

4th July 2016

SMA Grid Connected Battery Inverter Compliance to AS/NZS 4777.2:2015

The introduction of Sunny Boy Storage (SBS2.5-1VL-10) to SMA's Australian market range provides a simpler solution for adding grid connected storage to both new and existing PV systems. To better support this solution and its introduction, and provide greater focus for SMA's solutions, the existing range of Sunny Island inverters will not be re-certified to AS/NZS 4777.2:2015. The inverters covered by this change are:

- SI3.0M-11
- SI4.4M-11
- SI6.0H-11
- SI8.0H-11

Sunny Island is transitioning back to being an Off-Grid inverter. It can continue to be used in Off-grid applications such as:

- Pure Off-grid energy systems applications (*i.e. no possible connection to a public grid*)
- Off-grid configuration with the grid connected as backup (*i.e. Loads and Solar connected to AC1, grid connected as backup via AC2*)
- Battery backup only for on-grid (*i.e. system only operates when the grid is down or disconnected*)

For on-grid PV systems seeking to add battery storage to increase PV energy self-consumption, the SMA solution now and in the immediate future is the Sunny Boy Storage.

Within some electrical grids (e.g. Horizon Power), Sunny Island may continue to be used with additional appropriate protections installed. Consult the local utility to understand these requirements

SMA reiterates this announcement relates to the current version of Sunny Island inverters. Future version of Sunny Island may be certified to AS/NZS 4777.2:2015.



24th February 2016

SMA Inverter Compliance to AS/NZS 4777.2:2015

On the 9th October 2015 the new standard defining the grid interface for inverters, AS/NZS 4777.2:2015, was released. The standard will supersede the older versions AS/NZS 4777.2:2005 and AS/NZS 4777.3:2005 on the 9th October 2016. After this date, inverters which do not meet the requirements of the new standard will not be allowed for install in grid connected applications in Australia and New Zealand. While the changes in the new standard may seem extensive, the main differences can be summarised down to a few points:

1. Changes to Voltage Trip Points
2. Addition of Grid Support Capabilities
3. Increased Requirements for Phase Balancing in 3-Phase systems
4. Demand Response Mode (DRM) capability

SMA manufactures inverters for a global market. When comparing the requirements of AS/NZS 4777.2:2015 to other global and national standards for the grid interface of inverters, there are no requirements which SMA inverters in current production cannot already meet. Many of these requirements in the new standard have already begun to be requested by grid operators across Australia and New Zealand, and have been able to be realised with SMA inverters by modifying parameters using Sunny Explorer. Both Ergon Energy and Energex requested new embedded generators to implement multistage voltage tripping as specified in the new standard. Grid support capabilities identified in the new standard have been in place in Europe since as early as 2012. Changes to phase balancing requirements in the new standard are designed to place increased requirements on inverter energy systems which are 3-phase connected but comprised of single phases inverters (*i.e. single phase string inverters or micro inverters*).

To completely meet the requirements of the new standard allowing both units already installed and those in local stock holding to be approved, SMA inverters will primarily require only a new firmware to meet the bulk of these requirements (*excluding DRM*). Minor requirements, such as new labelling, can be handled through simple label kits and instructions provided directly by SMA or its authorised distributors.

As of the date of this letter, SMA can confirm the following inverters **WILL NOT** be re-certified according to the new standard:

- | | | | |
|---------------|---------------|-----------------|-------------------|
| – SB1300TL-10 | – SB2000HF-30 | – STP10000TL-10 | – STP17000TL-10 |
| – SB1600TL-10 | – SB2500HF-30 | – STP12000TL-10 | – STP15000TLEE-10 |
| – SB2100TL | – SB3000HF-30 | – STP15000TL-10 | – STP20000TLEE-10 |

The reason these inverter are not being able to comply is related either to the lack of grid support capability, or an inability to comply with DRM.

SMA will be releasing more information throughout 2016, updating on the compliance of its various inverter models to this new standard to allow SMA distributors and customers to best plan for their businesses and operations.

5. WHAT DO I DO WITH NON-COMPLIANT STOCK?

WHAT SHOULD I DO WITH NON-COMPLIANT STOCK?

