

Operator Work Lights Installation

AT-9047

Document Number	Kit Number / Part Number	Model	Serial Number Range
12-70027	AT-9047	520M / 520Y	All Units

⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off the engine, and remove the ignition key.

Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

⚠ WARNING

Safety glasses must be worn during installation. Ear (hearing) protection must be worn when using air or power tools.

Installation Notes: Right and left hand orientation referred to in these instructions is determined as if facing forward from the operator station.

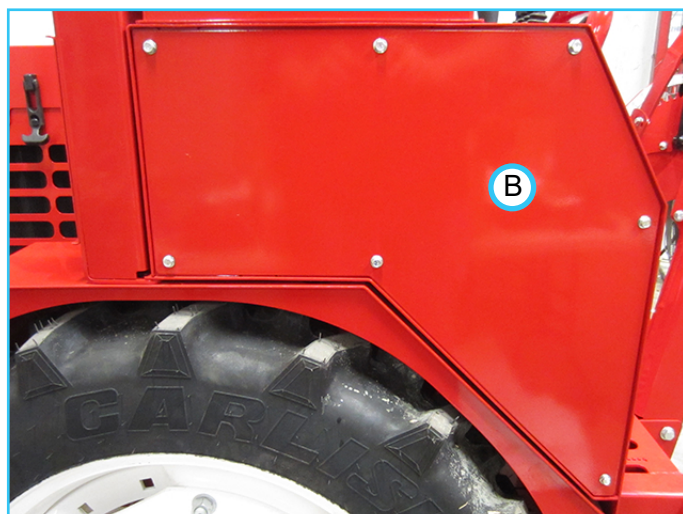
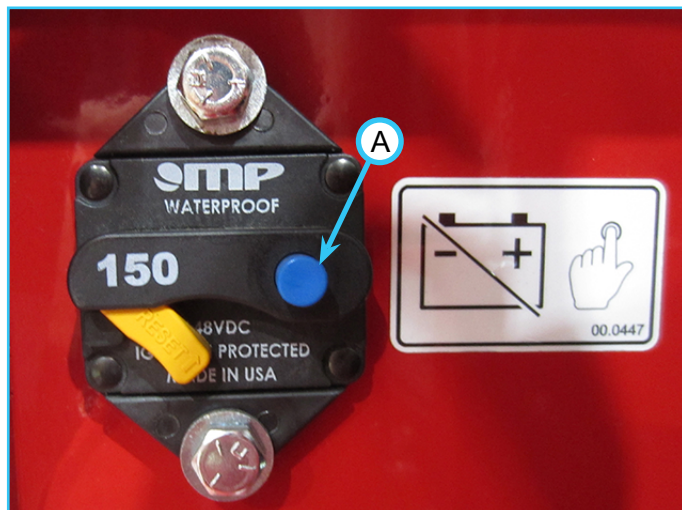
Installation Time (estimated) 2 hours

Tools Required: 3/8" Wrench, 7/16" Wrench, 3/8" Socket, 7/16" Socket, Ratchet, Torque wrench, Side cutters, 13mm wrench, 13mm socket

Kit Contents		
Part #	Description	Qty.
30-0333	Fuse, 10 Amp Mini Red	2
31-0053	Switch, Rocker On/Off	2
32-0183	Harness Wire AT Rear Work Light	1
33-0079	Light, LED Wide Flood	4
99-SF04	Nut, SRF 1/4-20 USS	8
99-SF0404	Bolt, SRF 1/4-20 x 1/2	8
AT-1509	Plate, Rear Light Mount	2
30-0037	Tyton Tie #50 .18 x 8 Black	8

- Remove the console cover (B) by removing the seven 1/4" bolts located around the perimeter of the cover.

- Disconnect the electrical power to the tractor by pushing the circuit breaker button (A).

