Installation Instructions v1.3

The following is an instruction manual for the

SSR LIGHTING TECHNOLOGIES

Semi Trailer Lighting Kit

Patent Pending

SSR Lighting Technologies
Kit For Semi Trailer

Patent Pending

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Congratulations on purchasing the SSR LIGHTING TECHNOLOGIES Semi Trailer Lighting Kit

The lights in this kit run off their own battery power and also off the semi tractor when the tractor is plugged into the trailer. The kit has a built-in battery charger, and an external solar panel charging system can also be purchased.

Each light module has its own motion sensor on it and will turn off when there is no motion for two to three minutes in its sensor field. The light will come back on when motion is detected.

The following pages are the installation instructions for the entire kit.

Please read through the instructions before installing the kit as there are some Helpful hints and important directions to insure proper installation.

The following contents come supplied in the SSR Semi-Trailer kit

- 8 Motion detecting trailer lights
  (Light Module)

- 1 Master control box (Power Module)
  NOTE: This unit also has the Mounting plate and 4 mounting bolts/nuts attached

- 1 Main trunk cable
  (Trailer Harness)

- 3 trunk cable extensions (Jumper Harness)

- 1 Trunk Cable guide

- 4 Trunk Cable and Light Connectors (Splitter Harness)

Note One of them has three connectors.

- 80 zip ties, and 60 zip tie mounts

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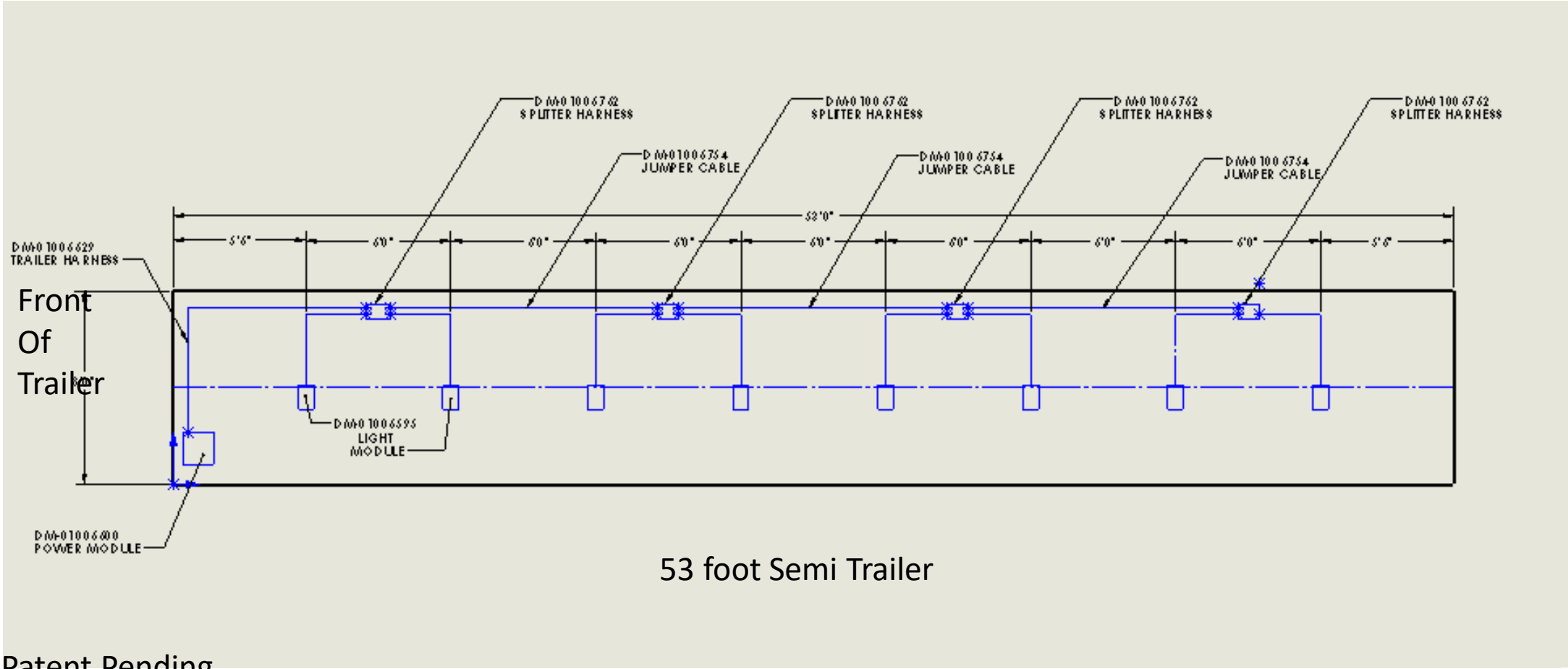
This instruction manual is for installing the SSR Lighting kit into a 53’ van trailer
The lights will be evenly spaced front to back as in the illustration below.
This is just an example. The Kit has plenty of supplied cable to place the lights in a different configuration if desired.



