

User Guide K8 Keypad

Release 1.01



1 – Introduction



The **K8 Keypad** is exclusively used on an AiM network, **connecting only to the AiM PDM08 or PDM32.**

It features 8 pushbuttons whose status is constantly transmitted to the Network Master through an AiM CAN connection. The buttons are fully configurable using AiM RaceStudio3 Software.

Each button can be set as:

- **Momentary:** the pushbutton status is ON when the pushbutton is pushed
- **Toggle:** the pushbutton status changes from ON to OFF each time the pushbutton is pushed
- **Multi-status:** the pushbutton value changes from 0 to a MAX Value each time the pushbutton is pushed.

You can also define a time threshold for each button that implies different behaviours when a short or long compression event is detected.

Every pushbutton can be customised in a different colour, or in a solid, slow, fast or blinking mode.

The keypad automatically shares all the installation channels that can be used – thanks to the colour LEDS – both to acknowledge a button compression event or to the status of a device.

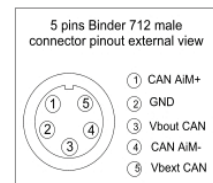
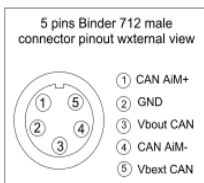
Finally, it is possible to configure a pushbutton to increase or decrease the brightness level of the keypad, and to transmit commands to the master device.

2 – Wiring



The Keypad K8 comes with a **CAN cable** used to connect it to the master device.

Below is the CAN cable with its pinout.



The part numbers are:
500mm – V02554790
1000mm – V02554810
2000mm – V02554820
4000mm – V02554830

3 – Software configuration

For configuring the K8 Keypad, please download AiM RaceStudio3 software from the AiM website at aim-sportline.com

Software/firmware download area:

[AiM - Software/Firmware download \(aim-sportline.com\)](http://aim-sportline.com)

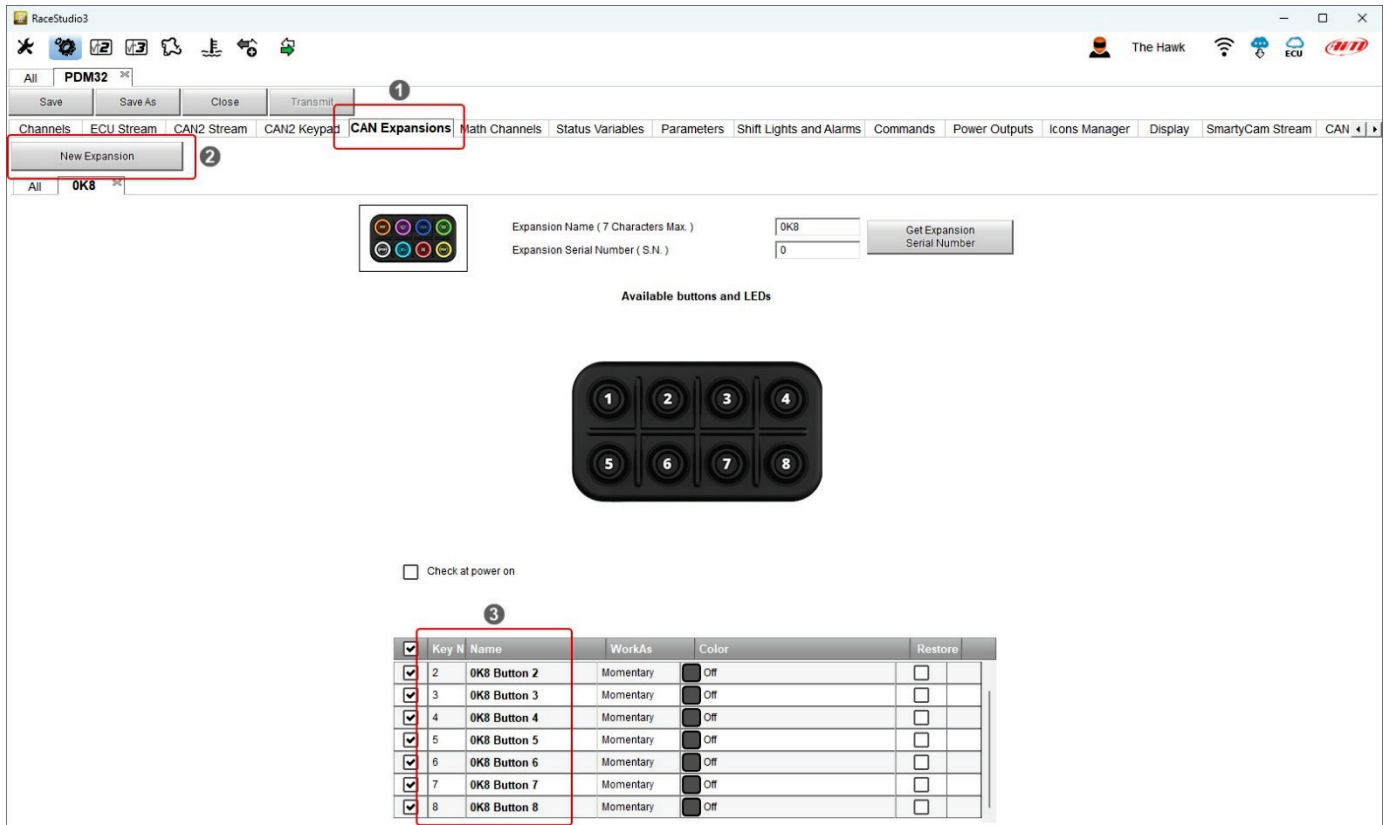
After having installed the software, run it and follow these steps:

- Enter the **Configuration Menu** by clicking the icon highlighted below:



- Press “**New**” button on the top right toolbar and select the PDM you wish to configure
- The software enters PDM Configuration
- Enter “**CAN Expansions**” tab (1) and press “**New Expansion**” (2)
- Select the K8 Keypad
- Configure the K8 Keypad

Please note: your master device can manage a maximum of 8 keypads.



3.1 – Pushbuttons configuration

Some quick notes before we start analysing how to configure the Keypad:

- The pushbutton status can be set as **Momentary**, **Toggle** or **Multi-status** as explained in paragraph 3.1.1. It is possible to set a time threshold to manage short and long button compression in different ways.
- Pushbutton status is constantly transmitted through AiM CAN bus.
- The status of each pushbutton at power OFF can be restored at the following power ON.
- Each pushbutton can be customised – solid or blinking – in 8 different colours as explained in paragraph 3.1.2
- It is possible to configure a pushbutton to increase or decrease the LED brightness level.
- Setting the pushbutton as **Momentary** you can associate a command (“**Menu enter**” etc.) to each pushbutton.

3.1.1 – Pushbuttons status configuration

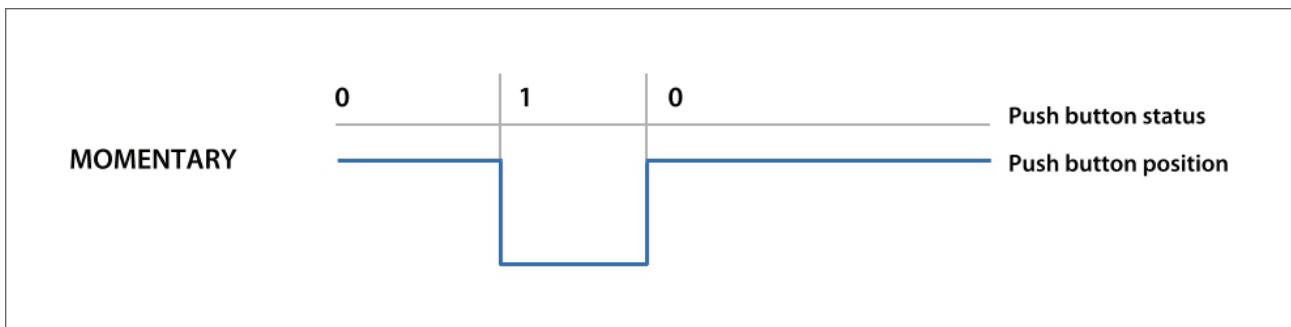
You may set different modes per every pushbutton:

Momentary

The status is:

- ON when the pushbutton is pushed
- OFF when the pushbutton is released

Please note: both status ON and OFF can be freely associated with a numeric value



When setting the pushbutton as **Momentary**, you can associate a command to each pushbutton by pressing the related button highlighted below.