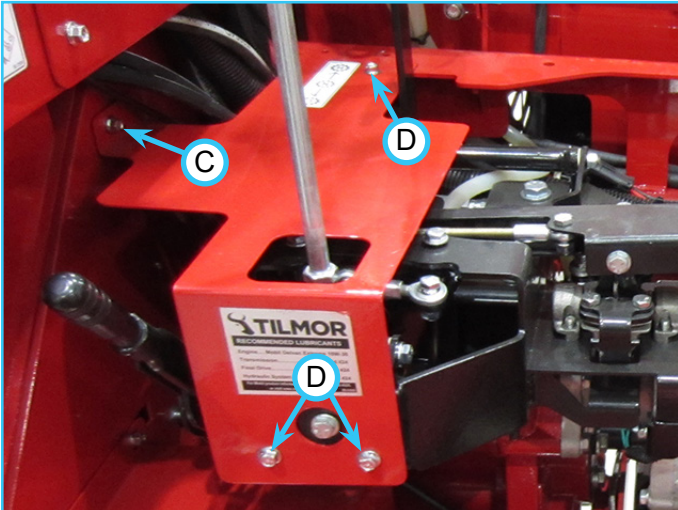




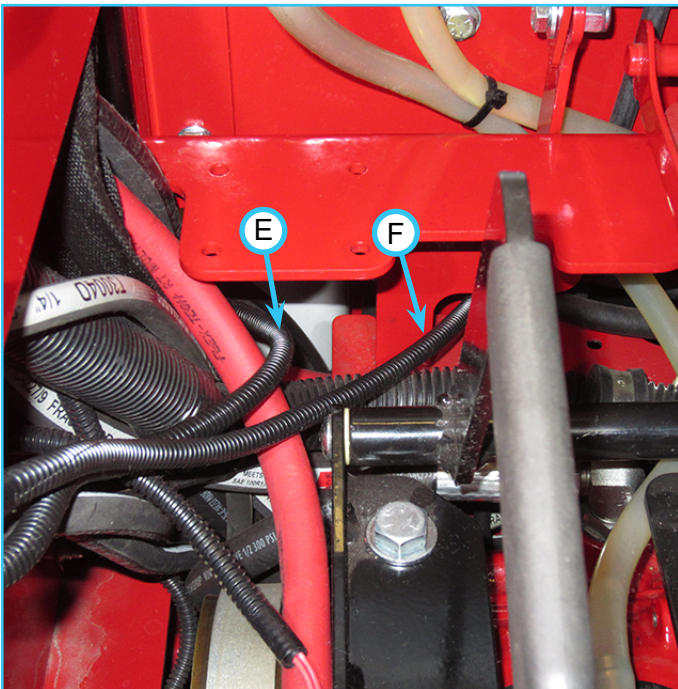
Attention

NOTE: Three of the 1/4" bolts (D) are held in place with 1/4" flange nuts.

3. Remove the shifter box cover by removing the four 1/4" mounting bolts (C,D).



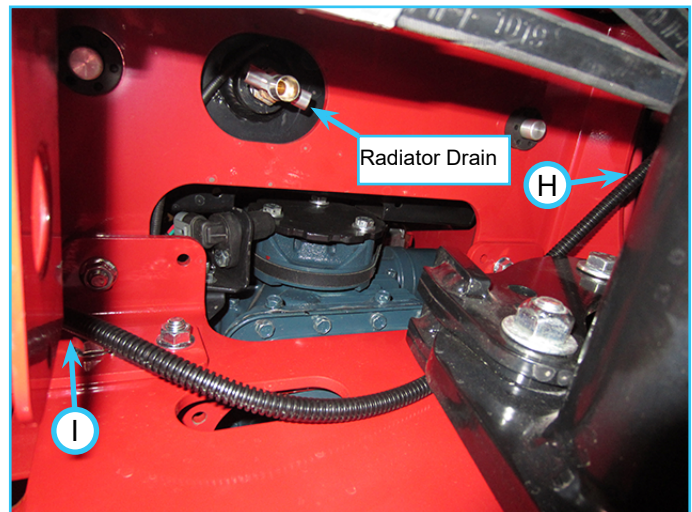
4. Remove the shifter box cover.
5. Fold the operators seat forward.
6. Route the rear work light harness through the openings behind the two speed transmission high/low shifter.
7. The short side of the harness should go through the left opening (E) and the long side through the right opening (F).



8. Pull the short side of the harness (G) through the opening above the hydraulic filter located at the rear of the tractor between the engine compartment and the right fender assembly.



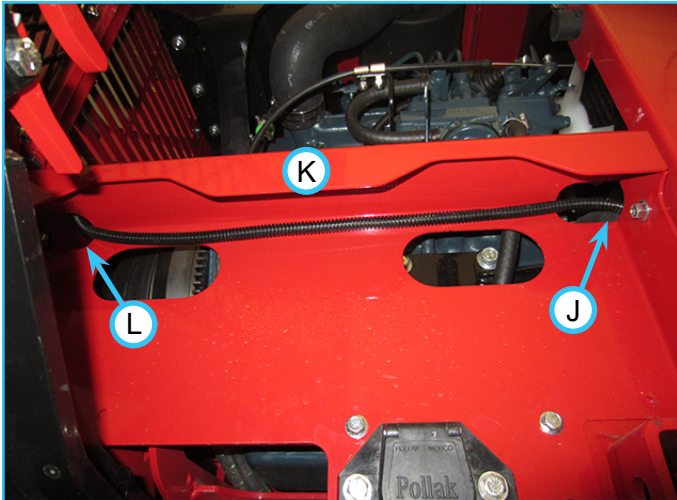
9. The long side of the harness (H) through the opening under the right side of the engine compartment.



