



INSTRUCTION BULLETIN

No. 3554

Machines: 800, 810

Published: 08–2007

Rev: 03

NOTE: DO NOT discard Parts List from Instruction Bulletin. Place Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for **kit number 70696 / 380640**

SYNOPSIS:

This kit contains the parts needed to install a backup alarm on 800/810 machines.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: None

(Estimated time to complete: 2 hours)

PREPARATION:

1. Park the machine on a clean level surface, turn off the machine, remove the key, and set the parking brake..

FOR SAFETY: Before leaving or servicing machine, stop on level surface, set parking brake, turn off machine, and remove key.

2. Open the engine cover, engine compartment side door, and rear door.

3. Disconnect the battery cables from the batteries.



WARNING: Always disconnect battery cables from machine before working on electrical components.

INSTALLATION:

1. **MACHINES WITHOUT MOUNTING HOLES FOR LINTEL MOUNTED ALARM ONLY:** Drill three 9/32" holes in rear left corner of operator compartment panel. Refer to Fig. 1.

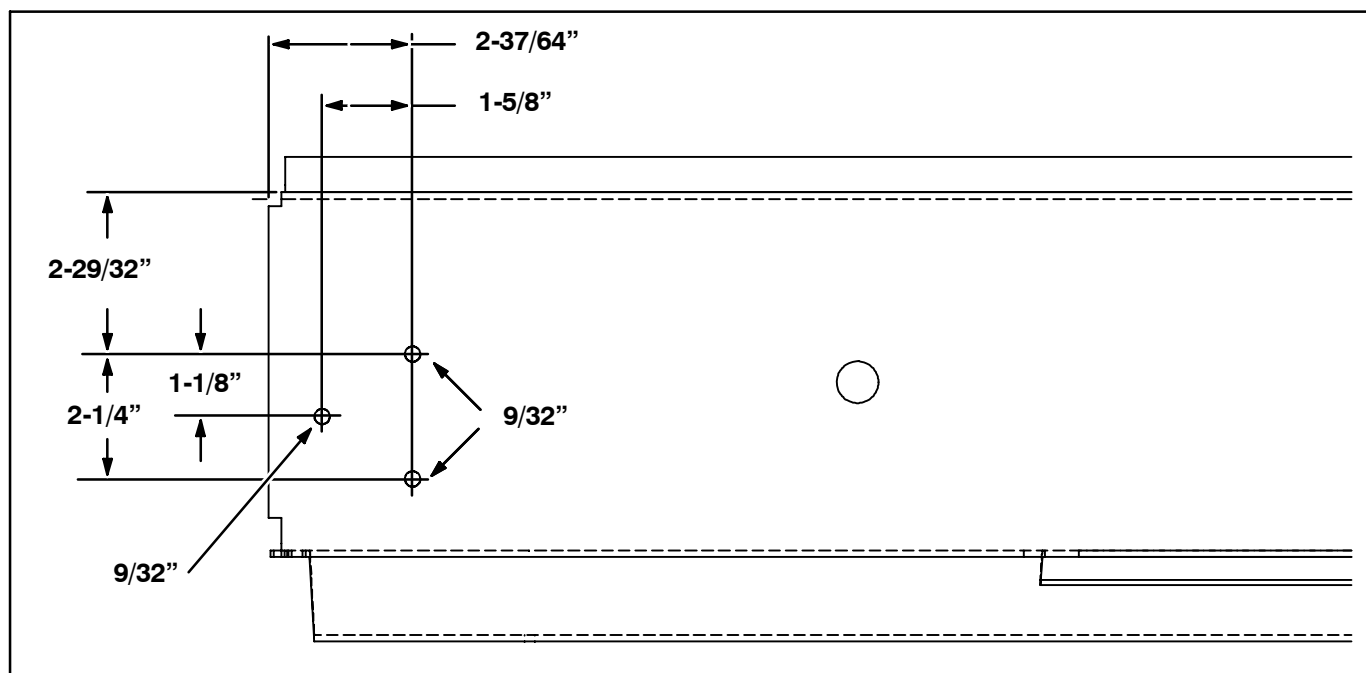


FIG. 1-Hole Locations in Machines Without Overhead Guard or Cab

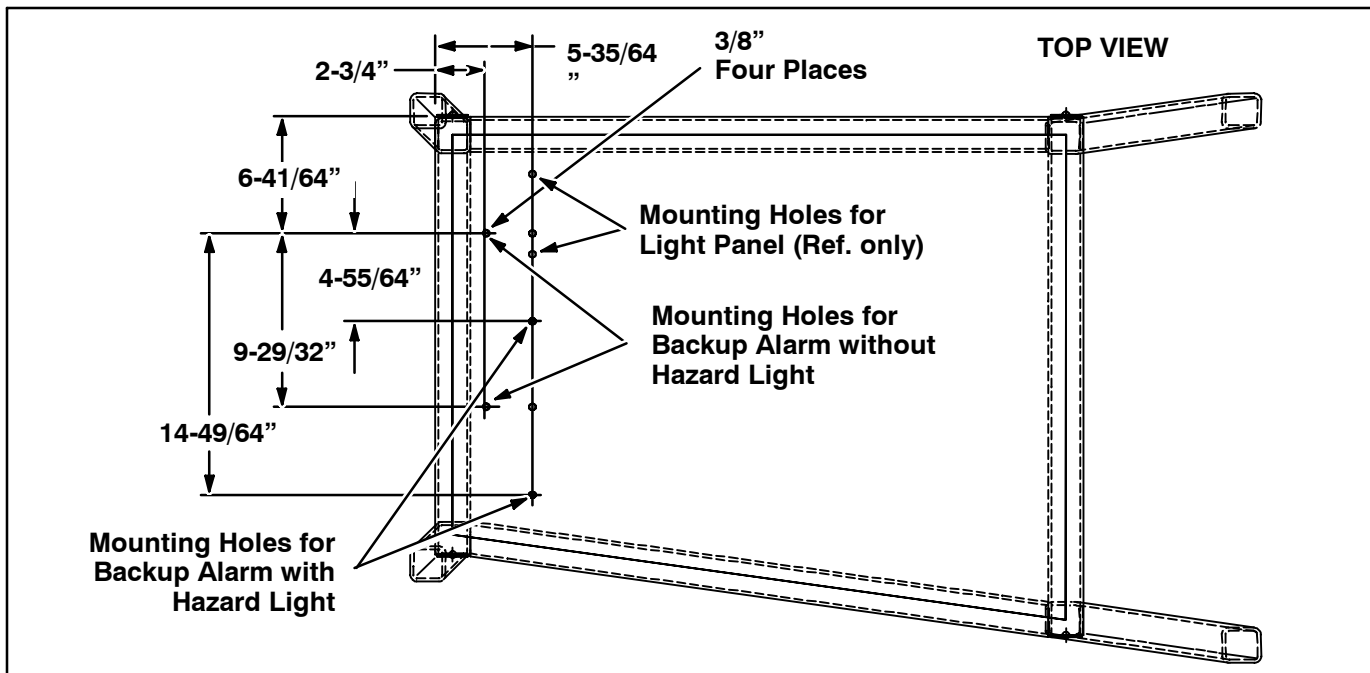


FIG. 2-Hole Locations in Machines With Overhead Guard or Cab

2. **MACHINES WITHOUT MOUNTING HOLES FOR OVERHEAD GUARD MOUNTED ALARMS ONLY:** Drill four 3/8" holes in rear left corner of the operator compartment panel. Refer to Fig. 2.

INSTALLATION: Assemble backup alarm kit to be mounted to the lintel, overhead guard, or cab and install the alarm wire harness (all machines).

NOTE: Refer to Fig. 4, Fig 5, Fig. 6, or Fig. 7 for locations of parts assembled in Step 1 through Step 5.

1. Use a hex screw (14), lock washer (15), and hex nut (16) to install the flasher bracket (12) onto the backup alarm mounting box (1).
2. Install flasher (13) onto flasher bracket (12).
3. Use hardware included with the spotlight (9) to install the spotlight onto the backup alarm mounting box (1).
