

# P-80

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## Owner's Manual

1000 lb. Capacity Conventional Liftgate

### ATTENTION

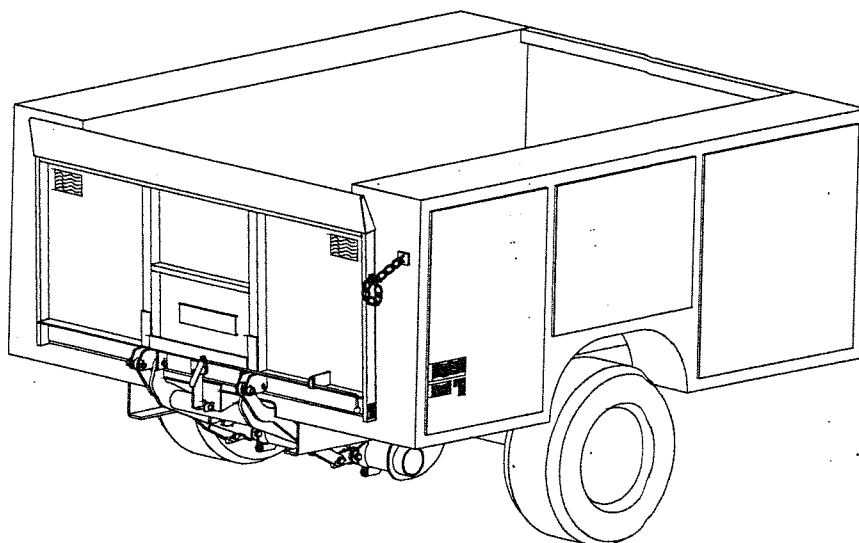
THE SUCCESS OR FAILURE OF THIS EQUIPMENT COULD VERY WELL DEPEND ON THOROUGH AND PROPER INSTALLATION.

READ AND UNDERSTAND THE CONTENTS OF THESE INSTRUCTIONS BEFORE PROCEEDING.

### IMPORTANT

WHEN INSTALLED, THIS LIFT MUST NOT ALTER OR PREVENT VEHICLE COMPLIANCE TO ANY EXISTING STATE OR FEDERAL STANDARDS.

EACH CHASSIS MANUFACTURER'S RECOMMENDATIONS SHOULD BE CONSULTED FOR COMPLIANCE.



4-04

GR01004

#### OHIO

285 Northeast Avenue  
Tallmadge, OH 44278  
(330) 633-9191  
FAX - (330) 633-1418

#### CALIFORNIA

227 E. Compton Blvd  
Gardena CA 90248  
(310) 243-6800  
FAX - (310) 538-1136

#### GEORGIA

1395 N. Cobb Parkway  
Marietta, GA 30062  
(770) 425-0922  
FAX - (770) 425-5886

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# ATTENTION

## OWNER'S MANUAL INTRODUCTION

EVEN THOUGH THE FOLLOWING GOES WITHOUT SAYING, WE FEEL  
COMPELLED TO STATE...

This Waltco Owner's Manual is intended to act as a guide for operation and routine maintenance but is in no way intended to encourage usage or repair of the liftgate by those who are not qualified to do so.

The contents of this manual include, but are not limited to general operation instructions, routine lubrication, parts lists, and an outline of things that should be checked but may not be obvious to those not technically qualified. This manual assumes the liftgate is properly installed, undamaged and operates correctly. Improper installation, improper operation, or damage, should be immediately corrected by a qualified person. If the owner or operator observes improper installation, improper operation, or damage, or has any doubts as to the installation, condition, use or operation of the liftgate, he should immediately contact a qualified person for assistance and correction.

We strongly urge the owner or user (or anyone else) that have questions as to the installation, operation, usage, maintenance or repair (as it relates to the liftgate) to contact us at the number below where we have qualified personnel that will be happy to assist you. Telephone numbers and addresses of these locations are listed in the Owner's Manual and Installation Instructions, and are again listed below:

### **California**

227 E. Compton Blvd.  
Gardena, CA 90248  
(310) 243-6800  
FAX - (310) 538-1136

### **Ohio**

285 Northeast Avenue  
Tallmadge, OH 44278  
(330) 633-9191  
FAX - (330) 633-141

# Chapter 1 Safety Information

The following safety information must be read before operating Waltco liftgates.

- Read and understand the Owner's Manual and all decals on liftgate before operating liftgate.
- Do not operate liftgate without a thorough knowledge and understanding of the operation of the liftgate.
- Do not attempt any repairs unless you are qualified to do so. Care should be taken when work is performed on a disabled liftgate located near moving traffic. When possible the vehicle should be moved away from traffic areas for repair. Precautionary measures should be taken to ensure personal safety including those recommended in Federal Motor Vehicle Safety Standards 571.125.
- **NEVER OVERLOAD LIFTGATE**  
Refer to the Explanation of Specification Tag in the Liftgate Terminology chapter for liftgate capacity rating.
- Never use liftgate if it makes any unusual noise, has unusual vibration, raises or lowers unevenly, or fails to operate smoothly.
- Never use liftgate if it shows any signs of structural damage such as cracked welds, bent or distorted members.
- For liftgates with Runners, never use liftgate if Runners do not travel freely and smoothly.
- All protective covers, guards, and safety devices must be in place and access doors closed before operating liftgate.
- Make certain the Platform area, including the area in which loads may fall, is clear before and at all times during the operation of the liftgate.
- Keep hands and feet clear of all pinch points.
- For liftgates with Roller Lifting Chain, the Chain should be replaced every (5) five years or 15,000 cycles, whichever comes first. Replace only with Waltco approved Roller Chain.
- A Lock-Out device or Shut-Off Switch should always be used to prevent unauthorized use of liftgate.
- Never transfer loads which exceed lifting capacity on or over any part of the Platform unless the liftgate is equipped with a special reinforced Platform and Platform Support Bars for use when the Platform is used as loading ramp(dock board). Refer to the "Using Platform as a loading ramp" Chapter in the Operation Instructions of the BZ/RZ series Owner's Manual.
- Platform is always to be properly stored and secured for transit. See the Owner's Manual for details.
- For liftgates equipped with Trailer Hitches, never exceed the rated capacity of the hitch. Do not exceed the vehicle's weight rating. Refer to the vehicle's Owner's Manual.
- Take care to retain cargo during transit for liftgate Platforms which function as the tailgate or door of the cargo area. Small objects can fall through the space between the vehicle and the folded Platform.
- Vehicle must comply with all state and federal standards.
- Follow the "Maintenance Guide" chapter in the Owner's Manual.

## **Liftgates with Tilt Function**

- Proper use of the Control Switches is of extreme importance.
- Improper use of Tilt Switch could cause load to fall from the Platform or damage the liftgate.
- Platform should be in a generally horizontal position when raising or lowering with a load.
- In any tilt position, the Platform may vary from level while raising or lowering the Platform.

## **Liftgates equipped with Spring operated Cam Closer**

- Replace Cam Release Spring every five (5) years or 15,000 cycles, whichever comes first.

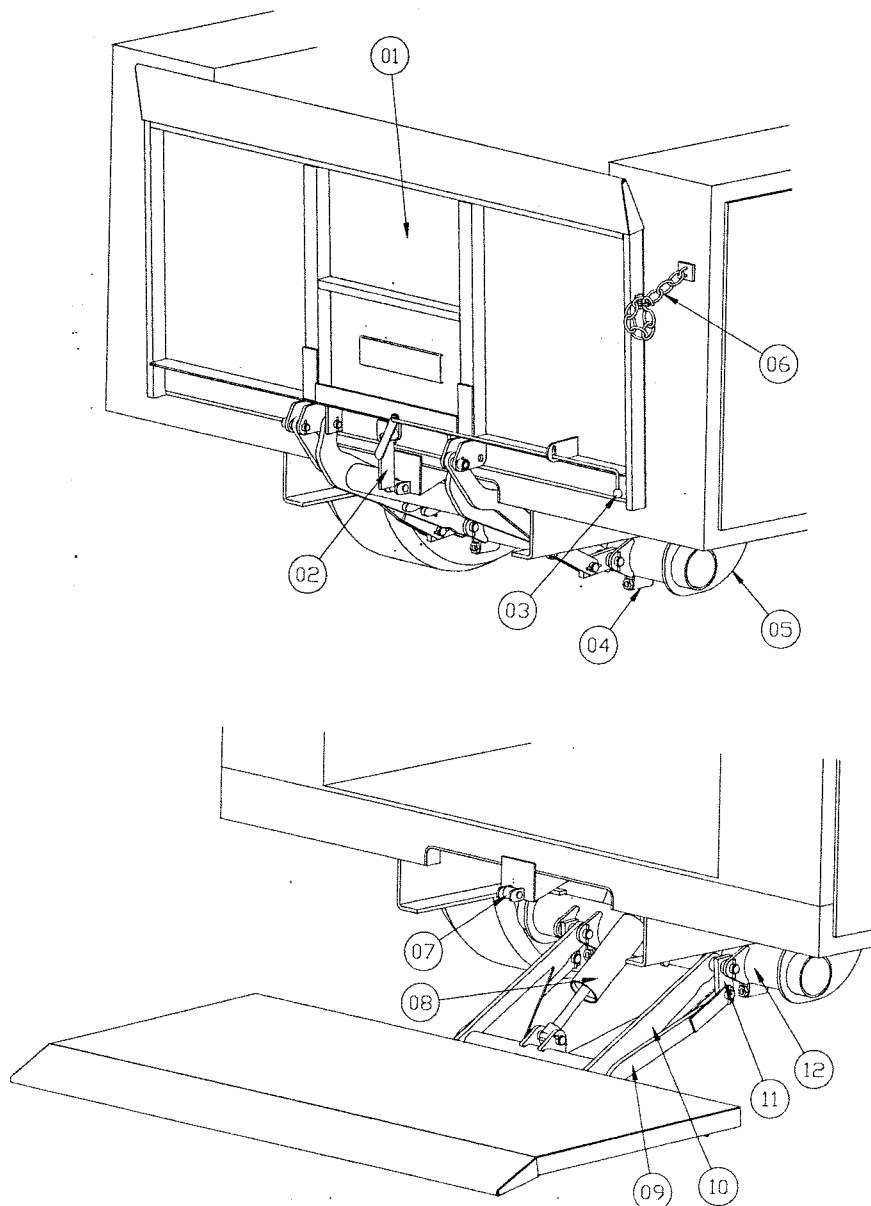
## **RGL**

- Make certain Platform Brake mechanisms are operating properly.
- The Runners are always to remain powered up against the Upstops Pins when in transit.
- Inspect Cables every three (3) months or 750 cycles, whichever comes first. Cables must be replaced if they show signs of wear, distortion, kinking or if any broken wires are visible
- Replace cables every five (5) years or 10,000 cycles, whichever comes first.

