



INSTRUCTION BULLETIN

No. 9006808
Machine: S20
Published: 11-2009
Rev. 00

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 9006314**

SYNOPSIS:

This kit contains the parts needed to install a backup alarm / flashing light kit on S20 machines. 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. Drill a 0.25" pilot hole into the center of the slot in the main cover. Refer to Fig. 1.
2. Use the 0.25" drilled in the previous step as a reference to measure locations for the 0.50" holes. Refer to Fig. 1.
3. Use a hole saw to cut a 1.25" hole into the main cover. Refer to Fig. 1.
4. Drill two 0.50" holes into the main cover. Refer to Fig. 1.
5. Deburr the 1.25" and 0.50" holes. Refer to Fig. 1.

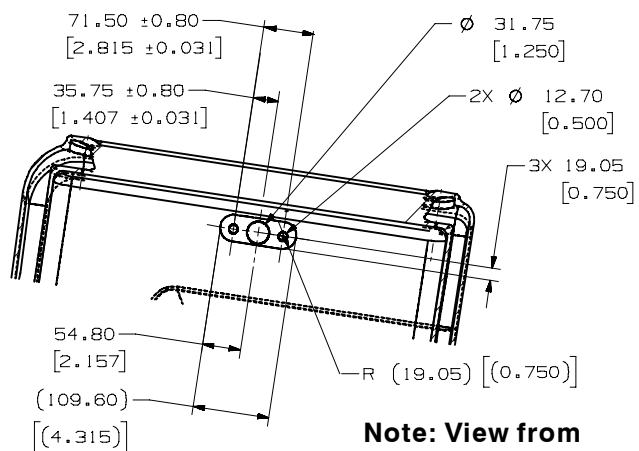
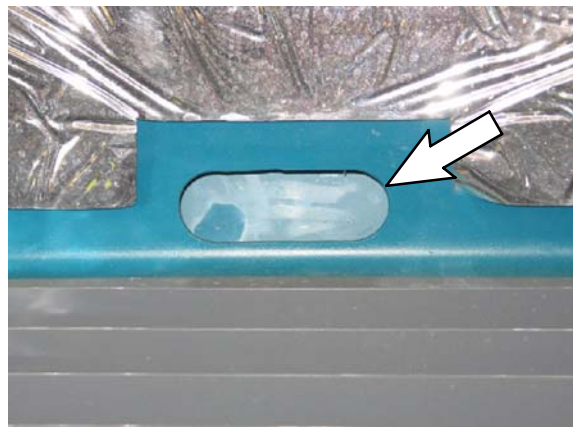


FIG. 1

6. Trim the flashing light (13) and backup alarm (1) wires to the appropriate lengths and crimp bullet terminals (23) onto the wires.
7. Route the flashing light (13) cable through the hole in the light mounting plate (18) and use two pan screws (14), two flat washers (11), and two hex nuts (15) to install the light onto the light mounting plate. Refer to Fig. 2.

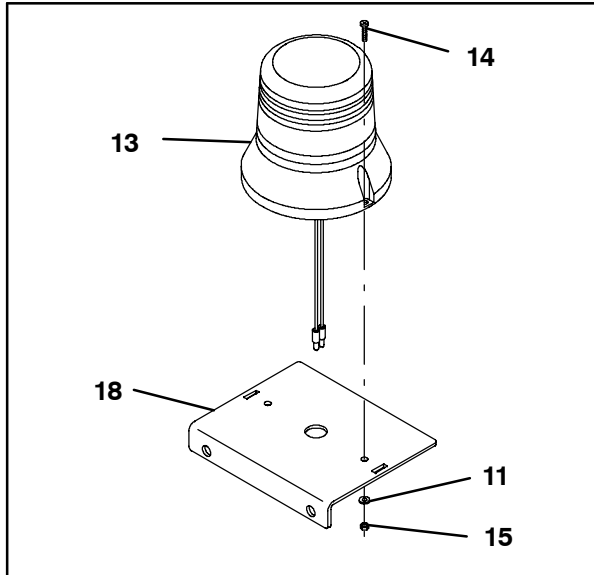


FIG. 2

8. Route the spot light (12) wires through the hole in the alarm bracket (16) and use the nut included with the spot light to install the spot light onto the alarm bracket. Refer to Fig. 3.
9. Use two hex screws (2) and two flange hex nuts (3) to install the backup alarm (1) onto the alarm bracket (16). Refer to Fig. 3.

