



## CUPBOARD LED LIGHTS

### PARTS LIST

Jaycar - SPST IP56 Rated Mini Rocker Switch  
(Part No. SK-0969)



12v DC Wire



Jaycar - Snap Fit ABS Enclosure (Part No. HB-6006)



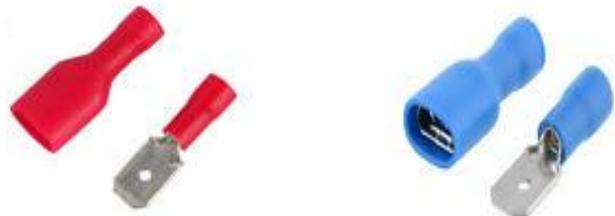
Conduit



LED Strip DC 12v



12volt Connectors



# SWITCH BOX

## STEP 1

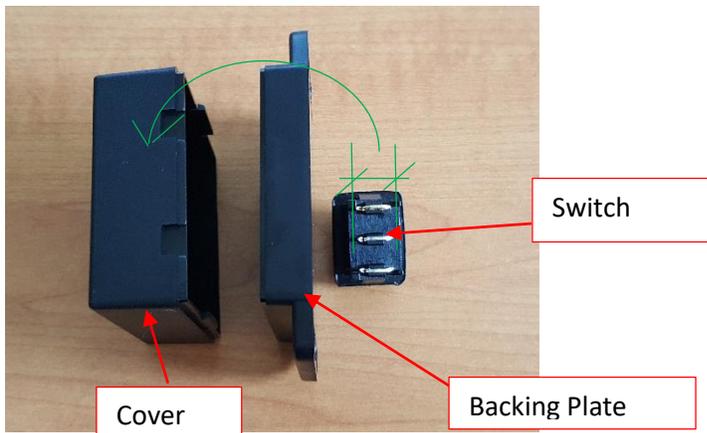
Grab your box and LED switch.



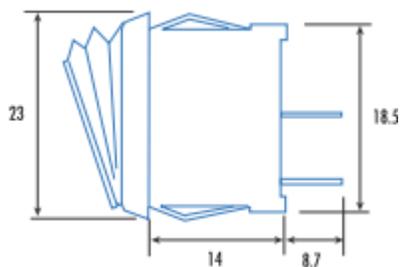
## STEP 2

Pull apart the cover and backing plate to the plastic box.

Measure the back of the switch and transfer the measurements to the cover side of the plastic box.



Below are the overall dimensions measurements and cut out site for the above switch.

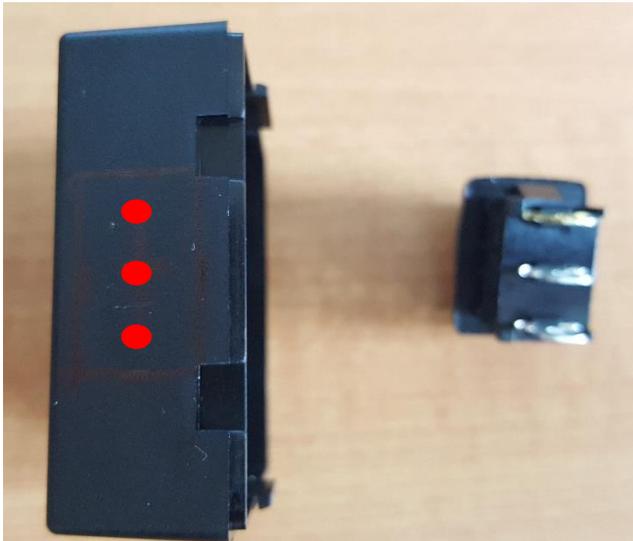


Cutout: 18.8 x 12.5mm

### STEP 3

Once your measurements have been marked out you will need to start preparing for the cut out.

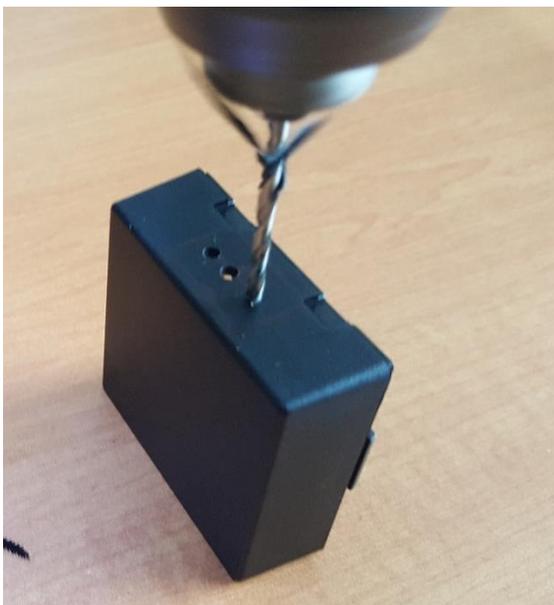
Easiest way is using a cordless drill and start with a small drill bit. Drill 3no. holes



### STEP 4

Start to drill the holes using a 3mm drill bit and making your way up to a 7.5mm drill bit. Take your time on drilling as you don't want to crack the plastic.