53 foot Semi Trailer

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Step 1 To begin you are going to need to remove the bulkhead panels
in the front of the trailer. This is where you will be mounting the Control Module
And connecting the power lines to the trailer pigtail, as well as routing the trailer
Harness out to the lights.
If you are using the Solar Panel charging application you will also run those wires behind the main bulkhead panel as well

Here is a picture of the front of a trailer
With the bulkhead panels removed.

Step 2 Drilling 4 holes for the mounting of the Control Module and mounting the Control Module.

You can use the Mounting plate found on the control module as a template for the 4 holes that will Need to be drilled into the nose of the trailer.

When mounting the Control Module please make sure you are **about half way up** the trailer nose As you want to avoid FORKLIFT impact if possible. Mounting at this height should provide suitable Protection from forks.

The Mounting plate goes on the face of the trailer (Fig A)

We have supplied ample amount of length on the trailer harness to get to power source and Light Modules.

Make sure to Route the Harness ABOVE the main vertical structures so when you reattach the bulkheads You are not smashing or pinching the cable… You can just follow the manufacturers lighting wires for ease.

Use supplied zip ties and zip tie mounts to secure the wires

SEE PICS on following page (9 and 11)

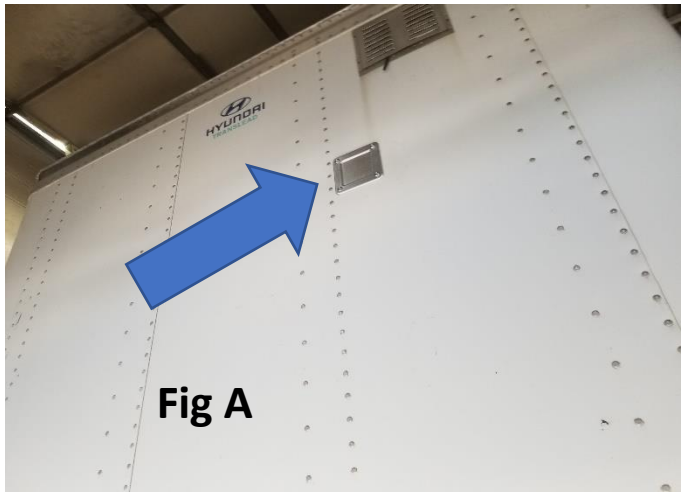

Fig A

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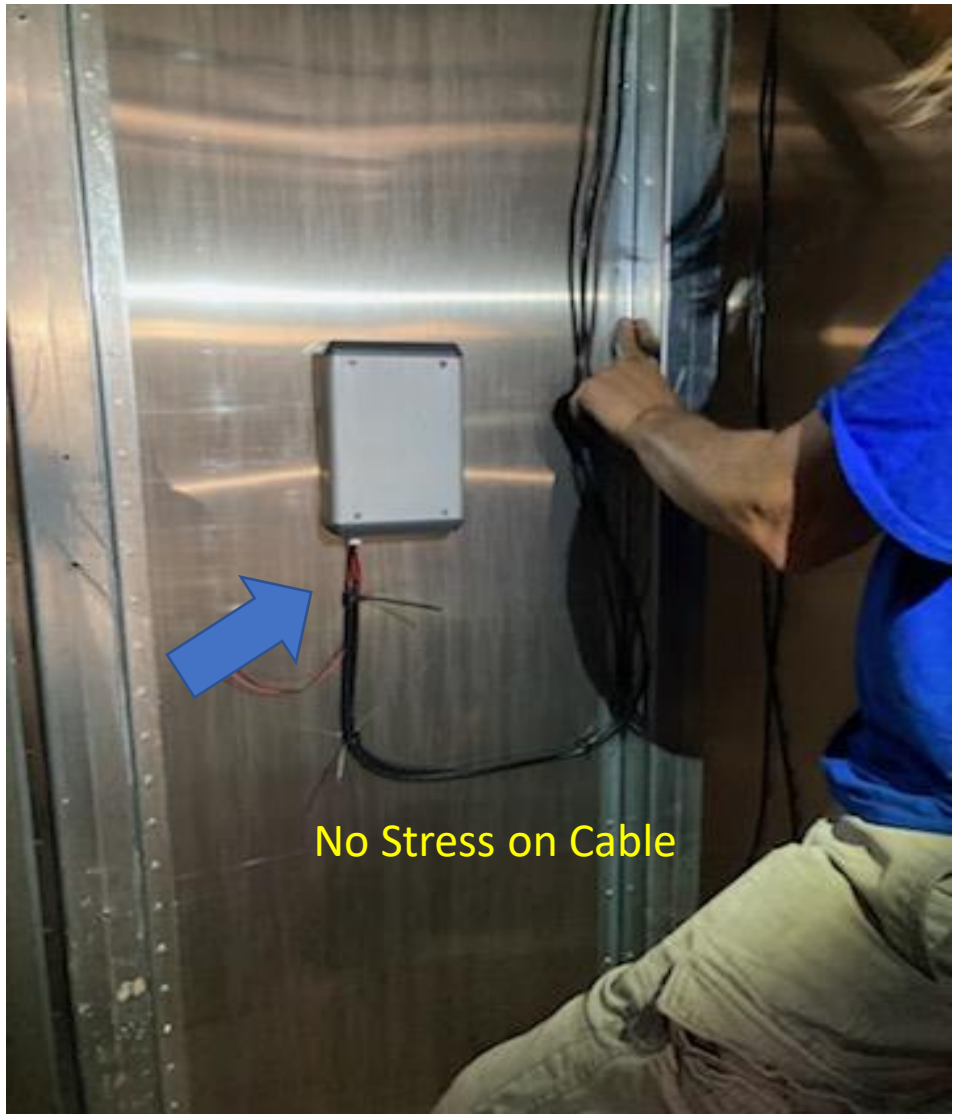
In the example on the right, the box is located just left of center of the trailer.
You can mount the box closer to the power source of the 7 PIN , but ALWAYS keep it half way up from the floor so fork damage does not occur.

