LINK
ENGINE MANAGEMENT

ECU Catalogue

linkecu.com

EXHILARATION STARTS HERE

WELCOME TO LINK, OR AS WE LIKE TO SAY... THE LABORATORY OF SPEED.

This is the place where exhilaration is made – the exhilaration of unleashing engines, of pushing new boundaries and of having power at your command.

We began 30 years ago, when a group of passionate engineers set out to develop the world's best race technology. Our vision was to put power, performance and reliability in the hands of drivers and teams, and to push ourselves and our technology as far as possible.

Since then, we've become a world leader in Engine Management Technology and our products are sold in 70 countries, by over 1,500 dealers and tuners. Drivers the world over now rely on our ECUs from circuit races to drag racers, from rally drivers to the biggest drift kings on the planet; speed freaks all over the world are turning to the race proven Link ECU.

We have a range of products to meet the demands of any driver. From the entry level AtomX to the high end Thunder, there is a Link ECU designed for your needs.

SO COME JOIN THE TEAM... YOUR EXHILARATION STARTS HERE.

RAZOR PDM

The ultimate power trip

Link's highly anticipated Razor PDM puts you in complete control, with fully programmable power distribution and advanced data, the flexibility to expand your set-up, and compatibility with a wide range of ECUs and devices.

Product Features

- 100A continuous combined current.
- Can be used in conjunction with a Link ECU as an I/O expander, or as a completely standalone device.
- 4 high power outputs capable of 25A continuous, PWM, high side drive, low side drive, or paired for H-bridge actuator motor control.
- 8 Universal A/D I/O pins, capable of 8A output each or as analog or digital inputs. Software controlled pull-ups and adjustable switching thresholds when used as inputs.
- Flexible and powerful control strategies including internal general purpose PID control, math functions, logic expressions and CAN keypad functions.
- CAN keypad integration and flexible button logic, buttons can control PDM or Link ECU functions (*G4X or G4+ with some limitations*).
- 26 pin Superseal connector.
- USB configurable.
- Fully sealed CNC aluminium enclosure.

*All of Link's world leading G4X ECUs, from the entry level AtomX to the high end FuryX, come packed with the **below features as standard**. A list of the advanced features loaded into our premium ECUs can be found on the following pages.*

- Flex fuel capable.
- Flexible engine protection limiters – for instance protect against low oil pressure or low fuel pressure.
- 512 Megabytes of internal data logging memory.
- Resettable engine and ECU statistics recording into onboard memory.
- Built in trigger oscilloscope
- OBDII output stream – send engine data to your tablet or phone using an OBDII to wifi/bluetooth adaptor (not included).
- CAN bus input and output completely user definable. Many preconfigured templates for common third party devices.
- Continuous barometric correction (onboard).
- 45 general purpose tables.
- Memo text file for the tuners notes stored within the ECU.
- VE (modelled mode) or Pulsewidth (traditional mode) fuel control strategies.
- QuickTune and Mixture map features – automated fuel map tuning.
- Individual cylinder correction.
- Up to 6D fuel and ignition mapping.
- Real time selectable dual fuel, ignition and boost maps.
- Digital triggering, most OEM patterns supported.
- Boost control referenced to gear, speed or throttle position (or all most any other parameter).
- Runs odd-fire engines, two strokes and rotaries. Definable TDC angles, firing order and inj/ign timing splits for rotaries and siamese port engines.
- Spare ignition channels can be used as auxiliary outputs.
- Sync and crank sensors can be a combination of Hall effect, variable reluctance or optical.
- Compatible with all leading after-market dashes via CAN or serial stream.
- Manufacturing Standard ISO 9001:2015.

To compare the main features of all LinkECU models please see the **back cover** of this catalogue.

ATOMX

LINK ARE REDEFINING WHAT AN ENTRY LEVEL ECU SHOULD BE!