4. Use two hex screws (11), flat washers (6), and hex flange nuts (7) to install the alarm assembly (10) onto the backup alarm mounting box (1).
5. Use two hex screws (14) and flat washers (27) to install switch (17) onto the propel cable mounting bracket (4).

FOR MACHINES NOT EQUIPPED WITH ALARM SWITCH MOUNTING BRACKET: Use existing hardware to install the mounting bracket (4) onto the propel pump.

IMPORTANT: DO NOT move pivot link from neutral position on propel pump when reinstalling existing push-pull cable on mounting bracket (4).

6. Locate the two backup alarm connectors on the taillight wire harness. Refer to Fig. 3 for approximate location of the two connectors.



FIG. 3

7. Connect the backup alarm harness (18) to the taillight wire harness. Refer to Fig. 4, Fig. 12, and Fig. 13.
8. Route and connect the main wire harness to switch (17). Refer to Fig. 4 or Fig. 5.

INSTALLATION: Lintel mounted alarm kits—Refer to Fig. 4 or Fig. 5.

1. Install rubber grommet (8) into the rear left corner of operator compartment.
2. Install trim molding (26) onto the rear left corner of the operator compartment. Refer to Fig. 2.
3. Route the back-up alarm harness (18) through slot in the rear left corner of the operator compartment and up the area where the backup alarm mounting box (1) will be installed onto the machine.
4. Connect the back-up alarm wire harness (18) to spotlight (9), backup alarm (10), and flasher (13). Refer to Fig. 4, Fig. 12, and Fig. 13.

5. Use three hex screws (2) and flat washers (3) to install the backup alarm mounting box (1) onto the rear left corner of the operator compartment.

FOR MACHINES EQUIPPED WITH HAZARD

LIGHT: Install backup alarm mounting box (1) onto the center of the operator compartment panel.

NOTE: If holes do not exist, install three hexforming screws (23) into the backup alarm mounting box (1) instead of the three hex screws (2).

6. FOR MACHINES EQUIPPED WITH BLOWER

WAND: Route existing blower wand hose through lower half of the backup alarm mounting box (1). Refer to Fig. 5.