# Chapter 2 Liftgate Terminology

## TERMINOLOGY

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>1. Platform</li><li>2. Cam Assembly</li><li>3. Control Arm</li><li>4. Adjustment Bolt</li><li>5. Mount Plate</li><li>6. Latch Chain</li></ol> | <ol style="list-style-type: none"><li>7. Cam Roller</li><li>8. Hydraulic Cylinder</li><li>9. Parallel Arm</li><li>10. Lift Arm Assembly</li><li>11. Stop Block</li><li>12. Mount Tube</li></ol> |
|---|---|



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# Chapter 2 Liftgate Terminology

## EXPLANATION OF SPECIFICATION TAG

MODEL NO.	MODEL NAME	DESCRIPTION	CAPACITY
140	P-80	P-80 Series	1000 LB

### MODEL NUMBER

### RATED CAPACITY

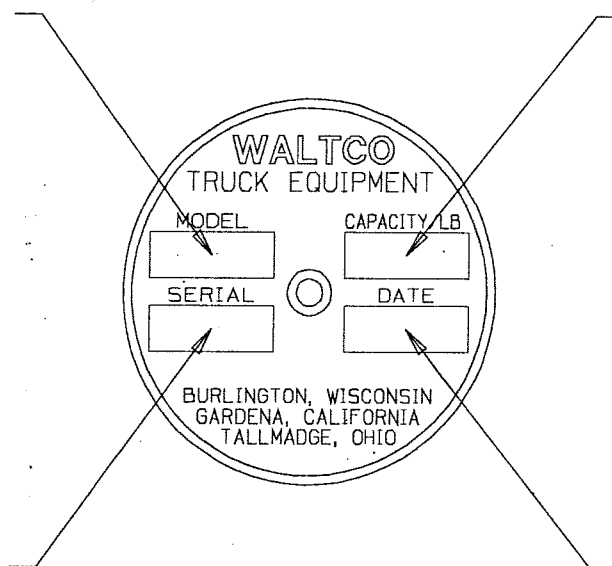
Based on an evenly distributed load on the platform flat surface.

### SERIAL NUMBER

of liftgate. To be used when ordering parts or when contacting Waltco for service or warranty questions.

### DATE OF MANUFACTURE

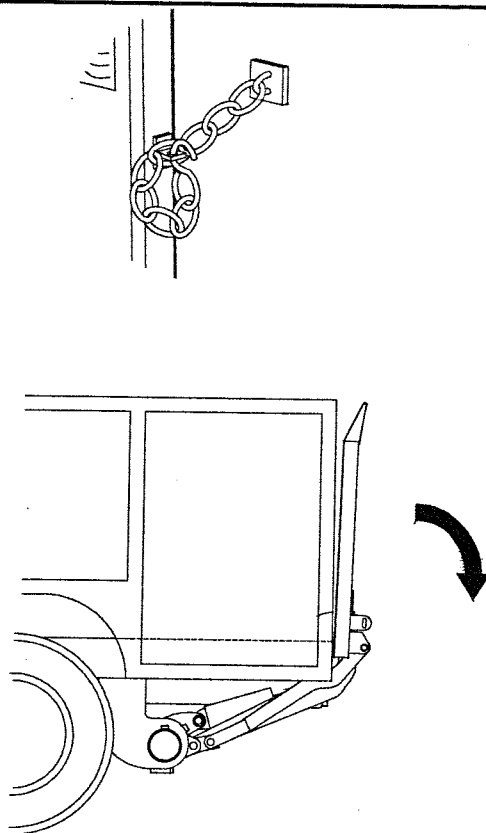
Month/Year



# Chapter 3 Operations Instructions

## TO OPEN PLATFORM

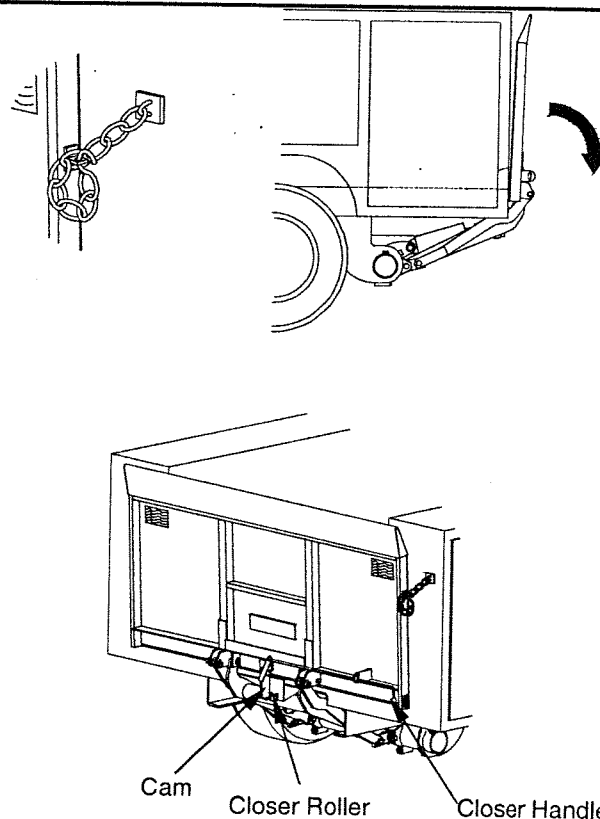
- Note: If liftgate is equipped with power closer, skip to next set of instructions.
- Remove latch chain.
- **Important:** Never remove latch chain if in tension. Power up first if necessary.
- Stand clear of platform operating area.
- Hold top edge of platform and press "lower" switch and lower platform by hand to horizontal position.



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## TO OPEN PLATFORM (POWER CLOSER)

- Remove latch chain.
- **Important:** Never remove latch chain if in tension. Power up first if necessary.
- Stand clear of platform operating area.
- Press "lower" switch and lower platform to horizontal position. Continue lowering until closer bar is no longer contacting closer roller.
- Unlatch closer handle and rotate cam under platform and clear of roller.

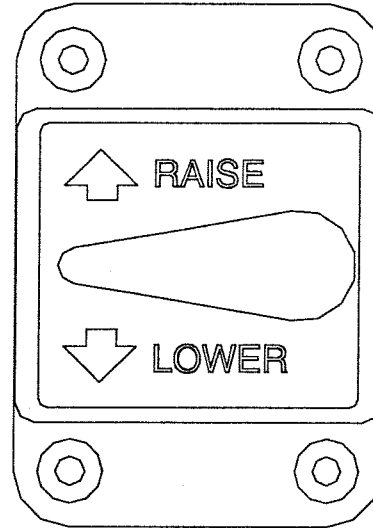


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# Chapter 3 Operations Instructions

## TO OPERATE LIFTGATE

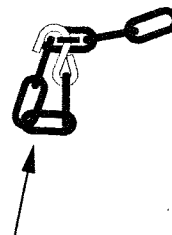
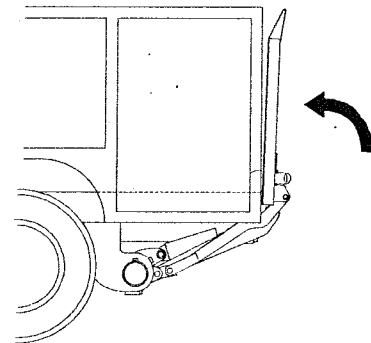
- Rotate control switch up to raise platform.
- Rotate control switch down to lower platform.
- Load platform as close to vehicle and towards middle of platform as possible. Maximum rated capacity is based on an evenly distributed load on platform flat surface.



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## TRANSIT STORAGE

- Note: If liftgate is equipped with power closer, skip to next set of instructions.
- Assure platform is clear of all objects.
- Raise platform up to within two feet of rear sill.
- Manually rotate platform to vertical position and raise to stored position
- Connect latch chain and "S" hook as shown.
- A padlock may be used in place of "S" hook to prevent unauthorized use.



