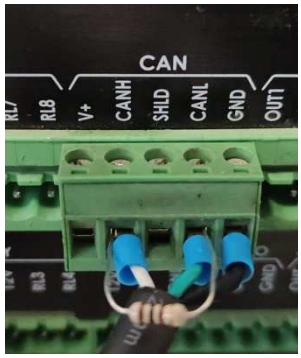
ECOTRONS CAN

Connection

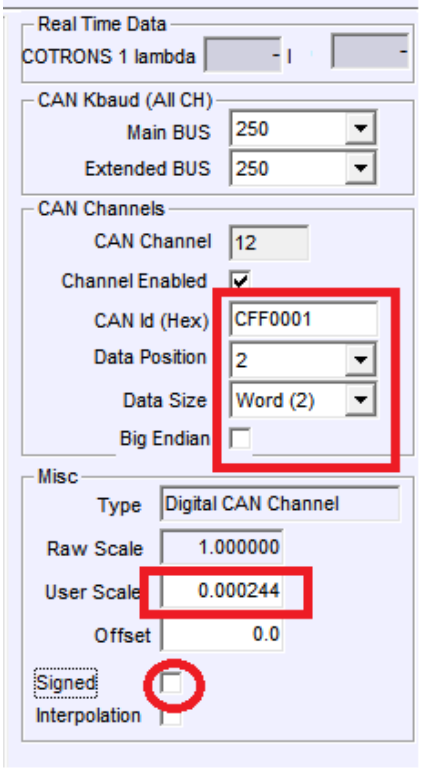
Lambda Controller:	Extension Cable:
• Red: 12V	Yellow (supply connector)
• Black (thick): GND • Black (thin): GND	Brown (supply connector) Shield (GND CAN)
• Yellow: CAN_H	White (CAN_H)
• Green: CAN_L	Green (CAN_L)



Note: 100-120 ohm **Terminator Resistor is required** for the **Auxiliary CAN** in SP6

Data Protocol

https://www.ecotrons.com/files/ALM%20Communication%20Protocol%20-%20CAN.pdf



Default **CAN bus Baud Rate** is 250kbs, extended frame.

Default **CAN ID for Lambda / AFR is 0xCFF0001**, position = 2, data size = 2 (Little Endian), unsigned

Scale for LAMBDA: 0.000244 (any fuel), set decimals = 3

Scale for AFR Petrol: 0.003588 (Lambda * 14.7)

Scale for AFR Diesel: 0.003538 (Lambda * 14.5)

0x0CFF0001

1.2 Channel1 Frame1 and Channel2 Frame1 Ecotrons Specified Information

Channel2 Frame1 and Channel1 Frame1 data broadcast format is same, but with different frame ID. About Channel2 Frame1 data broadcast format, please refer Channel1 Frame1.

Ecotrons CAN data bytes: 8-Bytes of data includes: Lambda, O2%, Duty Cycle of Heater, Sensor Temp, and DTC. **Note: The PWM duty cycle is 12 bits.**

Byte 1								Byte 2								Byte 3								Byte 4							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
O2%																Lambda value															

Byte 5								Byte 6								Byte 7								Byte 8							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
Sensor temperature																PWM duty cycle (Low 4 bits)				Sensor faults				PWM duty cycle (High 8 bits)							

O2% = (Byte2 * 256 + Byte1) * 0.000514 + (-12)
Lambda = (Byte4 * 256 + Byte3) * 0.000244
Sensor temperature = (Byte6 * 256 + Byte5) * 0.023438 - 273 (deg C)
PWM duty cycle of heater = (Byte7 / 16 + byte8 * 16) * 0.08
(Byte7 / 16 * 256: Get low 4 bits of PWM duty cycle of heater)
(Byte8 * 16: Get high 8 bits of PWM duty cycle of heater)

Sensor faults = Byte7 bitwise & 0x0F