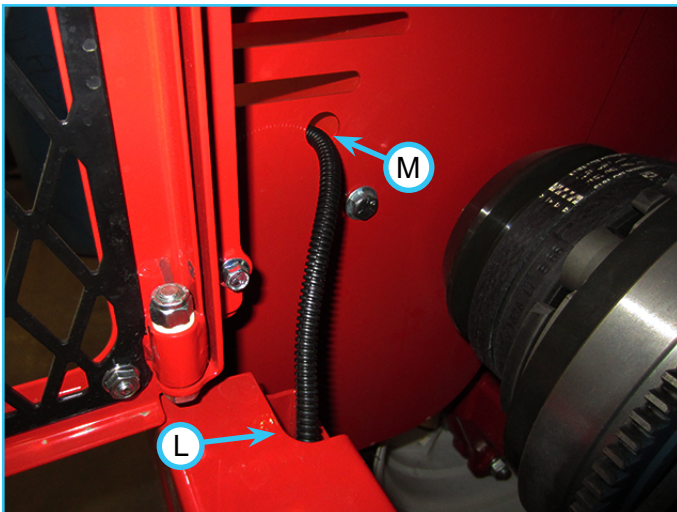
10. The long side of the harness will be routed under the engine radiator and through opening (I).



11. The harness will then be routed through opening (J), along the bottom side of the engine access door frame (K) and back into the engine compartment through opening (L).



12. From opening (L) rout the harness through access hole (M).



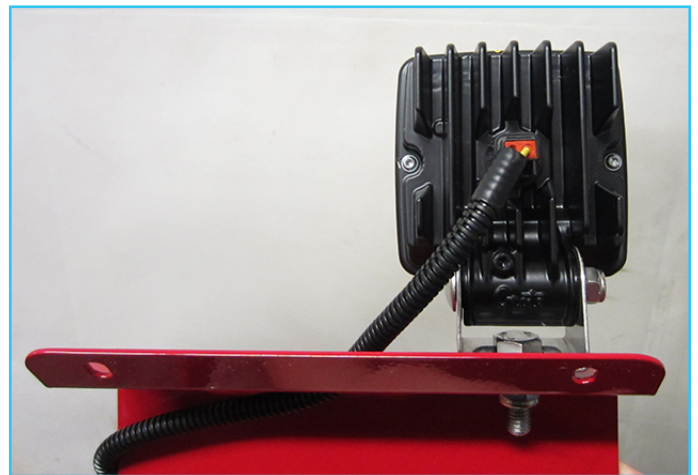
13. Mount the lights to the rear light mounts. The lights should be positioned on the outer most mounting hole as shown below.



14. Install the rear lights, position the 8mm mounting bolt through the rubber washer, and then through the mounting bracket.
15. Secure the light in place with the 8mm washer and 8mm lock nut (N).



16. To install the left rear work light mounting bracket, route the harness through the work light mounting bracket.



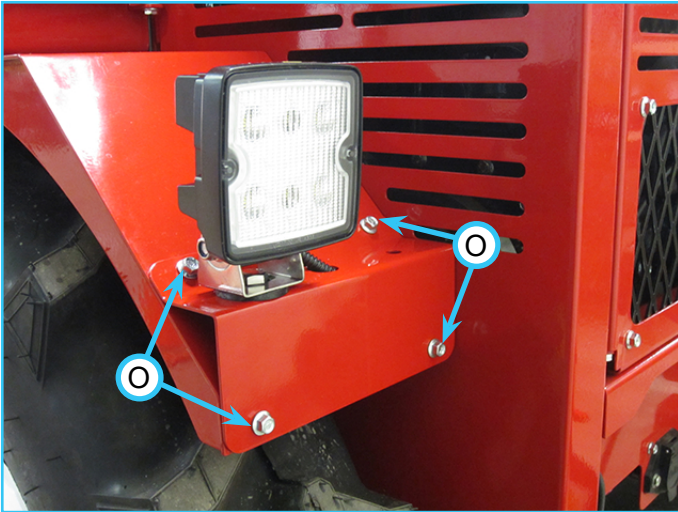
17. Connect the harness to the light.