The AtomX, is a world leader in its class, and runs on the championship winning G4X platform, making it faster, more powerful, more responsive and more precise than other ECUs in its class. This allows for greater accuracy in everything the ECU controls including smoother fueling and more precise spark timing. The **AtomX** comes loaded with all of LinkECU's standard features including 512MB of internal data logging.

The **AtomX** can control up to 2 rotors or 4 cylinders with sequential injection and direct spark. This makes it ideal for naturally aspirated engines that just need a retune and don't need all the extra sensors and features that come with our higher level ECUs.

If it is Gearshift Control, Launch Control, Anti-lag, VVT Control or Closed Loop Boost Control plus a 4Bar MAP sensor you are after, consider the MonsoonX.

SPEC OVERVIEW:

Inputs

- 2 x Digital inputs
- 2 x Temperature inputs
- 3 x Analogue inputs
- 2 x Trigger inputs
- 1 x Knock input

Outputs

- 4 x Injection drives
- 4 x Ignition drives
- 4* x Auxiliary outputs
- +5V Sensor power supply

** unused ignition drives can also be used as auxiliary outputs*

Communications

- 1 x Thirty four pin, waterproof connector
- 1 x CAN bus
- 1 x USB tuning connection

Features

- Built in trigger oscilloscope
- Open loop boost control with up to three switchable tables
- Limited gear shift control
- On/off type cam control (VTEC style)
- Plus all of LinkECU's standard features

Physical

- Dimensions: 90mmL x 130mmW x 45mmH (without loom)
- Weight: 180 grams

The **AtomX** comes supplied with stickers, a quickstart guide, a mounting bracket and a USB tuning cable.
Requires an 'A Loom' or 'A Pin Kit', not supplied.

G4X 111-4000

MONSOONX

THE MONSOONX: THE VALUE OF THE ATOMX BUT WITH MORE FEATURES!

The **MonsoonX** has all the specificatons of the AtomX, but you can also choose to run some of the following features: Gearshift Control, Launch Control, Anti-lag, VVT Control and Closed Loop Boost Control. It also comes with a built in 4Bar MAP sensor further reducing installation cost.

Note: The MonsoonX will run any of the above features, but it cannot run them all at once. The amount of features you can run is dependent on how many of the limited Inputs and Outputs each feature needs.

The **MonsoonX** can control up to 2 rotors or 4 cylinders with sequential injection and direct spark. This makes it ideal for naturally aspirated or turbocharged engines that just need a retune and one or two extra features, so you don't need to jump up to one of our higher level ECUs.

SPEC OVERVIEW:

Inputs

- 4 x Digital inputs
- 2 x Temperature inputs
- 4 x Analogue inputs
- 2 x Trigger inputs
- 1 x Knock input
- 1 x Onboard 4 Bar MAP sensor

Outputs

- 4 x Injector drives
- 4 x Ignition drives
- 6* x Auxiliary outputs
- +5V Sensor power supply

** unused ignition drives can also be used as auxiliary outputs*

Communications

- 1 x Thirty four pin, waterproof connector
- 1 x CAN bus
- 1 x USB tuning connection

Advanced features not found on the AtomX

- Full gear shift control, antilag, rolling antilag and launch control
- Up to 2 fully variable closed loop VVT cams

Physical

- Dimensions: 95mm(L) x 130mm(W) x 45mm(H) (without loom)
- Weight: 220 grams

The **MonsoonX** comes supplied with stickers, a quickstart guide, a mounting bracket and a USB tuning cable.
Requires an 'A Loom' or 'A connector kit', not supplied.

G4X 127-4000

IF IT IS VALUE FOR MONEY YOU ARE AFTER, THE STORMX IS THE ECU FOR YOU!

The **StormX** offers the best of both worlds, more I/Os and features than Link's entry level ECUs and most of the advanced tuning features of Link's premium ECUs, but at an extremely competitive price.

With 8 injector drives and 8 ignition drives the **StormX** can control up to 4 rotors or 8 cylinders with sequential injection and direct spark, making it a great choice if you don't need some of the extra features that come with our higher level ECUs.

If it is E–throttle, Traction Control or more I/Os you are after, consider an XtremeX or FuryX.

