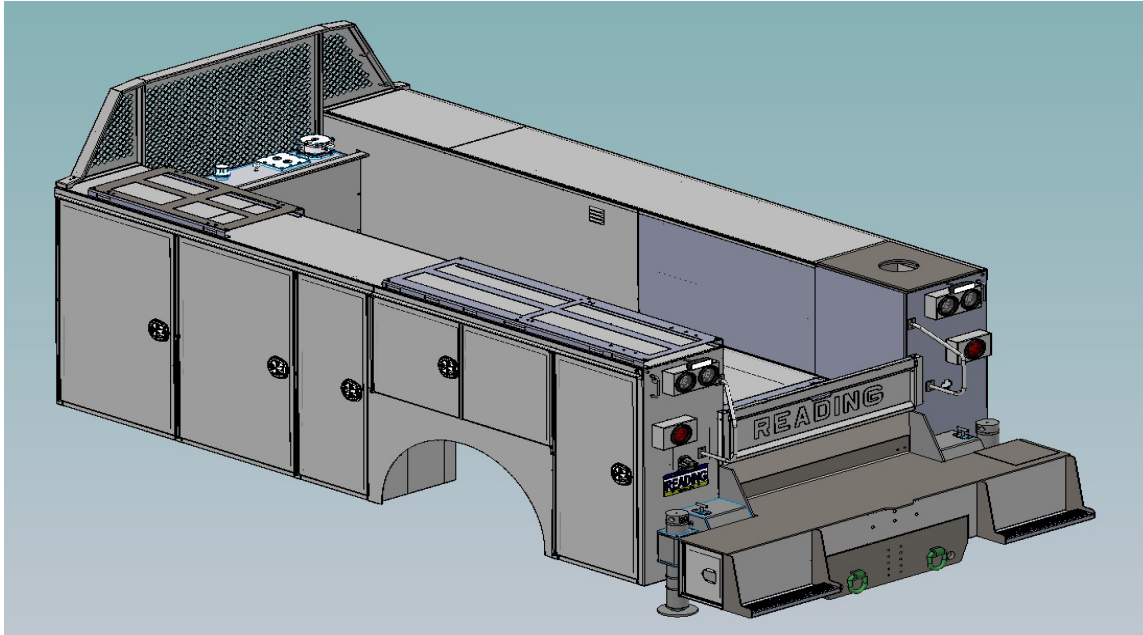




WORK INSTRUCTIONS  
READING RM-78 CRANE BODY  
TAILLIGHT RELOCATION  
FOR IN SERVICE UNITS

Revised: 5/10/2024


**Parts Lists:**

Part Number	Description	Qty
53185677	LT BOX ASSY, SNGL LT BLT ON	2
14210189	BOLT,SS,HH,1/4"-20X 1 1/4"	8
14406281	FLAT WASHER,1/4"SS,R	16
14501791	LOCK NUT,NYLON ,1/4-20	8
14650001	LIGHT, 4" REVERSE, WHITE, MM	2
14650008	GROMMET, 4" REV TO PTURN, MM	2
14651914	PLUG, DOT LT, 2 TERMINAL	2

