



MODEL NO. 30727-90001 &amp; UP

## INSTALLATION INSTRUCTIONS

# REMOTE LOCK & LIFT KIT GROUNDMASTER 3000® w/ Contour 82 Deck



## CAUTION

**Before servicing or making adjustments to the machine, stop engine and remove key from the switch.**

**NOTE:** The Lock & Lift Kit may be installed on any GM3000 traction unit and Contour 82 deck with serial numbers 70001 and up.

**NOTE:** Right and left are as viewed from the operator's position.

1. Set parking brake, rotate ignition key to RUN position and lower deck to floor. Return ignition to OFF position and remove key from switch.
2. Remove battery cover. Disconnect negative battery cable from battery.
3. Remove fuse access panel, throttle knob and control panel from console (Fig. 1).
4. Remove (2) plastic punch-outs from front of console (Fig. 1).

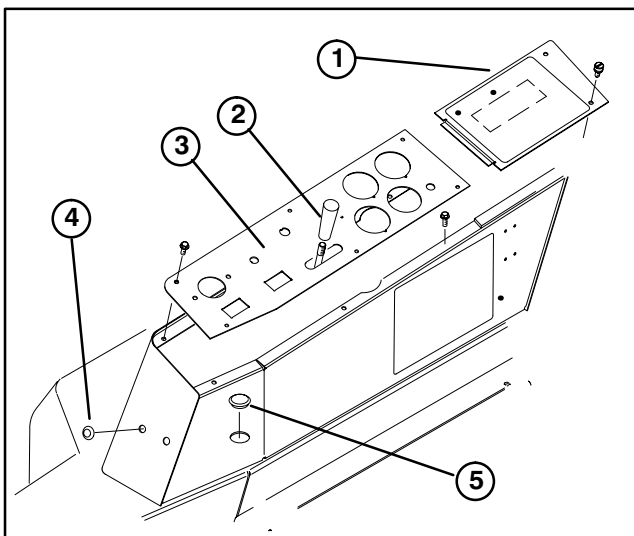


Figure 1

- |                  |                  |
|------------------|------------------|
| 1. Access panel  | 4. Punch-out (2) |
| 2. Throttle knob | 5. Metal plug    |
| 3. Control panel |                  |

5. Remove metal plug from hole in bottom of console (Fig. 1).

6. Using dimensions shown in figure 2, locate, mark and drill a 1/4" dia. pilot hole in bottom of console. Using a hole saw, drill a 1-1/2" dia. hole at the pilot hole location. Deburr hole.

7. Using dimensions shown in figure 2, locate, mark and drill a 1-1/2" dia. hole in front of console. Deburr hole.

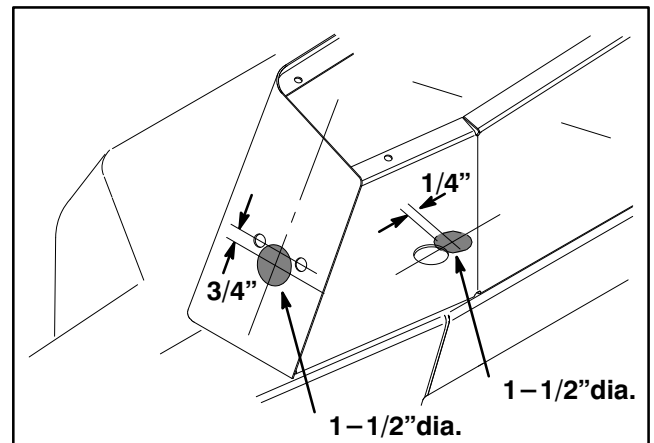


Figure 2

8. Using dimensions shown in figure 3, locate, mark and drill (2) 9/32" (.281") dia. holes in side of console.

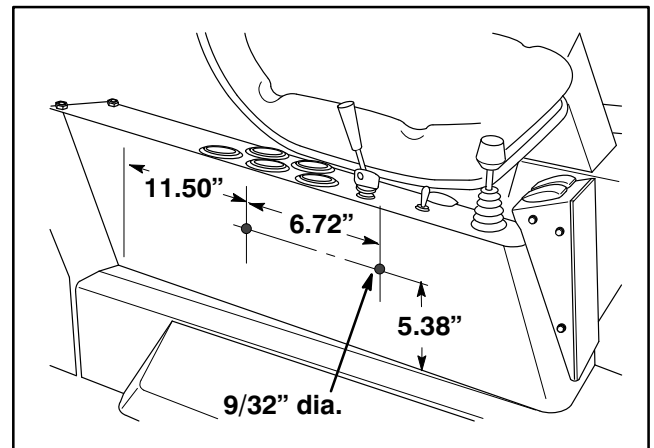


Figure 3

**NOTE:** To ease the installation and routing of the wire harness, remove right front wheel from traction unit. Traction unit to be properly supported on jack-stands and wheels cocked.

