# Enodis

# **TECHNICAL MANUAL**

INSTALLATION MANUAL FOR EXPORT UNITS SERVICE MANUAL FOR DOMESTIC UNITS

## **TS-44 SERIES**

TS-44 TS-44GP TS-66 TS-66GP

## **TSC-44 SERIES**

TSC-44 TSC-44GP TSC-66 TSC-66GP



Jackson MSC LLC. P.O. Box 1060 Barbourville, KY. 40906 (606) 523-9795 Fax: (606) 523-9196 www.jacksonmsc.com

### MANUFACTURERS WARRANTY

### ONE YEAR LIMITED PARTS & LABOR WARRANTY

ALL NEW JACKSON DISHWASHERS ARE WARRANTED TO THE ORIGINAL PURCHASER TO BE FREE FROM DEFECTS IN MATERIAL OR WORKMANSHIP, UNDER NORMAL USE AND OPERATION FOR A PERIOD OF (1) ONE YEAR FROM THE DATE OF PURCHASE, BUT IN NO EVENT TO EXCEED (18) EIGHTEEN MONTHS FROM THE DATE OF SHIPMENT FROM THE FACTORY.

Jackson MSC agrees under this warranty to repair or replace, at its discretion, any original part which fails under normal use due to faulty material or workmanship during the warranty period, providing the equipment has been unaltered, and has been properly installed, maintained and operated in accordance with the applicable factory instruction manual furnished with the machine and the failure is reported to the authorized service agency within the warranty period. This includes the use of factory specified genuine replacement parts, purchased directly from a Jackson authorized parts distributor or service agency. Use of generic replacement parts may create a hazard and void warranty certification.

The labor to repair or replace such failed part will be paid by Jackson MSC, within the continental United States, Hawaii and Canada, during the warranty period provided a Jackson MSC authorized service agency, or those having prior authorization from the factory, performs the service. Any repair work by persons other than a Jackson MSC authorized service agency is the sole responsibility of the customer. Labor coverage is limited to regular hourly rates, overtime premiums and emergency service charges will not be paid by Jackson MSC.

Accessory components not installed by the factory carry a (1) one year parts warranty only. Accessory components such as table limit switches, pressure regulators, pre rinse units, etc. that are shipped with the unit and installed at the site are included. Labor to repair or replace these components is not covered by Jackson MSC.

This warranty is void if failure is a direct result from shipping, handling, fire, water, accident, misuse, acts of god, attempted repair by unauthorized persons, improper installation, if serial number has been removed or altered, or if unit is used for purpose other than it was originally intended.

### TRAVEL LIMITATIONS

Jackson MSC limits warranty travel time to (2) two hours and mileage to (100) one hundred miles. Jackson MSC will not pay for travel time and mileage that exceeds this, or any fees such as those for air or boat travel without prior authorization.

### WARRANTY REGISTRATION CARD

The warranty registration card supplied with the machine must be returned to Jackson MSC within 30 days to validate the warranty.

### REPLACEMENT PARTS WARRANTY

Jackson replacement parts are warranted for a period of 90 days from the date of installation or 180 days from the date of shipment from the factory, which ever occurs first.

### PRODUCT CHANGES AND UPDATES

Jackson MSC reserves the right to make changes in design and specification of any equipment as engineering or necessity requires.

THIS IS THE ENTIRE AND ONLY WARRANTY OF JACKSON MSC. JACKSON'S LIABILITY ON ANY CLAIM OF ANY KIND, INCLUDING NEGLIGENCE, WITH RESPECT TO THE GOODS OR SERVICES COVERED HEREUNDER, SHALL IN NO CASE EXCEED THE PRICE OF THE GOODS OR SERVICES OR PART THEREOF WHICH GIVES RISE TO THE CLAIM.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING FOR FITNESS OR MERCHANTABILITY, THAT ARE NOT SET FORTH HEREIN, OR THAT EXTEND BEYOND THE DURATION HEREOF. UNDER NO CIRCUMSTANCES WILL JACKSON MSC BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, OR FOR THE DAMAGES IN THE NATURE OF PENALTIES, ARISING OUT OF THE USE OR INABILITY TO USE ANY OF ITS PRODUCTS.

### ITEMS NOT COVERED

This warranty does not cover cleaning or deliming of the unit or any component such as, but not limited to, wash arms, rinse arms or strainers at anytime. Nor does it cover adjustments such as, but not limited to timer cams, thermostats or doors, beyond 30 days from the date of installation. In addition, the warranty will only cover the replacement of wear items such as curtains, drain balls, door guides or gaskets during the first 30 days after installation. Also, not covered are conditions caused by the use of incorrect (non-Commercial) grade detergents, incorrect water temperature or pressure, or hard water conditions.



CALL 1-888-800-5672 TO REGISTER THIS PRODUCT! FAILURE TO DO SO WILL VOID THE WARRANTY!

LLAME AL 1-888-800-5672 PARA REGISTRAR ESTE PRODUCTO!
AL NO HACERLO LA GARANTIA SERA ANULADA!

S.V.P. APPELER 1-888-800-5672 POUR ENREGISTRER CE PRODUIT, LA GARANTIE SERA ANNULEE POUR TOUT PRODUIT NON- ENREGISTREE

REVISION/ PAGE	REVISION DATE	MADE BY	APPLICABLE ECN	DETAILS
А	11-19-2004	MAW	7202	Initial release of manual.
В	03-17-2005	MAW	7253, 7272 6999	Added hose connections, curtain installation & detailed instruction pages. Updated limit switch actuators. Added 600V models.
С	02-15-2006	MAW	7600, 7571, 7558, 7679, 7660, 7383, 7361, 7463, 7367, 7462	Added gas exhaust fan hookup schematic, updated electric exhaust fan schematic. Added wash tank thermostat replacement kit. Replaced rine drain weldment 5700-021-68-28 with 5700-002-51-12. Added drain plumbing 5700-003-17-34. Added schematic 9905-003-16-50 for dual connection. Replaced vacuum breaker 4830-300-07-00 with 4820-003-06-13. Replaced plastic cap 4730-003-12-00 with s/s cap 5700-011-67-11. Added the rinse fill motor assembly. Added wash, rinse and psi decals. Changed the prewash door weldments. Added service procedures. Corrected side loader dimensions.
76	04-19-2007	MAW	7898	Added 09905-003-32-20 fan load decal.
76	09-29-2007	MAW	N/A	Removed alternate limit switches. Changed to centered layout. Added warranty and repair centers listing pages. Removed service procedures.



### TS-44GP

TS = Traditional Series of rack conveyors TSC = Traditional Series (water conserver) of rack conveyors

44 = 44" wide machine 66 = 66" wide machine

No suffix = Electrically heated, hot water sanitizing machine GP = Gas heated, hot water sanitizing machine

Model:	
Seriai No	
Installation Date:	
Service Rep. Name:	
Phone No.:	

Jackson MSC LLC. provides technical support for all of the dishmachines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual with you when you call so that our staff can refer you, if necessary, to the proper page. Technical support is available from 8:00 a.m. to 5:00 p.m. (EST), Monday through Friday. Technical support is not available on holidays. Contact technical support toll free at 1-888-800-5672. Please remember that technical support is available for service personnel only.

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### **OPERATING CHARACTERISTICS**

RACKS PER HOUR:		WATER TEMPERATURES:	
TS-44/TS-44GP	252	TS-44/TS-44GP	
TSC-44/TS-44GP	119	WASH (MINIMUM)	160°F
TS-66/TS-66GP	252	RINSE (MINIMUM)	180°F
TSC-66/TSC-66GP	119	Turion (minus)	1001
		TSC-44/TSC-44GP	
DISHES OR GLASSES PER HOUR:		WASH (MINIMUM)	160°F
		RINSE (MINIMUM)	180°F
TS-44/TS-44GP	6300	Tartol (Mintholin)	1001
TSC-44/TS-44GP	2975	TS-66/TS-66GP	
TS-66/TS-66GP	6300		10-140°F
TSC-66/TSC-66GP	2975	WASH (MINIMUM)	160°F
100 00/100 0001	2010	RINSE (MINIMUM)	180°F
PREWASH TANK CAPACITY (GALLONS):		THIVE (IMILAINIONI)	100 1
THE WHOT IN THE CALLOTTO,		TSC-66/TSC-66GP	
TS-66/TS-66GP	17.25		10-140°F
TSC-66/TSC-66GP	17.25	WASH (MINIMUM)	160°F
100 00/100 0001	17.20	RINSE (MINIMUM)	180°F
WASH TANK CAPACITY (GALLONS):		KINGE (MINIMOM)	100 1
WASH TANK OALASH LOALLONS.		FLOW PRESSURE (PSI)	$20 \pm 5$
TS-44/TS-44GP	20.4	TEOW T REGOOKE (1 OI)	20 - 3
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130-00/130-0001	20.4	GAS SPECIFICATIONS:	
WASH PUMP CAPACITY		GAS SECTIONS.	
WASHI OMI GALASHI		Please refer to your gas booster manufacturer's in:	etructions
GALLONS PER MINUTE (ALL MODELS):	270	r lease refer to your gas booster mandracturer s in	structions.
CALLONG I EN MINOTE (ALL MODELO).	210	MOTOR ELECTRICAL CHARACTERISTICS:	
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VENTING REQUIREMENTS (OF M)(100% CAP.).		DRIVE MOTOR HP	1/4
INPUT END	200	WASH MOTOR HP	2
OUTPUT END	400	POWER RINSE MOTOR HP	2
TOTAL	600	PREWASH MOTOR HP:	2
TOTAL	000	TS-66/TS-66GP	1
CONVEYOR SPEED (EDM).			1
CONVEYOR SPEED (FPM):		TSC-66/TSC-66GP	ı
TS-44/TS-44GP	7.0		
TSC-44/TS-44GP			
	3.33		
TS-66/TS-66GP	7.0		
TSC-66/TSC-66GP	3.33		
GALLONS PER RACK:			
TS-44/TS-44GP	0.74		
TSC-44/TS-44GP	0.75		
TS-66/TS-66GP	0.74		
TSC-66/TSC-66GP	0.75		

### **ELECTRICAL REQUIREMENTS**

NOTE: Typical Electrical Circuit is based upon (1) 125% of the full amperage load of the machine and (2) typical fixed-trip circuit breaker sizes as listed in the NEC 2002 Edition. Local codes may require more stringent protection than what is displayed here. Always verify with your electrical service contractor that your circuit protection is adequate and meets all applicable national and local codes. These numbers are provided in this manual simply for reference and may change without notice at any given time.

TVDICAL

### TS-44/TSC-44:

<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	RINSE HEATER <u>RATING</u>	TOTAL AMPS	TYPICAL ELECTRICAL <u>CIRCUIT</u>
208	1	60	N/A	83 Amps	110 Amp
230	1	60	N/A	76 Amps	100 Amp
208	3	60	N/A	49 Amps	70 Amp
230	3	60	N/A	45 Amps	60 Amp
460	3	60	N/A	23 Amps	30 Amp
600	3	60	N/A	19 Amps	25 Amp

### TS-44GP/TSC-44GP:

<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	RINSE HEATER <u>RATING</u>	TOTAL <u>AMPS</u>	TYPICAL ELECTRICAL <u>CIRCUIT</u>
208	1	60	N/A	12 Amps	15 Amp
230	1	60	N/A	12 Amps	15 Amp
208	3	60	N/A	8 Amps	15 Amp
230	3	60	N/A	8 Amps	15 Amp
460	3	60	N/A	5 Amps	15 Amp

### TS-66/TSC-66:

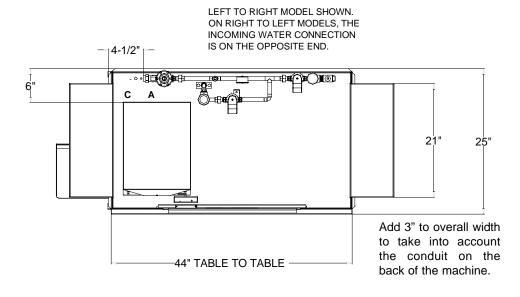
<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	HEATER RATING	TOTAL AMPS	ELECTRICAL CIRCUIT
208	1	60	N/A	89 Amps	125 Amp
230	1	60	N/A	82 Amps	110 Amp
208	3	60	N/A	52 Amps	70 Amp
230	3	60	N/A	48 Amps	60 Amp
460	3	60	N/A	24 Amps	30 Amp
600	3	60	N/A	22 Amps	30 Amp

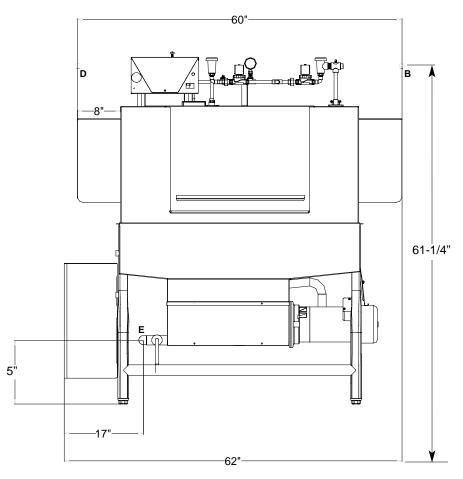
DINCE

### TS-66GP/TSC-66GP:

ICAL CTRICAL CUIT
mp

### **TS-44/TSC-44 DIMENSIONS**





TS-44/TSC-44 DIMENSIONS (CONTINUED)

### LEGEND FOR TS-44/TSC-44/TS-44GP/TSC-44GP DIMENSIONS:

A = 1/2" IPS incoming water connection, approximately 59-1/2" above the finished floor. Electric heat models only.

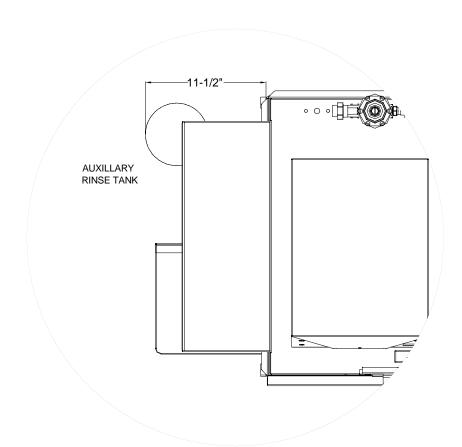
B = 1/2" IPS incoming water connection, approximately 59-1/2" above the finished floor. Gas heat models only.

C = Incoming electrical connection point, approximately 59-1/2" above the finished floor. Refer to machine data plate for electrical requirements.

D = 1/2" IPS incoming water connection, approximately 59-1/2" above the finished floor. Gas heat models only, left to right configuration.

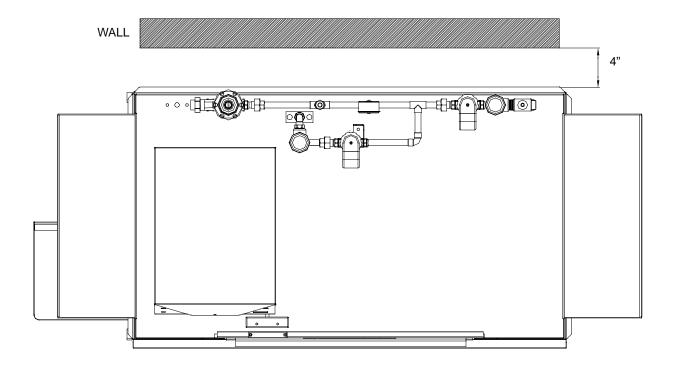
E = 1-1/2" IPS drain point connection. If grease trap is required by code, size for 30 gallons per minute flowrate.

F = 1/2" IPS water outlet, approximately 6" above the finished floor. Gas heat models only.

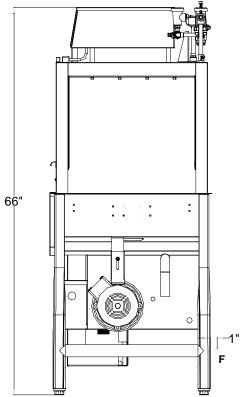


Typical dimension of the auxillary rinse tank found on the gas-heated models.

TS-44/TSC-44 DIMENSIONS (CONTINUED)



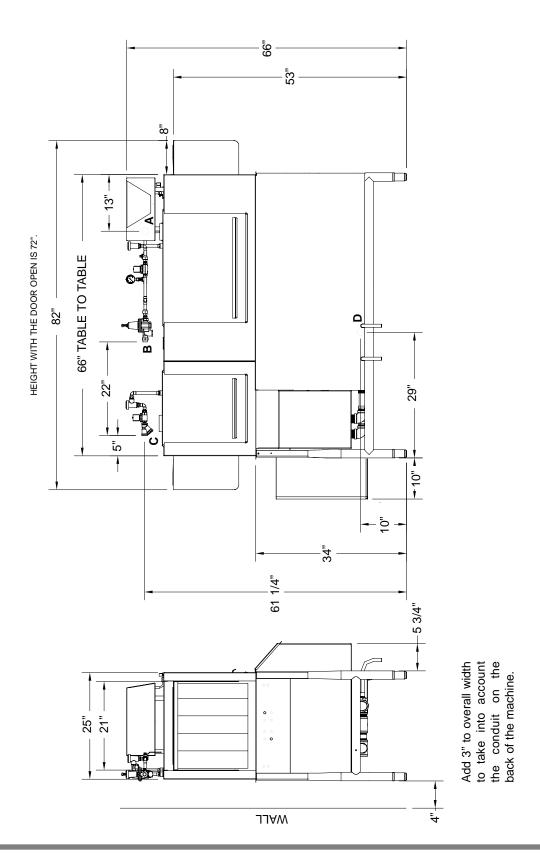
HEIGHT WITH DOOR OPEN: 72"



### **NOTES CONCERNING THE TS-44/TSC-44 DIMENSIONS:**

- 1. All dimensions are  $\pm$  1/2" in the vertical due to adjustment of the bullet feet.
- 2. A minimum of 4" spacing is required between the unit and the walls on all sides.
- 3. The maximum recommended distance between the unit and any external booster heater (electric or gas) is 20 feet.
- 4. Booster heaters have seperate electrical requirements from the machines.
- 5. Machine width as dimensioned does <u>not</u> include an approximate 3" for the conduit that is attached to the back of the machine.

### TS-66/TSC-66 (LEFT TO RIGHT) DIMENSIONS



TS-66/TSC-66 (LEFT TO RIGHT) DIMENSIONS (CONTINUED)

### **LEGEND FOR TS-66/TSC-66 (LEFT TO RIGHT) DIMENSIONS:**

A = Incoming electrical connection point, approximately 61-1/4" above the finished floor. Refer to machine data plate for electrical requirements.

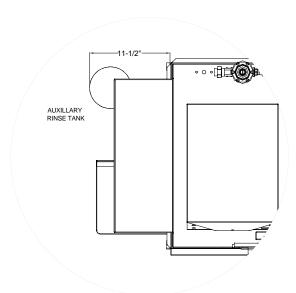
B = 1/2" IPS incoming water connection, approximately 61-1/4" above the finished floor. Electric heat models only.

C = 1/2" IPS prewash incoming water connection, approximately 61-1/4" above the finished floor. Electric heat models only.

D = 1-1/2" IPS drain point connection. If grease trap is required by code, size for 30 gallons per minute flowrate.

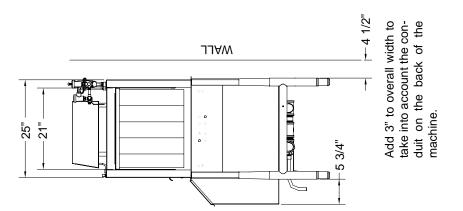
### NOTES CONCERNING THE TS-66/TSC-66 DIMENSIONS:

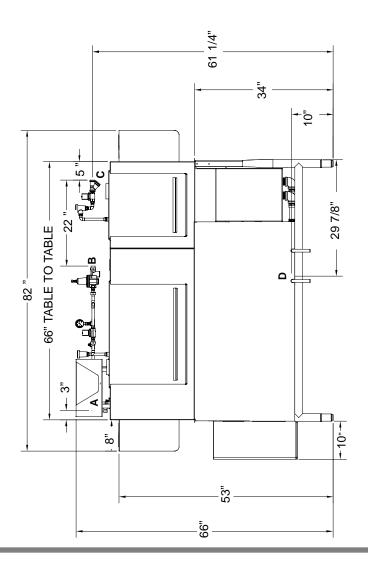
- 1. All dimensions are +/- 1/2" in the vertical due to adjustment of the bullet feet.
- 2. A minimum of 4" spacing is required between the unit and the walls on all sides.
- 3. The maximum recommended distance between the unit and any external booster heater (electric, steam or gas) is 20 feet.
- 4. Booster heaters have seperate electrical requirements from the machines.
- 5. Machine width as dimensioned does not include an approximate 3" for the conduit that is attached to the back of the machine.



Typical dimension of the auxillary rinse tank found on the gas-heated models.

### TS-66/TSC-66 (RIGHT TO LEFT) DIMENSIONS





### TS-66/TSC-66 (RIGHT TO LEFT) DIMENSIONS

### **LEGEND FOR TS-66/TSC-66 (RIGHT TO LEFT) DIMENSIONS:**

A = Incoming electrical connection point, approximately 61-1/4" above the finished floor. Refer to machine data plate for electrical requirements.

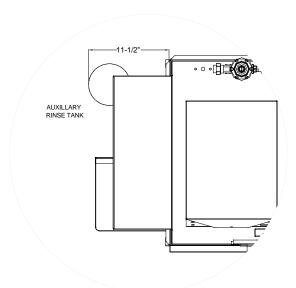
B = 1/2" IPS incoming water connection, approximately 61-1/4" above the finished floor. Electric heat models only.

C = 1/2" IPS prewash incoming water connection, approximately 61-1/4" above the finished floor. Electric heat models only.

D = 1-1/2" IPS drain point connection. If grease trap is required by code, size for 30 gallons per minute flowrate.

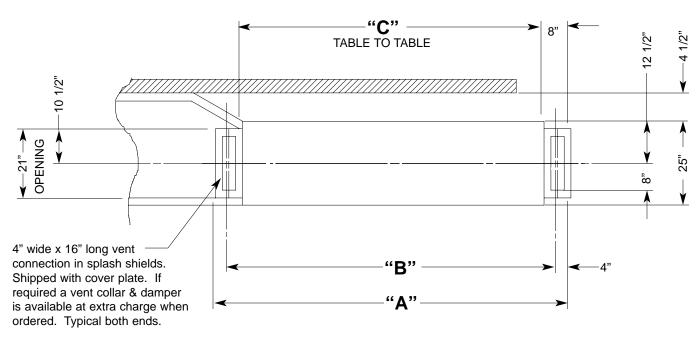
### NOTES CONCERNING THE TS-66/TSC-66 DIMENSIONS:

- 1. All dimensions are +/- 1/2" in the vertical due to adjustment of the bullet feet.
- 2. A minimum of 4" spacing is required between the unit and the walls on all sides.
- 3. The maximum recommended distance between the unit and any external booster heater (electric, steam or gas) is 20 feet.
- 4. Booster heaters have seperate electrical requirements from the machines.
- 5. Machine width as dimensioned does not include an approximate 3" for the conduit that is attached to the back of the machine.

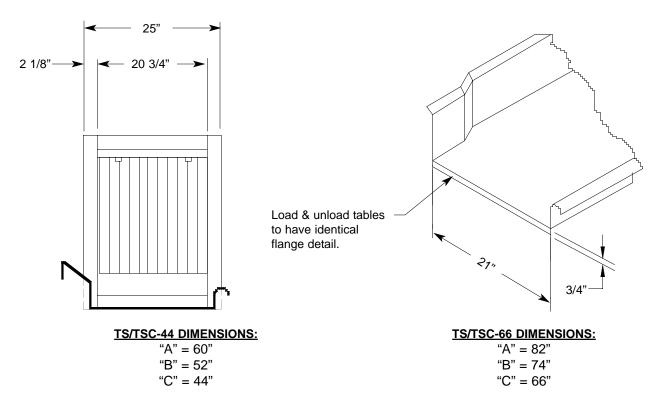


Typical dimension of the auxillary rinse tank found on the gas-heated models.