Correct way to latch "S" hook



Incorrect way to latch "S" hook

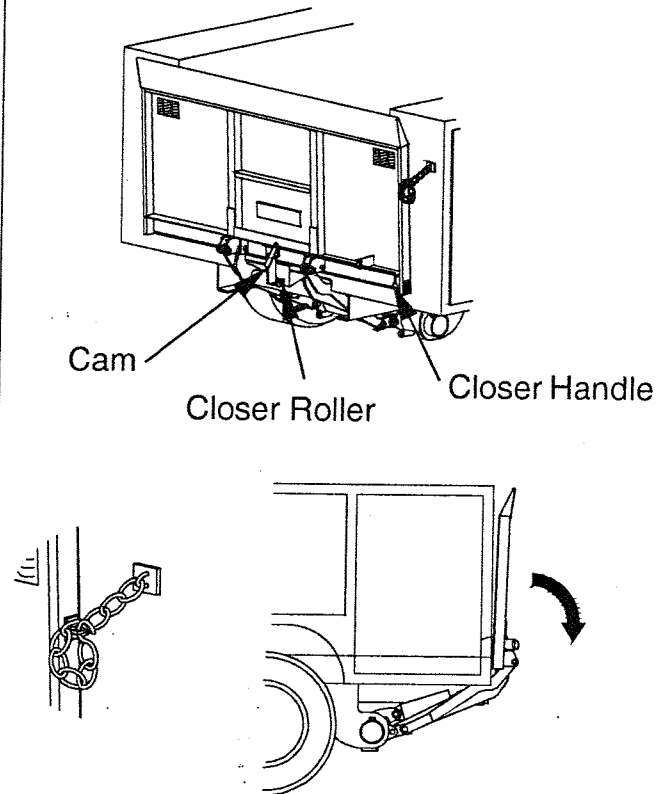
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# Chapter 3 Operations Instructions

## TRANSIT STORAGE (POWER CLOSURE)

- Assure platform is clear of all objects.
- Pull out closer handle and rotate cam into position.
- Stand clear and raise liftgate. Platform will close to vertical storage position.
- Connect latch chain and "S" hook as shown.
- A padlock may be used in place of "S" hook to prevent unauthorized use.



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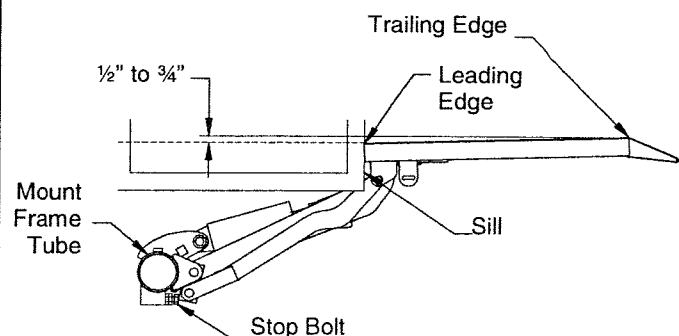
# Chapter 4 Inspection

## MONTHLY INSPECTION

- Operate liftgate through its entire operational cycle. Check for:
  - Damage to lifting structure such as bent or distorted members or cracked welds.
  - Bent or distorted cylinder pins or damaged cylinder.
  - All pivot and cylinder pins are securely in place, undamaged and retained by their proper fasteners (refer to parts drawings in "PMs and Schematics").
  - Damaged or worn bearings that pivot and cylinder pins rest in.
- Controls operate correctly (refer to "Operations Instructions")
- Liftgate is properly lubricated per "Lubrication Instructions".
- Electrolyte level of vehicle battery is filled as required by battery manufacturer.
- All decals are in proper place and legible. Replace as necessary.

## ADJUSTING PLATFORM TILT

- Check platform tilt as shown. With no load, platform tip should be level to  $\frac{3}{4}$ " above truck floor level.
- If platform nose is sagging, adjust both stop bolts out equally to raise platform nose as shown.
- Tighten locknuts on both stop bolts when adjustment is complete.
- **Important:** Excessive platform droop may be a sign of worn, bent or broken parts. Inspect all pins, bearings, hinges, arms, and their attaching hardware. Replace any worn or damaged parts **BEFORE** ADJUSTING platform tilt.

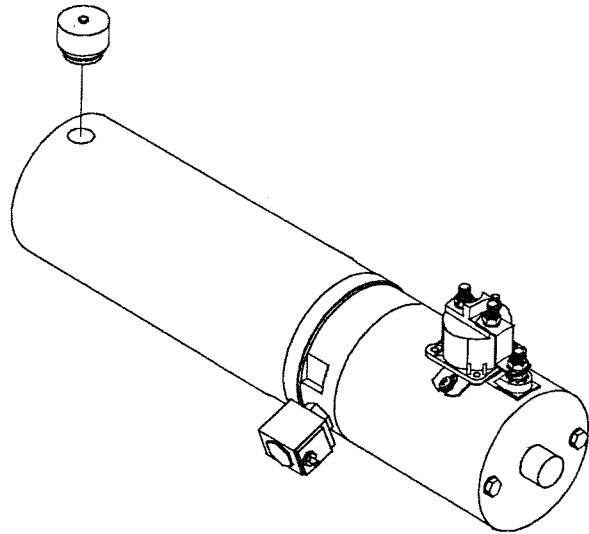


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# Chapter 4 Inspection

## HYDRAULIC INSPECTION

- Check for leaks in:
  - Hydraulic Cylinder
  - Hydraulic Hose. Replace if hose cover shows signs excessive abrasion.
  - Hydraulic Fittings. Tighten or replace all components to stop leakage.
- Lower platform to ground. Remove reservoir plug and fill with hydraulic fluid until ½" from top. Replace plug.
- If oil is dirty – drain, flush, and replace oil in hydraulic system.



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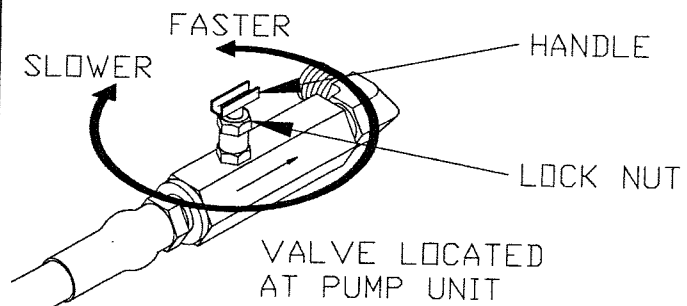
## RECOMMENDED FLUIDS

- This chart lists some acceptable fluids by temperature range. Listing is not complete and brand names are used as a guide.
- **Important:** Do not use brake fluid
- Good quality SAE 10W motor oil may be used.

Recommended Fluids	
Temp Range	Acceptable Fluids
32 to 150 F	Exxon Unis J-26 Mobil DTE 13 Chevrom AW 32 Shell Tellus 23
-10 to 110 F	Exxon Unis J-13 Mobil DTE 11
-40 to 80 F	Mobil DTE 11 MIL-H-5606

## LOWER SPEED ADJUSTMENT

- Adjust flow control.
  1. Loosen locknut
  2. Adjust as required
  3. Retighten locknut
- **Important:** Platform must operate at a safe and reasonable rate of speed subject to environment it will be used in.

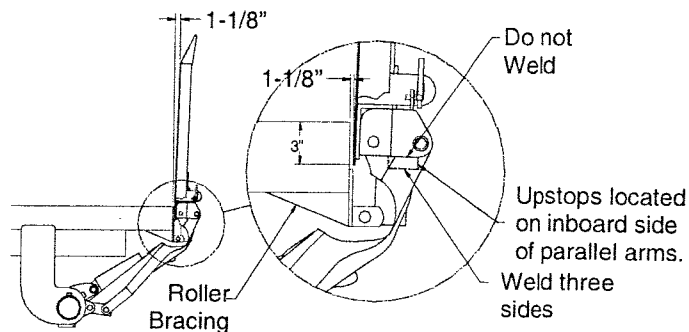


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# Chapter 4 Inspection

## UP-STOP INSPECTION

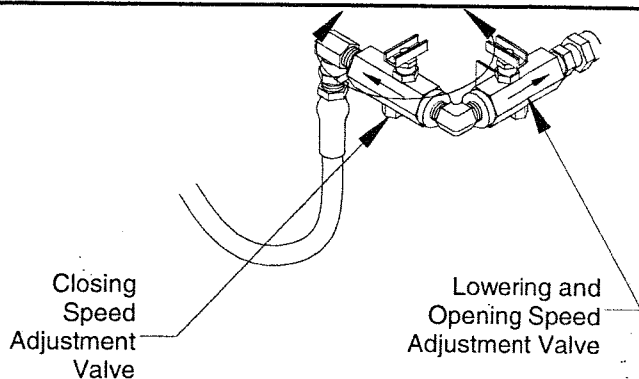
- Raise deck to vertical position & check that:
  - Trailing edge is leaning rearward approximately 1-1/8" from rear sill.
  - Up-stops are resting against deck hinge on inboard side of parallel arms and are properly welded as shown.



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## POWER CLOSER SPEED ADJUSTMENT

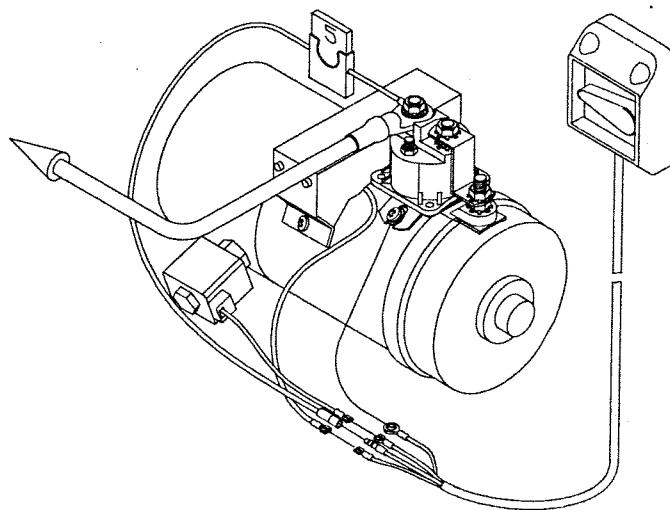
- Adjust closing speed of platform with flow control valve located by pump.
- Power Closer Only – To slow closing speed, adjust valve by turning handle clockwise. To increase, adjust valve by turning counter-clockwise.