9. Mount relay plate to inside of console with (2) 1/4–20 x 3/4" lg. capscrews and locknuts. Screw heads to be positioned outside of console. (Fig. 4)

10. Open hood.

11. Route engine end of wire harness through rear hole in console (Fig. 4). Green wire from harness to remain in console area.

12. Route front (winch) end of harness through hole in bottom of platform (Fig. 4).

13. Route switch end of harness through hole in console and secure 3 terminal connector between top and bottom harness (Fig. 4).

14. Remove nut securing green wire to terminal on seat capacitor (Fig. 4). Connect small green wire from harness to seat capacitor with nut removed (Fig. 4).

15. Remove slack from harness's.

16. Route engine end of wire harness between engine and front black engine shroud and above frame cross tube (Fig. 4).

17. Remove nut from frame grounding stud (Heavy gauge wire from engine block). Secure harness

ground wire (Fig. 4) to grounding stud with nut removed.



## WARNING

**Make sure negative battery cable is removed from negative post of battery.**

18. Remove nut and (2) red wires from positive stud on starter solenoid (Fig. 4). Do not remove large battery wire from stud.

19. Connect breaker harness to engine end of wire harness (Fig. 4).

20. Secure both breaker harness wires and both red solenoid wires to copper bus bar with a 5/16–18 x 1–1/4" lg. capscrew and locknut. Secure as shown in figure 4. Install terminal boot over wires.