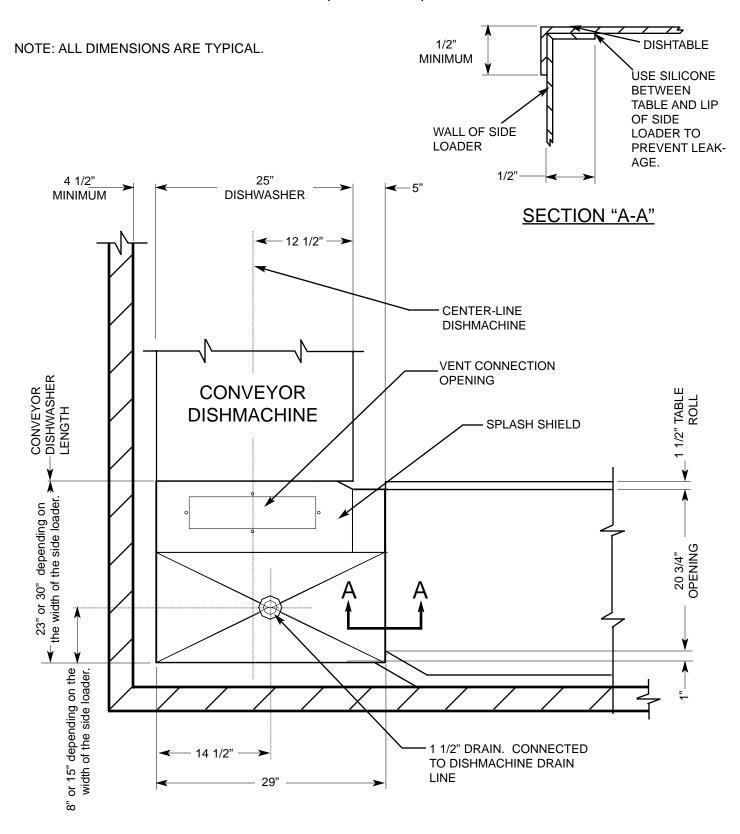
# SECTION 1: SPECIFICATION INFORMATION DISHTABLE DIMENSIONS



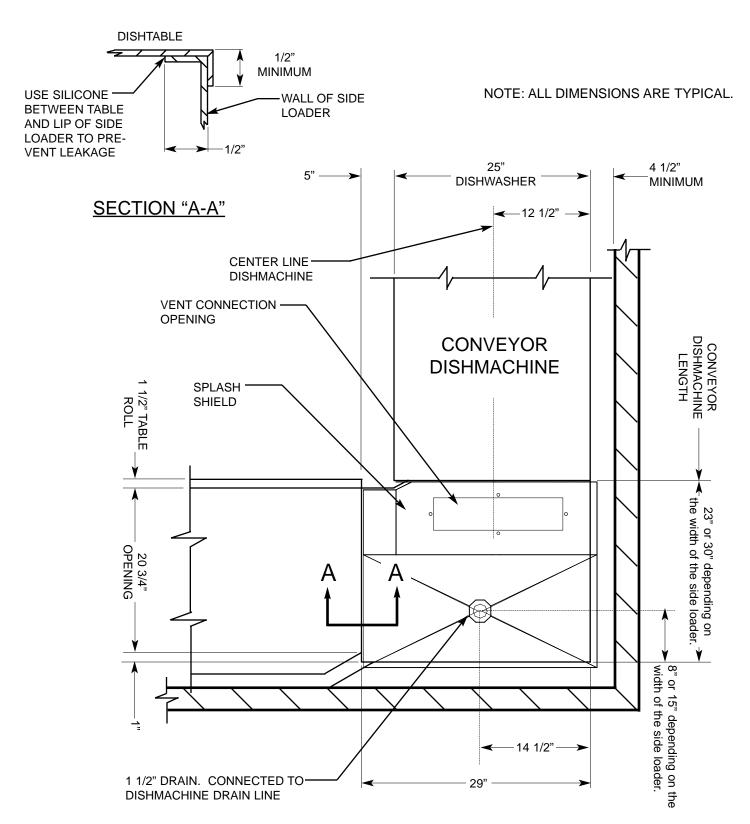
### **PLAN VIEW**



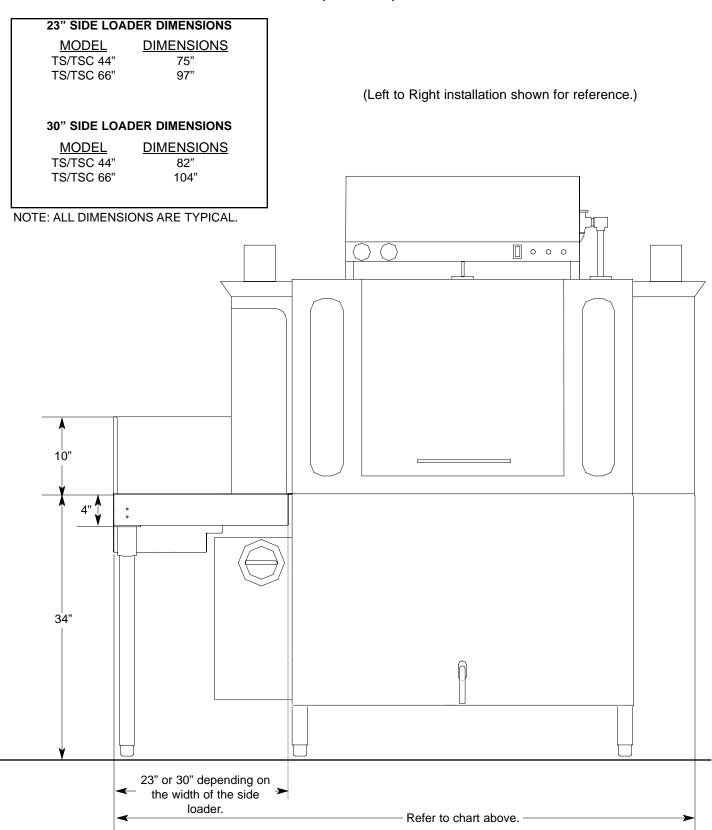
SIDE LOADER (LEFT TO RIGHT) DIMENSIONS



SIDE LOADER (RIGHT TO LEFT) DIMENSIONS

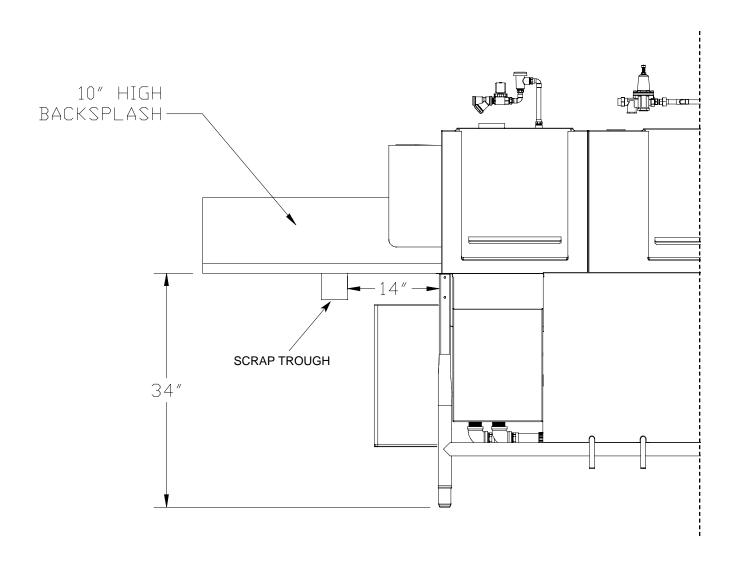


### SIDE LOADER (INSTALLED) DIMENSIONS



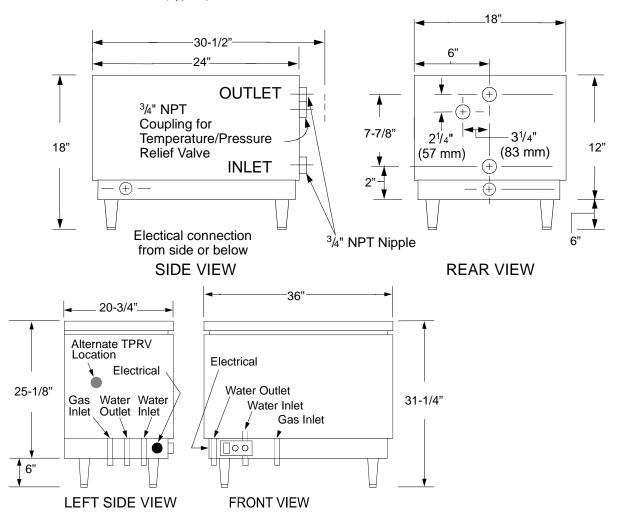
# SECTION 1: SPECIFICATION INFORMATION SCRAP TROUGH DIMENSIONS

NOTE: DIMENSIONS ARE TYPICAL FOR BOTH ENDS.

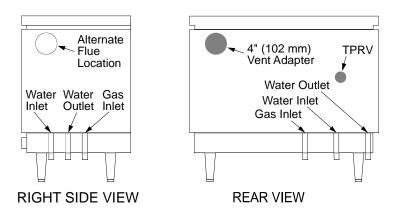


### TYPICAL ELECTRIC AND GAS BOOSTER DIMENSIONS

Electric Booster Dimensions (Typical)



Gas Booster Dimensions (Typical)



### INSTALLATION INSTRUCTIONS

VISUAL INSPECTION: Before installing the unit, check the container and machine for damage. A damaged container is an indicator that there may be some damage to the machine. If there is damage to both the container and machine, do not throw away the container. The dishmachine has been inspected and packed at the factory and is expected to arrive to you in new, undamaged condition. However, rough handling by carriers or others may result in there being damage to the unit while in transit. If such a situation occurs, do not return the unit to Jackson; instead, contact the carrier and ask them to send a representative to the site to inspect the damage to the unit and to complete an inspection report. You must contact the carrier within 48 hours of receiving the machine. Also, contact the dealer through which you purchased the unit.

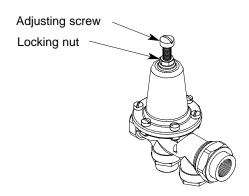
**UNPACKING THE DISHMACHINE:** Once the machine has been removed from the container, ensure that there are no missing parts from the machine. This may not be obvious at first. If it is discovered that an item is missing, contact Jackson immediately to have the missing item shipped to you.

**LEVEL THE DISHMACHINE:** The dishmachine is designed to operate while being level. This is important to prevent any damage to the machine during operation and to ensure the best results when washing ware. The unit comes with adjustable bullet feet, which can be turned using a pair of channel locks or by hand if the unit can be raised safely. Ensure that the unit is level from side to side and from front to back before making any connections.

**PLUMBING THE DISHMACHINE:** All plumbing connections must comply with all applicable local, state, and national plumbing codes. The plumber is responsible for ensuring that the incoming water line is thoroughly flushed prior to connecting it to any component of the dishmachine. It is necessary to remove all foreign debris from the water line that may potentially get trapped in the valves or cause an obstruction. Any valves that are fouled as a result of foreign matter left in the water line, and any expenses resulting from this fouling, are not the responsibility of the manufacturer.

**CONNECTING THE DRAIN LINE:** The drain for the models covered in this manual are gravity discharge drains. All piping from the machine to the drain must be a minimum 1 1/2" NPT and shall not be reduced. There must also be an air gap between the machine drain line and the floor sink or drain. If a grease trap is required by code, it should have a flow capacity of 30 gallons per minute.

WATER SUPPLY CONNECTION: Ensure that you have read the section entitled "PLUMBING THE DISHMACHINE" above before proceeding. Install the water supply line (1/2" pipe size minimum) to the dishmachine line strainer using copper pipe. It is recommended that a water shut-off valve be installed in the water line between the main supply and the machine to allow access for service. The water supply line is to be capable of 25 PSI "flow" pressure at the recommended temperature indicated on the data plate.



Incoming Plumbing Connection

Frame with Adjustable Foot

In areas where the water pressure fluctuates or is greater than the recommended pressure, it is suggested that a water pressure regulator be installed. The models covered in this manual do come with water pressure regulators as standard equipment. Please notify Jackson immediately if this component is not present on your machine.

Do not confuse static pressure with flow pressure. Static pressure is the line pressure in a "no flow" condition (all valves and services are closed). Flow pressure is the pressure in the fill line when the fill valve is opened during the cycle.

It is also recommended that a shock absorber (not supplied) be installed in the incoming water line. This prevents line hammer (hydraulic shock), induced by the solenoid valve as it operates, from causing damage to the equipment.

**PLUMBING CHECK:** Slowly turn on the water supply to the machine after the incoming fill line and the drain line have been installed. Check for any leaks and repair as required. All leaks must be repaired prior to placing the machine in operation.

**GAS CONNECTIONS:** Some machines covered in this manual are designed to use gas as an outside source of heat for wash tank water. The machines come with connections by which an outside source needs to be connected. Connect all incoming gas lines in accordance with the gas booster manufacturer's instructions. Ensure that all applicable codes and regulations are adhered to.

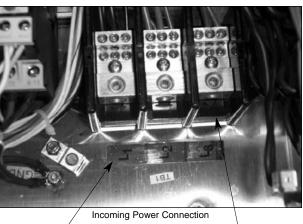
### **INSTALLATION INSTRUCTIONS (CONTINUED)**

**ELECTRICAL POWER CONNECTION:** Electrical and grounding connections must comply with the applicable portions of the National Electrical Code ANSI/NFPA 70 (latest edition) and/or other electrical codes.

Disconnect electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit.

The dishmachine data plate is located on the right side and to the front of the machine. Refer to the data plate for machine operating requirements, machine voltage, total amperage load and serial number.

To install the incoming power lines, open the control box. Install conduit into the pre-punched holes in the back of the control box. Route power wires and connect to power block and grounding lug. Install the service wires (L1, L2, and L3 (3 phase only)) to the appropriate terminals as they are marked on the terminal block. Install the grounding wire into the lug provided. Tighten the connections. It is recommended that "DE-OX" or another similar anti-oxidation agent be used on all power connections.



Terminal Block

Decal showing "L1", "L2", & "L3" (3 phase models only).

**VOLTAGE CHECK:** Ensure that the power switch is in the OFF position and apply power to the dishmachine. Check the incoming power at the terminal block and ensure it corresponds to the voltage listed on the data plate. If not, contact a qualified service agency to examine the problem. Do not run the dishmachine if the voltage is too high or too low. Shut off the service breaker and mark it as being for the dishmachine. Advise all proper personnel of any problems and of the location of the service breaker. Replace the control box cover and tighten down the screws.

**VENTILATION OF DISHMACHINE:** The dishmachine should be located with provisions for venting into an adequate exhaust hood or ventilation system. This is essential to permit efficient removal of the condensation exhaust. Ensure that the exhaust system is acceptable in accordance with all applicable codes and standards.



NOTE: Any damage that is caused by steam or moisture due to improper ventilation is NOT covered under the warranty.

This units covered in this manual have the following exhaust requirements:

Load End: 200 CFM Unload End: 400 CFM

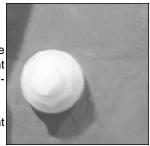
The exhaust system must be sized to handle this volume for the dishmachine to operate as it was designed to.

**ELECTRIC HEAT:** The thermostats for the machines covered in this manual are factory set. They should not be adjusted except by an authorized service agent.

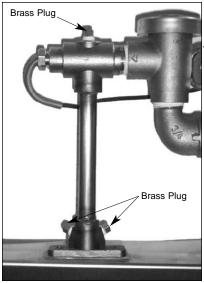
### **INSTALLATION INSTRUCTIONS (CONTINUED)**

**CHEMICAL FEEDER EQUIPMENT:** Detergent may be introduced into the unit through the removal of the bulkhead plug in the rear of the tub and replacing it with the third party detergent injection fitting. Remove the bulkhead plug in the side of the tub to install the detergent concentration probe.

For more information concerning detergent concerns, please refer to the page entitled "Detergent Control".

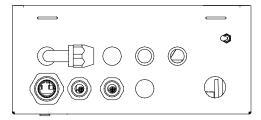


Detergent Connection Point (Machine rear view)



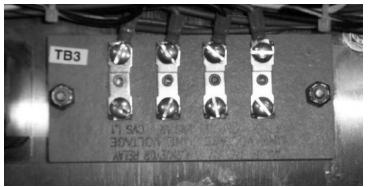
Rinse Injector

The 1/8" brass plugs on the incoming plumbing rinse injector may be removed to install rinse aid injection fittings.



Rear of Control Box

All wires for the chemical injectors should be routed through one of the extra openings in the back of the control box.



Connection Points

Terminals in the control box marked "CVS" provide a constant voltage signal whenever the drive motor is operating.

Terminals in the control box marked "DET" provide a voltage signal whenever the wash motor is operating.

### **DELIMING OPERATIONS**

**DELIMING OPERATIONS:** In order to maintain the dishmachine at its optimum performance level, it will be required to remove lime and corrosion deposits on a frequent basis. A deliming solution should be available from your detergent supplier. Read and follow all instructions on the label of the deliming solution.

To proceed with the deliming operation, fill the dishmachine and add the correct amount of deliming solution as recommended by the deliming solution manufacturer. The water capacity of the various tanks of the dishmachine can be verified on the specification sheet(s) of this manual.

Perform the following operations to delime the dishmachine:

- 1. Turn the NORMAL/DELIME switch on the back of the control box to the DELIME position.
- 2. Disconnect or turn off all chemical feeder pumps.
- 3. Close all doors (after adding the deliming solution).
- 4. Run the machine for the recommended period of time.
- 5. Turn the unit off and open the doors.



Delime Switch

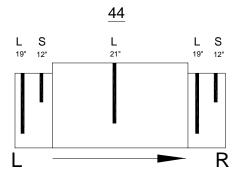
- 6. Wait five minutes, then inspect the inside of the machine. If the machine is not delimed, run another time cycle as per the deliming solution's instructions.
- 7. When clean, drain and re-fill the machine.
- 8. Run in MANUAL for 10 minutes to remove residual deliming solution.
- 9. Drain and re-fill the machine.

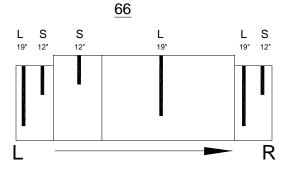
This equipment is not recommend for use with deionized water or other aggressive fluids. Use of deionized water or other aggressive fluids will result in corrosion and failure of materials and components. Use of deionized water or other aggressive fluids will void the manufacturer's warranty.

### **CURTAIN INSTALLATION DIAGRAMS**

Please refer to the chart for placement of the curtains.

### TS SERIES MACHINES





### SIDE LOADER INSTALLATION & OPERATION INSTRUCTIONS

This accessory assists in the delivery of a full dish rack from the break down (scrapping) table to the dishmachine. It will convert the direction of travel 90°. Since the Side Loader is shipped mounted on the conveyor dishwasher there is no additional installation required for this option. As it is operated mechanically by the dishwasher it does not require any plumbing or electrical connections.

This Side Loader does not require or add any additional electrical or mechanical devices to the unit which could create operational or maintenance problems. As designed the drive mechanism is powered by the conveyor drive motor on the dishmachine. An extension on the pawl bar provides the drive to push the racks into the unit.

PREPARATION: Before proceeding with the start-up of the unit, verify that the Side Loader pan strainer is installed.

WARE PREPARATION: Proper preparation of ware will help ensure good results and less re-washes. If not done properly, ware may not come out clean and the efficiency of the dishmachine will be reduced. It is important to remember that a dishmachine is not a garbage disposal and that simply throwing unscraped dishes into the machine simply defeats the purpose altogether of washing the ware. Scraps should be removed from ware prior to being loaded into a rack. Pre-rinsing and pre-soaking are good ideas, especially for silverware and casserole dishes. Place cups and glasses upside down in racks so that they do not hold water during the cycle. The dishmachine is meant not only to clean, but to sanitize as well, to destroy all of the bacteria that could be harmful to human beings. In order to do this, ware must be properly prepared prior to being placed in the machine.

**WASHING A RACK OF WARE:** Once a rack is fully loaded it should be positioned against the front of the dish table. The rack should then be moved into the Side Loader until it activates the actuator switch. Once the the machine is started, it should pull the rack through the machine and push it out the unload end. Once a rack has started through, you may put another rack in.

**OPERATIONAL INSPECTION:** Based upon usage, the pan strainer may become clogged with soil and debris as the workday progresses. Operators should regularly inspect the pan strainer to ensure it has not become clogged. If the strainer does become clogged, it will reduce the washing capability of the machine. Instruct operators to clean out the pan strainer at regular intervals or as required by work load.

**SHUTDOWN AND CLEANING:** At the end of the workday, remove the pan strainer and clean as required. Wipe out the inside of the Side Loader and then reinsert the strainer.

#### DISHMACHINE OPERATING INSTRUCTIONS

**PREPARATION:** Before proceeding with the start-up of the unit, verify the following:

- 1. Close door(s) on dishmachine.
- 2. Close the drain valve(s).

**POWER UP:** To energize the unit, turn on the power at the service breaker. The voltage should have been previously verified as being correct. If not, the voltage will have to be verified.

**FILLING THE WASH TUB:** Ensure that the delime switch is in the NORMAL position, and place the power switch into the ON position. The machine should fill automatically and shut off when the appropriate level is reached (just below the pan strainer). The wash tub must be completely filled before operating the wash pump to prevent damage to the component. Once the wash tub is filled, the unit is ready for operation.



Machines equipped with prewash sections should not be run without water in those sections. This can cause damage to components.

**WARE PREPARATION:** Proper preparation of ware will help ensure good results and less re-washes. If not done properly, ware may not come out clean and the efficiency of the dishmachine will be reduced. It is important to remember that a dishmachine is not a garbage disposal and that simply throwing unscraped dishes into the machine simply defeats the purpose altogether of washing the ware. Scraps should be removed from ware prior to being loaded into a rack. Pre-rinsing and pre-soaking are good ideas, especially for silverware and casserole dishes. Place cups and glasses upside down in racks so that they do not hold water during the cycle. The dishmachine is meant not only to clean, but to sanitize as well, to destroy all of the bacteria hat could be harmful to human beings. In order to do this, ware must be properly prepared prior to being placed in the machine.

**DAILY MACHINE PREPARATION:** Refer to the section entitled "PREPARATION" at the top of this page and follow the instructions there. Afterwards, check that all of the chemical levels are correct and/or that there is plenty of detergent available for the expected workload.

**WASHING A RACK OF WARE:** To wash a rack, simply slide a rack of soiled ware into the load end of the machine. Once the the machine is started, it should pull the rack through the machine and push it out the unload end. Once a rack has started through, you may put another rack in.

**OPERATIONAL INSPECTION:** Based upon usage, the pan strainers may become clogged with soil and debris as the work-day progresses. Operators should regularly inspect the pan strainers to ensure they have not become clogged. If the strainers do, they will reduce the washing capability of the machine. Instruct operators to clean out the pan strainers at regular intervals or as required by work load.



NOTE: On units equipped with prewash sections operators should also take the time to inspect the prewash section strainers and clean them as required by workload.

**SHUTDOWN AND CLEANING:** At the end of the workday, place the power switch in the OFF position and open the door(s). Open the drain valves and allow the machine to drain completely. Remove the pawl bar assembly (clean as required). Remove the pan strainers and, if equipped, the prewash strainers, run off sheets and scrap basket strainer. Remove the wash and, if equipped, the prewash arms and verify that the nozzles and arms are free from obstructions. Flush the arms with fresh water. Remove the pump suction strainers and clean out as required. Remove the rinse tray assembly and clean. Remove the curtains and scrub with a mild detergent and warm water. Wipe out the inside of the unit and then reassemble with the components previously removed.

#### **DETERGENT CONTROL**

Detergent usage and water hardness are two factors that contribute greatly to how efficiently your dishmachine will operate. Using detergent in the proper amount can become, in time, a source of substantial savings. A qualified water treatment specialist can tell you what is needed for maximum efficiency from your detergent, but you should still know some basics so you'll understand what they are talking about.

First, you must understand that hard water greatly effects the performance of the dishmachine. Water hardness is the amount of dissolved calcium and magnesium in the water supply. The more dissolved solids in the water, the greater the water hardness. Hard water works against detergent, thereby causing the amount of detergent required for washing to increase. As you use more detergent, your costs for operating the dishmachine will increase and the results will decrease. The solids in hard water also may build-up as a scale on wash and rinse heaters, decreasing their ability to heat water. Water temperature is important in removing soil and sanitizing dishes. If the water cannot get hot enough, your results may not be satisfactory. This is why Jackson recommends that if you have installed the machine in an area with hard water, that you also install some type of water treatment equipment to help remove the dissolved solids from the water before it gets to the dishmachine.

Second, hard water may have you adding drying agents to your operating cycle to prevent spotting, when the real problem is deposited solids on your ware. As the water evaporates off of the ware, the solids will be left behind to form the spotting and no amount of drying agent will prevent this. Again, using treated water will undoubtedly reduce the occurrences of this problem.

Third, treated water may not be suitable for use in other areas of your operation. For instance, coffee made with soft water may have an acid or bitter flavor. It may only be feasible to install a small treatment unit for the water going into the dishmachine itself. Discuss this option with your qualified water treatment specialist.

Even after the water hardness problems have been solved, there still must be proper training of dishmachine operators in how much detergent is to be used per cycle. Talk with your water treatment specialist and detergent vendor and come up with a complete training program for operators. Using too much detergent has as detrimental effects as using too little. The proper amount of detergent must be used for job. It is important to remember that certain menu items may require extra detergent by their nature and personnel need to be made aware of this. Experience in using the dishmachine under a variety of conditions, along with good training in the operation of the machine, can go a long way in ensuring your dishmachine operates as efficiently as possible.

Certain dishmachine models require that chemicals be provided for proper operation and sanitization. Some models even require the installation of third-party chemical feeders to introduce those chemicals to the machine. Jackson does not recommend or endorse any brand name of chemicals or chemical dispensing equipment. Contact your local chemical distributor for questions concerning these subjects.

Some dishmachines come equipped with integral solid detergent dispensers. These dispensers are designed to accommodate detergents in a certain sized container. If you have such a unit, remember to explain this to your chemical distributor upon first contacting them.

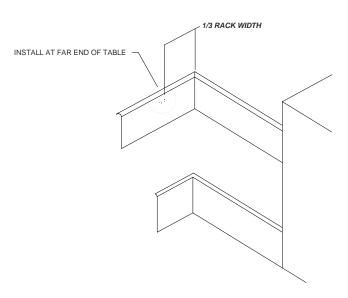
As explained before, water temperature is an important factor in ensuring that your dishmachine functions properly. The data plate located on each unit details what the minimum temperatures must be for either the incoming water supply, the wash tank and the rinse tank, depending on what model of dishmachine you have installed. These temperatures may also be followed by temperatures that Jackson recommends to ensure the highest performance from you dishmachine. However, if the minimum requirements are not met, the chances are your dishes will not be clean or sanitized. Remember, a dish can look clean, but it may not be sanitized. Instruct your dishmachine operators to observe the required temperatures and to report when they fall below the minimum allowed. A loss of temperature can indicate a much larger problem such as a failed heater or it could also indicate that the hot water heater for your operation is not up to capacity and a larger one may need to be installed.

There are several factors to consider when installing your dishmachine to ensure that you get the best possible results from it and that it operates at peak efficiency for many years. Discuss your concerns with your local chemical distributor and water treatment specialist before there is a problem.

