



SunSights Energy LLP

SunSights Wi-Fi Dongle Installation Manual

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Preface

Privacy information

This document may contain information of a sensitive nature. This information should not be given to any persons outside of System Level Solutions (I) Pvt. Ltd. without prior consent.

Overview

Prior to initiating any procedures related to the installation, operation, or maintenance of the equipment, it is imperative to thoroughly review this product manual. It contains crucial safety guidelines and installation instructions that are mandatory during the setup and maintenance of the equipment.

Scope

This product manual is dedicated to providing comprehensive information on the installation, electrical connections, commissioning, maintenance, and troubleshooting processes associated with the Smart Wifi Dongle models, namely SSRTU000011A and SSRTU000011B.

Intended Audience

This manual has been specifically developed for individuals seeking to acquire data from String Inverters through the Sunsights Monitoring System. It is intended for professionals and personnel engaged in this task, and it offers a valuable resource to ensure the efficient and safe operation of the equipment.

Installation of SunSights Wi-Fi Dongle



The SunSights Wi-Fi Dongle is designed to establish a seamless connection with a variety of String Inverters equipped with circular connectors/DB9, as illustrated in the accompanying images. To ensure a successful installation, please follow the steps outlined below.

Step 1: Removing the Wi-Fi Waterproof Cover

Using a screwdriver, carefully remove the Wi-Fi waterproof cover to access the installation area.

Step 2: Installing the Wi-Fi Dongle

Place the Wi-Fi dongle securely in the designated slot.

Step 3: Securing the Wi-Fi Dongle

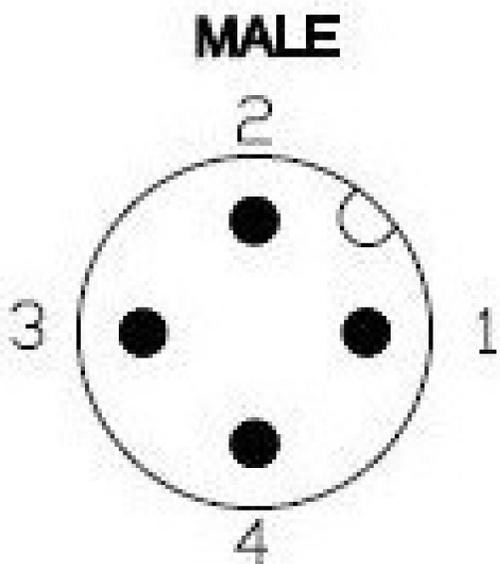
Fasten the Wi-Fi dongle in place using the provided screws to ensure a stable connection.

Step 4: Powering On the Inverter and Configuration

Once the Wi-Fi Dongle is properly installed, power on the inverter with the appropriate AC and DC electrical connections. Follow the subsequent configuration steps outlined below, referring to the user manual provided by the inverter manufacturer:

- Set the Correct Time and Date.
- Specify the Country.
- Establish a unique Slave Address between 1 and 247. Note that each Slave Address must be distinct within the same site, as this address will be utilized in Modbus Configuration via the SunSights Live Web Portal.
- If supported in the inverter settings, set the Baud Rate to 9600.
- If supported in the inverter settings, set the Parity bit to None.
- Configure the Safety Voltage setting, if applicable in the inverter settings.

Circular 4 Pin Male Connector



- Pin 1 -> VCC**
- Pin 2 -> GND**
- Pin 3 -> Modbus Positive [A+]**
- Pin 4 -> Modbus Negative [B-]**

DB9 Female Connector Image



- Pin 2 -> Modbus Positive [A+]**
- Pin 5 -> GND**
- Pin 3 -> Modbus Negative [B-]**
- Pin 9 -> VCC**

Wi-Fi Configuration of the SunSights Dongle

To configure the Wi-Fi settings of your SunSights Dongle, follow these steps:

