



Count on it.

Operator's Manual

**1/3 Platform Lift
for Workman Vehicles
Model No. 07344**

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.

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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

⚠ 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

⚠ 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

⚠ 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

93-3703

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

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

⚠ 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.

Procedure	Description	Qty.	Use
1	No parts required	–	Remove the seat skirt and fender assemblies(For models with serial numbers prior to 230999999)
2	No parts required	–	Remove the seat, skirt and fender assemblies(For models with serial numbers 240000001 & up)
3	No parts required	–	Remove the hood(For models with serial numbers prior to 230999999)
5	Main Wire Harness / Relays Cable Tie	1 7	Install main wire harness w/relays
6	Capscrew #10-24 x 1" Locknut #10-24 Parking Brake Switch Spacer - Long Spacer - Short Screw #10-24 x 2-1/4" Screw #10-24 x 2" Washer #10 Nut #10-24	1 1 1 1 1 1 1 2 2	Mount the parking brake switch(For models with serial numbers prior to 230999999)
7	Parking brake switch Screws Jumper wire harness	1 2 1	Mount the Parking Brake Switch(For models with serial numbers 240000001 & up)
8	Rear level switch bracket Rear level switch w/harness	1 1	Mount rear level switch
9	Reinforcing Plate Flange HD. Capscrew 3/8-16 x 1" Flangenut 3/8-16	2 4 2	Mount lift in forward position on vehicle frame
10	Lift Mounting Bracket Capscrew 1/2-13 x 3-1/2" Flange HD. Capscrew 5/16-18 x 1" Flangenut 5/16-18	4 4 4 4	Mount lift in mid position on vehicle frame
11	Flange HD. Capscrew 5/16-18 x 2-3/4" Hitch Flangenut 5/16-18	4 4	Mount lift in mid position on top of H.D. hitch tubes
12	No parts required	–	Connect wires
13	No parts required	–	Reinstall hood and reconnect battery
14	Circular Bubble Level	1	Mount circular bubble level
15	Operation Decal No Step Decal	1 2	Install decals

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

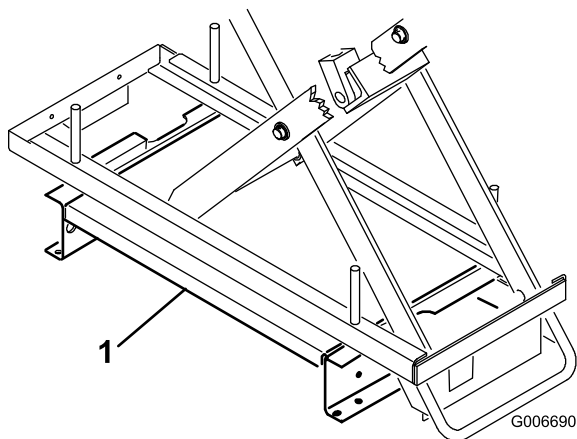


Figure 2

- 1. Lift assembly base cover

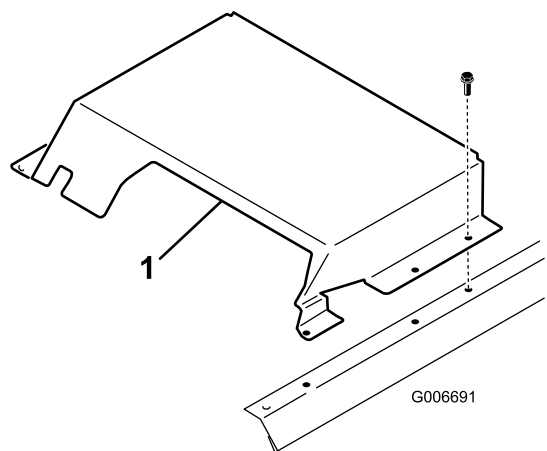


Figure 3

- 1. 1/3 cover kit

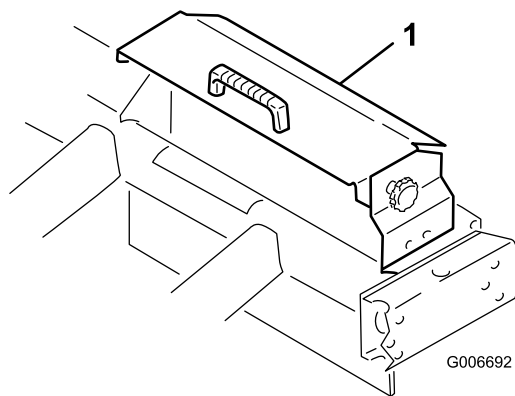


Figure 4

- 1. Radiator cover



Remove the Seat, Skirt and Fender Assemblies (For models with serial numbers prior to 230999999)

No Parts Required

Procedure

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).

