

Champion[®]

The Dishwashing Machine Specialists

Technical Manual

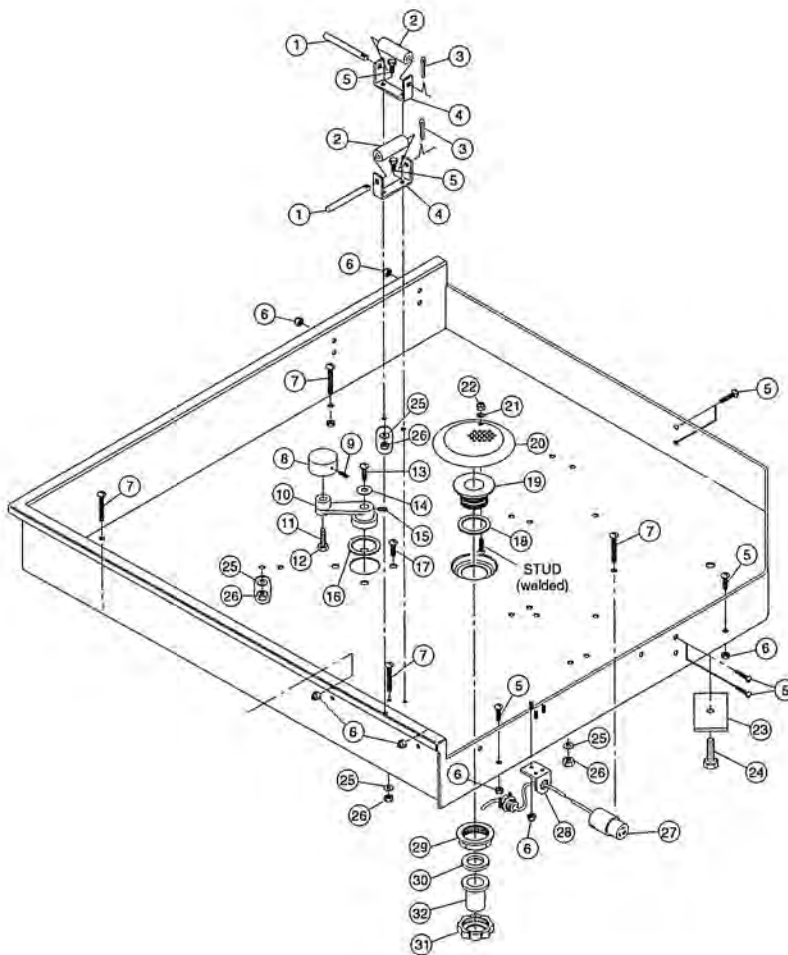
Motorized Rack Advance Table

Model

MRA 90° 90 Degree Radius

MRA 180° 180 Degree Radius

Including Optional Roller Conveyor
Table



July, 2001

Champion Manual P/N **113175**

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Complete the information below for quick reference.

Model Number _____ Serial Number _____

Voltage and Phase _____

Champion Parts Supplier _____ Phone _____

Champion Service Agency _____ Phone _____

**Champion (USA)
National Service Department**

Phone: 1(336) 661-1556

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National Service Department**

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Fax: 1(905) 562-4618

Note: When calling to order parts, be sure to have the model number, serial number, voltage and phase of your machine.

REVISION RECORD

Revision Date	Revised Pages	Serial Number Effectivity	Comments
7/30/01		All	First issue of manual and replacement parts

SAFETY SUMMARY

Safety Symbols

- The following symbols appear throughout this manual alerting you to potential hazards. Statements associated with each symbol are printed in *italics*.

**WARNING:**

Warning statements indicate any condition or practice that could result in personal injury or possible loss of life.

**CAUTION:**

Caution statements indicate any condition or practice which, if not strictly observed or remedied, could result in damage to or destruction of the dishwasher.

**NOTE:**

Note statements indicate any condition or practice which, if observed, will help in the safe completion of a task.

General Safety Rules

- **The following general safety rules must be observed in addition to the specific cautions and warnings presented in this manual.**
- **Your Champion dishwasher uses hot water** to clean and sanitize a variety of wares. Machine surfaces and wares become hot during and immediately following normal operations. Operators should use caution when loading and unloading wares from the machine.
- **Operators must NOT bypass a safety interlock or control(s) to operate the dishwasher.**
- **The service and maintenance instructions contained in this manual are intended for qualified service personnel.** These instructions assume that you are trained in basic electricity and mechanical theory. If you are not a trained technician, then do not attempt to adjust or repair the dishwasher as serious personal injury or damage to the dishwasher may result.

LIMITED WARRANTY

Champion Industries Inc. (herein referred to as Champion), P.O. Box 4149, Winston-Salem, North Carolina 27115, and P.O. Box 301, 2674 N. Service Road, Jordan Station, Canada, LOR 1S0, warrants machines, and parts, as set out below.

Warranty of Machines: Champion warrants all new machines of its manufacture bearing the name "Champion" and installed within the United States and Canada to be free from defects in material and workmanship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by Champion, whichever occurs first. [See below for special provisions relating to glasswashers.] The warranty registration card must be returned to Champion within ten (10) days after installation. If warranty card is not returned to Champion within such period, the warranty will expire after one year from the date of shipment.

Champion will not assume any responsibility for extra costs for installation in any area where there are jurisdictional problems with local trades or unions.

If a defect in workmanship or material is found to exist within the warranty period, Champion, at its election, will either repair or replace the defective machine or accept return of the machine for full credit; provided, however, as to glasswashers, Champion's obligation with respect to labor associated with any repairs shall end (a) 120 days after shipment, or (b) 90 days after installation, whichever occurs first. In the event that Champion elects to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by a Champion authorized service technician. Defective parts become the property of Champion. Use of replacement parts not authorized by Champion will relieve Champion of all further liability in connection with its warranty. In no event will Champion's warranty obligation exceed Champion's charge for the machine. The following are not covered by Champion's warranty:

- a. Lighting of gas pilots or burners.
- b. Cleaning of gas lines.
- c. Replacement of fuses or resetting of overload breakers.
- d. Adjustment of thermostats.
- e. Adjustment of clutches.
- f. Opening or closing of utility supply valves or switching of electrical supply current.
- g. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- h. Performance of regular maintenance and cleaning as outlined in operator's guide.
- i. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, or failure to follow maintenance and operation procedures.
- j. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

Examples of the defects not covered by warranty include, but are not limited to: (1) Damage to the exterior or interior finish as a result of the above, (2) Use with utility service other than that designated on the rating plate, (3) Improper connection to utility service, (4) Inadequate or excessive water pressure, (5) Corrosion from chemicals dispensed in excess of recommended concentrations, (6) Failure of electrical components due to connection of chemical dispensing equipment installed by others, (7) Leaks or damage resulting from such leaks caused by the installer, including those at machine table connections or by connection of chemical dispensing equipment installed by others, (8) Failure to comply with local building codes, (9) Damage caused by labor dispute.

Warranty of Parts: Champion warrants all new machine parts produced or authorized by Champion to be free from defects in material and workmanship for a period of 90 days from date of invoice. If any defect in material and workmanship is found to exist within the warranty period Champion will replace the defective part without charge.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. CHAMPION'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. CHAMPION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. CHAMPION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES SET OUT ABOVE ARE THE EXCLUSIVE REMEDIES FOR ANY DEFECTS FOUND TO EXIST IN CHAMPION DISHWASHING MACHINES AND CHAMPION PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

Champion does not authorize any other person, including persons who deal in Champion dishwashing machines, to change this warranty or create any other obligation in connection with Champion Dishwashing Machines.

