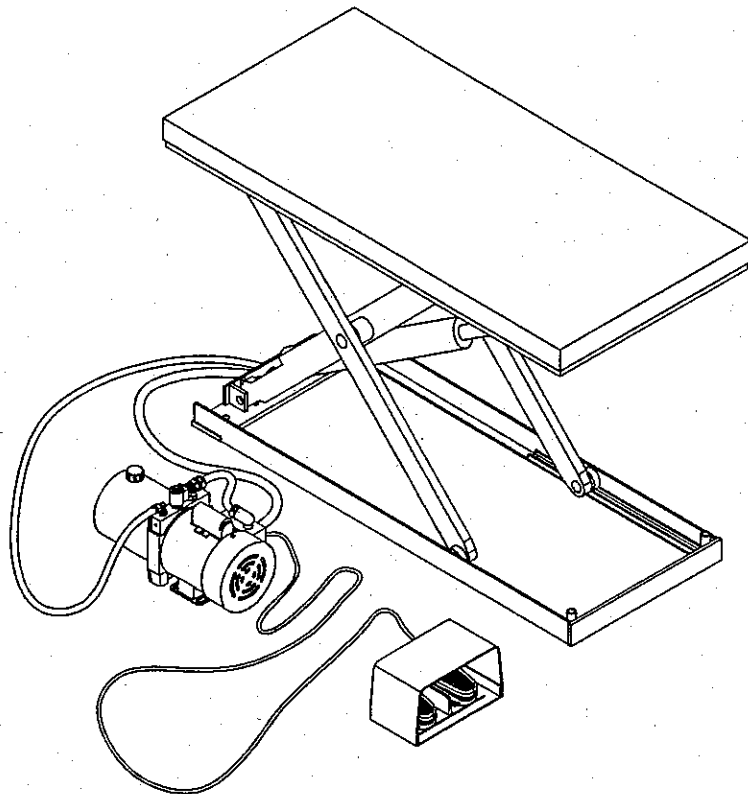


Lo-Profile **Lift Table**



Models **LX SERIES**

Service **Manual**

BISHAMON INDUSTRIES CORPORATION
5651 E. FRANCIS ST.
ONTARIO, CA. 91761
(909) 390-0055 (800) 231-3187

Table of Contents

Contents

Page

Getting Started	1
Inspection	1
General Warnings and Cautions	1
Specifications	3
Functional Description	4
Blocking Instructions	4
Preparation for Use	5
Operating Instructions.....	6
Routine Maintenance	7
Yearly Inspection	8

Exploded Parts Drawings and Parts List

LX-25 Exploded View	11
LX-25 Parts List	12
LX-50 Exploded View	14
LX-50 Parts List	15
LX-100/200 Exploded View	17
LX-100/200 Parts List	18
Power Unit Exploded View	21
Power Unit Parts List	21
Ramp Exploded View	22
Ramp Parts List	22

List of Figures

Fig. 1 - Specification Drawing	3
Fig. 2 - Blocking Specifications	5
Fig. 3 - Ramp Spacing	5
Fig. 4 - Toggle Switch	6
Fig. 5 - Toe Guard Test	7
Fig. 6 - Hydraulic Schematic	9
Fig. 7 - 108-120 Volt 1 Ø Power Unit.....	9
Fig. 8 - 208-230 Volt 1 Ø Power Unit.....	10
Fig. 9 - 208-230 Volt 3 Ø Power Unit.....	10

Charts

Chart 1 - Specifications	3
Chart 2 - Block Specifications	4
Chart 3 - Recommended Hydraulic Fluid.....	8
Chart 4 - Trouble Shooting	8

Date Placed in Service _____

Serial Number _____

Dealer _____

GETTING STARTED

PLEASE READ THIS MANUAL CAREFULLY BEFORE USING THE LO-PROFILE LIFT TABLE. The safety of all persons installing, using or servicing the Lo-Profile Lift Table is of the utmost importance to Bishamon. The Lo-Profile Lift Table is capable of lifting heavy loads and is capable of causing **SEVERE PERSONAL INJURY** if used improperly or certain safety precautions are not taken. When properly installed, used and maintained, the Lo-Profile Lift Table will provide many years of safe, trouble free service. If you have any questions about any of the instructions in this manual or about the use of this product, PLEASE contact your dealer or Bishamon Industries Corporation.

INSPECTION

IMMEDIATELY upon receipt of the Lo-Profile Lift Table, remove all packing and strapping material and visually inspect the unit for damage. Any damage to the unit **MUST BE NOTED** on the delivery receipt. After the preliminary inspection is conducted, the unit should be thoroughly inspected for any concealed damage that was not readily apparent during the preliminary inspection. Any concealed damage found that was not noted on the delivery receipt should be **IMMEDIATELY** reported in writing **TO THE DELIVERING CARRIER.**

