

INSTALLATION GUIDE

Brand: SMA
Type: Solar On Grid String Inverter
Models: SMA STP 15000tI / 20000tI / 25000tI

CONNECTION DIAGRAM

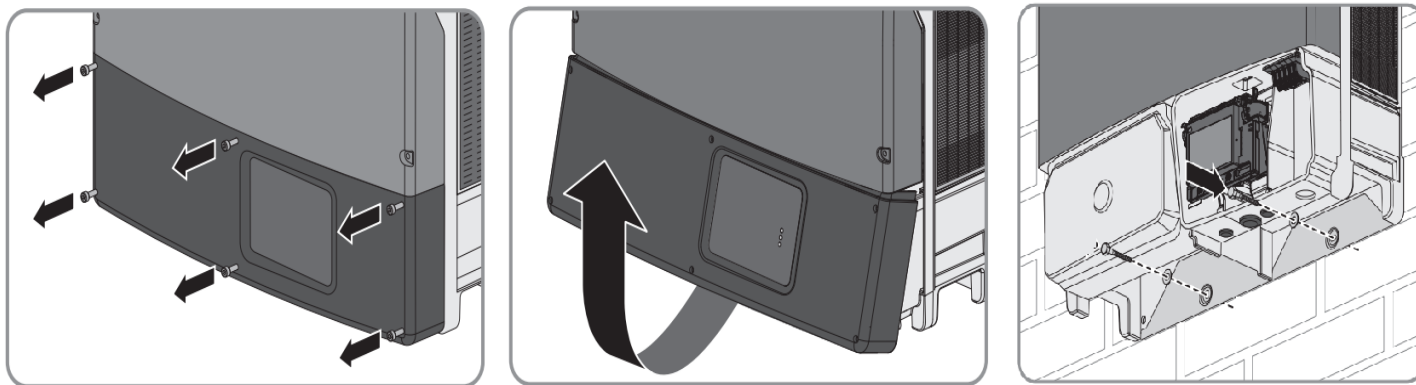
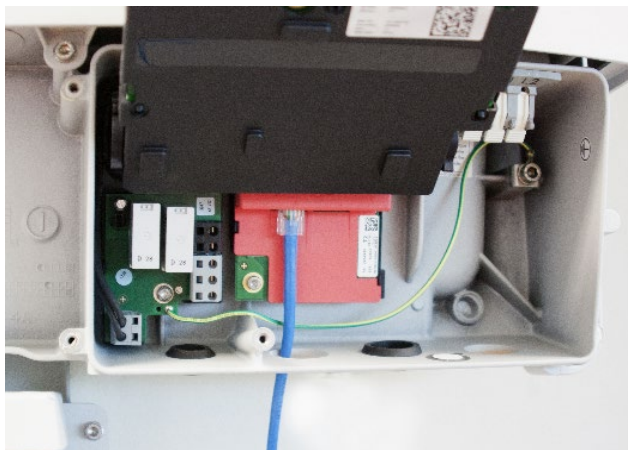


Figure S1 –SMA String Inverter Communication board

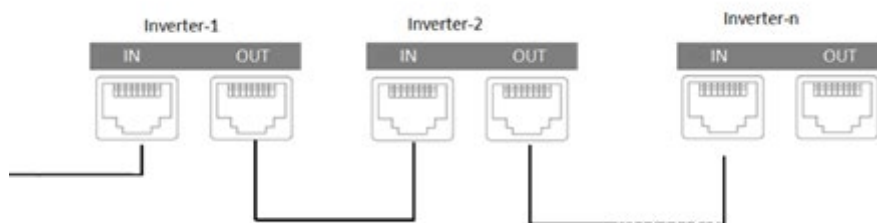
Steps for Connection

- 1) Loosen the screws of the lower cover.
- 2) Locate the communication card as shown in Figure S1
- 3) Guide the network cable (LAN) through the cable glands and complete connection



Multiple Inverter Connections

If multiple SMA STP Inv are used, connect all Inv in daisy chain mode over the communication cable. Set different ip address for each inverter via SMA Utility. The maximum length of a network segment is 100 m The maximum length of a network segment is 100 m



DEFAULT IP OF DATA LOGGER

Default IP- 192.168.0.55 (for accessing on computer browser)

