



INSTRUCTION BULLETIN

No. 9020935
Machine: S20
Published: 04-2023
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 9020918**

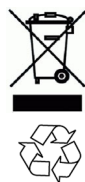
Kit installation must be performed by TennantTrue[®] service or an authorized service provider.

SYNOPSIS:

This kit contains the parts needed to a blue spotlight kit on S20 sweepers.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 2 hours)



PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

PREPARATION:

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

1. Lift the main cover/seat shroud completely open.
2. **Electric Machines:** Disconnect the battery cable from the batteries.
3. **Diesel/Gasoline/LP Machines:** Disconnect the battery cables from the battery.



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

INSTALLATION: ALL MACHINES

1. Remove the plug from the front lintel. Discard the plug. (Fig. 1)



FIG. 1

Machines without location for mounting front spotlight mounting bracket (3) onto front lintel only

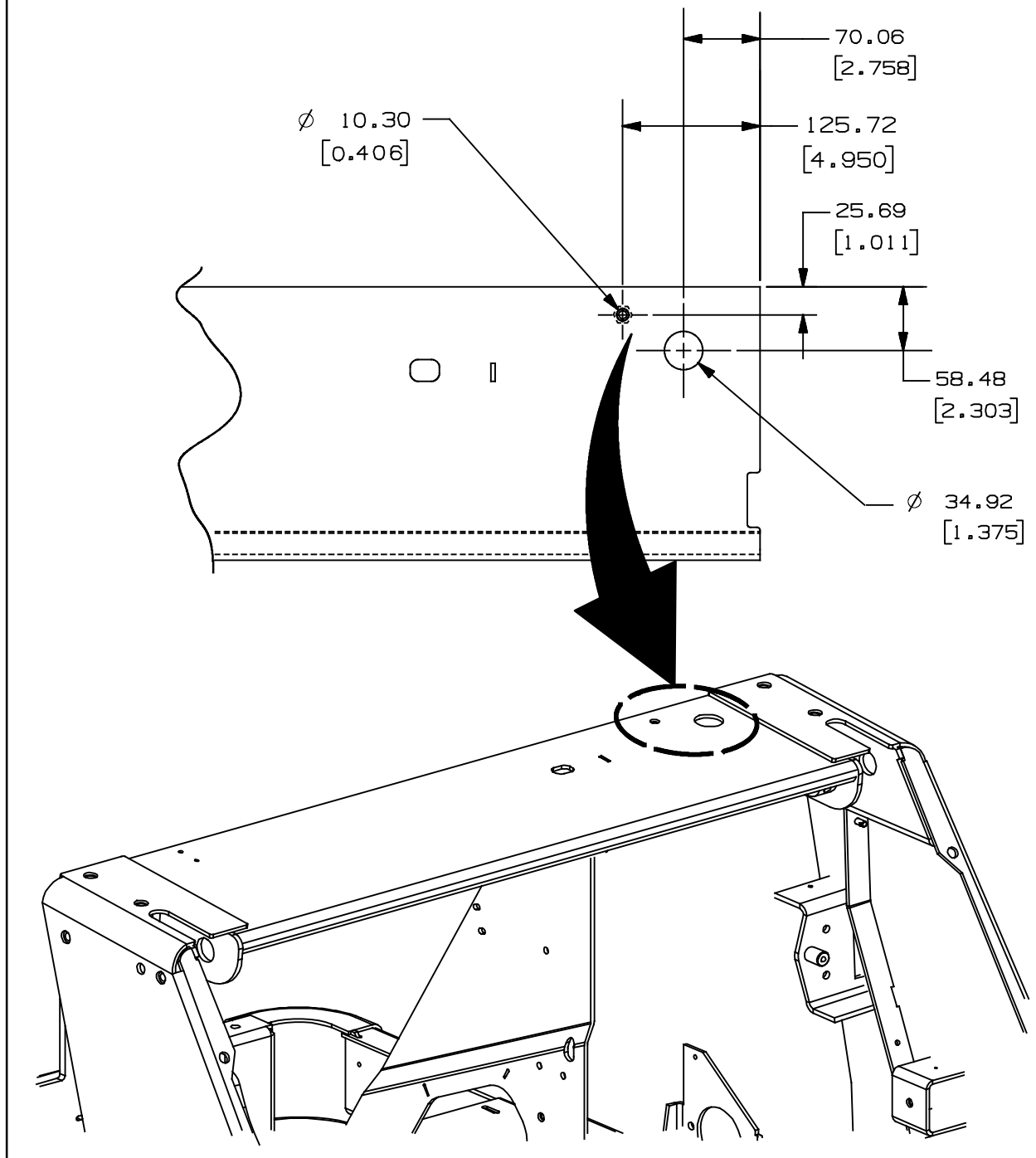


FIG. 2

NOTE: If machine has location for installing front spotlight mounting bracket onto the front lintel proceed to Step 4.

- 2. Machines without location for mounting front spotlight mounting bracket (3) on front lintel only:** Measure and mark the location for the 0.406 in. (10.30 mm) hole to be drilled into the front lintel. (Fig. 2)

- 3. Machines without location for mounting front spotlight mounting bracket (3) onto front lintel only:** Drill a 0.406 in. (10.30 mm) hole into the front lintel. (Fig. 2)