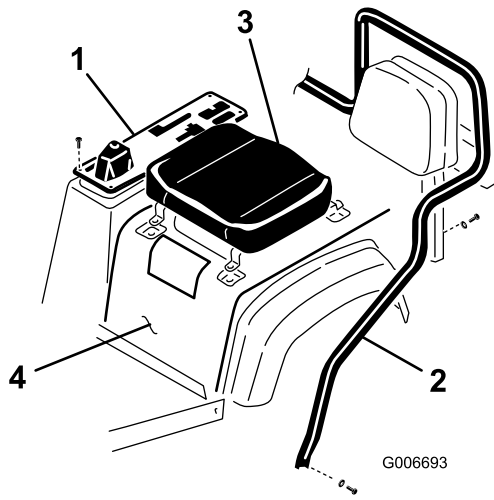


Figure 5

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

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

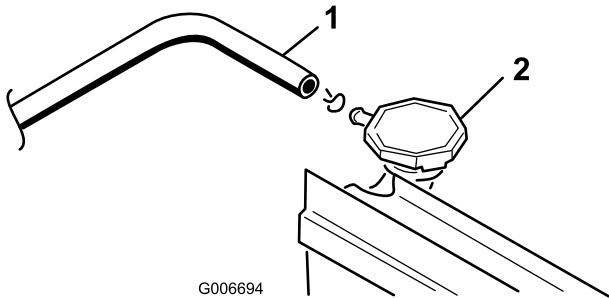


Figure 6

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

2

Remove the Seat, Skirt and Fender Assemblies (For models with serial numbers 240000001 & up)

No Parts Required

Procedure

- Position vehicle on a clean, level surface, stop engine, engage parking brake and remove key from ignition switch. Disconnect positive cable from battery.
- Unscrew and remove all knobs from console levers and from the gear shift lever (Figure 7).

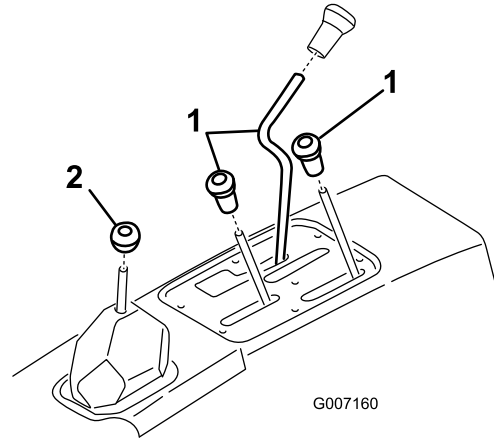


Figure 7

- | | |
|-------------------|---------------------|
| 1. Console levers | 2. Gear shift lever |
|-------------------|---------------------|

- Remove (6) screws securing outside edge of center console cover plate to frame and remove cover plate (Figure 8).



Pressurized hot coolant escaping can cause serious burns.

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

- 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.

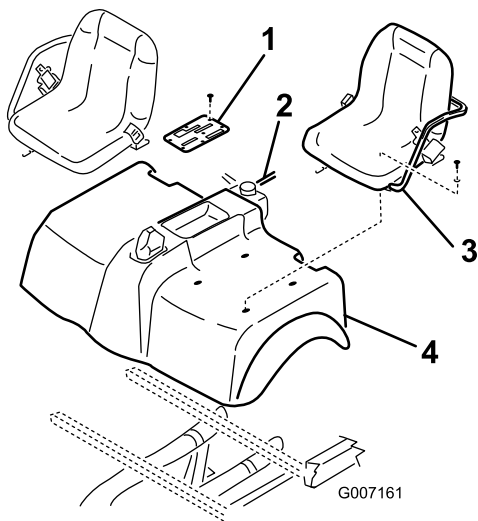


Figure 8

- | | |
|------------------------|-----------|
| 1. Console cover plate | 3. Seat |
| 2. Reservoir hose | 4. Shroud |

4. Disconnect the reservoir hose from the radiator and plug or clamp it to retain coolant (Figure 8). Remove the operator shield from the ROPS.
5. Remove the capscrews securing the seats and shroud to mounting brackets (Figure 8). Remove the seats and shroud.



Pressurized hot coolant escaping can cause serious burns.

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

3

Remove the Hood (For models with serial numbers prior to 230999999)

No Parts Required

Procedure

1. Remove head light bulbs from both headlights.
Note: Do not touch bulbs with fingers as oil from hands may lead to early bulb failure.
2. Remove (15) screws and washers securing front hood to vehicle frame and remove hood.

4

Remove the hood (For models with serial numbers 240000001 & up)

No Parts Required

Procedure

1. Remove the (6) screws and nuts securing the bumper to the vehicle frame and remove the bumper.
2. Remove the (7) screws securing the front hood to the vehicle frame and remove the hood.

5

Install the Main Wire Harness w/Relays

Parts needed for this procedure:

1	Main Wire Harness / Relays
7	Cable Tie

Procedure

1. Insert end of wire 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.
2. 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.
3. Remove fasteners securing wire harness cover to under side of vehicle floor and remove cover.
4. Route wire harness rearward to console area. Harness must not interfere with any moving parts.

