

# **DF703Waste Bin Detector Configuration Manual \_LoRaWAN**



**V1.1**

**Date: 2021-07-21**

## Changed

**V1.1** Modify DF703 device picture.

**V1.0** DF703 initial version.

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## Disclaimer

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## 1 Overview

This document describes how to modify device parameters through the serial port, such as detection time, cycle upload interval, full alarm threshold, battery alarm threshold, failure alarm threshold, fall alarm threshold, and how to modify LoRaWAN parameters through serial port, such as device ID, app key, band frequency, and so on.

The main steps are as follows:

- 1>Tools
- 2>Connect TTL to sensor
- 3>Send the command through the serial port software

## 2 Modify Device Parameters

### 2.1 Required tools

- TTL and wires; TTL is a complimentary accessory, please check it when receiving the goods. As shown in Figure 2.1;
- Serial port software;
- DF703 device;

Note: Due to the update, the TTL appearance you may receive is inconsistent with the picture.



Figure 2.1



Serial port software: , If you have other serial software, you can also use it.

### 2.2 Connect TTL to sensor

## 1 Connect the TTL tool to the debug interface of DF703 device

Please refer to Figure 2.4. Note: only need to make GND\_DF703 to GND\_TTL when use our TTL tool.

The GND, RX, and TX positions of the DF703 device and the TTL tool are marked in Figure 2.2 and Figure 2.3. Please refer to it.