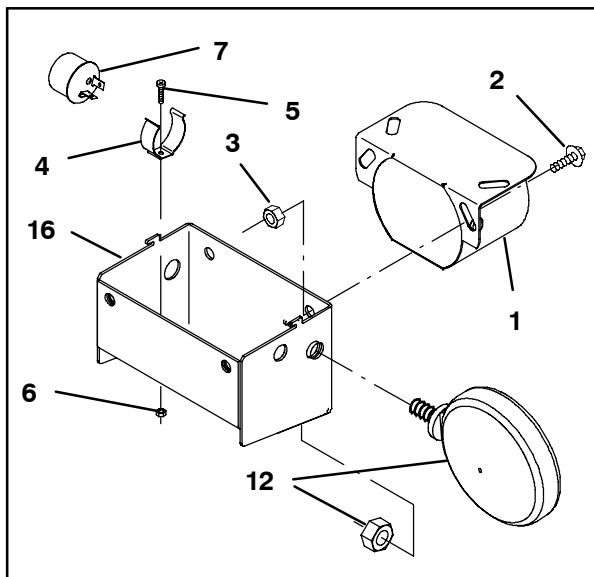


FIG. 3

10. Route the backup alarm (1) wires through the hole in the alarm bracket (16) and into the interior of the alarm bracket. Refer to Fig. 3.
11. Use a pan screw (5) and a hex nut (6) to install the finger clip (4) inside the alarm bracket (16). Refer to Fig. 3.
12. Use two hex screws (2), two flat washers (19), and two hex nuts (17) to install the alarm bracket (16) onto the main cover. Refer to Fig. 4.

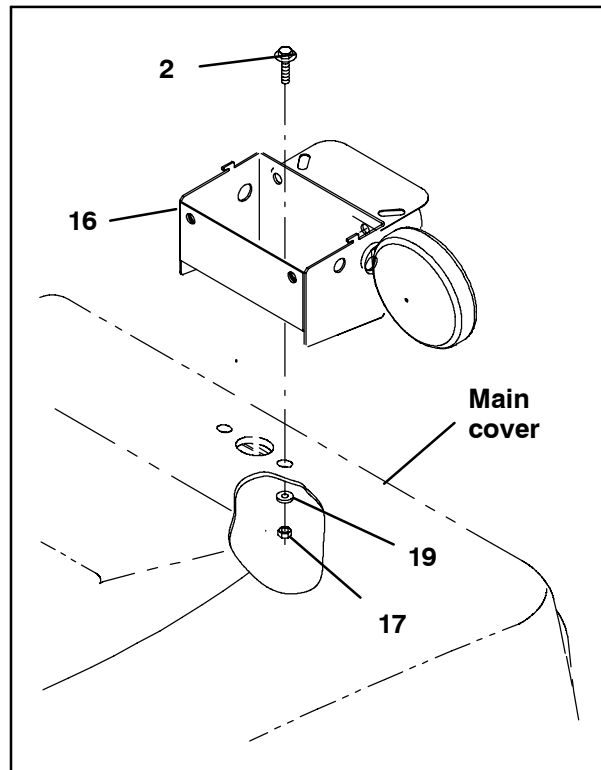


FIG. 4

13. Route the alarm / strobe harness (21) through the 1.25" hole in the main shroud and into the alarm bracket (16). Refer to Fig. 12.
14. Connect the alarm / strobe harness (21) to the 12VDC flasher (7) and inset the flasher into the finger clip (4) inside the alarm bracket (16). Refer to Fig. 3 and Fig. 5.
15. Connect the alarm / strobe harness (21) to the backup alarm (1) and spot light (12). Refer to Fig. 3 and Fig. 5.