6

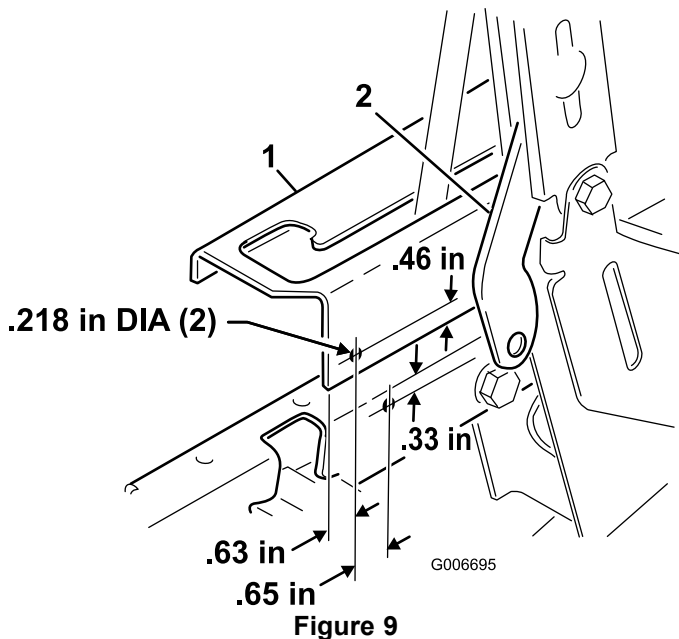
Mount the Parking Brake Switch (For models with serial numbers prior to 230999999)

Parts needed for this procedure:

1	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"
2	Washer #10
2	Nut #10-24

Procedure

- Using dimensions shown in Figure 9, locate, mark and drill (2) .218" (7/32") diameter holes in vehicle console.



- Vehicle console
- Parking brake lever

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

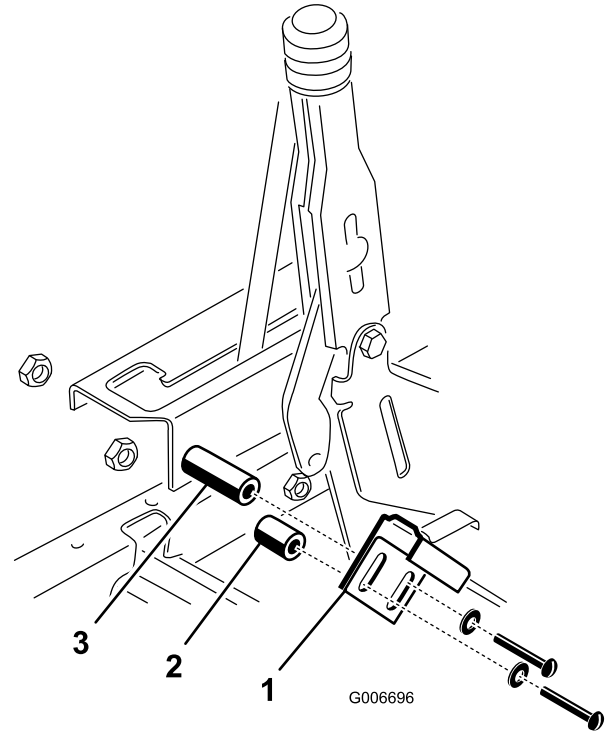


Figure 10

- Parking brake switch
- Short spacer
- Long spacer

- Plug harness connector into parking brake switch.
- 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.

- Install wire harness cover over harness' and secure to under side of vehicle with fasteners previously removed.
- 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.

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

7

Mount the Parking Brake Switch (For models with serial numbers 240000001 & up)

Parts needed for this procedure:

1	Parking brake switch
2	Screws
1	Jumper wire harness

Procedure

1. Mount the parking brake switch to the parking brake mount with two screws as shown in Figure 11.

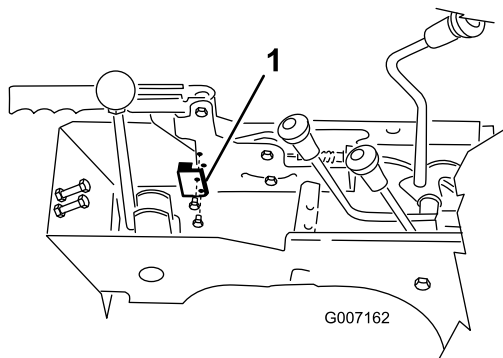


Figure 11

1. Switch
-
2. Plug jumper wire harness into switch.
 3. Plug switch wire connector into lift wire connector harness

8

Mount Rear Level Switch

Parts needed for this procedure:

1	Rear level switch bracket
1	Rear level switch w/harness

Procedure

1. Remove locknuts securing hitch plate to rear axle (Figure 12). Loosely mount rear harness switch bracket to rear axle with locknuts removed.

