How to set Blink Marine Keypad ID with PDM

Usually, Blink Marine’s keypad come with a CAN ID 0x15 and operate at a bitrate of 1Mbit/sec as factory settings.

To use a Blink Marine keypad with AiM PDM, it is possible to configure via Race Studio 3 up to a maximum of 4 keypads on the CAN 2 Stream and using an additional protocol on the same bus, but keypads need to have different CAN IDs and work with the same Bitrate.

Question:
How to set Blink Marine Keypad ID with PDM devices?

Answer:
Race Studio 3 can configure Blink Marine Keypad with 8 or 12 buttons, for using them with PDM08 and PDM32.
Race Studio 3 can menage 8 buttons Keypads with CAN ID 0x15, 0x16, 0x17, 0x18 and 12 buttons Keypads with CAN ID value 0x19, 0x1A, 0x1B, 0x1C.
You can use CAN2 Output feature of PDM configuration to set a specific CAN ID.

To change the CAN ID of a keypad, follow the instructions below:

1) You need to know the current keypad ID.
2) Connect only and exclusively the keypad to be set on the CAN 2 Stream of the PDM.
3) Open Race Studio 3 and create a new configuration for PDM, do not configure anything but go directly to the CAN Output tab and select CAN 2 sub – Tab.
4) Click on Add New Payload and create a new one like the one in the picture below.
Configuring

The ID must be 0x600 + the current keypad ID (in the picture keypad ID is 0x15). Follow the other parameters and confirm by pressing OK.

Confirm by pressing OK.

Now you can start compiling the Payload:
5) Click on Byte 0 and configure it like in the image on the right:

Confirm by pressing OK

6) Click on Bytes 1-2 and configure it like in the image on the right:

Confirm by pressing OK

7) Click on Byte 3 and configure it like in the image on the right:

Confirm by pressing OK
8) Click on Byte 4 and configure it like in the image on the right:

Pay attention to set here the value of the new CAN ID for the keypad (in the picture it is supposed a new ID value 0x16)

Confirm by pressing OK.

9) Configure the remaining 3 Bytes respectively as in the image on the right: (=0)

Confirm by pressing OK.

10) Finally, you will have configured a payload as in the figure below:

Once the configuration is transmitted to the PDM, the connected keypad will change its CAN ID. (in the example the CAN ID will change from 0x15 to 0x16).
How to set Blink Marine Keypad CAN Bus bitrate

Usually, Blink Marine’s keypad come with a CAN ID 0x15 and operate at a bitrate of 1Mbit/sec as factory settings.

Race Studio 3 can manage the Bitrate value of the CAN Bus at 125 kbit/sec, 250 kbit/sec, 500 kbit/sec and 1Mbit/sec. If you configure a CAN 2 Stream protocol, the Bitrate of all keypads must be the same as that of the protocol.

**Question:**
How to set Blink Marine Keypad **Bitrate** with PDM devices?

**Answer:**
You can use CAN 2 Output feature of PDM configuration to set a specific keypad bitrate.
To change the bitrate of a keypad, follow the instructions below:

1) You need to know the current keypad ID.
2) Connect only and exclusively the keypad to be set on the CAN 2 bus of the PDM.
3) Open race Studio 3 and create a new configuration for the PDM, do not configure anything but go directly the CAN Output tab and select the CAN 2 sub-tab.
4) Click on Add New Payload and create a new one like the one in the picture below.
Configuring

The ID CAN must be 0x600 + the current ID (in the picture keypad ID is 0x15).

5) Click on Byte 0 and configure it like in the image on the right:

Confirm by pressing OK.

6) Click on Bytes 1-2 and configure it like in the image on the right:

Confirm by pressing OK.
Configuring

7) Click on the Byte 3 and configure it like in the image on the right:

Confirm by pressing OK.

8) Click on Byte 4 and configure it like in the image on the right:

Pay attention to set here the value corresponding to Bitrate you want:

- Value 0 for 1 Mbit/sec
- Value 2 for 500 Kbit/sec
- Value 3 for 250 Kbit/sec
- Value 4 for 125 Kbit/sec

(In the picture we set a new Bitrate of 250 Kbit/sec)

Confirm by pressing OK.

9) Leave in the remaining 3 Bytes without value, as in the image below:

10) Finally, you will have configured a Payload as in the figure below:

Once the configuration is transmitted to the PDM and the connected keyboard will change its Bitrate. (in the example the new Bitrate will be 250 kbit/sec).