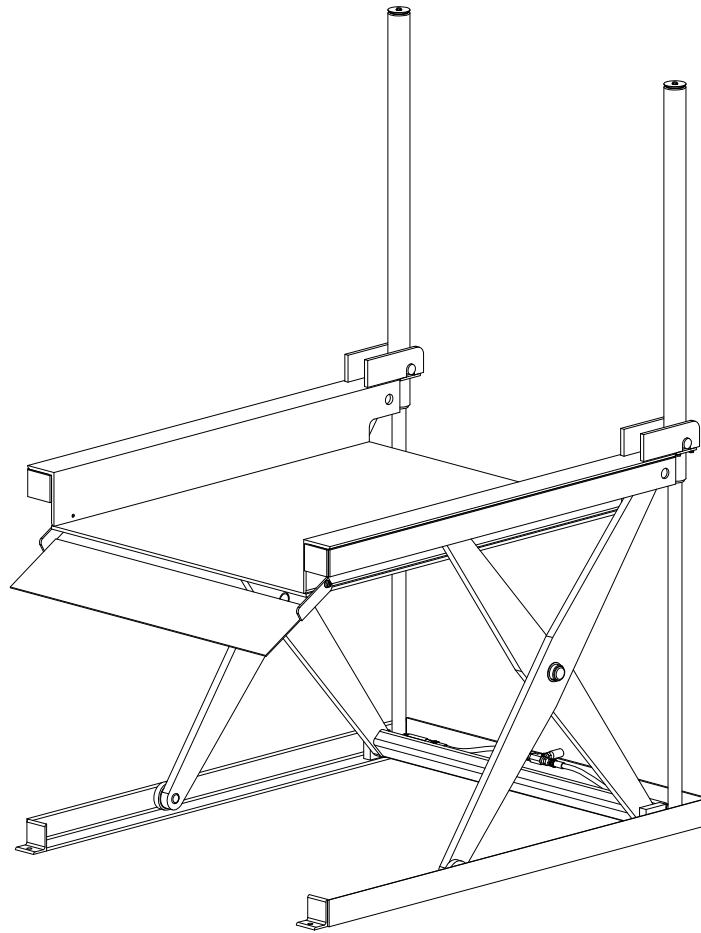


INSTALLATION, OPERATION AND SERVICE MANUAL

LOW REACH PAN LIFT



Model XLR

Autoquip
CORPORATION

P.O. Box 1058 • 1058 West Industrial Avenue • Guthrie, OK 73044-1058 • 405-282-5200 •
FAX: 405-282-8105 • www.autoquip.com

830XLR

Version 1.0
06/2003

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IMPORTANT

Please read and understand this manual prior to installation or operation of this lift. Failure to do so could lead to property damage and/or serious personal injury. If any questions arise, call a local representative or *Autoquip Corporation* at 1-888-811-9876 or 405-282-5200.

PLANNED MAINTENANCE PROGRAM

A local *Autoquip* representative provides a Planned Maintenance Program (PMP) for this equipment using factory-trained personnel. Call a local representative or *Autoquip Corporation* at 1-888-811-9876 or 405-282-5200 for more information.

IDENTIFICATION & INSPECTION

IDENTIFICATION

When ordering parts or requesting information or service on this lift, PLEASE REFER TO THE MODEL AND SERIAL NUMBER. This information is on a nameplate attached to the leg assembly. Replacement parts are available from a local *Autoquip* distributor.

INSPECTION

Immediately upon receipt of the lift, a visual inspection should be made to determine that it has not been damaged in transit. Any damage found must be noted on the delivery receipt. In addition to this preliminary inspection, the lift should be carefully inspected for concealed damage. Any concealed damage found that was not noted on the delivery receipt should be reported in writing to the delivering carrier within 48 hours.

The following is a checklist that will aid you in the inspection of this lift:

1. Examine entire unit for any signs of mishandling. Pay special attention to the power unit and pushbuttons.
2. Thoroughly examine all connections, making sure they have not vibrated loose during transit, and inspect wiring for any signs of damage.
3. After installation, raise the lift and inspect the base frame, platform, scissors assembly, and cylinder plumbing connections.

SAFETY SIGNAL WORDS

SAFETY ALERTS (Required Reading!)

The following SAFETY ALERTS are intended to create awareness of owners, operators, and maintenance personnel of the potential safety hazards and the steps that must be taken to avoid accidents. These same alerts are inserted throughout this manual to identify specific hazards that may endanger uninformed personnel. Identification of every conceivable hazardous situation is impossible. Therefore, all personnel have the responsibility to diligently exercise safe practices whenever exposed to this equipment.



DANGER!

Identifies a hazardous situation that presents the imminent probability of death or of severe personal injury!!



WARNING!

Identifies a hazardous situation that has the potential of causing death or serious personal injury.



CAUTION!

Identifies a hazardous situation that could lead to the possibility of personal injury of death, and/or may result in equipment damage.

SAFETY PRACTICES

Read and understand this manual and all labels prior to operating or servicing the lift. All labels are provided in accordance with ANSI Z535.4.



DANGER!

Do not work under lift without maintenance device! To avoid personal injury, NEVER go under the lift platform until the load is removed and the scissors mechanism is securely blocked in the open position. See "Lift Blocking Instructions" section.



DANGER!

To avoid personal injury, stand clear of scissors leg mechanism while lift is in motion.



DANGER!

Do not install the lift in a pit unless it has a bevel toe guard or other approved toe protection. A shear point can exist which can cause severe injury to the foot.



DANGER!

HIGH VOLTAGE!! Disconnect and/or lock out the electrical supply to the power unit prior to any maintenance being performed.

SAFETY PRACTICES



DANGER!

Extending the platform length or width beyond the factory limit could cause the unit to tip, which could result in personal injury or death.



DANGER!

Do not attempt to remove the velocity fuse until the maintenance locks securely support the lift and all hydraulic pressure has been removed from the lifting cylinders and hydraulic hoses. Failure to do so could result in personal injury or death!



WARNING!

Under no circumstances should the speed control orifice be removed from the Deltatrol to obtain faster lowering speed. A loaded lift can reach dangerous and destructive speed!!



WARNING!

All warning and information decals should be in place as outlined in the "Label Identification" section. If decals are missing or damaged, they should be replaced with new ones. Contact an *Autoquip* representative for replacements.

SAFETY

CAUTION!

Never run the pump for more than a couple of seconds without pumping oil. This applies to low oil conditions, improper motor rotation, running the pump against the relief pressure after the lift is fully raised against the physical stops, running overloaded beyond capacity, or running at reduced speed because of pinched or obstructed hydraulic lines.

CAUTION!

Do not continue to depress the “UP” button on the controller if the lift is not raising or if the lift has reached the fully raised position. To do so may result in permanent damage to the motor or pump.

CAUTION!

Do not operate the power unit on relief for more than a few seconds. When on relief, the valve will make a squealing sound.

CAUTION!

Precautions should be taken to prevent the introduction of contaminants such as dirt or other foreign material into the system through open fittings, pipes or disassembled components. Contamination will ruin the hydraulic system.

CAUTION!

Use only approved oils in the lift. See “Specifications” section.