## 2 Connect the TTL's USB interface to your computer

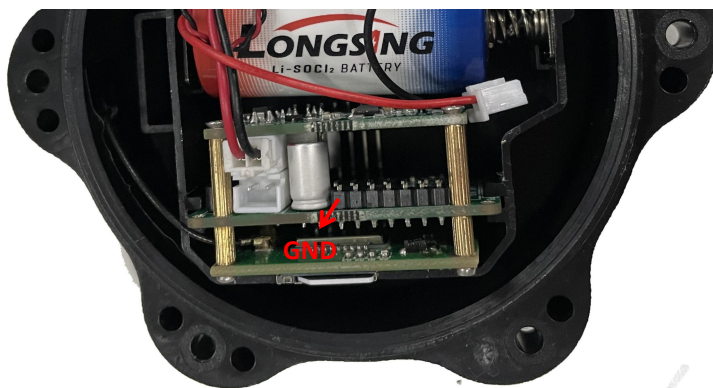


Figure 2.2

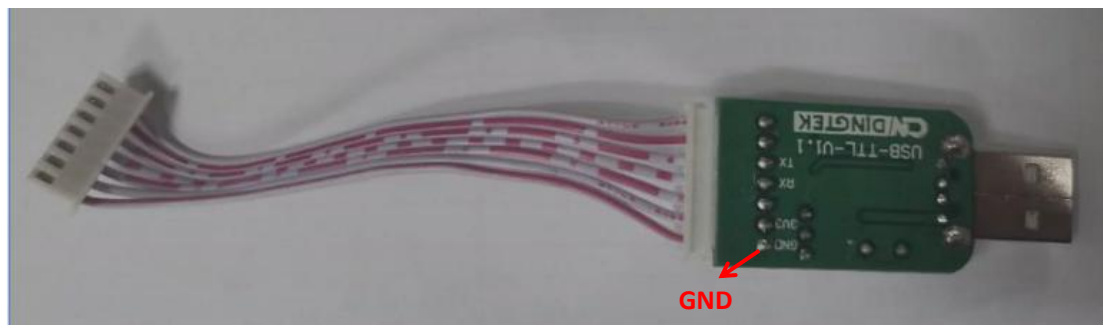


Figure 2.3

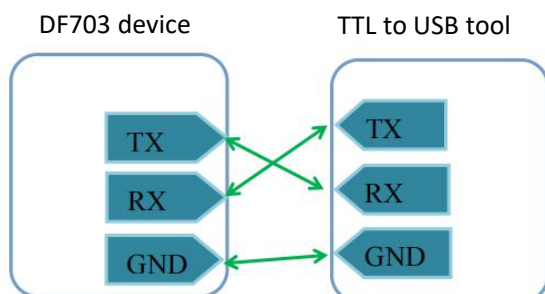


Figure 2.4

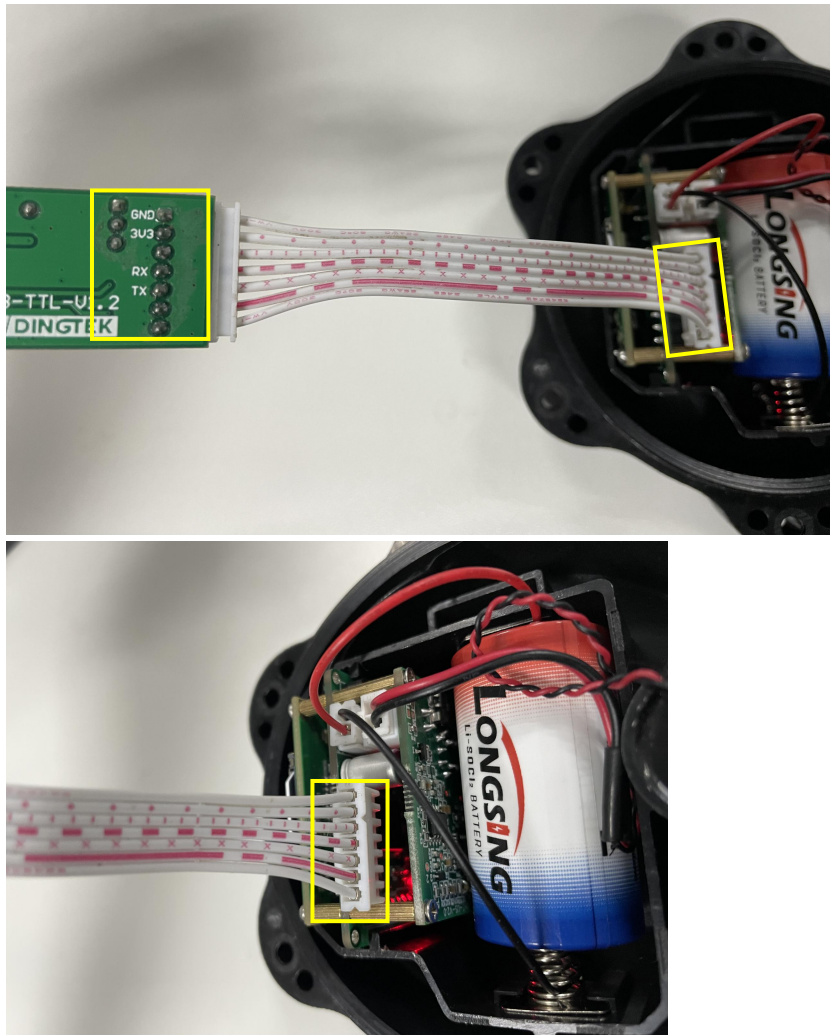


Figure 2.5

## 2.3 Send the command through the serial port software

After completing the two steps 2.1 and 2.2, you can refer to this step to configure the corresponding parameters through the serial port software.

### Step1 serial port software setting

COM Num.: You can check the port number used in "Device Manager -> Port" on your computer

Baudrate: 115200

Parity bit: NONE

Data bit: 8

Stop bit: 1

**Note:** Do not select the "Receive as hex" option.

As shown in Figure 2.6:

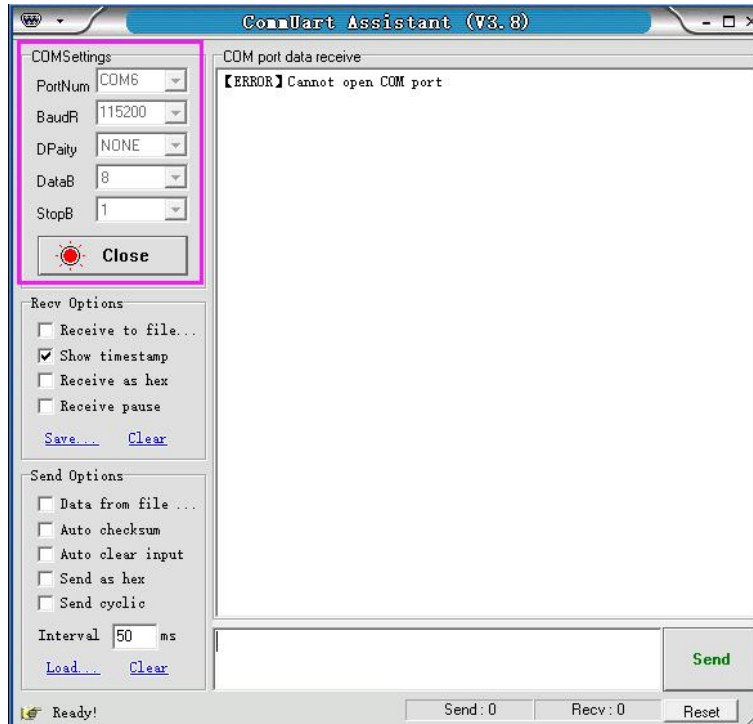


Figure 2.6

## Step 2 Power DF703 device on

Connect battery or you can restart DF703 device by magnet if you have powered it on before.

## Step 3 Send command

When the serial port starts to output device information, you can send command in ASCII. If the configuration is successful, you can receive a reply from sensor.

For example:

Note: The following commands are reference examples, please refer to the product protocol documentation for a more detailed description of the commands.

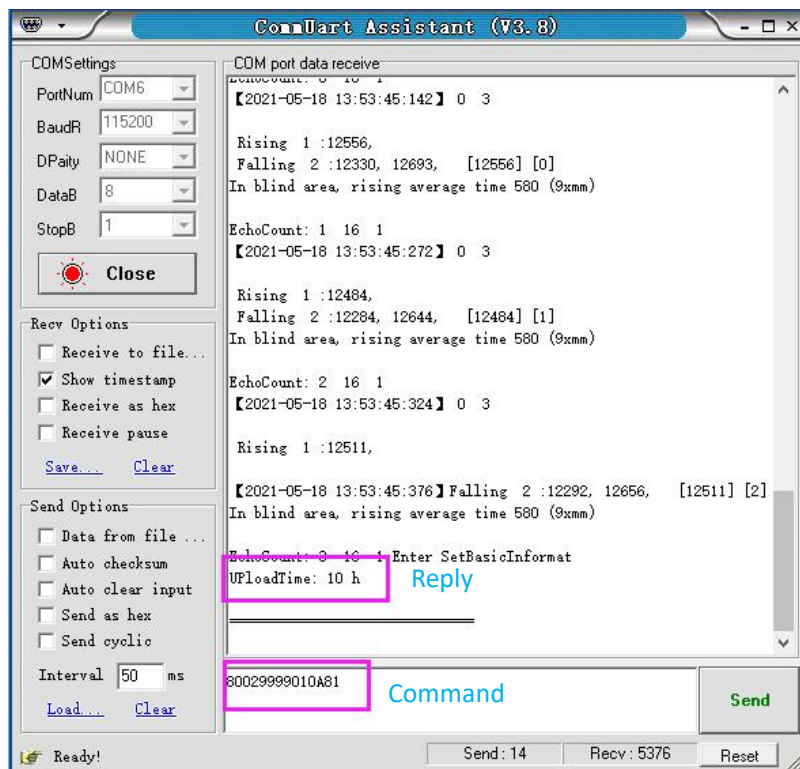
### Example 1 Configure the periodic upload interval to 10h

Command in ASCII: **80029999010A81**

Reply from sensor: **UPloadTime: 10 h**

Note: The reply means modify this configuration successfully.





#### Notes:

1 After the device enters the sleep state, the device cannot receive the command; Please restart the device by magnet and send the command again.

2 If the serial port does not output any information after the device is powered on or restarted, and the parameters cannot be configured; you can check whether the TTL is correctly connected to the device. If the RX and TX are connected incorrectly, the parameters cannot be configured.

