

## DB001 Driver Behaviour Indicator



The DB001 driver behaviour indicator is an optional accessory that can be used with our AT240 and AT110 devices to give feedback on driver behaviour performance, in-vehicle, in real-time. Interconnection is via a 5 way cable (supplied), which mates with the 'plug-and-play' terminated cable for the appropriate device. The DB001 is mounted on the top of the dashboard, in view of the driver. LEDs indicate progressive driver behaviour status at configurable thresholds, based on speed, acceleration, deceleration and cornering. LED brightness is automatically dimmed at night or in low ambient lighting. For further details and application guidance, please refer to the application note 'Driver Behaviour'.

### FEATURES

- Dimensions: 30 x 24 x 10mm
- Operating Voltage: 3.3V (from device)
- Current Consumption: 5mA @ 3.3V typical
- Interface: control input for each LED (pull-down)
- Cable length: 1.0m
- Astra Device Compatibility: AT240 & AT110
- Mounting: Dash top using double-sided adhesive tape (supplied)

## OPERATION

The LEDs are controlled using device digital outputs, configured using the \$CDOP command as below:

CDOP,<digital\_out\_number>,<application>

Where:

<digital\_out\_number> specifies the digital output being assigned (1 – 5 for AT240)  
<application> specifies the application as an integer

<application>	Integer value	Multiple assignment allowed?
Not used	0	Yes
Immobiliser	1	No
Driver ID reminder	2	No
Driver ID confirm	3	No
Driver Behaviour Indicator (yellow)	4	No
Driver Behaviour Indicator (orange)	5	No
Driver Behaviour Indicator (red)	6	No

For example, to assign outputs 3,4 and 5 to driver behaviour LEDS (yellow, orange and red respectively) will require 3 commands:

```
$CDOP,3,4
```

```
$CDOP,4,5
```

```
$CDOP,5,6
```

Notes:

1. When using an AT240 with CB243 plug-and-play cable, please define digital outputs as per the above example for correct operation
2. When using a single LED driver behaviour indicator, only the RED indicator should be defined

The LEDs will be turned on progressively based on accelerometer data in the device on a second by second basis. Thresholds for switching will be based on the user configurable driver behaviour parameters:

ACMX / DCMX

ACMY / DCMY

Accelerometer based LED progression will be as follows:

70 – 84%	YELLOW only
85 – 99%	YELLOW and ORANGE
100% or more	YELLOW, ORANGE & RED

Similarly, the OSST over-speed parameter will be used to light the LEDS as below:

101 – 107%	YELLOW only
108 – 114%	YELLOW and ORANGE
115% +	YELLOW, ORANGE & RED

This functionality will be enabled by setting the appropriate outputs to the *driver behaviour* application.