

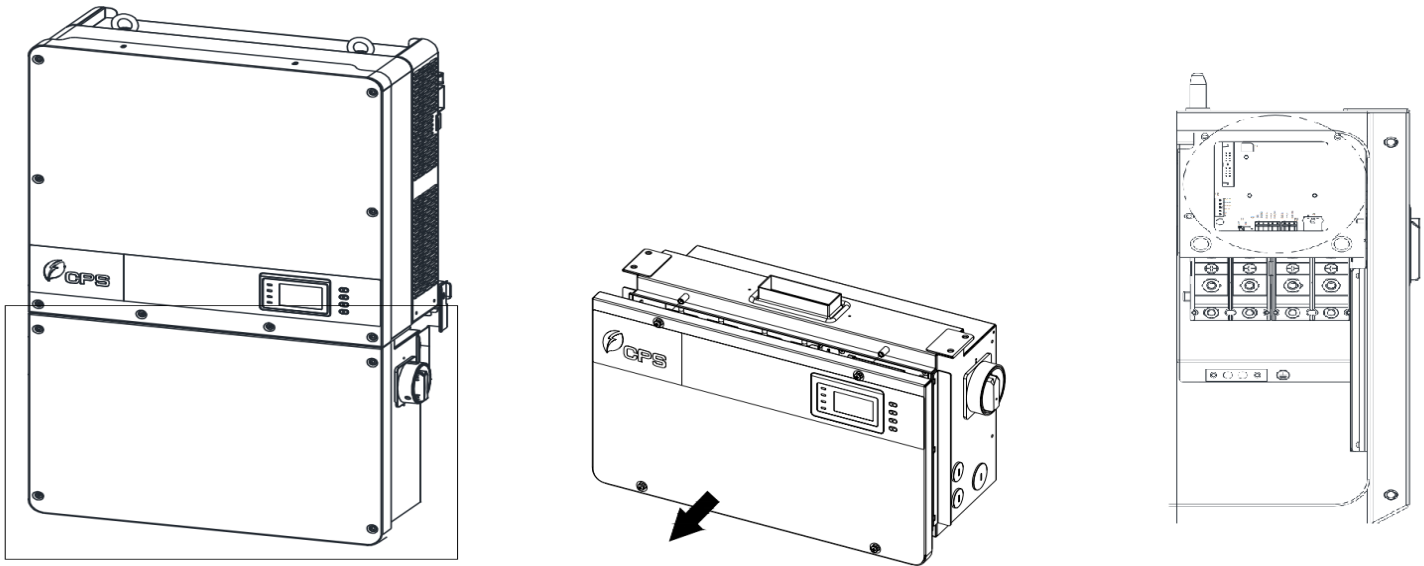
## TRACKSO INSTALLATION GUIDE FOR CHINT INVERTERS

**Brand:** CHINT

**Type:** Solar On Grid String Inverter

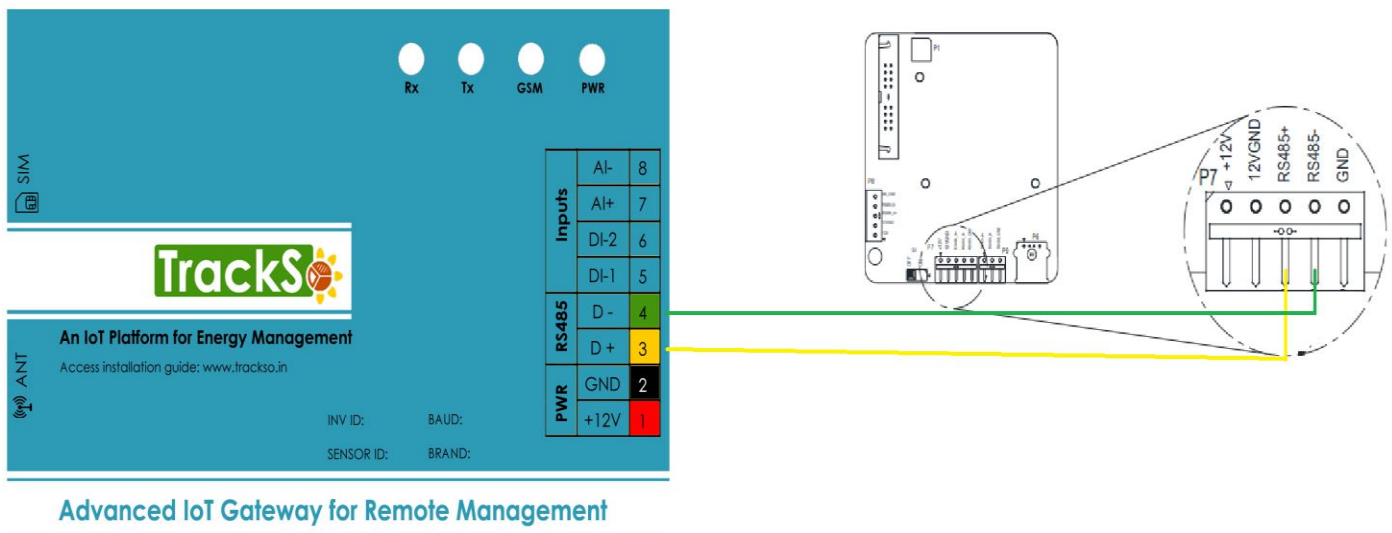
**Models:** CPS SCA30KTL-T/EU, CPS 36KW, CPS SCA50/60KTL-DO, CPS SCH100/125KTL-DO ,CPS SCH166/200KTL-DO

### CONNECTION DIAGRAM



*Figure C1 –Locating Communication card of the Chint String Inverter for Connections*

1. Please unscrew the Lower part of the Inverter as shown in Figure C1.
2. Locate communication card of the inverter
3. Please make the connections from the Terminal Block of Chint RS485 chip to TrackSo IoT Gateway as mentioned in the Table – CT1 and Figure C2.
4. The RS485 cables should be kept separate from the AC cable and the DC cables to avoid interferences.



*Figure C2 –Connection with Chint Communication Card*

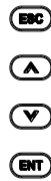
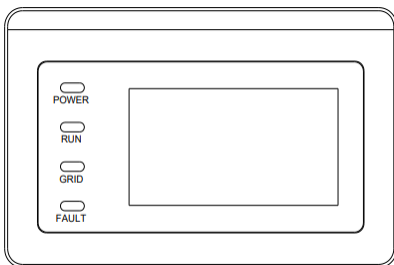
Chint RS485 Card pin no. & Assignment		TrackSo Pin No. & Assignment	
1	+ 12V		
2	GND		
3	RS-485A+	3	RS485+
4	RS-485B-	4	RS485-
5	GND		
