CAN

FREEWheel

CAN communication

Receiver configuration instructions

"So eager to order this! Need to ditch my steering wheel umbilical as soon as possible!"

"Installation was really straight forward ... and the configuration software worked well"

"All installed and tested, works perfectly, insanely pleased :D"

"I cannot recommend the kit enough"

"my favourite upgrade yet.. get one."

"Absolutely amazing.. I'll be sure to recommend your product as it really is a fantastic piece of kit"

RECEIVER CONFIGURATION SOFTWARE

INSTALLATION AND USAGE INSTRUCTIONS

NOTE: DO NOT disconnect the USB power during programming or the chip memory may corrupt!

1. *Software Installation*

Connect the Receiver USB cable to the Windows PC. Windows 7, 8 and 10 are supported. Windows will auto-detect and install the FTDI Driver.

In the event the PC does not self-install the FTDI driver, download and install FTDI's VCP Virtual COM Port driver from http://www.ftdichip.com/Drivers/VCP.htm

2. *Identify the correct COM port used by FREEWheel*

Open Windows Device Manager **[Start .. Run ..** *or* **Search ..** *and enter '***Device Manager'***]. The port will disappear and reappear as you remove and insert the Receiver USB lead.*

Download, extract to Desktop and run the FREEWheel.exe program from the Downloads page at: https://www.blinkstop.co.uk/shop/downloads

3. *Using the Software*

Choose the correct COM port from the available drop list and click 'Connect.' The existing channel configuration and virtual switch states will be displayed.

Pressing steering wheel buttons connected to the Transmitter will illuminate the corresponding buttons and toggle or flash the virtual relay states on the software.

CHANNEL MAPPING CONFIGURATION

4. *Select the Input Sources tab to map the channels*

Follow the on-screen instructions to assign channels to individual buttons.

CHANNEL BEHAVIOUR CONFIGURATION

5. *Select the Control Functions tab to set the channel behaviours*

If using a PDM or similar, to control the channels, set all channels to momentary behaviour.

If using our integrated features, select the desired smart functions by checking the tick boxes and adjusting the duration sliders. Unchecking the tick boxes will allow a free choice of momentary or latching behaviour. Details of individual features can be found towards the end of these instructions.

Once done, click 'Program'. When successful, you will see 'Success' displayed.

Continue to CAN Configuration.

CAN CONFIGURATION

6. *Select the CAN Addressing tab and configure the Receiver CAN communication*

Message ID: This is the Base Address in hexadecimal. The default is 0x500 (1280 decimal) with 11-bit (standard) Identifier. Follow the instructions on the CAN Addressing tab to set the Receiver communication to match your intended CAN-connected node (ECU / PDU / dash etc).

Once done, click 'Program'. When successful, you will see 'Success' displayed.

To achieve two-way communication, you will also need to configure your existing CAN node. If your node accepts industry standard .dbc CAN database files, you can use file KCE_WirelessCAN.dbc from the Downloads page at https://www.blinkstop.co.uk/shop/downloads , otherwise configure your node with the data below.

For best performance, the FREEWheel Receiver uses a 10ms (100Hz) broadcast rate.

For best compatibility, the FREEWheel Receiver outputs its CAN message in seven simultaneous standard formats [see CAN messages table and individual message illustrations, following). Pick the most suitable format and set your existing CAN node accordingly.

***Note**: Kvaser Database Editor 3 is recommended for viewing CAN .dbc files and is freely available from https://www.kvaser.com/download/*

