CANACTIVE

CAN Controller & Mini PDM

Quick Start Guide

version 01-24

CAN EXPANDER & INTEGRATOR

- add analogue inputs
- ground-switched inputs
- convert inputs to CAN

- keypad, switchboard, dash integration

MINI PDM

CANACTIVE

- 600mA low-side switching
- resistive & inductive loads
- replace fuses & relays

- ultra-fast solid-state
- overload & s/c protection

CONTROL MODULE

- smart output behaviours
- flash, intermittent wipe, hazards and more

- analogue time filters
- channel remapping

SPECIFICATION & PINOUT KEY

8 x ground switched inputs
each input is converted to CAN and relayed to the CANbus

external CAN switch compatibility
includes secondary CANActives, FREEWheel, Blink Marine keypad (CANOpen protocol), AiM wireless wheel, CANChecked CFE18 CAN Switchboard v2, ECUMaster CAN Switchboard v3

4 x 0 - 5V analogue inputs *at 10bit resolution with independent time filtering*
directly compatible with our MIL-spec calibration switches for a discrete 0 – 11 CAN output
each analogue signal is converted and relayed to the CANbus

8 x 600mA ground switched outputs *for resistive and inductive loads with overload condition detection and reporting via CAN; each output is also converted and relayed to the CANbus*
each output can be controlled by any of the input sources and configured as momentary, latching or using our built-in driving and racing functions:

- *auto-cancelling indicators (requires 12V brake light sense input on analogue 3 input)*
- *headlamp latch-and-flash control (uses 12V headlight sense input on analogue 4 input)*
- *Flash-to-Pass*
- *IVA fog mode*
- *indicator hazard mode*
- *intermittent wipe*
- *latched 1Hz flash*
- *rainlight dual solid light and 4Hz flashing hazard modes*

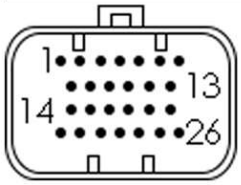
8 simultaneous CAN message formats *(LSB, MSB and bitmasking)*
free selection of base address, bus speed and identifier length
CAN databases dbc and .xc1 formats available from https://blinkstop.co.uk/shop/downloads
Data transmission rates 100Hz at 500kbps and 1000kbps -- 50Hz at 250kbps -- 25Hz at 125kbps

operating voltage 6-18V // 2-year warranty // ABS enclosure with IP64 environmental rating

weight: 110g // dimensions: 85 x 55 x 35mm (110 x 55 x 50mm incl. flanges and connector)

CANACTIVE Nano CAN EXPANDER

PIN	NAME	FUNCTION	PIN	NAME	FUNCTION
1	S1	GND SW INPUT	14	5V	VREF 5V OUTPUT
2	S2	GND SW INPUT	15	DRAIN1	GND SW OUTPUT *
3	S3	GND SW INPUT	16	DRAIN2	GND SW OUTPUT *
4	S4	GND SW INPUT	17	DRAIN3	GND SW OUTPUT *
5	S5	GND SW INPUT	18	DRAIN4	GND SW OUTPUT *
6	S6	GND SW INPUT	19	DRAIN5	GND SW OUTPUT *
7	S7	GND SW INPUT	20	CAN L	CAN LOW
8	ANLG1	0-5V ANLG INPUT	21	CAN H	CAN HIGH
9	ANLG2	0-5V ANLG INPUT	22	DRAIN6	GND SW OUTPUT *
10	ANLG3	0-5V ANLG INPUT	23	DRAIN7	GND SW OUTPUT *
11	ANLG4	0-5V ANLG INPUT	24	DRAIN8	GND SW OUTPUT *
12	GND	SIGNAL GND	25	GND	VEHICLE GND
13	S8	GND SW INPUT	26	12V	IGN PWR (6-18V)