6	RS-485A+		Used for Multi Inverter Connection
7	RS-485B-		
8	GND		

Table CT1 – Chint RS485 chip connections with TrackSo IoT Gateway

## DEFAULT CONFIGURATION IN TRACKSO IOT GATEWAY

Inverter ID: **1, 2, 3, 4** .... Continuous numbering starting with 1, (**Range:** 1 to 247)  
 Baud Rate: **9600 (Default)** (Values: 9600, 19200, 38400)  
 Data Bits: 8 , Stop Bit: 1 , Parity: None

## CONFIGURATION AT THE INVERTER END



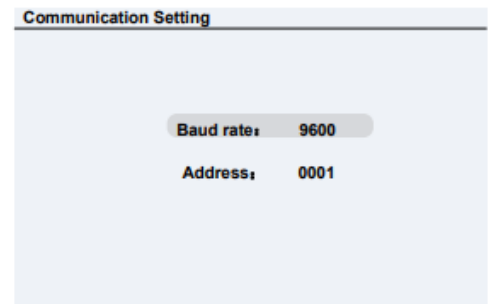
Key	Description
	<b>Escape key</b> -Back/end/mute
	<b>Enter key</b> -Confirm entering the menu/confirm set value/Switch to parameter setting mode
	<b>Up</b> -Page up in selection menu/+1 when setting parameters Press more than 1 second to go to the last number when setting the parameters. eg: from <u>2</u> 008 to <u>2</u> 008
	<b>Down</b> -Page down in selection menu/-1 when setting parameters Press more than 1 second to go to the next 71 number when setting the parameters. eg: from <u>2</u> 008 to <u>2</u> 008

## SETTING THE BAUD RATE

If you connect multiple inverters via RS485, set the same baud rate on each inverter.

