SYVECS LTD

V1.1

Polaris RZR Pro R Plug in Ecu

This document is intended for use by a technical audience and describes a number of procedures that are potentially hazardous. Installations should be carried out by competent persons only.

Syvecs and the author accept no liability for any damage caused by the incorrect installation or configuration of the equipment.

Please Note that due to frequent firmware changes certain windows might not be the same as the manual illustrates. If so please contact the Syvecs Tech Team for Assistance.

Support@Syvecs.com

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POWERTRAIN CONTROL

Parts Supplied

- Syvecs Polaris ProR Plug in ECU
- 26Way Connector with Ethernet / Lambda Loom
- NTK Lambda

Installation

1 Remove the Negative Terminal from the battery on the Vehicle to be extra safe with electrical components.

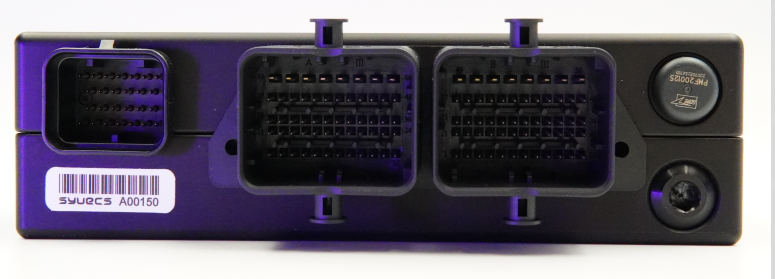
2 Remove the passenger seat to gain access to the Engine ECU, followed by the ECU Cover shown below which requires the 6 pull tabs removing.

3 Unbolt the Factory Engine ECU bracket

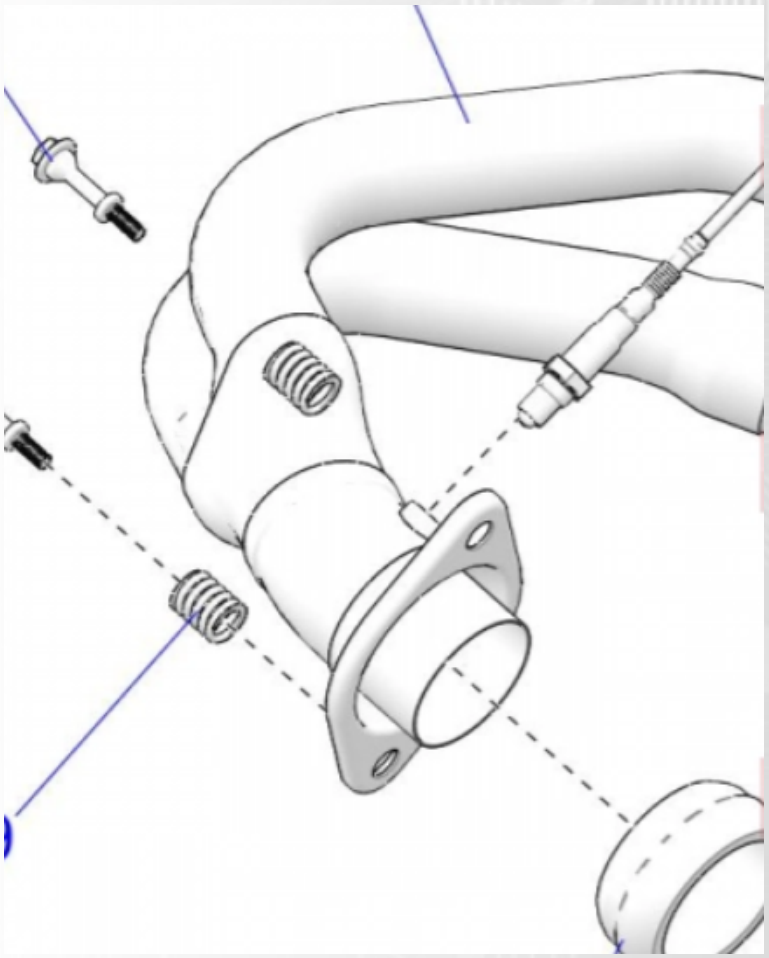
4 The Factory ECU can then be unplug from the OEM harness and removed

5 Remove the original ecu brackets and plug in the Syvecs ecu. Due to space limitations the syvecs ecu will need to be secured with the supplied 3M tape. Please clean the surface before securing.

