

# Bonnet Decal Installation Guide

The bonnet decal/wrap will help protect the vehicles paintwork from the adhesive should you ever choose to remove the VSS panel.

## Tools Required:

- Spray bottle with soap & water mixture
- Felt covered squeegee
- Surface Cleaner
- Needle or pin
- Microfiber cloth

## Some things to consider before you get started

Many of our decals are rolled into shipping tubes. Rolling causes 'tunneling' on the decal which means there are spaces where the decal may separate from the backing paper. To ensure an easier installation, make sure you unroll your decal, remove the transparent protective film on the surface, and let it sit for 10 to 15 minutes before you are ready to install. It also helps to use the included squeegee to press the layers together ensuring that there are no longer any gaps.

When it comes to installing vinyl, the climate is very important. We suggest avoiding extreme temperatures (nothing below 50 degrees F or 10 degrees C) It is also imperative that the installation is not attempted on a hot surface or in direct sunlight.

## Installation Step

### 1 – Clean the bonnet

Make sure that you give the bonnet a good wash to remove any dirt and debris before installing the bonnet decal, this ensures good adhesion of the decal. Fill the spray bottle with a mixture of water and soap (Shampoo), about 4 large drops to a spray bottle of water.

### 2 – Place the Decal

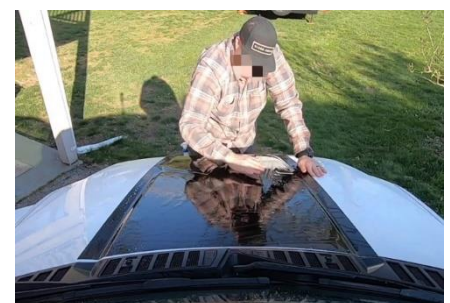
Spray the bonnet and the decal back side GENEROUSLY with soapy water. This is what will keep it from immediately sticking and will let you make minor adjustments. Peel off the backing WHITE paper off and put the decal on the bonnet. The decal will slide easily on the soapy water solution so you can make any minor adjustments needed. Step back and double-check that the decal is where you want it. It will look bumpy and uneven, but that's OK.

Use the felt covered squeegee to swipe across the decal surface and wipe the soapy solution out from underneath. Work from the center toward the edges. Ensure that you've wiped the entire decal surface and there are no bubbles left.

If bubbling occurs, we suggest using the pin to make a small hole and then carefully pressing out the air. If there are hanging or lifted pieces of vinyl, it is suggested that those sections are trimmed as soon as possible to prevent further peeling. On some product with complex surface curves, you may use a hair dryer cautiously to help the decal conform. Do not overheat it as it can shrivel or wrinkle.

## Post Installation Care Instructions

DO NOT WASH OR OTHERWISE WET THE VEHICLE FOR 48 HOURS. It is best to install the VSS panel about 48 hours after the decal is installed.



# VSS Bonnet Solar Panel Installation Manual

**If you do not properly bond the VSS panel to the bonnet, then the installation will fail.**

If purchasing the complete kit which includes the solar panel, bonnet decal and solar controller, the only thing that you will need to purchase is the double-sided 3M tape.

## Tools Required:

Electrical Tape  
Dikes (Wires Cutters)  
Basic Mechanic's Tools  
Scissors  
Double-Sided 3M Tape (2 Rolls Minimum)  
1/4 Phillips Head Screws (Optional)  
Velcro (Optional)

## Additional Prep

Install the vinyl decal onto the bonnet first. This is designed to help protect the paintwork from the adhesive so if you should ever choose to, make it easier to remove the VSS panel. It also gives the final job a much cleaner look. Make sure that you give the bonnet a good wash to remove any dirt or debris before installing the panel.



## Installation Steps

### 1. Take out the VSS panel

The VSS solar panel is sandwiched between two dense pieces of cardboard for freight & handling. Please be careful when removing the package when using a knife to not accidentally cut the VSS panel with the knife. Also be sure not to bend the VSS panel excessively.



## 2. Clean the VSS panel and the car bonnet

Give the car bonnet decal and the back of the VSS panel a good clean with alcohol pads (or methylated spirits) to remove any dust or residue.



## 3. Prepare the VSS Panel

Use 3M VHB double sided tape on the back side of the solar panel like the following picture.



## 4. Positioning the VSS panel

Place the solar panel on the bonnet and line up into a position that you are happy with. Once you've got the VSS panel where you like it, take some painter's tape (masking tape) and tape the corners to have a guide once you get ready to place it for real.

Walk around the vehicle one more time and make sure you like where it is sitting.

You only get one shot at this and sometimes it's better to have an extra set of hands if the VSS panel is too large/bulky to line up by yourself.



## 5. VSS Panel Placement

Before removing the double-sided tape backing, position & check the placement of the panel on the bonnet of the car. Then, with the masking tape, create a hinge on the back edge of the panel to the bonnet. This method will allow the panel to be lifted to remove the double-sided tape backing after it is in place. The 3M tape is extremely adhesive, so you have one shot to get it exactly in place.



Peel off the double-sided tape and lay it down for good. Press along the edges and centre of the panel to ensure all the tape is contacting the surface of the bonnet. Continue to press and rub your hands over the entire surface of the panel to promote adhesion. Pay special attention to the corners and sides of the panel as you don't want those to lift.

Put some items/weights on the VSS panel and let it stand for at least 24 hours to make the sure the 3M glue bonds at its best.





## 6. Extra Protection (Optional)

To help keep water, dirt, and wind from getting in between the bonnet and the VSS panel you can apply a bead of Sikaflex around the edges of the VSS panel. Sikaflex is a very strong automotive adhesive.

A tip is to use some masking tape before you apply the adhesive around the edges and rip the tape off after you finish applying the adhesive.



## 7. Wiring

### Connect the VSS panel to the solar controller and battery.

The optional Plug-and-play 10A Waterproof MPPT solar charge controller has been pre-wired with fuses, terminals, and connectors. Connect the VSS panel to the solar controller with the MC4 connectors. Then you can connect the solar controller to the car's battery.

You can then use 3M adhesive to affix the controller next to the battery.



### 1) Single bonnet VSS panel connection



### 2) Double bonnet VSS panels connection



### 3) Three bonnet VSS panels connection



If you want to use the VSS panel to charge a power station, DO NOT connect the solar controller, just connect the solar panel leads to the power station. This is generally because most of the power stations available already come with a built-in solar controller.

The solar panel comes with MC4 connectors, so you need to buy a suitable adaptor cable by yourself to suit your power station.



### 8. Post Installation Care Instructions

DO NOT WASH OR OTHERWISE WET CAR FOR 72 HOURS.

If dust and water accumulate on the VSS panel, just clean with soapy water for best performance.