LABEL IDENTIFICATION

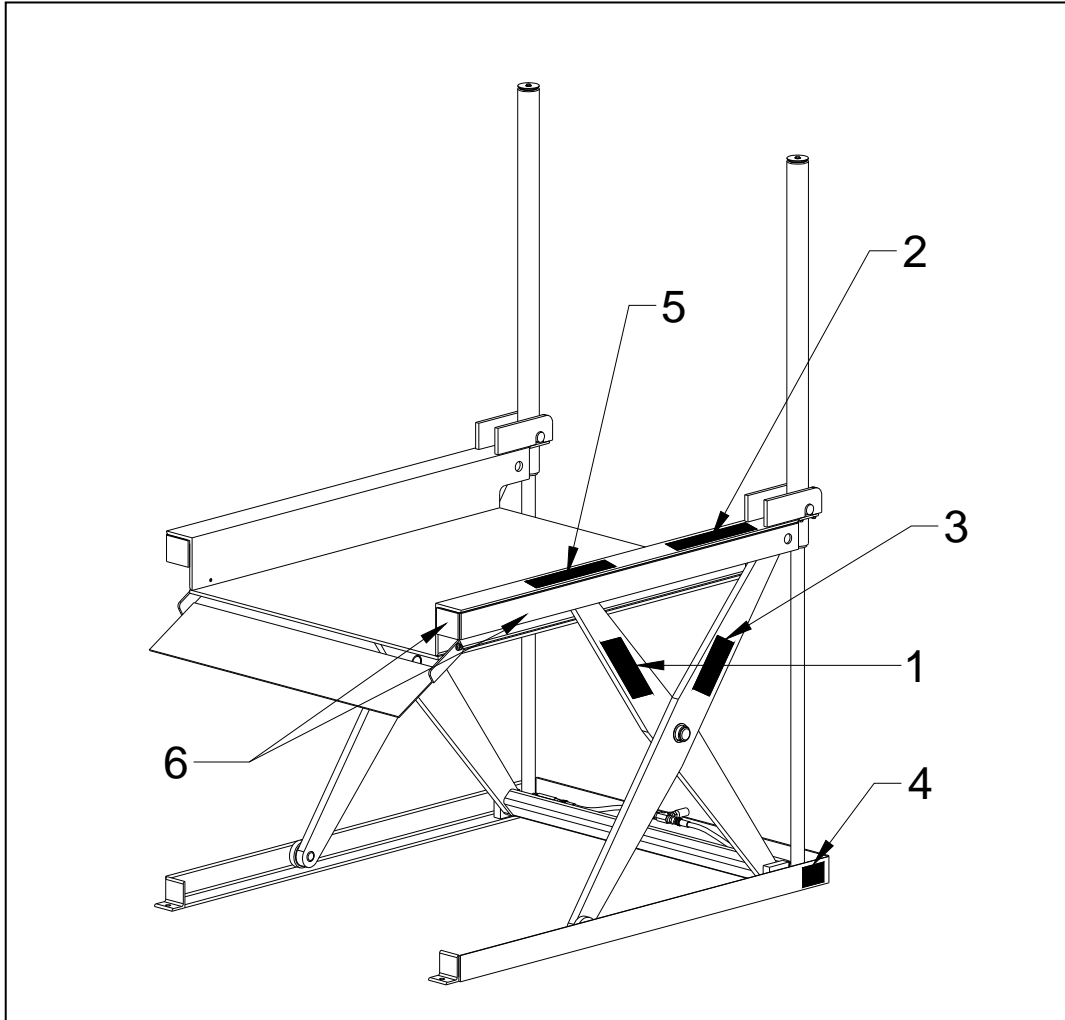


Figure 1 Label Placement Diagram

XLR			
Item No.	Qty	Description	Part No.
1	2	Caution – Familiarize Yourself With Operators Manual	36401487
2	4	Danger – Do Not Put Hands or Feet . . .	36430050M
3	1	<i>Autoquip</i> Serial Number Nameplate	36401511
4	1	Fill with Recommended Oils Only	36400661
5	2	Capacity	36401594
6	2	Black/Yellow Safety Tape	06100010

LABEL IDENTIFICATION

1.

Note: Labels shown here are not actual size.



Figure 2 Label 36401487



Figure 3 Label 36430050M



Figure 4 Label 36401511

LABEL IDENTIFICATION



Figure 5 Label 36400661



Figure 6 Label 36401594

SPECIFICATIONS

Model	Travel (in.)	Lifting Capacity (lbs.)	Lowered Ht. (in.)	Side Reach -Over (in.)	Platform Size (in.)	Base Size (in.)	Edge Load Capacity (lbs.)	Speed (sec.)	Shipping Wt (lbs.)
36XLR2040	36	2000	1/2	4	40 x 48	40 x 48	1000	24	950
36XLR2046	36	2000	1/2	4	46 x 48	46 x 48	1000	24	990
36XLR2052	36	2000	1/2	4	52 x 48	52 x 48	1000	24	1030
36XLRA3040	36	3000	1/2	4	40 x 48	40 x 48	1000	*	1185
36XLRA3046	36	3000	1/2	4	46 x 48	46 x 48	1000	*	1225
36XLRA3052	36	3000	1/2	4	52 x 48	52 x 48	1000	*	1265
36XLR4040	36	4000	1/2	4	40 x 48	40 x 48	2000	24	1040
36XLR4046	36	4000	1/2	4	46 x 48	46 x 48	2000	24	1095
36XLR4052	36	4000	1/2	4	52 x 48	52 x 48	2000	24	1150
48XLR2040	48	2000	1/2	4	40 x 64	40 x 64	1000	32	1490
48XLR2046	48	2000	1/2	4	46 x 64	46 x 64	1000	32	1530
48XLR2052	48	2000	1/2	4	52 x 64	52 x 64	1000	32	1570
48XLRA3040	48	3000	1/2	4	40 x 64	40 x 64	1000	*	1345
48XLRA3046	48	3000	1/2	4	46 x 64	46 x 64	1000	*	1400
48XLRA3052	48	3000	1/2	4	52 x 64	52 x 64	1000	*	1455
48XLR4040	48	4000	1/2	4	40 x 64	40 x 64	2000	32	1260
48XLR4046	48	4000	1/2	4	46 x 64	46 x 64	2000	32	1315
48XLR4052	48	4000	1/2	4	52 x 64	52 x 64	2000	32	1370

* Depends on air supply

LOAD CAPACITY

The load capacity rating is stamped on a metal plate attached to the lift. This figure is a net capacity rating for a lift furnished with the standard platform. The relief valve of the pumping unit has been set to raise the weight, plus a small amount for overload. Where gravity roll-sections, special tops, etc, are installed on the lift after leaving the plant, deduct the weight of these from the load rating to obtain the net capacity. **Lifts should not be overloaded beyond the established capacity as damage and/or personal injury may result.**

UNBALANCED LOADING

The stabilization provided is basically for balanced loads. If special attachments are needed to extend beyond the length and/or width dimensions of the platform, consult the factory for approval of all attachments or modifications to this equipment. Autoquip does not foresee and can not anticipate unauthorized modifications to this lift which may adversely affect the performance or safety of the lift and potentially cause permanent damage to the lift, which could in turn lead to severe injury or death.

SPECIFICATIONS

PUMP PRESSURE

This lift incorporates a positive displacement pump machined to a high degree of accuracy and specially adapted to requirements of higher-pressure ranges over that of a standard pump. Therefore, standard factory models of the same manufacture cannot replace it.

The pump can operate efficiently at intermittent pressures up to 3200 PSI and continuous duty to 2500 PSI. The safety relief valve in the pump assembly is factory-set to stay within the parameters of the pump and lift requirements.

LIFT BLOCKING INSTRUCTIONS



WARNING !

Only authorized personnel should perform inspection or maintenance and service procedures. Unauthorized personnel attempting these procedures do so at the risk of personal injury or death.



DANGER !

Failure to properly adhere to lift blocking procedures is to risk the sudden and uncontrolled descent of the lift during maintenance or inspection. A falling lift can cause severe injury or death.

This procedure describes the only factory-approved method of working under a lift. Follow these instructions EVERY time you plan to reach or crawl beneath the lift to perform service or maintenance – no matter how momentary that might be.

If the factory-provided maintenance devices are damaged or missing, stop immediately and consult the factory for assistance. The manufacturer is not liable for your failure to use the approved maintenance devices and procedures that have been provided.

1. All load must be removed from the lift prior to engaging the maintenance devices. These devices are designed to support an unloaded lift only. Failure to remove the load from the lift prior to blocking could cause the failure of the maintenance devices and allow the lift to fall unexpectedly. This can result in personal injury or death, or permanent damage to the maintenance devices and/or the lift.
2. Raise the lift to its fully raised position. If you do not, the maintenance devices may not be able to be placed properly in their designed blocking position.
3. Locate both hinged maintenance locks permanently welded outside the base frame on the roller end of the lift base legs. Both locks must be flipped over and resting inside the base frame and thus in the roller path of the lift (See Figure 7).
4. Lower the lift platform until the leg rollers make contact with both maintenance locks. Re-check to ensure that both devices are fully and properly engaged with the leg rollers. If both left and right maintenance locks are not fully engaged the lift could fall unexpectedly, resulting in permanent damage to the devices or the lift.