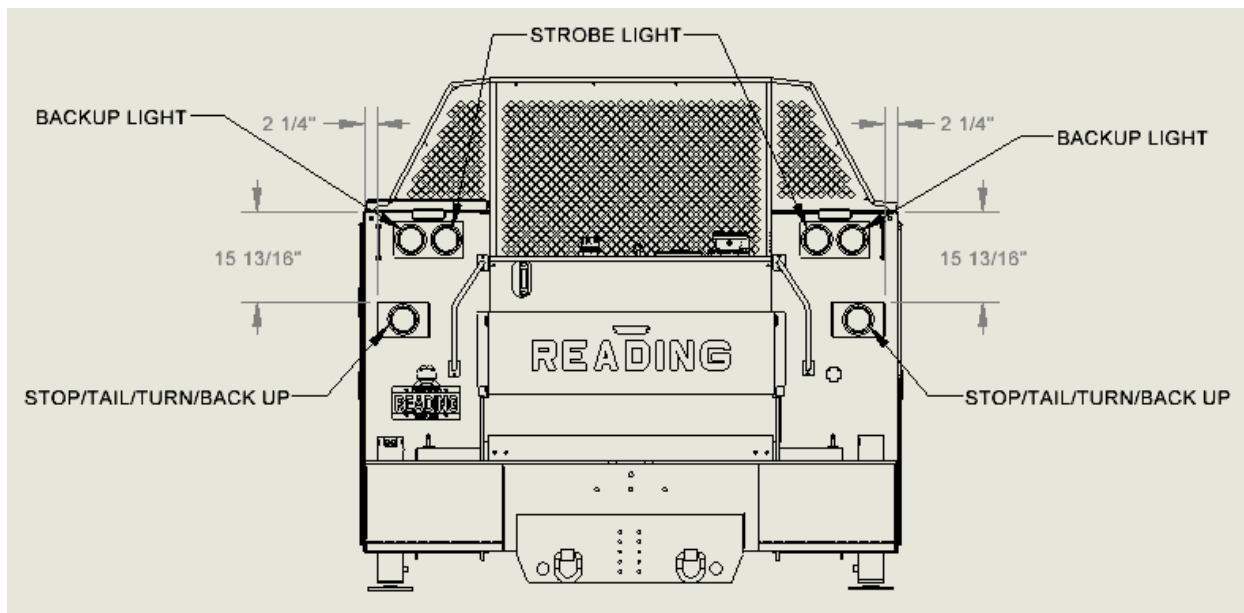
Additional Items	
Caulk	
Wire	Black - 16 Ga
	Red - 16 Ga
	White - 16 Ga
	Brown - 16 Ga
Splice Crimps	
Heat Shrink	
Convolutd Loom	

Note: Before beginning work, if the body is installed on a chassis, on a level surface with no payload in the vehicle, measure from the ground to the center of the stop/tail/turn/back up light. If the dimension is 72" or less, the light is compliant with FMVSS 108 and no further action is necessary. If the dimension is over 72", follow the work instructions below to relocate the light so it is compliant with FMVSS 108.

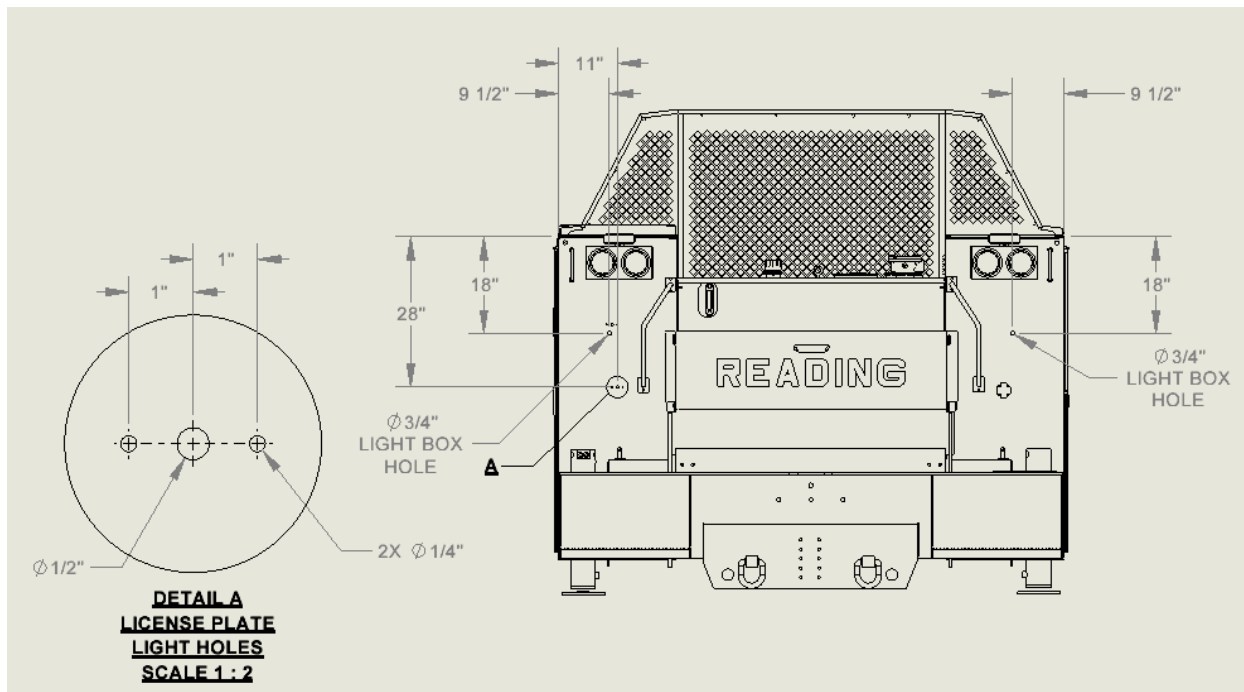
**Work Instructions** – Add an additional single light box to R/S and C/S for units where the stop/tail/turn/back up lights are more than 72" above the ground.

