



Count on it.

Form No. 3318-320 Rev A

Operator's Manual

1/3 Platform Lift for Workman Vehicle Model No. 07344

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Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Toro directly at www.Toro.com for product and accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready.

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 1), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 1

- 1. Safety alert symbol

This manual uses 2 other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

Safety

Before Operating

- Read and understand the contents of this manual before operating the platform lift. Become familiar with all controls and know how to stop quickly. A free replacement manual is available by sending complete model and serial number to:

The Toro® Company
8111 Lyndale Avenue South
Minneapolis, MN 55420-1196
- Do not allow children to operate the lift. Do not allow adults to operate it without proper instruction.
- Keep all shields and safety devices in place. If a safety device, shield or decal malfunctions, becomes damaged or illegible, replace it before operation is commenced. To assure lift is in safe operating condition, tighten loose nuts, bolts and screws.

While Operating

- Do not use near electrical power lines. Never allow platform lift to touch power lines.
- Do not use platform lift during lightning, thunderstorms, or high winds.
- Never move vehicle while platform is raised.
- Always apply parking brake before raising platform. Wheel chock use is recommended.
- Never release parking brake while platform is raised.
- Check safety interlocks before each use of platform. See operator's manual for safety interlock check instructions.
- Never bypass safety interlocks.
- Never allow riders on platform in any position.
- Always park vehicle on firm, level surface before raising platform.
- Never exceed 5 degree maximum angle of operation.
- Never raise platform if bubble level indicator is outside recommended operating range.
- Never raise platform if one or more vehicle tires are under inflated; check tire pressure daily.
- Never pull on objects while reaching from raised platform.
- Never use platform for carrying or lowering tree limbs, branches or heavy or uneven loads.
- Never exceed capacity of platform lift, one person with equipment not to exceed 600 lbs. (272 Kg).

- Always wear hard hat and eye protection while operating platform or while in area below platform.
- Never drop or throw articles from raised platform.
- When raising platform be alert for overhead obstructions which could cause eye, head or crushing injuries.
- Stand clear of scissor arms while platform is moving.
- Make sure area is clear of bystanders before lowering platform.

Maintenance

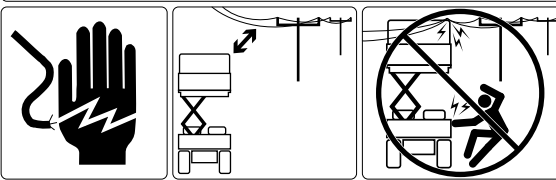
- Always remove key from lift control box when platform is not in use.
- Ensure lift is in safe operating condition. Keep nuts, bolts and screws tight.
- Never work under raised platform without lift safety blocks installed.
- To be sure of optimum performance and safety, always purchase genuine Toro replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous. Such use could void the product warranty of The Toro® Company.

Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.

⚠ DANGER



CONTACT BETWEEN NON-INSULATED PLATFORM LIFT AND POWER LINES WILL CAUSE ELECTROCUTION. ELECTROCUTION WILL CAUSE SERIOUS PERSONAL INJURY OR DEATH.

- ✘ NEVER USE PLATFORM LIFT NEAR POWER LINES.
- ✘ NEVER ALLOW PLATFORM LIFT TO TOUCH POWER LINES.
- ✘ IF POWER LINE CONTACT OCCURS:
 - LOWER UNIT AWAY FROM CONTACT IF POSSIBLE.
 - DO NOT TOUCH POWER LINE.
 - NEVER TOUCH GROUND WHILE TOUCHING PLATFORM LIFT OR POWER LINE.
 - JUMP CLEAR IF NECESSARY, WITHOUT TOUCHING PLATFORM OR POWER LINE.
- ✘ IF OPERATING PLATFORM LIFT NEAR ELECTRICAL, HIGH PRESSURE OF ANY TYPE OR ROTATING EQUIPMENT:
 - ALWAYS DISCONNECT POWER TO THAT EQUIPMENT.
 - ALWAYS USE OSHA APPROVED LOCK-OUT DEVICES.
- ✘ NEVER USE PLATFORM LIFT DURING A THUNDER OR LIGHTNING STORM.

93-3702

93-3702

⚠ WARNING

OPERATION OF PLATFORM LIFT WITHOUT PARKING BRAKE ENGAGED CAN RESULT IN TIP-OVER AND PERSONAL INJURY.

- ✘ ALWAYS APPLY PARKING BRAKE BEFORE OPERATING PLATFORM LIFT. THE USE OF WHEEL CHOCKS IS RECOMMENDED.
- ✘ DO NOT RELEASE PARKING BRAKE WHILE PLATFORM LIFT IS RAISED.
- ✘ DO NOT RAISE THE PLATFORM LIFT IF THE BUBBLE IS OUTSIDE OF THE OPERATING REGION OF THE LEVEL INDICATOR.

93-3710

93-3710

IMPORTANT

EMERGENCY LOWERING PRECAUTIONS:

- ✘ REACH INTO THE ACCESS OPENING ONLY TO ACTIVATE THE EMERGENCY LOWERING VALVE.
- ✘ PUSH AND TURN THE RED KNOB ON THE SOLENOID TO ACTIVATE EMERGENCY LOWERING VALVE.
- ✘ DO NOT PLACE HANDS OR FEET ON SCISSORS ARMS OR OTHER SUPPORTING STRUCTURE WHILE THE PLATFORM LIFT IS COMING DOWN.
- ✘ IF OPERATOR IS STRANDED UP IN THE LIFT, MAKE EVERY ATTEMPT POSSIBLE TO ALERT SOMEONE TO ASSIST IN ACTIVATING THE EMERGENCY LOWERING VALVE.
- ✘ USE EXTREME CAUTION IF YOU MUST CLIMB DOWN FROM THE DISABLED LIFT.

93-3711

93-3711

⚠ DANGER

IMPROPER OPERATION OF PLATFORM LIFT MAY CAUSE SERIOUS PERSONAL INJURY OR DEATH. TO REDUCE RISK TO OPERATOR AND BYSTANDERS:

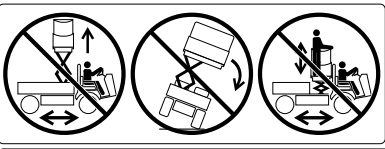
- ✘ READ AND UNDERSTAND ALL SAFETY INSTRUCTIONS IN WORKMAN AND PLATFORM LIFT OPERATOR'S MANUALS AND WARNING LABELS.
- ✘ NEVER USE PLATFORM LIFT WITHOUT PROPER TRAINING AND AUTHORIZATION.
- ✘ ESTA MAQUINA PUEDE SER RIESGOSA SI SE USA EN UNA MANERA INAPROPIADA. OPERADORES DEBEN ESTAR MUY BIEN ENTRENADOS EN LA MANERA PROPIA DE OPERAR LA MAQUINA.

FOR REPLACEMENT MANUAL, SEND COMPLETE MODEL AND SERIAL NUMBER TO:
THE TORO COMPANY
8111 LYNDALE AVE. S.
BLOOMINGTON, MN 55420-1196

93-3701

93-3701

⚠ DANGER



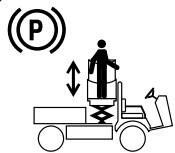
LOSS OF CONTROL OR TIP-OVER WILL RESULT IF VEHICLE IS MOVED WITH PLATFORM IN RAISED POSITION AND MAY CAUSE SERIOUS PERSONAL INJURY TO OPERATOR OR BYSTANDERS.