## WARNING

**Be sure to orient bus bar away from any engine or frame members to avoid short circuits.**

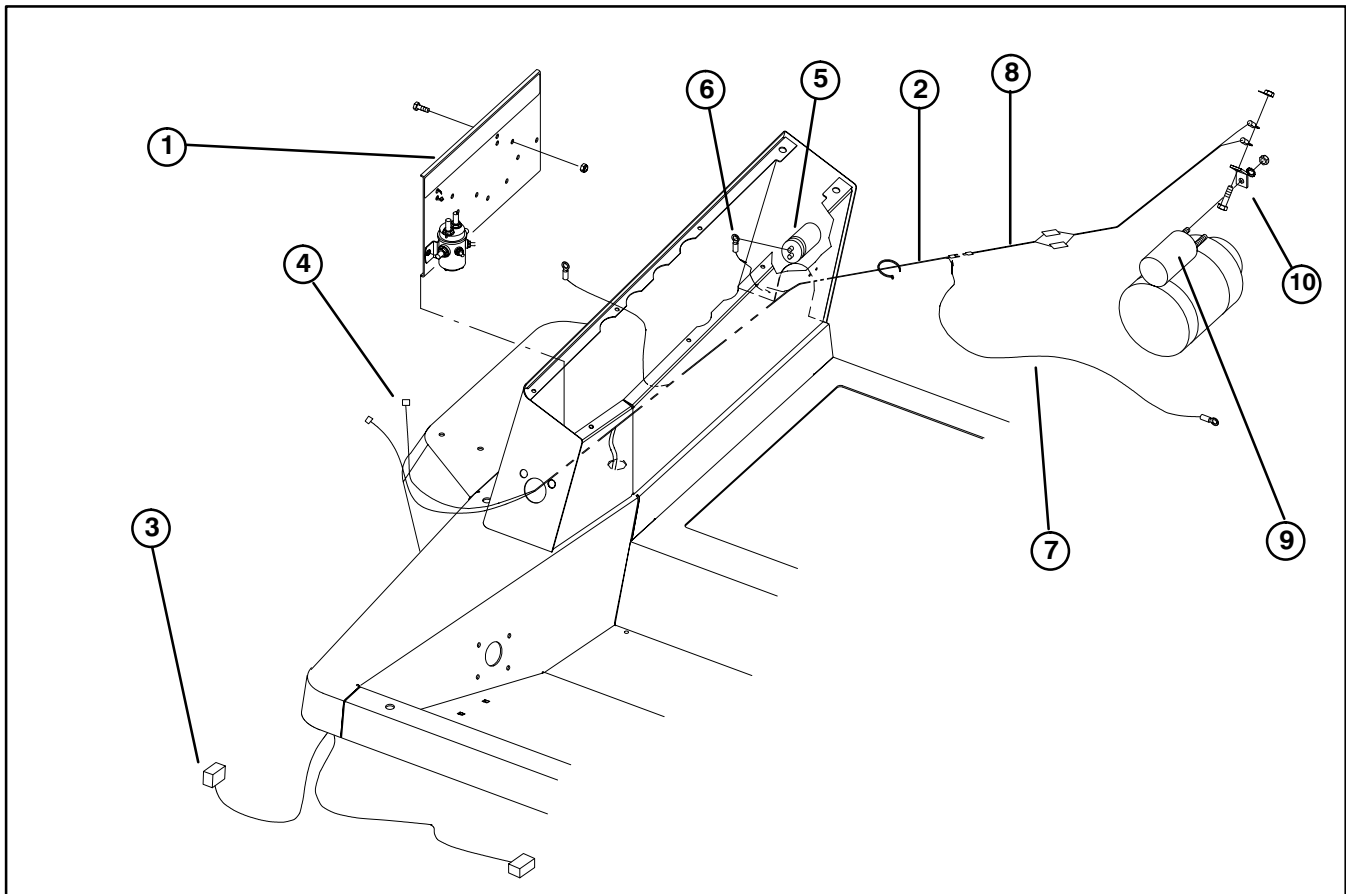


Figure 4

1. Relay plate
2. Wire harness (engine end)
3. Wire harness (winch end)
4. Wire harness (switch end)
5. Seat capacitor

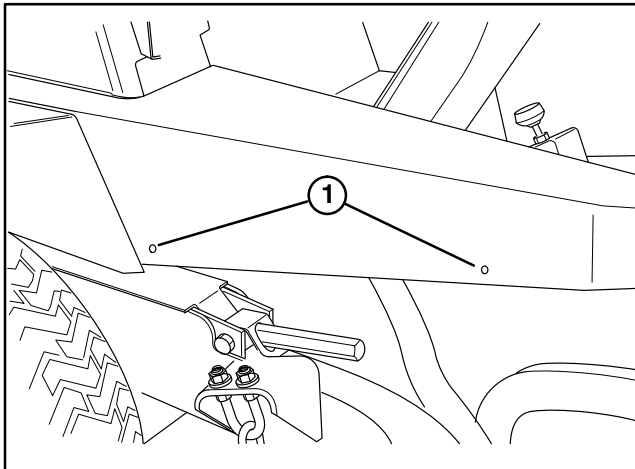
6. Green harness wire
7. Harness ground wire
8. Breaker harness wire
9. Starter solenoid
10. Copper bus bar

21. Secure large battery wire and copper bus bar to starter solenoid stud with nut previously removed (Fig. 4).

22. Secure terminal boot over terminals with plastic cable ties. Insure boot does not contact exhaust manifold.

23. Remove slack from engine and breaker harness's and secure them to frame members with plastic cable ties.

24. Route winch harness to front right corner of operators platform. On side of platform, mark approximate location of snap-thru harness ties (Fig. 5).

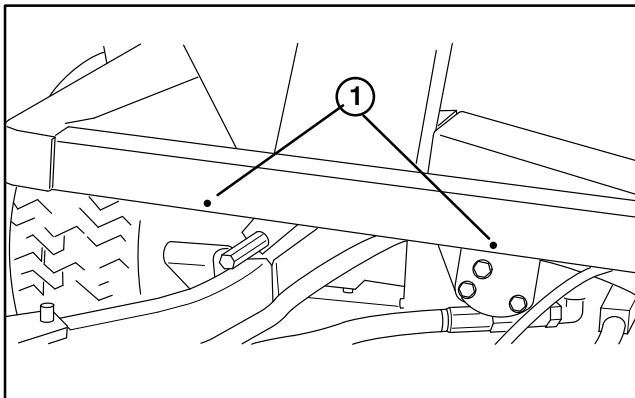


**Figure 5**  
1. Mounting holes

25. At locations marked, drill (2) 7/32" (.219) dia. holes. Push snap-thru harness ties into holes

26. Route remaining portion of harness along the inside front edge of platform. On front of platform, mark approximate location of snap-thru harness ties (Fig. 6).

**NOTE:** Right hand winch connector wire is shorter than left.



**Figure 6**  
1. Mounting holes

27. At locations marked, drill (2) 7/32" (.219) dia. holes. Push snap-thru harness ties into holes

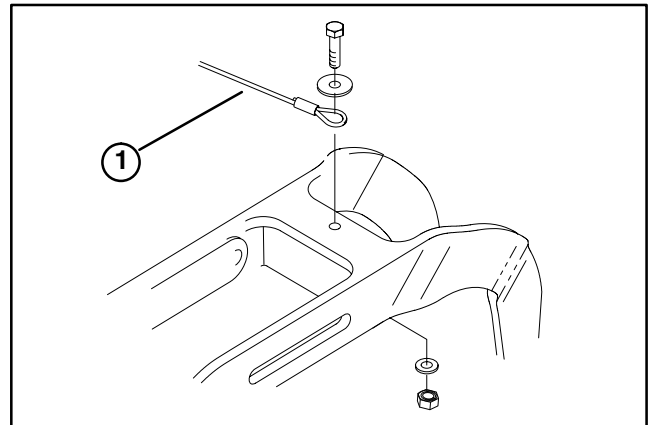
**NOTE:** Holes to be located near bottom edge of platform to allow clearance with platform frame member.