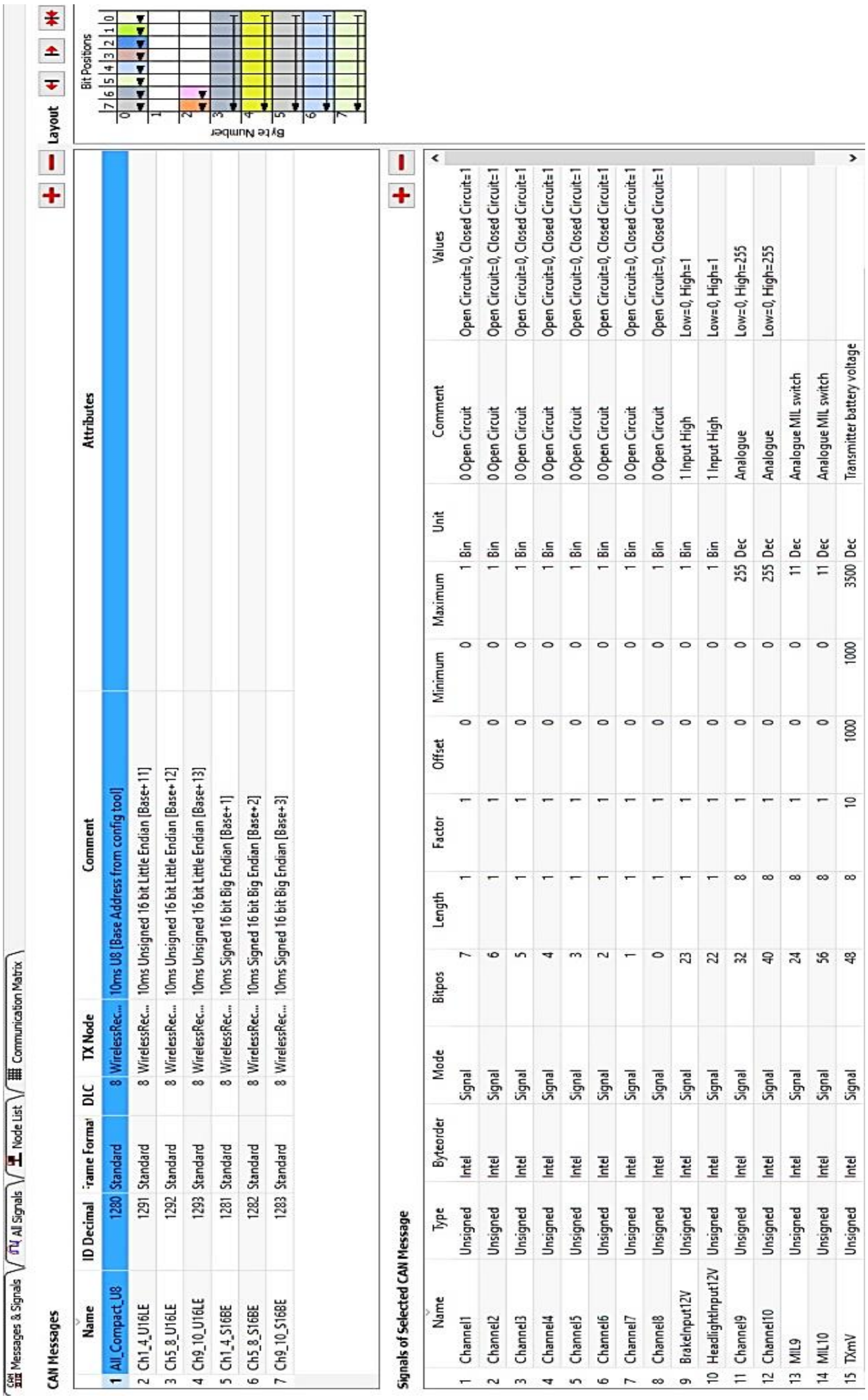
To disconnect the Receiver from the USB software, press 'Disconnect' then 'Close'. Now you can safely disconnect the USB cable.

Proceed to Receiver Installation.

CAN MESSAGES

Message	Contents	Format	Address / default
All_Compact_U8	All signals	8-bit Unsigned compact industry standard (e.g. AiM)	Base Address 0x500 hex / 1280 dec
Ch1_4_U16LE	channels 1 - 4	16-bit Unsigned Little Endian / LSB First (e.g. EMtron)	Base Address +11 0x50B hex / 1291 dec
Ch5_8_U16LE	channels 5 - 8	16-bit Unsigned Little Endian / LSB First (e.g. EMtron)	Base Address +12 0x50C hex / 1292 dec
Ch9_10_U16LE	channels 9 - 10	16-bit Unsigned Little Endian / LSB First (e.g. EMtron)	Base Address +13 0x50D hex / 1293 dec
Ch1_4_S16BE	channels 1 - 4	16-bit Signed Big Endian / MSB First (e.g. Syvecs)	Base Address +1 0x501 hex / 1281 dec
Ch5_8_S16BE	channels 5 – 8	16-bit Signed Big Endian / MSB First (e.g. Syvecs)	Base Address +2 0x502 hex / 1282 dec
Ch9_10_S16BE	channels 9 - 10	16-bit Signed Big Endian / MSB First (e.g. Syvecs)	Base Address +3 0x503 hex / 1283 dec