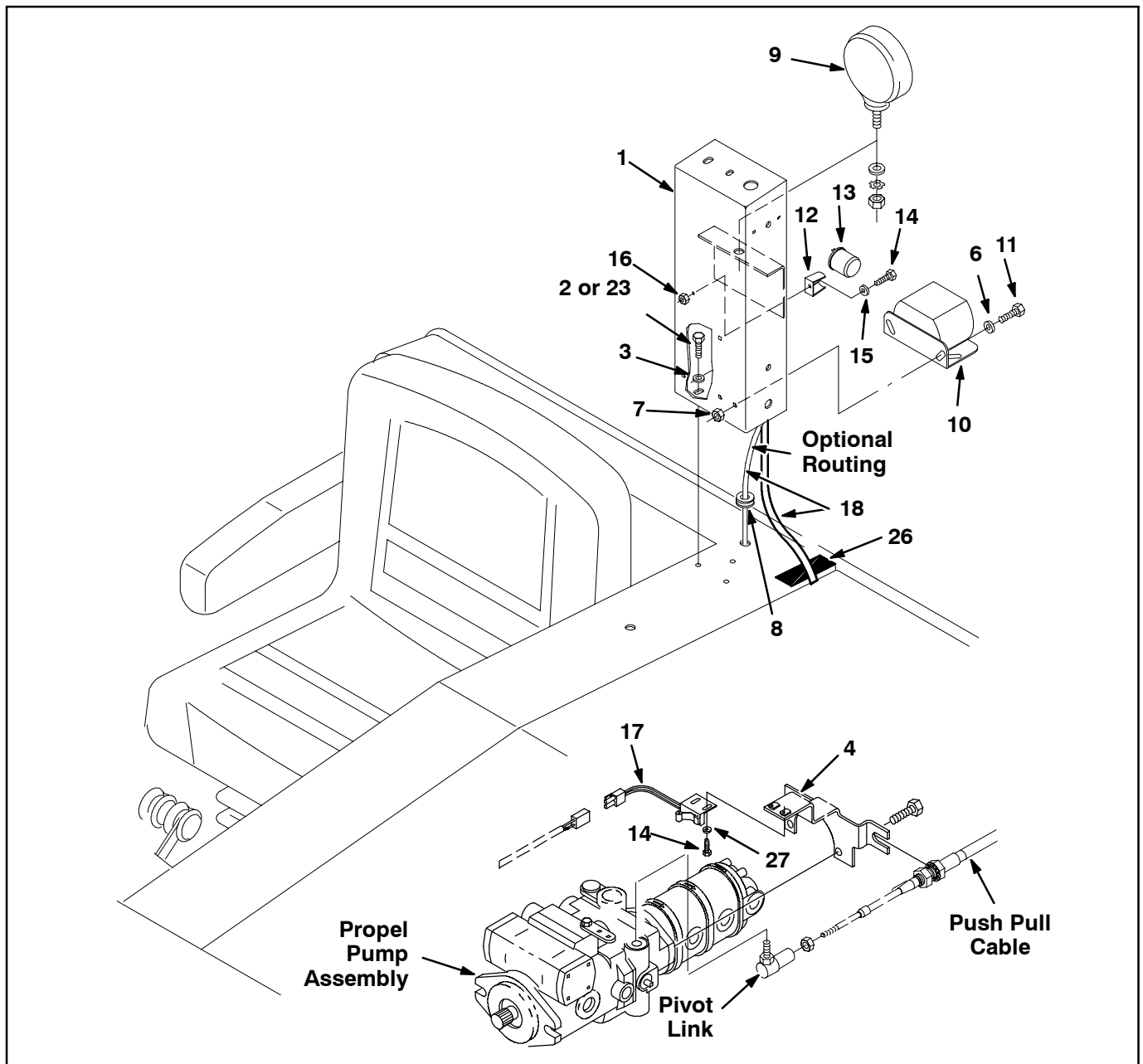


FIG. 4-Backup Alarm and Switch Assembly (without Blower Wand)

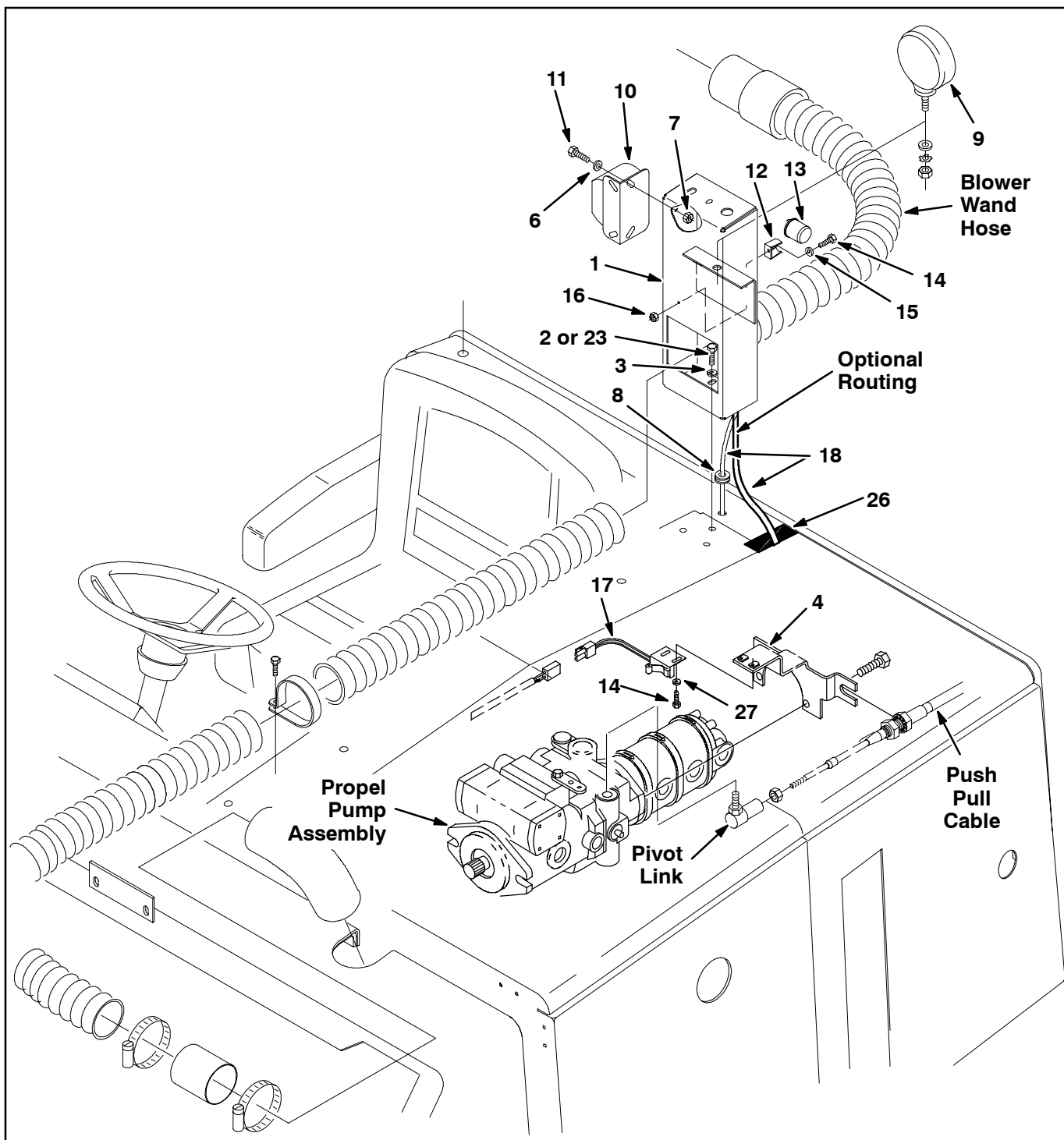


FIG. 5-Backup Alarm and Switch Assembly (with Blower Wand Installed)

INSTALLATION: Overhead guard mounted alarm kits-Refer to Fig. 6.

1. Install rubber grommet (8) into the backup alarm mounting box (1).
2. Install vinyl duct (19) on rear left leg and vinyl duct (25) on top of overhead guard/cab.
3. Install rubber grommet (5) into the hole in the operator compartment for the wire harness.
4. Route the backup alarm harness (18) through rubber grommet (5) and up through vinyl duct (19 and 25), rubber grommet (8), and up to where the backup alarm mounting box (1) will be installed onto the machine.