- ✘ NEVER MOVE VEHICLE WHILE PLATFORM IS RAISED.
- ✘ ALWAYS APPLY PARKING BRAKE BEFORE RAISING PLATFORM. WHEEL CHOCK USE IS RECOMMENDED.
- ✘ NEVER RELEASE PARKING BRAKE WHILE PLATFORM IS RAISED.
- ✘ CHECK SAFETY INTERLOCKS BEFORE EACH USE OF PLATFORM. SEE OPERATOR'S MANUAL FOR SAFETY INTERLOCK CHECK INSTRUCTIONS.
- ✘ NEVER BYPASS SAFETY INTERLOCKS.
- ✘ NEVER ALLOW RIDERS ON PLATFORM IN ANY POSITION.

93-3703

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⚠ DANGER


TIP-OVER OF WORKMAN VEHICLE WHILE PLATFORM IS RAISED WILL RESULT IN PERSONAL INJURY TO OPERATOR AND/OR BYSTANDERS.

- ⚡ ALWAYS PARK VEHICLE ON FIRM, LEVEL SURFACE BEFORE RAISING PLATFORM.
- ⚡ NEVER EXCEED 5 DEGREE MAXIMUM ANGLE OF OPERATION.
- ⚡ NEVER RAISE PLATFORM IF BUBBLE LEVEL INDICATOR IS OUTSIDE RECOMMENDED OPERATING RANGE.
- ⚡ NEVER RAISE PLATFORM IF ONE OR MORE VEHICLE TIRES ARE UNDERINFLATED; CHECK TIRE PRESSURE DAILY.
- ⚡ NEVER PULL ON OBJECTS WHILE REACHING FROM RAISED PLATFORM.
- ⚡ NEVER USE PLATFORM FOR CARRYING OR LOWERING TREE LIMBS, BRANCHES OR HEAVY OR UNEVEN LOADS.
- ⚡ NEVER EXCEED CAPACITY OF PLATFORM LIFT (ONE PERSON WITH EQUIPMENT NOT TO EXCEED 600 LBS/272 KG.)
- ⚡ NEVER RAISE PLATFORM DURING HIGH WINDS OR THREATENING WEATHER.
- ⚡ NEVER BY-PASS SAFETY INTERLOCKS.
- ⚡ NEVER ALLOW RIDERS ON PLATFORM IN ANY POSITION.

93-3704

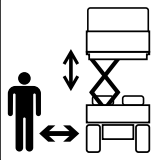
93-3704

⚠ DANGER



CONTACT WITH MOVING SCISSOR ARMS CAN CAUSE PERSONAL INJURY.

- ⚡ STAND CLEAR OF SCISSOR ARMS WHILE PLATFORM IS MOVING.
- ⚡ MAKE SURE AREA IS CLEAR OF BYSTANDERS BEFORE LOWERING PLATFORM.
- ⚡ NEVER WORK UNDER RAISED PLATFORM WITHOUT LIFT SAFETY BLOCK INSTALLED.
- ⚡ ALWAYS REMOVE KEY FROM LIFT CONTROL BOX WHEN PLATFORM IS NOT IN USE.



93-3706

93-3706



93-3709



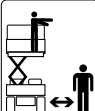
LIFT ROLLER
LIFT FRAME
SAFETY BLOCK

⚠ DANGER
PLATFORM LIFT CAN CRUSH & CAUSE PERSONAL INJURY.
 ⚡ NEVER WORK UNDER RAISED PLATFORM WITHOUT LIFT SAFETY BLOCKS INSTALLED.

93-3708

93-3708





⚠ DANGER
FALLING OBJECTS AND OVERHEAD OBSTRUCTIONS CAN CAUSE PERSONAL INJURY.

- ⚡ ALWAYS WEAR HARD HAT AND EYE PROTECTION WHILE OPERATING PLATFORM OR WHILE IN AREA BELOW PLATFORM.
- ⚡ KEEP BYSTANDERS AWAY FROM AREA BELOW RAISED PLATFORM WHILE OVERHEAD WORK IS PERFORMED.
- ⚡ NEVER DROP OR THROW ARTICLES FROM RAISED PLATFORM.
- ⚡ WHEN RAISING PLATFORM BE ALERT FOR OVERHEAD OBSTRUCTIONS WHICH COULD CAUSE EYE, HEAD OR CRUSHING INJURIES.

93-3705

93-3705




⚠ DANGER
FALLING OR JUMPING FROM RAISED PLATFORM WILL CAUSE PERSONAL INJURY.

- ⚡ SECURE BOTH HANDRAIL SNAP CHAINS ACROSS OPENING BEFORE RAISING PLATFORM.
- ⚡ NEVER PULL ON OBJECTS WHILE REACHING FROM RAISED PLATFORM.
- ⚡ NEVER REACH OVER HANDRAILS UNLESS BOTH FEET ARE ON PLATFORM DECK.
- ⚡ NEVER STEP ABOVE LEVEL OF PLATFORM DECK OR USE LADDERS, STEP RISERS OR PLATFORM RAILS TO EXTEND WORKING HEIGHT OF PLATFORM.
- ⚡ IF YOU MUST EXIT RAISED PLATFORM, SLOWLY AND CAREFULLY CLIMB DOWN OUTSIDE OF SCISSOR ARM FRAME.

93-3707

93-3707

Setup

Loose Parts

Use the chart below to verify that all parts have been shipped.

Description	Qty.	Use
Main Wire Harness / Relays	1	Install the lift
Cable Tie	7	
Capscrew #10-24 x 1"	1	
Locknut #10-24	1	
Parking Brake Switch	1	
Spacer - Long	1	
Spacer - Short	1	
Screw #10-24 x 2-1/4"	1	
Screw #10-24 x 2"	1	
Washer #10	2	
Nut #10-24	2	
Rear Wire Harness w/ Level Switch	1	
Cable Tie	3	
Reinforcing Plate	2	
Flange HD. Capscrew 3/8-16 x 1"	4	
Flangenut 3/8-16	2	
Lift Mounting Bracket	4	
Capscrew 1/2-13 x 3-1/2"	4	
Flange HD. Capscrew 5/16-18 x 1"	4	
Flangenut 5/16-18	4	
Flange HD. Capscrew 5/16-18 x 2-3/4"	4	
Hitch Flangenut 5/16-18	4	
Circular Bubble Level	1	
No Step Decal	2	
Operator's Manual	2	
Parts Catalog	1	

The 1/3 platform lift is designed to be used only with a Workman Vehicle and must be mounted with the wiring harness, level, decals, switches and all interlock switches installed.

Important: If 1/3 Platform lift is to be installed on a 4 Wheel Drive Workman Vehicle with a serial number of 50001 & Up or a 2 Wheel Drive Liquid Cooled Workman Vehicle with a serial number of 60001 & Up, the base cover, part no. 93-3737, (Figure 2) must be removed from lift assembly and a 1/3 Cover Kit, part no. 93-9225, (Figure 3) must be installed on vehicle. This is to prevent damage to the radiator cover (Figure 4). Purchase kit from your Local Authorized Toro Distributor.