GENERAL WARNINGS AND CAUTIONS

WARNING

1. READ THIS MANUAL COMPLETELY BEFORE USING AND THOROUGHLY UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS.
2. This Lo-Profile Lift Table (Lift) is designed for use with stable, uniformly distributed loads on a solid level floor. DO NOT use the Lift for any purpose than its intended use.
3. DO NOT install the Lift on an unlevel or soft surface. The Lift base frame must be supported along its entire length. Failure to completely support the base frame could result in damage to the Lift.
4. DO NOT overload the Lift. Always stay within the designated capacity. Overloading the Lift could cause the load to suddenly fall. SEVERE PERSONAL INJURY AND PROPERTY DAMAGE could result.
5. Distribute the load evenly on the platform surface. DO NOT concentrate the load on the edge or the side of the platform unless the Lift is in the fully lowered position.
6. DO NOT use the Lift with an unstable, unbalanced or loosely stacked load. Unbalanced loads may become unstable and fall. SEVERE PERSONAL INJURY AND PROPERTY DAMAGE could result.
7. KEEP clear of all moving parts. NEVER put hands or feet on or near any moving part of the Lift. SEVERE PERSONAL INJURY could result.
8. NEVER put feet or hands under the platform when raising or lowering the Lift. SEVERE PERSONAL INJURY could result.
9. NEVER go under the raised Lift platform until the load is removed and the scissor mechanism is securely blocked in the open position. SEVERE PERSONAL INJURY could result.
10. NEVER place any load on the platform while the scissor mechanism is blocked in the open position.
11. NEVER sit, stand or ride on the Lift platform. NEVER allow another person to sit, stand or ride on the Lift platform. Moving components could cause loss of balance. SEVERE PERSONAL INJURY could result.
12. The Lift is provided with a remote power unit and has an electric line and a hydraulic line connecting the power unit to the Lift. Use CAUTION not to trip over the lines and DO NOT run over the lines with mobile equipment. SEVERE PERSONAL INJURY AND PROPERTY DAMAGE could result.
13. The Lift may be supplied with an optional ramp. Many pallet jacks and similar equipment are not designed for use on an inclined surface. ALWAYS follow all safety precautions related to these products. SEVERE PERSONAL INJURY could result.
14. NEVER leave the loaded Lift unattended unless the Lift is in the fully lowered position.
15. ALWAYS remove the load before servicing the Lift.
16. ALWAYS disconnect the power cord before servicing the Lift.
17. Any service done on the power unit should be performed by a qualified electrician.

CAUTION

1. DO NOT continue to operate the pump if a squealing noise is heard coming from the pump. The pressure relief valve is operating. Continued use of the pump with the relief valve operating will cause permanent damage to the pump.
2. DO NOT change the relief valve setting. The relief valve is installed to protect the operator and the Lift.

SPECIFICATIONS:

	LX-25S	LX-25L	LX-50S	LX-50L	LX-100N	LX-100W	LX-200N	LX-200WM	LX-200WL
Maximum Capacity lbs.	550	550	1100	1100	2200	2200	4400	4400	4400
Platform Width in. (A)	23.5	23.5	23.5	23.5	24.0	34.65	33.5	45.5	45.5
Platform Length in. (B)	32.5	40.0	32.5	40.0	51.0	51.0	55.5	61.5	81.0
Base frame Width in. (C)	18.2	18.2	18.2	18.2	19.3	29.49	25.4	25.4	25.4
Base frame Length in. (D)	29.8	37.7	29.8	37.7	48.8	48.8	48.9	48.9	48.9
Lowered Height in. (E)	2.9	2.9	2.9	2.9	3.3	3.3	4.3	4.3	4.3
Raised Height in. (F)	20.7	29.9	20.9	30.0	38.6	38.6	39.4	39.4	39.4
Weight lbs.	213	257	228	277	490	606	860	1110	1238
Motor Voltage	115	115	115	115	230	230	230	230	230
Phase	1	1	1	1	1 & 3	1 & 3	1 & 3	1 & 3	1 & 3
HP	1/2	1/2	1/2	1/2	2	2	2	2	2
Amps	8.8	8.8	8.8	8.8	11.0 & 5.8	11.0 & 5.8	11.0 & 5.8	11.0 & 5.8	11.0 & 5.8
Operating Environment	Indoors								
Operating Temperature	See Chart								