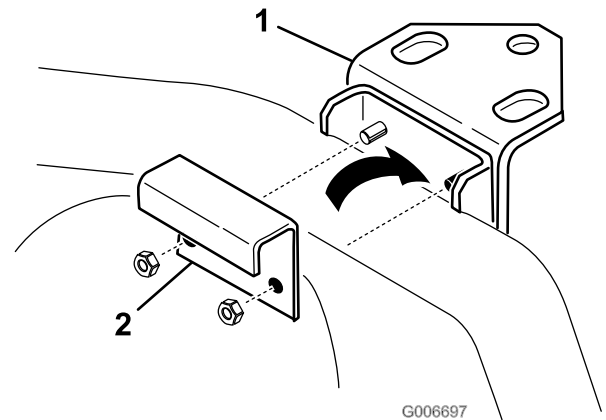


Figure 12

1. Hitch plate
 2. Switch bracket
-
2. Make sure tires are inflated to proper specifications.
 3. Using a carpenter's level, level switch bracket and secure locknuts. Use caution not to damage switches when tightening nuts.
 4. Route switch harness forward, along shift cable to left side of machine. Secure harness to shift cable with cable ties.

9

To Mount Lift In Forward Position On Vehicle Frame

Parts needed for this procedure:

2	Reinforcing Plate
4	Flange HD. Capscrew 3/8-16 x 1"
2	Flangenut 3/8-16

Procedure

1. 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 13), etc.

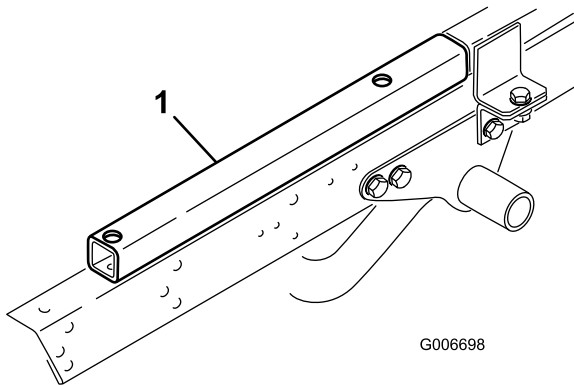


Figure 13

1. Hitch frame extension tube

2. Locate and remove the threaded insert from the mounting hole in left and right vehicle frame channels, as shown in Figure 14.

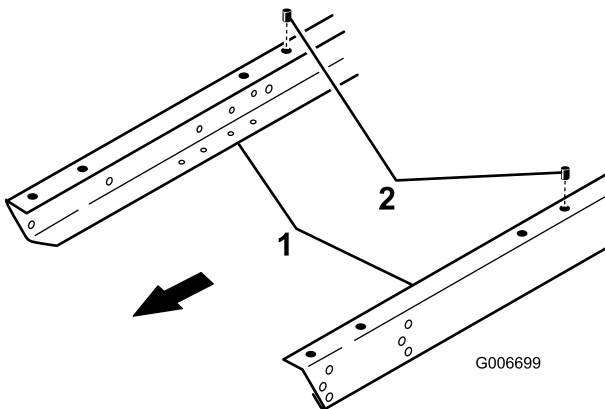


Figure 14

1. Vehicle frame channel
2. Threaded insert

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

3. Position lift onto frame aligning mounting holes with holes in frame.
4. 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 15). Reinforcing plates to be used in rear mounting holes only.

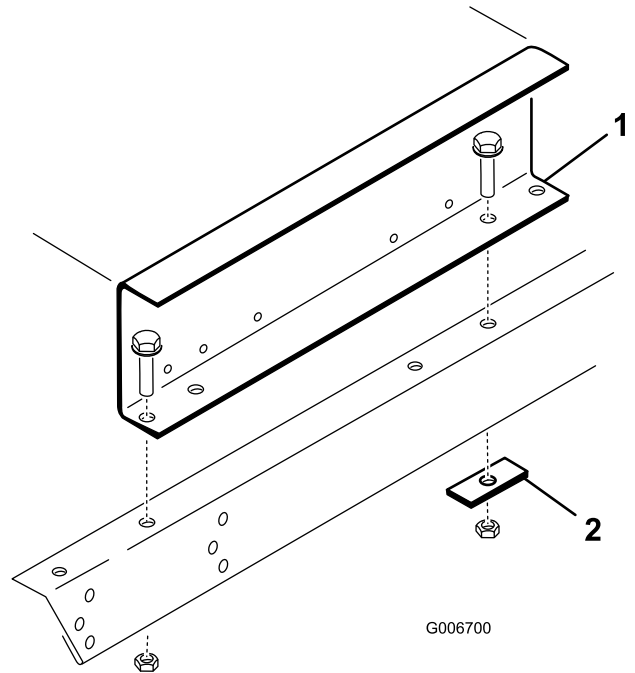


Figure 15

1. Lift
2. Reinforcing plate

10

To Mount Lift In Mid Position On Vehicle Frame

Parts needed for this procedure:

4	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

Procedure

1. 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, use next procedure.