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## SEMI ANNUAL INSPECTION

- Perform all steps in Monthly Inspection
- Inspect power motor:
  - Disconnect battery cable.
  - Remove end cover.
  - Examine armature brushes for wear (Brushes should be replaced if less than 1/8" long).
  - Clean out all residue from inside of motor housing.
  - Apply several drops of light weight machine oil to armature shaft bearing in motor end cover.
  - Reassemble motor.



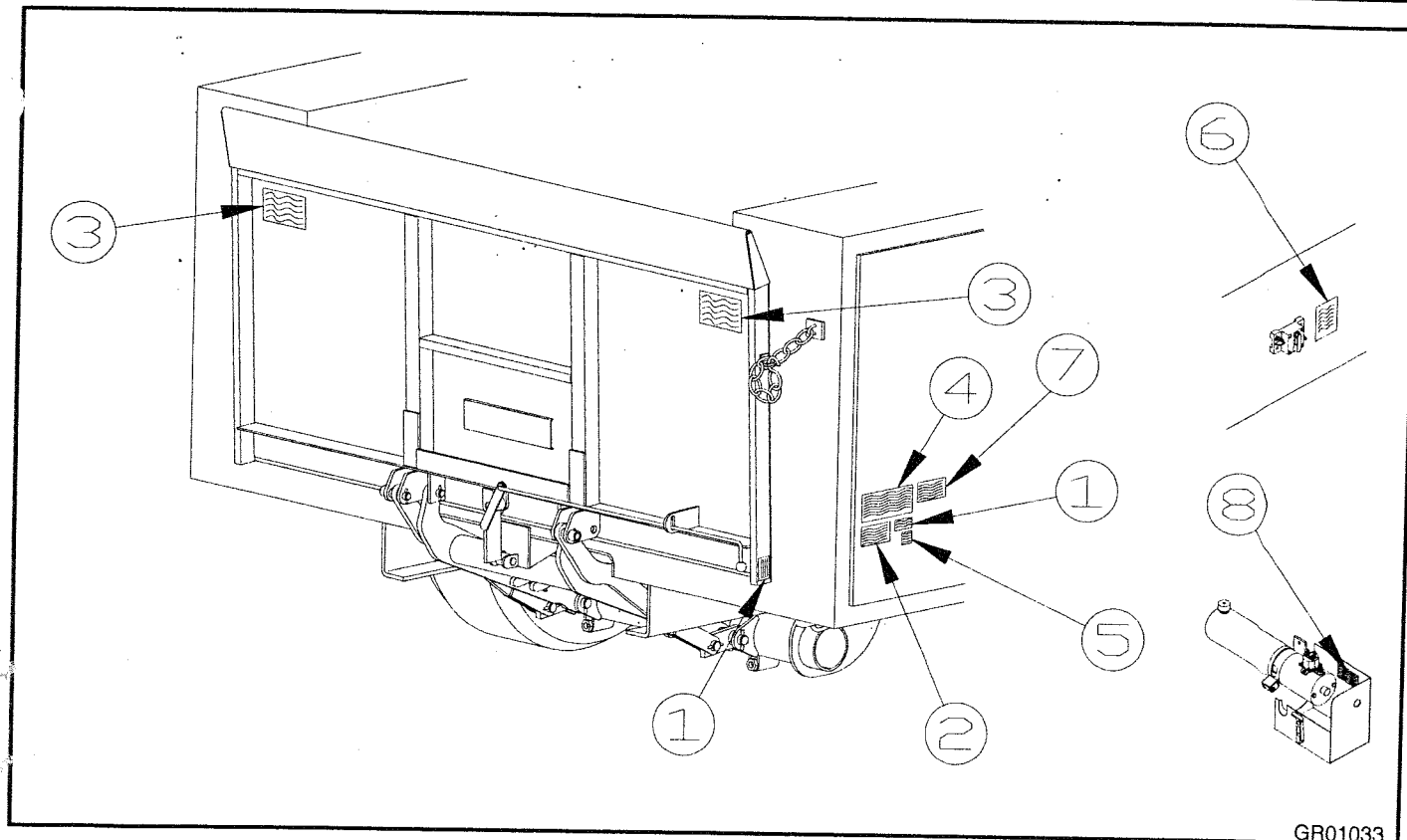
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# Chapter 5 Placement of Decals

Inspect all decals to ensure proper location and legibility.  
All decals must be in place and legible or all warranties are void.

**DECAL CHART**

ITEM	DECAL	QTY	PART NO.	LOCATION
1	Capacity Decal, 1000 lb.	2	80100250	Locate one on curb side of platform. Locate one in a conspicuous place near controls.
2	Safety Instructions	1	80100850	Locate in a conspicuous place near controls.
3	Caution Decal	2	75089296	Locate on the underside of platform on both sides.
4	Operation Instructions	1	80101369	Locate in a conspicuous place near controls.
5	Important Decal	1	80100828	Locate in a conspicuous place near controls.
6	Warning Decal	1	80100829	Locate next to liftgate circuit breaker.
7	Motor Reset Decal (Thermalpak® only)	1	80101156	Locate in a conspicuous place near controls.
8	SuperSwitch Diagnostic Decal	1	80101421	Locate inside pump cover.



GR01033

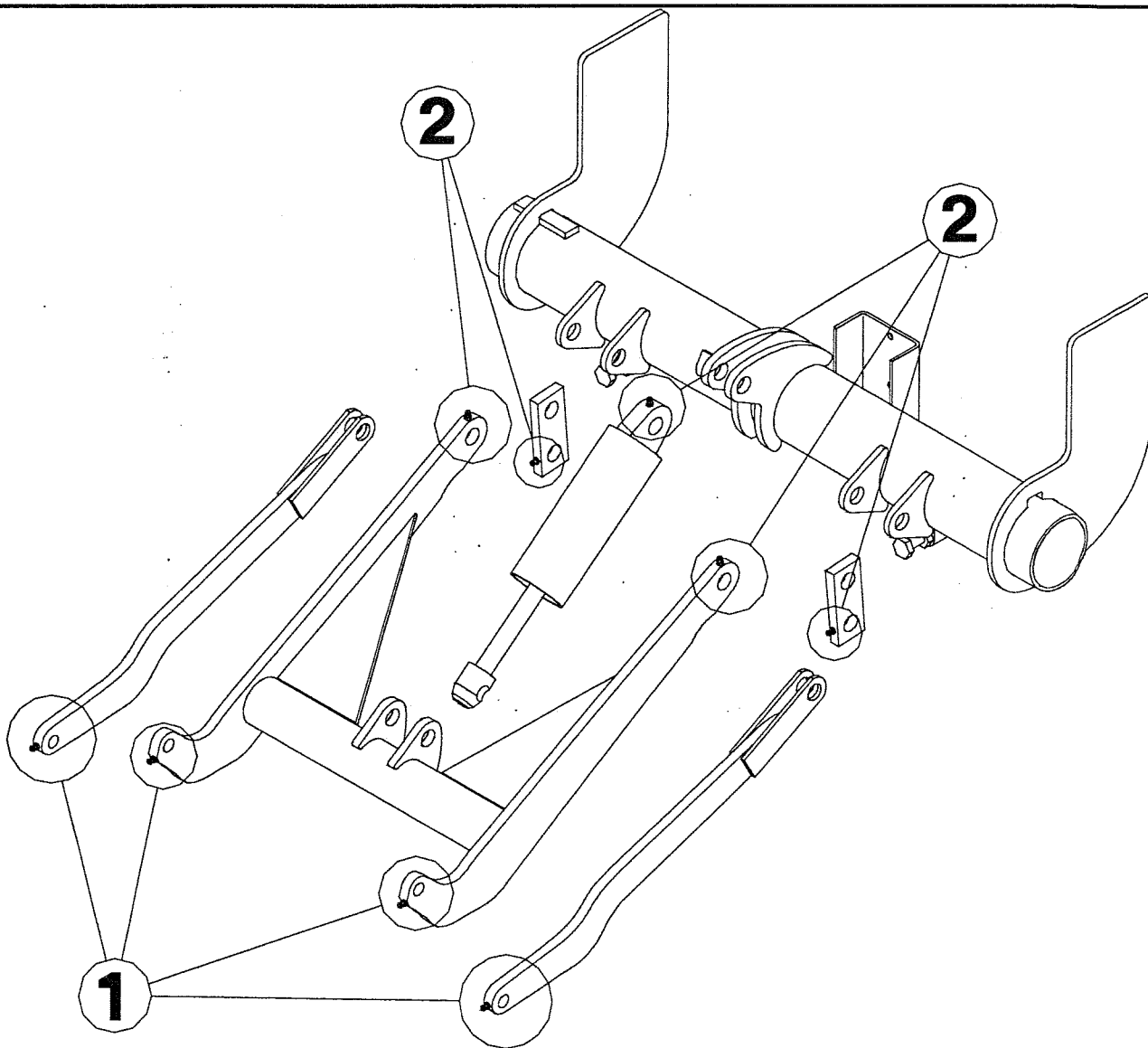
# Chapter 6 Lubrication Instructions

- Raise platform to closed position and grease the four (4) fittings on platform end of lift arms and parallel arms.
- Lower platform to ground and grease five (5) fittings located on mount frame end of lift arms, stop blocks, and cylinder lug.

Suggested Minimum Lubrication Schedule (in days)

Monthly Cycles	Light Duty	Medium Duty	Heavy Duty
< 250	45	30	21
250 – 350	30	21	14
350 – 450	21	14	7
> 450	Contact Factory		

- Lubricate every 30 days if cycles are unknown.