From the previous menu, press ESC to return to the System Parameters menu. Scroll to Communication Setting and press ENT. Select Baud rate and press ENT.

The default setting is 9600. Depending on the data acquisition system being used, the baud rate may need to be increased or decreased. Scroll up/down to select other speeds and press ENT



← Set the Inverter baud rate to 9600

## SETTING THE INVERTER ID

The inverter ID is used to identify the inverter in a RS485 connection

← Set correct Inverter Ids

- Set a different inverter ID for each inverter in the PV plant. Otherwise, the inverters cannot be correctly identified.
- On the last inverter in the RS485 connection, switch on the RS485 termination resistor.

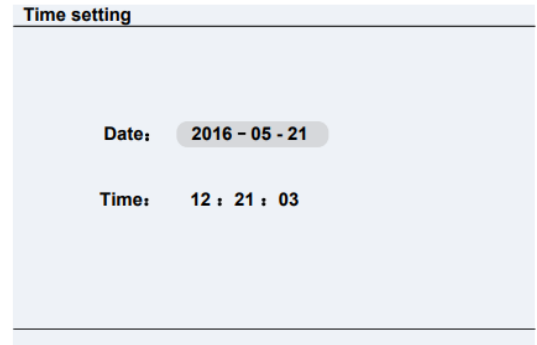
After completing Baud Rate setting, Select Address and press ENT. This designates the inverter address. Each inverter within the Modbus network must have a unique address. Scroll up/down to choose an address for the inverter and press ENT. Addresses can be assigned from 1-128

## SET DATE & TIME OF INVERTER

For a precise calculation of the statistics in the inverter itself and in a monitoring system, date and time have to be correct.

From the previous menu, press ESC to return to the System Parameters menu. Select Time and press ENT. Scroll up/down to select the numerical value, then press ENT to go to next option. e.g.: Year to Month, press ESC to go to last option. e.g.: Month to Year. Finally Press the ENT key to confirm the setting. (Press ^ more than 1 second to go to last position of the number when setting the parameters. e.g:2008 to 2008.)

Press √ more than 1 second to go to the next position of the number when setting the parameters. e.g:2008 to 2008. )

