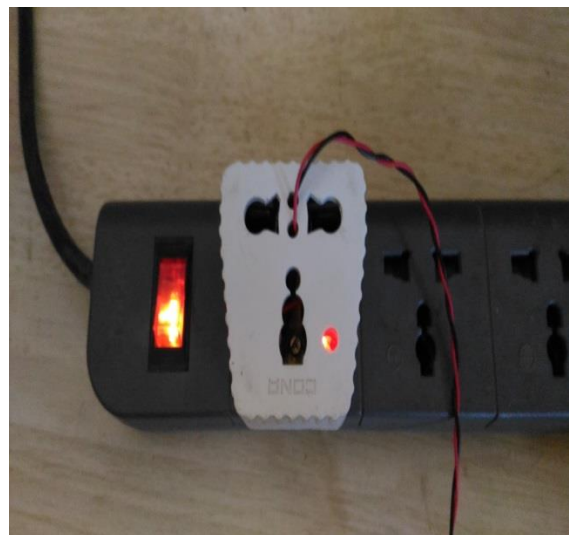


# Joule Jotter User Manual

## Steps to configure and use the Joule Jotter:

**Note:** Read the manual completely once before you try to configure the device.

1. Insert the SD card into the Joule Jotter. The Joule Jotter cannot be configured if the SD card is not inserted properly or if it is corrupted. Plug in the Joule Jotter (master and the slave) to the wall socket / any power source. (as shown in the figure below). To make sure that the slave is inserted into the master properly, check if the white ring on the audio plug has disappeared into the master.



2. Do not turn on the Joule Jotter until the configuration details are ready.

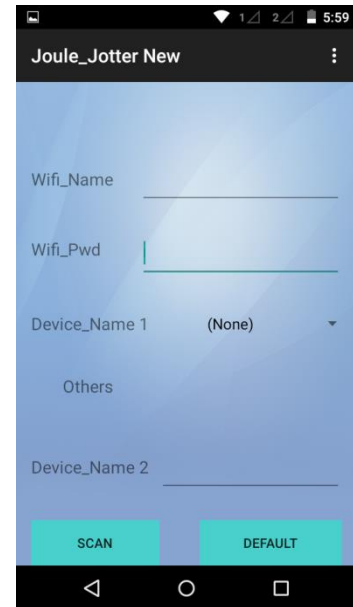
3. You can download the 'Joule Jotter' app from the URL mentioned in section II.
4. Open the app(Image 1) and press the sync button(Image 2). The configuration screen appears as shown in Image 3.



**a) Image 1**



**b) Image 2**



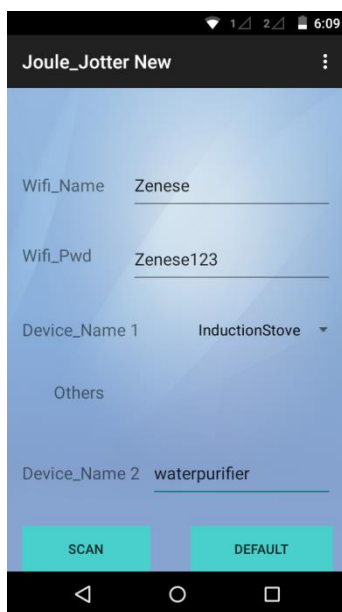
**c) Image 3**

5. There are two modes of configurations:

i) Default mode (Image 4):

- The configuration screen appears as shown in Image 4. The default button is used particularly to scan the Joule Jotter in the "default mode".
- First enter Device Name 1 and Device Name 2. The phone creates a hotspot with the name "Zenese" and password as "Zenese123" when the Default button is pressed. Hence there is no necessity to enter the wifi name and wifi password.
- Turn on the Joule Jotter and press the default 'button' within 30 seconds to configure the Joule Jotter.

- If the configuration is right, you will see the ‘waiting for connection...’ text on top of the app screen(shown in image 6).
- Within 1 minute, the Android phone connects to the Joule Jotter, sends the configuration parameters and receives them back as an acknowledgement with additional details such as enable wifi upload, server URL, sampling interval, time stamp, location etc, as shown in Image 7.
- Now, the Joule Jotter is configured.



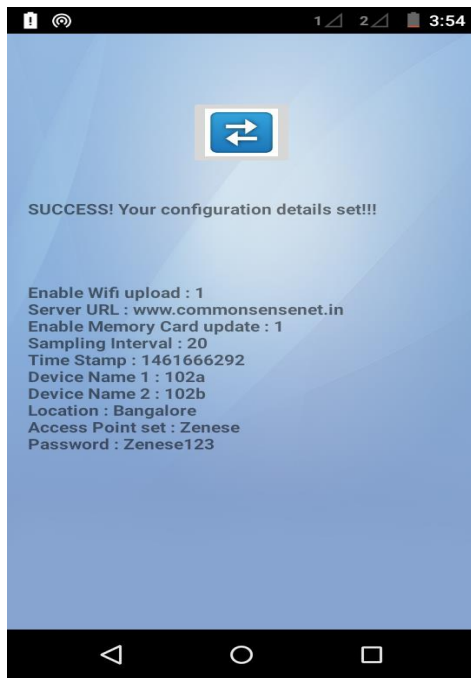
d) Image 4



e) Image 5



f) Image 6



**g) Image 7**

**ii) Manual mode:**

- The Joule Jotter will upload the data to the server using a specified Access Point (proxylless). The scan button is particularly used to configure the Joule Jotter in the “manual mode”.
- Enter the Wifi name(proxylless network), Wifi Password, Device Name 1 and Device Name 2 as shown in Image 5.
- Turn on the Joule Jotter and press the ‘scan’ button within 30 seconds to configure the Joule Jotter.
- If the configuration is right, you will see the ‘waiting for connection...’ text on top of the app screen (shown in image 6).
- Within 1 minute, the Android phone connects to the Joule Jotter, sends the configuration parameters and receives them back as an acknowledgement with additional details such as

enable wifi upload, server URL, sampling interval, time stamp, location etc, as shown in Image 7.

- Now, the Joule Jotter is configured.
- Restart the Joule Jotter every 24 hours to ensure the data upload on the server. If not restarted, the data will still be logged on to the SD card, but not updated on the server.

## II. Data on the Server:

To monitor the data parallelly, logon to the server with the URL mentioned below:

[www.commonssensenet.in/JJdata](http://www.commonssensenet.in/JJdata)

Password: mydata

The server creates individual text files for each device configured using the Joule Jotter. The format in which each data sample is logged in is represented below:

**105; Heater ;1446621891 ;0.973182 ;230.569040 ;142.635620 ;-0.601563**

The order in which the samples are recorded are:

**Device ID; Device Name; Time stamp; Current consumed; Voltage; power consumed; power factor;**

## III. Data Analytics using Macros on Excel:

- From the URL mentioned above, download the link “Joule Jotter Analytics”.

Note: The excel sheet designed to analyse the data is compatible only on windows and not on any other OS. So download it on a system running windows.

- Download the required Appliance File from the server.
- Open the excel sheet, “Joule Jotter Analytics”.
- Click on “get data” button. Select the appliance file downloaded from the server.
- To view the current plot, click on “current plot” button(Choose the respective button to view current plot, power plot or the energy graph).