1. Drill mounting holes for new light boxes.
  - a. Identify the location for the new light boxes as shown in **Figure 1**.
    - i. Measure from the ground to the center of the light holes to confirm they are no higher than 72".
    - ii. If they are over 72", lower them until they meet this requirement.
  - b. With the new light boxes located properly, use the holes in the back of the boxes to mark where to drill the bolt holes.
  - c. Confirm the area behind the marked holes is clear before drilling to prevent damage when the drill bit cuts through the partition.
  - d. Remove boxes and drill the bolt holes.
    - i. Deburr the holes to remove any sharp edges.

Figure 1

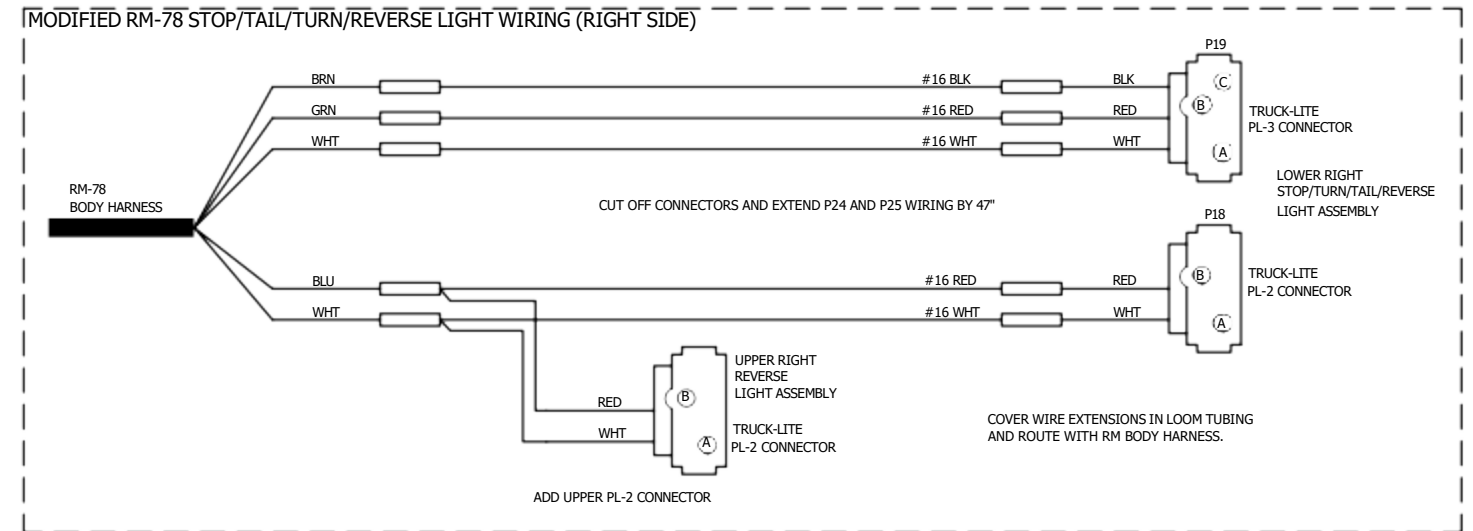
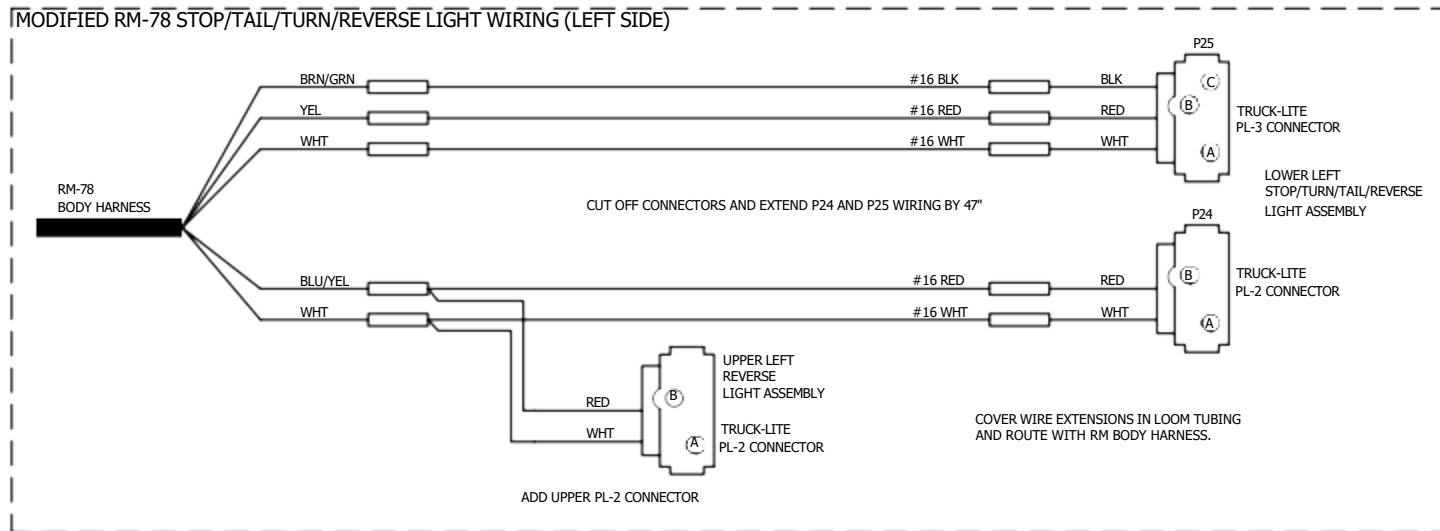
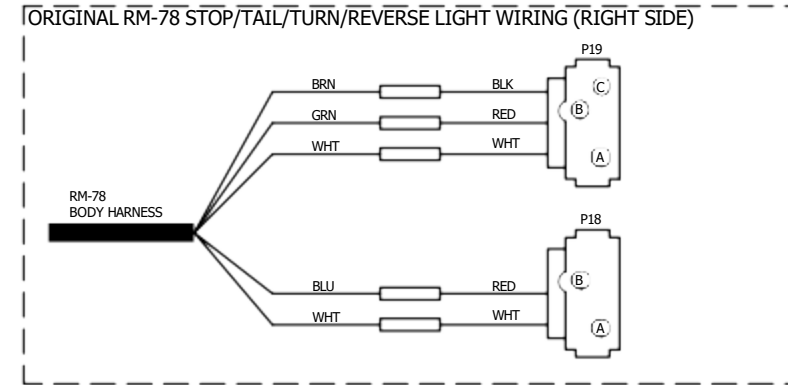
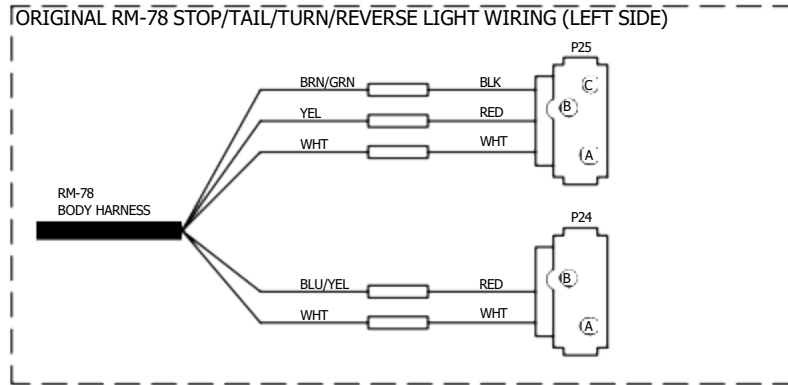