SPEC OVERVIEW:

Inputs

- 8 x Digital inputs
- 3 x Temperature inputs
- 8 x Analogue inputs
- 2 x Trigger inputs
- 2 x Knock inputs

Outputs

- 8 x Injection drives
- 8 x Ignition drives
- 8* x Auxiliary outputs
- +5V Sensor power supply
- +8V Sensor power supply

**unused fuel and ignition drives can be used as additional Aux outputs*

Communications

- 2 x Thirty four pin, waterproof connectors
- 1 x CAN bus
- 1 x USB tuning connection

Advanced features not found on the AtomX or MonsoonX

- Onboard Knock Control – support for two knock sensors wired directly to the ECU. No external amplifier required
- Boost control can be open or closed loop with up to three switchable tables
- Idle valve solenoid or stepper motor control
- Rotary oil metering pump control
- Most Motorsport features including full gear shift control, antilag and launch control
- Up to 4 fully variable closed loop VVT cams (up from 2)
- Flexible engine protection limiters – for instance protect against low oil pressure or low fuel pressure.

Physical

- Dimensions: 185mm(L) x 130mm(W) x 40mm(H) (without looms)
- Weight: 660 grams

The **StormX** comes supplied with stickers, a quickstart guide, a mounting bracket and a USB tuning cable. Requires 'A' & 'B' Looms or 'A' & 'B' Pin Kits, not supplied.

G4X 108-4000

THE XTREMEX: A PREMIUM ECU WITH MORE INPUTS, OUTPUTS AND FEATURES!

The **XtremeX** is one of Link's premium ECU's with loads of inputs and outputs, built in E–throttle and all the motorsport features including Anti–lag, Cruise Control and Traction Control.

With 8 injector drives and 8 ignition drives the **XtremeX** can control up to 4 rotors or 8 cylinders with sequential injection and direct spark.

If it is Onboard Digital Wideband Lambda Control you are after, consider the FuryX.

SPEC OVERVIEW:

Inputs

- 8/10† x Digital inputs
- 4 x Temperature inputs
- 11 x Analogue inputs
- 2 x Trigger inputs
- 2 x Knock inputs

†2 inputs required when using 2nd CAN Bus

Outputs

- 8 x Injection drives
- 8 x Ignition drives
- 10* x Auxiliary outputs
- +5V Sensor power supply
- +8V Sensor power supply

**unused fuel and ignition drives can be used as additional Aux outputs*

Communications

- 2 x Thirty four pin, waterproof connectors
- 2† x CAN bus
- 1 x USB tuning connection

Advanced features not found on the StormX

- Fully programmable E–throttle control complete with capability of gear shift throttle blip and antilag
- Cruise control
- Two independent CAN modules
- All Motorsport features including full gear shift control, cruise control, traction control, antilag and launch control
- Advanced closed loop lambda strategy and dual bank lambda control
- Onboard 3 Axis Accelerometer

Physical

- Dimensions: 185mm(L) x 130mm(W) x 40mm(H) (without looms)
- Weight: 680 grams

The **XtremeX** comes supplied with stickers, a quickstart guide, a mounting bracket and a USB tuning cable. Requires 'A' & 'B' Looms or 'A' & 'B' Pin Kits, not supplied.

G4X 109-4000

THE FURYX: A PREMIUM ECU WITH ONBOARD DIGITAL WIDEBAND!

Like the XtremeX, the **FuryX** offers all the features you have come to expect from one of Link's world leading premium ECU's, but with Onboard Digital Wideband.

With 8 injector drives and 6 ignition drives the **FuryX** can control up to 3 rotors or 6 cylinders with sequential injection and direct spark, making it a great choice for professional level motorsport or more demanding road car applications.