2. Remove the flange screw and locknut, shown in Figure 16, securing each side of engine frame to vehicle frame.
3. 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 17.

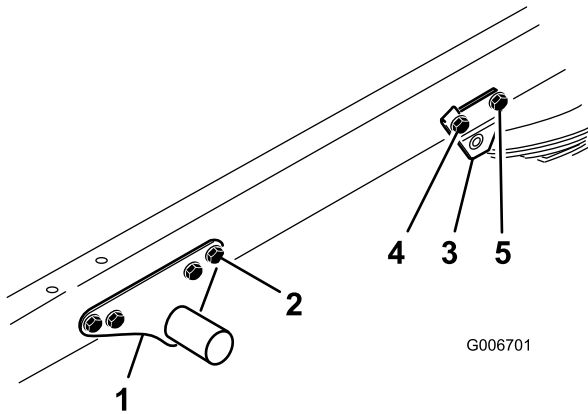


Figure 16

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

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

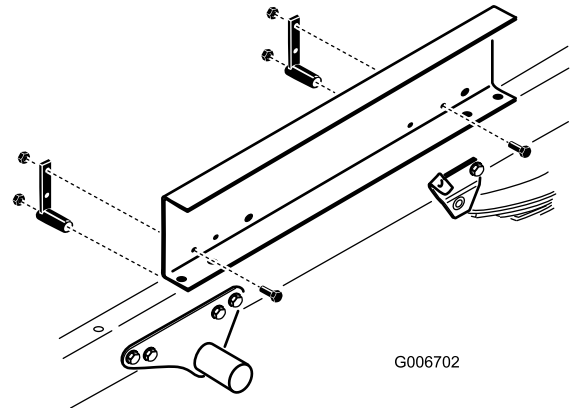


Figure 17

1. Lift
2. Lift mounting brackets

11

To Mount Lift In Mid Position On Top of H.D. Hitch Tubes

Parts needed for this procedure:

4	Flange HD. Capscrew 5/16-18 x 2-3/4"
4	Hitch Flangenut 5/16-18

Procedure

1. Using dimensions shown in Figure 18, 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.

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

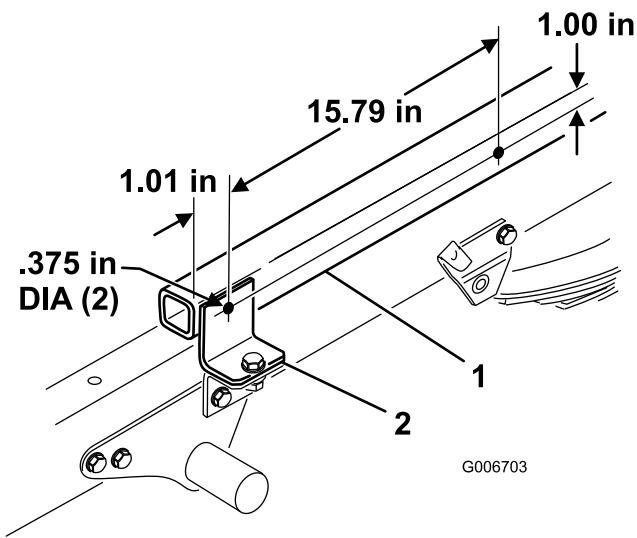


Figure 18

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

2. 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 19.
3. Position lift onto frame aligning mounting bracket holes with holes in hitch tubes.
4. Secure lift mounting brackets to H.D. Hitch Tubes with (4) 5/16-18 x 2-3/4" large flange head capscrews and flangenuts.

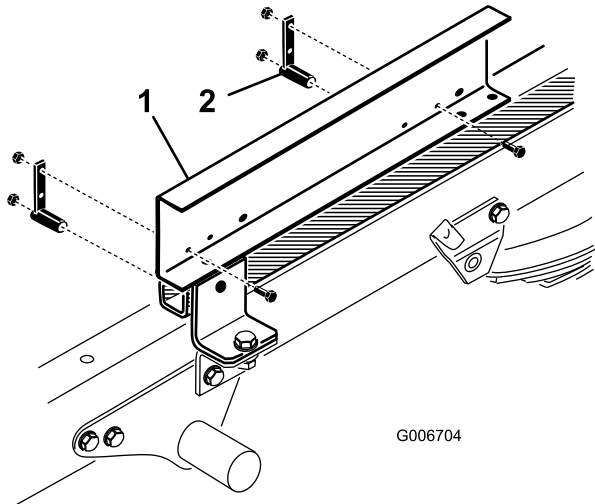


Figure 19

1. Lift 2. Lift mounting brackets

5. Connect front wire harness to connector on lift.

12

Connect Wires

No Parts Required

Procedure

1. Plug rear harness into connector from front harness.
2. Connect ground wire from lift to engine ground.
3. Remove nut from positive battery clamp, insert positive wire from lift onto cable clamp screw and loosely secure with nut.

