

# FRONIUS SNAPINVERTER COMMISSIONING CHECKLIST

Overview: Commissioning process for the Fronius SnaplNverter range

Quick Guide

© Fronius Australia Pty Ltd., BG

Version 1.0/2017

Fronius reserves all rights, in particular rights of reproduction, distribution and translation.

No part of this work may be reproduced in any way without the written consent of Fronius. It must not be saved, edited, reproduced or distributed using any electrical or electronic system.

You are hereby reminded that the information published in this document, despite exercising the greatest of care in its preparation, is subject to change and that neither the author nor Fronius can accept any legal liability Gender-specific wording refers equally to female and male form.

02/2017 1/11



Introduction	3
Initial checks	3
Initial checks before snapping the inverter on to the wall bracket	3
Checks after snapping the inverter to the wall bracket	4
Check list in order of occurance	5
Commonly occurring issues in the field	6
Error state 482	6
Notice state 509	6
Access codes	7
Access code 78278: Start code	7
Access code 73887: Country setup code	7
Access code 22742: Basic service menu	7
Access code 37767: Error counter	7
Access code 12321: Key code	7
Access code: PROFI Menu	8
Checks for monitoring	8
Checks before commissioning system monitoring	8
Checks after commissioning system monitoring	9
Checks after setting up the Fronius Smart Meter	11



П

П

### INTRODUCTION

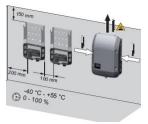
This Quick Guide is designed to provide a general overview and handy tips for commissioning the Fronius SnaplNverter range. We have provided checkboxes to help you monitor your progress.

## **INITIAL CHECKS**

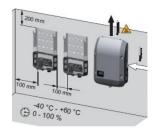
# Initial checks before snapping the inverter on to the wall bracket

#### Step 1

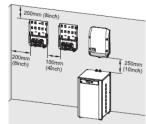
Does the installation adhere to the minimum clearance zone as mentioned in the respective installation manual?







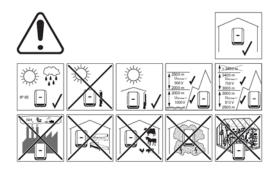
Fronius Symo 10-20, Eco 25-27



Fronius Symo Hybrid 3-5. Note: For battery installation please refer to the Fronius Solar Battery installation manual

#### Step 2

Ensure the inverter is installed as per Fronius' recommendations



#### Step 3

Check polarity of the string/s connected to the DC input. This is to ensure no reverse polarity issues arise during the commissioning process

#### Step 4

Measure the DC voltage of the PV string/s. Ensure it matches the inverter's minimum input voltage before snapping the inverter onto the wall bracket

#### Step 5

Measure the AC voltage at the inverter. Ensure it is within permissible limits (230V +10% or -6%)

#### Step 6

Using a mega Ohm meter, measure the insulation resistance for each individual string/s under the conditions below:

/ From DC positive to the earth

/ From DC negative to the earth

02/2017 3/11



# Checks after snapping the inverter to the wall bracket

# **Step 1a – For smaller Fronius inverters**

If using Fronius Galvo, Primo, Symo 3-8 or Symo Hybrid 3-5, ensure the inverter is firmly fixed to the wall bracket by tightening the two screws with the recommended torque of 1.5-2.5 Nm



## **Step 1b – For larger Fronius inverters**

If using Fronius Symo 10-20 or Eco 25-27, ensure the inverter is firmly fixed to the wall bracket by tightening the two screws with the recommended torque of 1.5-2.5 Nm



02/2017 4/11



## Check list in order of occurance

Proceed with this checklist once the Fronius inverter's AC and DC power have been turned ON

## Step 1

Select your language



# Step 2

Select Country setup



## Step 3

Set the correct date



# Step 4

Set the correct time



### Step 5

If required, switch the MPPT2 ON or OFF. If the MPPT2 is not being used then it can be switched OFF.

/ Note: Not applicable for Fronius Galvo and Fronius Eco



02/2017 5/11



# **COMMONLY OCCURRING ISSUES IN THE FIELD**

## Error state 482

**Error state 482**: occurs when backspace (the inverter's third button from the left) is pressed before finishing the entire commissioning process

Solution: Press enter (the inverter's fourth button from the left)



# **Notice state 509**

**Notice state 509:** refers to 'no feed-in for 24 hours'. This occurs when the inverter is turned on during commissioning.

**Solution:** Check if the inverter's inbuilt DC switch is turned **ON.** Then press enter (the inverter's fourth button from the left).



02/2017 6/11



# **ACCESS CODES**

Access codes are required to change certain settings or parameters on Fronius inverters.