2. Locate and drill the new holes for the wire harness pass-thru's and license plate light/bracket as shown in **Figure 2**.
  - a. Confirm the area behind the marked holes is clear before drilling to prevent damage when the drill bit cuts through the partition.
  - b. Deburr the holes to remove any sharp edges.
3. Remove the taillights and strobe lights from the boxes and disconnect the harness.
4. Remove the license plate, light, and bracket and disconnect the harness.
5. Remove the harnesses from the pass-thru holes and let them hang inside the rear compartments.

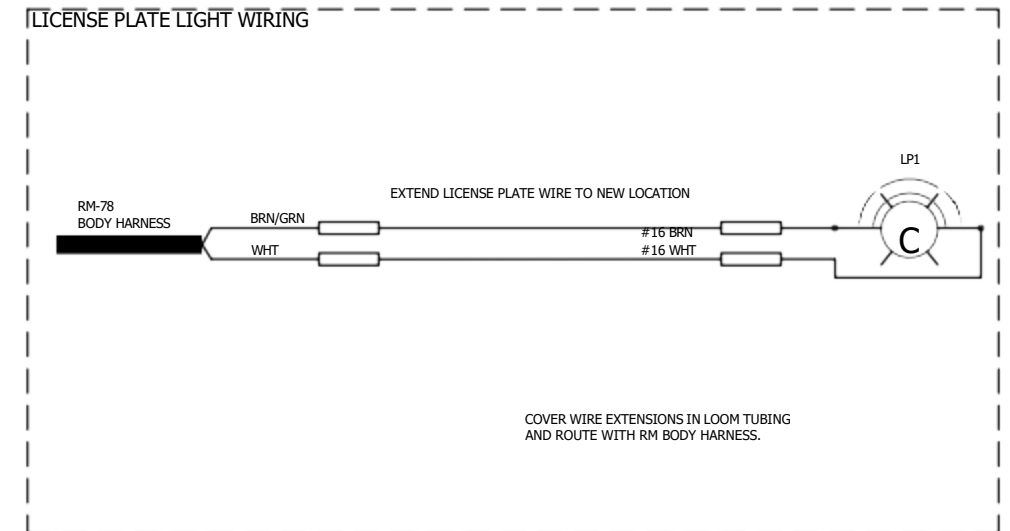
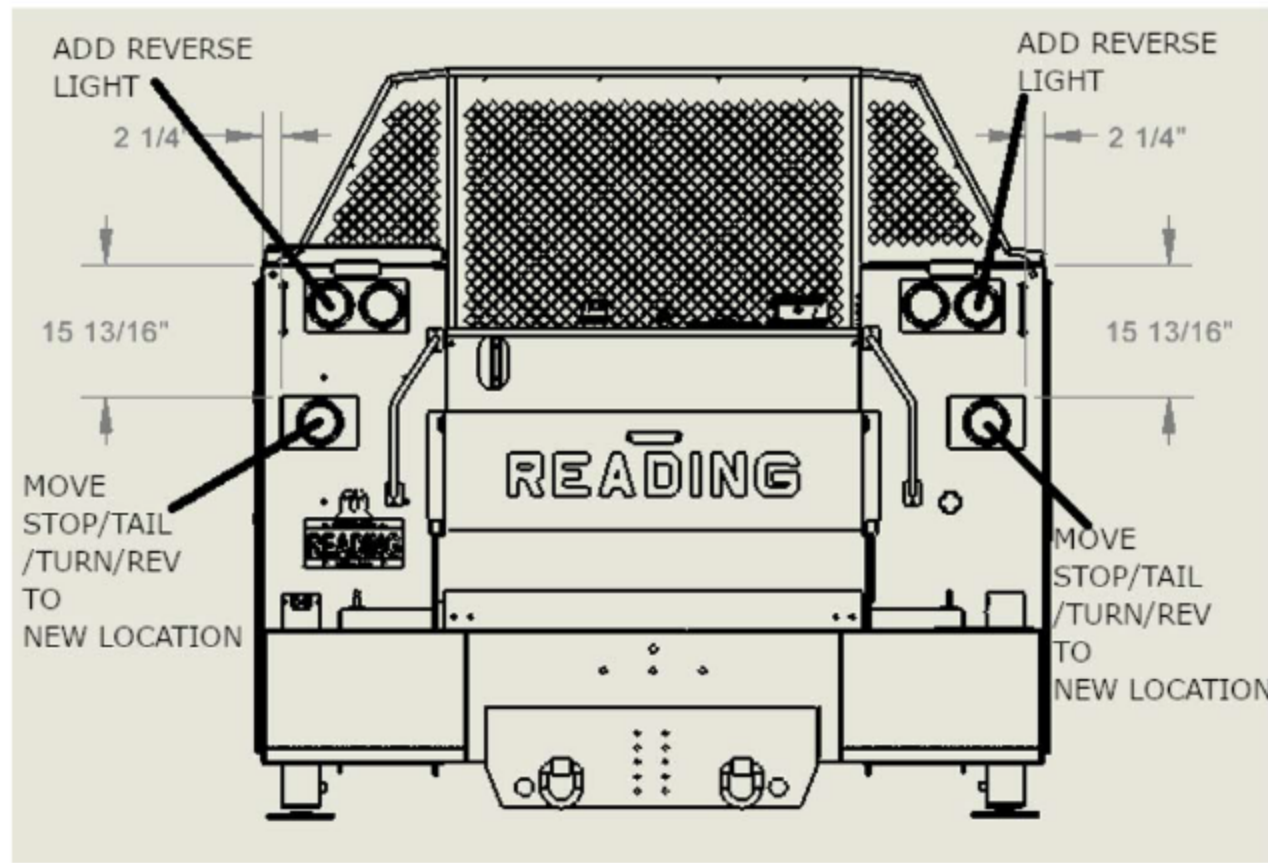
**Figure 2**