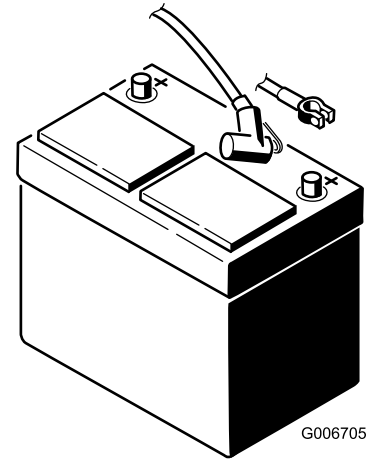


Figure 20

1. Positive lift wire 2. Positive battery cable clamp

4. Make sure wiring is clear of all hot or rotating parts. Secure with cable ties as required.

13

Reinstall Hood and Reconnect Battery

No Parts Required

Procedure

1. Reinstall hood to frame.
2. Reinstall skirt, seats, seat frame and console cover plate, if applicable.
3. Reinstall overflow tube to radiator. Check coolant level and replenish, if required.

4. Reinstall positive battery cable to battery.
5. Slide rubber boot over positive terminal to prevent possible short-out from occurring.

14

Mount Circular Bubble Level

Parts needed for this procedure:

1	Circular Bubble Level
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Procedure

Affix circular level to top of console cover positioning as shown in Figure 21.

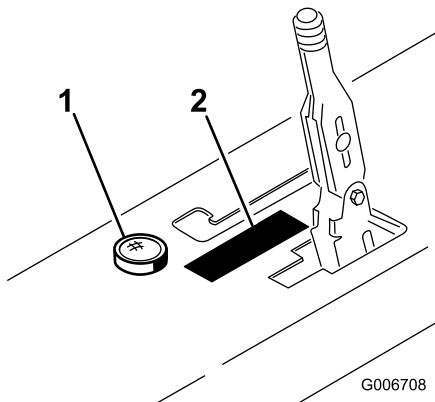


Figure 21

1. Circular level
2. Operation decal

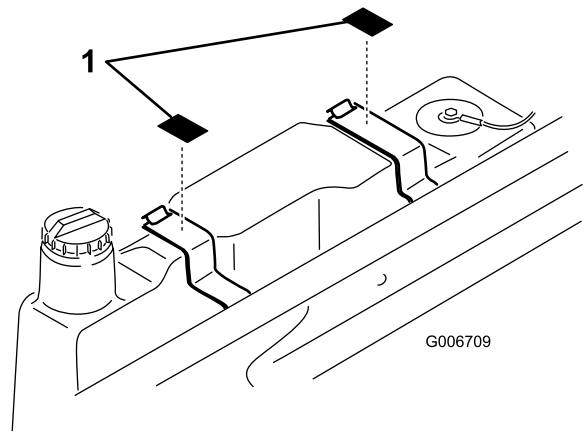


Figure 22

1. No—Step decal
2. Affix a "No Step" decal to top of each fuel tank mounting strap, as shown in Figure 22.

15

Install Decals

Parts needed for this procedure:

1	Operation Decal
2	No Step Decal

Procedure

1. Affix operation decal to top of console cover positioning as shown in Figure 21.

Product Overview

Controls

Up Button

Press "UP" button to raise lift (Figure 23).

Down Button

Press "DOWN" button to lower lift (Figure 23).

Key Switch

Rotate key switch to authorize use of lift. Remove key from lift pendant control switch to prevent operation when unattended. (Figure 23).