/ Note: when entering the Access code, press the inverter's third button from the left five times.



#### Access code 78278: Start code

The **start** code can be used to select or change the following:

- / Language
- / Country setup
- / Time
- / Date



## Access code 73887: Country setup code

The **country setup** loads grid parameters according to country specific norms.

/ For Australia, select AU



# Access code 22742: Basic service menu

The **Basic service menu** can be used to change the following:

/ MPPT voltage values

/ Turn MPPT s ON or OFF

/ Turn Dynamic Peak Manager ON or OFF



## Access code 37767: Error counter

The **Error counter** can be used to check the state codes the inverter has experienced by date and frequency



# Access code 12321: Key code

The **key code** can be used to **lock the setup menu** of the inverter to prevent unauthorised access.





# **Access code: PROFI Menu**

The **PROFI Menu** can be used to change the Fronius inverter's advanced grid parameters. Grid parameter settings are most frequently used in the following instances:

- / Increase or decrease the U long time limit in order to fix State code 102
- / Increase or decrease the Grid Voltage Dependent Power Reduction (GVDPR) limit in order to fix State code 567
- / Change reactive power settings
- / Note: any changes to the grid parameters must be approved by the respective DNSP.
- / Note: The PROFI Menu can be provided upon request by Fronius Technical Support.

## **CHECKS FOR MONITORING**

# Checks before commissioning system monitoring

#### Check 1

If the Solar.Net loop is not correctly terminated, the Fronius inverter's Wi-Fi access points will not be accessible.

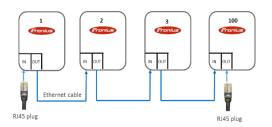
To fix, check the RJ-45 plugs are connected to the inverter's Solar.Net IN and OUT ports.

/ Note: Light versions of Fronius inverters do not come with termination plugs.



#### Check 2

If daisy chaining multiple Fronius inverters, ensure the first inverter's Solar.Net **IN** port and the last inverter's Solar.Net **OUT** port are terminated using RJ45 plugs



02/2017 8/11



# Checks after commissioning system monitoring

# Check 1a – for smaller Fronius inverters

If using Fronius Galvo, Primo, Symo 3-8 or Symo Hybrid 3-5, ensure the DATCOM cover screws are tightened with the recommended torque



# Check 1b – for larger Fronius inverters

If using Fronius Symo 10-20 or Eco 25-27, ensure the DATCOM cover screws are tightened with the recommended torque



02/2017 9/11



П

#### Check 2

Take note of the Fronius inverter's **serial number** which can be found on the bottom nameplate. The serial number is needed to register for Fronius 5 Plus 5 year warranty on Fronius Solar.web.



#### Serial number:

#### Check 3

Take note of the Fronius inverter's **Datalogger ID**. The Datalogger ID can be found by following the steps below:

- / Enter the inverter's **Setup** menu
- / Select the inverter's Wi-Fi Access Point



#### **Datalogger ID:**

#### Check 4a - IP address via Wi-Fi access point

To access this IP via the inverter's Wi-Fi access point, the DIP switch on the Fronius Datamanager card must be in **position B** 

192.168.250.181

#### Check 4b - IP address via LAN

To access this IP via LAN, the DIP switch on the Fronius Datamanager card must be in position A

169.254.0.180

02/2017 10/11

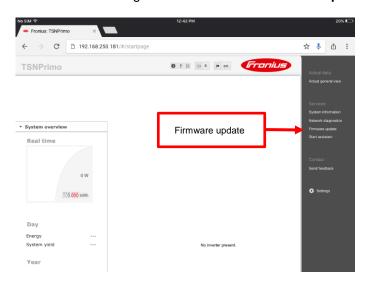


# CHECKS AFTER SETTING UP THE FRONIUS SMART METER

#### Check 1

If the Fronius Datamanager card does not detect the Fronius Smart Meter, the Datamanager software version is likely out of date.

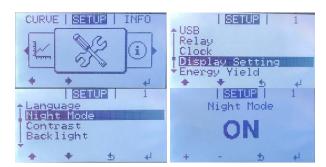
To update the Datamanager software version, use the relevant IP address from Check 4a or Check 4b to enter the web interface of the Datamanager card and click on **Firmware update**.



#### Check 2

To monitor consumption in Fronius Solar.web during the night, **Night mode** must be activated. To activate Night mode, follow the steps below:

- / Enter the inverter's **Setup** menu
- / Enter Display settings
- / Enter Night mode
- / Activate Night mode by selecting ON
- / Note: not applicable for the Fronius Symo Hybrid



**Document end** 

02/2017 11/11