

TRACKSO INSTALLATION GUIDE FOR SECURE METER

Brand: Secure
Type: Multi-line Digital Display Panel Meter
Models: Elite 440

CONNECTION DIAGRAM

On the rear panel, Secure Elite 440 has an RS-485 communication socket as shown in the following figure.

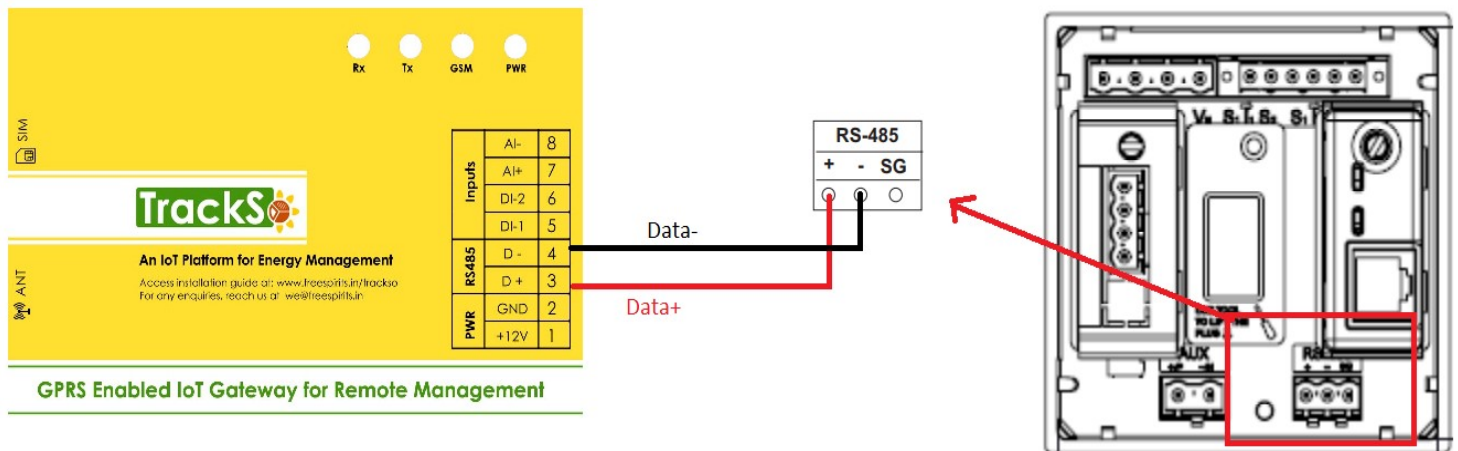


Figure S1 – Rear view of Secure Elite 440

1. Please unscrew the RS485 terminal as shown in *Figure S1*.
2. Connect the cables to the RS485 bus terminal blocks.
3. Please make the connections from Terminal Block chip to TrackSo IoT Gateway as mentioned in the Table – *ST1*.

Secure Pin No. & Assignment		TrackSo Pin No. & Assignment	
1	A	3	D+
2	B	4	D-
3	SG	-	-

Table ST1 – Secure RS485 chip connections with TrackSo IoT Gateway

DEFAULT CONFIGURATION IN TRACKSO IOT GATEWAY

Inverter ID: **1 (Range: 1 to 247)**
 Baud Rate: **9600 (Default) (Values: 9600, 19200, 38400)**
 Data Bits: 8
 Stop Bit: 1
 Parity: N/A (None)

CONFIGURATION AT THE METER END

The Setup Mode can be used to configure the meter with the help of push buttons: The Setup Mode is password protected which can be accessed only by users authorized to change the configurations


Password Entry

The following steps will guide you to access the Setup Menu:






From the default display mode, simply press  button once to access the following Setup Mode page.




In the above display page, when the selection bar ' -> ' is on the 'Set Up' option, press  button to confirm the selection of Setup Menu. This will give access to the following password entry prompt screen:



At the password prompt enter the 4-digit password (default password is '1234') using  and  buttons. After completing the entry, press  button to confirm. Correct password gives access to the 1st page of configuration mode, see figure (i). An incorrect password will display 'Incorrect' message as shown in figure (ii).