LIFT BLOCKING INSTRUCTIONS

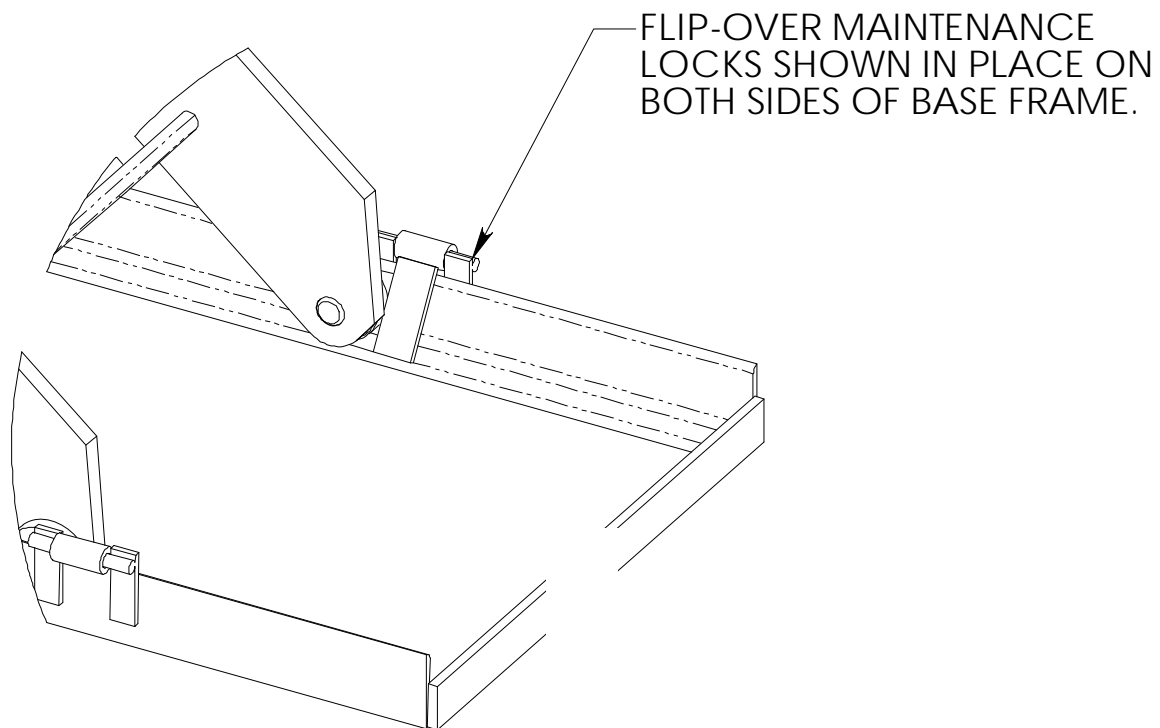


Figure 7 Maintenance Locks

LIFT BLOCKING INSTRUCTIONS



DANGER !

If for any reason you are unable to lower the lift completely onto the maintenance device(s), stop immediately and consult the factory. Failure to properly use the factory approved maintenance device(s) could result in severe injury or death.

5. Once the maintenance devices are properly and securely engaged, continue to press the down button, valve or switch for an additional 5-10 seconds to relieve all pressure in the hydraulic system (it could take longer in a pneumatic system).



WARNING !

Failure to relieve operating system pressure could result in the sudden and unexpected release of high pressure fluids (or air) during maintenance and/or repair of the lift and result in severe injury or death.

6. Follow OSHA electrical lock-out/tag-out procedures. Disconnect and tag all electrical and/or other power sources to prevent an unplanned or unexpected actuation of the lift.
7. Once inspection or work is complete, reverse the performance of the steps above to raise the lift off the maintenance devices and flip the devices back into their designated storage positions outside the base frame.



DANGER !

HIGH VOLTAGE!! – Disconnect and/or lock out the electrical supply to the power unit prior to any installation or maintenance being performed.

INSTALLATION INSTRUCTIONS

1. Make sure installation area is clean before starting.
2. If the permanent electrical work is not complete, some means of temporary lines with an on-off device for the power supply should be set up for testing purposes.
3. Place the lift in the installation area.



CAUTION!

When moving the lift, do not attempt to pick it up by the platform; it is hinged and could be damaged. Pick up the lift from under the base frame ONLY using a strap sling.

4. Make temporary electrical connections and permanent hydraulic connections. Raise the lift approximately one foot using the "UP" button. Then lower the lift back to fully collapse, holding the "DOWN" button for approximately 60 seconds. Repeat this process five to seven times to bleed any air out of the hydraulic system.
5. Raise the lift to the top of its travel and make positioning adjustments. Check for the proper height. If needed, shim to the desired height. DO NOT "spot" shim. Shim the full length of the base frame. This will prevent the frame from sagging under an exceptionally heavy load.



DANGER!

Do not work under lift without Maintenance Device! To avoid personal injury, NEVER go under the lift platform until the load is removed and the scissors mechanism is securely blocked in the open position. See "Lift Blocking Instructions" section.

6. The base frame of the lift has pre-drilled holes for lagging it securely to the floor. Mark the holes, drill, and install with anchors. Lifts with oversize platforms have minimum pull out requirements of 2,000 lbs. for each anchor.
7. Make permanent electrical connections and operate the lift through a few cycles.

INSTALLATION INSTRUCTIONS

CLEAN UP

1. Clean up any debris from the area. A clean installation makes a good impression and creates a much safer environment!
2. Touch-up paint is available from *Autoquip* for repair of damaged paint surfaces.



WARNING!

All DANGER, WARNING, and CAUTION labels and informational decals and plates must be intact and in place on the lift. Contact an Autoquip representative if labels are missing or damaged. See “DANGERS, WARNINGS, and CAUTIONS” section of this manual.

OPERATING INSTRUCTIONS

1. Scissors lifts have maximum lifting capacity ratings (See the “Specifications” section). The safety relief valve has been factory set to open at a point slightly above the rated load and allows the oil to bypass into the reservoir. **The safety relief valve should not be adjusted for any reason as it could cause the motor or pump to prematurely burn out.** Applying loads exceeding the rated capacity of the lift may result in excessive wear and damage to the lift.
2. This type of lift is designed primarily for in-plant applications and is furnished with constant-pressure pushbutton controls. Actuating the "UP" button will cause oil to enter the cylinders and the lift will rise.
3. When the desired height or upward travel of the platform is attained, removing the operators' hand from the switch or button deactivates the “UP” circuit. The oil stops flowing and the upward movement will stop. Once the control switch or button is released the cylinders are locked into position at this height by a check valve in the circuit .
4. To lower the lift, activate the "DOWN" button. Opening the down control valve allows the oil in the cylinders to flow through the down valve at a controlled rate and return oil to the reservoir.
5. When the desired height or downward travel of the platform is attained, removing the operator's hand from the switch or button deactivates the “DOWN” circuit. The oil stops flowing from the cylinders and the downward movement will stop. Once the control switch or button is released the cylinders are locked into position at this height by a check valve in the circuit .

CAUTION!

Do not operate the power unit on relief for more than a few seconds. When on relief, the valve will make a squealing sound.

ROUTINE MAINTENANCE

Normally scissors lifts will require very little maintenance. However, a routine maintenance program could prevent costly replacement of parts and/or downtime.



WARNING!

To avoid personal injury, NEVER go under the lift platform or perform any maintenance on the lift until the load is removed and the scissors mechanism is securely blocked in the open position. See "Lift Blocking Instructions" section.

MONTHLY INSPECTION

1. Check oil level (see oil recommendations in this section) and add appropriate oil when necessary.
2. Check for any visible leaks. Correct as necessary.
3. Check any unusual noise when it occurs. Determine the source and correct as necessary.
4. Check the snap rings at all rollers, if not in place, and/or secure, replace or repair immediately.
5. Check all rollers for signs of wear. Replace as necessary.
6. Do not grease roller or axles; they have lifetime-lubricated bearings.
7. Check all wiring for looseness or wear. Repair at once.

OIL REQUIREMENTS

Change oil yearly, or more frequently if it darkens materially or feels gummy or gritty. Do not use hydraulic-jack oil, hydraulic fluids, brake fluids, or automatic transmission fluid.

ROUTINE MAINTENANCE

Oil Viscosity Recommendations

Environment (Ambient Temperatures)	Recommended Oil
Indoor location, variable temperatures (30 - 100° F)	10W30 or 10W40 Multiviscosity motor oil
Indoor location, consistent Temperatures (70° F)	SAE-20W motor oil
Outdoor location, (-10 - 100° F)	SAE 5W30 Multiviscosity motor oil
Cold-storage warehouse (10 - 40° F)	5W30 Multiviscosity motor oil
Freezer (-40° F to 0° F)	Consult Factory

OIL CAPACITY

Standard polyethylene tank capacity is approximately five quarts.

PIPE THREAD SEALANT

Loctite PST #567 pipe thread sealant or equivalent is recommended. **Do not use Teflon tape.** Tape fragments can cause malfunctioning of the hydraulic system.

GENERAL MAINTENANCE

CYLINDER REPLACEMENT

1. Set the lift in the maintenance position (See LIFT BLOCKING INSTRUCTIONS on page 13.)
2. Unbolt the two hex head bolts that retain each of the cylinders to the platform.
3. Press and hold the “Down” button to allow the cylinders to retract to a position where they can be removed from the platform connection.
4. Disconnect electrical power. Always shut off the main electrical switch when maintenance is to be performed and follow OSHA lockout-tagout procedures.
5. Disconnect the hydraulic hose from the cylinder.



WARNING!

Do not remove the base clevis pin. This will cause the lift to collapse!

6. The cylinder can now be pulled out of the base socket and removed.
7. Replace cylinder using same procedure in reverse order.