CAN messages



CAN Messages

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment	Attributes
1	All_Compact_U8	1280	Standard	8	WirelessRec...	10ms U8 [Base Address from config tool]	
2	Ch1_4_U16LE	1291	Standard	8	WirelessRec...	10ms Unsigned 16 bit Little Endian [Base+11]	
3	Ch5_8_U16LE	1292	Standard	8	WirelessRec...	10ms Unsigned 16 bit Little Endian [Base+12]	
4	Ch9_10_U16LE	1293	Standard	8	WirelessRec...	10ms Unsigned 16 bit Little Endian [Base+13]	
5	Ch1_4_S16BE	1281	Standard	8	WirelessRec...	10ms Signed 16 bit Big Endian [Base+1]	
6	Ch5_8_S16BE	1282	Standard	8	WirelessRec...	10ms Signed 16 bit Big Endian [Base+2]	
7	Ch9_10_S16BE	1283	Standard	8	WirelessRec...	10ms Signed 16 bit Big Endian [Base+3]	

Signals of Selected CAN Message

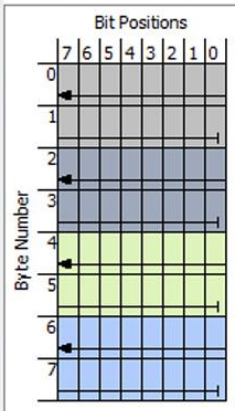
	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit	Comment	Values
1	Channel1	Unsigned	Intel	Signal	7	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
2	Channel2	Unsigned	Intel	Signal	6	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
3	Channel3	Unsigned	Intel	Signal	5	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
4	Channel4	Unsigned	Intel	Signal	4	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
5	Channel5	Unsigned	Intel	Signal	3	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
6	Channel6	Unsigned	Intel	Signal	2	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
7	Channel7	Unsigned	Intel	Signal	1	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
8	Channel8	Unsigned	Intel	Signal	0	1	1	0	0	1	Bin	0 Open Circuit	Open Circuit=0, Closed Circuit=1
9	BrakeInput12V	Unsigned	Intel	Signal	23	1	1	0	0	1	Bin	1 Input High	Low=0, High=1
10	HeadlightInput12V	Unsigned	Intel	Signal	22	1	1	0	0	1	Bin	1 Input High	Low=0, High=1
11	Channel9	Unsigned	Intel	Signal	32	8	1	0	0	255	Dec	Analogue	Low=0, High=255
12	Channel10	Unsigned	Intel	Signal	40	8	1	0	0	255	Dec	Analogue	Low=0, High=255
13	MIL9	Unsigned	Intel	Signal	24	8	1	0	0	11	Dec	Analogue MIL switch	
14	MIL10	Unsigned	Intel	Signal	56	8	1	0	0	11	Dec	Analogue MIL switch	
15	TXmV	Unsigned	Intel	Signal	48	8	10	1000	1000	3500	Dec	Transmitter battery voltage	

All_Compact_U8

Messages & Signals | All Signals | Node List | Communication Matrix

CAN Messages Layout

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment
1	All_Compact_U8	1280	Standard	8	WirelessReceiver	10ms U8 [Base Address from config tool]
2	Ch1_4_S16BE	1281	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+1]
3	Ch1_4_U16LE	1291	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+11]
4	Ch5_8_S16BE	1282	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+2]
5	Ch5_8_U16LE	1292	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+12]
6	Ch9_10_S16BE	1283	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+3]
7	Ch9_10_U16LE	1293	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+13]



Signals of Selected CAN Message

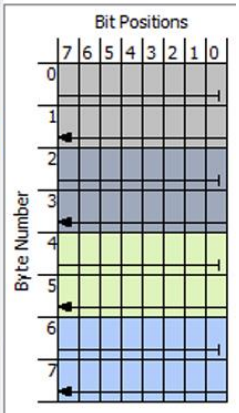
	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit
1	Channel1_S16BE	Signed	Motorola	Signal	8	16	1	0	0	1	
2	Channel2_S16BE	Signed	Motorola	Signal	24	16	1	0	0	1	
3	Channel3_S16BE	Signed	Motorola	Signal	40	16	1	0	0	1	
4	Channel4_S16BE	Signed	Motorola	Signal	56	16	1	0	0	1	

Ch1_4_S16BE

Messages & Signals | All Signals | Node List | Communication Matrix

CAN Messages Layout

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment
1	All_Compact_U8	1280	Standard	8	WirelessReceiver	10ms U8 [Base Address from config tool]
2	Ch1_4_S16BE	1281	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+1]
3	Ch1_4_U16LE	1291	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+11]
4	Ch5_8_S16BE	1282	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+2]
5	Ch5_8_U16LE	1292	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+12]
6	Ch9_10_S16BE	1283	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+3]
7	Ch9_10_U16LE	1293	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+13]