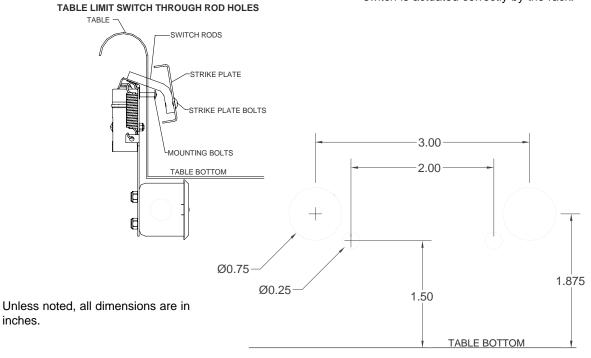
### STRIKER PLATE LIMIT SWITCH INSTALLTION INSTRUCTIONS

### **Installation Instructions:**

- 1. Wiring: The switch is wired common and normally open because of the hinge design. By interupting the line in series with the door switches, the dishmachine ceases to operate. Refer to the machine schematic for details on how to wire the switch.
- 2. Parts of the table switch are mounted in the dishtable, at the end of the table and under the table. See the drawing(s) for the relationship of the switch to the table.
- 3. Move the limit switch as far down on the two slots as possible and see that the limit switch is straight on the base plate. This might require adjustment of the nut on the connector for the limit switch.
- 4. Then adjust the inside and the outside connector nuts for the connector box so that it lines up even with the limit switch and the base plate.
- 5. Tighten down the nuts for the seal so that they are tight.



6. If you have any difficulty you might have to adjust the connectors to the seal, screwing in or screwing out until the installation is straight on the table and the limit switch is actuated correctly by the rack.



# SECTION 3: PREVENTATIVE MAINTENANCE

### **SECTION 3: PREVENTATIVE MAINTENANCE**

### PREVENTATIVE MAINTENANCE

The dishmachines covered in this manual are designed to operate with a minimum of interaction with the operator. However, this does not mean that some items will not wear out in time. Jackson highly recommends that any maintenance and repairs not specifically discussed in this manual should be performed by QUALIFIED SERVICE PERSONNEL ONLY. Performing maintenance on your dishmachine may void your warranty if it is still in effect, so if you have a question or concern, do not hesitate to contact Jackson.

There are many things that operators can do to prevent catastrophic damage to the dishmachine. One of the major causes of component failure has to do with prescrapping procedures. A dishmachine is not a garbage disposal; any large pieces of material that are put into the machine shall remain in the machine until they are either broken up (after spreading out on your ware!) or physically removed. Strainers are installed to help catch debris, but they do no good if they are clogged. Have operators regularly inspect the pan strainers to ensure (1) that they are free of soil and debris and (2) they are laying flat in the tub.

When cleaning out strainers, do NOT beat them on waste cans. The strainers are made of metal and can be forgiving; but once severe damage is done, it is next to impossible for the strainer to work in the way it was designed to. Wipe out strainers with a rag and rinse under a faucet if necessary. For stubborn debris, a toothpick should be able to dislodge any obstructions from the perforations. Always ensure that strainers are placed back in the machine before operation and that they lay flat in the tub.

You may wish to also refer to the page entitled "Detergent Control" in order to learn more about how your water hardness will effect the performance of your machine. Hard water makes dishmachines work harder and decreases efficiency.

Again, it is important to remind operators that trying to perform corrective maintenance on the dishmachine could lead to larger problems or even cause harm to the operator. If a problem is discovered; secure the dishmachine using proper shut down procedures as listed in this manual and contact Jackson.

Some problems, however, may having nothing to do with the machine itself and no amount of preventative maintanence is going to help. A common problem has to do with temperatures being too low. Verify that the water temperatures coming to your dishmachine match the requirements listed on the machine data plate. There can be a variety of reasons why your water temperature could be too low and you should discuss it with Jackson to determine what can be done.

By following the operating and cleaning instructions in this manual, you should get the most efficient results from your machine. As a reminder, here are some steps to take to ensure that you are using the dishmachine the way it was designed to work:

- 1. Ensure that the water temperatures match those listed on the machine data plate.
- 2. Ensure that all strainers are in place before operating the machine.
- 3. Ensure that all wash and/or rinse arms are secure in the machine before operating.
- 4. Ensure that drains are closed/sealed before operating.
- 5. Remove as much soil from dishes by hand as possible before loading into racks.
- 6. Do not overfill racks.
- 7. Ensure that glasses are placed upside down in the rack.
- 8. Ensure that all chemicals being injected to machine have been verified as being at the correct concentrations.
- 9. Clean out the machine at the end of every workday as per the instructions in the manual.
- 10. Always contact Jackson whenever a serious problem arises.
- 11. Follow all safety procedures, whether listed in this manual or put forth by local, state or national codes/regulations.

# SECTION 4: TROUBLESHOOTING

#### **SECTION 4: TROUBLESHOOTING**

#### **COMMON PROBLEMS**



WARNING: Inspection, testing and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the unit have power to it and live electrical components be exposed. USE EXTREME CAUTION WHEN TESTING THE MACHINE.

#### Problem: Nothing on dishmachine operates. The power switch is ON and the power indicator light is OFF.

- 1. Machine is not wired correctly to incoming power source. Have an electrician verify wiring.
- 2. Machine circuit breaker is tripped. Reset the circuit breaker. If it trips again, contact an electrician to verify the machine amp draw.
- 3. Service breaker is tripped. Reset the service breaker. If it trips again, contact an electrician to verify the machine amp draw.

#### Problem: Machine will not fill. The power switch is ON and the power indicator light is ON.

- 1. No water supply to machine. Verify that water lines have been connected to the machine.
- 2. Dishmachine doors are not closed. Close doors completely.
- 3. Incoming water solenoid valve damaged/faulty. Verify that the valve is operating. If not, replace.
- 4. Tank floats faulty. Verify the wiring of the floats. Verify that no debris is jamming the floats. Replace if necessary.

#### Problem: Machine fills, but fill is weak.

- 1. Low incoming water pressure. Verify that incoming water pressure during fill is 20 ±5 PSI.
- 2. Incoming water solenoid is clogged. Verify that debris is not entrapped in valve. If so, remove debris.

#### Problem: Low wash tank temperature.

- 1. Low incoming water temperature. Verify that the incoming water temperature matches what is indicated on the machine data plate.
- 2. Heater not energizing. Verify that the wash tank heater is operating. If not, replace.
- 3. Low incoming voltage. Have an electrician verify that the power coming to the machine is the same as indicated on the data plate.

#### Problem: Low wash arm pressure, poor spray pattern.

- 1. Clogged wash arm nozzles. Verify that nozzles are not clogged with debris. If so, remove debris.
- 2. Clogged wash tank or wash pump strainers. Clean out strainers if necessary.
- 3. Worn wash pump impeller. Verify status of impeller, replace if necessary.

#### Problem: Low prewash arm pressure, poor spray pattern.

- 1. Clogged prewash arm nozzles. Verify that nozzles are not clogged with debris. If so, remove debris.
- 2. Clogged prewash tank or prewash pump strainers. Clean out strainers if necessary.
- 3. Worn prewash pump impeller. Verify status of impeller, replace if necessary.

#### Problem: Inadequate rinse.

- 1. Low incoming water pressure, Verify that incoming water pressure during fill is 20 ±5 PSI.
- 2. Incoming water solenoid is clogged. Verify that debris is not entrapped in valve. If so, remove debris.

#### Problem: Pawl bar does not move.

- 1. Failed or broken overload spring. Replace spring if necessary.
- 2. No power to the drive motor/failed drive motor. Verify power and wiring connections to the motor. If necessary, replace the motor.
- 3. Pawl bar not properly installed. Verify that the pawl bar is installed correctly.

#### **SECTION 4: TROUBLESHOOTING**

#### **COMMON PROBLEMS**

#### Problem: Racks go through the machine, but results are poor.

- 1. Verify that detergent is being dispensed into the machine at the appropriate quantities for the water volume. If not, get detergent to appropriate level and review results of washing ware.
- 2. Clogged strainers/scrap basket. Clean out strainers and scrap basket and replace.
- 3. Ware not being properly prescrapped. Review paragraph entitled 'Ware Preparation' in Operating Instructions.
- 4. Wash or rinse arms missing end plugs or caps. Verify and replace as required.
- 5. Low tank heat.
- 6. Inadequate rinse.
- 7. Incorrect voltage coming to the machine. Verify that the voltage matches that on the machine data plate.
- 8. Wash pump cavitation due to low water level. Verify that the drains are shut and that the water level is correct.

#### Problem: Spotting of silverware, glasses and dishes.

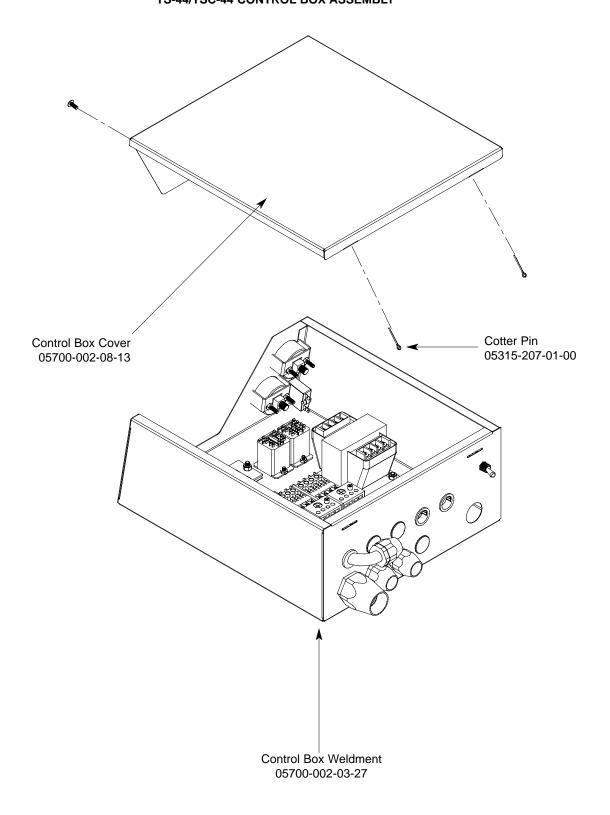
- 1. Incorrect final rinse temperature. Verify that the rinse water temperature matches that which is listed on the machine data plate.
- 2. Clogged wash and/or rinse nozzles and arms. Remove the arms and verify that they and their nozzles are from debris.
- 3. Excessively hard water. Install a water softener to reduce hardness.
- 4. Loss of water pressure due to clogged/obstructed wash pump. Turn the power off to the machine at the source. Drain the wash tank of water and verify that the pump intake is free from debris.
- 5. Improper scrapping procedures. Review the paragraph entitled "Ware Preparation" in Operating Instructions.
- 6. incorrect detergent/chemcial concentrations. Verify that the detergent/chemical concentrations are correct for the associated water volume.

#### **TORQUE SETTINGS**

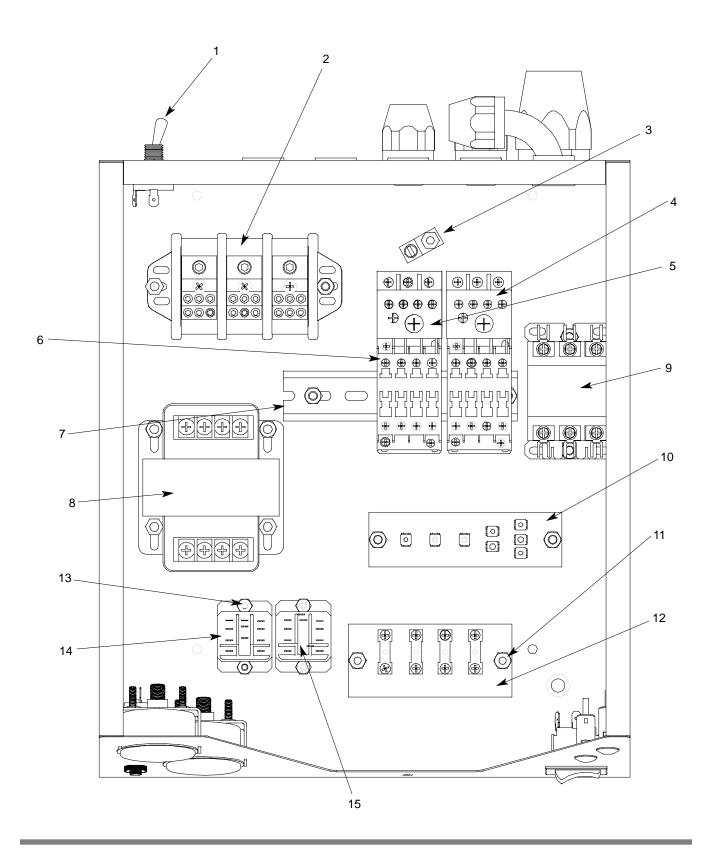
When replacing components either in the control box or the heater box area, the manufacturer has suggestions on how much to torque the screws and nuts used in securing items to the machine. Refer to the table below for the torque specifictions:

<u>ITEMS</u>	TORQUE SPEC
Relays	16 In/lbs
Heater Contactor	35 In/lbs
Heater Nuts	16 In/lbs
Terminal Block	50 In/lbs

# SECTION 5: PARTS SECTION TS-44/TSC-44 CONTROL BOX ASSEMBLY

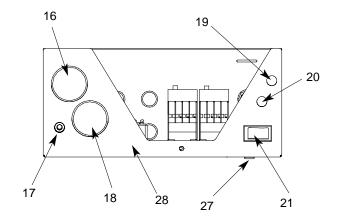


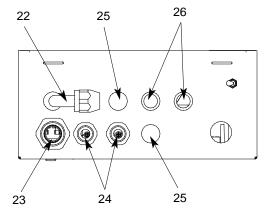
#### TS-44/TSC-44 CONTROL BOX ASSEMBLY (CONTINUED)



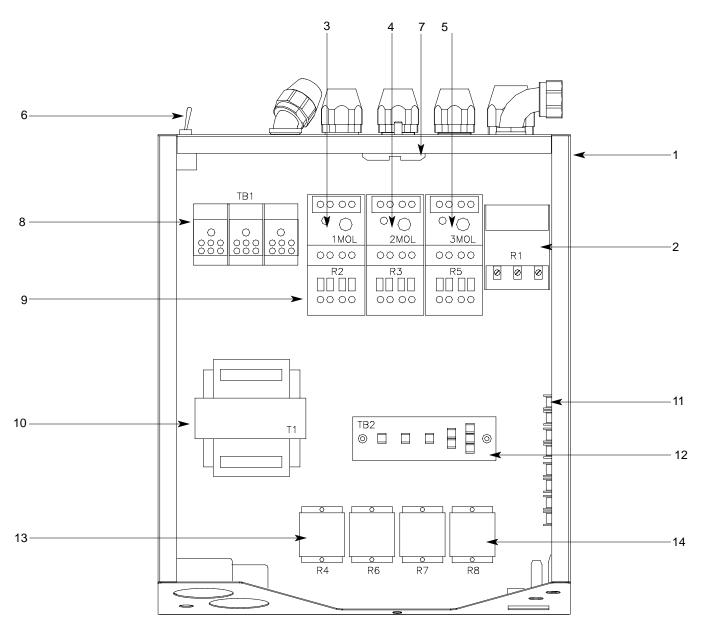
# TS-44/TSC-44 CONTROL BOX ASSEMBLY (CONTINUED)

ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Switch, Master	05930-301-22-18
2	1	Terminal Block, 3 Pole	05940-011-48-27
3	1	Wire Lug, 2 AWG to 14 AWG	05940-200-76-00
4	1	Overload, 5.5 - 7.5 RT1M (3 phase only)	05945-111-68-40
	1	Overload (460-600V Models Only)	05945-111-69-12
5	1	Overload, 1 - 1.5 RT1G (3 phase only)	05945-111-68-39
	1	Overload (460-600V Models Only)	05945-111-68-41
6	2	Contactor	05945-111-68-38
7	1	Din Rail	05700-021-72-75
8	1	Transformer (TS-44/TSC-44)	05950-011-68-35
	1	Transformer (TS-44GP/TSC-44GP)	05950-002-46-10
	1	Transformer (TS-44/TSC-44 600V MODELS)	05950-002-23-77
9	1	Contactor, Heater	05945-002-24-70
10	1	Terminal Board	05940-002-78-97
11	15	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
12	1	Terminal Board, Screw Down	05940-021-89-41
13	8	Locknut, 10-24 with Nylon Insert	05310-373-01-00
14	1	Relay, 120V, 3PDT, Top Mount	05945-111-72-51
15	1	Relay, Control	05945-111-35-19
16	1	Rinse Thermometer, 96" Lead	06685-111-68-49
	1	Decal, 180°F Rinse	09905-002-97-62
17	1	Circuit Breaker (208-230V Electric Models Only)	05925-011-68-34
17	1	Circuit Breaker (208-230V Gas Models Only)	05925-111-64-18
18	1	Wash Thermometer, 96" Lead	06685-111-68-49
	1	Decal, 160°F Wash	09905-003-00-69
19	1	Light, Amber (TS-44/TSC-44 Only)	05945-111-44-44
20	1	Light, Red	05945-111-44-45
21	1	Switch, Power	05930-301-46-00
22	1	Fitting, 1/2" NPT x 90°	05975-011-45-14
23	1	Fitting, 1" Straight	05975-011-70-75
24	2	Fitting, 1/2" Straight	05975-011-45-13
25	2	Plug, Heyco, 2700 G-875	05975-011-47-81
26	2	Bushing, Heyco	05975-210-09-00
27	1	Grommet, 1/2" OD x 3/8" ID	05325-011-46-73
	1	Fuse (460V Models) (Not Shown)	05920-011-72-88
	1	Fuse (600V Models) (Not Shown)	05920-002-75-95
	1	Fuse Holder (460-600V Models)(Not Shown)	05920-011-72-89
28	1	Decal, Front	09905-002-97-75





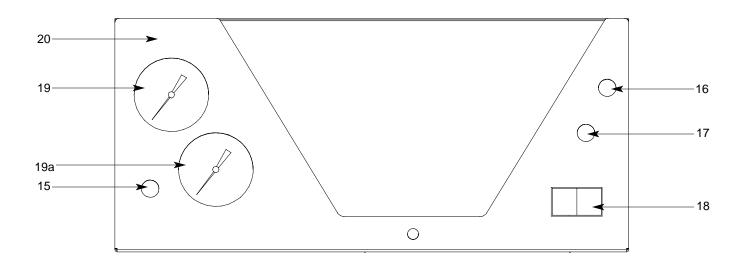
#### TS-66/TSC-66 CONTROL BOX ASSEMBLY



Items not shown but available as service parts:

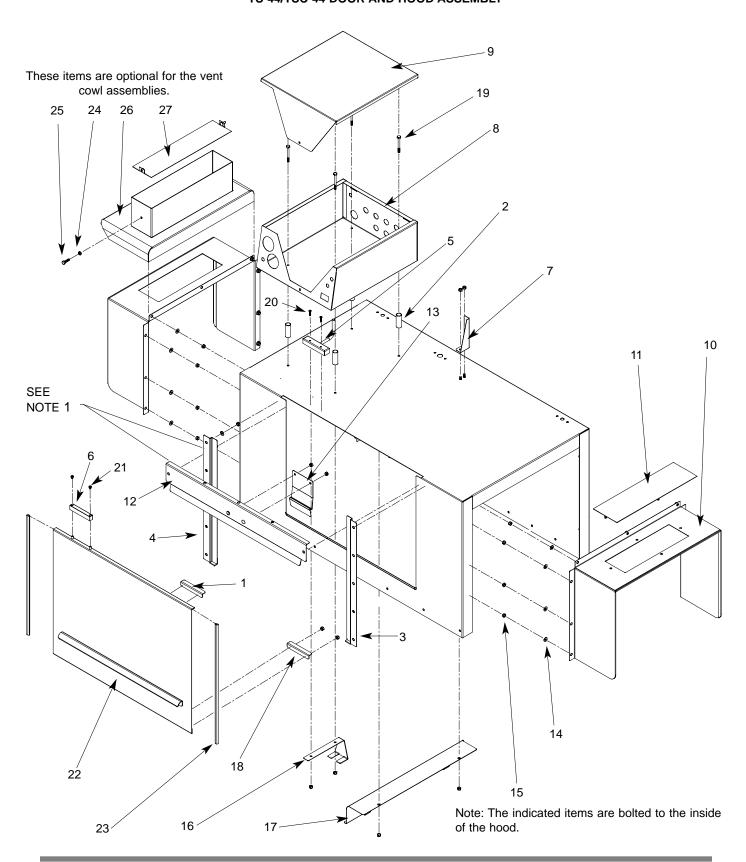
ITEM	QTY	DESCRIPTION	Mfg. No.
	1	Control Box Legs	05700-011-71-47
	1	Din Rail, Cut to 5-3/4" Long	05700-021-72-75
	1	Control Box Cover	05700-002-08-13
	2	Cotter Pin	05315-207-01-00

# TS-66/TSC-66 CONTROL BOX ASSEMBLY (CONTINUED)



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Electrical Box Weldment	05700-002-03-27
2	1	Heater Contactor	05945-002-24-70
3	1	Drive Motor Overload	05945-111-68-39
	1	Drive Motor Overload (460-600V Models Only)	05945-111-69-12
4	1	Wash Motor Overload	05945-111-68-40
	1	Wash Motor Overload (460-600V Models Only)	05945-111-68-41
5	1	Prewash Motor Overload	05945-111-68-41
	1	Prewash Motor Overload (460-600V Models Only)	05945-111-69-13
6	1	Master Switch	05930-301-22-18
7	1	Fuse Holder (460V Models Only)	05920-011-72-89
	1	Fuse (460V Models Only)	05920-011-72-88
	1	Fuse (600V Models) (Not Shown)	05920-002-75-95
8	1	Terminal Block	05940-011-48-27
9	3	Motor Contactor	05945-111-68-38
10	1	Transformer (TS-66/TSC-66)	05950-011-68-35
	1	Transformer (TS-66GP/TSC-66GP)	05950-011-46-10
	1	Transformer (TS-44/TSC-44 600V MODELS)	05950-002-23-77
11	1	Terminal Board	05940-021-89-41
12	1	Terminal Board	05940-002-78-97
13	1	Top Mount Relay	05945-111-72-51
14	3	Control Relay	05945-111-35-19
15	1	Circuit Breaker (TS-66/TSC-66 208-230V Only)	05925-011-68-34
15	1	Circuit Breaker (TS-66GP/TSC-66GP208-230V Only)	05925-111-64-18
16	1	Light, Amber (TS-66/TSC-66 Only)	05945-111-44-44
17	1	Light, Red	05945-111-44-45
18	1	Manual Wash Switch	05930-301-46-00
19	1	Rinse Thermometer	06685-111-68-49
	1	Decal, 180°F Rinse	09905-002-97-62
19a	1	Wash Thermometer	06685-111-68-49
	1	Decal, 160°F Wash	09905-003-00-69
20	1	Decal, Front	09905-002-97-75

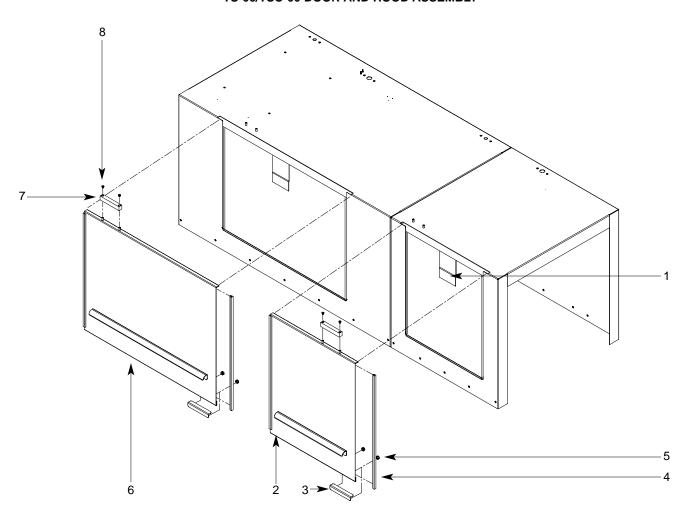
## TS-44/TSC-44 DOOR AND HOOD ASSEMBLY



# TS-44/TSC-44 DOOR AND HOOD ASSEMBLY (CONTINUED)

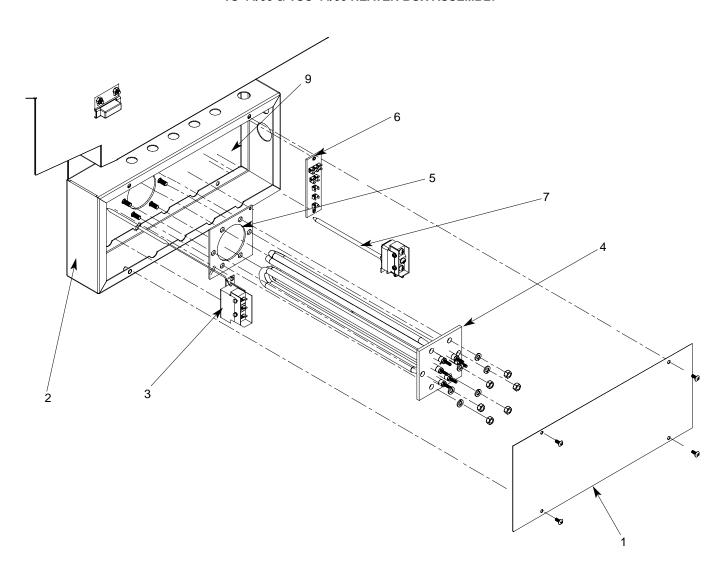
ITEM	QTY	DESCRIPTION	Mfg. No.
1	2	Left Door Stop Weldment	05700-002-96-32
2	4	Legs, Electrical Box	05700-011-71-47
3	1	Door Guide, Right	05700-002-03-44
4	1	Door Guide, Left	05700-002-03-14
5	1	Switch Box Weldment	05700-002-03-30
6	1	Magnet, Reed Switch	05700-111-51-68
7	1	Plumbing Support Bracket	05700-002-05-01
8	1	Control Box Weldment	05700-002-03-27
9	1	Control Box Cover	05700-002-08-13
10	2	Vent Cowl (Optional)	05700-002-03-12
11	2	Cover, Vent Cowl (With studs) (Optional)	05700-011-74-67
12	1	Support, Door	05700-002-03-45
13	1	Door Catch	05700-002-03-15
14	32	Washer, S/S, 1/4"-20	05311-174-01-00
15	56	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
16	1	Upper Wash Arm Bracket	05700-021-73-97
17	1	Splash Shield Weldment	05700-002-03-54
18	1	Right Door Stop Weldment	05700-002-96-33
19	4	Bolt, 1/4"-20 x 2-1/2" Long	05306-011-83-52
20	2	Screw, 8-32 x 3/4" Binder Phillipshead	05305-011-72-66
21	2	Screw, 8-32 x 1/4" Phillips Panhead	05305-172-09-00
22	1	Door Weldment	05700-002-94-04
23	2	Door Glide	05700-002-03-28
24	2	Nut, 1/4"-20, Hex (Optional)	05310-274-01-00
25	2	Screw, 1/4"-20 x 1" Long, S/S Tap (Optional)	05305-274-27-00
26	2	Vent Scoop (Optional)	05700-002-12-18
27	2	Baffle (Optional)	05700-002-11-47