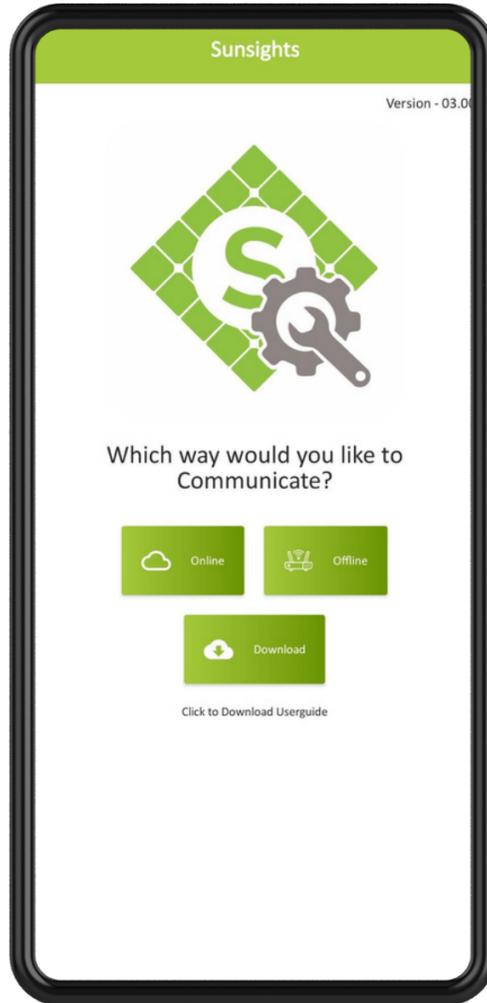
1. Verify that the READY LED indicator is illuminated, indicating readiness to proceed.
2. Download and install the SunSights Commissioning Application on your smartphone. Ensure that you grant all the necessary permissions requested during the installation process. Additionally, remember