G4X

STORMX

QUICK START GUIDE

This is only a quick start guide.
A full wiring and installation
manual is included in **PCLink**.

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LINK
ENGINE MANAGEMENT

INSTALLER I/O TABLE

Wire Description	Installer Connection	Typical Application
Trigger 1	Crank Angle Sensor	Reluctor, Proximity, Optical or Hall
Trigger 2		
Analogue Temp Input 1		Thermistor Sensors
Analogue Temp Input 2		Temp 1 & 2 have selectable / no pullups
Analogue Temp Input 3		Temp 3 has fixed 1k pullup
Analogue Volt 1		0–5V Input from sensor or external controller
Analogue Volt 2		
Analogue Volt 3		
Analogue Volt 4		
Analogue Volt 5		
Analogue Volt 6		
Analogue Volt 7		
Analogue Volt 8		
+5V Out	TPS and MAP sensor power	+5V Power OUT
+8V Out		+8V Power OUT
Ignition 1		Use spare Ignition channels for Auxillary Outputs
Ignition 2		
Ignition 3		
Ignition 4		
Ignition 5		
Ignition 6		
Ignition 7		
Ignition 8		

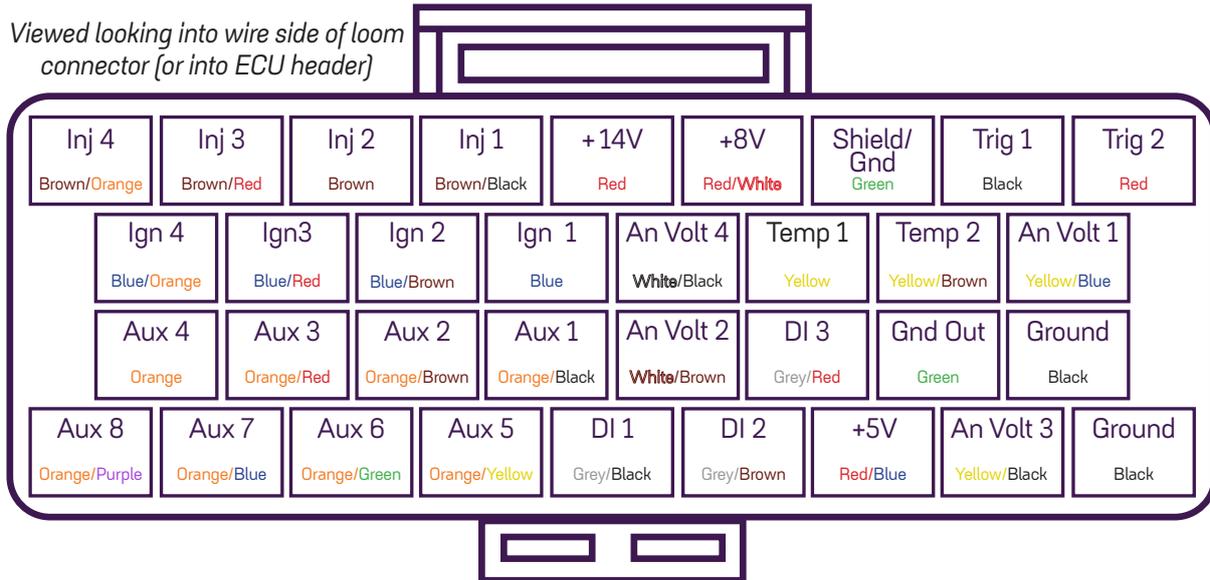|		
Injection 1		
Injection 2		
Injection 3		
Injection 4		Wire Inj 1 to cyl 1, 2 to 2, 3 to 3, etc...
Injection 5		Use spare Injection channels for Auxillary Outputs
Injection 6		
Injection 7		
Injection 8		
Auxillary Output 1		PWM or VVT Control or General Switching Function
Auxillary Output 2		Three Wire ISC Solenoid must be wired to Aux1 and Aux2 or Aux3 and Aux4
Auxillary Output 3		
Auxillary Output 4		Flywheeled, Low side only
Auxillary Output 5		PWM or VVT Control or General Switching Function
Auxillary Output 6		Flywheeled, High / Low Side Drives
Auxillary Output 7		Stepper (4 or 6 terminal)
Auxillary Output 8		
Knock 1		Knock Sensors
Knock 2		
Digital Input 1		
Digital Input 2		Frequency Input, Switch Input or VVT Position
Digital Input 3		
Digital Input 4		
Digital Input 5		
Digital Input 6		Frequency Input or Switch Input
Digital Input 7		
Digital Input 8		

WIRING INFORMATION

It is recommended that your Link G4X Storm ECU is installed by a trained professional. Incorrect installation can result in damage to the ECU or the vehicle — extreme care must be taken.