NOTE HOW THE CABLE IS MOUNTED so no stress is on the trunk cable connecting to the battery box

NEXT PAGE SHOWS THE CABLE GUIDE TO ASSURE NO STRESS IS ON THE CABLE. ☺

*NOTE… You can connect the trunk cable **during** installation but keep in mind the fully charged battery is only designed to light 8 lights for 4 hours before needing a recharge from the Tractor.*



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To make sure no stress is applied
to the cable going into the control box
We have provided a Trunk Cable guide.
Please see attached photos. ☺
This will be mounted to the control box
as shown in the pics

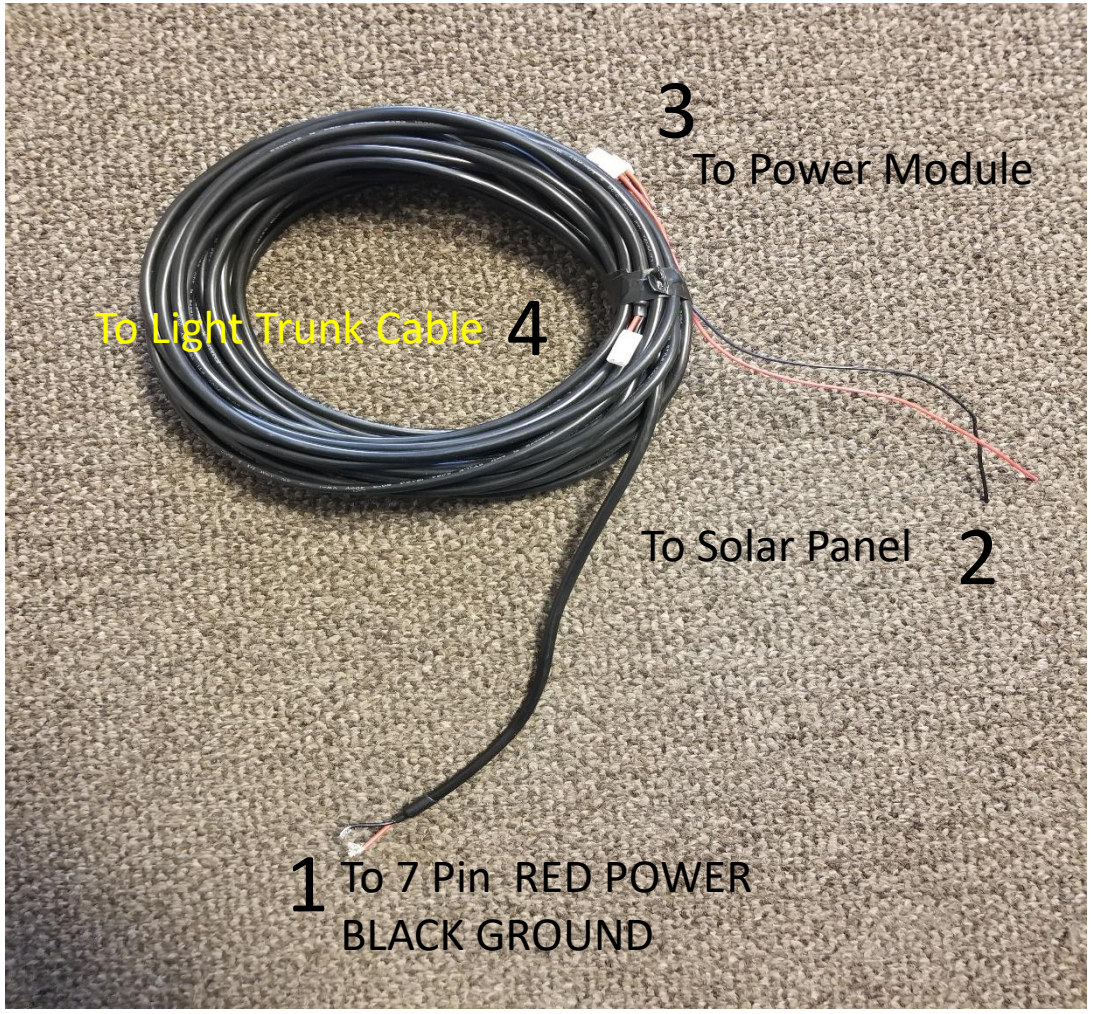
There is a cable tie holder on the bracket to use with a zip tie to secure the trailer harness.

