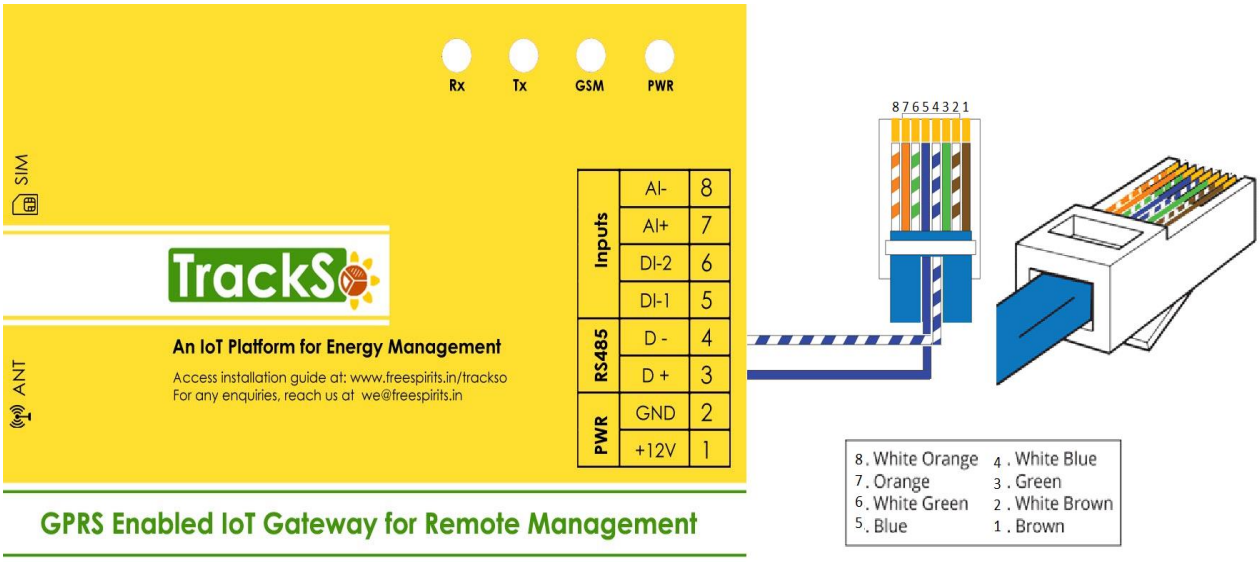
TRACKSO INSTALLATION GUIDE FOR DELTA VFD

Brand: Delta
Type: VFD
Models: VFD-E Series

CONNECTION DIAGRAM

Figure D1– Communication Port of Delta VFD E Series

1. Press and hold in the tabs on each side of the cover. Pull the cover up to release keypad.
2. Locate the RS485 terminal (communication port 1) as shown in *Figure D1*.
3. Please make the connections from the Terminal Block of Delta RS485 chipset to TrackSo IoT Gateway as mentioned in the Table – D*T1*
4. Porivde 12-24V DC Supply to TrackSo at Pin no. 1& 2.



Delta RS485 Communication Card pin no. & Assignment		TrackSo Pin No. & Assignment	
5	SG+	3	DATA+
4	SG-	4	DATA-