to enable location services for the application to function correctly.

You can find the application at the following link:

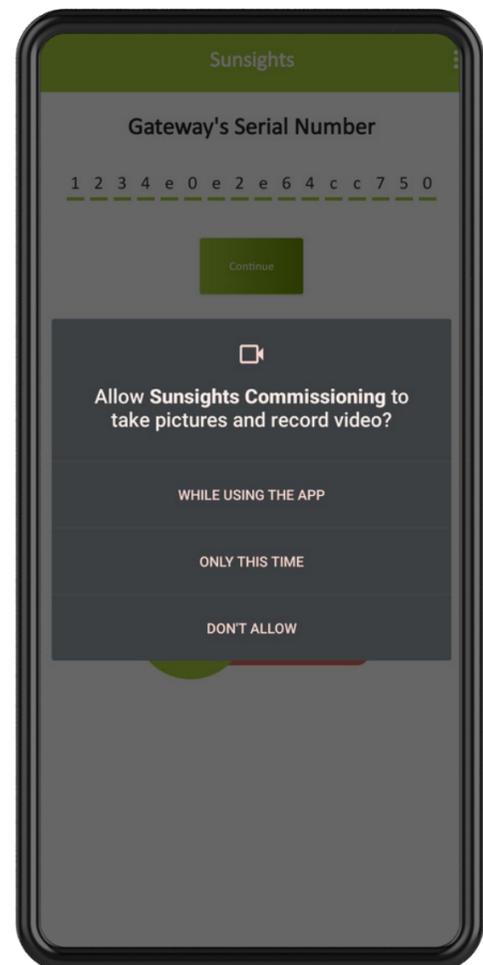
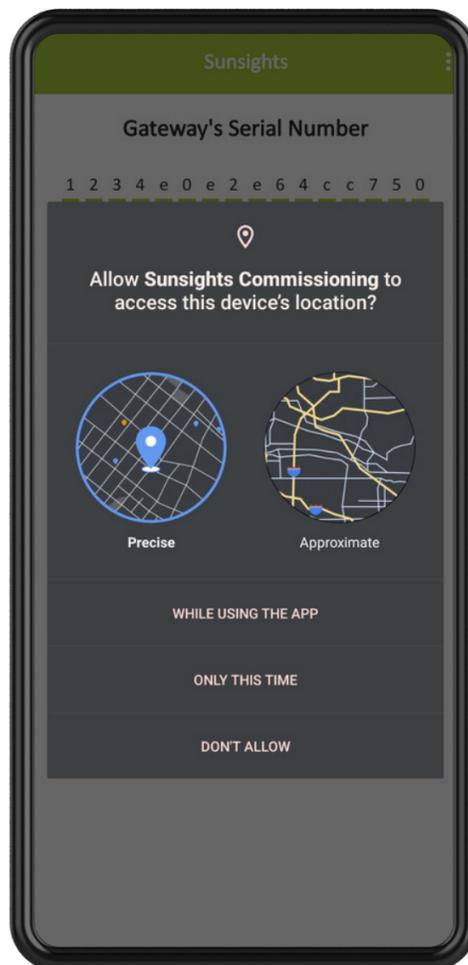
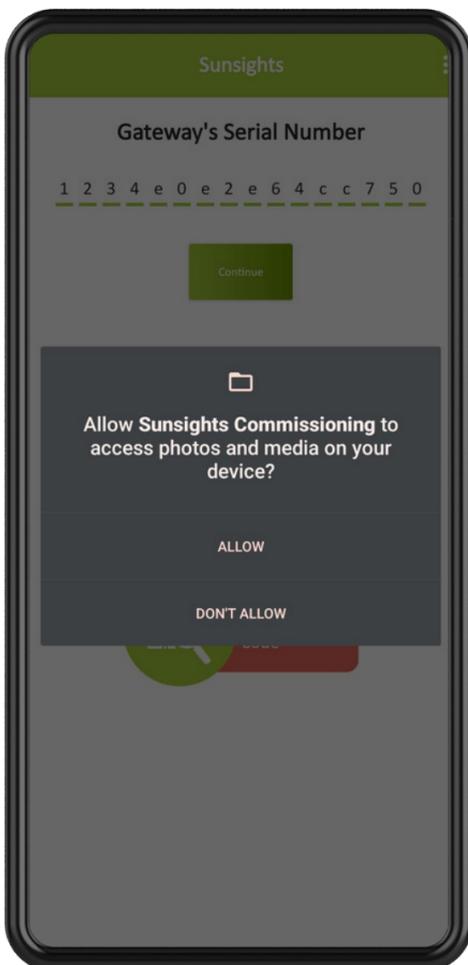
<https://play.google.com/store/apps/details?id=com.sls.sunsights.commissioningapp>