Available commands are:

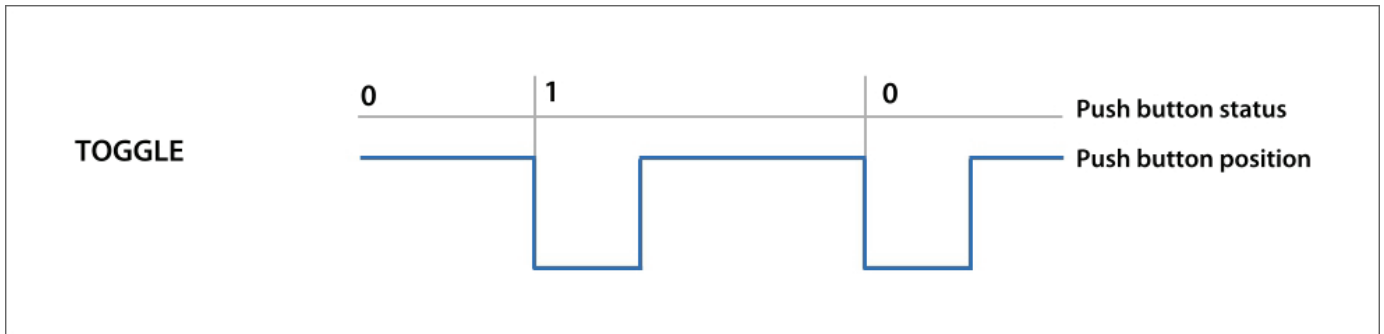
- *Change display page:*
 - Next display page
 - Previous display page
- *Display button:*
 - Enter menu: to navigate the display menu, four pushbuttons are needed; they become white while the others are disabled. **Please note: used pushbuttons change according to the position – horizontal or vertical – of your keypad**, for this reason a selection of the position is necessary.
 - Enter recall: this command enters the display data recall after a test.
- *Reset alarms.*
- *Reset counters:*
 - Reset all odometers.
 - Reset odometer “x” (according to the number of available odometers)
- *Keypad brightness*
 - Increase
 - Decrease

Toggle

When setting the pushbutton as **Toggle**, the status is:

- ON when the button is pushed once, and it remains ON until it is pushed again.
- OFF when the button is pushed the second time.

Please note: both status ON and OFF can be freely associated with a numeric value



Multi-status

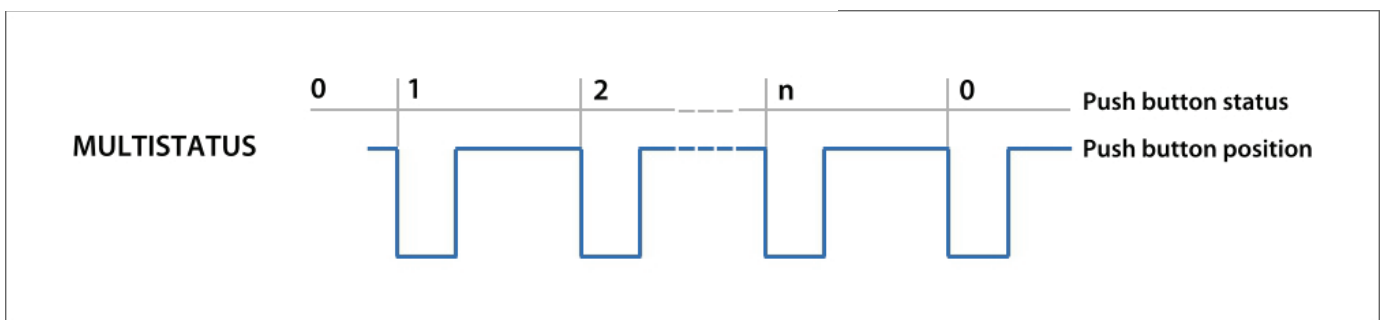
When setting the pushbutton as **Multi-status**, the status may assume different values that change every time the pushbutton is pushed. This setting is useful, for example, to select different maps or to set different suspension levels etc.

