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307 -001 thru -007

Ritter® by MIDMARK

Power Examination Table

Service and Parts Manual

Serial Number Prefix:
GY, GZ, HA, HB, JL
JM & V

NO LONGER IN PRODUCTION

Some service parts may not be available for this product!

To purchase a printed copy of this manual, click on the "Place Order" button below.

Place Order

FOR USE BY MIDMARK TRAINED TECHNICIANS ONLY

MA387500

SF-1536

Part No. 004-0048-00 Rev. L (8/20/12)

Style B

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(*) Indicates that there has been a serial number break for the illustration and that there are additional point page(s) following the original page.

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IMPORTANT INSTRUCTIONS

General Safety Instructions

Safety First: The primary concern of Midmark Corporation is that this table is maintained with the safety of the patient and staff in mind. To assure that services and repairs are completed safely and correctly, proceed as follows:

(1) Read this entire manual before performing any services or repairs on this table.

(2) Be sure you understand the instructions contained in this manual before attempting to service or repair this table.

Safety Alert Symbols

Throughout this manual are safety alert symbols that call attention to particular procedures. These items are used as follows:

DANGER

A DANGER is used for an imminently hazardous operating procedure, practice, or condition which, if not correctly followed, will result in loss of life or serious personal injury.

WARNING

A WARNING is used for a potentially hazardous operating procedure, practice, or condition which, if not correctly followed, could result in loss of life or serious personal injury.

CAUTION

A CAUTION is used for a potentially hazardous operating procedure, practice, or condition which, if not correctly followed, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

EQUIPMENT ALERT

An EQUIPMENT ALERT is used for an imminently or potentially hazardous operating procedure, practice, or condition which, if not correctly followed, will or could result in serious, moderate, or minor damage to unit.

NOTE

A NOTE is used to amplify an operating procedure, practice or condition.

Warranty Instructions

Refer to the Midmark “Limited Warranty” printed in the Installation and Operation Manual for warranty information. Failure to follow the guidelines listed below will void the warranty and/or render the 307 Medical Examination Table unsafe for operation.

- In the event of a malfunction, do not attempt to operate the table until necessary repairs have been made.
- Do not attempt to disassemble table, replace malfunctioning or damaged components, or perform adjustments unless you are one of Midmark’s authorized service technicians.
- Do not substitute parts of another manufacturer when replacing inoperative or damaged components. Use only Midmark replacement parts.

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SECTION I
GENERAL INFORMATION

1.1 Scope of Manual

This manual contains detailed troubleshooting, scheduled maintenance, and service instructions for Model 307 Medical Examination Table. This manual is intended to be used by Midmark's authorized service technicians.

1.2 How to Use Manual

A. Manual Use When Performing Scheduled Maintenance.

(1) Perform inspections and services listed in Scheduled Maintenance Chart (Refer to para 3.1).

(2) If a component is discovered to be faulty or out of adjustment, replace or adjust component in accordance with maintenance/service instructions (Refer to para 4.1).

B. Manual Use When Table Is Malfunctioning And Cause Is Unknown.

(1) Perform an operational test on table (Refer to para 2.1).

(2) Perform troubleshooting procedures listed in Troubleshooting Guide (Refer to para 2.2).

(3) If a component is discovered to be faulty or out of adjustment, replace or adjust component in accordance with maintenance/service instructions (Refer to para 4.1).

C. Manual Use When Damaged Component Is Known.

(1) Replace or adjust component in accordance with maintenance/service instructions (Refer to para 4.1).

1.3 Description Of Model 307 Medical Examination Table.

A. General Description (See Figure 1-1).

The Model 307 Series Medical Examination Table is primarily used in examination rooms for general examinations and minor procedures. The table top is adjustable from a full horizontal position to a chair position. Also, when supported with an optional pelvic lift bar, the lithotomy position can be achieved. There are two storage drawers at the foot-end and doors on the left and right sides at the head-end for bulk storage which accommodate supplies used during examinations.

The major serviceable components of the table are the drawer heater plate (optional) (1, Figure 1-1), heater ON/OFF switch (optional) (2), electrical receptacle (3), hydraulic motor / pump assembly (4), motor / pump capacitors (5), two hydraulic base cylinders (6), back lock assembly (7), lift assembly (8), footswitch assembly (9), and two stirrup assemblies (10).

The Model 307 Series Medical Examination Table is available in five different configurations and are distinguished by the following model numbers:

Model **307-001**	Non-pelvic tilt, bulk storage doors on the right and left sides at the head-end, with a styled top.
Model **307-002**	Pelvic tilt w/ heater, bulk storage doors on the right and left sides at the head-end, with a styled top.
Model **307-003**	Non-pelvic tilt, bulk storage doors on the right and left sides at the head-end, with a rounded top.
Model **307-004**	Pelvic tilt w/ heater, bulk storage doors on the right and left sides at the head-end, with a rounded top.
Model **307-005**	Styled top, 230 Volt Export Version.

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GENERAL INFORMATION

Legend

1. Drawer Heater Plate (Optional)
2. Heater ON / OFF Switch (Optional)
3. Electrical Receptacle
4. Hydraulic Motor / Pump Assembly
5. Motor / Pump Capacitors
6. Hydraulic Table Base Cylinders
7. Back Lock Assembly
8. Lift Assembly
9. Footswitch Assembly
10. Stirrup Assembly

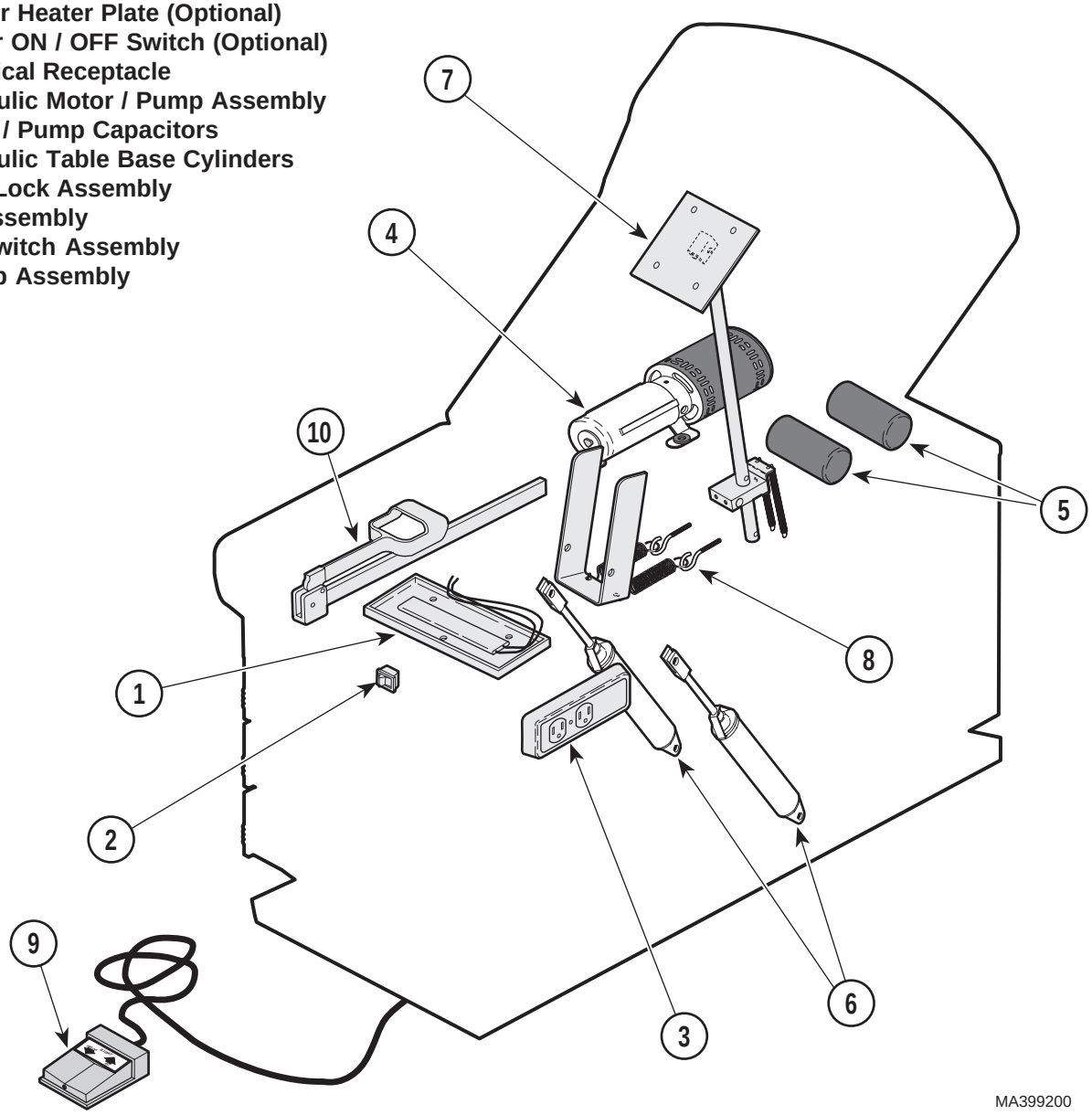

Figure 1-1. Major Components

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B. Theory of Operation (See Figures 5-1 for wiring diagrams / electrical schematics.

Electrical Power (Domestic):
115 VAC line voltage is supplied thru the power cord to electrical receptacles located on the side of the table. As long as the power cord is plugged into a supply outlet 115 VAC power will be present at the receptacles.

Electrical Power (Export):
220 to 240 VAC line voltage is supplied thru the power to electrical receptacles located on the side of the table. As long as the power cord is plugged into a supply outlet 220 to 240 VAC power will be present at the receptacles.

Optional Heater Plate (Domestic Only):
Some units are equipped with the optional heater plate for drawer warming. When the operator turns the normally open (N.O.) Heater On/Off Switch to ON, closing the circuit, power is supplied to the 60 watt heater plate, heating the unit. This provides heat in the top, foot end drawer to warm instruments.

Raising Table (Depressing the Table "UP" foot switch).
When the foot switch for the TABLE "UP" position is depressed the normally closed (N.C.) contacts on switch SW1 open and the normally open (N.0.) contacts close.
Current flows thru the C-N.O. ***closed*** contacts on SW1 to the terminal board TB4 terminal then to one of the Base Hydraulic Cylinder Solenoid Valves opening the valve.
At the same time current flows thru TB3 terminal to the "Forward Direction" windings of the Hydraulic Motor Pump energizing the motor pump. Current also flows thru the capacitors C1 and C2 to the terminal board TB2 and TB1 terminals to the other Base Hydraulic Cylinder Solenoid Valve opening the valve.
The current supplied to the "Reverse Direction" windings of the Hydraulic Motor Pump is out of phase with the current being supplied to the "Forward Direction" motor windings causing the motor to rotate in the forward direction.
With the Hydraulic Motor Pump running, hydraulic fluid from the reservoir is pumped thru the system to the Base Hydraulic Cylinder Solenoid Valves, extending the cylinder rods and raising the table top.
When you remove your foot from the Table "UP" foot switch the motor pump stops running and the base cylinder solenoid valves close.
With the base cylinder solenoid valves closed the table top remains at the elevated height.

Lowering Table (Depressing the Table "DOWN" foot switch).
When the foot switch for the TABLE "DOWN" position is depressed the normally closed (N.C.) contacts on switch SW2 open and the normally open (N.O.) contacts close.
Current flows thru the C-N.O. ***closed*** contacts on SW2 to the terminal board TB1 terminal then to one of the Base Hydraulic Cylinder Solenoid Valves opening the valve.
At the same time current flows thru the TB2 terminal to the "Reverse Direction" windings of the Hydraulic Motor Pump energizing the motor pump. Current also flows thru the capacitors C1 and C2 to the terminal board TB3 and TB4 terminals to the other Base Hydraulic Solenoid Valve opening the valve.
The current supplied to the "Forward Direction" windings of the Hydraulic Motor Pump is out of phase with the current being supplied to the "Reverse Direction" motor windings causing the motor to rotate in the reverse direction.
With the Hydraulic Motor Pump running in reverse and the Base Hydraulic Cylinder Solenoid Valves open, hydraulic fluid is returned to the reservoir causing the cylinder rods to retract, lowering the table top.

1.4 Standard Torque Specifications

The following standard torque specifications in Table 1-1 apply to the various hardware used on the units unless otherwise listed elsewhere in service procedures or parts illustrations:

Table 1-1. Torque Specifications

Hardware Size	Torque Values
#6	11 to 21 inch / lbs. (1.2 to 2.3 N•M)
#8	20 to 30 inch / lbs. (2.2 to 3.3 N•M)
#10	32 to 42 inch / lbs. (3.6 to 4.8 N•M)
1/4"	75 to 85 inch / lbs. (8.5 to 9.6 N•M)
5/16"	18 to 22 foot / lbs. (24.4 to 29.8 N•M)
3/8"	31 to 35 foot / lbs. (42.0 to 47.5 N•M)
1/2"	50 to 60 foot / lbs. (67.8 to 81.4 N•M)

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GENERAL INFORMATION

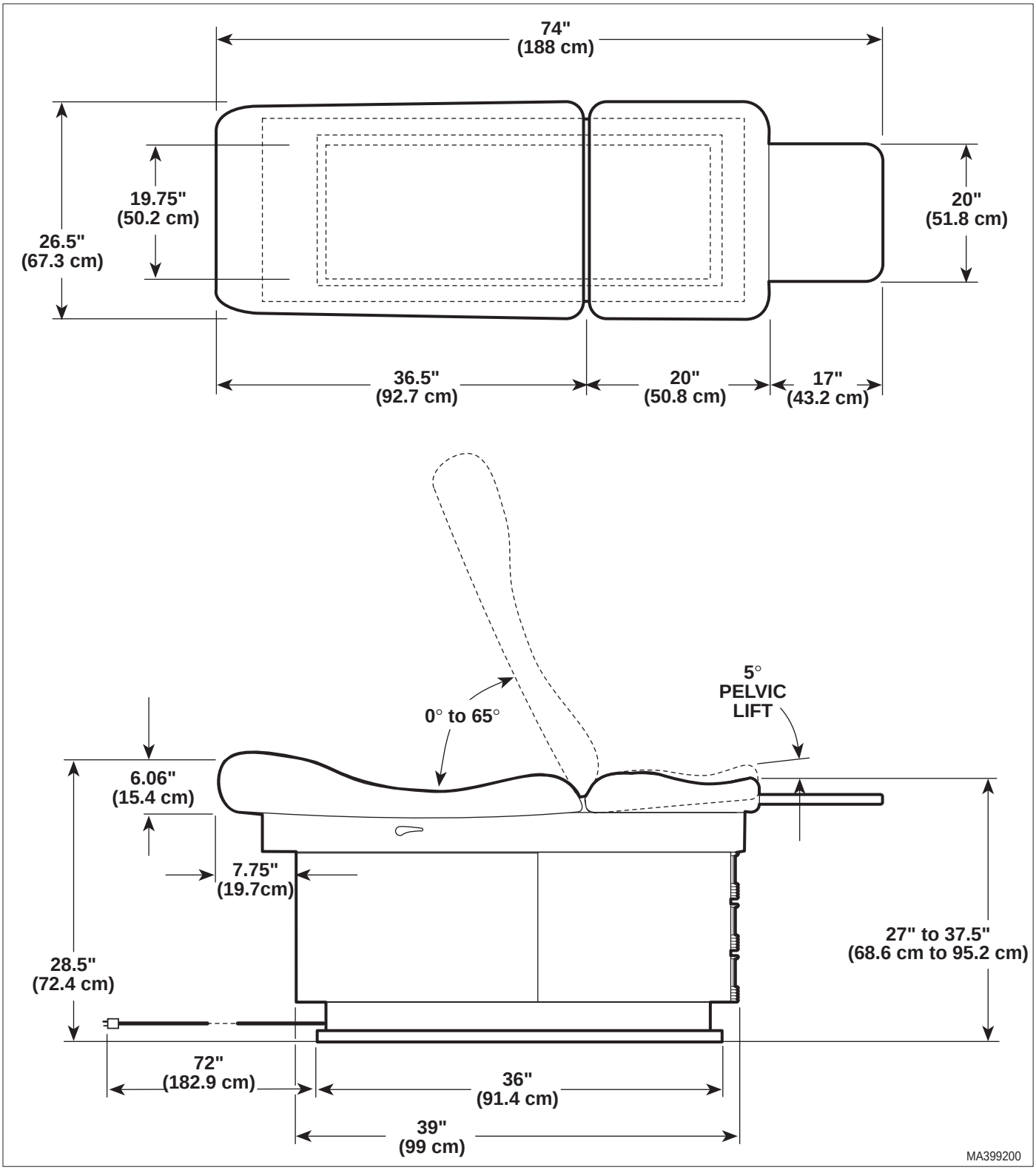

Figure 1-2. Table Dimensions

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1.5 Specifications

Factual data for the 307 Medical Examination Table is provided in Table 1-2. Also, see Figure 1-2.

Table 1-2. Specifications

Description	Data
Weight:	
Without Shipping Carton	355 lbs (161 kg)
With Shipping Carton	430 lbs (195 kg)
Shipping Carton	60.5 in."L" x 30 in."W" x 42 in."H" (153.7 cm x 76.2 cm x 106.7 cm)
Dimensions (See Figure 1-2):	
Table Top Length	56.5 in. (143.5 cm)
Table Top Length (footrest extended)	74 in. (188 cm)
Table Top Width	26.5 in. (67.3 cm)
Overall Width	26.5 in. (67.3 cm)
Seat Height (to top of upholstered seat at foot end)	27 in. (68.6 cm)
Table Adjustment:	
Back Section (manually adjusted)	0 to +65°
Weight Capacity (Maximum)	325 lb. (147.4 kg)
Electrical Requirements:	
115 VAC Unit (Domestic)	110 - 120 VAC, 60 HZ, 12 amp max., single phase
230 VAC Unit (Export)	230 ± VAC, 50/60 HZ, 4 amp
Power Consumption:	
115 VAC (Domestic) Unit	(126 VAC maximum-110 VAC minimum), 60 HZ, 11.5 amps (max. without heater) or 12.0 amps (max. with heater) 60 watt heater rating.
230 VAC (Export) Unit	230 ± 10% VAC, 50/60 HZ, 4 Amps.
Recommended Circuit:	
A separate (dedicated) circuit is recommended for this table. The table *should not* be connected to an electrical circuit with other appliances or equipment unless the circuit is rated for the additional load.	

1.6 Parts Replacement Ordering

If a part replacement is required, order the part directly from the factory as follows:

NOTE
It is ***important*** that the ***entire*** Model ***and*** Serial Number be presented when ordering parts, scheduling a service call or seeking technical advice.

(1) Refer to Figure 1-3 to determine the location of the model number and serial number of the table and record this data.

(2) Refer to the Parts List to determine the item numbers of the parts, part numbers of the parts, descriptions of the parts, and quantities of parts needed and record this data (Refer to para 6.1).

NOTE
Ask the Purchasing Department of the company that owns the table for this information. Otherwise, this information may be obtained from the dealer that sold the table.

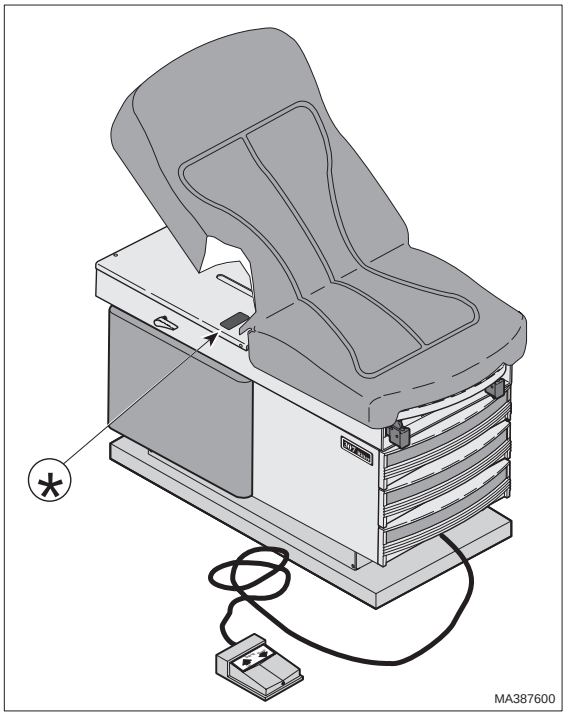

Figure 1-3. Model Number / Serial Number Location

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(3) Determine the installation date of the table and record this data.

(4) Call Midmark with the recorded information and ask for the Medical Products Technical Services Department. See back cover of this manual for the phone number or use the Fax Order Form (See page 7-2 for Fax Order Form).

1.7 Special Tools

Table 1-3 lists all of the special tools needed to repair the table, how to obtain the special tools, and the purpose of each special tool.

Table 1-3. Special Tool List

Description of Special Tool	Manufacturer's Name / Address / Phone	Manufacturer's Part Number	Purpose of Special Tool
Multimeter	Commercially Available	Any Type	Used to perform continuity and voltage checks.
Pop Rivet Gun	Commercially Available	For installation of 1/8 in. pop rivets.	For installation of drawer slides and mullions.
Torque Wrench	Commercially Available	Any Type	Used to tighten nuts or screws to specified values.

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SECTION II
TESTING AND TROUBLESHOOTING

2.1 Operational Test (See Figure 2-1)

In order to effectively diagnose the malfunction of the table, it may be necessary to perform an operational test as follows:

WARNING
Refer to the Operator Manual for complete instructions on operating the table. Failure to do so could result in personal injury.

NOTE
The Operational Test, for the most part, only describes what should happen when the table is operated. If the table does something other than described, a problem has been discovered. Refer to the Troubleshooting Guide to determine the cause of the problem and its correction.

(1) Plug the table into a grounded, non-isolated, correctly polarized outlet, that has the proper voltage output for the table.

(2) Using a multimeter, check for proper voltage at the table's duplex receptacle.

Observe. There should be 110 to 120 VAC present at a 115 VAC unit receptacle.

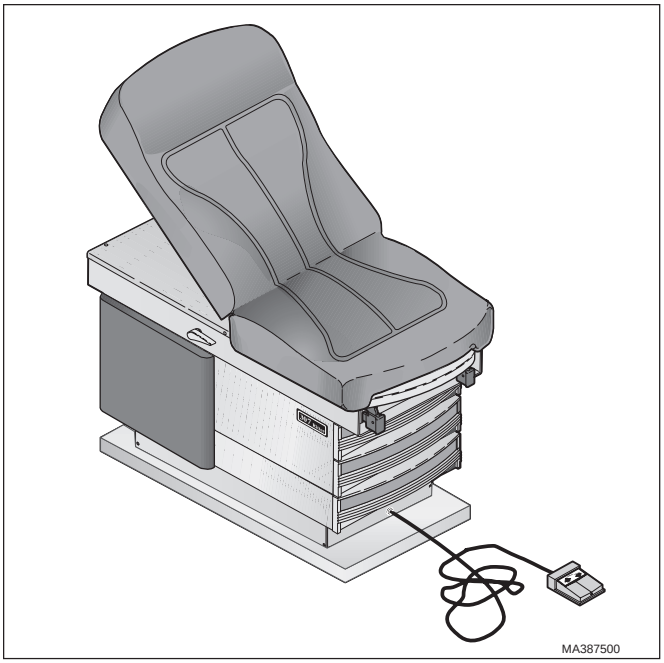
(3) If the unit has the optional heater, turn the HEATER ON / OFF switch to ON.

Observe. The HEATER ON / OFF switch should illuminate and after a short wait, the heater plate should warm the warming drawer.

Turn the HEATER ON / OFF switch to OFF.

(4) Operate the TABLE "UP" footswitch.

Observe. The table section should elevate smoothly without jerky motions from a low of 27 inches (68.6 cm) minimum to a maximum of 37 1/2 inches (95.2 cm) ± 1/2 inch (1.3 cm).



(5) Operate the TABLE "DOWN" footswitch.

Observe. The table should descend smoothly and without jerky motions.

(6) Place approximately 200 lbs. (90.7 kg.) on the table and elevate the table to maximum height.

Observe. The table should hold firmly in place without drifting down.

(7) On units with the optional pelvic tilt, lift up on the seat section slightly.

Observe. The pelvic lift bar should automatically raise up into its locked position, supporting the seat section in the pelvic lift position (+5° above horizontal).

To lower the seat section to standard position, raise up slightly on seat section; then grasp pelvic lift handle and rotate the pelvic lift bar downward while lowering seat section.

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(8) Extend the stirrups; then lift up on end of stirrups and move them laterally from the left to the right. Let the stirrups lock into each of the four positions. While applying downward pressure, attempt to move a stirrup laterally to the left or right.

Observe. The stirrups should be able to be extended and moved laterally easily when raised. The stirrups should lock into each of the four positions and should not be able to be moved laterally as long as downward pressure is applied on the stirrup.

(9) Check operation of each drawer.

Observe. The drawers should slide easily. All drawer rollers should move freely in the drawer tracks.

(10) Pull footrest assembly out all the way.

Observe. The footrest assembly should extend easily. The footrest assembly should hit stops at the end of its travel, preventing accidental removal.

(11) Lift up on the head board assembly stopping at several positions.

Observe. The head board assembly should raise smoothly. The back support rod and lock assembly should hold the head board firmly at all positions without slipping. The head board should be able to be raised to 65°.

NOTE
The head board should hold firmly with a 200 lb. (90.7 kg) load applied to the head end of the table.

(12) Apply pressure to the head board to check for drifting. Then press down on one of the back lock handles while pressing down on the head board assembly and lower the head board all the way down.

Observe. The back lock assembly should not drift when pressure is applied to head board assembly. The back lock rod assembly should retract smoothly without binding. The head board assembly should be able to be lowered to a horizontal position.

2.2 Troubleshooting Procedures

Table 2-1 is a Troubleshooting Guide which is used to determine the cause of the malfunction. Table 2-1 is located on the following pages.

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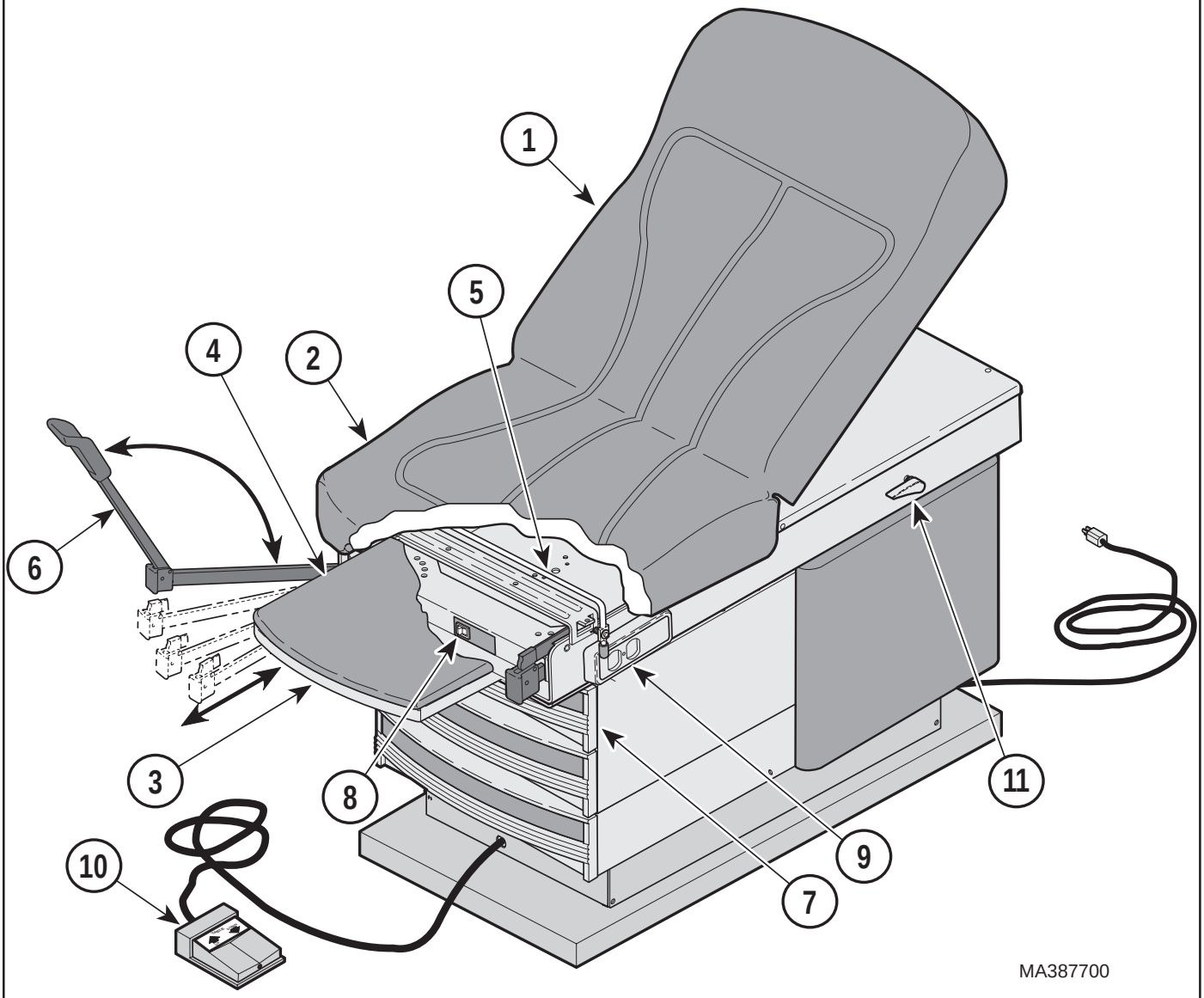

Legend

1. Back Section.
2. Seat Section.
3. Footrest Shelf.
4. Footrest Pad.
5. Pelvic Lift Assembly.
6. Stirrups.
7. Warming Drawer.
8. Heater ON / OFF Switch.
9. Duplex Receptacle.
10. Table UP / DOWN Footswitch
11. Back Lock Handle

Figure 2-1. Operational Test

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SECTION II
TESTING AND TROUBLESHOOTING

Table 2-1. Troubleshooting Guide

Problem	Symptom	Probable Cause	Check	Correction
Drawer warmer is not working. Power is present at the supply outlet.	Heater plate assembly does not warm up when heater ON / OFF switch is turned ON.	Heater ON / OFF switch is malfunctioning.	When heater ON / OFF switch is turned to ON, heater switch should illuminate (this indicates that there is power present at output terminals of switch).	If heater ON / OFF switch does not illuminate when turned ON, replace heater switch. Refer to para 4.4.
		Heater plate assembly is malfunctioning	Replace suspect heater plate assembly with known working heater plate assembly or check for continuity thru heater plate assembly wires.	Replace heater plate assembly. Refer to para 4.5.
		Wire connections are loose.	Check all wiring connections from power heater ON / OFF switch to heater plate assembly. Perform continuity check on wires. Use multimeter to check for proper voltage levels.	Clean any dirty connections. Tighten any loose connections. Replace any damaged connections. Refer to para 5.1.
Duplex receptacle is not working.	Table power cord is plugged into wall outlet and power is present, but there is still no power at duplex receptacle.	Duplex receptacle is malfunctioning.	Replace suspect duplex receptacle with known working duplex receptacle.	Replace duplex receptacle. Refer to para 4.6.
		Wire connections are loose.	Check all wiring connections from power cord to duplex receptacle. Perform continuity check on wires. Use multimeter to check for proper voltage levels.	Clean any dirty connections. Tighten any loose connections. Replace any damaged connections. Refer to para 5.1.
Duplex receptacle or optional drawer warmer not working.	No power is available at duplex receptacle and heater ON / OFF switch does not illuminate when pressed.	Power cord is not plugged into facility wall outlet.	Check to see if power cord is plugged in.	Plug power cord into facility wall outlet.
		Facility circuit breaker providing power to table is tripped / blown.	Check to see if facility circuit breaker is tripped / blown. One way of checking this is to plug a lamp into wall outlet that table was plugged into.	If circuit breaker is tripped, determine what caused circuit breaker to trip, correct the problem, and then reset / replace circuit breaker.
		Wire connections are loose.	Check all wiring connections from power cord to duplex receptacle and heater ON / OFF switch. Perform continuity check on wires. Use multimeter to check for proper voltage levels.	Clean any dirty connections. Tighten any loose connections. Replace any damaged connections. Refer to para 5.1.

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Table 2-1. Troubleshooting Guide

Problem	Symptom	Probable Cause	Check	Correction
Head Board Assembly does not operate correctly.	Head Board will not stay in position, drifts down.	Springs on back lock assembly have broken or come loose.	Check condition of the back lock springs.	Replace the springs on the back lock assembly. Refer to para 4.18.
		The hole in the back lock assembly for the back support rod has worn or elongated.	Check the condition of the back lock assembly for excessive wear.	Replace the back lock assembly. Refer to para 4.18.
		The back support rod has worn excessively and will not hold in the back lock assembly.	Check for excessive wear on the back support rod.	Replace the back support rod. Refer to para 4.18.
	Head Board will not descend when back lock handle(s) are depressed.	Back lock springs are disconnected or broken.	Inspect the back lock springs.	Connect and / or replace the back lock springs. Refer to para 4.18.
		Back support rod out of alignment causing the rod to bind in the back lock assembly.	Check the alignment of the back support rod and insure the screws are tight on the back support plate or bracket.	Re-align the back support rod plate or bracket and tighten the mounting screws. Refer to para 4.18.
		Set screws that secure the back lock assembly to the back lock rod are loose or missing.	Check the set screws to insure they are in place and tightened to the back lock rod.	Install and / or tighten the set screws in the back lock assembly. Refer to para 4.18.
		Set screw(s) are loose in the back lock handle(s) prevent handles from rotating back lock rod and back lock assembly.	Check the set screws to insure they are in place and tightened to the back lock rod.	Install and / or tighten the set screws in the back lock handles. Refer to para 4.18.
	Head Board descends rapidly when back lock handles are depressed.	Lift spring(s) are broken or disconnected from the lift lever or the eye bolt(s).	Check the condition of the lift spring(s).	Reconnect or replace the lift springs. Refer to para 4.19.
		Lift spring(s) tension out of adjustment.	Check the position of the wing nuts to insure they are on the eye bolts sufficiently.	Adjust the spring tension on the lift springs. Refer to para 4.19.
		Lift support rod for the lift lever is disconnected.	Check the condition of the lift support rod to insure it is in place.	Repair or replace the lift support rod. Refer to para 4.18.
Drawer(s) do not function correctly.	Drawer(s) difficult to slide in and out of the table.	Drawer(s) not located properly in the cabinet slides.	Check to insure the drawer slide is located properly in the cabinet slide.	Insert the drawer slide properly in the cabinet slide.
		Drawer and / or cabinet slide is damaged.	Check the condition of the slides on the drawer(s) and cabinet.	Replace the cabinet slide(s) and / or drawer assemblies.
		Ball bearings in cabinet slides dry of lubricant or contaminated with foreign debris.	Check the ball bearings and cabinet slides.	Clean, lubricate or replace the cabinet slide(s).

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SECTION II
TESTING AND TROUBLESHOOTING

Table 2-1. Troubleshooting Guide

Problem	Symptom	Probable Cause	Check	Correction
Pelvic tilt does not function correctly.	Pelvic tilt lift bar does not spring to "Up" position when the seat section is lifted.	Pivot points on pelvic lift bar dry of lubricant and / or dirty.	Check the condition of the pivot points on the pelvic lift bar.	Clean and lubricate the pivot points on the pelvic lift bar.
		Springs on the pelvic tilt bar are broken.	Check the condition of the springs on the pelvic tilt bar.	Replace the springs on the pelvic tilt bar.
		Push nuts that retain pelvic lift bar on tabs of upper weldment rubbing on bar.	Check the position of the push nuts in relation to the pelvic lift bar.	Repair or replace the push nuts.
Footrest assembly does not function correctly.	Footrest does not extend or retract smoothly.	The nylo tape in the footrest cabinet guides is missing or dry of lubricant.	Check the condition of the nylo tape.	Lubricate and / or replace the nylo tape in the cabinet guides. Refer to para 4.3.
		The footrest weldment is bent or damaged.	Inspect the footrest weldment to insure it is straight.	Replace the footrest weldment. Refer to para 4.3.
	Footrest pulls all the way out when fully extended.	The "stop" tabs at the back of the footrest weldment are not bent down correctly.	Inspect the footrest weldment to insure the tabs are bent down and that the rubber bumpers are in place on the footrest cabinet guides.	Repair or replace the footrest. Refer to para 4.3.
Stirrups do not work correctly.	Stirrups do not lock into one of four lateral positions.	Stirrups dirty and lacking lubricant.	Inspect the stirrup assemblies for dirt and lack of lubricant.	Clean and lubricate the stirrup assemblies.
		Stirrup locking mechanism is worn or malfunctioning.	Replace suspect stirrup components with known working stirrup components.	Replace stirrup components. Refer to para 4.7.
Table does not actuate into any up or down positions when foot switches are depressed.	Motor / Pump does not run. Cylinder solenoids do not actuate (no audible click).	Table is not plugged into a wall outlet.	Check to insure table is plugged into a wall outlet.	Plug table into a wall outlet.
		Wall outlet is not powered	Check circuit breaker and / or fuse for suspected wall outlet.	Replace fuse or reset circuit breaker if necessary.
		Table power cord has broken wires or loose connections at terminal board (TB1) terminals 6 or 8.	Check for loose connections at the table terminal board, terminals 6 and 8, and check the continuity of the wires in the power cord.	Replace the power cord or repair the loose connection at the terminal board. Refer to para 4.17 and 5.1.
		Black wire in cord between footswitch (SW2, Common (C) terminal and terminal board (TB1, terminal 5) broken or disconnected.	Check for loose connections on terminal 5 of terminal board (TB1) and (C) terminal of microswitch SW2 on footswitch. Check continuity on wires of footswitch cord.	Replace footswitch cord or connect black wire to terminal 5 of terminal board (TB1) or to terminal (C) of microswitch SW2. Refer to para 4.15 and 5.1.
		Microswitches (SW1 and SW2) in footswitch malfunctioning.	Check continuity of SW1 and SW2 microswitches normally closed (N.C.) and normally open (N.O.) contacts in the operated and unoperated positions.	Replace malfunctioning microswitches. Refer to para 4.16.

