

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the 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 9006311**

SYNOPSIS:

This kit contains the parts needed to install a backup alarm / flashing light kit on S20 machines equipped with overhead guards.
 Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 1.5 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, turn off machine, and remove key.

2. Disconnect the battery cables from the battery.

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

INSTALLATION:

1. Use a pan screw (5), lock washer (7), and a hex nut (6) to install the grip clip (4) onto the mounting bracket (20). Refer to Fig. 1.

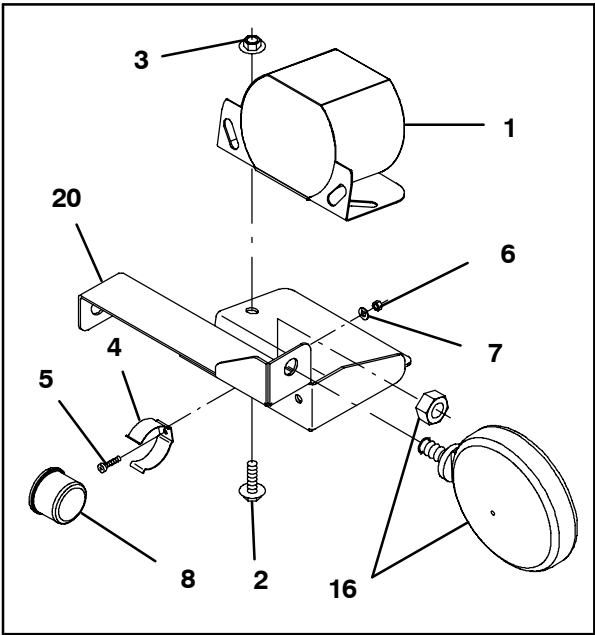


FIG. 1

2. Trim the backup alarm (1) wires to 5".
3. Crimp a bullet terminal (25) onto each backup alarm (1) wire.

4. Use two hex screws (2) and two hex nuts (3) to install the backup alarm (1) onto the mounting bracket (20). Refer to Fig. 1.
5. Trim the spot light (16) wires to a 6" length and crimp the QF terminals (26) onto the wires.
6. Use the hardware included with the spot light (16) to install the spot light onto the mounting bracket (20). Refer to Fig. 1.
7. Insert the 12 VDC flasher (8) into the previously installed grip clip (4). Refer to Fig. 1.
8. Use two hex screws (21), two flat washers (22), and two hex nuts (3) to install the light / alarm assembly assembled in the previous several steps onto the overhead guard. Refer to Fig. 2.