Chart 1 - Specifications

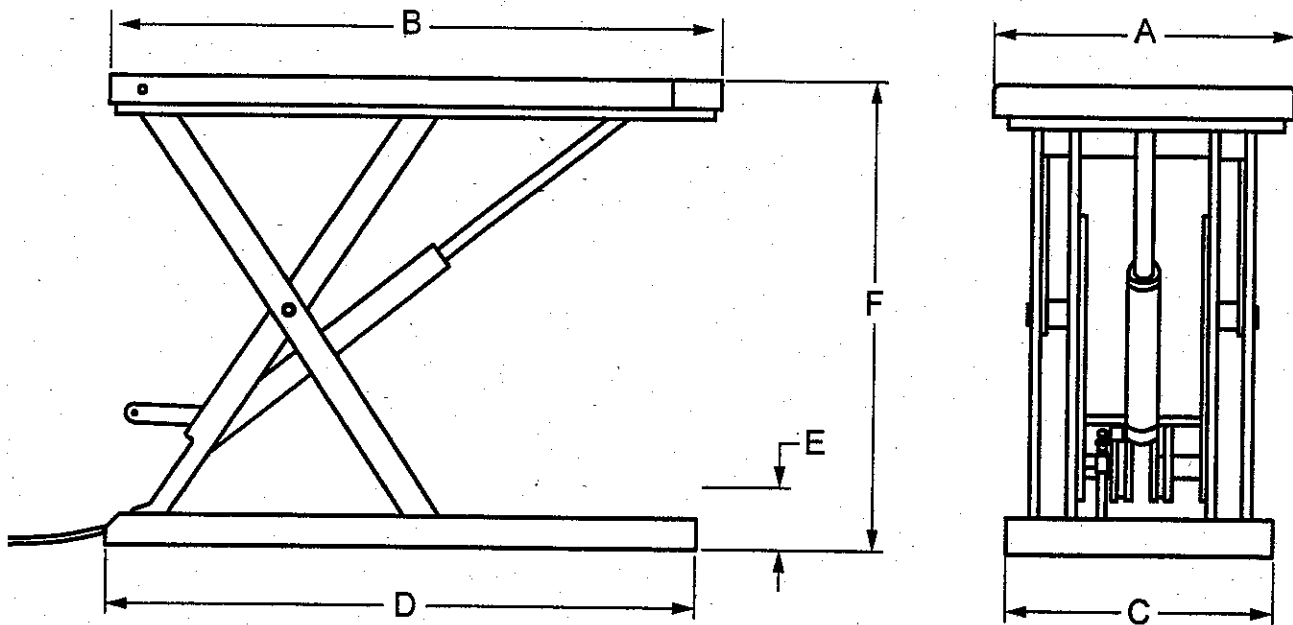


Figure 1 - Specification Drawing

FUNCTIONAL DESCRIPTION

The Lo-Profile Lift Tables are electro-hydraulic lifts designed to position a pallet, container or equipment at a convenient working height. Positioning the load at a convenient working height, provides the operator with easier access to components and minimizes bending, reaching and stretching. The Lo-Profile Lift Tables are designed with a minimal lowered height and can be equipped with optional ramps. This feature provides greater access to tall loads and facilitates the loading and unloading of the cargo.

The Lo-Profile Lift Tables are provided with remote power unit and a hand actuated toggle switch for controlling platform movement. Additionally, all Lo-Profile Lift Tables are equipped with electric toe guards around the perimeter of the platform for maximum operator safety. The Lo-Profile Lift Tables, depending on the model, have a maximum capacity of 550 lbs. to 4400 lbs. All models have optional ramps available.

BLOCKING INSTRUCTIONS



NEVER go under the raised Lift platform until the load is removed and the scissor mechanism is securely blocked in the open position. SEVERE PERSONAL INJURY could result.

1. Remove all load from the platform surface.
2. Raise the unloaded lift to its maximum raised height.
3. Position a block of wood of the proper size in front of each scissor roller in the base frame as shown in Figure 2. Both scissor rollers must be blocked. Refer to Chart 2 for the proper block size.

MODEL	BLOCK WIDTH	BLOCK HEIGHT	BLOCK LENGTH
LX-25/50S	3 1/2	1 3/4	7 1/2
LX-25/50L	3 1/2	1 3/4	14
LX-100N/W	1/2	2	14
LX-200N/WL/WM	2 3/4	2 3/4	18 3/4

Chart 2 - Block Specifications

Note: Block material should be sturdy hardwood such as oak, hickory or maple and should be free of defects or damage.

4. Actuate the lower control to slowly lower the lift until the scissor rollers come in contact with the blocks.
5. Visually check each block to ensure it is properly positioned in the base frame and is secure.



NEVER place any load on the platform while it is blocked in the raised position.