TABLE OF CONTENTS	PAGE
<i>Revision Record</i>	<i>i</i>
<i>Safety Summary</i>	<i>iii</i>
<i>Limited Warranty</i>	<i>iv</i>
<hr/>	
PART 1: GENERAL SPECIFICATIONS	1
1.1 About this Manual	1
1.2 Model Numbers	1
1.3 Standard Equipment and Options	1
<hr/>	
PART 2: INSTALLATION	3
2.1 Introduction	3
2.2 Unpack the Unit	3
2.3 Permanent Placement	4
2.4 Drain Connections	5
2.5 Electrical Connections	5
<hr/>	
PART 3: DAILY OPERATION	7
<hr/>	
PART 4: CLEANING and MAINTENANCE	9
4.1 Introduction	9
4.2 Daily Cleaning Schedules	9
4.3 Preventive Maintenance Schedules	10
4.4 Lubrication	10
<hr/>	
PART 5: TROUBLESHOOTING	11
<hr/>	
PART 6: REPLACEMENT PARTS	13
<hr/>	
PART 7: ELECTRICAL SCHEMATICS	29

TABLE OF CONTENTS

LIST OF FIGURES

Figure	6.1 – Guides	14
Figure	6.2 – Pawl Bar	16
Figure	6.3 – Table & Drain Assembly	18
Figure	6.4 – Base Assembly	20
Figure	6.5 – Drive And Motor Assembly	22
Figure	6.6 – Control Cabinet	24
Figure	6.7 – Optional Roller Conveyor Table	26

ELECTRICAL SCHEMATICS

A700759/F 90/180 Degree Rack Advance

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PART 1: GENERAL SPECIFICATIONS

1.1 About this Manual

All information, illustrations and specifications contained in this manual are based upon the latest product information available at the time of publication. Champion constantly improves its products and reserves the right to make changes at any time or to change specifications or design without notice and without incurring any obligation.

Organization of Manual

This manual is divided into seven parts:

- ◆ Part 1, General Specifications
- ◆ Part 2, Installation
- ◆ Part 3, Daily Operation
- ◆ Part 4, Cleaning and Maintenance
- ◆ Part 5, Troubleshooting
- ◆ Part 6, Replacement Parts, contains parts diagrams and parts lists.
- ◆ Part 7, Electrical Schematics, contains the electrical schematics.

Note:

*Unless noted otherwise, dimensions, capacities, temperatures, etc., given in this manual are **U.S. Customary Measures and the Metric Equivalent of the U.S. customary measures.***

1.2 Model Numbers

The Motorized Rack Advance table (MRA) moves racks out of a dishwashing machine. There are 2 models of the MRA:

- MRA 90° - is the Motorized Rack Advance table with a 90-degree curve.
- MRA 180° - is the Motorized Rack Advance table with a 180-degree curve.

1.3 Standard Equipment and Options

Standard Equipment

All models come with the following standard equipment:

- 304 stainless steel construction.
- Tubular stainless steel legs with leveling feet.
- A reciprocating pawl bar driven by a 1/4-Hp drip-proof motor. The conveyor automatically advances up to 320 racks per hour.

- A separate “power drive” that is protected from overload for safe, reliable operation.
- Integral control system. The automatic rack advance curve is operated by the dishwashing machine controls; one pushbutton on the machine control console starts the fully-automatic warewashing operation.

Options

You may purchase the following options separately:

- Roller Conveyor Table. Made of 304 stainless steel, the roller conveyor table easily locks into the end of the MRA table. It is available in 2 standard sizes:
 - 64 inches long.
 - 84 inches long.

(For roller conveyor tables in non-standard lengths, contact your Champion representative.) Also, these roller conveyor tables are available either mobile or stationary:

- Mobile tables can be “broken” either right or left and are equipped with four 4” stainless steel casters with neoprene rubber treads; two have locking brakes.
- Stationary tables have leveling feet to compensate for uneven floors.

The table rollers are 5” apart on center and lift out easily for cleaning. Also, the table comes equipped with the table limit switch.

- Table Limit Switch, to automatically stop the warewashing operation when a rack reaches the end of the roller conveyor table. As a safety feature, a table limit switch is strongly recommended on every rack conveyor installation. Champion offers an optional unmounted table limit switch for use with table systems manufactured by others.

PART 2: INSTALLATION

2.1 Introduction

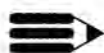
In this part —

- Unpacking the unit.
- Placing the unit.
- Making utility connections.
- Installing optional components.

2.2 Unpack the Unit

Your unit was completely assembled, inspected, and thoroughly tested at our factory before shipment to your installation site.

- The unit is shipped on a single pallet.
- Optional components may have been shipped separately.
- Check your packing list thoroughly.



Note:

Immediately after unpacking your unit, inspect for any shipping damage. If damage is found, save the packing material and contact the carrier immediately.

***BE SURE TO COMPLETE AND RETURN THE
WARRANTY CARD
INCLUDED WITH YOUR MACHINE.***



Note:

The installation of your unit must meet all applicable health and safety codes and conform to good trade practice.

Perform the following steps to unpack the unit:

1. Remove protective wrap and hold downs from the pallet.
2. Inspect for any shipping damage. If damage is found, save the packing material and contact the carrier immediately.
3. Check the interior of the unit for the following items stowed inside:
 - Hardware: nuts and bolts for securing the MRA to the dishwashing machine.
 - Warranty information packet.

4. Remove the unit from the skid.
5. Move the unit to its permanent location, as explained in the section, "2.3 Permanent Placement."

2.3 Permanent Placement

Special Tools —

- Bubble level (3 feet).
- Silicon sealant

Perform the following steps to place the unit in its permanent location.

1. Before moving the unit into position, inspect the location site to ensure the electrical, plumbing, and ventilation services (if required) are provided in the correct locations. Compare the site connections with the unit to ensure they will match when the unit is set in its permanent location.
2. Lift the unit and adjust the leveling feet in.
3. Install the leveling feet prior to placing the unit in its permanent position.
4. Position the unit in its permanent location beside the dishwashing machine:
 - Be sure the MRA table does not touch the wall.
 - Leave a small gap between the unit and the dishwashing machine to be able to apply a sealant.
5. Line up the pre-drilled holes of the unit with the pre-drilled holes of the dishwashing machine. Adjust the leveling feet of the unit so that the holes match up.

A rack should be able to make a smooth transition from the dishwashing machine onto the tracks of the unit.
6. Level the unit:
 - a. Place a 3-foot level on top of the unit or inside the unit on the track assembly to level the unit front to back.
 - b. Adjust the level by turning the adjustable feet.
 - c. Level side to side with the level placed on the top of the unit.
 - d. Be sure the pre-drilled holes of the unit and the dishwashing machine still line-up.
7. Attach the unit to the dishwashing machine:
 - a. Apply a 1/4" bead of sealant the mating surfaces of the MRA and dishwasher.
 - b. Slide the unit up to the dishwashing machine as close as you can slide it.
 - c. Check again that the tracks between the two are even and that there is a

smooth transition from the unit to the dishwashing machine.

- d. Secure the unit to the dishwashing machine, using the nuts and bolts provided.

2.4 Drain Connections

The drain for the MRA unit is a gravity drain, with a 1-1/4" O.D. connection. The following warning and caution should be adhered to when making your drain connection according to your local plumbing codes:



Warning:

The installation of this unit must conform to local codes or, in the absence of local codes, to all National Codes governing plumbing, sanitation, safety and good trade practices.



Caution:

The drain must have a minimum flow capacity of 15 US gallons per minute (54 liters per minute), and 12.5 Imperial gallons per minute.

2.5 Electrical Connections (Single Phase)

There are 2 electrical connections that you should follow precisely the electrical power requirements according to the electrical schematics provided for you in the section, "Part 7: ELECTRICAL SCHEMATICS":

- Power Source.
- Internal Connections between Unit and Dishwashing Machine.

2.5.1 Power Source

The power source for the MRA unit is a separate power source than the dishwashing machine. The power source should be:

- 115/60/1, 3 amps.



Note:

The power of the MRA unit is not to come from the dishwashing machine.

Once you have established the correct power source, then plug in the MRA unit.

2.5.2 Internal Connections between Unit and Dishwashing Machine

An internal connection needs to be established between the MRA unit and the dishwashing machine so that a signal can be transmitted to integrate the control systems. The automatic rack advance curve is operated by the dishwashing machine controls; one pushbutton on the machine control console starts the fully-automatic warewashing operation.

The following is an overview of this connection. To make the connection, follow the electrical schematic provided for you in the section, “Part 7: ELECTRICAL SCHEMATICS.”