**Note:** Don't go from a small drill bit to a large as the plastic will grab and crack.

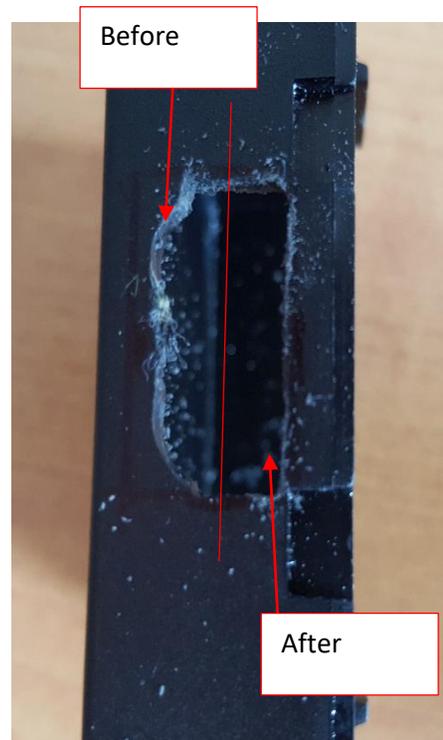
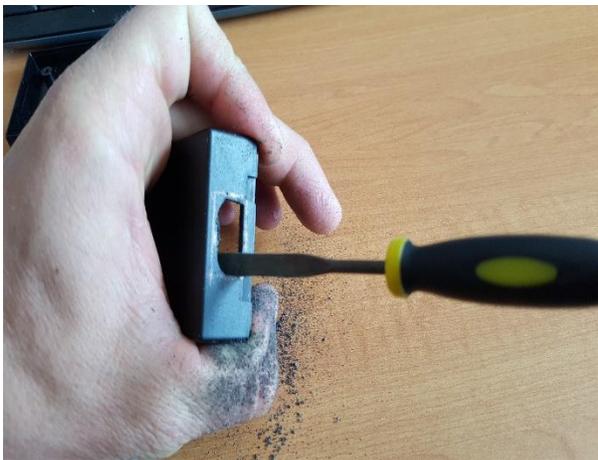


After using the 7.5 drill bit you should have a large hole in the plastic cover and still be within the cutout setout.



#### STEP 4

Using a small file, start to file out all the edges to the markings.

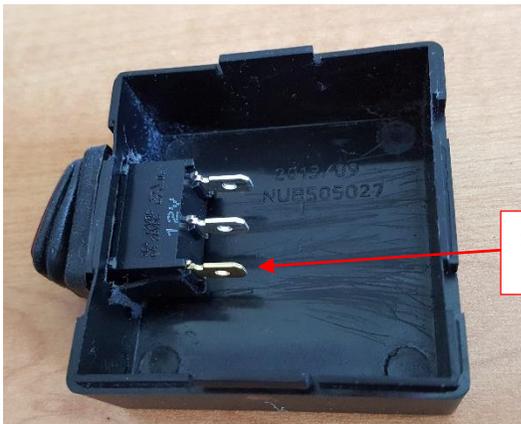


Keep testing too see if the switch will fit into the hole. If it is tight keep filing.

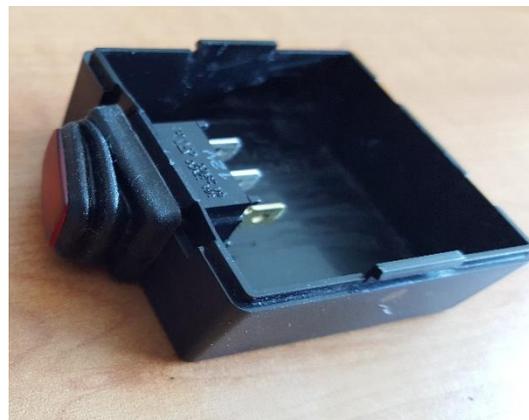


### Step 5

Once the switch is ready to fit into position make sure the gold color pin is bottom and fit into cutout.



Gold Pin (Earth)



### Step 6

Place the back cover into position



### Step 7

You have finished making you switch for your LED light.



# WIRING AND INSTALLING THE LED LIGHT

Next we will be wiring and installing the switch box and led light into the cupboard.

## Step 1

Decide where you want to install your LED light. In this example I will be installing the LED light within a Cupboard in my Jayco Expanda.

NOTE: Keep in mind where you will be sourcing the power from to power the new LED light.



