 1PH
TRANS.-CONT-ANTICIPATOR 10 VA	010246-27	1	1	1	1	103	208-230V 60HZ 1PH
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 *150*	025537	1				103	
TRIM-SIDE & FRONT *150*	025528	1				103	
TRIM-TOP BACK PANEL *150*	025536	1				103	
TRIM-FRONT-SS	025862-SS		1			103	
TRIM-TOP BACK *152*	025866		1			103	
TRIM-FRONT-SS	050212-SS			1		103	
TRIM-PANEL REAR *162*	035923			1		103	
TRIM-MIDDLE BACK PANEL *168	030795				1	103	
TRIM-PANEL TOP BACK *168*	030775				1	103	
TRIM-SIDE & FRONT *168*	030774				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 3/8SDR-90	044455	1	1	1		103	
VALVE-ACCESS-1/4 MFLX1/4 S-90	047016	2	2	3	1	103	
VALVE-ACCESS-1/4FL X 3/8SDR-90	046903			1		103	
VALVE-ACCESS 1/4FL X 1/4S	044404			1	1	103	
VALVE-ACCESS-1/4MFL X 3/8ODSDR	053565				4	103	
VALVE-EPR 1/4S	022665	1	1	1	1	103	SHR
VALVE-EXP-AUTO-1/4S X1/4 FPT	046365	1	1	2	2	103	REPLACES 027137 AS OF J508 & UP
+BOOT-VALVE-EXPANSION	050900	1	1	2	2	000	REPLACES 027137 AS OF J508 & UP

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
VALVE-SOLENOID 7/64ORF X 1/4S	043449-	1	1	2	2	103	
50Hz							
BLOCK-TERMINAL-7 POLE GREEN	024156	1	1	1	3	103	
BLOCK-TERMINAL 2P .25 SPADE	069015	1				103	ADDED 8/20/15
RAIL-DIN	500187-1	1				103	
PLATE-END TERMINAL BLOCK	080969	2				103	
BLOCK-TERMINAL 4 POLE GRE	080967	2				103	
COMPRESSOR AKA9462ZXC-AK172JT	049302-40	1	1	2	2	512	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 *150/152*	050416-40	1	1			000	
DIAGRAM-WIRING	050205-40S			1	1	000	
DIAGRAM-WIRING	050205-40			1	1	000	DUAL POWER
LUG-GROUNDING 4-14GA WIRE	017667	1				000	
+SCREW-1/4-20X5/8 SERRATED HWH	017522	1				000	
+NUT-1/4-20 WHIZ FLANGE LOCK	017523	1				000	
MOTOR-FAN 23.2W 50HZ	027817-34	1	1			103	
+FAN-4 BLADE 11 " PULL 30DEG	028405	1	1			103	
MOTOR-FAN 100W 220-240V 50HZ	047178-34				1	103	
+FAN-5 BLADE 12"PUSH 32DEG CCW	047279		1		1	103	
RELAY-3PDT-16AMP	062074-27						200V 60HZ 1PH
SELF SERVE							
KIT A.-HOPPER LOCK-162	X63896			1	1	103	
BAR-HOPPER LOCK *162*	063757			1	1	103	
LOCK-ADJ SHACKLE PADLOCK TYP	038745			1	1	103	
NUTSERT-10-32/.020-.130 GRIP	047597			4	4	000	
RETAINER-BAR-LOCK-HOPPER	057850			1	1	000	
RETAINER-BAR-LOCK-HOPPER-ADJ	057853			1	1	000	
SCREW-10-32X1-1/2 SLTD TRUSS	033934			4	4	000	
STANDOFF-3/8"L X 1/2"D SS	057849			4	4	000	
DECAL-MAG-FLAVOR PADS	044022			1	1	000	

+ Available Separately

DESCRIPTION	PART NUMBER	150 QTY.	152 QTY.	162 QTY.	168 QTY.	WARR. CLASS	REMARKS
DECAL-MAG-SLF SRV-TM-TWIN	044021			1	1	000	
GUARD-POWER SWITCH	034830			1	1	103	
GUARD-POWER & DANFOSS SWITCHES	035548			1	1	103	
PCB A.-MIX LOW CHIME	X41243SER1			1	1	103	115 AND 230 VOLT APPLICATIONS

