

Telemetry Adapter

TMA-1 App User Manual

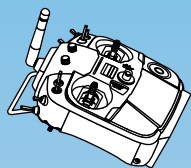


- ◆ *A transmitter and a receiver are equipped with a Futaba telemetry system are required.*
- ◆ *A tablet or a smart phone Android™ version 3.2 ~ 4.4 is needed.*
- ◆ *The Futaba telemetry adapter TMA-1 is required.*
- ◆ *Telemetry sensor(s) is/are required.*
- ◆ *It is necessary to attach a sensor to the model according to the instruction manual of the telemetry sensor.*
- ◆ *TMA-1 and telemetry receiver have to be linked, according to the instruction manual a TMA-1.*
- ◆ *Turn OFF the Wi-Fi function (2.4 GHz) on the tablet or smart phone.*
- ◆ *The display screen of this manual is an example of a tablet. The display may change in part when a smart phone is used as compared to a tablet.*

How to make TMA-1 app display that has telemetry sensor data on your tablet or smartphone.

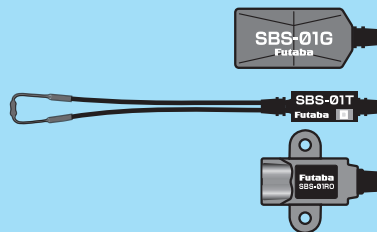
**In Telemetry Receiver
In Telemetry Sensor
The selected model**

FASSTest or T-FHSS receiver



It has the same setting
of a sensor slot number
the transmitter.

Telemetry Receiver (Option)



● Telemetry Receiver (Option)

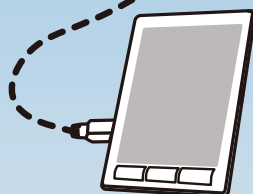
SBS-01T, SBS-01TE (Temperature sensor)
SBS-01A (Altitude sensor)
SBS-01RM (Magnet type R.P.M sensor)
SBS-01RO (Optical type R.P.M sensor)
SBS-01G (GPS sensor)
SBS-01V (Voltage sensor)
(2015. 01)

The power supply of TMA-1 is supplied
from the tablet or smartphone.

TMA-1

**Receiver and TMA-1
are linked.**

**OTG (USB On-The-Go)
host cable**



**Check to see if the TMA-1 app is installed
on your tablet or smartphone.**

**The telemetry data such
as altitude, temperature
and voltage are displayed.**

**The TMA-1 apps could be
downloaded from Google
Play store.**

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Start-up TMA-1



Visit Google Play store and download the Futaba TMA-1 apps on your tablet or smart phone. If the TMA-1 apps was downloaded correctly. **"Futaba TMA-1"** icon will appear on the screen.

If you've installed the TMA-1 app on your phone or tablet then you will find **"Futaba TMA-1"** icons.

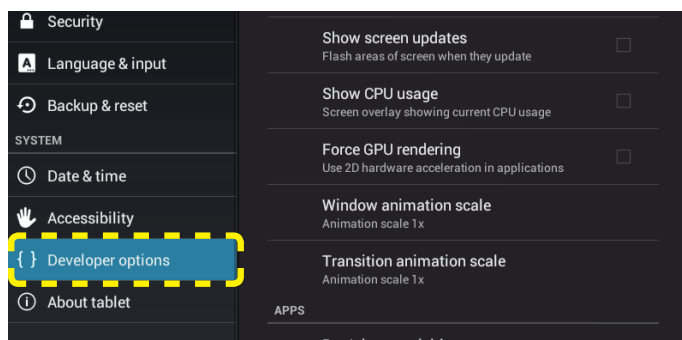
Touch the TMA-1 icon to start it.

Troubleshooting

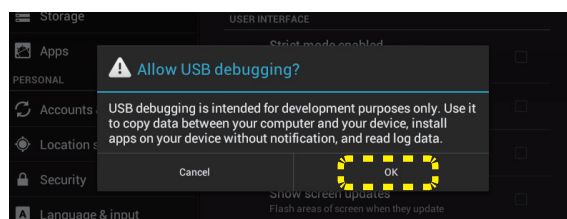
1. When TMA-1 doesn't work on your device.(phone or tablet) go to Developer options on the tablet or phone, tap **"Setting" → "Developer Options" → "USB debugging"** for enabling.

When you cannot find the Developer options, Navigate to **"Setting" → "About (device) " → Scroll to bottom → Tap build number seven times**. You'll get a short pop-up in the lower area of your display setting that **"you are now a developer"**.

* How to call "Developer Options" with the tablet and smart phone to be used differs. Please confirm by the tablet to be used or the manual of a smart phone.