# TS-66/TSC-66 DOOR AND HOOD ASSEMBLY



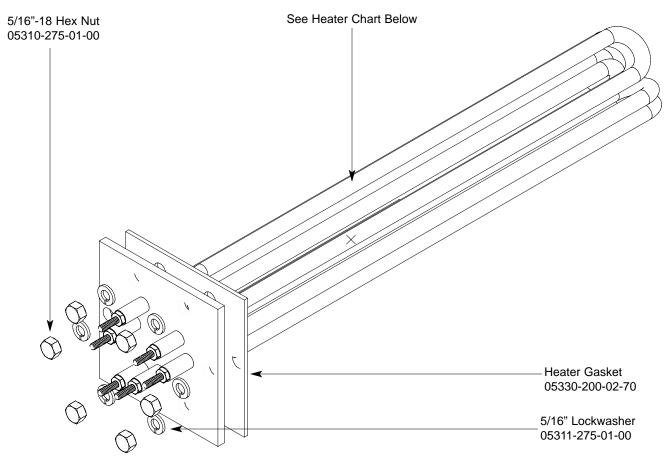
ITEM	QTY	DESCRIPTION	Mfg. No.
1	2	Door Catch Weldment	05700-031-84-80
2	1	Prewash Door Weldment	
		Left to Right	05700-003-13-42
		Right to Left	05700-003-13-40
3	1	Right Door Stop	05700-002-96-33
4	4	Door Guide	05700-002-03-28
5	4	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
6	1	Wash Door Weldment	05700-002-94-04
7	2	Door Switch Magnet	05700-011-73-67
8	4	Screw, 8-32 x 1/4" Long	05305-172-09-00
9	1	Right Door Guide Weldment (Not Shown)	05700-031-76-44
10	1	Right Door Stop (Not Shown)	05700-002-96-32
11	1	Wash Door Hood Support (Not Shown)	05700-031-84-13
12	1	Prewash Door Hood Support (Not Shown)	05700-031-84-14
13	1	Left Door Guide Weldment (Not Shown)	05700-002-03-14
14	1	Splash Shield Weldment (Not Shown)	05700-003-01-63

# TS-44/66 & TSC-44/66 HEATER BOX ASSEMBLY



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Heater Box Cover	05700-002-02-04
2	1	Heater Box Weldment	05700-002-98-38
3	1	Thermostat, High Limit	05930-011-49-43
	1	Decal, High Limit	09905-011-84-32
	1	Fitting, 1/4", Imperial Brass	05310-924-02-05
4	1	See Next Page	N/A
5	1	Gasket	05330-200-02-70
6	1	Terminal Board	05940-002-78-97
7	1	Wash Thermostat Replacement Kit	06401-003-18-20

#### TS-44/66 & TSC-44/66 HEATER BOX ASSEMBLY (CONTINUED)



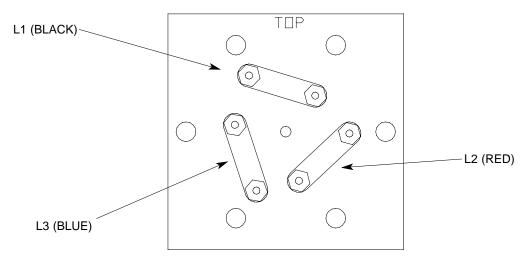
#### **Heater Chart**

<u>Model</u>	<u>Volts</u>	<u>Phase</u>	<u>KW</u>	Mfg. Number
TS-44/TSC-44	208	1	15	04540-121-68-45
	230	1	15	04540-121-68-46
	208	3	15	04540-121-68-45
	230	3	15	04540-121-68-46
	460	3	15	04540-121-68-47
	600	3	15	04540-002-39-93
TS-66/TSC-66	208	1	15	04540-121-68-45
	230	1	15	04540-121-68-46
	208	3	15	04540-121-68-45
	230	3	15	04540-121-68-46
	460	3	15	04540-121-68-47
	600	3	15	04540-002-39-93

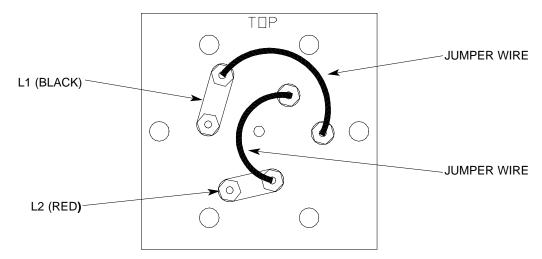
**SERVICE NOTE:** When replacing the tub heaters, it is HIGHLY recommended that you also change out the gasket as well. Once install, gaskets become compressed and are subjected to extreme temperature changes. Replacing the gasket with a new one when replacing the heater may prevent future leaks.

**SERVICE NOTE:** The nuts used to secure the heater to the tub should be torqued to 16 in-lbs. After tightening, the unit should be allowed to heat up and operate normally for approximately 30 minutes. Secure power to the machine and check the nuts once more to ensure that they are torqued to 16 in-lbs.

#### TS-44/66 & TSC-44/66 HEATER BOX ASSEMBLY (CONTINUED)



#### BUS BAR AND LEAD LOCATIONS FOR WASH HEATER TO BE WIRED FOR 3 PHASE AC.



#### BUS BAR, JUMPER WIRES AND LEAD LOCATIONS FOR WASH HEATER TO BE WIRED FOR 1 PHASE AC.

The wash tank heater system is electrically connected in the circuit so that they are dependent upon the dishwasher being properly filled with and maintaining a safe water level, two thermostats (mounted in the heater box behind the dress panel), float switch (mounted in the wash tank), and the heater relay (mounted in control box) with the heater being activated by the thermostats.

Once the dishwasher has been filled to the correct level, the heater should operate automatically. Should the tank heat be too high, too low or no indication of temperatures at all, the following checkout should be made.

### Note: The following checkout should be made by either a qualified service person or electrician.

#### A- Checkout of the heater system

- 1- If the temperature is too high, adjust thermostat using instructions in the section entitled "Thermostats".
- 2- If temperature is too low, adjust thermostat as above, then:
  - a Turn off power to machine by placing customer's circuit breaker in the "OFF" position. Turn off machine circuit breaker located on right side of control box.
  - b Remove cover from control box on top of dishwasher.

#### TS-44/TSC-44 HEATER BOX ASSEMBLY (CONTINUED)

- c Make sure water temperature is below 140°F.(preferably about 130°F.).
- d Turn on both circuit breakers. Observe heater relay (R1) while the power switch is turned "ON" and "OFF". If relay contacts move in and out, the heater relay is operating correctly: if not proceed to "C".

#### B- If heater relay (R1) closes:

- 1 Check power supply at incoming terminal board L1, L2 & L3. It should be the same voltage as indicated on the machine data plate.
- 2 Check power at connections on heater relay (R1). The voltage should agree with the voltage on the machine data plate. If not, check wires for breaks or bad connections.
- 3 Check power at terminals of heater which should agree with the data plate. If not check wires for breaks or bad connections.
- 4 Temperatures should rise as explained in "C-1", and amperage may be checked according to those instructions. Replace any defective elements.

#### C - If heater relay (R1) does not close.

1 - There is an insulated movable insulated movable bar on relay across the top. With an insulated probe, depress this bar and observe the thermometer: the temperature should rise noticeably in a minute or two. If it moves slowly, it would indicate that the element is faulty. If it moves constantly higher at a good rate, elements should be good.



Note: A check with an amp probe at heater relay (R1) terminals should be made to verify the amp draw on each leg. This should be appropriate for the voltage and phase indicated on the data plate.

#### **HEATER PROTECTION & AUTOMATIC FILL**

This control is activated when the power switch is turned "ON". The primary function is to automatically energize the wash tank heat circuit. It will also cutoff the wash tank heat circuit should the water be accidently drained from the machine with the power switch still "ON". The power switch should always be turned-off before draining the unit.

This water level control consists of two (2) floats that operate when the power switch is turned on and works in conjunction with the thermostats and heater relays.

When the power switch is turned "ON" water starts to enter the dishmachine. When it reaches the proper level the normally open contacts in the water level float switch close activating the heating circuit for tank heat.

If the water level below the correct level while power is still on, the float switch will sense the lack of water and de-activate the heater.

#### **THERMOSTATS**

The thermostat range is from 140°F to 240°F with a maximum bulb exposure temperature of 300°F.

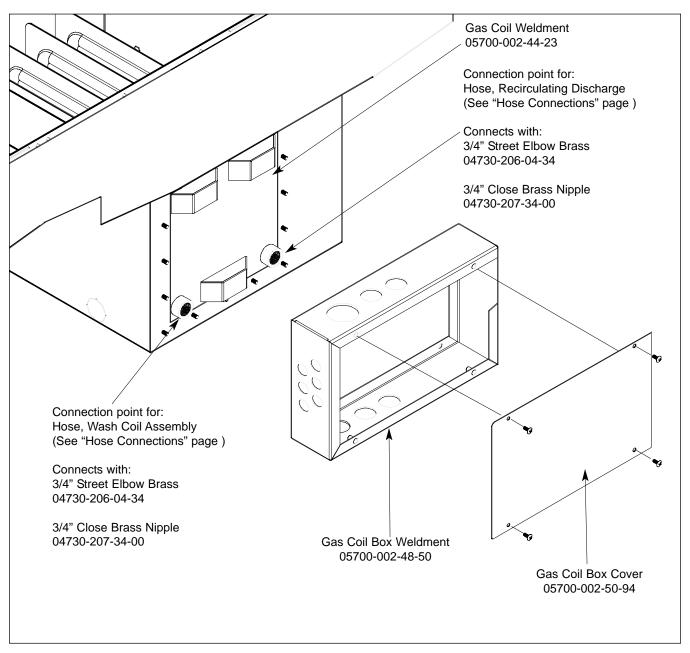
#### Calibration:

Wash Thermostat: Set Point: 165°F (Adjustable range)
Hi-LImit Thermostat: Fixed set point: 210°F (Non-adjustable)

The hi-limit thermostat is used to protect the heater element in the event of a run away regulating thermostat or a dry fire situation. It is set for 210°F +0°F or -10°F with a fixed set point. **This part is not adjustable.** 

The wash tank regulating thermostat will maintain the correct wash water temperature to meet NSF requirements. These specify that the wash be no lower than 140°F on chemical sanitizing models and no lower than 160°F on hot water sanitizing machines.

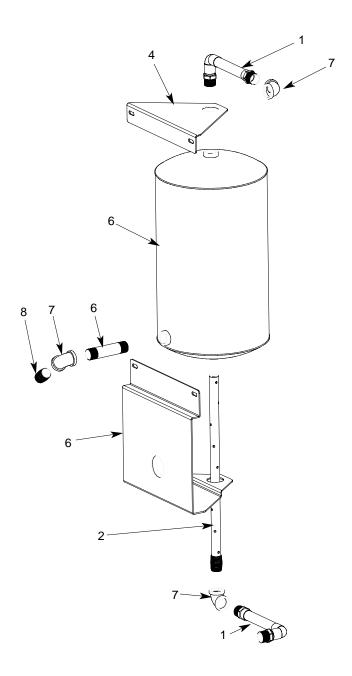
#### TS-44GP/TSC-44GP & TS-66GP/TSC-66GP GAS COIL ASSEMBLY

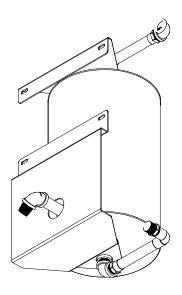


Other items used but not shown.

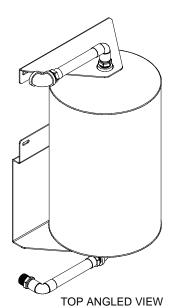
ITI	EM QTY	DESCRIPTION	Mfg. No.
1	1	Thermostat, High Limit	05930-011-49-43
	1	Fitting, 1/4", Imperial Brass	05310-924-02-05
2	1	Gasket	05330-200-02-70
3	1	Terminal Board	05940-002-78-97
4	1	Thermostat Bracket	05700-011-81-64
5	1	Decal, Thermostat Regulating	09905-011-84-31
6	1	Thermostat, Wash Regulating	06401-140-00-32

# TANK, RINSE BOOSTER (TS-44GP/TSC-44GP & TS-66GP/TSC-66GP)



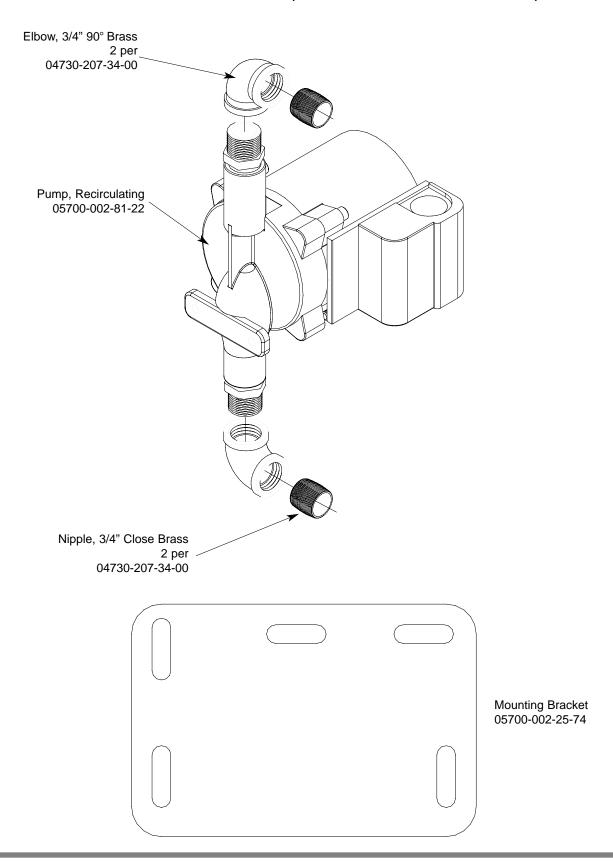


**BOTTOM ANGLED VIEW** 

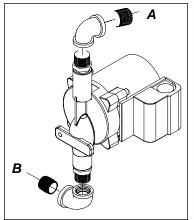


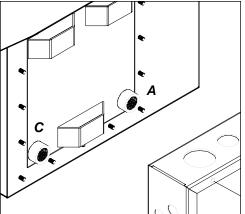
ITEM	QTY	DESCRIPTION	Mfg. No.
1	2	Plumbing Assembly, Inlet/Discharge, Rinse Tank	05700-002-51-24
2	1	Tube, Dispersion Weldment	05700-002-46-16
3	1	Tank, GP Rinse	05700-002-45-05
4	1	Bracket, Upper Rinse Tank	05700-002-67-13
5	1	Bracket, Lower Rinse Tank	05700-002-67-14
6	1	Nipple, 3/4" NPT x 4" Long	04730-207-05-00
7	3	Elbow, 3/4" NPT, 90° Brass	04730-206-13-00
8	1	Nipple, 3/4" NPT x Closed Brass	04730-207-34-00

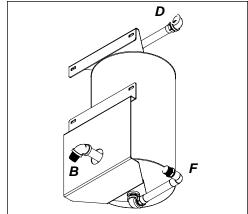
#### RECIRCULATING PUMP ASSEMBLY (TS-44GP/TSC-44GP & TS-66GP/TSC-66GP)



#### **HOSE CONNECTIONS (GP MODELS ONLY)**



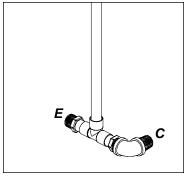




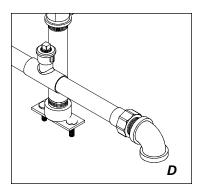
Recirculating Pump Assembly

Gas Coil Weldment

Rinse Booster Tank







Wash/Fill Plumbing Assembly

#### HOSE ASSEMBLIES TS-44CGP TS-66CGP

\*Each hose assembly includes 2, 3/4" Pushlock Fittings part number 4730-011-94-00.

A - Hose, Recirculating Discharge	05700-002-96-57	05700-002-52-74
B - Hose, Recirculating Pump Suction	05700-002-96-55	05700-002-52-75
C - Hose, Wash Coil Assembly	05700-002-52-76	05700-002-57-58
D - Hose, Wash/Fill Supply	05700-002-96-52	05700-002-57-58

E - Hose connection to existing gas booster outlet fitting.

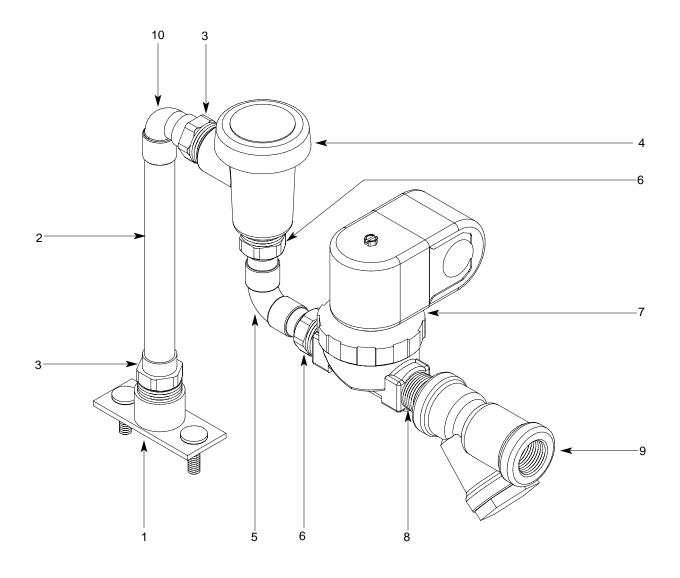
F - Hose connection to existing gas booster inlet fitting.

Gas Booster Connection Kit 05700-002-96-59 includes:

18 Feet of 3/4" Hose

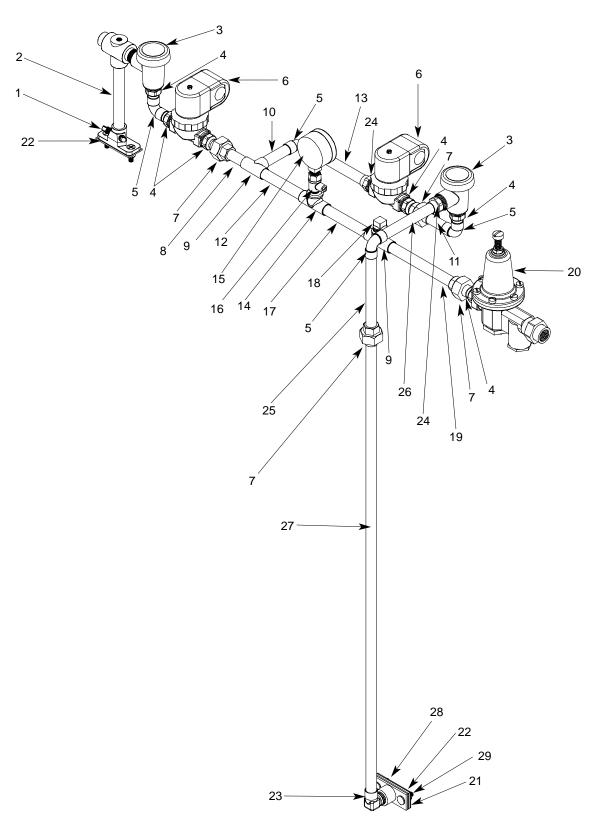
4 - 3/4" Push Lock Fittings

# PREWASH INCOMING PLUMBING ASSEMBLY (TS-66/TSC-66 MODELS ONLY)



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Fill Line Injector Weldment	05700-002-04-71
2	1	Tube, Copper, 1/2" x 5.645" Long	05700-002-04-90
3	2	Adapter, Male	04730-401-03-01
4	1	Vacuum Breaker	04820-003-06-13
5	1	Elbow, 607, 1/2" CTOC	04730-406-01-01
6	2	Adapter, 1/2" FTG x Male	04730-011-59-53
7	1	Valve, Solenoid, 1/2" NPT, 110 Volt	04810-100-12-18
8	1	Nipple, 1/2", Close, Brass	04730-207-15-00
9	1	Y-Strainer, 1/2" NPT	04730-217-01-10
10	1	Elbow, 1/2" S. CU to Ftg.	04730-406-31-01

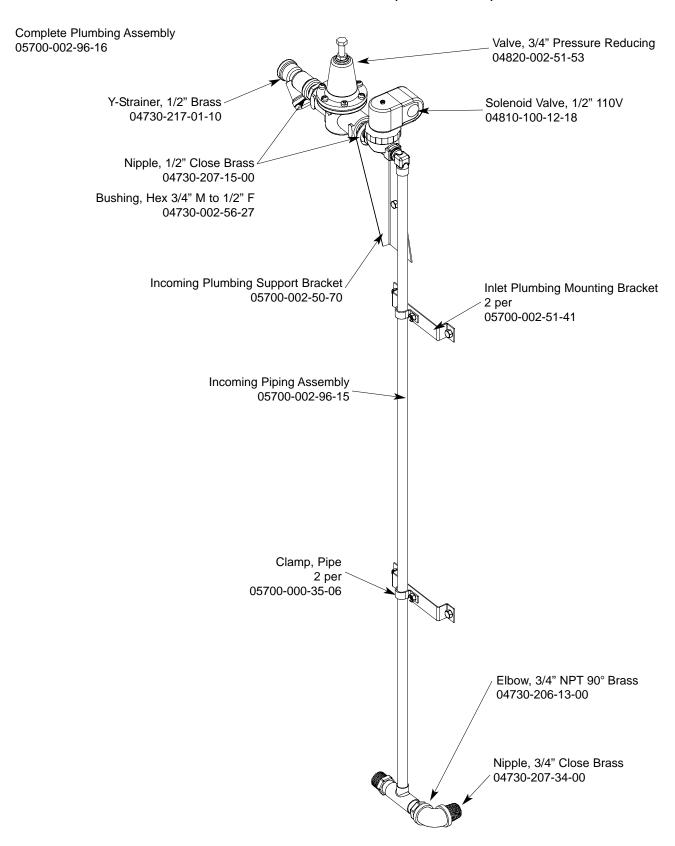
#### **INCOMING RINSE PLUMBING ASSEMBLIES**



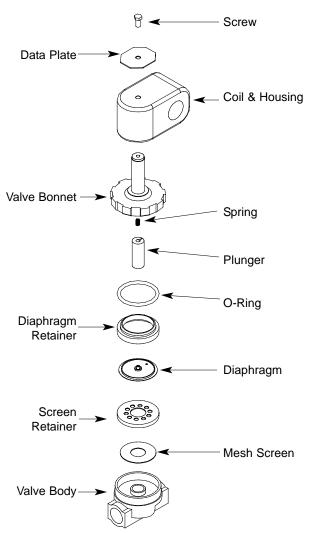
# INCOMING PLUMBING ASSEMBLY (CONTINUED)

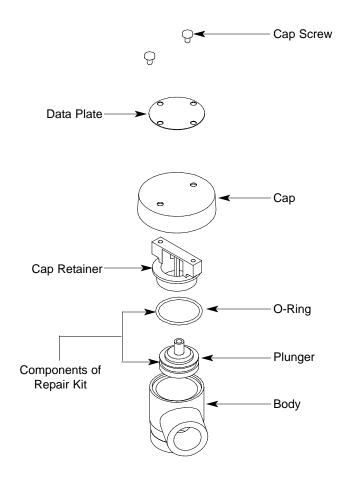
ITEM	QTY	DESCRIPTION	Mfg. No.
1	2	Plug, 1/8" NPT, Brass	04730-209-07-37
2	1	Rinse Injector Weldment	05700-002-03-42
	1	Gasket	05330-111-42-81
3	2	Vacuum Breaker, 1/2" NPT	04820-003-06-13
4	6	Adapter, 1/2" Fitting x Male	04730-011-59-53
5	3	Elbow, 607, 1/2" Copper to Copper	04730-406-01-01
6	2	Valve, Solenoid, 1/2" NPT, 110 Volt	04810-100-12-18
7	4	Union, 1/2", Copper to Copper	04730-412-05-01
7A	1	Restrictor, Rinse Flow (TSC models only)	05700-002-96-13
8	1	Tube, Copper, 1/2" x 2" Long	05700-001-04-66
9	1	Tee, Copper, 1/2"	04730-411-01-01
10	1	Tube, Copper, 1/2" x 3.06" Long	05700-002-04-91
11	1	Tube, Copper, 1/2" x 2.08" Long	05700-002-04-88
12	1	Tube, Copper, 1/2" x 4" Long	05700-002-04-87
13	1	Tube, Copper, 1/2" x 5.27" Long	05700-002-04-92
14	2	Tee, 1/2" x 1/2" x 1/4"	04730-411-25-01
15	1	Gauge, Pressure, 0-100 PSI	06685-111-88-34
	1	Decal, 15-25 PSI	09905-002-97-74
16	1	Test Cock, Valve, Ball, 1/4" NPT	04810-011-72-67
17	1	Tube, Copper, 1/2" x 4.185" Long	05700-002-04-89
18	1	Plug, 1/4" NPT, Brass	04730-209-01-00
19	1	Tube, Copper, 1/2" x 5.92" Long	05700-002-04-93
20	1	Regulator, Watts, 1/2" (Not used on GP units)	04820-100-04-07
20	1	Elbow, 90°, 1/2" Street Brass (GP units only)	04730-206-08-00
21	1	Fill Line Injector Weldment	05700-002-04-71
22	2	Gasket	05330-111-42-81
23	1	Elbow, 90° 1/2" Copper to MSPS	04730-406-32-01
24	2	Adapter, Male	04730-401-03-01
25	1	Tube, Copper, 1/2" x 5.75" Long	05700-002-91-03
26	1	Tube, Copper, 1/2" x 4.75" Long	05700-002-91-02
27	1	Tube, Copper, 1/2" x 33" Long	05700-002-91-04
28	1	Plate, Deflector	05700-002-62-49
29	1	Plate, Rinse Plumbing	05700-011-82-86