The following pin diagram shows the inputs and outputs available with the G4X Storm ECU. Application wiring examples are provided in the full Wiring and Installation Manual available in PCLink G4X.

It is recommended that the installer fills out the *Installer I/O Table* as a reference to keep with the ECU. This table is provided on the previous pages.
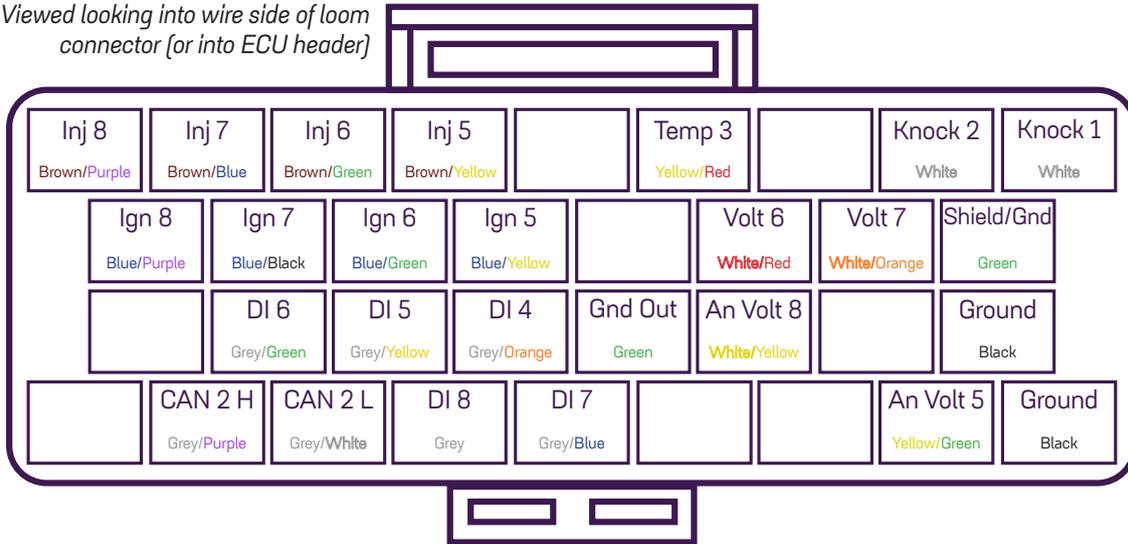
A LOOM

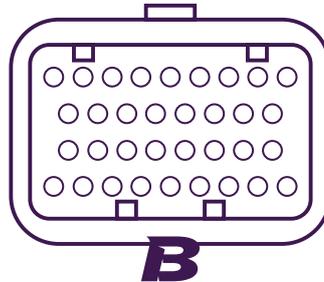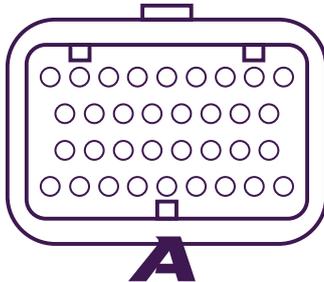*Viewed looking into wire side of loom connector (or into ECU header)*

Inj 4	Inj 3	Inj 2	Inj 1	+14V	+8V	Shield/ Gnd	Trig 1	Trig 2
Brown/Orange	Brown/Red	Brown	Brown/Black	Red	Red/White	Green	Black	Red

Ign 4	Ign3	Ign 2	Ign 1	An Volt 4	Temp 1	Temp 2	An Volt 1
Blue/Orange	Blue/Red	Blue/Brown	Blue	White/Black	Yellow	Yellow/Brown	Yellow/Blue

Aux 4	Aux 3	Aux 2	Aux 1	An Volt 2	DI 3	Gnd Out	Ground
Orange	Orange/Red	Orange/Brown	Orange/Black	White/Brown	Grey/Red	Green	Black

