

Installation & Operation Guide for Blacktrack Cara 200 Crash Recorders

It is very important that the crash recorder is only activated when it has been securely mounted in its final position in the car. If it has been accidentally activated before mounting, deactivate by removing the tamper label and pushing the slide bar out so that the power button protrudes.



Quick Installation Instructions

1. Find a suitable level installation site for the recorder, towards the centre of the vehicle away from the crumple zones. Under the driver's, passenger's or back seat are good places.
2. Cut away any carpet from the mounting site so that the crash recorder can be mounted to the metallic structure of the car. If necessary, clean the mounting site with a degreaser so that a good bond can be achieved.
3. Fix the crash recorder to the vehicle using the VHB tape provided. Ensure the arrow moulded into the case of the recorder points to the front of the vehicle.
4. Once the crash recorder is securely fastened to the vehicle, press the button near the USB connector to activate the crash recorder. After a few seconds, the activity LED should start a flashing sequence. See diagram 1, sequence A. After two minutes the LED will settle to flash sequence B. The crash recorder is now activated.
5. Once the crash recorder is activated correctly, fit a tamper label in the recess on the top of the case. If removal is attempted, the tamper label will split and display "VOID" on the crash recorder.



Operating Instructions and Reading the Crash Recorder Status

1. Under normal operation, the Blacktrack Cara 200 crash recorder requires no driver intervention or maintenance whatsoever. The recorder measures the forces on the vehicle continuously, but only records them to non-volatile memory in the event of a crash.
2. After a crash, the crash data is recorded to non-volatile memory. The crash data cannot be overwritten for three days after the crash. After this time, it is possible to overwrite the crash data. So it is important that vehicle recovery is completed within three days of a crash. The sequence on the LED as described below changes to reflect the status of the crash recorder.
3. It is possible to read the status of the crash recorder by observing the flashing sequence of the activity LED. The sequence is divided into six 1.0 second intervals (see figure 1). If no sequence is observed then the power to the crash recorder has failed and should be corrected. The sequence has a 2.0 second blank section which defines the end of the sequence. After that, each of the four crashes is given a 1.0 second section of the sequence. A single flash means that the crash recorder can trigger for that crash, while a quick burst of flashes means that crash has been recorded and re-triggering is blocked. So it is possible to read whether the crash recorder is ready to trigger and how many crashes have been recorded in the last three days. Figure 1 sequence C shows that one crash has been locked out.

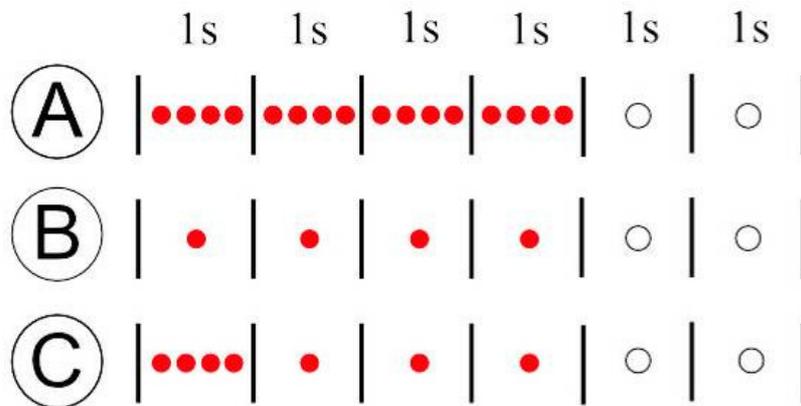


Diagram 1. LED flash sequence



What to Do After a Crash

1. After a crash, it is important that the vehicle is taken to a place of repair within three days. If this time is exceeded there is a danger that the crash data can be overwritten and valuable information lost.
2. After a crash the crash recorder should be removed from the vehicle and sent to Blacktrack or another expert body for analysis. Before removing the crash recorder from the vehicle, it must be de-activated. Remove the tamper label with a sharp instrument if necessary. Move the slide bar out so that the button protrudes near the USB socket then check that the LED has stopped flashing.
3. Once the crash recorder has been de-activated, the data is safe and it can be removed from the car. Remove the recorder using flat bladed screwdrivers and try not to damage the case too much.
4. Return the crash recorder following address for analysis:

Blacktrack Ltd
Innovate Centre
Chartermark Way
Colburn Business Park
Colburn
North Yorkshire
DL9 4QJ, UK
Tel: +44 (0)1748 831904
Fax: +44 (0)1748 831999

Host Software

Blacktrack host software is used to download information and analyse crash data from the Blacktrack Cara 200 crash recorders. It is available free of charge to registered customers. The latest version is available from <http://www.blacktrack.co.uk/blacktrack/downloads>. For the first installation, download the full version including the ftdi drivers. The host software runs under windows Vista or XP