## WARNING

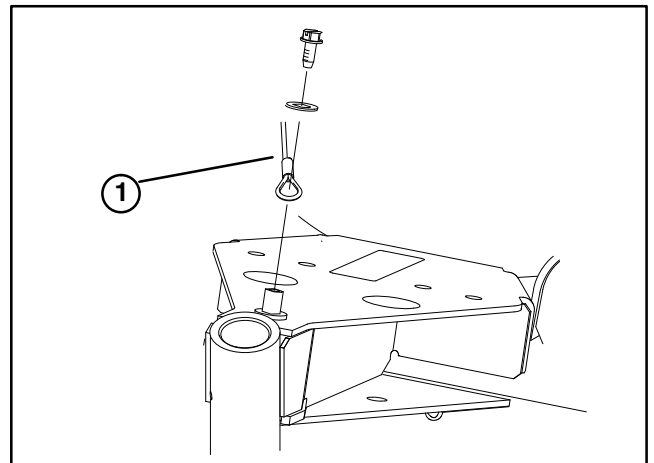
Make sure harness's do not contact any hot or moving parts.

28. Remove fasteners securing existing lift cables to rear castor castings (Fig. 7).



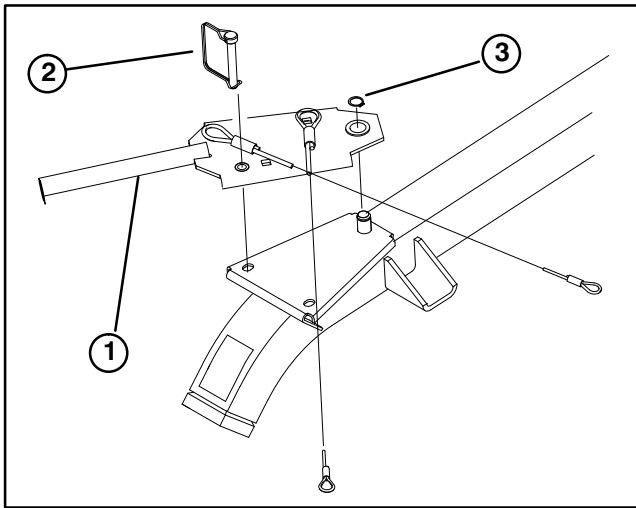
**Figure 7**  
1. Lift cable

29. Remove fasteners securing lift cables to chamber studs (Fig. 7). Retain fasteners for re-installation.



**Figure 8**  
1. Lift cable

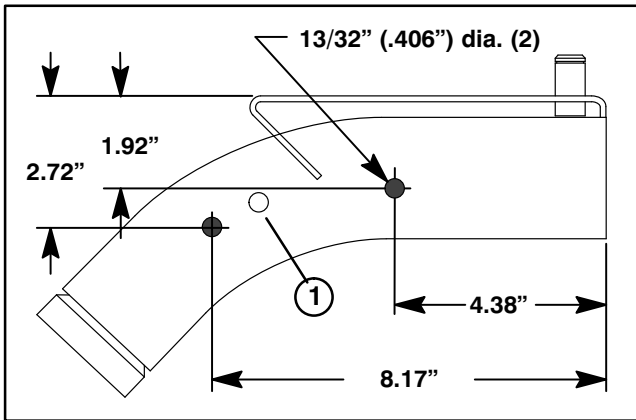
30. Remove retaining rings securing transport levers to lift arm pivot plate (Fig. 9). Remove pivot levers and cables.



**Figure 9**

1. Transport lever
2. Snapper pin
3. Retaining ring

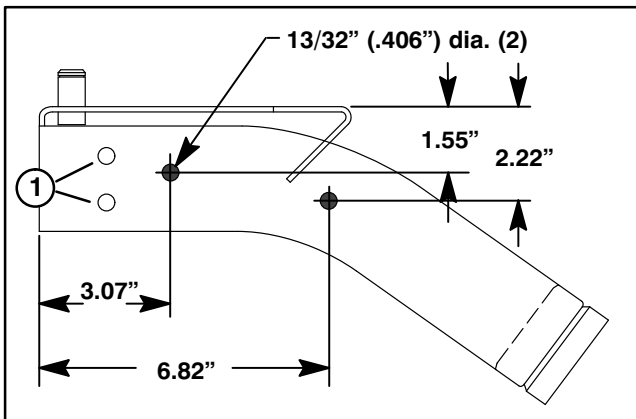
31. Using dimensions shown in figure 10, locate, mark and drill (2) 13/32" (.406) dia. holes through both walls of left lift arm. Deburr holes.



**Figure 10**

1. For use with latch kit

32. Using dimensions shown in figure 11, locate, mark and drill (2) 13/32" (.406) dia. holes through both walls of right lift arm. Deburr holes.



**Figure 11**

1. For use with latch kit

33. Install a mounting bracket to each lift arm with (2) 3/8-16 x 3-1/2" lg. capscrews, washers and lock nuts as shown in figure 12.