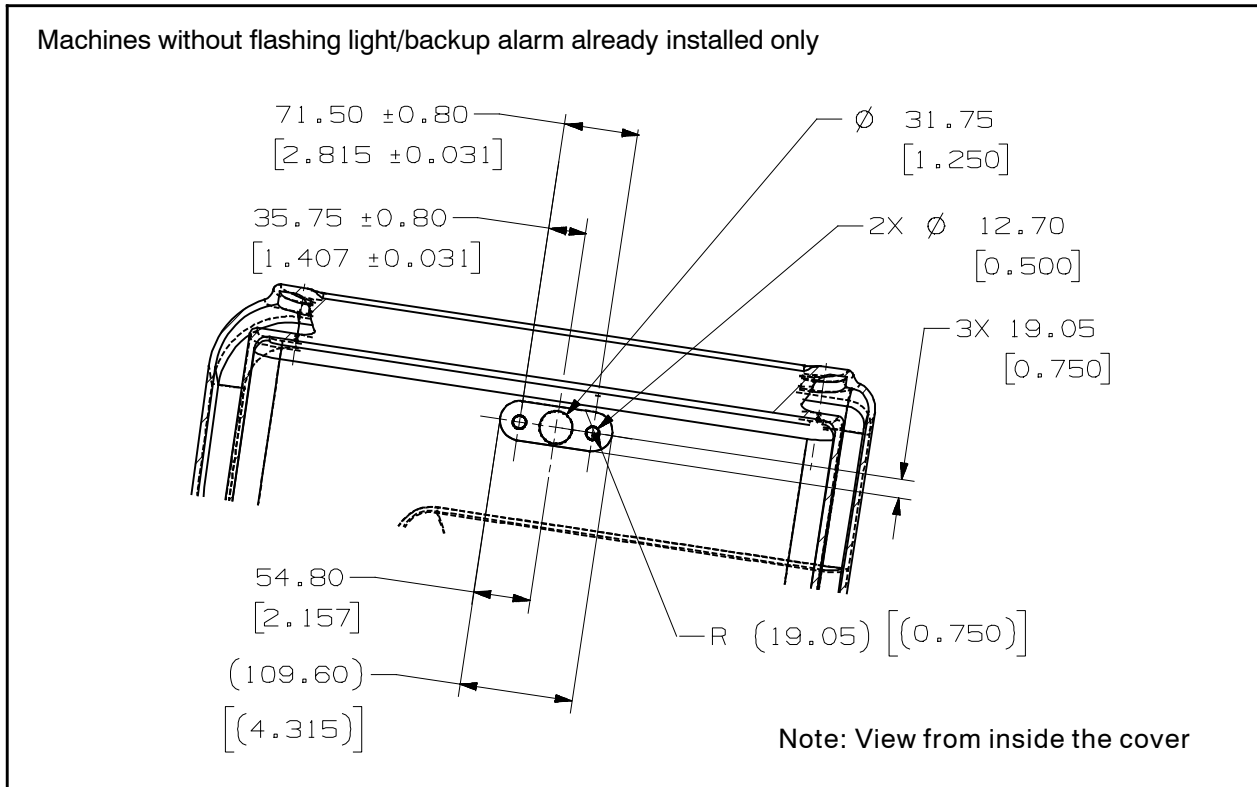


FIG. 3

NOTE: If machine has flashing light/backup alarm already installed on main cover proceed to Step 8.

- Machines without flashing light/backup alarm already installed:** Drill a 0.25 in. (6.35 mm) pilot hole into the center of the slot in the main cover. (Fig. 3/Fig. 4)

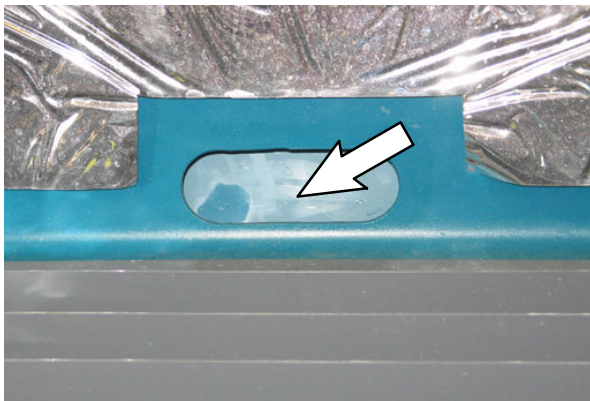


FIG. 4

- Machines without flashing light/backup alarm already installed:** Use the 0.25 in. (6.35 mm) hole drilled in the previous step as a reference to measure locations for the two 0.50 in (12.7 mm) holes. (Fig. 3)
- Machines without flashing light/backup alarm already installed:** Use a hole saw to cut one 1.25 in. (31.75 mm) hole into the main cover. (Fig. 3)
- Machines without flashing light/backup alarm already installed:** Drill two 0.50 in. (12.7 mm) holes into the main cover. (Fig. 3)
- All machines:** Use one SEMS M8 hex screw (4) to install the front spotlight mounting bracket (3) onto the front lintel. (Fig. 5)
- All machines:** Remove the hex nut included with the blue LED spotlight (1) from the light. (Fig. 5)

