Tech Note – TN1126-PV-BT-v1 23.05.18

Grid tie hybrid inverter with battery – labelling guide

Distribution:

SOLARCITY INSTALLER NETWORK

Introduction

The purpose of this tech note is to inform installers of grid tie hybrid inverter with battery systems which label kit(s) to use and where each label in the kits is to be installed. Labels are required to assist in identifying all electrical components of the PV and battery system installations. They allow emergency personnel, tradespeople and any person using the home to clearly identify the risks and the type of system that has been installed.

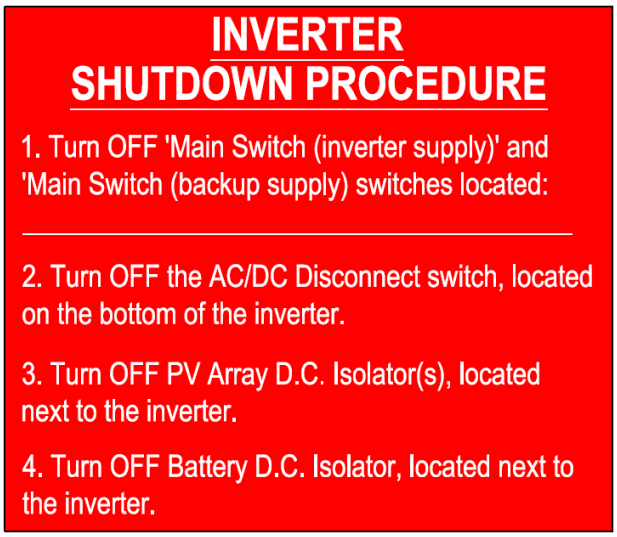
Label Kits

The generic label packs cover all the required labels for standard residential hybrid inverter PV and battery installations which comply with AS/NZS 5033:2014, AS4777.1:2005 and AS4777.1:2016. Off-grid, string inverter and microinverter installations are not covered by these labels. Note that these packs are designed for residential systems only; for commercial systems, additional labels may be required.

There are three label kits:

- **Grid tie hybrid inverter label kit (PV-LAB-HYBRID)** – the base kit to be used in all hybrid inverter installations
- **Grid tie hybrid sub board label kit (PV-LAB-HSUB)** – used in addition to the main label kit when the system is installed on a sub board
- **solarZero hub label kit (PV-LAB-CTK)** – to be used when installing the solarZero hub

Grid tie hybrid inverter label kit



Description	Inverter shutdown procedure label
Location	Front of inverter, installer to write location of main switches using an indelible marker pen or engraver

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WARNING: PV Array D.C. Isolators do not de-energize the PV Array and array cabling	**Description**	PV isolator warning
	Location	Front of inverter

WARNING: Battery D.C. Isolator does not de-energize the battery and battery cabling	**Description**	Battery isolator warning label
	Location	Front of inverter

WARNING: MULTIPLE D.C. SOURCES Turn off all D.C. Isolators to isolate inverter	**Description**	Multiple D.C. sources warning label
	Location	Front of inverter

INVERTER	**Description**	Inverter label
	Location	Front of inverter

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All of these labels should go on the front of the inverter:

Figure 1: Example of all labels on front of inverter

PV ARRAY D.C. ISOLATOR 1 PV ARRAY D.C. ISOLATOR 2	**Description**	PV array D.C. isolator 1 (and 2 if applicable) label
	Location	On or directly adjacent to the PV array DC isolator(s)

BATTERY D.C. ISOLATOR	**Description**	Battery D.C. isolator label
	Location	On or directly adjacent to the battery DC isolator

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	Description	Inverter A.C. isolator label
	Location	On or directly adjacent to the inverter A.C. isolator

	Description	Battery label
	Location	On the battery enclosure

	Description	Battery system hazard label
	Location	On the battery enclosure – insert the nominal voltage and short circuit current of the battery.

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The two labels above should both go on the battery enclosure (please note that figures must normally be engraved):

Figure 2: Example of labels to be installed on battery enclosure

The inverter D.C. isolator(s) must be in the OFF position before isolating the PV array The inverter D.C. isolator(s) must be in the OFF position before isolating the PV array	**Description**	PV array cabling label
	Location	Secured to the array cable on the roof adjacent to the MC4 using a s/s cable tie.