GENERAL MAINTENANCE

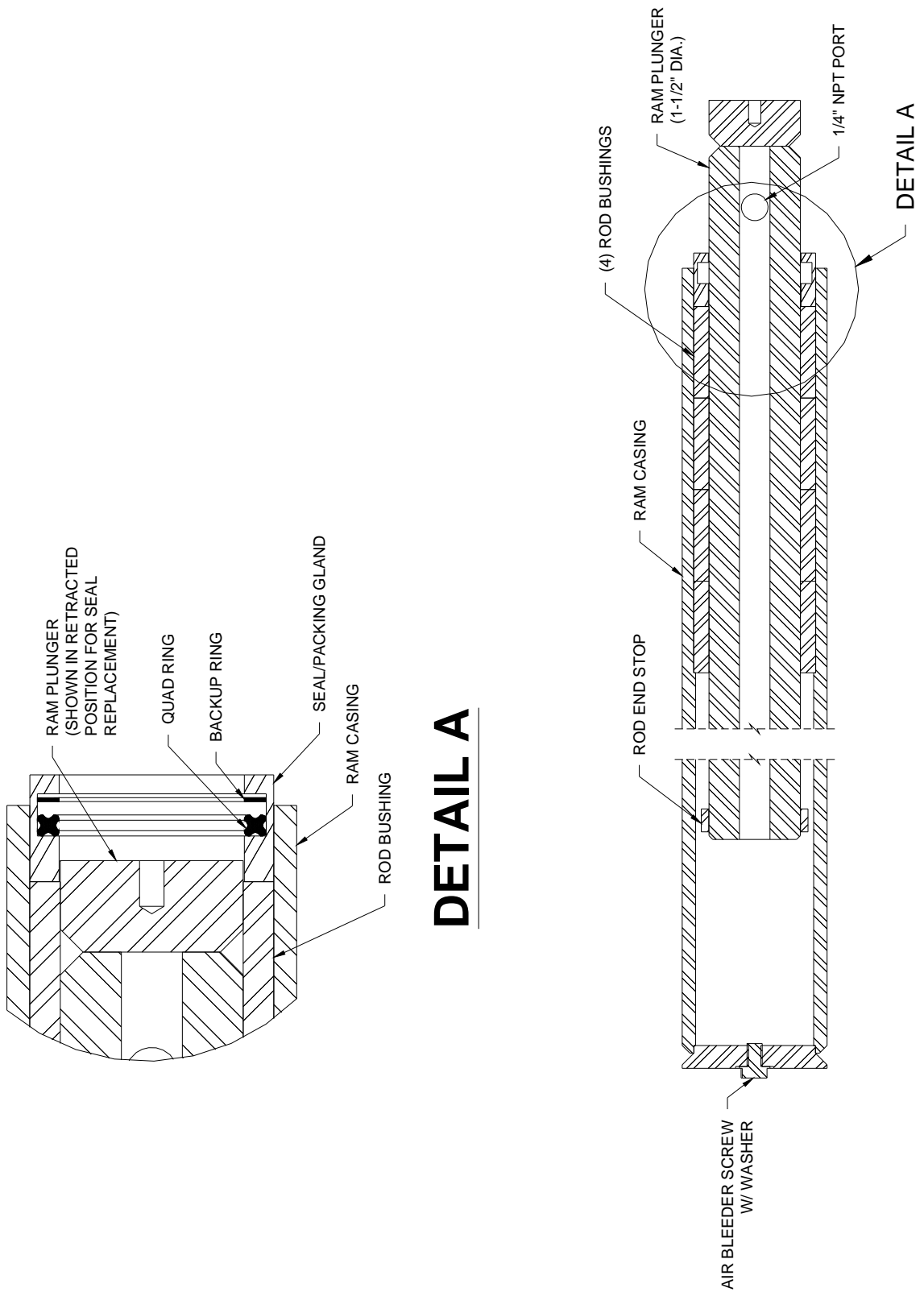


Figure 8 Ram Detail

GENERAL MAINTENANCE

VELOCITY FUSE REPLACEMENT



DANGER!

Do not attempt to remove the velocity fuse until the lift is securely supported with the maintenance locking devices and all hydraulic pressure has been removed from the lifting cylinders and hydraulic hoses. Failure to follow these instructions could result in personal injury or death!

Never attempt to take a velocity fuse apart and repair it. These are precision devices that are factory assembled under exacting conditions. Velocity fuses should always be replaced.

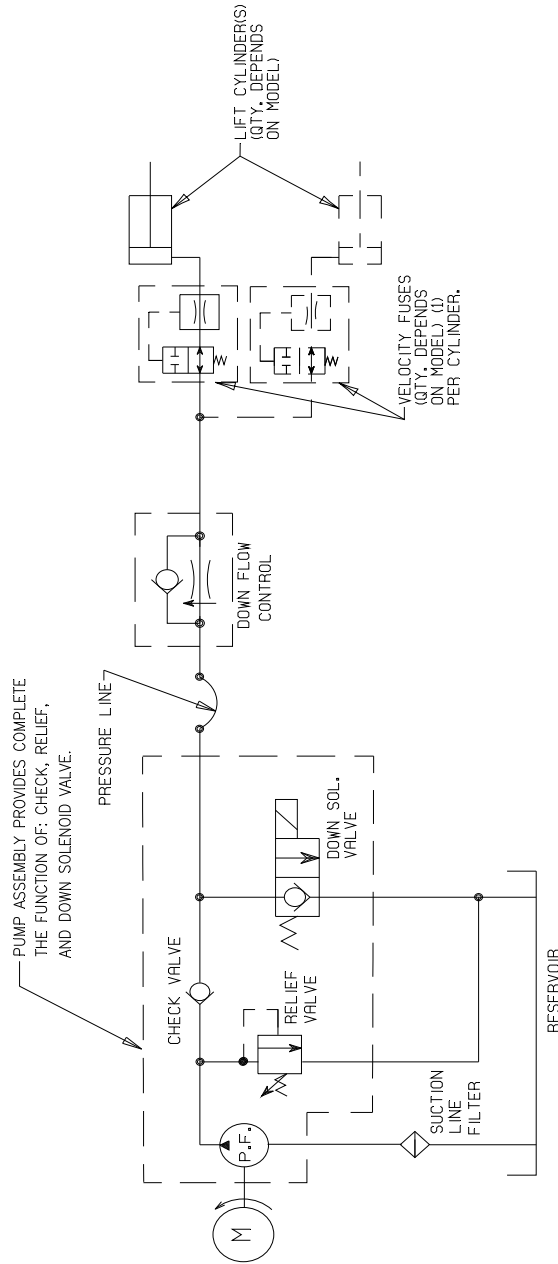
1. The arrow on the exterior surface of the velocity fuse shows the direction of the restriction to the oil flow. The arrow should always point away from the cylinder.
2. **Do not use Teflon tape on the threaded connections of a velocity fuse.** Tape fragments can cause malfunctioning of the fuse.
3. Check all fitting connections for hydraulic leaks and tighten as necessary.

HOSE ORIENTATION

To prevent damage to the cylinder hose and possible failure of lift, it is necessary to establish a correct hose shape and pattern of movement as follows:

1. Raise the lift to its full height and block securely. See "Lift Blocking Instructions".
2. Install one end of the new hose to the cylinder elbow fitting.
3. Since the hose is fixed at both ends, it is possible to put a twist in the hose that will allow it to describe the same pattern each time the lift is operated.
4. Lower the lift carefully and check to see that the hose is free and clear of the cylinder and the leg assembly. If not, twist the hose in the direction necessary to clear it of any obstruction and then lock the swivel fitting securely.

GENERAL MAINTENANCE



HYDRAULIC SCHEMATIC

1	ADDED	PLT-C TO TITLE	WJB	10/16/96
NO.	REVISIONS		BY	DATE
JOB NAME:				
AUTOQUIP		BOX 1058		
COPYRIGHT RESERVED		COLUMBIA, OK 73044		
DRAWING TITLE: HYD SCH FOR SM & PLT-C				
REFERENCE DWG.	658-0732-3A	DRAWN BY:	DWL	9/11/95
APPROXIMATE WEIGHT:	N/A	QTY. REQUIRED	1 of 1	1
DRAWING NUMBER:			657-5004-0	
				SIZE
				A

Figure 9 Hydraulic Schematic

GENERAL MAINTENANCE

WIRING AUTOQUIP "SUPER TORQUE" MOTORS

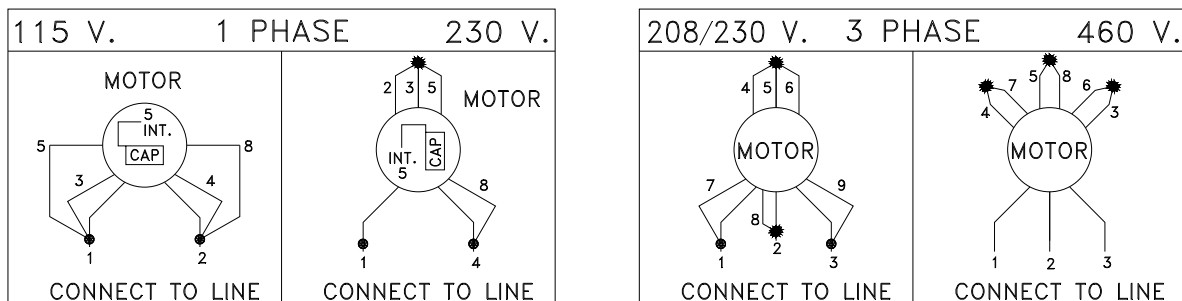
Because *Autoquip* "Super-Torque" motors actually deliver substantially more horsepower than their nameplate rating, they must always be wired for heavier current-draw than standard motors of the same nameplate rating. However, because of the "Super-Torque" motor's starting efficiency and superior running characteristics, circuit components do not have to be as large as for standard motors of equal delivered horsepower.