- There is a flexible conduit rolled up under the MRA unit through which you run the wiring. Unroll the conduit.
- The connection is to be made in the control box under the MRA unit.
- Refer to the electrical schematic provided for you in the section, “Part 7: ELECTRICAL SCHEMATICS,” for how to complete the inter-wiring.

2.6 Optional Components

2.6.1 Roller Table

If your unit came with the optional roller table, you should assemble the roller table and connect it to the unit before using the unit. The roller table is not to be secured to the MRA unit, just connected properly, so that you can disconnect the roller table and roll it out of the way when necessary.

To Assemble the Roller Table

1. Unpack the roller table and the rollers.
2. Assemble the roller table limit switch, as explained in the section, “2.6.2 Limit Switch.”
3. Drop each roller into the notches on the roller table. In the previous step, you have already placed the square roller of the roller table limit switch in the second notch from the end. Place the other rollers in the remaining notches.

Make sure rollers roll freely.

To Connect the Roller Table to the MRA Unit

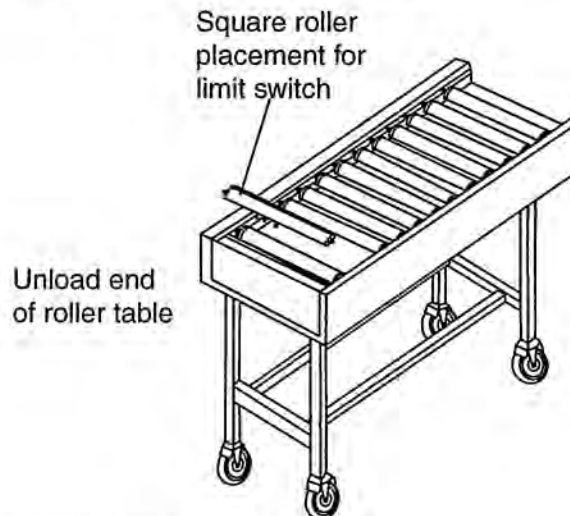
1. Be sure the dishwashing machine and the MRA unit are not turned on and that the main power breaker to the machines is off.
2. Roll the roller table up to the MRA unit.
3. Connect the roller table to the MRA using the connecting pins provided.
4. Plug the roller table limit switch into the receptacle on the MRA unit. You should simply twist-lock the electric plug on the roller table into the receptacle on the MRA.

To Disconnect the Roller Table from the MRA Unit

1. Be sure the dishwashing machine and the MRA unit are not turned on and that the main power breaker to the machines is off.
2. Unplug the roller table limit switch from the MRA unit.
3. Pull out the 2 connection pins.
4. Roll the table away from the MRA unit.

2.6.2 Limit Switch

If your unit came with the optional roller table, you also receive the limit switch. The limit switch is assembled and mounted on the roller table. The magnet that activates the switch is mounted on a square roller that should be placed on the table on the second position from the unload end of the table (See diagram below).

**PART 3: DAILY OPERATION**

After the MRA unit is properly installed, the MRA unit is automatic, working off of the dishwashing machine. When you turn on the dishwashing machine, the pawl bar begins oscillating. Conversely, when you turn off the dishwashing machine, the pawl bar stops.

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PART 4: CLEANING AND MAINTENANCE

4.1 Introduction

In this part —

- Daily cleaning schedule.
- Preventive maintenance schedule.
- Lubrication.

Cleaning your unit is the best maintenance you can provide. Components that are not regularly flushed and cleaned do not perform well.

The following schedules are the minimum requirements necessary for the proper performance of your unit. Intervals should be shortened whenever your machine is faced with abnormal working conditions, hard water, or multiple shift operations.

4.2 Daily Cleaning Schedules



Note:

Use the same precautions as you do with your dishwashing machine: All electrical power should be turned off and the main power breaker should be off. Even though the power switch has been turned off, there is still power running to the switch itself. Therefore, turn the main power breaker off as well.

Every 2 hours of operation and after each meal period

1. Be sure the MRA is turned off and the power breaker is off as well.
2. Wipe the interior and exterior dry with a soft cloth.

At the End of the Day

1. Be sure the Main Power at the machine is turned off and the main power breaker is off as well.
2. Wipe the interior and exterior dry with a soft cloth. Remove hard water residue.
4. Wipe down the roller table (if you have installed this option). The rollers are made to be removed easily. Wipe down each roller, being sure to place each roller back in its notches. Square roller must be replaced in the proper position, second from the unload end.

4.3 Preventive Maintenance Schedule

Monthly Maintenance Requirements

Perform the following procedure each month:

1. Check the clutch on the drive motor to see if it is working properly.

What this means is that if a rack jams on the table, the MRA unit automatically shuts off, and when the jam is cleared, the unit should return to working properly.

Basically, to test this, hold a rack with your hand while the pawl bar is oscillating the rack forward. The motor has a spring-loaded safety switch, so when a person of moderate build (about 180 lbs/82 kg) exerts force against the dish rack, the clutch should slip and turn off the MRA unit.

Then, when you release the rack, the spring-loaded switch should turn on the MRA unit again.

If the test fails, then contact your maintenance personnel or the local authorized service personnel.

Semi-Annual Maintenance Requirements

Perform the following procedures every six months:

1. Make a general inspection of the table. Clean as required.
2. Tighten any loose bolts.

Annual Maintenance Requirements

Perform the following procedures every year:

1. Inspect the installation site for cleanliness and any foreign material around the machine. Clean as required.
2. Check the overall condition of the machine. Replace any worn or damaged parts.

4.4 Lubrication

Semi-Annual Lubrication Requirement

Perform the following procedure every six months:

1. Check the oil level in the gear reducer.

PART 5: TROUBLESHOOTING

Perform the following procedure to correct a trouble condition:

Unit will not run:

- Check incoming power
- Check safety limit switches
- Check for jams
- Check the clutch
- Check the drive motor overload

What this means is that if a rack jams on the table, the MRA unit automatically shuts off, and when the jam is cleared, the unit should return to working properly.

Unit will not advance dishracks:

- Check condition of pawls
- Check condition of dishracks

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PART 6: REPLACEMENT PARTS

In This Part—

- Parts illustrations and replacement parts lists

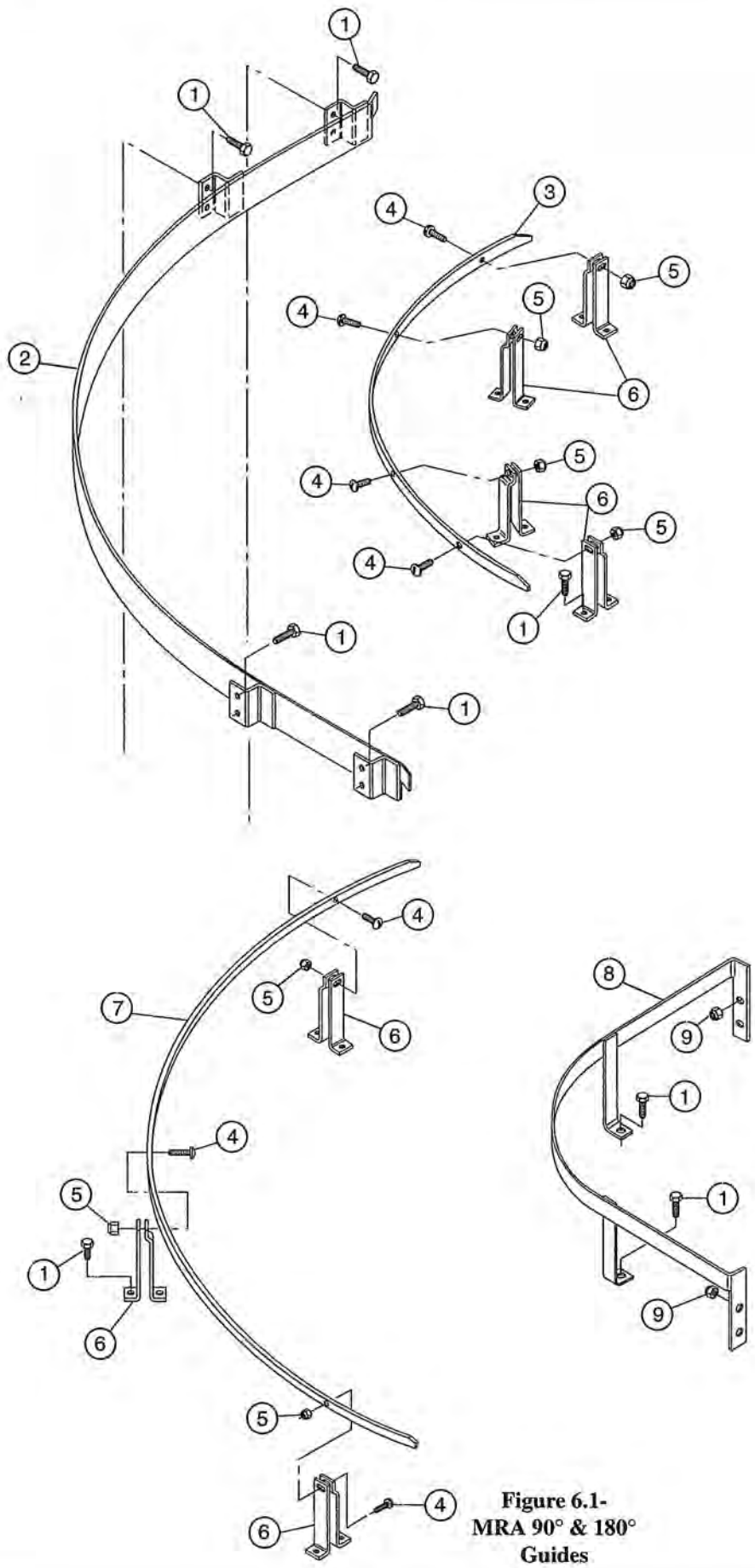


Figure 6.1-
MRA 90° & 180°
Guides

**MRA 90° & 180°
GUIDES**

Fig. 6.1 Item No.	Part No.	Part Description	Qty.
1	100735	BOLT (1/4-20 X 5/8) HEX HEAD	A/R
2	310185	GUIDE WELD, RACK ADVANCE (180°)	1
2	310180	GUIDE WELD, RACK ADVANCE (90°) (SHOWN)	1
3	314478	RACK SUPPORT INNER (180°)	1
3	314640	RACK SUPPORT INNER (90°) (SHOWN)	1
4	111370	SCREW (10-32 X 5/8) HEX HEAD (90°) (SHOWN)	7
-	111370	SCREW (10-32 X 5/8) HEX HEAD (180°)	9
5	107966	NUT GRIP (10-32) W/NYLON INSERT (90°) (SHOWN)	7
-	107966	NUT GRIP (10-32) W/NYLON INSERT (180°)	9
6	314446	RACK SUPPORT WELDMENT (90°) (SHOWN)	7
-	314446	RACK SUPPORT WELDMENT (180°)	9
7	314641	RACK SUPPORT OUTER (90°) (SHOWN)	1
-	314641	RACK SUPPORT OUTER (180°)	1
8	314649	INSIDE RACK SUPPORT (90°) (SHOWN)	1
8	314477	INSIDE RACK SUPPORT (180°)	1
9	107967	NUT GRIP 1/4-20 W/NYLON INSERT	A/R

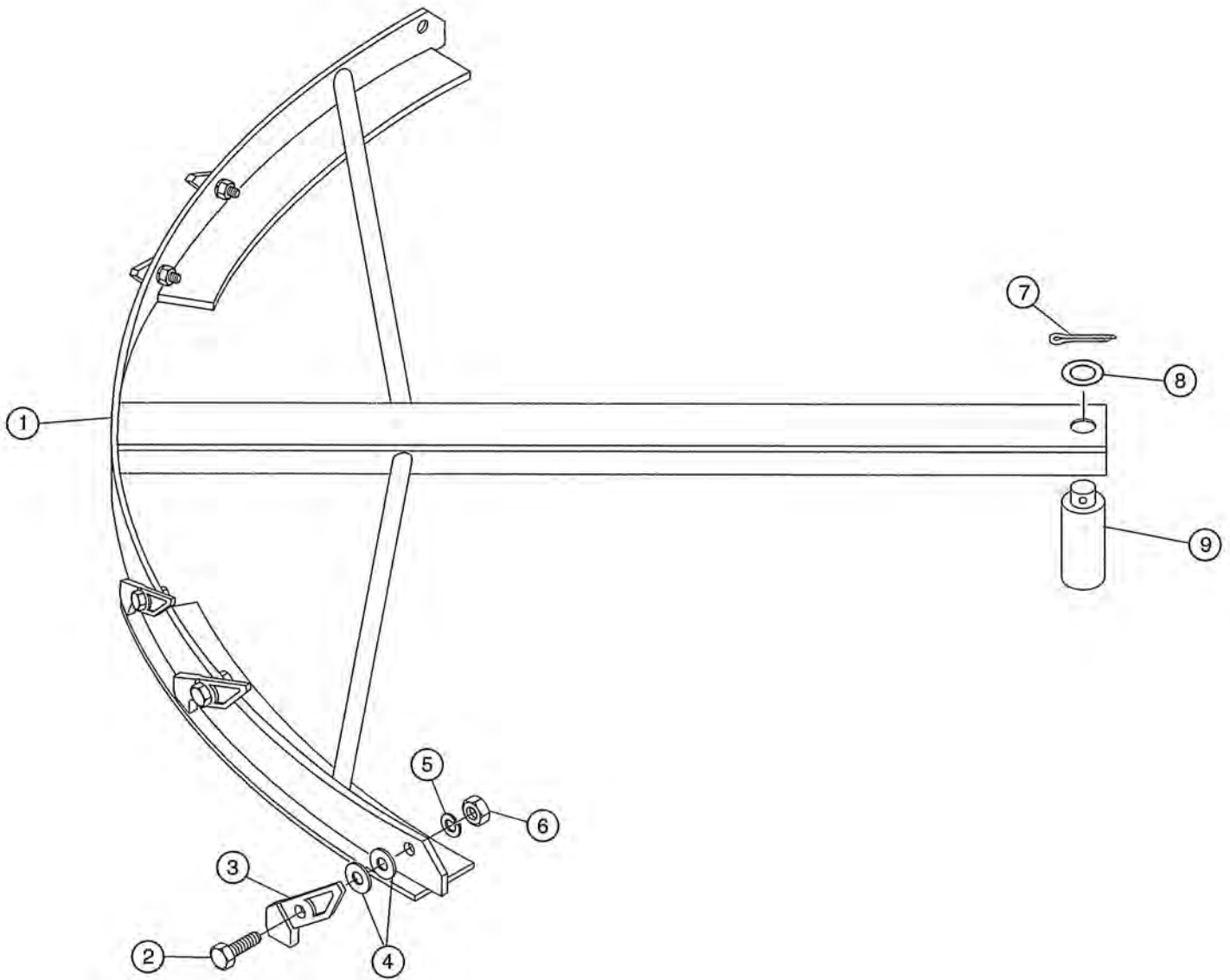


Figure 6.2-
MRA 90° & 180°
Pawl Bar

**MRA 90° & 180°
PAWL BAR**

Fig. 6.2 Item No.	Part No.	Part Description	Qty.
1	314605	PAWL BAR WELDMENT (90°) (SHOWN)	1
1	314480	PAWL BAR WELDMENT (180°) (NOT SHOWN)	1
2	110240	BOLT, PAWL MOUNTING (90°)	7
3	110236	PAWL, RACK ADVANCE (90°)	7
-	110236	PAWL, RACK ADVANCE (180°)	9
4	102376	WASHER (5/16 X 3/4 X 1/16) (90°)	7
-	102376	WASHER (5/16 X 3/4 X 1/16) (180°)	9
5	106013	WASHER, LOCK (5/16) SPLIT (90°)	7
-	106013	WASHER, LOCK (5/16) SPLIT (180°)	9
6	110553	NUT, 8MM SST (90°)	7
-	110553	NUT, 8MM SST (180°)	9
7	106560	COTTER PIN (1/8 X 1-1/2)	1
8	320156	WASHER (1-1/4 X 3/4 X 1/16)	1
9	111062	PIVOT SHAFT	1