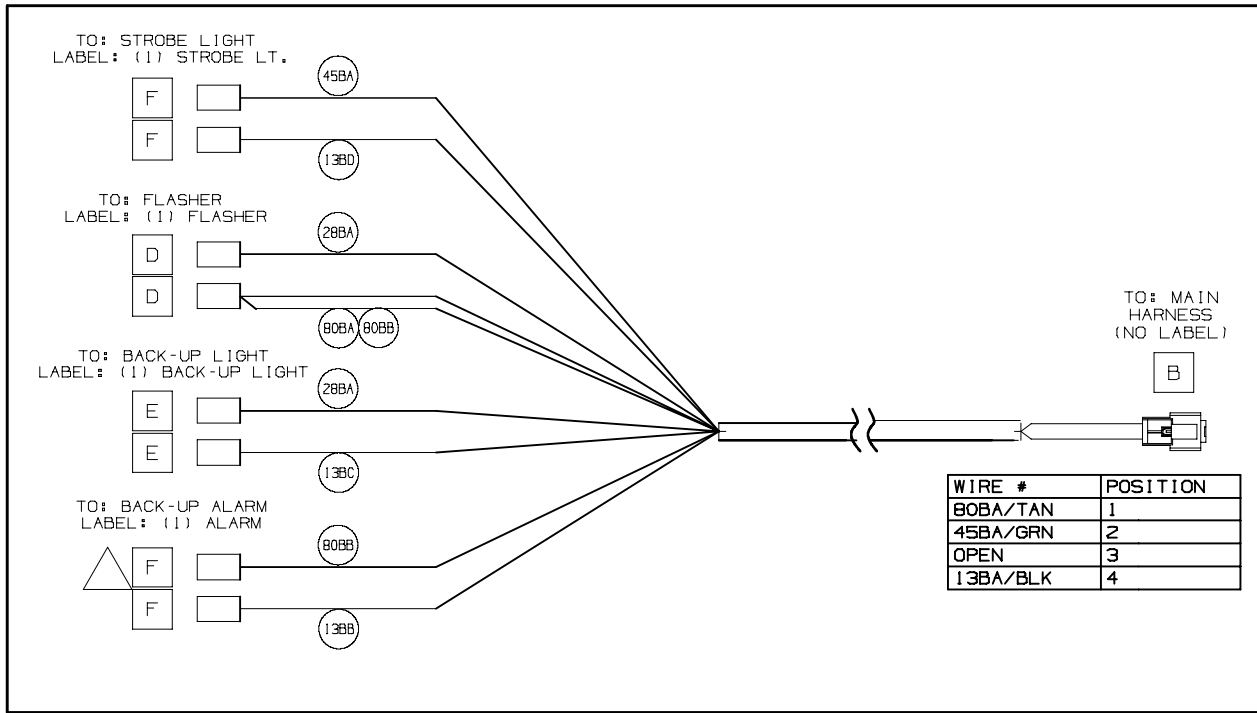


FIG. 5

16. Connect the alarm / strobe harness (21) to the flashing light (13) and use two hex screws (2) to attach the light mounting plate (18) to the alarm bracket (16). Refer to Fig. 5 and Fig. 6.

17. Connect the alarm / strobe harness (21) to the main wire harness. Refer to Fig. 5 and Fig. 11.

NOTE: Take care to not pinch wires between the mounting plate (18) and alarm bracket (16) when assembling the mounting plate onto the alarm bracket.

18. Use two cable ties to secure the alarm / strobe harness (21) to the rear louvre panel on the main cover. Refer to Fig. 7.