34. Mount left winch motor and support bracket to lift arm mounting bracket. (Fig. 12)

35. Install left winch motor and support bracket (Fig. 12) to lift arm mounting bracket as follows:

**NOTE:** Left winch motor is orientated forward. Right winch motor is orientated rearward.

A. Loosely secure bottom of winch to lift arm mounting bracket with a 5/16-18 x 1" l.g. capscrew and lock nut.

B. Loosely secure top of winch to mounting bracket and support bracket with a 5/16-18 x 1" l.g. capscrew and lock nut).

C. Insert a R-clamp onto left winch motor harness.

D. Loosely install mounting strap and R-clamp to pivot plate with (2) 3/8-16 x 1" l.g. capscrews, washers (2 ea.) and lock nuts. R-clamp to be positioned as shown in figure 12.

E. Tighten all fasteners.

36. On end of winch, pull out and rotate 'Free Spool' knob to disengage winch. Pull 10" of strap off spool. Return 'Free Spool' knob to engaged position.

37. Insert strap loop thru slot in winch cover (Fig. 12).

38. Insert bottom tab of winch cover into slot in mounting bracket. Secure top of winch cover to mounting bracket with (2) 1/4-20 x 3/4" l.g. capscrews and lock nuts.

39. Install 1/4-20 x 5" l.g. capscrew and nut through 'Free Spool' restriction hole. (Fig 12) This prevents accidental release of spool while servicing.

40. Repeat procedure on right winch motor.

41. Insert strap loop thru slot in stop plate (Fig. 12).

**NOTE:** Wide side of plate to be positioned upward.

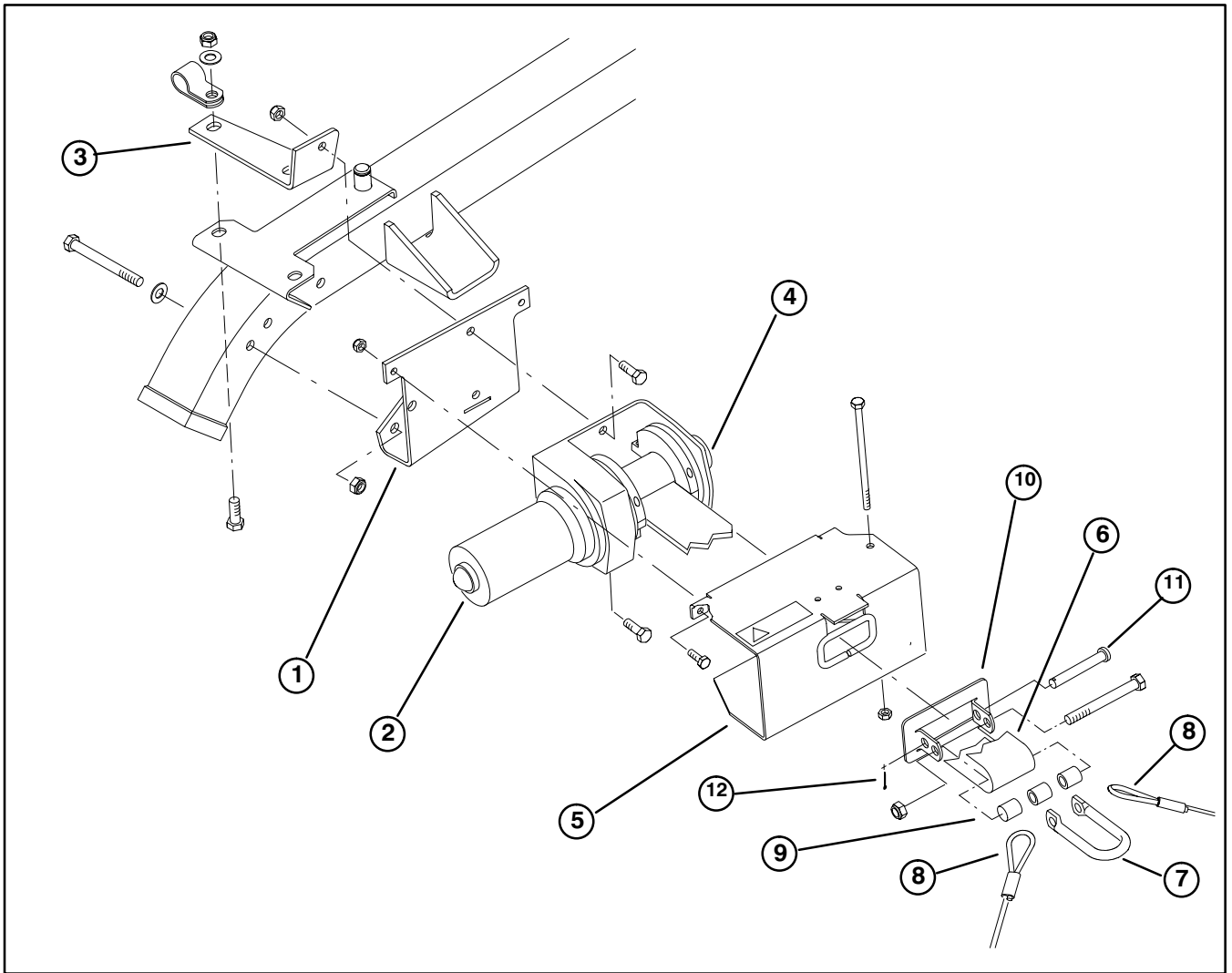
42. Secure strap to stop plate with a 3/8 x 2-3/4" l.g. clevis pin and cotter pin. Use inner set of holes in stop plate.