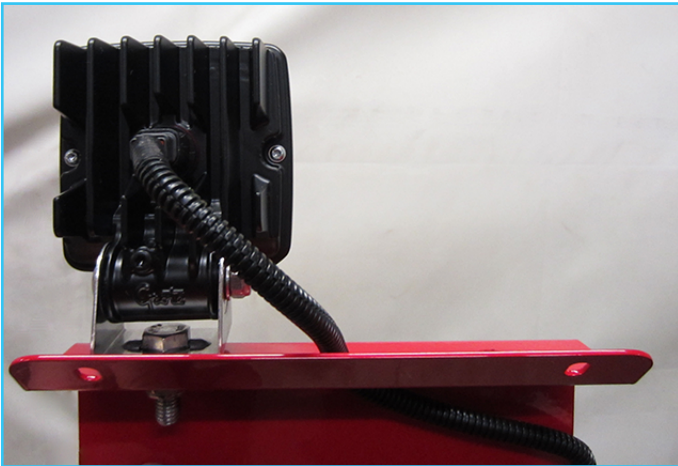
Attention

NOTE: As the bracket is being positioned the extra harness will need to be routed back into the engine compartment.

18. Position the mounting bracket against the fender aligning the mounting holes. Ensure that the harness is routed through the right side of the bracket.
19. Secure the mounting bracket in place using four 1/4" bolts (O) and 1/4" flange nuts.

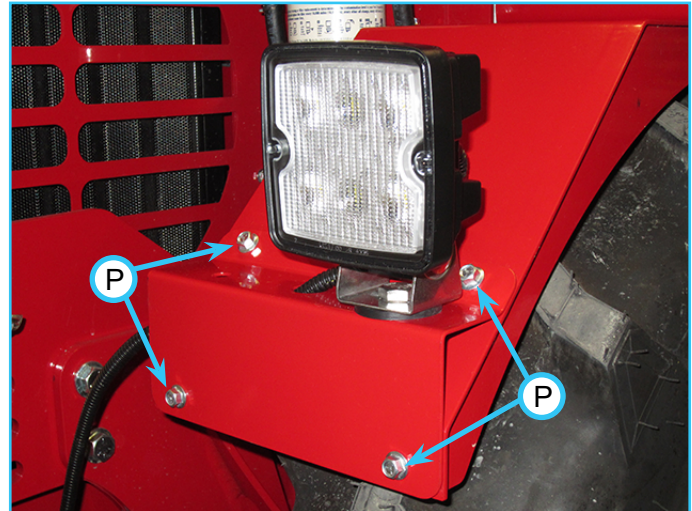


20. Torque the bolts to 100 in-lbs (11 Nm).
21. To install the right rear work light mounting bracket, route the harness through the work light mounting bracket.



22. Connect the harness to the light.
23. Position the mounting bracket against the fender aligning the mounting holes. Ensure that the harness is routed through the left side of the bracket.

24. Secure the mounting bracket in place using four 1/4" bolts (P) and 1/4" flange nuts.



25. Torque the bolts to 100 in-lbs (11 Nm).



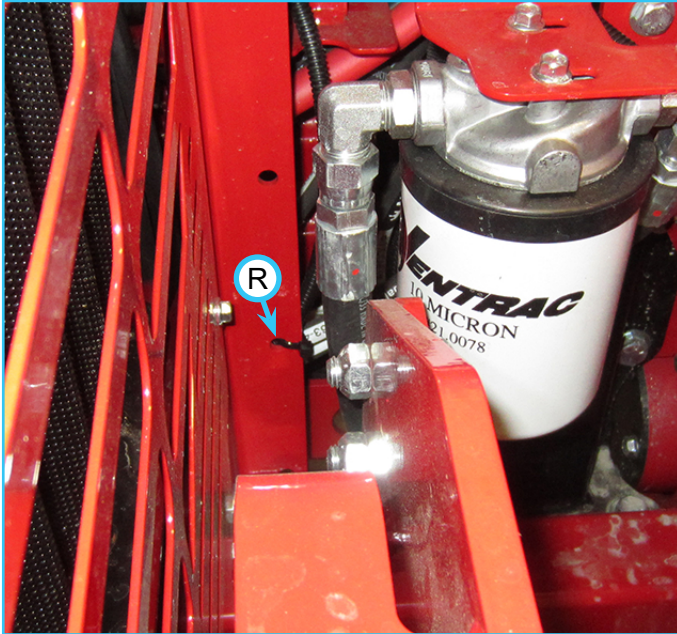
CAUTION

The wiring harness should not be pulled so tightly that there is stress put on any connections.

26. Follow the harness from the left work light removing slack from the harness to be bundled in the operators console.
27. Secure the harness in place under the radiator using a cable tie (Q).