**MRA 90° & 180°
TABLE & DRAIN ASSEMBLY**

Fig. 6.3 Item No.	Part No.	Part Description	Qty.
1	202392	ROLLER PIN (90°)	2
-	202392	ROLLER PIN (180°)	3
2	106138	ROLLER, PAWL BAR (90°)	2
-	106138	ROLLER, PAWL BAR (180°)	3
3	106558	COTTER PIN (1/8 X 3/4) (90°)	2
-	106558	COTTER PIN (1/8 X 3/4) (180°)	3
4	314352	ROLLER BRACKET (90°)	2
-	314352	ROLLER BRACKET (180°)	3
5	100735	BOLT (1/4-20 X 5/8) HEX HEAD	A/R
6	107967	NUT GRIP (1/4-20) W/NYLON INSERT	A/R
7	107966	NUT GRIP (10-32) W/NYLON INSERT (180°)	4
8	202386	ROLLER CROSSHEAD	1
9	100769	SET SCREW (3/8-16 X 3/4) DOG PT	1
10	202386	CRANK	1
11	100868	STUD, ROLLER	1
12	107089	NUT JAM 1/2-13	1
13	100007	SCREW (10-32 X 3/8) TRUSS HD	1
14	104925	WASHER (1/4 X 1 X 16 GAUGE)	1
15	100771	SCREW SET (1/4-20 X 1/4) SOCKET HD	1
16	103180	WIPER RING	1
17	100153	BOLT, (3/8-16 X 1) HEX HD	4
18	107864	WASHER PACKING	1
19	107863	OUTLET WASTE	1
20	304816	STRAINER 6"	1
21	106482	WASHER LOCK 1/4" SPLIT	1
22	100003	NUT PLAIN (14-20) SST	1
23	314354	STIFFNER, SHAFT	1
24	100747	BOLT (1/2-13 X 1)	1
25	106026	WASHER (1/4 X 5/8 X 1/16) SST	A/R
26	100141	NUT GRIP (1/4-20) SST	A/R
27	112145	RECEPTACLE 2P (OPTIONAL FOR ROLLER TABLES ONLY)	1
28	320261	CORD BRACKET (OPTIONAL FOR ROLLER TABLES ONLY)	1
29	107865	LOCKNUT PLASTIC	1
30	107866	PACKING WASHER	1
31	107867	NUT OUTLET PIPE	1
32	109283	TAILPIECE STRAIGHT	1

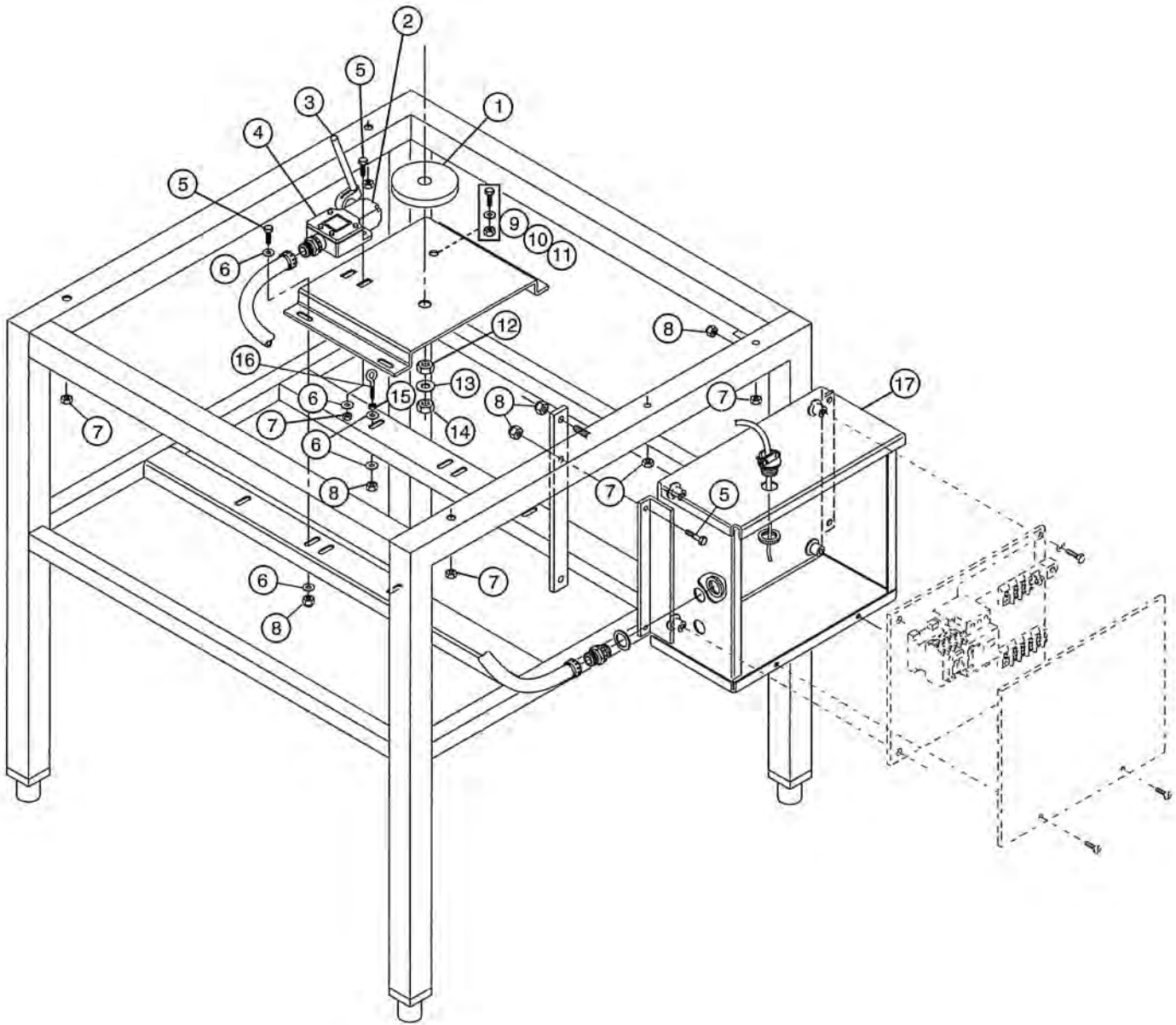


Figure 6.4-
MRA 90° & 180°
Base Assembly

**MRA 90° & 180°
BASE ASSEMBLY**

Fig. 6.4 Item No.	Part No.	Part Description	Qty.
1	111063	SPACER PLATE	1
2	111075	ROLLER HEAD LIMIT SWITCH	1
3	111074	LEVER ROD LIMIT SWITCH	1
4	107341	LIMIT SWITCH.....	1
5	100735	BOLT (1/4-20 X 5/8) HEX HD	A/R
6	106026	WASHER (1/4 X 5/8 X 1/16) SST	A/R
7	107967	NUT GRIP (1/4-20) W/NYLON INSERT	A/R
8	100141	NUT GRIP (1/4-20) SST	A/R
9	111114	BOLT (3/8-16 X 3-1/2) SST.....	1
10	106407	WASHER LOCK (3/8) SPLIT	1
11	100141	NUT PLAIN (3/8-16)	1
12	104584	NUT PLAIN (1/2-13) HEX HD	1
13	107589	WASHER LOCK (1/2) EXTERNAL	1
14	107089	NUT JAM (1/2-13).....	1
15	100003	NUT PLAIN (1/4-20) SST	1
16	111095	EYE BOLT (1/4-20 X 1)	1
17	313618	CONTROL CABINET WELDMENT	1