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Table 2-1. Troubleshooting Guide

Problem	Symptom	Probable Cause	Check	Correction
Table does not actuate into any up or down positions when foot switches are depressed. (continued)	Motor / Pump does not run. Cylinder solenoids do not actuate (no audible click). (continued)	Red and white wires in cord between footswitch and terminal board (TB1) are broken.	Check continuity of red and white wires.	Replace the cord between the footswitch and terminal board. Refer to para 4.15.
	Motor / pump does not run One or both of the hydraulic cylinder solenoid valves actuates (audible click).	Internal thermal overload (O / L) in motor / pump is open.	Check for continuity between red or blue wire on motor and the yellow wire on the motor.	Allow motor to cool down and recheck continuity. If continuity is present thermal overload has closed. Motor should run. Refer to para 5.1.
		Capacitor(s) (C1 and / or C2) have an open or the wire connections are loose or missing.	Check for missing or loose wire connections on the capacitors. Visually inspect the capacitor(s) for damage.	Reconnect and / or tighten the wire connections on the capacitors. Replace the capacitors with known good capacitors. Refer to para 4.12.
		Motor / pump has open winding(s).	Check the continuity of the motor windings between the yellow and red motor leads and the yellow and blue motor leads. A certain resistance reading should be visible on the meter.	Replace the motor / pump. Refer to para 4.10.
Table does not actuate into any up or down positions when foot- switches are depressed (continued)	Motor / pump does not run, one or both of the hydraulic cylinder solenoid valves actuates (audible click).	Blue wire from Motor / pump broken or disconnected from capacitor (C1)	Check continuity of the blue wire coming out of the motor / pump and check the connection at the capacitor (C1).	Repair the blue wire or replace the motor / pump. Refer to para 4.10 and 5.1.
		Blue wire connecting the two capacitors (C1, C2) is broken or disconnected.	Check connections of the blue wire at the capacitors (C1, C2) and check the continuity of the wire.	Repair or replace the blue wire between the two capacitors (C1 & C2). Refer to para 5.1.
	Motor / pump has an audible hum but will not run. Cylinder solenoid valves actuate (audible click).	Motor / pump is locked up mechanically or has a defective motor winding.	Allow motor to cool and try activating the motor / pump again.	Replace the motor / pump. Refer to para 4.10.
	Motor / pump runs but is excessively noisy. Cylinder solenoid valves actuate (audible click).	System is low on hydraulic fluid.	Check hydraulic fluid level.	Add hydraulic fluid to the system. Refer to para 4.9.
		Suction valves in motor / pump clogged with debris not allowing fluid to flow thru the system.	Check for fluid flow in lines at hydraulic solenoid valves.	Remove reservoir and clean any debris from ports of suction valves. Refer to para 4.11.
		Pump Impeller broken loose from motor shaft.	Remove reservoir and inspect pump impeller.	Repair or replace motor / pump. Refer to para 4.10
Table UP does not function when the footswitch is depressed. Table DOWN functions but on only one cylinder.	Motor / pump does not run on UP actuation only. only one hydraulic cylinder operates on Table DOWN function.	Blue wire from the Terminal Board (TB1), terminal 3, to capacitor (C2) is broken or disconnected.	Check the connections and continuity of the Blue wire between Terminal Board (TB1), terminal 3, and capacitor (C2).	Repair or replace the broken wire. Refer to para 5.1.
Table DOWN does not function when the footswitch is depressed. Table UP functions but on only one cylinder.	Motor / pump does not run on DOWN actuation only. One of the cylinder solenoids actuates (audible click).	Red wire from the Terminal Board (TB1), terminal 2, to capacitor (C1) is broken or disconnected.	Check the connections and continuity of the Red wire between Terminal Board (TB1), terminal 2, and capacitor (C1).	Repair or replace the broken wire. Refer to para 5.1.

SECTION II
TESTING AND TROUBLESHOOTING

Table 2-1. Troubleshooting Guide

Problem	Symptom	Probable Cause	Check	Correction
Table raises and lowers unevenly.	Motor / pump runs and an audible click can be heard when the cylinder(s) activate.	Electrical leads from one of the hydraulic cylinder solenoid valves is broken or disconnected from the terminal board (TB1). Solenoid valve has an open winding.	Check the connections and the continuity of the white and black leads of each cylinder. A resistance reading across the cylinder solenoid should be around 30 to 32 ohms.	Assure the connections on the terminal board are tight. If possible repair the broken electrical lead or replace the cylinder assembly. Refer to para 4.14 and 5.1.
		Scissor frame assembly has a broken brace.	Remove the shrouds and check the scissor frame for breakage.	Contact the factory for repair. Do not attempt to repair a broken scissor frame in the field.
Motor shuts off intermittently	After a short period of operation, the motor / pump shuts off. The cylinder solenoid valves, receptacle and drawer heater continue to operate normally.	One of two motor / pump capacitors (C1 and / or C2) is shorted internally.	With the table unplugged and the leads off the capacitor, check the resistance (ohms) across the terminals of the capacitor. Normally the capacitor will initially show some resistance value. If no, zero (0), ohms is indicated, change the capacitor.	Replace the malfunctioning capacitor with a known good capacitor. Refer to para 4.12.
Table drifts down.	Table raises and lowers normally but will not hold position.	Dirt particles in cylinder valves or faulty valves.	Operate cylinders by extending and retracting the cylinders about ten (10) times to attempt to flush any dirt particles from valve seat.	If flushing of cylinders did not work and cylinders keep drifting, replace the cylinders. Refer to para 4.14.
		Cylinders, hydraulic hoses or connections leaking hydraulic fluid.	Check for hydraulic leaks in system.	Repair or replace any components that are leaking. Recheck hydraulic fluid level in reservoir. Refer to para 4.9.
Table is noisy during operation.	As table raises or lowers a scrapping or squealing noise is heard.	Lower shrouds mis-aligned.	Observe the lower shrouds as the table raises and lowers.	Re-align the lower shrouds if they interfere with each other.
		Dry bearing surfaces on the scissors frame of the table.	Check for lubrication on the bearing surfaces of the scissor frame.	Lubricate the bearing surfaces with a light grade machine oil.

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SECTION III
SCHEDULED MAINTENANCE

3.1 Scheduled Maintenance

Table 3-1 is a Scheduled Maintenance Chart which lists the inspections and services that should be performed periodically on the table. These inspections and services should be performed as often as indicated in the chart.

Table 3-1. Scheduled Maintenance Chart

Interval	Inspection or Service	What to Do
Semi-annually	Obvious damage	Visually check condition of table for obvious damage such as: cracks in components, missing components, dents in components, or any other visible damage which would cause table to be unsafe to operate or would compromise its performance. Repair table as necessary.
	Fasteners / hardware	Check table for missing or loose fasteners / hardware. Replace any missing hardware and tighten any loose hardware as necessary.
	Hydraulic components, hoses and fittings	Check hydraulic base and back cylinders, hydraulic hoses and fittings for wear and leakage. Replace and leaking parts. Check hydraulic fluid level in the reservoir and add fluid if necessary. Refer to para 4.9.
	Warning and instructional decals	Check for missing or illegible decals. Replace decals as necessary.
	Pivot points / moving parts / accessories	Lubricate all exposed pivot points, moving parts, and accessories with silicone based lubricant.
	Footrest extension	Check that footrest extension can be easily extended and is not damaged. Refer to para 4.3.
	Stirrup assemblies	Check that stirrup assemblies lock into the four different positions. Check for wear. Replace worn components as necessary. Refer to para 4.7.
	Electrical components, wires and connections	Check all electrical components for loose connections and worn or broken wires.
	Electrical receptacle	Check that the electrical receptacle is functioning properly. Replace receptacle as necessary. Refer to para 4.6.
	Drawer Heater (Optional)	Where applicable, check to insure the drawer heater is heating sufficiently to warm the top drawer and that the heater ON / OFF switch indicator light illuminates when the switch is in the ON position. If necessary, replace the heater switch or heater plate. Refer to para 4.4 or 4.5.
	Pelvic Tilt (Optional)	Check that the spring loaded pelvic tilt is operating properly. Replace springs if necessary.
	Upholstery	Check all upholstery for rips, tears, or excessive wear. Replace cushions as necessary.
	Accessories	Check that all accessories have all of their components and that they function properly. If necessary, repair or replace the accessory.
	Operational Test	Perform an Operational Test to determine if the table is operating within its specifications (Refer to para 2.1). Replace or adjust any malfunctioning components.

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SECTION IV
MAINTENANCE / SERVICE INSTRUCTIONS

4.1 Introduction

WARNING
Refer to the Operator Manual for complete instructions on operating the table. Failure to do so could result in personal injury.

NOTE
Perform an operational test on the table after the repair is completed to confirm the repair was properly made and that *all* malfunctions were repaired.

WARNING
Do not use this table in an explosive or oxygen-rich atmosphere. To do so could result in an explosion or fire.

The following paragraphs contain removal, installation, repair, and adjustment procedures for the table.

4.2 Upholstery Removal / Installation

4.2.1 Vacu Form Upholstery

A. Removal

(1) Place the table top in a horizontal position.

(2) For tables without Pelvic Tilt, remove the two screws (1, Figure 4-1) that secure the seat section (A) to the upper wrap cross member (B).

(3) Remove the two screws (2) that secure the upholstered seat section (A) to the top hinge (3).

(4) Elevate the head section (C) and remove the four screws (4) that secure the upholstered head section (C) to the back plate assembly (5).

CAUTION
Use care when removing the upholstered top assembly as it weighs approximately 35 lbs. (14.5 kg). Failure to use proper lifting techniques or assistance could result in personal injury.

(5) Remove the upholstery assembly (6).

(6) Extend the footrest and remove the upholstered footrest pad (7).

B. Installation

CAUTION
Use care when installing the upholstered top assembly as it weighs approximately 35 lbs. (14.5 kg). Failure to use proper lifting techniques or assistance could result in personal injury.

(1) Lay the new upholstery assembly (6, Figure 4-1) in position on the back plate assembly (5) and upper wrap assembly (8).

(2) Secure the head upholstered section (C) to the back plate assembly (5) with the four screws (4).

(3) Secure the seat upholstered section (A) to the top hinge (3) with two screws (2).

(4) For tables without Pelvic Tilt, install the two screws (1) that secure the seat section (A) to the upper wrap cross member (B).

(5) Install the upholstered footrest pad (7).

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SECTION IV
MAINTENANCE / SERVICE

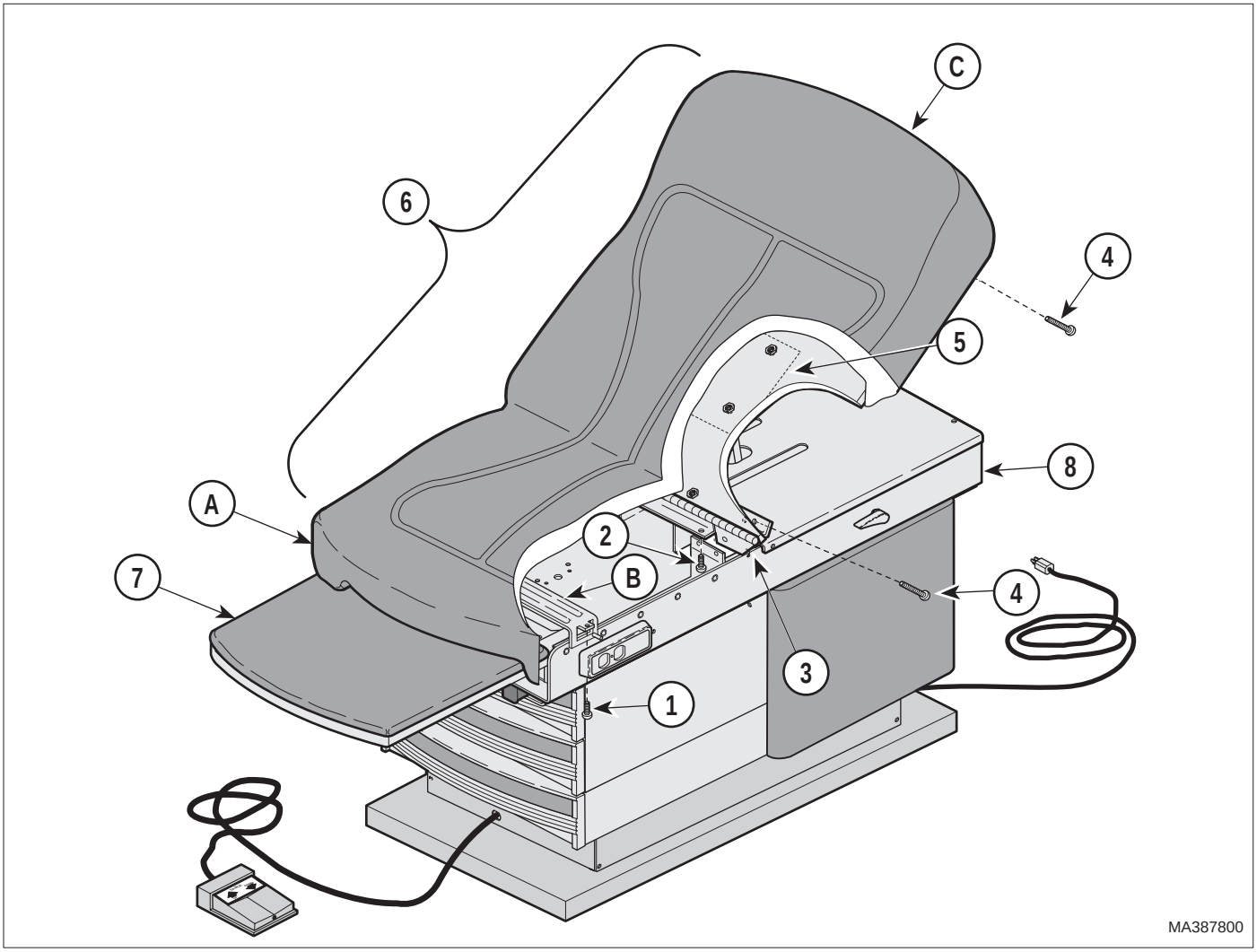

Figure 4-1. Upholstery Removal / Installation

4.2.2 Cut-n-Sewn Upholstery

A. Removal

WARNING

Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug the table power cord from the wall outlet.

(2) Open the doors (1, Figure 4-2) and remove the four screws (2) that hold the rod upper cover (3) in place and remove the cover.

(3) Remove the cotter pin (4) from the back support rod (5).

NOTE

To prevent the back lock assembly (6) from snapping back against the upper wrap weldment (7) when the back support rod assembly (5) is removed, slightly depress one of the back lock handles (8) while removing the back support rod (5). When the back support rod (5) is clear of the back lock assembly (6) slowly release the handle (8).

(4) Elevate the head board assembly (9) until the back support rod assembly (5) is clear of the upper wrap cover assembly (10).

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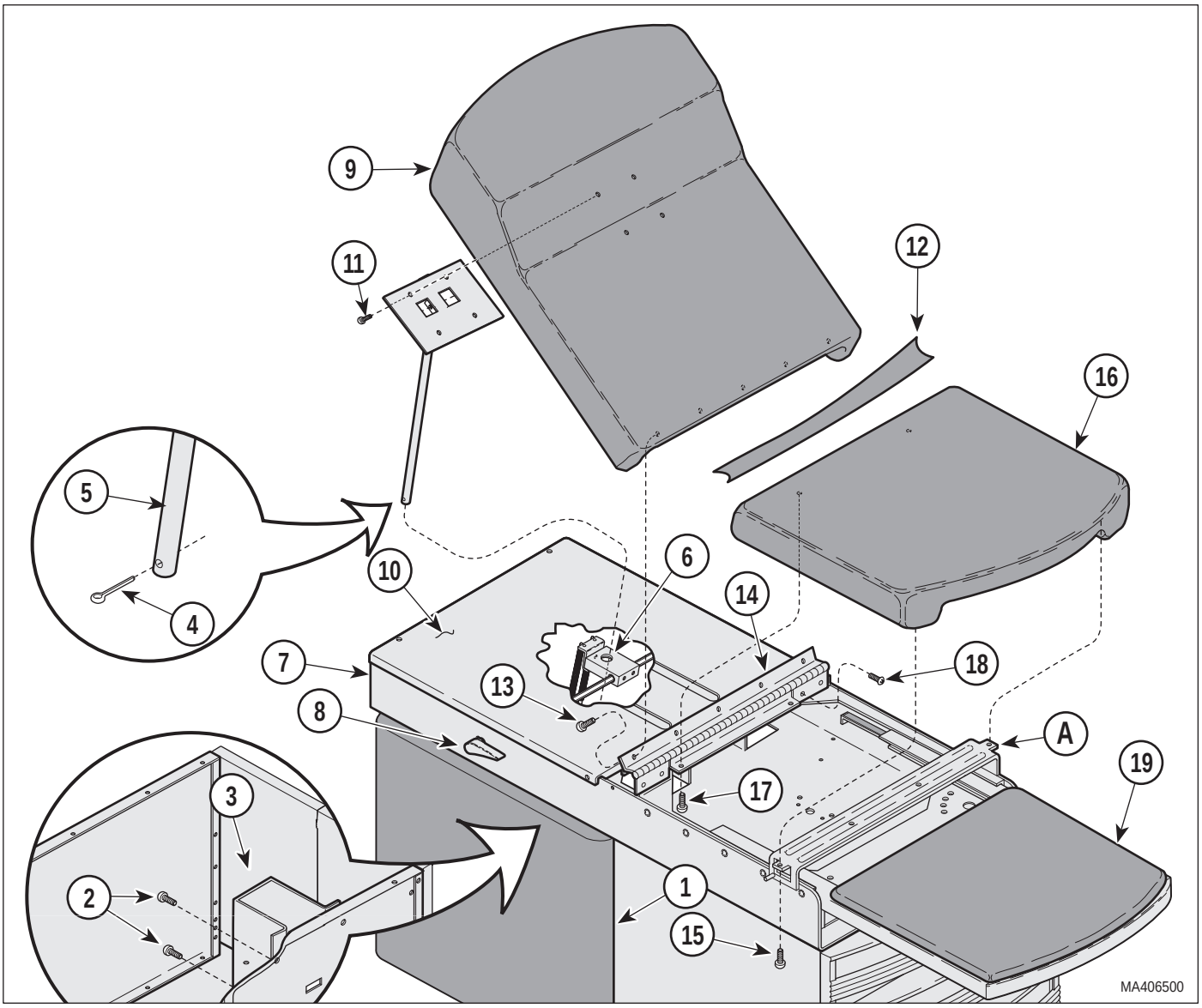

Figure 4-2. Upholstery Removal / Installation

(5) Remove the four screws (11) that secure the back support rod assembly (5) to the head board (9) and remove the back support rod assembly (5). Retain the parts for later installation.

NOTE
On some tables the hinge cover (12) may be stapled along the edges. If this is the case, the staples will also have to be removed before removing the hinge cover.

(6) While supporting the head board assembly (9), remove the five screws (13) and the head board assembly (9) from the top hinge (14).

(7) For tables without Pelvic Tilt, remove the two screws (15) that secure the seat section (16) to the upper wrap cross member (A).

(8) Lift up the seat section (16) and remove the two screws (17) that secure the seat section (2) to the top hinge assembly (14) and remove the seat section (16) and the hinge cover (12).

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(9) If replacing the entire top upholstery, remove the four screws (18) and top hinge (14) from the upper wrap weldment (7).

(10) Extend the footrest and remove the upholstered footrest pad (19).

B. Installation

NOTE
For ease of installation it works best to remove the hinge assembly (14, Figure 4-2), lay the head (9) and seat (16) sections in position on a flat surface with the lower or back sides facing upward, and install the hinge cover (12) and top hinge (14). Once this has been completed install the entire upholstered assembly onto the table.

(1) Lay the new head board (9, Figure 4-2) and seat section (16) in position on a flat surface with the face (upholstery side) down.

NOTE
The pre-drilled holes on the back of the head (9) and seat section (16) for the top hinge (14) may be hidden by the excess vinyl of the head and seat sections. Cut small incisions over each hole, in the excess vinyl, for insertion of the hinge screws.

(2) Place the hinge cover (12) and the top hinge (14) in position over the pre-drilled holes on the backs of the head board (9) and seat section (16) and secure with the screws (12 and 14).

CAUTION
Use care when installing the upholstered top assembly as it weighs approximately 60 lbs. (27.2 kg). Failure to use proper lifting techniques or assistance could result in personal injury.

(3) Place the upholstered top assembly in position on the upper wrap assembly (7) and secure the top hinge (14) with four screws (18).

(4) For tables without Pelvic Tilt, install the two screws (15) that secure the seat section (16) to the upper wrap cross member (A).

NOTE
Do not tighten the four screws (11) that secure the back support rod assembly (5) to the head board assembly (9) at this time. This will allow the back support rod assembly (5) to self-align itself and prevent binding when the back support rod (5) is inserted thru the back lock assembly (6) and the head board (9) is raised and lowered.

(5) Place the back support rod assembly (5) on the back of the head board assembly (9) at the location of the pre-drilled holes for the bracket screws (11) and loosely install the screws but do not tighten them yet.

(6) Insert the back support rod (5) into the back lock assembly (6).

(7) Raise and lower the head board assembly (9) several times until the back support rod (5) is aligned in the back lock assembly (6) and then tighten the four screws (11) on the back support rod assembly (5).

(8) Insert the cotter pin (4) into the end of the back support rod (5) and bend over the ends of the cotter pin (4).

(9) Lightly lubricate the back support rod (5) with petroleum jelly and install the rod upper cover (3) and secure with the four screws (2).

(10) Install the footrest pad (19) and push the footrest back into the stowed position.

(11) Plug the table power cord into wall outlet.

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4.2.3 Soft Touch Upholstery

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug the table power cord from the wall outlet.

(2) For tables without Pelvic Tilt, remove the two screws (1, Figure 4-3) that secure the seat section (A) to the upper wrap cross member (B).

(3) Open the doors (2) and remove the four screws (3) that hold the rod upper cover (4) in place and remove the cover.

(4) Remove the cotter pin (5) from the back support rod (C).

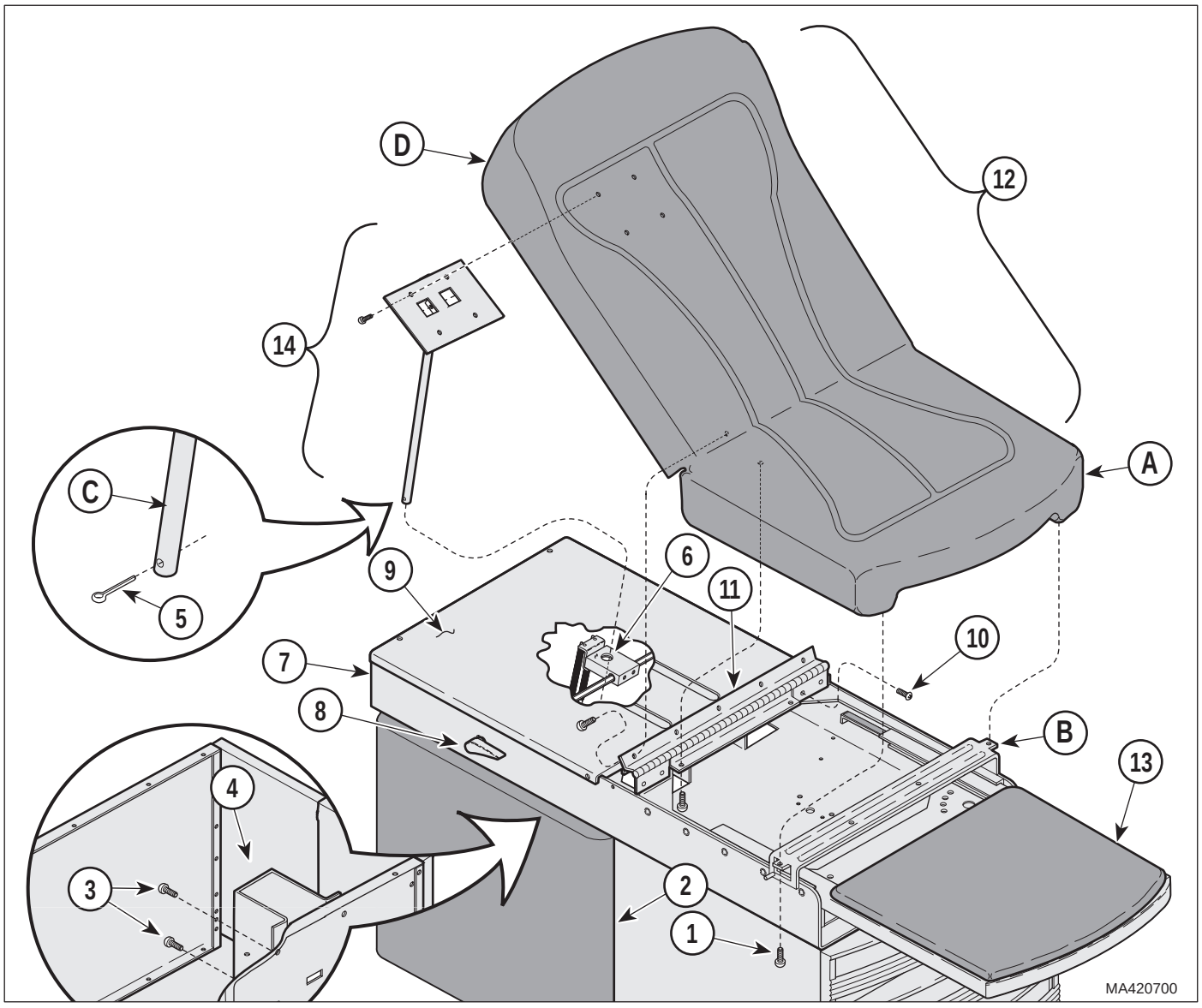

Figure 4-3. Upholstery Removal / Installation

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NOTE
To prevent the back lock assembly (6) from snapping back against the upper wrap weldment (7) when the back support rod (C) is removed, slightly depress one of the back lock handles (8) while removing the back support rod (C). When the back support rod (C) is clear of the back lock assembly (6) slowly release the handle (8).

(5) Elevate the back section (D) until the back support rod (C) is clear of the upper wrap cover assembly (9).

(6) Swing the back section (D) over until it rest against the seat section (A).

(7) Remove the four screws (10) that secure the top hinge (11) to the upper wrap weldment (7).

CAUTION
Use care when removing the upholstered top assembly as it weighs approximately 35 lbs. (14.5 kg). Failure to use proper lifting techniques or assistance could result in personal injury.

(8) Remove the upholstery assembly (12).

(9) Extend the footrest and remove the upholstered footrest pad (13).

(10) Remove the top hinge (11) from the upholstery assembly (12).

(11) Remove the back support rod assembly (14) from the upholstery assembly (12).

B. Installation

(1) Install the top hinge (11, Figure 4-3) on the new upholstery assembly.

NOTE
Do not tighten the four screws (11) that secure the back support rod assembly (5) to the head board assembly (9) at this time. This will allow the back support rod assembly (5) to self-align itself and prevent binding when the back support rod (5) is inserted thru the back lock assembly (6) and the head board (9) is raised and lowered.

(2) Place the back support rod assembly (5) on the back of the head board assembly (9) at the location of the pre-drilled holes for the bracket screws (11) and loosely install the screws but do not tighten them yet.

CAUTION
Use care when installing the upholstered top assembly as it weighs approximately 35 lbs. (14.5 kg). Failure to use proper lifting techniques or assistance could result in personal injury.

(3) Place the new upholstery assembly (fig) in position on the upper wrap assembly (fig).

(4) Insert the back support rod (5) into the back lock assembly (6).

(5) Raise and lower the head board assembly (9) several times until the back support rod (5) is aligned in the back lock assembly (6) and then tighten the four screws (11) on the back support rod assembly (5).

(6) Insert the cotter pin (4) into the end of the back support rod (5) and bend over the ends of the cotter pin (4).

(7) Lightly lubricate the back support rod (5) with petroleum jelly and install the rod upper cover (3) and secure with the four screws (2).

(8) Install the footrest pad (19) and push the footrest back into the stowed position.

(9) Plug the table power cord into wall outlet.

4.3 Footrest Extension Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug the table power cord from the wall outlet.

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(2) Pull out on the footrest assembly (1, Figure 4-4) until it is fully extended.

(3) Remove the upholstered footrest pad (2) and treatment pan (3).

NOTE
For tables without Pelvic Tilt, remove the two screws (4) that secure the seat section (5) to the upper wrap cross member (A).

(4) Raise the seat section (5) and, using a pliers or equivalent, bend up the two metal tabs (6) on the back of the footrest weldment (1) until they are horizontal.

(5) Pull the footrest weldment (1) out of the upper wrap weldment (7).

B. Installation

NOTE
Before installing the footrest weldment inspect the footrest runners (B, Figure 4-4) to insure the nylo tape glides (8) are in place at the side and top of each runner. Also, inspect the rubber bumpers (9), located at the back of the footrest runners to insure they are intact.

(1) Inspect the nylo tape glides (8, Figure 4-4) and rubber bumpers (9) and replace if worn. Place a light coating of petroleum jelly on the glide.

(2) Insert the footrest weldment (1) into the runners (B) of the upper wrap weldment (7) and bend the two tabs (6) downward until vertical.

(3) Install the treatment pan (3) and upholstered footrest pad (2).

(4) Plug the table power cord into wall outlet.

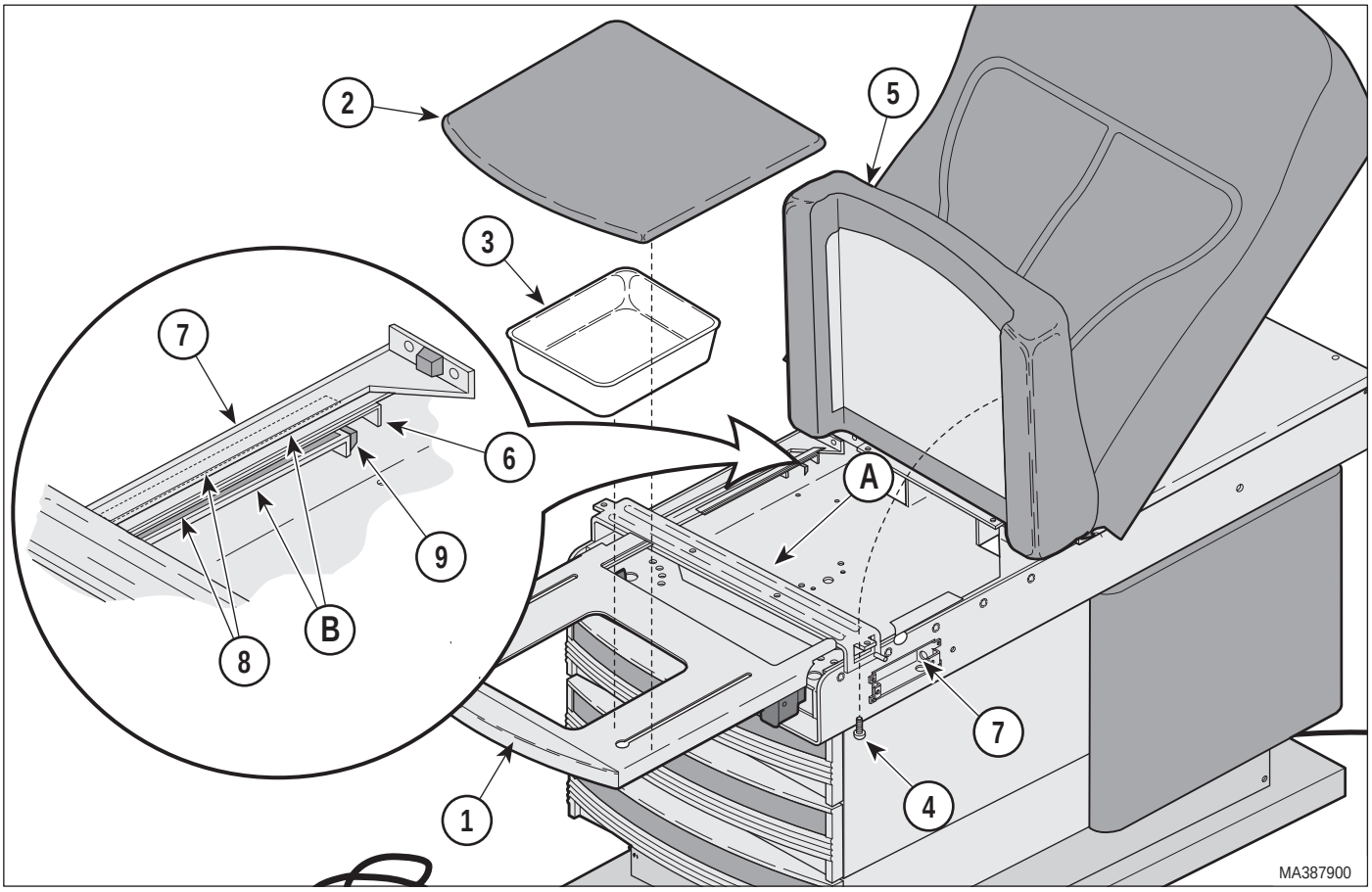

Figure 4-4. Footrest Extension Removal / Installation

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SECTION IV
MAINTENANCE / SERVICE

4.4 Heater ON / OFF Switch Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug table power cord from wall outlet.

(2) Using a standard screwdriver, carefully pry heater switch (1, Figure 4-5) out of upper wrap weldment (2), making sure not to scratch table.

(3) Tag the wires for later assembly and disconnect four wires (3) from heater switch (1).

B. Installation

(1) Connect four wires (3, Figure 4-5) to heater switch (1) (Refer to the para 5.1).

NOTE
Insure that the switch ON (**I**) and OFF (**O**) symbols are matched with the proper ON or OFF designation on the decal when installing the switch.

(2) Push heater switch (1) into upper wrap weldment (2) until heater switch "pops" into place.

(3) Plug table power cord into wall outlet.

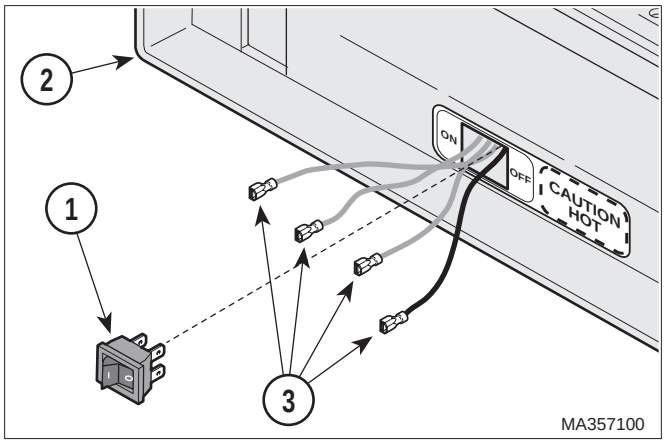

Figure 4-5. Heater ON / OFF Switch Removal / Installation

4.5 Heater Plate Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug table power cord from wall outlet.

(2) Remove two drawers from foot end of table.

(3) Remove the heater ON / OFF switch (Refer to para 4.4).

(4) Pull the footrest section (1, Figure 4-6) out as far as it will go.

NOTE
For tables without Pelvic Tilt, remove the two screws (2) that secure the seat section (3) to the upper wrap cross member (A).

(5) Raise up the seat section (3).

(6) Remove the four screws (4) and stirrup guide (5) from the upper wrap weldment (6).

(7) Remove any wrap-n-tap wire clamps (7) securing the heater plate wiring (8) to the upper wrap weldment (6).

(8) Remove the two screws (9), heater plate (10), and heat shield (11) from bottom side of the upper wrap weldment (6).

B. Installation

(1) Route the heater plate wires (8, Figure 4-6) thru the wire hole (B) in the upper wrap weldment (6).

CAUTION
Insure the heater plate wires are not pinched by the heater plate during installation. Failure to do so could cause personal injury.

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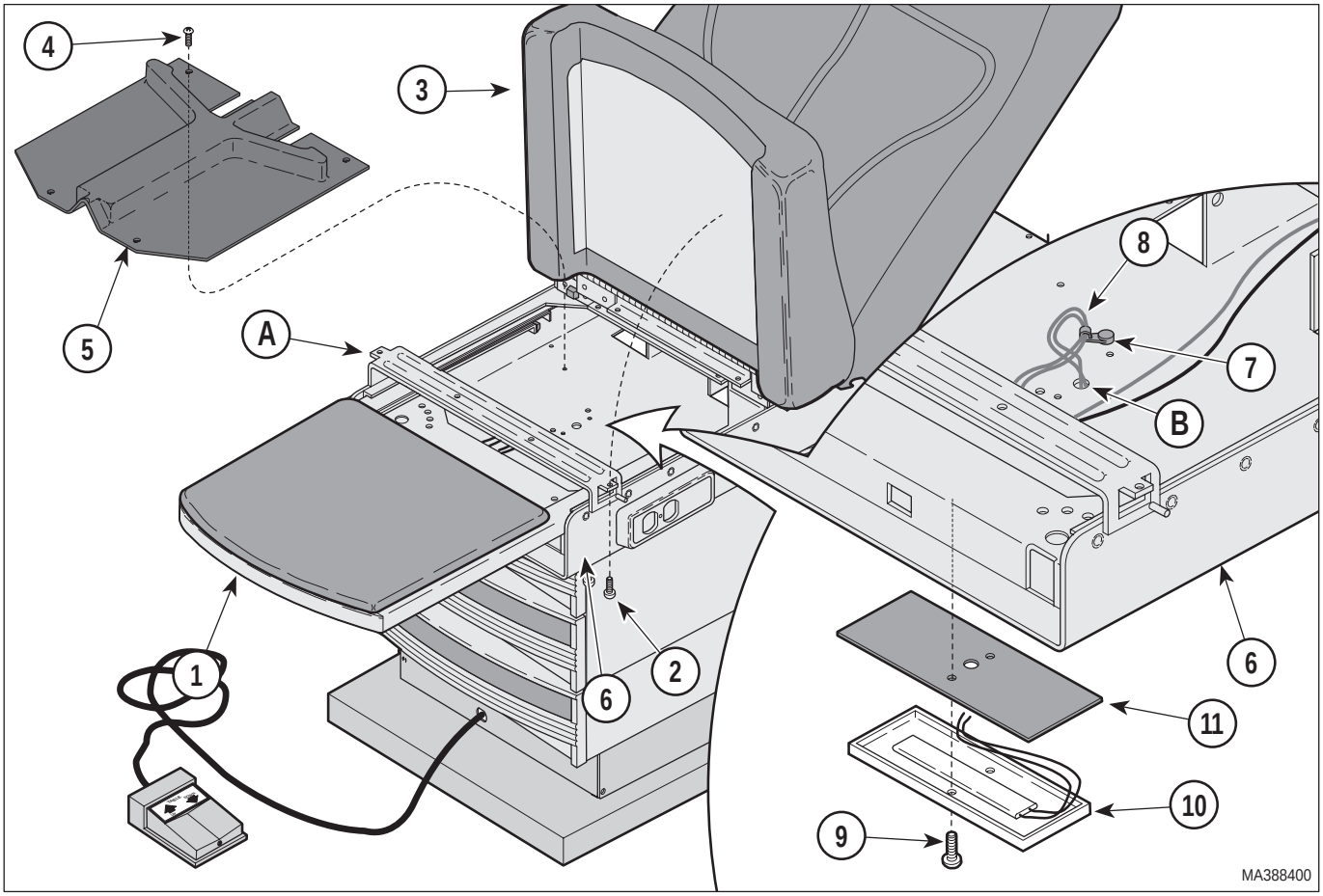

Figure 4-6. Heater Plate Removal / Installation

(2) Install the heat shield (11), and the heater plate (10) on the upper wrap weldment (6) and secure with the two screws (9).

