

B151 Solar Panel Replacenment Kit for Bangalore Broadside Installation Instructions



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1 Unpack & Check Parts.

Please unpack and check the items carefully as listed below.

Contents		
Quantity	Part No	Description
4	B126	20mm foam washer
2	B131	Cord End Terminal
2	B59	7mm Grommet Nut
1	B65	Solar Charger
2	F174	1" x 8 Posi Pan Screw
2	F25	M5 x 20 Washer
2	F41	M6 x 25 Bolt
2	F26	M6 Nyloc Nut
4	F49	M6 x 3/4" Washer
2	V49	Cable Tie(100 x 2.5)
210mm	V81	4mm Black Sleeving

2 Tool List

The following tools will be required to fit the solar panel kit.

Tools needed	
10mm spanners	For bolting up the solar panel
13mm Spanners	To remove the bolt holding the lid in place.
No 2 posidrive screwdriver	To remove the lid of the control box
3.5mm flat blade screwdriver	To attach the wires to the 4 way plug.
Wire cutters	To trim the cable ties
Wire Stippers	To strip the wires back on the solar panel
17mm spanners	May be required depending upon which type of lid has been fitted to the birdscarer.
Wire Crimpers	To crimp the joined wires together inside the box.

3 Removing the old Solar Panel

Remove your old solar panel. It will either be held on with nuts and bolts, or with a self tapping screw into a grommet nut,

If the solar panel is held on with bolts, use the 10mm spanners to undo the bolts, and then cut the wire on the panel that goes into the box. The wire can then be pulled through the grommet so that it is loose and inside the box itself. Once this is done you can remove the panel,

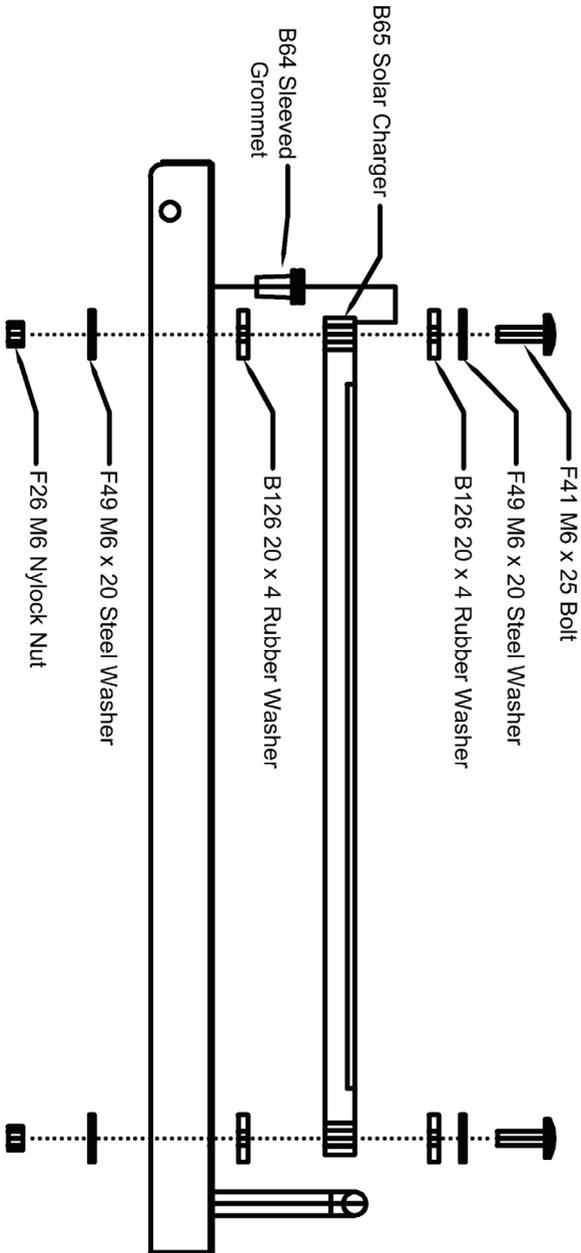
If the solar panel is held on with screws, use the No2 pozi drive screw driver to undo the screws, then cut the wire on the panel that goes into the box, and then pull it through the grommet so that it is loose and inside the box itself. Once this is done you can remove the panel,