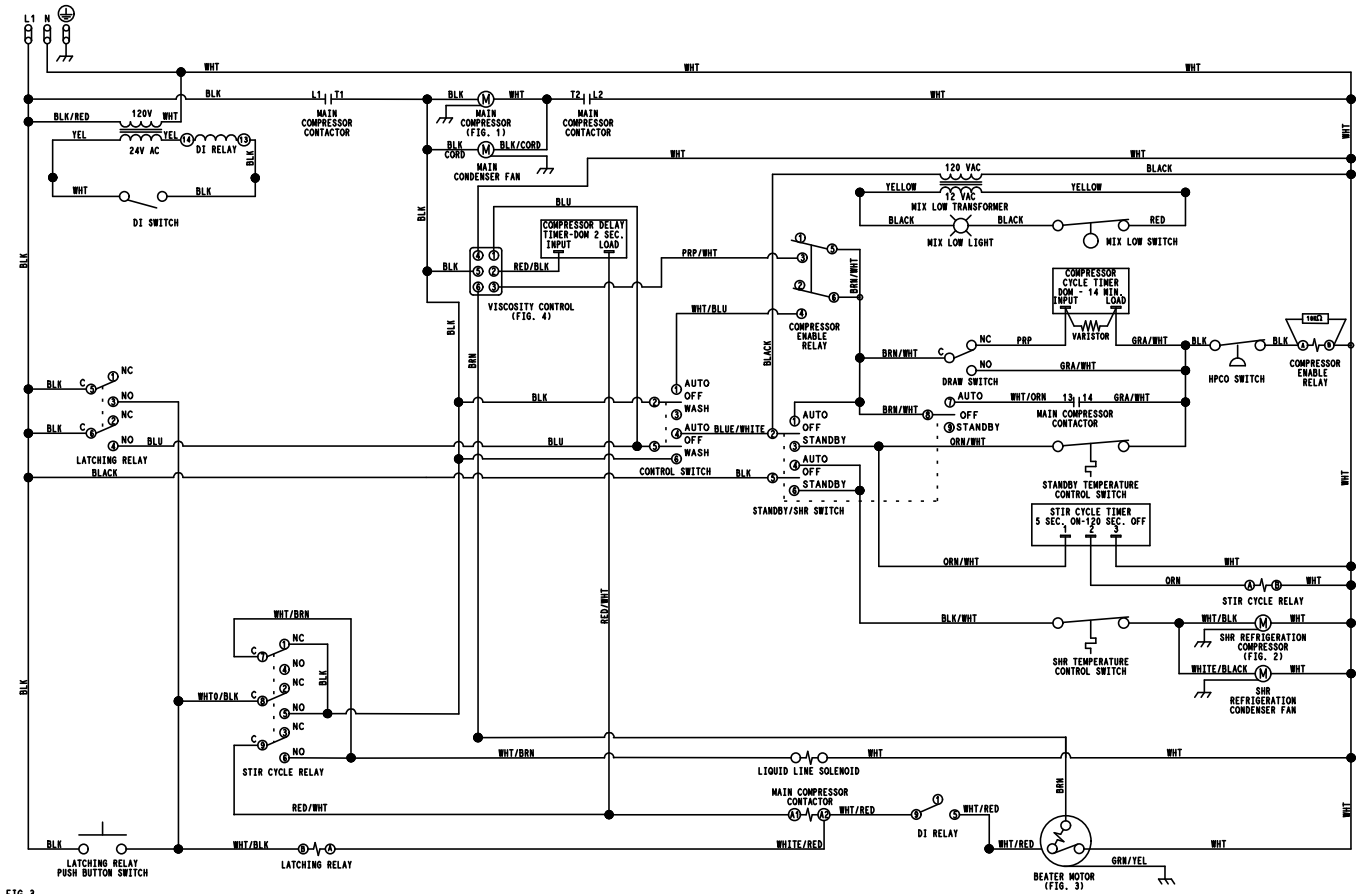


FIG 3
NOTES:

1) FOR "CCW" ROTATION OF LEESON BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL T8 TO TERMINAL 2 AND INTERNAL T5 TO TERMINAL 4.
FOR "CW" ROTATION OF LEESON BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL T5 TO TERMINAL 2 AND INTERNAL T8 TO TERMINAL 4.

2) FOR "CCW" ROTATION OF A.O. SMITH BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL RED TO TERMINAL 4 AND INTERNAL BLACK TO TERMINAL 2.
FOR "CW" ROTATION OF A.O. SMITH BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL BLACK TO TERMINAL 4 AND INTERNAL RED TO TERMINAL 2.

3) FOR "CCW" ROTATION OF GE/RBC BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL BLUE TO TERMINAL 5 AND INTERNAL YELLOW TO TERMINAL 2.
FOR "CW" ROTATION OF GE/RBC BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL YELLOW TO TERMINAL 5 AND INTERNAL BLUE TO TERMINAL 2.