CONFIGURATION AT THE INVERTER END

Requirements:

- The inverter must be in operation.
- There must be a router with Internet connection in the local network of the system.
- Data Logger and all inverters to be connected in same network (= same ip range)
- Laptop with a LAN port connected to same router as of inverter and Data logger.
- One Working WiFi connection for providing remote access of Laptop to SMA or Data logger Support team.
- Download Sunny Explorer software from the following address: <http://www.sma.de/en/products/monitoring-control/sunny-explorer.html#Downloads-9323> When the download is complete, install Sunny Explorer software on a laptop that can be taken to site

SETTING THE INVERTER IP

The inverter IP is used to identify the inverter in a TCP connection

- Set a different inverter IP for each inverter in the PV plant. Otherwise, the inverters cannot be correctly identified.

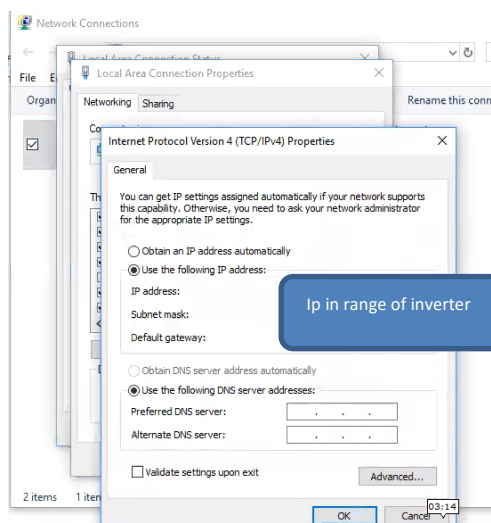
Procedure:

Open up LAN connection properties of your Laptop and edit settings as shown in picture

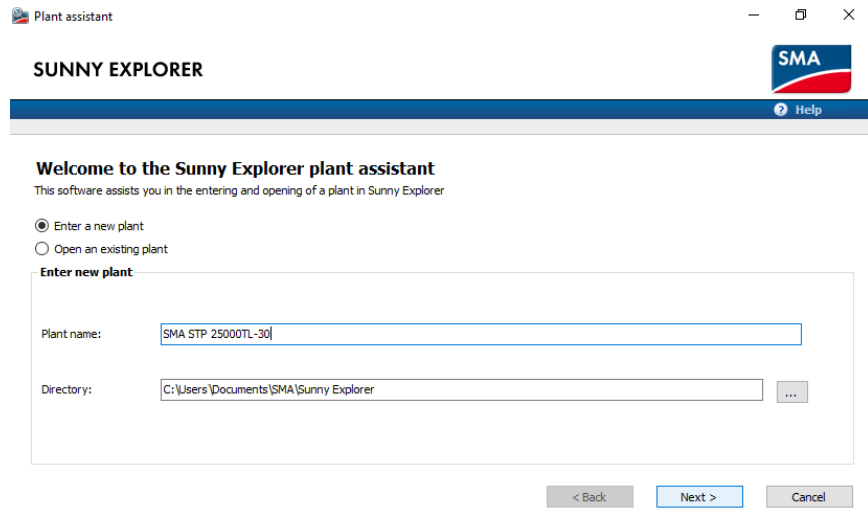
IP: In range of inverter

DNS Server Ip and Gateway Ip are to be set as per inverter ip.

Subnet Mask- 255.255.255.0



Open Sunny Explorer and set-up new power plant



Plant assistant

SUNNY EXPLORER SMA Help

Welcome to the Sunny Explorer plant assistant
This software assists you in the entering and opening of a plant in Sunny Explorer