#### **INCOMING PLUMBING ASSEMBLY (GP UNITS ONLY)**



#### RINSE SOLENOID VALVE & VACUUM BREAKER REPAIR PARTS KITS





# **SPECIAL PARTS**

Solenoid Valve Plunger Kit
Includes plunger and spring
Part number 06401-003-07-40

Solenoid Valve Diaphragm Kit
Includes diaphragm and o-ring
Part number 06401-003-07-41 (1/2" NPT)

Solenoid Valve 110 Volt Coil and Housing Kit
Part number 06401-003-07-43

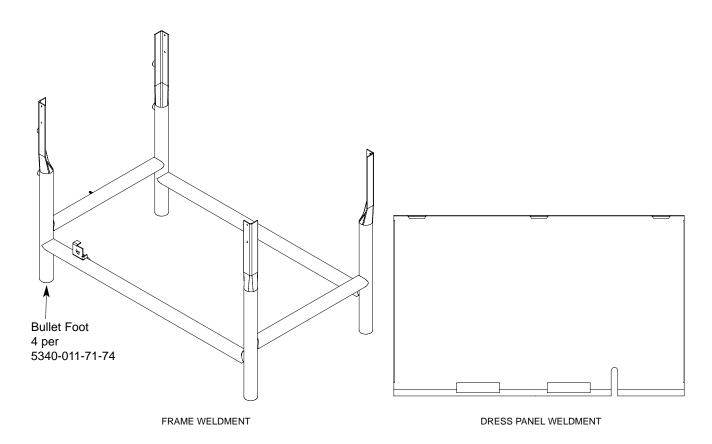
Complete Solenoid Valve
Part number 04810-100-12-18 (1/2", 110 Volt)

# **SPECIAL PARTS**

Vacuum breaker repair kit: For 1/2" NPT order 06401-003-06-23

Complete Vacuum Breaker Assembly Part number 04820-003-06-13 (1/2")

# SECTION 5: PARTS SECTION FRAME WELDEMNTS/DRESS PANELS



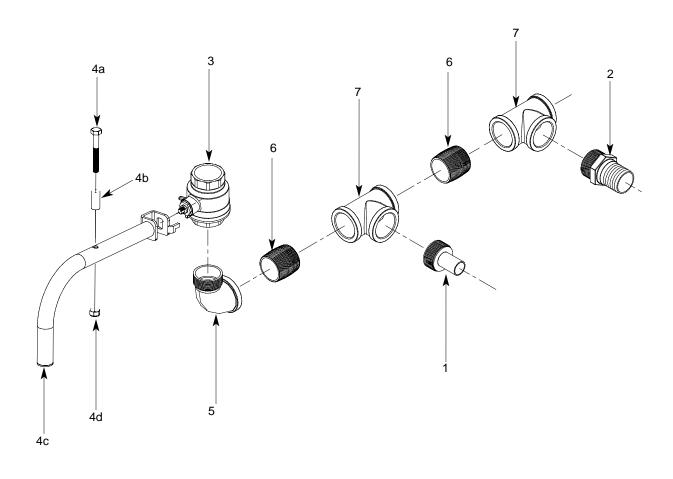
# **FRAME WELDMENTS**

<u>Model</u>	Left to Right Part Number	Right to Left Part Number
TS/TSC-44's	05700-031-67-15	05700-031-67-15
TS-TSC-44CGP's	N/A	05700-002-52-70
TS/TSC-66's TS/TSC-66CGP's	05700-002-49-28 05700-002-49-28	N/A 05700-002-57-57
13/13C-00CGF 8	03700-002-49-20	03700-002-37-37

# **FRONT DRESS PANELS**

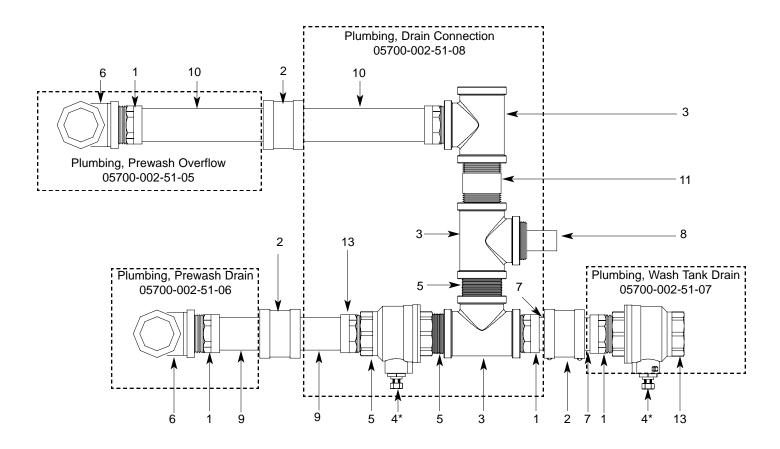
Model	Left to Right Part Number	Right to Left Part Number
TS/TSC-44's TS/TSC-44CGP	05700-031-72-22 N/A	05700-031-72-22 05700-002-52-77
TS/TSC-66's	05700-002-51-22	N/A
TS/TSC-66CGP's	05700-002-57-84	05700-002-57-84

# TS-44/TSC-44 DRAIN PLUMBING ASSEMBLY



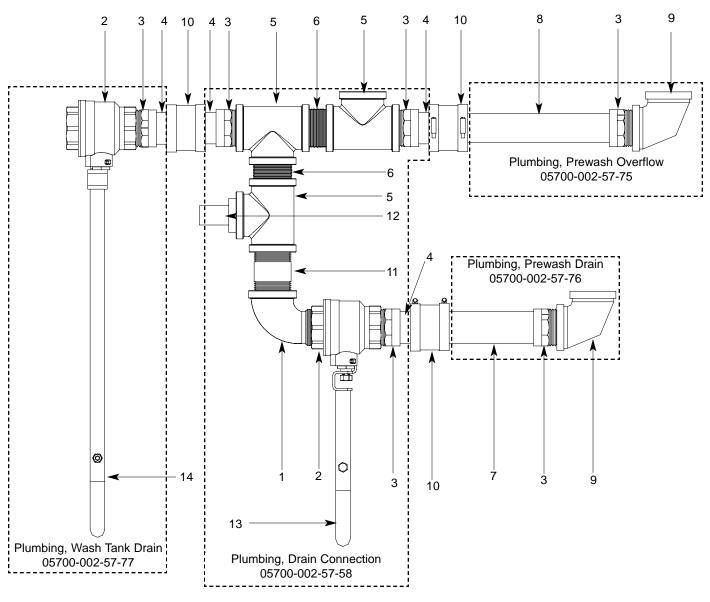
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Rinse Nipple Weldment	05700-021-84-61
2	1	Barb, 1-1/2" NPT x 1-1/2" Barb	04730-011-69-92
3	1	Ball Valve, 1-1/2" NPT	04820-111-71-46
4	1	Ball Valve Handle Assembly	05700-021-84-74
4a	1	Bolt, 1/4"-20 x 2" Long	05306-011-84-72
4b	1	Sleeve	05700-000-01-53
4c	1	Ball Valve Handle Weldment	05700-021-70-54
4d	1	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
5	1	Elbow, Brass, Street, 1-1/2" NPT	04730-206-32-00
6	2	Nipple, Brass, Close, 1-1/2" NPT	04730-207-40-00
7	2	Tee, Brass, 1-1/2" x 1-1/2" x 1-1/2"	04730-011-69-93

# TS-66/TSC-66 (LEFT TO RIGHT) DRAIN PLUMBING ASSEMBLY



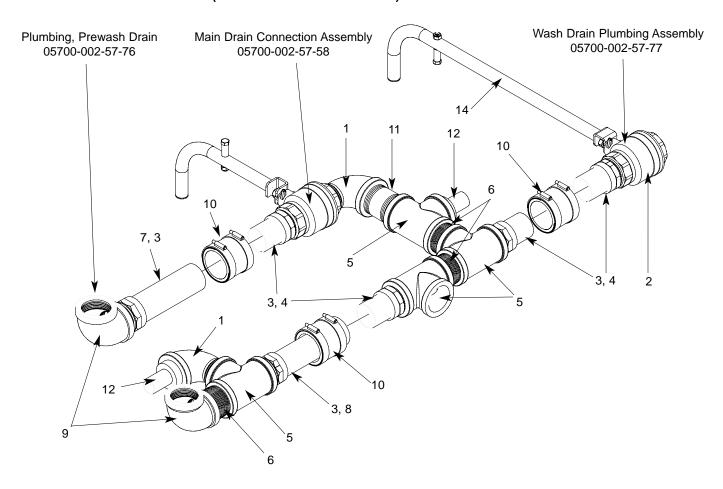
ITEM	QTY	DESCRIPTION	Mfg. No.
1	6	Adapter, Male to Female, 1-1/2"	04730-401-25-01
2	3	No-Hub Connector	04720-604-06-00
3	3	Tee, Brass, 1-1/2" FNPT	04730-011-69-93
4	2	Ball Valve, 1-1/2" FNPT	04820-011-71-46
*	2	Valve Handle Weldment Assembly (Not Shown)	05700-021-84-74
5	2	Nipple, Brass, Close, 1-1/2" NPT	04730-207-40-00
6	2	Elbow, Brass, 90°, 1-1/2" FNPT	04730-011-73-77
7	2	Tube, Copper, 1-1/2" x 1-3/4" Long	05700-000-75-57
8	1	Rinse Nipple Weldment	05700-021-84-61
9	2	Tube, Copper, 1-1/2" x 3-1/2" Long	05700-011-84-23
10	2	Tube, Copper, 1-1/2" x 7-1/2" Long	05700-002-50-98
11	1	Nipple, Brass, 1-1/2" NPT x 3" Long	04730-011-87-04
	1	Entire Assembly	05700-002-50-95

#### TS-66/TSC-66 (RIGHT TO LEFT) DRAIN PLUMBING ASSEMBLY



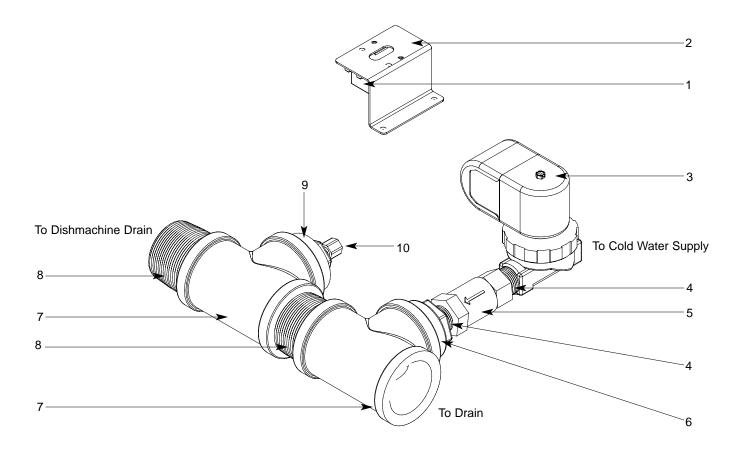
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Elbow, 1-1/2" NPT, Brass, Street	04730-206-32-00
2	2	Valve, Ball, 1-1/2" FNPT	04820-011-71-46
3	6	Adapter, Male to Female, 1-1/2"	04730-401-25-01
4	4	Tube, Copper, 1-1/2" x 1-7/8" Long	05700-002-57-93
5	3	Tee, Brass, 1-1/2" FNPT	04730-011-69-93
6	2	Nipple, Brass, 1-1/2" NPT, Close	04730-207-40-00
7	1	Tube, Copper, 1-1/2" x 5-3/16" Long	05700-002-57-92
8	1	Tube, Copper, 1-1/2" x 8-1/8" Long	05700-021-70-06
9	2	Elbow, Brass, 90°, 1-1/2" FNPT	04730-011-73-77
10	3	No-Hub Connector	04720-604-06-00
11	1	Nipple, Brass, 1-1/2" NPT x 3" Long	04730-011-87-04
12	1	Rinse Nipple Weldment	05700-021-84-61
13	1	Valve Handle Weldment Assembly	05700-021-84-74
14	1	Valve Handle Weldment Assembly	05700-002-57-83

#### TS-66/TSC-66 (RIGHT TO LEFT WITH LOADER) DRAIN PLUMBING ASSEMBLY



ITEM	QTY	DESCRIPTION	Mfg. No.
1	2	Elbow, 1-1/2" NPT, Brass, Street	04730-206-32-00
2	2	Valve, Ball, 1-1/2" FNPT	04820-011-71-46
3	6	Adapter, Male to Female, 1-1/2"	04730-401-25-01
4	4	Tube, Copper, 1-1/2" x 1-7/8" Long	05700-002-57-93
5	4	Tee, Brass, 1-1/2" FNPT	04730-011-69-93
6	3	Nipple, Brass, 1-1/2" NPT, Close	04730-207-40-00
7	1	Tube, Copper, 1-1/2" x 5-3/16" Long	05700-002-57-92
8	1	Tube, Copper, 1-1/2" x 3-1/2" Long	05700-011-84-23
9	2	Elbow, Brass, 90°, 1-1/2" FNPT	04730-011-73-77
10	3	No-Hub Connector	04720-604-06-00
11	1	Nipple, Brass, 1-1/2" NPT x 3" Long	04730-011-87-04
12	2	Rinse Nipple Weldment	05700-021-84-61
13	1	Valve Handle Weldment Assembly	05700-021-84-74
14	1	Valve Handle Weldment Assembly	05700-002-57-83

#### **DRAIN QUENCH SYSTEM**

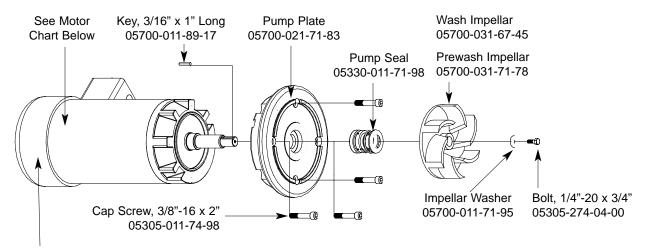


From the existing drain, attach the two additional Tees (Item 7) using the 1-1/2" NPT Close Nipples (Item 8). Tighten the Reducers (Items 6 & 9) into the Tees as shown above. Attach the Modified Compression Fitting (Item 10) into the 1-1/2" to 1/4" Reducer (Item 9). Position the bulb of the thermostat (Item 1) so that it rests approximately 1/4" from the bottom of the Tee (Item 7). Tighten the Modified Compression Fitting (Item 10) as required.

Mount the Thermostat (Item 1) to the tub using the Thermostat Bracket (Item 2) and set it for 120°F - 140°F. Install the Solenoid Valve (Item 3) to the second Tee (Item 7) and then attach to the incoming cold water line. Use pipe dope or thread tape as required to prevent any leaks.

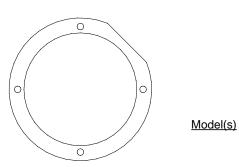
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Thermostat Replacement Kit	06401-003-18-20
2	1	N/A	N/A
3	1	Solenoid Valve	04810-100-09-18
4	2	Nipple, Close, 1/2" NPT, Brass	04730-207-15-00
5	1	Valve, Check, 1/2"	04820-002-55-77
6	1	Reducer, 1-1/2" to 1/2"	04730-002-55-75
7	2	Tee, 1-1/2" x 1-1/2" x 1-1/2"	04730-011-69-93
8	2	Nipple, 1-1/2", Close, Brass	04730-207-40-00
9	1	Reducer, 1-1/2" to 1/4"	04730-002-55-76
10	1	Modified Compression Fitting	05700-001-16-52
	1	Complete Kit	06401-002-44-07

#### **MOTOR ASSEMBLIES**



Clamp, 4-1/8" - 7" 04730-002-32-15

#### **WASH MOTOR CHART**



Motor	Mounting	Gasket
053	330-011-7	1-62

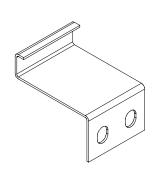
<u>Volts</u>	<u>Phase</u>	<u>Hz</u>	Part Number	Kit Part Number
208 - 230	1	60	06105-021-70-57	06401-003-09-97
200 - 230	3	60	06105-121-70-58	06401-003-09-98
460	3	60	06105-121-70-58	06401-003-09-98
600	3	60	06105-002-48-31	06401-003-09-99

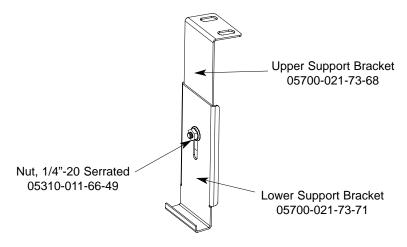
#### PREWASH MOTOR CHART(TS/TSC-66 ONLY)

3-10-40
3-10-38
3-10-38
3-10-41

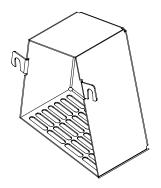
Wash Motor Support Bracket 05700-002-57-10



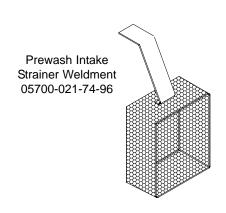


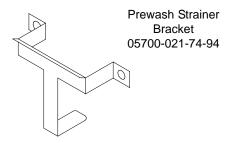


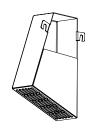
# SECTION 5: PARTS SECTION PREWASH & WASH PUMP WELDMENTS



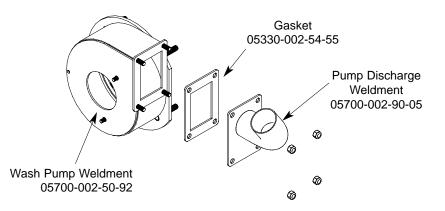
Intake Suction Scoop Weldment 05700-021-87-60

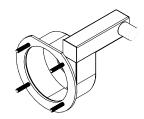




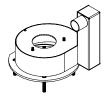


Scoop, Intake Suction Wash Weldment 05700-002-51-20



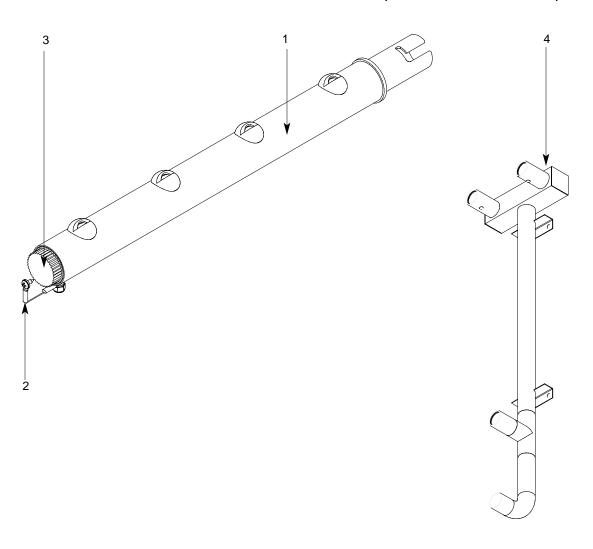


Prewash Pump Weldment Left to Right 05700-002-43-56



Prewash Pump Weldment Right to Left 05700-002-42-69

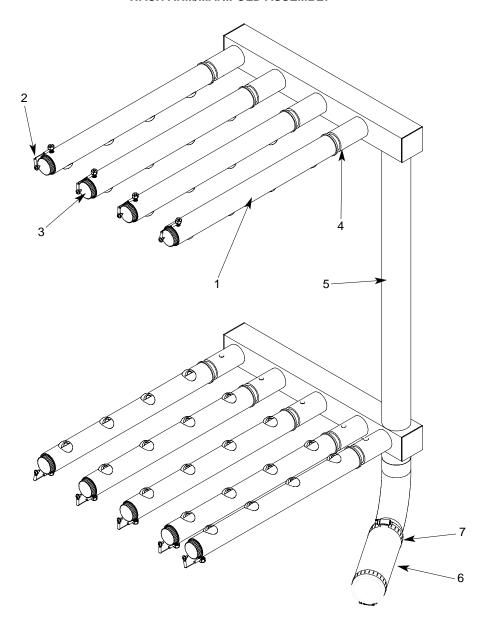
#### PREWASH ARM/MANIFOLD ASSEMBLY (TS-66/TSC-66 MODELS ONLY)



SERVICE NOTE: When replacing the 10-32 screws in the End Caps, it is recommended that a thread locking fluid be used to ensure that the screws do not back out during normal operation.

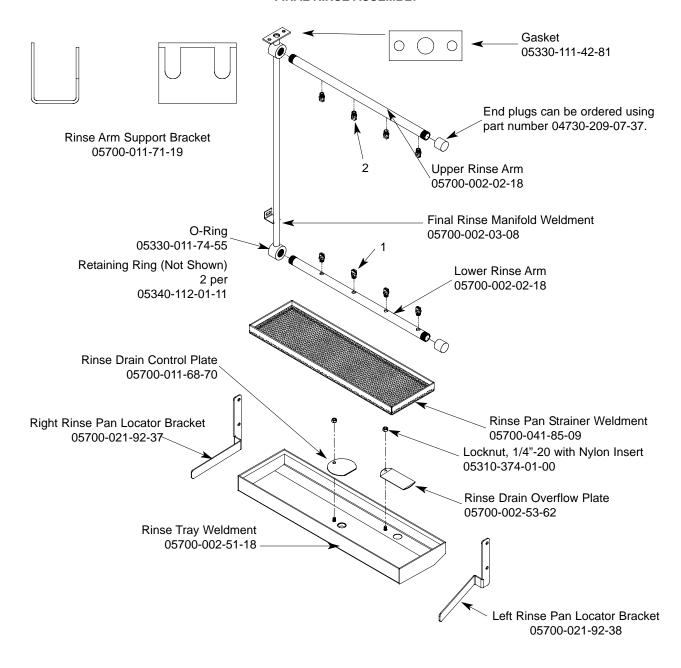
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Wash Arm Weldment	05700-002-95-25
2	1	Lanyard	05340-011-72-46
3	1	Cap, Threaded	05700-011-67-11
		Items 1 through 3 + Hardware	05700-002-95-19
	1	O-ring (Not Shown)	05330-400-12-08
4	1	Prewash Manifold Weldment	05700-003-01-66

#### WASH ARM/MANIFOLD ASSEMBLY



ITEM	QTY	DESCRIPTION	Mfg. No.
		Items 1 through 3 + Hardware	05700-002-95-19
1	9	Wash Arm Weldment	05700-002-95-25
2	9	Lanyard	05340-011-72-46
3	9	Cap, Threaded	04730-603-12-00
4	9	O-ring	05330-400-12-08
5	1	Wash Manifold Weldment	
		Left to Right, Tall	05700-002-95-20
		Right to Left, Tall	05700-002-95-66
		Left to Right, Short	05700-002-95-69
		Right to Left, Short	05700-002-95-70
6	1	Hose, 2" X 6.75" Manifold Pump	05700-002-90-79
7	2	Clamp, Hose 1-9/16" TO 2-1/2"	04730-011-34-89

#### **FINAL RINSE ASSEMBLY**



ITEM	QTY	DESCRIPTION	Mfg. No.
1	4	Lower Rinse Nozzle (TS-Series)	05700-002-96-04
1	4	Lower Rinse Nozzle (TSC-Series)	04730-002-73-31
2	4	Upper Rinse Nozzle (TS-Series)	05700-002-03-13
2	4	Upper Rinse Nozzle (TSC-Series)	04730-002-73-31

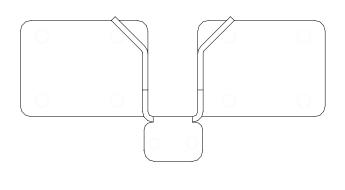
#### PAWL BAR ROLLER BRACKET

Pawl Bar Bracket (without tabs) Weldment 05700-031-92-36

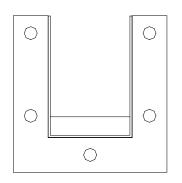
Pawl Bar Roller Replacement Kit 06401-003-11-80

#### Replacement Kit Notes:

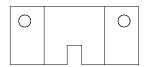
The replacement kit for the pawl bar roller comes with the roller, roller shaft, hardware and locknut as shown.



Pawl Bar Bracket (with studs) Weldment 05700-031-84-68



Pawl Bar Gutter Weldment Replacement Kit 06401-003-09-95

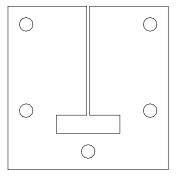


Top Guide Block

**Service Note:** It is highly recommended that when changing out one guide block, that the other be changed out as well, along with the gasket.