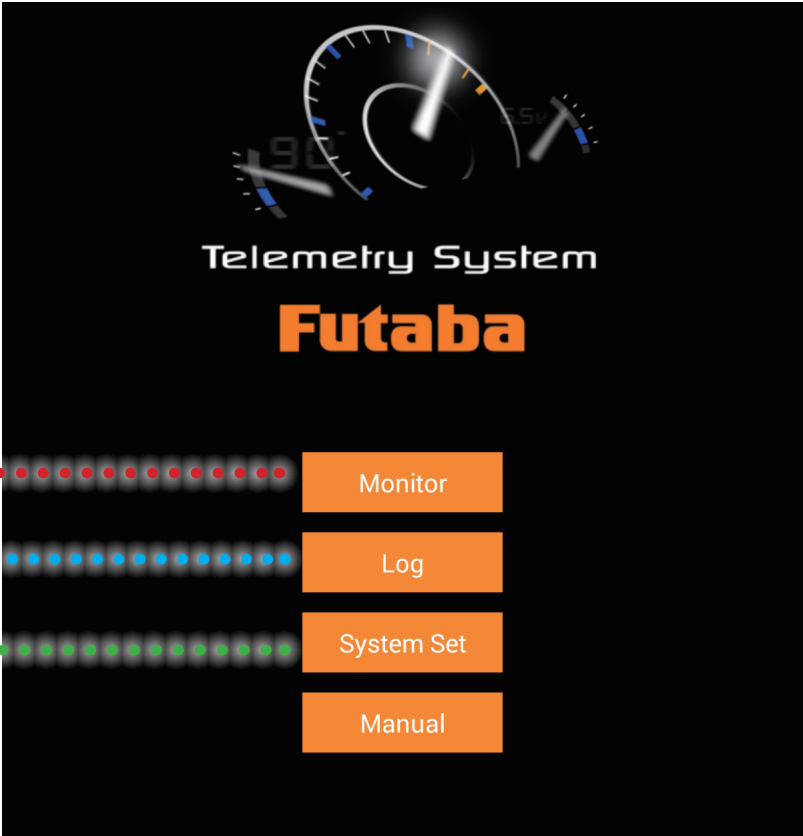


2. Enable USB Debugging.



Initial Screen

Tap **"Futaba TMA-1"** icon.



The screenshot shows the initial screen of the Telemetry System Futaba. At the top, there is a graphic of a speedometer and a tachometer. Below the graphic, the text "Telemetry System" is displayed in white, and "Futaba" is displayed in large orange letters. At the bottom, there are four orange buttons stacked vertically: "Monitor", "Log", "System Set", and "Manual". To the left of the screen, there are three vertical dotted lines (red, blue, and green) that branch out to point at the "Monitor", "Log", and "System Set" buttons respectively.

- ◆ Monitor : Each telemetry sensor data can be displayed on the screen.
- ◆ Log : Record telemetry data.
- ◆ System Set : Select FASSTest or T-FHSS in accordance with your radio system.

Monitor

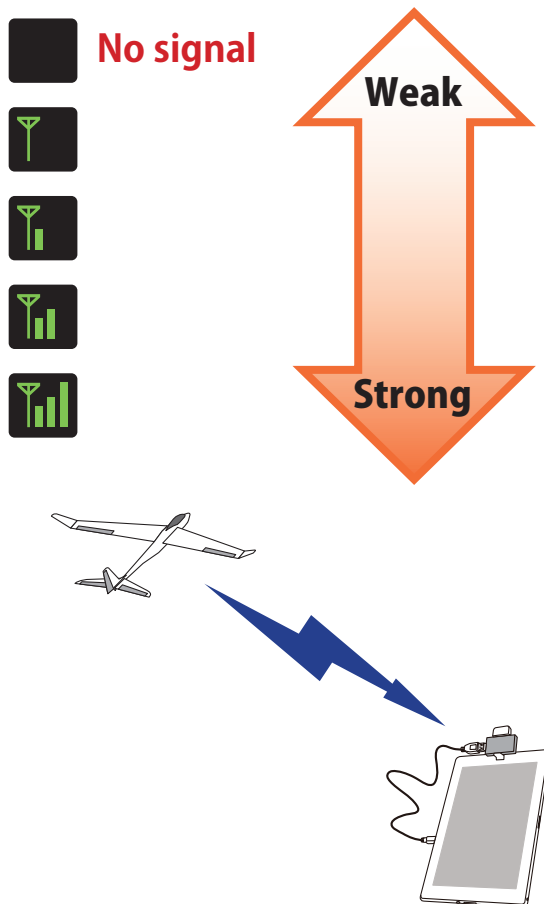
Multiple sensor data can be shown on one screen. This app offers a streamlined approach. (see. Page7)