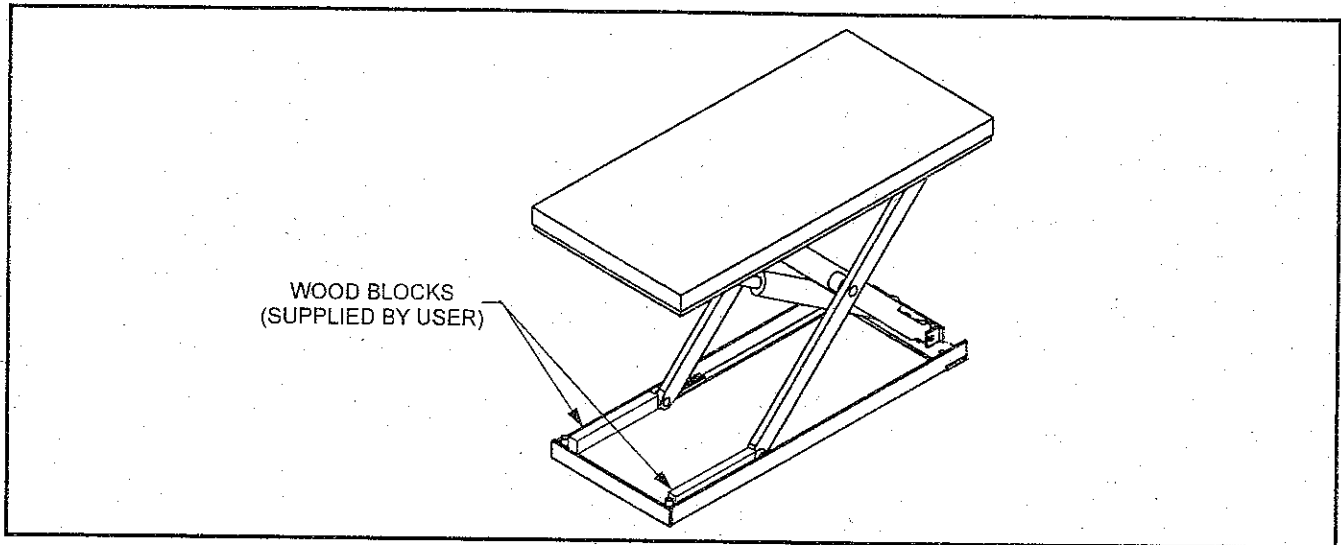


Figure 2 - Blocking and Hole location Specifications

PREPARATION FOR USE

1. Remove all packing material and place off to the side.
2. Place the lift in the desired location for use. Choose a safe, clean working area. When doing this, consider where the power unit and the optional ramp (if required) will be placed.
3. Place the power unit in a location where the electric line and the hydraulic line that connect the power unit to the lift will be out of the way during use. Note: the power unit controls must be accessible to the operator.
4. Connect the power unit to the correct power source as shown on the face plate of the power unit. The 108-120 volt power unit will be supplied with a standard three prong electrical plug. All other power units are supplied without an electrical plug and should be connected to a power source by a qualified electrician.
5. The lift will either be supplied with a hand-toggle switch or a foot switch. See Figure 4 for proper operation of the hand toggle switch. The foot switch will have two separate foot pedals with labels indicating which pedal to press to raise or lower the platform.
6. Remove all load from the lift table platform. Raise the lift to its maximum height and block the scissor mechanism in the open position by following the blocking instructions detailed on page 4.
7. Check the installation surface to ensure it is even and level. The installation surface must be level, otherwise, the lift base frame must be shimmed to make it level. The base frame has multiple pre-drilled holes (see Chart 2) for anchoring the lift securely to the floor. Using the holes as a template, mark the holes on the floor. Shift the lift to allow room for drilling, then drill. When complete, reposition the lift and install anchors to secure the lift to the floor. NOTE: Make sure the base angles are fully supported along their entire length with shims or concrete grout.
8. If a ramp is to be used with the lift, it should be installed with a clearance of 1/8" to 1/4" between the roller and the platform of the lift (see Figure 3). The ramp should be aligned with the end of the platform and anchored to the concrete using the same procedure detailed above.
9. Clear the area around the Lo-Profile Lift Table. Raise the lift completely and remove the blocks. Operate the controls both up and down to ensure the lift is functioning properly. The Lo-Profile Lift Table is now ready for service.

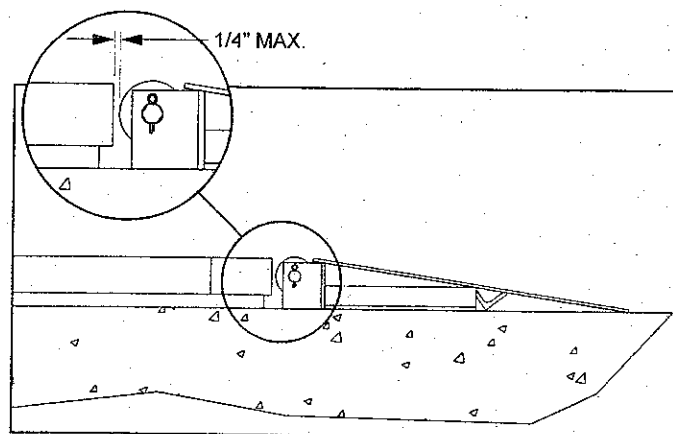


Figure 3 - Ramp Spacing

OPERATING INSTRUCTIONS

WARNING

This Lo-Profile lift table (Lift) is designed for use with stable, uniformly distributed loads on a solid level floor. **DO NOT** use the Lift for any purpose than its intended use.

Loading the Lo-Profile Lift Table.

1. Check the load weight to ensure that the total weight does not exceed the maximum rated capacity. The load should be evenly distributed on the platform surface.

Raising the Platform.

1. Before raising the platform, **BE SURE** that all others are well clear of the platform.
2. Recheck the position and condition of the load.
3. Press the toggle switch upward (see Figure 4) or depress the foot pedal marked "RAISE" and raise the platform to a convenient working height. **CONTINUOUSLY WATCH** the condition of the load as the platform is raised. If the load appears to be shifting, **STOP**, lower the platform and adjust the load.