## Replacement Kits Notes:

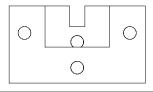
The pawl bar gutter weldment replacement kit contains the weldment, a gasket and the mounting hardware. The guide block kit contains both blocks and a gasket.



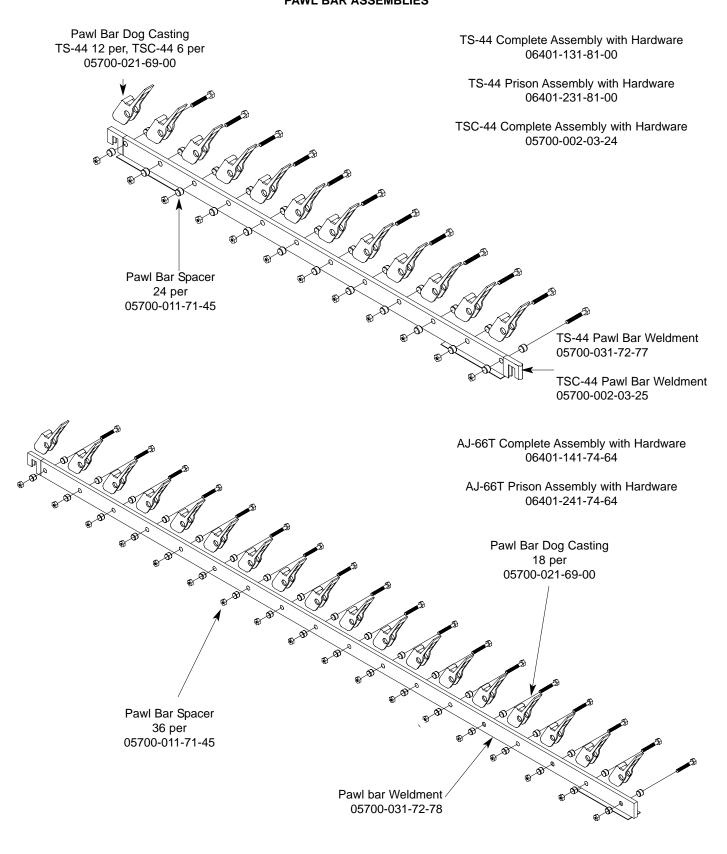
Guide Block Replacment Kit 06401-003-10-15

Bottom Guide Block

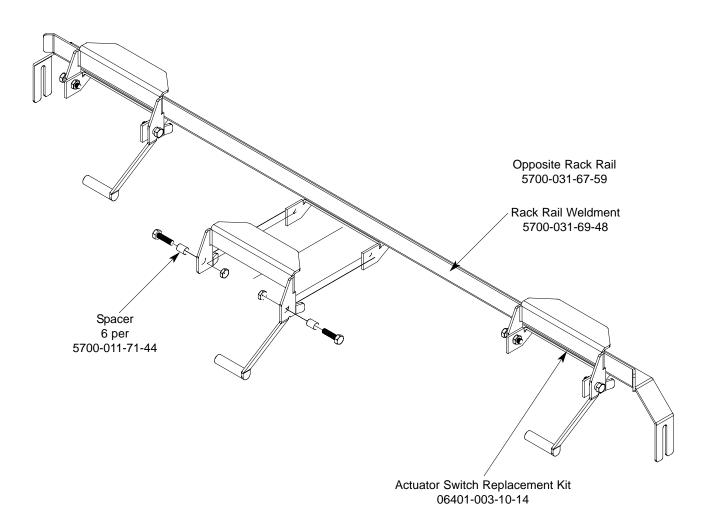




# SECTION 5: PARTS SECTION PAWL BAR ASSEMBLIES



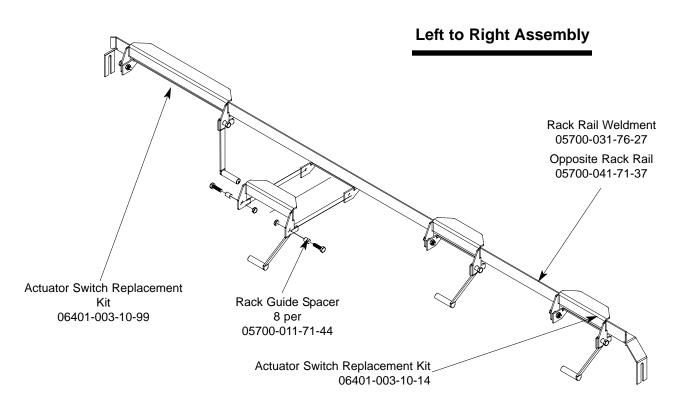
#### TS/TSC-44 RACK RAIL ASSEMBLY



#### Replacement Kit Note:

The replacement kit for the actuator switch comes with the switch, two spacers and the mounting hardware.

#### **AJ-66 RACK RAIL ASSEMBLIES**



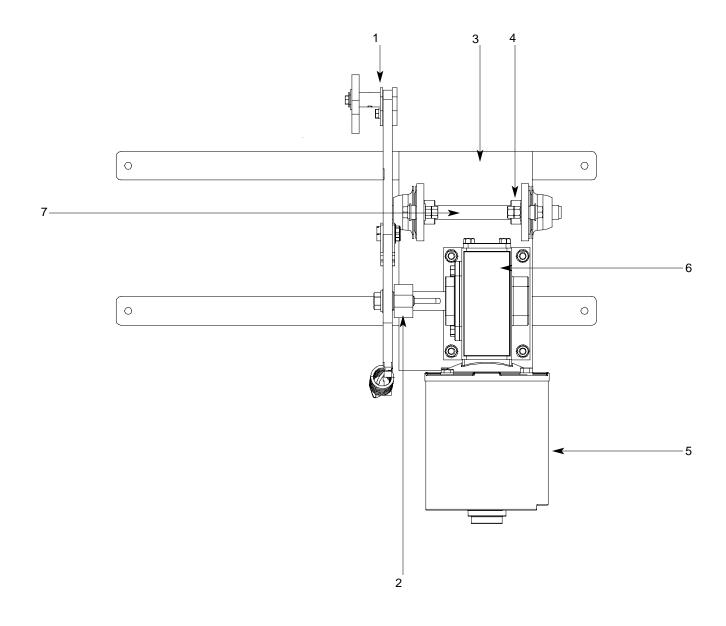
# Right to Left Assembly

# Rack Guide Spacer 8 per 05700-011-71-44 Actuator Switch Replacement Kit 06401-003-10-14 Actuator Switch Replacement Kit 06401-003-10-14

Replacement Kit Notes:

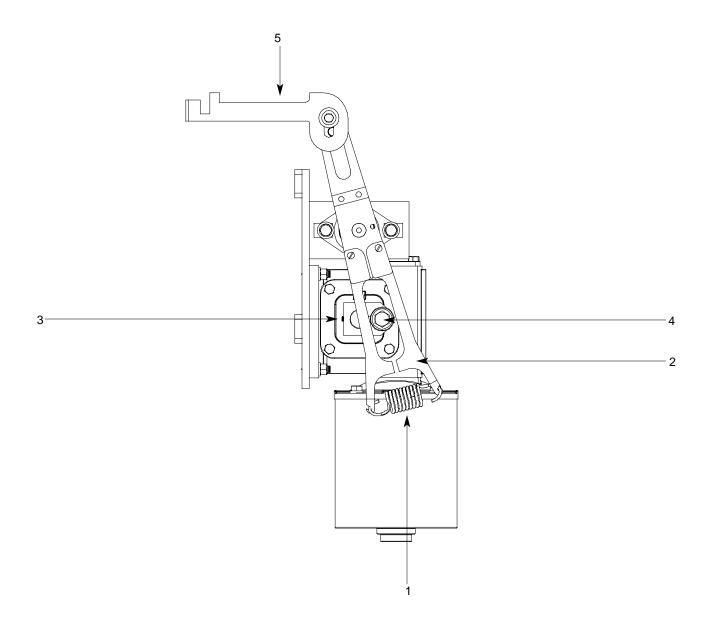
The replacement kits for the actuator

#### DRIVE ASSEMBLY



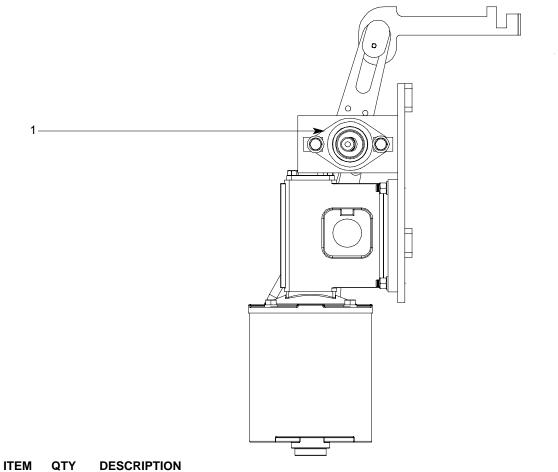
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Plate, Drive & Rod Weldment	05700-002-99-28
2	1	Drive Hub	05700-011-67-97
3	1	Drive Motor Mounting Plate Weldment	05700-031-73-56
4	2	Shaft Collar	05700-011-89-18
5	1	Motor	
		Drive Motor, 115/230V, 1 Ph, 1/4 HP	06105-021-70-53
		Drive Motor, 208-230/460V, 3 Ph, 1/4 HP	06105-121-70-54
		Drive Motor, 600V, 3 Ph, 1/4 HP	06105-002-48-32
6	1	Gear Drive Motor (TS-44 & TS-66)	06105-011-71-88
6	1	Gear Drive Motor (TSC-44 & TSC-66)	06105-002-68-52
7	1	Drive and Rod Weldment	05700-002-99-28

DRIVE ASSEMBLY (CONTINUED)



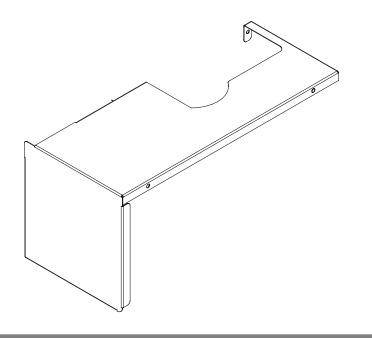
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Spring	05315-011-83-51
2	2	Coupling and Expansion Leg Weldment	05700-021-67-50
3	1	Set Screw, 1/4"-20 x 1/2" Long	05305-011-71-51
4	1	Roller Bearing	03120-011-71-81
5	1	Pawl Bar Drive Linkage Casting	09515-021-87-73

**DRIVE ASSEMBLY (CONTINUED)** 



 M
 QTY
 DESCRIPTION
 Mfg. No.

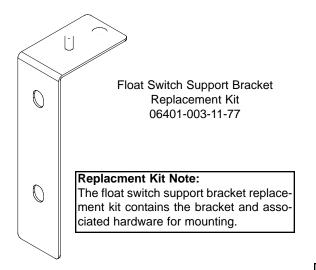
 2
 Pillow Block
 03120-021-71-87

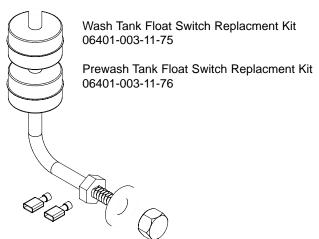


The drive assembly covers may be ordered using the following numbers:

Top cover: 05700-002-01-98 Bottom cover: 05700-002-41-21

#### FLOAT SWITCH COMPONENTS/SCRAP BASKETS



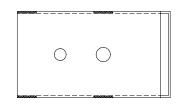


#### Replacment Kit Note:

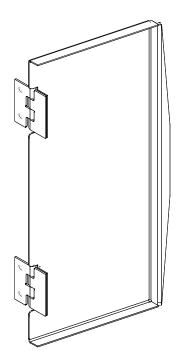
The float switch replacement kits contain the float switch with associated terminals, the flat washer and the nut.

#### Service Agent Note:

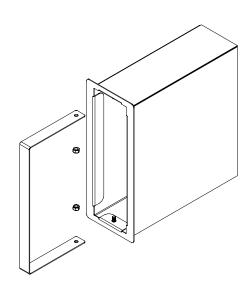
Remember than when reinstalling the float switch that the flat washer goes inside against the tub wall while the nut is on the outside of the tub.



Float Switch Cover 05700-021-75-71

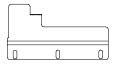


Scrap Basket Lid Weldment 05700-002-56-55

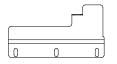


Scrap Basket Assembly 06401-002-11-21

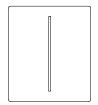
#### **MISCELLANEOUS PARTS AND WELDMENTS**



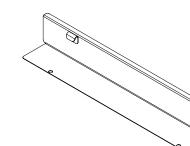
Plate, Left Water Directional 05700-021-79-27



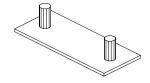
Plate, Right Water Directional 05700-021-79-23



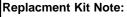
Run Off Sheet Weldment

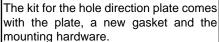


05700-021-71-39

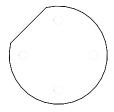


Hole Direction Plate Replacment Kit 06401-003-10-00

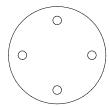




Splash Shield Weldment 5700-002-03-54



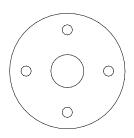
Rinse Drain Plate Replacment Kit (TG Models Only) 06401-003-10-07



Rinse Drain Plug Replacement Kit 06401-003-10-06



Rinse Drain Weldment Replacement Kit 06401-003-10-05



Rinse Drain Plate Gasket 05330-011-72-27

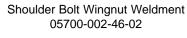
#### Replacement Kits Notes:

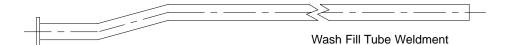
The kits for the drain weldments and drain plugs come with the weldments/parts, a new gasket and the mounting hardware.



Pipe Clamp 05700-000-35-05





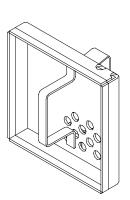


Vellumoid Gasket 05330-111-42-81

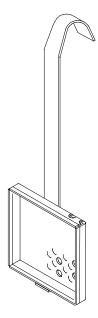
Prewash Fill Tube Weldment (AJ-66 & AJ-80 Models Only) 05700-002-43-18

05700-002-03-06

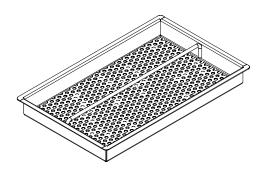
# SECTION 5: PARTS SECTION STRAINERS



Drain Guard Strainer Weldment 05700-002-09-15

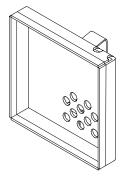


Wash Intake Strainer Weldment (TG Models) 05700-002-51-52



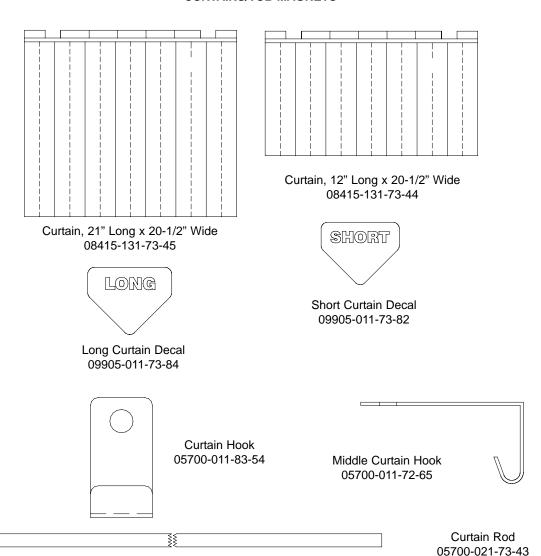
Tub Strainer Weldment 05700-002-03-21

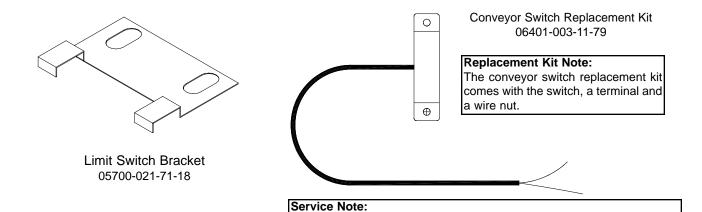
Prewash Pan Strainer 05700-041-85-09



Screen Strainer with Handle Weldment 05700-002-09-04

#### **CURTAINS/TUB MAGNETS**

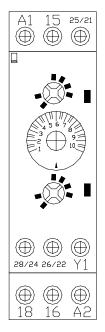




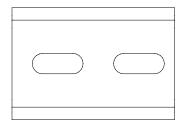
and have the pink terminal applied there.

The cord for the conveyor switch needs to be cut to length in the field

# SECTION 5: PARTS SECTION EXHAUST FAN CONTROL/TABLE LIMIT SWITCH OPTIONS



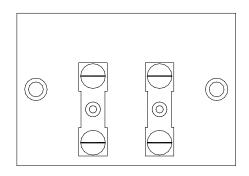
Delay Timer 05945-011-65-44



2" Din Rail 05700-002-36-09



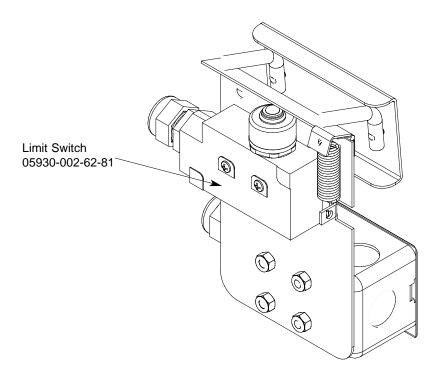
Decal, Fan Load 09905-003-32-20



Terminal Board 05940-011-84-41

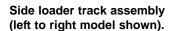
Kit, Exhaust Fan - Electric & Steam Models 05700-031-90-53

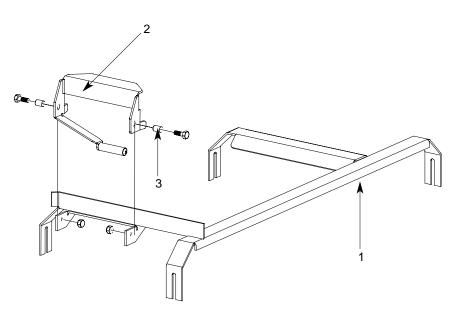
Kit, Exhaust Fan - Gas Models 05700-003-14-59

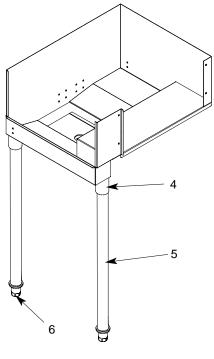


Striker Plate Limit Switch Assembly 05700-002-62-94

#### SIDE LOADER TRACK ASSEMBLY/LEG REPLACEMENTS







ITEM	QTY	DESCRIPTION	
1	1	Track Weldment (Left to Right) 24	
	1	Track Weldment (Right to Left) 24	
	1	Track Weldment (Left to Right) 30	
	1	Track Weldment (Right to Left) 30	
2	1	Actuator Switch Replacement Kit	
3	2	Spacer	
4	1	Leg Socket Replacement Kit	
5	1	Leg Support Replacement Kit	
6	1	Bullet Foot	

#### Replacement Kits Notes:

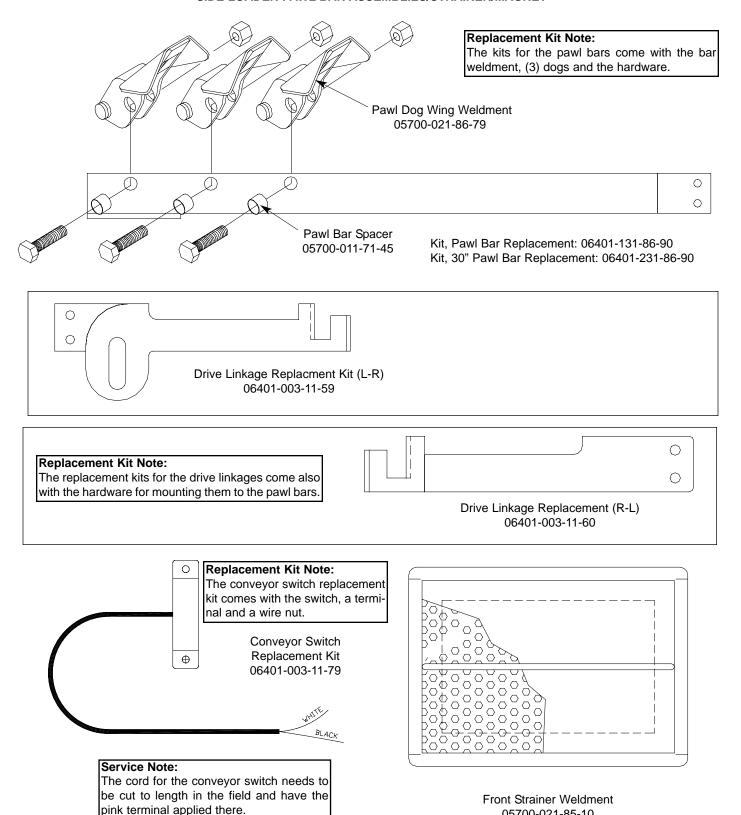
The actuator switch replacement kit comes with the actuator weldment, mounting hardware and (2) spacers.

The leg socket replacement kit has the leg socket, mounting hardware and set screw.

The leg support replacement kit has the leg and the bullet foot included.

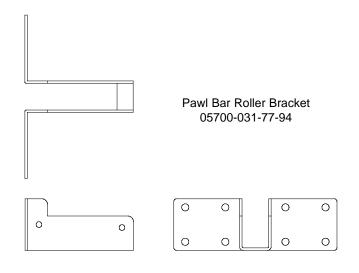
Mfg. No.
05700-031-78-98
05700-031-95-20
05700-003-04-57
05700-003-04-58
06401-003-10-64
05700-011-71-44
06401-003-09-79
06401-003-09-80
05340-108-01-03

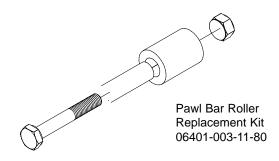
#### SIDE LOADER PAWL BAR ASSEMBLIES/STRAINER/MAGNET



05700-021-85-10

#### SIDE LOADER PAWL BAR ASSOCIATED PARTS



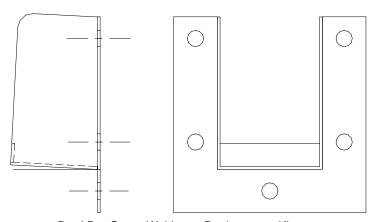


#### Replacement Kit Notes:

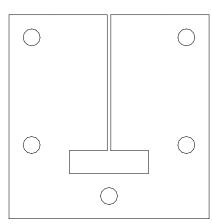
The replacement kit for the pawl bar roller comes with the roller, roller shaft, hardware and locknut as shown.

Associated Hardware:

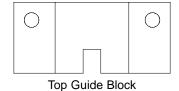
Washer, 1/4"-20 I.D. 05311-174-01-00 Locknut, 1/4"-20 S.S. Hex w/Nylon Insert 05310-374-01-00

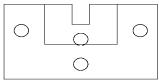


Pawl Bar Gutter Weldment Replacement Kit 06401-003-09-95



Drive Gutter Gasket 05330-011-68-55





Bottom Guide Block

Guide Block Replacment Kit 06401-003-10-15

#### Replacement Kit Notes:

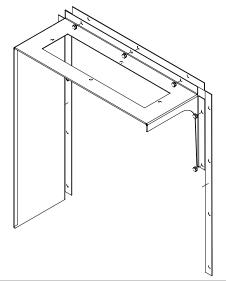
The pawl bar gutter kit includes the weldment, locknuts and the gasket. The guide block kits includes the blocks and the gasket.

#### Service Note:

Because of wear patterns that develop over time, it is highly recommended that when replacing either of the guide blocks, that the other be replaced as well from the kit.

#### SIDE LOADER VENT COWL OPTION

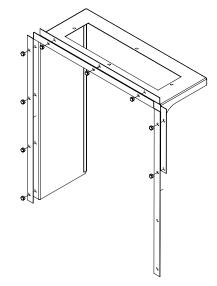
Vent Cowl Replacement Kit (Left to Right) 06401-003-11-81



# Service Note:

One of the side gaskets that come in the kit will need to be cut to length in order to fit properly on the unit when replaced.

Vent Cowl Replacement Kit (Right to Left) 06401-003-11-83



#### Replacement Kit Note:

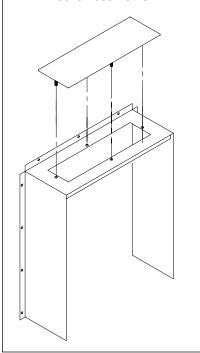
The replacement kit(s) for the vent cowls come with the cowls, the gaskets and mounting hardware.

Vent Cowl Gasket, Top: 05330-031-83-47 Vent Cowl Gasket, Side: 05330-031-83-48

# VENT SCOOP OPTION Vent Scoop Assembly 05700-002-04-08

#### STANDARD ASSEMBLY

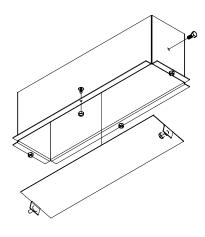
Vent Cowl Cover Replacement Kit 06401-003-10-16



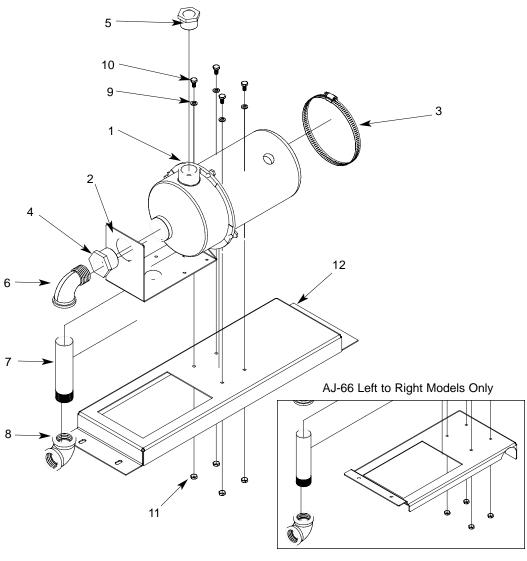
#### Replacement Kit Note:

The cover kit contains the cover and the hardware for mounting it.