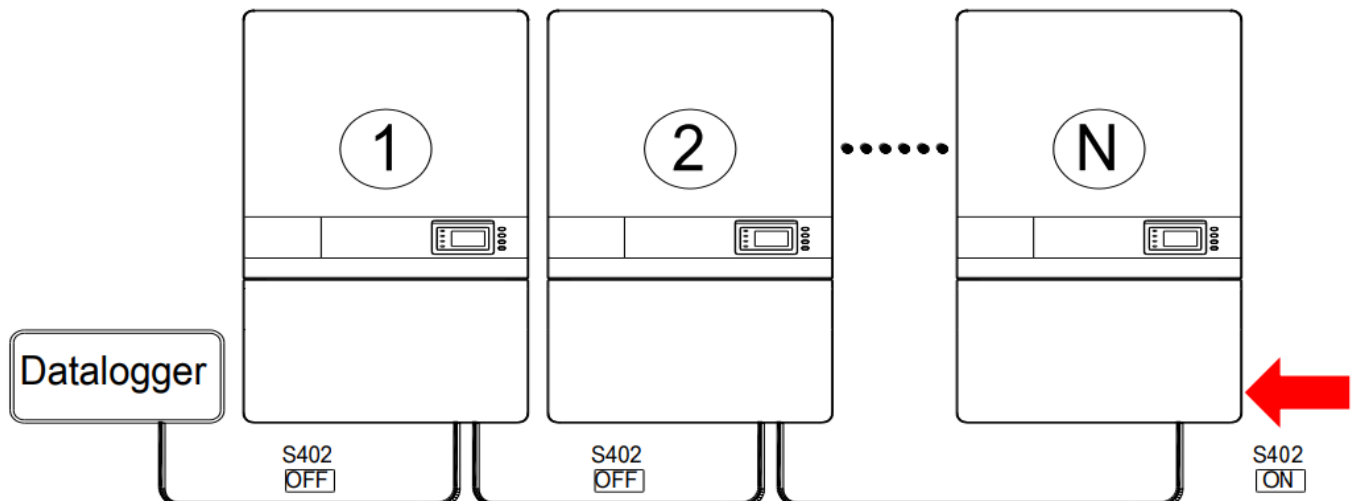


← Set the Correct Date & Time

## Communication Card Settings

### Multiple Inverters

If there are multiple inverters in the RS485 networking, the selector switch S402 of the last inverter in the daisy chain should be in ON position, to have the 120ohm terminal resistor enabled while keeping the selector switch S402 of other inverters in OFF position to disable the terminal resistor



The above details are mentioned in the [Installation & Operation Manual](#) for Chint Inverters.

## TRACKSO WORKING

1. Insure correct connections as detailed in the installation guide.
2. Insert the SIM card.

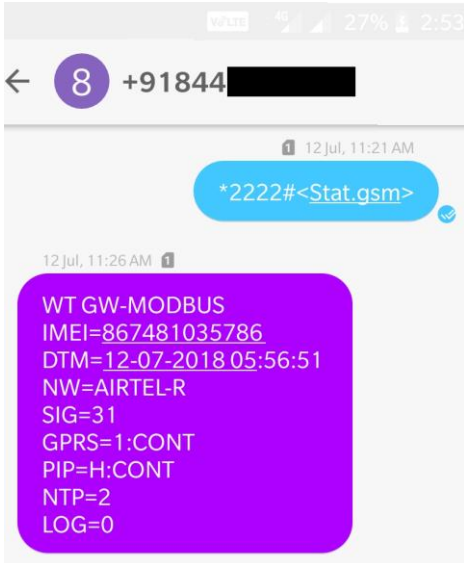


3. Switch on the power to the TrackSo device. (Minimum 12V/1A input is required)
4. Power LED (Red) of TrackSo IoT gateway glows and stays ON.

**NOTE:** TrackSo IoT Gateway will only be able to send data if the GPRS network is available at the installed location.

LED	NAME	DESCRIPTION														
GREEN	POWER	Light when Power on the device														
RED	GSM	<table border="1"> <thead> <tr> <th>LED Status</th> <th>Connection State</th> </tr> </thead> <tbody> <tr> <td>Flashing (ON for 100ms and OFF for 100ms)</td> <td>SIM Card not found</td> </tr> <tr> <td>Flashing (ON for 500ms and OFF for 500ms)</td> <td>Searching for GSM Network</td> </tr> <tr> <td>Flashing (ON for 0.1s and OFF for 2.9s) Once at every 3sec</td> <td>GSM Network Registered</td> </tr> <tr> <td>Flashing twice at every 3sec</td> <td>GPRS IP Connected</td> </tr> <tr> <td>Flashing 5times</td> <td>GPRS IP Sending data</td> </tr> <tr> <td>LED OFF</td> <td>GSM Fault</td> </tr> </tbody> </table>	LED Status	Connection State	Flashing (ON for 100ms and OFF for 100ms)	SIM Card not found	Flashing (ON for 500ms and OFF for 500ms)	Searching for GSM Network	Flashing (ON for 0.1s and OFF for 2.9s) Once at every 3sec	GSM Network Registered	Flashing twice at every 3sec	GPRS IP Connected	Flashing 5times	GPRS IP Sending data	LED OFF	GSM Fault
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		Flashing 5times	GPRS IP Sending data													
LED OFF	GSM Fault															
GREEN	COM TX	Blink on data transmission in RS485 port														
YELLOW	COM RX	Blink on data reception in RS485 port														

5. To check the exact network status send the following message to mobile number of the device



SMS Command= *2222#<Stat.gsm>	
IMEI	IMEI No. of the data logger (Device Key)
NW	Network
SIGN	Signal Strength out of 31
GPRS	CONT- connected , NC- not connected
PIP	Connected to TrackSo Server or not CONT- connected, NC- not connected
LOG	no. of data points stored in devices incase of no interet

6. If the GSM light starts flashing 5 times then Login to [www.trackso.in](http://www.trackso.in) with your Username/Password.
7. Click on 'Units' from the menu bar. You will be able to view your installed unit in the table as shown below.
8. Check if the **Status** becomes **Receiving** for the relevant Unit.