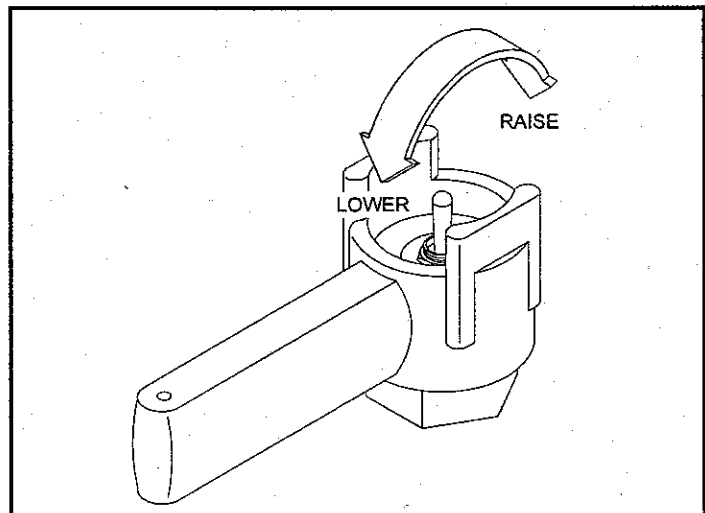


Figure 4 - Toggle Switch

CAUTION

DO NOT CONTINUE TO OPERATE THE PUMP IF A SQUEALING NOISE IS HEARD COMING FROM THE PUMP. THE PRESSURE RELIEF VALVE IS OPERATING. CONTINUED USE OF THE PUMP WITH THE RELIEF VALVE OPERATING WILL CAUSE PERMANENT DAMAGE TO THE PUMP.

Lowering the Platform.

1. Before lowering the platform, **BE SURE** that all others are well clear of the platform and that the area under the platform is clear.

WARNING

NEVER put feet or hands under the platform when raising or lowering the Lift. **SEVERE PERSONAL INJURY** could result.

2. Press the toggle switch downward (see Figure 4) or depress the foot pedal marked "LOWER". **CONTINUOUSLY WATCH** the condition of the load as the platform is lowered. If the load appears to be shifting, **STOP** and adjust the load.

ROUTINE MAINTENANCE

The Lo-Profile Lift Table is designed to provide years of trouble free service and requires very little maintenance. However, a routine inspection and maintenance program will prevent costly replacement of parts and downtime. All service should be performed by a qualified service person who has an understanding of lift equipment and hydraulic and electrical diagrams. This person should be thoroughly familiar with the operation and use of this type of equipment.

WARNING

NEVER GO UNDER THE RAISED LIFT PLATFORM UNTIL THE LOAD IS REMOVED AND THE SCISSOR MECHANISM IS SECURELY BLOCKED IN THE OPEN POSITION. SEVERE PERSONAL INJURY COULD RESULT.

Daily inspection should consist of the following:

1. Visually inspect electrical cables and hydraulic hoses for damaged, crushed, or frayed areas. Repair or replace as necessary.
2. Inspect safety toe guard for proper operation. The lift should stop and be unable to travel downward when the safety toe guard moves upward in relation to the platform. Test for proper operation as follows:
 - a) Raise the lift to it's fully extended position.
 - b) As shown in Figure 5, grab the platform and toe guard at the mid point of one and lift the toe guard approximately 3/4".
 - c) Actuate the lowering control. The lift should not lower.
 - d) If the lift begins lowering stop immediately. The toe guard is not functioning properly. Repair or replace the toe guard limit switches as necessary.
 - e) Repeat steps a-c at the opposite end of the platform.

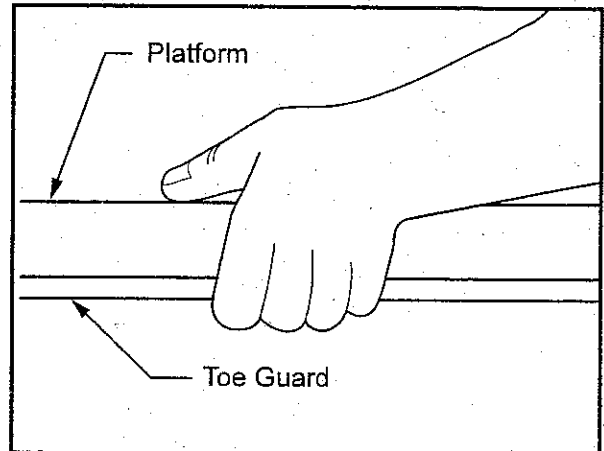


Figure 5 - Toe Guard Test

Monthly inspection should consist of the following:

1. Lubricate the lift at all grease fittings and friction points. Refer to page 11 LX-25, page 14 LX-50 and page 17 LX-100/200.
2. Inspect the fittings and the snap rings at all rollers and linkage assemblies. If not in place and/or secure, replace or repair at once.
3. Visually inspect all rollers for wear or damage. Repair or replace as necessary.
4. Check the cylinder assembly, hydraulic hose, and fittings for oil leakage. Repair or replace as necessary.
5. Visually inspect the electrical lines that run to and from the limit switches for damage or wear. Repair or replace as necessary.
6. Inspect all bolts to ensure that they are secure. Tighten if necessary.