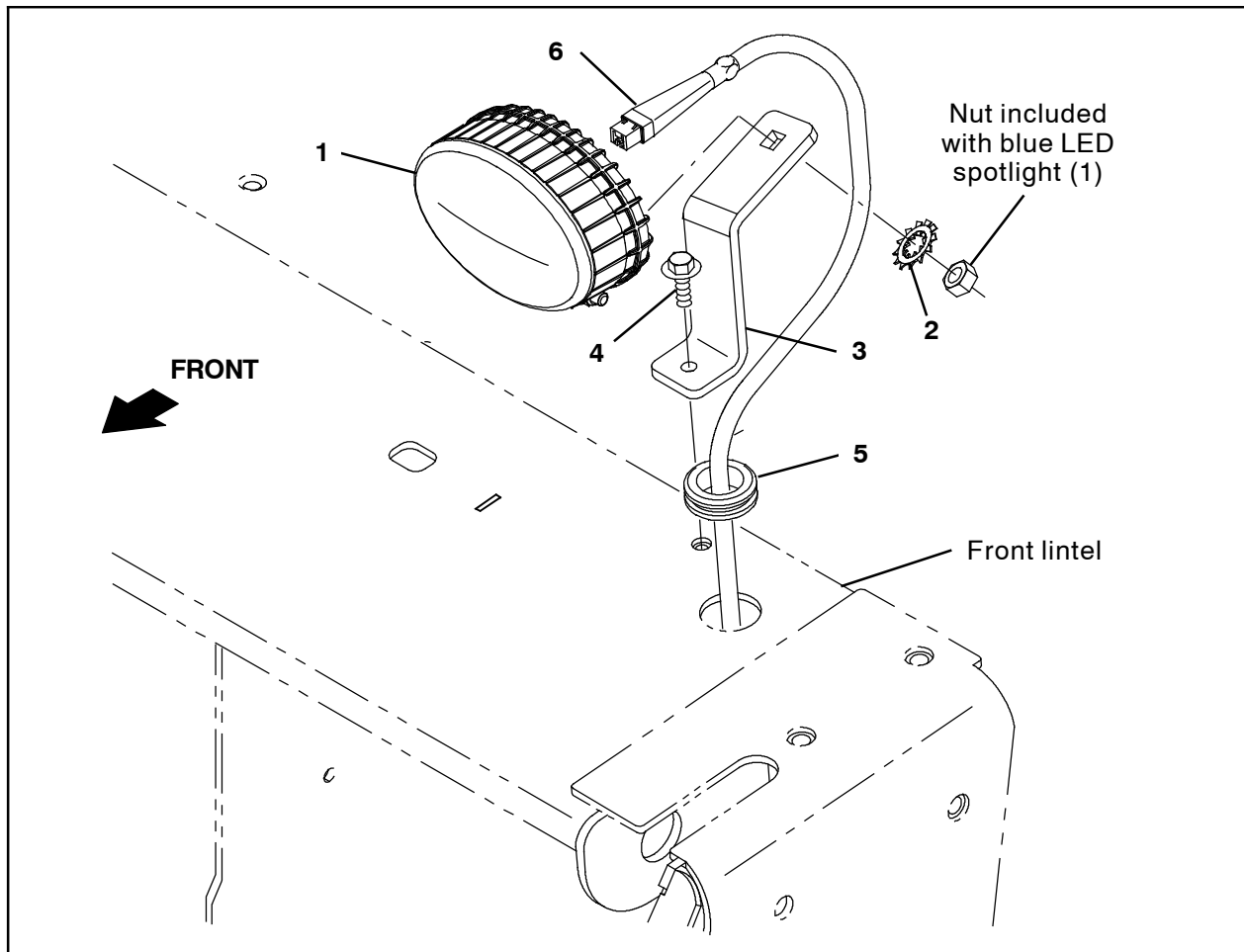


FIG. 5

10. All machines: Use the hex nut removed from the blue LED spotlight (1) in the previous step and a lock washer (2) to install the blue LED spotlight onto the front spotlight mounting bracket (3). (Fig. 5)

11. All machines: Route the end of the blue spotlight harness (6) to be connected to the blue LED spotlight (1) through the hole in the front lintel where the plug was previously located. (Fig. 5/Fig. 7)