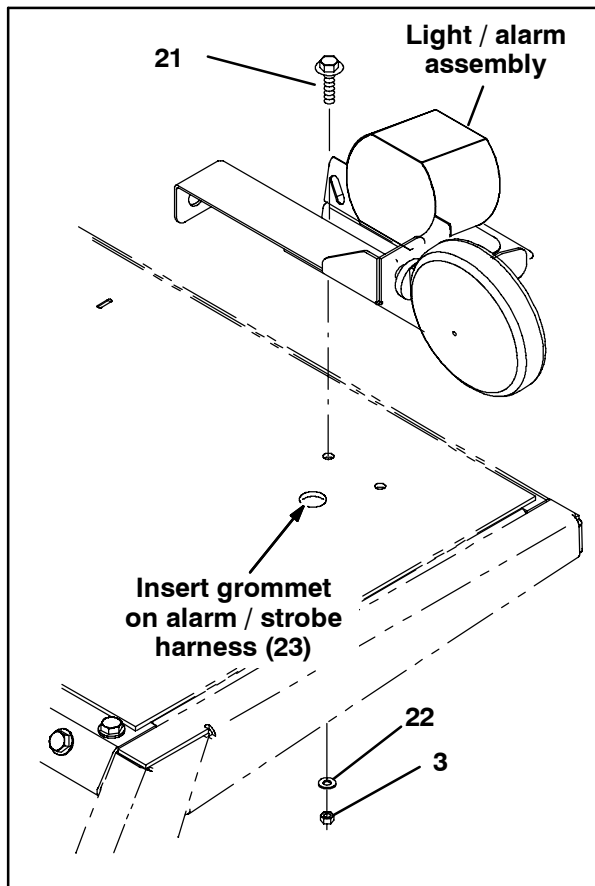


FIG. 2

9. Trim the flashing light wires (17) to 6".
10. Crimp a bullet terminal (25) onto each flashing light (17) wire.

11. Route the flashing light (17) cable through the hole in the overhead guard and use two pan screws (18), two flat washers (13), and two hex nuts (19) to install the light onto the guard. Refer to Fig. 3.

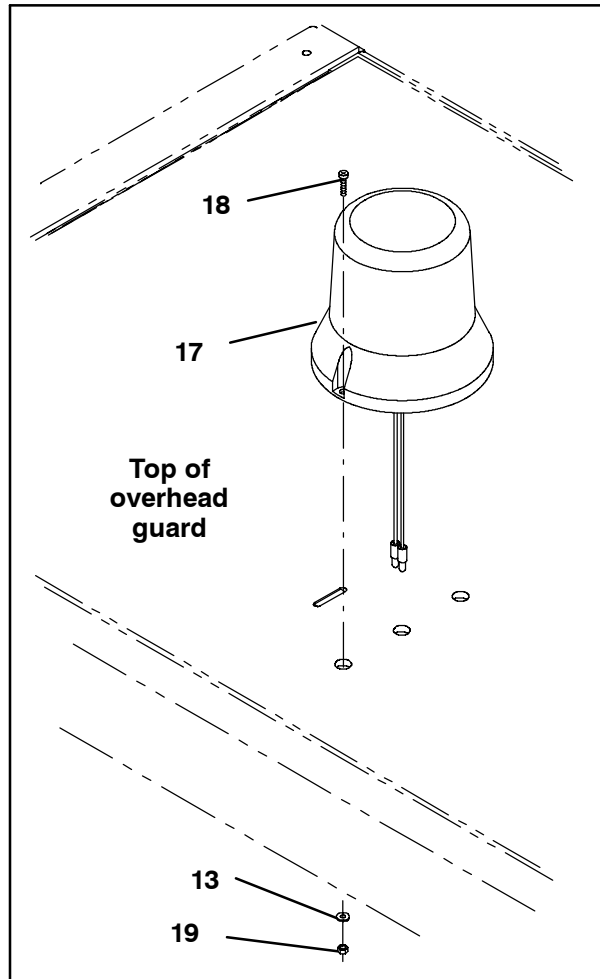


FIG. 3

12. Connect the alarm / strobe harness (23) to the flashing light (17). Refer to Fig. 4.
13. Connect the alarm / strobe harness (23) to the backup alarm (1), spot light (16), and 12 VDC flasher (8). Refer to Fig. 1 and Fig. 4.
14. Insert the grommet on the alarm / strobe harness (23) into the hole in the top of the overhead guard. Refer to Fig. 2.