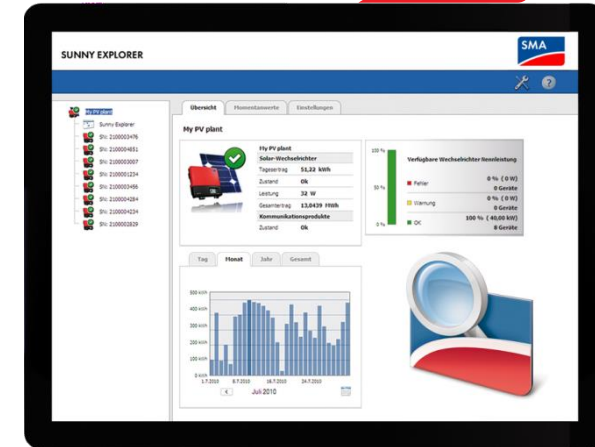


- > Install before the date which the standard comes into effect
(at the moment 9th October 2016)

WHAT SHOULD I DO WITH NON-COMPLIANT STOCK?



- > Install before the date which the standard comes into effect (at the moment 9th October 2016)
- > If possible, update firmware before or during installation



6.10 Updating Devices

⚠ QUALIFIED PERSON

Requirement:

- You must be logged into Sunny Explorer in the user group **Installer**.

Procedure:

1. Download the update file in the download area of www.SMA-Solar.com and save it to your computer.
 2. In the menu bar of Sunny Explorer, select **Tools > Device update**.
 - The dialog box **Device update** opens.
 3. Select the button [...] in the field **Update file**.
 - The file selection window opens.
 4. Select update file.
 5. Select **[Open]**.
 - Sunny Explorer indicates that the update file has been saved successfully and displays information on the update file.
 6. Select **[Next]**.
 - The dialog box **Device update** opens. The update starts.
- i Duration of the update process**
The update can sometimes take several hours if the device to be updated is in night mode.
- The update has been transferred to the devices.

Overview

Accessories

Downloads

LANGUAGE

English (Worldwide) ▾

Show All / Hide All

+ USER MANUAL

+ DATA SHEET

+ PROMOTION MATERIAL

+ OPERATING INSTRUCTIONS

+ INSTALLATION GUIDE

+ SHORT USER MANUAL

FIRMWARE

STP 5000TL/6000TL/7000TL/8000TL/9000TL/10000TL/12000TL-20 Firmware-Update für Sunny Explorer (ab Version 1.07.23.R) oder WebBox mit Bluetooth® Wireless Technology. Bitte unbedingt vorher das beiliegende READ_ME.pdf und die Updateanleitung lesen! // STP 5000TL/6000TL/7000TL/8000TL/9000TL/10000TL/12000TL-20 firmware update for Sunny Explorer (from version 1.07.23.R) or Sunny WebBox with Bluetooth® Wireless Technology. It is mandatory that you read the attached READ_ME.pdf and the update manual beforehand.