Signals of Selected CAN Message

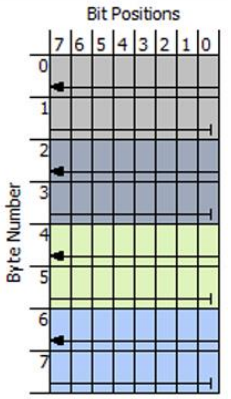
	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit
1	Channel1_U16LE	Unsigned	Intel	Signal	0	16	1	0	0	5000	
2	Channel2_U16LE	Unsigned	Intel	Signal	16	16	1	0	0	5000	
3	Channel3_U16LE	Unsigned	Intel	Signal	32	16	1	0	0	5000	
4	Channel4_U16LE	Unsigned	Intel	Signal	48	16	1	0	0	5000	

Ch1_4_U16LE

Messages & Signals | All Signals | Node List | Communication Matrix

CAN Messages Layout

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment
1	All_Compact_U8	1280	Standard	8	WirelessReceiver	10ms U8 [Base Address from config tool]
2	Ch1_4_S16BE	1281	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+1]
3	Ch1_4_U16LE	1291	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+11]
4	Ch5_8_S16BE	1282	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+2]
5	Ch5_8_U16LE	1292	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+12]
6	Ch9_10_S16BE	1283	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+3]
7	Ch9_10_U16LE	1293	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+13]



Signals of Selected CAN Message

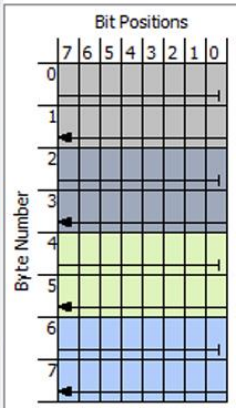
	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit
1	Channel5_S16BE	Signed	Motorola	Signal	8	16	1	0	0	1	
2	Channel6_S16BE	Signed	Motorola	Signal	24	16	1	0	0	1	
3	Channel7_S16BE	Signed	Motorola	Signal	40	16	1	0	0	1	
4	Channel8_S16BE	Signed	Motorola	Signal	56	16	1	0	0	1	

Ch5_8_S16BE

Messages & Signals | All Signals | Node List | Communication Matrix

CAN Messages Layout

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment
1	All_Compact_U8	1280	Standard	8	WirelessReceiver	10ms U8 [Base Address from config tool]
2	Ch1_4_S16BE	1281	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+1]
3	Ch1_4_U16LE	1291	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+11]
4	Ch5_8_S16BE	1282	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+2]
5	Ch5_8_U16LE	1292	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+12]
6	Ch9_10_S16BE	1283	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+3]
7	Ch9_10_U16LE	1293	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+13]



Signals of Selected CAN Message

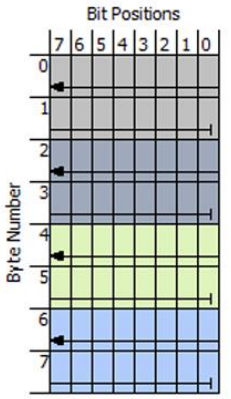
	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit
1	Channel5_U16LE	Unsigned	Intel	Signal	0	16	1	0	0	5000	
2	Channel6_U16LE	Unsigned	Intel	Signal	16	16	1	0	0	5000	
3	Channel7_U16LE	Unsigned	Intel	Signal	32	16	1	0	0	5000	
4	Channel8_U16LE	Unsigned	Intel	Signal	48	16	1	0	0	5000	

Ch5_8_U16LE

Messages & Signals | All Signals | Node List | Communication Matrix

CAN Messages Layout

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment
1	All_Compact_U8	1280	Standard	8	WirelessReceiver	10ms U8 [Base Address from config tool]
2	Ch1_4_S16BE	1281	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+1]
3	Ch1_4_U16LE	1291	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+11]
4	Ch5_8_S16BE	1282	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+2]
5	Ch5_8_U16LE	1292	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+12]
6	Ch9_10_S16BE	1283	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+3]
7	Ch9_10_U16LE	1293	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+13]