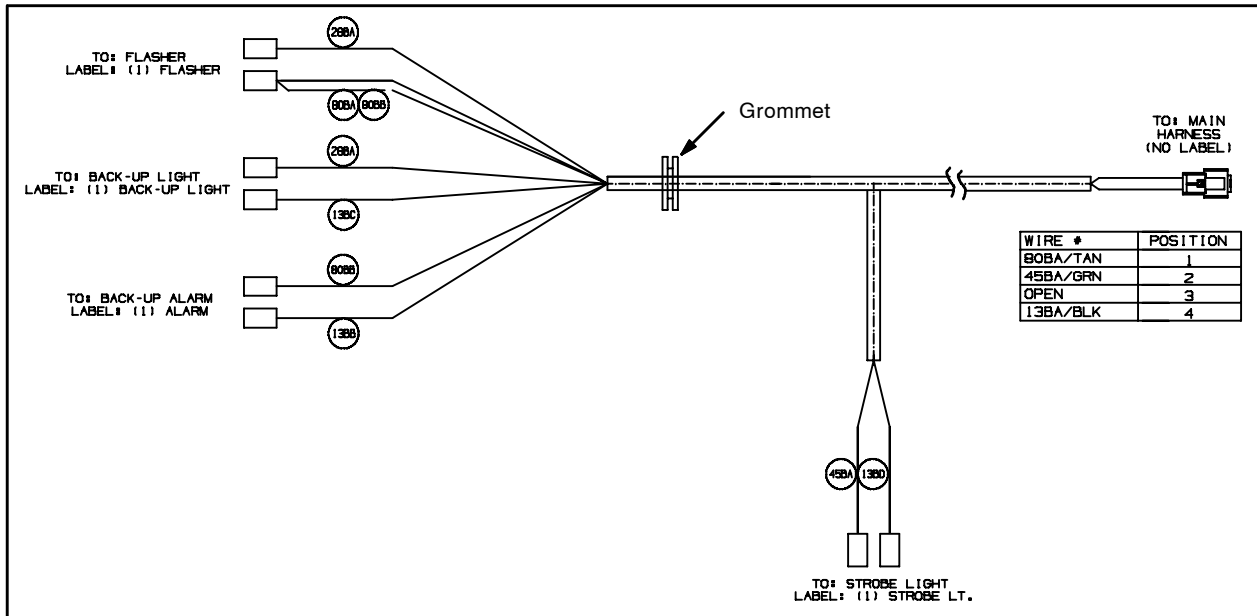


FIG. 4

15. Cut the vinyl duct (24) into one 28" section and two 10" sections.
16. Install the sections of vinyl duct (24) cut in the previous step onto the overhead guard. Refer to Fig. 5, Fig. 6, and Fig. 7.

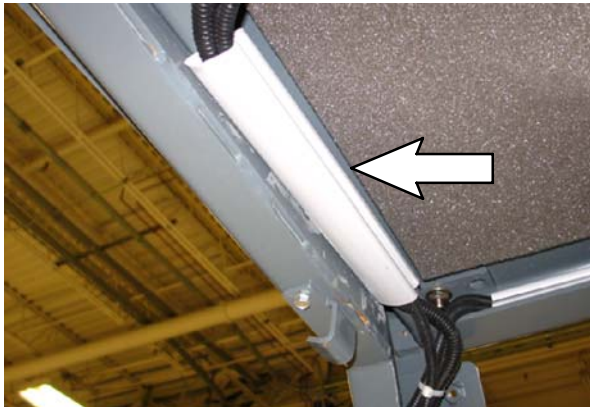


FIG. 5



FIG. 7



FIG. 6

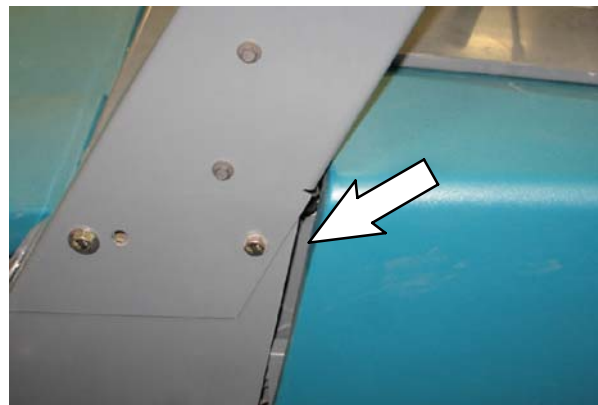


FIG. 8

17. Route the alarm / strobe harness (23) through the sections of vinyl duct and down between the main cover and frame of the machine. Refer to Fig. 8.

18. Open and close the main cover several times to ensure the cable is not being pinched when the cover is closed.

19. Connect the alarm / strobe harness (23) to the main wire harness. Refer to Fig. 4 and Fig. 13.
20. Remove the floor plate from the operator compartment. Set the floor plate and hardware aside Refer to Fig. 9.