The following Workman Vehicle models are affected:

07215 - 50001 & Up
 07216 - 50001 & Up
 07200 - 60001 & Up
 07202 - 60001 & Up
 07205 - 60001 & Up
 07206 - 60001 & Up

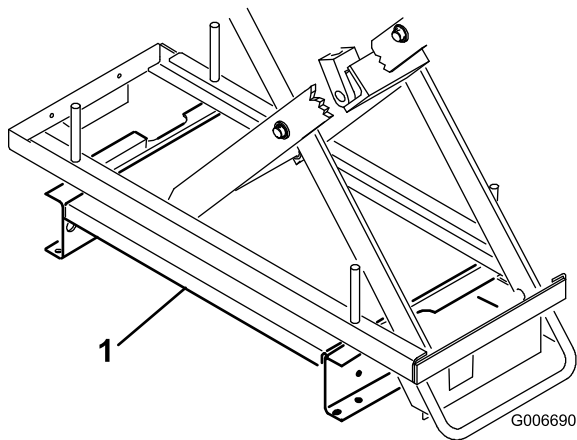


Figure 2

1. Lift assembly base cover

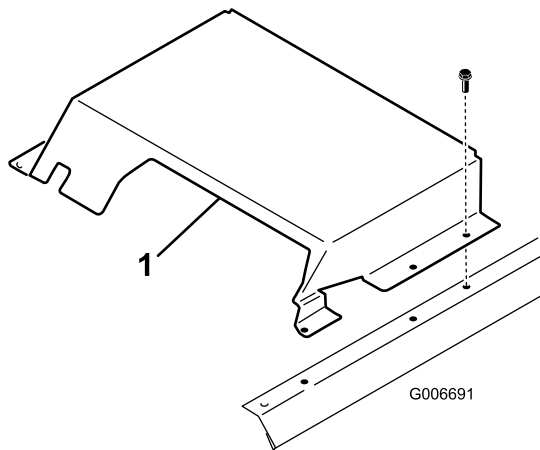


Figure 3

1. 1/3 cover kit

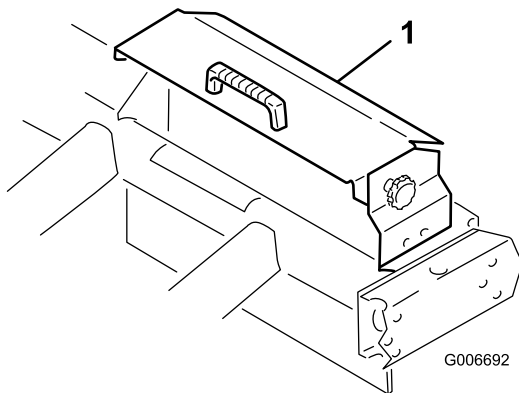


Figure 4

1. Radiator cover

Installing the Lift

1. Position vehicle on a clean, level surface, stop engine, engage parking brake and remove key from ignition switch. Disconnect positive cable from battery.

2. Unscrew and remove all knobs from console levers.
3. Remove (6) screws securing outside edge of center console cover plate to frame and remove cover plate (Figure 5).

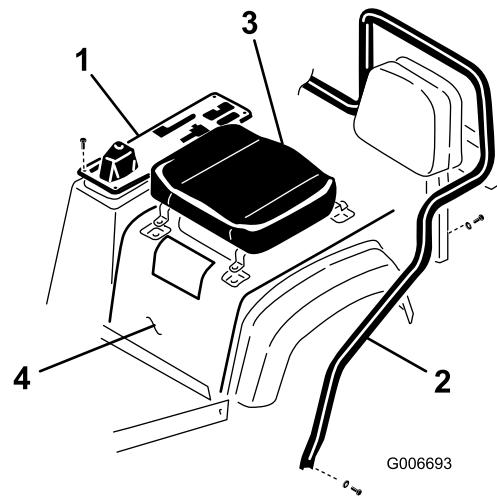


Figure 5

- | | |
|-------------------------|----------------------------|
| 1. Center console cover | 3. Seat assembly |
| 2. Seat frame | 4. Skirt & fender assembly |

4. Loosen (2) capscrews and locknuts securing front legs of seat frame to sides of vehicle floor (Figure 5).
5. Remove (2) capscrews and lockwashers securing seat frame brackets to vehicle frame (Figure 5). Pivot seat frame forward.
6. Loosen hose clamp securing overflow tube to radiator and slide tube off radiator opening (Figure 6). Plug overflow tube to prevent coolant from escaping.

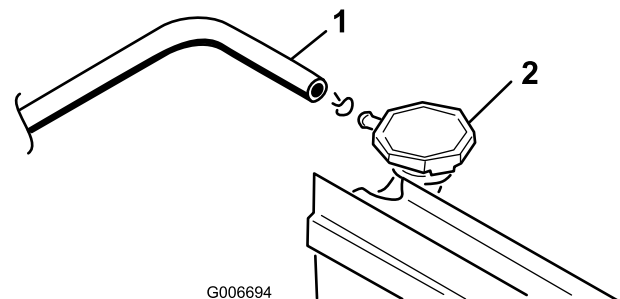


Figure 6

- | | |
|------------------|-------------|
| 1. Overflow tube | 2. Radiator |
|------------------|-------------|



Pressurized hot coolant escaping can cause serious burns.

Allow engine to cool enough to touch before removing overflow tube or radiator cap.

7. Remove (4) capscrews and lockwashers securing each set of seat brackets to vehicle frame and remove seat assemblies (Figure 5). Lift off skirt and fender assembly.
8. Remove head light bulbs from both headlights.

Note: Do not touch bulbs with fingers as oil from hands may lead to early bulb failure.

9. Remove (15) screws and washers securing front hood to vehicle frame and remove hood.
10. Insert end of harness, with male and female spade terminals on it, up through opening in vehicle floor board, toward dash panel, following vehicle wire harness. Secure harness to vehicle wire harness with (2) cable ties.
11. Locate red/black wire connected to "I" terminal of ignition switch. Remove wire from "I" terminal and plug into appropriate wire harness terminal. Plug remaining harness terminal onto ignition switch "I" terminal.

12. Remove fasteners securing wire harness cover to under side of vehicle floor and remove cover.
13. Route wire harness rearward to console area. Harness must not interfere with operation of brake pedal return spring or any moving parts.
14. Using dimensions shown in Figure 7, locate, mark and drill (2) .218" (7/32") diameter holes in vehicle console.

Note: On Vehicles with serial numbers 50001 & Up, holes are provided in console.

15. Loosely mount parking brake switch to vehicle console with (2) spacers, #10-24 screws, washers and nuts, as shown in Figure 8. Different length spacers and screws are used to mount switch level.

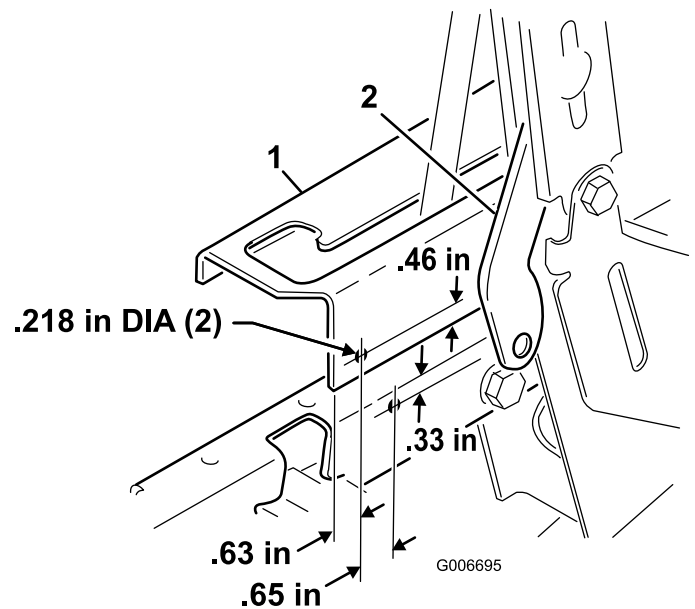


Figure 7

1. Vehicle console
2. Parking brake lever

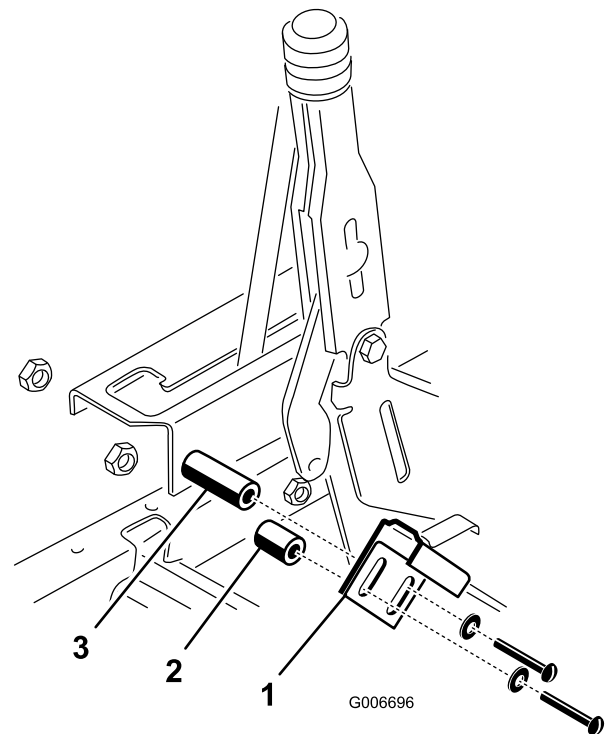


Figure 8

1. Parking brake switch
2. Short spacer
3. Long spacer

16. Plug harness connector into parking brake switch.
17. To adjust parking brake switch:
 - Disengage parking brake.

- Move switch into parking brake lever until switch is activated, then tighten mounting nuts.
- Slowly engage parking brake to check operation of switch.