12. All machines: Slide a grommet (5) onto the end of the blue spotlight harness (6) to be connected to the blue LED spotlight (1) installed in the previous step. (Fig. 5/Fig. 7)

13. All machines: Connect the blue spotlight harness (6) to the blue LED spotlight (1). (Fig. 5/Fig. 7)

14. All machines: Insert the grommet (5) into the hole in the front lintel. (Fig. 5)

15. All machines: Use several cable ties to secure the blue spotlight harness (6) to the front spotlight mounting bracket (3). (Fig. 5/ Fig. 6)

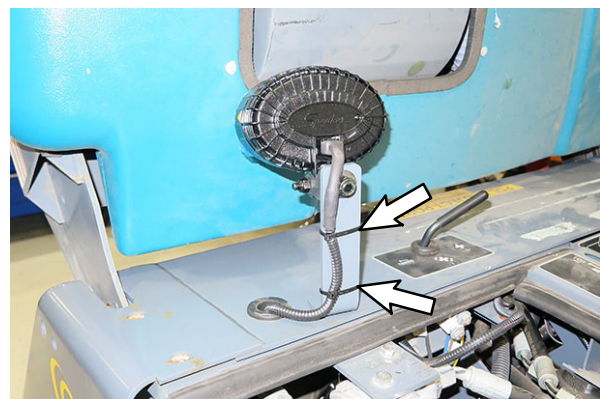
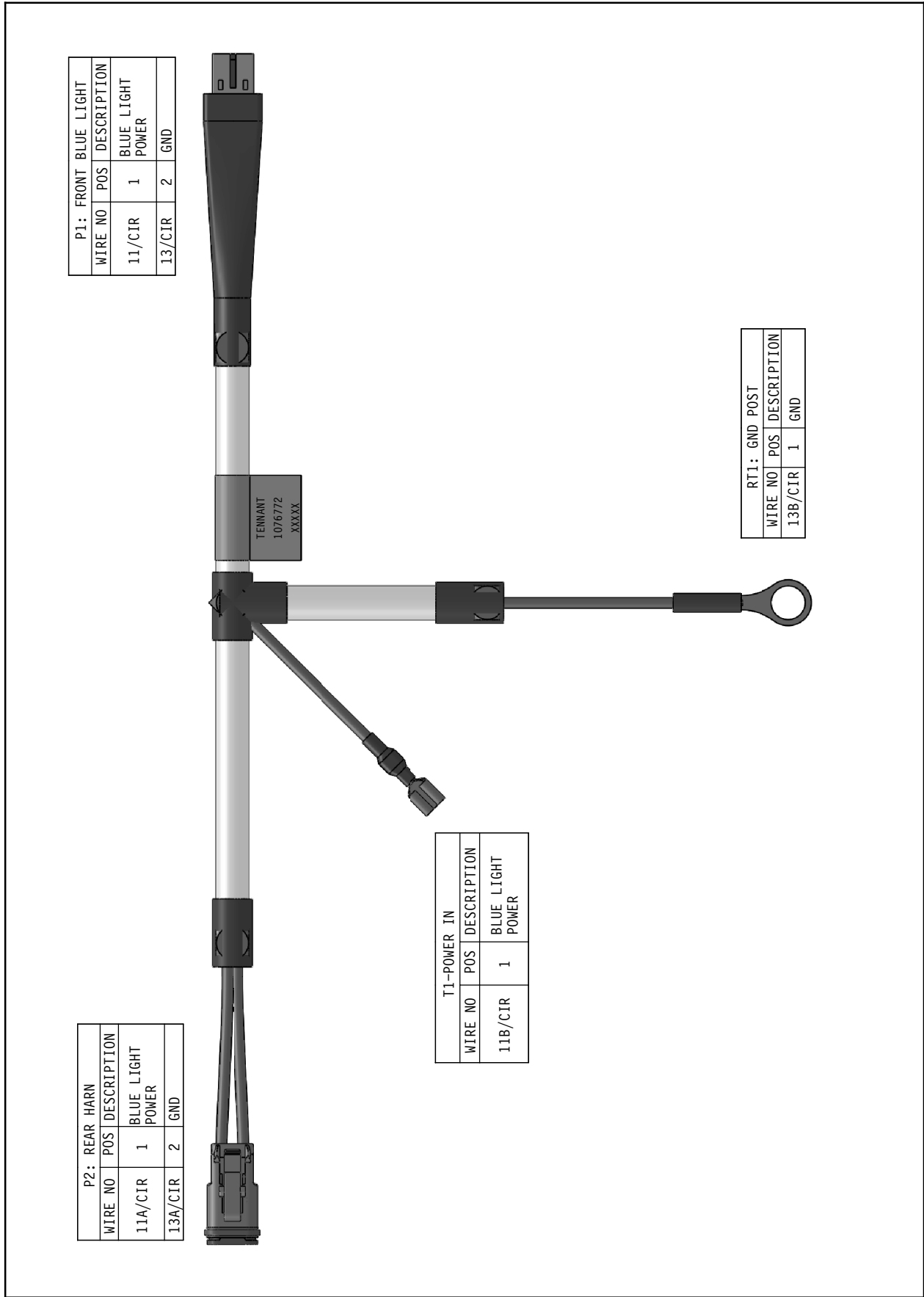