1. Receiving Signal Level

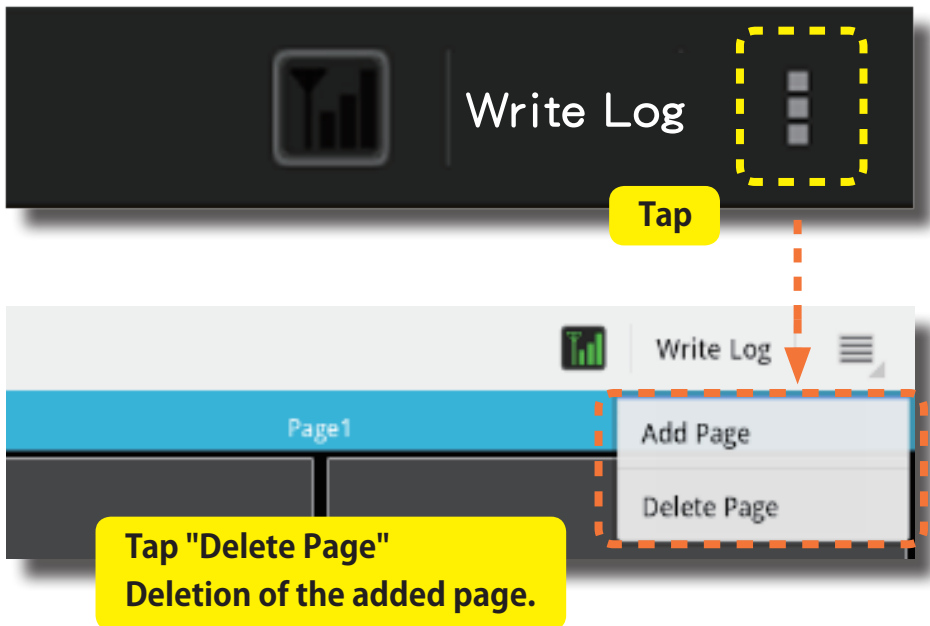


Signal level of the TMA-1 from a receiver can be checked by the signal level icon that is on the upper right of your screen.

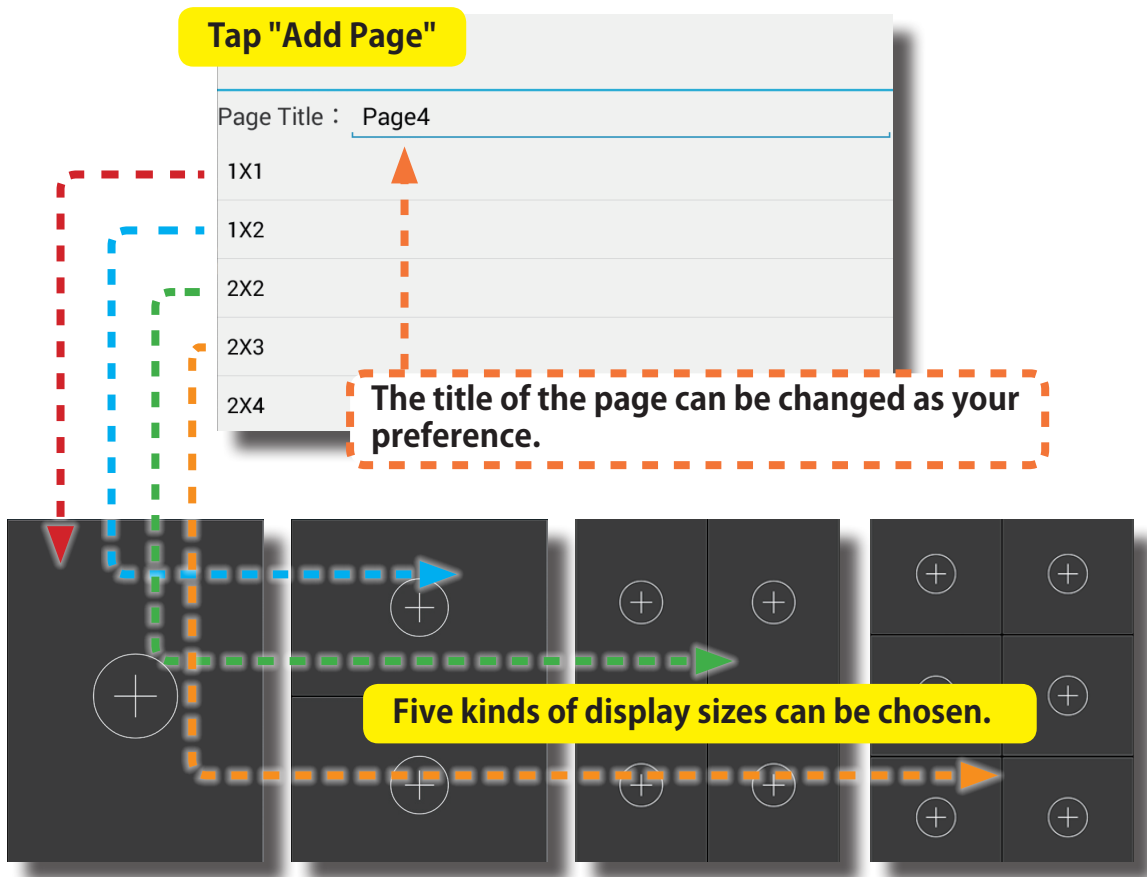
*It does not show the signal level from a transmitter to a receiver.