Step 3 Connecting the Trailer Harness to the trailer pig tail.

The Control/Power Module has an internal battery, and a charger inside.
When a tractor is hooked to the trailer, power will be sent to
the battery charger to recharge the internal battery.
The lights run off of the enclosed battery when the trailer is dropped
Or when the trailer is disconnected from the tractor.

The Following are the definitions for the numbers
Listed in the picture

1) This end goes to the trailer pigtail.
   (SEE PAGE 13 … Red Wire Positive, Black Wire Ground)
2) This is for the optional solar charger
3) This is the 6 way connector for the Control Module
4) This is the connector for the Light Modules
   (It will be the end that is going out into the cargo area
   of the trailer)



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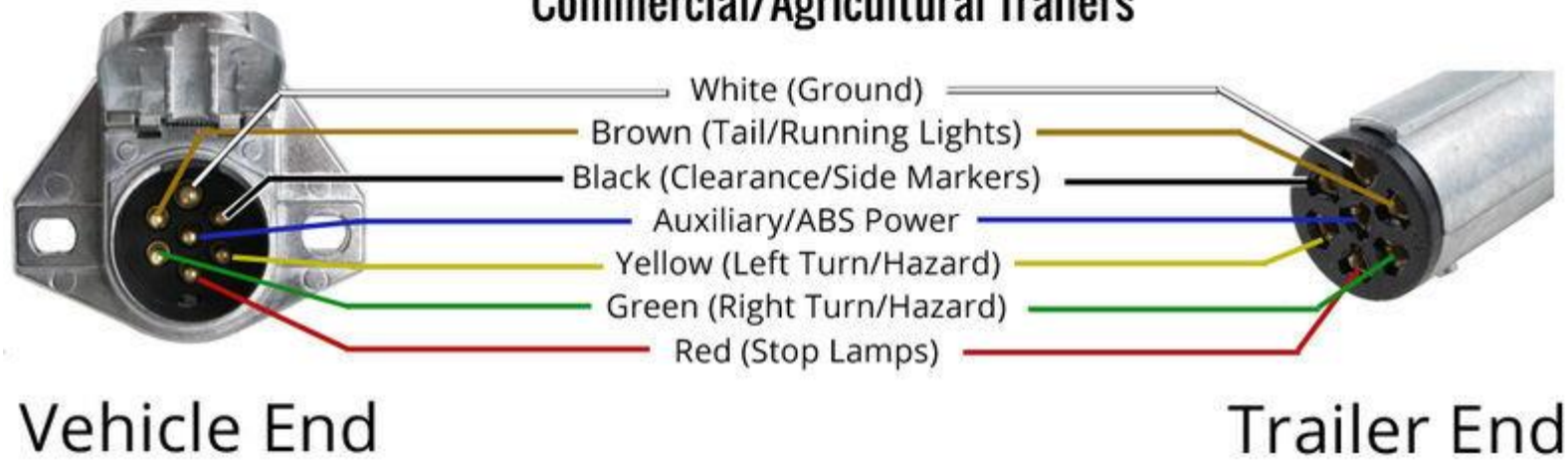
7-Way Plug (Heavy-Duty)

Commercial/Agricultural Trailers



Note the POWER WIRE is the BLUE WIRE
And the GROUND is the WHITE WIRE

Each 7 PIN may have a unique way to get to these wires, depending on the Manufacturer and Year of the trailer.

Step 4 Prepping the trailer for Lights and Cables.