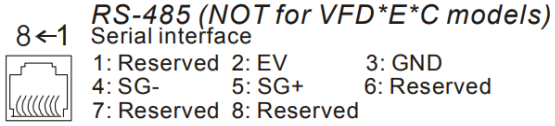


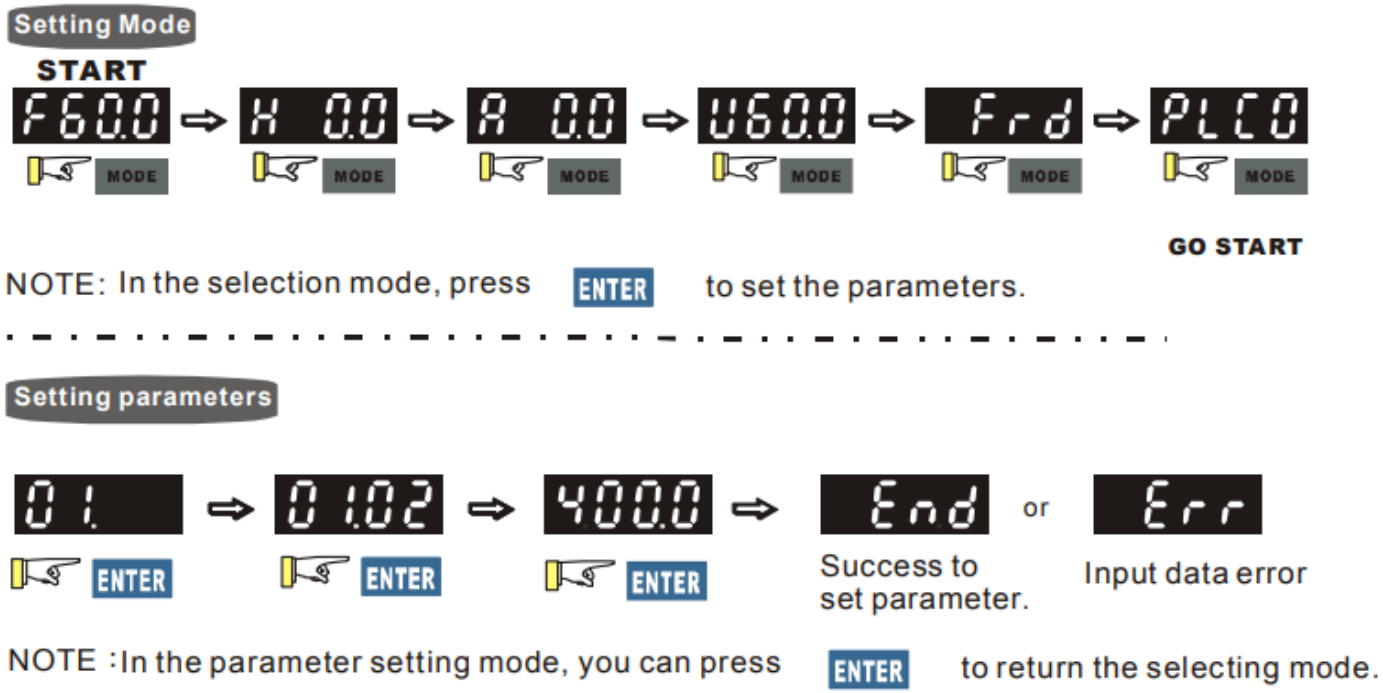
Table DT1 – Delta RS485 chip connections with TrackSo IoT Gateway

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 AC DRIVE END

How to operate Digital Keyboard



SETTING THE BAUD RATE

This parameter is used to set the transmission speed between the RS485 master (PLC, PC, etc.) and AC motor drive.

Parameter	Explanation	Settings	Factory Setting	Setting for TrackSo
09.01	Transmission Speed	0: Baud rate 4800bps 1: Baud rate 9600bps 2: Baud rate 19200bps 3: Baud rate 38400bps	1	1

← Set the baud rate to 9600

SETTING THE VFD ID

The communication address for each AC motor drive must be different and unique. Otherwise, the drive cannot be correctly identified.

Each VFD-E AC motor drive has a pre-assigned communication address specified by Pr.09.00. The RS485 master then controls each AC motor drive according to its communication address.

← Set correct Ids

Parameter	Explanation	Settings	Factory Setting
09.00	Communication Address	1 to 254	1

SET COMMUNICATION PROTOCOL

A VFD-E can be set up to communicate in Modbus networks using one of the following modes: ASCII (American Standard Code for Information Interchange) or RTU (Remote Terminal Unit). Users can select the desired mode along with the serial port communication protocol in Pr.09.04.

Parameter	Explanation	Settings	Factory Setting	Setting for TrackSo
09.04	Communication Protocol	0: 7,N,2 (Modbus, ASCII) 1: 7,E,1 (Modbus, ASCII) 2: 7,O,1 (Modbus, ASCII) 3: 8,N,2 (Modbus, RTU) 4: 8,E,1 (Modbus, RTU) 5: 8,O,1 (Modbus, RTU) 6: 8,N,1 (Modbus, RTU) 7: 8,E,2 (Modbus, RTU) 8: 8,O,2 (Modbus, RTU) 9: 7,N,1 (Modbus, ASCII) 10: 7,E,2 (Modbus, ASCII) 11: 7,O,2 (Modbus, ASCII)	0	6

The above details are mentioned in the ***Installation & Operation Manual*** for Delta VFD-E series.