The following chart should be observed in connecting these motors to power sources, remembering that, where 115-Volt operation is contemplated, the current-draw is too heavy for plugging into ordinary lighting circuits. Heavy wire must be used all the way to the power-source.

HP and Source	Fuse Size	Circuit Breaker
¾ HP / 115 V/60 CY/1 PH	45 A	40 A
¾ HP / 230 V/60 CY/1 PH	25 A	20 A
1½ HP / 208-230 V/60 CY/3 PH	15 A	10 A
1½ HP / 460 V/60 CY/ 3 PH	7.5 A	5 A

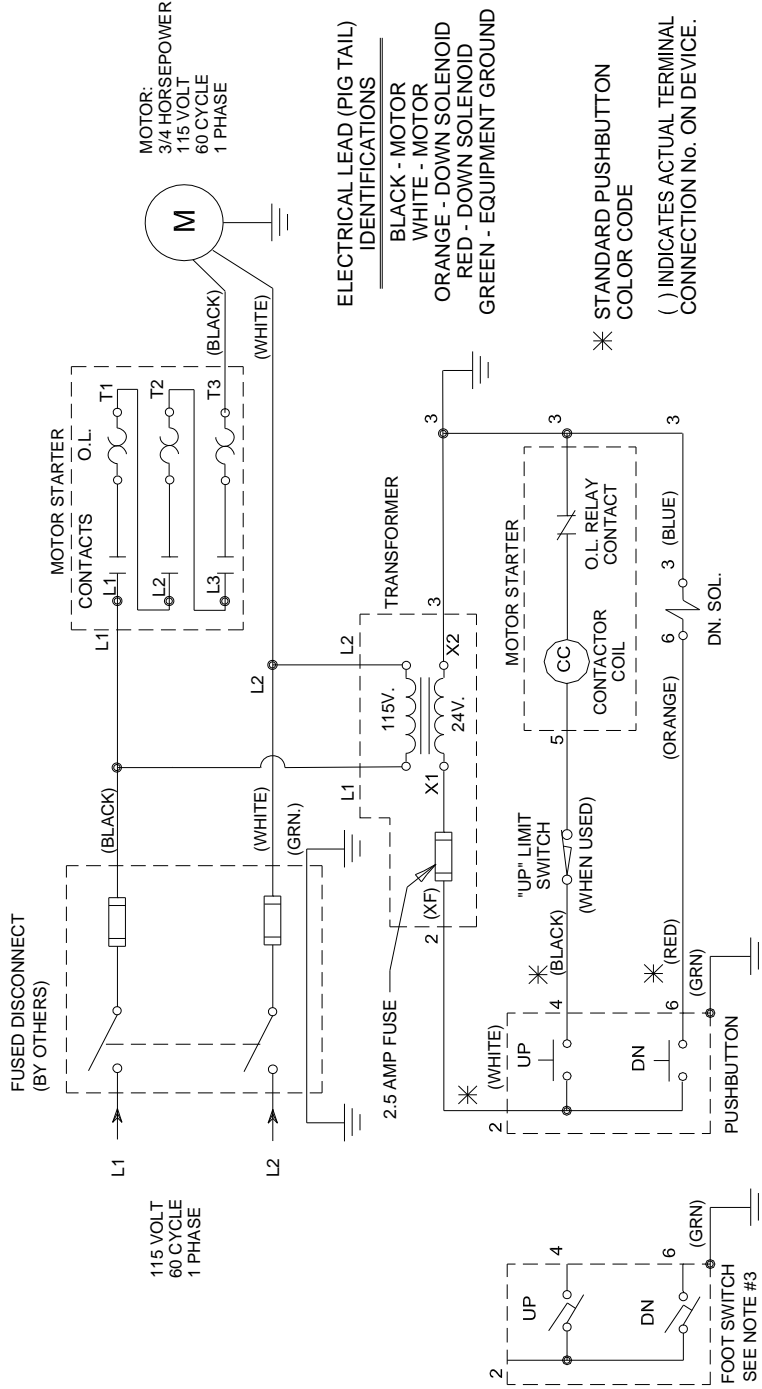
NOTE: For larger horsepower motors, consult factory.

MOTOR CONNECTION DIAGRAMS



GENERAL MAINTENANCE

65807448



NOTES:

1. MOTOR STARTER, CONTROL TRANSFORMER, OVERLOADS, AND FUSES TO BE MOUNTED IN NEMA 1 ENCLOSURE, PRE-WIRED, AND MOUNTED TO POWER UNIT.
2. TRANSFORMER PRIMARY CONNECTION DIAGRAMS ARE LOCATED ON INSIDE OF FRONT COVER.
3. OPTIONAL FOOTSWITCH W/ GUARD (NEMA 1) SHIPPED LOOSE WHEN ORDERED. TO BE INSTALLED AND WIRED (BY OTHERS)

ELECTRICAL SCHEMATIC

TYPICAL PILOT CONTROLS ONLY

1	REDRAWN, PUT ON CAD, REVISED THRU-OUT FOR ABB.	SS	7/22/94
REV DESCRIPTION		BY	DATE
JOB NAME			
REFERENCE DRAWING:		DRAWING TITLE:	
©2002 COPYRIGHT RESERVED AUTODIUP CORPORATION This drawing is the sole property of Autodup Corp. and cannot be used for design and construction without permission of Autodup Corp.		STD WIRING SCHEMATIC, SERIES 35, 3/4 HP/115 V/1 PH	
APPROXIMATE WEIGHT:	DRAWN BY:	DATE:	REV.:
SC	3/31/88	1 OF 1	1
QTY	REV.	DRAWING NUMBER:	ORDER NO.:
1	1	65807448	A

This drawing is the sole property of Autodup Corp. and cannot be used for design and construction without permission of Autodup Corp.	DRAWING TITLE: STD WIRING SCHEMATIC, SERIES 35, 3/4 HP/115 V/1 PH
APPROXIMATE WEIGHT: SC	DRAWN BY: 3/31/88
QTY: 1	REV. NO.: 1
ORDER NO.: 65807448	DATE: 7/22/94