43. Assemble left front (19" l.g.) lift cable and left rear (14" l.g.) lift cable onto shackle. (Right front - 17-3/8" l.g. & right rear - 18" l.g.)

44. Mount the shackle w/cables and (3) spacers to stop plate with a 3/8-16 x 3-1/2" l.g. capscrew and lock nut. Spacers to be positioned on each side of and between shackle.

45. Connect left harness to winch motor connector.

46. Repeat procedure on right side of machine.



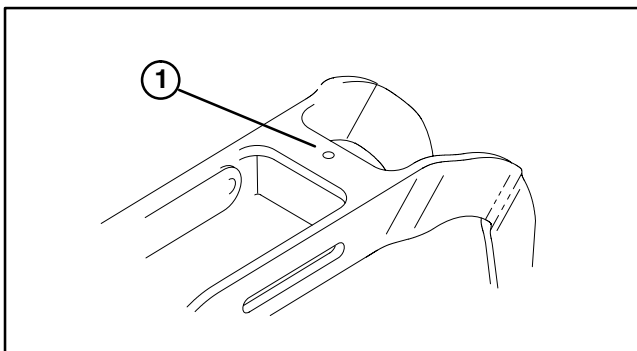
**Figure 12**

- 1. Winch mounting bracket
- 2. Winch
- 3. Support bracket
- 4. Free Spool knob

- 5. Winch cover
- 6. Strap
- 7. Shackle
- 8. Lift cable

- 9. Spacer (3)
- 10. Stop plate
- 11. Clevis pin
- 12. Cotter pin

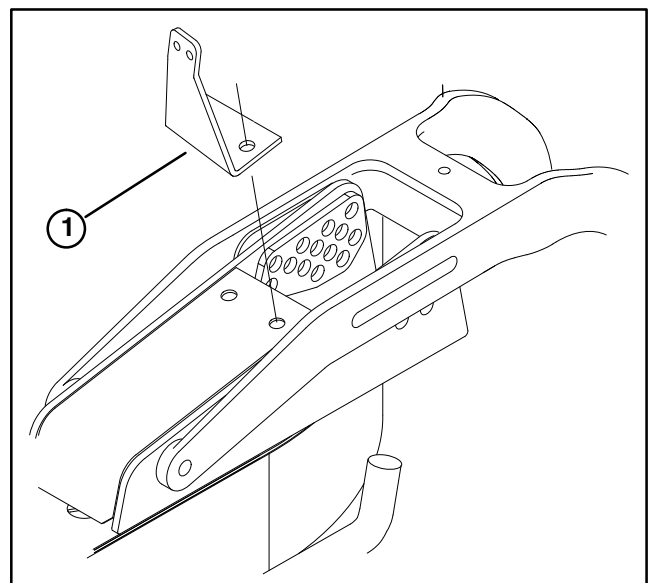
47. Drill existing 9/32" dia. hole on each rear castor casting to 13/32" and deburr (Fig. 13).



**Figure 13**

- 1. Drill to 13/32" dia.

48. Position spring bracket on top of rear castor height-of-cut plate aligning back edge of bracket with plate (Fig. 14). Using spring bracket as a template, locate, mark and drill (2) 13/32" dia. holes in each rear castor height-of-cut plate.

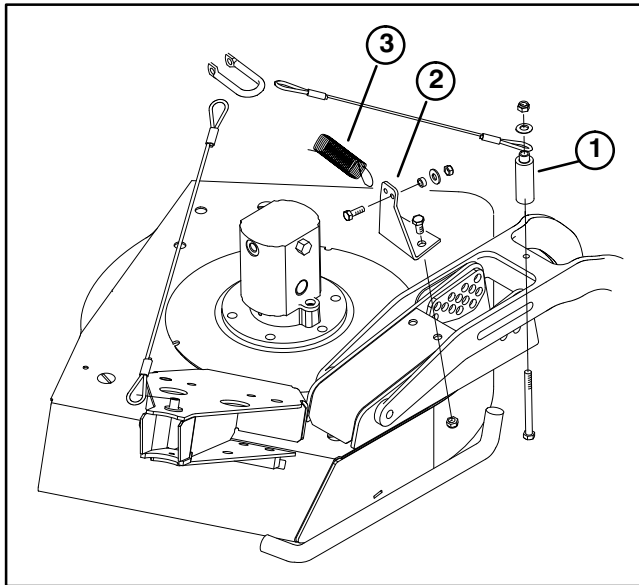


**Figure 14**

- 1. Spring bracket

49. Mount spring bracket to castor height-of-cut plate with (2) 3/8-16 x 1" lg. capscrews and locknuts (Fig. 15).

50. Mount spacer, left rear lift cable and washer to rear castor casting with a 3/8-16 x 4-1/4" lg. capscrew and lock nut (Fig. 15). Capscrew head to be positioned under casting.