TRACKSO WORKING

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

Push Yellow Nob

Pull the SIM Tray

Place the SIM card In tray Inside

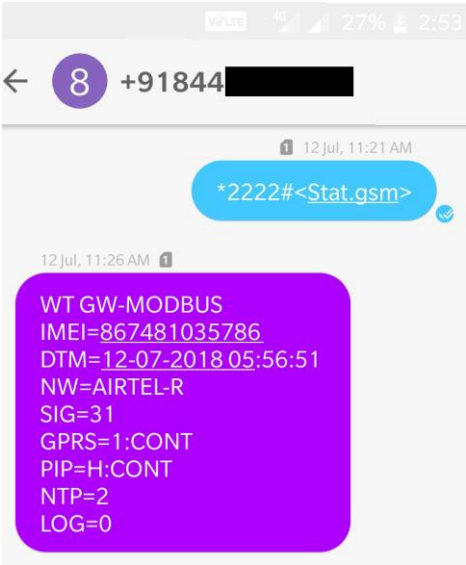
Place the SIM Tray in SLOT and Push the Tray

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.

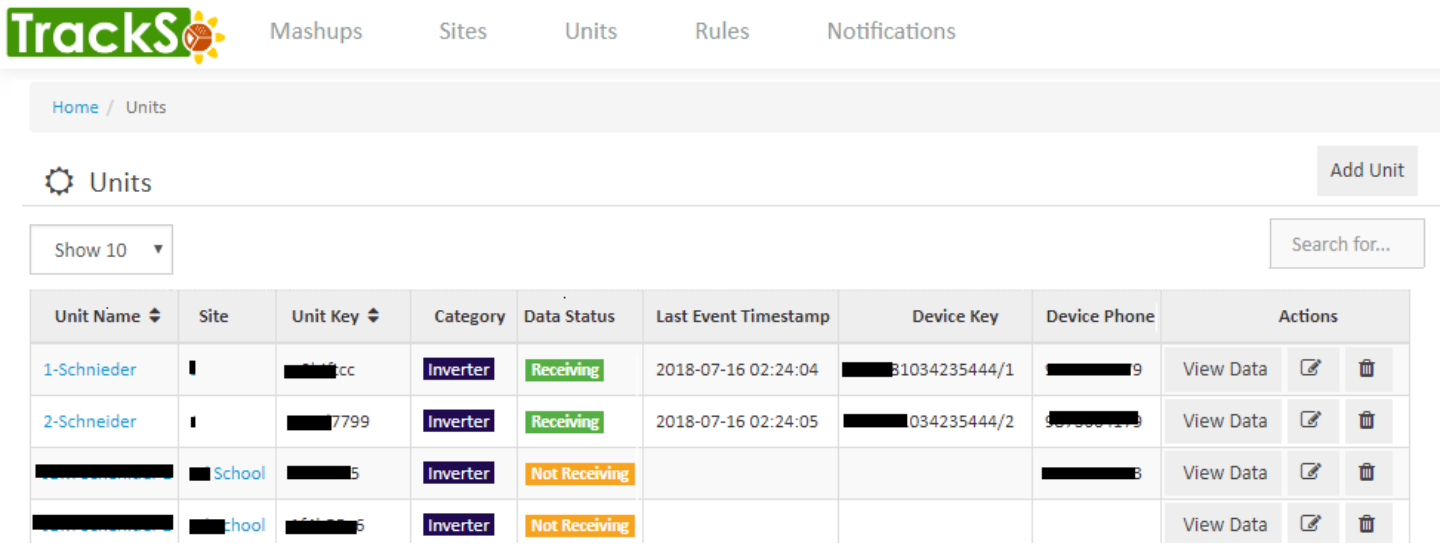
<table>
<tr><th>LED</th><th>NAME</th><th>DESCRIPTION</th></tr>
<tr><td>GREEN</td><td>POWER</td><td>Light when Power on the device</td></tr>
<tr><td rowspan="7">RED</td><td rowspan="7">GSM</td><td>
<table>
<tr><th>LED Status</th><th>Connection State</th></tr>
<tr><td>Flashing (ON for 100ms and OFF for 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>
</table>
</td></tr>
<tr><td>GREEN</td><td>COM TX</td><td>Blink on data transmission in RS485 port</td></tr>
<tr><td>YELLOW</td><td>COM RX</td><td>Blink on data reception in RS485 port</td></tr>
</table>