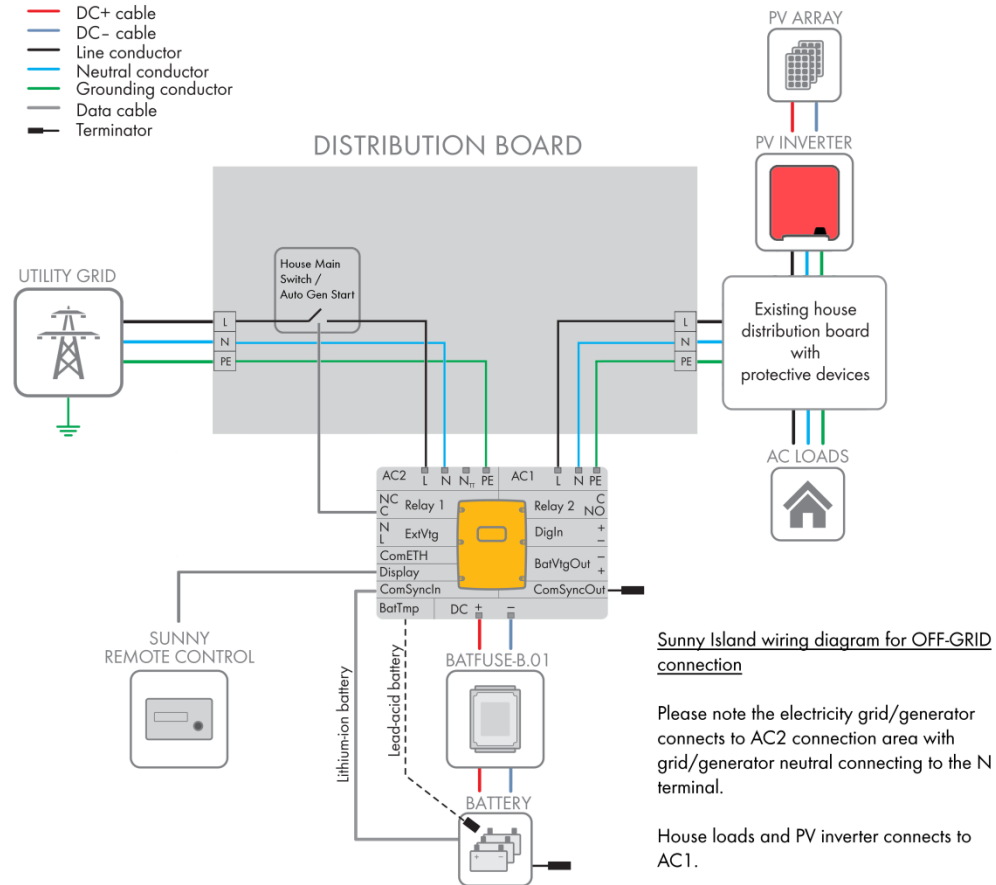


- Type: Firmware
- Language: International
- Number: FW2-54_STP5-12000TL_Sunny_Explorer_or_WebBox_with_BT
- Version: PACK 2.54 (HP 2.50)

WHAT SHOULD I DO WITH NON-COMPLIANT STOCK?



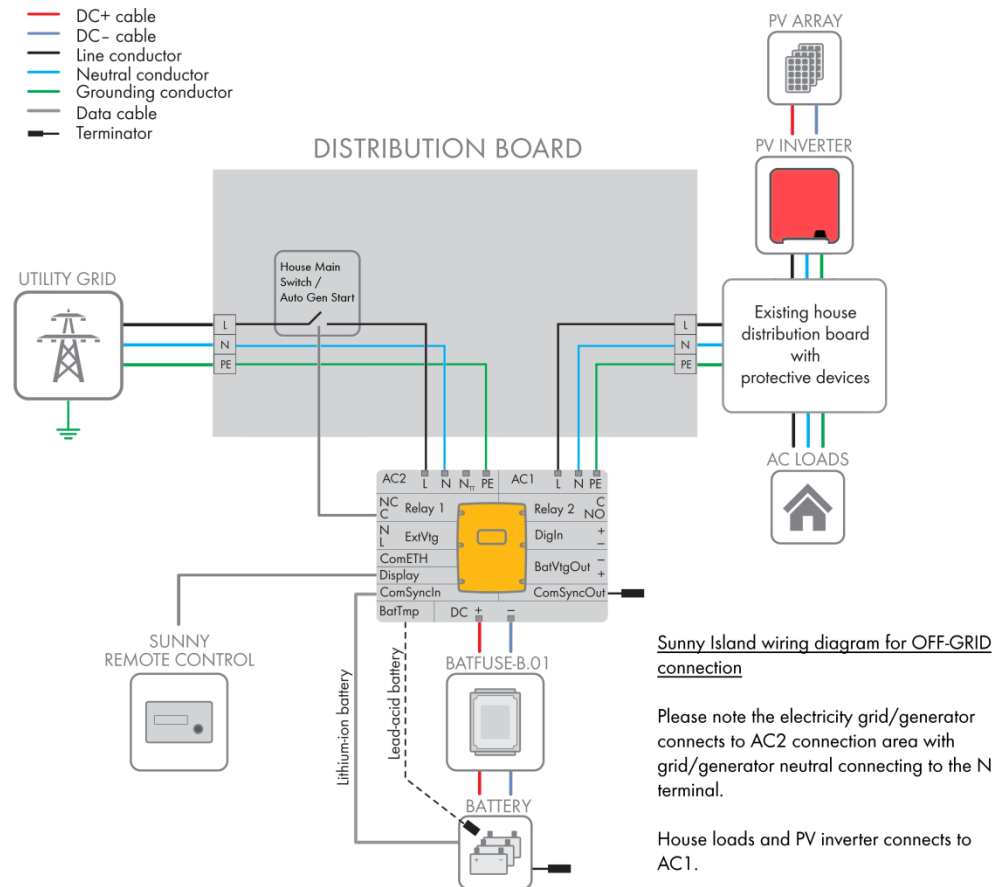
- > Install before the date which the standard comes into effect
(at the moment 9th October 2016)
- > If possible, update firmware before or during installation
- > Install in an Off-Grid or non-AS/NZS4777 application
(i.e outside Australia or New Zealand)



WHAT SHOULD I DO WITH NON-COMPLIANT STOCK?



- > Install before the date which the standard comes into effect (at the moment 9th October 2016)
- > If possible, update firmware before or during installation
- > Install in an Off-Grid or non-AS/NZS4777 application (i.e outside Australia or New Zealand)
- > Sell stock to companies which operate outside Australia
- > Speak to your distributor or inverter manufacturer about what options they offer (e.g. buy back, etc)



- > For SMA inverters which will not be compliant, they should be installed before the changeover date, or used for off-grid/non-grid tied applications