Position of new LED strip



Existing 12v Light (Existing Power)



Power connection existing LED Light

Position of new LED Strip

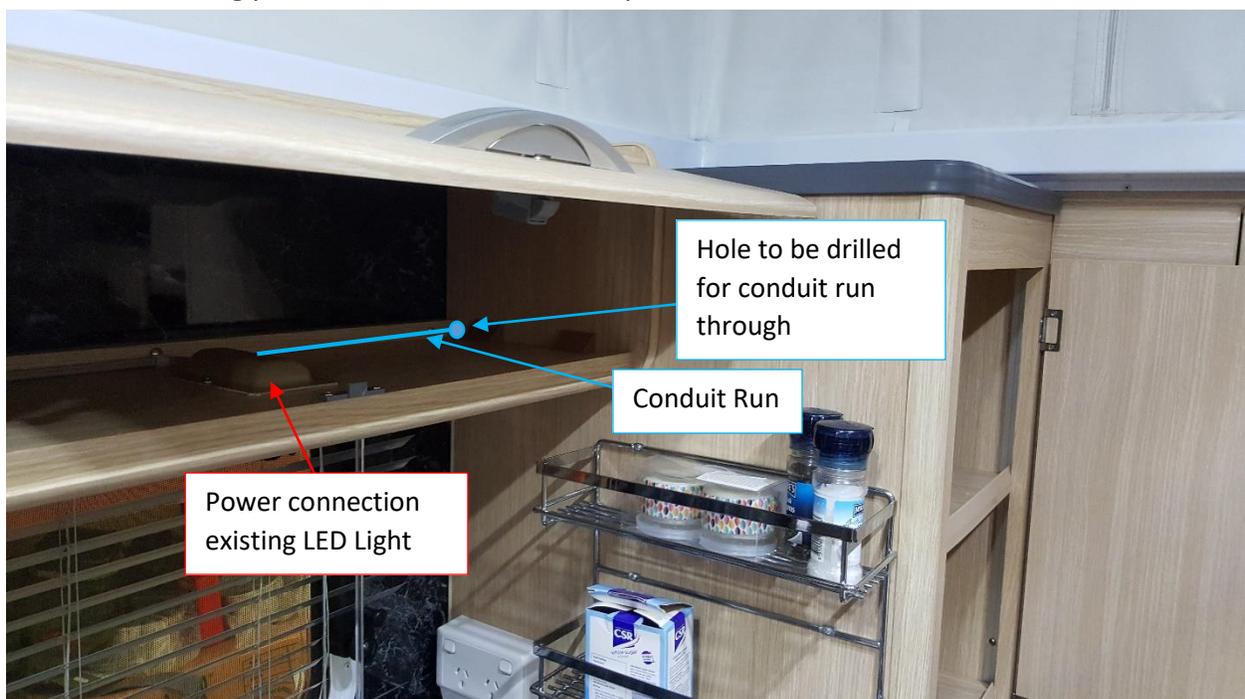
## Step 2

Position where you will be installing the Light switch box. This will give you an indication on where you will be running your conduit.



## Step 3

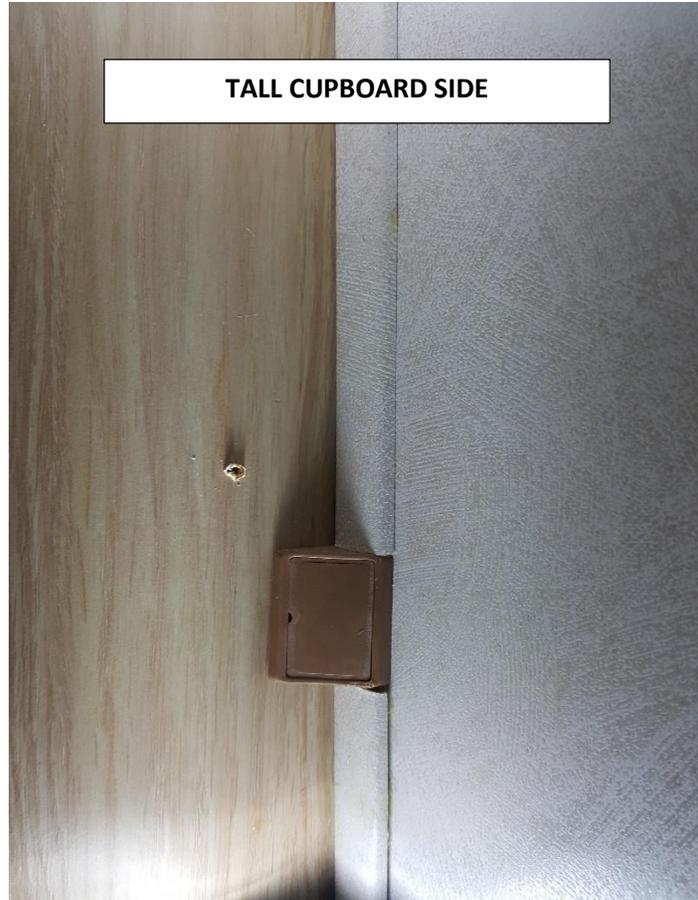
Work out your conduit run. In this example I will be running it from the overhead cupboard where the existing power is, to inside the tall cupboard.