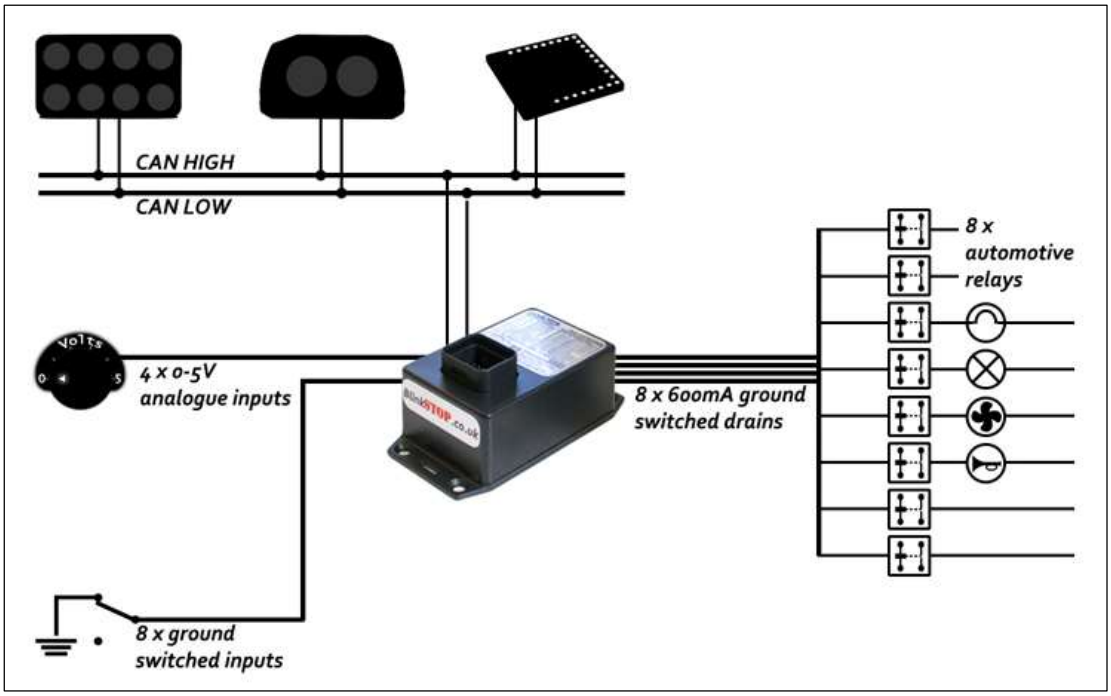
MADE IN BRITAIN

WARNINGS
REFER TO INSTRUCTION MANUAL
DISCONNECT VEHICLE BATTERY BEFORE INSTALLATION
*DO NOT EXCEED GROUND-SWITCHING MAXIMUM RATING OF 600mA PER DRAIN

GETTING STARTED

CANActive translates up to 4 analogue inputs and 8 digital inputs and transfers them to the CANbus system. 8 outputs are included, for control of low current drains <600mA such as LED lights, or relays for switching greater loads like fans and fuel pumps. These outputs can be triggered by external CAN switches, with preset CAN databases for communicating with popular devices such as Blink Marine keypads, ECUMaster and CANChecked switchboards. Output behaviour can be dictated as standard momentary or latching or using our smart racing and driving logic.

CANActive additionally includes easy configuration of key light settings of Blink Marine keypads avoiding the programming effort typically required.



INSTALLATION

CANActive has an internal termination resistor that can be disabled by removing a jumper. Open the case, remove the plastic tray and remove the jumper as shown below.

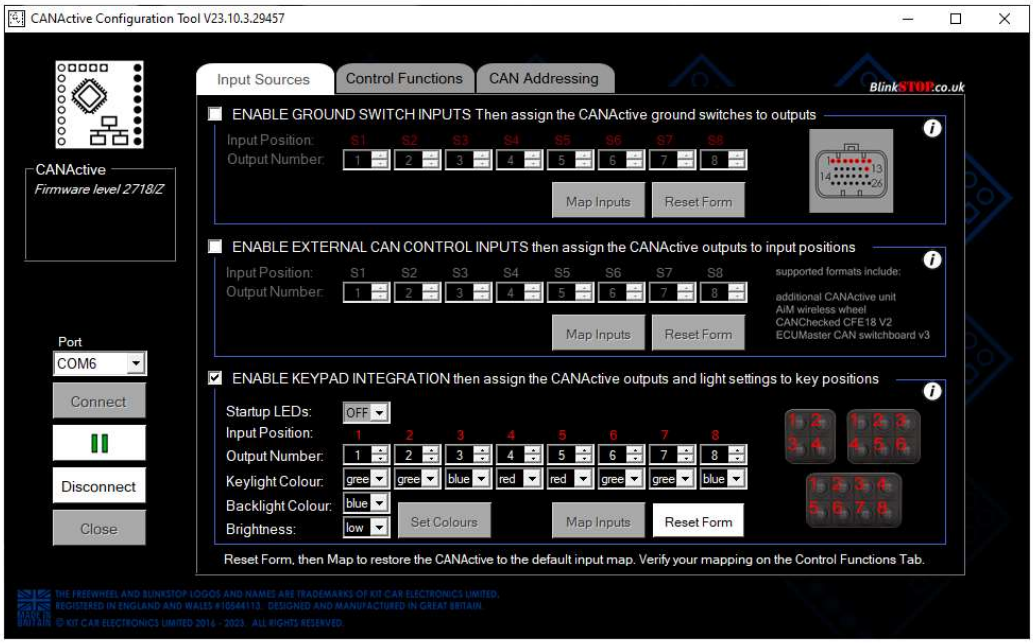
To access the USB port, carefully prise off the grommet using a small screwdriver and refit after use.