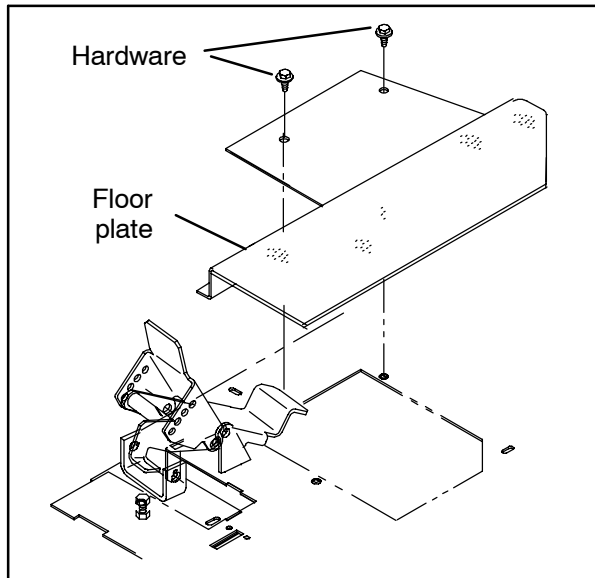


FIG. 9

21. Connect the main wire harness to the switch (9). Refer to Fig. 12.
22. Wrap electrical tape around each electrical connection from the previous step. No metallic parts should touch the connections. Contact with other metallic parts could cause the system to short.
23. Remove the nut from the switch (9).
24. Hold the switch (9), reach through the open floor, insert the switch into hole in front of the directional pedal, and thread the nut onto the switch to secure the switch into place. Refer to Fig. 10.

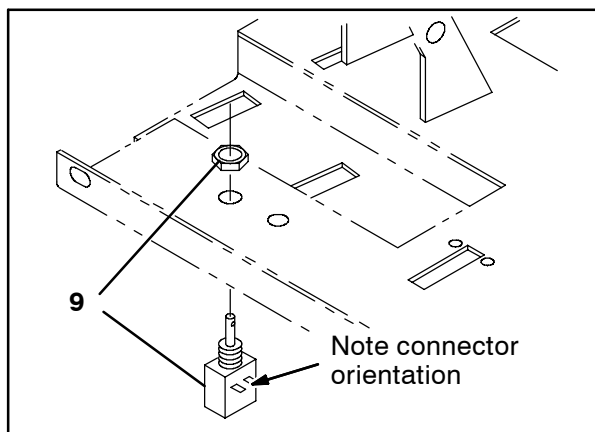


FIG. 10

25. Hook the spring (10) to the switch (9). Refer to Fig. 11.

NOTE: It is not necessary to remove the propel pedal to install items shown in Fig. 10. The exploded view is used to better illustrate how the parts are assembled.