5. Connect alarm wire harness (18) to the spotlight (9), backup alarm (10), and flasher (13). Refer to Fig. 5, Fig. 12, and Fig. 13.

6. Use three hex screws (2), flat washers (3), and hex flange nuts (24) to install the backup alarm mounting box (1) onto the overhead guard.

FOR MACHINES WITHOUT MOUNTING

HOLES: Install three hex screws (23) instead of three hex screws (2).

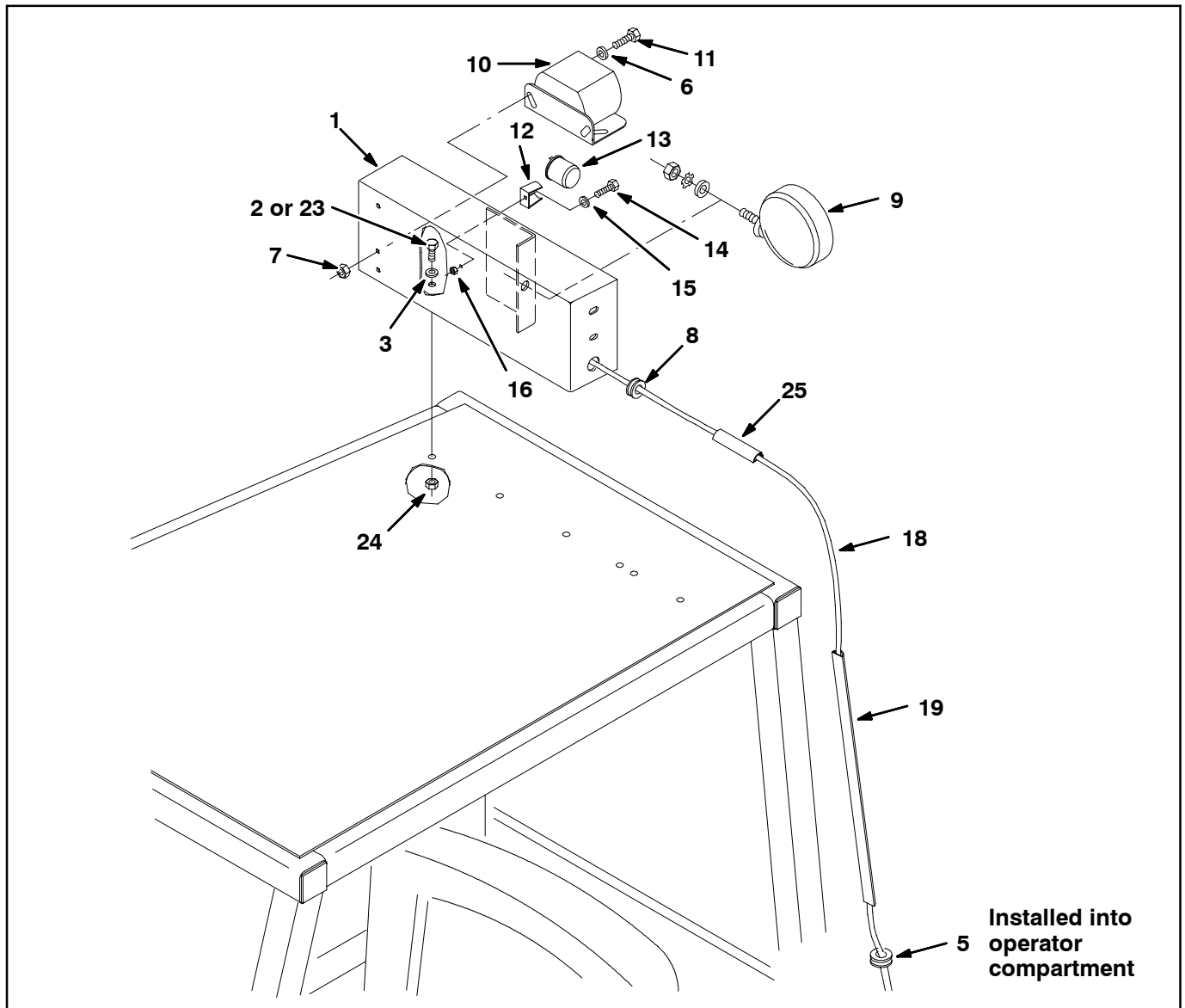


FIG. 6-Backup Alarm Assembly on Overhead Guard

INSTALLATION: Cab mounted alarm kits-Refer to Fig. 7.

1. Install rubber grommet (8) and two rubber bumper (22) into the backup alarm mounting box (1).
2. Install the vinyl duct (19) and vinyl duct (25) onto the cab.
3. Install trim molding (26) into the rear corner of the operator compartment. Refer to Fig. 4 or Fig. 5.
4. Route the backup alarm harness (18) through the left rear corner of the operator compartment (where the trim molding is located), through the rubber grommet (5), vinyl ducts (19 and 25), rubber grommet (8), and up to where the backup alarm mounting box (1) will be installed onto the machine.
5. Connect alarm wire harness (18) to the spotlight (9), backup alarm (10), and flasher (13). Refer to Fig. 7, Fig. 12, and Fig. 13.
6. Use hex screw (20) and flat washer (21) to install the backup alarm mounting box (1) onto the cab.