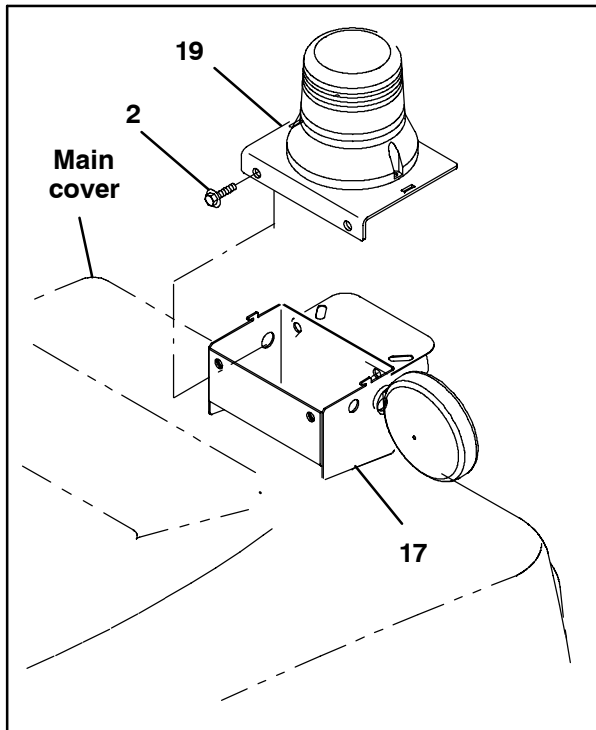


FIG. 6

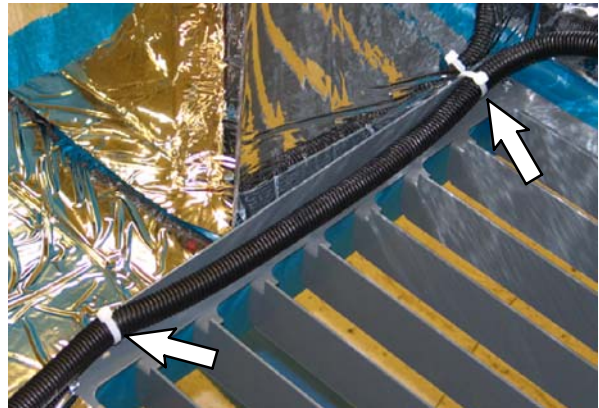


FIG. 7

- Remove the floor plate from the operator compartment. Set the floor plate and hardware aside. Refer to Fig. 8.

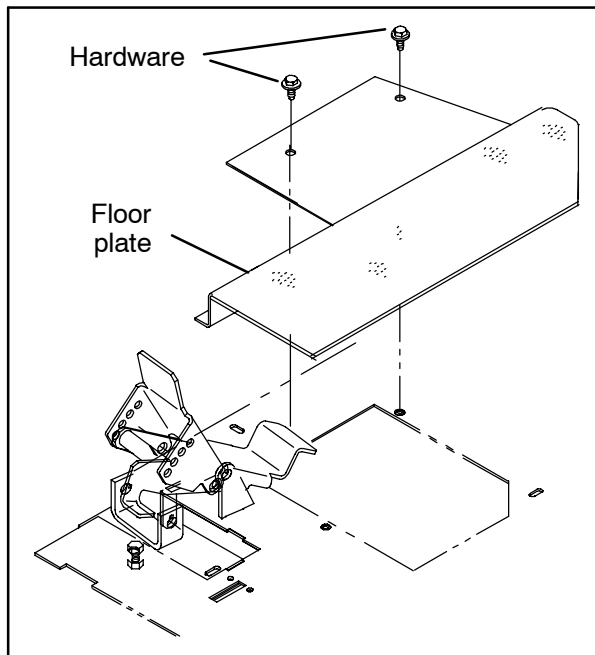


FIG. 8

- Connect the main wire harness to the switch (8). Refer to Fig. 11.
- 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 and the alarm and lights will not operate.
- Remove the nut from the switch (8).
- Holding the switch (8), 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. 9.

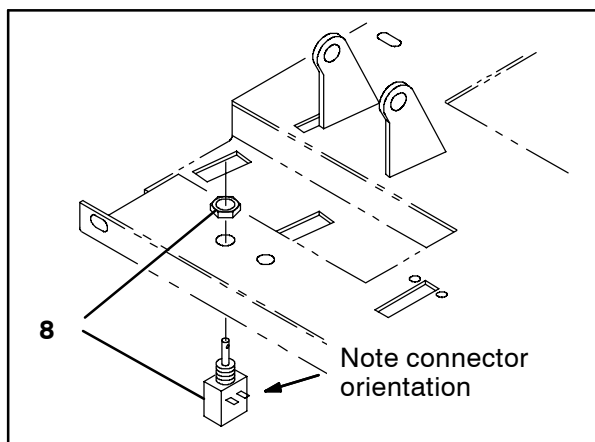


FIG. 9

- Hook the spring (9) to the switch (8). Refer to Fig. 10.