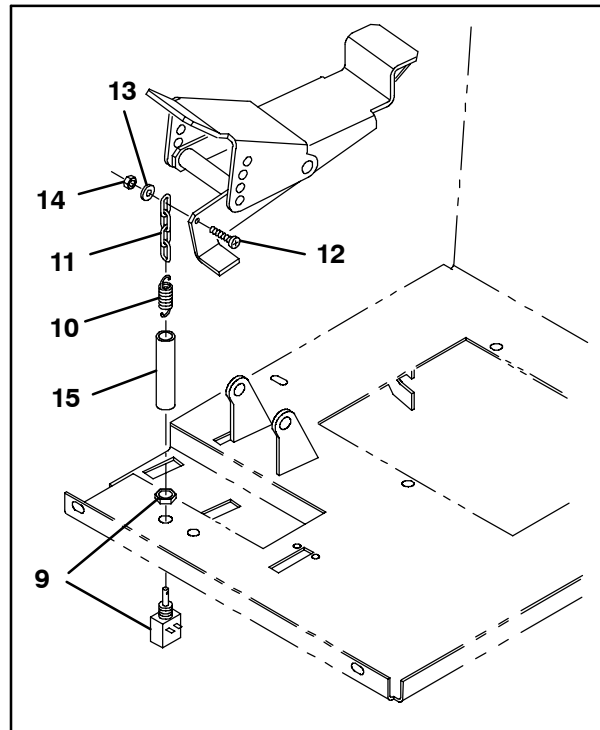


FIG. 11

26. Hook the chain (11) onto the other end of the spring (10). Refer to Fig. 11.
27. Slide the sleeve (15) onto the spring (10) and chain (11). Refer to Fig. 11.
28. Use a pan screw (12), a flat washer (13), and hex nut (14) to install the chain (11) onto the directional pedal. Refer to Fig. 11.
29. Reinstall the floor plate into the operator compartment. Refer to Fig. 9.
30. Reconnect the battery cables to the batteries.
31. Start and test the machine. Use the headlight/ flashing light switch to turn on the flashing light. Operate the machine in reverse and to ensure the alarm / light function.