## 3 Modify LoRaWAN Parameters

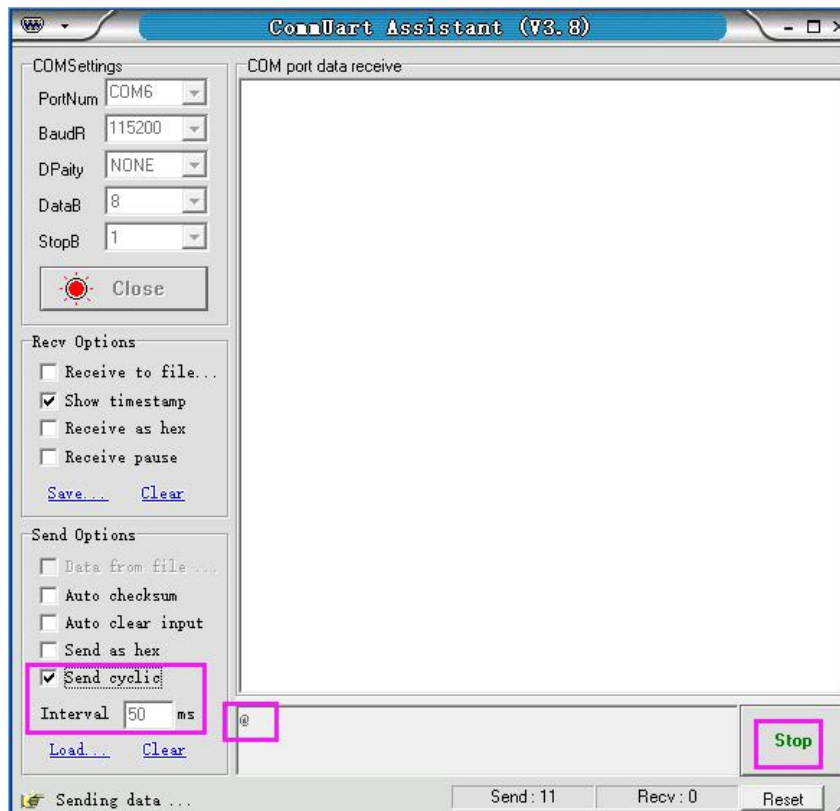
#### Steps:

- 1>Connect TTL to sensor
- 2>Making sensor into debug mode
- 3>Sending AT command to modify configuration

Please connect the TTL to sensor according part2.1 and 2.2, then start making sensor to debug mode and modify its configuration,such as deveui, appeui, band frequency and so on.