(3) Install the heater ON / OFF switch (Refer to para 4.4).

(4) Secure the heater plate wires (8) to the upper wrap weldment (6) with wrap-n-tap clamps (7).

NOTE
Plug the table in temporarily, turn ON the heater switch and check to insure the heater plate begins to warm. Unplug the table and continue on with installation procedures.

(5) Install the stirrup guide (5) on the upper wrap weldment (6) and secure with the four screws (4).

(6) Lower the seat section (3). If necessary, for tables without pelvic tilt, install the two screws (2) to secure the seat section (3) to the upper wrap cross member (A).

(7) Push the foot rest (1) into its stowed position.

(8) Install the two drawers in the table.

(9) Plug the table power cord into wall outlet.

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SECTION IV
MAINTENANCE / SERVICE

4.6 Electrical Receptacle Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug table power cord from wall outlet.

(2) Extend the stirrups (1, Figure 4-7) out to full extension.

(3) Extend the footrest (2) out to full extension.

(4) Remove the screw (3) from the front of the receptacle cover (4).

NOTE
For tables without Pelvic Tilt, remove the two screws (5) that secure the seat section (6) to the upper wrap cross member (A).

(5) Raise up the seat section (6).

(6) Remove the screw (7), from inside the upper wrap assembly (8), that secures the receptacle cover (4) to the upper wrap assembly (8).

(7) Remove the two screws (9) that secure the duplex receptacle (10) to the upper wrap assembly (8).

(8) Pull the duplex receptacle (10) out of the cavity in the upper wrap assembly (8).

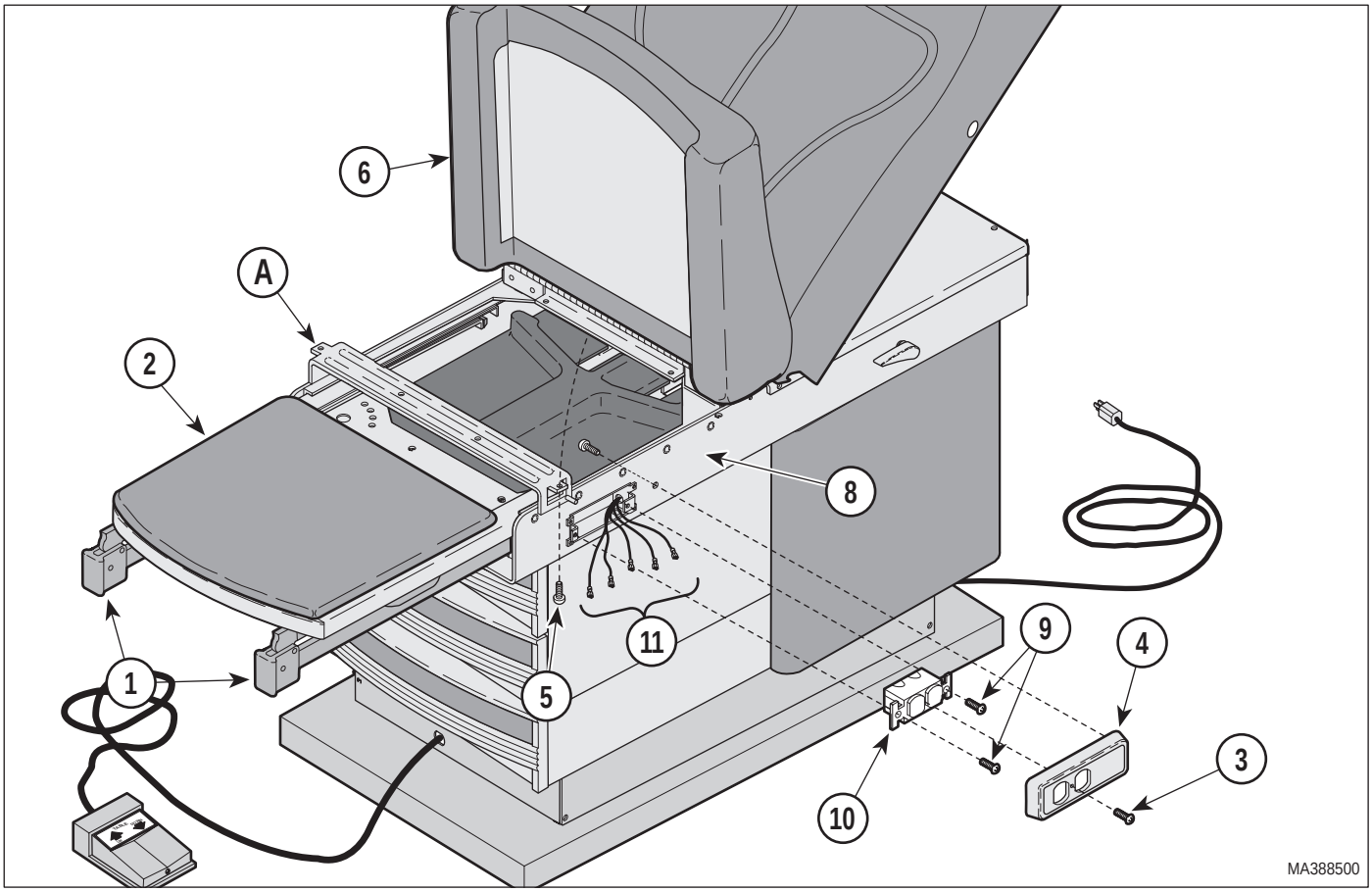

Figure 4-7. Electrical Receptacle Removal / Installation

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NOTE
Before removing any of the electrical leads from the duplex receptacle place identification tags on them for installation onto the replacement receptacle. If the table has a drawer heater there will be five leads and without the drawer heater there are three leads.

(9) Tag and disconnect the electrical leads (11) from the duplex receptacle (10) and remove the receptacle.

B. Installation

CAUTION
When installing the electrical leads (11, Figure 4-6) on the duplex receptacle (10) insure the insulation on the leads covers sufficiently to prevent electrical shorts to the cabinet. The black leads connect to the side of the receptacle with the black screws and the white leads connect to the side with the silver screws. Insure the ground (green) lead is connected to the ground terminal on the receptacle and to the table. Failure to do so could result in personal injury

(1) Connect the electrical leads (11, Figure 4-7) to the appropriate terminals on the duplex receptacle (10) (Refer to para 5.1).

CAUTION
Insure the receptacle is positioned in the cavity of the upper wrap assembly so that none of the electrical terminals or exposed wires are contacting the upper wrap assembly. Failure to do so may result in personal injury or injury to the user.

(2) Insert the receptacle (10) into its cavity in the upper wrap assembly (8) and secure with the two screws (9).

(3) Place the cover (4) on the receptacle (10) and install the screw (3) on the front cover and the screw (7) inside the upper wrap assembly (8).

(4) Push the footrest (2) and stirrups (1) into their stowed positions.

(5) Lower the seat section (6). If necessary, for tables without pelvic tilt, install the two screws (5) to secure the seat section (6) to the upper wrap cross member (A).

(6) Plug the table power cord into wall outlet and check that there is power to the receptacle.

4.7 Stirrup Components Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

NOTE
For tables without Pelvic Tilt, remove the two screws (1, Figure 4-8) that secure the seat section (2) to the upper wrap cross member (A).

(1) Raise the seat section (2, Figure 4-8) up and support it.

(2) Pull the foot rest section (3) out to its full extension.

(3) Pull the stirrup (4) out far enough to access the stop screw (5) and remove the stop screw (5) from the stirrup (4).

(4) Pull the stirrup (4) out of the pivot boss (6).

(5) Remove the pivot boss (6) and the stirrup guide bracket (7) from the upper wrap weldment (8).

(6) If worn, remove the stirrup index spring (9) from the stirrup guide bracket (7).

B. Installation

(1) If removed, install the stirrup index spring (9, Figure 4-8) on the guide bracket (7).

(2) Install the guide bracket (7) in the upper wrap weldment (8) and secure with the pivot boss (6).

(3) Slide the stirrup (4) thru the slots (B) in the pivot boss (6) and the guide bracket (7).

(4) Install the stop screw (5) on the stirrup (4).

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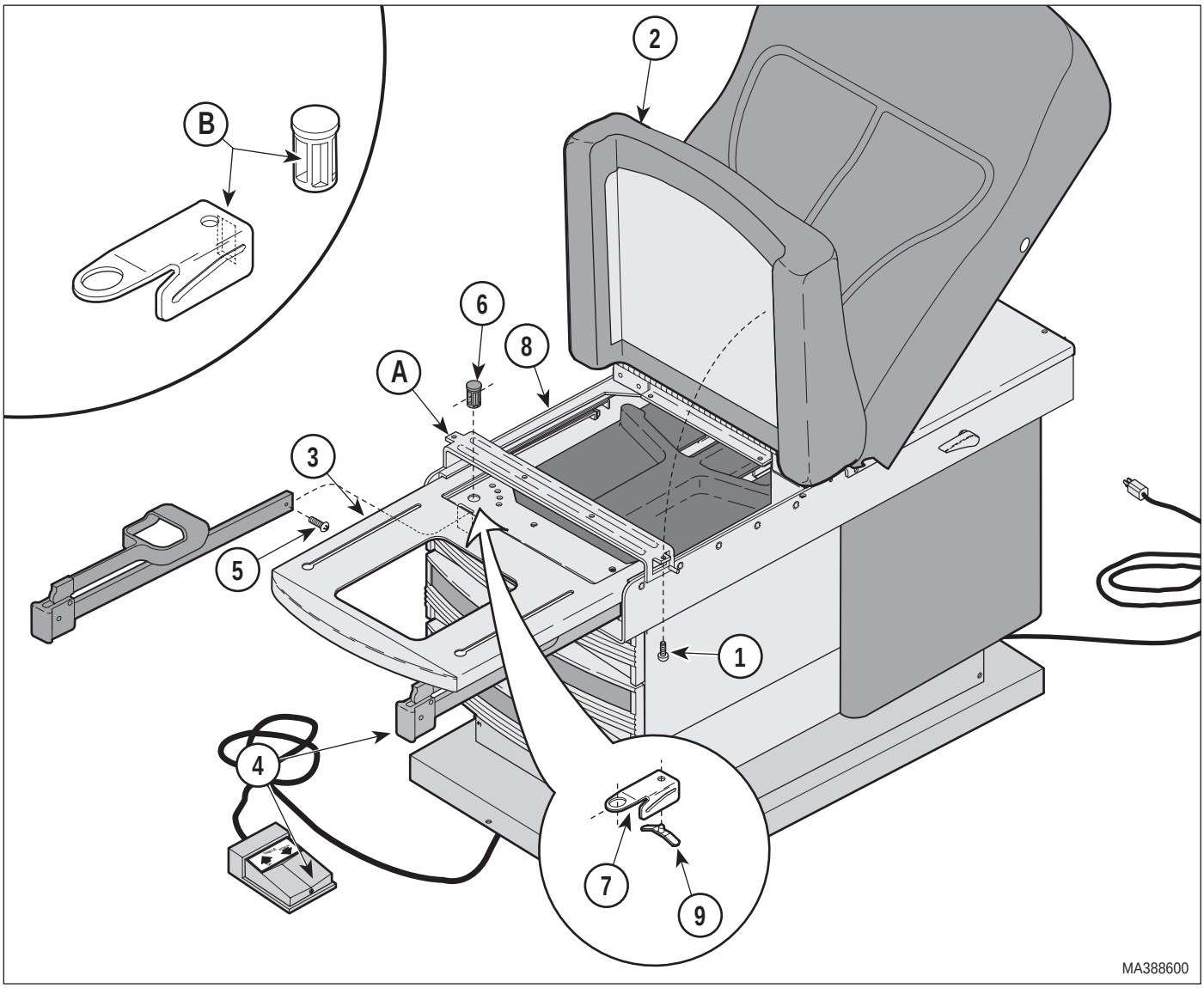

Figure 4-8. Stirrup Components Removal / Installation

(5) Push the footrest section (3) all the way into its stowed position.

(6) Lower the seat section (2). If necessary, for tables without pelvic tilt, install the two screws (1) to secure the seat section (2) to the upper wrap assembly (8).

(7) Plug the table power cord into wall outlet.

(8) Check the stirrups to insure they work smoothly and lock into the various positions.

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4.8 Accessing Upper Wrap Components

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug the table power cord from the wall outlet.

(2) Open the doors (1, Figure 4-9) and remove the four screws (2) that hold the rod upper cover (3) in place and remove the cover.

(3) Remove the cotter pin (4) from the back support rod (5).

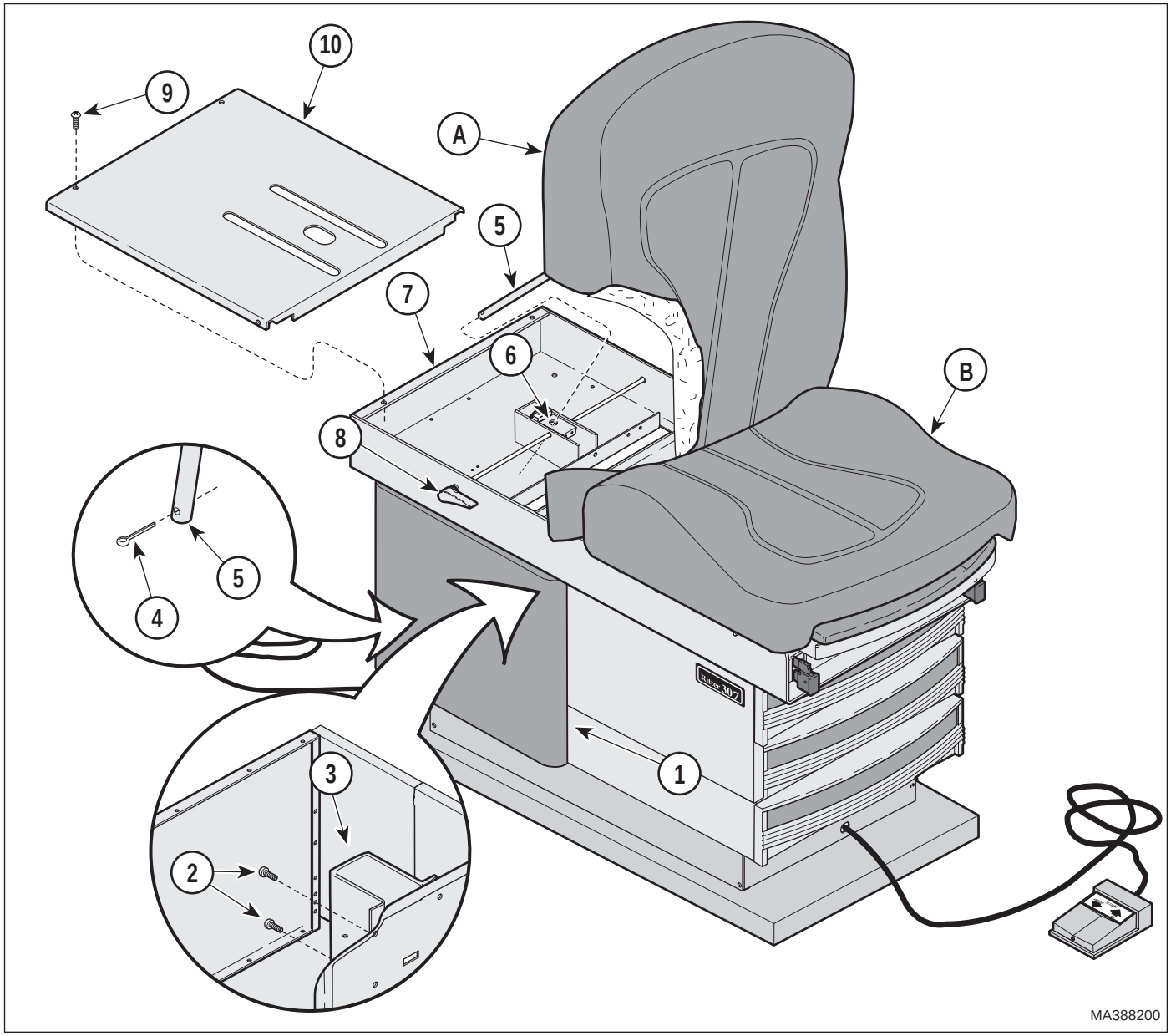

Figure 4-9. Accessing Upper Wrap Components

NOTE
To prevent the back lock assembly (6) from snapping back against the upper wrap weldment (7) when the back support rod assembly (5) is removed, slightly depress one of the back lock handles (8) while removing the back support rod (5). When the back support rod (5) is clear of the back lock assembly (6) slowly release the handle (8).

(4) Elevate the head board assembly (A) until the back support rod assembly (5) is clear of the upper wrap cover assembly (10). Allow the head board (A) to rest against the seat section (B).

(5) Remove the four screws (9) that secure the upper wrap cover (10) to the upper wrap assembly (7) and remove the upper wrap cover (7).

WARNING
Using a screwdriver with an <u>insulated</u> handle, short across the terminals of each capacitor to remove any built up electrical charge that may remain in the capacitors. Failure to comply with these instructions could result in personal injury or death.

(6) Using a screwdriver (1, Fig. 4-10) with an insulated handle, short across the terminals (A) of each capacitor (2) to discharge any electrical charge that may be remaining in the capacitors.

B. Installation

(1) Install the cover assembly (10, Figure 4-9) and secure with four screws (9).

CAUTION
Use care to prevent the head section (A) from falling when inserting the back support rod into the back lock assembly. Failure to do so may cause personal injury.

(2) Rotate the back lock handles (8) to align the hole in the back lock assembly (6) and insert the back support rod (5).

(3) Insert the cotter pin (4) in the end of the back support rod (5) and bend over the ends of the cotter pin.

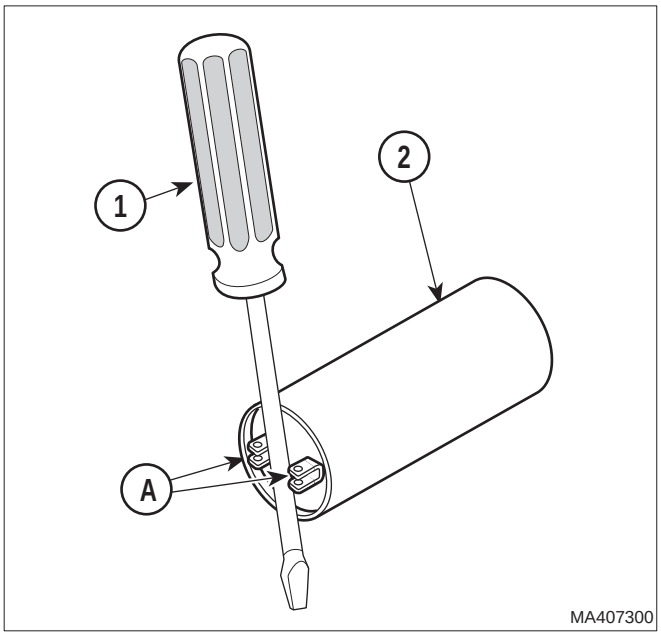

Figure 4-10. Accessing Upper Wrap Components

(4) Lightly lubricate the back support rod (5) with petroleum jelly and install the rod upper cover (3) and secure with the four screws (2).

(5) Plug the table power cord into wall outlet.

4.9 Hydraulic Oil Level

A. Checking the Hydraulic Oil Level

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

(1) Access the motor / pump assembly (Refer to Para 4-8).

(2) Remove the two screws (1, Fig. 4-11) located on the bottom, outside of the upper wrap assembly (2) at the head-end of the table, that secure the motor cover (3) to the upper wrap assembly (2).

(3) Open the door (4) on the patient's right-hand side and remove the remaining two screws (5) located beneath the upper wrap assembly (2) that secure the motor cover (3) to the upper wrap assembly (2). Remove the motor cover (3).

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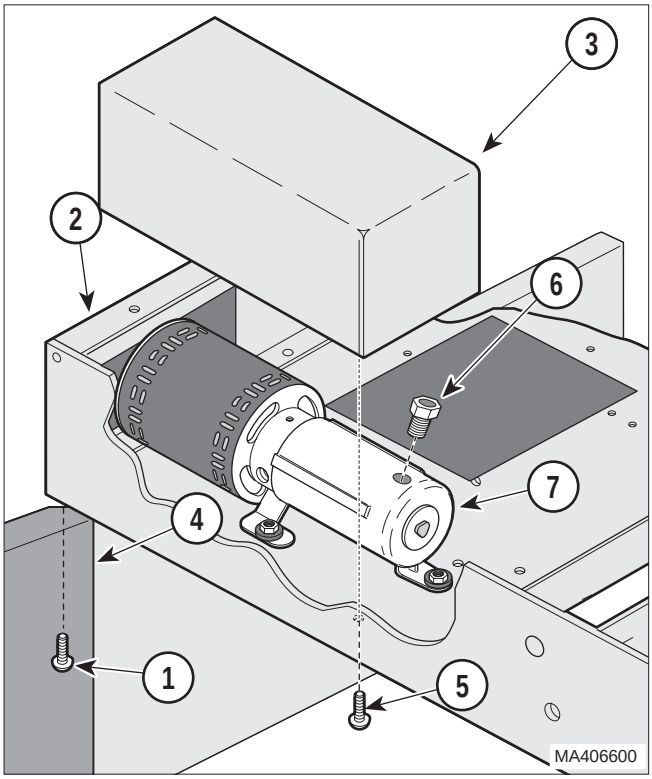

Figure 4-11. Checking Hydraulic Oil Level

NOTE
The level of the hydraulic oil should be just touching the bottom of the filler plug (6) on the hydraulic motor / pump reservoir (7) when the table is at its lowest position (table cylinders retracted) and the back hydraulic cylinder rod is all the way retracted.

(4) Remove the filler plug (6) and check the level of the oil in the reservoir (7).

EQUIPMENT ALERT
Use only **light** weight mineral oil in the hydraulic system of the table.

(5) If necessary, add light weight mineral oil to the reservoir (7) until the level is approximately even with the bottom of the filler plug (6) when the plug is installed.

(6) Install the filler plug (6).

(7) Install the motor cover (3) and secure with the two screws (5) located on the inside of the cabinet and the two screws (1) located on the outside.

(8) Carefully feed the back hydraulic cylinder through the top cover (Refer to Para 4.8).

NOTE
Excessive noise when operating the hydraulic system may be due to air in the system. Whenever work has been performed on the hydraulics operate the raise and lower the table and back section several times to purge any air from the system.

(9) Raise and lower the table and back sections several times to purge any air from the system.

(10) Check for any hydraulic leakage and clean the table.

4.10 Hydraulic Motor / Pump

A. Removal

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

(1) Access the motor / pump assembly (Refer to Para 4-8).

(2) Remove the two screws (1, Fig. 4-11) located on the bottom, outside of the upper wrap assembly (2) at the head-end of the table, that secure the motor cover (3) to the upper wrap assembly (2).

(3) Open the door (4) on the patient's right-hand side and remove the remaining two screws (5) located beneath the upper wrap assembly (2) that secure the motor cover (3) to the upper wrap assembly (2). Remove the motor cover (3).

(4) Place location tags on the electrical leads or terminals where the motor / pump (1, Fig. 4-12) is connected for later reassembly.

(5) Disconnect motor / pump electrical leads from the capacitors (2) and terminal board (3) and remove the ground wire connected to the upper wrap assembly (4).

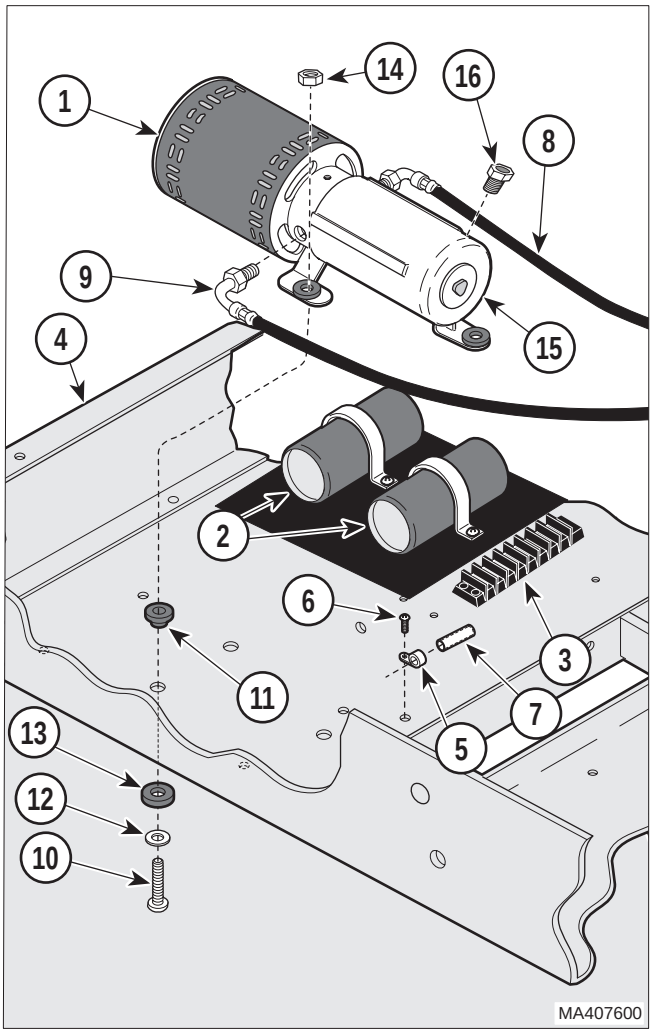

Figure 4-12. Hydraulic Motor / Pump Removal / Installation

NOTE
Before removing the wire clip and vinyl sleeve that secure the electrical leads of the motor / pump to the upper wrap assembly place location marks around the wire clip. This will assure the clip is located in the same position during reassembly in order for the motor / pump cover to fit properly.

(6) Place location marks around the wire clip (5) for later reassembly. Remove the mounting screw (6) that secures the wire clip (5) and vinyl sleeve (7) to the upper wrap assembly (4) and remove the wire clip and vinyl sleeve from the electrical leads of the motor / pump.

(7) Place location tags on the power hydraulic hose (8) and the return hydraulic hose (9) for later reassembly.

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

NOTE
Even though there is no hydraulic pressure on the system some residual fluid may drip out of the lines during removal. Place paper towels around the motor / pump to absorb any oil leakage that may occur.

(8) Disconnect the power (8) and return (9) hose assemblies from the motor / pump (1).

(9) Open the patient's right-hand door and remove the three mounting screws (10) that secure the motor / pump (1) to the upper wrap assembly (4).

(10) Remove the motor / pump (1) from the upper wrap assembly (4).

B. Installation

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

(1) Place the motor / pump (1, Fig. 4-12) in position on the vibration mount bushings (11) on the upper wrap assembly (4).

(2) Secure the motor / pump (1) to the upper wrap assembly (4) with the three screws (10), flat washers (12), vibration mount rings (13) and lock nuts (14). Tighten the nuts (14) until the vibration mounts (11) are just *slightly* compressed.

(3) Remove the shipping plugs from the ports on the motor / pump (1) and connect the return hose (9) and power hose (8).

EQUIPMENT ALERT
Remove the shipping plug from the motor / pump reservoir and install the breather cap before operating the motor / pump.

(4) Remove the shipping plug from the reservoir (15) of the motor / pump (1) and install the breather cap (16) on the reservoir (15).

NOTE
If necessary, use the shipping plug, removed from the new motor / pump reservoir, on the old motor / pump reservoir for shipping back to the factory.

(5) Connect the electrical leads from the motor / pump (1) to the appropriate terminals on the capacitors (2) and terminal 8 of the terminal board (3) (Refer to para 5.1).

(6) Place the vinyl sleeve (7) around the electrical leads of the motor / pump (1) and secure the leads to the upper wrap assembly (4) with the wire clip (5) and mounting screw (6). Assure the wire clip (5) is in the same location as when removed so it will not interfere with the motor cover.

(7) Check the hydraulic oil level (Refer to para 4.9).

4.11 Hydraulic Motor / Pump and Reservoir Seal Replacement

A. Disassembly

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

(1) Remove the motor / pump from the table (Refer to para 4.10).

NOTE
Always dispose of any fluids in a safe and environmentally approved manner.

(2) Remove the fill plug (1, Fig. 4-13) from the hydraulic reservoir (2) of the motor / pump and drain the hydraulic fluid.

EQUIPMENT ALERT
During disassembly and assembly of the motor / pump, use extreme care to not damage, knick or scratch any of the parts.

(3) Remove the bolt (3), washer (4) and o-ring (5) that secures the hydraulic reservoir (2) to the motor / pump.

(4) Remove the reservoir (2) from the motor / pump.

NOTE
Use care to not lose the two suction valve check balls (6) located inside the pump cover head assembly (7) during disassembly.

(5) Carefully remove the five bolts (8) that secure the pump cover head assembly (7) to the pump housing assembly (9) and separate the two assemblies.

(6) Remove the o-ring seal (10) from the pump housing assembly (9).

(7) Place location marks on the motor adapter plate (11) and motor (12) for later assembly.

NOTE
When separating the motor adapter plate (11) from the motor (12) the rotor (13) will remain attached to the motor adapter plate (11) and pump housing assembly (9). Use care not to damage the components.

(8) Remove the two screws (14) that secure the motor (12) to the motor adapter plate (11) and separate the two assemblies.

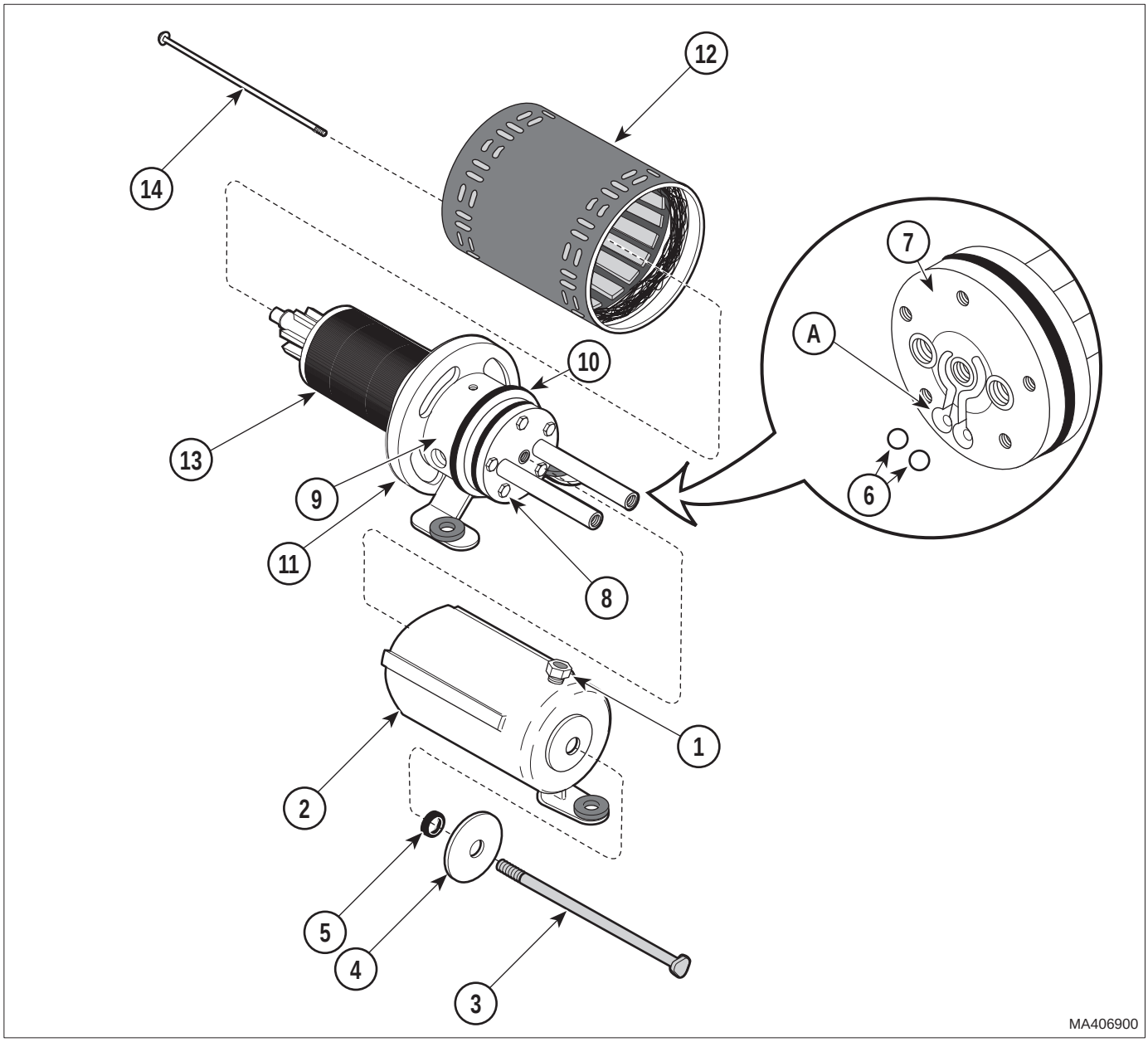

Figure 4-13. Hydraulic Motor / Pump & Reservoir Seal Replacement

EQUIPMENT ALERT

Use a soft rubber mallet to separate the outer (1, Fig. 4-14) and inner (2) geroters from the pump housing assembly (3). Use care to prevent damage to the pump housing assembly and related parts.

(9) Carefully remove the outer geroter (1, Fig. 4-14) from the pump housing assembly (3).

(10) While holding the rotor (4), tap gently on the motor adapter plate (5), while rotating it, to release the inner geroter (2).

(11) Remove the shaft pin (6) from the motor shaft (A).

(12) Carefully pull the rotor (4) from the pump housing assembly (3) and motor adapter plate (5).

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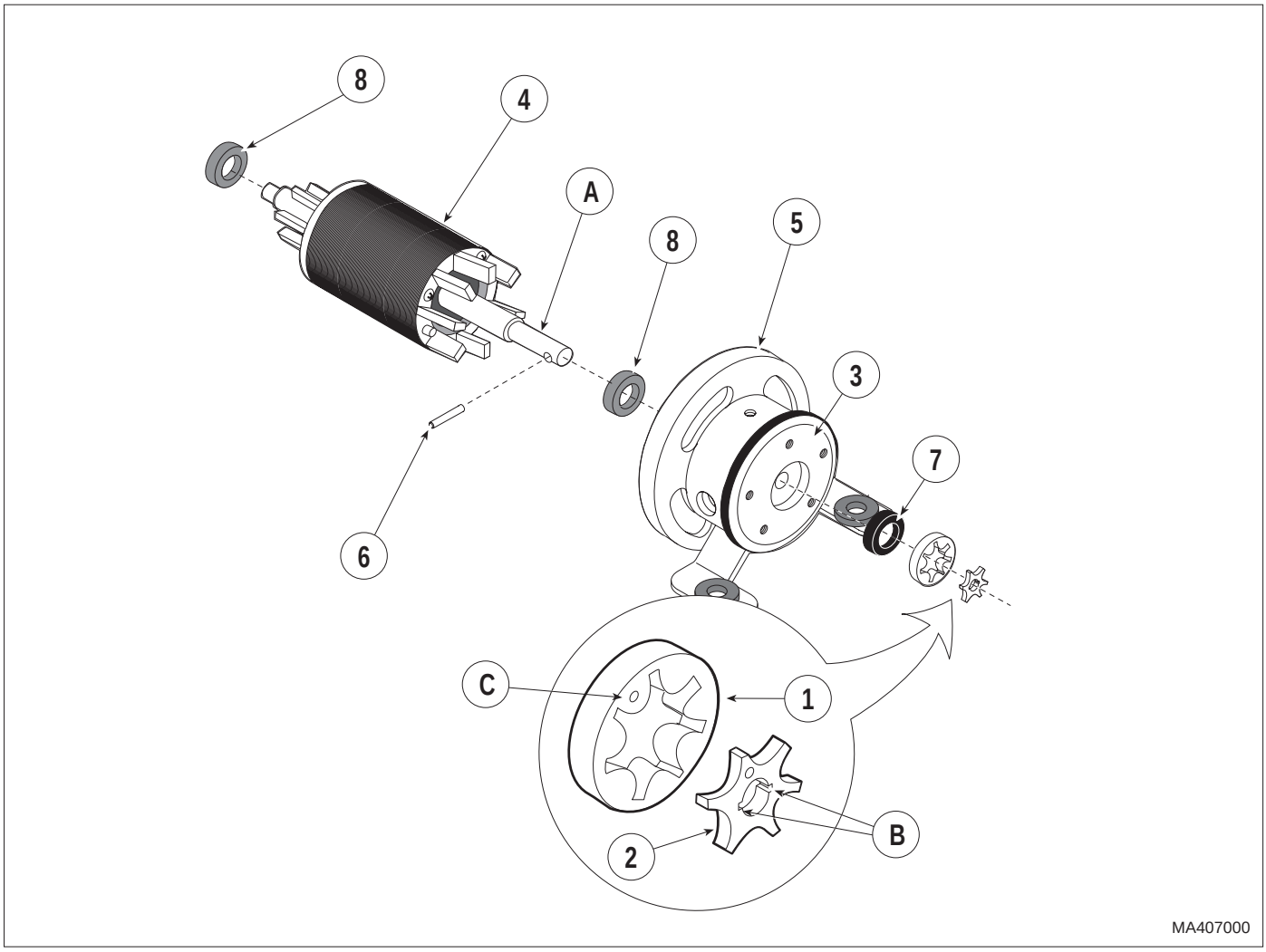

Figure 4-14. Hydraulic Motor / Pump & Reservoir Seal Replacement

(13) Remove the motor shaft o-ring seal (7) from the pump housing assembly (3).

B. Assembly

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

(1) Insure the shims (8, Fig. 4-14) are in place on both ends the rotor shaft (A) and insert the rotor shaft (A) into the motor adapter plate (5) and pump housing assembly (3).

(2) Assemble the motor (12, Fig. 4-13) to the motor adapter plate (11) aligning the location marks previously placed on the assemblies and install the two motor screws (14).

(3) Lubricate the motor shaft o-ring seal (7, Fig 4-14) with mineral oil and install it onto the motor shaft (A) and pump housing assembly (3).

NOTE
The shaft pin (6) has a chamfered end for ease of installation.

(4) Install the shaft pin (6) onto the motor shaft (A).

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EQUIPMENT ALERT
When installing the inner geroter (2) insure that the rounded and square grooves (B) in the inner geroter are aligned with the rounded and square ends of the shaft pin (6).

NOTE
The inner (2) and outer geroter (1) each have a small detent hole (C) on one side. When installing the geroters the detent hole has no significance in the placement.

