

Intro

The kit you have purchased replaces the original Nissan Leaf Gen2 control board. It adds additional inputs and outputs, overclocking capability, open source control software and Wifi access to the inverter. It uses the original connectors to the inside logic. The connector to the outside world is not available on the free market and you will have to salvage it from your OEM control board.

I do not recommend running the inverter from the power supply, as unwanted regen can occur during testing.

The board comes with most parameters already set up for the Leaf inverter. Do not touch the „Inverter“ and „Motor“ parameters unless you really know what you’re doing.

The mini mainboard must be plugged into the adapter board so that the silk screen is the right way around, i.e. “Johannes Huebner” on the main board lines up with “Johannes Huebner” on the adapter board. JP2 on the main board counter-intuitively plugs into J1 on the adapter board.



Part List

Name	Part #
CN001	1939561-3 (unobtainium - salvage needed)
CN101	GT8E-5P-DS
CN151	GT8E-12DP-DS
CN501	GT8E-16DP-DS
CN601	GT8E-8P-DS
R1	120 Ohm
J1, J2	1x20 Pin header and socket
	OpenInverter main board

Wifi Access

SSID: inverter

Password: inverter123

Link: <http://192.168.4.1>



Pin Mapping

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+-----+ +-----+
| 47  46  21 20 19 18 17 16 15 14 | |      x  x |
|          29 28 27 26 25  x 23 22 | |  6 x  x  x |
| 49  48    x  x  x  x  x  x  x  x | | 10 x  x  x |
|          45 44 43 42 41 40 39 38 | |    x  x  x |
+-----+ +-----+

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Pin	Name	Pin	Name	Pin	Name	Pin	Name
6		19	RES_R1 *	27	RES_R2 *	42	OUT_DCSW * !
10	IN_BMS	20	RES_S1 *	28	THROTTLE2	43	OUT_PRE
14	CANH *	21	RES_S3 *	29	THROTTLE1	44	MTEMP1 *
15	CANL *	22	IN_START	38	IN_CRUISE	45	MTEMP2 *
16	IN_FORWARD	23	IN_BRAKE	39		46, 48	12V *
17	RES_S2 *	25	IN_REVERSE	40		47, 49	GND *
18	RES_S4 *	26	5V	41			

Only pins with * are populated on the OEM wire harness

Pin 42 is a 12V input on original harness, make sure not to connect to 12V but to DC switch!

The DC switch and pre-charge output can be loaded with about 3A but you have to supply a fly-back diode to 12V to not over-volt the MOSFETs when they turn off. They are not mounted on board to prevent reverse-feeding the inverter through the diodes.

Visit <http://openinverter.org> for more info.