CAN CONFIGURATION

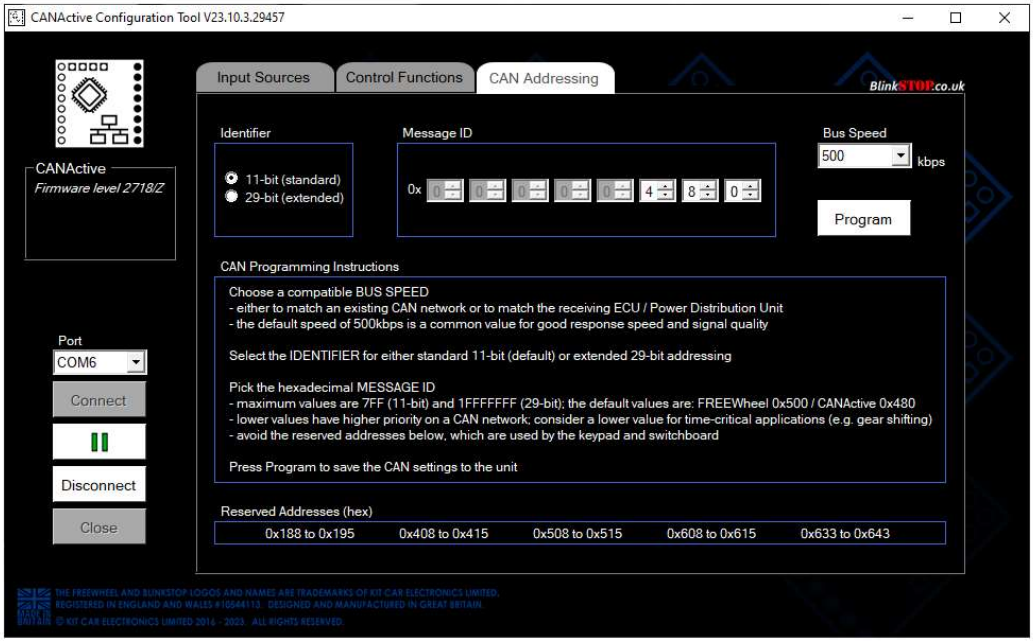
Connect the CANActive unit to a Windows PC using the supplied USB cable. Windows should auto-detect and install the necessary driver (requires internet access) but in the event this does not happen, download the driver install file from https://blinkstop.co.uk/shop/downloads. From the same location, download the CANActive configuration tool, extract the .exe file and double-click.

Choose the correct COM port from the dropdown list – it is usually the last one but can be confirmed using Windows Device Manager. Click Connect and wait for the display to fully update.

Enable inputs, assign to outputs and configure key lights as desired. Mouse hover over individual settings for further detail on operation.



Set the CAN base address and bus speed. If communication is already established with a keypad, this will simultaneously update the keypad bus speed to match.



OUTPUT CONFIGURATION

Finally, assign momentary, latching and smart behaviours to individual outputs and adjust filters to smooth the analogue inputs as necessary.

Confirm your settings using your input devices then set up any remaining CAN components. CAN message information is contained within relevant .dbc and .xc1 files, which can also be downloaded from https://blinkstop.co.uk/shop/downloads

GUARANTEE

All our products come with a two-year guarantee, except our batteries which have a five-year guarantee.

RETURNS & EXCHANGES

You can return many of our products within 14 days from delivery, however customised goods and bespoke hardware, firmware and software cannot be returned or exchanged.

GOT A PROBLEM OR CHANGED YOUR MIND?

In all cases, we will be reasonable and responsive and will endeavour to give an excellent service. Please see blinkstop.co.uk/shop for further details.

BlinkSTOP.co.uk

Contact:

info@blinkstop.co.uk

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