#### Step 4

Mark with a pencil where you require a hole.

With a small drill bit, drill a hole through the timber until it penetrates to the other side.



### Step 5

Increase the size of the hole you just predrilled until your conduit fits through it.



### Step 6

Temporary run a length of conduit from the power source to the power switch that you will be installing.

Cut the conduit to length but allow a little extra lengths on both sides. You can recut the conduit to length later on.

Then cut another length of conduit that will run from your switch box to the LED light.





## Step 7

### WIRING THE LIGHT SWITCH

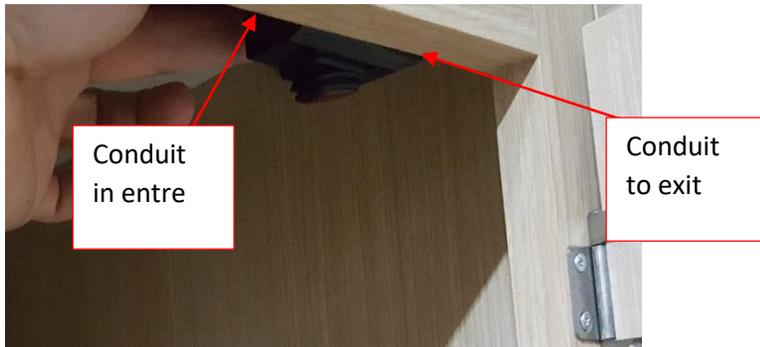
#### Step 7.1

Grab your already made light switch box



### Step 7.2

Work out where your conduit will be entering and existing the switch box and mark it. As you can see in my example I will be running the conduit on either side of the box with the switch facing down.



### Step 7.3

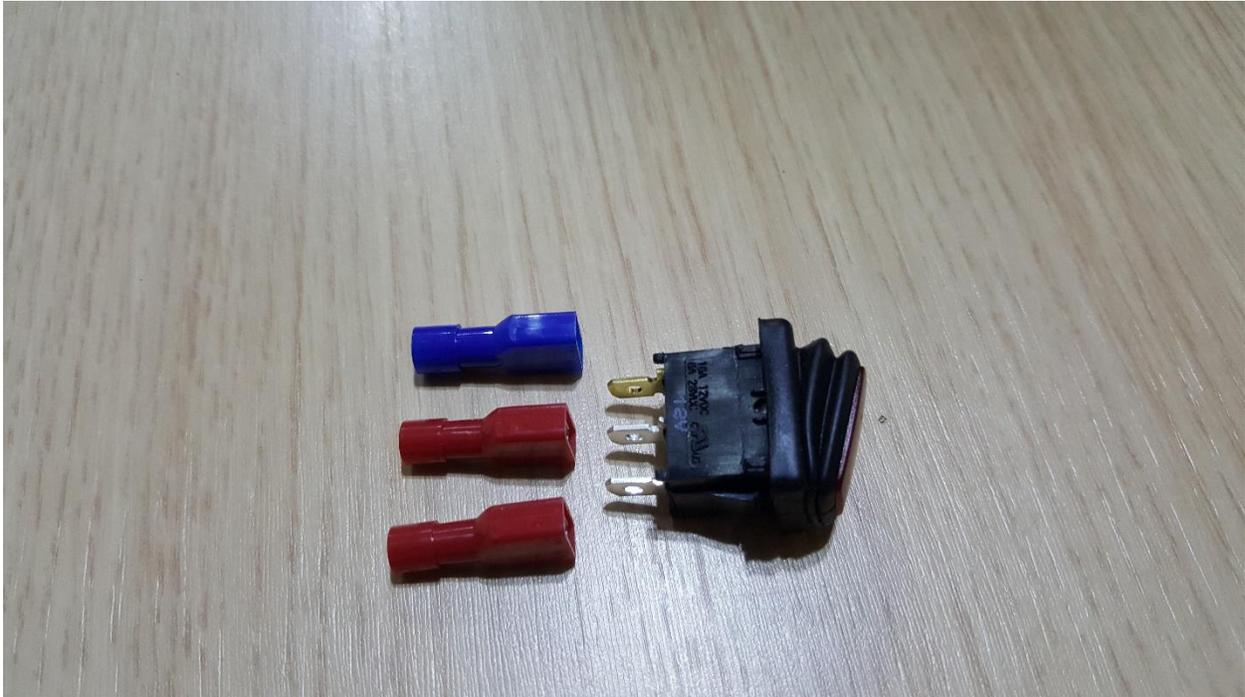
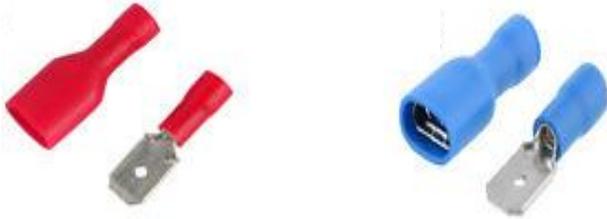
Start to drill the holes using a 3mm drill bit and increase the size of the hole until your conduit fits. Take your time on drilling as you don't want to crack the plastic.