GR01034

# Chapter 7 PMs & Schematics

## Parts Manual Table of Contents

Mount Frame and Platform Assembly.....	PM-37
Electro-Hydraulic Layout.....	80100186
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**IMPORTANT:**  
Parts shown may not match your  
liftgate. See **PARTS NAVIGATOR** or  
contact **Waltco Parts** to confirm  
correct part numbers.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	14020000	1	Mount Frame Assembly
2	14070100	2	Mount Plate
3	11170502	1	Upper Cylinder Pin
4	75089548	8	3/16" x 1-1/4" Coiled Pin
5	20270700	2	Main Pin
6	10171701	2	Spacer
7	14051100	2	Stop Block
8	75088087	2	3/4" Lock Washer
9	75085015	2	3/4"-10 Hex Jam Nut
10	75086180	2	3/4"-10 Hex Head Screw
11	30150301	2	Parallel Arm Pin
12	14030000	1	Lift Arm Assembly
13	11171500	1	Lower Cylinder Pin
14	14055000	2	Parallel Arm Assembly
15	14011100	4	Deck Pin
16	14011000	1	Platform Assembly
17	10193000	1	Latch Chain Assembly
18	10111700	1	Chain Clip
19	14071700	2	Spacer
20	75089541	12	1/4" x 1-7/8" Coiled Pin
21	11270900	2	Spacer
22	14016000	1	Cam Assembly
23	14092000	1	Roller Assembly
24	75089752	1	Extension Spring
25	75084053	1	Cotter Pin
26	14015000	1	Control Rod
27	75089104	1	Black Plastic Ball
28	75086215	1	1/4"-20 x 2-1/2" Bolt (Grade 8)
29	75085175	1	1/4"-20 Self Locking Nut

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TRUCK EQUIPMENT CO.  
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REVISED: 7-14-2000  
E.O. 4239  
REV. 03

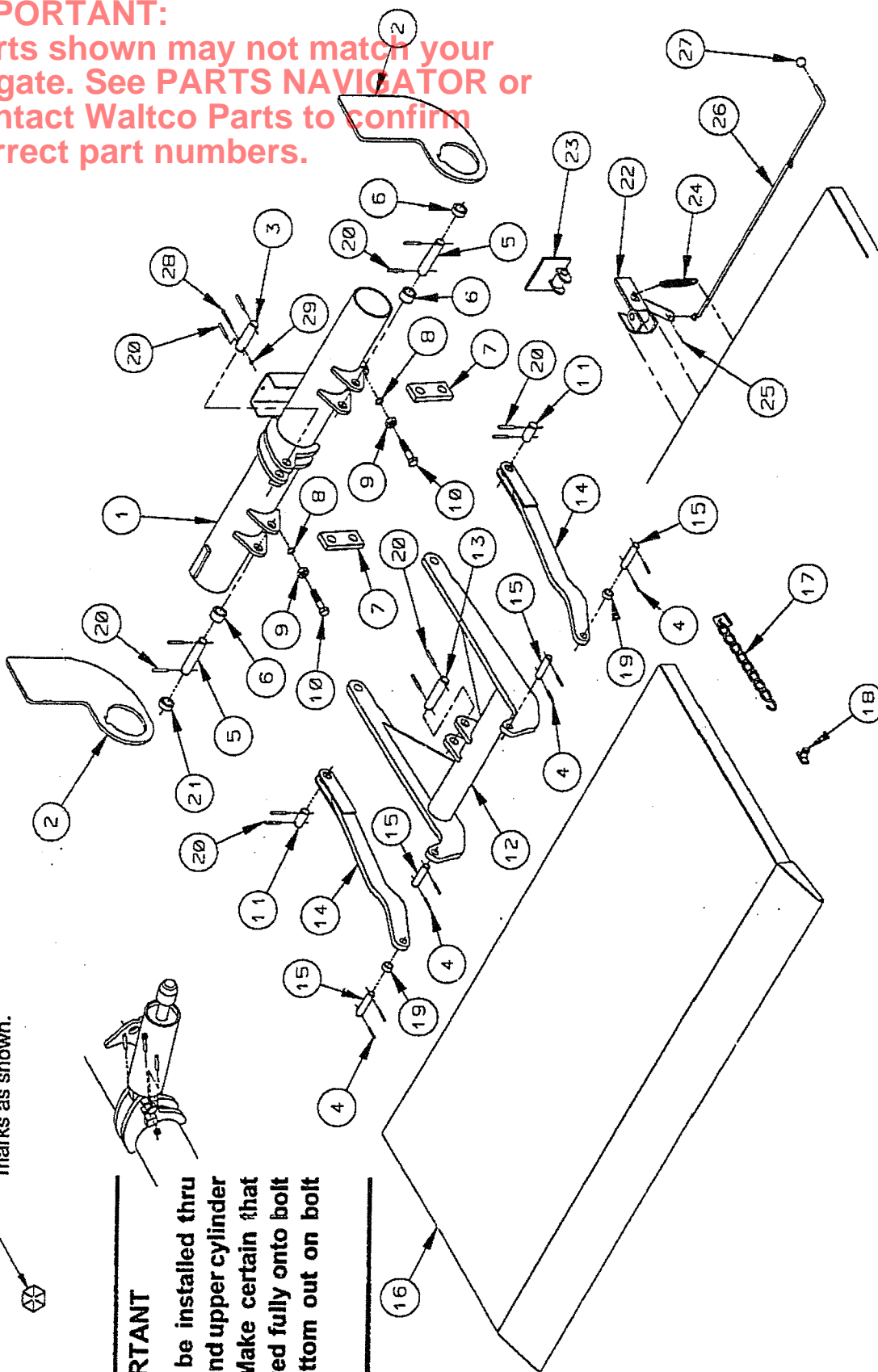
**PM-37**



# P-80 MOUNT FRAME & PLATFORM ASSEMBLY

**IMPORTANT:**  
Parts shown may not match your liftgate. See **PARTS NAVIGATOR** or contact **Waltco Parts** to confirm correct part numbers.

Grade 8 Bolts have six (6) marks as shown.



## IMPORTANT

Grade 8 bolt to be installed thru retaining collar and upper cylinder pin as shown. Make certain that locknut is screwed fully onto bolt until threads bottom out on bolt shank.

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REV. 03

**PM-37**

**IMPORTANT:**

Parts shown may not match your liftgate. See PARTS NAVIGATOR or contact Waltco Parts to confirm correct part numbers.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	14080050	1	Hydraulic Cylinder Assembly
2	75089310	1	Cylinder Breather
3	75083031	2	1/4" NPT 90<@176> Swivel Elbow
4	75083056	1	Hydraulic Hose Assembly
5	70400425	1	Pump Unit
6	20691500	1	Pump Box Cover
7	75086055	2	3/8"-16 x 3/4" Hex Head Screw
8	20691000	1	Pump Box Bottom
9	75082908	1	Adapter
10	75082614	1	Pipe Nipple
11	70189860	1	Flow Control Valve (2 On Power Closer)
12	75082611	1	1/4" NPT 90<@176> Male Elbow (Power Closer Only)
13	75088081	2	3/8" Lock Washer
14	75082914	1	3/8" Swivel Fitting

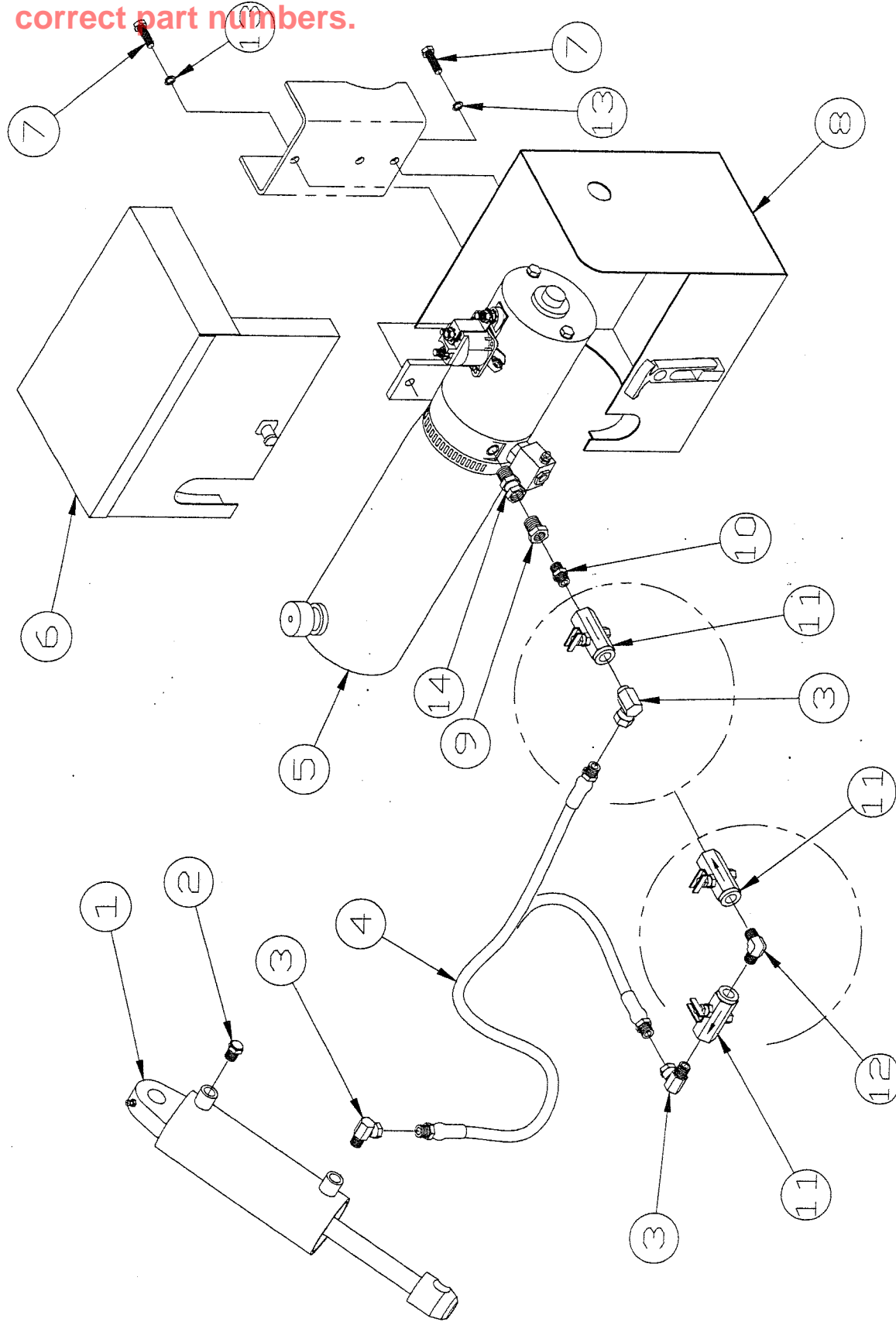
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P-80

REVISED: 6/27/03  
E.O. 5089  
REV. 03

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# ELECTRO-HYDRAULIC LAYOUT

**IMPORTANT:**  
Parts shown may not match your liftgate. See **PARTS NAVIGATOR** or contact **Waltco Parts** to confirm correct part numbers.