For the Wi-Fi configuration process, adhere to the subsequent steps:

1. Opt for Offline mode as your preferred Communication Choice.



2. Grant all the permissions requested for SunSights Application Access.



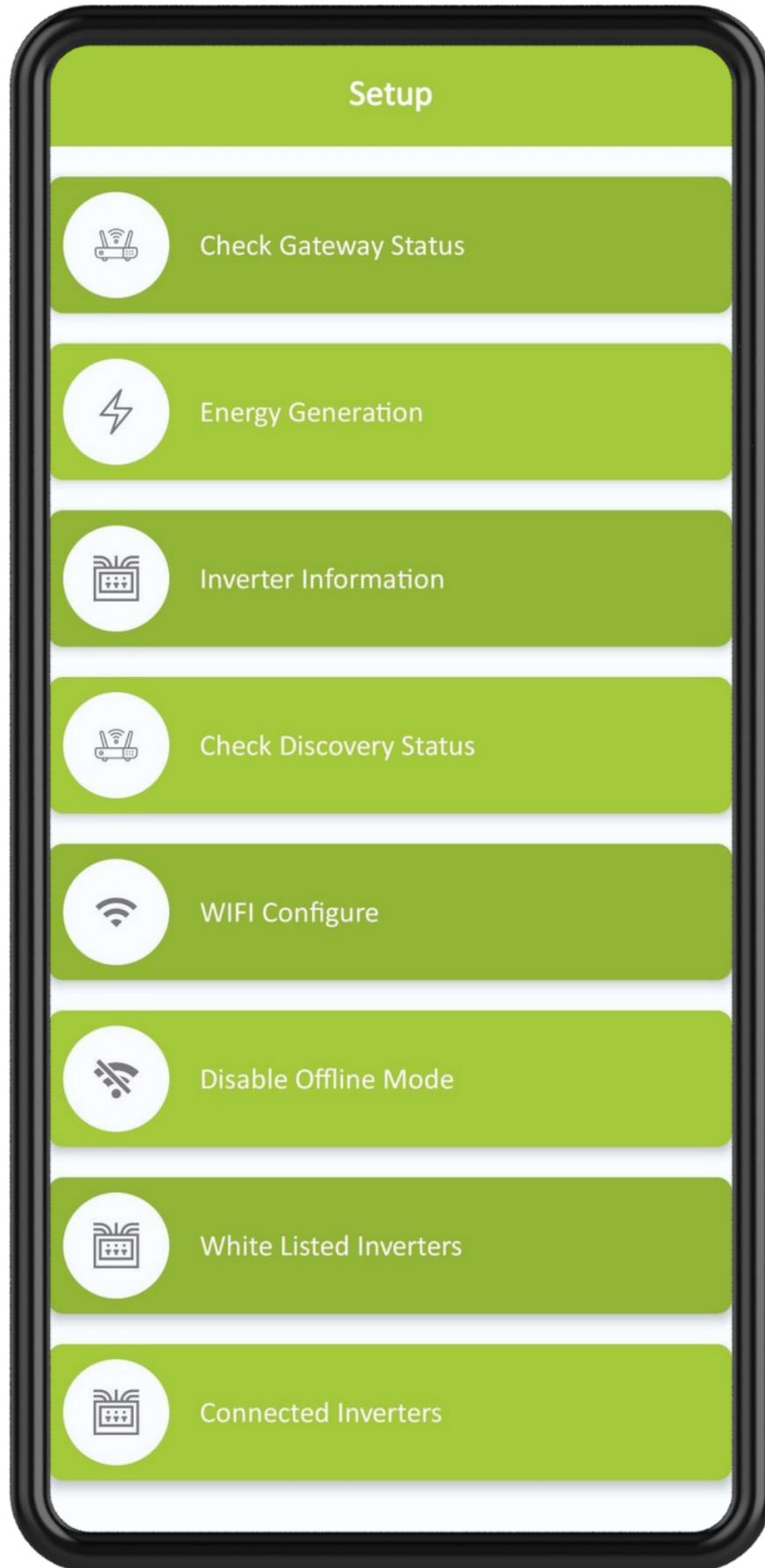
3. Enter the Gateway serial number manually or scan the QR code provided on the SunSights Dongle, then click on "Continue."