If you are needing the cables " Out of the Cargo area"
You will need to prep the ceiling bows to receive the cables
That carry the power to the lights

FIG 3

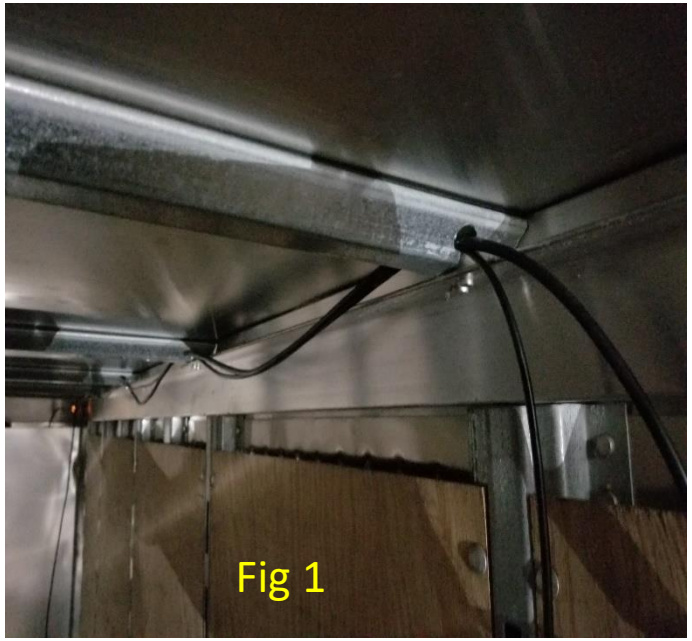


Fig 1

Look at the ceiling of your trailer.
How do you want the lights placed?
Are there obstructions like the trailer on the left so
You need to stagger the lights?
There is ample cable length for staggered or uneven installation.

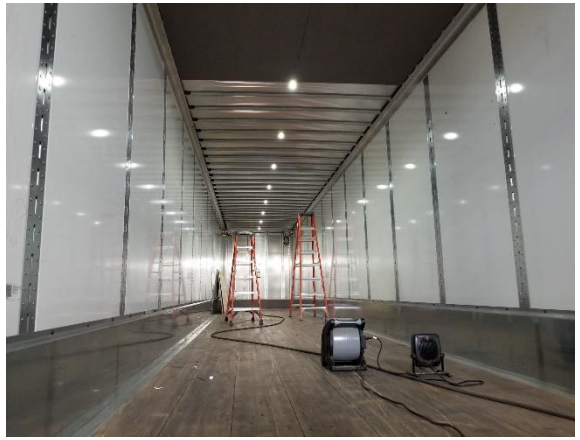


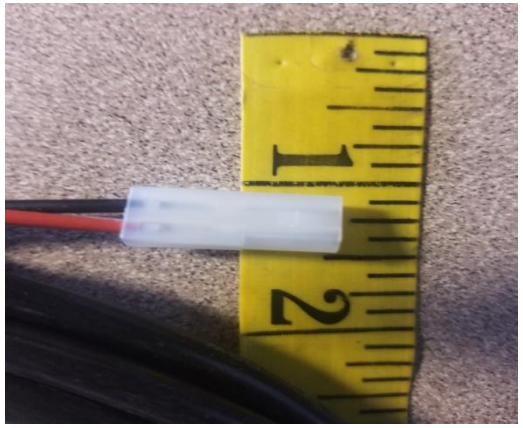
Fig 2

Step 4 Cont

Once you know which roof bows need to have
harness wires run through them you will need to drill a
hole in them for the harness (Fig 2)(**hole should be on the NOSE side**)
You will also need to drill holes down one side of the trailers
Roof bows (Fig 1), the entire length of the trailer from nose to last
roof bow that will have a wire harness inside.

We recommend using a cone type drill bit (Fig 3)
You will have control, and can make small adjustments in
Diameter as needed for comfortable fit.
The connectors are 3/8 but we find closer to a 5/8 inch
hole to be correct on the side bows as you will be running a light connector through a hole that already has a Main Cable in it sometimes. See (Fig 1) as an example of this.

Fig 3



Step 5 Running the main trailer harness from:

- Trailer Power Source (Pig Tail)
- Mounted SSR Control Module
- Over the Vertical Nose trailer Structures
- Into Drilled holes in SIDE trailer bows. (fig 1)