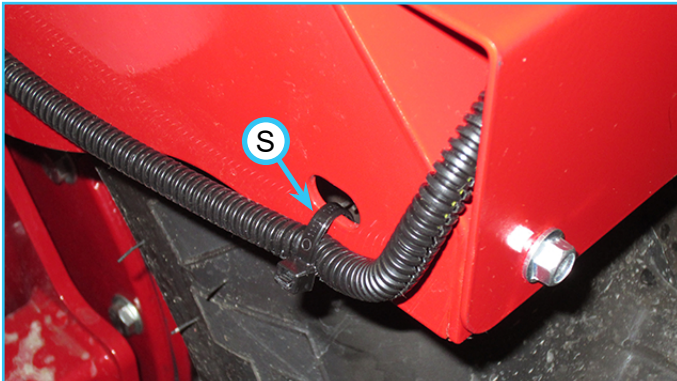


28. Secure the harness to the right hand engine cover mount using a cable tie (R).

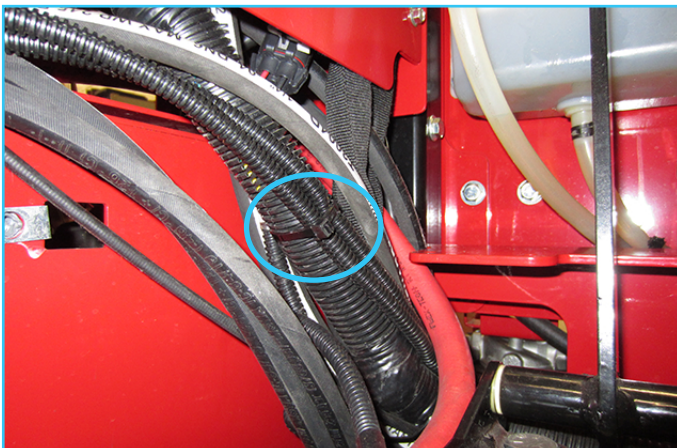


29. Follow the harness from the right work light removing slack from the harness to be bundled in the operators console.

30. Secure the harness to the inner fender using a cable tie (S).



31. Secure the two branches of the harness to the main wiring harness using a cable tie as shown below.



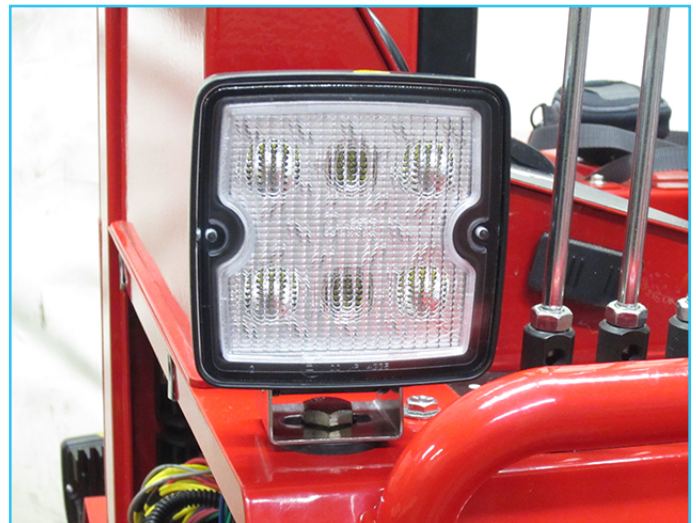
32. Bundle the harness together with two cable ties inside the operators console.



33. Connect the wiring harness to the tractor wiring harness connector labeled Rear Work Light.



34. Install the right front work light, position the 3/8" mounting bolt through the rubber washer, and then through the console.