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.

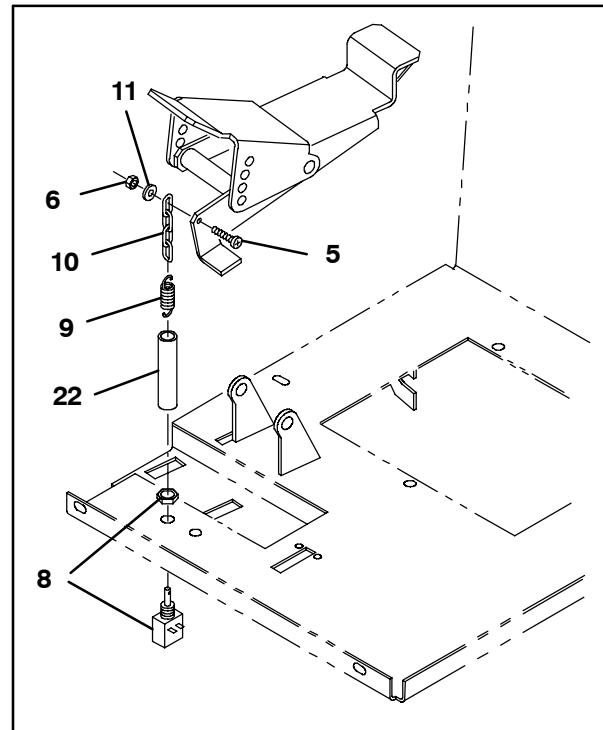


FIG. 10

- Hook the chain (10) onto the other end of the spring (9). Refer to Fig. 10.
- Slide the sleeve (22) onto the spring (9) and chain (10). Refer to Fig. 10.
- Use a pan screw (5), a flat washer (11), and hex nut (6) to install the chain (10) onto the directional pedal. Refer to Fig. 10.
- Reinstall the floor plate into the operator compartment. Refer to Fig. 8.
- Reconnect the battery cables to the batteries.
- 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.