Important: Do not move switch to close to lever as switch damage may occur.

18. Install wire harness cover over harness' and secure to under side of vehicle with fasteners previously removed.
19. Route harness toward valve on left frame channel. Secure harness relays to side of frame channel with a #10-24 x 1" large capscrew and locknut or use one of the fasteners securing valve to frame.
20. Remove locknuts securing hitch plate to rear axle (Figure 9). Loosely mount rear harness switch bracket to rear axle with locknuts removed.

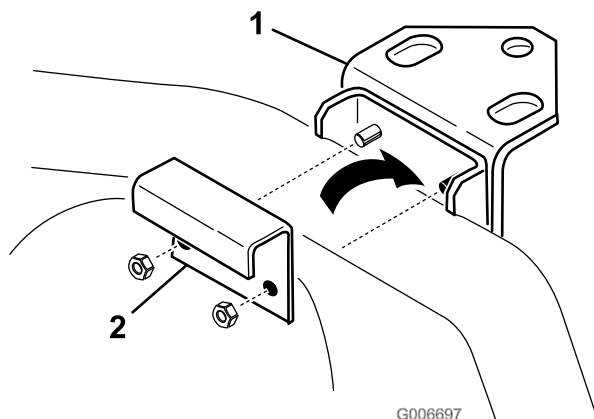


Figure 9

1. Hitch plate
2. Switch bracket

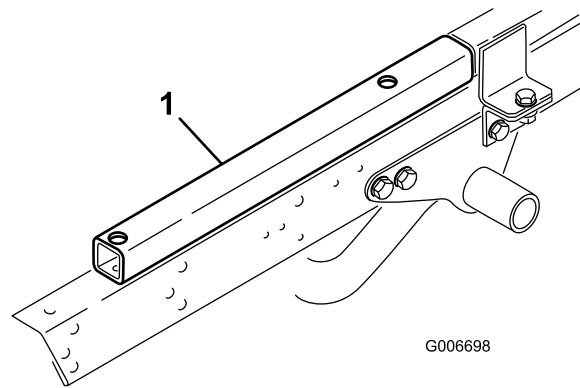


Figure 10

1. Hitch frame extension tube

25. Locate and remove the threaded insert from the mounting hole in left and right vehicle frame channels, as shown in Figure 11.

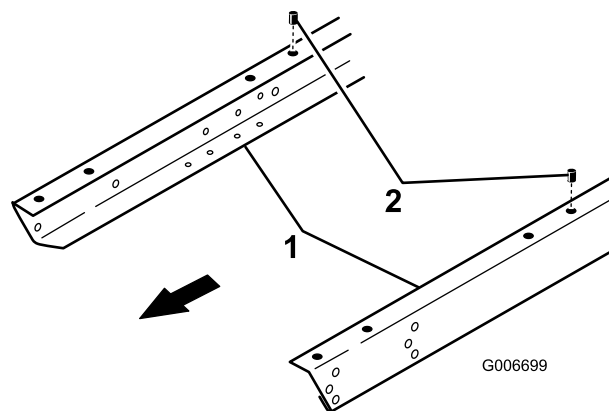


Figure 11

1. Vehicle frame channel
2. Threaded insert

21. Make sure tires are inflated to proper specifications.
22. Using a carpenters level, level switch bracket and secure locknuts. Use caution not to damage switches when tightening nuts.
23. Route switch harness forward, along shift cable to left side of machine. Secure harness to shift cable with cable ties.

Note: To mount lift in forward position on vehicle frame, follow steps 24 thru 27, then proceed to step 41.

24. Remove any accessories mounted to top of frame in forward position such as a 1/3 bed, power platform, H.D. Hitch Frame extension tubes (Figure 10), etc.

Note: To prevent lift scissor arms from expanding, pick up the platform lift from the bottom when positioning on frame.

26. Position lift onto frame aligning mounting holes with holes in frame.
27. Mount each side of lift to frame channels with a reinforcing plate and (2) 3/8-16 x 1" large flange head capscrews and flange nuts (Figure 12). Reinforcing plates to be used in rear mounting holes only.

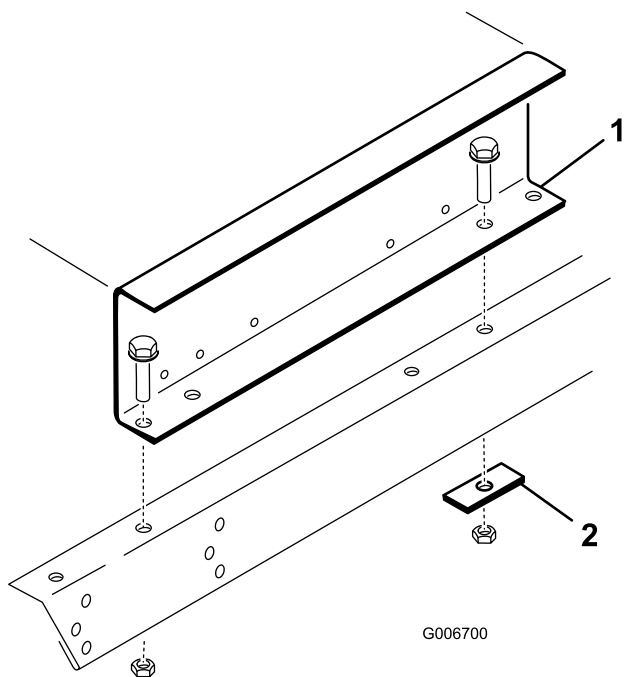


Figure 12

1. Lift
2. Reinforcing plate

Note: To mount lift in mid position on vehicle frame, follow steps 28 thru 36, then proceed to step 41.

28. Remove any accessories mounted to top of frame such as full beds, 2/3 beds, top dressers, etc.

Note: Lift may be installed on top of H.D. Hitch Frame Tubes. If lift is to be mounted on top of H.D. Hitch Frame Tubes, proceed to step 37.

29. Remove the flange screw and locknut, shown in Figure 13, securing each side of engine frame to vehicle frame.
30. Install a new 1/2-13 x 3-1/2" large capscrew thru engine frame and vehicle frame. Insert a lift mounting bracket onto each new capscrew and loosely secure with locknut removed. Bracket to be positioned as shown in Figure 14.