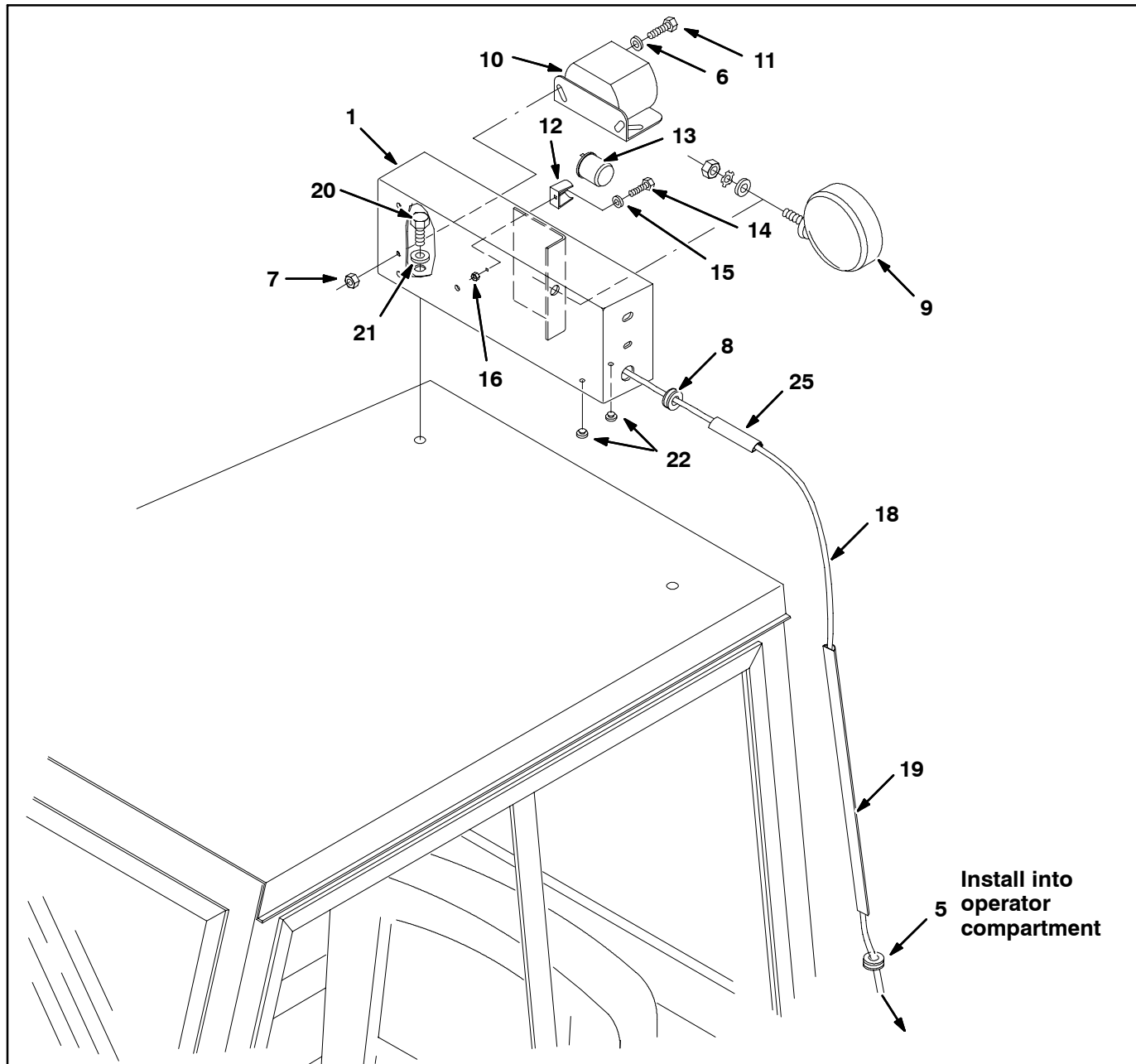


FIG. 7-Backup Alarm Assembly on Cab

INSTALLATION: Engine cover panel mounted alarm kits only - 380640.

1. Park the machine on a clean level surface, turn off the machine, remove the key, and set the parking brake.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, set parking brake, turn off machine, and remove key.

2. Open the engine cover, engine compartment side door, and rear door.
3. Disconnect the battery cables from the battery.



WARNING: Always disconnect battery cables from machine before working on electrical components.

4. Install the bullet terminals (12) onto the backup alarm (2) wires.
5. Use two hex screws (13) and two flat washers (14) to install the backup alarm (2) onto the back of the engine cover panel. Refer to Fig. 11.
6. Use the hardware included with the spot light (1) to install the spot light onto the bracket (9). Refer to Fig. 11.
7. Use a hex screw (13) to install the spot light (1) / bracket (9) onto the back of the engine cover panel. Refer to Fig. 11.
8. Connect the backup alarm harness (5) to the spot light (1) and backup alarm (2). Refer to Fig. 11, Fig. 12, and Fig. 13.
9. Slide the grommet (6) onto the backup alarm harness (5).
10. Remove the plug from the engine cover corner panel. Refer to Fig. 8.

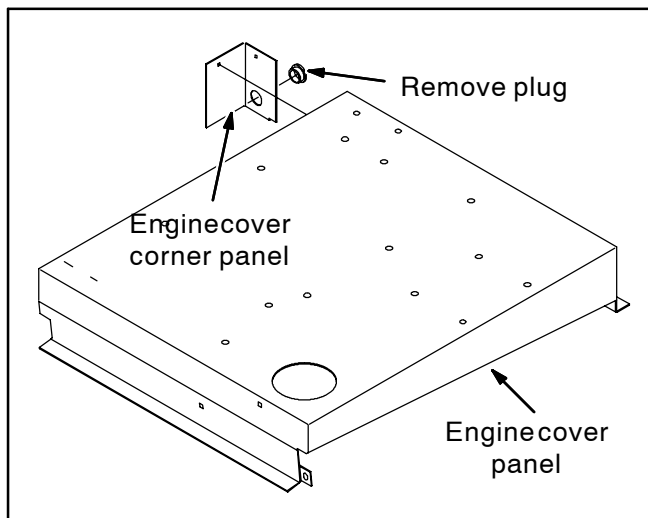


FIG. 8

11. Route the backup alarm harness (5) through the hole in the engine cover corner panel and insert the grommet (6) into the hole. Refer to Fig. 8 and Fig. 11.
12. Connect the flasher (3) to the backup alarm harness (5). Refer to Fig. 11, Fig. 12, and Fig. 13.
13. Connect the backup alarm harness (5) to the tail light harness. Refer to Fig. 12.
14. Tuck the flasher (3) and any excess cable behind the center brace. Refer to Fig. 9.



FIG. 9

15. Use a tie mount (7) and cable tie (8) to secure the backup alarm harness (5) to the engine cover panel. Refer to Fig. 10 and Fig. 11.



FIG. 10

16. Connect the main wire harness to the switch assembly (4). Refer to Fig. 11 and Fig. 12.
17. **Gas / LP Machines:** Use two hex screws (10) and two flat washers (11) to install the switch assembly (4) onto the propel cable bracket. Refer to Fig. 11.
Diesel Machines: Use two hex screws (10) and two flat washers (11) to install the switch assembly (4) onto the switch mounting bracket. Refer to Fig. 11.
18. Proceed to TESTING & ADJUSTING MACHINE to test the alarm assembly.