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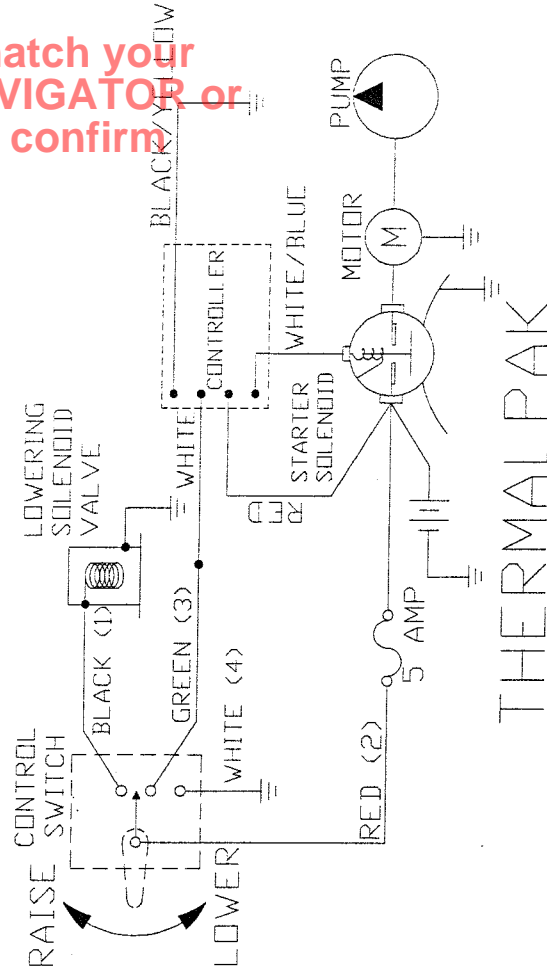
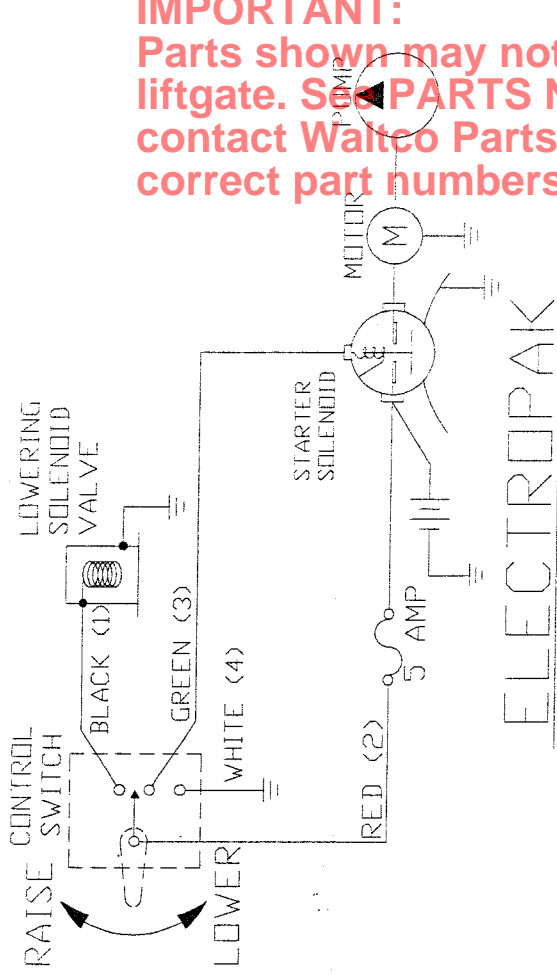
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E.O. 5089  
REV. 03

**80100186**

**IMPORTANT:**  
Parts shown may not match your liftgate. See **PARTS NAVIGATOR** or contact Walco Parts to confirm correct part numbers.

ITEM	PART NUMBER	QTY	DESCRIPTION
1	75089853	1	5 AMP Fuse
2	75089850	1	Fuse Holder
3	75082038	1	Trailer Socket
4	75082037	1	Trailer Plug
*5	10099320	1	SuperSwitch
	10099325	1	Remote SuperSwitch
	80000428	1	SuperSwitch Control Kit
	80000434	1	SuperSwitch Dual Control Kit
	80000425	1	SuperSwitch Conversion Kit
	80000430	1	Remote SuperSwitch Kit

\*Boxed assemblies represent complete kits



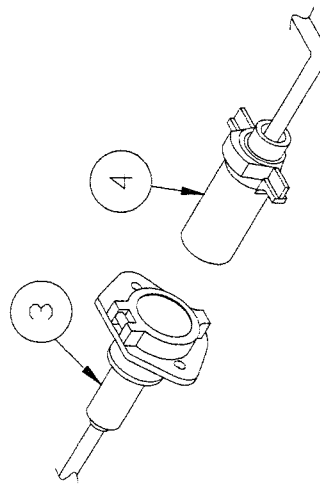
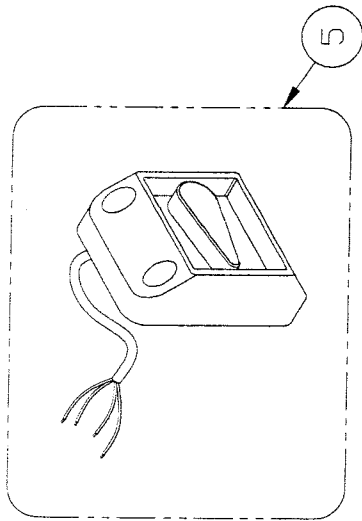
WIRE No.	COLOR	FUNCTION
1	BLACK	LOWER (DOWN)
2	RED	HOT (POWER)
3	GREEN	RAISE (UP)
4	WHITE	GROUND

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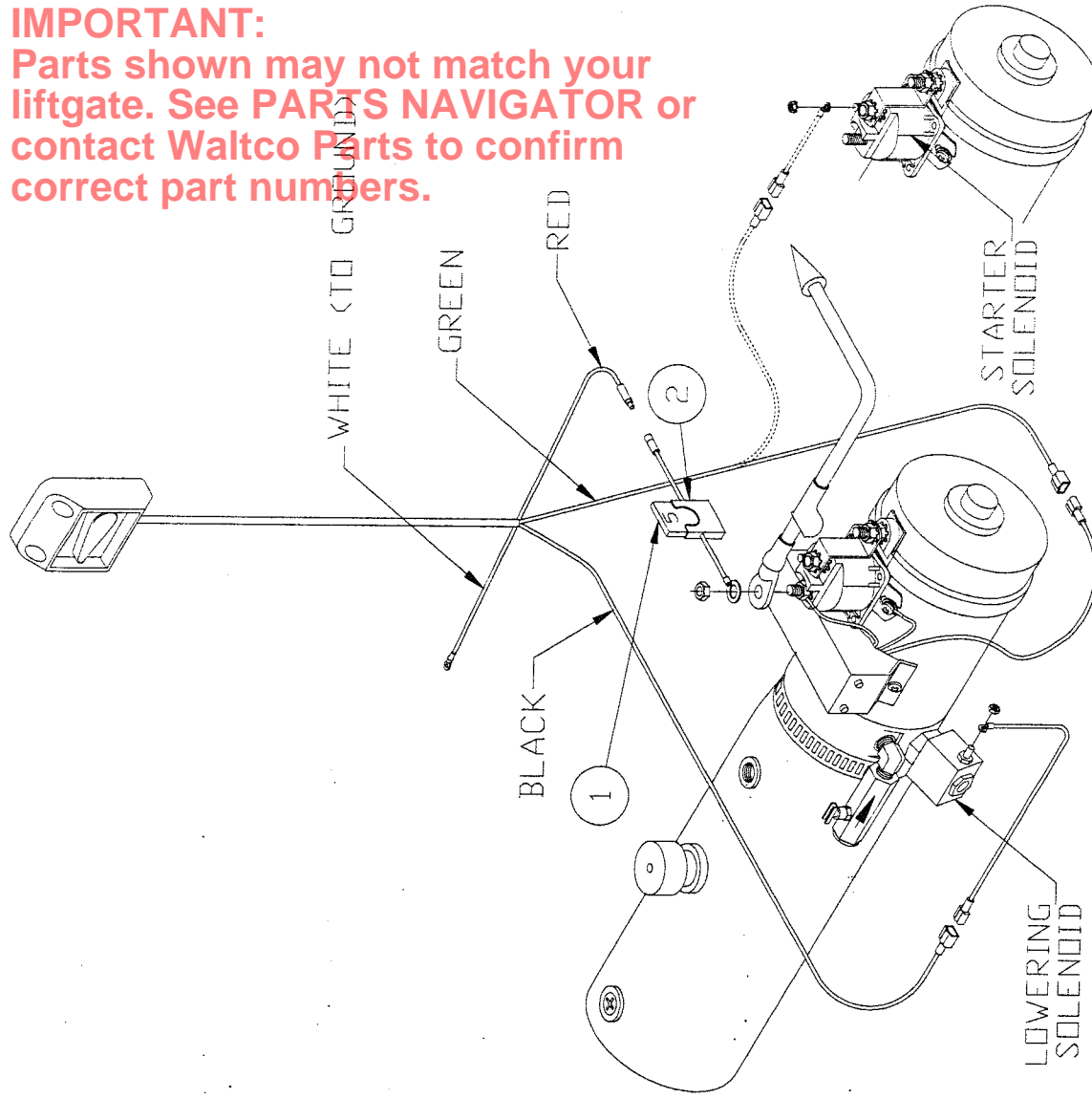
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E.O. 5337A  
REV. 03

**M-343A**

# ELECTRIC CONTROL OPTIONS, GRAVITY DOWN



**IMPORTANT:**  
Parts shown may not match your liftgate. See **PARTS NAVIGATOR** or contact **Waltco Parts** to confirm correct part numbers.