7 Plug in the 26 way connector and loom supplied for ecu communications, extra I/O (see page 8) and lambda connection.

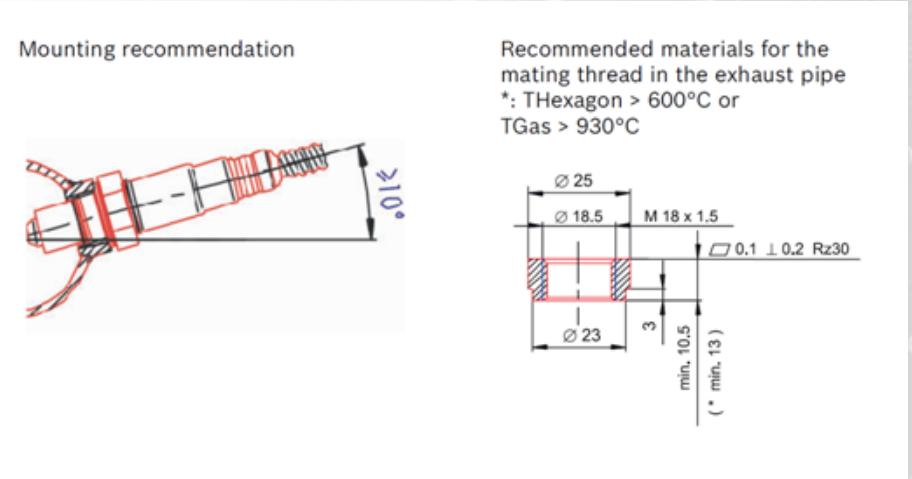


8 The Factory Lambda sensor needs to be replaced with the supplied NTK Lambda sensor. Remove the OEM Sensor with a 22mm Spanner/socket



9 Fit the NTK Lambda and plug in the supplied Lambda loom with connector.

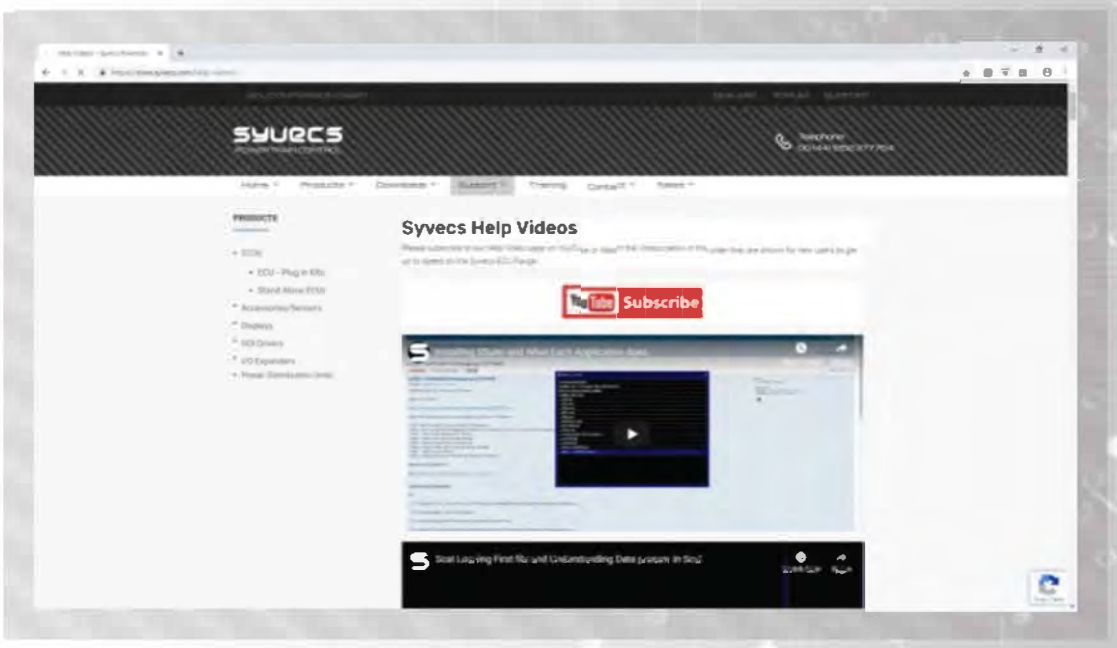
Please following Lambda orientation instructions below.