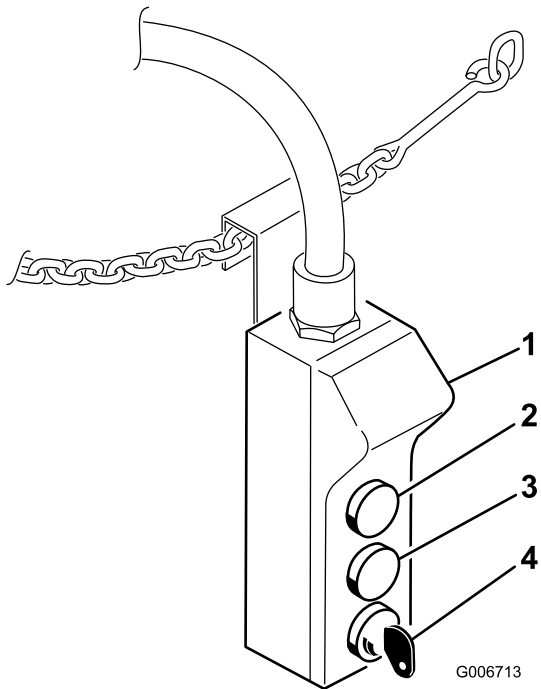


Figure 23

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

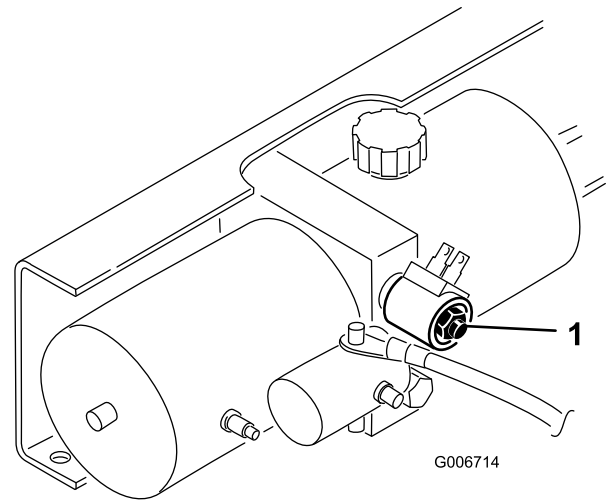


Figure 24

1. Emergency lowering valve knob

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 24).

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 25).

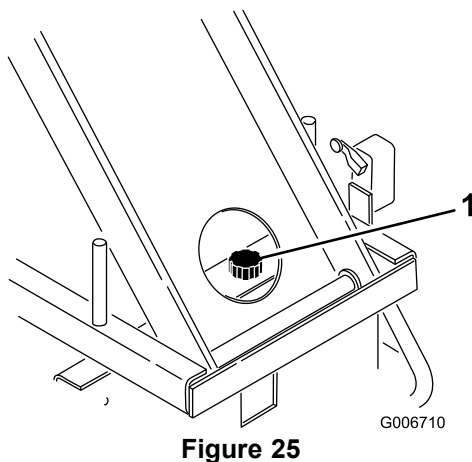


Figure 25

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 26).

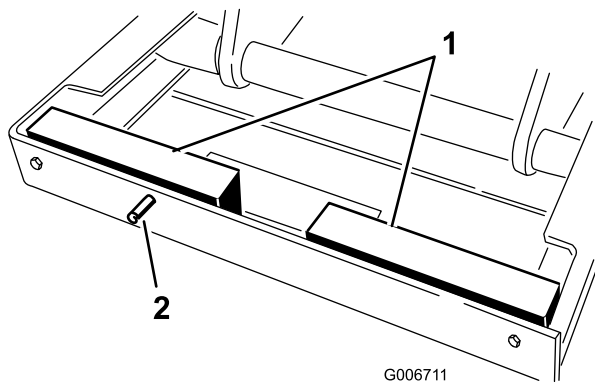


Figure 26

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 27).

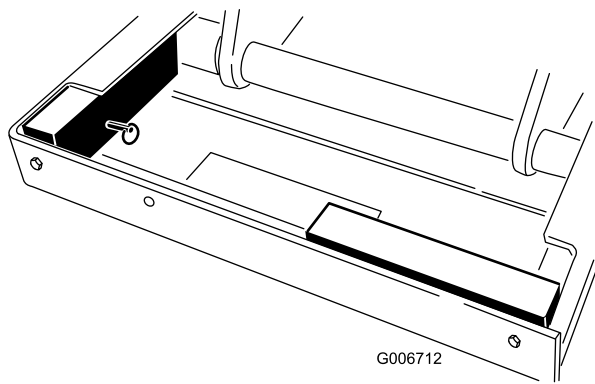


Figure 27

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 28).



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.

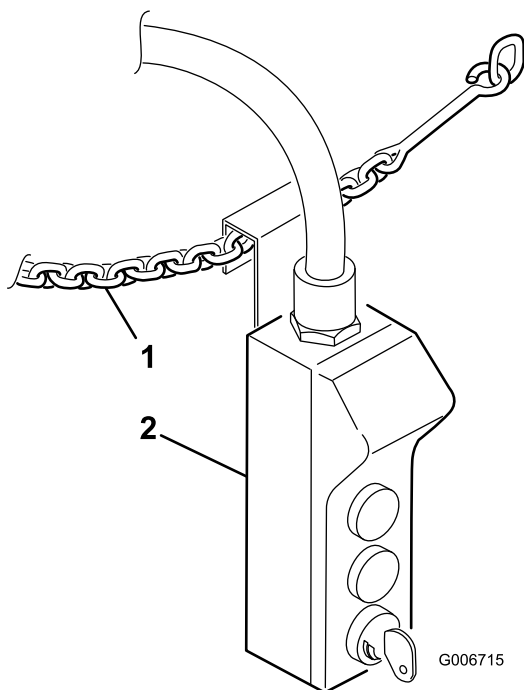


Figure 28

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.

⚠

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.

⚠

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.

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 the platform lift during a thunder or lightning storm.
- Lower the 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 29) 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.