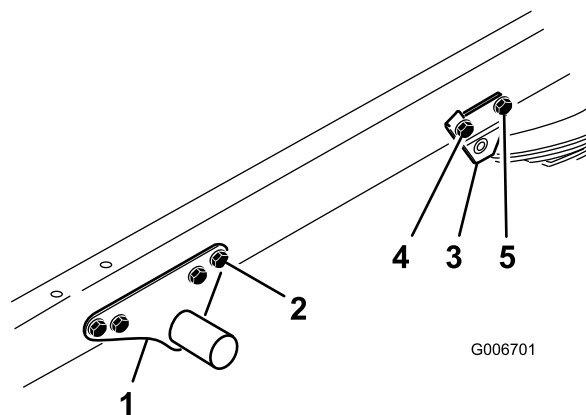


Figure 13

1. Engine frame
2. Remove this flange screw & nut
3. Spring mount
4. Remove on right side
5. Remove on left side

31. Remove the front flange screw and locknut securing right leaf spring mount to side of vehicle frame (Figure 13).

32. Install a new 1/2-13 x 3-1/2" large capscrew thru leaf spring mount and vehicle frame. Insert a lift mounting bracket onto each new capscrew and loosely secure with locknut removed. Bracket to be positioned as shown in Figure 14.

33. Remove the rear flange nut and locknut securing left leaf spring mount to side of vehicle frame (Figure 13).

34. Install a new 1/2-13 x 3-1/2" large capscrew thru leaf spring mount and vehicle frame. Insert a lift mounting bracket onto each new capscrew and loosely secure with locknut removed. Bracket to be positioned as shown in Figure 14.

Note: To prevent lift scissor arms from expanding, pick up the platform lift from the bottom when positioning on frame.

35. Position lift onto frame aligning mounting holes with holes in mounting bracket.
36. Secure lift mounting brackets to lift with (4) 5/16-18 x 1" large flange head capscrews and flangenuts. Tighten all fasteners.

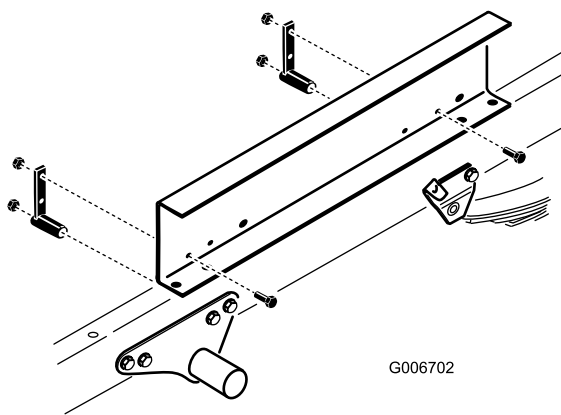


Figure 14

1. Lift 2. Lift mounting brackets

Note: To mount lift in mid position on top of H.D. Hitch Tubes, use the following steps.

37. Using dimensions shown in Figure 15, locate, mark and drill (2) .375 (3/8)" diameter holes, thru both walls, of each H.D. Hitch Frame Tube.

Note: To ease hole drilling in hitch tubes, remove capscrews and nuts securing front hitch brackets to vehicle frame channels, pivot hitch upward and drill holes from inside of each tube.

Important: Do not drill any holes in vehicle frame channels.

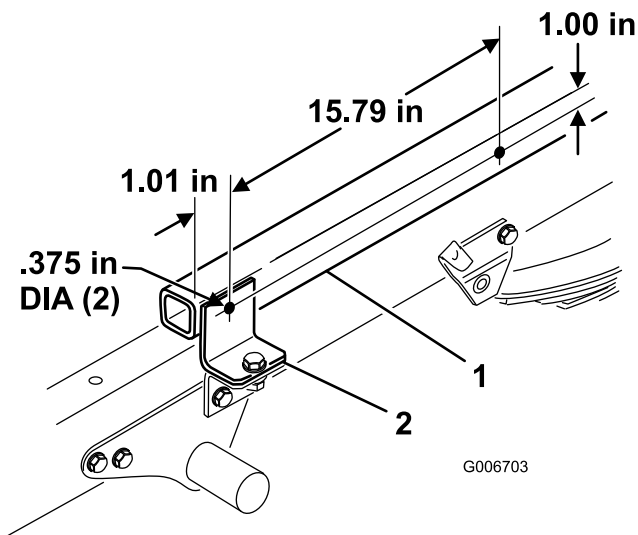


Figure 15

1. H.D. Hitch frame tube 2. Hitch bracket

38. Secure lift mounting brackets to lift with (4) 5/16-18 x 1" large flange head capscrews and flangenuts. Position brackets as shown in Figure 16.

39. Position lift onto frame aligning mounting bracket holes with holes in hitch tubes.

40. Secure lift mounting brackets to H.D. Hitch Tubes with (4) 5/16-18 x 2-3/4" large flange head capscrews and flangenuts.

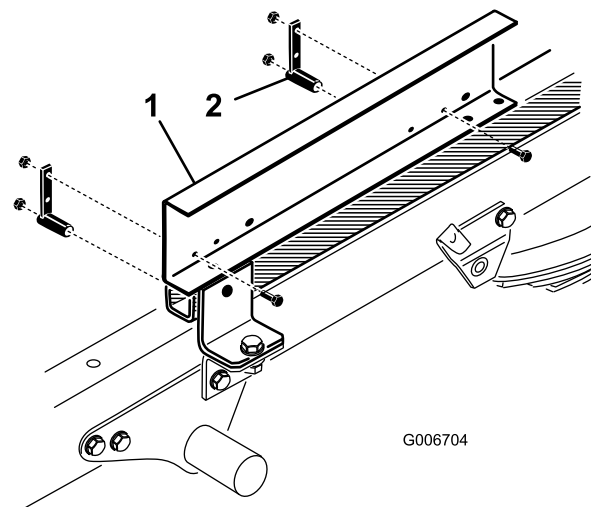


Figure 16

1. Lift 2. Lift mounting brackets

41. Connect front wire harness to connector on lift.
42. Plug rear harness into connector from front harness.
43. Connect ground wire from lift to engine ground.
44. Remove nut from positive battery clamp, insert positive wire from lift onto cable clamp screw and loosely secure with nut.

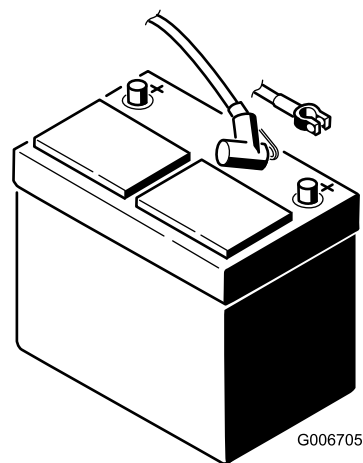


Figure 17

1. Positive lift wire 2. Positive battery cable clamp

45. Make sure wiring is clear of all hot or rotating parts. Secure with cable ties as required.
46. Reinstall hood to frame with fasteners previously removed.
47. Reinstall light bulbs in head lights.
48. Reinstall skirt, seats, seat frame and console cover plate.

49. Reinstall overflow tube to radiator. Check coolant level and replenish, if required.

50. Reinstall positive battery cable to battery.

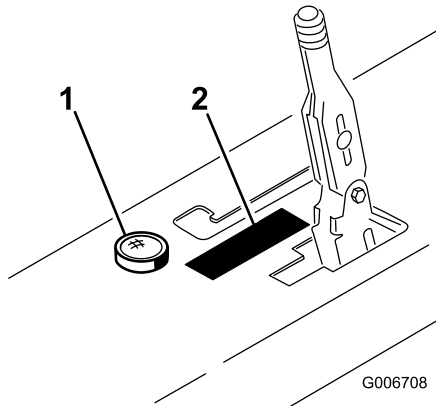


Figure 18

1. Circular level 2. Operation decal

51. Slide rubber boot over positive terminal to prevent possible short-out from occurring.

52. Affix circular level to top of console cover positioning as shown in Figure 18.

53. Affix operation decal to top of console cover positioning as shown in Figure 18.

54. Affix a "No Step" decal to top of each fuel tank mounting strap, as shown in Figure 19.

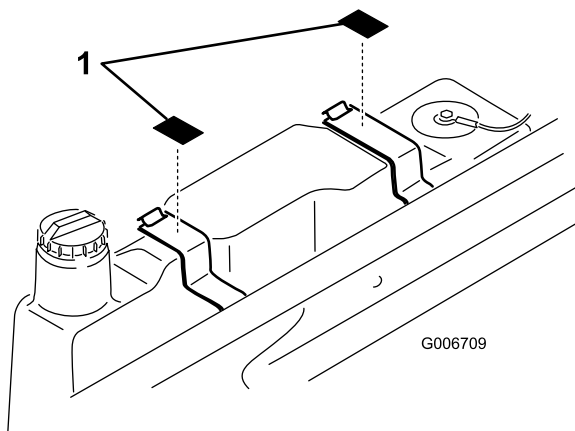


Figure 19

1. No—Step decal

Product Overview

Controls

Up Button

Press "UP" button to raise lift (Figure 20).