Enter a new plant
 Open an existing plant

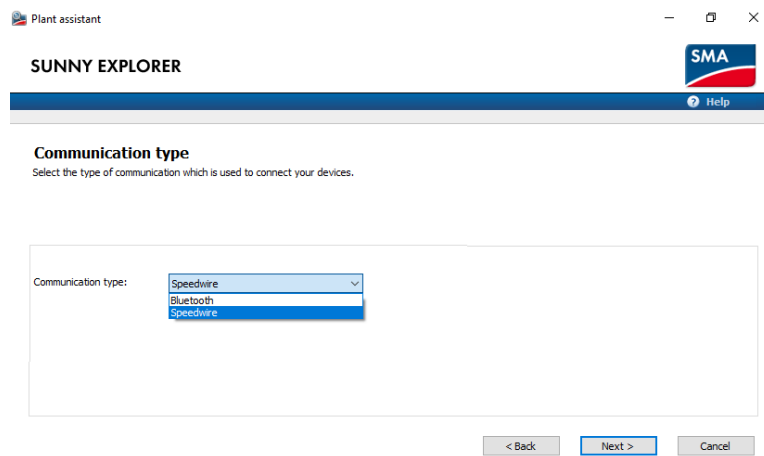
Enter new plant

Plant name: SMA STP 25000TL-30

Directory: C:\Users\Documents\SMA\Sunny Explorer

< Back Next > Cancel

Select Speedwire option in Communication Type



Plant assistant

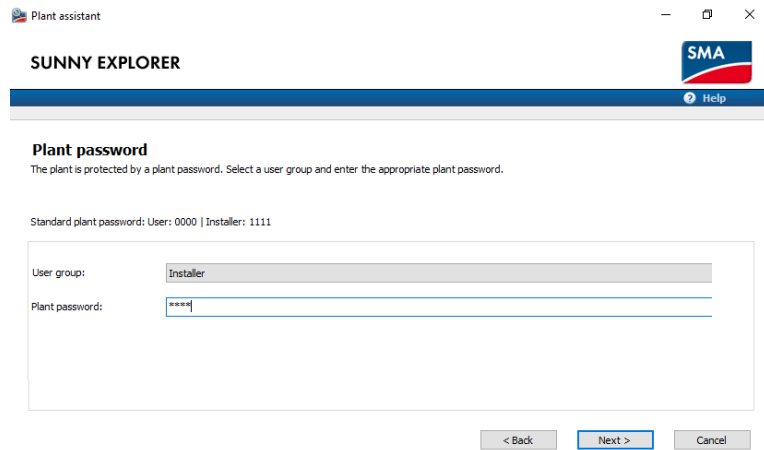
SUNNY EXPLORER SMA Help

Communication type
Select the type of communication which is used to connect your devices.

Communication type: Speedwire
Bluetooth
Speedwire

< Back Next > Cancel

Login as Installer using password 1111



Plant assistant

SUNNY EXPLORER SMA Help

Plant password
The plant is protected by a plant password. Select a user group and enter the appropriate plant password.

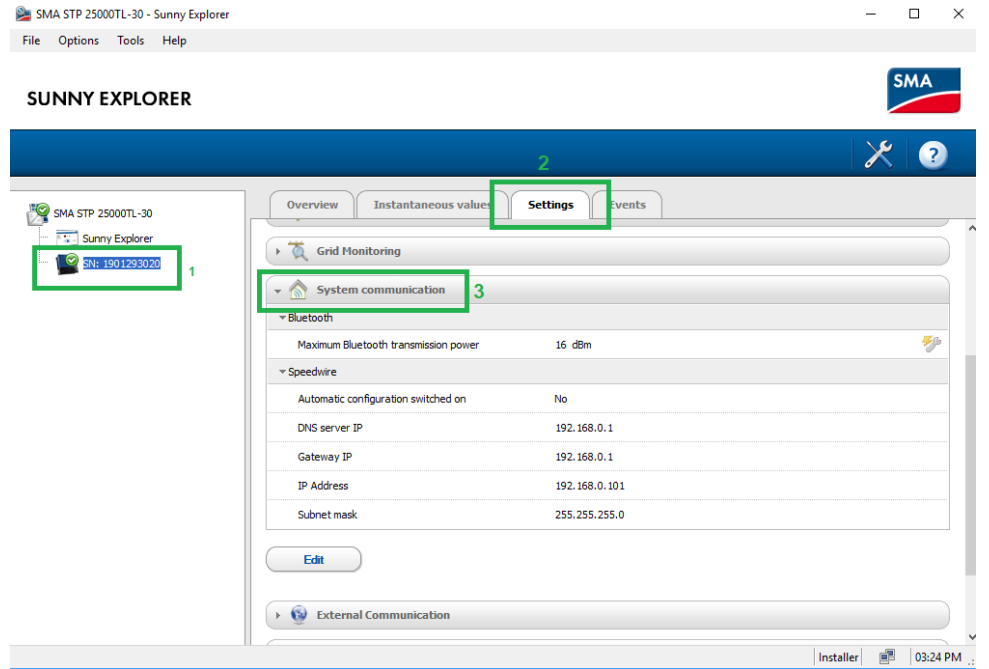
Standard plant password: User: 0000 | Installer: 1111