Signals of Selected CAN Message

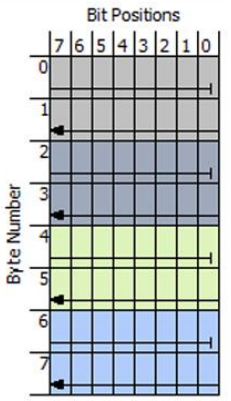
	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit
1	Channel9_S16BE	Signed	Motorola	Signal	8	16	1	0	0	255	
2	Channel10_S16BE	Signed	Motorola	Signal	24	16	1	0	0	255	
3	MIL9_S16BE	Signed	Motorola	Signal	40	16	1	0	0	11	
4	MIL10_S16BE	Signed	Motorola	Signal	56	16	1	0	0	11	

C9_10_S16BE

Messages & Signals | All Signals | Node List | Communication Matrix

CAN Messages Layout

	Name	ID Decimal	Frame Format	DLC	TX Node	Comment
1	All_Compact_U8	1280	Standard	8	WirelessReceiver	10ms U8 [Base Address from config tool]
2	Ch1_4_S16BE	1281	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+1]
3	Ch1_4_U16LE	1291	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+11]
4	Ch5_8_S16BE	1282	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+2]
5	Ch5_8_U16LE	1292	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+12]
6	Ch9_10_S16BE	1283	Standard	8	WirelessReceiver	10ms Signed 16 bit Big Endian [Base+3]
7	Ch9_10_U16LE	1293	Standard	8	WirelessReceiver	10ms Unsigned 16 bit Little Endian [Base+13]



Signals of Selected CAN Message

	Name	Type	Byteorder	Mode	Bitpos	Length	Factor	Offset	Minimum	Maximum	Unit
1	Channel9_U16LE	Unsigned	Intel	Signal	0	16	1	0	0	255	
2	Channel10_U16LE	Unsigned	Intel	Signal	16	16	1	0	0	255	
3	MIL9_U16LE	Unsigned	Intel	Signal	32	16	1	0	0	11	
4	MIL10_U16LE	Unsigned	Intel	Signal	48	16	1	0	0	11	

Ch9_10_U16LE

CAN RECEIVER UPGRADE

SPECIFICATION

See your main installation guide for weight and loom data.

The CAN upgrade provides industry standard CAN 2.0 messaging with a choice of seven message formats for the widest possible compatibility. Bus speeds of 250, 500 and 1000 kbps are supported with a free choice of Base Address to accommodate any other CAN devices present.

Your receiver will be internally terminated with a 120Ω resistor if agreed prior to manufacture. A sticker will show if the resistor is fitted [120Ω YES] or not fitted [120Ω NO]. You may therefore need to complete your CANbus with the addition of a suitable resistor.

Digital channels 1 - 8 are configured using the FREEWheel USB software and have behaviour options of:

- *ALL: momentary [ON] (Transmitter button follower)*
- *ALL: latching [ON] / OFF with each separate Transmitter button press*
- *Channels 1 & 2: indicator control*
- *Channel 3: main beam function with Flash-to-Pass feature*
- *Channel 4: IVA fog function*
- *Channels 5, 6: inverted momentary function*
- *Channel 5: single button hazard function*
- *Channel 6: intermittent wiper function*
- *Channel 7: flash function*
- *Channel 8: rainlight race function*

Channels 9 & 10 are variable (0 to 255) signals and include a discrete 0 to 11 signal on MIL9 and MIL10 output if the Kit Car Electronics' Mil-spec rotary switch is used.

INSTALLATION INSTRUCTIONS

Disconnect the vehicle battery.

Follow your main installation guide for wiring instructions and key.

*Connect CAN HIGH and CAN LOW wires to your vehicle CANbus. It is **essential** that suitable TWISTED PAIR wiring is used.*

Follow your main installation guide for Receiver testing.

INTEGRATED BlinkSTOP FUNCTION

CHANNELS 1 AND 2 SET TO [INDICATORS]

INSTRUCTIONS FOR OPERATION

An indicator is toggled ON (CAN signal alternating TRUE and FALSE) and OFF (CAN signal FALSE) with each press of your button. Flash rate is configurable to your choice of 60, 75, 90, 105 or 120 flashes per minute.

Toggling to ON begins a cancel timer. Indicating will auto-cancel once the timer has elapsed (6 to 30 seconds, user-configurable). If suitably connected, auto-cancelling is inhibited during brake press and briefly afterwards so that the indicators remain on in traffic or while waiting to turn.