FIG. 6



P1: FRONT BLUE LIGHT		
WIRE NO	POS	DESCRIPTION
11/CIR	1	BLUE LIGHT POWER
13/CIR	2	GND

RT1: GND POST		
WIRE NO	POS	DESCRIPTION
13B/CIR	1	GND

T1-POWER IN		
WIRE NO	POS	DESCRIPTION
11B/CIR	1	BLUE LIGHT POWER

P2: REAR HARN		
WIRE NO	POS	DESCRIPTION
11A/CIR	1	BLUE LIGHT POWER
13A/CIR	2	GND

FIG. 7

16. **IC Machines Only:** Route the blue spotlight harness (6) rear harness lead and power in lead along the main wire harness connected to the filter shaker switch, down along the main wire harness/hydraulic hoses, and to the fuse box. (Fig. 8)

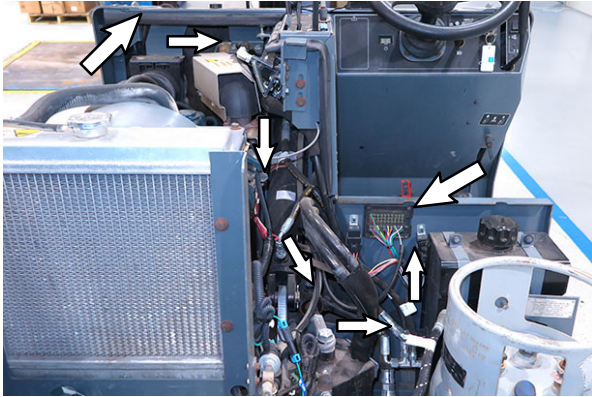


FIG. 8

17. **IC Machines Only:** Route the blue spotlight harness (6) ground lead between the engine and the frame of machine to the engine ground. (Fig. 9)

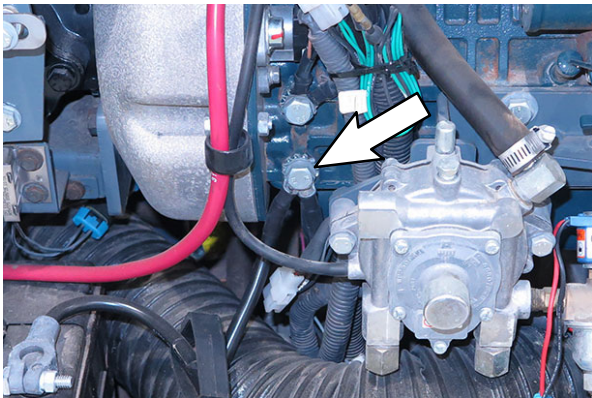


FIG. 9

18. **IC Machines Only:** Use the engine ground hex screw and lock washer connect the blue spotlight harness (6) ground lead to the engine ground. (Fig. 9)

19. **IC Machines Only:** Remove the cover from the fuse panel. (Fig. 10)

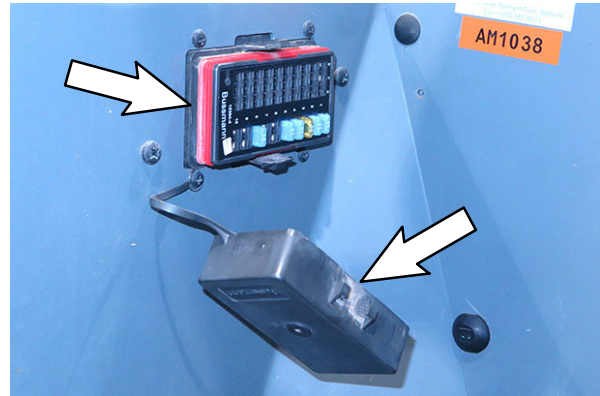


FIG. 10

20. **IC Machines Only:** Insert a 5- Amp fuse (17) into location 11 in the fuse panel. (Fig. 10)

21. **IC Machines Only:** Install the blade connector (18) onto the blue spotlight harness (6) power in lead. (Fig. 7)