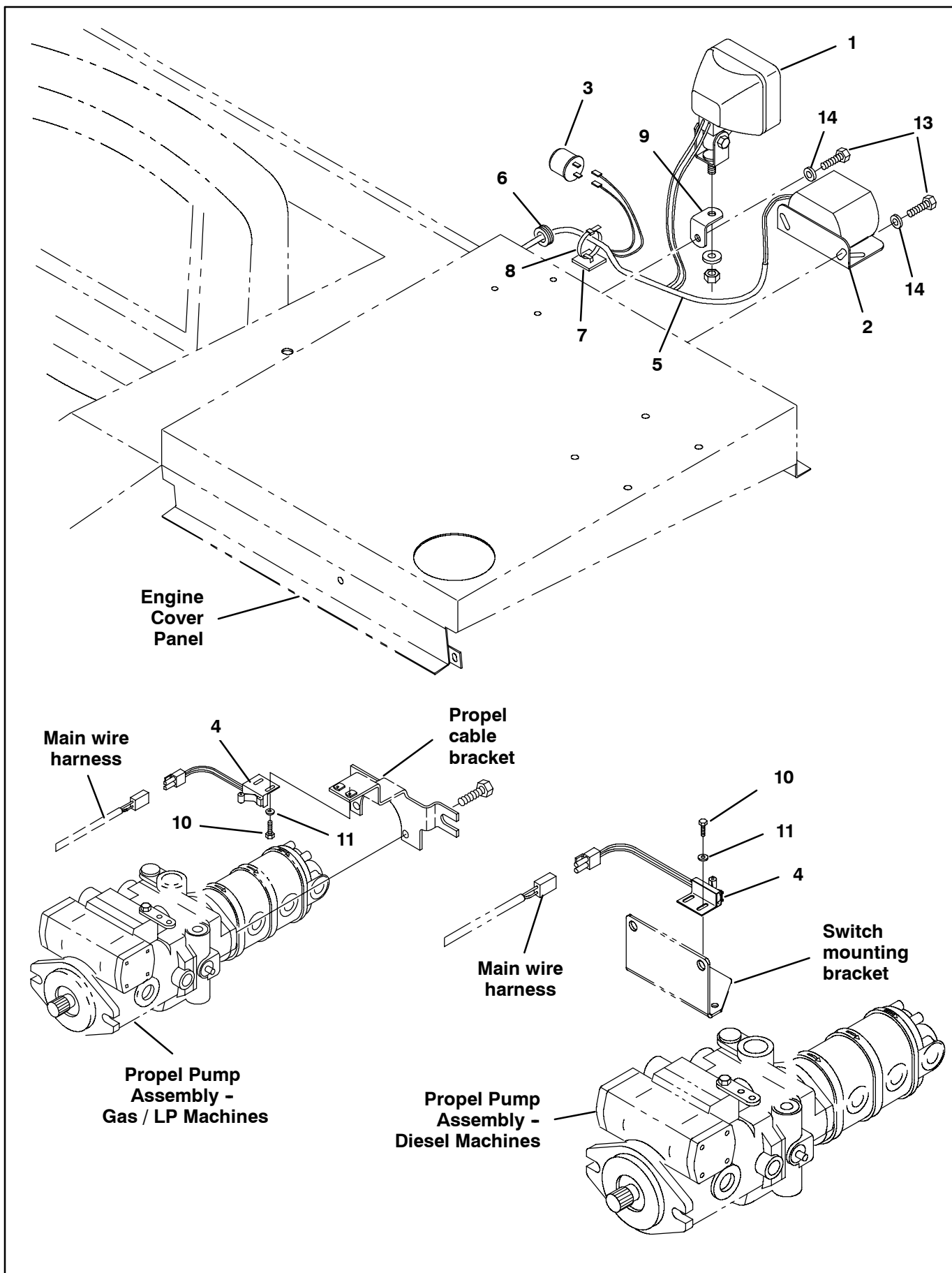


FIG. 11 - Backup Alarm Assembly on Engine Cover Panel

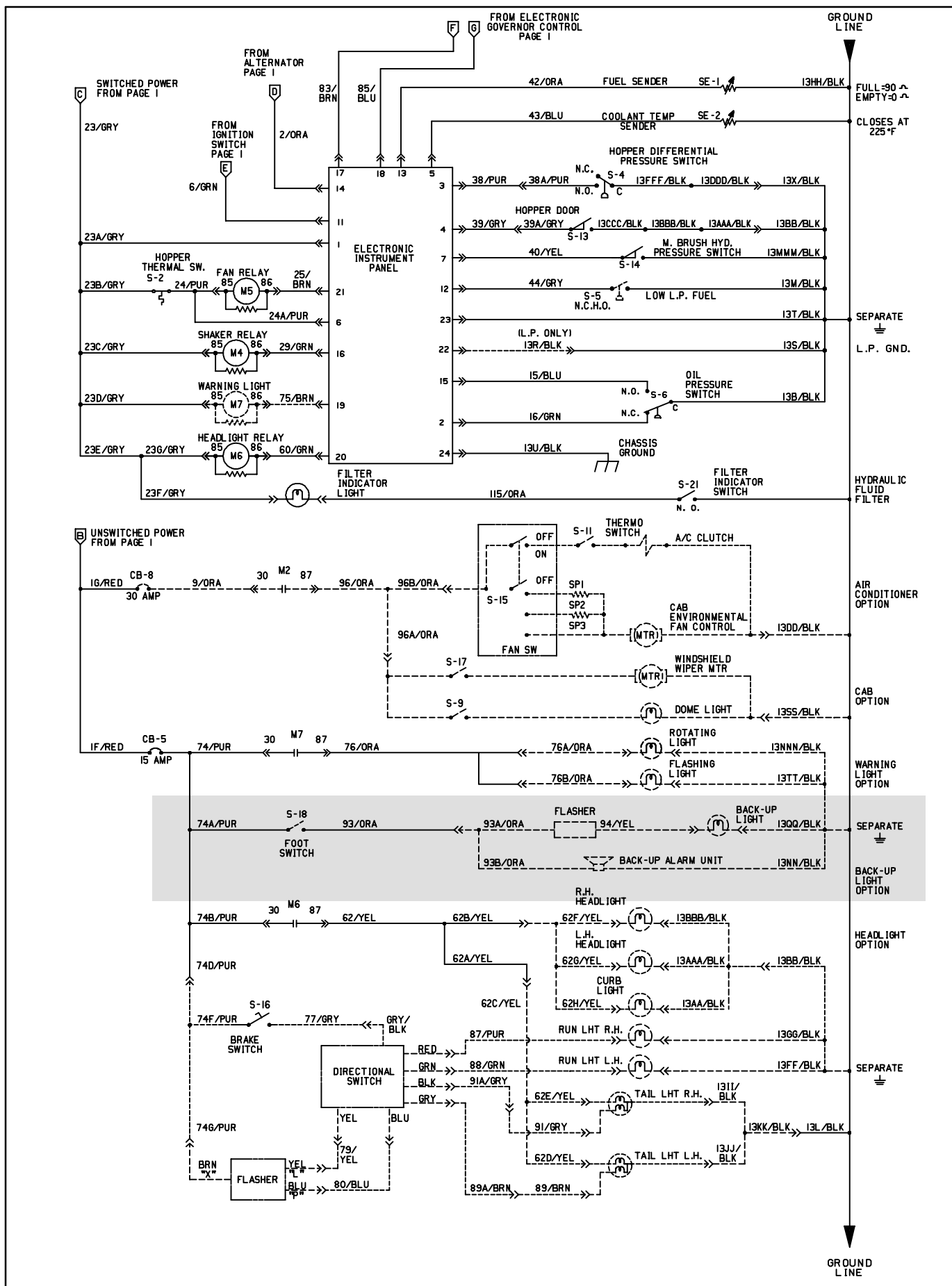


FIG. 12 - Schematic

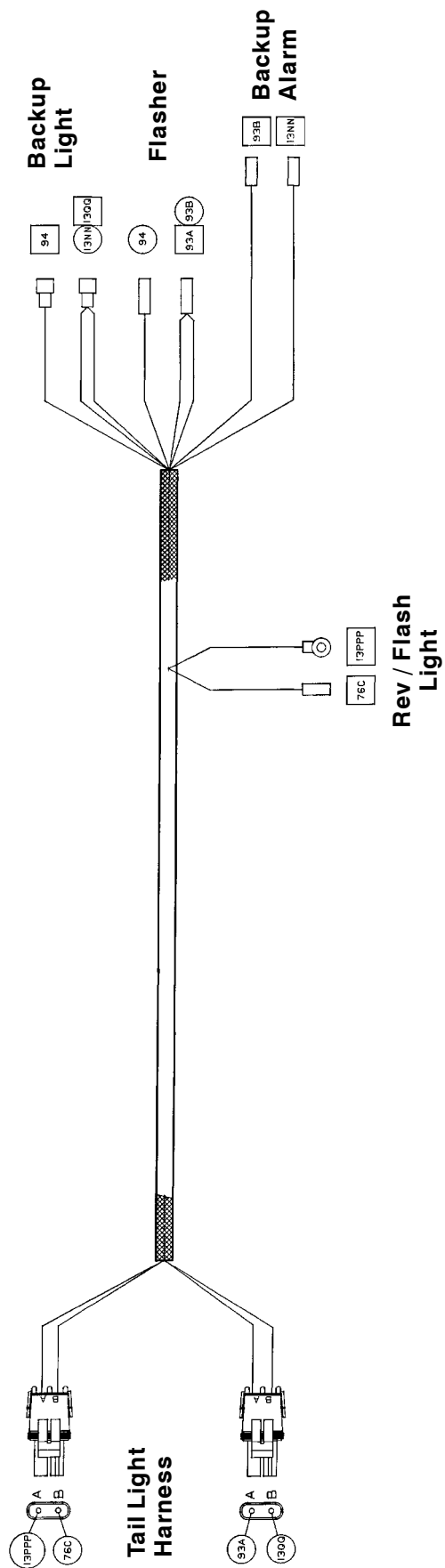


FIG. 13 - Backup Alarm Harness Diagram

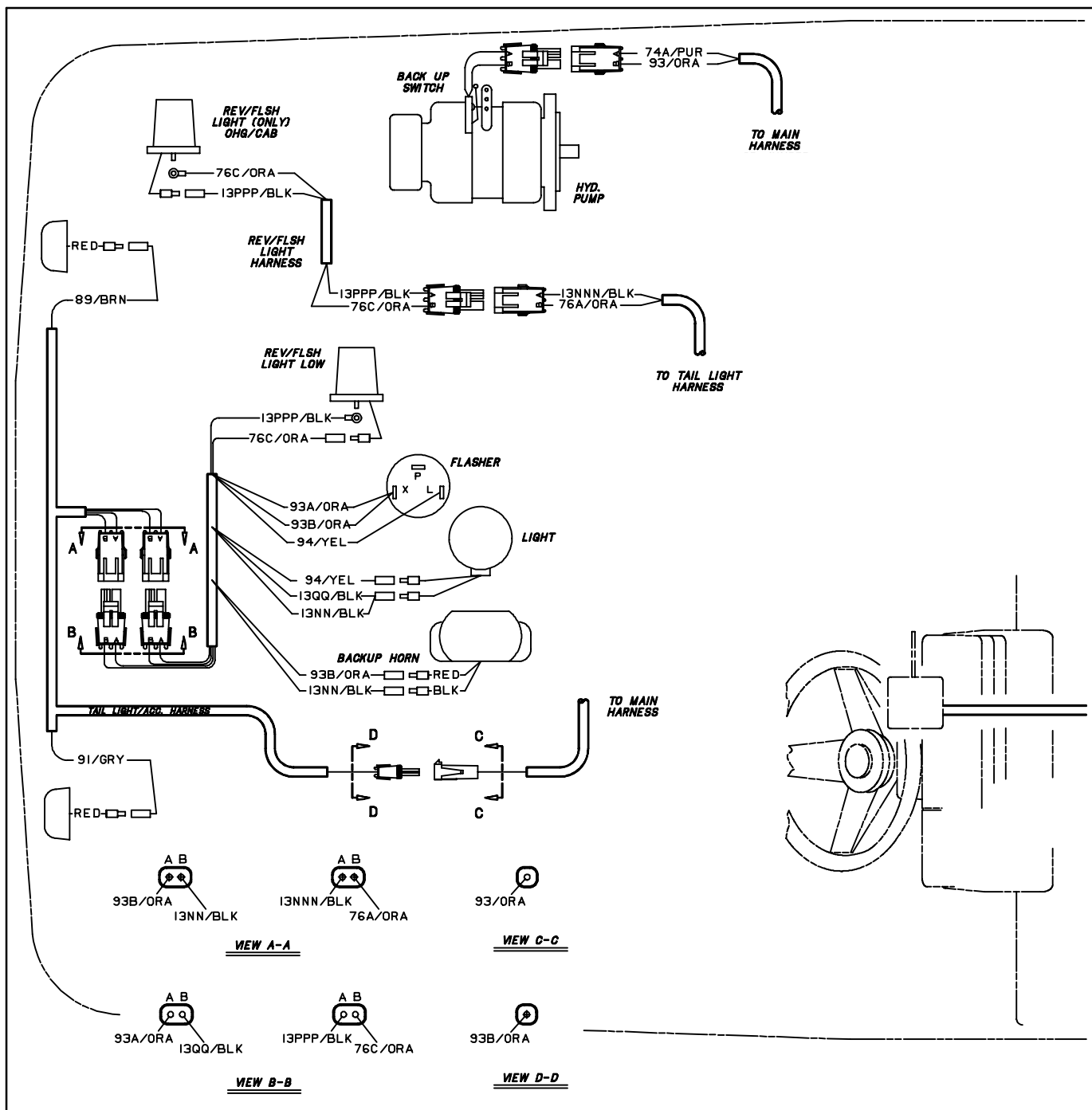


FIG. 14-Wire Diagram

TESTING & ADJUSTING MACHINE: Refer to Fig. 14

1. Reconnect the battery cables to the batteries.
2. Start machine and test all backup alarm kit components to ensure they function properly.

NOTE: If necessary, adjust position of switch on the propel cable mounting bracket so the alarm sounds the instant the machine begins moving in reverse.

3. Install plug buttons (28) into any unused holes in the cab or overhead guard.

Bill of Materials for Alarm Kit, Backup / A/V, CI [800]-70696

Ref.	Tennant Part No.	Description	Qty.
▽	70696	Alarm Kit, Backup / A/V, CI [800]	1
▲	1 76404	Box Wldt, Mtg, Alarm, Backup (<i>Install only onto machines without blower wand</i>)	1