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THERMALPAK® WITH  
VOLTAGE GUARD™

ELECTROPAK®

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E.O. 5337A  
REV. 03

**PM-343A**

# Chapter 8 – How To Order Parts

Repairs should be made only by authorized mechanics using WALTCO Replacement parts.

When ordering repair or replacement parts, please include all the information asked for below. If this information is not available, a complete written description or sketch of the required part will help WALTCO identify and deliver the needed part to you.

---

## THE FOLLOWING INFORMATION MUST BE INCLUDED:

1. SERIAL NUMBER - [WALTCO liftgate serial numbers can be found on the Specification Tag attached to the mount frame. (On older units the Specification Tag is located on the side or bottom of the platform.)]
2. MODEL NUMBER - [Or capacity]
3. PLATFORM SIZE

---

## THEN INCLUDE THE FOLLOWING INFORMATION:

4. PART NUMBERS
5. DESCRIPTION
6. QUANTITY REQUIRED

---

## MAIL OR PHONE YOUR REQUEST TO:

**WISCONSIN**  
227 E. Compton Blvd.  
Gardena, CA 90248  
(310) 243-6800  
FAX - (310) 538-1136

**OHIO**  
285 Northeast Avenue  
Tallmadge, OH 44278  
(330) 633-9191  
FAX - (330) 633 1418

**ALL PARTS ARE F.O.B. FROM THE SHIPPING FACTORY**

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## PLEASE NOTE:

To assure you of continuing and effective quality control, our warranty policy permits replacement of hydraulic cylinders, valves and motor pump units when their factory seals are intact. Parts under warranty will be exchanged promptly after careful inspection of the returned assemblies.

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SUBJECT: SPECIAL SERVICE BULLETIN

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**DO NOT IGNORE THIS BULLETIN - READ IT !**

THIS INFORMATION IS IMPORTANT TO THE SAFETY  
OF YOU, YOUR CUSTOMER AND THE LIFTGATE USER.

---

**THE FOLLOWING IS OFFERED TO HELP  
PREVENT SERIOUS PERSONAL INJURY.**

**YOUR FAILURE TO ADHERE TO THESE GUIDELINES  
MAY RESULT IN LIABILITY TO YOU.**

Even though the following goes without saying, as part of WALTCO's on going safety program, we again wish to call your attention to items of concern.

This list, of items provided below, is not intended to cover all areas that could result, or contribute to serious personal injury.

If you have ever installed or have ever had a WALTCO liftgate installed and the WALTCO INSTALLATION INSTRUCTIONS were not FOLLOWED, then these instructions should be checked IMMEDIATELY by QUALIFIED personnel to insure proper installation, and operation of the liftgate.

If you have maintained, repaired or have had maintenance or repair on a WALTCO liftgate and WALTCO's MANUAL, INSTRUCTIONS BOOKLET and SERVICE BULLETINS were not consulted or referred to, then these materials should be checked IMMEDIATELY by QUALIFIED personnel to insure proper installation, operation, repair and maintenance to the liftgate.

1. Faulty welds can result in loads falling, the liftgate itself failing or unexpected movements of the platform.
2. Improper adjustments and/or improper installation of up stops could result in abnormal opening of the platform.
3. The lack of provided guards, required protective margins, or the improper location of controls can result in accidental or unexpected operations of the controls. NOTE: Controls that do not work freely or stick in an up or down position are not operating properly.
4. Pins which are improperly secured can fall out or cause the pivot to fail.
5. Improper attachment of liftgates can result in uneven alignment of surfaces and/or protrusion beyond the legal widths.
6. Improper supports or bracing may result in a sudden failure.
7. Improper attachment of hoses can result in the improper operation of the liftgate or the leaking of oil.

8. Lack of lockout devices could result in unauthorized use.
9. Parts which are not manufactured by WALTCO or which are not used as intended may be too weak, not fit properly and/or not work in concert with the design.
10. Unauthorized alteration of the liftgate may result in an undesirable and dangerous condition.
11. Improper dimension in mounting may cause the liftgate to work improperly.
12. Improper installation or repairs by unqualified personnel or lack of maintenance can result in improper operation.
13. Omission of decals or painting over them will result in those not acquainted with the liftgate, operating the liftgate without the benefit of instructions contained therein.
14. Failure to install, maintain or repair in accordance with WALTCO's INSTRUCTIONS or the lack of knowledge applicable to the skills of qualified personnel can result in improper operation.
15. Failure to regularly and/or systematically check the liftgate to determine if it meets the manufacturer's original standards and is in proper repair and operating condition can result in placing into service a liftgate that does not meet our intended standards.

IF THERE ARE OTHERS YOU HAVE SHIPPED OR SOLD WALTCO LIFTGATES TO, WHO HAVE OR WILL BE INSTALLING, MAINTAINING, OR REPAIRING THESE LIFTGATES, YOU MUST FORWARD A COPY OF THIS BULLETIN TO THESE PEOPLE.

If you have any questions, contact us at one of the following locations.

**CALIFORNIA**

227 E. Compton Blvd.  
Gardena, CA 90248  
(310) 243-6800  
FAX - (310) 538-1136

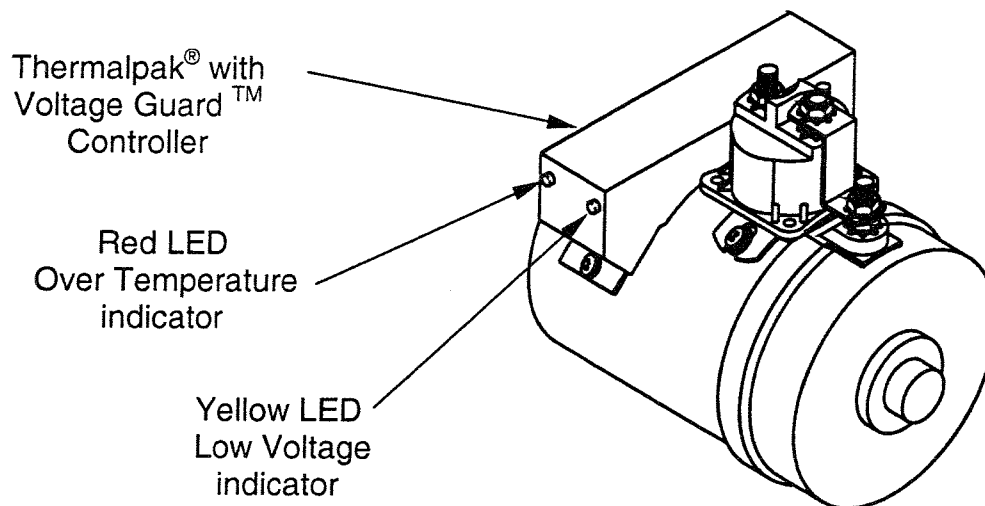
**OHIO**

285 Northeast Avenue  
Tallmadge, OH 44278  
(330) 633-9191  
FAX - (330) 633-1418



## TROUBLESHOOTING WALTCO'S Thermalpak® with Voltage Guard™

This liftgate is equipped with Waltco's Thermalpak® with Voltage Guard™ hydraulic unit. This feature protects the liftgate motor(s) and solenoid(s) from damage due to overheating and low voltage.



The following conditions will cause the Thermalpak® With Voltage Guard™ controller unit to temporarily disable the liftgate motor:

### **Condition: Over temperature**

When the Thermalpak® with Voltage Guard™ controller detects a liftgate motor overheating condition, the following occurs:

- The red LED on the controller lights.
- The liftgate motor is temporarily disabled.
- An alarm will sound intermittently each time the Raise function of the liftgate is activated.

### **Solution:**

- Allow motor to cool until red LED on controller turns off and that the alarm no longer sounds when activating the Raise function of the liftgate.
- Hold Raise Switch for five (5) seconds to reset controller. Liftgate motor will then activate and normal operation will be restored.
- During the shut down period the liftgate may still be lowered or unfolded.

### **Troubleshooting (Why did liftgate motor overheat?):**

Some conditions that may have caused the motor to overheat are:

- Overuse: Liftgate is being operated too many times within a short period of time.
- Battery cables are not securely connected or cable ends are corroded.
- Bad or insufficient ground.
- Insufficiently charged or bad batteries.

### Condition: Low Voltage

When the Thermalpak® with Voltage Guard™ controller senses long term battery voltage falling to a level that would prevent the vehicle from starting or when it senses a short term severe drop in voltage that would cause solenoid "door belling" (rapid chattering of solenoid), the following occurs:

- The yellow LED on the controller lights.
- The liftgate motor is temporarily disabled.
- A steady alarm will sound each time the Raise function of the liftgate is activated.