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

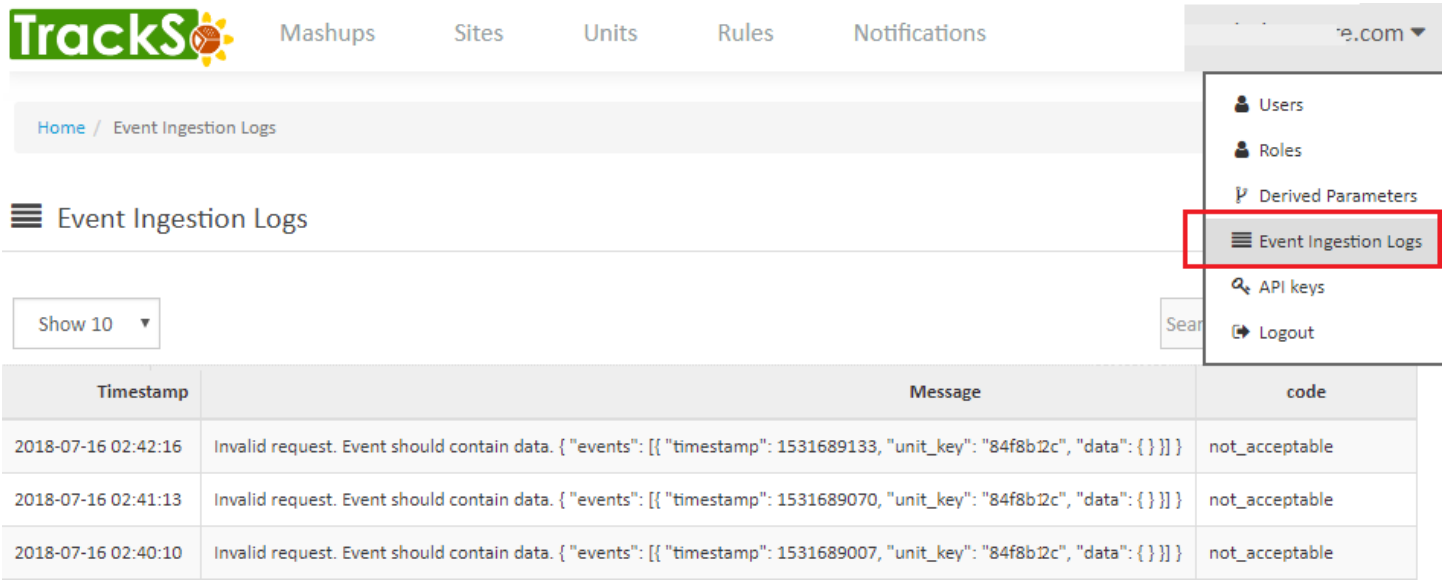


SMS Command= *2222#<Stat.gsm>	
IMEI	IMEI No. of the data logger (Device Key)
NW	Network
SIGN	Signal Strength out of 31
GPRS	CONT- connected , NC- not connected
PIP	Connected to TrackSo Server or not CONT- connected, NC- not connected
LOG	no. of data points stored in devices incase of no interet

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 Receiveing for the relevant Unit.



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.



Timestamp	Message	code
2018-07-16 02:42:16	Invalid request. Event should contain data. { "events": [{ "timestamp": 1531689133, "unit_key": "84f8b12c", "data": { } }] }	not_acceptable
2018-07-16 02:41:13	Invalid request. Event should contain data. { "events": [{ "timestamp": 1531689070, "unit_key": "84f8b12c", "data": { } }] }	not_acceptable
2018-07-16 02:40:10	Invalid request. Event should contain data. { "events": [{ "timestamp": 1531689007, "unit_key": "84f8b12c", "data": { } }] }	not_acceptable

10. 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 we@freespirits.in to consult the same.