**Figure 15**

1. Spacer
2. Spring bracket
3. Spring

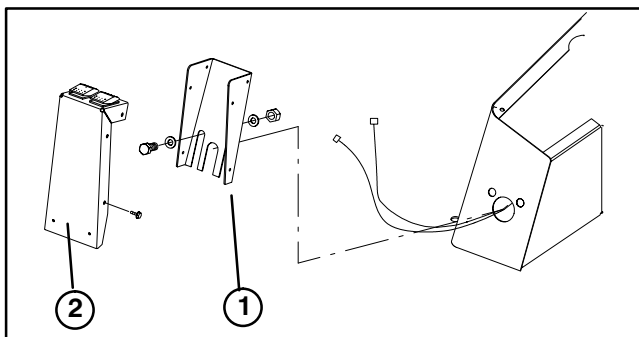
51. Mount left front lift cable to existing chamber stud with 3/8-16 x 1/2" lg. capscrew and washer previously removed (Fig. 15).

52. Mount a washer and spacer on left spring bracket with a 5/16-18 x 1" capscrew and lock nut (Fig. 15).

53. Hook one end of spring onto shackle and other end over spacer on spring bracket (Fig. 15).

54. Repeat procedure on right side of machine.

55. Install switch box mounting bracket to console with (2) 7/16-14 x 1" capscrews, washers and locknuts (Fig. 16). Position a washer on each side of joint. Adjust height and rotation of switch control bracket to operators preference.



**Figure 16**

1. Switch box mounting bracket
2. Switch

56. Connect harness switch connectors to the switches. Connector with Orange and Brown wires installs on left switch and connector with Blue and Red wires installs on right switch.

57. Mount switch cover to mounting bracket with (6) self tapping screws.

58. Verify all connections are secure.

59. Re-connect negative battery cable to negative battery post and secure.

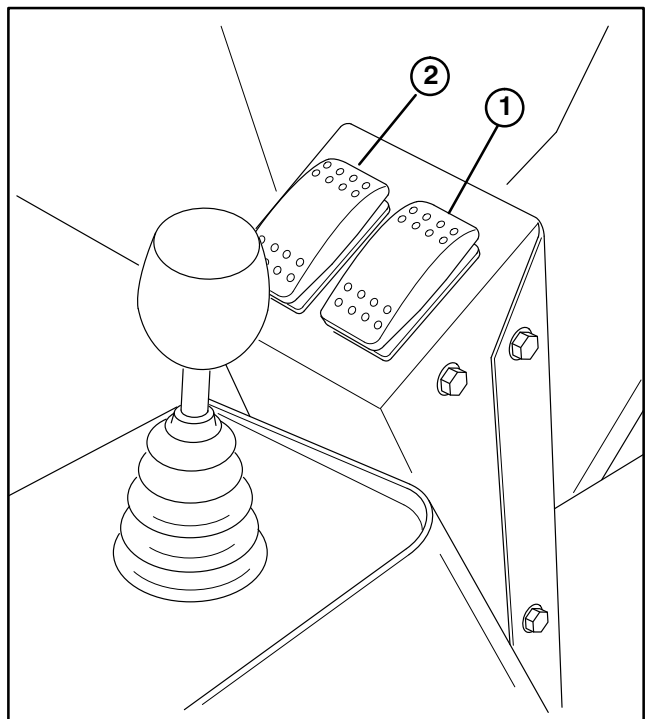
60. Close Engine shroud.

61. Re-install control panel, throttle knob and fuse access panel.

## OPERATION

**NOTE:** Operator must be in the seat with the key in the run position to actuate lift winches.

1. Depress rear of right switch to pull in cable and raise/lock right chamber.



**Figure 17**

1. Right switch
2. Left switch

2. Depress rear of left switch to pull in cable and raise/lock left chamber.

3. Start Engine and raise deck.

4. Depress front of right or left switch to lower chamber to floor. Hold switch until tension spring is collapsed (this is all the farther the cable needs to be released to get full range of floatation).

5. Cycle between lower and raise a couple times to align winch strap.



## WARNING

Winch motor can pull 100 or more amperes in stall mode. Components are specified to accommodate this high current load, but care should be taken when servicing this equipment.



## WARNING

Avoid prolonged actuation of winch motor in stall mode (More than 3 seconds).