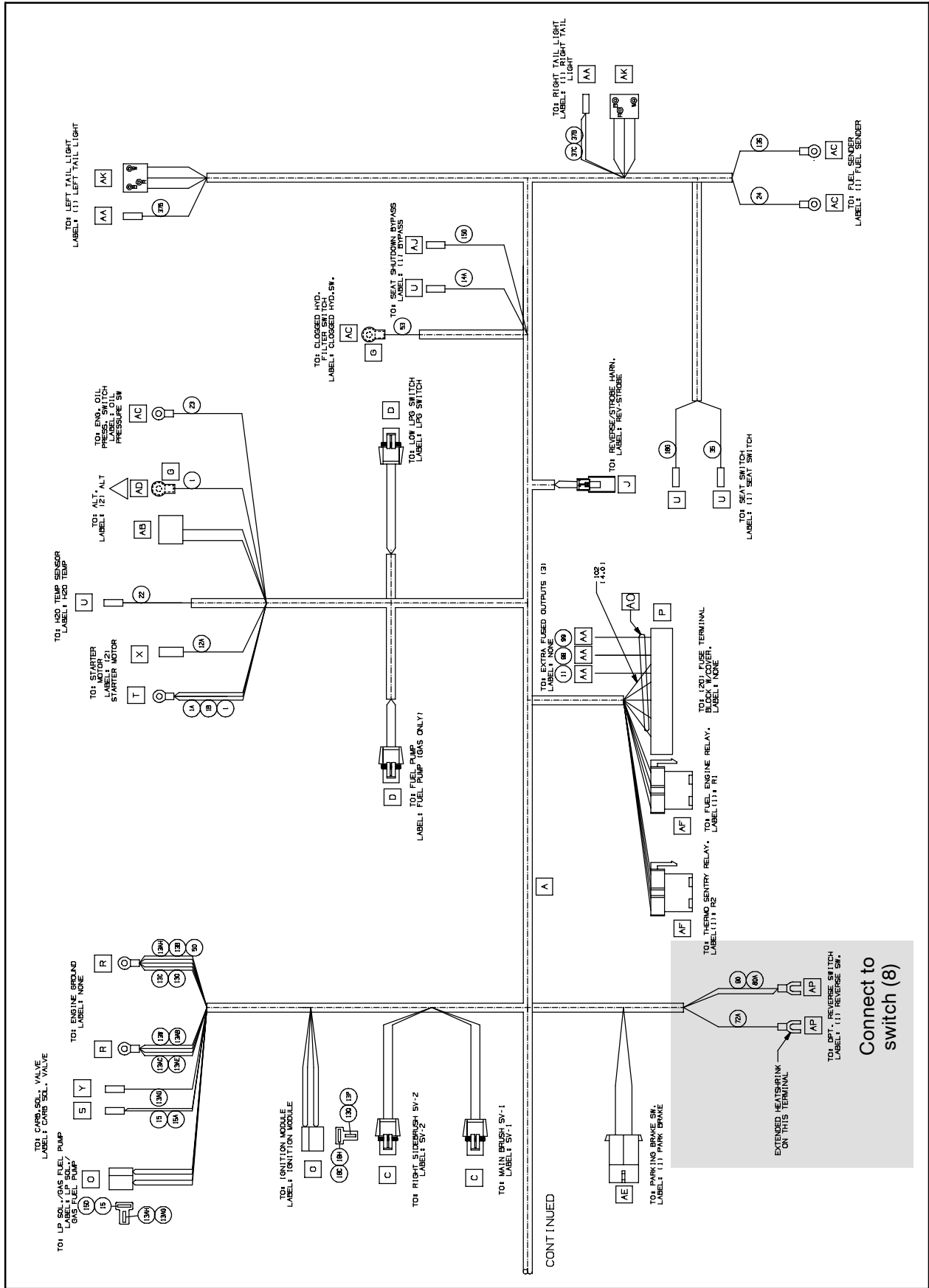


FIG. 12

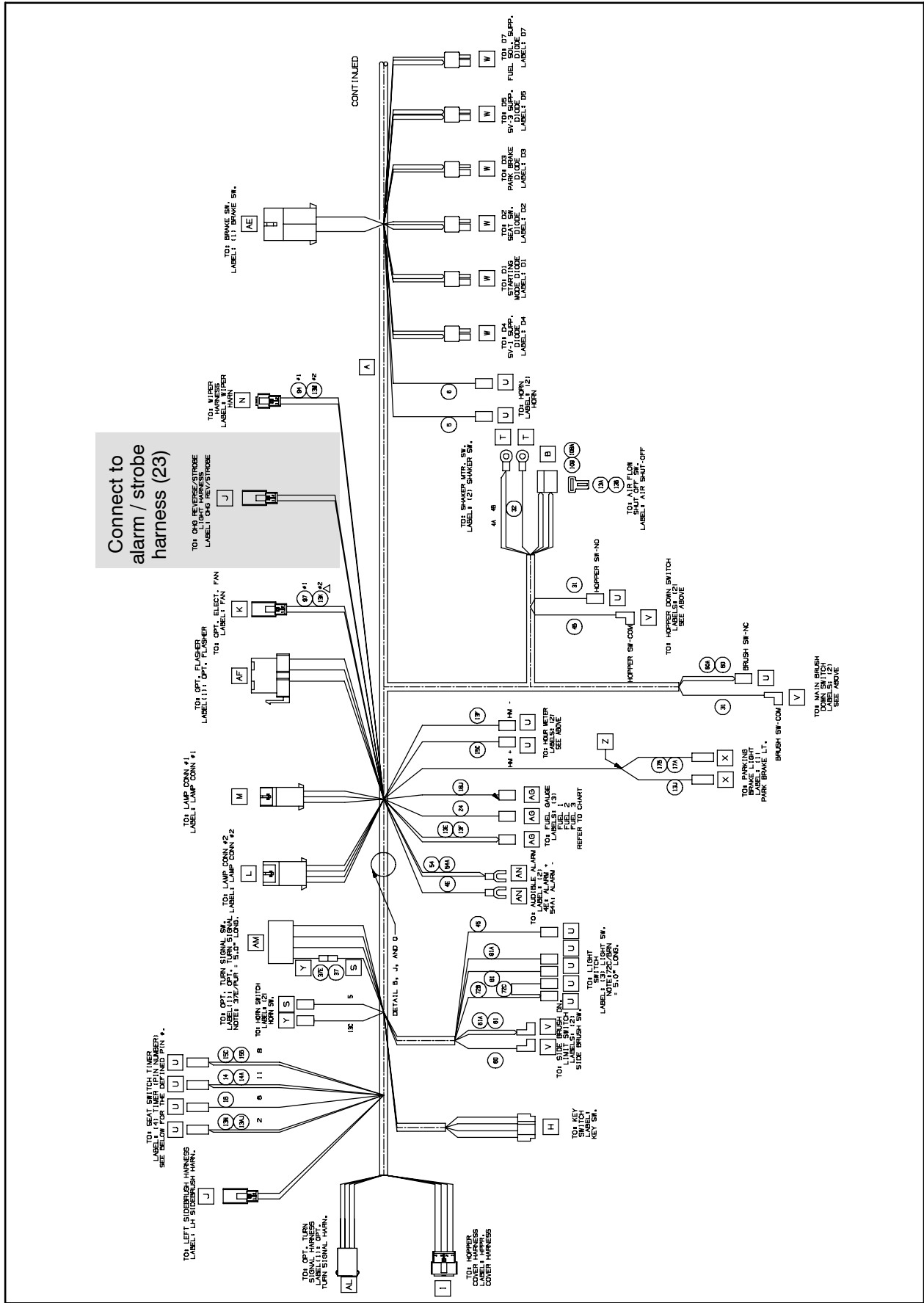


FIG. 13

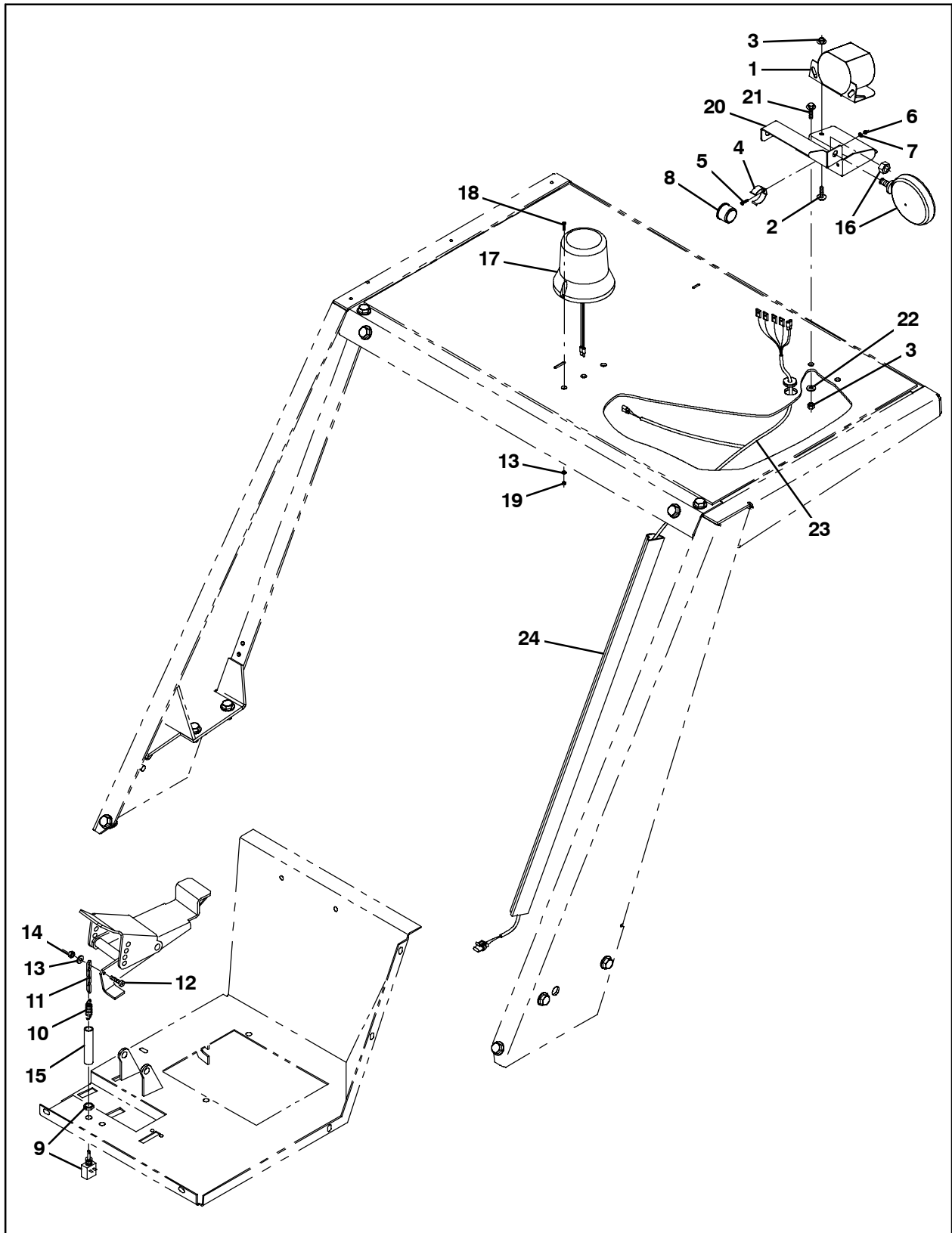


FIG. 14

Bill of Materials for Alarm Kit, Backup, Flsh, OHG, IC, CI - 9006311

| Ref. | Tennant Part No. | Description | Qty. |
|------|------------------|--|------|
| ▽ | 9006311 | ALARM KIT, BACKUP, FLSH, OHG, IC, CI | 1 |
| ▲ | 1 72171 | ALARM ASSY, BACKUP, 12-48VDC 82-102DBA | 1 |
| ▲ | 2 1037346 | SCREW, HEX, M8 X 1.25 X 25, 9.8, SEMS | 2 |
| ▲ | 3 08709 | NUT, HEX, LOCK, M8 X 1.25, NL | 4 |
| ▲ | 4 24576-1 | CLIP, GRIP, FINGER, 1.19-1.35D, NK PL | 1 |