Down Button

Press "DOWN" button to lower lift (Figure 20).

Key Switch

Rotate key switch to authorize use of lift. Remove key from lift pendant control switch to prevent operation when unattended. (Figure 20).

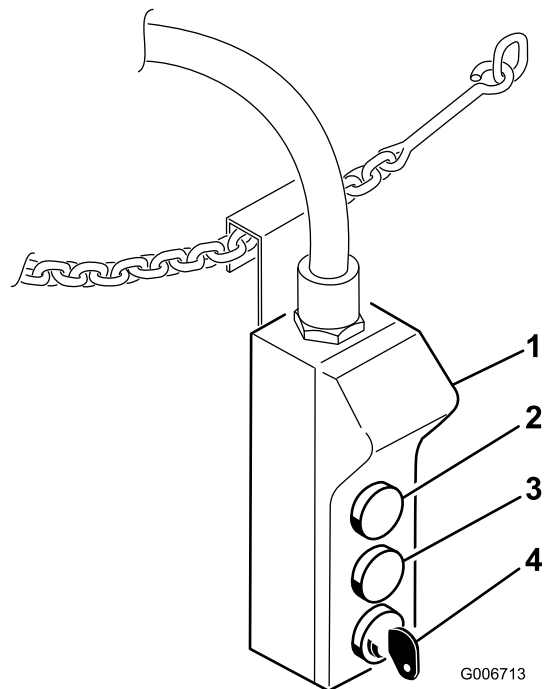


Figure 20

1. Pendant control 3. DOWN button
2. UP button 4. Key switch

Emergency Lowering Valve Knob

Push in red knob on solenoid valve and rotate 180 degrees counter-clockwise to activate emergency lowering valve. To stop lift and return to normal operation, push button in, rotate 180 degrees clockwise and release (Figure 21).

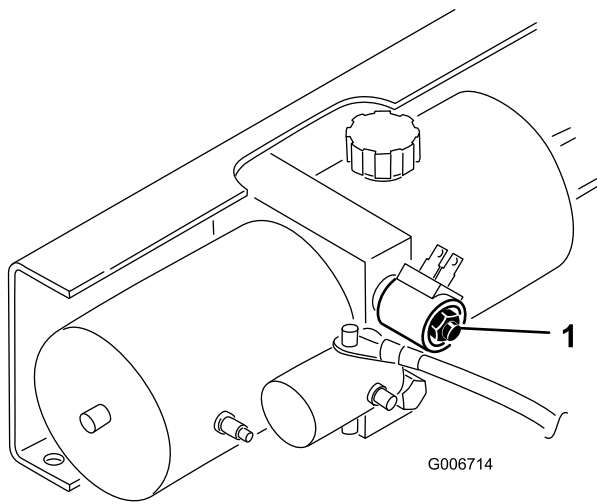


Figure 21

1. Emergency lowering valve knob

Specifications

Dimensions

Height	82 inch (including vehicle)
Width	62.6 inch
Weight	620 lbs. (281 Kg) (estimated)

Operation

Check Oil Level

The lift reservoir is filled at the factory with DTE 13 hydraulic oil. Check level before lift is first operated and every 8 hours or daily, thereafter. Capacity of system is 1.5 qt.

1. Position the vehicle on a level surface.
 2. Raise lift and install safety blocks. Refer to the Installing Safety Blocks section and the Operation chapter.
- Note:** If lift cannot be raised, due to lack of oil in reservoir, it may be raised with a hoist and safety blocks installed, to expose reservoir breather cap.
3. Clean area around reservoir breather cap (Figure 22).

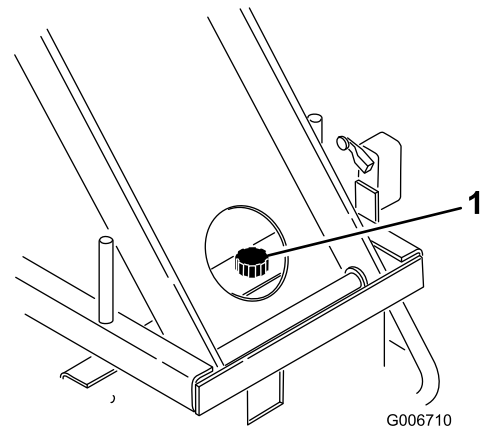


Figure 22

1. Reservoir cap
4. Unscrew breather cap from top of reservoir.
 5. Insert a clean rod or stick into reservoir and check fluid level. Fluid should be within 2 inches from top of reservoir. If level is low, add enough DTE 13 hydraulic oil to achieve the proper level. **DO NOT OVERFILL.**
- Note:** If DTE 13 hydraulic oil is not available, DTE 24 or Dextron II ATF may be substituted. Fluids may be mixed, after initial fill of reservoir.
- Note:** Always use DTE 13, DTE 24, or equivalent ISO Viscosity Grade 32 oils when reservoir must be completely refilled or if cold weather is expected. The use of other fluids may inhibit the operation of the lift.

Check Tire Pressure

Check tire pressure every 8 hours or daily to assure proper levels.

Maximum air pressure in front tires is 20 psi

Maximum air pressure in rear tires is 32 psi for 23" tires and 18 psi for 24" tires.

Installing Safety Blocks

1. Position the vehicle on a level surface.
2. Set parking brake and chock wheels.
3. Rotate vehicle key switch to "On" position. Depending what other attachments are in use, vehicle does not have to be running but key must be "On".
4. While standing next to machine, grasp pendant control and rotate lift key switch to "On" position. Check overhead clearance and for any obstructions.
5. Press "UP" button to raise lift high enough to install safety blocks. Stand clear of scissor arms while platform is moving.



Contact with moving scissor arms can cause personal injury.

- Stand clear of scissor arms while platform is moving.
- Make sure area is clear of bystanders before lowering platform.
- Never work under raised platform without lift safety blocks installed.
- Always remove key from lift control box when platform is not in use.

6. Remove retaining pins securing safety blocks to side of lift frame (Figure 23).

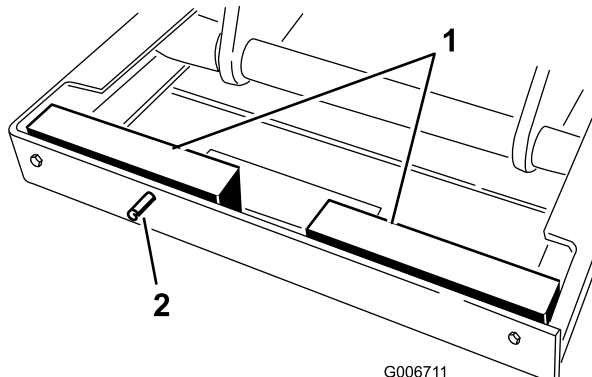


Figure 23

1. Safety block
2. Retaining pin

7. Rotate safety blocks 90 degrees in channel and secure to ends of lift frame with retaining pins (Figure 24).

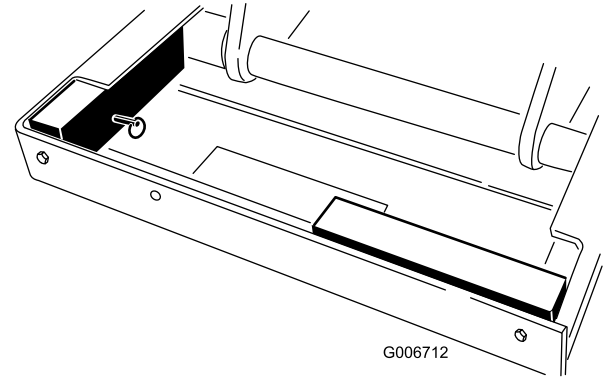


Figure 24



Platform lift can crush and cause personal injury.