VENT COWL ASSEMBLY FOR HOODED SIDE LOADER OPTION 05700-003-05-66

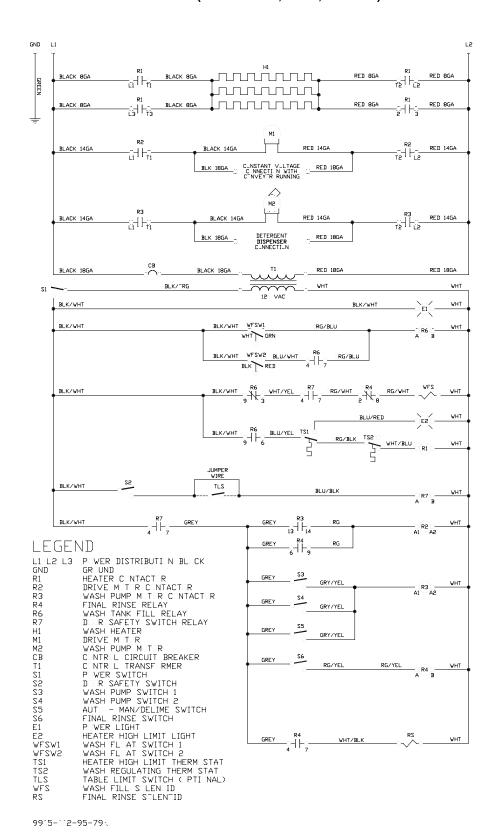


#### **RINSE FILL OPTION**



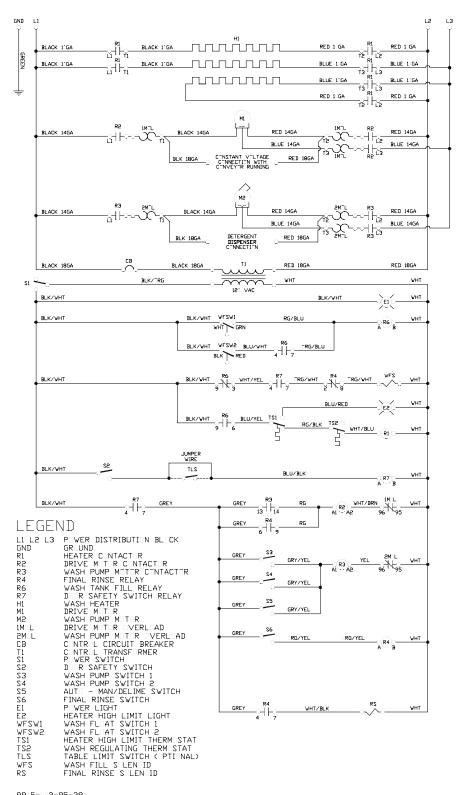
ITEM	QTY	DESCRIPTION	Mfg. No.
	1	Rinse Fill Motor Assembly	05700-002-40-25
	1	Rinse Fill Motor Assembly (TS-66 Left to Right Models Only)	05700-002-48-22
1	1	Motor	06105-002-72-71
2	1	Bracket, Pump Mounting	05700-002-63-59
3	1	Clamp, Hose 5 5/8" to 6"	04730-011-34-90
4	1	Reducer Bushing, 1 1/4" to 1"	04730-002-73-62
5	1	Reducer Bushing 1" to 3/4"	04730-011-65-14
6	1	Elbow, 90 Deg., 1" Street	04730-002-11-99
7	1	Nipple, 1" NPT x 6" Long Brass	04730-002-12-00
8	1	Elbow, 90 Deg. Brass Female	04730-002-12-55
9	4	Lockwasher, 1/4"	05311-274-01-00
10	4	Bolt, 1/4"-20 x 1/2" Long	05305-274-02-00
11	4	Nut, Hex S/S 1/4"-20	05310-274-01-00
12	1	Rinse Motor Mounting Bracket	05700-002-38-90
12	1	Rinse Motor Mounting Bracket (TS-66 Left to Right Models Only)	05700-002-39-33

TS-44/TSC-44 (208-230 VOLT, 60 HZ, 1 PHASE)



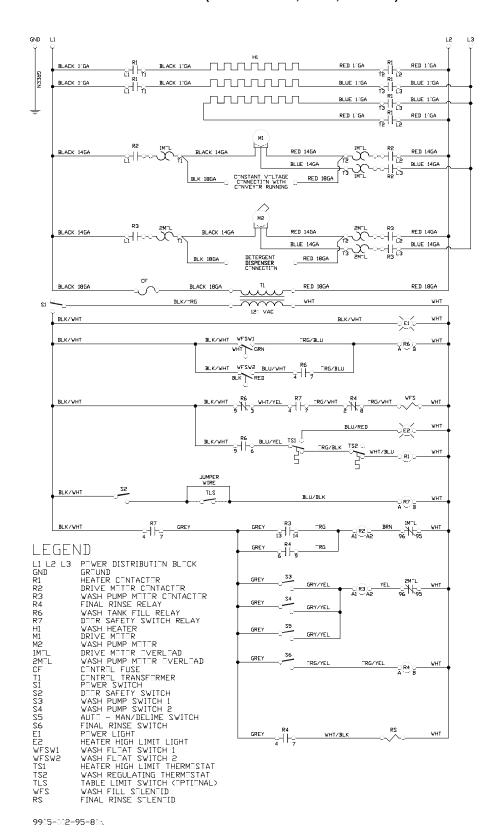
TS Series Conveyors Technical Manual 7610-002-98-29 Issued: 02-15-2006 Revised: N/A

TS-44/TSC-44 (208-230 VOLT, 60 HZ, 3 PHASE)

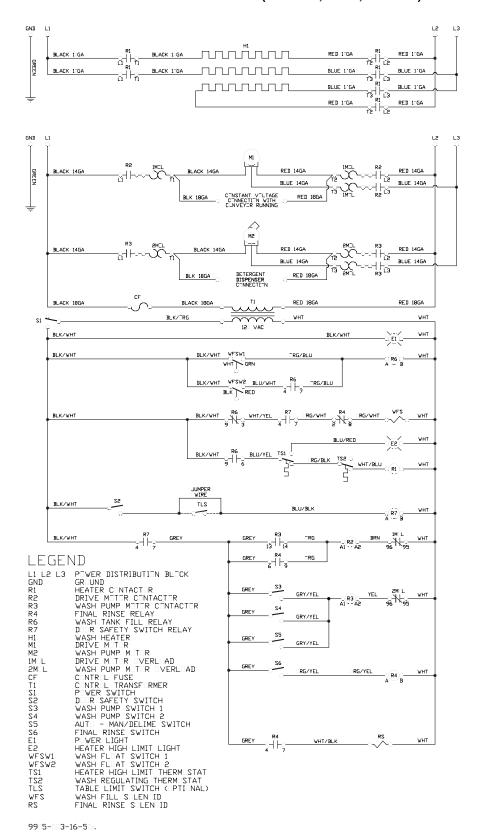


9905-002-95-380

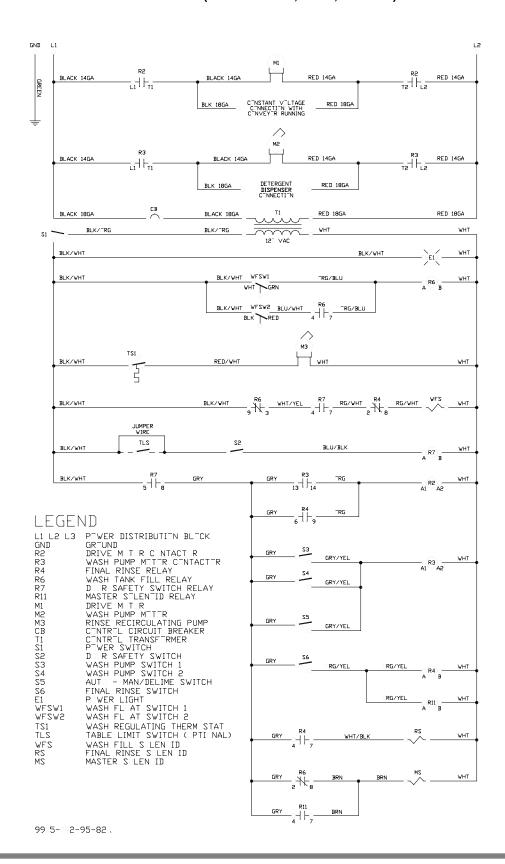
TS-44/TSC-44 (460-600 VOLTS, 60 HZ, 3 PHASE)



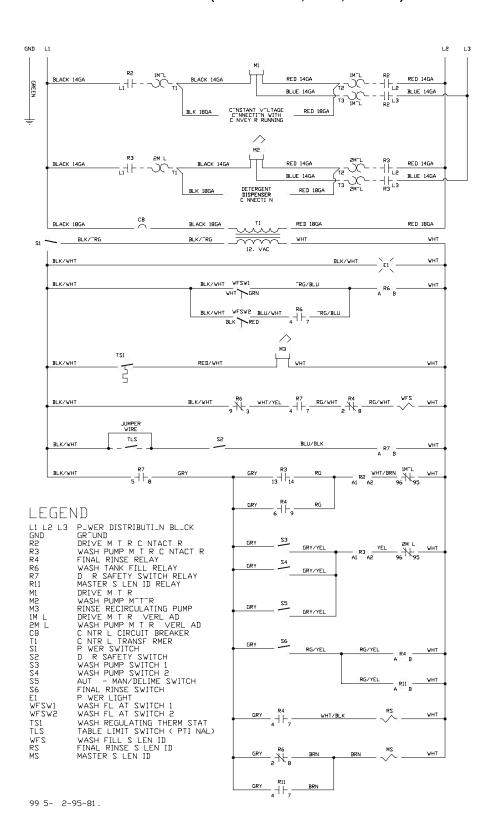
#### TS-44/TSC-44 DUAL CONNECTION(460 VOLT, 60 HZ, 3 PHASE)



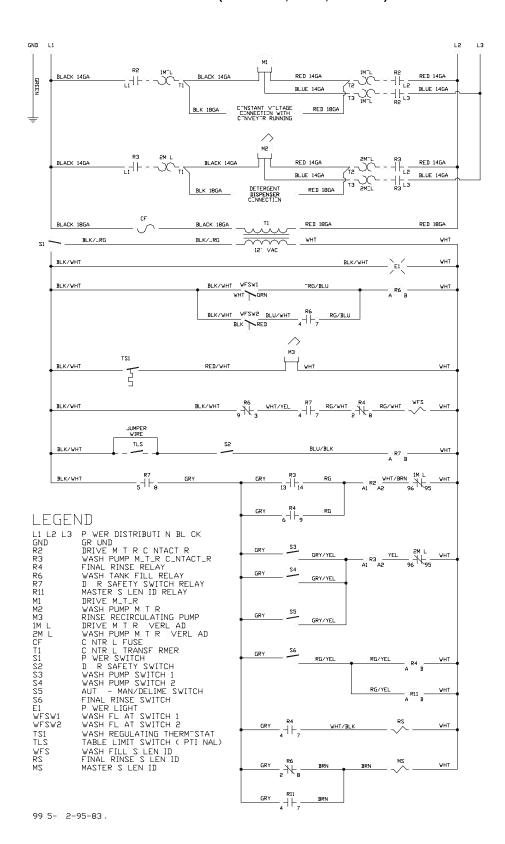
#### TS-44GP/TSC-44GP (208-230 VOLTS, 60 HZ, 1 PHASE)



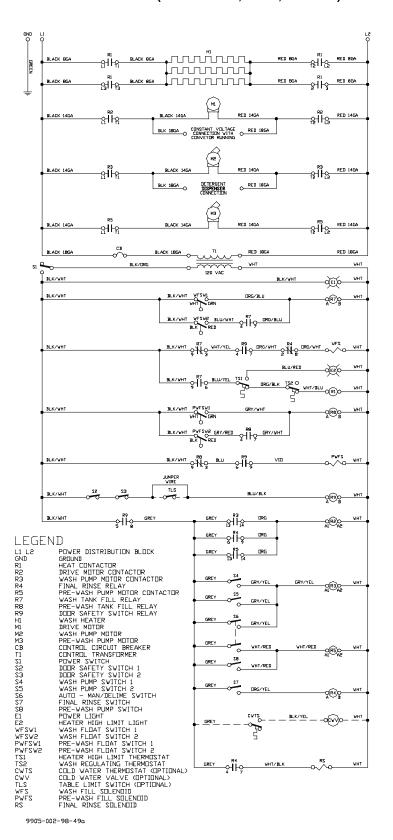
#### TS-44GP/TSC-44GP (208-230 VOLTS, 60 HZ, 3 PHASE)



TS-44GP/TSC-44GP (460 VOLTS, 60 HZ, 3 PHASE)

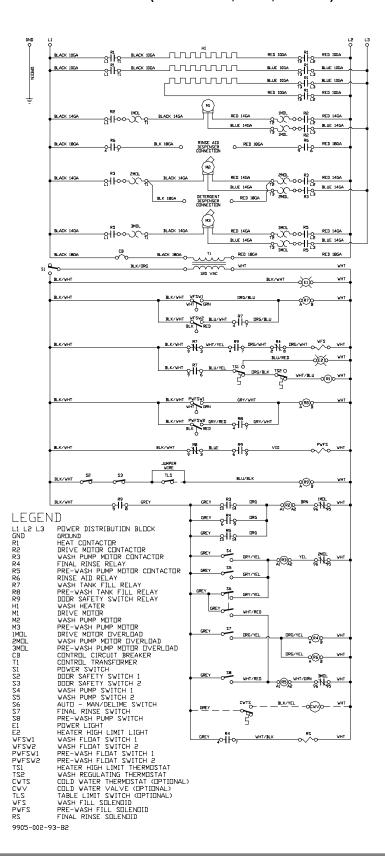


TS-66/TSC-66 (208-230 VOLT, 60 HZ, 1 PHASE)

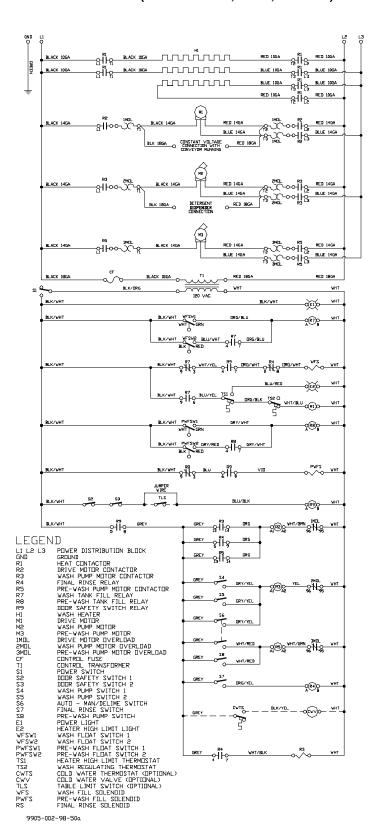


TS Series Conveyors Technical Manual 7610-002-98-29 Issued: 02-15-2006 Revised: N/A

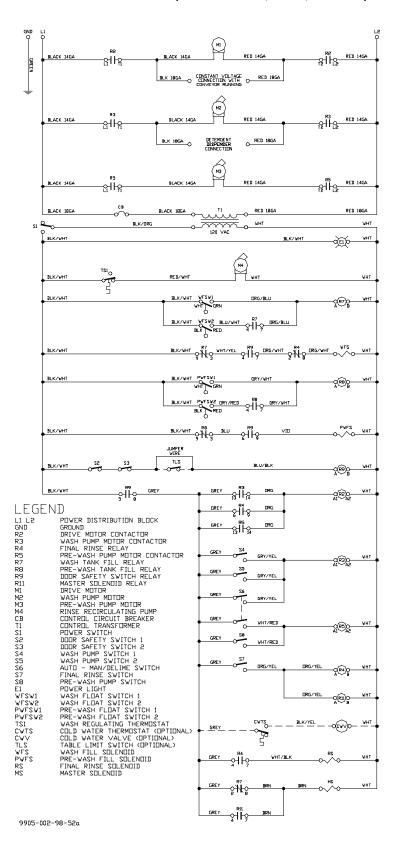
TS-66/TSC-66 (208-230 VOLT, 60 HZ, 3 PHASE)



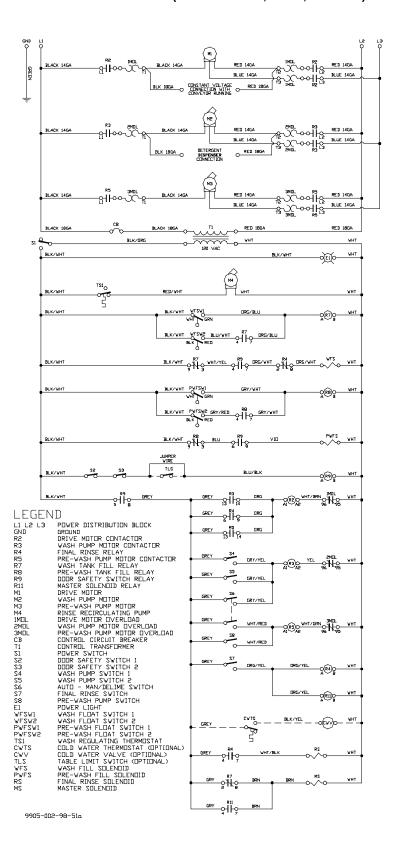
TS-66/TSC-66 (460-600 VOLTS, 60 HZ, 3 PHASE)



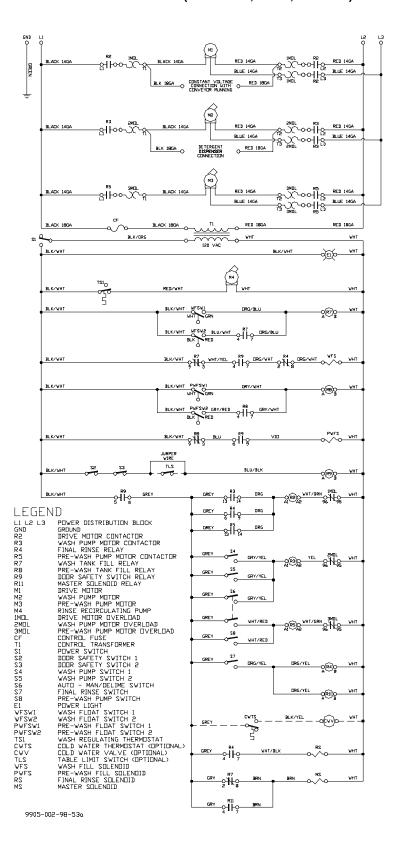
TS-66GP/TSC-66GP (208-230 VOLTS, 60 HZ, 1 PHASE)



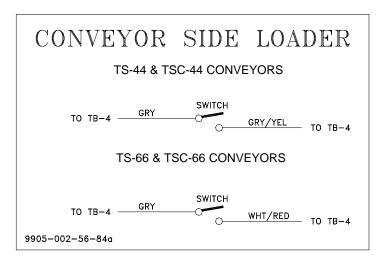
#### TS-66GP/TSC-66GP (208-230 VOLTS, 60 HZ, 3 PHASE)

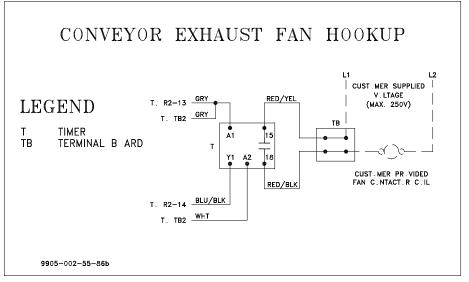


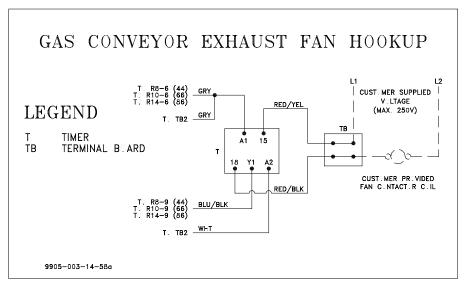
TS-66GP/TSC-66GP (460 VOLTS, 60 HZ, 3 PHASE)



#### EXHAUST FAN HOOK-UP SCHEMATIC & CONVEYOR SIDE LOADER SCHEMATIC







# SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS

#### SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS

#### ALABAMA TO FLORIDA

#### **ALABAMA**

# JONES-McLEOD APPLIANCE SVC

1616 7TH AVE. NORTH BIRMINGHAM, AL 35203 (205) 251-0159 800-821-1150 FAX: (205) 322-1440 service@jones-mcleod.com

# JONES-McLEOD APPLIANCE

854 LAKESIDE DRIVE MOBILE, AL 36693 (251) 666-7278 800-237-9859 FAX: (251) 661-0223

#### **ALASKA**

# RESTAURANT APPLIANCE SERVICE

7219 ROOSEVELT WAY NE SEATTLE, WA 98115 (206) 524-8200 800-433-9390 FAX: (206) 525-2890 info@restappl.com

#### **ARIZONA**

# AUTHORIZED COMMERCIAL FOOD EQMT. SVC

4832 SOUTH 35TH STREET PHOENIX, AZ 85040 (602) 234-2443 800-824-8875 FAX: (602) 232-5862 acsboss@aol.com

#### GCS SERVICE INC.

PHOENIX, AZ (602) 474-4510 800-510-3497 FAX: (602) 470-4511

#### **ARKANSAS**

#### **BROMLEY PARTS & SVC**

10TH AND RINGO P.O. BOX 1688 LITTLE ROCK, AR 72202 (501) 374-0281 800-482-9269 FAX: (501) 374-8352 service@bromleyparts.com parts@bromleyparts.com

#### GCS SERVICE,INC.

3717 CHERRY ROAD MEMPHIS, TN 38118 (901) 366-4587 800-262-9155 FAX: (901) 366-4588

#### **CALIFORNIA**

# BARKERS FOOD MACHINERY SERVICES

5367 SECOND STREET IRWINDALE, CA 91706 (626) 960-9390 800-258-6999 FAX: (626) 337-4541 service@barkers.com

#### GCS SERVICE INC.

LOS ANGELES, CA (213) 683-2090 800-327-1433 FAX: (213) 683-2099

#### GCS SERVICE INC.

SANTA ANA, CA (714) 542-1798 800-540-0719 FAX: (714) 542-4787

#### GCS SERVICE INC.

S. SAN FRANCISCO, CA (650) 635-0720 800-969-4427 FAX: (650) 871-4019

# COMMERCIAL APPLIANCE SERVICE, INC.

6507 PACIFIC AVENUE, SUITE 102 STOCKTON, CA 95207 (916) 567-0203

(800) 464-2222 (916) 567-0266 FAX

#### GCS SERVICE INC.

SAN DIEGO, CA (858) 549-8411 800-422-7278 FAX: (858) 549-2323

#### INDUSTRIAL ELECTRIC SVC.

5662 ENGINEER DRIVE HUNTINGTON BEACH, CA 92649 (714) 379-7100 (800-457-3783 FAX: (714) 379-7109

#### P & D APPLIANCE SVC

100 SOUTH LINDEN AVE. S. SAN FRANCISCO, CA 94080 (650) 635-1900 800-424-1414 FAX: (650) 635-1919 pndappl@aol.com

#### P & D APPLIANCE

4220-C ROSEVILLE ROAD NORTH HIGHLANDS, CA 95660 (916) 974-2772 800-824-7219 FAX:(916) 974-2774

# COMMERCIAL APPLIANCE SERVICE, INC.

281 LATHROP WAY, #100 SACRAMENTO, CA 95815 (916) 567-0203 (800) 464-2222 (916) 567-0324 FAX

#### **COLORADO**

#### GCS SERVICE INC.

SHERIDAN, CO (303) 371-9054 800-972-5314 FAX: (303) 371-4754

#### HAWKINS COMMERCIAL APPLIANCE SERVICE 3000 S. WYANDOT ST.

ENGLEWOOD, CO 80110 (303) 781-5548 (800) 624-2117 FAX: (303) 761-5561 johns@hawkinscommercial.com

#### METRO APPLIANCE SERVICE

1640 S BROADWAY DENVER, CO 80210 (303) 778-1126 800-525-3532 FAX: (303) 778-0268 metroappls@aol.com

#### CONNECTICUT

#### GCS SERVICE INC.

HARTFORD, CT (860) 549-5575 800-423-1562 FAX: (860) 527-6355

#### SUPERIOR KITCHEN SER-VICE INC.

22 THOMPSON ROAD WINDSOR, CT 06088 (888) 590-1899 (888) 590-1996 FAX

#### **DELAWARE**

#### **FOOD SERVICE EQMT.** 2101 PARKWAY SOUTH BROOMALL, PA 19008

(610) 356-6900 FAX: (610) 356-2038 dancerule@aol.com

#### GCS SERVICE INC.

PHILADELPHIA, PA (215)925-6217 800-441-9115 FAX: (215) 925-6208

#### **ELMER SCHULTZ SERVICE**

36 BELMONT AVE. WILLMINGTON, DE 19804 (302) 655-8900 800-225-0599 FAX: (302) 656-3673 elmer2@erols.com

#### **EMR SERVICE DIVISION**

106 WILLIAMSPORT CIRCLE SALISBURY, MD 21804 (410) 543-8197 FAX: (410) 548-4038

#### **FLORIDA**

# COMMERCIAL APPLIANCE SERVICE

8416 LAUREL FAIR CIRCLE BLDG 6, SUITE 114 TAMPA, FL 33610 (813) 663-0313 800-282-4718 FAX: (813) 663-0212 commercialappliance@worldnet.att.net

