

ENGINE CONTROL UNIT PR-Sport

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Image 1: ECU PR-Sport

- 100 MHz dual-core processor
- Integrated lambda control
- 700 kPa integrated MAP sensor
- Semi sequential operation
- Continuous datalogging
- Programmable user functions
- 3D Table

General

Pro Tune PR-Sport is an electronic engine management system with integrated data acquisition. It is an essential tool to extract the maximum performance, power and efficiency of motors up to 6 cylinders, in semi sequential mode. Closed-loop lambda control, lambda learn and boost control, among others, are native system functions.

Technical Specifications

Outputs

2 general purpose outputs - max current 3 A

3 ignition outputs

3 injectors outputs - max current 3 A

Inputs

5 analog inputs (0-5V)

2 analog inputs with a 2k7 ohms pull up resistor (0-5V)

5 inputs max

Inputs	Pull-up	High speed
IN_1		×
IN_2		×
IN_3	×	×
IN_4	×	×
IN_5		×

Functions

Boost control

Launch control

Quick shift

Odd fire

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Traction control
Secondary injector rail
Long term lambda learn
Anti Lag
Idle control
ETC control (external driver)
Engine running time
Internal datalog

Mechanical characteristics

HS 100 high resistance polymer enclosure
Automotive 36-way connector
Weight: 110 g
Size: 71 mm x 112 mm x 32 mm
Temperature range from -10°C up to 105°C

Electrical characteristics

Max current: 20 A @ 12 V
2 general purpose outputs - max current 3 A

Software

Pro Tune Workbench
Pro Tune Analyzer

Resources

700 kPa integrated MAP sensor
Integrated lambda (LSU 4.2, LSU 4.9, NTK and narrowband) controller
32 Mb internal datalogging

Communication

Serial protocol (115.2 - 500 kbps)

Pin	Function	Pin	Function
1	INJ_1	19	SP_Rx1
2	INJ_2	20	SP_Tx1
3	INJ_3	21	IN_1
4	IGN_1	22	IN_2
5	IGN_2	23	LA_HT+
6	IGN_3	24	12V_SWITCH
7	OUT_SHIFTLIGHT	25	OUT_ETC
8	OUT_MAIN_RELAY	26	N/C
9	AUX_OUT1	27	IN_5
10	AUX_OUT2	28	SP_Rx2
11	IN_3	29	SP_Tx2
12	IN_4	30	SENSOR_5V
13	LA_HT-	31	CKP+
14	LA_RCAL	32	CKP-
15	LA_IP	33	SENSOR GROUND
16	LA_VS	34	SENSOR GROUND
17	LA_SENSOR_0V	35	PWR_GND
18	N/C	36	PWR_GND

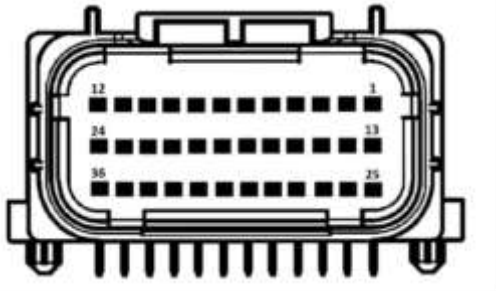


Image 2 – PR-Sport Connector

This connector uses a number system to identify each pin. The pins numbers go from 1 to 36.