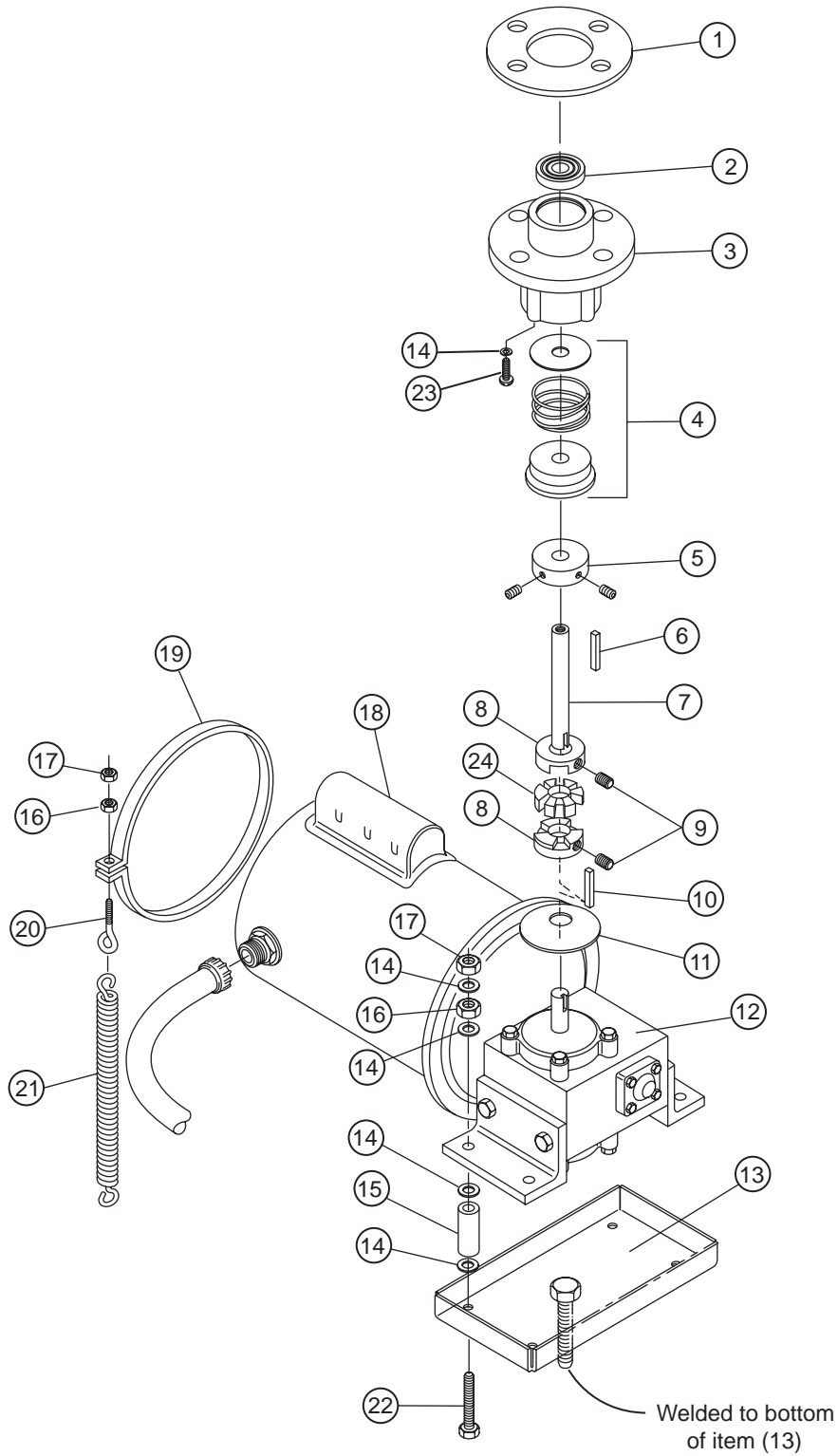


Figure 6.5-
MRA 90° & 180° Drive and Motor Assembly

**MRA 90° & 180°
DRIVE & MOTOR ASSEMBLY**

Fig. 6.5 Item No.	Part No.	Part Description	Qty.
1	108820	GASKET BEARING HOUSING	1
2	102384	BUSHING (5/8 X 3/4 X 1-1/4) (INCLUDED IN #3)	1
3	B1074-1	BEARING HOUSING	1
4	102244	SEAL ASSY	1
5	100382	BEARING C/W SET SCREWS	1
6	106619	KEY (3/16 X 3/16 X 1)	1
7	110066	SHAFT RACK ADVANCE	1
8	111064	COUPLER RACK ADVANCE	1
9	100771	SET SCREW (1/4-20 X 1/4) SOCKET	2
10	104916	KEY (3/16 X 3/16 X 3/4)	1
11	100870	WATER SLINGER	1
*12	110152	REDUCER	1
13	314364	REDUCER BASE	1
14	106026	WASHER (1/4 X 5/8 X 1/16) SST	8
15	105296	SPACER SST	4
16	100003	NUT PLAIN (1/4-20) SST	6
17	100141	NUT GRIP (1/4-20) SST	6
*18	110151	MOTOR (1/4HP 115/208-230 1PH)	1
19	314351	MOTOR CLAMP	1
20	111095	EYE BOLT (1/4-20 X 1)	1
21	111076	SPRING MOTOR RETURN	1
22	106028	BOLT (1/4-20 X 2-1/2) HEX HD	4
23	104923	SCREW (1/4-20 X 3/8) ROUND HD	4
* 	110563	REDUCER/MOTOR ASSEMBLY (INCLUDES ITEMS 12 & 18)	