- Never work under raised platform without lift safety blocks installed.
- Never use safety blocks to support a load on lift.

8. Press "DOWN" button on pendant control and lower lift until rollers gently contact safety blocks.
9. To remove safety blocks:
 - Raise lift slightly.
 - Remove retaining pins.
 - Return safety blocks to storage position.
 - Secure with retaining pins.

Operating the Lift

The 1/3 platform lift is designed to be used only with a Workman Vehicle and must be mounted with the wiring harness, level, decals, switches and all interlock switches installed.



Improper operation of platform lift may cause serious personal injury or death. To reduce risk to operator and bystanders:

- Read and understand all safety instructions in Workman and Platform Lift Operator's Manuals and warning labels.
- Never use a platform lift without proper training and authorization.

The electrical control system of the lift requires the vehicle to be parked on a slope of less than a 5 degree angle and parking brake engaged in order to activate the lift circuit.

Operating

1. Set parking brake and chock wheels.
2. Rotate vehicle key switch to "On" position.
Depending on what other attachments are in use, vehicle does not have to be running but key must be "On".
3. Climb into platform and secure safety chains across entry (Figure 25).

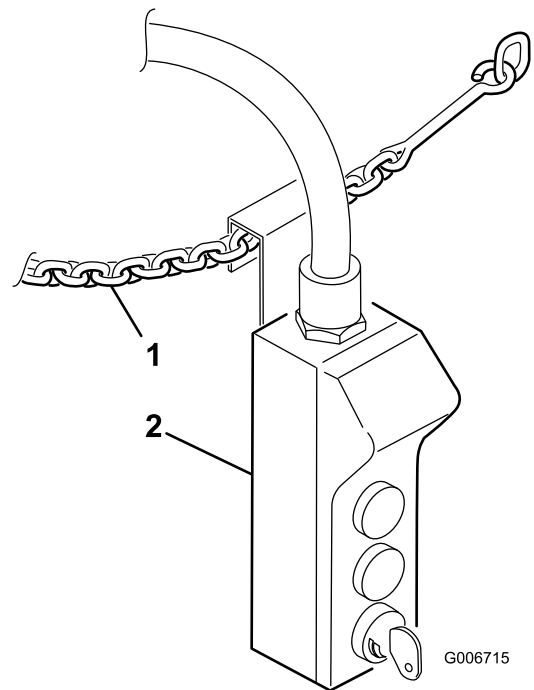


Figure 25

1. Safety chain
2. Pendant control

4. Grasp pendant control and rotate lift key switch to "On" position.
5. Press "UP" button to raise lift; "DOWN" button to lower lift.



Operation of platform lift without parking brake engaged can result in tip-over and personal injury.

- Always apply parking brake before operating platform lift. The use of wheel chocks is recommended.
- Do not release parking brake while platform lift is raised.
- Do not raise the platform lift if the bubble is outside of the operating region on the level indicator.



Loss of control or tip-over will result if vehicle is moved with platform in raised position and may cause serious personal injury to operator or bystanders.

- Never move vehicle while platform is raised.
- Always apply parking brake before raising platform. Wheel chock use is recommended.
- Never release parking brake while platform is raised.
- Check safety interlocks before each use of platform. See operator's manual for safety interlock check instructions.
- Never bypass safety interlocks.
- Never allow riders on platform in any position.

If lift does not operate:

- Make sure vehicle key and lift key are in "On" position.
 - Make sure vehicle is parked on less than a 5 degree angle slope.
 - Make sure vehicle parking brake is "On".
6. When finished with work operation, lower lift all the way down to stops and remove key from lift pendant control to prevent operation when unattended.

Important: If engine kills when releasing parking brake, it may indicate that lift is not completely lowered. Vehicle can not be driven with lift raised at any height.



Contact between non-insulated platform lift and power lines will cause electrocution.

- Electrocution will cause serious personal injury or death.
- Never use platform lift near power lines.
- Never allow platform lift to touch power lines.
- If power line contact occurs:
 - Lower unit away from contact if possible.
 - Do not touch power line.
 - Never touch ground while touching platform lift or power line.
 - Jump clear if necessary, without touching platform lift or power line.
- If operating platform lift near electrical, high pressure or any type of rotating equipment:
 - Always disconnect power to that equipment.
 - Always use OSHA approved lock-out devices.
- Never use platform lift during a thunder or lightning storm.
 - Lower platform lift and avoid open areas in the event of threatening weather.

Emergency Lowering

1. Reach into access opening only to activate emergency lowering valve.
2. Push in red knob on solenoid valve (Figure 26) and rotate 180 degrees counter-clockwise to activate emergency lowering valve.



Contact with moving scissor arms can cause personal injury.

- Stand clear of scissor arms while platform is moving.
- Make sure area is clear of bystanders before lowering platform.
- Never work under raised platform without lift safety blocks installed.
- Always remove key from lift control box when platform is not in use.

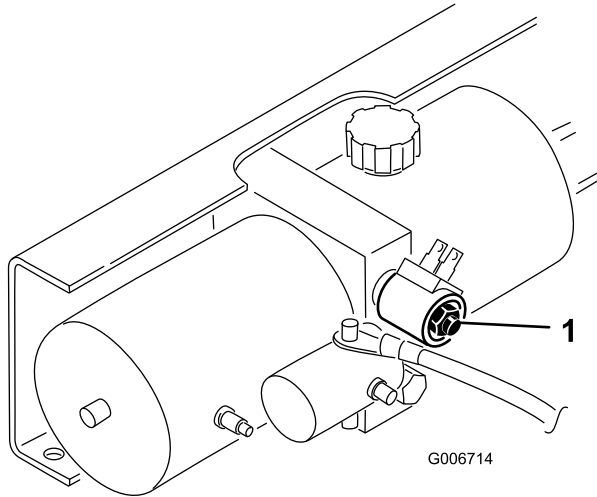


Figure 26

1. Emergency lowering valve knob

3. To stop lift and return to normal operation, push button in, rotate 180 degrees clockwise and release.



Falling or jumping from raised platform will cause personal injury.

- Secure both handrail snap chains across opening before raising platform.
- Never pull on objects while reaching from raised platform.
- Never reach over handrails unless both feet are on platform deck.
- Never step above level of platform deck or use ladders, step risers or platform rails to extend working height of platform.
- If you must exit raised platform, slowly and carefully climb down outside of scissor arm frame.

Operating Tips

The electrical system, battery and hydraulic lift cylinder are not designed for continuous use. Allow some time, approximately 1-1/2 to 2 minutes, between lift operations to maintain operating temperatures.

Frequent use without the engine running or idling may discharge the battery. If engine operation is not possible to keep battery charged, it may be necessary to supplement operation with an over night battery charger.

Check the specific gravity of the fluid in the battery to assure it is fully charged. Refer to Battery Care section.



Tip-over of Workman Vehicle while platform is raised will result in personal injury to operator and/or bystanders.