Yearly inspection should consist of the following:

1. Change Hydraulic Fluid every 12 months. Refer to chart 3 for recommended Hydraulic Fluid.

Fluid Type	Manufacturer	Oil Temperature Range °F
DTE Light	Mobil	+40 - +150
DTE 13	Mobil	0 - +160
SAE 10	Pennzoil, Mobile, Etc.	0 - +150
SAE 10W30	Pennzoil, Mobile, Etc.	+20 - +170
SAE 20	Pennzoil, Mobile, Etc.	+30 - +170
MIL 5606 (Aircraft Hydraulic Fluid)	Pennzoil, Mobile, Etc.	-30 - +75

Chart 3 - Recommended Hydraulic Fluid

TROUBLE SHOOTING

Problem	Cause	Solution
Platform will not raise (pump will not run).	Power cord is disconnected. Contactor is not operating. Supply voltage is incorrect.	Connect Power cord. Replace contactor. Contact electrician.
Platform will not raise (pump is running).	Load is too heavy. Lowering valve is stuck open. Hydraulic fluid is too low. Relief valve is stuck open.	Decrease weight of load. Clean or replace valve. Add hydraulic fluid. Clean or replace valve.
Platform will raise but will not hold a load (drifting down).	Checking valve leaking. Lowering valve leaking. Cylinder leaking. Hydraulic line leaking.	Clean or replace valve and seat. Clean or replace valve and seat. Repack or replace cylinder. Tighten or replace fitting(s).
Platform will not lower.	Power cord is disconnected. Safety toe guard is activated. Solenoid valve is defective. Solenoid coil is not functioning.	Connect power cord. Check for obstructions. Check limit switches for defects. Replace valve. Check for proper voltage. Replace if necessary.