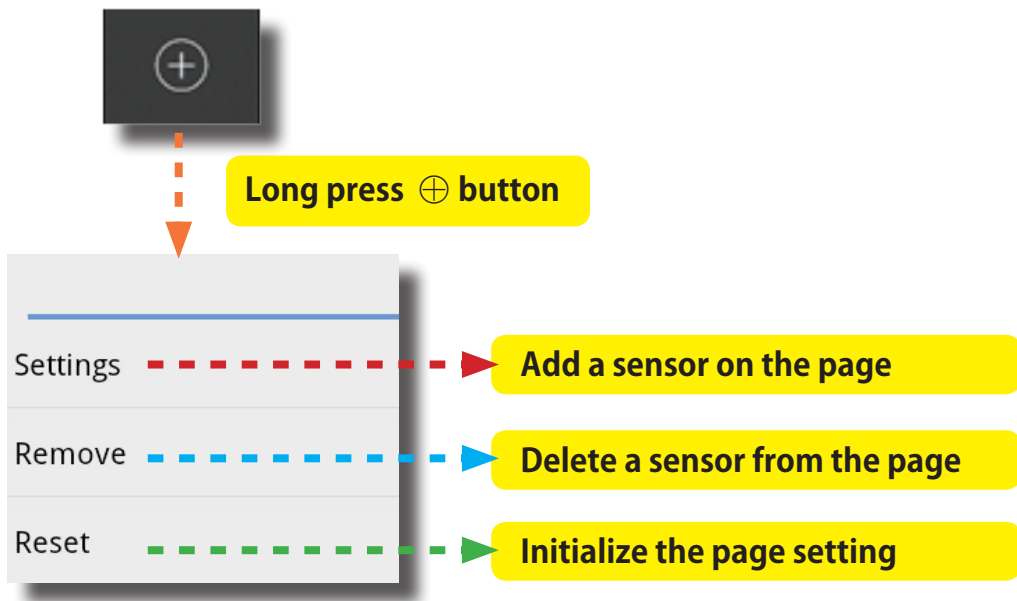
2. Sensor Setting



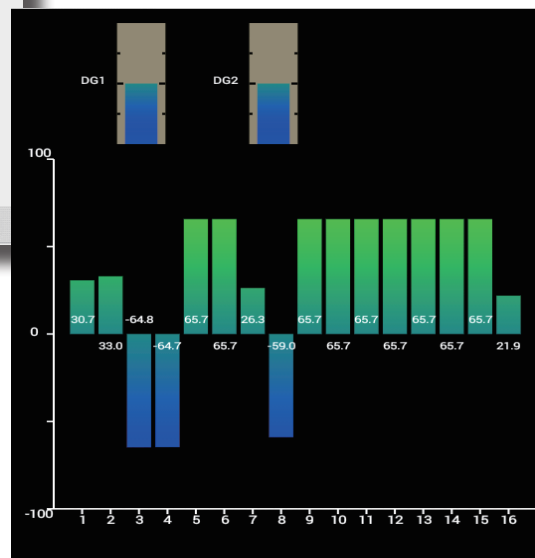
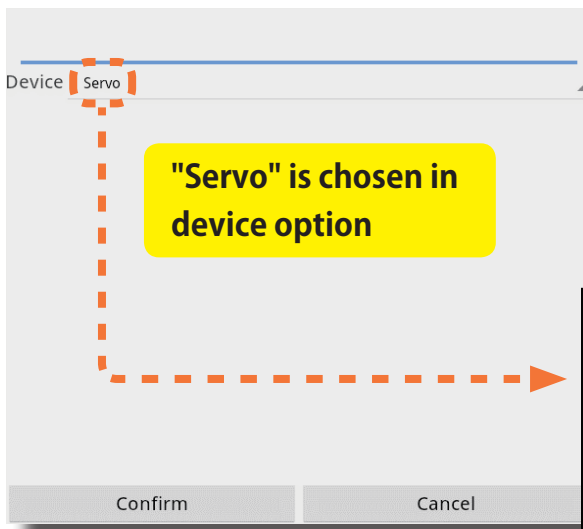
◆ Add Page



◆ Sensor Setting



◆ Servo Monitor

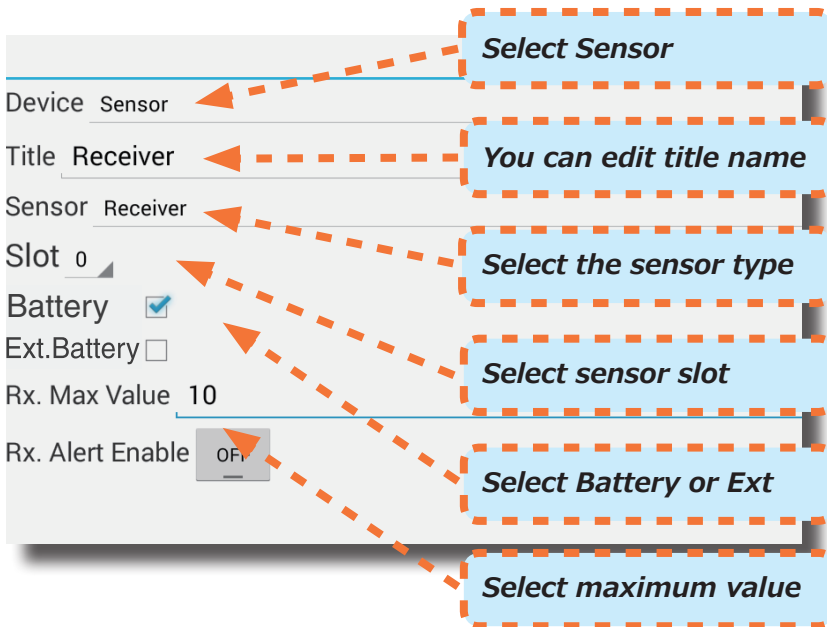


◆ Receiver & External Battery Voltage

< Setting >

TMA-1 can display the receiver and external battery voltage.