(i) Display after correct password entry

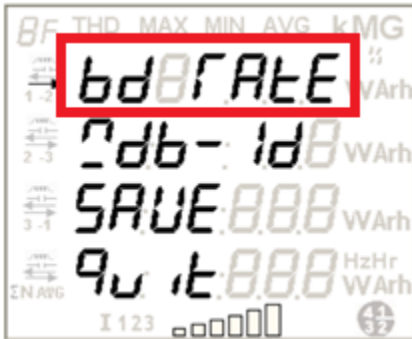


In case you have entered incorrect password, the display will automatically return to the Setup Mode page (as shown in step 1) in 5 seconds or alternatively, press  button to return to Setup Mode immediately


(ii) Display after incorrect password entry

SETTING BAUD RATE


This is the 4th option on the 1st page of Setup Menu. The 'Communication' option can be used to configure the baud rate and the MODBUS identification number. To select it, move selection bar to 'COMM' option and then press . The page shown in the following figure will appear:




Baud Rate

This is the 1st option on 'Communication' page. When the selection arrow is on 'BD RATE', press  to access the next page for entering the baud rate



To exit the 'COMM' page and return to the Setup menu, move the selection bar over the 'Quit' option and then press  button.




With the help of left/right button select the baud rate from the below specified range and then press  to confirm the selection.

Configurable baud rates: 1200, 2400, 4800, 9600, 19200, 38400 bps


SETTING DEVICE ID



MODBUS ID


This is the 2nd option on 'Communication' page. To select it, move the selection arrow on 'MODBUS ID' option and then press . The display page shown on the left appears.



Enter the desired ID from the following permissible range and then press  to confirm and save the selection.

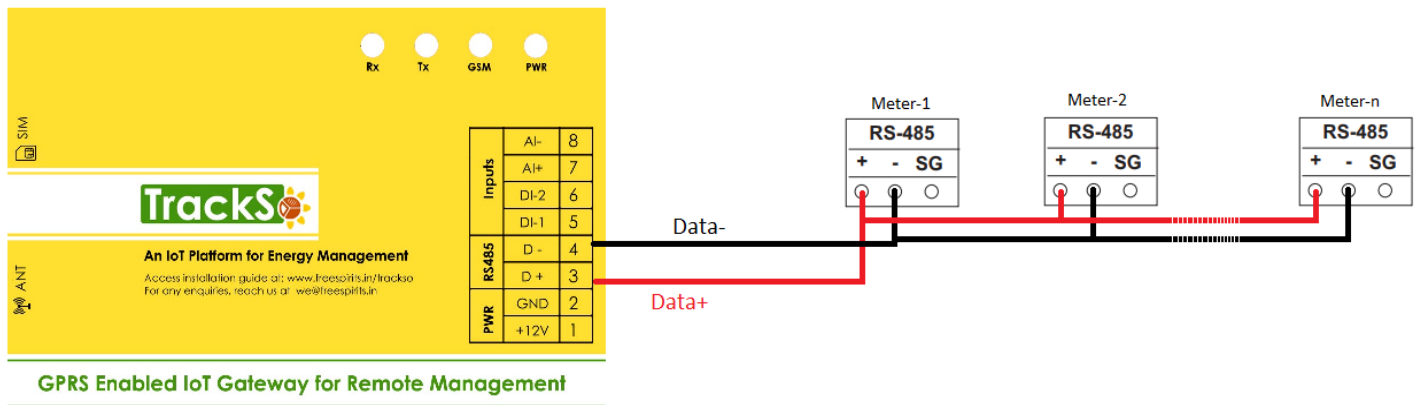
Configurable MODBUS ID range is 1 to 247.



At the end of configuration updates, select the 'Save' option to activate the above new configurations in the meter. To return to the previous page, press  or wait for 5 seconds.

NOTE: The above details are mentioned in the [Installation & Operation Manual](#) for Secure Elite on **Page 29**.

CONNECTING MULTIPLE METER



TRACKSO WORKING

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

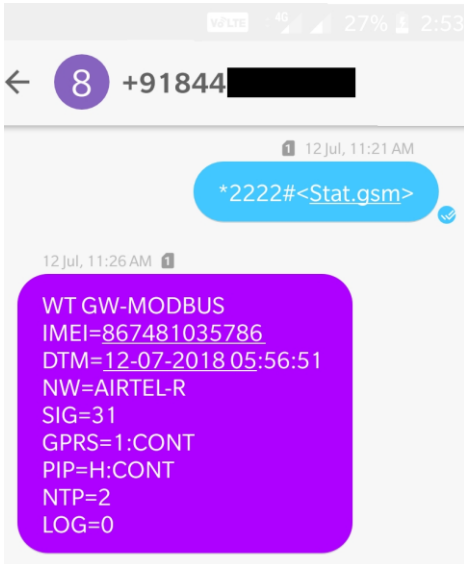


3. Switch on the power to the TrackSo device. (Minimum 12V/1A input is required)
4. Power LED (Red) of TrackSo IoT gateway glows and stays ON.

