LEM^{G3} – Nissan 200SX/ 180SX

(76 Pin Header)

AdaptaLink

V1.1 14/12

This AdaptaLink is designed to reduce installation effort by allowing an almost direct plug-in of a Link LEM^{G3} ECU to the following vehicles:

- Nissan S14 Silvia / 200SX
- Nissan S13 Silvia / 180SX

Note: This AdaptaLink is NOT recommended for automatic transmission models.

The AdaptaLink must be configured for each application by fitting the jumpers in the correct locations. To do this, remove one end plate from the AdaptaLink enclosure then slide out the top cover. In some cases additional modifications are required.

Disclaimer

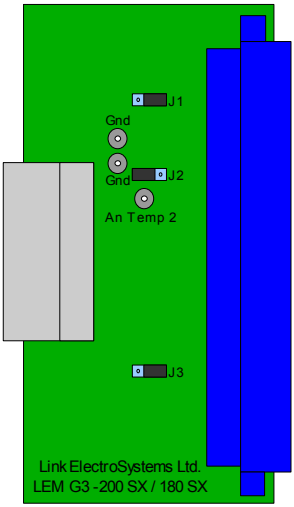
All care has been taken to ensure the pin outs and interconnections of this ECU AdaptaLink board are correct. However due to variations between vehicle models it is the installers responsibility to check wiring connections BEFORE installing the AdaptaLink. Link ElectroSystems Ltd. will not be held responsible for any damage caused by the incorrect installation of this product.

Limitations

- This AdaptaLink has been designed for use with manual transmissions only. Use of this AdaptaLink with an automatic transmission may cause unexpected transmission operation.
- As the LEM^{G3} has a limited number of inputs and outputs, not all of the sensors and actuators used by the factory ECU can be used. If a sensor/actuator is required that is not used wiring modification may be required.
- This AdaptaLink has been designed to be used with HIGH impedance (greater than 6 Ohms) injectors. Ballast resistors must be wired if low impedance injectors are to be used. Consult the ECU's Wiring and Installation manual for more information on injector wiring.

AdaptaLink Options

Nissan S14 Silvia / 200 SX SR20DET



Jumper Setting

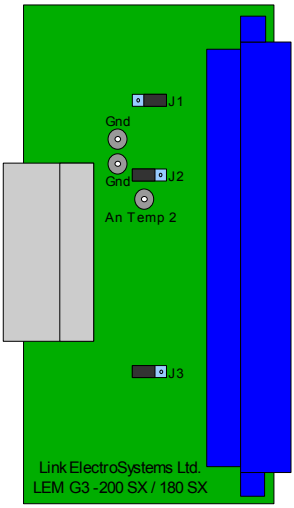
Install the jumpers as shown to the left.

J3 changes the engine firing order therefore MUST be set in the correct position.

J2 determines if An Temp 2 is connected to the AFM Signal Wire or the AdaptaLink boards breakout pad.

J1 can be used to select Vehicle Speed on Digital Input 1 (DI 1) or Air Conditioning Request signal.

Nissan S13 Silvia / 180 SX CA18DET



Jumper Setting

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J1 can be used to select Vehicle Speed on Digital Input 1 (DI 1) or Air Conditioning Request signal.

Intake Air Temperature (IAT) Sensor

The AdaptaLink board allows three options for connection of an IAT sensor. It is highly recommended that an IAT sensor is installed and wired for use with the Link ECU. The IAT sensor can be wired either of the following ways:

1. Using factory AFM wiring. When Jumper J2 is in the 'IAT on AFM Sig' position, An Temp 2 is connected to the factory Air Flow Meters signal wire. This means that existing air flow meter wiring can be used rather than running another wire through the firewall. Connect the IAT sensor to the AFM signal wire and AFM ground wire. Consult factory wiring diagrams for the positions of these wires in the AFM connector.
2. Wiring to AdaptaLink Board. When Jumper J2 is in the 'External IAT' position, An Temp 2 is connected to the breakout pad on the AdaptaLink board. Wire the IAT sensor to the 'An Temp 2' and 'Gnd' breakout pads on the AdaptaLink board.
3. Some versions of S13 Silvia / 180SX CA18DET have a factory fitted IAT sensor. This can be connected to An Temp 2 by jumping a wire between the breakout pads labeled 'An Temp 2' and ' S13 IAT' on the AdaptaLink board.

After installing an IAT sensor, it must be correctly set up in PCLink. Consult the PCLink On line Help for further information.

Options for Digital Input 1 (DI 1)

Jumper J1 can be used to connect either Vehicle Speed or Air Conditioning. Request to DI1 (Aux 4). If air conditioning is to be retained then place the jumper in the 'DI1 = A/C In' position. If air conditioning is not used, fit J1 in the "DI1 = Speed' position. This will allow the ECU to measure vehicle speed for functions such as idle control and launch control.

IO Connections

The following tables describe how the LEM^{G3} is connected to the engines sensors and actuators. Note that all unused I/O is available for wiring to other accessories (As all I/O is configurable using PCLink).

S14 Silvia / 200 SX SR20DET		
LEM[G3] Function	Sensor / Actuator	Note
Inj 1	Injectors 1 and 3	
Inj 2	Injectors 2 and 4	
Ign 1	Coil 1	
Ign 2	Coil 2	
Ign 3	Coil 3	
Ign 4	Coil 4	
Aux 1	VTC Cam Solenoid	
Aux 2	Waste-gate Solenoid	
Aux 3	ISC Solenoid	
DI 1 / Aux 4	Vehicle Speed or A/C In	Depends on Jumper J1 position
Aux 5	Fan Relay	
Aux 6	Tachometer	
Aux 7	Fuel Pump Relay	
Aux 8	A/C Out	
An Temp 1	Engine Coolant Temperature (ECT)	
An Temp 2	Intake Air Temperature (IAT)	Must be installed
An Volt 1	Oxygen Sensor Signal	
An Volt 2	Spare	Breakout Pad on AdaptaLink
An Load 3 (TPS)	Throttle Position (TPS)	

S13 Silvia / 180SX CA18DET		
LEM[G3] Function	Sensor / Actuator	Note
Inj 1	Injectors 1 and 3	
Inj 2	Injectors 2 and 4	
Ign 1	Coil 1	
Ign 2	Coil 2	
Ign 3	Coil 3	
Ign 4	Coil 4	
Aux 1	Fuel Pressure Solenoid	
Aux 2	Waste-gate Solenoid	
Aux 3	ISC Solenoid	
DI 1 / Aux 4	Vehicle Speed or A/C In	Depends on Jumper J1 position
Aux 5	Intake Runner Control Solenoid	
Aux 6	Tachometer	
Aux 7	Fuel Pump Relay	
Aux 8	A/C Out	
An Temp 1	Engine Coolant Temperature (ECT)	
An Temp 2	Intake Air Temperature (IAT)	Must be installed
An Volt 1	Oxygen Sensor Signal	
An Volt 2	Spare	Breakout Pad on AdaptaLink
An Load 3 (TPS)	Throttle Position (TPS)	