

BU-x00H Base Units (BU-2H1H, BU-9H1H)

Features

- ✓2.4GHz or 900MHz DSSS Technology
- ✓H-Bridge Motor Control
- ✓Three FET Input/Outputs
- ✓Dual connectors for ease of wiring
- ✓RS232 OR CANbus Capable
- ✓Diagnostic LEDs
- ✓Two Analog Inputs
- ✓Weatherproof
- ✓Compact design



The SmaRT BU-x00H base units features an H-bridge (25A max.) for forward/reverse motor drive, three FET high-side switching outputs or switch-to-ground digital inputs, and two analog inputs (typically for monitoring use). The versatile, programmable digital input/outputs can be customized by Cervis to fit specific user applications. It accepts a broad range of input power with operating voltages ranging from +7 to +18VDC. The rugged weatherproof enclosure allows the unit to operate worry free in harsh weather conditions. Two 12-wire color-keyed weatherproof connecting cables connect the controlled devices.

SmaRT base units feature seamless association to SmaRT hand-held remotes without the need to open the case. Using Direct Sequence Spread Spectrum (DSSS) wireless technology at 2.4GHz or 900MHz, the base unit provides a robust link with SmaRT hand-held remotes in congested radio environments. The unit also features a choice of factory configurable CANbus or RS232 communication port.

Specifications

Power

V_{in} +7 to +18VDC

Radio

Frequency

BU-2H01H 2405-2480MHz @ 100mW,

BU-9H01H 906-924MHz @ 10mW

License None required

Modulation DSSS

Antenna Internal or External

Enclosure

Dimensions mm: 119 x 133 x 36
inches: 5.24 x 4.69 x 1.42

Durability High Impact Polymer

Mounting 7.4mm (0.29") dia. holes
102mm center-to-center
(4" center-to-center)

Outputs/Inputs

Three DI/DO FET –High Side; 4A Per channel

H-Bridge 25A Max. total @ 55°C (131°F) 12V

Two AI Two-state monitor (typical)

Environment

Operating Temp -20°C to 55°C
(-4°F to 131°F)

Storage Temp -40°C to 85°C
(-40°F to 185°F)

Humidity 0 to 100%

LED Indicators

Unmarked

ON – Supply polarity reversed
OFF – Supply polarity OK

+V1, +V2, +V3

Voltages OK

1 – System

Solid – >8V
Blink – <8V
OFF – 0V

2 – RX

Blink – Receive active

3 – TX

Blink – Transmit active

4 – Motor Amp.

Solid – >3A
Blink – <3A

5 – Aux 1

Unused

6 – Output 1/Aux 2

OFF – No output
Solid – Active output

7 – Output 2/Aux 3

OFF – No output
Solid – Active output

8 – Output 3/Aux 4

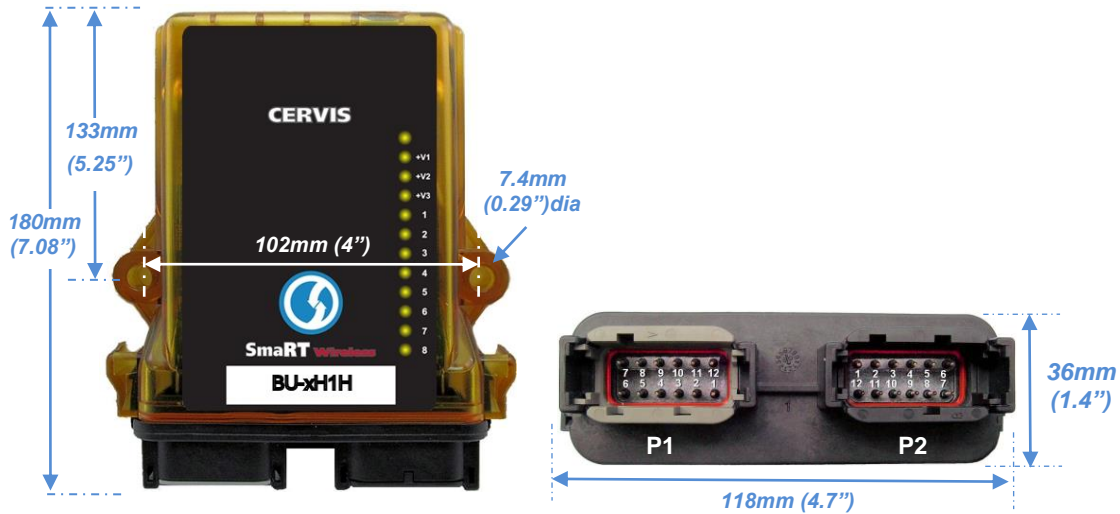
OFF – No output
Solid – Active output

Pin Assignments

P1-1: Motor A	P1-2: Motor A	P1-3: Motor B
P1-4: –VBatt	P1-5: –VBatt	P1-6: –VBatt
P1-7: +VBatt	P1-8: +VBatt	P1-9: +VBatt
P1-10: Motor B	P1-11: Motor B	P1-12: Motor A

P2-1: +VBatt	P2-2: DI/DO 1	P2-3: DI/DO 2
P2-4: DI/DO 3	P2-5: AI 1	
P2-6: RS232 RX/CANL	P2-7: RS232 TX/CANH	
P2-8: AI 2	P2-9: Return	P2-10: Return
P2-11: Return	P2-12: Communications Return	

Dimensions



SmaRT BU-xH1H Pinout

P1 Pin	Assignment	P2 Pin	Assignment
P1:1	Motor A	P2:1	+VDC
P1:2	Motor A	P2:2	DI/DO 1
P1:3	Motor B	P2:3	DI/DO 2
P1:4	-VDC	P2:4	DI/DO 3
P1:5	-VDC	P2:5	AI1
P1:6	-VDC	P2:6	CANL/RS232 RX
P1:7	+VDC	P2:7	CANH/RS232 TX
P1:8	+VDC	P2:8	AI2
P1:9	+VDC	P2:9	Return
P1:10	Motor B	P2:10	Return
P1:11	Motor B	P2:11	Return
P1:12	Motor A	P2:12	Communications Return

SmaRT BU-xH1H Options

Name	Freq.	RF Power	Type	Power	Antenna	Inputs	Comm.
BU-2H1H-INT-CAN	2.4GHz	100mW	H-Bridge	7-18VDC	Internal	2@0-10Vin	CAN
BU-2H1H-EXT-CAN	2.4GHz	100mW	H-Bridge	7-18VDC	External	2@0-10Vin	CAN
BU-9H1H-INT-CAN	900MHz	10mW	H-Bridge	7-18VDC	Internal	2@0-10Vin	CAN
BU-9H1H-EXT-CAN	900MHz	10mW	H-Bridge	7-18VDC	External	2@0-10Vin	CAN
BU-2H1H-INT-RS	2.4GHz	100mW	H-Bridge	7-18VDC	Internal	2@0-10Vin	RS232
BU-2H1H-EXT-RS	2.4GHz	100mW	H-Bridge	7-18VDC	External	2@0-10Vin	RS232
BU-9H1H-INT-RS	900MHz	10mW	H-Bridge	7-18VDC	Internal	2@0-10Vin	RS232
BU-9H1H-EXT-RS	900MHz	10mW	H-Bridge	7-18VDC	External	2@0-10Vin	RS232

✓ **Note: BU-xH1H units are internally terminated at 3.3kΩ. Termination can be removed at the factory**