(5) Gently push the inner geoter (2), aligned with the shaft pin (6), onto the motor shaft (A).

NOTE
Lubricate the outer geroter (1) with mineral oil before installing.

(6) Carefully align and install the outer geroter (1) onto the pump housing assembly (3).

(7) Insert the check balls (6, Fig. 4-13) in the suction valve holes (A).

(8) Align and install the pump cover head assembly (7) onto the pump housing assembly (11) and torque the bolts (8) evenly to 18 to 22 ft. / lbs (24.4 to 29.8 N•M).

(9) Lubricate the reservoir o-ring (10) with mineral o-ring with mineral oil and install it on the pump housing assembly (9).

EQUIPMENT ALERT
Do not overtighten the reservoir bolt when installing the reservoir or damage to the reservoir may occur.

(10) Place the reservoir (2) in position and install the o-ring seal (5), flat washer (4), and bolt (3).

EQUIPMENT ALERT
Use only **light** weight mineral oil in the hydraulic system of the table.

(11) Remove the filler plug (1) and add light weight mineral oil to the reservoir (2) until the level is approximately even with the bottom of the filler plug (1) when the plug is installed.

(12) Install the filler plug (1).

(13) Install the motor / pump onto the table (Refer to Hydraulic Motor / Pump Removal / Installation para 4.10).

(14) Check operation and clean the unit.

4.12 Capacitors (Motor / Pump) Removal / Installation

A. Removal

(1) Access the upper wrap components (Refer to Para 4-8).

(2) Place location tags on the electrical leads of the capacitor(s) (1, Fig. 4-15) and remove the leads from the capacitor(s).

(3) Loosen the mounting screws (2) on the capacitor clamp(s) (3) and slide the capacitor(s) (1) out of the clamp(s).

B. Installation

EQUIPMENT ALERT
Assure the capacitor(s) being installed have the same voltage (VAC) and microfarad (MFD) ratings as the ones removed.

(1) Position the capacitor(s) (1, Fig. 4-15) in place beneath the capacitor clamp(s) (3) and tighten the clamp mounting screws (2).

(2) Using the location tags, previously place on the electrical leads, connect the electrical leads to the capacitor(s) (1). If necessary, refer to Wiring Diagrams para 5.1.

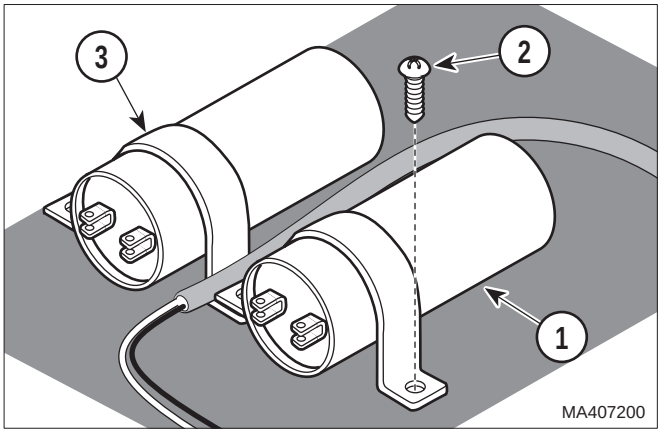

Figure 4-15. Capacitor Removal / Installation

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(3) Install the top cover (Refer to para 4.8)

(4) Check operation and clean the table.

4.13 Hydraulic Return and Power Hose Removal / Installation

A. Removal

(1) Access the upper wrap components (Refer to Para 4-8).

(2) Remove the two screws (1, Fig. 4-16) located on the bottom, outside of the upper wrap assembly (2) at the head-end of the table, that secure the motor cover (3) to the upper wrap assembly (2).

(3) Open the door (4) on the patient's right-hand side and remove the remaining two screws (5) located beneath the upper wrap assembly (2) that secure the motor cover (3) to the upper wrap assembly (2). Remove the motor cover (3).

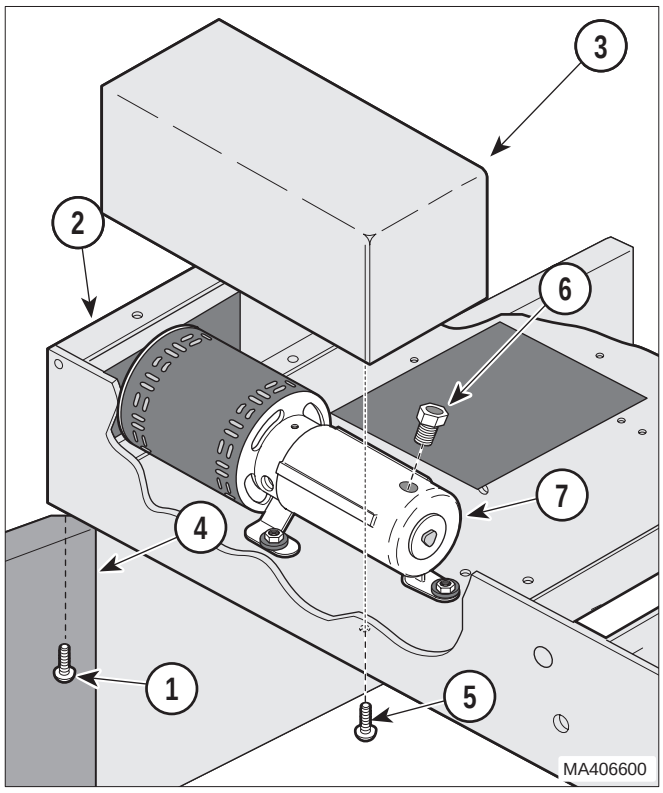

Figure 4-16. Hydraulic Return & Power Hose Removal / Installation

(4) Open one of the doors, remove the two screws (1, Fig. 4-17) that hold the rod cover (2) in place and remove the rod cover (2).

CAUTION

Place supports beneath the scissor frame of the table before working on the hydraulic base components. Failure to do so could result in personal injury.

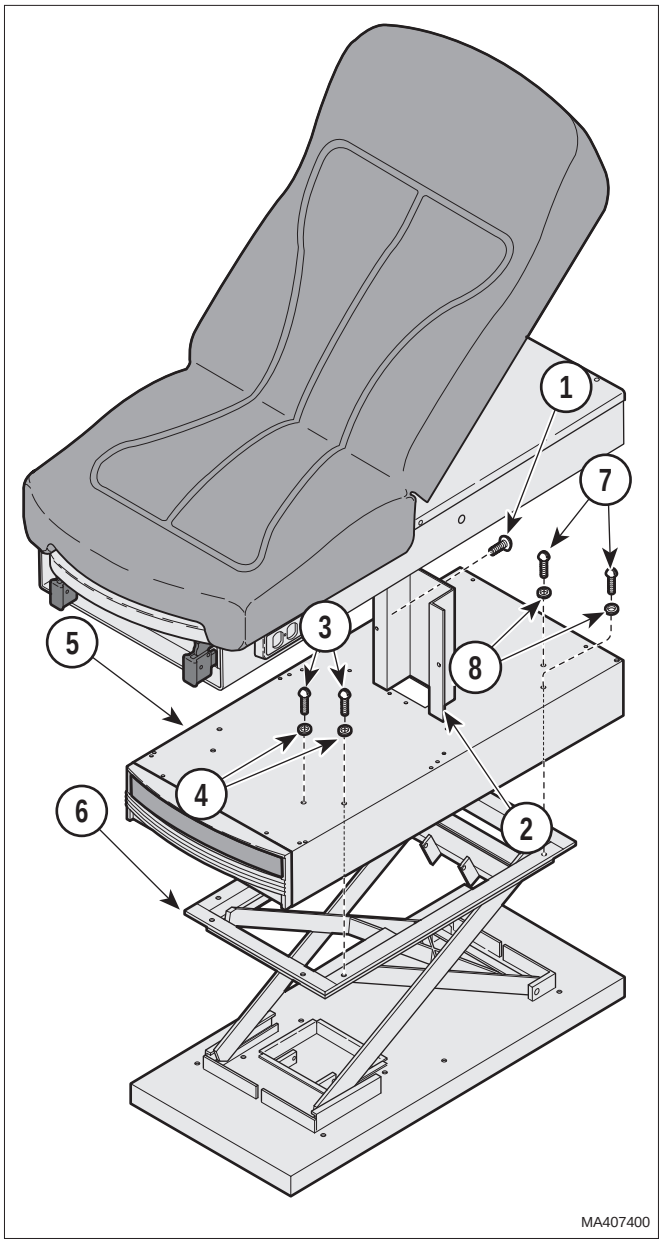

Figure 4-17. Hydraulic Return & Power Hose Removal / Installation

NOTE
If one or both of the base hydraulic cylinders are operable, to gain access to the base cylinders, raise the unit to its maximum level and place supports beneath the scissor frame to prevent it from falling. If the base cylinders are not operable continue on with the following steps.

(5) Remove the drawers at the foot-end of the table.

(6) Remove the four allen head screws (3) and lockwashers (4) that secures the sub base (5) to the scissors frame assembly (6).

(7) Open the two doors at the head-end of the table and remove the four screws (7) and lockwashers (8) that secures the sub base (5) to the scissors frame (6).

CAUTION
Take care to not damage the table or flooring when tilting the table off the scissors frame. Use proper lifting techniques when lifting the table to prevent personal injury.

(8) Carefully lift the table from the head-end, tilting it slightly, so that foot-end slides off and rest on the floor.

CAUTION
Place supports beneath the head-end of the table before working on the hydraulic base component. Failure to do so could result in personal injury.

CAUTION
Mark the location of the cable ties and wire clips in relation to the electrical cords, hydraulic hoses and cylinders. The cable ties and wire clips must be installed in the **exact** same locations or damage to the hydraulic hoses and / or electrical leads may occur. Failure to do so may result in equipment damage, electrical shorts and possibly personal injury.

(9) Place location tags on the hydraulic hoses (1, Fig. 4-18) for later reassembly. Also, note the location of the cable ties (2) and wire clips (3) that secure the cylinder hoses and electrical leads to insure they are installed in the same exact locations.

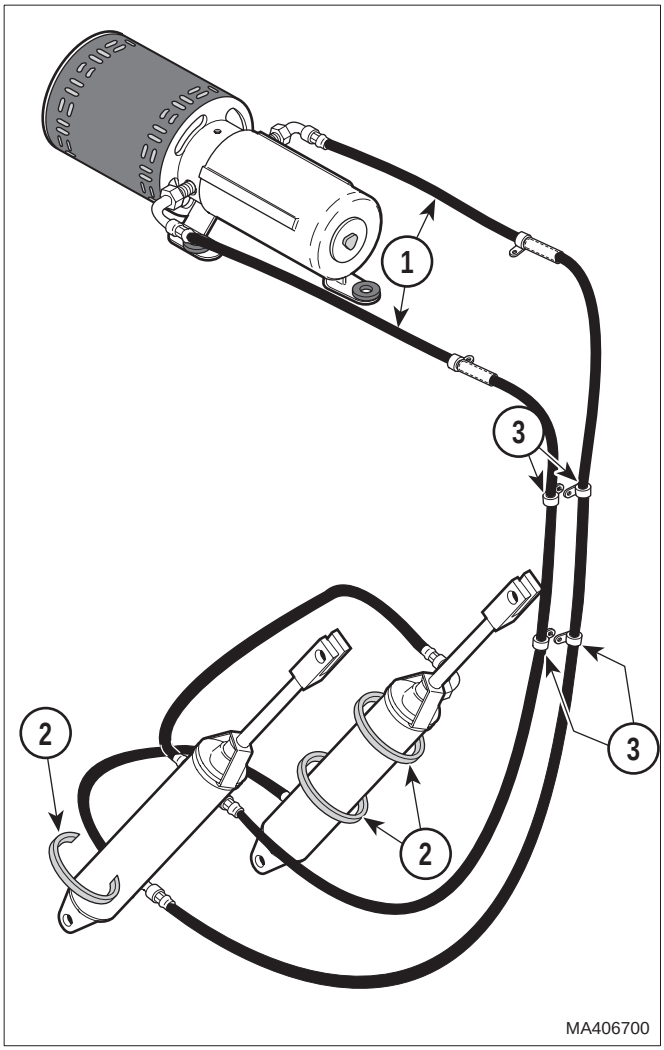

Figure 4-18. Hydraulic Return and Power Hose Removal / Installation

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

NOTE
Even though there is no hydraulic pressure on the system some residual fluid may drip out of the lines during removal. Place paper towels around the lines, cylinders and pump / motor to absorb any oil leakage that may occur.

(10) Disconnect the leaking hydraulic hose or hoses from the cylinders and motor / pump and remove the hose or hoses.

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B. Installation

CAUTION
Mark the location of the cable ties and wire clips in relation to the electrical cords, hydraulic hoses and cylinders. The cable ties and wire clips must be installed in the **exact** same locations or damage to the hydraulic hoses and / or electrical leads may occur. Failure to do so may result in equipment damage, electrical shorts and possibly personal injury.

(1) Lay the old and new hose assemblies next to each other and transfer the location tags, cable tie and wire clip location marks from the old hose assembly to the new hose assembly.

(2) Place the new hose assembly in position on the table and connect the hose fittings to the respective components. If necessary, refer to Hydraulic Schematic para 5.1.

(3) Install the cable ties (2, Figure 4-18) and wire clips (3) at the exact position of the locations marks placed on the hose assembly (1).

CAUTION
Take care to not damage the table or flooring when tilting the table onto the scissors frame. Use proper lifting techniques when lifting the table to prevent personal injury.

(4) Carefully lift the table back onto the scissor frame aligning the eight mounting holes in the sub base (5, Fig. 4-17) with the eight mounting holes in the scissor frame (6).

(5) Secure the sub base (5) to the scissor frame (6) with the eight lockwashers (4,8) and screws (3,4).

(6) Check the hydraulic oil level (Refer to para 4.9).

4.14 Hydraulic Base Cylinder Removal / Installation

A. Removal

EQUIPMENT ALERT
Do **not** cut off the electrical leads from the cylinder solenoid valve when removing the cylinders. If the electrical leads are removed on warranty parts it will **void the warranty** on those parts.

(1) Access the upper wrap components (Refer to Para 4-8).

(2) Open one of the doors and remove the two screws (1, Fig. 4-19) that hold the rod cover (2) in place and remove the rod cover (2).

CAUTION
Place supports beneath the scissor frame of the table before working on the hydraulic base components. Failure to do so could result in personal injury.

NOTE
If one or both of the base hydraulic cylinders are operable, to gain access to the base cylinders, raise the unit to its maximum level and place supports beneath the scissor frame to prevent it from falling. If the base cylinders are not operable continue on with the following steps.

(3) Remove the drawers at the foot-end of the table.

(4) Using an allen wrench, remove the four allen head screws (3) and lockwashers (4) that secures the sub base (5) to the scissors frame assembly (6).

(5) Open the two doors at the head-end of the table and remove the four screws (7) and lockwashers (8) that secure the sub base (5) to the scissors frame (6).

CAUTION
Take care to not damage the table or flooring when tilting the table off the scissors frame. Use proper lifting techniques when lifting the table to prevent personal injury.

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(6) Carefully lift the table from the head-end, tilting it slightly, so that foot-end slides off and rest on the floor.

CAUTION
Place supports beneath the head-end of the table before working on the hydraulic base component. Failure to do so could result in personal injury.

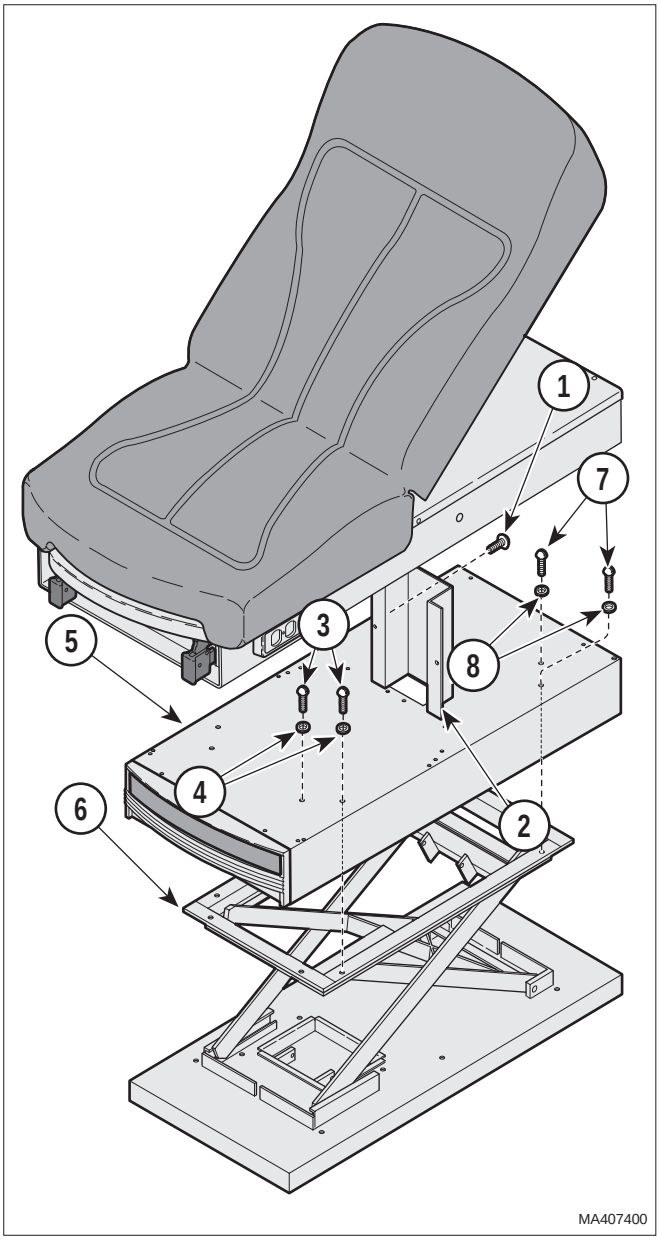

Figure 4-19. Hydraulic Base Cylinder Removal / Installation

CAUTION
Mark the location of the cable ties and wire clips in relation to the electrical cords, hydraulic hoses and cylinders. The cable ties and wire clips must be installed in the **exact** same locations or damage to the hydraulic hoses and / or electrical leads may occur. Failure to do so may result in equipment damage, electrical shorts and possibly personal injury.

(7) Place location tags on the hydraulic hoses (1, Fig. 4-18) for later reassembly. Also, note the location of the cable ties (2) and wire clips (3) that secure the cylinder hoses and electrical leads to insure they are installed in the same exact locations.

EQUIPMENT ALERT
When working on the hydraulic system it is important that the area, tools and components be kept clean and free of any contaminants that would damage the system.

NOTE
Even though there is no hydraulic pressure on the system some residual fluid may drip out of the lines during removal. Place paper towels around the lines and cylinders to absorb any fluid during removal.

(8) Disconnect the hydraulic lines (4) from the malfunctioning base cylinder (5).

(9) Place location tags on the terminals of the terminal board, disconnect the electrical leads of the malfunctioning base cylinder (5) and pull the leads down through the table. If necessary, refer to Wiring Diagram, para 5.1.

(10) Remove the hitch pin clip (1, Fig. 4-20) and clevis pin (2) that secures the clevis (3) of the malfunctioning cylinder (4) to the scissor frame assembly (5).

(11) Remove the hitch pin clip (6) and clevis pin (7) that secures the hydraulic cylinder (4) to the base of the scissor frame assembly (5) and remove the hydraulic cylinder.

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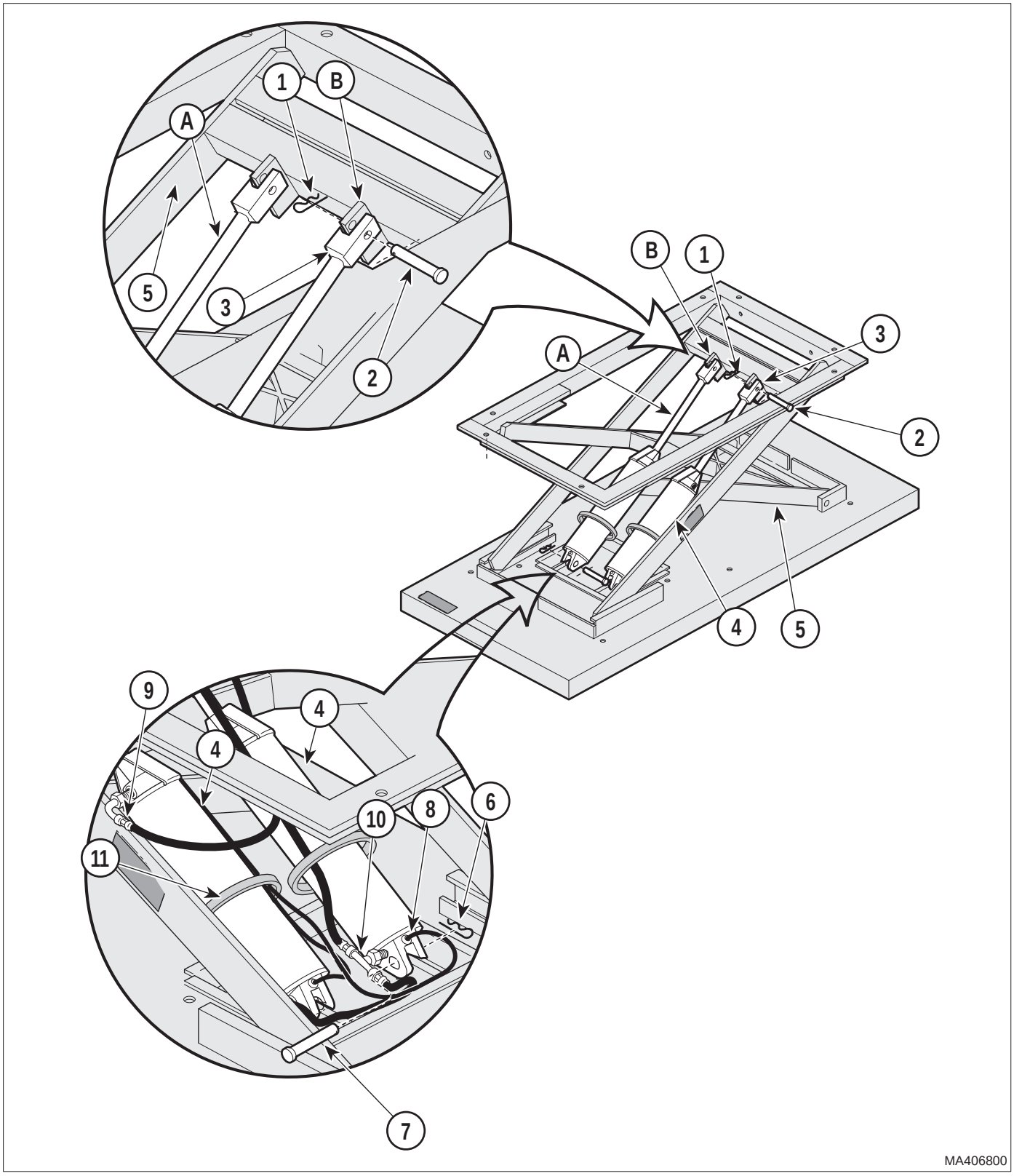

Figure 4-20. Hydraulic Base Cylinder Removal / Installation

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B. Installation

NOTE
Place the new hydraulic base cylinder in position on the scissor frame assembly so that the electrical leads coming out of the cylinder from the solenoid valve are facing upward.

(1) Place the new hydraulic base cylinder (4, Fig. 4-20) in position on the scissor frame assembly (5) with the solenoid valve electrical leads (8) facing upward.

NOTE
Before installing the clevis pin that secures the base cylinder to the base of the scissor frame assembly place a light coating of lubricant on it.

(2) Install the clevis pin (7) and hitch pin clip (6) that secures the base cylinder (4) to the base of the scissor frame assembly (5).

(3) Feed the electrical leads from the solenoid valve of the base cylinder to the terminal board and connect the electrical leads to terminals 3 or 4 and 7 (Refer to Wiring Diagram, para 5.1).

(4) Remove the shipping plugs from the base cylinder (4) and connect the return (9) and power (10) hoses to the cylinder.

CAUTION
Insure that all cable ties and wire clips are placed in **exactly** the same locations as when removed or damage to the electrical leads and / or hydraulic hoses may occur. Failure to do so may result in equipment damage, electrical shorts and possibly personal injury.

(5) Place cable ties (11) on the hydraulic hoses (10) and cylinder electrical leads (8) in the exact same position from where they were removed.

NOTE
It may be necessary to extend the cylinder rod on the new cylinder in order to connect the cylinder clevis to the bracket on the scissor frame assembly. The table must be plugged into an electrical outlet to extend the cylinder. To prevent the other table base cylinder from extending, causing the table to raise, disconnect and tape one of its electrical leads from the terminal board.

(6) Disconnect one of the electrical leads from the terminal board of the hydraulic base cylinder (4) that was not replaced to prevent it from extending. Place electrical tape around the connector of the electrical lead (refer to Wiring Diagram, para 5.1).

WARNING
Use extreme care to prevent the possibility of electrical shock when power is applied to the table without the top cover in place. Live electrical circuits are present on the terminal board and components. Failure to comply with these instructions could result in personal injury or death.

(7) Plug the power cord into a wall outlet.

(8) While observing the cylinder rod (A) on the base cylinder (4) that was replaced, depress the Table UP footswitch to extend the cylinder rod until it is aligned with the bracket (B) on the scissor frame (5).

(9) Disconnect the power cord from the wall outlet.

(10) Install the clevis pin (2) and hitch pin clip (1) that secures the base cylinder rod (A) to the bracket (B) of the scissor frame (5).

(11) Reconnect the electrical lead that was removed from the terminal board of the base cylinder that was not replaced.

CAUTION
Take care to not damage the table or flooring when tilting the table onto the scissors frame. Use proper lifting techniques when lifting the table to prevent personal injury.

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(12) Carefully lift the table onto the scissor frame (6, Fig. 4-19) aligning the eight mounting holes in the sub base (5) with the eight mounting holes in the scissor frame (6).

(13) Secure the sub base (5) to the scissor frame (6) with the eight lockwashers (4,8) and screws (3,7).

(14) Check the hydraulic oil level (Refer to para 4.9).

C. Adjustments

EQUIPMENT ALERT
The base cylinders must be synchronized for proper operation. If the two base cylinders do not extend evenly undue stress is placed on the lifting mechanism. If not corrected premature failure may occur on the assemblies of the lifting mechanism.

(1) While observing the table to assure it elevates evenly, depress the Table UP footswitch and raise the table to its highest elevation.

NOTE
Both base cylinders must stop simultaneously when the table reaches its highest elevation.

EQUIPMENT ALERT
Never attempt to adjust the hydraulic cylinder rod length with the cylinder in its completely **extended** (rod all the way out) or **retracted** (rod all the way in) positions. Failure to do so may result in equipment damage.

(2) Raise the table section high enough to gain access to the flats on the cylinder rod (A, Fig. 4-20) but do not extended it completely.

WARNING
Place supports beneath the table to support it while performing any adjustments on the base cylinders. Failure to do so could result in personal injury.

NOTE
Turn the cylinder rod only 1/4 turn at a time when making adjustment until the back section is adjusted properly.

(3) To **lower** the table section, using a 3/8" wrench on the flats of the cylinder rod (A), turn the cylinder rod inward (counterclockwise).

(4) To **raise** the table section, turn the cylinder rod (A) outward (clockwise).

(5) Raise and lower the table to assure the table operates correctly. If necessary readjust the cylinder rod(s).

4.15 Footswitch Assembly Removal / Installation

A. Removal

(1) Access the upper wrap components (Refer to Para 4-8).

(2) Place location tags by the terminals where the footswitch electrical leads (1, Fig. 4-21) are connected on the terminal board (2) for later installation and remove the leads.

(3) Temporarily connect the new footswitch cord electrical leads to the terminal board (2) and upper wrap assembly (3) (Refer to Wiring Diagram para 5.1).

WARNING
Use extreme care to prevent the possibility of electrical shock when power is applied to the table without the top cover in place. Live electrical circuits are present on the terminal board and components. Failure to comply with these instructions could result in personal injury or death.

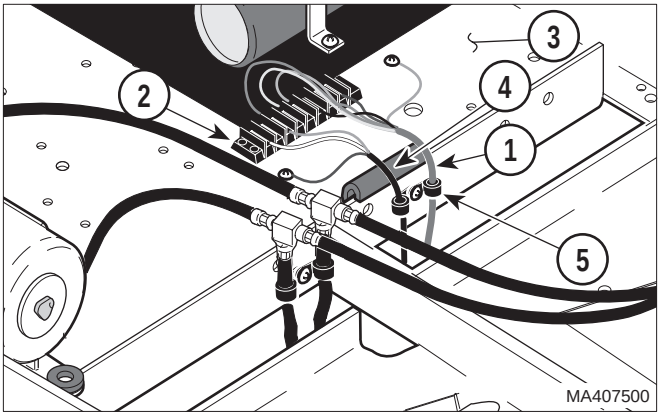

Figure 4-21. Footswitch Assembly Removal / Installation

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(4) Plug the power cord into a wall outlet.

(5) Raise the table to the highest position.

WARNING

Before continuing with the removal procedures first disconnect the power cord from the wall outlet and then; using a screwdriver with an insulated handle, short across the terminals of each capacitor to remove any built up electrical charge that may remain in the capacitors. Failure to comply with these instructions could result in personal injury or death.

(6) Disconnect the power cord from the wall outlet and discharge the capacitors (2, Fig. 4-22).

WARNING

Place supports on the table to prevent it from falling when working on the power and footswitch cords, hydraulic hoses and cylinders. Failure to do so could result in personal injury.

(7) Disconnect the new, temporary footswitch cord from the terminal board (2, Fig. 4-21) and upper wrap assembly (3).

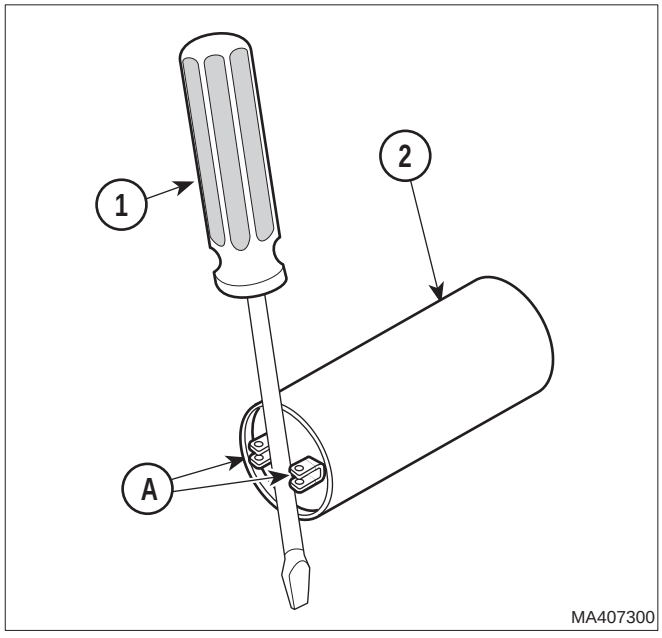

Figure 4-22. Footswitch Assembly Removal / Installation

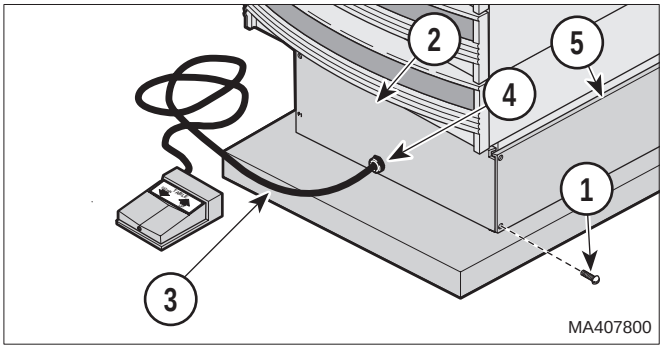

Figure 4-23. Footswitch Assembly Removal / Installation

(8) Remove the four screws (1, Fig. 4-23) from the lower end shroud (2) on which the footswitch cord (3) is located.

(9) Remove the strain relief bushing (4) from the lower end shroud (2).

(10) Open one of the doors, remove the two screws (1, Fig. 4-24) that hold the rod cover (2) in place and remove the rod cover (2).

CAUTION

Mark the location of the cable ties and wire clips in relation to the electrical cords, hydraulic hoses and cylinders. The cable ties and wire clips must be installed in the **exact** same locations or damage to the hydraulic hoses and / or electrical leads may occur. Failure to do so may result in equipment damage, electrical shorts and possibly personal injury.

(11) Place location marks on the hydraulic hoses and electrical cords to identify the position of the cable ties (5, Fig. 4-21) for later installation.

(12) Remove the cable ties (5) that secure the footswitch cord (1).

(13) Remove the footswitch cord (1).

B. Installation

(1) Carefully route the new footswitch cord (1, Fig. 4-21) through the table to the terminal board (2).

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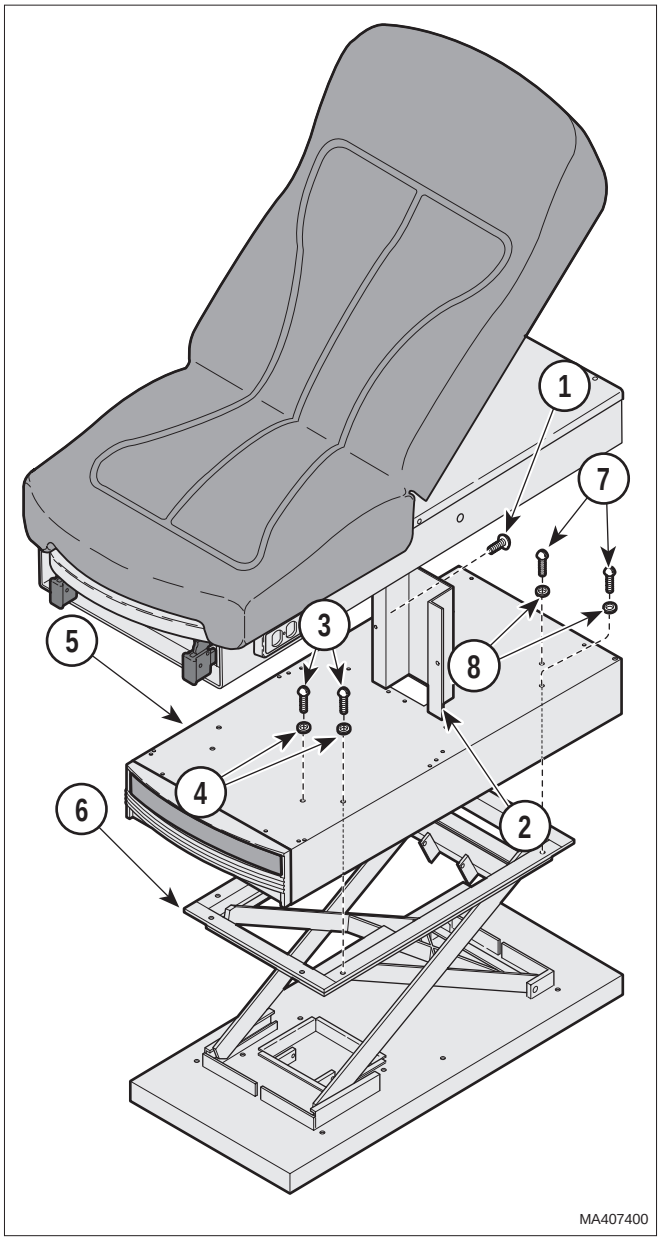

Figure 4-24. Footswitch Assembly Removal / Installation

(2) Connect the electrical leads to the appropriate terminals on the terminal board (2) and the green (ground) wire to the upper wrap assembly (3) (Refer to Wiring Diagram, para 5.1).

CAUTION

When installing the new footswitch cord, assure that the wire clips and cable ties are located in the same positions as the old footswitch cord in relation to the hydraulic hoses, electrical cords and hydraulic cylinders. Failure to do so may result in equipment damage and / or electrical shorts.

(3) Secure the footswitch cord (1, Fig. 4-21) to the unit, hydraulic hoses and cylinders, and other electrical cords with the cable ties (5).

(4) Install the strain relief bushing (4, Fig. 4-23) onto the footswitch cord (3) and secure it to the lower end shroud (2).

(5) Install the lower end shroud (2) to the lower side shrouds (5) with the four screws (1).

(6) Install the rod cover (2, Fig. 4-24) and secure with two screws (1).

(7) Install the top cover (Refer to para 4.8)

(8) Check operation and clean the table.

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SECTION IV
MAINTENANCE / SERVICE

4.17 Footswitch Microswitch Removal / Installation / Adjustment

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Disconnect the power cord from the wall outlet.

(2) Remove the pivot screw (1, Fig. 4-24) and lockwasher (2) from the footswitch pedal (3).

(3) Remove the pedal (3) by lifting the end of it upward and pushing back toward the cord end of the footswitch assembly to unhook the pedal (3) from the pivot bracket (A).

NOTE
Place location tags on the electrical leads connected to the malfunctioning microswitch for identification purposes during installation.

(4) Remove the mounting screw (4) and locknut (5) that secures the microswitch (6) to the mounting bracket (B).

(5) Remove the electrical leads from the malfunctioning microswitch (6) and remove the switch.

B. Installation

NOTE
The microswitch has markings on the side to identify the normally open, normally closed and common terminals to assist in making electrical connections.

(1) Using the location tags, previously place on the electrical leads, connect the electrical leads to the microswitch (6, Fig. 4-24). If necessary, refer to Wiring Diagram, para 5.1.

EQUIPMENT ALERT
Inspect the insulators (7) to assure they are in good condition and replace if necessary. The insulators should be located so that they extend out past the connectors on the electrical leads to prevent possible electrical shorts.