Aux 8	Aux 7	Aux 6	Aux 5	DI 1	DI 2	+5V	An Volt 3	Ground
Orange/Purple	Orange/Blue	Orange/Green	Orange/Yellow	Grey/Black	Grey/Brown	Red/Blue	Yellow/Black	Black

B LOOM

Viewed looking into wire side of loom connector (or into ECU header)

Inj 8 Brown/Purple	Inj 7 Brown/Blue	Inj 6 Brown/Green	Inj 5 Brown/Yellow		Temp 3 Yellow/Red		Knock 2 White	Knock 1 White
Ign 8 Blue/Purple	Ign 7 Blue/Black	Ign 6 Blue/Green	Ign 5 Blue/Yellow			Volt 6 White/Red	Volt 7 White/Orange	Shield/Gnd Green
	DI 6 Grey/Green	DI 5 Grey/Yellow	DI 4 Grey/Orange	Gnd Out Green	An Volt 8 White/Yellow			Ground Black
	CAN 2 H Grey/Purple	CAN 2 L Grey/White	DI 8 Grey	DI 7 Grey/Blue			An Volt 5 Yellow/Green	Ground Black

A & B CONNECTOR KEYS
Looking into ECU header

A

B

G4X PIN NUMBERING
Wire side of loom
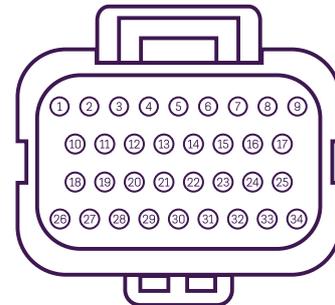
IMPORTANT INFORMATION

G4X ECUS ARE SHIPPED LOCKED

G4X ECUs are shipped as locked and must be enabled before they are used. The ECU can be installed and configured using PCLink, but will not read engine RPM or run the engine until unlocked. Contact your ECU supplier to obtain an unlock code.

SUPPORT OPTIONS

- PCLink G4X help — press F1 while running PCLink G4X. Includes help on wiring, PCLink G4X and ECU functions
- Contact your nearest Link dealer. A Link dealer list is available on linkecu.com
- Link website: linkecu.com
- Technical Support email: tech@linkecu.com
- Online Discussion Forum: linkecu.com/forums

Most questions received by the technical support team are answered in the PCLink G4X Help section. Please consult the manuals to make sure that your question has not already been answered.

PCLINK G4X

All Link G4X ECUs are tuned and configured by our PCLink G4X software package. Connection to the ECU is established through on–board USB.

The latest version of PCLink G4X can be downloaded from linkecu.com. Included with PCLink G4X are the USB drivers for connecting to the ECU.

IMPORTANT

Before connecting the ECU to your PC, the correct USB drivers must be installed.
Failure to install the drivers on your PC first may result in Windows assigning incorrect drivers. These drivers will not work with the ECU and are difficult to uninstall.

After installation, consult PCLink G4X Help (press F1) for instructions on connecting to the ECU.

Once you have the ECU connected to PCLink, check the ECU firmware and upgrade to the latest version if it is not already.

GENERAL ECU MOUNTING GUIDELINES

The following requirements should be taken into account during the installation of the ECU:

- The ECU should be fitted inside the vehicle cabin in a location that avoids exposure to excessive temperatures and the risk of water ingress. The location of the ECU should also be physically separated from the ignition components or any other components that may cause interference.

- Allow enough room at both ends of the ECU for the main wiring harness and tuning cables to be connected.

- The mounting bracket provided should be installed on a flat surface, with the ECU firmly fitted to the bracket. Alternative brackets should not be used and under no circumstances should holes be drilled in the ECU case. Any modifications to the case will render the warranty invalid and may cause internal damage.

- It is recommended that the ECU is rubber mounted in order to isolate the ECU from vibration.

- For motorsport applications, the ECU should be located in a position that minimises the risk of physical damage in the event of the vehicle being involved in a crash. ECUs used for speedway applications should be mounted securely within the cockpit area, protected from the elements, isolated from vibration and utilise an additional retention strap for protection from high impacts.

Please refer to the Wiring Information section in PCLink G4X help for additional information.

LIFETIME WARRANTY

LINK ENGINE MANAGEMENT LTD – LIMITED LIFETIME WARRANTY

All Engine Control Units (ECUs) manufactured or distributed 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 or distributed 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 license 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.

EXHILARATION STARTS HERE

G4X

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