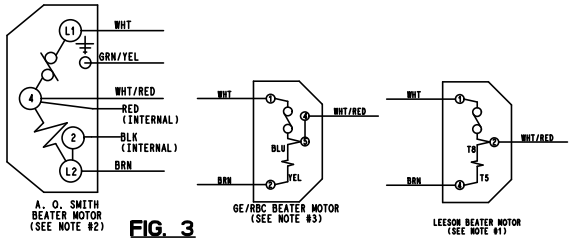


FIG. 3

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

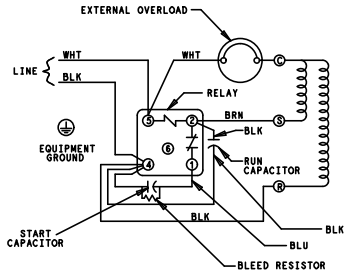


FIG. 1
TECUMSEH COMPRESSOR WIRING

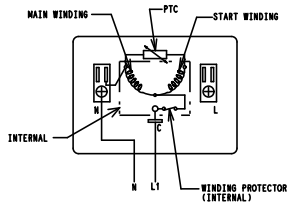
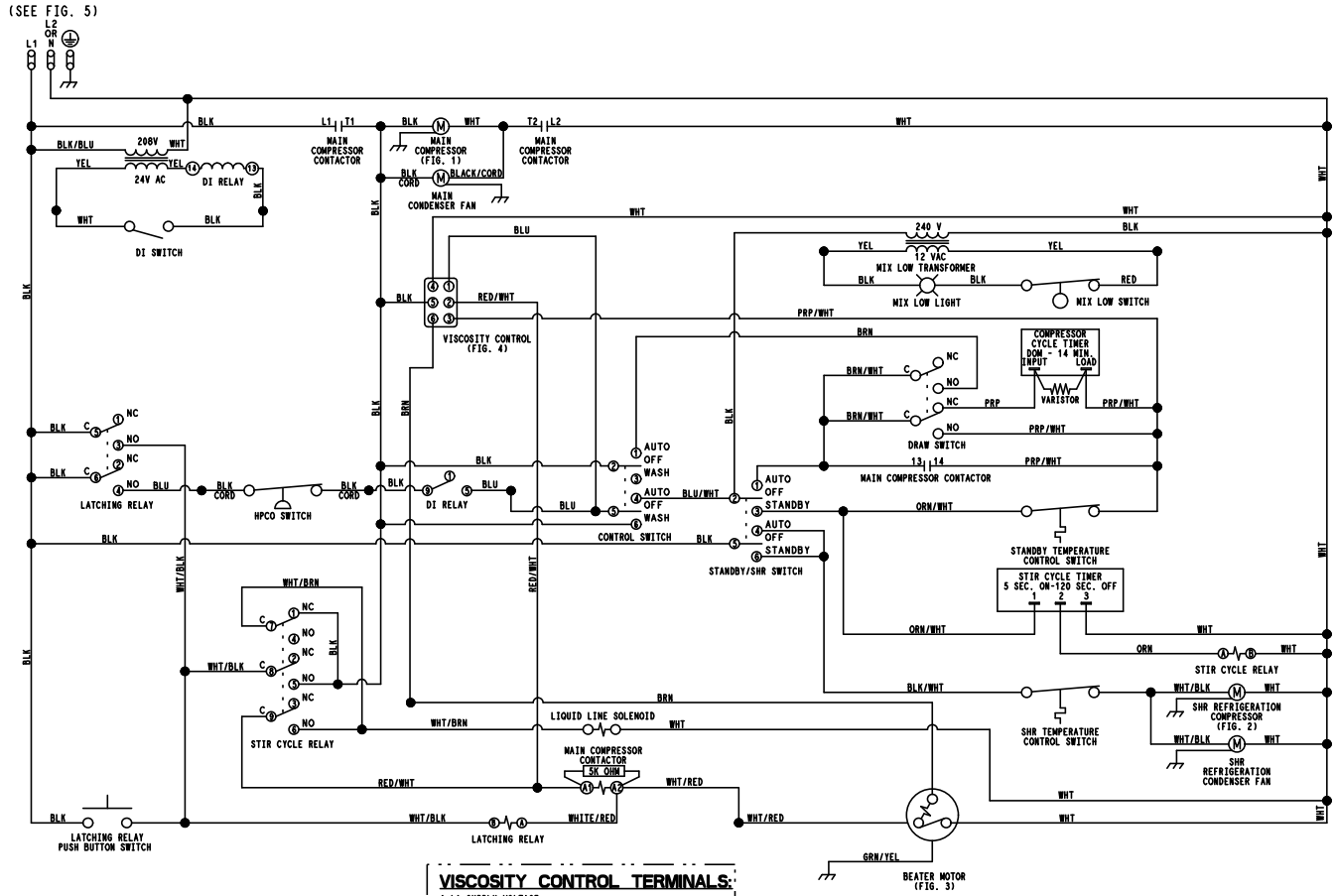


FIG. 2
SHR COMPRESSOR WIRING
(MODEL TL2A <OR> TL2.5F W/LST)

Taylor Company
Model 150/152
050416-12
11/15



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

FIG 3
NOTES:

1) FOR "CCW" ROTATION OF LEESON BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL T8 TO TERMINAL 2 AND INTERNAL T5 TO TERMINAL 4.
FOR "CW" ROTATION OF LEESON BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL T5 TO TERMINAL 2 AND INTERNAL T8 TO TERMINAL 4.

2) FOR "CCW" ROTATION OF A.O. SMITH BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL RED TO TERMINAL 4 AND INTERNAL BLACK TO TERMINAL 2.
FOR "CW" ROTATION OF A.O. SMITH BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL BLACK TO TERMINAL 4 AND INTERNAL RED TO TERMINAL 2.