SPEC OVERVIEW:

Inputs

- 8/10† x Digital inputs
- 4 x Temperature inputs
- 9 x Analogue inputs
- 2 x Trigger inputs
- 2 x Knock inputs
- 1 x LSU 4.9 wideband lambda sensor input

†2 inputs required when using 2nd CAN Bus

Outputs

- 8 x Injection drives
- 6 x Ignition drives
- 10* x Auxiliary outputs
- +5V Sensor power supply
- +8V Sensor power supply

**unused fuel and ignition drives can be used as additional Aux outputs*

Communications

- 2 x Thirty four pin, waterproof connectors
- 2† x CAN bus
- 1 x USB tuning connection

Advanced features

- Same features as the XtremeX but with the added benefit of Onboard Digital Wideband Lambda Controller, no separate box required. Higher accuracy, simple setup and long sensor life are some of the advantages compared to a separate analogue input wideband device.

Physical

- Dimensions: 185mm(L) x 130mm(W) x 40mm(H) (without looms)
- Weight: 680 grams

The **FuryX** comes supplied with stickers, a quickstart guide, a mounting bracket and a USB tuning cable.
Requires 'A' & 'B' Looms or 'A' & 'B' Pin Kits, not supplied.

G4X 122-4000

PLUGINX ECUs

PlugINX ECUs are a standalone plug in replacement for your factory ECU, with no wiring needed and are shipped with start-up maps for a tuner head start.

MODEL	DESCRIPTION	PART #
Audi		
TTX	VWAG 1.8l Turbo e-throttle (A3 1.8T; A4 1.8T)	208-4000
BMW		
E36X	BMW E36 M50TUB25	201-4000
Holden		
HVLCX	Holden VL RB30ET *(SPECIAL ORDER ONLY)*	207-4000
Honda		
HC92X	Honda Civic Gen 5 (1992 – 1995)	205-4000
HC96X	Honda Civic Gen 6 (1996 – 1999)	206-4000
HC20X	Honda Civic Gen 7 (2000-2005), Integra Type R DC5 (2002-2004), Acura RSX (2002-2004)	237-4000
S2000X	Honda S2000 AP1, AP2 (Non E-throttle)	233-4000
Mazda		
RX7S6X*	Mazda RX7 FD3S Series 6 (1992-1995)	218-4000
RX7S7X*	Mazda RX7 FD3S Series 7-8 (1996-2002)	219-4000
MX5NAX	Mazda MX5 NA (1989-1997), BG 323 GT-X, BG 323 GT-R	212-4000
MX5NB1X	Mazda MX5 NB1 (1998-2000)	240-4000
MX5NB2X	Mazda MX5 NB2 (2001-2005)	239-4000
Mini		
MiniX	BMW Mini R50, R52 and R53	209-4000
Mitsubishi		
EVO3X	Mitsubishi EVO 1-3 (1992-1996)	202-4000
EVO8X	Mitsubishi EVO 4-8 (1996-2002), Eclipse G2 GS-T (1994-1999)	203-4000
EVO9X	Mitsubishi EVO 9 (2005-2007)	204-4000
VR4X	Mitsubishi Galant VR4 E38A and E39A, Eclipse G1 GS-T, Eagle Talon 1G DSM, Plymouth Laser RS Turbo	223-4000