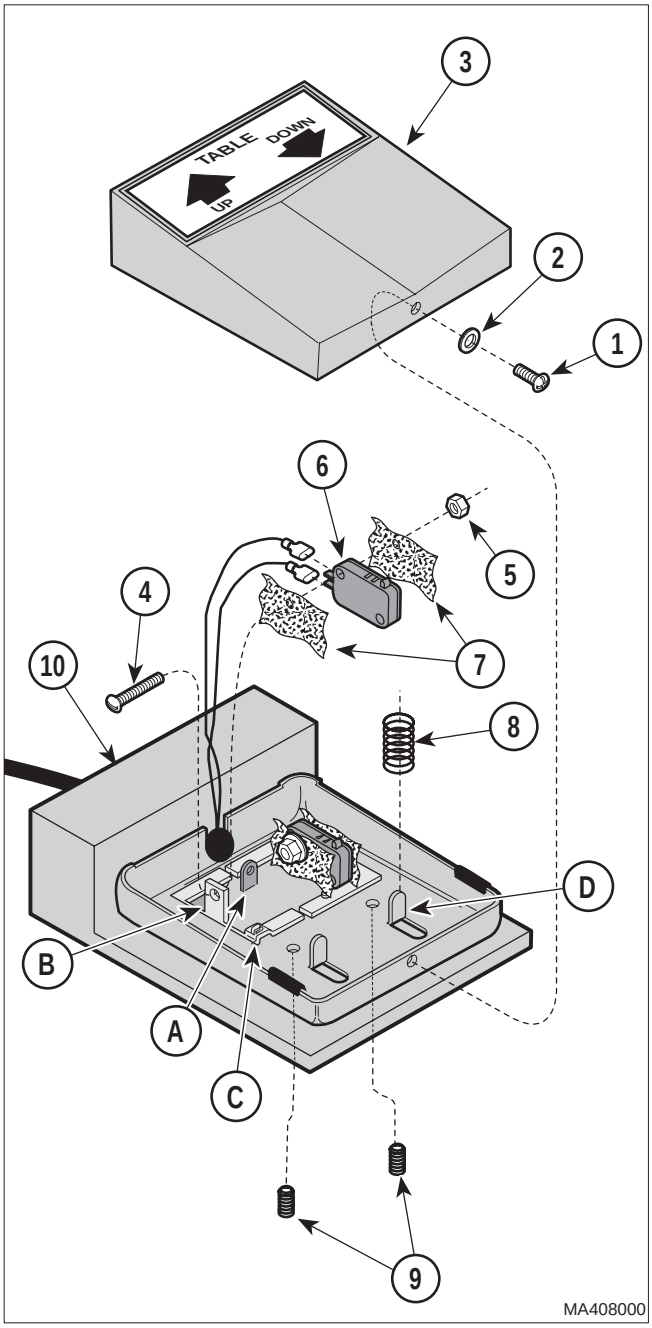

Figure 4-24. Footswitch Microswitch Removal / Installation / Adjustment

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(2) Position the microswitch (6) and insulator (7) on the mounting bracket (B) securing it to the locating tab (C).

(3) Secure the microswitch and insulators to the mounting bracket (B) with the mounting screw (4) and lock nut (5).

NOTE
Assure the pedal springs (8) are in good condition and located on the positioning tabs (D) before installing the pedal.

(4) Install the pedal (3) assuring that it is located properly on the pivot bracket (A) and secure with the pivot screw (1) and lockwasher (2).

(5) Plug the table power cord into the wall outlet.

(6) Check the operation of each pedal function by depressing the pedal and listening and observing the specific function. If necessary, adjust the microswitches.

C. Adjustment

NOTE
Each pedal function, Table UP, Table DOWN has an allen head adjustment screw (9, Fig. 4-24) on the bottom of the footswitch assembly (10) beneath each pedal function. The adjustment screw raises or lowers the position of the microswitch of that specific function to position the switch closer or farther away from the pedal that actuates the switch.

(1) Plug the table power cord into a wall outlet.

(2) Lightly depress the specific function pedal and listen to and observe the table.

(3) Turn the adjustment screw (9, Fig. 4-24) inward (clockwise) will raise the microswitch allowing it to actuate sooner.

(4) Turn the adjustment screw (9) outward (counter-clockwise) will lower the microswitch causing it to actuate later.

(5) Check operation to assure the pedals function correctly.

4.18 Power Cord Removal / Installation

A. Removal

(1) Access the upper wrap components (Refer to Para 4-8).

NOTE
If the table cannot be operated due to a malfunction in the power cord temporarily connecting the new power cord to the table's terminal board will enable the table to be operated. This will allow the table to be positioned in order to remove the malfunctioning power cord.

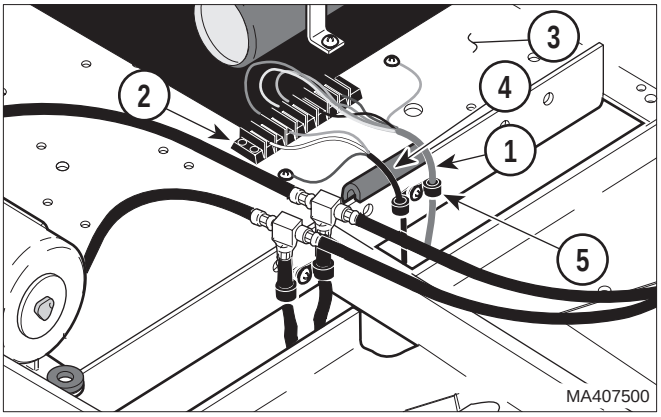
(2) Disconnect the electrical and ground leads of the power cord (4, Fig. 4-25) from the terminal board (2) and upper wrap assembly (3).

(3) Temporarily connect the new power cord to the terminal board (2) and upper wrap assembly (3) (Refer to Wiring Diagram, para 5.1).

WARNING
Use extreme care to prevent the possibility of electrical shock when power is applied to the table without the top cover in place. Live electrical circuits are present on the terminal board and components. Failure to comply with these instructions could result in personal injury or death.

(4) Plug the temporary power cord from the table into a wall outlet.

(5) Raise the table to the highest position.



4-25. Power Cord Removal / Installation

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SECTION IV
MAINTENANCE / SERVICE

WARNING

Before continuing with the removal procedures first disconnect the power cord from the wall outlet and then; using a screwdriver with an insulated handle, short across the terminals of each capacitor to remove any built up electrical charge that may remain in the capacitors. Failure to comply with these instructions could result in personal injury or death.

(6) Disconnect the power cord from the wall outlet and discharge the capacitors (1, Fig. 4-26).

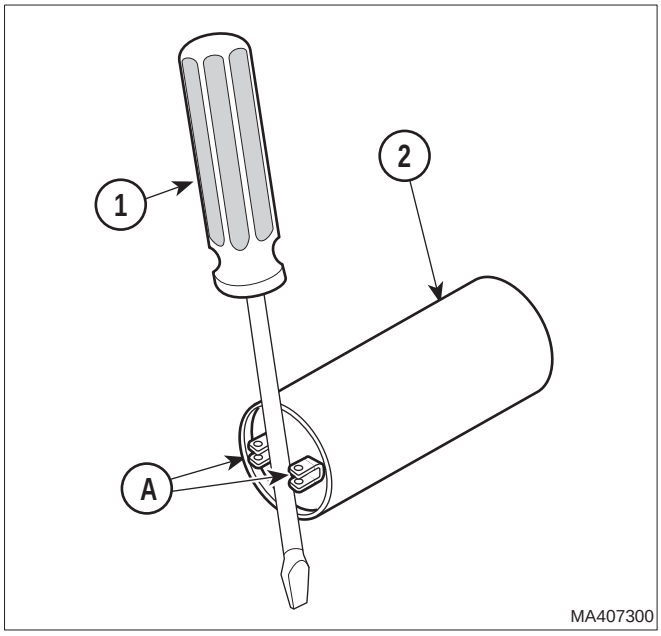
WARNING

Place supports on the table to prevent it from falling when working on the power and footswitch cords, hydraulic hoses and cylinders. Failure to do so could result in personal injury.

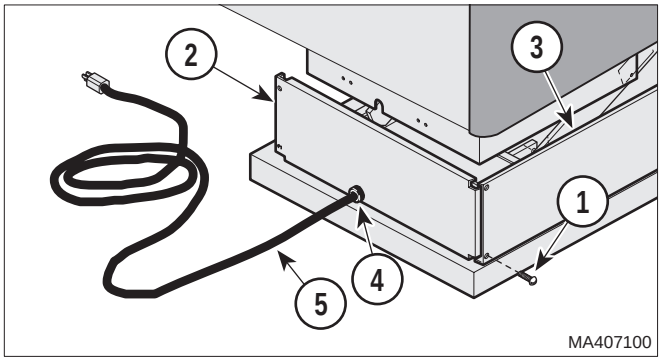
(7) Disconnect the new temporary power cord from the terminal board (2, Fig. 4-25) and upper wrap assembly (3).

(8) Remove the four screws (1, Fig. 4-27) that secure the lower end shroud (2) to the lower side shrouds (3).

(9) Remove the strain relief bushing (4) from the lower end shroud (2).



4-26. Power Cord Removal / Installation



4-27. Power Cord Removal / Installation

(10) Open one of the doors, remove the two screws (1, Fig. 4-28) that hold the rod cover (2) in place and remove the rod cover (2).

CAUTION

Mark the location of the cable ties and wire clips in relation to the electrical cords, hydraulic hoses and cylinders. The cable ties and wire clips must be installed in the **exact** same locations or damage to the hydraulic hoses and / or electrical leads may occur. Failure to do so may result in equipment damage and / or electrical shorts.

(11) Place location marks on the hydraulic hoses and electrical cords to identify the position of the cable ties (5, Fig. 4-25) for later installation.

(12) Remove the cable ties (5) that secure the power cord (4).

(13) Remove the power cord (4).

B. Installation

(1) Carefully route the new power cord (4, Fig. 4-25) through the table to the terminal board (2).

(2) Connect the black and white wires to the appropriate terminals on the terminal board (2) and the green (ground) wire to the upper wrap assembly (3) (Refer to wiring diagram para 5.1).

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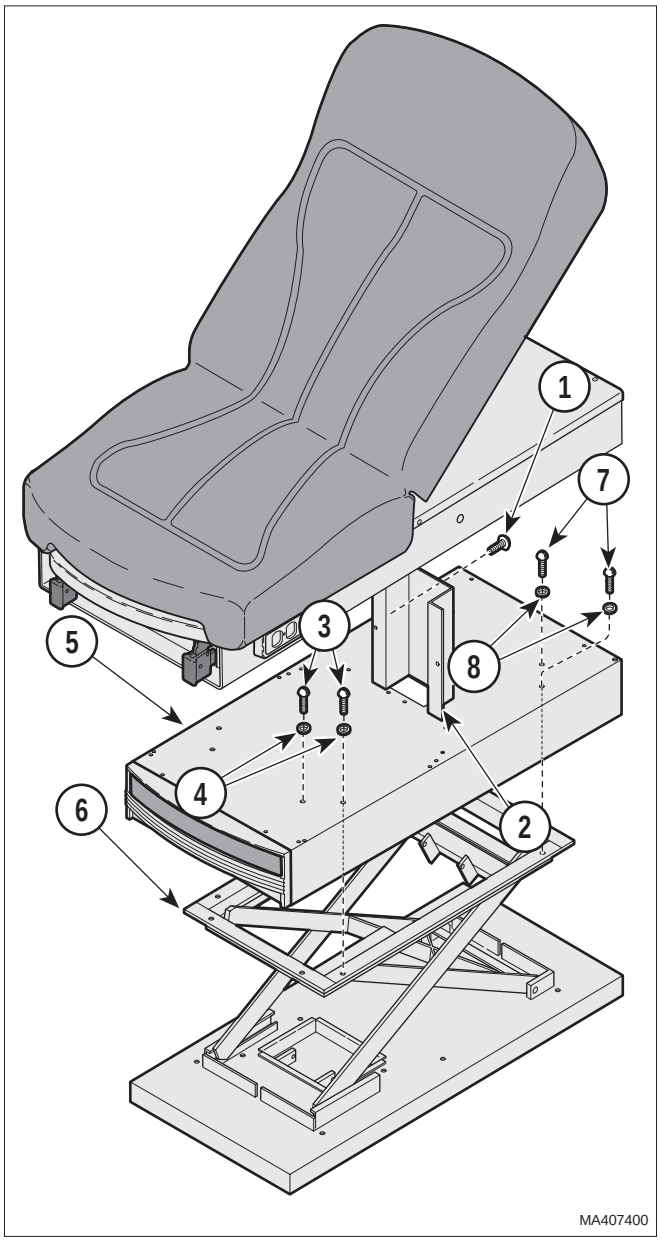

4-28. Power Cord Removal / Installation

CAUTION
When installing the new power cord, assure that the wire clips and cable ties are located in the **exact** same positions as the old power cord in relation to the hydraulic hoses, electrical cords and hydraulic cylinders. Failure to do so may result in equipment damage and / or electrical shorts.

(3) Secure the power cord (4) to the unit, hydraulic hoses and cylinders, and other electrical cords with the cable ties (5).

(4) Install the strain relief bushing (4, Fig. 4-27) onto the power cord (5) and secure it to the lower end shroud (2).

(5) Install the lower end shroud (2) to the lower side shrouds (3) with the four screws (1).

(6) Install the rod cover (2, Fig. 4-28) and secure with two screws (1).

(7) Install the top cover (Refer to para 4.8)

(8) Check operation and clean the table.

4.5 Back Lock Assembly Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug the table power cord from the wall outlet.

(2) Open the doors (1, Figure 4-29) and remove the four screws (2) that hold the rod upper cover (3) in place and remove the cover.

(3) Remove the cotter pin (4) from the back support rod (5).

NOTE
To prevent the back lock assembly (6) from snapping back against the upper wrap weldment (7) when the back support rod (5) is removed, slightly depress one of the back lock handles (8) while removing the back support rod (5). When the back support rod (5) is clear of the back lock assembly (6) slowly release the handle (8).

(4) Elevate the head board assembly (A) until the back support rod (5) is clear of the upper wrap cover (9). Allow the head board (A) to rest against the seat section (B).

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(5) Remove the four screws (10) that secure the upper wrap cover (9) to the upper wrap weldment (7) and remove the upper wrap cover.

(6) Disconnect the back lock springs (1, Figure 4-30) from the upper wrap weldment (2).

(7) Loosen the set screw (3) and remove the back lock handle (4).

(8) Loosen the two 1/4-20 x 3/8 set screws (5) that secure the back lock rod (6) to the back lock assembly (7).

(9) Pull the back lock rod (6) out of the back lock assembly (7), two washers (8) and the bracket (A) of the upper wrap weldment (8).

(10) Remove the back lock assembly (7) and two washers (8) from the bracket (A) of the upper wrap weldment (2).

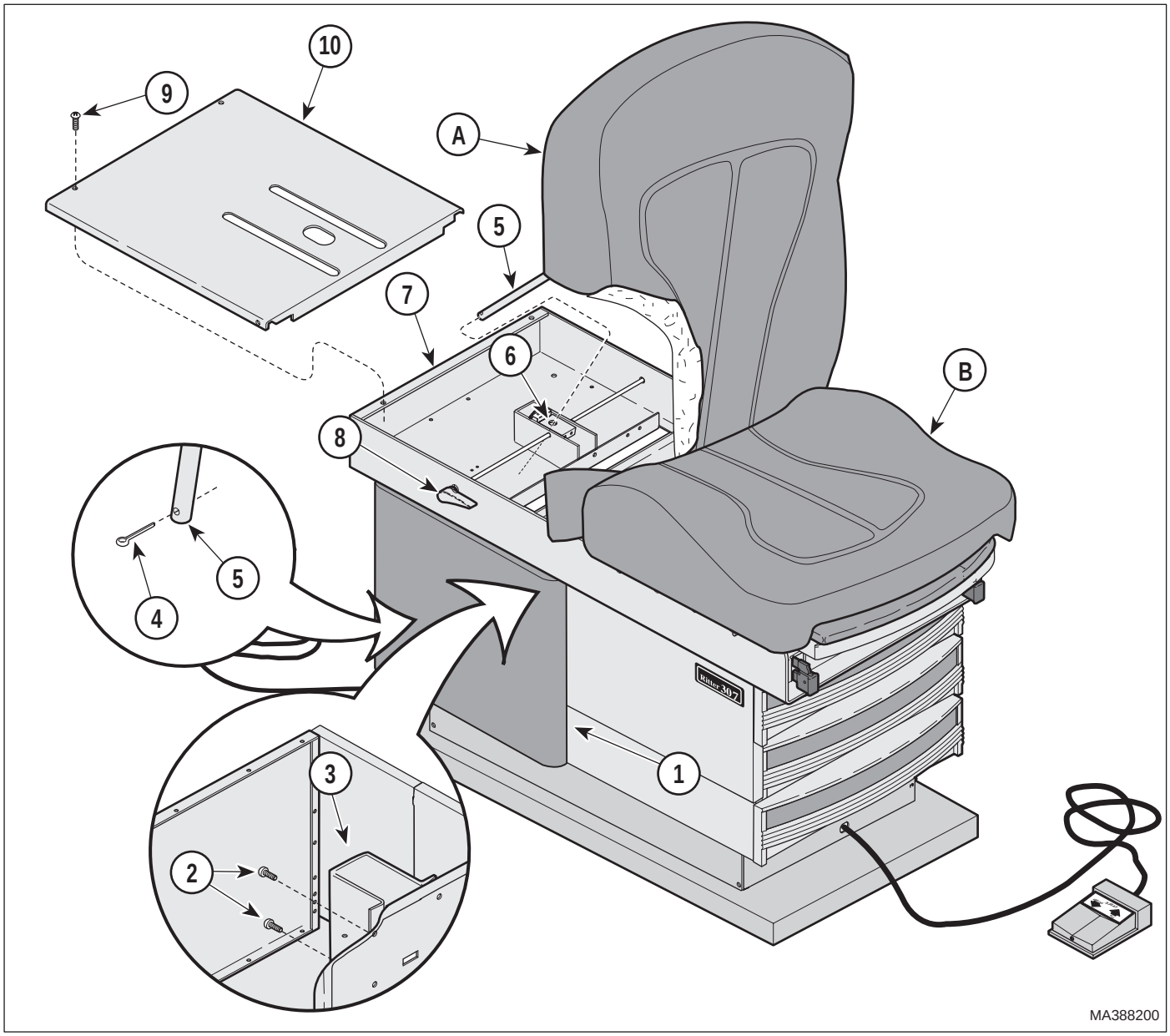

Figure 4-29. Back Lock Assembly Removal / Installation

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B. Installation

(1) Insert the back lock rod (6, Figure 4-30) thru the bracket (A) of the upper wrap weldment (2), two washers (8) and back lock assembly (7).

EQUIPMENT ALERT
Do not over-tighten the set screws in the back lock handles to prevent stripping the threads. Torque to 10 to 20 inch / lbs. (1.1 to 2.3 N•M).

(2) Install the back lock handle (5) onto the back lock rod (13) aligning it with the other back lock handle (5) and tighten the set screw (11) to 10 to 20 inch / lbs. (1.1 to 2.3 N•M).

(3) Connect the two back lock springs (1) to the upper wrap weldment (2) and compress the spring hooks to secure the springs to the upper wrap weldment.

CAUTION
Use care to prevent the head section (B) from falling when inserting the back support rod into the back lock assembly. Failure to do so may cause personal injury.

(4) Lifting the back lock assembly (7), align the back support rod (9) with the hole in the back lock assembly (7) and insert the rod (9) thru the back lock assembly.

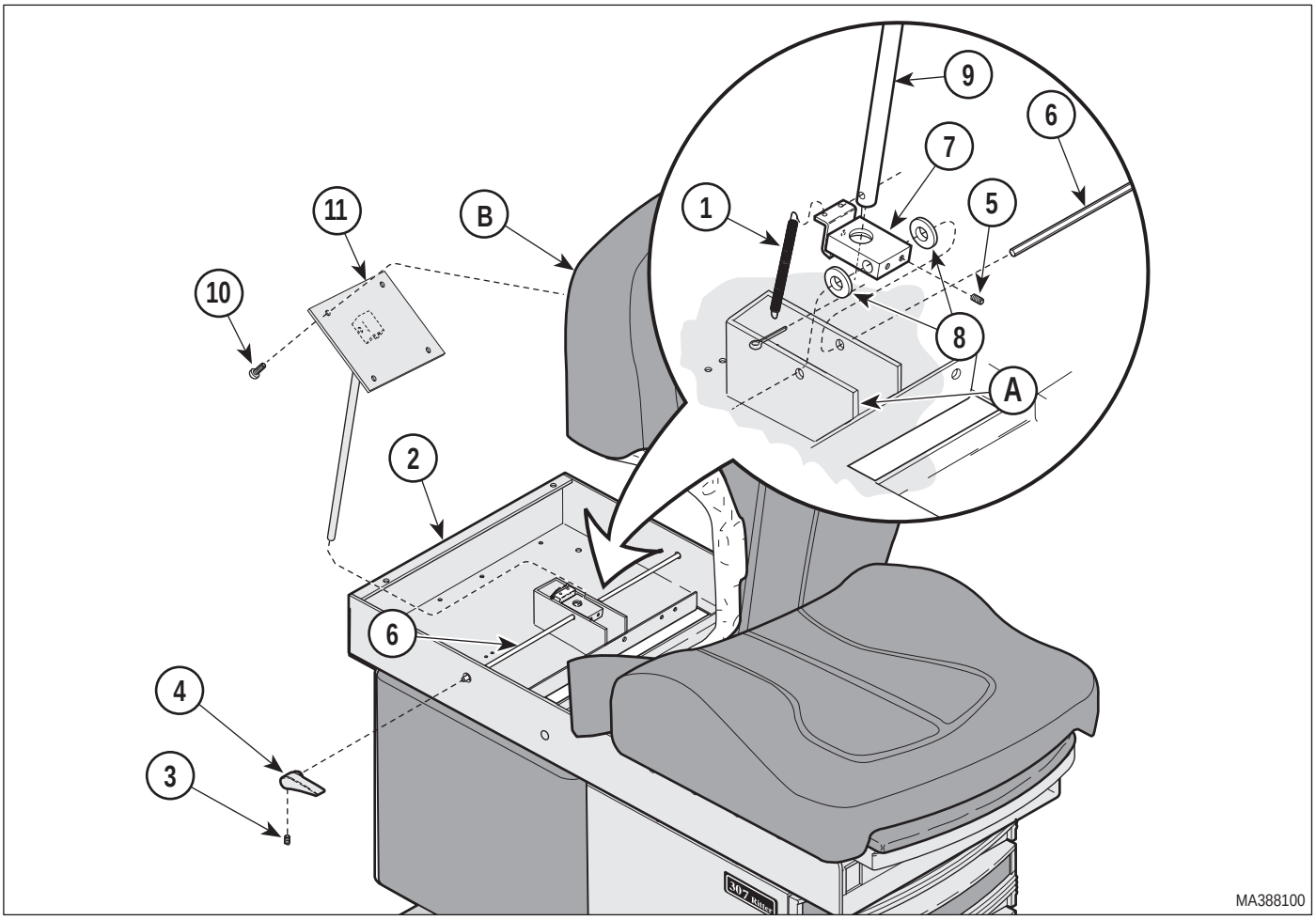

Figure 4-30. Back Lock Assembly Removal / Installation

(5) With the head section (B) in the elevated or chair position, rotate the back lock handles (4) so the pointed end of the handles (4) are facing toward the foot-end of the table and the handles are pointed downward approximately 15° to 20°.

EQUIPMENT ALERT
Use care not to overtighten the set screws in the back lock assembly. Tighten the set screws 75 to 80 inch / lbs. (0.53 to 0.60 N•M).

(6) Tighten one of the set screws (5) on the back lock assembly (7) to secure the back lock assembly to the back lock rod (6).

(7) Lower the head section (B) to the horizontal position and observe the position of the back lock handles (4). The handles should be parallel with the bottom edge of the head section or pointed slightly downward.

(8) If necessary, lift the head section (B), loosen the set screw (5) on the back lock assembly (7) and rotate the handles (4) up or down to adjust their position. Lower the head section (B) and check the positions of the handles.

(9) Raise the head section (B) and tighten both set screws (5) on the back lock assembly (7) to 75 to 80 inch / lbs. (0.533 to 0.604 N•M).

(10) Raise and lower the head section (B) several times to insure the back support rod (9) moves up and down smoothly in the back lock assembly (7) without binding.

NOTE
If the back support rod (9) binds, loosen the four screws (10) on the rod support plate (11). Raise and lower the head board (B) several times until it operates smoothly and retighten the screws on the rod support plate (11).

(11) Raise the head section (A, Figure 4-29) until the back support rod (5) is free from the back lock assembly (6).

(12) Supporting the head section (A), install the cover assembly (9) and secure with the four screws (10).

(13) Rotate the back lock handles (8) to align the hole in the back lock assembly (6) and insert the back support rod (5).

(14) Insert the cotter pin (4) in the end of the back support rod (5) and bend over the ends of the cotter pin.

(15) Lightly lubricate the back support rod (5) with petroleum jelly and install the rod upper cover (3) and secure with the four screws (2).

(16) Plug the table power cord into wall outlet.

4.6 Lift Lever Removal / Installation

A. Removal

WARNING
Always disconnect the power cord from the wall outlet before removing any of the table's covers / shrouds or making any repairs to prevent the possibility of electrical shock. Failure to comply with these instructions could result in personal injury or death.

(1) Unplug the table power cord from the wall outlet.

(2) Open the doors (1, Figure 4-29) and remove the four screws (2) that hold the rod upper cover (3) in place and remove the cover.

(3) Remove the cotter pin (4) from the back support rod (5).

NOTE
To prevent the back lock assembly (6) from snapping back against the upper wrap weldment (7) when the back support rod (5) is removed, slightly depress one of the back lock handles (8) while removing the back support rod (5). When the back support rod (5) is clear of the back lock assembly (6) slowly release the handle (8).

(4) Elevate the head section (A) until the back support rod (5) is clear of the upper wrap cover assembly (9). Allow the head section (A) to rest against the seat section (B).

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CAUTION
Insure the head section (A) is positioned and secured to prevent it from falling while working on the table. Failure to do so could result in personal injury.

(5) Remove the four screws (10) that secure the upper wrap cover (9) to the upper wrap weldment (7) and remove the upper wrap cover.

(6) Disconnect the lift springs (1, Figure 4-31) from the lift lever (2).

(7) Remove the push-on retaining ring (3) from one side of the lift support rod (4) and remove the rod (4), washers (5), and lift lever (2) from the upper wrap weldment brackets (C).

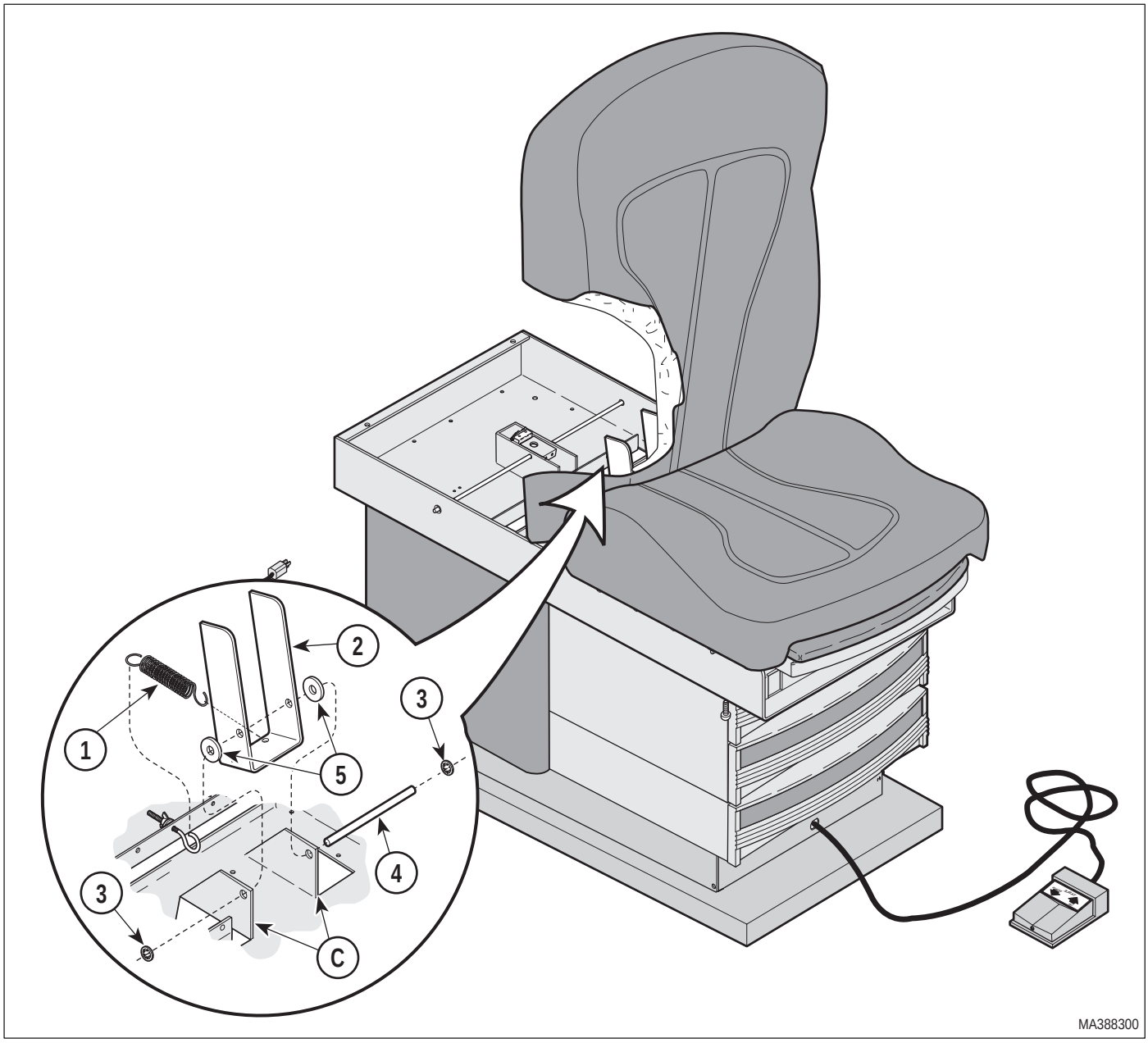

Figure 4-31. Lift Lever Assembly Removal / Installation

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B. Installation

(1) Place the lift lever (2, Figure 4-31) and two flat washer (5) in position on the upper wrap weldment brackets (C).

(2) Insert the lift support rod (4) thru the brackets (C), flat washers (5) and lift lever (2).

(3) Insure the lift support rod (4) is centered in the bracket (C) and install the push-on retaining rings (3).

(4) Connect the lift springs (1) to the lift lever (2).

NOTE
The wing nuts (1, Figure 4-32) should be threaded onto the eye bolts (2) approximately 1 inch (2.54 cm).

(5) Check the position of the wing nuts (1, Figure 4-32) on the eye bolts (2) of the lift assembly.

(6) Rotate the back lock handles (8, Figure 4-29) to align the hole in the back lock assembly (6) and insert the back support rod (5).

NOTE
With the head section (A) in the chair position and no weight on the table, the head section should descend 1/2 to 3/4 of the way to the horizontal position when the back lock handles (8) are released.

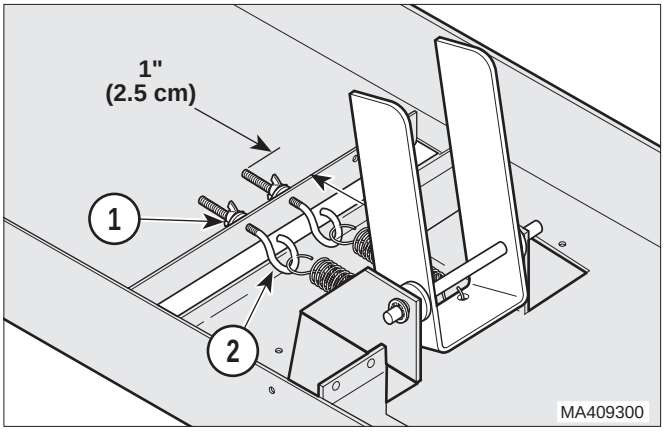

Figure 4-32. Lift Lever Assembly Removal / Installation

(7) Check to insure the head section (A) raises and lowers smoothly. If necessary, adjust the wing nuts (1, Figure 4-32) on the eye bolts (2) to adjust the tension on the lift springs.

(8) Raise the head section (A, Figure 4-29) until the back support rod (5) is free from the back lock assembly (6).

(9) Supporting the head section (A), install the cover assembly (9) and secure with the four screws (10).

(10) Rotate the back lock handles (8) to align the hole in the back lock assembly (6) and insert the back support rod (5).

(11) Insert the cotter pin (4) in the end of the back support rod (5) and bend over the ends of the cotter pin.

(12) Lightly lubricate the back support rod (5) with petroleum jelly and install the rod upper cover (3) and secure with the four screws (2).

(13) Plug table power cord into wall outlet.

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SECTION V
SCHEMATICS AND DIAGRAMS

5.1 Electrical Schematics / Wiring Diagrams

Figures 5-1 and 5-2 illustrates the current flow and wiring connections between the electrical components in the 115 VAC table. Figure 5-3 is for 220 VAC, 50 HZ export units.

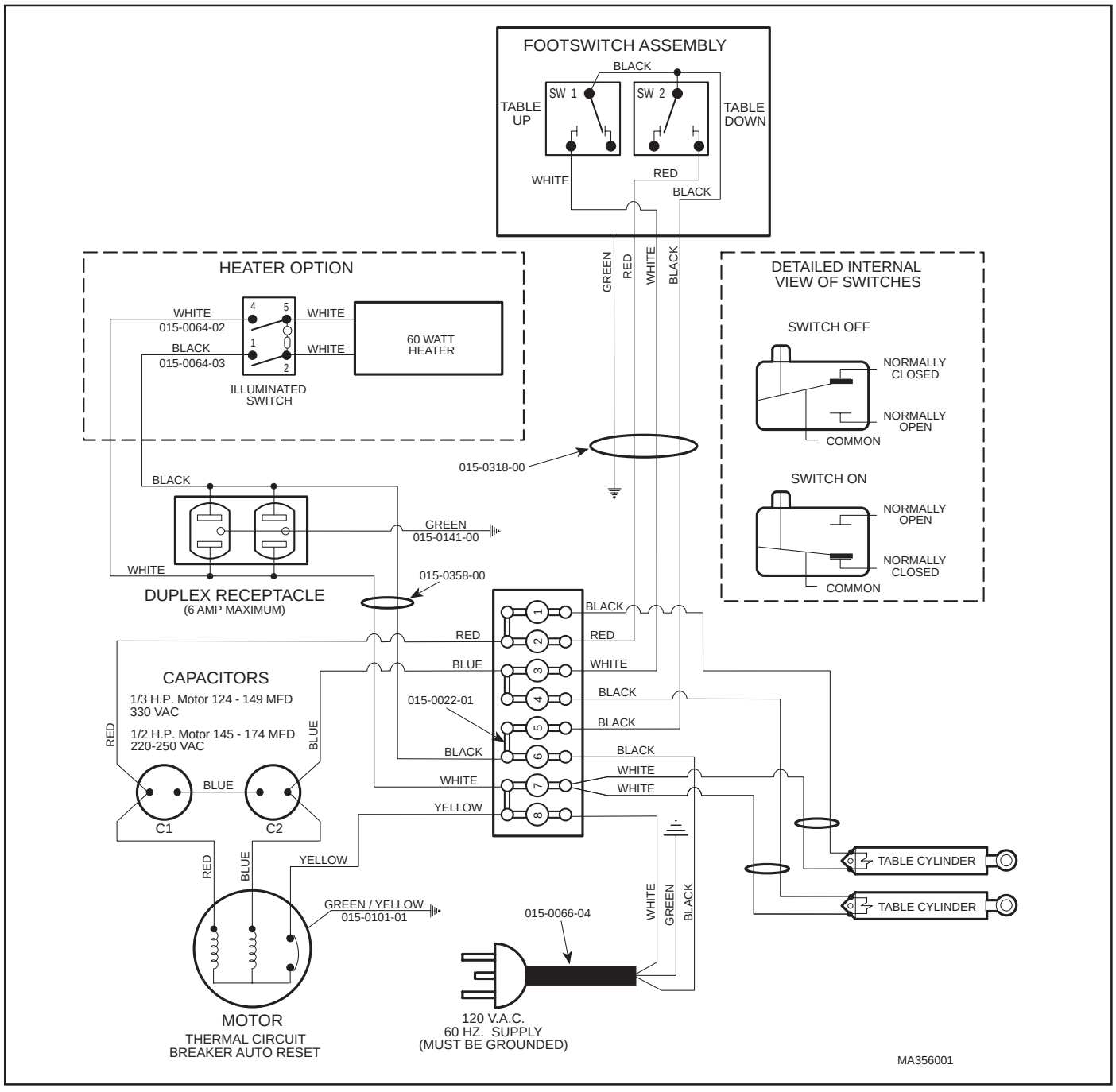
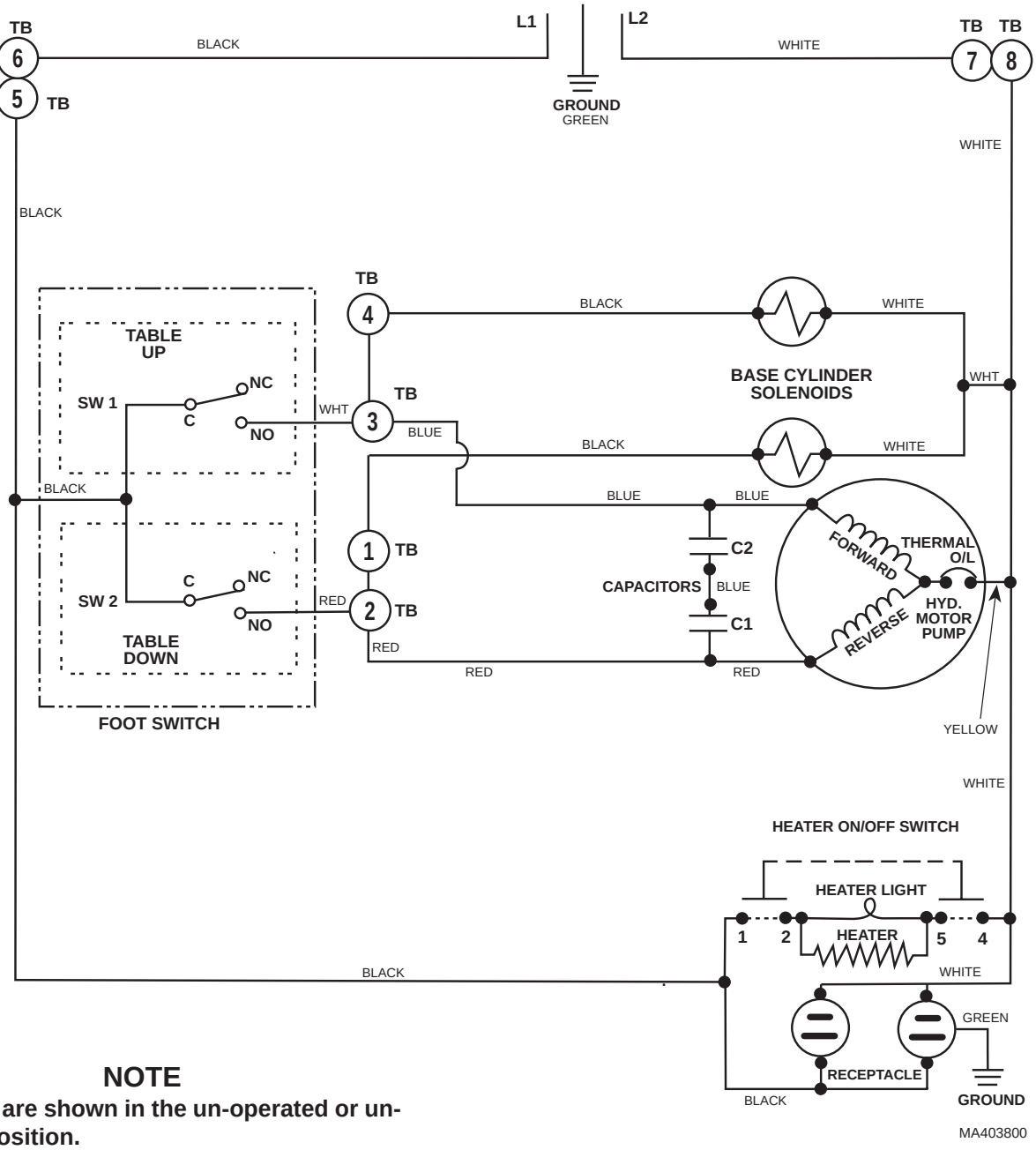


Figure 5-1. 115 VAC Units Electrical Schematic / Wiring Diagram

SECTION V
SCHEMATICS AND DIAGRAMS



NOTE

All controls are shown in the un-operated or un-energized position.