3) FOR "CCW" ROTATION OF GE/RBC BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL BLUE TO TERMINAL 5 AND INTERNAL YELLOW TO TERMINAL 2.
FOR "CW" ROTATION OF GE/RBC BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL YELLOW TO TERMINAL 5 AND INTERNAL BLUE TO TERMINAL 2.

4) THE EQUIPTENTIAL GROUND IS ONLY REQUIRED FOR INTERNATIONAL UNITS.

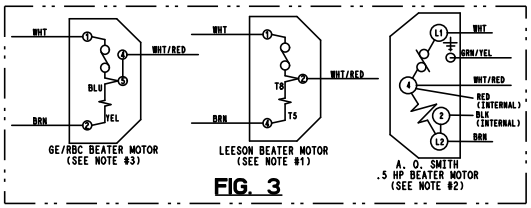
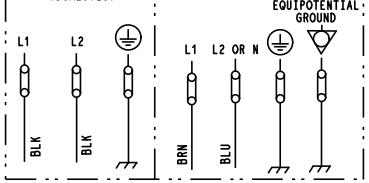


FIG. 3

FIG.5 WIRE COLORS - BASED ON INCOMING POWER



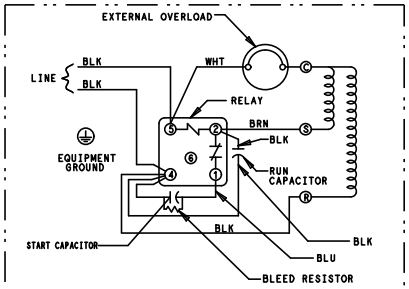


FIG. 1
TECUMSEH COMPRESSOR WIRING

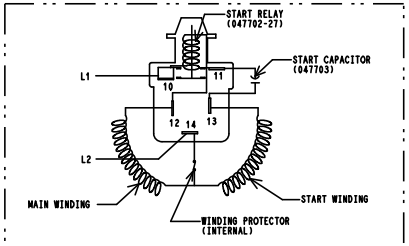


FIG. 2
SHR COMPRESSOR WIRING
(MODEL TL3G W/HST)