Figure 10 Electric Schematic; 115V/1Ph

GENERAL MAINTENANCE

65807430

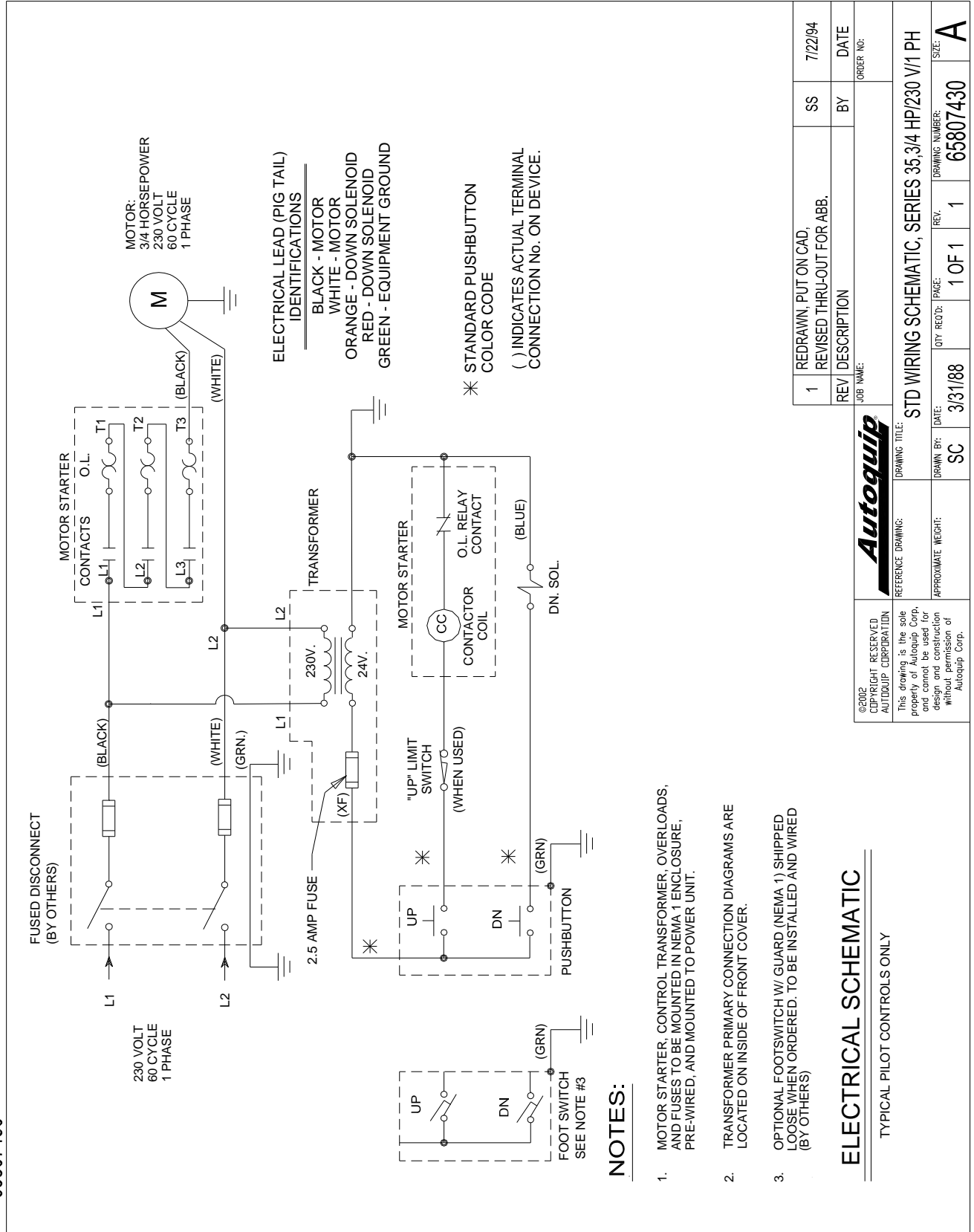
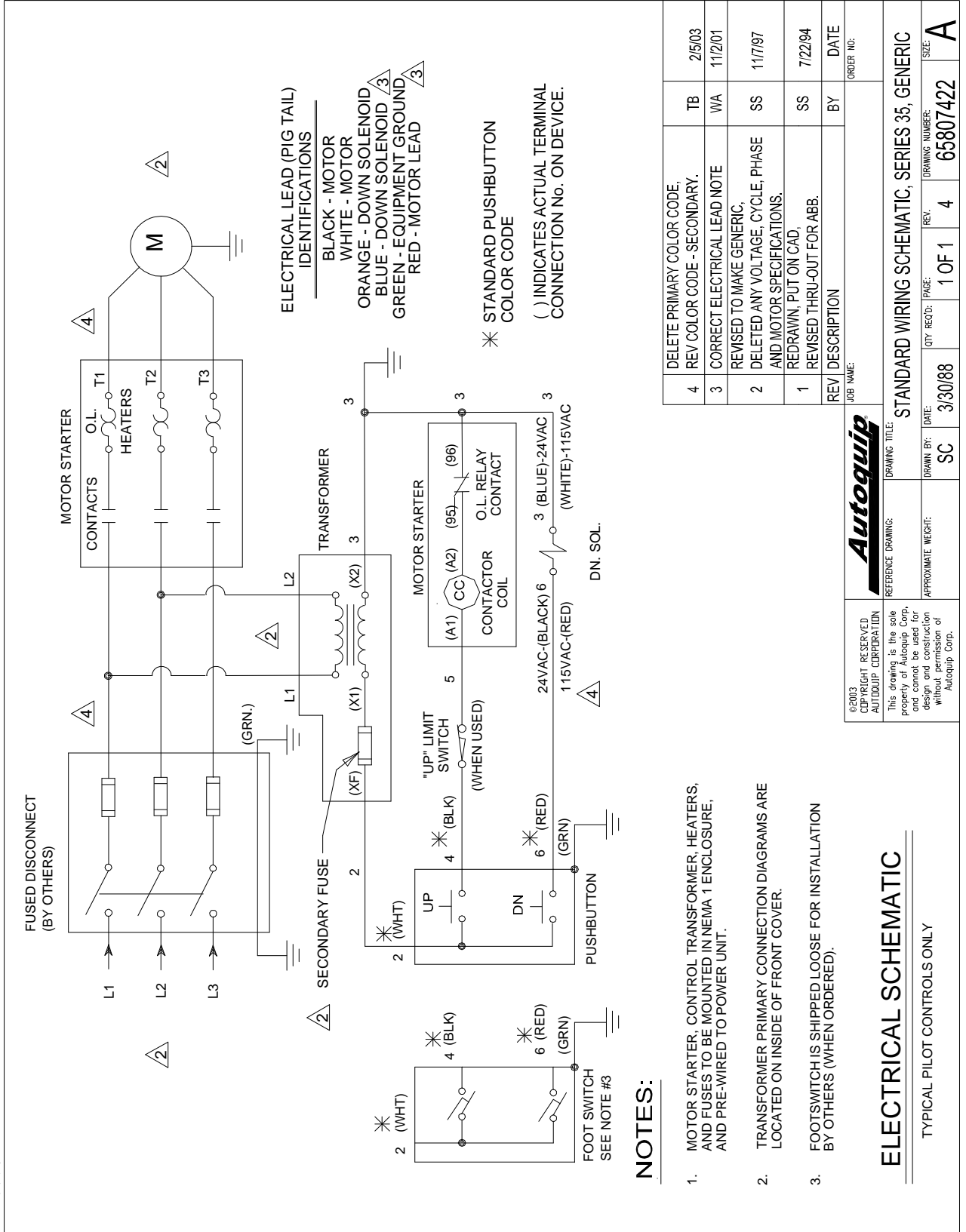


Figure 11 Electric Schematic; 230V/1Ph

1	REDRAWN, PUT ON CAD, REVISED THRU-OUT FOR ABB.	SS	7/22/94
REV DESCRIPTION		BY	DATE
JOB NAME: _____			
Autoquip			
REFERENCE DRAWING:		DRAWING TITLE:	
©2002 CDP/RIGHT RESERVED AUTOQUIP CORPORATION		STD WIRING SCHEMATIC, SERIES 35,3/4 HP/230 V/1 PH	
This drawing is the sole property of Autoquip Corp. and cannot be used for design and construction without permission of Autoquip Corp.			
APPROXIMATE WEIGHT:	DATE:	DRAWING NUMBER:	SIZE:
SC	3/31/88	1 OF 1	A

GENERAL MAINTENANCE

65807422



4	DELETE PRIMARY COLOR CODE, REV COLOR CODE - SECONDARY.	TB	2/5/03
3	CORRECT ELECTRICAL LEAD NOTE	WA	11/2/01
2	REVISED TO MAKE GENERIC, DELETED ANY VOLTAGE, CYCLE, PHASE AND MOTOR SPECIFICATIONS.	SS	11/7/97
1	REDRAWN, PUT ON CAD, REVISED THRU-OUT FOR ABB.	SS	7/22/94
	REV DESCRIPTION	BY	DATE
	JOB NAME:		ORDER NO.

REFERENCE DRAWING:	DRAWING TITLE:
APPROXIMATE WEIGHT:	STANDARD WIRING SCHEMATIC, SERIES 35, GENERIC
DRAWN BY:	DATE:
SC	3/30/88
QTY REQ'D:	REV:
1 OF 1	4
DRAWING NUMBER:	SIZE:
65807422	A