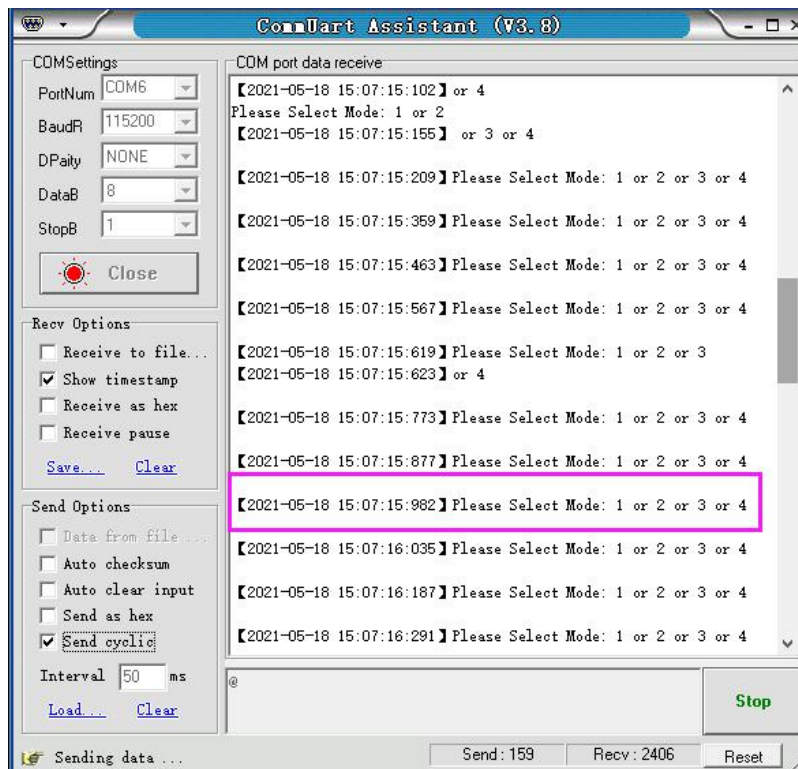
### 3.1 Making sensor into debug mode

- 1> cycle send @ in 50ms

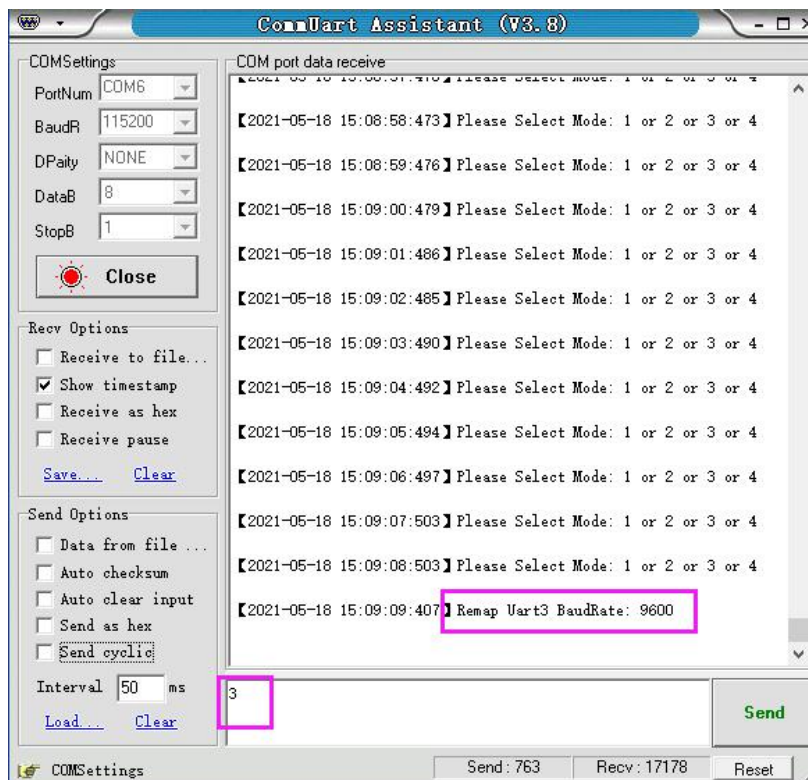


2> Restart DF703 device by magnet.

3> After restarting sensor, you will receive the information from sensor, then Please enter 3,