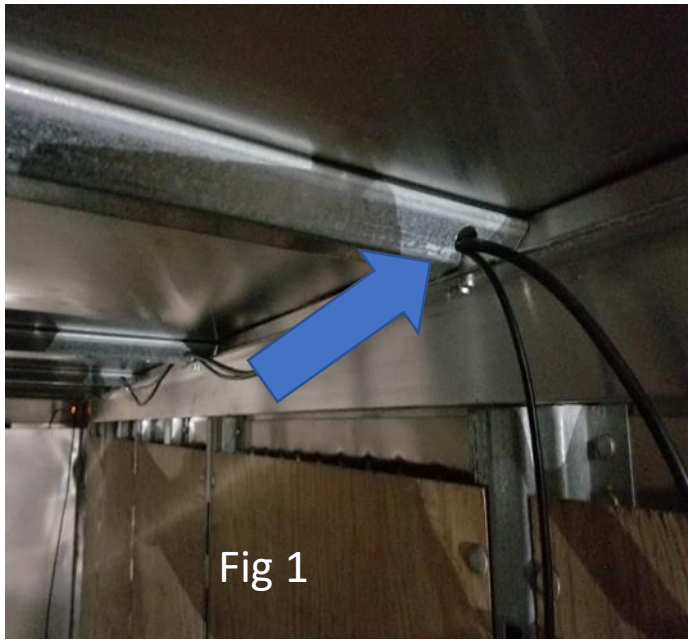


Fig 1

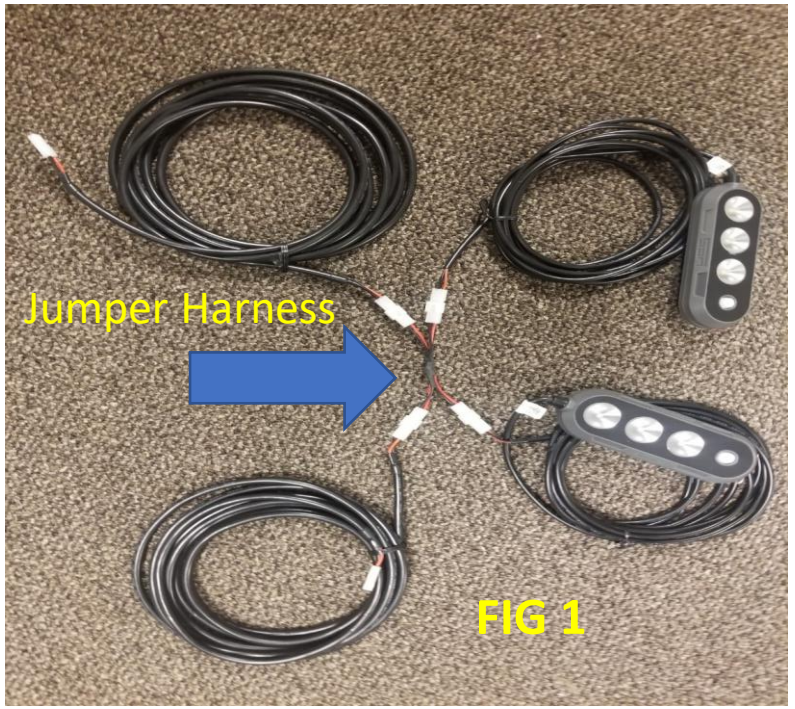
Adjust the harness so that is reaches the
(Power Source/Control Module/First 2 light locations) comfortably.
HELPFUL HINT DO NOT SECURE “The Kit” with Zip ties and mounts until
after ALL 8 lights are attached and you test the unit….then
you can secure the entire kit. You do this incase you need to readjust any harness lengths
while you are doing the install.

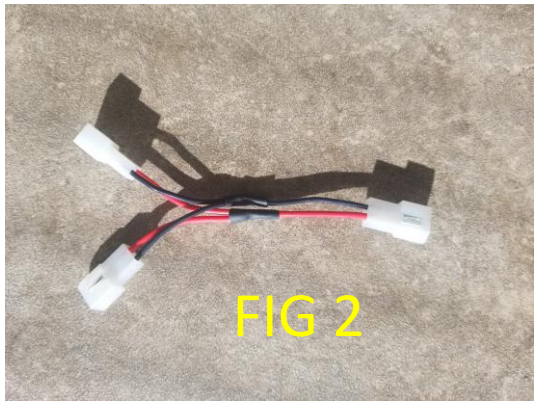
Step 6 Connecting the first two lights to harness,
and the next length of Jumper Harness

This is accomplished using the " Splitter Harness"
You will notice there are 4 connection points on a Jumper Harness
2 for Main Harness
2 for Light Modules.

The picture (FIG 1) shows how the Jumper Harness works. Note the Main Harness and Lights connect into the jumper harness allowing two lights to be hooked up, and the main harness to continue down the trailer to the next light connection point.
The Jumper Harness is designed in such a way , so that there is no wrong connection point.