22. **IC Machines Only:** Connect the blue spotlight harness (6) power in lead to the previously installed 5- Amp fuse (17). (Fig. 10)

23. **IC Machines Only:** Reinstall the cover onto the fuse panel. (Fig. 10)

24. **Battery Machines Only:** Route the blue spotlight harness (6) along the main wire harness connected to the filter shaker switch, down along the main wire harness/hydraulic hoses, and to the circuit breaker panel. (Fig. 11)

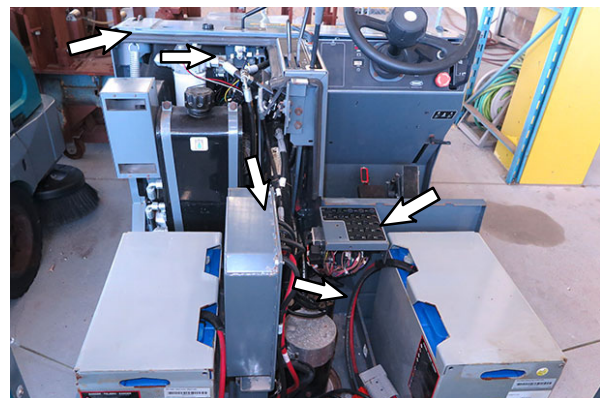


FIG. 11

25. Battery Machines Only: Connect the blue spotlight harness (6) and the main wire harness 20N connector to the 2.5- Amp circuit breaker (7). (Fig. 12/ Fig. 7)

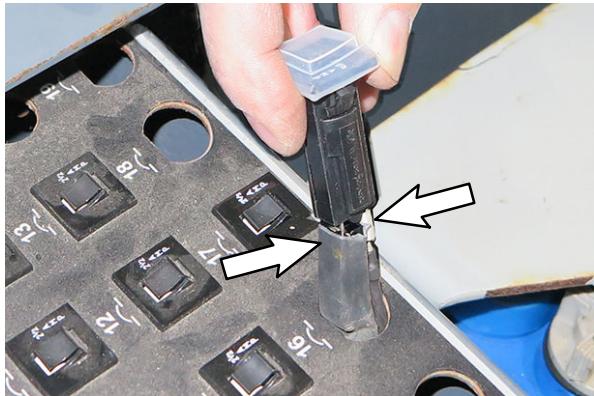


FIG. 12

26. Battery Machines Only: Insert the 2.5- Amp circuit breaker (7) into circuit breaker 16 location in the circuit breaker panel and install the circuit breaker boot (8) onto the 2.5- Amp circuit breaker. (Fig. 13/ Fig. 14)

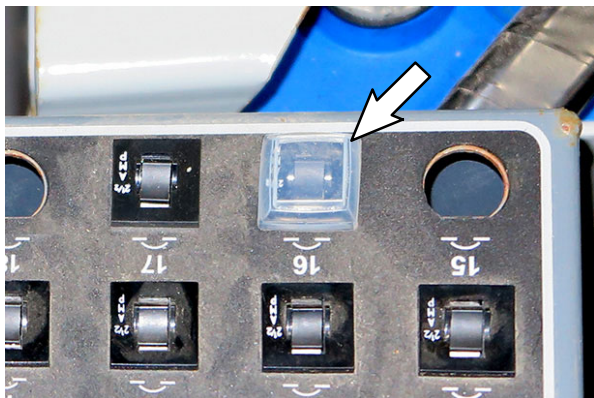


FIG. 13

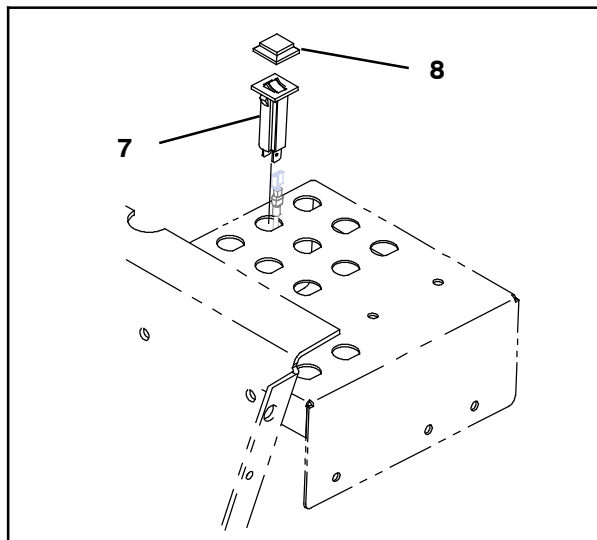


FIG. 14

27. Battery Machines Only: Remove the cover from the electrical box. Set the cover and all hardware aside. (Fig. 15)



FIG. 15

28. Battery Machines Only: Route the blue spotlight harness (6) ground lead through the hole in the electrical box and into the interior of the electrical box. (Fig. 16)

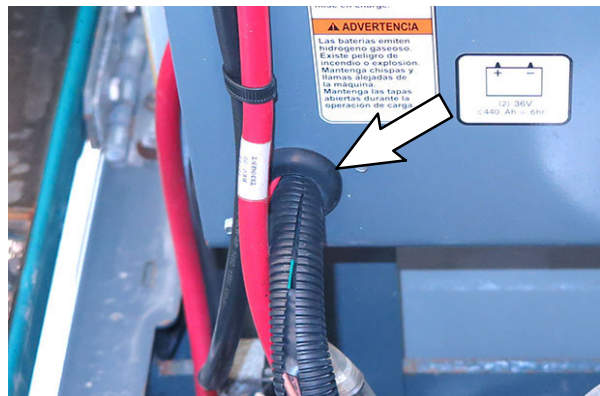


FIG. 16

29. Battery Machines Only: Connect the blue spotlight harness (6) ground lead to the machine ground located inside the electrical box. (Fig. 17/ Fig. 7)

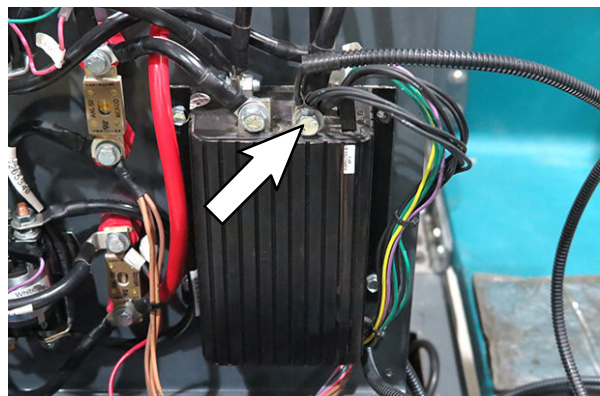


FIG. 17

30. **Battery Machines Only:** Reinstall the cover onto the electrical box.