▲	1 79513	Box Wldt, Mtg, Alarm, w/Blower Wand (<i>Install only onto machines with blower wand</i>)	1
▲	2 16735	Screw, Hex, M8 X 1.25 X 16, 8.8	3
▲	3 39349	Washer, Flat, 0.31 SAE	3
▲	4 380513	Bracket, Mtg, Propel Cable	1
▲	5 10632-15	Grommet, Rbr, 0.50ID, F/0.8H, .09 Matl	1
▲	6 32483	Washer, Flat, 0.25 SAE	2
▲	7 07790	Nut, Hex, Flange, M6 X 1.0	2
▲	8 10632-9	Grommet, Rbr, 0.63ID F/ 0.8H, .12 Matl	1
▲	9 36438	Light, Spot, 12VDC, 21CP Rwk 44025A	1
▲	10 61920	Alarm Assy, Backup, 12-24VDC 82-107DBA	1
▲	11 06943	Screw, Hex, M6 X 1.0 X 20, 8.8	2
▲	12 24576-1	Clip, Finger Grip, 1.18-1.35D [Nik Plt]	1
▲	13 24576	Flasher, 12VDC [32 Candle Power Rating]	1
▲	14 09228	Screw, Hex, M4 X 0.7 X 20, 8.8	3
▲	15 32978	Washer, Lock, Int, #08	1
▲	16 42368	Nut, Hex, Std, M4 X 0.7, 8	1
▲	17 59965	Switch, Snap Actn, 12VDC 15A No Rlr	1
▲	18 76415	Harness, Alarm, Backup [800L]	1
▲	19 86333	Duct, Vinyl, 0.40 X 0.75 X .25D 03.5L	1
▲	20 39807	Screw, Hex, .50-13 X 0.75, 5	1
▲	21 32486	Washer, Flat, 0.50 SAE	1