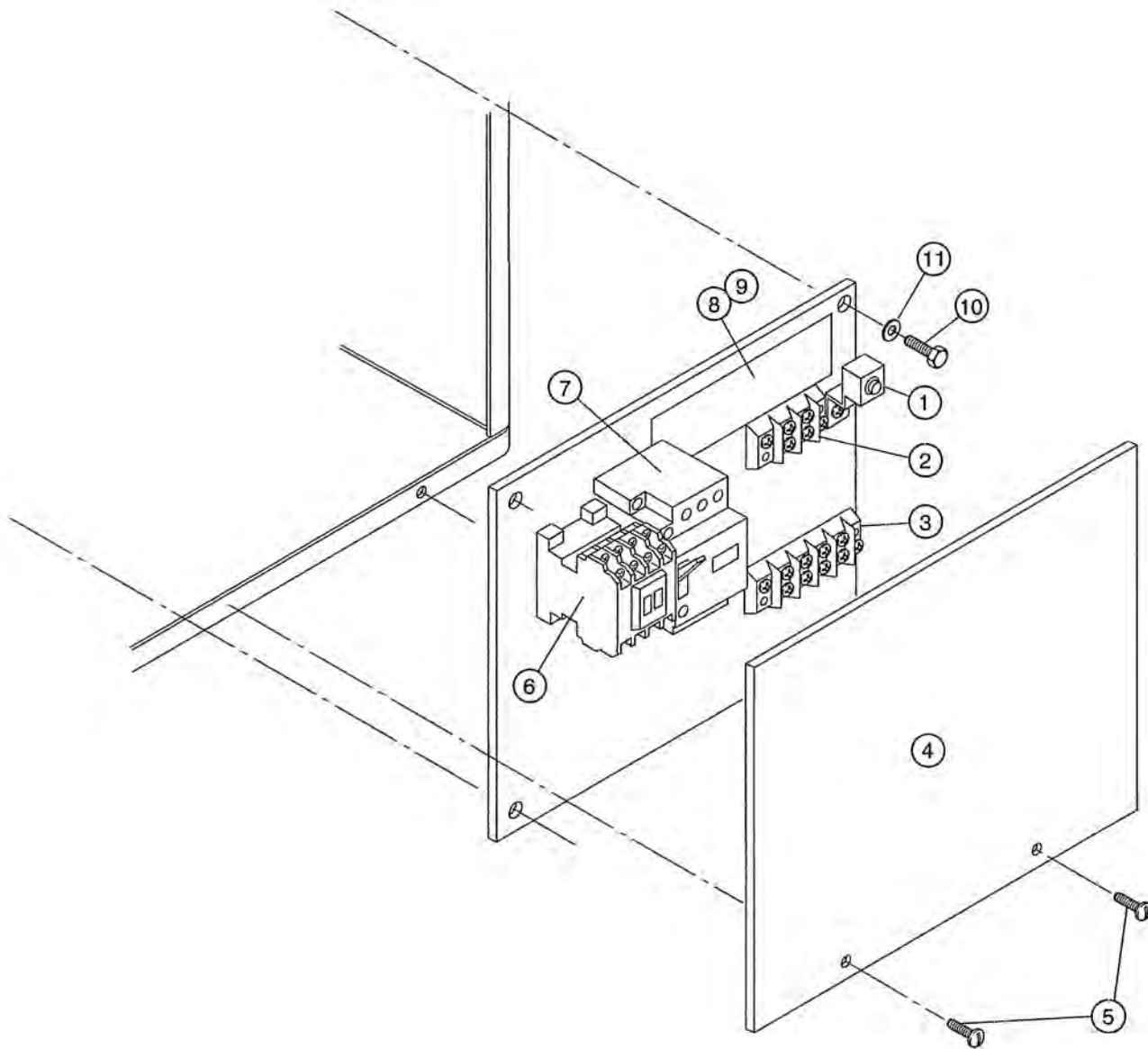


Figure 6.6-
MRA 90° & 180°
Control Cabinet

**MRA 90° & 180°
CONTROL CABINET**

Fig. 6.6 Item No.	Part No.	Part Description	Qty.
1	103310	LUG, GROUND	1
2	102346	TERMINAL BLOCK 2 POLE	1
3	107171	TERMINAL BLOCK 4 POLE	1
4	313620	COVER CONTROL CABINET	1
5	100095	SCREW (10-32 X 3/8) ROUND HEAD	2
6	108122	CONTACTOR 12A	1
7	111628	OVERLOAD, MOTOR 1/4HP	1
8	108615	LABEL MACHINE MIN/MAX	1
9	104873	LABEL GROUND	1
10	107967	NUT GRIP (1/4-20) W/NYLON INSERT	4
11	106026	WASHER (1/4 X 5/8 X 1/16) SST	4

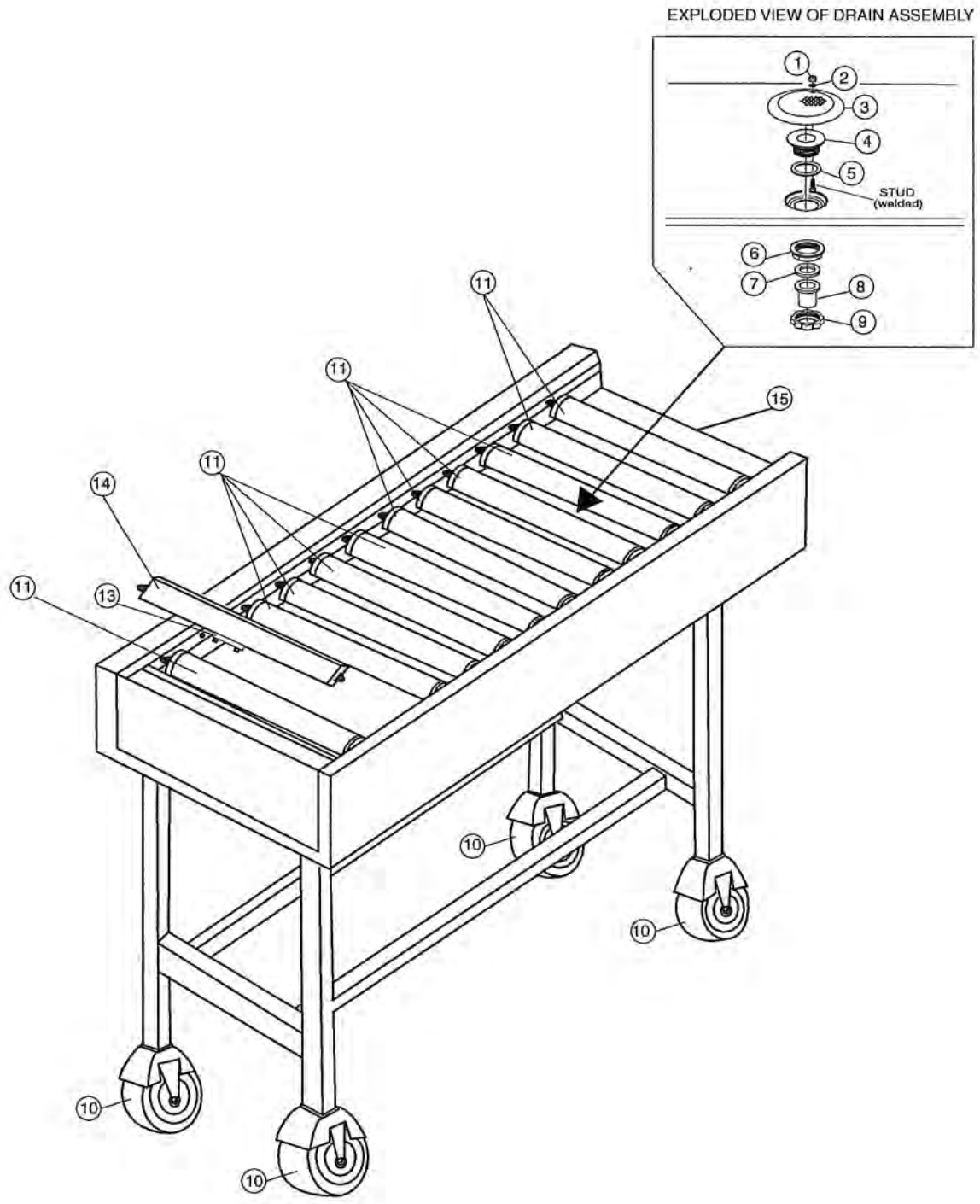


Figure 6.7 Optional Roller Conveyor Table
(Mobile Table Shown)

**OPTIONAL ROLLER CONVEYOR TABLE
STATIONARY AND MOBILE**

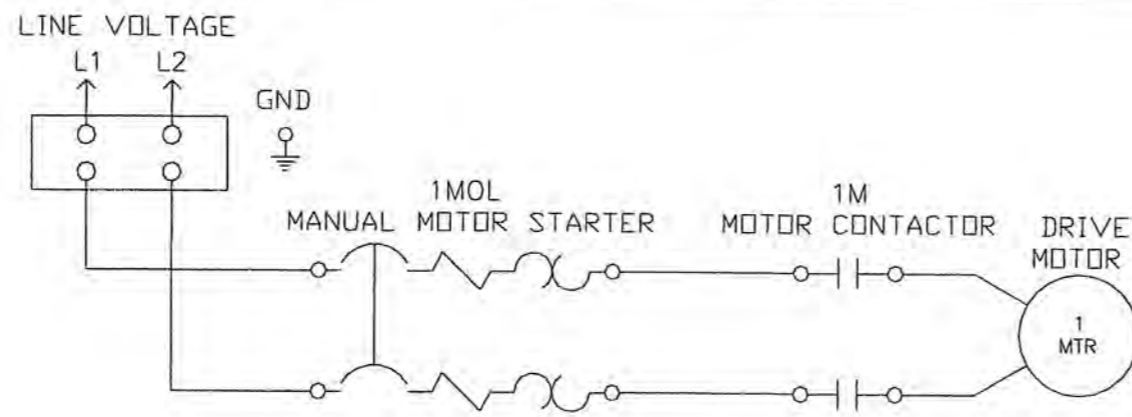
Fig 6.7 Item No.	Part No.	Part Description	Qty
1	100003	NUT PLAIN 1/4-20 SST	1
2	106482	WASHER LOCK 1/4" SPLIT	1
3	304816	STRAINER 6 INCH DIAMETER	1
4	107863	OUTLET WASTE	1
5	107864	WASHER, PACKING	1
6	107865	LOCKNUT, PLASTIC	1
7	107866	WASHER, PACKING	1
8	109283	TAILPIECE, STRAIGHT	1
9	107867	NUT, OUTLET PIPE	1
10	108392	ADJUSTABLE FOOT INSERT (STATIONARY) (Not Shown) ..	4
10	109202	CASTER, SWIVEL BRAKE (MOBILE)	2
10	109203	CASTER, SWIVEL NON-BRAKE (MOBILE)	2
11	108909	ROLLER CONVEYOR, PLASTIC	A/R
12	109934	SWITCH (MAGNETIC DOOR SAFETY)(Not Shown)	1
13	109935	MAGNET (DOOR SAFETY)	1
14	310645	SWITCH BAR, ROLLER	1
15	311350	BRACKET, ROLLER TABLE (STATIONARY)(Not Shown)	2
16	310168	PIN, CONNECTING (Not Shown)	2
17	320270	MRA TABKE HINGE/TABLE SIDE(MOBILE)(Not Shown)	2
18	320272	MRA TABLE HINGE/MRA SIDE (MOBILE)(Not Shown)	2