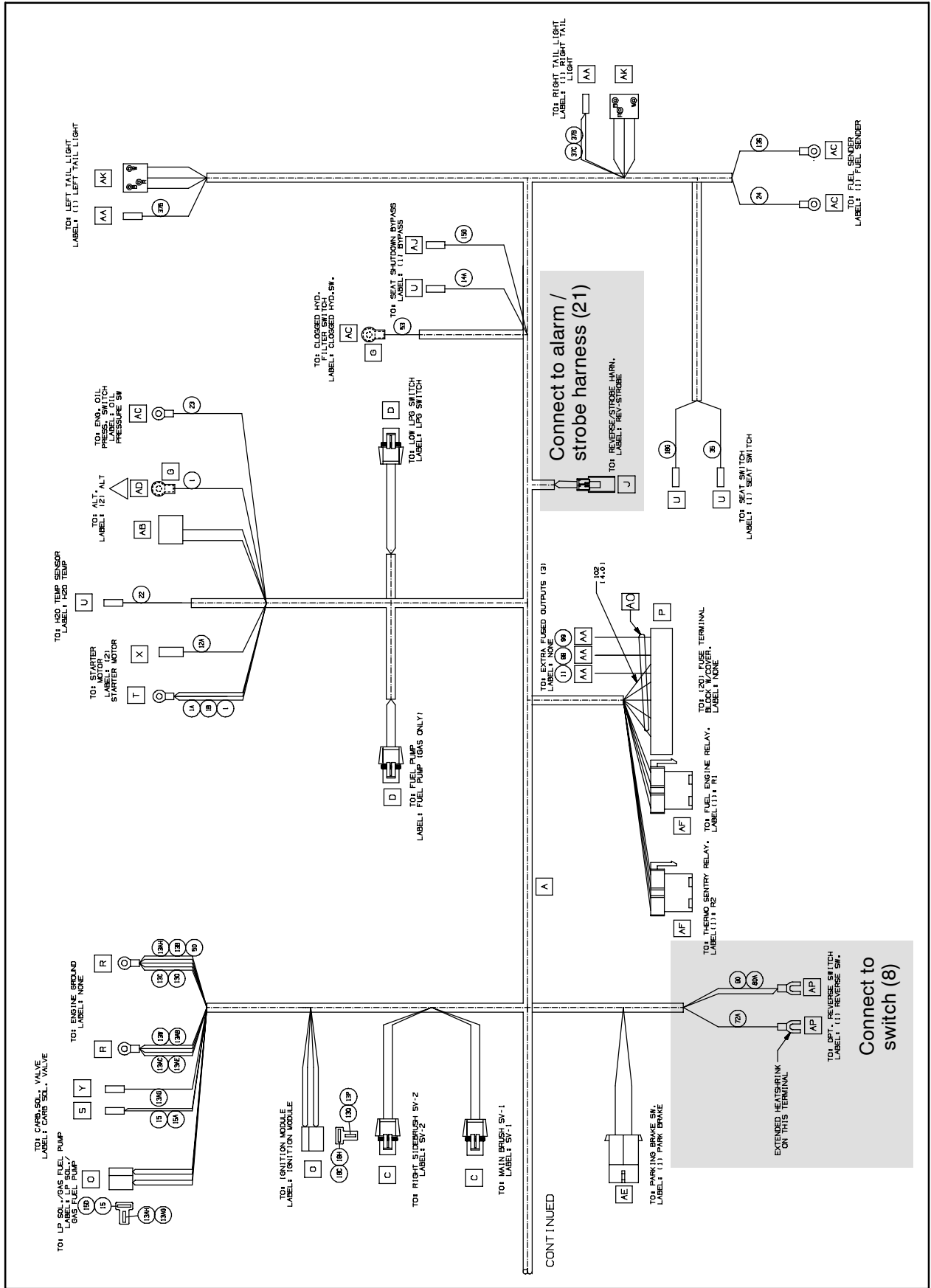


FIG. 11

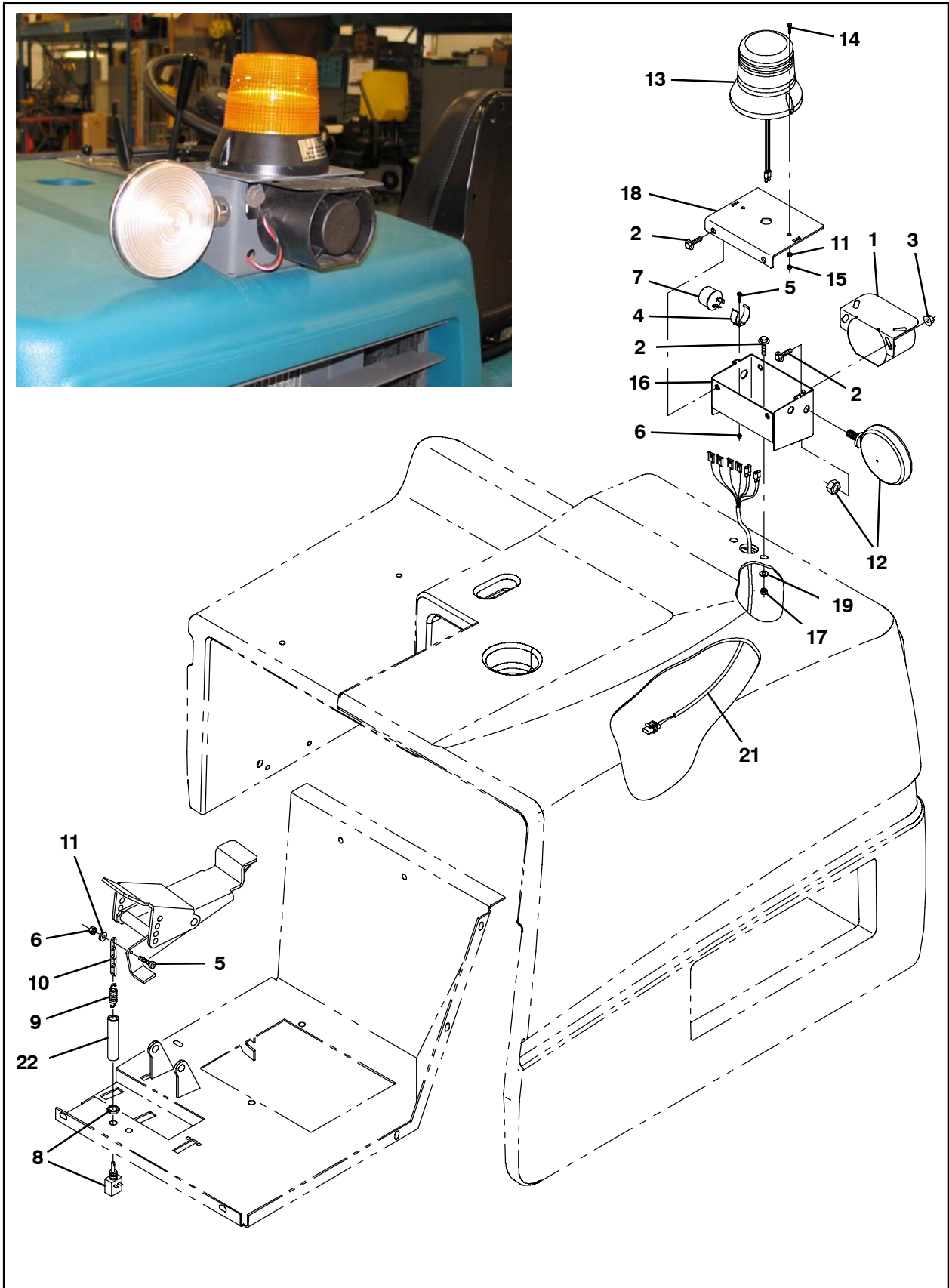


FIG. 12

Bill of Materials for Alarm Kit, Backup, Flsh, Rear, IC, CI - 9006314

Ref.	Tennant Part No.	Description	Qty.
▽	9006314	ALARM KIT, BACKUP, FLSH, REAR, 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	6
▲	3 07791	NUT, HEX, FLNG, M8 X 1.25	2
▲	4 24576-1	CLIP, GRIP, FINGER, 1.19-1.35D, NK PL	1
▲	5 06927	SCREW, PAN, PHL, M4 X 0.70 X 16, 4.8	2
▲	6 02850	NUT, HEX, LOCK, M4 X 0.70, NL	2
▲	7 24576	FLASHER, 12VDC [HD552PS83]	1
▲	8 43673	SWITCH, PULL, NO	1
▲	9 43672	SPRING, EXTN, 0.38OD 0.05WIR 01.0L	1
▲	10 28499-1	CHAIN, SASH, 35, 02.4L 04 LINK	1
▲	11 19066	WASHER, FLAT, 10	3
▲	12 36438	LIGHT, SPOT, 12VDC, 21CP, RWK 44025A	1
▲	13 1017248	LIGHT, FLSH, AMB, 12-48VDC	1
▲	14 06933	SCREW, PAN, PHL, M5 X 0.80 X 16, 4.8	2
▲	15 06549	NUT, HEX, LOCK, M5 X 0.80, NL	2
▲	16 1049554	ANGLE, MTG, ALARM	1
▲	17 08709	NUT, HEX, LOCK, M8 X 1.25, NL	2
▲	18 1049553	PLATE, MTG, LIGHT	1
▲	19 32485	WASHER, FLAT, 0.38, SAE	2
▲	20 41430	NUT, HEX, LOCK, M10 X 1.5, NL	2
▲	21 1051788	HARNESS, ALARM / STROBE [S20]	1
▲	22 366025	SLEEVE, VYL, FLEX, .39ID 03.0L	1
▲	23 55272	TERMINAL, BULLET, MAL, .157D, 12GA	4

TENNANT COMPANY
P. O. Box 1452
Minneapolis, MN 55440-1452