▲	22 29233	Bumper, Rear, RH, 0.09 Inch Matl	2
▲	23 16958	Screw, Hex, .31-18 X 0.50, Fmg	3
▲	24 07791	Nut, Hex, Flng, M8 X 1.25	3
▲	25 77423	Duct, Vinyl, 0.40 X 0.75 X .25D Max 26.0L	1
▲	26 62595-18	Molding, Trim, PVC, .08-.11 22.0L	1
▲	27 19065	Washer, Flat, #08	2
▲	28 33806	Button, Plug, 0.38H .03-.12 [White Nyl]	3

Bill of Materials for Alarm Kit, Backup / A/V, CI [800] - 380640

Ref.	Tennant Part No.	Description	Qty.
▽	380640	Alarm Kit, Backup / A/V, CI [800]	1
▲▽	1 382978	Light, Spot 12V, 32cp	1
▲▲	393770	Lamp, 12VDC 55w	1
▲	2 61923	Horn, Back-up Alarm	1
▲	3 24576	Flasher, 12v	1
▲	4 59965	Switch Assy, Roller-no	1
▲	5 380691	Harness, Alarm, Back-up	1
▲	6 10632-4	Grommet	1
▲	7 55248	Mount, Tie	1
▲	8 49266	Tie, Cable	1
▲	9 76385	Bracket	1
▲	10 09206	Screw, Hex, M4 X 0.70 X 12, 8.8	2
▲	11 19065	Washer, Flat, 08	2
▲	12 55272	Terminal, Bullet, Mal, .157D, 12Ga	2
▲	13 06943	Screw, Hex, M6 X 1.0 X 20, 8.8	3
▲	14 32483	Washer, Flat, 0.25 SAE	3

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