### Solution:

- Run vehicle motor to charge batteries.
- If the Thermalpak® with Voltage Guard™ does not automatically reset, turn off the vehicle. Disconnect the (+) positive battery cable from the battery(s) operating the lift gate for approx. (1) minute. Reconnect the battery cable.
- During the shut down period the liftgate may still be lowered or unfolded.

### Troubleshooting (Why did liftgate motor stop working?):

Some conditions that may have caused a low voltage condition are:

- Overuse: Liftgate is being operated too many times with the vehicle engine not running.
- Battery cables are not securely connected or cable ends are corroded.
- Bad or insufficient ground.
- Insufficiently charged or bad batteries.
- If liftgate is mounted on a trailer, the tractor/trailer plug supplying charging power to the liftgate batteries is unplugged.

# Super Switch Diagnostics

## Super Switch Diagnostics

The Waltco Super Switch now has the ability to perform limited diagnostics at the controls to facilitate trouble shooting and expedite repairs.

Each switch has built in LED lights to indicate the switch is functioning properly.

The LED will illuminate when the switch is activated in either position.

## See Below for Detailed Instructions On:

### No LED Indicators:

Check Power and Ground

### LEDs Operate but No Liftgate Operation:

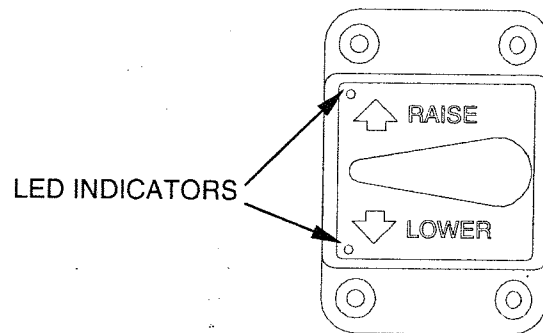
Check Pump unit

### LED Indicators In Only One Position or Continuous On:

Replace Switch

## No LED Indicators:

If the LED indicator does not illuminate in either position and liftgate does not operate, check the following items:



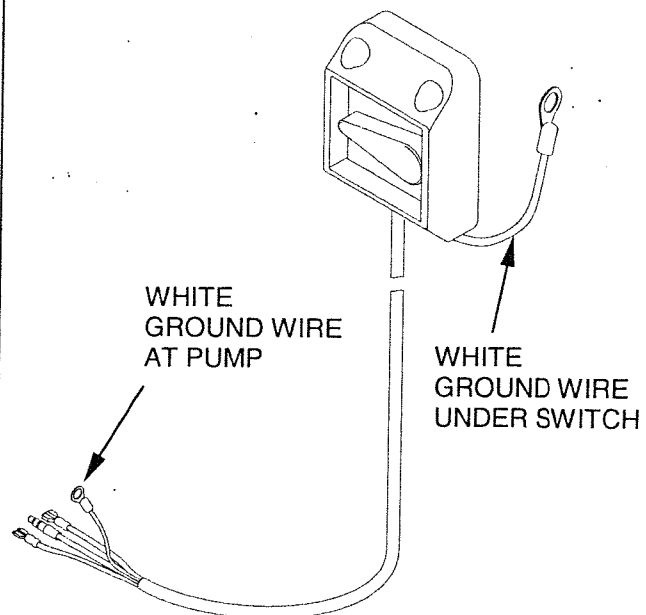
GR00919

Clean and tighten switch ground connection (white wire).

The white ground wire may be located under one of the switch mounting screws or at the pump unit.

Remove dirt and paint from beneath the ground terminal to ensure proper ground.

A ground path must exist between pump unit and switch. For body mounted liftgates that have pump unit mounted to the vehicle chassis, ensure ground path exists between body and chassis.



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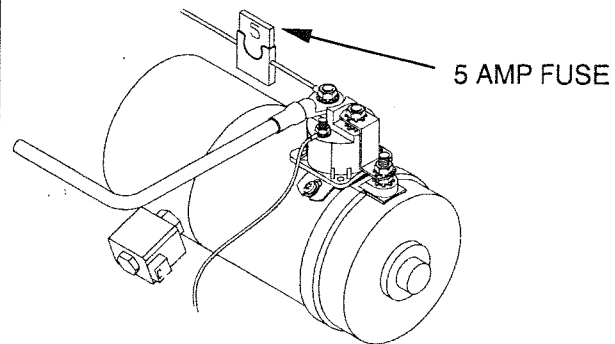
# Super Switch Diagnostics

Ensure power is getting to the switch (red wire). Clean and tighten power connection to the switch.

Check fuse.

If fuse is blown replace with **5 amp** fuse only.

If the LED indicator does not illuminate in either position but liftgate operates properly, replace switch.



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## LEDs Operate but No Liftgate Operation:

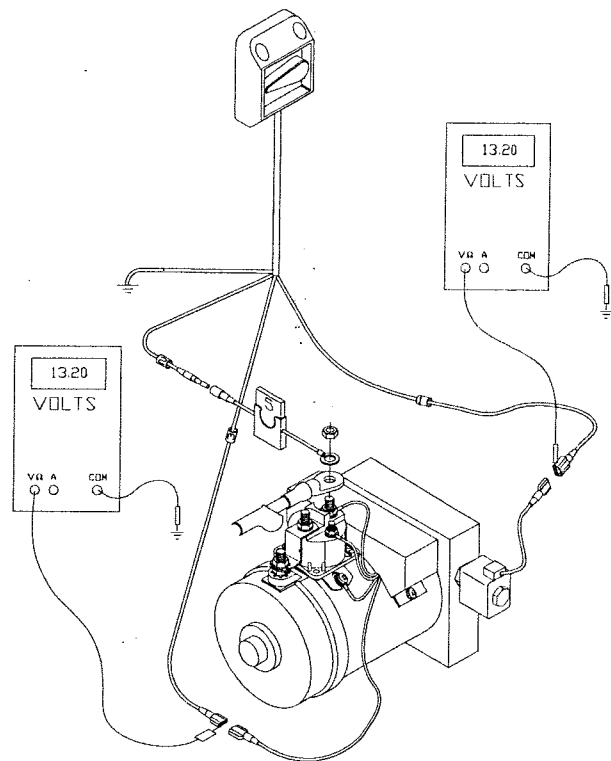
If the LED indicator illuminates when switch is activated but the liftgate does not operate, check the following items:

Check to ensure power is going from the switch to the pump when the switch is activated in both positions. There should be voltage readings for the lowering function as well as the raise function.

This will also apply to the open and close circuits for liftgates with power fold functions.

If power is confirmed, check for faulty components on pump unit.

If no power, fault is in cord or harness. Check cord or harness.

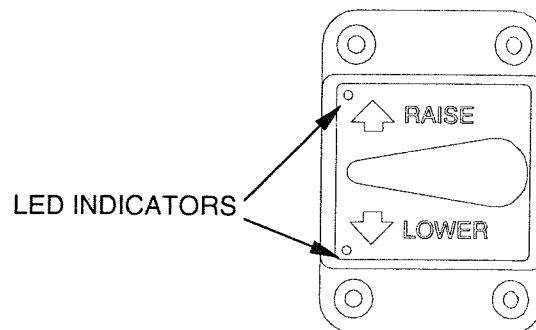


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## LED Indicators In Only One Position or Continuous On:

If the LED indicator illuminates in only one of the two positions, replace switch.

If LED indicator light is illuminated when switch is at rest. Replace switch.



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# IMPORTANT

It is important that every vehicle that has a WALTCO Liftgate have legible WARNING AND OPERATION DECALS clearly posted on the vehicle and an OWNER'S MANUAL in the vehicle at all times as a guide for proper operation and maintenance.

Additional WARNING DECALS, OPERATION DECALS and OWNER'S MANUALS can be obtained from WALTCO TRUCK EQUIPMENT COMPANY.

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**NOTE:**

**When ordering, give model  
and serial number of the liftgate.**

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# IMPORTANT

## TO BE KEPT IN VEHICLE

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### CAUTION:

**STAND CLEAR AND KEEP CLEAR OF PLATFORM  
AREA WHILE OPERATING LIFTGATE.**

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FOR OPERATION OF THIS UNIT, REFER TO THE "OPERATION INSTRUCTIONS" INSIDE THE OWNER'S MANUAL AND THE OPERATION INSTRUCTIONS DECAL.

### LUBRICATION INSTRUCTIONS

Refer to the lubrication chart in this manual.

### DO'S AND DON'TS

- DO:** Make certain area in which the platform will open and close is clear before opening or closing platform.
- DO:** Make certain platform is properly latched when in transit.
- DO:** Make certain platform area, including the area in which loads may fall from platform, is clear before and at all times during operation of the liftgate.
- DO:** Operate the liftgate with the control switches only.
- DO:** Check oil level monthly and change oil yearly.
- DO:** Use hydraulic fluids listed on the HYDRAULIC FLUID CHART (found inside this manual) or equivalent.
- DO:** Lubricate as per the LUBRICATION INSTRUCTIONS AND LUBRICATION SCHEDULE found in this book.
- DO:** Read and follow WARNING DECALS, OPERATION DECALS and OWNER'S MANUAL.
- DO:** Visually inspect the liftgate frequently and keep it in adjustment.
- DO:** Be certain vehicle is properly and securely braked before using the liftgate.
- DO:** Repair the liftgate when it is found to be faulty to prevent accidents.
- DO:** Keep all decals in place and legible and retain the Owner's Manual in the vehicle or ALL WARRANTIES ARE VOID.
- DON'T:** Allow the liftgate to be used by persons not familiar with its operation.
- DON'T:** Use the liftgate if unit shows signs of abuse or fails to operate freely.
- DON'T:** Permit the motor to run after the liftgate is raised to bed level.
- DON'T:** Overload the liftgate (Refer to Manual for proper capacity of liftgate).
- DON'T:** Use brake fluid.