6. Paint any bare metal caused by the drilling operations.
7. Apply caulk around the hardware holes, and bolt the new boxes to the rear of the body using the supplied hardware.
8. Apply caulk around the new light boxes.
9. Modify the wire harness to accommodate the additional light and new license plate light location per the "RM78 TAIL LIGHT ADDITION-MODIFICATION" schematic on page 6.
  - a. When cutting off connectors P18, P19, P24, and P25, leave enough wire on the end of the connectors to splice them back onto the harness.

- b. Please note, Connectors P18, P19, P24, and P25 should not be spliced onto the harness until the extended harness is passed through the new wire pass thru holes behind the new light boxes.
10. Insert the remaining wire harness leads into the pass-thru holes and install all of the lights as shown in **Figure 1**.
- a. The upper boxes will house a back up light and a strobe light.
  - b. The new light boxes house the stop/tail/turn/back-up/hazard light.
  - c. Apply caulk around the holes on the license plate bracket and install it in the new location.
11. Test that all lights are functioning properly for compliance with FMVSS 108.



LEFT TAIL LIGHT ORIGINAL WIRING (RIGHT IS SIMILAR)



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<b>TOLERANCES (EXCEPT AS NOTED)</b> DECIMAL +.015" FRACTIONAL +/- 1/32" DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED	<b>READING</b> The Reading Truck Center Reading, PA (610) 775-3301	<b>RM-78 TAIL LIGHT ADDITION/MODIFICATION</b> <b>ELECTRICAL SCHEMATICS</b>
DRAWN BY: RJA CHECKED BY: rantanavage DATE: 4/26/2024 SCALE: 0 1	DRAWN DATE: 4/26/2024 CHECKED DATE: 4/26/2024 REV: 0	WEIGHT: NA DRAWING NO.: NA