#### Step 7.4

Remove the switch from the box.

Prepare to wire the switch with 12v insulated connectors as pictured below.



#### Step 7.5

Grab the 12v cable

Cut 2no length of wire the same length as the conduits lengths in step 6.

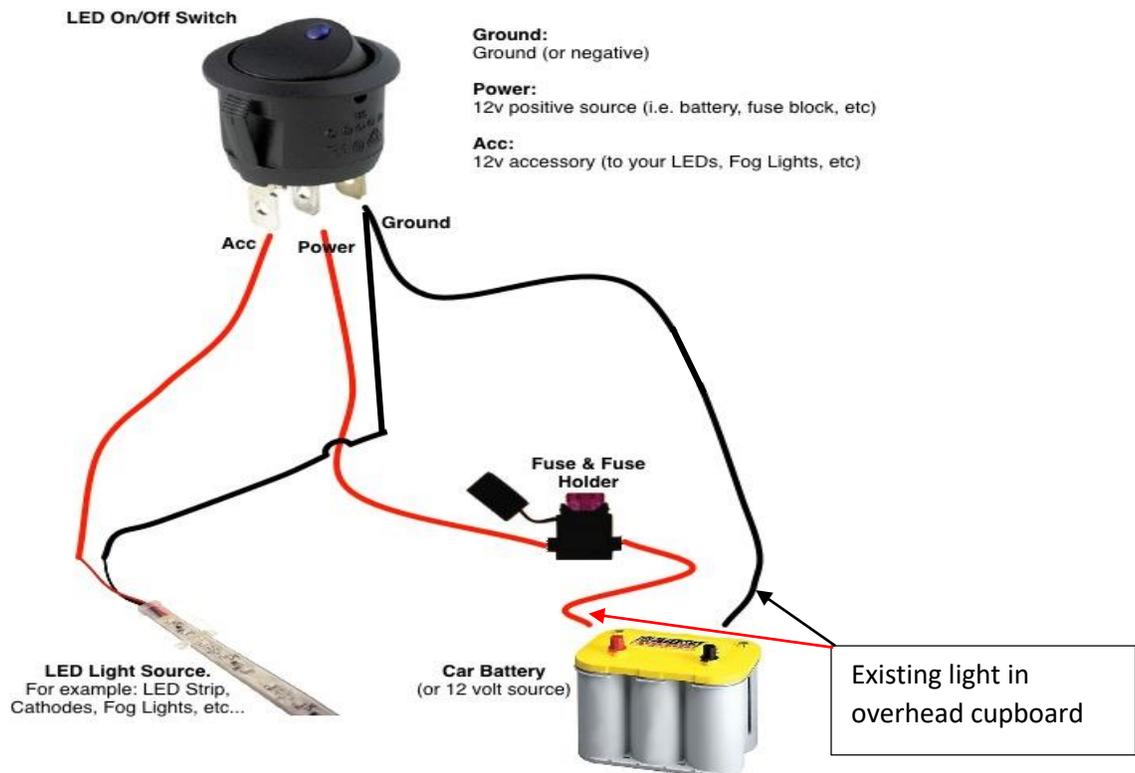
### Step 7.6

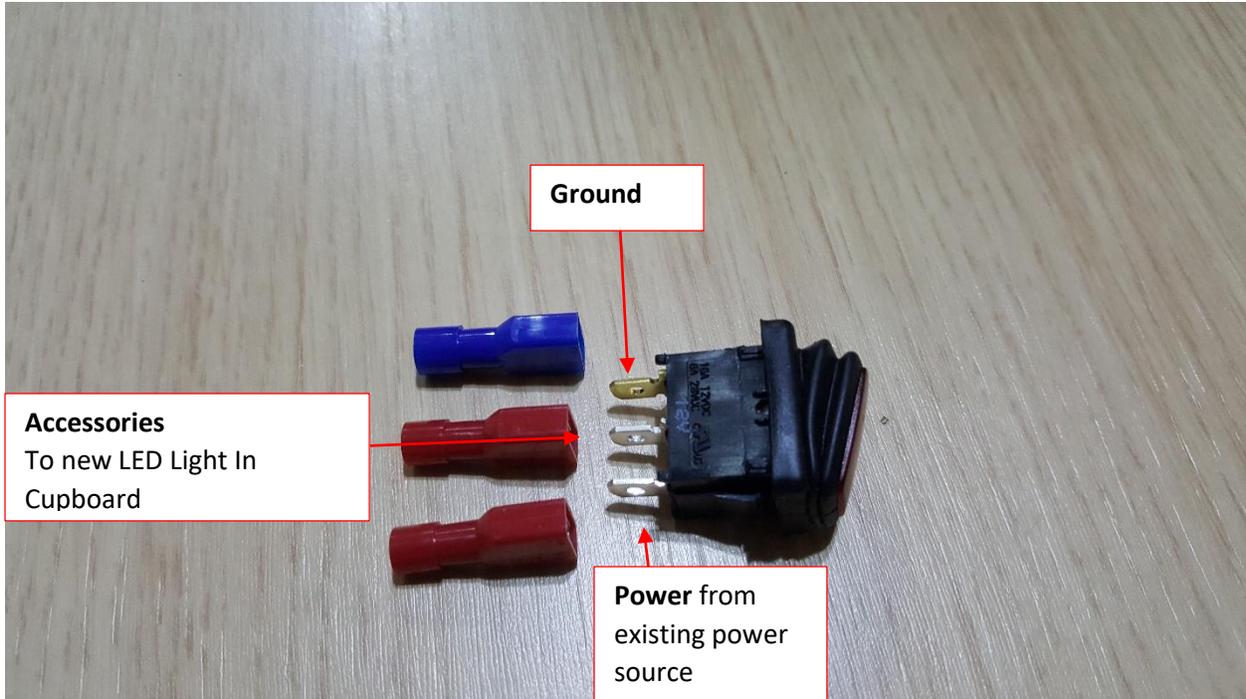
Start to strip the ends of both wires the will be entering and existing the switch box.