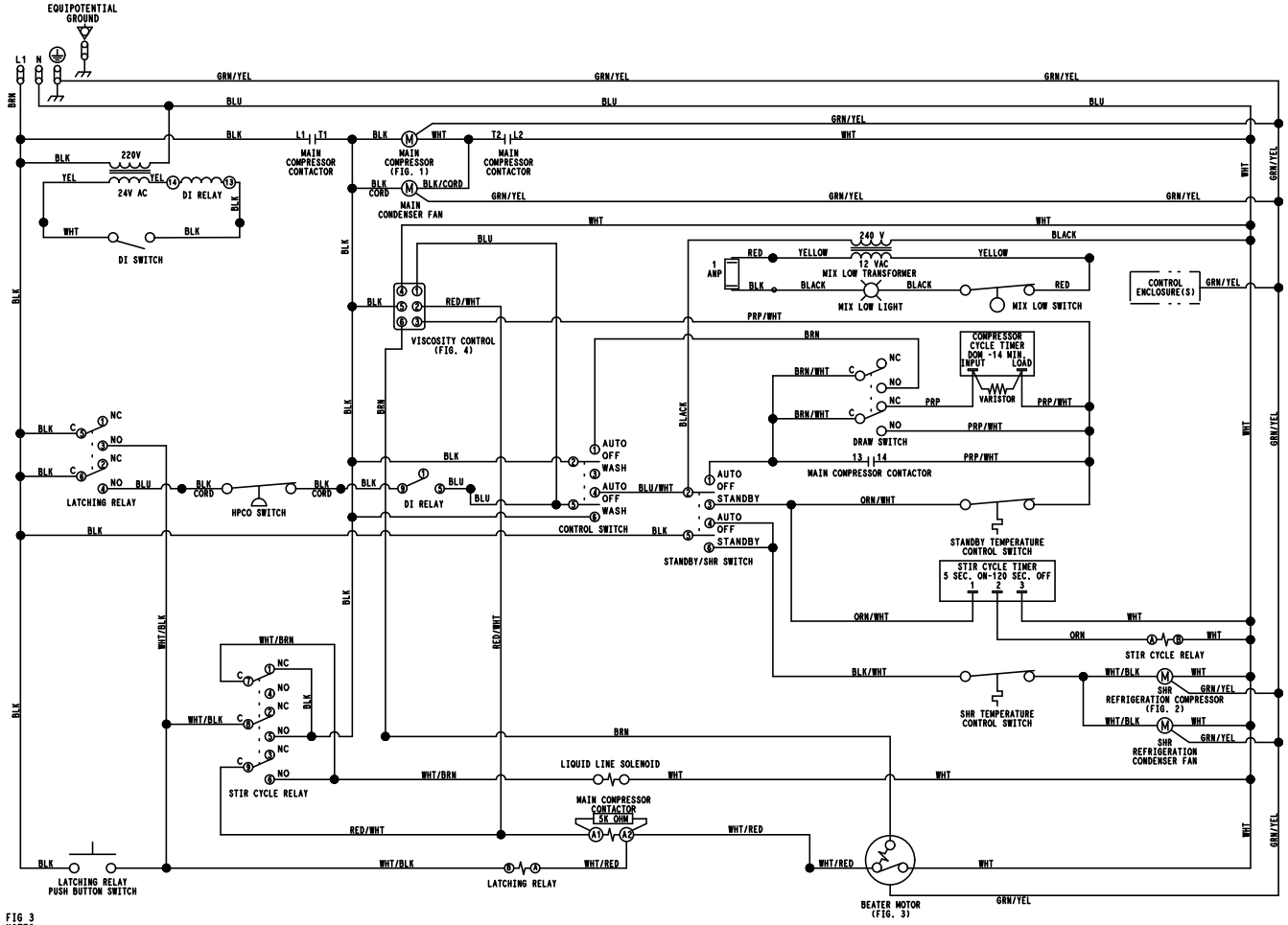


FIG 3
NOTES:

1) FOR "CCW" ROTATION OF LEESON BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL T8 TO TERMINAL 2 AND INTERNAL T5 TO TERMINAL 4.
FOR "CW" ROTATION OF LEESON BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL T5 TO TERMINAL 2 AND INTERNAL T8 TO TERMINAL 4.

2) FOR "CCW" ROTATION OF GE/RBC BEATER MOTOR FOR MODEL #152 CONNECT INTERNAL BLUE TO TERMINAL 5 AND INTERNAL YELLOW TO TERMINAL 2.
FOR "CW" ROTATION OF GE/RBC BEATER MOTOR FOR MODEL #150 CONNECT INTERNAL YELLOW TO TERMINAL 5 AND INTERNAL BLUE TO TERMINAL 2.