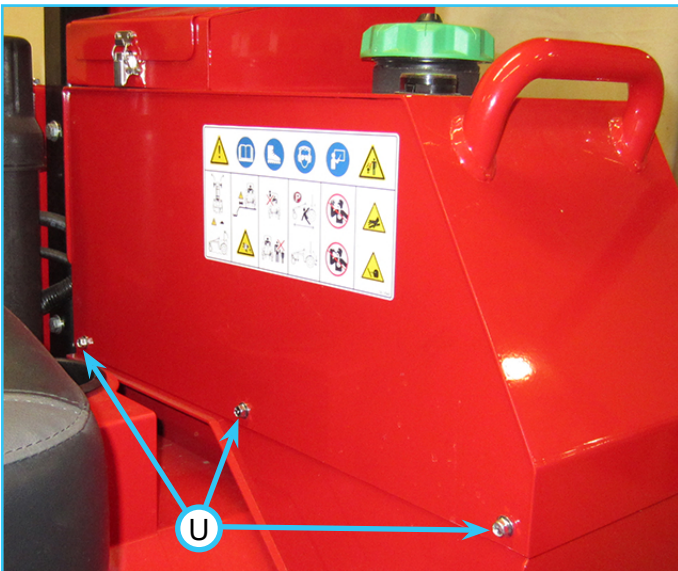


35. Secure the light in place with the 3/8" washer and 3/8" locknut on the inside of the operators console.

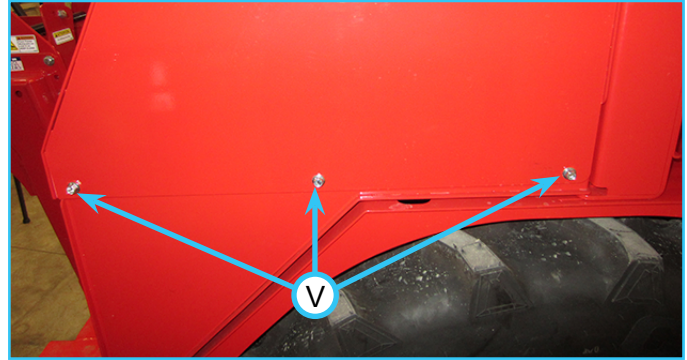
36. Locate the wiring harness labeled Work Light Right Fender inside the operators console.
37. Route the harness through the access hole (T).



38. Connect the harness to the work light.
39. Remove the three 1/4" mounting bolts (U) from the inside of the fuel tank cover.



40. Remove the three 1/4" mounting bolts (V) from the outside of the fuel tank cover.



Attention

Gas model tractors have a lanyard securing the cap to the fuel tank. Pulling the lanyard upward will compress the plastic retainer on the bottom of the lanyard allowing it to fit through the opening.

41. Remove the fuel cap. The gas cap must be fully removed.
42. Lift the fuel tank cover and remove it from the tractor.
43. Install the fuel cap to prevent any dirt or debris from getting inside the tank.
44. With the fuel tank cover on a workbench install the left front work light, position the 3/8" mounting bolt through the rubber washer, and the fuel tank cover.



45. Secure the light in place with the 3/8" washer and 3/8" lock nut on the inside of the fuel tank cover.

46. Open the left rear electrical access door (W).



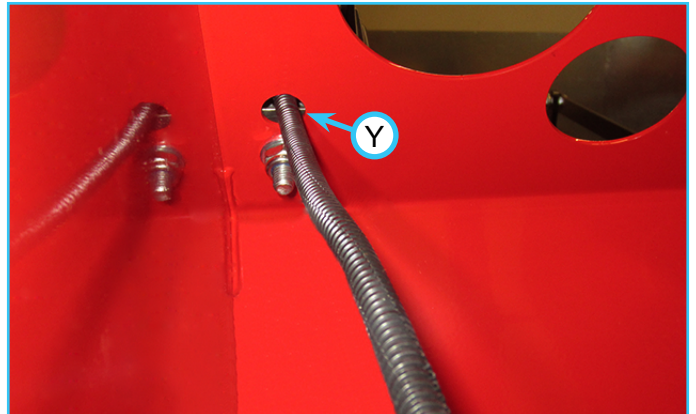
47. Locate the wiring harness labeled Work Light Right Fender (X).



48. Route the harness through the access panel over the fuel tank in line with the fuel lines.

49. Remove the fuel cap.

50. Position the fuel tank cover over the fuel tank, as the fuel tank cover is being positioned route the light harness through the access hole (Y).