Long press the ⊕ button → Setting → Device → Sensor or receiver voltage display item pushed for a long time, this display will appear.



Battery



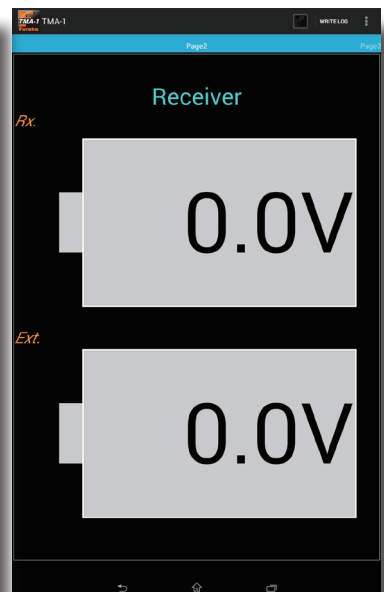
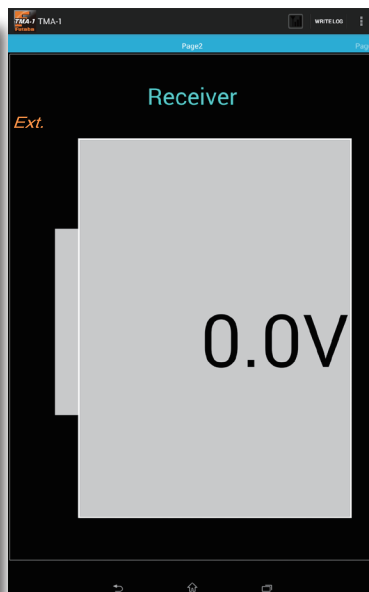
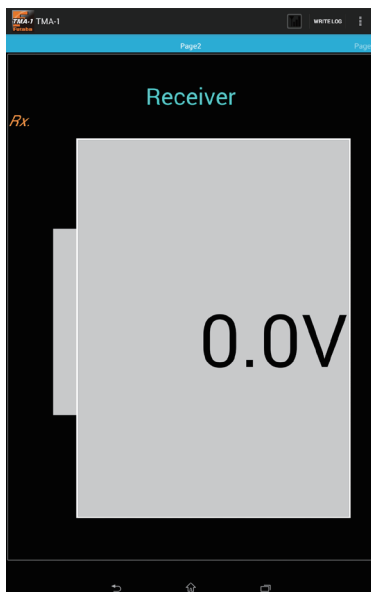
Ext. Battery



Battery



Ext. Battery



◆ Receiver & Voltage

< Alert >

High/Low voltage alarm can be enabled with sound and red blink early screen.

Device	Sensor
Title	Receiver
Sensor	Receiver
Slot	0
Battery	<input checked="" type="checkbox"/>
Ext.Battery	<input checked="" type="checkbox"/>
Rx. Max Value	10
Rx. Alert Enable	<input type="checkbox"/> ON
Rx. Alert Max	10
Rx. Alert Min	0
Ext. Max Value	10
Ext. Alert Enable	<input type="checkbox"/> ON
Ext. Alert Max	10
Ext. Alert Min	0