31. **All Machines:** Route the remainder of the blue spotlight harness (6) to the rear of the machine.

32. **Machines equipped with flashing light/backup alarm assembly:** Remove the flashing light/light mounting plate from the alarm mounting angle. Discard the hardware. (Fig. 18)

33. **Machines equipped with flashing light/backup alarm assembly (new design alarm mounting angle):** Remove the flashing light from the light mounting plate. Discard the light mounting plate and hardware. (Fig. 18)

34. **Machines equipped with flashing light/backup alarm assembly (new design alarm mounting angle):** Install the flashing light onto the new light mounting plate (9). (Fig. 18)

35. **Machines equipped with flashing light/backup alarm assembly (previous design alarm mounting angle):** Disconnect the alarm/strobe harness from the flashing light and remove the flashing light from the light mounting plate. Set the flashing light and hardware aside. Discard the light mounting plate. (Fig. 18)

36. **Machines equipped with flashing light/backup alarm assembly (previous design alarm mounting angle):** Disconnect the alarm/strobe harness from the 5- Amp circuit breaker, LED light, flasher, and backup alarm and remove these components from the alarm mounting angle. Set all removed components and hardware aside. (Fig. 18)

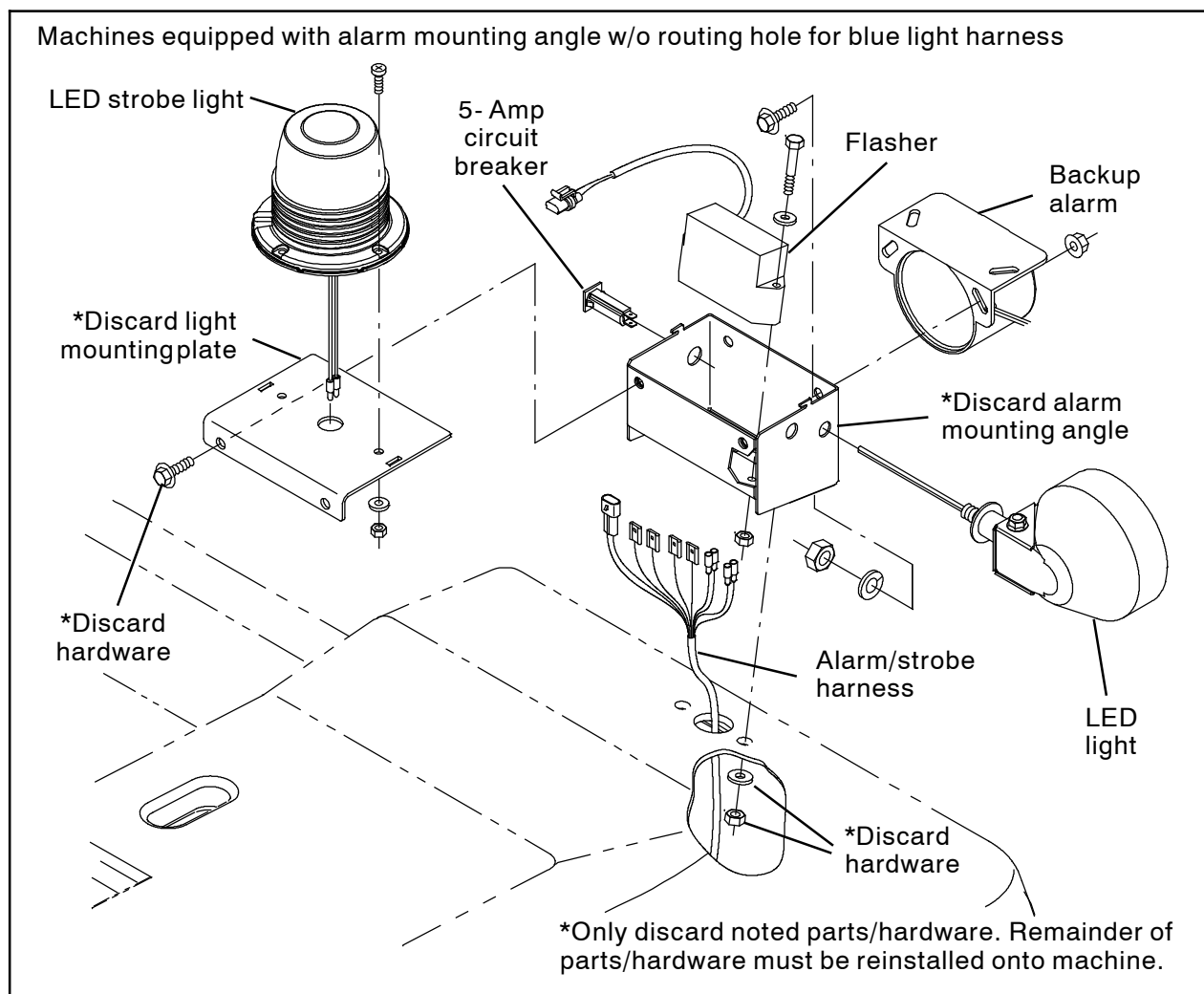


FIG. 18

37. **Machines equipped with flashing light/backup alarm assembly (previous design alarm mounting angle):** Remove the alarm mounting angle from the machine. Discard the alarm mounting angle and hardware. (Fig. 18)
38. **Machines equipped with flashing light/backup alarm assembly (previous design alarm mounting angle):** Use two M8 hex nuts (13) and two flat washers (12) to install the new alarm mounting angle (11) onto the main cover. (Fig. 20)
39. **Machines equipped with flashing light/backup alarm assembly (previous design alarm mounting angle):** Install the 5- Amp circuit breaker, LED light, flasher, and backup alarm 5- Amp circuit breaker, LED light, flasher, and backup alarm onto the alarm mounting angle (11). (Fig. 18/Fig. 20)
40. **Machines equipped with flashing light/backup alarm assembly (previous design alarm mounting angle):** Reconnect the alarm/strobe harness to the 5- Amp circuit breaker, LED light, flasher, and backup alarm. (Fig. 20)
41. **All machines:** Install the flashing light onto the blue spotlight rear mounting bracket (9). (Fig. 20)
42. **All machines:** Remove the hex nut included with the blue LED spotlight (1) from the light. (Fig. 20)
43. **All machines:** Use the hex nut removed from the blue LED spotlight (1) in the previous step and a lock washer (2) to install the blue LED spotlight onto the blue spotlight rear mounting bracket (9). (Fig. 20)
44. **All machines:** Route the end of the blue spotlight harness (15) to be connected to the blue LED spotlight (1) through the hole in the main cover, into the alarm mounting angle (11), and through the blue spotlight rear mounting bracket (9). (Fig. 20/ Fig. 21)
45. **All machines:** Slide a grommet (14) onto the end of the blue spotlight harness (15) to be connected to the blue LED spotlight (1) installed on the blue spotlight rear mounting bracket (9). (Fig. 20/ Fig. 21)

46. **All machines:** Route the blue spotlight harness (15) through the hole in the alarm mounting angle (11). (Fig. 20)
47. **All machines:** Insert the grommet (14) into the hole in the alarm mounting angle (11). (Fig. 20)
48. **All machines:** Route the blue spotlight harness (15) through the hole in the blue spotlight rear mounting bracket (9). (Fig. 20)
49. **All machines:** Slide another grommet (14) onto the end of the blue spotlight harness (15) to be connected to the blue LED spotlight (1). (Fig. 20)
50. **All machines:** Connect the blue spotlight harness (15) to the blue LED spotlight (1). (Fig. 20/ Fig. 21)
51. **All machines:** Insert the grommet (14) into the hole in the blue spotlight rear mounting bracket (9). (Fig. 20)
52. **All machines:** Use two SEMS M8 hex screws (10) to install the blue spotlight rear mounting bracket (9) onto the alarm mounting angle (11). (Fig. 20)
53. **All Machines:** Route the blue spotlight harness (15) along the flashing light harness and to the blue spotlight harness (6). Connect the two harnesses. (Fig. 19/ Fig. 20)

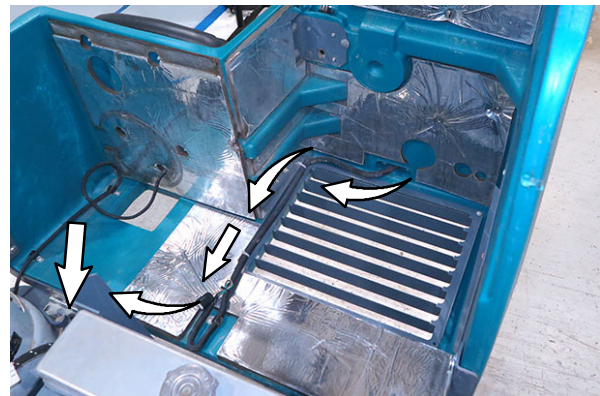


FIG. 19

54. **All Machines:** Use several cable ties (16) to secure the blue spotlight harness (15) to the flashing light harness. (Fig. 19)
55. **Electric Machines:** Reconnect the battery cable to the batteries.
56. **Diesel/Gasoline/LP Machines:** Reconnect the battery cables to the battery.