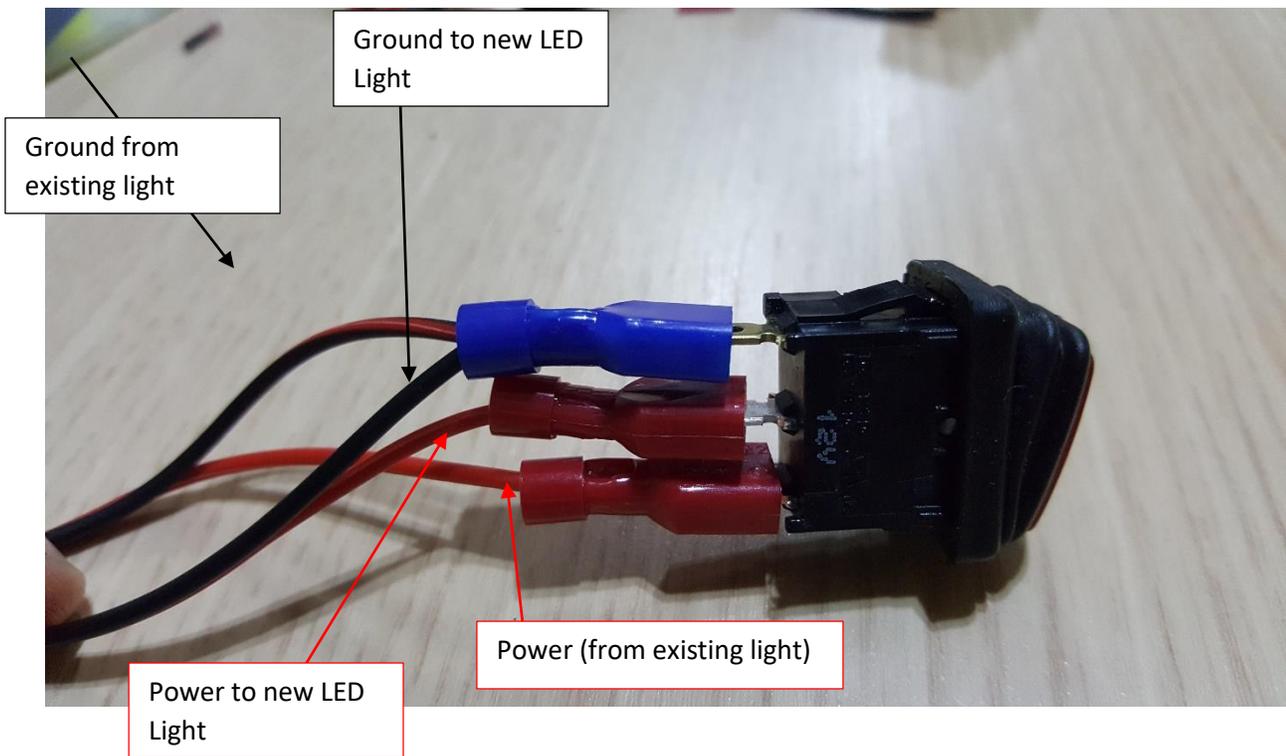
### Step 7.7

Following the wiring diagram below, start work out the connections



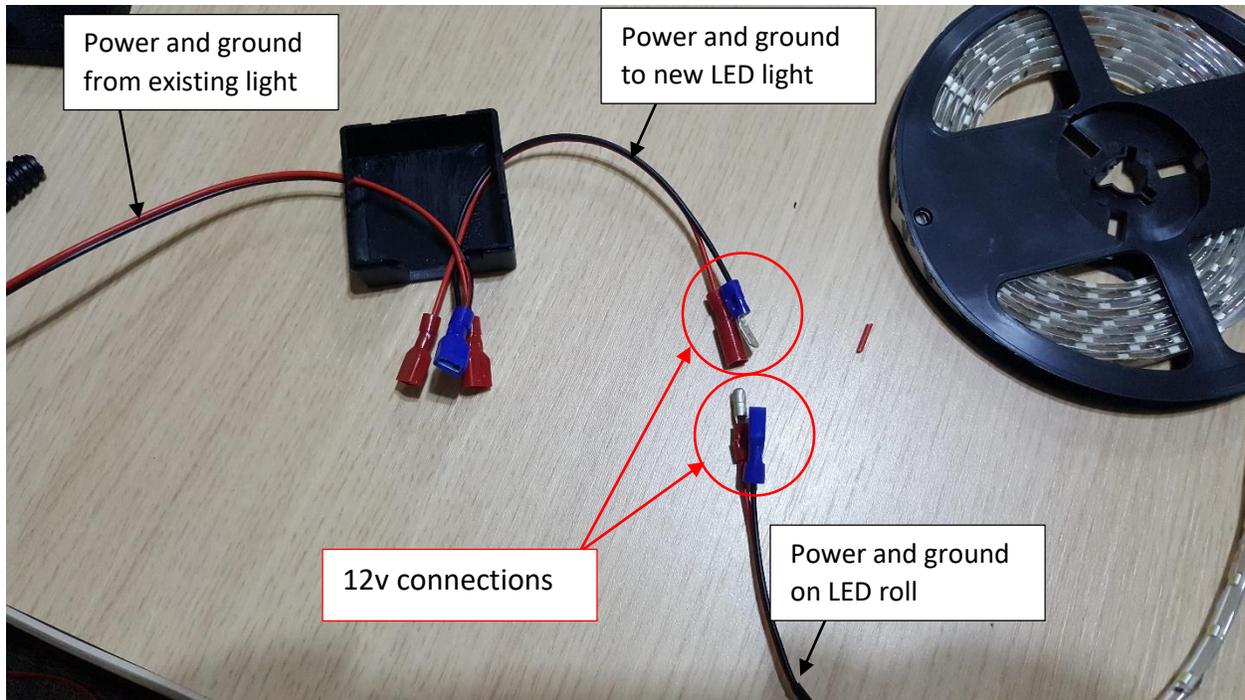


The Example below show the wiring on the switch side



### Step 7.8

On the wire ends that will provide power to the new LED light and on the LED light roll, strip the wires and crimp 12v connections at the ends.



### Step 7.9

Once you are happy with all your connection, start to feed the conduit over all the wiring.