To change indicator, push the opposite button once. The current indicator will cancel and the opposite indicator CAN signal will begin alternating TRUE and FALSE. The cancelling timer will reset.

For a simple Hazard function, push both buttons together at the same time. To cancel, press either button.

WIRING: If cancel-inhibit is required, connect the 12V brake sense wire to the brake light circuit.

INTEGRATED BeamSTOP HEADLIGHT FUNCTION

CHANNEL 3 SET TO [MAIN]

INSTRUCTIONS FOR OPERATION

BeamSTOP allows full control of headlight main (high) beam and dipped (low) beam if suitably connected.

If the headlights are OFF, the main beam CAN message will be TRUE for the duration of the button press. If the headlights are ON, each button press will toggle the CAN message between TRUE and FALSE.

If Flash-to-Pass is enabled, a half-second press will trigger 5 seconds of rapid toggling of the CAN message.

WIRING: Connect the 12V headlight switch sense wire to the headlight switch circuit.

INTEGRATED FOG LIGHT 'IVA' FUNCTION

CHANNEL 4 SET TO [FOG]

INSTRUCTIONS FOR OPERATION

Channel 4 can be used as an auto-cancelling fog light channel. When suitably connected and the headlights are OFF, the fog light CAN message will be set to FALSE regardless of button press state.

WIRING: Connect the 12V headlight switch sense wire to the headlight switch circuit.

HAZARD FUNCTION

CHANNEL 5 SET TO [HAZARD]

INSTRUCTIONS FOR OPERATION

Channel 5 can be used as a single button hazard channel and requires channels 1 and 2 to be configured for the BlinkSTOP indicator function. The indicator CAN signals will be concurrently toggled TRUE and FALSE with each press of a single button; flash rate is controlled by the FREEWheel BlinkSTOP flash setting.

NOTE: To comply with UK MOT/IVA requirements, hazard lights should be operable by a single lit button when the ignition is off, therefore this feature is recommended for off-road use.

WIPER FUNCTION

CHANNEL 6 SET TO [WIPER]

INSTRUCTIONS FOR OPERATION

A short press will toggle the CAN message between FALSE and latched TRUE. A one-second press will trigger an intermittent TRUE / FALSE with the durations configurable to 250ms, 500ms, 1s, 2s, 4s, 7s and 10s.

A subsequent one-second press will cancel the intermittent mode and return to the previous state.

INVERTED MOMENTARY FUNCTION

CHANNELS 5 AND / OR 6 SET TO MOMENTARY [INVERTED]

INSTRUCTIONS FOR OPERATION

Channels 5 and 6 can be used to invert the CAN message, i.e., normally TRUE.

FLASH FUNCTION

CHANNEL 7 SET TO [FLASH]

INSTRUCTIONS FOR OPERATION

Channel 7 has a useful flashing function. A short press will cycle the CAN message TRUE and FALSE at 1Hz.

A subsequent short press will cancel the flashing mode and return to the previous state.

INTEGRATED RAINLIGHT RACE FUNCTION

CHANNEL 8 SET TO [RAINLIGHT]

INSTRUCTIONS FOR OPERATION

Channel 8 can be used as a racing mode rainlight. A short press of the steering wheel button will latch the CAN message to TRUE and a longer, one-second press will trigger the 'Rain Hazard' 4Hz flashing mode.

A subsequent one-second press will cancel the Rain Hazard mode and return to the previous state.

POTENTIOMETER CHANNELS

CHANNELS 9 AND 10 & OPTIONALLY MIL9 AND MIL10

INSTRUCTIONS FOR OPERATION

The Transmitter supports 2Hz sampling of two independent 10kΩ potentiometers.

With ignition ON, pressing any of the channels 1 to 8 momentary switches initiates communication, and the green Transmitter LED will flash at 2Hz to show successful two-way messaging. The eight digital channels will each trigger a transmission immediately on button press, independently of the 2Hz potentiometer transmission frequency.

The Transmitter LED will automatically power down when the vehicle ignition is powered OFF.

WIRING: Fit a 10kΩ potentiometer or a Kit Car Electronics' Mil-spec rotary switch to each Transmitter potentiometer channel as illustrated.

The Receiver unit will output a digital (0 to 255) CAN message value proportional to the position of the potentiometer, or a discrete 0 to 11 signal MIL9 and MIL10 for the Kit Car Electronics' Mil-spec rotary switch.

3V – orange (REF)
channel 9 or 10 – yellow or white (SIG)
ground – black (GND)

CAN

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

Another quality product from

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