ECU broadcast data list on RS232

User Manual

V1.4

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Note: If you are not sure about any specific details, please contact us at info@ecotrons.com.

Data	Version	Description of Modification	Author	Comment
10.28.2015	V1.1			
02.03.2016	V1.2			
11.02.2016	V1.3			
02.24.2017	V1.4			

1. How to enable the ECU to broadcast data from serial port?

- Run EcoCAL and connect to the ECU.
- Please tune the CV_APP bit 7 to be 1 and burn to ECU.

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
X	X	X	X	X	X	X	X



Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
1	X	X	X	X	X	X	X

CV_APP=CV_APP|0x80; X is 1 or 0;

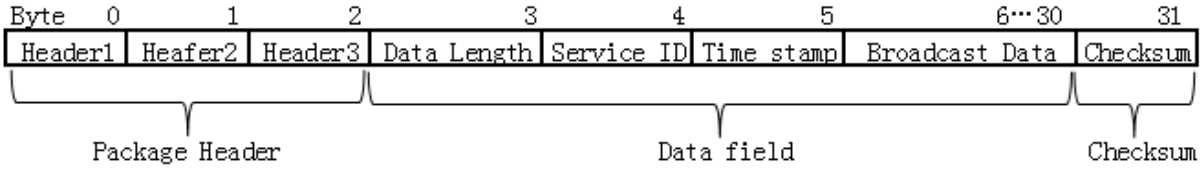
- Key-cycle the ECU(Power-off and the power-on), The ECU will broadcast the data in 100ms rate.

2. Data Broadcasting Information

- Structure of broadcast package:

Position	Type	Description
0	byte	Header1: 0x80
1	byte	Header2:0x8F
2	byte	Header3:0xEA
3	byte	Data field length:0x1B
4	byte	Service ID:0x50
5	Byte	Time stamp
6….30	bytes	Broadcast data.
31	byte	Checksum. Checksum = buff(0) + buff(1) + …+ buff(30).

Byte map as follows:



- Structure of broadcast data:

Hardware:	RS232 Details ➢ Baud Rate :115200 ➢ Parity Bit: no ➢ Data Bits: 8 ➢ Stop Bit: 1 ➢ Rate: 100ms

Name	Start Position[Byte]	Length[Byte]	Unit	Factor	Offset
RPM	6	2	Rpm	0.25	0
MAP	8	2	kPa	0.0039	0
TPS	10	2	%	0.0015	0
ECT	12	2	DegC	1.25	-40
IAT	14	2	DegC	1.25	-40
O2S	16	2	V	0.0012	0
SPARK	18	2	CrA	0.75	0
FUELPW1	20	2	ms	0.001	0
FUELPW2	22	2	ms	0.001	0
UbAdc	24	2	V	0.00625	0
FuelLvl	26	1	%	0.4	0
BARO	27	2	kPa	0.0039	0
Fuel_Consumption	29	2	g/min	0.0116	0

Physical value of variables equals ((HighByte) * 256 + LowByte) * Factor + Offset.
For example: RPM = (Buff[6] * 256+Buff[7]) *0.25+0.

Notes:

- The ECU will stop broadcast when the EcoCAL connect to ECU. You need to key-cycle the ECU to start the broadcasting.
- This document only supports software LLD version of L5953 or later.