MODEL	DESCRIPTION	PART #
Nissan		
N300X	Nissan Z32 300ZX. VG30DE, VG30DETT	213-4000
N350X	Nissan 350Z, Skyline V35, Infinity G35. VQ35DE	210-4000
NGTRX	Nissan GTR R32-34 & GTS R32-R33, Autech 260RS Stagea, Cefiro A31, Laurel C33-C34	214-4000
NGTTX	Nissan GTT R34, Laurel C35, Stagea WC34. RB25DE, RB25DET "NEO"	215-4000
NS13X	Nissan S13 (1988-1990), 180SX (1988-1990) S14 (1993-1996). 76 pin header	216-4000
NS15X	Nissan S13 (1990-1994), 180SX (1990-1994), S14 (1996-2000), S15 (1999-2002), RNN14 Pulsar GTI-R, N15 Nissan Pulsar VZ-R. 64 pin header	217-4000
Subaru		
WRX2X	Subaru WRX & STI V1-2, GC8A-C (1992-1996)	226-4000
WRX4X	Subaru WRX & STI V3-4, GC8D-E (1997-1998)	227-4000
WRX6X	Subaru WRX & STI V5-6, GC8F-G (1999-2000)	228-4000
WRX9X	Subaru WRX & STI V7-9, (2000-2007) 2.0l	229-4000
WRX104X	Subaru WRX & STI V10 (2004-2006) 2.5l	224-4000
WRX107X	Subaru WRX & STI V10 (2006-2007) 2.5l	225-4000
WRX11X	Subaru WRX & STI V11, GR,GV,GH,GE (2007-2011)	238-4000
Toyota		
TALTX	Toyota Altezza, Lexus IS200 GXE10. 3S-GE	220-4000
TJZX90X	Toyota Chaser, Mark II, Cresta. X90, 1JZ-GTE	235-4000
TJZX100X	Toyota Chaser, Mark II, Cresta. X100, 1JZ-GTE	232-4000
TST185X	Toyota MR2 SW20 Rev 1, Celica ST185. 3S-GE, 3S-GTE	221-4000
TST205X	Toyota MR2 SW20 Rev 2-3, Celica ST205. 3S-GTE	222-4000
TS2JZX*	Toyota Supra A80 (1993-97). 2JZ-GTE non VVTi	211-4000
Volkswagen (AG)		
TTX	VWAG 1.8l Turbo e-throttle (New Beetle 1.8T; Golf 1.8T; Passat 1.8T)	208-4000

*RX7S6S7X plus TS2JZX – *Parallel Twin Turbo and Single Turbo are supported, but not Sequential Turbo.*

If you are unsure if the above PlugIn will fit your vehicle, get your LinkECU dealer to check the pinout information in PC Link. Some PlugIns above are known to fit other vehicles. To confirm yours, get your LinkECU dealer to contact the Link Tech team.

PC LINK TUNING

TUNING IS DONE VIA LINK'S FREE PC LINK SOFTWARE.

Link Engine Management's software package, **PC Link**, allows real time configuration of all functions and advanced features packed into every Link ECU. With features such as automated tuning, data log analysis and ECU firmware updates, **PC Link** is one of the most comprehensive tuning packages available on the market.

PC Link gives the tuner the ability to modify the ECU tuning software layout to suit their needs. A tabbed page system allows multiple pages of information to be arranged and quickly viewed.

Please ensure you download the version of PC Link that correspondes to your ECU (A G4X ECU will require a G4X version of PC Link).

ACCESSORIES

LINK ENGINE MANAGEMENT HAVE A RANGE OF ACCESSORIES TO HELP YOU TRUELY UNLEASH THE POTENTIAL OF YOUR ENGINE!

- Looms from 400mm to 5m
- Digital Gauge and Displays
- CAN Cables
- Inlet Air Temperature Sensors
- Exhaust Oxygen Sensors
- Exhaust Temperature Probes
- Three Channel Ignitors
- Trigger Wheels
- Plug Kits
- MAP Sensors 1.15, 2.5, 3, 4, 5 and 6.5 bar
- E–Throttle (Drive by Wire)
- Ethanol Content Sensors
- Fluid Temperature and Pressure Sensors
- Boost Control Solenoids
- Knock Sensors
- Tuning Tools

AND MORE!!!

For full details, please visit: www.linkecu.com/products/accessories

MXG AND MXS STRADA DASHES

POWERED BY AiM

MXS 5” STRADA

100-0169

100-0168

MXG 7” STRADA

100-0173

100-0172

THE LINK MXS AND MXG STRADA DASHES

- Available in both Street and Race versions.
- Preconfigured to connect with all G4+ and G4X Link ECU’s.
- High contrast 5” (MXS) or 7" (MXG) Colour TFT LCD screen with an ambient light sensor that auto–adjusts the brightness of the display.
- Displays a range of data such as RPM scale, speed, water temperature, oil pressure, lap times and much more.
- 10 multicoloured customisable RGB shift lights and 6 (MXS) or 8 (MXG) configurable RGB alarm LEDs (Race version only) with an accompanying text message alarm.
- 8 fully configurable analogue inputs, 1 speed input, 1 RPM input, 1 analogue camera input and 1 digital output, plus two CAN connections.
- High quality Anodised Aluminum body with Metallic pushbuttons.
- The Street version is Road Legal with indicators, headlights and all mandatory warning lights including oil, water temp and check engine.
- IP65 rated making it Dust and Waterproof.