ELECTRICAL SCHEMATIC

TYPICAL PILOT CONTROLS ONLY

Figure 12 Electric Schematic; 208-230-460V/3Ph

GENERAL MAINTENANCE

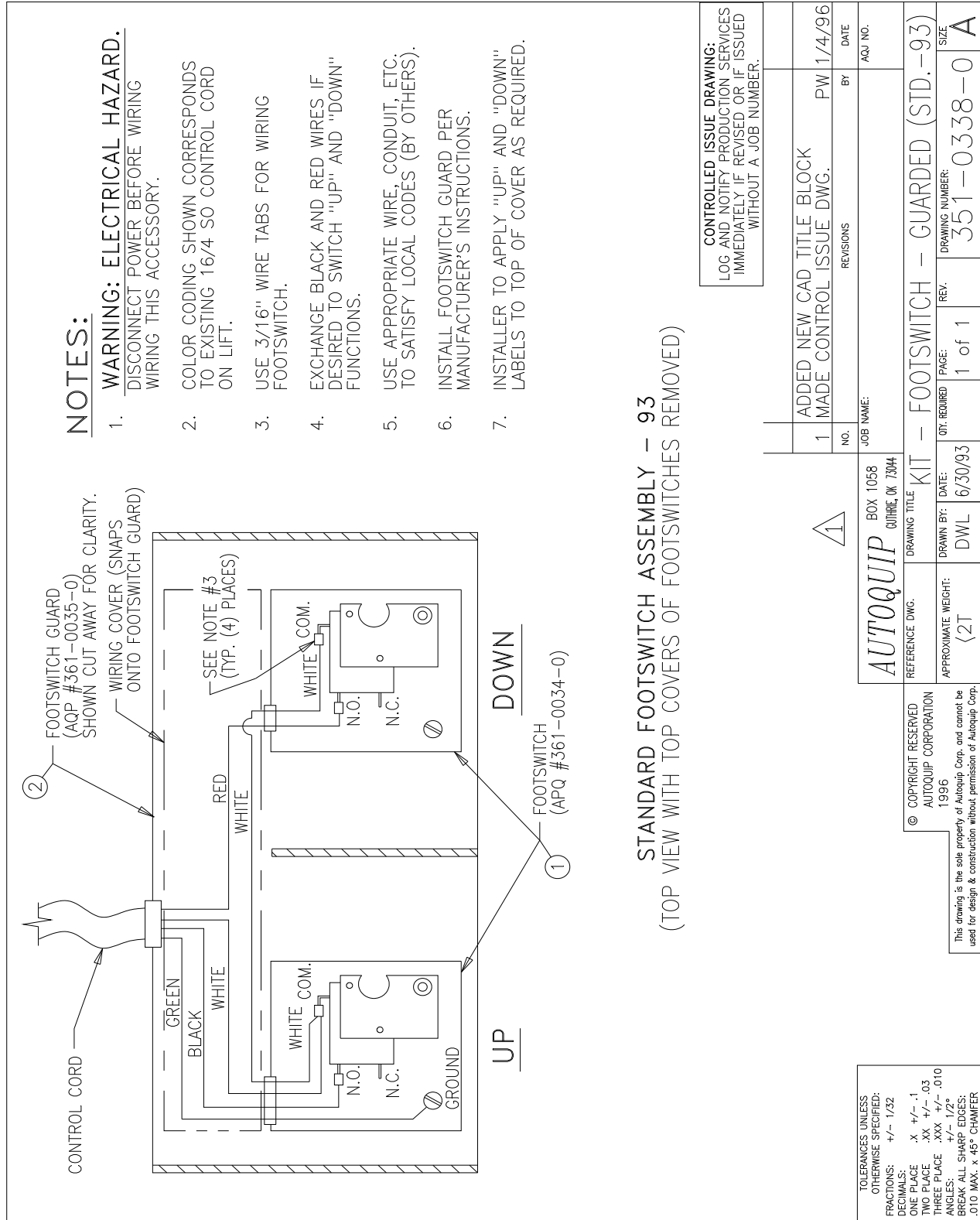
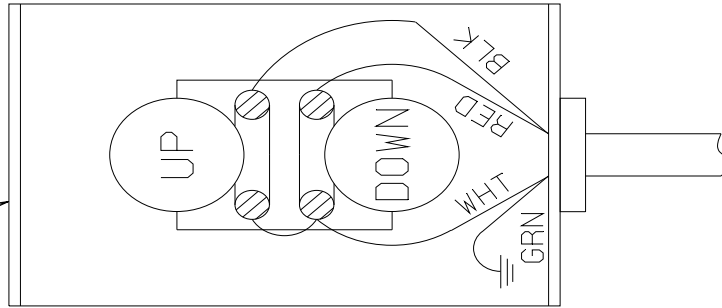


Figure 13 Guarded Footswitch Assembly

GENERAL MAINTENANCE

STANDARD WALL MOUNT PUSHBUTTON SWITCH
(FRONT VIEW, COVER REMOVED)



NOTES:

1. WARNING: ELECTRICAL HAZARD
DISCONNECT POWER BEFORE
WIRING THIS ACCESSORY.
2. COLOR CODING SHOWN CORRESPONDS TO
EXISTING 16/4 SO CONTROL CORD ON
LIFT.
3. USE APPROPRIATE WIRE, CONDUIT, ETC.
TO SATISFY LOCAL CODES. (BY OTHERS.)

© 2000 COPYRIGHT RESERVED AUTOQUIP CORPORATION This drawing is the sole property of Autoquip Corp. and cannot be used for design & construction without permission of Autoquip Corp.	REV. 1/88 CUTURE OK 7/20/84 888-811-9876	JOB NAME: _____ AQL NO. _____
	REFERENCE DWG: _____	DRAWING TITLE STD WALL MOUNT PUSHBUTTON WIRING DIAGRAM
APPROXIMATE WEIGHT: (2T)	DRAWN BY: SC DATE: 3/23/88	REVISIONS BY DATE _____
QTY. REQUIRED: 1 PAGE: 1 of 1	REV. 1	DRAWING NUMBER: 658-0734-9
SIZE: A	_____	_____

Figure 14 Pushbutton Assembly

GENERAL MAINTENANCE

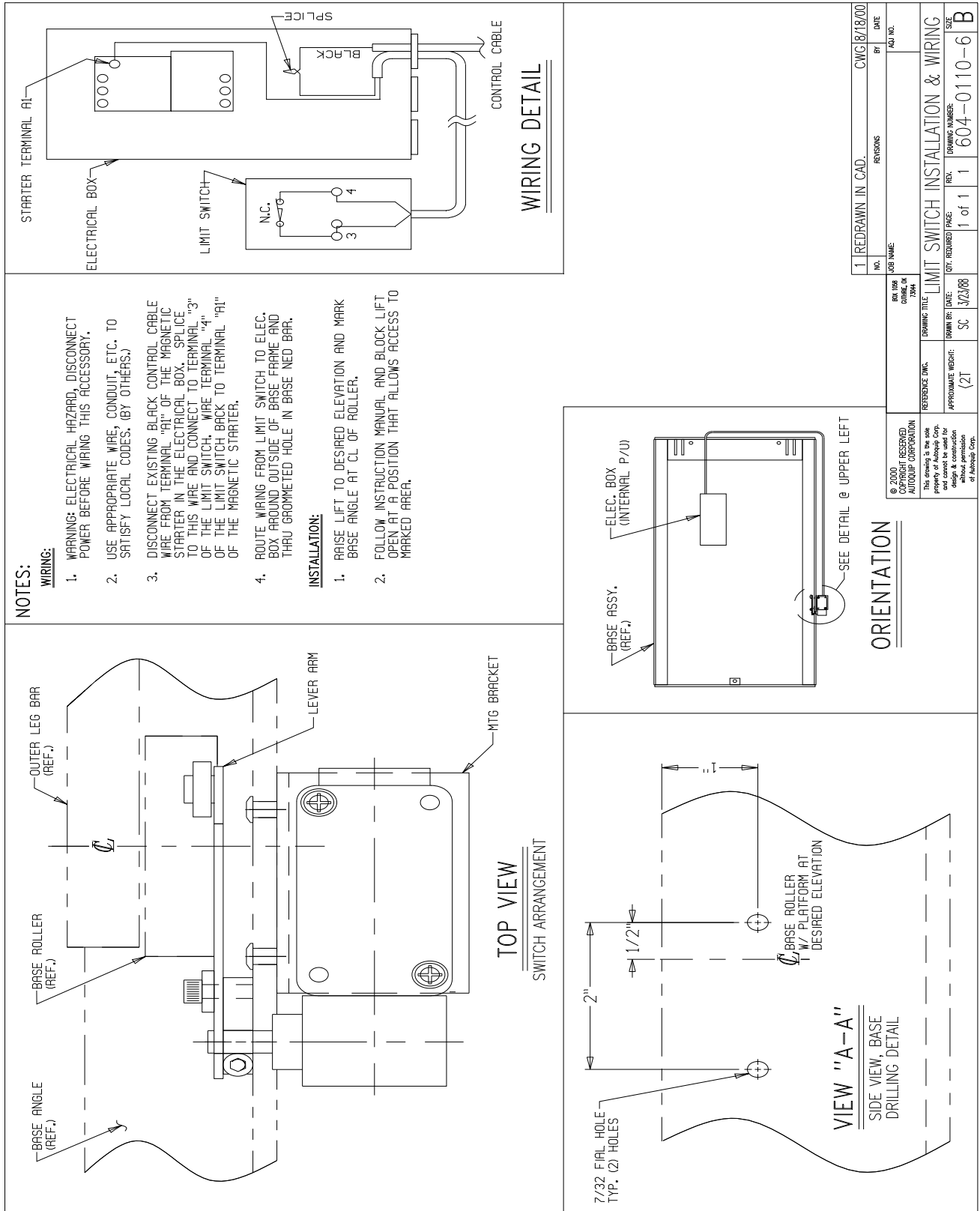


Figure 15 Limit Switch Wiring Diagram

REPLACEMENT PARTS LIST

PART #	DESCRIPTION
20001137	Tongue & Groove Coupling
20022877	18DU16 Bushing
20023925	24DU16 Bushing
24002008	Washer, 1-1/8" x 1/64" Thick
24012502	Washer, 1-1/2" x 1/16" Thick
30000020	Motor, 3/4 HP/1 PH
30300016	Motor, 1 1/2 HP/3 PH
32701290	Down Solenoid Coil, 24 VAC
33000680	Transformer
34000018	Limit Switch
34000257	Limit Switch Arm
35103380	Foot Switch and Guard
35105130	Pump, 1.4 GPM/3450 RPM with 24V coil
35107910	Control Assembly 115V/1PH
35107980	Control Assembly 230V/3PH
35107990	Control Assembly 460V/3PH
35108050	Control Assembly 230V/1PH
36202141	Pushbutton Assembly
41050139	Suction Strainer
41501776	Flow Control
41800640	Velocity Fuse
45400082	Retaining Ring, 1 1/8"
20013900	Retaining Clamp, 1-1/4"
45503150	Packing Kit
47900006	Vent Plug
52500485	Roller Pin, 1 1/8" diameter x 2" long
52502903	Clevis Pin, 1 1/8" diameter x 2-1/2" long
52600269	Roller Assembly, 3" OD x 1 1/8" ID

TROUBLESHOOTING ANALYSIS



DANGER!