### Step 7.10

Place the switch back in the box and plug in all the connections onto the switch.



### Step 8

Start to feed the conduit from where you will be sourcing power from to where the switch box will be installed.



## Step 9

Remove any covers to where you will be tapping into for the 12volt power.



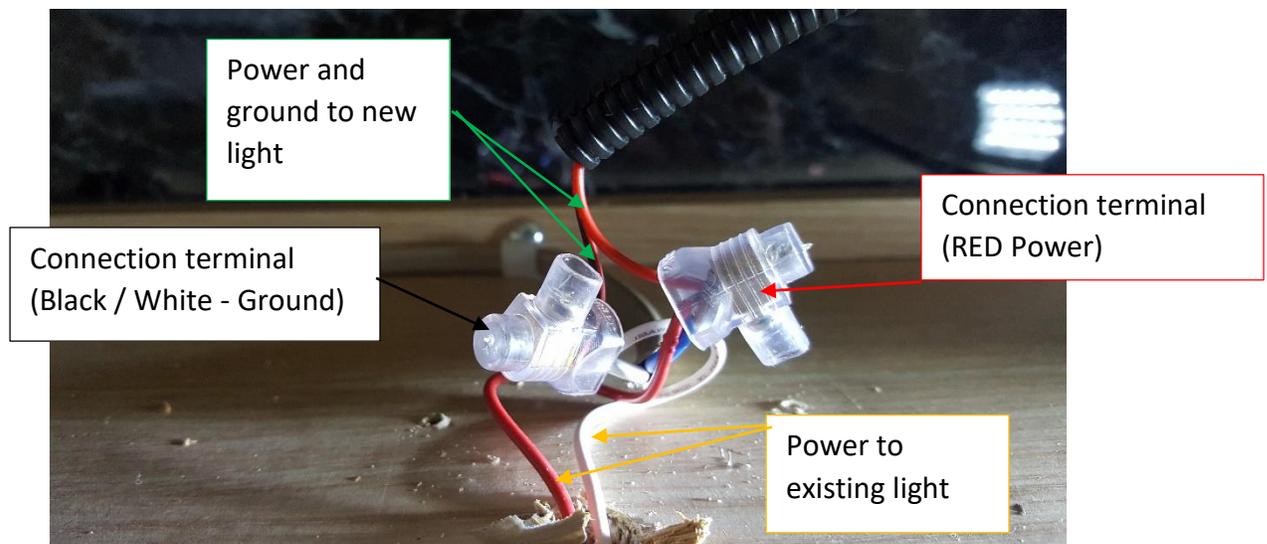
## Step 10

Strip the ends of the wires that will be provide power to the Light Switch box.