SOLARCITY 0800 11 66 55 | solarcity.co.nz Property of solarcity New Zealand LTD Serial Number: This equipment including the solar data hub, solar panels affixed to the roof, inverter(s), racking, storage battery system and network adapter all form a single unit identified by the affixed serial number. They are owned and operated by solarcity New Zealand Ltd. If you are selling your house please contact us in advance to make arrangements.	**Description**	PPSR label
	Location	On or in the main switchboard – insert the SC number of the site being installed without the SC portion or the hyphen. E.g. SC-17-012345 becomes 17012345.

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INVERTER LOCATED:	**Description**	Switchboard inverter location label
	Location	On or in the main switchboard – engrave with location of inverter

SOLAR ARRAY ON ROOF OPEN CIRCUIT VOLTAGE:_____V SHORT CIRCUIT CURRENT:_____A	**Description**	Switchboard solar array on roof label
	Location	On or in the main switchboard

WARNING MULTIPLE SUPPLIES ISOLATE ALL SUPPLIES BEFORE WORKING ON THIS SWITCHBOARD	**Description**	Switchboard multiple supplies label
	Location	On or in the switchboard the inverter is connected to

WARNING MULTIPLE MODE IES CONNECTED NEUTRAL AND EARTH CIRCUITS MAY BE LIVE UNDER FAULT CONDITIONS. FOLLOW SHUTDOWN PROCEDURE	**Description**	Switchboard multiple supplies label
	Location	On or in the switchboard the inverter is connected to

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	Description	Main switch (grid supply) label
	Location	In switchboard, adjacent to grid supply main switch

	Description	Main switch (inverter supply) label
	Location	In switchboard, adjacent to inverter supply MCB

	Description	MSB PV label
	Location	On or in the main switchboard

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	Description	MSB ES label
	Location	On or in the main switchboard

The previous nine labels should all go in or on the main switchboard:

Figure 3: Main switchboard labels

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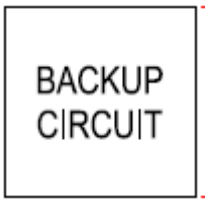
	Description	Main switch (backup supply) label
	Location	In switchboard, adjacent to backup supply main switch

	**Description**	Backup circuit label
	Location	In switchboard, adjacent to any circuit which is backed up

	Description	Meter PV label
	Location	On the outside of the meter box

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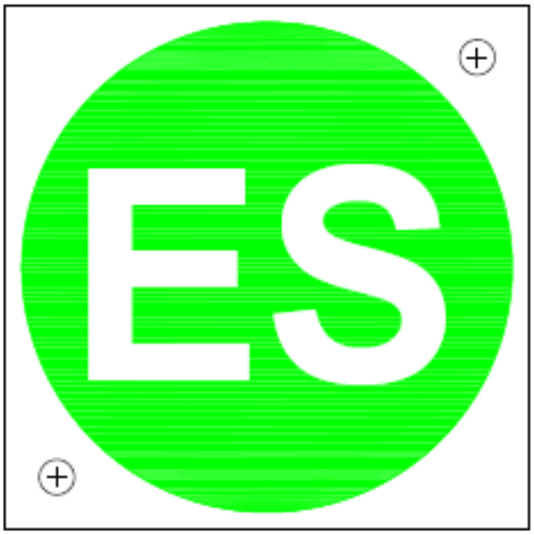	**Description**	Meter ES label
	Location	On the outside of the meter box

Grid tie hybrid sub board label kit

	Description	Main isolator (normal supply) label
	Location	In sub board on main isolator for normal supply

	Description	Intermediate switchboard multiple supplies label
	Location	In or on main switchboard and any intermediate switchboards between the main switchboard and the switchboard to which the IES is connected

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	Description	Switchboard multiple supplies label
	Location	In or on the main switchboard and any intermediate switchboards between the main switchboard and the switchboard to which the IES is connected

solarZero hub label kit

	Description	solarZero hub label
	Location	In switchboard adjacent to the MCB for the solarZero hub

	Description	Relay supply label
	Location	In switchboard adjacent to the existing hot water MCB (do not obscure the existing label, add as extra)

	Description	Relay bypass label
	Location	On or adjacent to relay bypass switch

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	Description	Relay warning label
	Location	Inside solarZero hub on relays