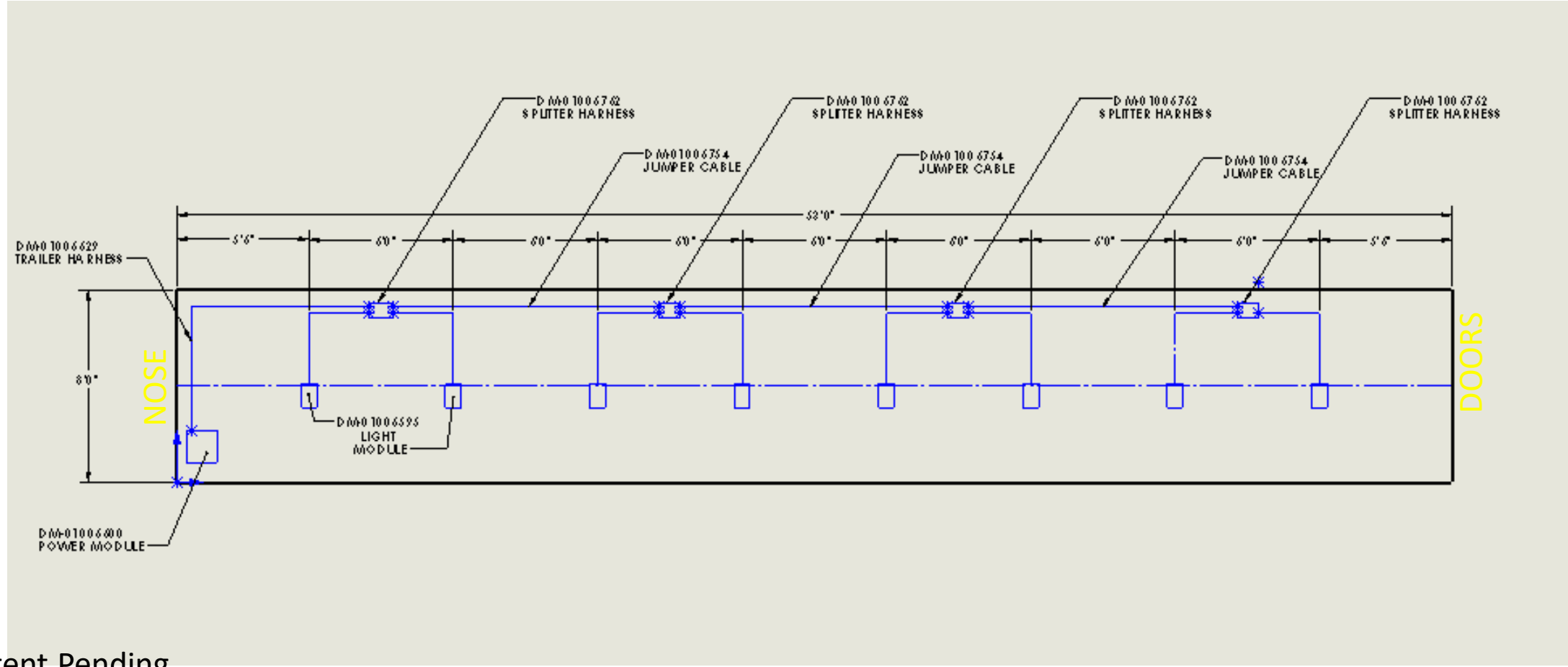
(FIG 2) Is the LAST jumper harness in the series on The Trunk cable as it wont need to go further down the Semi Trailer.





Continuing down the trailer with Light Modules, Splitter Harness and Jumper Cable

NOTE… The Last splitter Harness only has THREE connection points as it does not need to connect a Jumper cable. ☺



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The wire that is attached to the Light Module needs to be fished through the roof bow. Please use caution when fishing the wire through the drilled hole. If there were rough edges left behind it could cut into the wire.
The wires are covered in a durable coating but it is still best to use caution.

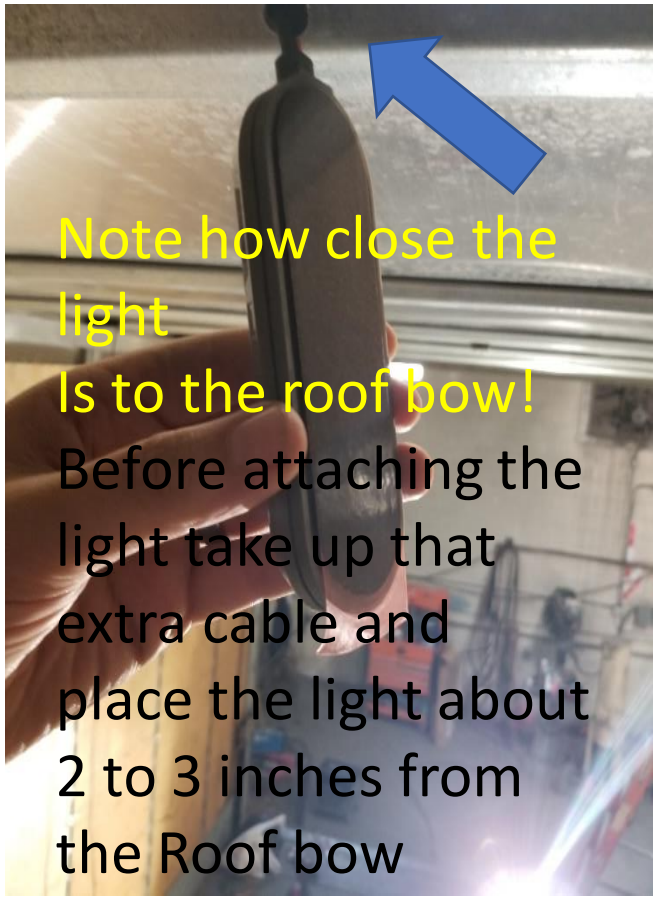
We liked using a thin wire and simply pulled the light cable Through afterwards… Fishing the wire through. It was simple doing it this way.