Set receiver alarm

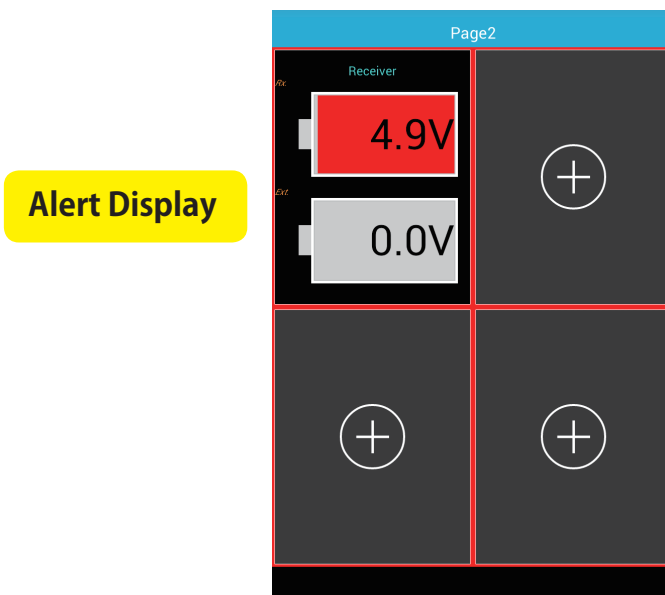
Set maximum value

Set minimum value

Set external voltage alarm

Set maximum value

Set minimum value



◆ Temperature

< Setting >

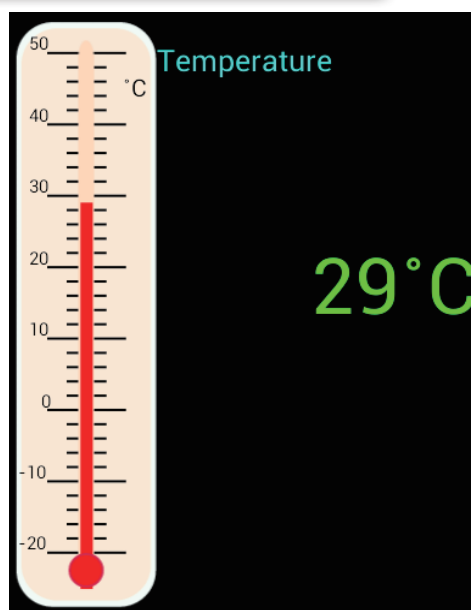
Temperature is displayed. (TMA-1 can display the value of the temperature sensor.)

Long press the ⊕ button → Setting → Device → Sensor or temperature display item pushed for a long time, this display will appear.

The screenshot shows the 'Sensor' settings menu. Callouts point to various fields:

- Select Sensor**: Points to the 'Device' dropdown menu.
- You can edit title name**: Points to the 'Title' text input field.
- Select Temperature**: Points to the 'Sensor' dropdown menu.
- Select the Unit (°C or °F)**: Points to the 'Unit' dropdown menu.
- Select sensor slot**: Points to the 'Slot' dropdown menu.
- Select maximum value**: Points to the 'Max Value' input field.

Other visible fields include 'Alert Enable' (set to OFF) and 'Confirm'/'Cancel' buttons at the bottom.



◆ Temperature

< Alert >

High/Low temperature alarm can be enabled.

The screenshot shows a configuration window for a temperature sensor. The fields are: Device: Sensor, Title: Temperature, Sensor: Temperature, Unit: °C, Slot: 1, Max Value: 50, Alert Enable: ON, Alert Max: 20, and Alert Min: -20. At the bottom are Confirm and Cancel buttons. Three blue callout boxes with orange dashed borders point to specific settings: 'Set Alarm' points to the Alert Enable toggle, 'Set maximum value' points to the Alert Max input field, and 'Set minimum value' points to the Alert Min input field.

Device: Sensor

Title: Temperature

Sensor: Temperature

Unit: °C

Slot: 1

Max Value: 50

Alert Enable: ON

Alert Max: 20

Alert Min: -20

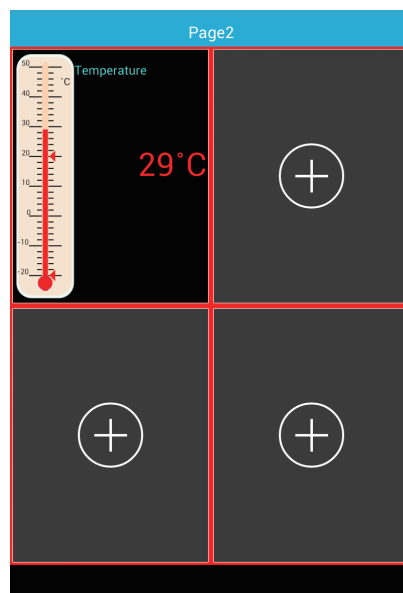
Confirm Cancel

Set Alarm

Set maximum value

Set minimum value

Alert Display



◆ RPM

< Setting >

RPM is displayed. (TMA-1 can display the value of the RPM sensor.)

Long press the ⊕ button → Setting → Device → Sensor or RPM display item pushed for a long time, this display will appear.

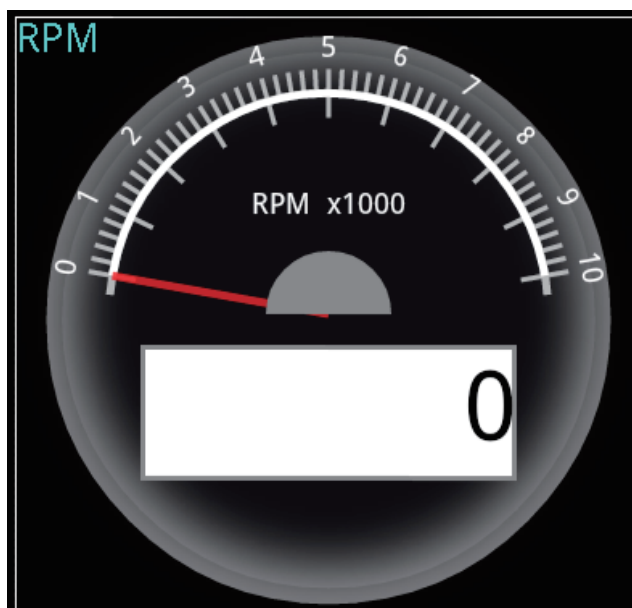
The screenshot shows the 'Sensor' settings menu for the RPM sensor. The settings are as follows:

- Device: Sensor
- Title: RPM
- Sensor: RPM
- Type: Optics
- Slot: 1
- Range: 2
- Max Value: 10
- Alert Enable: OFF

Callouts (in blue boxes with dashed orange borders) point to the following elements:

- Select Sensor**: Points to the 'Sensor' dropdown menu.
- You can edit title name**: Points to the 'Title' input field.
- Select RPM**: Points to the 'Sensor' dropdown menu.
- Select Types (Optics or Magnet)**: Points to the 'Type' dropdown menu.
- Select sensor slot**: Points to the 'Slot' dropdown menu.
- Optics → Number of fins Magnet → Gear Ratio**: Points to the 'Range' dropdown menu.
- Select maximum value**: Points to the 'Max Value' input field.

At the bottom, there is a 'Confirm' button.



High/Low RPM alarm can be enabled.

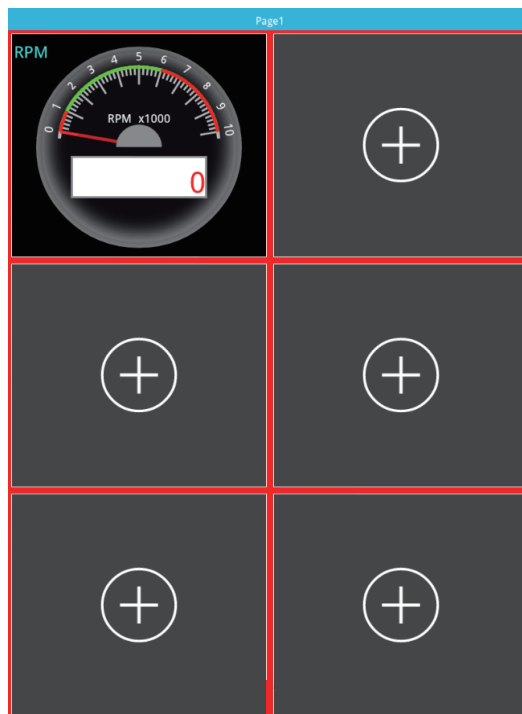
The screenshot shows the RPM configuration menu with the following fields and values:

- Device: Sensor
- Title: RPM
- Sensor: RPM
- Type: Optics
- Slot: 3
- Range: 2 (2~1)
- Max Value: 10 X 1000 rpm
- Alert Enable: ☒ ON
- Alert Max: 6000
- Alert Min: 1000
- Buttons: Confirm, Cancel

Annotations (dashed orange boxes with arrows) point to the following fields:

- Set Alarm**: Points to the Alert Enable checkbox.
- Set maximum value**: Points to the Alert Max field.
- Set minimum value**: Points to the Alert Min field.

Alert Display



◆ Altitude

< Setting >

Altitude is displayed. (TMA-1 can display Altitude sensor)

Long press the ⊕ button → Setting → Device → Sensor or Altitude display item pushed for a long time, this display will appear.

The screenshot shows the 'Altitude' settings menu. Callouts point to various fields:

- Select Sensor**: Points to the 'Device' field, which is set to 'Sensor'.
- You can edit title name**: Points to the 'Title' field, which is set to 'Altitude'.
- Altitude is chosen**: Points to the 'Sensor' field, which is set to 'Altitude'.
- In accordance with a transmitter, it chooses the slot 1 ~ 5, 8 ~ 13, 16 ~ 21, 24 ~ 29**: Points to the 'Slot' field, which is set to '1'.
- Select altitude unit you can select either (m) or (ft)**: Points to the 'Altitude Unit' field, which is set to 'm'.
- Select variometer unit you can select either (m/s) or (mph)**: Points to the 'Variometer Unit' field, which is set to 'm/s'.

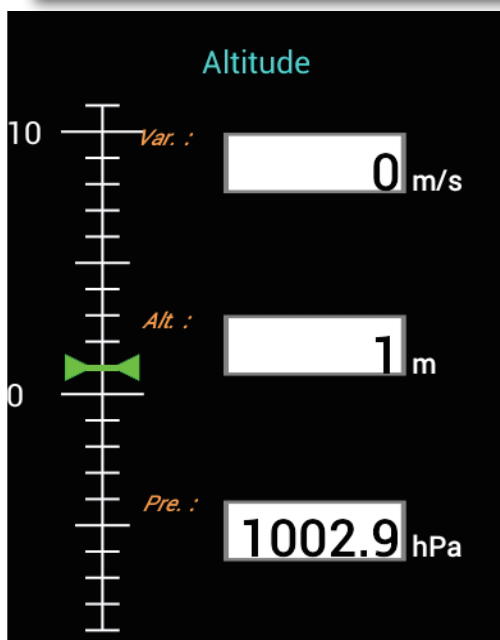
At the bottom, there are 'Confirm' and 'Cancel' buttons. The 'Alert Enable' toggle is set to 'OFF'.