4. Select the Gateway from the available list and connect to it using the password "Solar123456."



5. Return to the application interface, where you will encounter the "SetUp Connection" page.

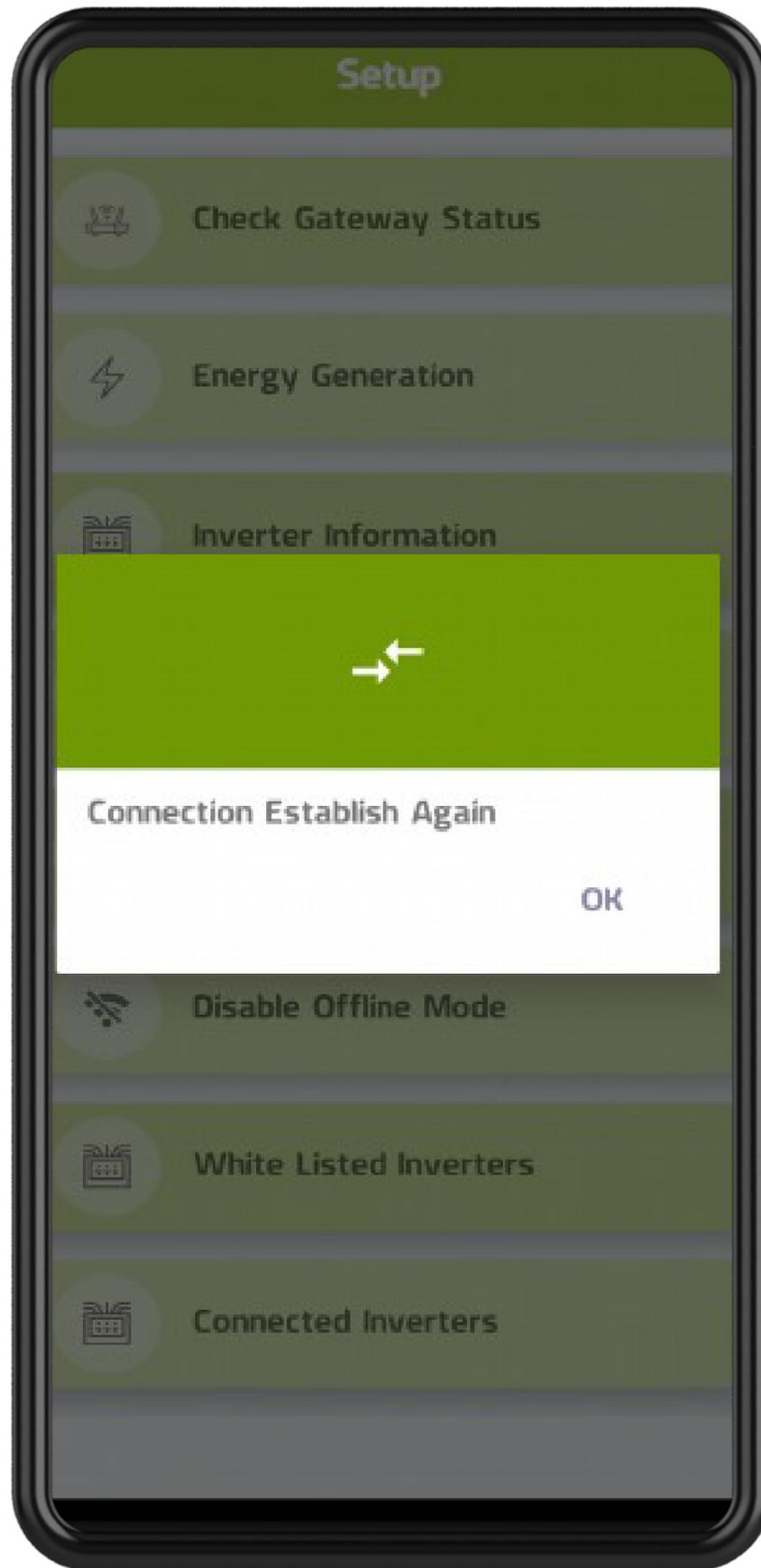


6. Click on "Wi-Fi Configure."

7. Choose the desired network from the list of available networks, enter the correct password, and click on "Connect" to establish the connection.



8. Once the SunSights Dongle successfully establishes a connection with the network, you will receive a notification confirming "Connection Established."



SunSights Live Configuration

Log in using either SunSights Admin or Supplier credentials, and then proceed with the following steps:

Step 1: User creation is the responsibility of the SunSights Admin or Supplier, as outlined here:

- User Management → Add the User with the required details.
- Log out and sign up again with the necessary information.

Step 2: Adding a site to a defined user is accomplished by the SunSights Admin or Supplier:

- User Management → User List → Add New Site.
- Create a new site with the requisite user details and submit.

Step 3: White-listing or adding the SunSights Dongle under a specified site is carried out by the SunSights Admin via:

- Device Management → Device Registration → Data Logger → White-list Data logger → Submit.

Device Registration

Data Logger Micro Inverter Modbus Device

WhiteList Bulk WhiteList Add to site

White-list Data Logger Download Key

Device Management

Assets Management

Device Registration

Hash Key

Enter Hash Key

Name *

Enter Name

Serial No

Enter Serial No

Description *

Cloud Type *

Middleware

Category *

PRODUCTION

Version *

1

Submit **Reset** **Data Logger List**

- Device Management → Device Registration → Data Logger → Add to Site → Submit.

Device Registration

Data Logger Micro Inverter Modbus Device

WhiteList Bulk WhiteList **Add to site**

Select Site *

Select Your Site

MAC address *

Name *

Submit **Reset**

Step 4: Configuration of Modbus Devices (String Inverter) is performed by the SunSights Admin or Supplier. The COM LED will start blinking once the Inverter is successfully configured with the SunSights Dongle:

- Device Management → Device Registration → Modbus Device → Select Data Logger → Device Type → Model Number → Slave ID.
- Submit with the necessary specified details.

Device Registration

Data Logger	Micro Inverter	Modbus Device
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Select Data Logger*

JyotinWiFiRS485Dongle

Device Type*

Inverter

Model Number*

Waaree Energies Ltd. - W13KAG3

Slave ID*

|

Step 5: The NET and COM LEDs will blink simultaneously when the SunSights Dongle successfully connects to the internet and establishes RS485 communication.

Step 6: Users can access the SunSights Live Portal and the SunSights Mobile Application using their provided login credentials to view data from their solar power plants.