Now that the kit is installed you can begin
Securing the lights to the ceiling.
There is an adhesive already on the Light Modules
You only need to peel off the coating.

The lights need to be placed close to the roof bow for protection
As shown in (fig 1)

BEFORE PLACING THE LIGHT MODULE ON THE ROOF
Make sure the attachment surface is clean and then dry.

We suggest alcohol wipes.



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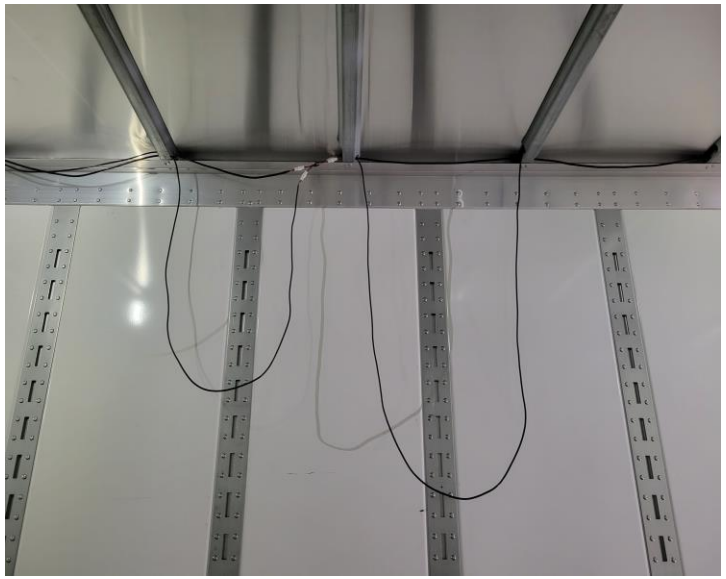
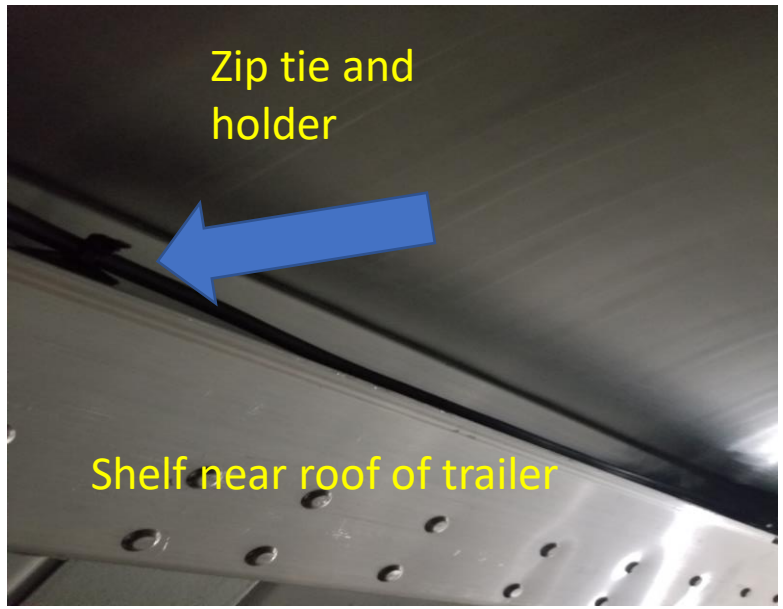
Now that all the lights are secured on the roof
There is extra cable remaining
from the light modules and trunk cable.

Now you will use the zip ties and mounts
to clean up the cables and put them on the
shelf near the roof where the bows connect
to the sides of the trailer.

MAKE SURE TO CLEAN THE SURFACE BEFORE ATTACHING ZIP TIE MOUNTS.
ALSO USE THE GROMMETS PROVIDED IN THE DRILLED HOLES….. CUT THEM FOR DESIRED RESULT. FIG 1





It is time to remount the plywood to the nose of the trailer after you secure all the wire.

REMINDER ALL THE WIRES ARE ABOVE THE VERTICAL BOWS IN THE NOSE OF THE TRAILER SO THEY DON'T GET PINCHED OR SMASHED BY THE ATTACHEED PLYWOOD!

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LET THERE BE LIGHT!!! ☺

If you connected the lights during the Installation they may have gone out by Installations end.

The battery may need to be recharged by the tractor
The battery module is designed to stop Working at 10volts to protect/prolong battery life.