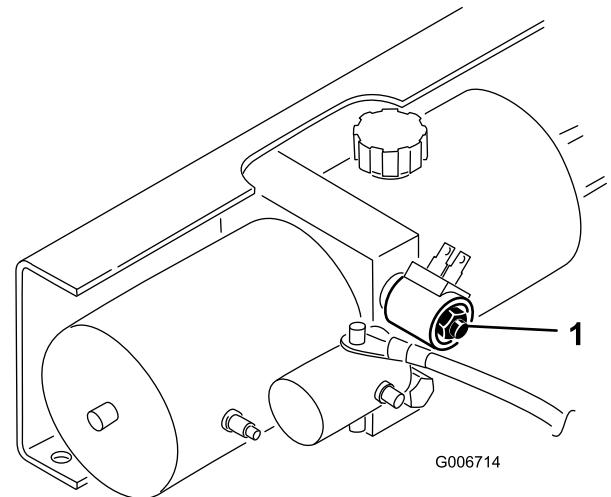


Figure 29

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.

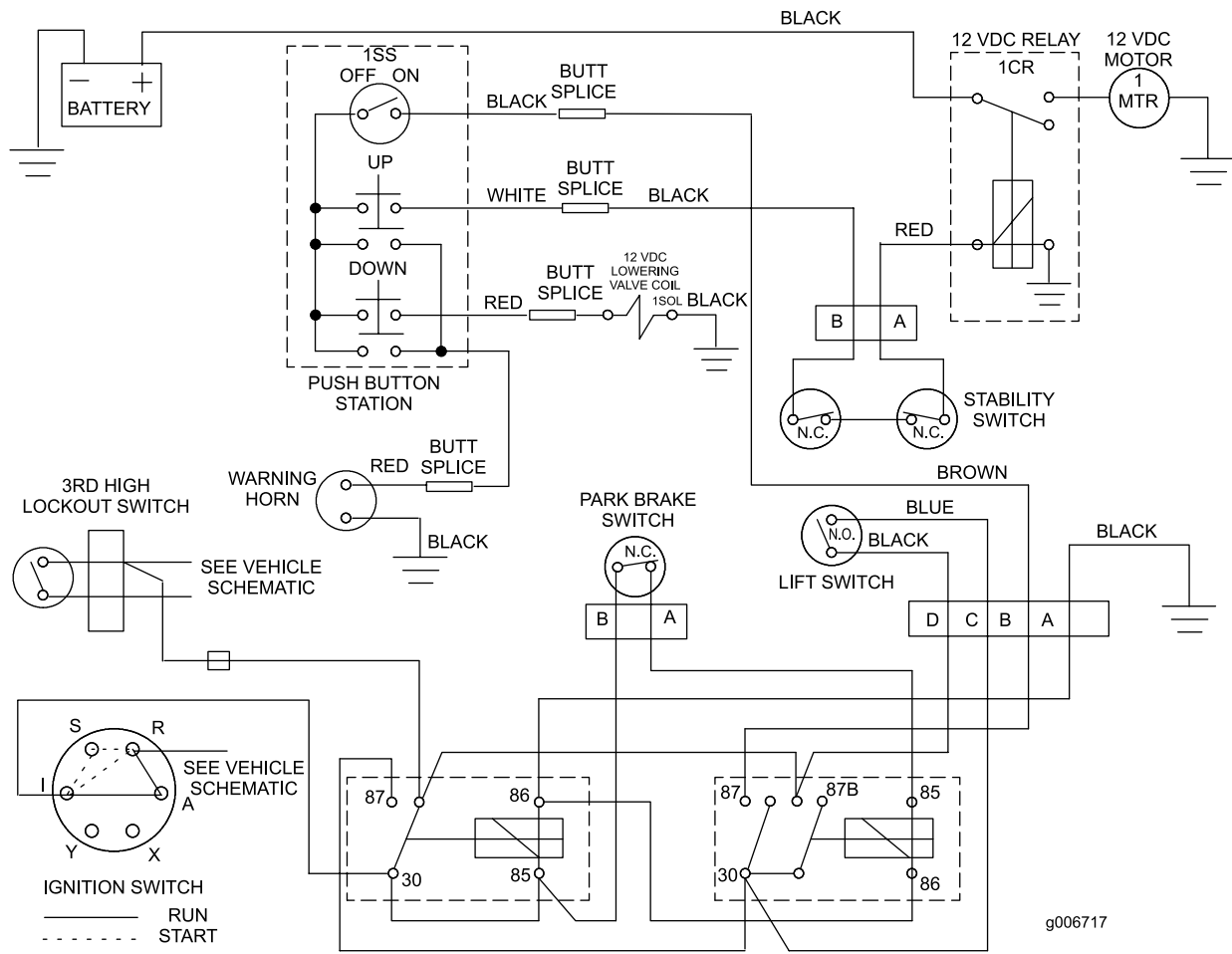
2. Keep top of battery clean by washing periodically with a brush dipped in ammonia or bicarbonate of soda solution. Flush the top surface with water after cleaning. Do not remove the fill cap while cleaning.
3. Battery cables must be tight on terminals to provide good electrical contact.
4. If corrosion 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



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(Rev. A)



Count on it.