4 Fit the Replacement Solar Panel

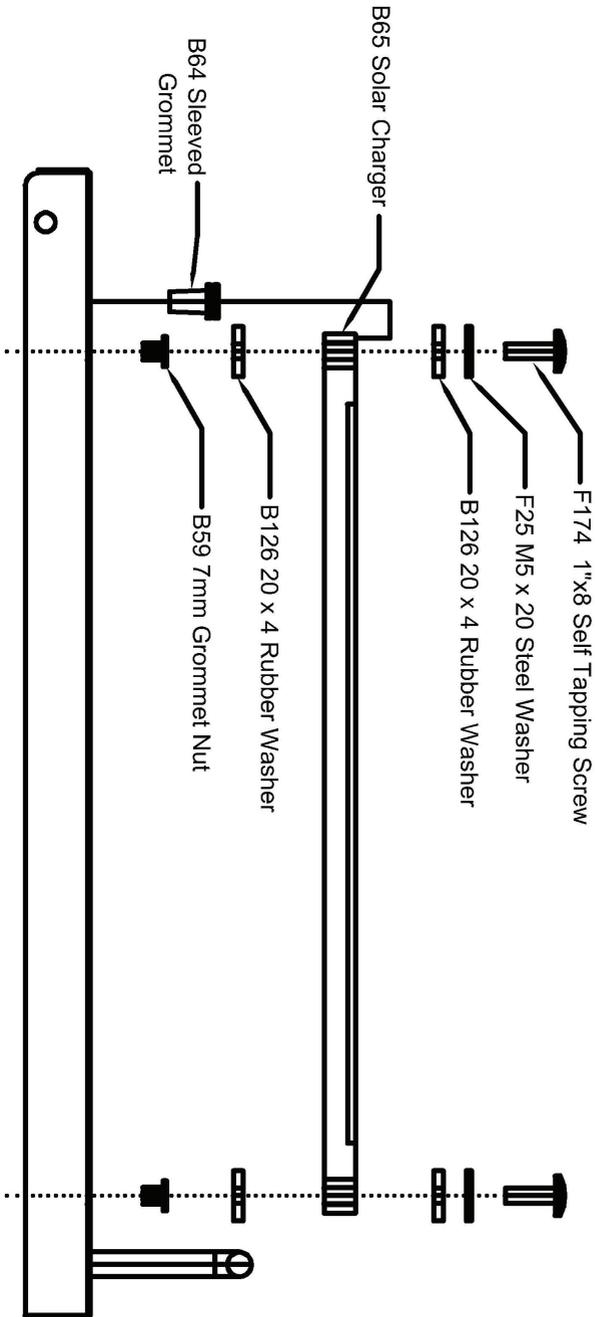
Fit the panel using the fittings as shown on the next page.

Tighten up the bolts / Screws so that the panel is held firmly and the foam washers seal the holes to prevent water leaking through. Do not over tighten the bolts as the ends of the panel can be crushed.

Now that your panel has been removed you will see that you will either have square holes or round holes,
If you have round holes use this diagram.



If you have square holes, use this diagram.

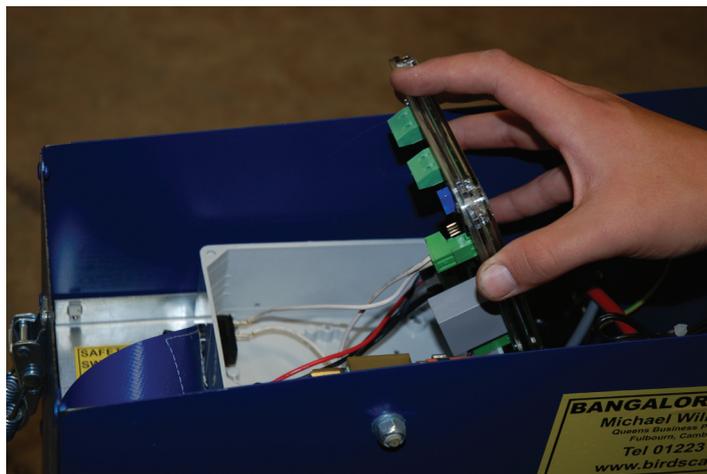


5 Wiring up the panel

Using a Posi-drive screwdriver, unscrew and retain the four screws at each corner of the control box panel. See picture below.