10 Connect the supplied ethernet cable to your laptop and load the base calibration into the Syvecs ECU supplied by your dealer or support@syvecs.com

A getting started help video is found here which helps on loading calibrations
- https://www.youtube.com/watch?v=jqDPKCQYzo0&t=1498s

More Syvecs Help videos can be found on our YouTube Page
www.youtube.com/SyvecsHelp



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Calibration Switching

The Polaris plug in kit allows for multiple options when it comes to Cal/Map switching. The base file provided will come with the following cal select modes based on the sport mode.

Cal Select 1 - Sport Mode

Cal Select 2 - Race

Cal Select 3 - Off Road

External KeyPad

The Polaris plug in kit allows for external Keypads to be connected on the spare CANBus - CAN3, this can be found on the external 26way connector . The Keypads need to be programmed to run at 500kb and Run CanOpen - Grayhill Panel - 3k208-2RN3AG is suitable but please not it will require custom programming. Speak to Support@syvecs.com

In Scal Calibration software at the bottom is i/o Configuration - CarCoding

CarCode5 = 2 - Enable Grayhill Panels on CAN3 (C26/C27) at 500kb

CarCode6 = Change the Panel brightness levels 0-100

Syvecs pin assignments for each button:

> XCan Receive C09 - Button 1 (Latch)

> XCan Receive C10 - Button 2 Momentary

> XCan Receive C11 - Button 3 Momentary

> XCan Receive C12 - Button 4 Momentary

> XCan Receive C13 - Button 5 Momentary

> XCan Receive C14 - Button 6 (Latch)

> XCan Receive C15 - Button 7 Momentary (Latch)

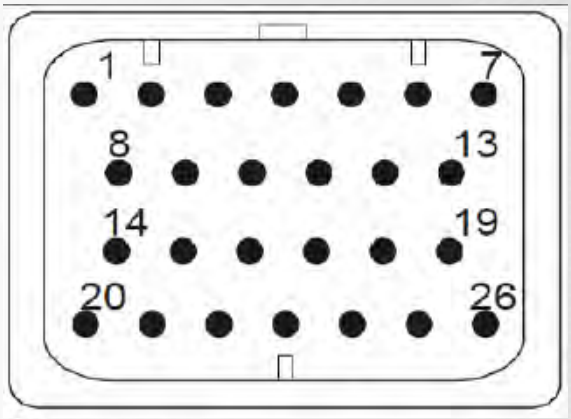
> XCan Receive C16 - Button 8 (Latch)

Grayhill Panel Pinout

Additional I/O – 26Way Header

The Syvecs Polaris RZR Pro ECU has an additional I/O connector at the back of the Ecu.

Pinouts are below:



1	GND
2	Fuel5
3	Fuel6
4	Fuel7
5	Fuel8
6	Fuel9
7	Vbat
8	Lam1Htr
9	Lam1A
10	Lam1B
11	Lam1D
12	RS232RX
13	RS232TX
14	AN5
15	AN7
16	AN11
17	5V
18	EGT- / CAN3L
19	EGT+ / CAN3H
20	AN GROUND
21	CAN2H
22	CAN2L
23	LANRX-
24	LANRX+
25	LANTX-
26	LANTX+