Turn off all power in the caravan including all 12volt and 240volt. You will require a touch to complete the below connections.

Connect the new wires that will power the new LED light into the existing 12 volt power.

**NOTE: DO NOT CONNECT WIRES TO ANY 240VOLT POWER. IF YOU ARE UNSURE CONTACT A LICENSED ELECTRICIAN**



### Step 11

Place back any covers removed then you will be safe to turn the power back on.



### Step 12

Test the light switch by turning it on.

If the red light in the switch is illuminated then is power running through the circuit.



### Step 13

Drill 2 no. holes in the mounting plate for the light switch box.

Place 2 no. screws in the holes ready for installation.



### Step 14

Position the mounting plate for the light switch box in your preferred location

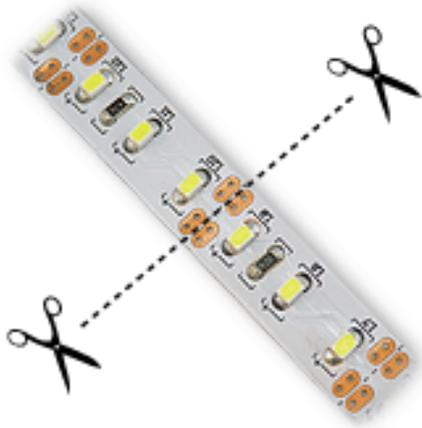
Screw it into position

Once the plate is into position click the LED Light box on



### Step 15

Measure the length of LED you require and cut.



### Step 16

Peel paper strip from the back of the LED Strip and stick it into position.



### Step 17

Connect the LED light strip to the Light box Switch



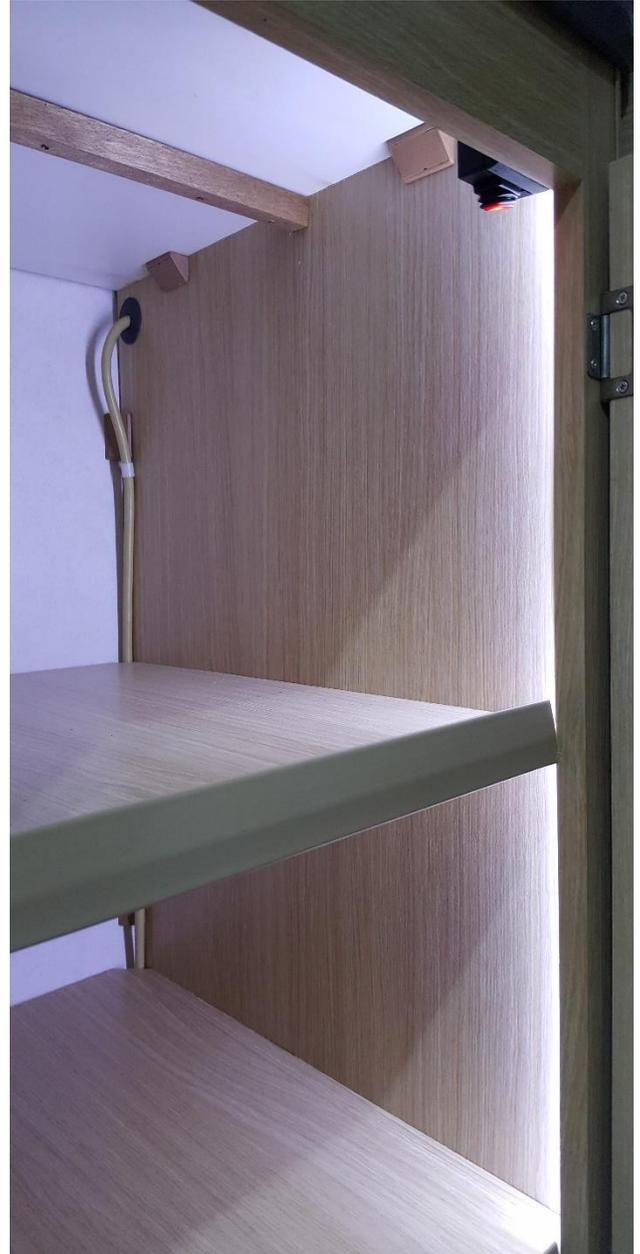
### Step 18

With some saddles, screw the conduit into position as required.



## Step 19

Turn on the Switch and enjoy



If you have any questions please don't hesitate to contact us at [caravanmods.com](http://caravanmods.com)

Happy Modding