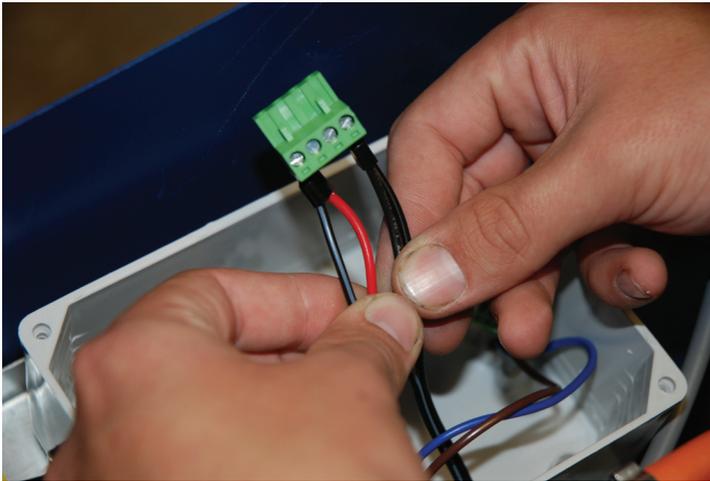
Carefully open the lid of the control box from left to right. See picture below.



Damage may occur if you touch any of the components on the circuit board.

Were you cut the old cable off the old solar panel, follow this lead back to the grommet where it goes into the control box (you will need to cut the cable tie where the cable is bunched up to the gas pipe)

The red wire and the solar panel black & white wire are both inserted into one of the black crimp terminals, crimped and then screwed into the green plug as shown in the picture below.



Using the 3.5mm flat blade screw driver undo the two screw that hold the black crimp terminals in place.

Now cut very end off the cables as close to the crimp as possible, this will free the old panel cable that was previously cut, you can now discard of the old cable.

Using the wire strippers, strip off 8mm of insulation from the Red and Black cable (coming from the battery)

Feed the cable from the new solar panel through the grommet in the lid, once the cable is in side the box push the new cable through the black sleeving supplied.

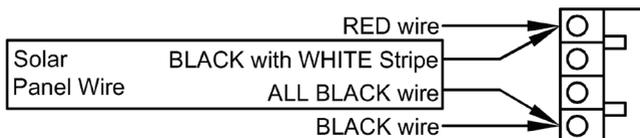
Tie a loose knot in the wire so that the sleeving will not slide down the wire.

Now feed the new wires through the grommet in the side of the control box that you removed the old cable from earlier.

Separate the cable now buy pulling the two cores apart, so that you can strip them separately,

Strip the Black wire with the White strip along it and join it with the red cable that you stripper earlier use the crimps provided and crimp the two wires together (like the ones removed). if you don't have crimps available, simply twist the two wires together and place in the left side of the green clip and fasten down with the flat blade screw driver (See image below for checking you have fitted the wire in the correct side if the clip.