TrackSo Mashups Sites Units Rules Notifications

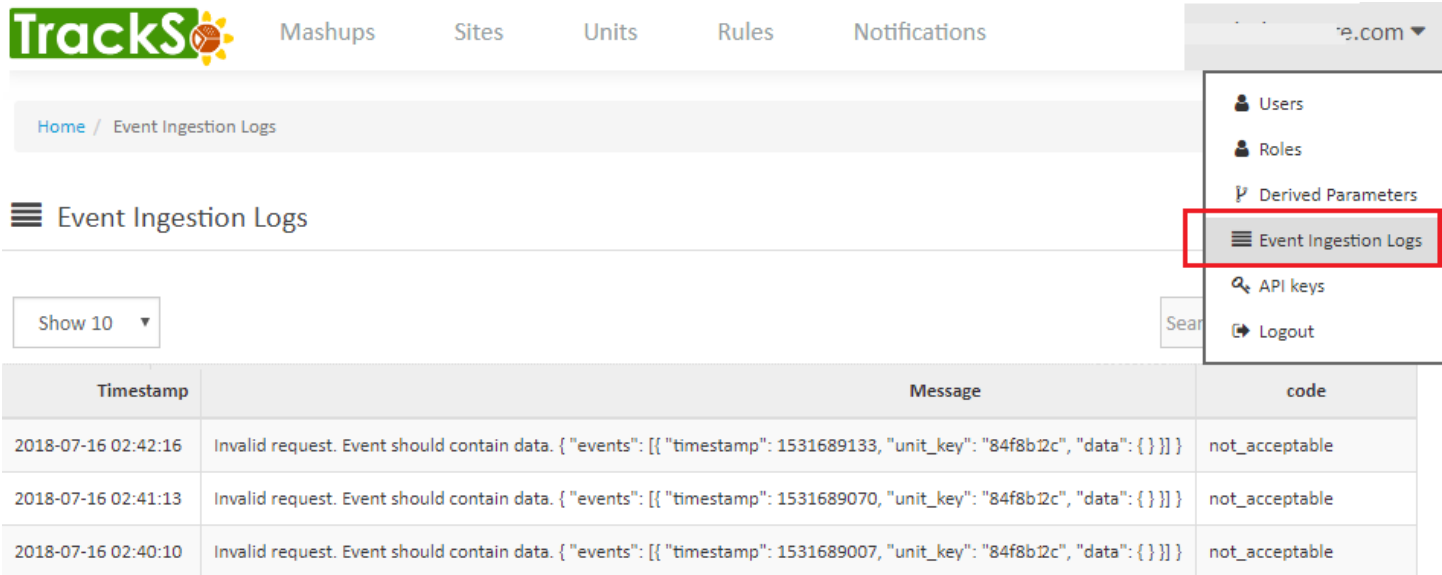
Home / Units

Units Add Unit

Show 10 Search for...

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-Schnieder		7799	Inverter	Receiving	2018-07-16 02:24:05	034235444/2	9	View Data
	School	5	Inverter	Not Receiving			8	View Data
	hool	5	Inverter	Not Receiving				View Data

9. If the state remains **Not receiveing** 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.



The screenshot shows the TrackSo dashboard with the following elements:

- Header: TrackSo logo, Mashups, Sites, Units, Rules, Notifications, and a user profile dropdown.
- Breadcrumbs: Home / Event Ingestion Logs
- Section Header: Event Ingestion Logs
- Controls: A 'Show 10' dropdown and a search box.
- Table: A table with 3 columns: Timestamp, Message, and code. It contains 3 rows of log entries.
- User Dropdown: A menu with options: Users, Roles, Derived Parameters, **Event Ingestion Logs** (highlighted), API keys, and Logout.

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

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