

## SmaRT EBU-xH24XF Base Unit



### Features

- ✓ DSSS Technology (900 MHz @ 10 mW, 2.4 GHz @ 100 mW)
- ✓ Sixteen FET Outputs/Inputs
- ✓ Eight Current Sense Channels
- ✓ H-Bridge
- ✓ Power Cutoff FET
- ✓ Two Form C Relays
- ✓ Quad Connectors for Ease of Wiring with Power on Each Connector
- ✓ Weatherproof
- ✓ CAN Bus Capable
- ✓ Five Diagnostic LEDs
- ✓ Two Analog Outputs
- ✓ Four Analog Inputs

The versatile EBU-xH24XF base units feature an H-Bridge, sixteen FET (field effect transistor) high-side switching outputs or switch-to-ground digital inputs, two Form C relays, and CAN Bus control capability.

The EBU-xH24XF accepts a broad range of input power with operating voltages ranging from 7 VDC to 28 VDC. The rugged weatherproof enclosure allows these units to operate worry free in harsh weather conditions. Four 12-wire color-keyed weatherproof connecting cables connect the controlled devices.

Using Direct Sequence Spread Spectrum (DSSS) wireless technology at 900 MHz or 2.4 GHz, the base unit provides a robust link with a SmaRT handheld remote in congested radio environments. SmaRT base units feature seamless association to SmaRT hand-held remotes without the need to open either the handheld remote or base unit.

### Specifications

**Power**  
Operating  $V_{in}$  +7 to +28 VDC

**Environment**  
Operating Temp  $-20^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $131^{\circ}\text{F}$ )  
Storage Temp  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $185^{\circ}\text{F}$ )  
Humidity 0 to 100%

#### Enclosure (Internal Antenna)

**Dimensions** 163.20 x 204.71 x 53 mm  
6.25" x 8.06" x 2.09"  
**Durability** High Impact Polymer  
**Mounting Holes** 7.4 mm (0.29") dia. Holes  
**(2-Sets of Two)** 143 mm (5.63") center-to-center

#### Outputs/Inputs

**H-Bridge** One @ 2 A continuous  
**FET (16)** Sixteen open drain — 15 A total  
eight @ 4 A/channel  
eight @ 2 A/channel  
**Form C Relay** Two @ 8 A Per channel  
**Four Analog In** 0–10V input/4–20mA input  
(M21 – M24)  
**Two Analog Out** 0–10V output (M19 and M20)

<b>Radio</b>	<b>EBU-9H24XF</b>	<b>EBU-2H24XF</b>
<b>Frequency</b>	906–924MHz	2405–2580MHz
<b>Power</b>	10 mW	100 mW
<b>License</b>	License-Free	
<b>Modulation</b>	DSSS	
<b>Antenna</b>	Internal or External (RP – TNC)	