ACCESSORIES CAN GUAGE

101-0226

A COMPACT OLED GAUGE FOR DISPLAYING REAL-TIME DATA FROM YOUR LINK ECU’S CAN STREAM.

The Link CAN Gauge gives you all the data that you want to see, displaying up to forty parameters in real–time such as boost pressure, oil pressure, coolant temperature, ethanol content and more. Features includes:

- Has a high contrast OLED display, which dims at night.
- Fully customisable screens, 1,2 or 4 up, on up to ten different pages.
- Custom warning screens for low or high warnings such as low oil pressure or high boost pressure.
- Pre–configured to work with all Link G4+/G4X Wire–In and Plugin ECU's.
- Configurable via Smart Phone with included app.
- Compact 52mm (2 inch) size in high quality injection moulded housing.
- Connect two or more together in a daisy chain.
- Extremely easy to install and use.
- Comes included with a connection cable, mating connector and mounting bracket.

LINK NOW STOCK A RANGE OF PLUG AND PLAY CAN CONNECTION CABLES, MAKING IT AS EASY AS POSSIBLE TO CONNECT CAN DEVICES TO YOUR LINK ECU.

GLOSSARY

BELOW IS A LIST OF TERMS USED IN THIS CATALOGUE AND THEIR MEANINGS

Analogue Inputs can be wired to any type of analogue input such as a MAP sensor or Throttle Position Sensor. Analogue sensors will output a signal in the range of 0v to 5v.

Antilag is a feature used on turbocharged engines to minimise turbo lag. It works by igniting fuel and air in the exhaust before the turbo to keep the turbo spinning when the engine is not delivering enough exhaust gas. When anti-lag is on, gunshot sounds and flames can come from the exhaust.

Auxiliary Outputs are general-purpose outputs that may be used to control various functions including a Relay, a Shift Light or a Boost Control Solenoid. Unused ignition and injection drives can also be used as auxiliary outputs.

Base-map is the data inside the ECU that contains information and settings used to run the engine, also known as a tune file. To get the most out of your engine a custom map should be created.

CAN (Controller Area Network) is a central networking system that allows the ECU to communicate with other controllers in the vehicle.

Cruise Control is a feature that automatically controls the speed of a motor vehicle. The ECU takes over the throttle of the car to maintain a steady speed as set by the driver.

Digital Inputs may be connected to switches, controllers or sensors to provide information and control various functions including launch control, anti-lag, high/low boost, water spray, dual fuel/ignition maps, nitrous oxide and variable valve timing.

Digital Wideband uses a CAN bus to monitor a lambda sensor which measures the proportion of oxygen in exhaust gases allowing you to accurately tune fuel mixtures. Being fully digital eliminates any delays and errors that analogue alternatives cause. The wideband O2 sensor used by the Link CAN-Lambda never requires free air calibration.

E-throttle (aka Drive by Wire) electronically connects the accelerator pedal to the throttle valve using an electronic system that replace a mechanical linkage.

Fuel Equations are methods of calculating the fuel requirements of the engine.

Gear Shift Control is a feature that allows the driver to change gear without taking their foot off the accelerator. The ECU cuts ignition or fuel during gear shifts and blips the throttle during downshifts.

GDI (Gasoline Direct Injection) is a type of fuel injection where the fuel is highly pressurised, and injected directly into the combustion chamber of each cylinder leading to more power while using less fuel.

Knock (aka detonation) occurs due to excessive pressure and temperature in the combustion chamber. Knock is one of the greatest causes of damage to an engine.

