



The Syvecs S8 brings a new level of Engine Management control to the automotive market. Whether an Exotic Super Car, Project Car, Rally, Track, Drag Racing, etc, it offers complete control of the engine management system, gearbox and many other systems.

The Syvecs Powertrain Control is created by [Life Racing](#) (a sister company of [Advance Engine Research](#))

Features

- Live Tuning of every aspect of the engine's calibration
- Ability to select desired engine map, boost level, traction and launch control levels through 12 Position switch or via OEM I Switch
- Fully adjustable Launch control with Anti-lag strategies and Ramp in Maps
- Full Variable Valve Timing control
- Closed loop Dual Lambda Control
- Flex Fuel control
- Cruise Control add on
- Center Differential Control
- Fully adjustable closed loop boost control with launch level adjustments and trims for turbo speed, air charge, engine coolant temp, exhaust gas temperatures etc.
- Monitor and trimming of exhaust gas temperatures
- Built in data logging using a market leading analysis software of up to 8 hours, with data rates at up to 1000hz
- Rolling Antilag / Pit lane limiter strategies, great for building boost on a roll
- Antitheft and valet modes
- Super-fast connection via RJ45 Ethernet port for live tuning anywhere in the world or even remotely if on track if connected to a wireless unit.
- Adjustable traction control strategies based on lateral g, steering angle and/or individual wheel speed monitoring.
- 4 programmable and selectable target slip maps. An immediate torque reduction can be applied by the ECU via ignition retard or a fuel cut.
- **Configurable Engine Safety Trips on all important parameters like oil temperature, oil pressure.**
- Fuel pump control of both main, and sub pumps, as well as Relative fuel pressure monitoring and limiting in the event of fuel pressure dropping on boost.

- 4 different Pedal to Throttle Angle maps with multipliers for different parameters e.g. speed. Again adjustable via steering wheel buttons
- **Configurable individual cylinder closed loop knock control, to suit any cylinder modification with adjustments to frequency, windows for listening and gains for each cylinder. Ability to trigger full cylinder shutdown in severe knock conditions.**
- Ability to change Torque ramp in after launch
- Change throttle blip requests to match your torque band. Especially useful on oversized turbo installations.
- Run up to 7bar map sensors
- Control high or low impedance injectors
- Control up to 8 injectors for high power installations where staged injection may be required
- Change injector dead times based on voltage levels for proper control
- Change injector end angle to ensure injection point is properly calibrated
- Ability to fit any type of external sensor to monitor and trigger safety trips from anything from crank case pressure to damper position
- Ability to use any size DBW throttle body e.g. Chevrolet LS7
- Wet and Dry – Wet and Dry nitrous control with ability to drive solenoids directly and control n20 heaters via pressure monitoring
- Ability to control any external vehicle features based on sensor inputs e.g. Adjustable rear wing linked to G force or exhaust control valves
- Connect any race series dash or even one of our partners' Touchscreen CANBUS adjustment /display units
- View any input live with built in scope up to 1000hz
- And much, much more!

Specifications



The S8 ECU offers an extremely high level of precise engine management control. The twin processor unit uses a high speed RISC processor for code execution and an additional large FPGA for high speed engine position tracking, allowing the scheduling of code to be independent of signal patterns, increasing flexibility, efficiency and accuracy under transient conditions. This powerful combination also allows advanced control algorithms but yet easy to map for the end user.

The S8 is the Backbone to our Highly Popular Nissan R35GTR and Porsche 996/997 kits

The S8 offers **24 x Inputs, 28 x Outputs, 2 x Lambda Input, 2 x Knock Input and 2 x EGT Input:**

- ✓ 8 Ignition Coil outputs – IGBT (coil direct) or TTL (ignitor)
- ✓ 16 Fuel injector outputs or PWM
- ✓ 4 Half Bridge Outputs – DBW or Low Side Drive
- ✓ 24 general purpose inputs
- ✓ 2 Knock inputs – Upgradable to 4
- ✓ 2 NTK wide band Lambda interfaces
- ✓ 2 K-type thermocouple interfaces
- ✓ 100 MHz full duplex Ethernet for connection to PC for programming and data download
- ✓ 2 Can 2.0B interfaces
- ✓ RS232 serial interface
- ✓ 6 to 26v input voltage range with reverse polarity protection
- ✓ 2 regulated 5V sensor supply outputs with protection
- ✓ Software configurable sensor (5v to 12v) sensor supply output

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- ✓ Unregulated sensor supply output which tracks the ECU supply voltage
- ✓ 5 Separately protected sensor and communication ground inputs
- ✓ 4MB or 8MB memory
- ✓ 88 pin automotive connector
- ✓ Anodised aluminium case
- ✓ Dimensions 178 x 122 x 36 mm

Xtreme Racing Tuning

For further information, please contact us at info@xtremeracingtuning.com

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