To avoid personal injury, **NEVER** go under the lift platform until the load is removed and the scissors mechanism is securely blocked in the open position. See "Lift Blocking Instructions" section.

PROBLEM	POSSIBLE CAUSE AND SOLUTION
Lift raises, then lowers back slowly.	<ul style="list-style-type: none"> • The "Down" solenoid may not be seating. Remove the solenoid coil and check again. If the lift does not hold with the solenoid coil removed, the down valve cartridge should be removed and cleaned or replaced as necessary. • The oil line, hose, or fitting may be leaking. Check and repair if necessary. • The "check valve" in the pump assembly may not be seating. This is indicated by the pump shaft and motor turning backward on their own with no power applied. Generally, this condition can be heard. Replace the pump assembly.
Lift lowers very slowly.	<ul style="list-style-type: none"> • The down-solenoid is not operating properly due to dirt or damage. • Check for pinched tubing or hose. Where pipe is used, check for obstruction in the line. • The oil is extremely viscous due to low ambient temperatures. Add or replace with lower weight oil that stays thinner in cold conditions (5W-15, etc.)

TROUBLESHOOTING ANALYSIS

PROBLEM	POSSIBLE CAUSE AND SOLUTION
Lift does not raise.	<ul style="list-style-type: none"> • The motor rotation for a 3-phase motor may be reversed. Reverse only two motor electrical leads. • Check for a line or hose leak. • Check for oil shortage in the reservoir. Add oil as necessary (See Oil Requirements in the “Routine Maintenance” section.) • The load may exceed the rating. (See the “Specifications” section.) Remove the excess load. • The suction filter may be clogged, starving the pump. Remove and replace the filter. Drain and replace the oil. • The suction line may be leaking air due to a loose fitting. Tighten as needed. • The breather holes in the reservoir fill plug may be clogged. Remove and clean. • The voltage at the motor terminals may be too low to run the pump with the existing load. Check by measuring the voltage at the motor terminals, or as near as possible, <u>while the pump is running under load</u>. Reading the source voltage or pump-idling voltage is meaningless. Inadequate or incorrect wiring can starve the motor when the source voltage is ample. Correct as necessary. • The "Down" valve may be energized by faulty wiring or stuck open. Remove the solenoid and check. • The motor may be single phasing. Check wiring, fuses, etc. • The pump may be seized if motor is humming or blowing fuses on overload protection devices. Remove the pump. The pump should be able to be rotated by hand. Check for cracks in the housing. • The down solenoid valve stem may be bent, causing the valve to be stuck open. Replace the down solenoid valve.

TROUBLESHOOTING ANALYSIS

PROBLEM	POSSIBLE CAUSE AND SOLUTION
Lift won't lower.	<ul style="list-style-type: none"> • The solenoid coil may be incorrectly wired, burned out, not rated for the voltage, or the line voltage may be excessively low. Check voltage near the coil. • The velocity fuse may be locked. Do not attempt to remove the velocity fuse. The following steps should be followed: <ol style="list-style-type: none"> 1. Remove the load from the lift. Inspect all fittings, hoses, and other hydraulic components for leaks or damage. 2. If no leak or damage is noticed, attempt to pressurize the lifting cylinder by depressing the "UP" button on the controller for a few seconds. Immediately up releasing the "UP" button, depress the "DOWN" button. If the lift starts to lower, continue pressing the "DOWN" button until the lift is in the fully lowered position. 3. If the lift does not lower after trying Step 2, wait approximately 10 – 15 minutes for the pressure in the hydraulic system to equalize. Then, depress the "DOWN" button until the lift is in the fully lowered position. 4. Once the lift is in the fully lowered position, bleed the air from the hydraulic system by depressing the "DOWN" button. Hold the "DOWN" button for approximately 60 seconds. Repeat this process 8 – 10 times. This step may need to be repeated several times to fully remove the air in the system by raising the lift to 50% of its travel then lowering. Bleed air from the bleeder screw on top of the cylinder. • Should the above steps not correct the problem, contact <i>Autoquip</i> to obtain instruction for further action.

TROUBLESHOOTING ANALYSIS

PROBLEM	POSSIBLE CAUSE AND SOLUTION
Lift seems bouncy during operation.	<ul style="list-style-type: none"> • Lower the lift to collapsed position and continue to hold “DOWN” button an additional 10-30 seconds to bleed air from the cylinder. Do not confuse spongy or jerky operation with small surges that may occur when operating on rough or uneven floors • Check for oil starvation.
Motor labors or heats excessively.	<ul style="list-style-type: none"> • The voltage may be low. Check at the motor terminals while the pump is <u>running loaded</u>, not at the line source or while the pump is idling. Inadequate wiring can starve the motor even when the source voltage is ample. • Most of <i>Autoquip’s</i> standard motors are rated for intermittent duty (two minute run times with two minute rests). If a single-phase motor is being run more than 15 – 20 motor starts per hour, or a 3-phase motor more than 200 starts per hour, the problem may be motor over-heating. • Running against relief pressure unnecessarily due to over loaded lift or hitting physical stops. • Failure to observe wiring diagram on nameplate for proper voltage connections. • The pump may be binding from oil starvation, which develops high internal heat. Check for low oil level or closed breather holes in the reservoir fill plug. The pump can be irreparably damaged by oil starvation and may have to be replaced.

LIMITED WARRANTY

The user is solely responsible for using this equipment in a safe manner and observing all of the safety guidelines provided in the Owner's Manual and on the warning labels provided with the lift. If you are unable to locate either the manual or the warning labels, please contact Autoquip or access www.autoquip.com for replacement downloads or information.

Autoquip Corporation expressly warrants that this product will be free from defects in material and workmanship under normal, intended use for a period of Two (2) Years for Labor and all electrical, mechanical, and hydraulic components, parts or devices, and warrants the structure of the lift against breakage or failure for a period of Five (5) years. The warranty period begins from the date of shipment. When making a claim, immediately send your dealer or Autoquip notice of your claim. All claims must be received by Autoquip within the warranty time period. The maximum liability of Autoquip, under this Limited Warranty, is limited to the replacement of the equipment.

This warranty shall not apply to any Autoquip lift or parts of Autoquip lift that have been damaged or broken in transit/shipping, or due directly or indirectly to misuse, abuse, vehicle impact, negligence, faulty installation, fire, floods, acts of God, accidents, or that have been used in a manner contrary to the manufacturer's limitations or recommendations as stated in the manual, or that have been repaired, altered or modified in any manner outside of Autoquip Corp's manufacturing facility or which have not been expressly authorized by Autoquip.

Autoquip Corporation makes no warranty or representation with respect to the compliance of any equipment with state or local safety or product standard codes, and any failure to comply with such codes shall not be considered a defect of material or workmanship under this warranty. Autoquip Corporation shall not be liable for any direct or consequential damages resulting from such noncompliance.

Autoquip Corporation's obligation under this warranty is limited to the replacement or repair of defective components at its factory or another location at Autoquip Corp's discretion at no cost to the owner. This is owner's sole remedy. Replacement parts (with exception of electrical components) will be warranted for a period of ninety (90) days. Except as stated herein, Autoquip Corporation will not be liable for any loss, injury, or damage to persons or property, nor for direct, indirect, or consequential damage of any kind, resulting from failure or defective operation of said equipment. All parts used to replace defective material must be genuine Autoquip parts in order to be covered by this Limited Warranty.



AUTOQUIP CORP
P.O. Box 1058, Guthrie, OK 73044-1058
Telephone: (888) 811-9876 · (405) 282-5200
Fax: (405) 282-8105
www.autoquip.com