



## INSTALLATION AND USER MANUAL

### Introduction

The Diamondback microprocessor controlled heated windscreen kit is built for Land Rover Defenders that have an aftermarket heated windscreen fitted with two connectors.

This bespoke system is the most advanced type available, fitted with a 30A fuse to prevent short circuiting, a 2 stage Relay capable of switching up 5-60 VDC at a maximum rate of 50A / 1000W and a water resistant IP66 switch with optional green night time dash illumination. The heated windscreen can be switched off and on with the press of a button. For maximum comfort and user friendliness the microprocessor enables its user to adjust the system to accept any custom "on" time in minutes, simply by pressing the same off/on button using the registered *Red Bison single button multi function technology*®.



## INSTALLATION

### Preparation

1. mark the position where the heated windscreen switch will be fitted.
2. Fit the bracket for the switch on the dashboard of console.
3. Find an empty space in the dashboard to fit the relay housing. Make sure the space is dry and nearby wires are insulated.



**WARNING:** Electrical components should only be fitted by qualified personnel who are aware of the requirements for working with high currents.

### Fitting the system

For installation details, please notice the installation image on the back page of this sheet.

### Installation

1. connect isolated female connector of the supplied 20cm black power cable on the male connector to the right side of the heated windscreen. Mount the ring connector to any nearby metal part that is connector to the bulkhead (for instance the mount of the front window rail).
2. Remove the 30A fuse.



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3. Fit the Diamondback housing and connect the feed of the system to a +12v source within the vehicle (direct feed with a diameter of minimal 8AWG/.1258in/4mm<sup>2</sup> wire or more from battery or alternator is preferred).
4. Mount the connector with the black wire of the housing to any earth point within the dashboard (if you are unable to source an earth point, the defender loom typically also has black wires connected to earth via the bulkhead, body panels and chassis).
5. Guide the long feed wire with the isolated female connector (plus to heated screen) through the dashboard and connect this to the male connector on the left side of the heated windscreen.
6. Place the switch into it's bracket and check if all wires are connected in the correct manner.
7. Optionally connect the single ORANGE wire to a light switched plus (RED/WHITE wire in a defender dashboard loom) for night time legend symbol illumination.
8. Reinstall the 30A fuse, the system is ready for operation.



## USAGE

To turn the heated windscreen on, press the button. The windscreen will now be heated for the time it's programmed (factory standard is 8 minutes). To switch the heated windscreen off prior to the programmed time, simply press the button again.

### Programming time interval

To program the "on" time, press the button twice within one second. The Diamondback will now start with flashing the "on" led. Each flash represents one minute. Once all minutes have been displayed the led will flash fast to state the microprocessor is ready to be programmed. If you do nothing within 2 seconds, the Diamond back will return to it's normal operation mode, using the previous stored time interval. Once you start pushing the button while the led is flashing fast, the diamondback will record the push. Each push represents a minute. After each recorded push the Diamondback gives feedback by giving a short flash on the led of the switch. If the correct amount of presses have been given, wait for 2 seconds. The diamondback now stores the new value in it's memory and acknowledges it's new value by flashing the led for the total amount of minutes it is now programmed for. Again each single flash represents one minute of "on" time.