| ▲ | 5 06920 | SCREW, PAN, PHL, M3 X 0.50 X 10, 4.8 | 1 |
| ▲ | 6 01754 | NUT, HEX, STD, M3 X 0.50, 8 | 1 |
| ▲ | 7 39658 | WASHER, LOCK, INT, 04 | 1 |
| ▲ | 8 24576 | FLASHER, 12VDC [HD552PS83] | 1 |
| ▲ | 9 43673 | SWITCH, PULL, NO | 1 |
| ▲ | 10 43672 | SPRING, EXTN, 0.38OD 0.05WIR 01.0L | 1 |
| ▲ | 11 28499-1 | CHAIN, SASH, 35, 02.4L 04 LINK | 1 |
| ▲ | 12 06927 | SCREW, PAN, PHL, M4 X 0.70 X 16, 4.8 | 1 |
| ▲ | 13 19066 | WASHER, FLAT, 10 | 3 |
| ▲ | 14 02850 | NUT, HEX, LOCK, M4 X 0.70, NL | 1 |
| ▲ | 15 366025 | SLEEVE, VYL, FLEX, .39ID 03.0L | 1 |
| ▲ | 16 36438 | LIGHT, SPOT, 12VDC, 21CP, RWK 44025A | 1 |
| ▲ | 17 1017248 | LIGHT, FLSH, AMB, 12-48VDC | 1 |
| ▲ | 18 06933 | SCREW, PAN, PHL, M5 X 0.80 X 16, 4.8 | 2 |
| ▲ | 19 06549 | NUT, HEX, LOCK, M5 X 0.80, NL | 2 |
| ▲ | 20 1050046 | BRACKET, MTG, HORN | 2 |
| ▲ | 21 1020341 | SCREW, HEX, M8 X 1.25 X 20, SS, SEMS | 2 |
| ▲ | 22 32491 | WASHER, FLAT, 0.31, STD | 2 |
| ▲ | 23 1051779 | HARNESS, ALARM / STROBE, OHG [S20] | 1 |
| ▲ | 24 55034 | DUCT, VYL, 0.74 X 1.50 .75D MAX 48.0L | 1 |
| ▲ | 25 55272 | TERMINAL, BULLET, MAL, .157D, 12GA | 4 |
| ▲ | 26 50470 | TERMINAL, QF, .25 16-14GA, BLU | 2 |

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