51. Install the fuel cap.

52. Connect the harness to the work light.



53. Install the six 1/4" mounting bolts to secure the fuel tank cover in place.

54. Locate the front and rear light switch positions (Z).

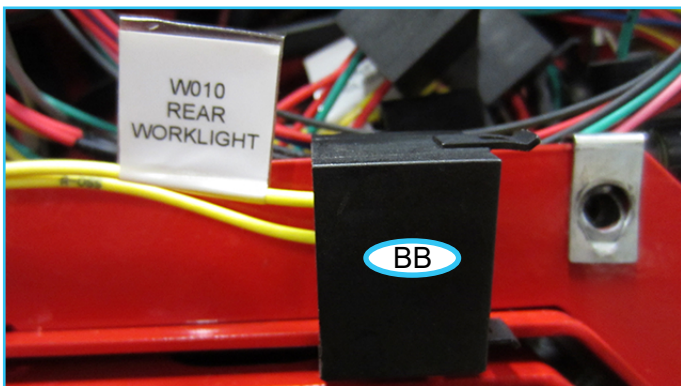


55. Using a utility knife cut out a square opening in the decal for the rocker switches.

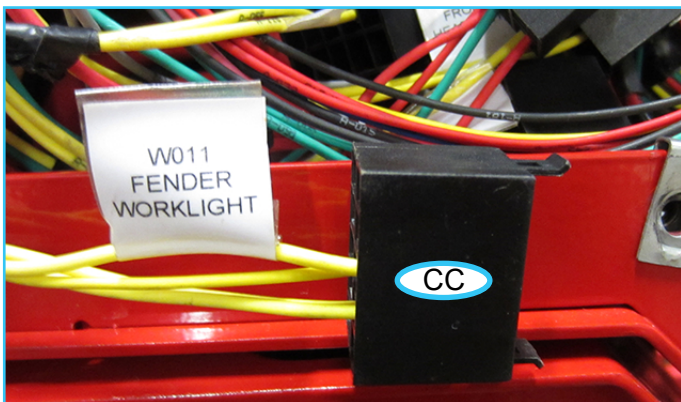
56. Install the rocker switches into the operators console with the locating pin (AA) toward the bottom of the console.



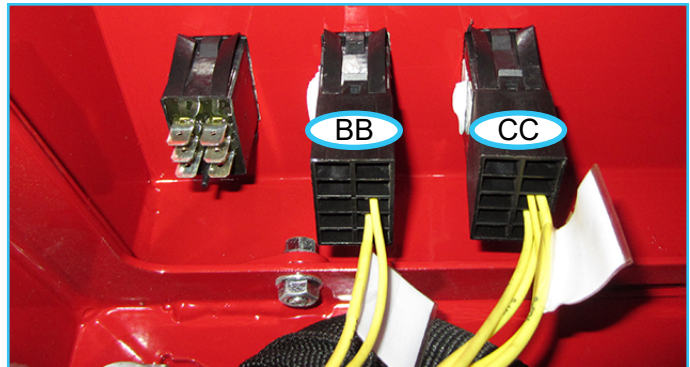
57. Locate the wiring harness connector labeled Rear Work Light (BB) in the operators console.



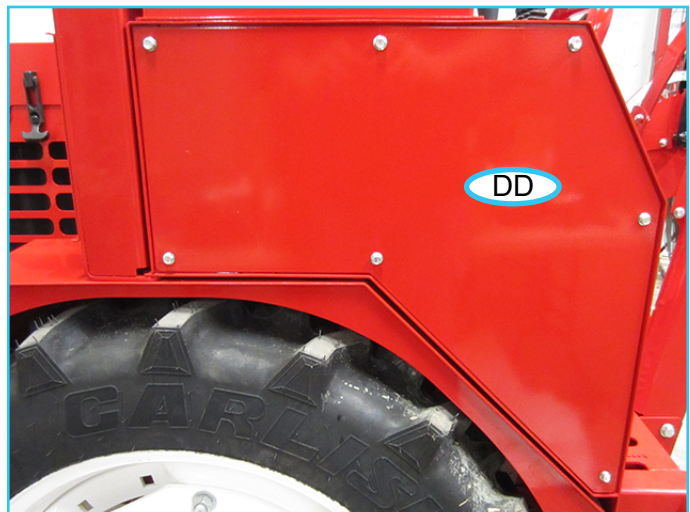
58. Locate the wiring harness connector labeled Fender Work Light (CC).



59. Connect the rear work light connector (BB) to the rear work light rocker switch and the fender work light (CC) to connector to the fender light rocker switch.



60. Install the console cover (DD).



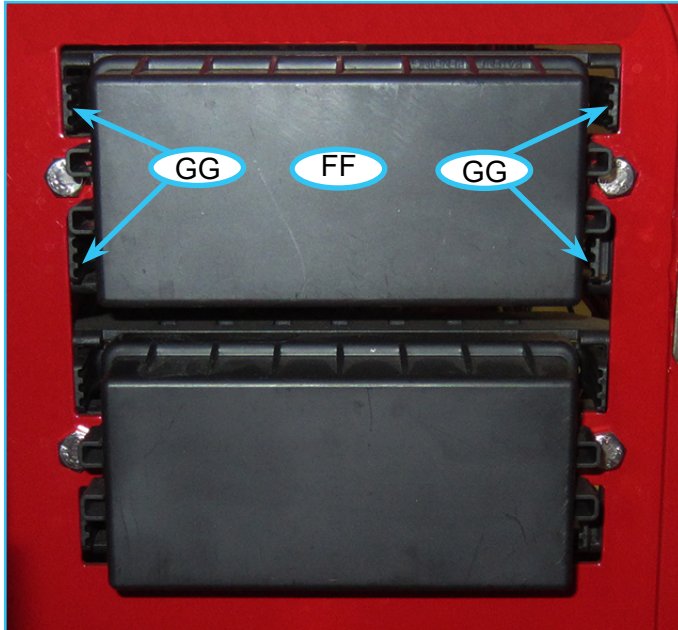
61. Secure the console cover in place using the seven 1/4" bolts removed in step 2 of this procedure.