Chart 4 - Trouble Shooting

HYDRAULIC SCHEMATIC

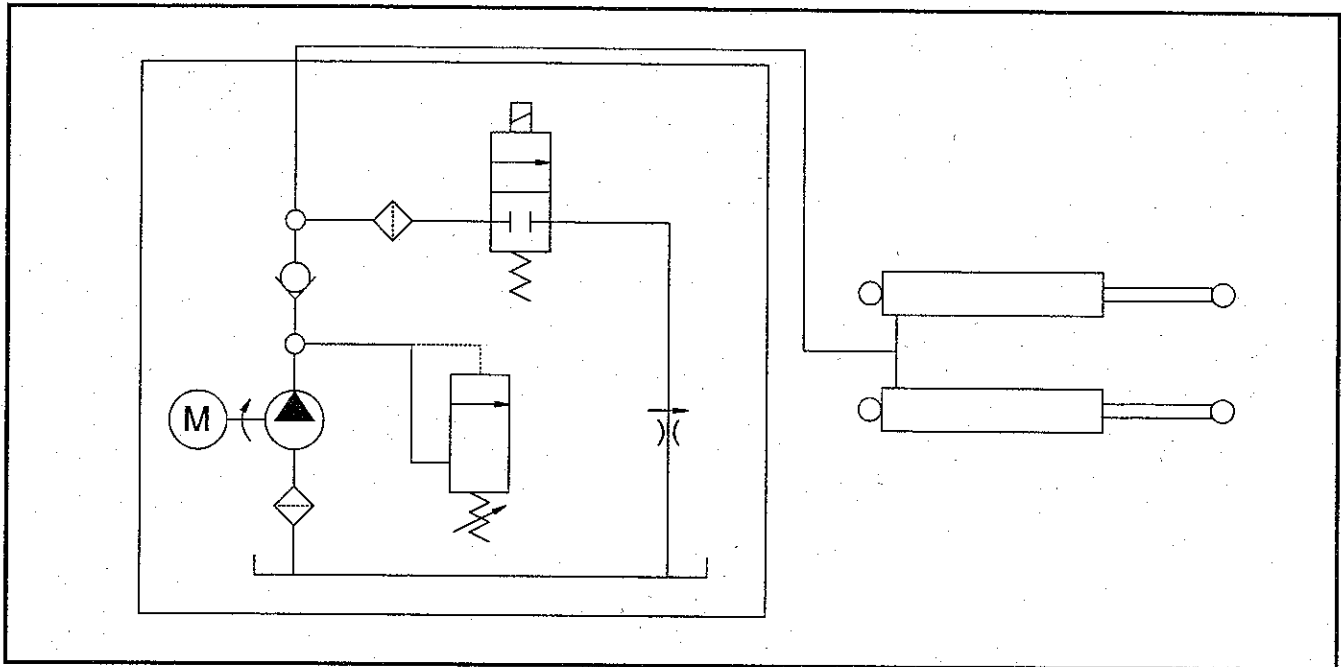


Figure 6 - Hydraulic Schematic

ELECTRICAL SCHEMATICS

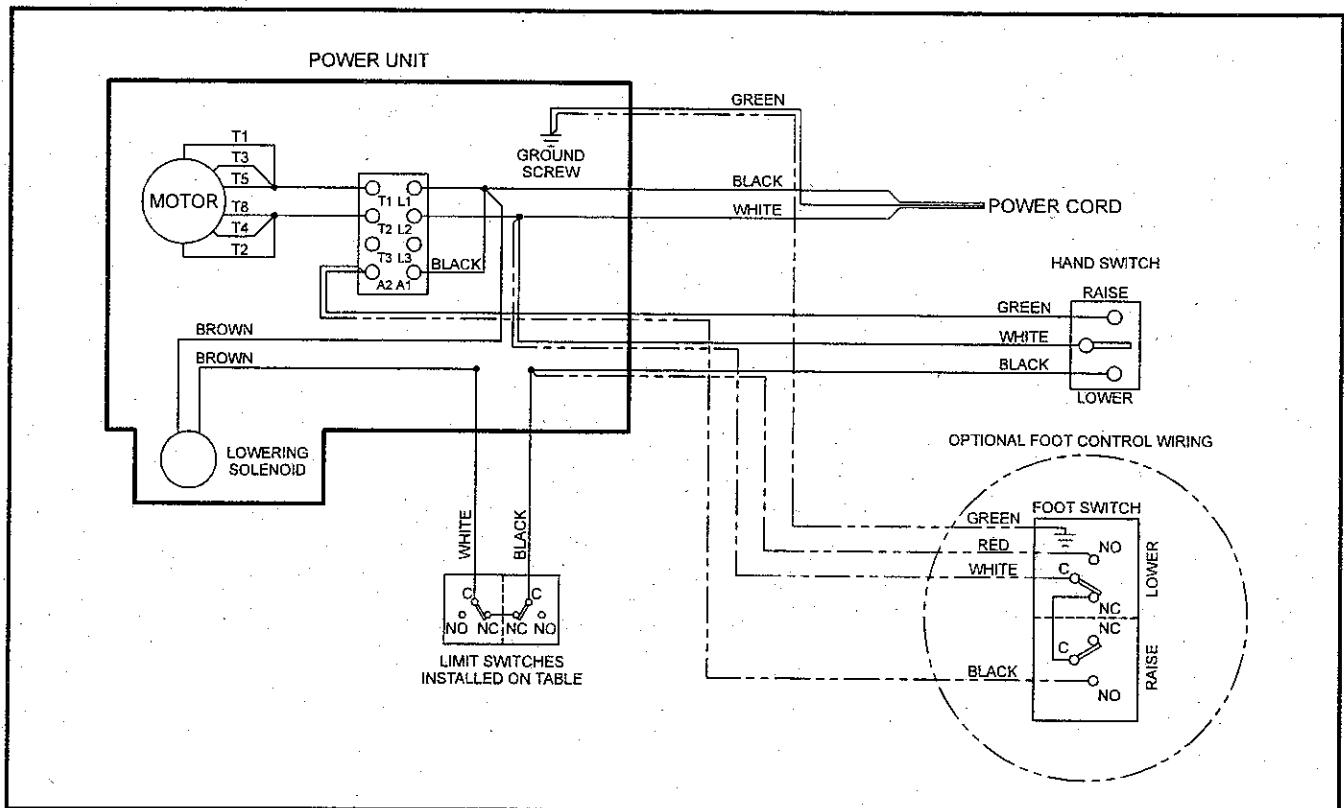