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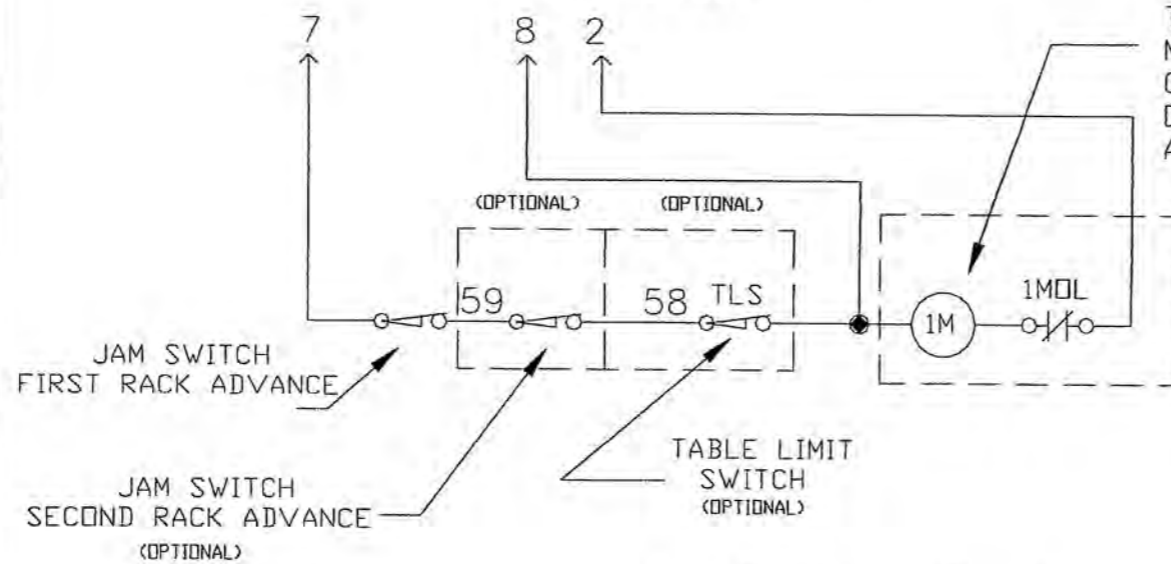
Part 7:

ELECTRICAL SCHEMATICS

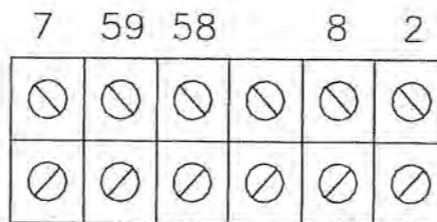
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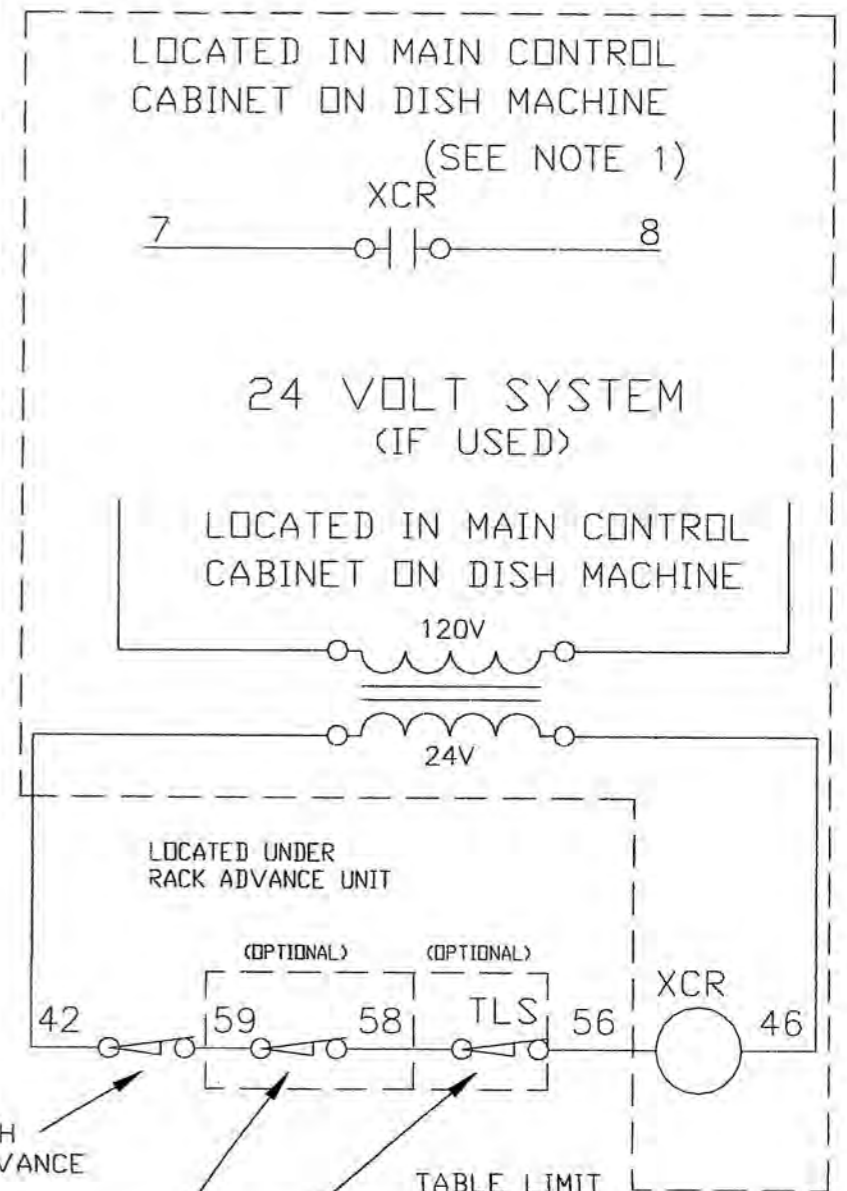
TO JUNCTION BOX UNDER DISH MACHINE
120 VOLT SYSTEM
(IF USED)



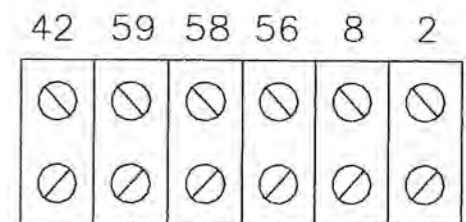
COMMON TO BOTH 120V AND 24V SYSTEMS. THIS 1M DENOTES THE MRA DRIVE MOTOR, CONTACTOR, AND OVERLOAD AS SHOWN ABOVE.



REMOVE JUMPERS, AS REQUIRED, WHEN OPTIONAL DEVICES ARE INSTALLED



JAM SWITCH FIRST RACK ADVANCE
JAM SWITCH SECOND RACK ADVANCE (OPTIONAL)
TABLE LIMIT SWITCH (OPTIONAL)



REMOVE JUMPERS, AS REQUIRED, WHEN OPTIONAL DEVICES ARE INSTALLED

NOTE 1:
XCR IS RELAY 6CR IN WASH AND PREWASH/WASH MACHINES. XCR IS RELAY 7CR IN WASH/RINSE AND PREWASH/WASH/RINSE MACHINES.

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/HZ, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR. BY	A. LANNI	SCALE	
DATE	95-02-17	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
C	CHANGE LINE V DESIGNATION, REDRAW	95-02	AL
D	CLARIFY	95-03-22	AL
E	24V CONTACT NORMALLY OPEN, ADD DESCRIPTION	95-09-12	AL
F	REDRAWN, SHOWN TERMINAL BLOCK	3DEC98	JCN

Champion
The Dishwashing Machine Specialists

90/180 DEGREE RACK ADVANCE
A 700759 REV. F