- Always park vehicle on firm, level surface before raising platform.
- Never exceed 5 degree maximum angle of operation.
- Never raise platform if bubble level indicator is outside recommended operating range.
- Never raise platform if one or more vehicle tires under inflated; check tire pressure daily.
- Never pull on objects while reaching from raised platform.
- Never use platform for carrying or lowering tree limbs, branches or heavy or uneven loads.
- Never exceed capacity of platform lift (one person with equipment not to exceed 600 lbs.)
- Never raise platform during high winds or threatening weather.
- Never by-pass safety interlocks.
- Never allow riders on platform in any position.

Note: Top rail of platform lift is higher than vehicle ROPS so be alert to low overhead areas when transporting (driving) vehicle.



Falling objects and overhead obstructions can cause personal injury.

- Always wear hard hat and eye protection while operating platform or while in area below platform.
- Never drop or throw articles from raised platform.
- When raising platform be alert for overhead obstructions which could cause eye, head or crushing injuries.

Maintenance

Check Safety Circuits

The electrical safety circuits of the lift require the vehicle to be parked on a slope of less than 5 degrees and parking brake to be engaged in order to activate the lift circuit.

To verify parking brake switch operation:

1. Position the vehicle on a level surface, set parking brake and chock wheels.
2. Rotate vehicle key switch to "On" position. While standing next to machine, grasp pendant control and rotate lift key switch to "On" position. Press "UP" button and raise lift a few inches. Release button.
3. Release parking brake and try to raise lift again. Lift must not rise. If lift does not raise, safety circuit is operating correctly and proceed to next step. If lift rises there is a malfunction in the electrical circuit that must be repaired before operating lift.
4. With the platform partially raised and parking brake released, try to start engine. If engine does not start and remain running, safety circuit is operating correctly. Lower lift all the way and proceed to next step. If engine starts and remains running there is a malfunction in the electrical circuit that must be repaired before operating lift.

To verify rear axle level switch operation:

1. Position one side of vehicle (rear axle) on a slope greater than 5 degrees (floor jack, mound of material or small hill).
2. Set parking brake and chock wheels.
3. Rotate vehicle key switch to "On" position. While standing next to machine, grasp pendant control and rotate lift key switch to "On" position. Press "UP" button and try to raise lift. If lift does not raise, safety circuit is operating correctly. Raise opposite side of machine and repeat procedure. If lift rises, with either side of machine in raised position, there is a malfunction in the electrical circuit that must be repaired before operating lift. Lower lift immediately.

Battery Care

1. Battery electrolyte level must be properly maintained and the top of the battery kept clean. If the machine

is stored in a location where temperatures are extremely high, the battery will run down more rapidly than if the machine is stored in a location where temperatures are cool.

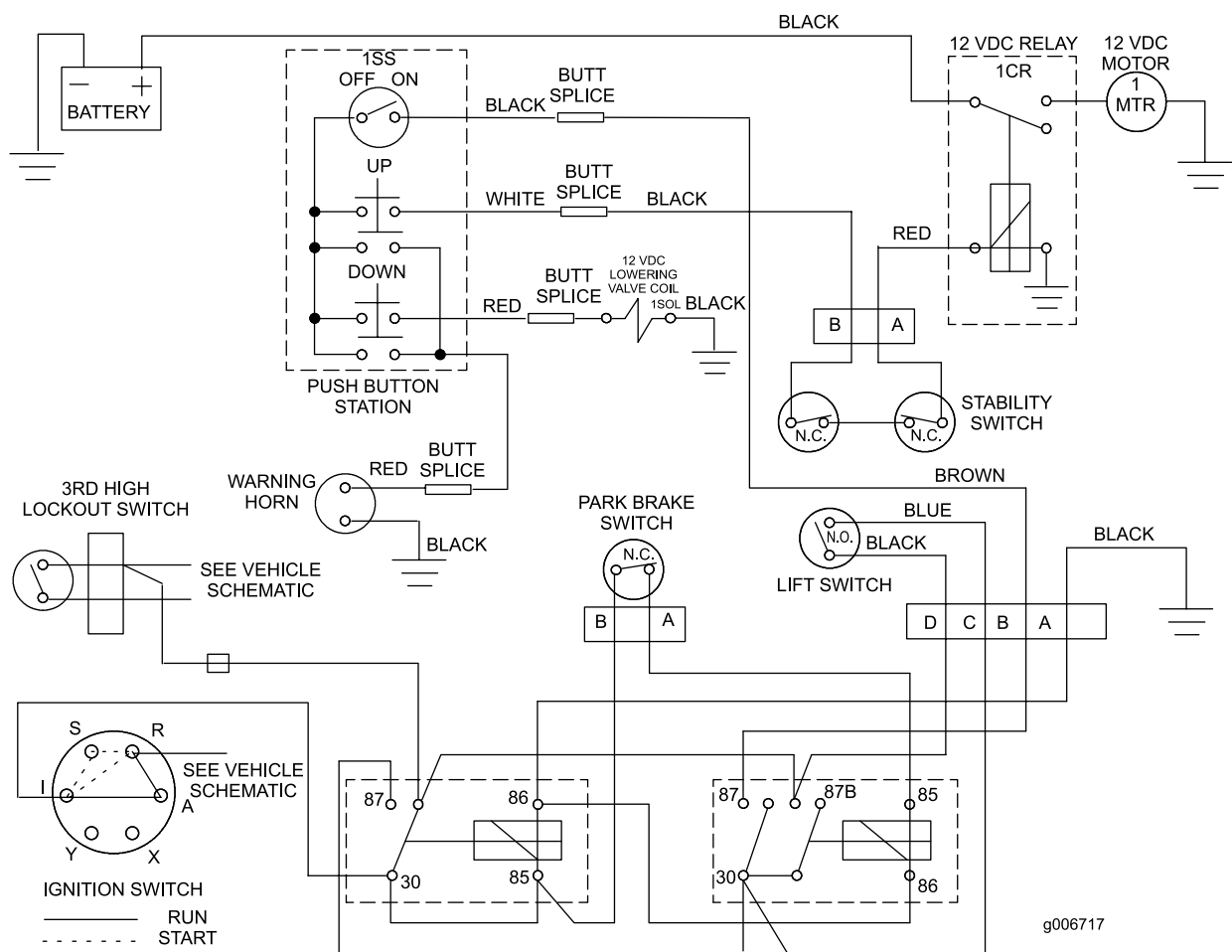
2. Keep top of battery clean by washing periodically with a brush dipped in ammonia or bicarbonate of soda solution. Flush the top surface with water after cleaning. Do not remove the fill cap while cleaning.
3. Battery cables must be tight on terminals to provide good electrical contact.
4. If corrosion occurs at terminals, remove battery cover, disconnect cables, negative (-) cable first and scrape clamps and terminals separately. Reconnect cables, positive (+) cable first and coat terminals with petroleum jelly.
5. Check the electrolyte level every 50 operating hours or, if machine is in storage, every 30 days.
6. Maintain cell level with distilled or demineralized water. Do not fill cells above the bottom of the fill ring inside each cell.
7. If the machine will be stored for more than 30 days, remove the battery and charge it fully. Either store it on the shelf or on the machine. Leave the cables disconnected if stored on the machine. Store the battery in a cool atmosphere to avoid quick deterioration of the charge in the battery. To prevent battery from freezing, make sure it is fully charged. The specific gravity of a fully charged battery is 1.250.



Battery electrolyte contains sulfuric acid which is a deadly poison and it causes severe burns.

- **If you carelessly drink electrolyte you could die or if it gets onto your skin you will be burned.**
- **Do not drink electrolyte and avoid contact with skin, eyes or clothing.**
- **Wear safety glasses to shield your eyes and rubber gloves to protect your hands.**
- **Fill the battery where clean water is always available for flushing the skin.**
- **Follow all instructions and comply with all safety messages on the electrolyte container.**

Schematics



Electrical Schematic (Rev. A)



Count on it.