Name

Work As Momentary Toggle Multiposition

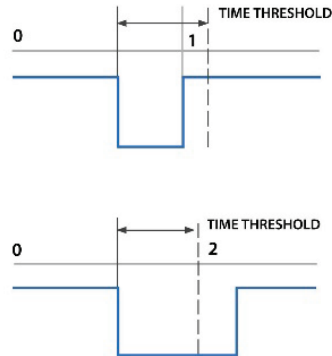
Use timing Time threshold between short and long status sec

Position	Label	Value	Short Press leads to	Long Press leads to	
0	<input type="text" value="OFF"/>	<input type="text" value="0"/>	ON	LONG	[+] [-]
1	<input type="text" value="ON"/>	<input type="text" value="1"/>	LONG	OFF	[+] [-]
2	<input type="text" value="LONG"/>	<input type="text" value="2"/>	OFF	ON	[+] [-]

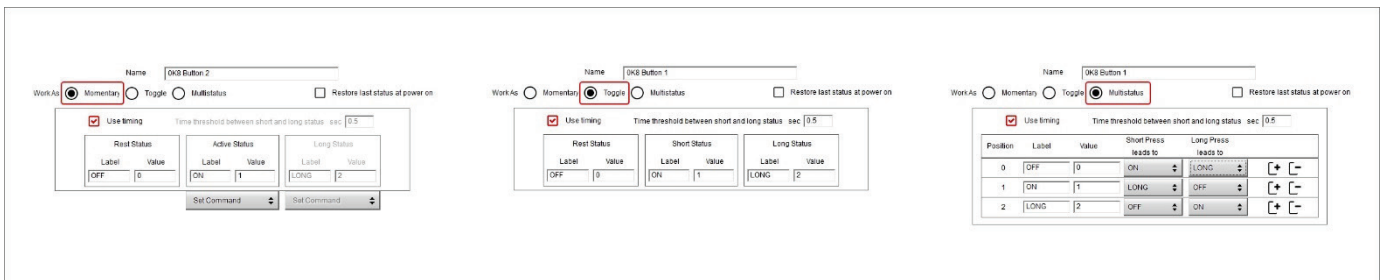


You can also set a time threshold: in this case, the pushbutton is set at two different values that you may define depending on how long you push it.

TOGGLE WITH TIME THRESHOLD

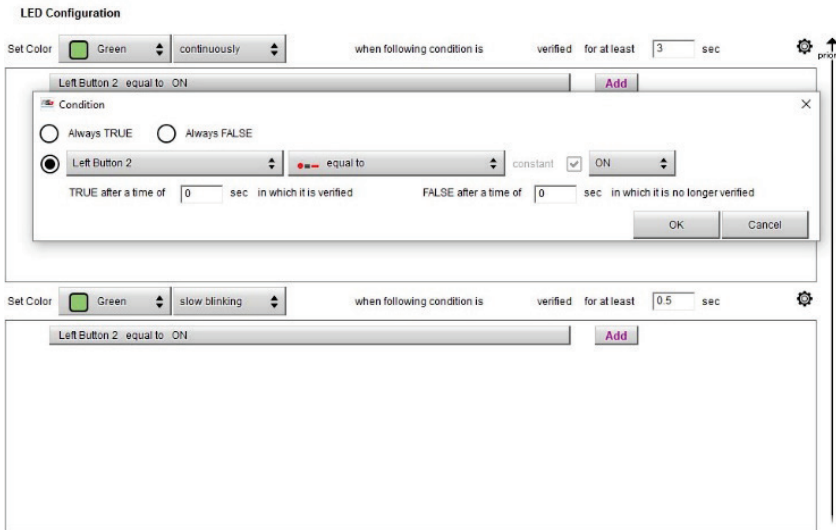


To do so enable the “use timing” checkbox on the top box of the setting panels.



3.1.2 – Pushbutton colour configuration

Each pushbutton can be set with different colours to indicate the action performed by the driver and the feedback of that action: the pushbutton may be turned – for example – blinking (slow or fast) GREEN to show that the pushbutton has been pushed, and solid GREEN when the action is activated.



4 – Keypad K8 Open

The K8 Keypad is also offered in an “Open” version that allows you to define the CAN streams. This version is intended to be used when an AiM master device is not present, but of course, you can use it in any AiM installation. In order to do so, you have to follow these steps:

- 1- Set the Keypad as “connected to AiM device”.
- 2- Transmit the configuration.
- 3- Open the configuration of the AiM Device
- 4- Select the expansion “K8 Open” and configure it as a normal Keypad K8.