Ignition Drives are used to drive a wide range of ignition systems from a basic distributor set-up through to more complex multi-coil arrangements. Each ignition coil will need an inbuilt igniter or an external igniter.

Injection Drives are used to control injectors in sequential, group and group staged fuel injection systems.

Launch Control is a feature that controls engine speed to reduce wheel spin allowing a vehicle to accelerate as fast as possible. Often used in drag racing.

Motorsport Features are special features designed for motor sport use and include Antilag, Gearshift Control, Launch Control and Traction Control.

OBDII (On Board Diagnostics) allows you to send engine data from your ECU over a CAN bus to the vehicle's OBDII port. You can see and use this data on your tablet or phone using an OBDII to a wifi/bluetooth adapter.

PCLink is an advanced tuning package designed to be simple to use yet deliver the flexibility and advanced features required by professional tuners. PCLink incorporates data log analysis features to further reduce tuning time and provide after event feedback.

Peak and hold injection is a two stage system for driving low impedance fuel injectors. The Peak signal is used to quickly open the injector then it switches to a low power consumption Hold signal to keep the injectors open.

PlugIn ECUs are direct plug–in replacements for the factory ECU. They use the vehicle's factory sensors, but can benefit from additional sensors.

Quick Tune is an interactive tuning tool in PCLink that assists in time efficient fuel tuning.

Temperature Inputs are designed to receive information from PTC or NTC thermistor sensors such as Engine Coolant Temperature or Inlet Air Temperature.

Traction Control is a feature that reduces wheelspin during acceleration. The ECU reduces power when your tires begin to spin.

Trigger inputs are connected to crankshaft or camshaft position sensors to calculate engine speed as well as engine position.

Trigger scope is a tool built into most G4+ ECUs, it is used to visually display the voltages the ECUs trigger inputs are measuring, similar to an oscilloscope.

VVT Control (Variable Valve Timing) is the process of altering the timing of the intake and exhaust cams to improve performance, fuel economy or emissions. An ECU can control this by continuously advancing or retarding the camshaft timing.

+5V Sensor Power Supply supplies a regulated and over current protected +5V to be used by sensors that operate from a 5V supply.

+8V Sensor Power Supply supplies a regulated and over current protected +8V to be used by sensors that operate from a 8V supply.

WARRANTY

LIMITED LIFETIME WARRANTY

WE STAND BEHIND WHAT WE SELL!

LINK ENGINE MANAGEMENT LTD – LIMITED LIFETIME WARRANTY

All Engine Control Units (ECUs) manufactured by Link Engine Management Ltd are subject to the following LIMITED LIFETIME WARRANTIES, and no others.

Link Engine Management Ltd warrants only to the original purchaser of the ECU, for the lifetime of the ECU, (subject to the limitations set out below), that the ECU shall be free from defects of materials and workmanship in the manufacturing process. This warranty ceases to apply and does not apply to ECUs that have not been manufactured by Link Engine Management Ltd for a period of greater than one year.

An ECU claimed to be defective must be returned to the place of purchase. Link Engine Management Ltd, at its sole option, may replace the defective ECU with a comparable new ECU or repair the defective ECU.

This limited lifetime warranty is not transferrable and does not apply to any ECU not properly installed or properly used by the purchaser or end user, or to any ECU damaged or impaired by external forces. The above warranties are the full extent of the warranties available on the ECU. Link Engine Management Ltd has no liability to the original purchaser or any other person for any loss, injury or damage to persons or property resulting from the use of the ECU or any failure of or defect in the ECU whether by general, special, direct, indirect, incidental, consequential, exemplary, punitive, or any other damages of any kind or nature whatsoever. Link Engine Management Ltd specifically disclaims and disavows all other warranties, express or implied, including, without limitation, all warranties of fitness for a particular purpose, warranties of description, warranties of merchantability, trade usage or warranties of trade usage.