**NOTE:** Kit is provided with thermo-breaker protection. If motors begin to intermittently malfunction, check for continuity of thermo-breaker harness (no continuity requires thermo-breakers or complete thermo-breaker harness to be replaced).

## TROUBLE SHOOTING

Lower and Raise is reversed

- Switch body installed backward in switch cover. Remove switch cover and disconnect switch connector by depressing locking tab. Hold in switch locking wing's and push switch body out of cover. Reverse switch and re-install in cover.

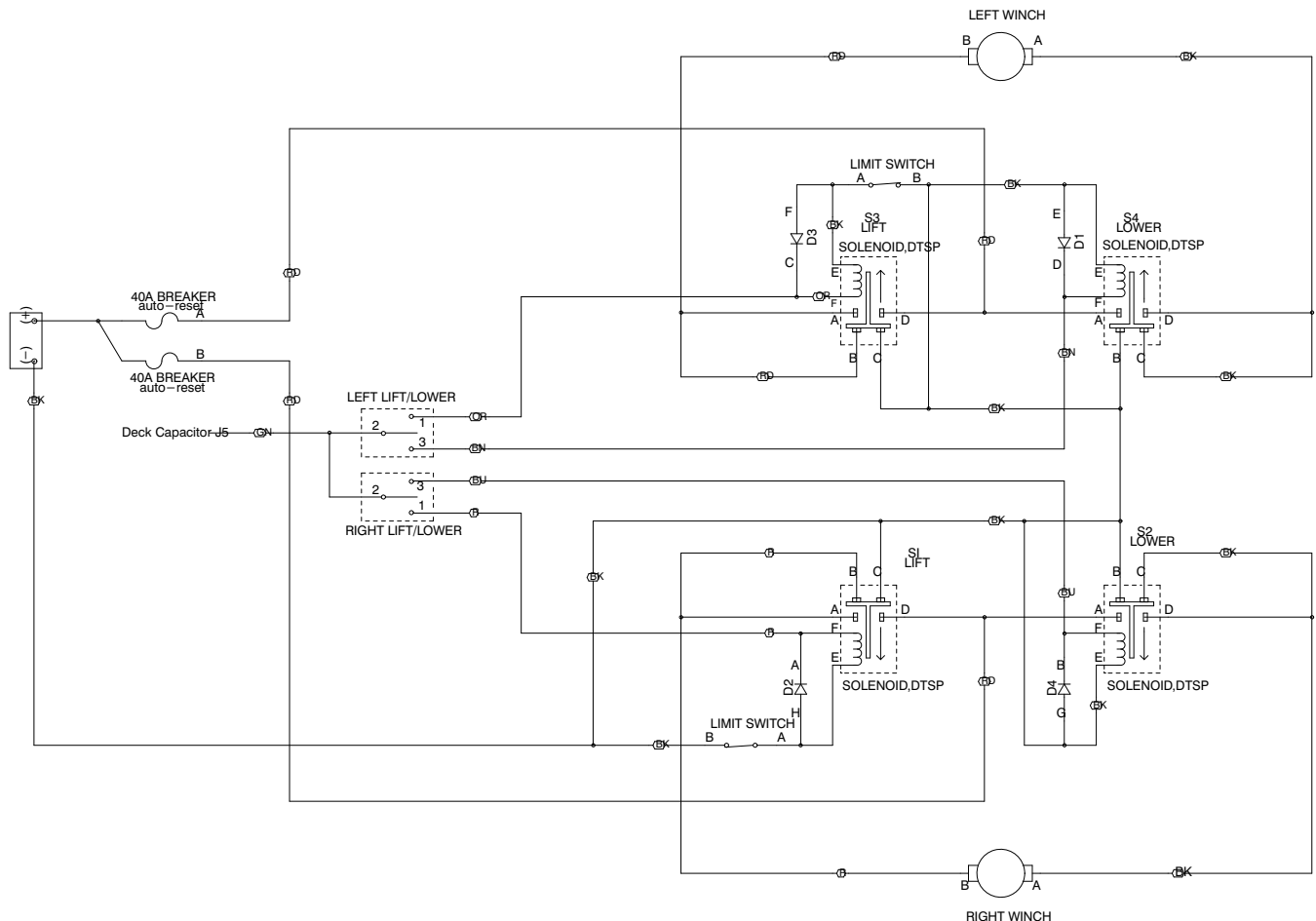
Left and Right is reversed

- Switch wire connections assembled backward. Remove switch cover and disconnect switch connectors. Re-connect in opposite order.

Winch will not lower

- If a lift strap is spooled all the way out and re-wound in the lowering direction, the limit switch will prevent the chamber from being lowered. Disconnect the limit switch connector and jump the terminals. Depress the raise/lower switch to the raise direction and un-spool the entire strap. Continue to depress the raise switch and re-spool strap in proper direction. Re-connect limit switch connector.

## ELECTRICAL SCHEMATIC



T-3274

TPS