62. Torque the 1/4" bolts to 100 in-lbs (11 Nm).

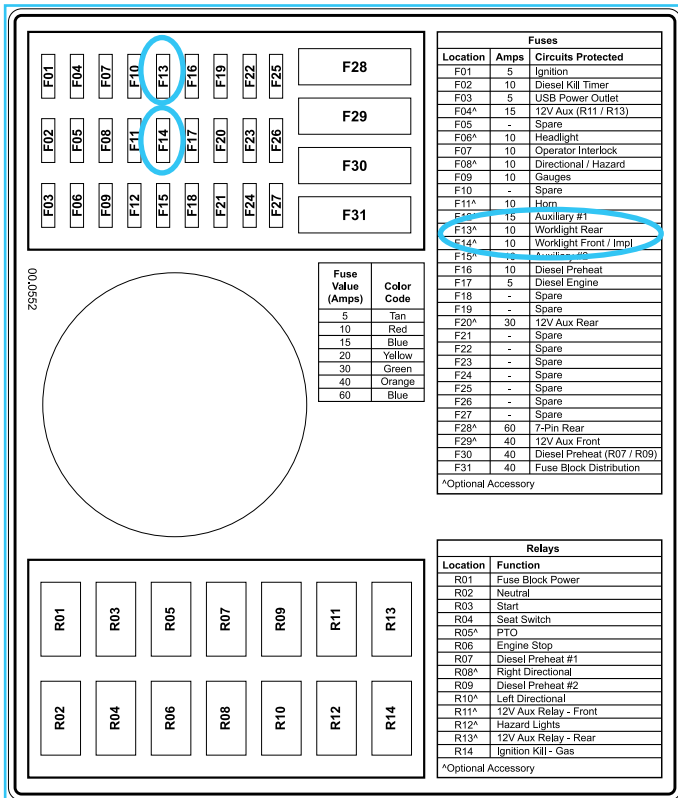
63. Open the fuse panel access door (EE).



64. Remove the upper fuse block cover (FF) by squeezing the four black plastic tabs (GG) toward the cover, and pulling the cover off.



65. Reference the fuse block diagram, located on the inside of the fuse panel access door for the installation location of the two 10 amp mini fuses.



66. Install one fuse in terminal F14 (Worklight Front / Impl) as required.
67. Install the other fuse in terminal F13 (Worklight Rear).



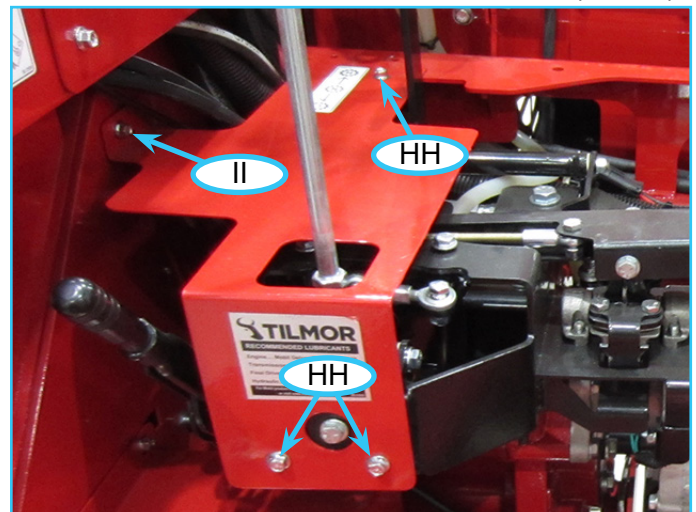
68. Install the upper fuse block cover.
69. Close and secure the fuse panel access door.
70. Position the shifter box cover over the shifter box aligning the mounting holes.



Attention

NOTE: Three of the 1/4" bolts (HH) are held in place with 1/4" flange nuts.

71. Install the four 1/4" mounting bolts (HH, II) and 1/4" nuts. Torque the bolts to 100 in-lbs (11 Nm).



Installation Complete