User group: Installer

Plant password: ****

< Back Next > Cancel

Click on Inverter Serial no. (1) and then go to settings tab (2). In settings tab click on System configuration (3)



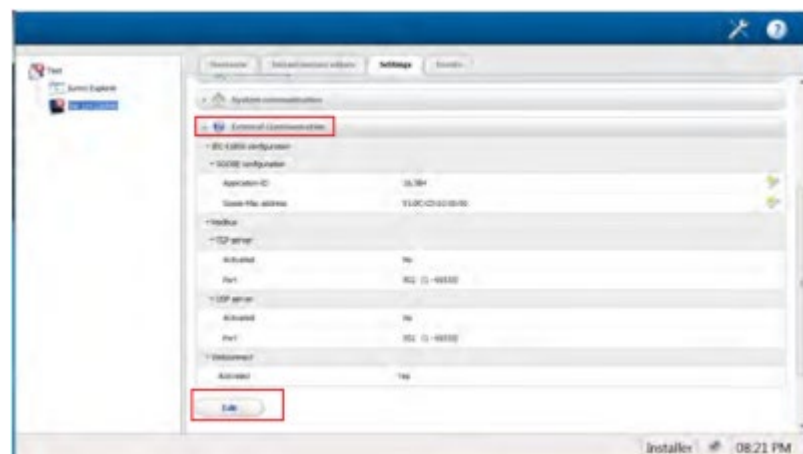
Now we can edit the IP settings as required.

Required Settings

- 1) Automatic Configuration : No
- 2) DNS Server Ip 192.168.0.1
- 3) Gateway Ip 192.168.0.1
- 4) IP Address- Unique ip address in network (mentioned on Ip65 box supplied with Datalogger)
- 5) Subnet Mask- 255.255.255.0

In the Settings tab, go to External Communications, click Edit

- 1) Under Modbus->TCP server, change Activated to Yes
- 2) Under Modbus->TCP server, make sure Port is 502
- 3) Click Save



Repeat above steps for all inverters

Datalogger and inverters should be in same Network group.

TRACKSO WORKING

1. Insure correct connections as detailed in the installation guide.
2. Connect the internet
3. Switch on the power to the data logger. (Minimum 12V/2A input is required
4. Then Login to www.trackso.in with your Username/Password.
5. Click on 'Units' from the menu bar. You will be able to view your installed unit in the table as shown below.
6. Check if the **Status** becomes **Receiving** for the relevant Unit.

Unit Name	Site	Unit Key	Category	Data Status	Last Event Timestamp	Device Key	Device Phone	Actions
1-Schnieder		██████cc	Inverter	Receiving	2018-07-16 02:24:04	██████31034235444/1	██████9	View Data
2-Schneider		██████7799	Inverter	Receiving	2018-07-16 02:24:05	██████034235444/2	██████	View Data
██████████	School	██████5	Inverter	Not Receiving			██████B	View Data
██████████	chool	██████5	Inverter	Not Receiving				View Data

7. If the state remains **Not receiving** for more than 10 minutes, click on your email ID at the top right of the screen and click on 'Event Ingestion Logs' in the dropdown.

Timestamp	Message	code
2018-07-16 02:42:16	Invalid request. Event should contain data. { "events": [{ "timestamp": 1531689133, "unit_key": "84f8b2c", "data": { } }] }	not_acceptable
2018-07-16 02:41:13	Invalid request. Event should contain data. { "events": [{ "timestamp": 1531689070, "unit_key": "84f8b2c", "data": { } }] }	not_acceptable
2018-07-16 02:40:10	Invalid request. Event should contain data. { "events": [{ "timestamp": 1531689007, "unit_key": "84f8b2c", "data": { } }] }	not_acceptable

8. Check if there is some log generated at the time of installation of the TrackSo IoT Gateway device.
 - a. If **NO**, please restart the device and try the same flow again.
 - b. If **YES**, email us at support@trackso.in to consult the same.