NO	**=**	**Normally Open Contacts**
NC	**=**	**Normall Closed Contacts**
C	**=**	**Common**
TB	**=**	**Terminal Board**
O/L	**=**	**Overload**
C1	**=**	**Capacitor**
SW	**=**	**Switch**

Figure 5-2. 115 VAC Units Electrical Schematic

Printed in U.S.A.

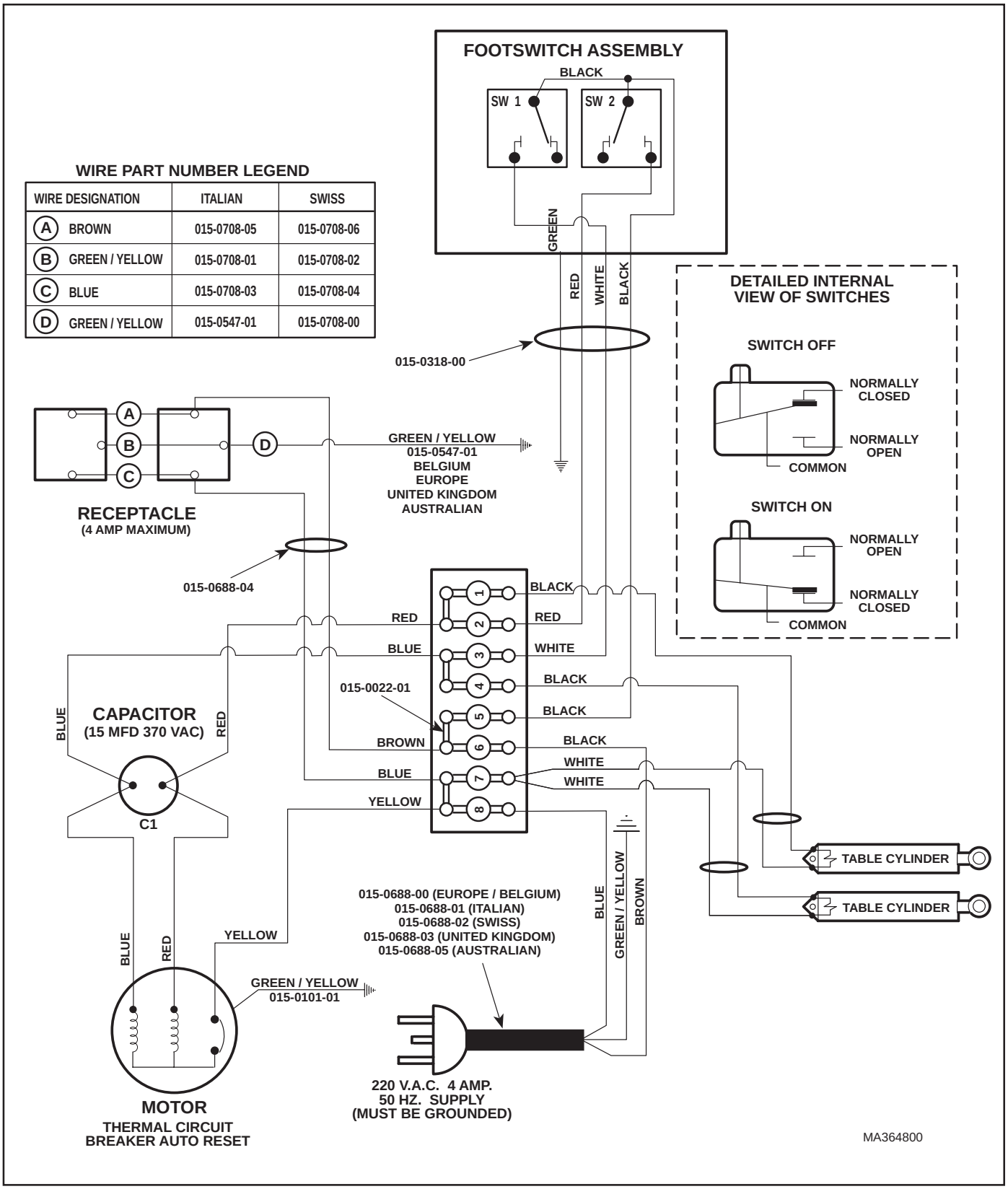
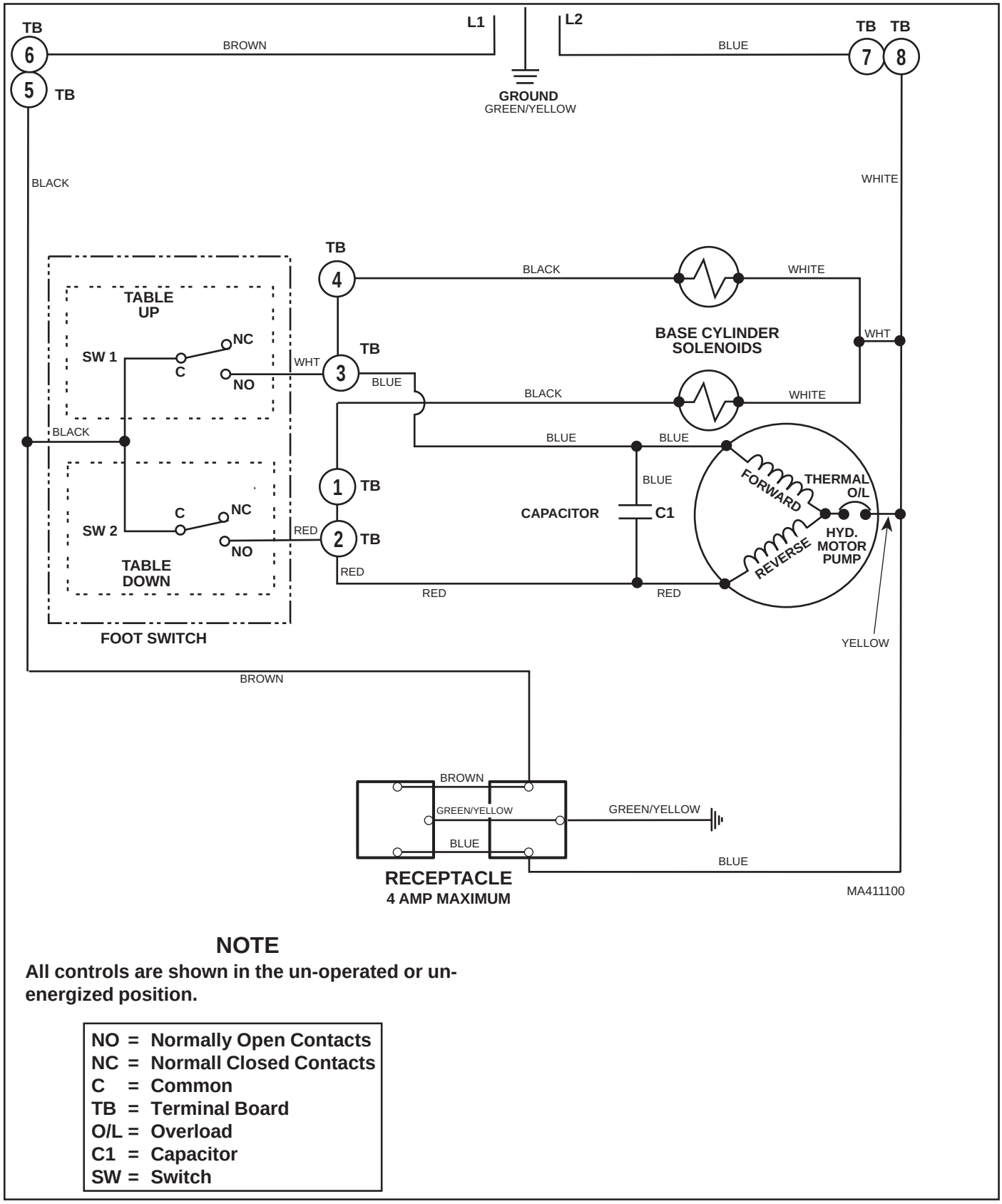


Figure 5-3. 220 VAC Units Electrical Schematic / Wiring Diagram (Export Units)

Printed in U.S.A.

SECTION V
SCHEMATICS AND DIAGRAMS



NOTE

All controls are shown in the un-operated or un-energized position.

NO	=	Normally Open Contacts
NC	=	Normall Closed Contacts
C	=	Common
TB	=	Terminal Board
O/L	=	Overload
C1	=	Capacitor
SW	=	Switch

Figure 5-4. 220 VAC Units Electrical Schematic (Export Units)

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Table "Up" Hydraulic Schematic

A..Table Hydraulic Cylinders
B..Hydraulic Motor / Pump
C..Pressure Relief Valves
D..Suction Check Valves
E..Table Cylinder Solenoid Valves (Open)
F..Hydraulic Reservoir

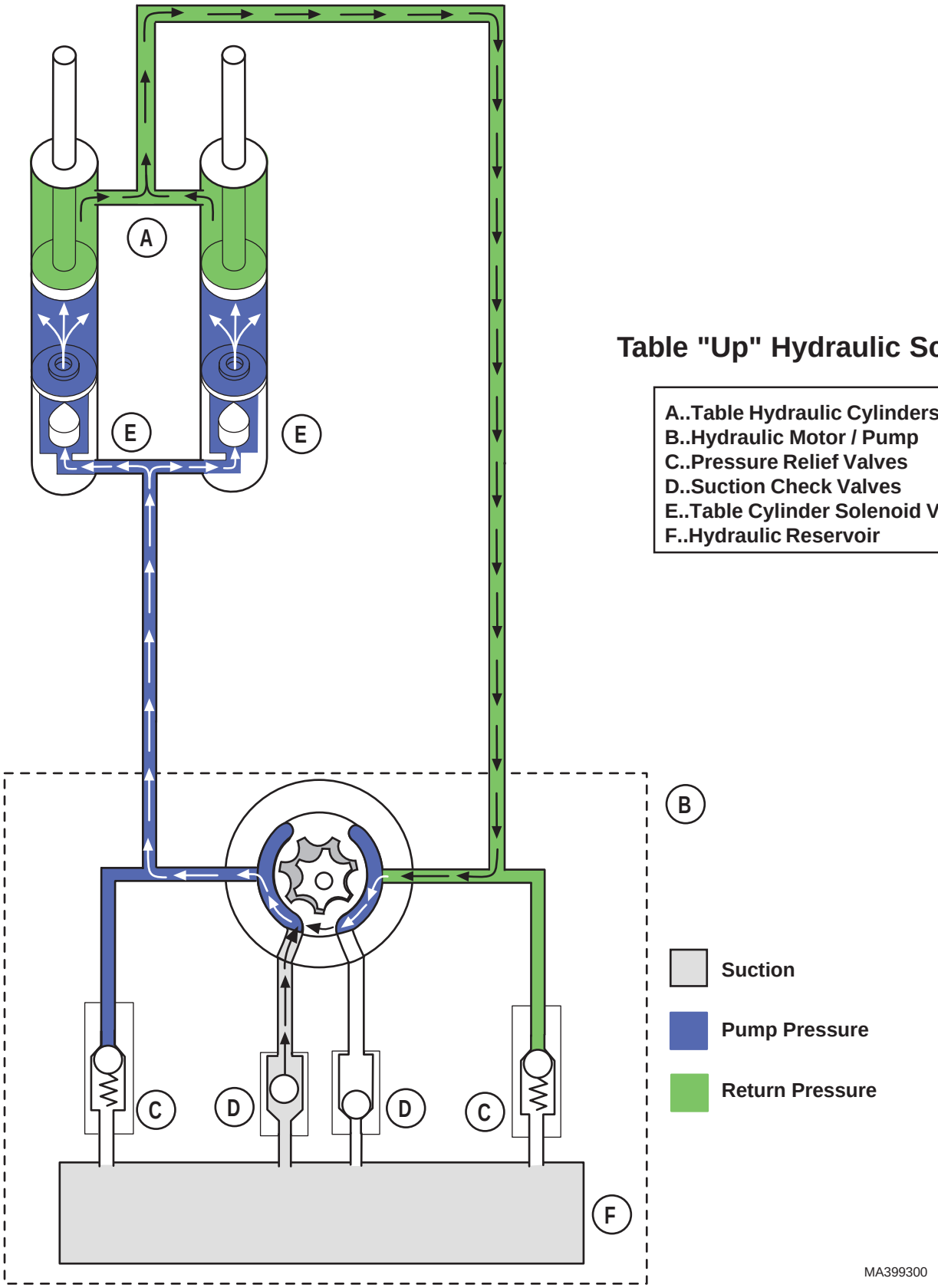

Figure 5-5. Hydraulic Schematic

Printed in U.S.A.

SECTION V
SCHEMATICS AND DIAGRAMS

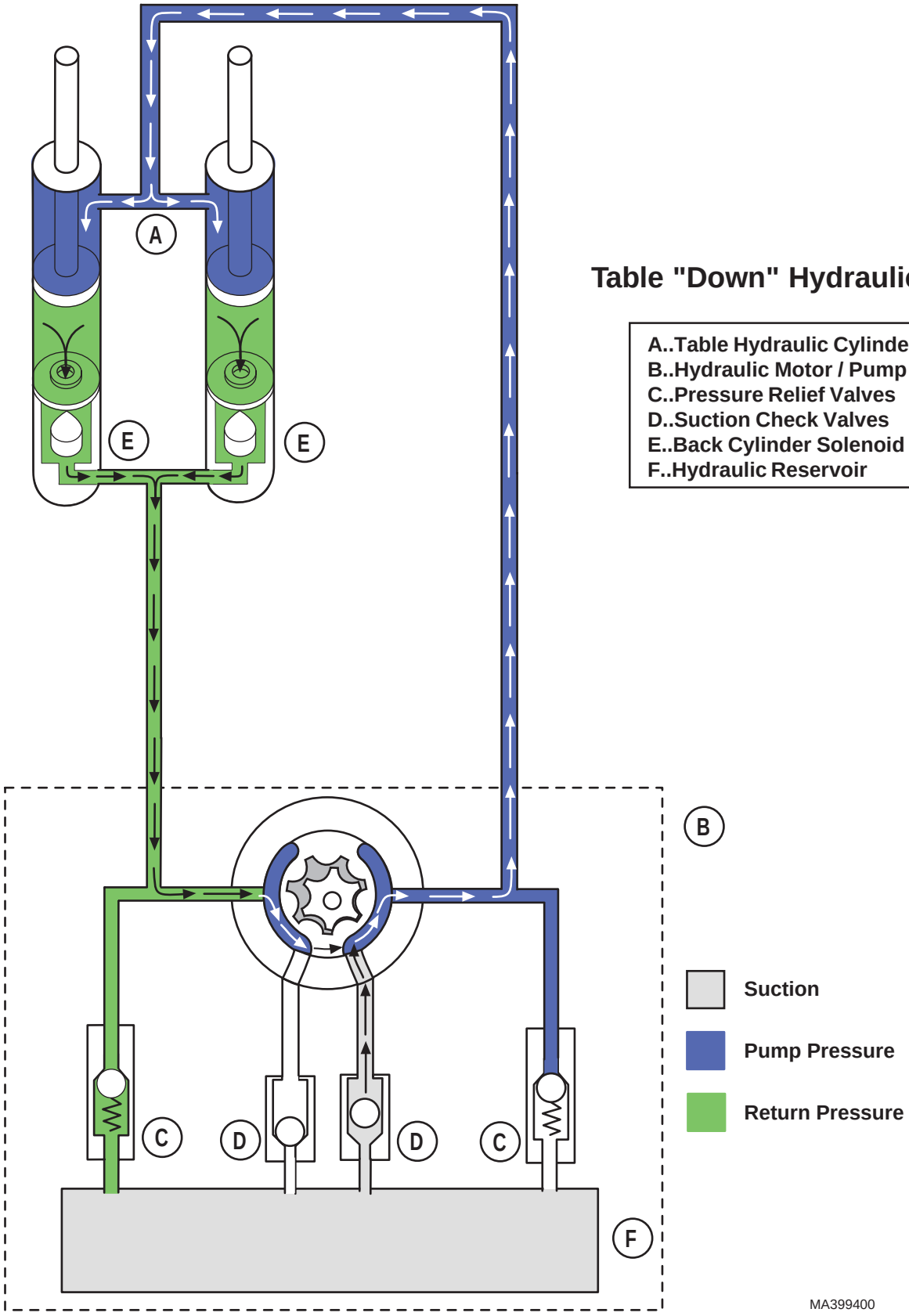

Table "Down" Hydraulic Schematic

A..Table Hydraulic Cylinders
B..Hydraulic Motor / Pump
C..Pressure Relief Valves
D..Suction Check Valves
E..Back Cylinder Solenoid Valve (Closed)
F..Hydraulic Reservoir

Figure 5-6. Hydraulic Schematic

Printed in U.S.A.

SECTION VI
PARTS LIST

6.1 Introduction

The illustrated parts list provides information for identifying and ordering the parts necessary to maintain the unit in peak operating condition. Refer to paragraph 1.5 for parts ordering information.

The parts list also illustrates disassembly and assembly relationships of parts.

6.2 Description of Columns

The *Item* column of the parts list gives a component its own unique number. The same number is given to the component in the parts illustration. This allows a part number of a component to be found if the technician can visually spot the part on the illustration. The technician simply finds the component in question on the illustration and notes the item number of that component. Then, he finds that item number in the parts list. The row corresponding to the item number gives the technician the part number, a description of the component, and quantity of parts per subassembly. Also, if a part number is known, the location of that component can be determined by looking for the item number of the component on the illustration.

The *Part No.* column lists the MIDMARK part number for that component.

The *Description* column provides a physical description of the component.

The *Qty.* column lists the number of units of a particular component that is required for the subassembly. The letters “AR” denote “as required” when quantities of a particular component cannot be determined, such as: adhesive.

Bullets { • } in the *Part No.* column and the *Description* column show the indenture level of a component. If a component does not have a bullet, it is a main component of that illustration. If a component has a bullet, it is a subcomponent of the next component listed higher in the parts list than itself that does not have a bullet. Likewise, if a component has two bullets, it is a subcomponent of the next component listed higher in the parts list than itself that has only one bullet.

6.3 Torque Specifications and Important Assembly Notes

When specific assembly torque specifications, measurements, or procedures have been identified, by our engineering department, as required to assure proper function of the unit, those torque specifications measurements, and procedures will be noted on the parts illustrations. Adherence to these requirements is essential.

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Pictorial Index

Color Selector.....www.midmark.com

MA360800

Used On Units With Serial Number GY1000, GZ1000, HA1000, HB1000, JL1000 and JM1000 thru Present.
Used On Units With Serial Number V2200 thru Present

* Click on the Color Selector link above to see available colors.

Always Specify Model & Serial Number

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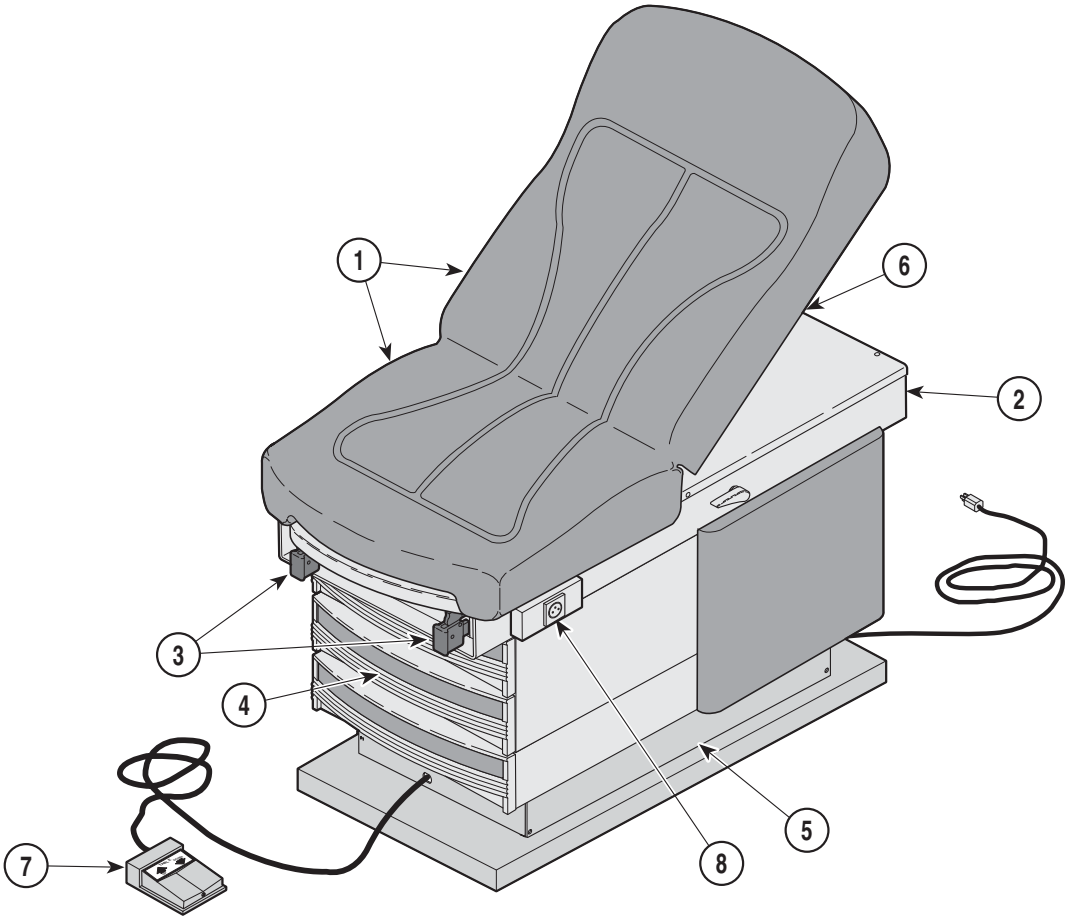
Pictorial Index



Color Selector.....www.midmark.com

MA411200

Used On Units With Serial Number HC1000 thru Present
Used On Units With Serial Number V2200 thru Present

* Click on the Color Selector link above to see available colors.

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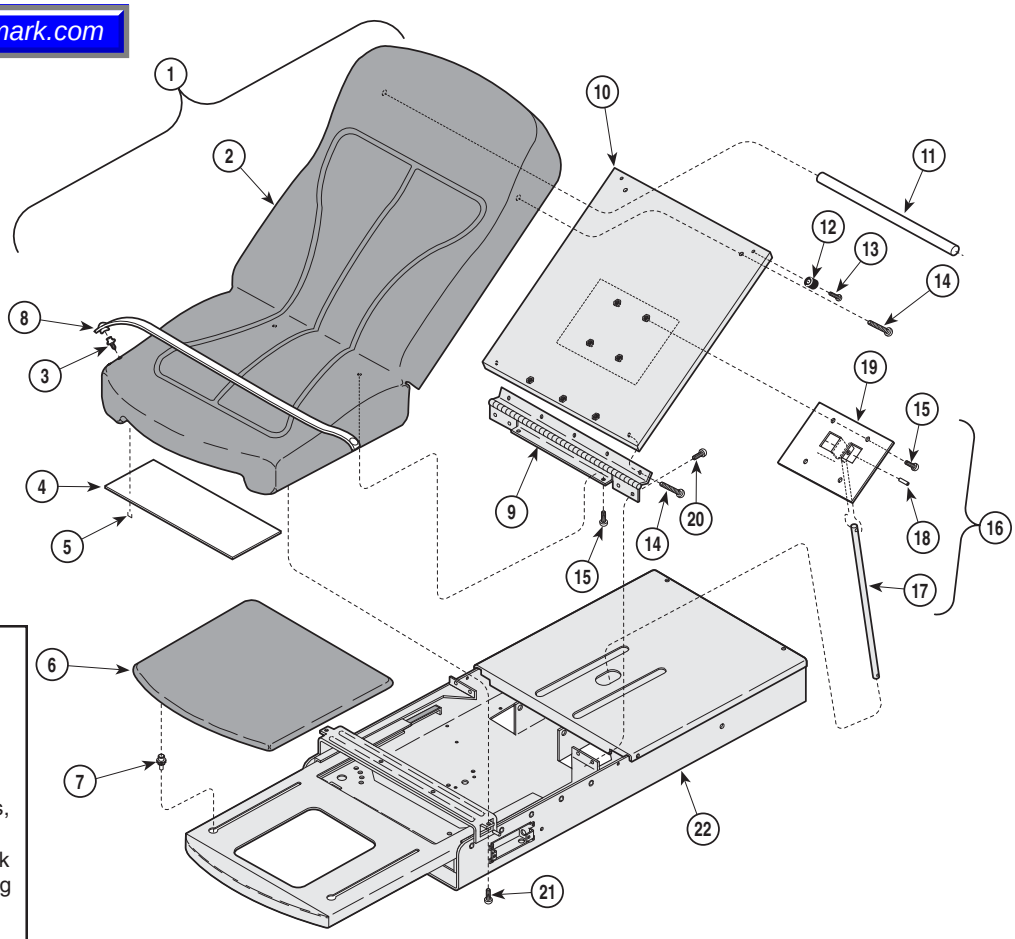
Seat and Back Components (Vacu-Form)

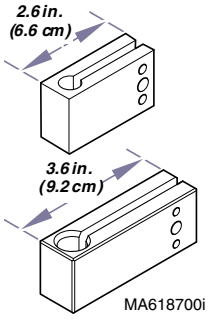
Color Selector.....www.midmark.com



MA352300

NOTE

Vacu-Form Uph. Kit is no longer available. Replace with **002-0726-00 *(*Specify Color)***.



If table has knee crutches, measure mounting block before ordering uph. top.

If mounting block is less than 3.6 in. (9.2 cm) long, you must also order the Extended Knee Crutch Bracket **(002-0517-00).**

Used On Units With Serial Number GY1000 thru GY2222, GZ1000 thru GZ1970, HC1000 thru HC1330

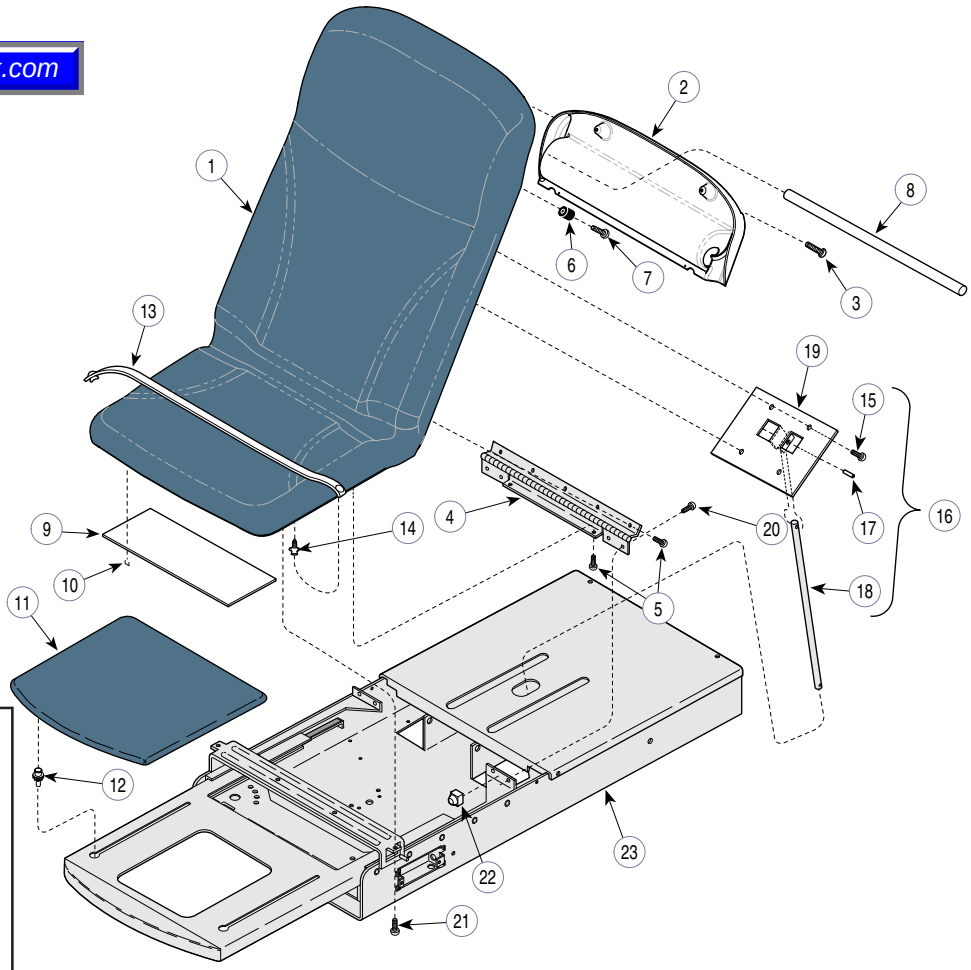
Item	Part No.	Description	Qty.
1	002-0570-00	Vac-form Upholstery Kit ***- See NOTE*** (includes items 2 thru 5)	1
2	• n/a	• Upholstered Top	1
3	• 016-0022-00	• Stud	4
4	• 053-0869-01	• Scuff Plate (Units w/ Pelvic Lift Only)	1
5	• 042-0040-00	• Staple (Units w/ Pelvic Lift Only)	10
6	028-0439-00	Upholstered Footrest (*Specify Color)	1
7	053-0424-00	Footrest Glide	4
8	029-0017-00	Paper Tear Strip	2
9	016-0715-41	Top Hinge	1
10	029-2014-00	Back Plate Assembly	1
11	055-0005-04	Dowel	1
12	053-0024-00	Recess Bumper	2
13	040-0008-95	Screw	2
14	040-0010-53	Screw	4
15	040-0010-01	Screw	9
16	029-0011-00	Back Support Rod Assembly (Includes Items 17 thru 19)	1
17	• 057-0005-00	• Back Support Rod	1
18	• 042-0001-01	• Roll Pin	1
19	• 050-0005-00	• Rod Support Plate	1
20	040-0010-35	Screw	4
21	040-0010-01	Screw (Units w/o Pelvic Lift Only)	2
22		Upper Wrap (Refer to "*Upper Wrap Assembly*")	Ref

* Click on the Color Selector link above to see available colors.

Always Specify Model & Serial Number

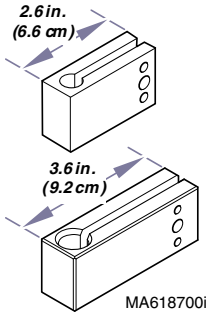
Seat and Back Components (Vacu-Form)

Color Selector.....www.midmark.com



NOTE

If table has knee crutches, measure mounting block before ordering uph. top.



MA618700i

If mounting block is less than 3.6 in. (9.2 cm) long, you must also order the Extended Knee Crutch Bracket **(002-0517-00).**

MA352302i

Used On Units With Serial Number GY2223, GZ1971, HC1331 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1	002-0740-xxx	Vacu-Form Upholstery Top (includes items 2 thru 7) ***(replace -xxx w/color code)***	1
2	• 053-1319-01	• Paper Roll Holder	1
3	• 040-0008-46	• Screw	4
4	• 016-0922-00	• Hinge	1
5	• 040-0250-03	• Screw	7
6	• 053-1290-00	• Recess Bumper	2
7	• 040-0008-104	• Screw	2
8	055-0005-07	Dowel	1
9	053-0950-00	Scuff Plate	1
10	042-0040-00	Staple	AR
11	028-0439-00	Upholstered Footrest (*Specify Color)	1
12	053-0424-00	Footrest Guide	2
13	029-0017-00	Paper Tear Strap	1
14	016-0022-00	Stud	4
15	040-0010-01	Screw	9
16	029-0011-00	Back Support Rod Assembly (includes items 17 thru 19)	1
17	• 042-0001-01	• Roll Pin	1
18	• 057-0005-00	• Back Support Rod	1
19	• 050-0005-00	• Rod Support Plate	1
20	040-0010-35	Screw	4
21	040-0010-01	Screw (Units w/o Pelvic Lift Only)	2
22	053-0014-00	Bumper	2
23		Refer to "*Upper Wrap Assembly*"	Ref

* Click on the Color Selector link above to see available colors.

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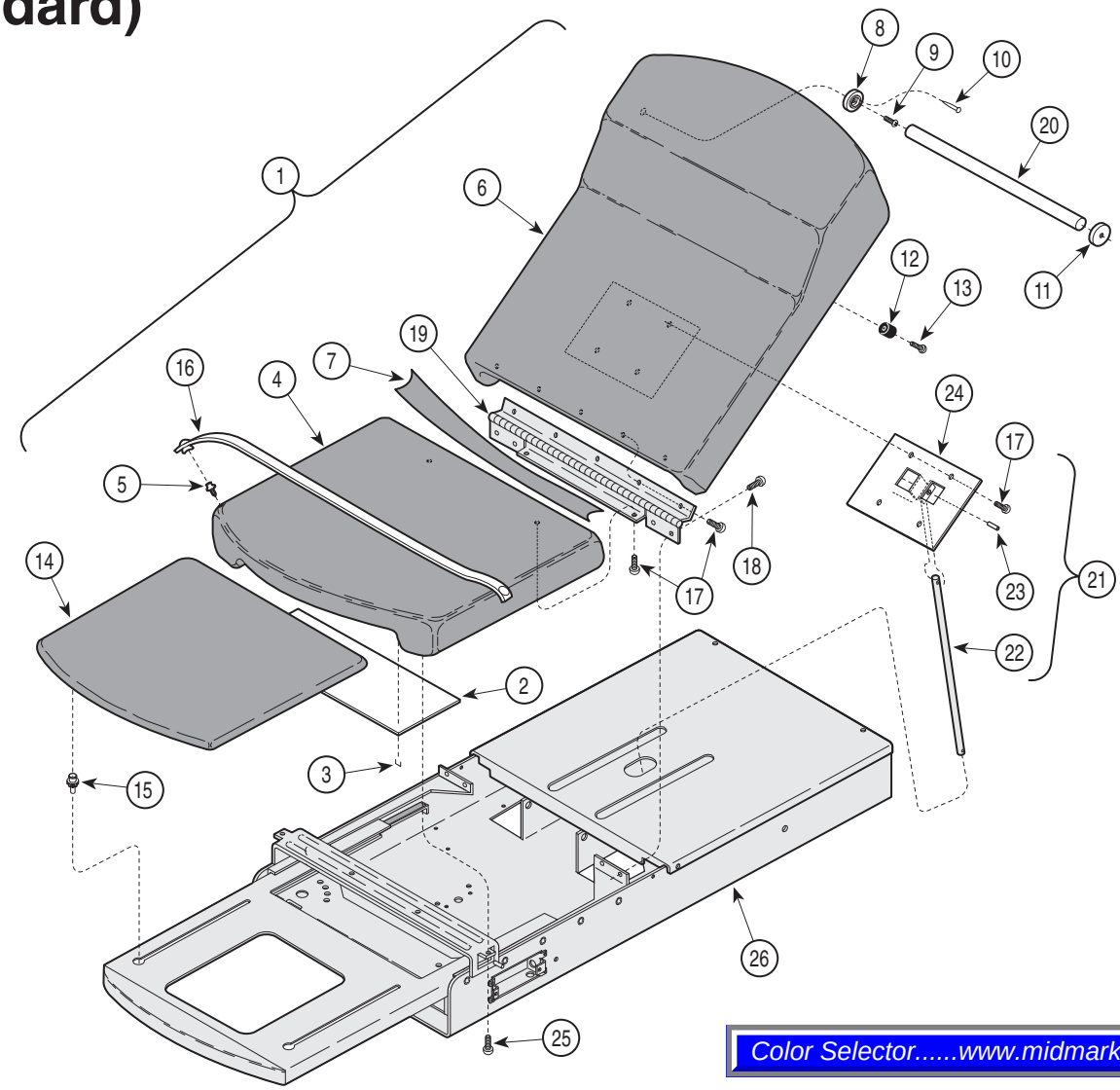
Seat and Back Components (Standard)



Color Selector.....www.midmark.com

MA361000

Used On Units With Serial Number HA1000 thru Present and HB1000 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1	002-0569-00	Standard Upholstery Set (Includes Items 2 thru 13 [Specify Color])	1
2	• 053-0950-00	• Scuff Plate (units w/Pelvic Lift only)	1
3	• 042-0040-00	• Staple (units w/ Pelvic Lift only)	4
4	• 028-0441-00	• Uph. Seat Board (*Specify Color) [includes item 5 (qty. 2)]	1
5	• • 016-0022-00	• • Stud	4
6	• 028-0456-00	• Uph. Head Board (*Specify Color) [includes item 5 (qty. 2)]	1
7	• 056-0203-00	• Hinge Cover Vinyl (*Specify Color)	1
8	• 053-0043-04	• R. H. Pole Socket	1
9	• 040-0006-26	• Screw	4
10	• 042-0605-00	• Wire Nail	1
11	• 053-0043-03	• L. H. Pole Socket	1
12	• 053-1290-00	• Recess Bumper	2
13	• 040-0008-104	• Screw	2
14	028-0439-00	Upholstered Footrest (*Specify Color)	1
15	053-0424-00	Footrest Glide	4
16	029-0017-00	Paper Tear Strip	2
17	040-0010-01	Screw	11
18	040-0010-35	Screw	4
19	016-0715-41	Top Hinge	1
20	055-0005-00	Dowel	1
21	029-0011-00	Back Support Rod Assembly (includes items 22 thru 24)	1
22	• 057-0005-00	• Back Support Rod	1
23	• 042-0001-01	• Roll Pin	1
24	• 050-0005-00	• Rod Support Bracket	1
25	040-0010-01	Screw (Units w/o Pelvic Lift Only)	2
26		Refer to "*Upper Wrap Assembly*"	Ref

* Click on the Color Selector link above to see available colors.

