Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

Included are the primary parts:

1. Battery Box (battery not included)
2. Solar Panel
3. Steel Hanger bracket

The Battery Box includes:

- Solar Charge Controller
- SLA fused battery cable (F2 Spades to SAE Disconnect)
- 6ft SAE to SAE extension
- Camera Cable SAE to DC barrel plug

The sealed lead acid battery required for use with this kit should be 12 volts and have the following dimensions: (approximately)

- Length: 6.0 in
- Width: 2.5 in
- Height: 4.0 in

Generally the batteries in this category run from 7 amp hour to 9 or 10 amp hour. This a common industry standard size, available online and locally through some battery outlet stores.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

The hanger bracket includes the following pieces:

- (A) Main bracket
- (B) Box base
- (C) Panel guide bracket (with countersink holes)
- (D) Panel Catch bracket
- (4 sets) Hex head .25” bolts with nuts
- (2 sets) Flat head .25” bolts with nuts (requires Allen Wrench)
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

Assembly is as follows:

Attach Box Base (B) to Main Bracket (A).

Attach Panel Catch Bracket (D) to Main Bracket (A)
Attach Panel Guide Bracket (C) to Main Bracket (A) using wrench or socket and Allen Wrench.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

How to insert the solar panel into the bracket.

Note: DO NOT FORCE THE PANEL AS IT CAN CRACK. ADDING CAMO TAPE WILL INCREASE FRICTION.

1. Orient solar panel where the solar pigtail unit is furthest from the vertical spine of the Main Bracket (A).
2. Gently slide the solar panel into the guides until the frame is beyond the Panel Catch Bracket (C)
3. Pull the panel in the reverse direction allowing the frame to catch behind the Panel Catch Bracket (C)
4. The SAE disconnect pigtail should hang freely and is ready to attach the Battery Box (Solar In cable)
Finally place the Battery Box into the bracket under the solar panel and verify the Box Base bracket fits within the bottom fins on the box to prevent the box from sliding left or right.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

Hooking up and verifying the solar Power Pack is ready

Connecting the Solar Power Pack to the camera:

1. Connect the Battery cable with F2 spade connectors to a charged Sealed Lead Acid battery. Get the polarity correct by placing the black cable on the negative terminal.

2. Connect the battery cable to the Solar Charge Controller using the SAE disconnect.

3. Pull the controller from the foam, to reveal the cavity beneath for extra wiring.
4. Insert the SLA battery into the foam, orienting the spade connectors towards the box handle.

5. Gently push and fold the excess cabling under the Charge Controller and push the controller down into the foam.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics


7. Verify that the left most icon shows on the Solar Controller, indicating that the solar panel is providing amperage and properly connected (you may need some sun).

8. Plug the Camera Cable DC barrel plug into the external port on the camera.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

9. Connect the Camera Cable disconnect to the Camera Power cable on the battery box.

10. Remove the batteries from the camera, and switch to SET up to verify it has power.

11. Note: The camera will automatically detect and select the power source with the highest voltage (internal AA or External power). It is a good idea to place Lithium AA batteries in the camera for long term deployment to avoid the alkaline leaking in the battery compartment. At no time will the external power run in parallel with the internal AA batteries.

12. As a final step, test the Extension cable by placing it between the Camera cable and the Battery Box. Switch the camera to OFF, hook in the extension cable, switch the camera back to SET.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

Mounting the Solar Power pack on a tree

You have two options, one is to use a screw or lag bolt and the provided lag bolt slot on the bracket spine. The other option is to use a heavy duty strap. For this demonstration a strap was used.

Strap the bracket to the tree without the panel or box.

Insert the solar panel carefully.
For a tight box fit use your hand and gently bend the bracket in and test fit when inserting the box.

Slide the Battery Box in from the side. This may require expansion of the hanger bracket if you have compressed it a bit. Just pull out on the bracket as you slide the box in.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

Verify that the fins on the bottom of the Battery Box are aligned within the Box Hanger bracket piece.

Connect the solar panel to the battery box.
Ridgetec Solar Power Pack, Assembly, Cabling and Diagnostics

Strap or mount the camera to the tree. Ideally you should use a strap to cinch the Camera cable against the tree. This releases stress from the DC barrel plug and helps to keep it from getting yanked out of the camera.

If the camera is co-located with the battery box, simply connect the Camera cable to the Camera Power cable on the battery box.

If the camera is located 6 or more feet below the solar power pack, then use one or more extension cables (one is provided with the Solar Power Pack).