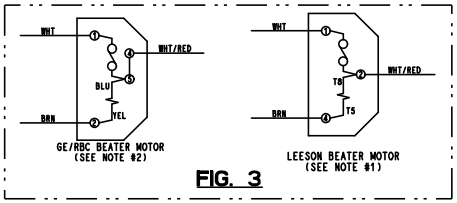


FIG. 3

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

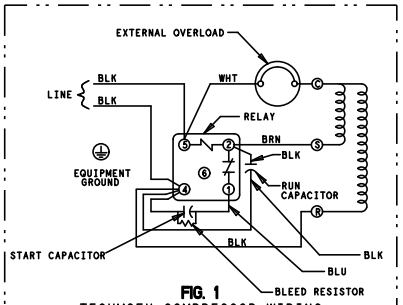


FIG. 1
TECUMSEH COMPRESSOR WIRING

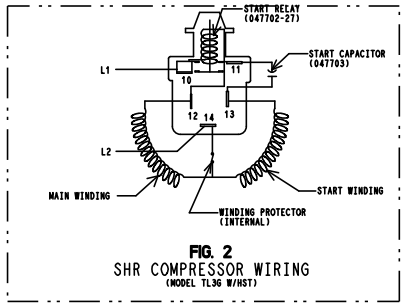
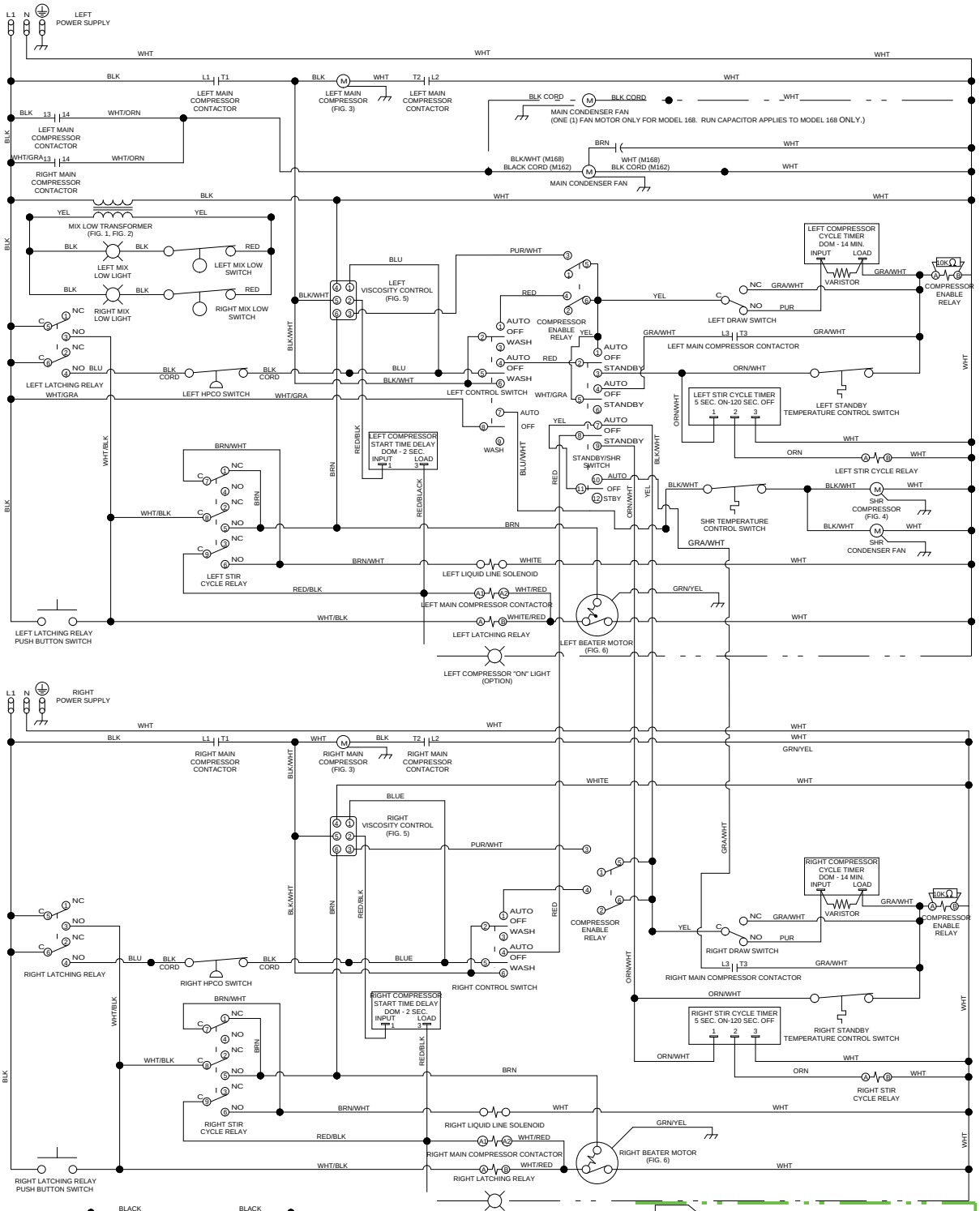
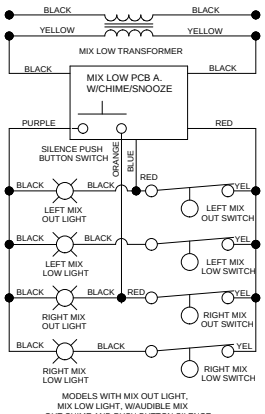


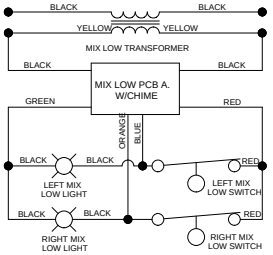
FIG. 2
SHR COMPRESSOR WIRING
(MODEL TL36 W/HST)





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

NOTES:

1) FOR CCW ROTATION OF A.O. SMITH BEATER MOTOR CONNECT INTERNAL RED TO TERMINAL 4 & INTERNAL BLACK TO TERMINAL 2.

2) FOR "CCW" ROTATION OF GE/RBC BEATER MOTOR CONNECT INTERNAL BLUE TO TERMINAL 5 & INTERNAL YELLOW TO TERMINAL 2.

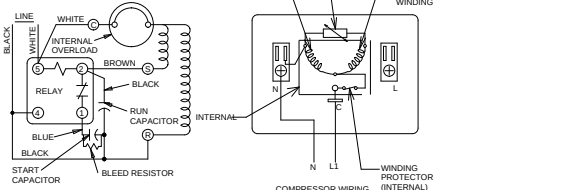
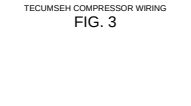
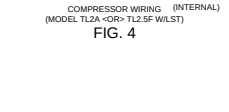


FIG. 6



TECUMSEH COMPRESSOR WIRING

FIG. 3

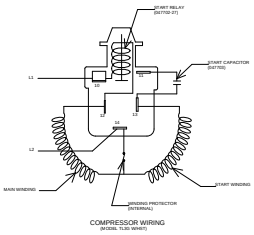


COMPRESSOR WIRING (MODEL TL2A <OR> TL2.5F W/LST)

FIG. 4

162/168
050205-12
11/12/13

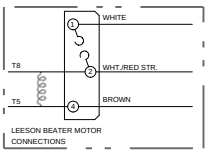
FIG. 1



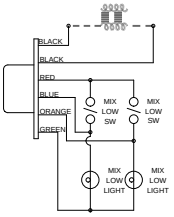
COMPRESSOR WIRING
(MODEL TL50 WHNT)

NOTES:

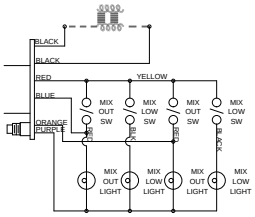
1. ONE (1) FAN ONLY ON MODEL 168. RUN CAPACITOR APPLIES TO MODEL 168 ONLY.