SunSights Dongle Installation Images

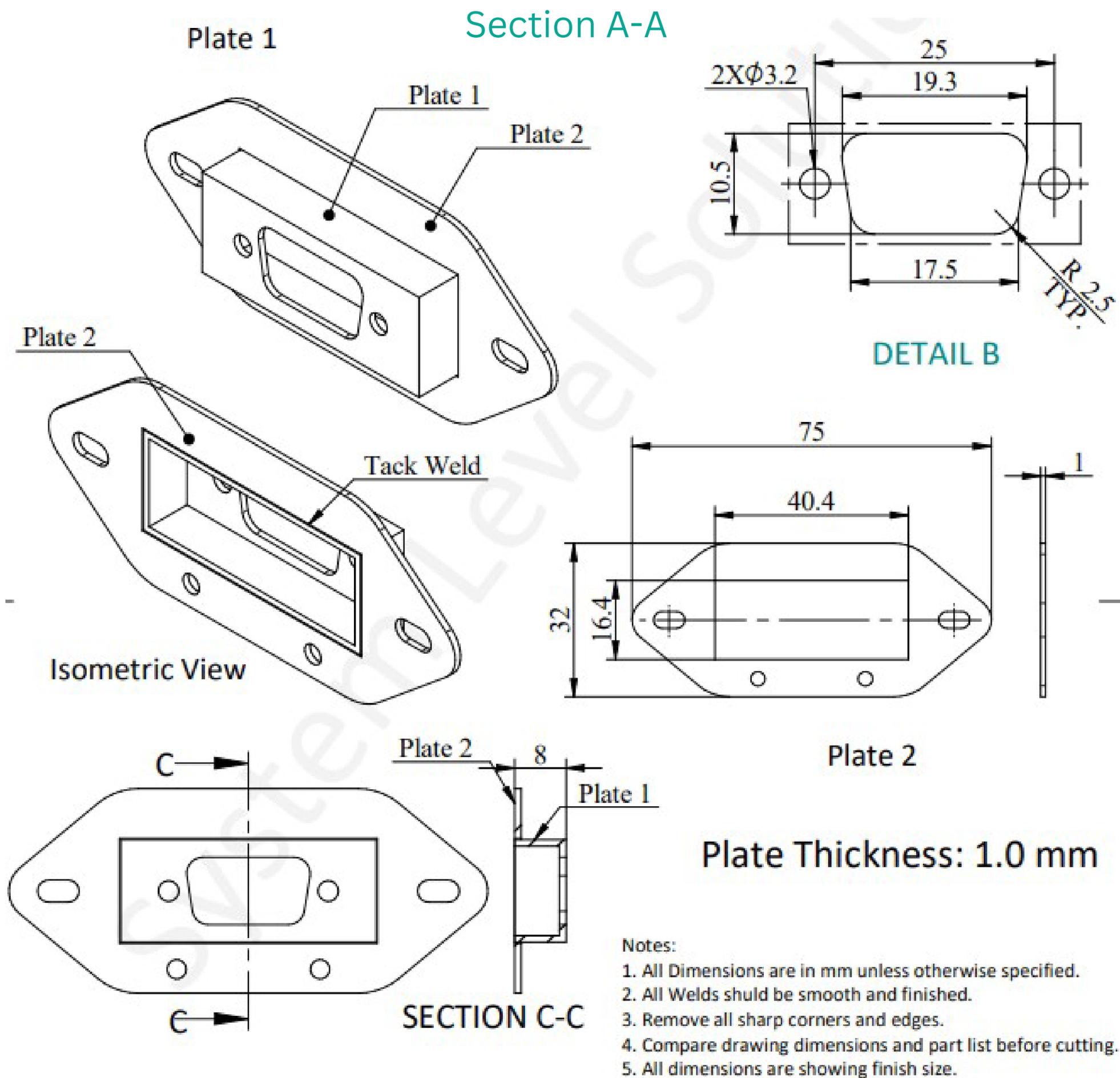
SunSights



SunSights RS232 Wi-Fi Dongle [DB9] with Mindra Green String Inverter.



SunSights RS485 Wi-Fi Dongle [Circular] with KSolare String Inverter.



A revised edition of the SunSights RS232 Dongle [DB9 Connector] has been developed to enhance its mechanical compatibility with various string inverters.

Compatible Inverter Brands

1. Waaree
2. Solis
3. Sofar
4. Mindra Green
5. Deye
6. Vsole
7. Ksolare
8. APS
9. Kstar
10. EVVO