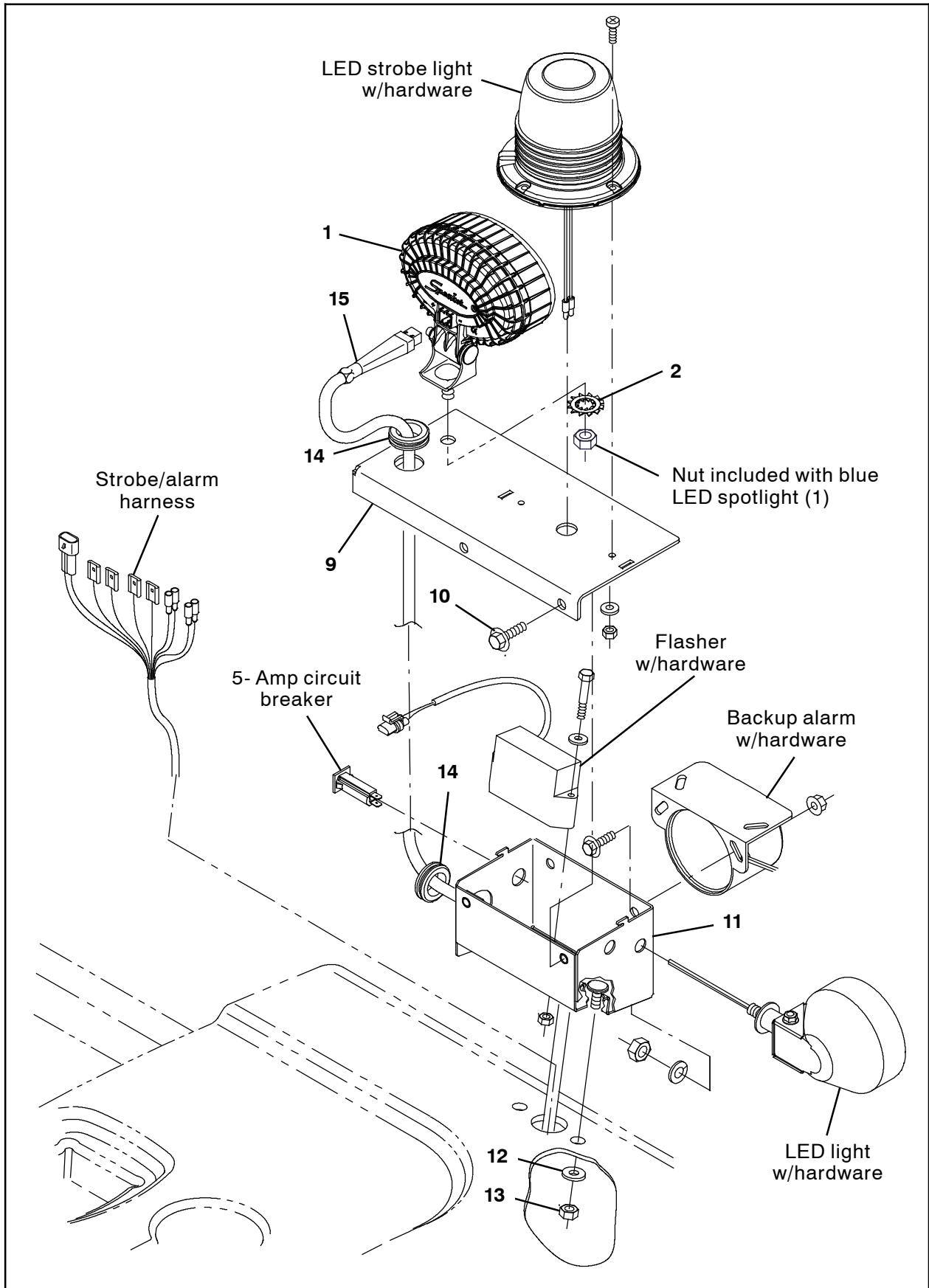


FIG. 20

P3- REAR BLUE LIGHT		
WIRE NO	POS	DESCRIPTION
11C/SQU	1	BLUE LIGHT POWER
13C/SQU	2	GND

J1: FRONT HARN		
WIRE NO	POS	DESCRIPTION
11C/CIR	1	BLUE LIGHT POWER
13C/CIR	2	GND

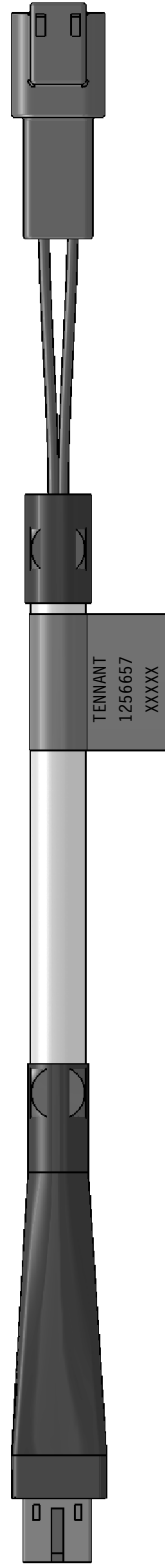


FIG. 21

57. **All Machines:** Use cable ties (16) as necessary to secure the blue spotlight harnesses (6)/(15) to the main wire harness/other nearby harnesses so neither harness can be damaged by moving parts.

Secure the blue spotlight harness (6) to the main wire harness away from the machine controls located on the above control panel. (Fig. 22)

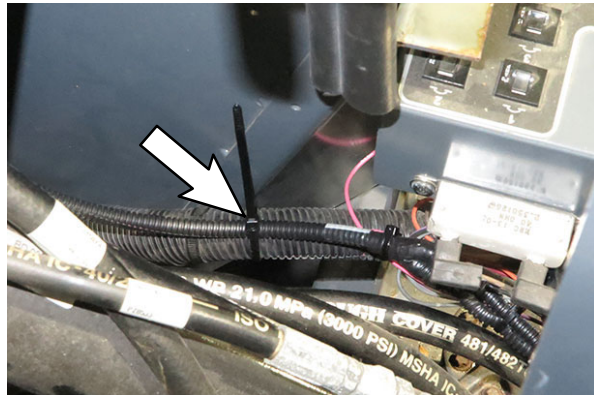


FIG. 22

58. Close the main cover/seat shroud.

59. Turn on/start the machine. Both blue spotlights should illuminate immediately upon the machine being turned on/started.

Bill Of Materials For Kit, Spotlight, Blue, CI [S20 UNI] - 9020918

Ref.	Part No.	Description	Qty.
1	1240687	Light, Spot, Blue, LED	2
2	41143	Washer, Lock, Int- Ext, 0.50	2
3	1076786	Brkt, Blu Spotlight, Fr, Frame Mtg	1
4	1037354	Screw, Hex, M8 X 1.25 X 30, 9.8, SEMS	1
5	10632- 1	Grommet, Rbr, 1.06id, F/1.4h, .19 Matl	2
6	1076772	Harness, Blu Spotlight [S20]	1
7	1064184	Circuit Breaker, 02.5a, Resettable (Battery Machines Only)	1
8	1064191	Boot, Circuit Breaker (Battery Machines Only)	1
9	1252057	Brkt, Blu Spotlight, Rr, Frame Mtg	1
10	1020341	Screw, Hex, M8 X 1.25 X 20, SS, SEMS	2
11	1049554	Angle, Mtg, Alarm	1
12	32491	Washer, Flat, 0.31, Std	2
13	08709	Nut, Hex, Lock, M8 X 1.25, NI	2
14	10632	Grommet, Rbr, 0.89id, F/1.2h, .14 Matl	2
15	1256657	Harness, Blu Spotlight [S20]	1
16	763114	Tie, Cable, 11.3l, 2.75d Max	10
17	1049734	Fuse, Blade, 005a, 32vdc [Mini] (IC Machines Only)	1
18	13906	Connector, Blade, Mal, 0.25, 1 Terminal (IC Machines Only)	1

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