For off–road use only, not intended for highway vehicles. This ECU contains a user–configurable software programme, which is updated by Link Engine Management Ltd from time to time. The user must ensure the current correct version of this programme is downloaded from the website of Link Engine Management Ltd and installed in the ECU prior to use. This limited lifetime warranty does not apply where the ECU has been installed with the incorrect version of the software programme. The user is solely responsible for the setup and testing of all user–configurable features.

Link Engine Management Ltd License Agreement

The software programme in this ECU is licensed not sold. Link Engine Management Ltd grants the user a license for the programme only in the country where the programme was acquired. No other rights are granted under this license and the programme may only be used on one machine at a time. If the programme is transferred a copy of this license and all other documentation must be transferred at the same time. The license may be terminated by the user at any time. Link Engine Management Ltd may terminate the licence if the user fails to comply with the terms and conditions of this license. In either event the copy of the programme must be destroyed.

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LINK PRODUCT RANGE

	G4X ATOMX	G4X MONSOONX	G4X STORMX	G4X XTREMEX	G4X FURYX	G4X PLUGINX
						
Fuel/Ignition Drives	4/4	4/4	8/8	8/8	8/6	8/8†
Digital Inputs	2	4	8	8 / 10*	8 / 10*	11†
Peak & Hold Injection	No	No	No	No	No	No
Analog/Temp Inputs	3/2	4/2	8/3	11/4	9/4	12/4†
Auxiliary	4	6	8	10	10	16†
E–Throttle Control	No	No	No	Yes	Yes	Yes
Knock Control	1 Channel	1 Channel	2 Channel	2 Channel	2 Channel	2 Channel†
OBD	Yes	Yes	Yes	Yes	Yes	Yes
+8 Volt Out	No	No	Yes	Yes	Yes	No
Trigger Scope	Yes	Yes	Yes	Yes	Yes	Yes
Logging Parameters	250	250	250	250	250	250
Logging Memory	512MB	512MB	512MB	512MB	512MB	512MB
CAN	1 Channel	1 Channel	1 Channel	1 / 2 Channel*	1 / 2 Channel*	2 Channel
Gen Purpose Tables	45	45	45	45	45	45
Aux Output on unused Fuel & Ignition	Yes	Yes	Yes	Yes	Yes	Yes
Flex Fuel	Yes	Yes	Yes	Yes	Yes	Yes
Lambda Sensor Control	0	0	0	0	1	0
Closed Loop Lambda Auto Mode	Yes	Yes	Yes	Yes	Yes	Yes
Dual Closed Loop Lambda	No	Yes	Yes	Yes	Yes	Yes
VVT Control	No	Yes	Yes	Yes	Yes	Yes
Selectable Temp Input Pullups	No	No	Yes	Yes	Yes	Yes
Launch / AntiLag	No	Yes	Yes	Yes	Yes	Yes
Cruise Control	No	No	No	Yes	Yes	Yes
Traction Control	No	No	No	Yes	Yes	Yes
Diff. Reluctor Interface	No	No	No	No	No	No
Thermocouple	No	No	No	No	No	No
3 Axis Accelerometer	No	No	No	Yes	Yes	Yes

**2 inputs required when using 2nd CAN Bus*
† Check specific pinout for number of I/Os exposed.

Link ECU products are not recommended where it interferes with the vehicles safety or emission control features.

RAZOR PDM

The ultimate power trip

Link's highly anticipated Razor PDM puts you in complete control, with fully programmable power distribution and advanced data, the flexibility to expand your set–up, and compatibility with a wide range of ECUs and devices.

Product Features

- 100A continuous combined current.
- Can be used with a Link ECU as an I/O expander, or as a standalone device.
- 4 high power outputs capable of 25A continuous, PWM, high side drive, low side drive, or paired for H–bridge actuator motor control.
- 8 Universal A/D I/O pins, capable of 8A output each or as analog or digital inputs. Software controlled pull–ups and adjustable switching thresholds when used as inputs.
- Flexible and powerful control strategies including internal general purpose PID control, math functions, logic expressions and CAN keypad functions.
- USB configurable.

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