Figure 7 - 108-120 Volt, Single Phase Power Unit

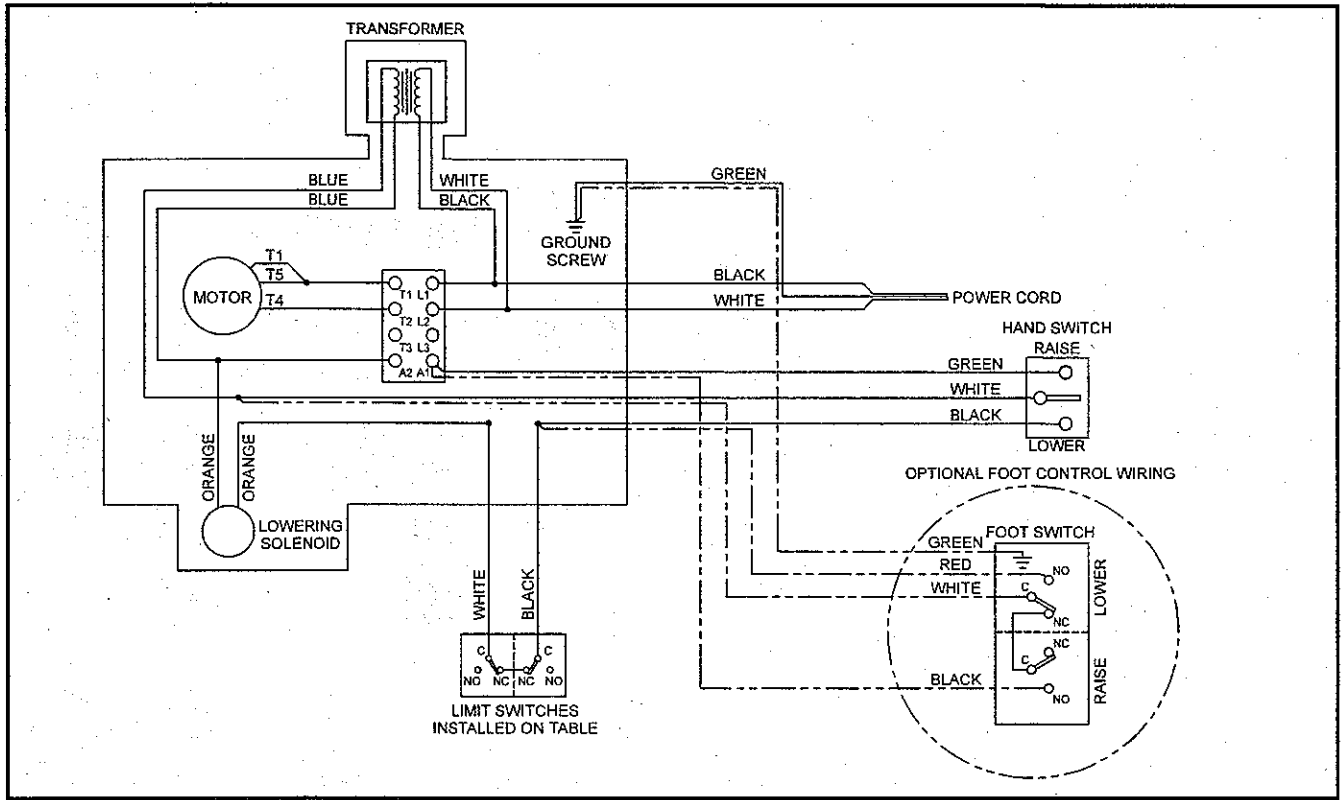


Figure 8 - 208-230 Volt, Single Phase Power Unit

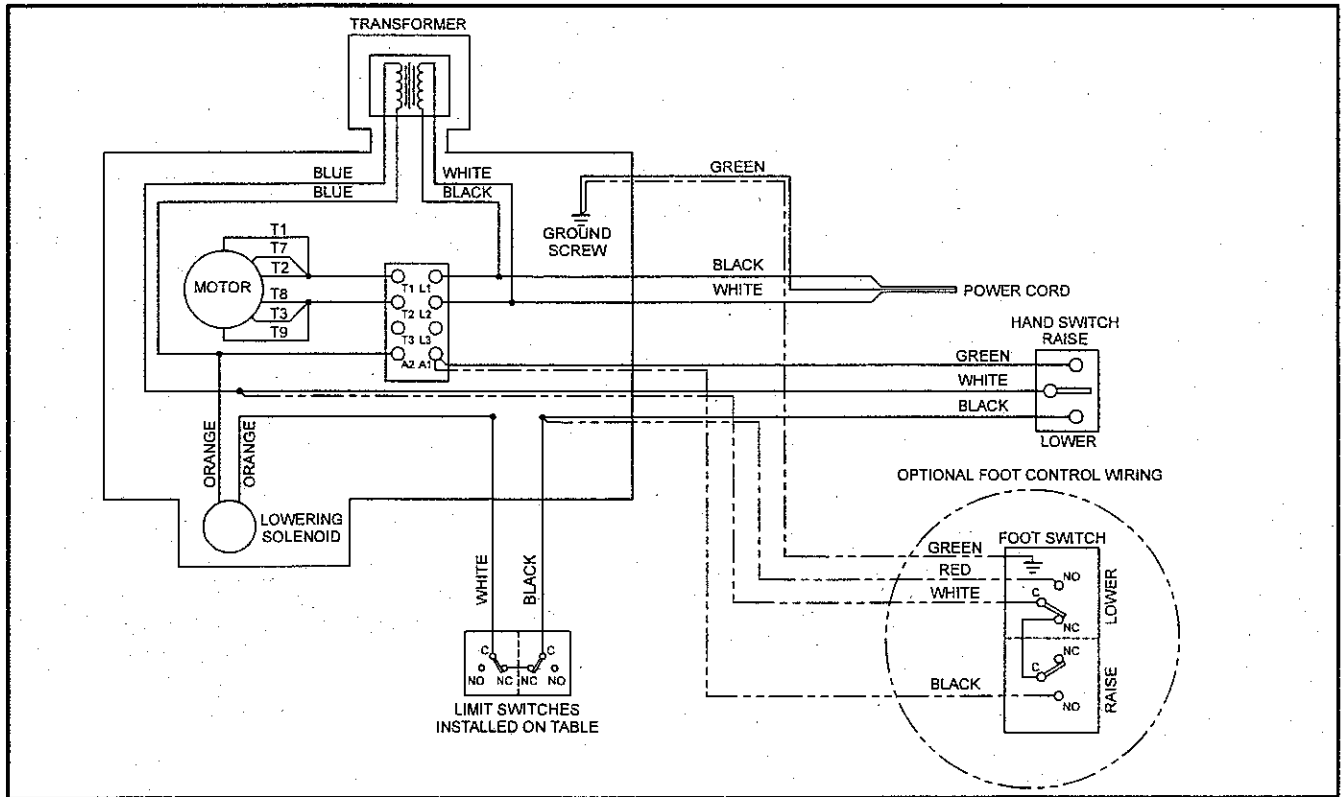


Figure 9 - 208-230 Volt, Three Phase Power Unit