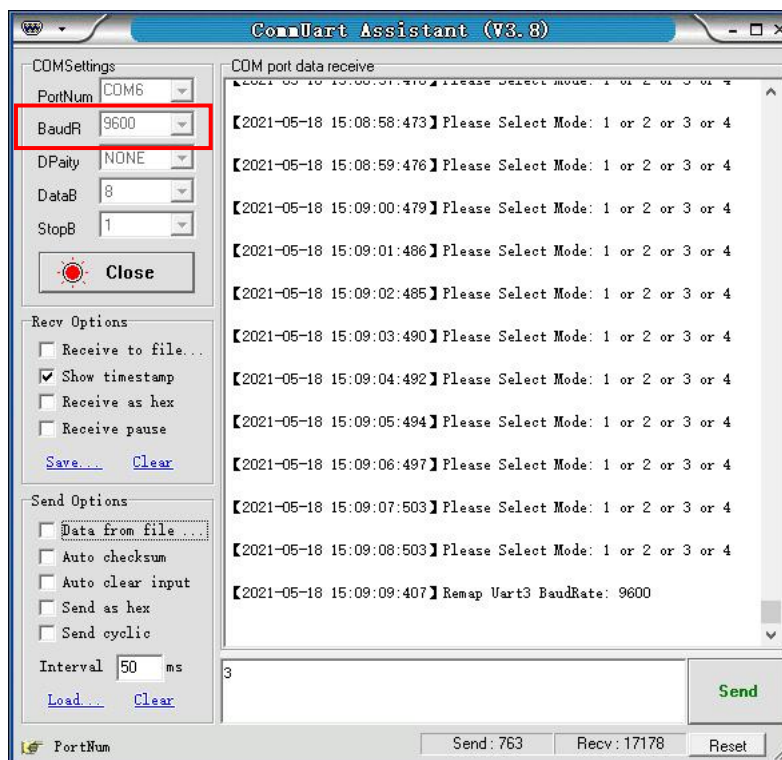
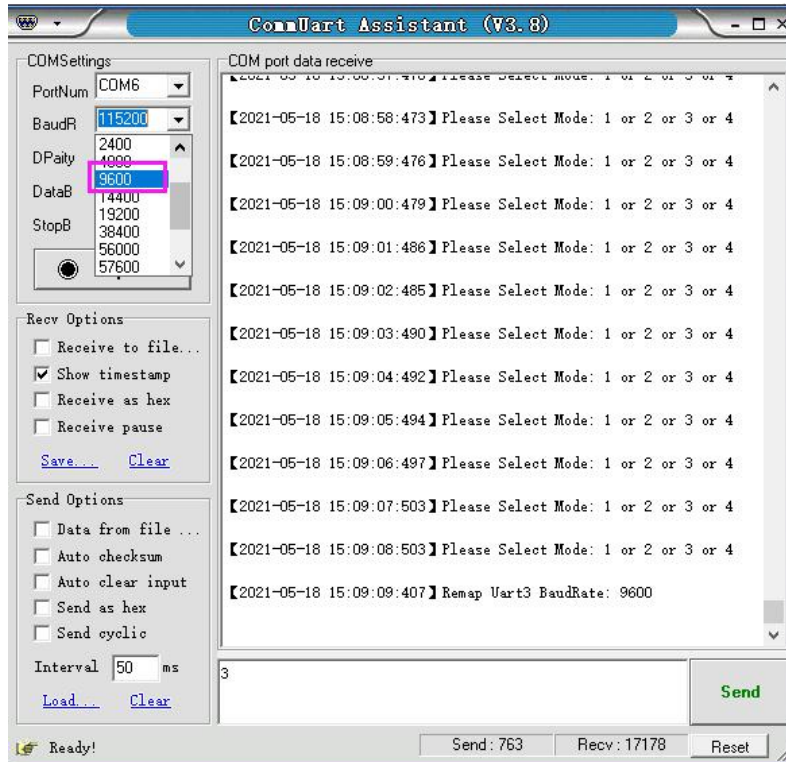


After restarting



After enter "3"

4> change the baud rate according the the prompts



Switching baud rate to 9600

### 3.2 Modify its configuration by AT command

In the debug mode, you can use the AT commands to modify configuration (deveui, appeui, appkey, band and so on)

**For example: Reading devaddr, deveui and appeui**

Command: **AT+ID**

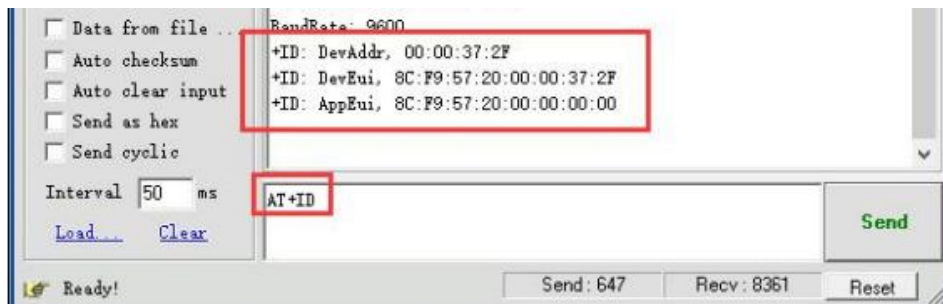
Enter the command in the serial port software, click Enter, and click Send, as shown in Figure

Command response:

+ID: DevAddr, 00:00:37:2F

+ID: DevEui, 8C:F9:57:20:00:00:37:2F

+ID: AppEui, 8C:F9:57:20:00:00:00:00



**Note:**

1 If you need to configure other LoRaWAN parameters, such as DevEui, AppEui, etc., send the corresponding command on this serial port. Only need to change the command, please refer to the LoRaWAN module AT command manual to find your needs.

2 After configuring the LoRaWAN parameter and restarting the device with a magnet, you can exit the debug mode to make it work in normal mode.