Always Specify Model & Serial Number

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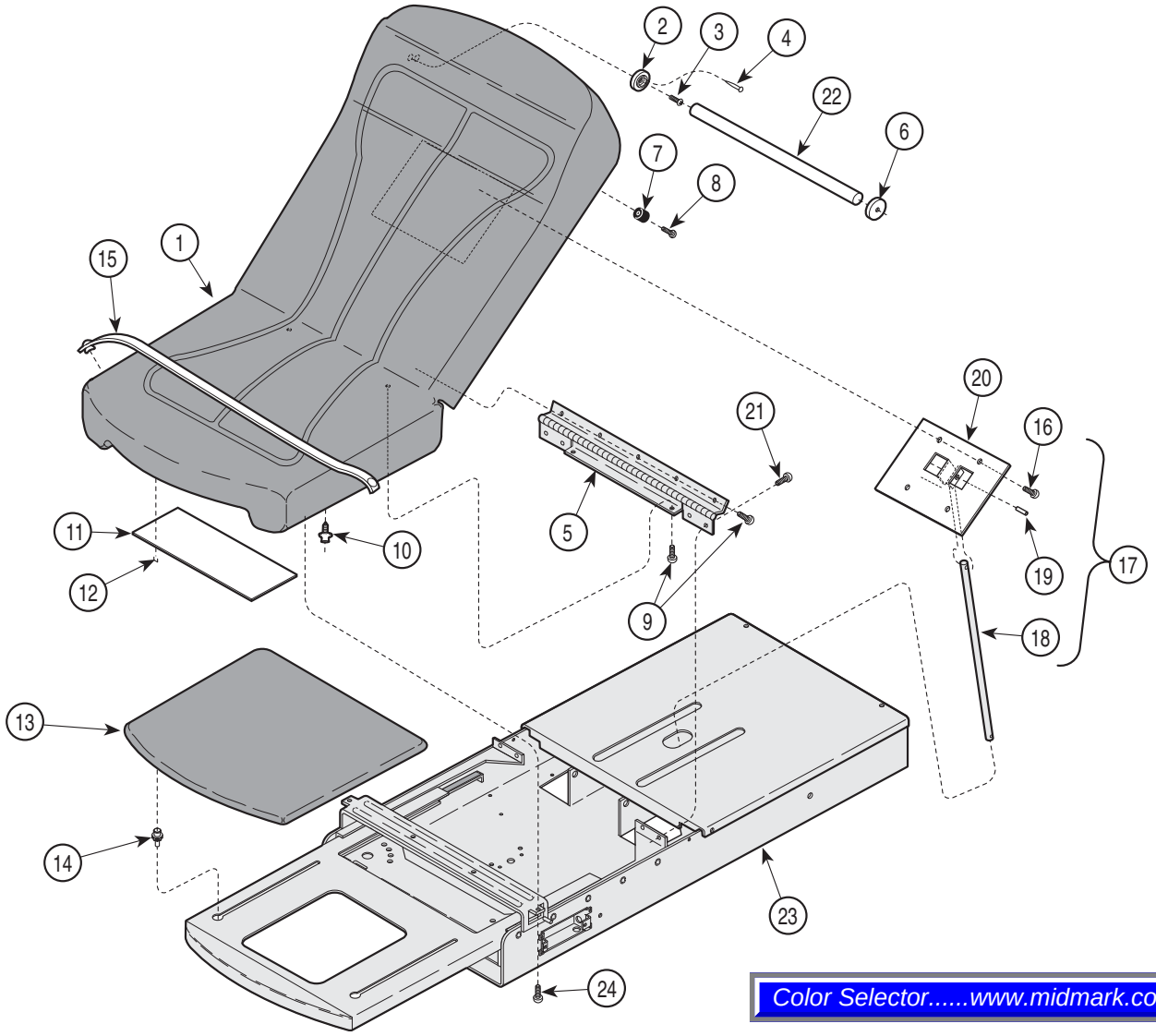
Seat and Back Components (Soft Touch)



MA420401

Used On Units With Serial Number JL1000 thru Present and JM1000 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1	002-0600-00	Soft Touch Upholstery (*Specify Color) (includes items 2 thru 12)	1
2	• 053-0043-04	• R.H. Pole Socket	1
3	• 040-0006-26	• Screw	2
4	• 042-0605-00	• Wire Nail	A/R
5	• 016-0715-41	• Top Hinge	1
6	• 053-0043-03	• L.H. Pole Socket	1
7	• 053-1290-00	• Recess Bumper	2
8	• 040-0008-104	• Screw	2
9	• 040-0010-01	• Screw	7
10	• 016-0022-00	• Stud	4
11	• 053-0950-00	• Scuff Plate (Units w/ Pelvic Lift Only)	1
12	• 042-0040-00	• Staple (Units w/ Pelvic Lift Only)	10
13	028-0439-00	Upholstered Footrest (*Specify Color)	1
14	053-0424-00	Footrest Glide	4
15	029-0017-00	Paper Tear Strip	2
16	040-0010-01	Screw	9
17	029-0011-00	Back Support Rod Assembly (includes items 18 thru 20)	1
18	• 057-0005-00	• Back Support Rod	1
19	• 042-0001-01	• Roll Pin	1
20	• 050-0005-00	• Rod Support Plate	1
21	040-0010-35	Screw	4
22	055-0005-00	Dowel	1
23		Refer to "*Upper Wrap Assembly*"	Ref
24	040-0010-01	Screw (Units w/o Pelvic Lift Only)	2

* Click on the Color Selector link above to see available colors.

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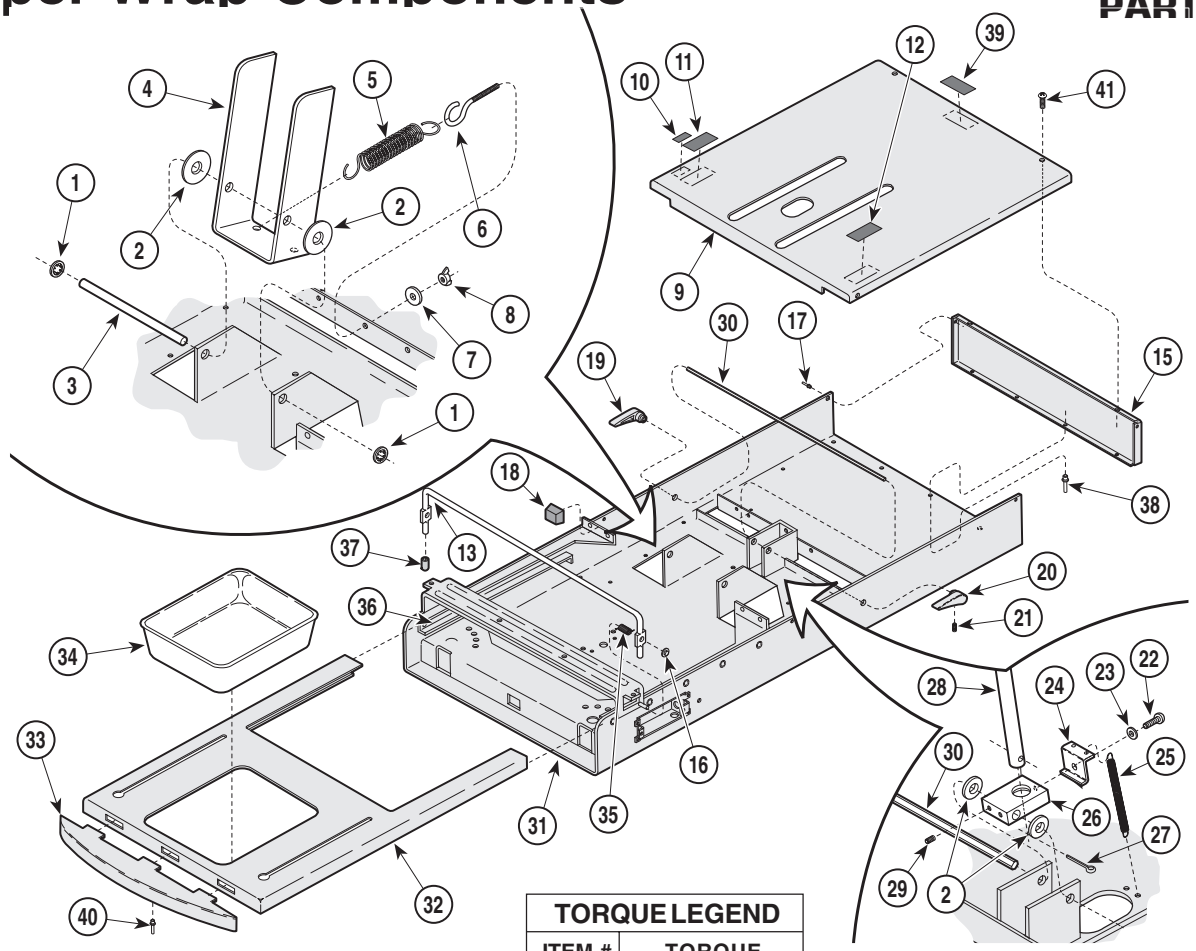
Upper Wrap Components



TORQUE LEGEND	
ITEM #	TORQUE
21	10-20 IN-LBS (1.2-2.3 N•M)

MA363000

Used On Units With Serial Number GY1000, GZ1000, HA1000, HB1000, JL1000, and JM1000 thru GY1686, GZ1543, HA1206, HB1040, JL1173 and JM1021

Item	Part No.	Description	Qty.
1	042-0159-00	Push-on Retaining Ring	2
2	045-0001-01	Washer	4
3	057-0436-00	Lift Support Rod	1
4	051-0132-40	Lift Lever	1
5	025-0003-00	Lift Spring	2
6	016-0008-00	Eye Bolt	2
7	045-0001-02	Washer	2
8	041-0250-05	Wing Nut	2
9	029-1110-02	Cover Assy	1
10		Serial Number Label	Ref
11	061-0291-00	Patent Number Label	1
12	061-0301-00	UL Label (Units w Heaters)	1
	061-0620-00	UL / CUL Label(Units w/o Heaters)	1
13	057-0242-40	Pelvic Lift Bar (Units w/ Pelvic Lift Only)	1
14	040-0010-00	Screw	10
15	050-0180-40	End Cap	1
16	041-0009-00	Push Nut	2
17	042-0010-03	Pop Rivet	2
18	053-0014-00	Self Sticking Bumper	4
19	053-0844-00	R.H. Back Lock Handle	1
20	053-0844-01	L.H. Back Lock Handle	1
21	040-0250-148	Set Screw	2
22	040-0010-74	Screw	1
23	045-0001-04	Lockwasher	1
24	050-0101-00	Back Lock Spring Retainer	1
25	025-0008-00	Back Lock Spring	2
26	051-0002-00	Back Lock	1
27	042-0003-00	Cotter Pin	1
28		Back Support Rod Assembly (Refer to "Table Top Components" Elsewhere)	Ref
29	040-0250-00	Set Screw	2
30	057-0435-40	Back Lock Rod	1
31	030-1078-40	Upper Wrap Weldment	1
32	030-1034-40	Foot Rest Weldment (Apply Lubricant #S006-00722)	1
33	053-0828-00	Foot Rest Trim	1
34	053-0220-01	Painted Treatment Pan	1
	9A70000	Stainless Steel Treatment Pan (Optional Accessory)	1
35	016-0284-01	R.H. Spring(Used on Left Side[Shown])	1
	016-0284-00	L.H. Spring(Used on Right Side)	1
36	053-0018-00	Nylo Tape (Listed In Inches)	52
37	053-0268-00	End Cap (Units w/ Pelvic Lift Only)	2
38	042-0010-07	Pop Rivet	4
39	061-0293-00	Caution Label	1
40	042-0010-01	Pop Rivet	2
41	040-0010-18	Screw	4

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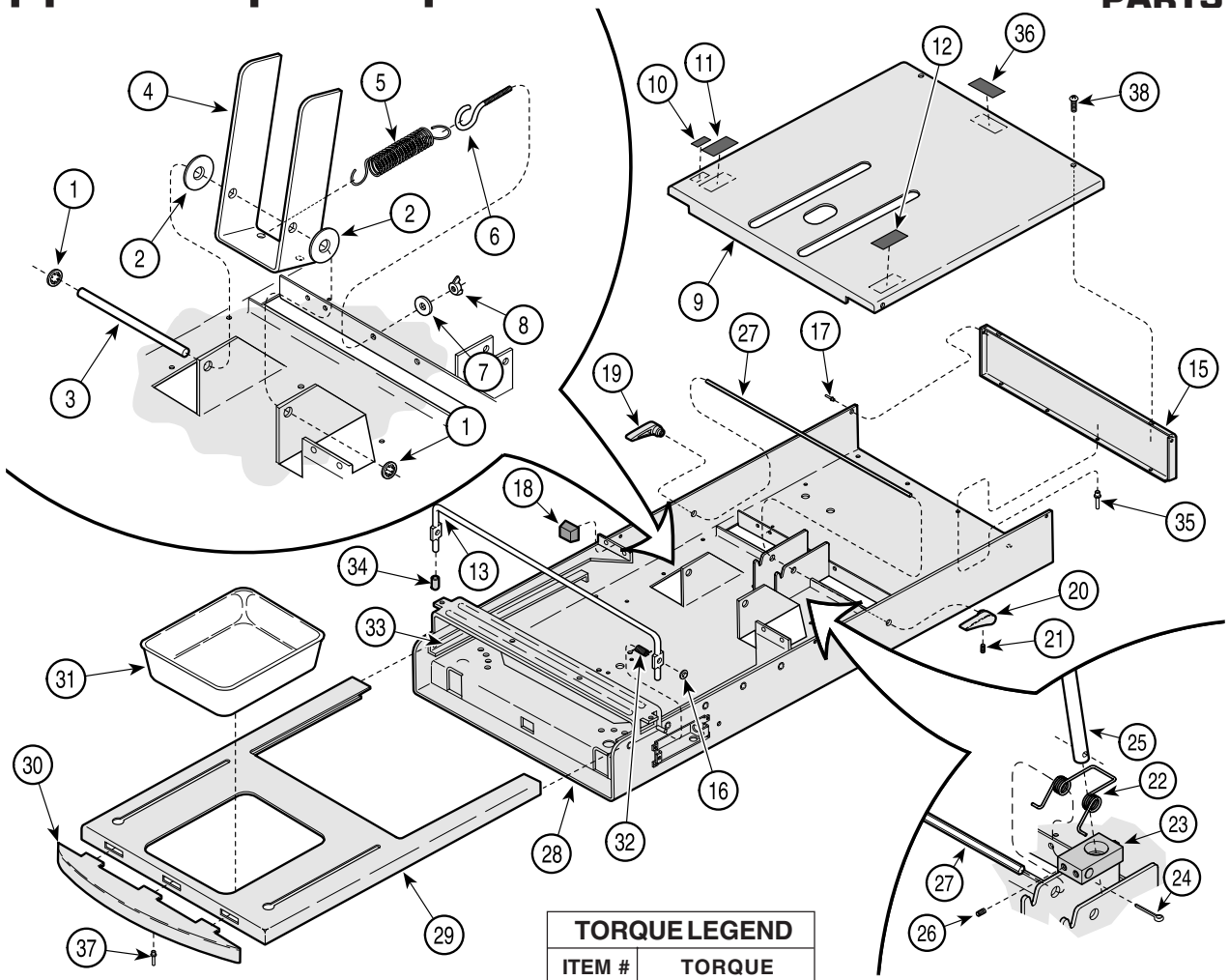
Upper Wrap Components



TORQUE LEGEND	
ITEM #	TORQUE
21	10-20 IN-LBS (1.2-2.3 N•M)

MA363001i

Used On Units With Serial Number GY1687, GZ1544, HA1207, HB1041, JL1174, and JM1022 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1	042-0159-00	Push-on Retaining Ring	2
2	045-0001-01	Washer	2
3	057-0436-00	Lift Support Rod	1
4	051-0132-40	Lift Lever	1
5	025-0003-00	Lift Spring	2
6	016-0008-00	Eye Bolt	2
7	045-0001-02	Washer	2
8	041-0250-05	Wing Nut	2
9	029-1110-02	Cover Assy	1
10		Serial Number Label	Ref
11	061-0291-00	Patent Number Label	1
12	061-0301-00	UL Label (Units w Heaters)	1
	061-0620-00	UL / CUL Label(Units w/o Heaters)	1
13	057-0242-40	Pelvic Lift Bar (Units w/ Pelvic Lift Only)	1
14	040-0010-00	Screw	10
15	050-0180-40	End Cap	1
16	041-0009-00	Push Nut	2
17	042-0010-03	Pop Rivet	2
18	053-0014-00	Self Sticking Bumper	4
19	053-0844-00	R.H. Back Lock Handle	1
20	053-0844-01	L.H. Back Lock Handle	1
21	040-0250-148	Set Screw	2
22	025-0063-00	Back Lock Spring	1
23	051-0926-00	Back Lock	1
24	042-0003-00	Cotter Pin	1
25		Back Support Rod Assembly (Refer to "Table Top Components" Elsewhere)	Ref
26	040-0250-00	Set Screw	2
27	057-0435-40	Back Lock Rod	1
28	030-1293-40	Upper Wrap Weldment	1
29	030-1034-40	Foot Rest Weldment (Apply Lubricant #S006-00722)	1
30	053-0828-00	Foot Rest Trim	1
31	053-0220-01	Painted Treatment Pan	1
	9A70000	Stainless Steel Treatment Pan (Optional Accessory)	1
32	016-0284-01	R.H. Spring(Used on Left Side[Shown])	1
	016-0284-00	L.H. Spring(Used on Right Side)	1
33	053-0018-00	Nylo Tape (Listed In Inches)	52
34	053-0268-00	End Cap (Units w/ Pelvic Lift Only)	2
35	042-0010-07	Pop Rivet	4
36	061-0293-00	Caution Label	1
37	042-0010-01	Pop Rivet	2
38	040-0010-18	Screw	4

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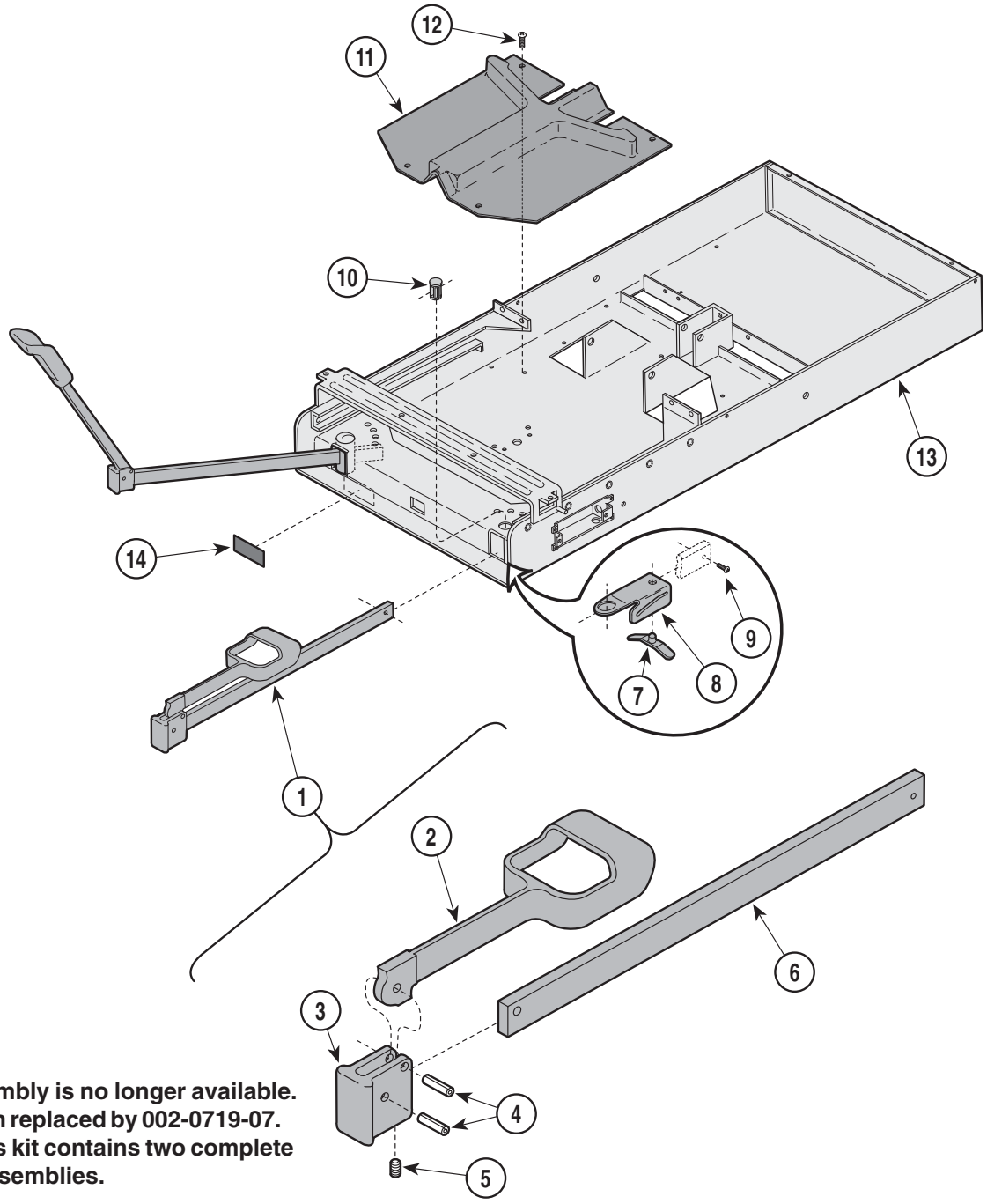
Stirrup Assembly



This assembly is no longer available. It has been replaced by 002-0719-07. Note: This kit contains two complete stirrup assemblies.

MA352600

Used On Units With Serial Number GY1000, GZ1000, HA1000, HB1000, HC100, JL1000, and JP1000 thru GY2256, GZ1970, HA1236, HB1059, HC11330, JL1214 and JM1149

Item	Part No.	Description	Qty.
1	029-1397-02	Stirrup Assembly (Includes Items 2 thru 6)	2
2	• 020-0181-30	• Painted Stirrup	1
3	• 020-0182-30	• Pivot Block	1
4	• 042-0001-00	• Roll Pin	2
5	• 040-0250-15	• Set Screw	1
6	• 051-0668-03	• Horizontal Bar	1
7	016-0400-00	Stirrup Index Spring (Apply Lubricant #S006-00719	2
8	050-5027-00	Stirrup Guide Bracket	2
9	040-0010-47	Screw	2
10	053-0387-00	Pivot Boss	2
11	053-0380-00	Stirrup Guide	1
12	040-0010-00	Screw	4
13		Upper Wrap (Refer to "Upper Wrap Assembly" Elsewhere)	Ref
14	061-0296-00	Stirrup Label	1

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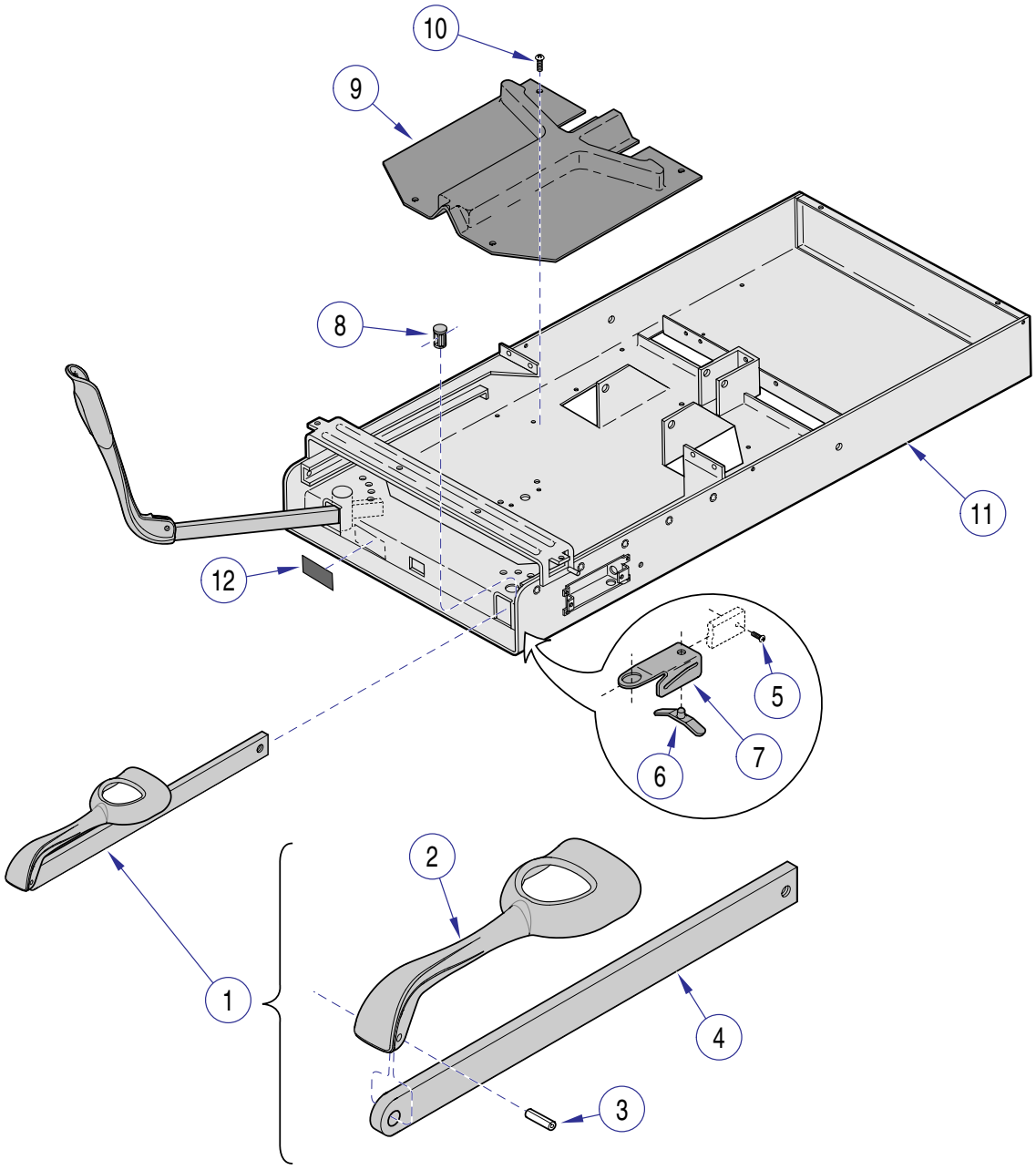
Stirrup Assembly



MA352601i

Used On Units With Serial Number GY2257, GZ1971, HA1237, HB1060, HC1331, JL1215, and JM1150 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1	029-2951-03	Stirrup Assembly (Includes Items 2 thru 4)	2
2	• 020-0239-30	• Stirrup	1
3	• 042-0001-00	• Roll Pin	1
4	• 051-1003-01	• Horizontal Bar	1
5	040-0010-47	Screw	1
6	016-0400-00	Stirrup Index Spring (Apply Lubricant #S006-00719	2
7	050-5027-00	Stirrup Guide Bracket	2
8	053-0387-00	Pivot Boss	2
9	053-0380-00	Stirrup Guide	1
10	040-0010-00	Screw	4
11		Upper Wrap (Refer to "Upper Wrap Assembly" Elsewhere)	Ref
12	061-0296-00	Stirrup Label	1

Always Specify Model & Serial Number

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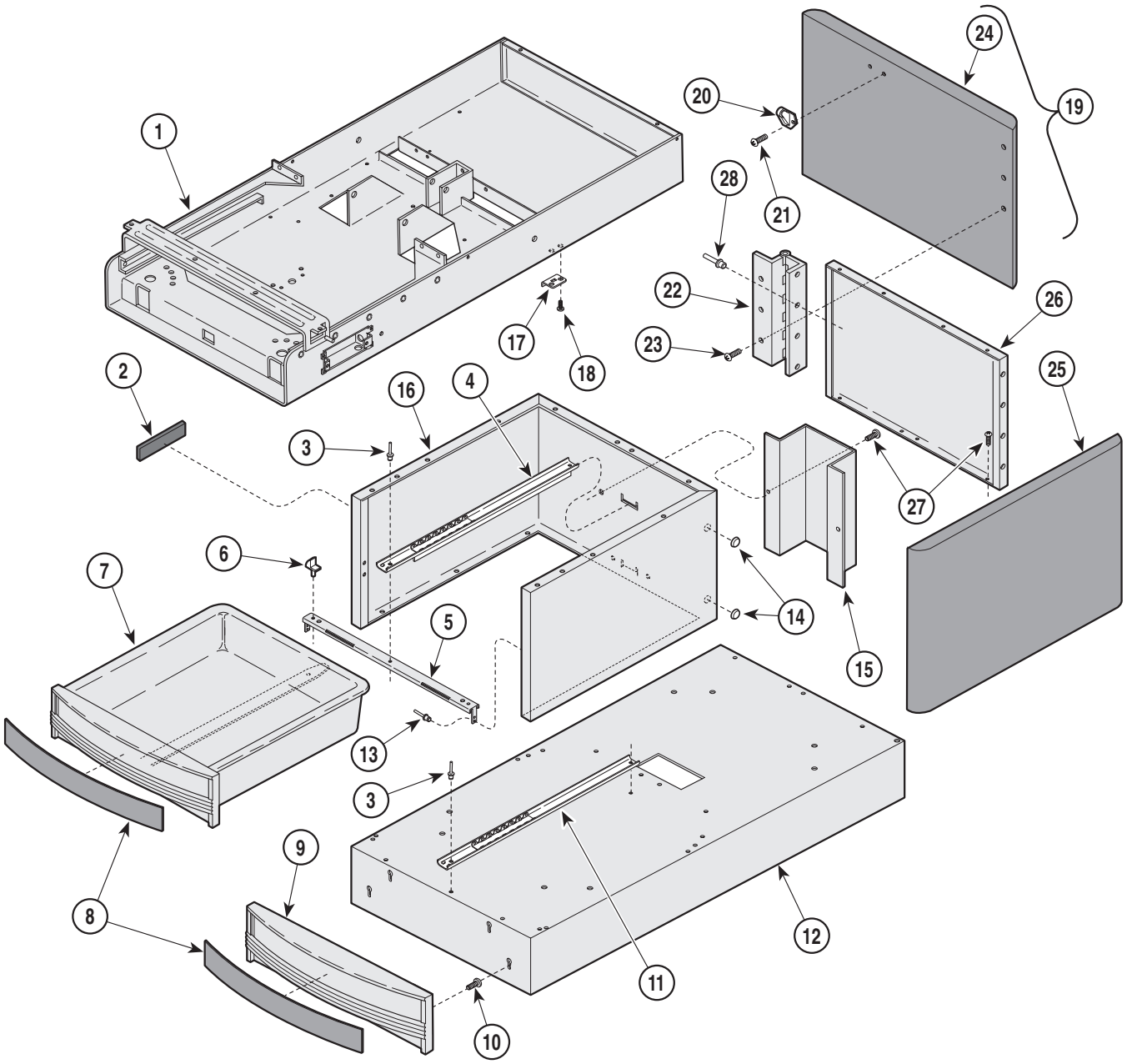
Cabinet Components



MA362800

Item	Part No.	Description	Qty.
1		Upper Wrap Weldment (Refer to "Upper Wrap Components" Elsewhere)	Ref
2	061-0621-04	307 Nameplate	1
3	042-0010-03	Pop Rivet	2
4	016-0677-01	Cabinet Member Foot Slide	1
5	050-3628-40	Short Foot Mullion	1
6	053-0004-00	Glide	4
7	029-1956-00	Drawer Assembly	2
8	050-3683-XX	Foot Drawer Insert (Specify Color)	3
9	029-2042-00	Front Foot Assembly (Includes Item 10)	1
10	• 040-0006-00	• Screw	4
11	016-0688-01	Cabinet Member Foot Slide	1
12	050-3611-40	Sub Base Wrap	1
13	042-0010-01	Pop Rivet	4
14	053-0716-00	Self Sticking Bumper	4
15	050-3869-40	Rod Cover	1
16	050-3610-40	Center Support	1
17	016-0004-01	Strike Plate (Includes Item 20)	2
18	040-0006-26	Screw	4
19	029-2028-00	L.H. Door Assembly (Includes Items 20 thru 24 [Specify Color])	1
20	• 016-0004-01	• Roller Catch (Includes Item 17)	1
21	• 040-0006-26	• Screw	2
22	• 016-0684-40	• Hinge	1
23	• 040-0006-00	• Screw	4
24	• 063-3300-00	• Door Panel (Specify Color)	1
25	029-2029-00	R.H. Door Assembly (Includes Items 20 thru 24 [Specify Color])	1
26	050-0016-40	Back Wrap	1
27	040-0010-00	Screw	18
28	042-0010-02	Pop Rivet	8

Always Specify Model & Serial Number

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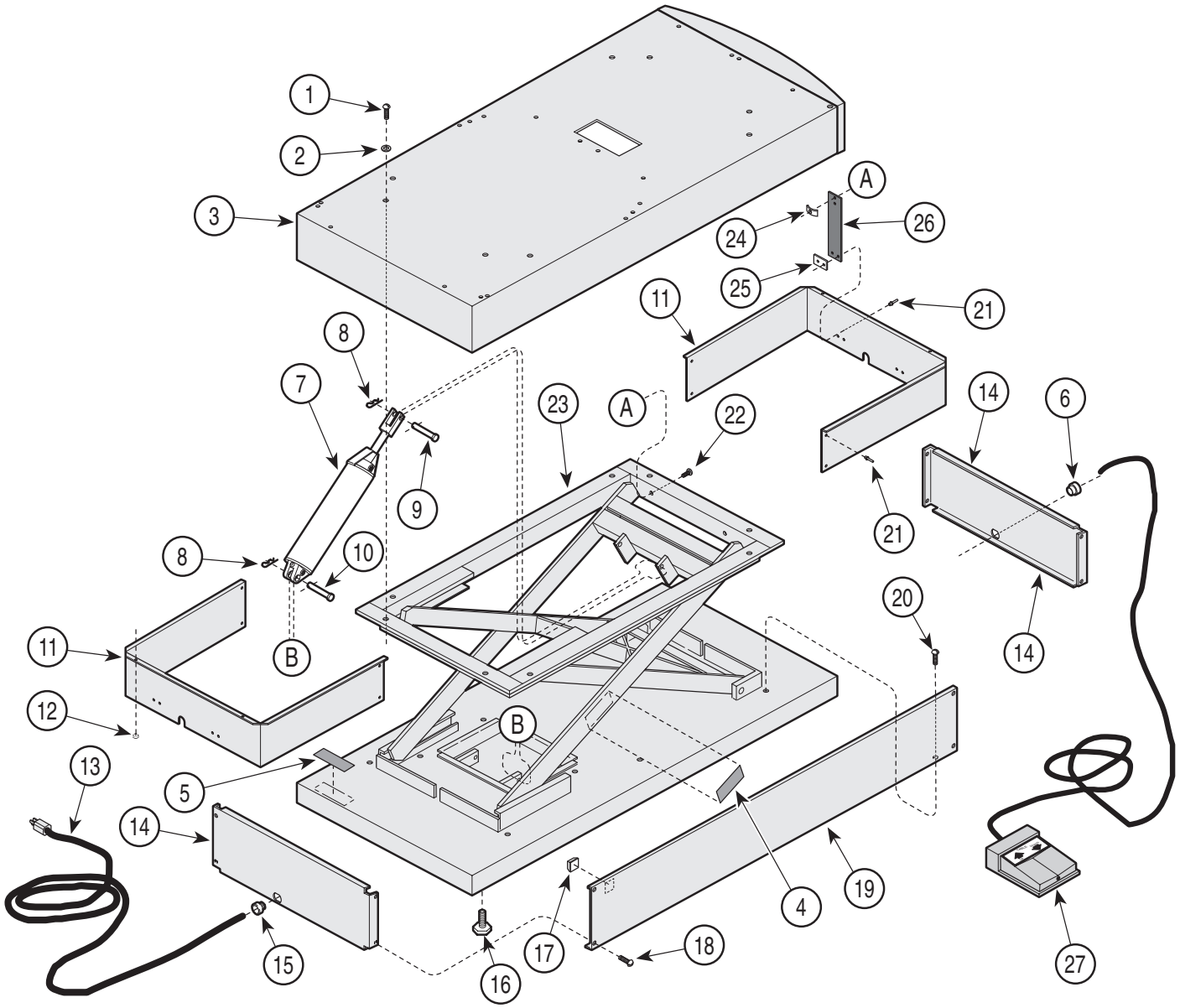
Base Components