LEESON BEATER MOTOR CONNECTIONS



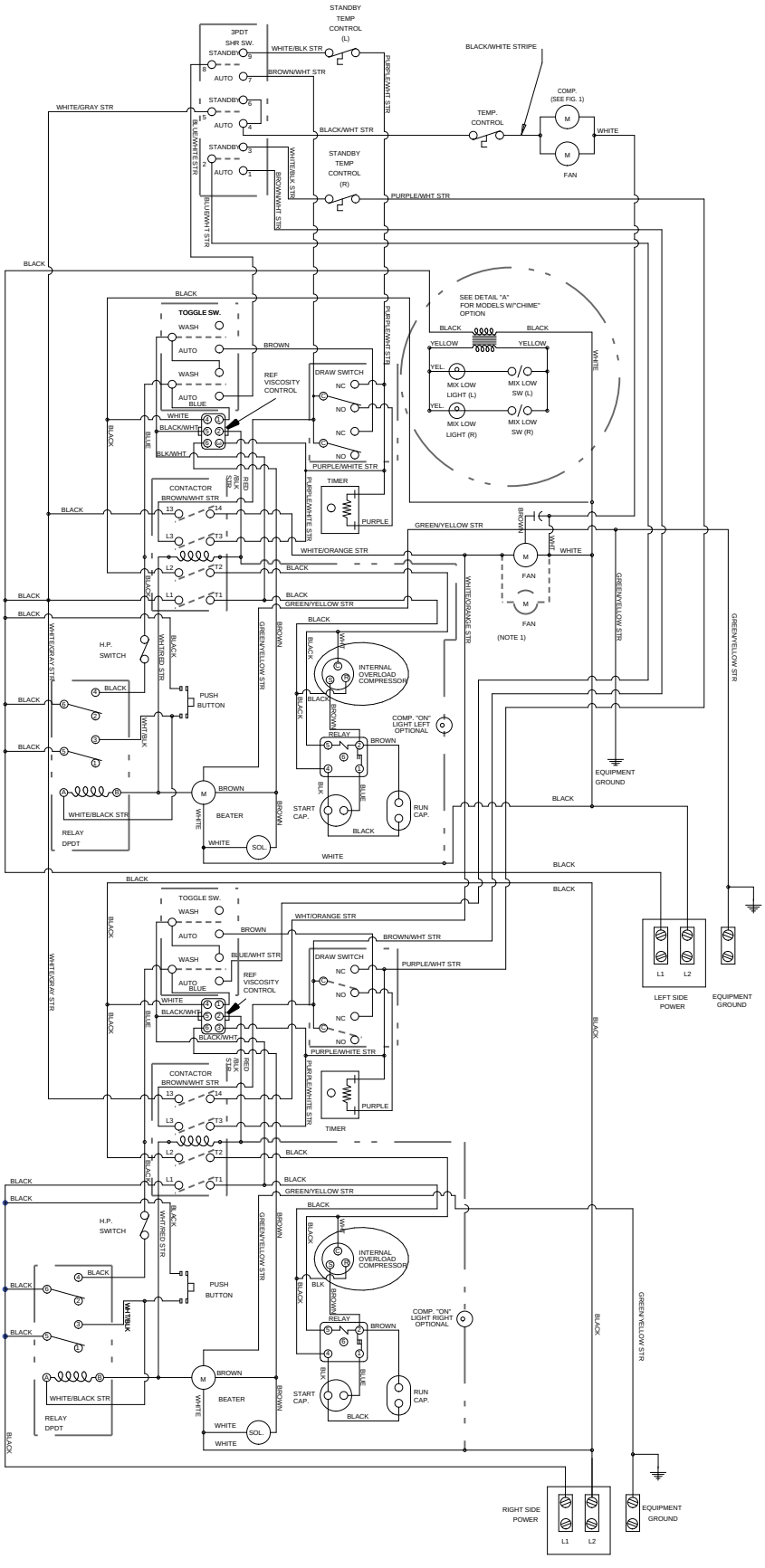
DETAIL "A"
MODELS W/"CHIME"
OPTION



MIX LOW AND MIX OUT LIGHT OPTION
W/AUDIBLE MIX OUT ALARM AND PUSH
BUTTON SILENCE

VISCOSITY CONTROL

1. L1
2. N.C. CONTACT
3. N.C. CONTACT
4. L2
5. LINE
6. LOAD



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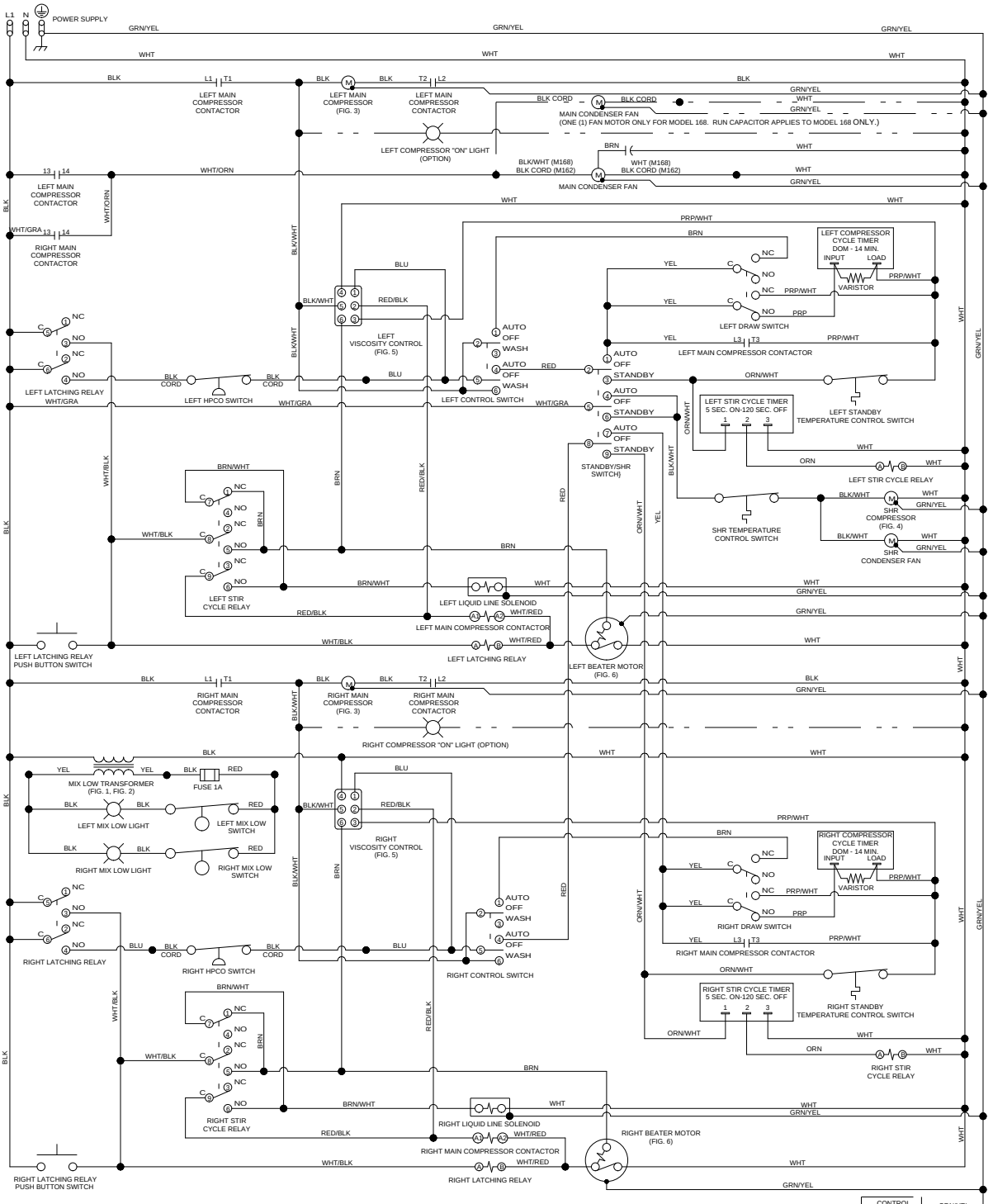
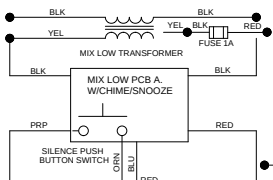
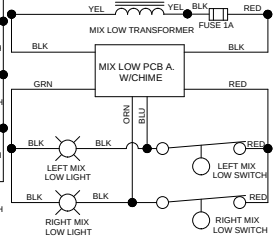




MODELS WITH MIX OUT LIGHT, MIX LOW LIGHT, W/AUDIBLE MIX OUT CHIME AND PUSH BUTTON SILENCE

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

NOTE:

1) FOR CCW ROTATION OF A.O. SMITH BEATER MOTOR CONNECT INTERNAL RED TO TERMINAL 4 & INTERNAL BLACK TO TERMINAL 2.

2) FOR "CCW" ROTATION OF GE/RBC BEATER MOTOR CONNECT INTERNAL BLUE TO TERMINAL 5 & INTERNAL YELLOW TO TERMINAL 2.

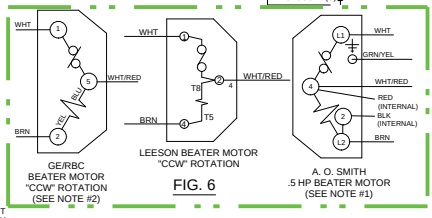
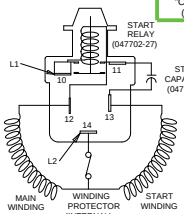
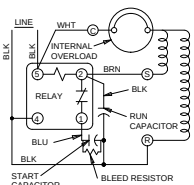


FIG. 6



COMPRESSOR WIRING (MODEL TL3G W/HST)

FIG. 4



TECUMSEH COMPRESSOR WIRING

FIG. 3

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