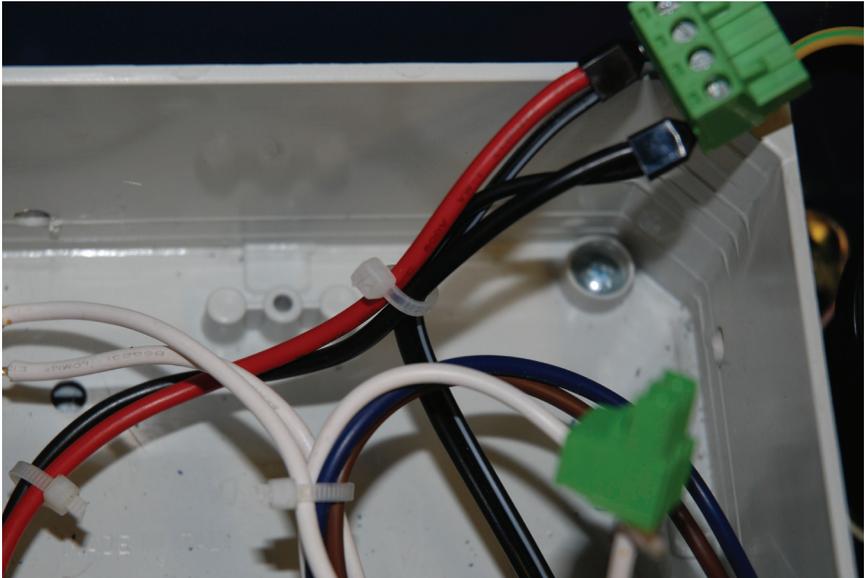
Warning - Damage will occur if the wiring is incorrect



All plugs are shown with the screw terminals facing up

Now repeat the process but with the black wire that you previously stripped and the black wire from the solar panel. Once again double check with the image above that the wired are in the correct place.

Tidy up the wires outside the box using the cable ties and cut off the excess with cutters.

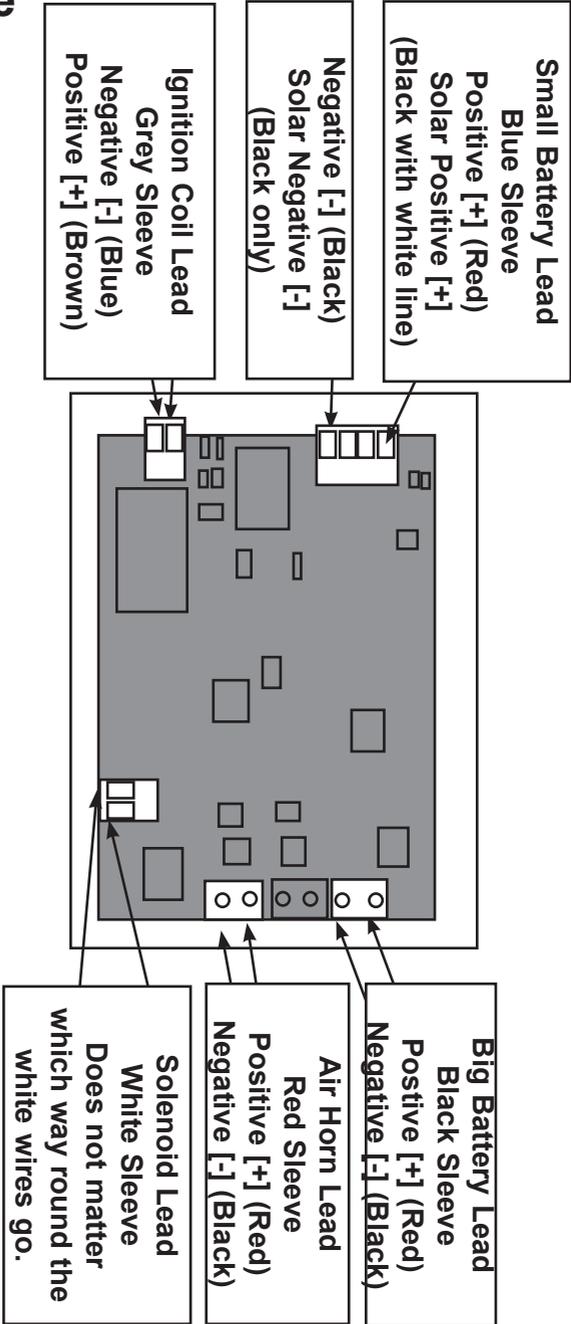


The 4 way plug can then be fitted to the circuit board.

Ensure all three green plugs are properly in place before refitting the lid. Each connection block will only fit one way onto the connector – you won't be able to connect them up incorrectly.

Note - It is possible that for the cables to become pulled away from the connectors when the lid is screwed back in place. Ensure that the wires do not bunch up inside the box before refitting the lid.

6 Full Wiring Diagram for Bangalore Broadside



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