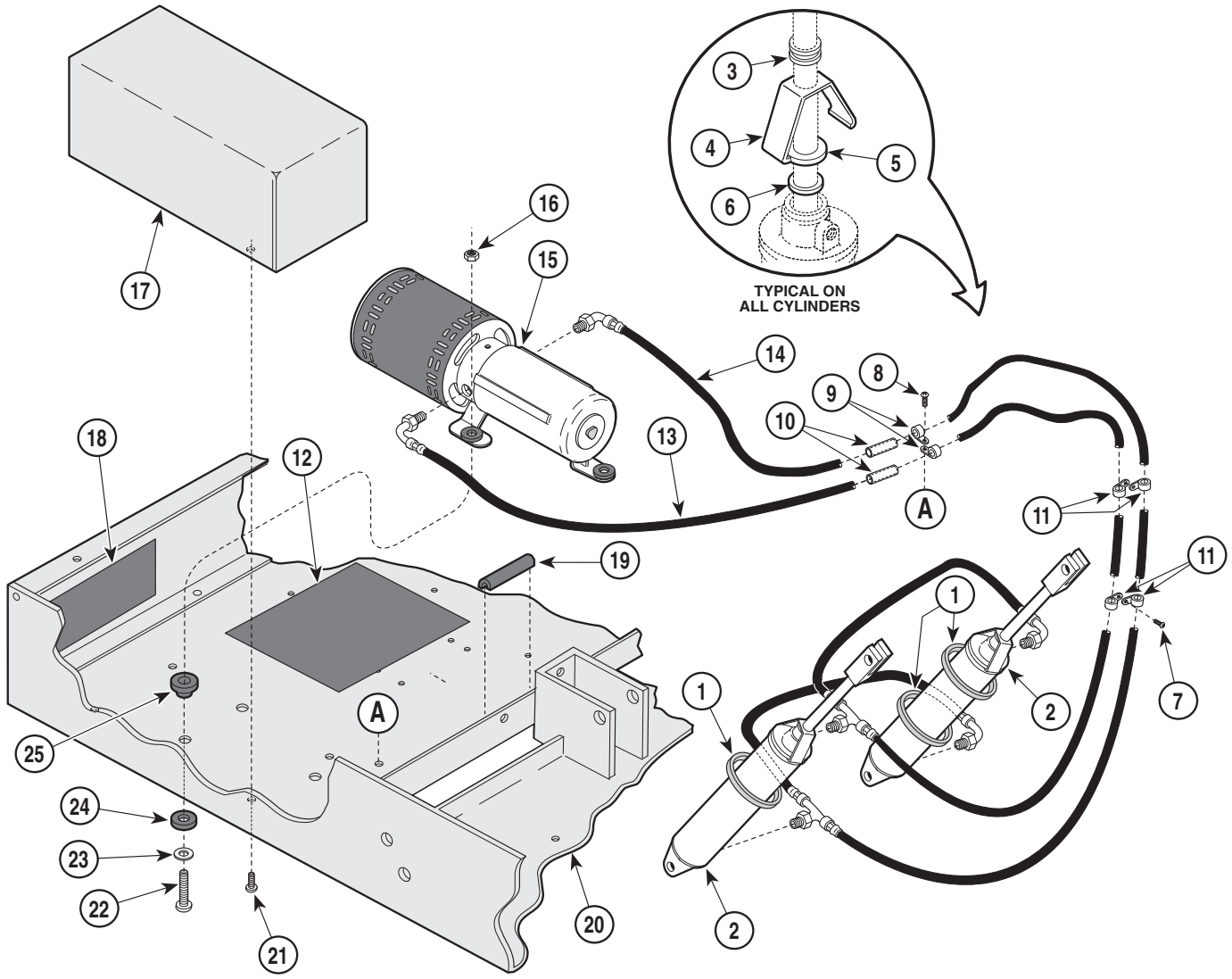


MA361200

Item	Part No.	Description	Qty.
1	040-0250-08	Screw	8
2	045-0001-05	Lockwasher	8
3		Sub Base Wrap (Refer to "Cabinet Components" Elsewhere)	Ref
4	061-0045-00	Caution Label	2
5	061-0295-00	Cord Tag (Domestic Units Only)	1
6	015-0002-02	Strain Relief Bushing	1
7		Cylinder Assembly (Refer to "Hydraulic System" Elsewhere)	Ref
8	042-0004-00	Hitch Pin Clip	4
9	042-0005-00	Clevis Pin	2
10	042-0005-01	Clevis Pin	2
11	050-4984-30	Upper Shroud	2
12	016-0140-00	Trim Lock	4
13		Power Cord (Refer to "Wiring Diagram" [Section 5] Elsewhere)	Ref
14	050-0155-30	Lower End Shroud	2
15	015-0002-01	Strain Relief Bushing	1
16	016-0001-00	Leveling Screw	4
17	053-0443-00	Slide Pad	10
18	040-0006-06	Screw	8
19	050-0154-30	Lower Side Shroud	2
20	040-0010-00	Screw	6
21	042-0010-03	Pop Rivet	14
22	040-0006-05	Screw	4
23	030-0055-01	Scissors Frame Assembly	1
24	041-0007-00	Speed Nut	4
25	050-0158-00	Webbing Retainer	4
26	053-0059-00	Webbing Strip	4
27		Footswitch (Refer to "Footswitch Assembly" Elsewhere)	Ref

Always Specify Model & Serial Number

Hydraulic System



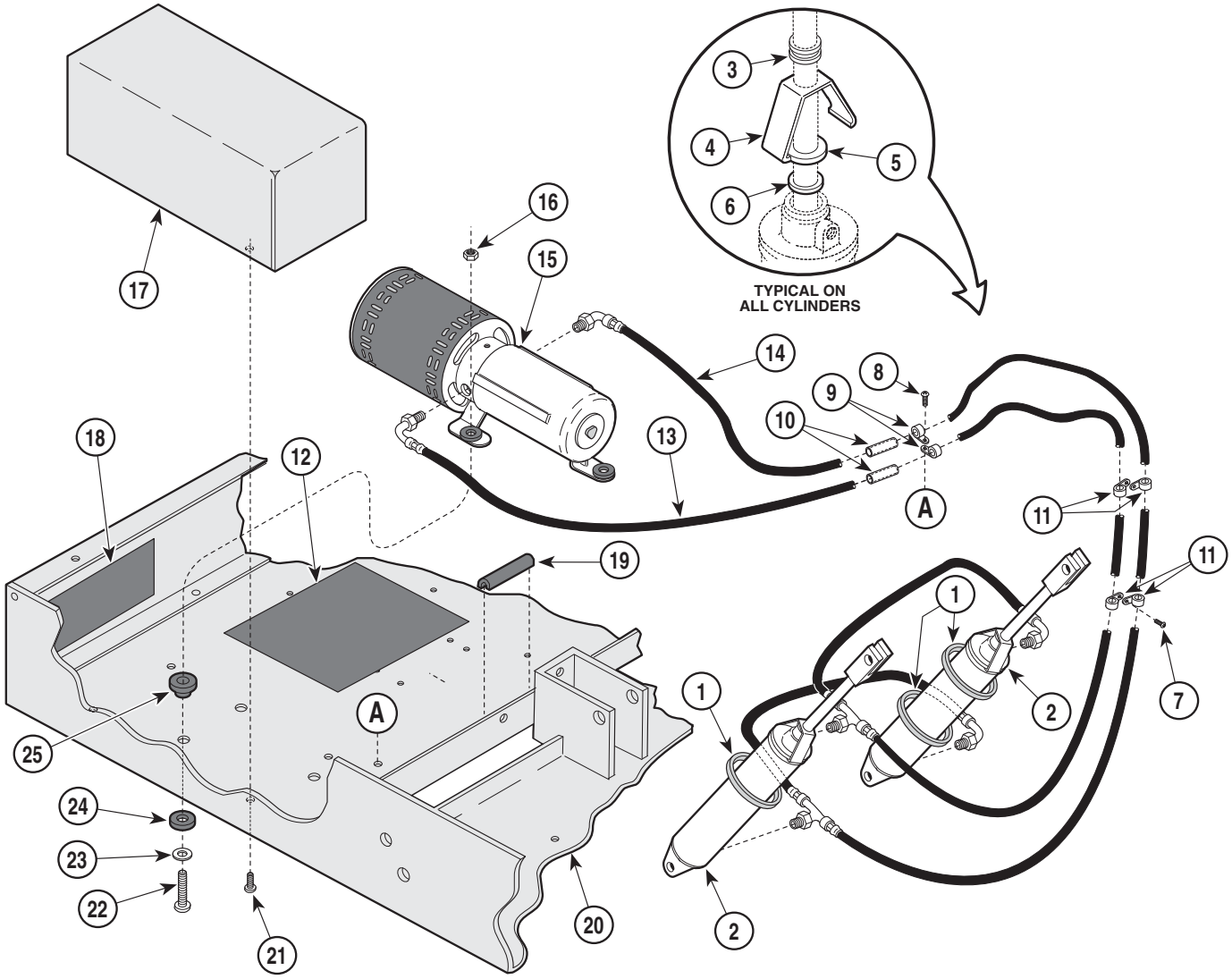
MA361300

Used On Units With Serial Number GY1000 thru GY1198, GZ1000 thru GZ1022, HA1000 thru 1083, HB1000, HC1000 thru HC1015, JL1000 thru JL1070 and JM1000 thru JM1021

Item	Part No.	Description	Qty.
1	015-0016-00	Cable Tie	3
2	002-0094-00	Base Cylinder Kit (Domestic Units Only [Includes Items 3, 4, 5 & 6])	2
	002-0129-00	Base Cylinder Kit (Export Units Only [Includes Items 3, 4, 5 & 6])	2
3	• 053-0226-03	• Snap-in Nyliner Bearing	1
4	• 025-0032-00	• Rod Wiper Bracket	1
5	• 054-0109-00	• Felt Wiper (1")	1
6	• 054-0108-00	• Felt Wiper (11/16")	1
7	040-0010-07	Screw	1
8	040-0010-47	Screw	1
9	015-0014-00	Wire Clip	4
10	053-0042-00	Vinyl Sleeve (Sold by the inch)	3
11	015-0001-00	Wire Clip	4
12	054-0070-00	Sound Damp	1
13	002-0095-00	Return Hose Kit	1
14	002-0096-00	Power Hose Kit	1
15	002-0112-00	Motor / Pump Kit (Domestic Units Only [115 V.A.C.])	1
	002-0602-00	Motor / Pump Kit (Export Units Only [230 V.A.C.])	1
	• 014-0256-00	• Reservoir O-Ring (Not Shown)	1
	• 014-0257-00	• Shaft Seal (Not Shown)	1
16	041-0250-01	Nut	3
17	~~029-0330-02~~	Motor Cover Assembly	1
18	054-0067-01	Sound Damp	1
19	016-0140-02	Trim Lock (Cut into two pieces)	1
20		Upper Wrap Weldment (Refer to "Upper Wrap Components" Elsewhere)	Ref
21	040-0010-23	Screw	4
22	040-0250-28	Screw	3
23	045-0001-02	Washer	3
24	053-0127-01	Vibration Mount Ring	3
25	053-0127-02	Vibration Mount Bushing	3

Always Specify Model & Serial Number

Hydraulic System



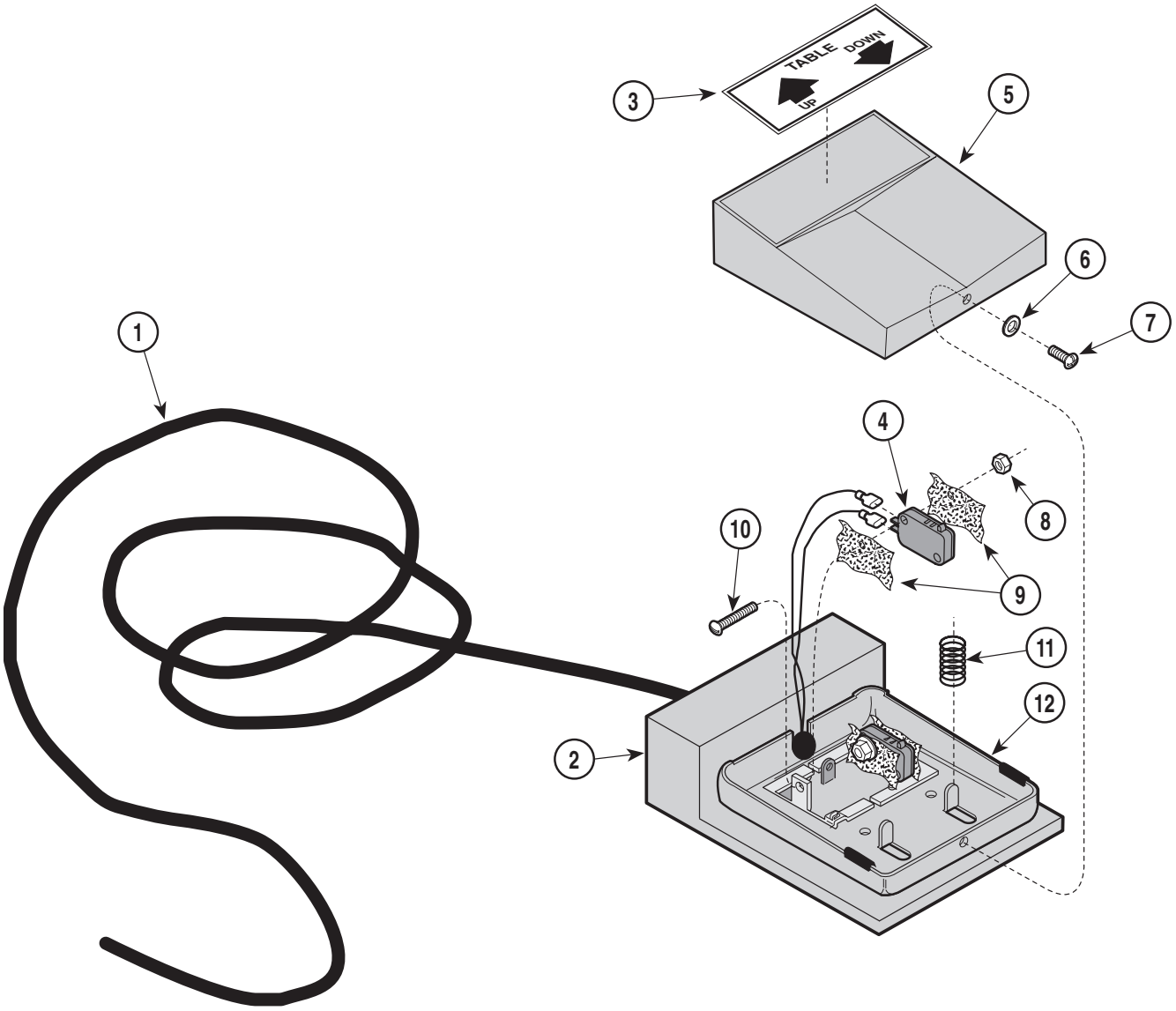
MA361300

Used On Units With Serial Number GY1199, GZ1023, GZ1084, HB1001, HC1016, JL1071 and JM1022 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1	015-0016-00	Cable Tie	3
2	002-0094-00	Base Cylinder Kit (Domestic Units Only [Includes Items 3, 4, 5 & 6])	2
	002-0129-00	Base Cylinder Kit (Export Units Only [Includes Items 3, 4, 5 & 6])	2
3	• 053-0226-03	• Snap-in Nyliner Bearing	1
4	• 025-0032-00	• Rod Wiper Bracket	1
5	• 054-0109-00	• Felt Wiper (1")	1
6	• 054-0108-00	• Felt Wiper (11/16")	1
7	040-0010-07	Screw	1
8	040-0010-47	Screw	1
9	015-0014-00	Wire Clip	4
10	053-0042-00	Vinyl Sleeve (Sold by the inch)	3
11	015-0001-00	Wire Clip	4
12	054-0070-00	Sound Damp	1
13	002-0095-00	Return Hose Kit	1
14	002-0096-00	Power Hose Kit	1
15	002-0112-00	Motor / Pump Kit (Domestic Units Only [115 V.A.C.])	1
	002-0602-00	Motor / Pump Kit (Export Units Only [230 V.A.C.])	1
	• 014-0256-00	• Reservoir O-Ring (Not Shown)	1
	• 014-0257-00	• Shaft Seal (Not Shown)	1
16	041-0250-01	Nut	3
17	~~029-0330-02~~	Motor Cover Assembly	1
18	054-0067-01	Sound Damp	1
19	016-0140-02	Trim Lock (Cut into two pieces)	1
20		Upper Wrap Weldment (Refer to "Upper Wrap Components" Elsewhere)	Ref
21	040-0010-23	Screw	4
22	040-0250-28	Screw	3
23	045-0001-02	Washer	3
24	053-0127-01	Vibration Mount Ring	3
25	053-0127-02	Vibration Mount Bushing	3

Always Specify Model & Serial Number

Footswitch Assembly



MA362900

Item	Part No.	Description	Qty.
	002-0055-00	Footswitch Assembly (Includes Items 1 Thru 12)	1
1	•	• Cable (Refer to "Wiring Diagram" [Section 5] Elsewhere)	Ref
2	•	• Base	1
3	• 061-0096-00	• Label (Table)	1
4	• 002-0101-00	• Foot Control Switch	2
5	•	• Footswitch Pedal	1
6	•	• Lockwasher	1
7	•	• Screw	1
8	•	• Nut	2
9	•	• Insulator	2
10	•	• Screw	2
11	•	• Spring	2
12	•	• Switch Mount	1

Always Specify Model & Serial Number

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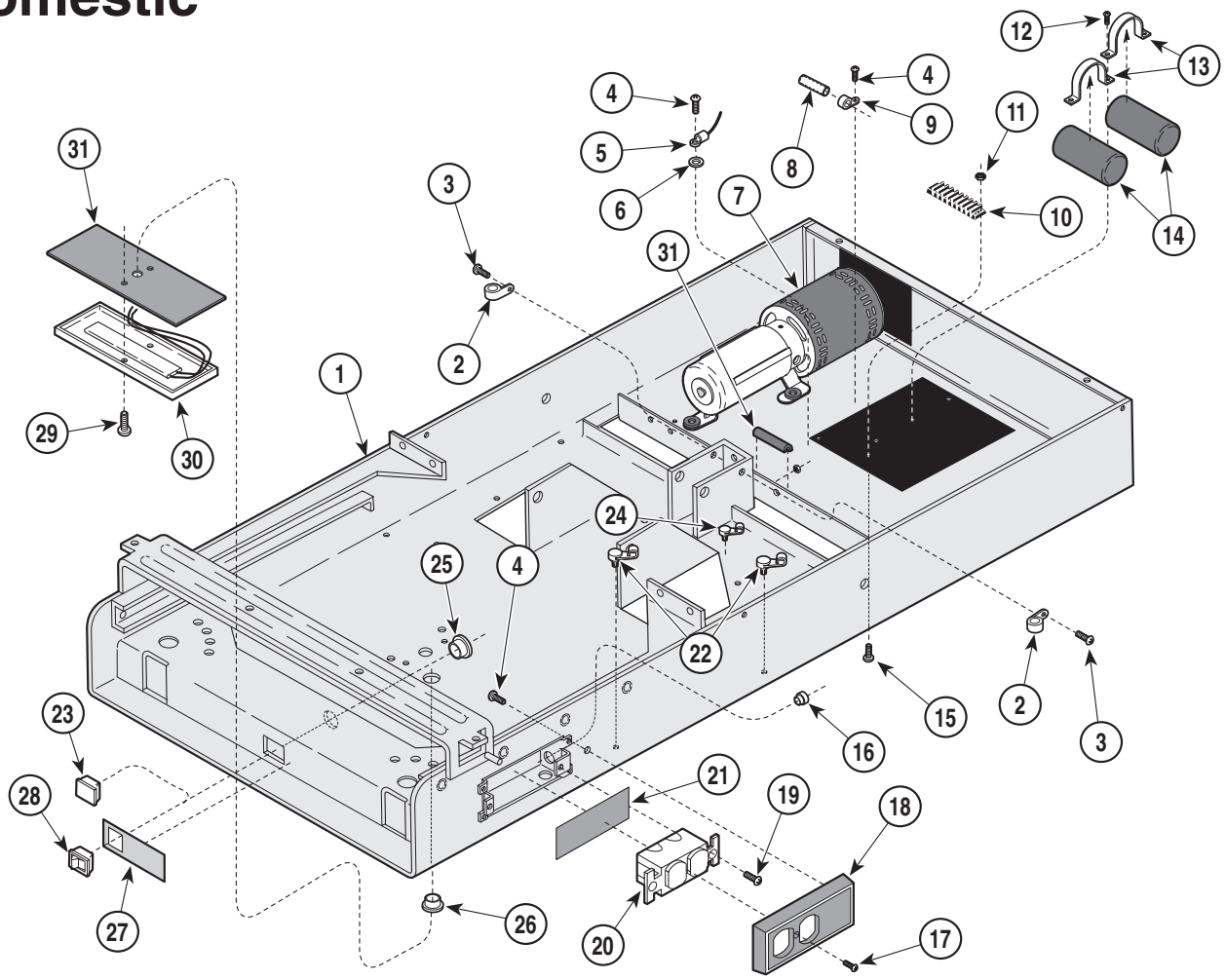
Electrical Components - Domestic



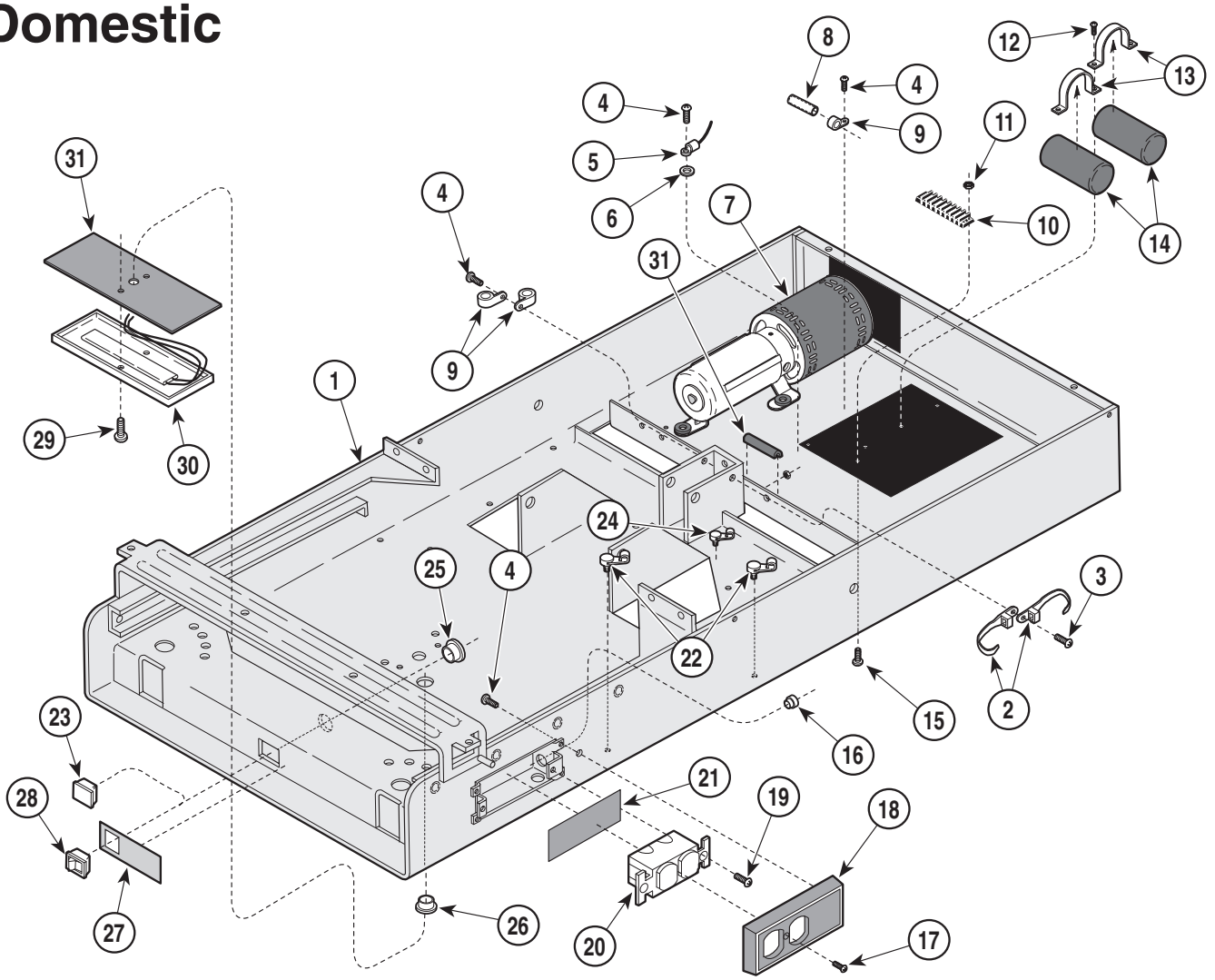
MA355900

Used On Units With Serial Number GY1000 thru GY1198, GZ1000 thru GZ1022, HA1000 thru 1083, HB1000, HC1000 thru HC1015, JL1000 thru JL1070 and JM1000 thru JM1021

Item	Part No.	Description	Qty.
1		Upper Wrap Weldment (Refer to "Upper Wrap Components" Elsewhere)	Ref
2	015-0017-00	Cable Tie	2
3	040-0010-07	Screw	2
4	040-0010-47	Screw	5
5		Jumper Wire (Refer to "Wiring Diagram" [Section 5] Elsewhere)	Ref
6	045-0001-31	Lockwasher	5
7		Motor / Pump Kit (Refer to "Hydraulic System" Elsewhere)	Ref
8	053-0128-00	Vinyl Sleeve (Sold by the inch)	1.5
9	015-0001-00	Wire Clip	1
10	015-0009-00	Terminal Board	1
	015-0022-01	Jumper (Not Shown)	4
11	041-0006-01	Nut	2
12	040-0010-04	Screw	4
13		Capacitor Clamp	2
14	002-0044-00	Capacitor Kit	2
15	040-0006-07	Screw	2
16	053-0068-07	Snap Bushing	1
17	040-0006-23	Screw	1
18	053-0836-00	Receptacle Cover	1
19	040-0006-13	Screw	2
20	015-0083-01	Duplex Receptacle	1
21	053-0092-00	Fishpaper Insulator	1
22	015-0007-04	Wrap-N-Tap Clamp	3
23	053-0350-02	Plug (Units Without Heater Only)	1
24	015-0007-00	Wrap-N-Tap Clamp (Units With Heater)	3
25	053-0068-00	Snap Bushing (Units With Heater)	1
26	053-0068-01	Snap Bushing (Units With Heater)	1
27	061-0219-00	Label (Units With Heater)	1
28	015-0650-00	Heater Switch (Units With Heater)	1
29	040-0010-35	Screw (Units With Heater)	2
30	002-0554-00	Heater Assembly Kit- 60 Watt (Includes Items 32 and 34) (Units w/ Heaters Only [Refer to "Wiring Diagram {Section 5} for Wire Numbers])	1
31	053-0362-00	Heat Shield (Units With Heater)	1
32	016-0140-02	Trim Lock (Cut into two pieces)	1

Always Specify Model & Serial Number

Electrical Components - Domestic



MA355901

Used On Units With Serial Number GY1199, GZ1023, GZ1084, HB1001, HC1016, JL1071 and JM1022 thru Present
Used On Units With Serial Number V2200 thru Present

Item	Part No.	Description	Qty.
1		Upper Wrap Weldment (Refer to "Upper Wrap Components" Elsewhere)	Ref
2	015-0017-00	Cable Tie	2
3	040-0010-07	Screw	2
4	040-0010-47	Screw	5
5		Jumper Wire (Refer to "Wiring Diagram" [Section 5] Elsewhere)	Ref
6	045-0001-31	Lockwasher	5
7		Motor / Pump Kit (Refer to "Hydraulic System" Elsewhere)	Ref
8	053-0128-00	Vinyl Sleeve (Sold by the inch)	1.5
9	015-0001-00	Wire Clip	3
10	015-0009-00	Terminal Board	1
	015-0022-01	Jumper (Not Shown)	4
11	041-0006-01	Nut	2
12	040-0010-04	Screw	4
13		Capacitor Clamp	2
14	002-0638-00	Capacitor Kit	2
15	040-0006-07	Screw	2
16	053-0068-07	Snap Bushing	1
17	040-0006-23	Screw	1
18	053-0836-00	Receptacle Cover	1
19	040-0006-13	Screw	2
20	015-0083-01	Duplex Receptacle	1
21	053-0092-00	Fishpaper Insulator	1
22	015-0007-04	Wrap-N-Tap Clamp	3
23	053-0350-02	Plug (Units Without Heater Only)	1
24	015-0007-00	Wrap-N-Tap Clamp (Units With Heater)	3
25	053-0068-00	Snap Bushing (Units With Heater)	1
26	053-0068-01	Snap Bushing (Units With Heater)	1
27	061-0219-00	Label (Units With Heater)	1
28	015-0650-00	Heater Switch (Units With Heater)	1
29	040-0010-35	Screw (Units With Heater)	2
30	002-0554-00	Heater Assembly Kit- 60 Watt (Includes Items 32 and 34) (Units w/ Heaters Only [Refer to "Wiring Diagram {Section 5} for Wire Numbers])	1
31	053-0362-00	Heat Shield (Units With Heater)	1
32	016-0140-02	Trim Lock (Cut into two pieces)	1

Always Specify Model & Serial Number

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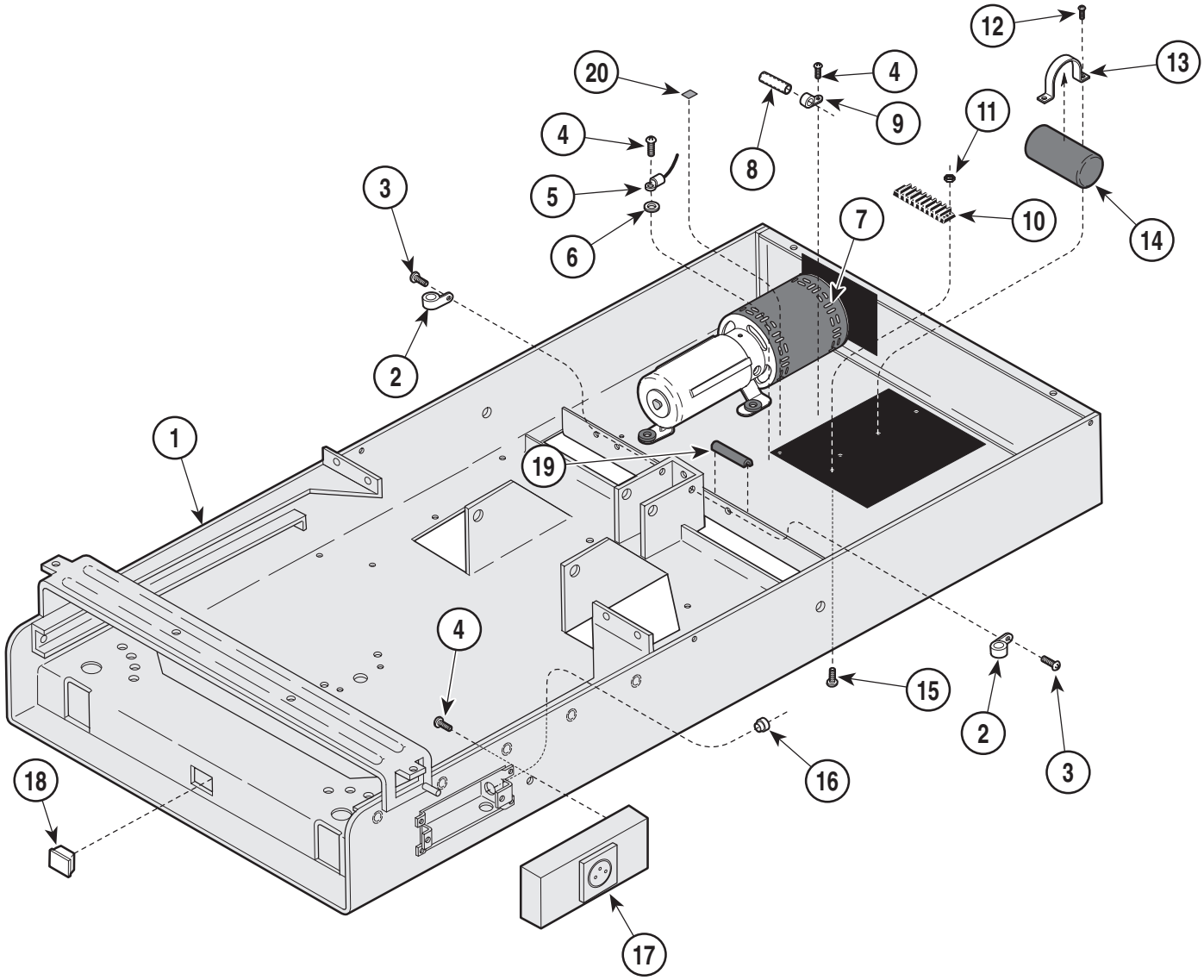
Electrical Components - Export



MA361100

Item	Part No.	Description	Qty.
1		Upper Wrap Weldment (Refer to "Upper Wrap Components" Elsewhere)	Ref
2	015-0017-00	Cable Tie	2
3	040-0010-07	Screw	1
4	040-0010-47	Screw	7
5		Ground Wire (Refer to "Wiring Diagram" [Section 5] Elsewhere)	Ref
6	045-0001-31	Lockwasher	5
7		Motor / Pump Kit (Refer to "Hydraulic System" Elsewhere)	Ref
8	053-0128-00	Vinyl Sleeve (Sold by the inch)	1.5
9	015-0001-00	Wire Clip	1
10	015-0009-00	Terminal Board	1
	015-0022-01	Jumper (Not Shown)	4
11	041-0006-01	Nut	2
12	040-0010-04	Screw	2
13		Capacitor Clamp	1
14	002-0131-00	Capacitor Kit	1
15	040-0006-07	Screw	2
16	053-0068-07	Snap Bushing	1
17		Receptacle Cover (Refer to "Receptacle Components - Export" Elsewhere)	1
18	053-0350-02	Plug	1
19	016-0140-02	Trim Lock (Cut into two pieces)	1
20	061-0071-00	Earth Symbol Label	1

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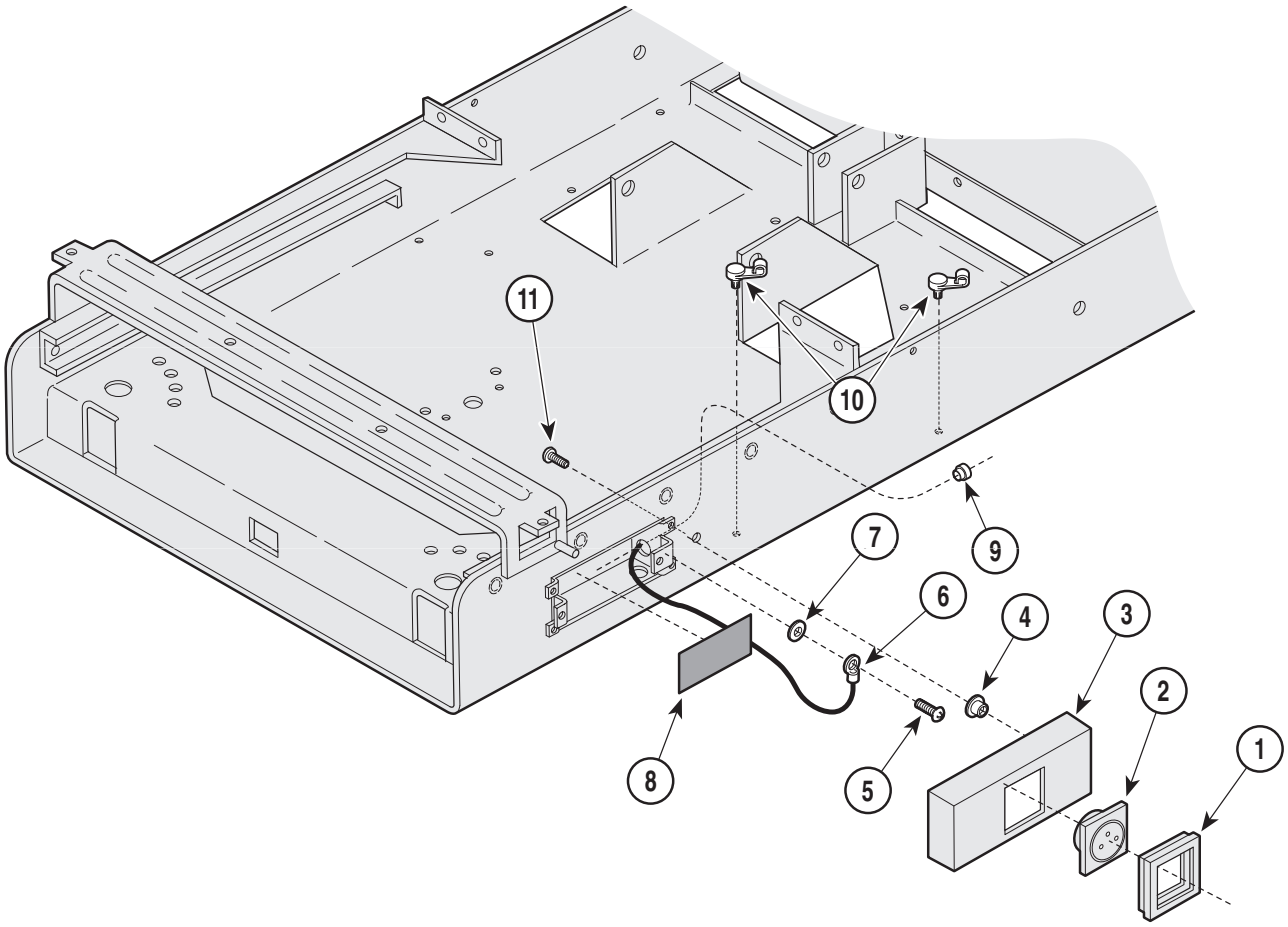
Receptacle Components (Export)



MA364900

Item	Part No.	Description	Qty.
1	• 015-0704-00	• Receptacle Bezel (Used on Belgium, Europe, United Kingdom and Australian Models Only)	1
	• 015-0704-01	• Receptacle Bezel (Used on Italian and Swiss Models Only)	2
2	• 015-1294-00	• Europe Receptacle	1
	• 015-1294-01	• French/Belgium Receptacle (Shown)	1
	• 015-1294-02	• United Kingdom Receptacle	1
	• 015-1294-03	• Italian Receptacle	2
	• 015-0703-04	• Swiss Receptacle	2
	• 015-1294-05	• Australian Receptacle	1
3	• 050-1928-20	• Receptacle Cover Weldment	1
4	• 042-0045-01	• Nutserts	2
5	• 040-0010-47	• Screw	1
6	•	• Jumper Wire (Refer to "Wiring Diagram" Elsewhere [Section 5])	Ref
7	• 045-0001-31	• Lockwasher	1
8	• 015-0092-00	• Fishpaper Insulator	1
9	• 053-0068-07	• Snap Bushing	1
10	• 015-0007-04	• Wrap-N-Tap Clamp	2
11	• 040-0010-38	• Screw	2

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FAX ORDERING FORM

(SERVICE PARTS ONLY)

NOTES:

- ALL BLOCKED AREAS MUST BE COMPLETED.
- USE FOR NON-WARRANTY FAX ORDERS ONLY. WARRANTY ORDERS MUST BE TELEPHONED IN (1-800-MIDMARK).

ATTENTION: SERVICE DEPARTMENT FAX#: 877-249-1793

ACCT #: ______________ P.O. #: ______________ DATE: ______________

NAME: ______________ SHIP TO: ______________

ADDRESS: ______________

CITY, ST.: ______________

CONTACT: ______________

PHONE: ______________

☐ NON-EMERGENCY ORDER - TO SHIP WITHIN 72 HOURS IF PART(S) IN STOCK.

☐ EMERGENCY ORDER - TO SHIP WITHIN 24 HOURS IF PART(S) IN STOCK (IF ORDER IS RECEIVED BEFORE 1:00 P.M. E.S.T).

SEND NOTIFICATION IF PARTS ARE NOT AVAILABLE TO SHIP WITHIN 24 HOURS VIA E-MAIL OR FAX TO: ______________

METHOD OF SHIPMENT

UPS	FED EX	OTHER
☐ NEXT DAY A.M.	☐ NEXT DAY A.M.	______________
☐ NEXT DAY P.M.	☐ NEXT DAY P.M.	
☐ 2ND DAY	☐ 2ND DAY	
☐ GROUND	☐ ECONOMY	

QTY.	PART #	DESCRIPTION (SPECIFY COLOR OF ITEM IF APPLICABLE)	COLOR CODE	PRICE/PER
			TOTAL COST: $	

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