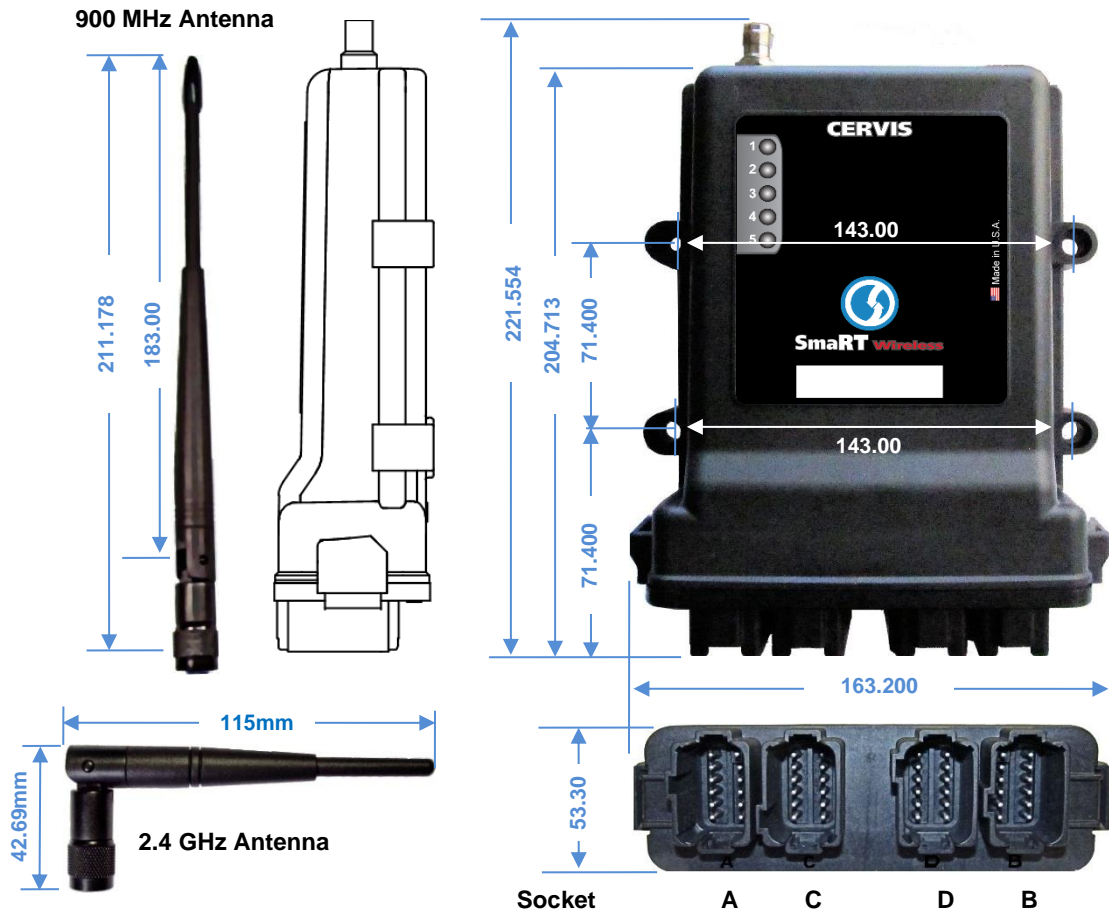
#### Serial Communications (option)

**CAN Bus** SAE J1939

#### LED Indicators

**1 (CAN TX/RX)** Red – TX only active  
Green – RX only active  
Amber – TX/RX active flashes per message  
**2 (Out/In)** Green – output(s) only active  
Red – input(s) only active  
Amber – output(s) and input(s) active  
**3 (Health)** Green flash 1/s when health OK  
**4 (RF TX/RX)** Red – TX only active  
Green – RX only active  
Amber – TX/RX active  
**5 (Power)** OK when amber

## Base Unit Dimensions and Wiring (measurements in millimeters)



### EBU-xH24XF Wiring Table

Socket	Pins 1 through 12 Assignments					
<b>A</b>	1: M1	2: M2	3: M3	4: M4	5: M5	6: M6
	7: M7	8: M8	9: +VIN	10: +VIN	11: GND	12: GND
<b>C</b>	1: M9	2: M10	3: M11	4: M12	5: M13	6: M14
	7: M15	8: M16	9: +VIN	10: +VIN	11: GND	12: GND
<b>D</b>	1: M17 NC	2: M17 COM	3: M17 NO	4: M18 NC	5: M18 COM	6: M18 NO
	7: M19	8: M20	9: +VIN	10: +VIN	11: GND	12: GND
<b>B</b>	1: CANH	2: CANL	3: CANTERM	4: RS232TX	5: RS232RX	6: M21
	7: M22	8: M23	9: M24	10: +VIN	11: GND	12: GND

### EBU-xH24XF Model Specifications

Model	Freq.	RF Pwr	#Ch	Channel Types	Antenna	Input V
EBU-9H24XF-INT-AV4-AO2	900 MHz	10 mW	24	H-Bridge, FET, Digital In, Form C Relay	Internal	7-28 VDC
EBU-9H24XF-EXT-AV4-AO2	900 MHz	10 mW	24	H-Bridge, FET, Digital In, Form C Relay	External	7-28 VDC
EBU-2H24XF-INT-AV4-AO2	2.4 GHz	100 mW	24	H-Bridge, FET, Digital In, Form C Relay	Internal	7-28 VDC
EBU-2H24XF-EXT-AV4-AO2	2.4 GHz	100 mW	24	H-Bridge, FET, Digital In, Form C Relay	External	7-28 VDC

✓ **Note:** EBU-xH24XF-CAN units are internally terminated at 1.2kΩ. Termination can be removed at the factory.