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
		LED Status	Connection State													
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		Flashing twice at every 3sec	GPRS IP Connected													
		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



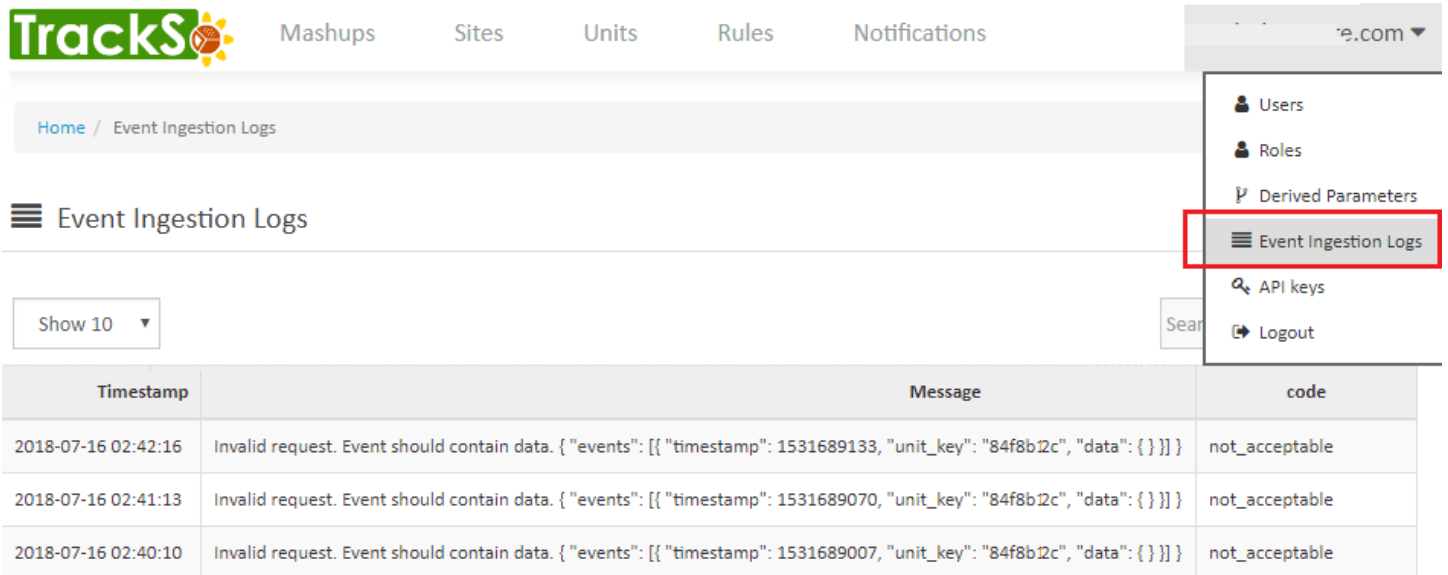
SMS Command= *2222#<Stat.gsm>	
IMEI	IMEI No. of the data logger (Device Key)
NW	Network
SIGN	Signal Strength out of 31
GPRS	CONT- connected , NC- not connected
PIP	Connected to TrackSo Server or not CONT- connected, NC- not connected
LOG	no. of data points stored in devices incase of no interet

6. If the GSM light starts flashing 5 times then Login to www.trackso.in 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.

The screenshot shows the TrackSo web application interface. The navigation bar includes 'Mashups', 'Sites', 'Units', 'Rules', and 'Notifications'. The 'Units' page is active, displaying a table of installed units. The table has the following columns: Unit Name, Site, Unit Key, Category, Data Status, Last Event Timestamp, Device Key, Device Phone, and Actions. The 'Data Status' column shows 'Receiving' for units 1-Schneider and 2-Schneider, and 'Not Receiving' for units at School sites.

Unit Name	Site	Unit Key	Category	Data Status	Last Event Timestamp	Device Key	Device Phone	Actions
1-Schneider		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			8	View Data
	chool	5	Inverter	Not Receiving				View Data

9. 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.



The screenshot shows the TrackSo web interface. At the top, there is a navigation bar with the TrackSo logo and links for Mashups, Sites, Units, Rules, and Notifications. A dropdown menu is open, showing options: Users, Roles, Derived Parameters, **Event Ingestion Logs** (highlighted with a red box), API keys, and Logout. Below the navigation bar, the breadcrumb path is 'Home / Event Ingestion Logs'. The main heading is 'Event Ingestion Logs'. There is a 'Show 10' dropdown and a search box. Below this is a table with three columns: Timestamp, Message, and code.

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 we@freespirits.in to consult the same.

INSTALLATION VIDEO



TrackSo installation video for Secure Meter Monitoring



Scan the QR code to view the video

Video Shortlink- <https://goo.gl/332QKD>

Video Link- https://www.youtube.com/watch?v=J0m_Am805WA