#### GCS SERVICE INC

MIAMI, FL (305) 621-6666 800-766-8966 FAX: (305) 621-6656

#### **GCS SERVICE INC**

ORLANDO, FL (407) 841-2551 800-338-7322 FAX: (407) 423-8425

# NASS PARTS AND SERVICE, INC.

1144 BELVILLE ROAD, UNIT 359 DAYTONA BEACH, FL 32114 (386) 226-2642 (800) 432-2795 (386) 736-7695 FAX

#### **GCS SERVICE INC**

TAMPA, FL (813) 626-6044 800-282-3008 FAX: (813) 621-1174

#### ----- SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS -----

#### FLORIDA TO MARYLAND

# JONES-McLEOD APPLIANCE SVC

854 LAKESIDE DRIVE MOBILE, AL 36693 (251) 666-7278 800-237-9859 FAX: (251) 661-0223 service@jones-mcleod.com

# NASS PARTS AND SERVICE,

1108 SOUTH WOODS AVENUE ORLANDO, FL 32805 (407) 425-2681 (800) 432-2795 (407) 425-3463 FAX

# NASS PARTS AND SERVICE, INC.

1376 HEIDE AVENUE PALM BAY, FL 32907 (321) 952-2012 (800) 432-2795 (321) 953-0266 FAX

#### **GEORGIA**

#### **GCS SERVICE INC**

ATLANTA, GA (770) 452-7322 800-334-3599 FAX: (770) 452-7473

# HERITAGE FOODSERVICE GROUP OF ATLANTA

2100 NORCROSS PKWY. SUITE 130 NORCROSS, GA 30071 (770) 368-1465 866-388-9837 FAX: (866) 388-9838

# WHALEY FOODSERVICE REPAIRS

109-A OWENS INDUSTRIAL DRIVE SAVANNAH, GA 31405 (912) 447-0827 888-765-0036 FAX: (912) 447-0826

#### PIERCE PARTS & SERVICE

2422 ALLEN ROAD MACON, GA 31216 (478) 781-6003 800-368-2512 FAX: (478) 781-7186

#### HAWAII

# FOOD EQMT. PARTS & SERVICE CO.

300 PUUHALE RD. HONOLULU, HI 96819 (808) 847-4871 FAX: (808) 842-1560 fepsco@hula.net

#### **IDAHO**

# RESTAURANT APPLIANCE SVC.

7219 ROOSEVELT WAY NE SEATTLE, WA 98115 (206) 524-8200 800-433-9390 FAX: (206) 525-2890 info@restappl.com

#### **RON'S SERVICE**

703 E 44TH STREET STE 10 GARDEN CITY, ID 83714 (208) 375-4073 FAX: (208) 375-4402

#### **ILLINOIS**

#### CONES REPAIR SVC.

2408 40TH AVE. MOLINE, IL 61265 (309) 797-5323 800-716-7070 FAX: (309)797-3631 jackb@cones.com

#### EICHENAUER SERVICES INC.

130 S OAKLAND ST. DECATUR, IL 62522 (217) 429-4229 800-252-5892 FAX: (217) 429-0226 esi@esiquality.com

#### GCS SERVICE INC.

ELMHURST, IL (630) 941-7800 800-942-9689 FAX: (630) 941-6048

#### GCS SERVICE INC.

ST. LOUIS, MO (314) 683-7444 800-284-4427 FAX: (314) 638-0135

#### **GENERAL PARTS, INC.**

248 JAMES STREET BENSONVILLE, IL 60106 (630) 595-3300 (800) 880-3604 FAX: (630)595-0006

#### **INDIANA**

#### GCS SERVICE INC.

INDIANAPOLIS, IN (317) 545-9655 800-727-8710 FAX: (317) 549-6286

B622 LA PAS TRAIL INDIANAPOLIS, IN 46268 (317) 290-8060 (800) 410-9794 (317) 290-8085 FAX

#### IOWA GOODWIN TUCKER GROUP

# 2900 DELAWARE AVENUE

DES MOINES, IA 50317 (515) 262-9308 800-372-6066 FAX: (515) 262-2936 parts@goodwintucker.com

#### CONES REPAIR SVC.

1056 27TH AVENUE SW CEDAR RAPIDS, IA 52404 (319) 365-3325 800-747-3326 FAX: (319) 365-0885

#### KANSAS

#### GCS SERVICE INC.

KANSAS CITY, MO (816) 920-5999 800-229-6477 FAX: (816) 920-7387

#### **GENERAL PARTS, INC.**

1101 E. 13TH STREET KANSAS CITY, MO 64106 (816) 421-5400 (800) 279-9967 (816) 421-1270 FAX

#### **KENTUCKY**

#### CERTIFIED SERVICE CENTER

127 DISHMAN LANE BOWLING GREEN, KY 42101 (270) 783-0012 (877) 907-0012 FAX: (270) 783-0058

# CERTIFIED SERVICE CENTER RAMCO BUSINESS PARK

4283 PRODUCE ROAD LOUISVILLE, KY 40218 (502) 964-7007 800-637-6350 FAX: (502) 964-7202 cwalker@certifiedsc.com droenigk@certifiedsc.com

#### CERTIFIED SERVICE CENTER

1051 GOODWIN DRIVE LEXINGTON, KY 40505 (606) 254-8854 800-432-9269 FAX: (606) 231-7781 jatkins@certifiedsc.com

#### GCS SERVICE INC.

LOUISVILLE, KY (502) 367-1788 800-752-6160 FAX: (502) 367-0400

#### GCS SERVICE INC.

LEXINGTON, KY (606) 255-0746 800-432-9260 FAX: (606) 255-0748

#### **LOUISIANA**

#### HERITAGE SERVICE GROUP

1532 RIVER OAKS WEST NEW ORLEANS, LA 70123 (504) 734-8864 (800) 499-2351 (504) 733-2559 FAX

#### MAINE

#### GCS SERVICE INC.

CHELSEA, MA (617) 889-9393 800-225-1155 FAX: (617) 889-1222

#### MASSACHUSETTS RESTAU-RANT SUPPLY

34 SOUTH STREET SOMERVILLE, MA 02143 (617) 868-1930 800-338-6737 FAX: (617) 686-5331

#### PINE TREE FOOD EQUIP-MENT

175 LEWISTON ROAD GRAY, ME 04039 (207) 657-6400 (800) 540-5427 (207) 657-5464 FAX

#### **MARYLAND**

#### **EMR SERVICE DIVISION**

700 EAST 25TH STREET BALTIMORE, MD 21218 (410) 467-8080 800-879-4994 FAX: (410) 467-4191 baltparts@emrco.com

#### SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS

#### MARYLAND TO NEW YORK

#### **EMR SERVICE DIVISION**

106 WILLIAMSPORT CIRCLE SALISBURY, MD 21804 (410) 543-8197 888-687-8080 FAX: (410) 548-4038 baltparts@emrco.com

#### **EMR SERVICE DIVISION**

5316 Sunnyside Ave.
Beltsville, MD 20715
(301) 931-7000
800-348-2365
FAX: (301) 931-3060
baltparts@emrco.com
GCS SERVICE INC.
SILVER SPRING, MD
(301) 585-7550 (DC)
(410) 792-0338 (BALT)
(800) 638-7278
FAX: (301) 495-4410

#### **MASSACHUSETTS**

ACE SERVICE CO. 95 HAMPTON AVE. NEEDHAM, MA 02494 (781) 449-4220 800-225-4510 MA & NH FAX: (781) 444-4789 taceservice@aol.com

#### MASSACHUSETTS RESTAU-RANT SUPPLY

34 SOUTH STREET SOMERVILLE, MA 02143 (617) 868-1930 800-338-6737 FAX: (617) 868-5331

#### GCS SERVICE INC.

CHELSEA, MA (617) 889-9393 800-225-1155 FAX: (617) 889-1222

#### GCS SERVICE INC.

HARTFORD, CT (860) 549-5575 800-723-1562 FAX: (860) 527-6355

#### SUPERIOR KITCHEN SER-VICE INC.

399 FERRY STREET EVERETT, MA 02149 (617) 389-1899 (888) 590-1899 (617) 389-1996 FAX

#### **MICHIGAN**

#### GCS SERVICE INC.

LIVONIA, MI (248) 426-9500 800-772-2936 FAX: (248) 426-7555

## JACKSON SERVICE COMPA-

3980 BENSTEIN RD. COMMERCE TWSHP, MI 48382 (248) 363-4159 800-332-4053 FAX: (248) 363-5448

#### GCS SERVICE INC.

GRAND RAPIDS, MI (616) 241-0200 800-823-4866 FAX: (616) 241-0541

#### **MINNESOTA**

#### GCS SERVICE INC.

MINNEAPOLIS, MN (612) 546-4221 800-345-4221 FAX: (612) 546-4286

#### **GENERAL PARTS, INC.**

11311 HAMPSHIRE AVENUE SOUTH BLOOMINGTON, MN 55438-2456 (952) 944-5800 (800) 279-9980 (800) 279-9980 FAX

#### **MISSISSIPPI**

#### GCS SERVICE INC.

JACKSON, MS (601) 956-7800 800-274-5954 FAX: (601) 956-1200

#### GCS SERVICE INC.

MEMPHIS, TN (901) 366-4587 800-262-9155 FAX: (901) 366-4588

#### MISSOURI

#### GCS SERVICE INC. KANSAS CITY, MO (816) 920-5999 800-229-6477 FAX: (816) 920-7387

#### GCS SERVICE INC.

ST. LOUIS, MO (314) 638-7444 800-284-4427 FAX: (314) 638-0135

# KAEMMERLIN PARTS & SVC. 2728 LOCUST STREET

2728 LOCUST STREE ST. LOUIS, MO 63103 (314) 535-2222 FAX: (314) 535-6205 petek@kps.stl.com

#### GENERAL PARTS, INC.

1101 EAST 13TH STREET KANSAS CITY, MO 64106 (816) 421-5400 (800) 279-9967 (816) 421-1270 FAX

#### **MONTANA**

# RESTAURANT APPLIANCE SVC.

7219 ROOSEVELT WAY NE SEATTLE, WA 98115 (206) 524-8200 800-433-9390 FAX: (206) 525-2890 info@restappl.com

#### NEBRASKA

#### **GOODWIN - TUCKER GROUP**

7535 D STREET OMAHA, NE 68124 (402) 397-2880 800-228-0342 FAX: (402) 397-2881 askme@goodwintucker.com

#### NEVADA

#### HI TECH COMMERCIAL SER-VICE

1840 STELLA LAKE STREET NORTH LAS VEGAS, NV 89106 (702) 649-4616 (877) 924-4832 FAX: (702) 649-4607 larry@hitechnv.com

5454 LOUIE LANE RENO, NV 89511 (775) 852-9696 FAX: (775) 852-5104

#### GCS SERVICE INC.

LAS VEGAS, NV (702) 450-3495 800-500-9060 FAX: (702) 450-3491

#### **NEW HAMPSHIRE**

#### GCS SERVICE INC.

CHELSEA, MA (617)889-9393 800-225-1155 FAX: (617) 889-1222

#### ACE SERVICE CO.

95 HAMPTON AVE. NEEDHAM, MA 02494 (781) 449-4220 800-225-4510 MA & NH FAX: (781) 444-4789 taceservice@aol.com

#### MASSACHUSETTS RESTAU-RANT SUPPLY

34 SOUTH STREET SOMERVILLE, MA 02143 (617) 868-1930 800-338-6737 FAX: (617) 868-5331

#### **NEW JERSEY**

#### JAY HILL REPAIRS

90 CLINTON RD. FAIRFIELD, NJ 07004 (973) 575-9145 800-836-0643 FAX: (973) 575-5890 jhrepair@aol.com

#### GCS SERVICE INC.

EAST RUTHERFORD, NJ (973) 614-0003 800-399-8294 FAX: (973) 614-0230

#### GCS SERVICE INC.

PHILADELPHIA, PA (215) 925-6217 800-441-9115 FAX: (215) 925-6208

#### **ELMER SCHULTZ SERVICES**

201 W. WASHINGTON AVE. PLEASANTVILLE, NJ 08232 (609) 641-0317 800-378-1641 FAX:(609) 641-8703 elmer2@erols.com

#### **NEW YORK**

# APPLIANCE INSTALLATION AND SERVICE CORP.

1336 MAIN STREET BUFFALO, NY 14209 (716) 884-7425 800-722-1252 FAX: (716) 884-0410 ais@worldnet.att.net

#### SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS —

#### **NEW YORK TO PENNSYLVANIA**

#### B.E.S.T. INC.

3003 GENESEE STREET BUFFALO, NY 14225 (716) 893-6464 800-338-5011 FAX: (716) 893-6466 bestsery@aol.com

#### **DUFFY'S EQUIPMENT SVC.**

3138 ONEIDA STREET SAUQUOIT, NY 13456 (315) 737-9401 800-443-8339 FAX: (315) 737-7132 duffyequip@aol.com

#### **NORTHERN PARTS & SVC.**

21 NORTHERN AVENUE PLATTSBURGH, NY 12903 (518) 563-3200 800-634-5005 FAX: (800) 782-5424 info@northernparts.com

#### GCS SERVICE INC.

BROOKLYN, NY (718) 486-5220 800-969-4271 FAX: (718) 486-6772

#### **ALL SERVICE KITCHEN**

EQUIPMENT REPAIR 10 CHARLES ST. NEW HYDE PARK, NY 11040 (516) 378-1176 FAX: (516) 378-1735

#### **ALL ISLAND REPAIRS**

40-9 BURT DRIVE DEER PARK, NY 11729 (631) 242-5588 FAX: (631) 242-6102

#### **NORTH CAROLINA**

#### **AUTHORIZED APPLIANCE**

SERVICECENTER 1020 TUCKASEEGEE RD. CHARLOTTE, NC 28208 (704) 377-4501 (800) 532-6127 FAX:(704) 377-4504

#### **AUTHORIZED APPLIANCE**

SERVICECENTER 800 N. PERSON ST. RALEIGH, NC 27604 (919) 834-3476 FAX:(919) 834-3477

#### AUTHORIZED APPLIANCE SERVICECENTER

904 S. MARSHALL ST. WINSTON-SALEM, NC 27403 (336) 725-5396 FAX:(336) 721-1289

# AUTHORIZED APPLIANCE SERVICECENTER

104 HINTON AVE. WILMINGTON, NC 28403 (910) 313-1250 FAX:(910) 313-6130

#### WHALEY FOODSERVICE

8334-K ARROWRIDGE BLVD CHARLOTTE, NC 28273 (704) 529-6242 FAX: (704) 529-1558 info@whaleyfoodservice.com

# WHALEY FOODSERVICE REPAIRS

203-D CREEK RIDGE RD. GREENSBORO, NC 27406 (336) 333-2333 FAX: (336) 333-2533 info@whaleyfoodservice.com

# WHALEY FOODSERVICE REPAIRS

335-105 SHERWEE DRIVE RALEIGH, NC 27603 (919) 779-2266 FAX: (919) 779-2224 info@whaleyfoodservice.com

# WHALEY FOODSERVICE REPAIRS

6418-101 AMSTERDAM WAY WILMINGTON, NC 28405 (910) 791-0000 FAX: (910) 791-6662 info@whaleyfoodservice.com

#### **NORTH DAKOTA**

#### GCS SERVICE INC.

MINNEAPOLIS, MN (612) 546-4221 800-345-4221 FAX: (612) 546-4286

#### **GENERAL PARTS, INC.**

10 SOUTH 18TH STREET FARGO, ND 58103 (701) 235-4161 (800) 279-9987 (701) 235-0539 FAX

#### OHIO

#### **CERTIFIED SERVICE CENTER**

890 REDNA TERRACE CINCINNATI, OH 45215 (513) 772-6600 800-543-2060 FAX: (513) 612-6600 sbarasch@certifiedsc.com

#### CERTIFIED SERVICE CENTER 171J-K NORTH HAMILTON RD. COLUMBUS, OH 43213

(614) 751-3769 (866) 862-1252 FAX: (614) 751-5792 jadkins@certifiedsc.com

#### **CERTIFIED SERVICE CENTER**

6025 N. DIXIE DRIVE DAYTON, OH 45414 (937) 898-4040 (800) 257-2611 FAX: (937) 898-4177 dharvey@certifiedsc.com

# COMMERCIAL PARTS & SVC. OF COLUMBUS

5033 TRANSAMERICA DRIVE COLUMBUS, OH 43228 (614) 221-0057 800-837-8327 FAX: (614) 221-3622

#### GCS SERVICE INC.

COLUMBUS, OH (614) 476-3225 800-282-5406 FAX: (614) 476-1196

# ELECTRICAL APPLIANCE REPAIR SVC.

5805 VALLEY BELT ROAD CLEVELAND, OH 44131 (216) 459-8700 800-621-8259 FAX: (216) 459-8707 tomr@electapplrep.com

#### **OKLAHOMA**

#### HAGAR RESTAURANT EQMT.

1229 W MAIN STREET OKLAHOMA CITY, OK 73106 (405) 235-2184 800-445-1791 FAX: (405) 236-5592

#### **OREGON**

#### **RON'S SERVICE**

16364 SW 72ND AVE PORTLAND, OR 97224 (503) 624-0890 800-851-4118 FAX: (503) 684-6107 Irobinson@ronsservice.com

#### **PENNSYLVANIA**

# A.I.S. COMMERCIAL PARTS & SERVICE

1816 WEST 26TH STREET ERIE, PA 16508 (814) 456-3732 800-332-3732 FAX: (814) 452-4843 aiserie@aol.com

#### **ELMER SCHULTZ SVC.**

540 NORTH 3RD STREET PHILADELPHIA, PA 19123 (215) 627-5400 FAX: (215) 627-5408 elmer2@erols.com

#### GCS SERVICE INC.

PHILADELPHIA, PA (215) 925-6217 800-441-9115 FAX: (215) 925-6208

#### GCS SERVICE INC.

HARRISBURG, PA (717) 564-3282 800-367-3225 FAX: (717) 564-9286

#### GCS SERVICE INC.

PITTSBURGH, PA (412) 787-1970 800-738-1221 FAX: (412) 787-5005

# K & D PARTS AND SERVICE

1833-41 N CAMERON STREET HARRISBURG, PA 17103 (717) 236-9039 800-932-0503 FAX: (717) 238-4367 kdparts-service@paonline.com

#### **CLARK SERVICE & PARTS**

306 AIRPORT DRIVE BOX 10 SMOKETOWN, PA 17576 (717) 392-5590 (717) 392-5735

#### SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS ——

#### RHODE ISLAND TO WISCONSIN

#### RHODE ISLAND

#### GCS SERVICE INC.

EAST PROVIDENCE, RI (401) 434-6803 800-462-6012 FAX: (401) 438-9400

#### SUPERIOR KITCHEN SER-VICE INC.

669 ELMWOOD AVENUE PROVIDENCE, RI 02907 (888) 590-1899 (401) 781-1996 FAX

#### **SOUTH CAROLINA**

# AUTHORIZED APPLIANCE SERVICECENTER

1811 TAYLOR ST. COLUMBIA, SC 29202 (803) 254-8414 FAX: (803) 254-5146

# AUTHORIZED APPLIANCE SERVICECENTER

2249 AUGUSTA RD. GREENVILLE, SC 29605 (864) 235-9616 FAX: (864) 235-9623

# WHALEY FOODSERVICE REPAIRS

I 26&US1 P.O. BOX 4023 WEST COLUMBIA, SC 29170 (803) 791-4420 800-877-2662 FAX: (803) 794-4630 info@whaleyfoodservice.com

# WHALEY FOODSERVICE REPAIRS

748 CONGAREE ROAD GREENVILLE, SC 29607 (864) 234-7011 800-494-2539 FAX: (864) 234-6662 info@whaleyfoodservice.com

# WHALEY FOODSERVICE REPAIRS

1406-C COMMERCE PL. MYRTLE BEACH, SC 29577 (843) 626-1866 FAX: (843) 626-2632 info@whaleyfoodservice.com

# WHALEY FOODSERVICE REPAIRS

4740-A FRANCHISE STREET N. CHARLESTON, SC 29418 (843) 760-2110 FAX: (843) 760-2255 info@whaleyfoodservice.com

#### **SOUTH DAKOTA**

#### GCS SERVICE INC.

MINNEAPOLIS, MN (612) 546-4221 800-345-4221 FAX: (612) 546-4286

#### GENERAL PARTS, INC.

10 SOUTH 18TH STREET FARGO, ND 58103 (701) 235-4161 (800) 279-9987 (701) 235-0539 FAX

#### **TENNESSEE**

#### GCS SERVICE INC.

MEMPHIS, TN (901) 366-4587 800-262-9155 FAX: (901) 366-4588

#### GCS SERVICE INC.

NASHVILLE, TN (615) 244-8050 800-831-7174 FAX: (615) 244-8885

#### **TEXAS**

# ARMSTRONG REPAIR CEN-

5110 GLENMOUNT DRIVE HOUSTON, TX 77081 (713) 666-7100 800-392-5325 FAX: (713) 661-0520 gm@armstrongrepair.com

# COMMERCIAL KITCHEN REPAIR CO.

1377 N BRAZOS

P.O BOX 831128 SAN ANTONIO, TX 78207 (210) 735-2811 800-292-2120 FAX: (210) 735-7421 brock@commercialkitchen.com

#### GCS SERVICE INC.

DALLAS, TX (972) 484-2954 800-442-5026 FAX: (972) 484-2531

#### GCS SERVICE INC.

HOUSTON, TX (713)785-9187 800-868-6957 FAX: (713) 785-3979

#### **GCS/STOVE PARTS**

2120 SOLANA STREET FORT WORTH, TX 76117 (817) 831-0381 800-433-1804 FAX: (817) 834-7754 bud@stoveparts.com

#### **UTAH**

# LA MONICA'S RESTAURANT EQMT. SVC.

6182 SOUTH STRATLER AVENUE MURRAY, UT 84107 (801) 263-3221 800-527-2561 FAX: (801) 263-3229 lamonica81@aol.com

#### **VERMONT**

#### **NORTHERN PARTS & SVC.**

4874 S. CATHERINE STREET PLATTSBURGH, NY 12901 (518) 563-3200 800-634-5005 FAX: (800) 782-5424 info@northernparts.com

#### GCS SERVICE INC.

CHELSEA, MA (617)889-9393 800-225-1155 FAX: (617) 889-1222

#### VIRGINIA

#### DAUBERS, INC.

7645 DYNATECH COURT SPINGFIELD, VA 22153 (703) 866-3600 800-554-7788 FAX: (703) 866-4071 daubers@aol.com

#### GCS SERVICE INC.

SILVER SPRING, MD (301) 585-7550(DC) (410) 792-0388(BALT) 800-638-7278 FAX: (301)495-4410

#### GCS SERVICE INC.

RICHMOND, VA (804) 672-1700 800-899-5949 FAX: (804) 672-2888

#### GCS SERVICE INC.

VIRGINIA BEACH, VA (757) 464-3500 800-476-4278 FAX: (757) 464-4106

#### WASHINGTON

#### GCS SERVICE INC.

SEATTLE, WA (206) 763-0353 800-211-4274 FAX: (206) 763-5943

# RESTAURANT APPLIANCE SERVICE

7219 ROOSEVELT WAY, NE SEATTLE, WA 98115 (206) 524-8200 800-433-9390 FAX: (206) 525-2890 info@restappl.com

#### **WEST VIRGINIA**

#### STATEWIDE SERVICE, INC.

603 MAIN AVE. NITRO, WV 25143 (304) 755-1811 (800) 441-9739 FAX: (304) 755-4001 sws3182@aol.com

#### **WISCONSIN**

# APPLIANCE SERVICE CENTER, INC.

2439 ATWOOD AVE MADISON, WI 53704 (608) 246-3160 800-236-7440 FAX: (608) 246-2721 ascmad@execpc.com

# APPLIANCE SERVICE CENTER. INC.

6843 W. BELOIT RD. WEST ALLIS, WI 53219 (414) 543-6460 800-236-6460 FAX: (414) 543-6480 ascmil@execpc.com

# APPLIANCE SERVICE CENTER

786 MORRIS AVE GREEN BAY, WI 54304 (920) 496-9993 800-236-0871 FAX: (920) 496-9927 ascfox@execpc.com

#### SECTION 7: JACKSON MAINTENANCE & REPAIR CENTERS

#### WISCONSIN TO WYOMING/INTERNATIONAL

#### **GENERAL PARTS, INC.**

W223 N735 SARATOGA DRIVE WAUKESHA, WI 53186 (262) 650-6666 (800) 279-9946 (262) 650-6660 FAX

#### WYOMING

# HAWKINS COMMERCIAL APPLIANCE SERVICE

3000 S. WYANDOT ST. ENGLEWOOD, CO 80110 (303) 781-5548 (800) 624-2117 FAX: (303) 761-5561 johns@hawkinscommercial.com

#### **METRO APPLIANCE SERVICE**

1640 S BROADWAY DENVER, CO 80210 (303) 778-1126 800-525-3532 FAX: (303) 778-0268 metroappls@aol.com

#### INTERNATIONAL

#### **GLOBAL PARTS AND SUPPLY**

7758 NW 72ND ST MIAMI, FL 33166 (305) 885-6353

#### H.D. SHELDON AND CO

19 UNION SQUARE, WEST NEW YORK, NY 10003 (212) 627-1759 (212) 924-6920

#### CANADA

#### THE GARLAND GROUP

1177 KAMATO ROAD MISSISSAUGA, ONTARIO L4W 1X4 (905) 206-8380 SALES (905) 624-1419 FAX: (905) 624-1851 SERVICE 800-427-6668 FAX: 800-361-7745

March 13, 2007