< Altitude reset >

By long pressing the altitude item, you'll get a menu to reset altitude sensor.

The screenshot shows a menu with three options: 'Settings', 'Remove', and 'Reset'. A red dashed box and an arrow point to the 'Reset' option.

Please [Reset] the altitude sensor before flight. It will display the altitude as its 0m.



◆ Altitude

< Alert >

High/Low altitude alarm can be enabled.

The screenshot shows the 'Altitude' settings menu. The following fields are visible:

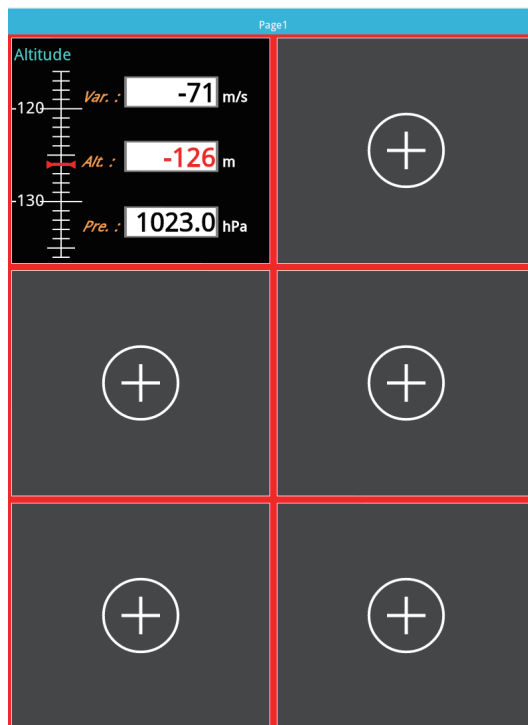
- Device: Sensor
- Title: Altitude
- Sensor: Altitude
- Slot: 16
- Altitude Unit: m
- Variometer Unit: m/s
- Alert Enable: ON
- Alert Max: 200
- Alert Min: -30

Callouts with arrows point to the following fields:

- Set Alarm** points to the Alert Enable field.
- Set maximum value** points to the Alert Max field.
- Set minimum value** points to the Alert Min field.

At the bottom are 'Confirm' and 'Cancel' buttons.

Alert Display



GPS is displayed. (TMA-1 can display the GPS sensor)

Long press the ⊕ button → Setting → Device → Sensor or GPS display item pushed for a long time, this display will appear.

Select Sensor

You can edit title name

GPS is chosen

In accordance with a transmitter, it chooses the slot 8, 16, 24

Select altitude unit you can select either (m) or (ft)

Select variometer unit you can select either (m/s) or (mph)

Select speed unit you can select either (km/h) or (m/h)

Confirm

< Distance reset >

By long pressing the GPS item, you'll get a menu to reset GPS sensor.

GPS

GPS : []

Dis. : 0.0 m

Speed : 0.0 km/h

Alt. : 0.0 m

Var. : 0.0 m/s

Settings

Remove

Reset

Please [Reset] the GPS sensor before flight. It will display the distance as its 0m.

◆ GPS Locus

< Setting >

The controller monitor sets the course of the model to be sure the model stays on that course.

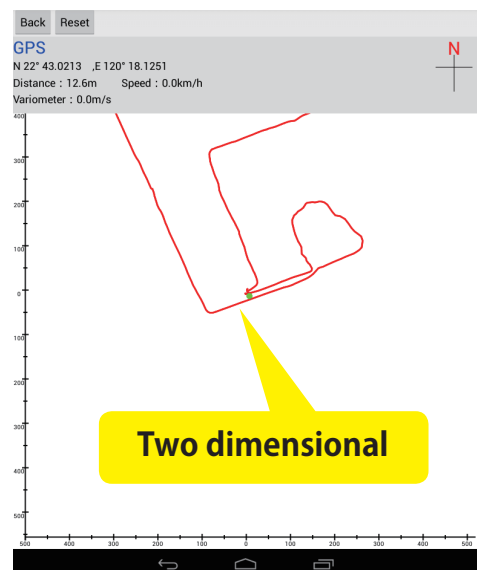
Long press the ⊕ button → Setting → Device → Sensor or GPS Locus display item pushed for a long time, this display will appear.

The screenshot shows the configuration screen for the GPS Locus sensor. It has four input fields: 'Device' set to 'Sensor', 'Title' set to 'GPS', 'Sensor' set to 'GPSLocus', and 'Slot' set to '24'. At the bottom are 'Confirm' and 'Cancel' buttons. Four callout boxes with dashed orange borders point to the fields:

- Sensor is chosen** (points to Device)
- You can edit title name** (points to Title)
- Select GPS Locus** (points to Sensor)
- In accordance with a transmitter, it chooses the slot 8、16、24** (points to Slot)

< Zoom-in >

Double-tap anywhere on the GPS Locus of screen to magnify the screen.

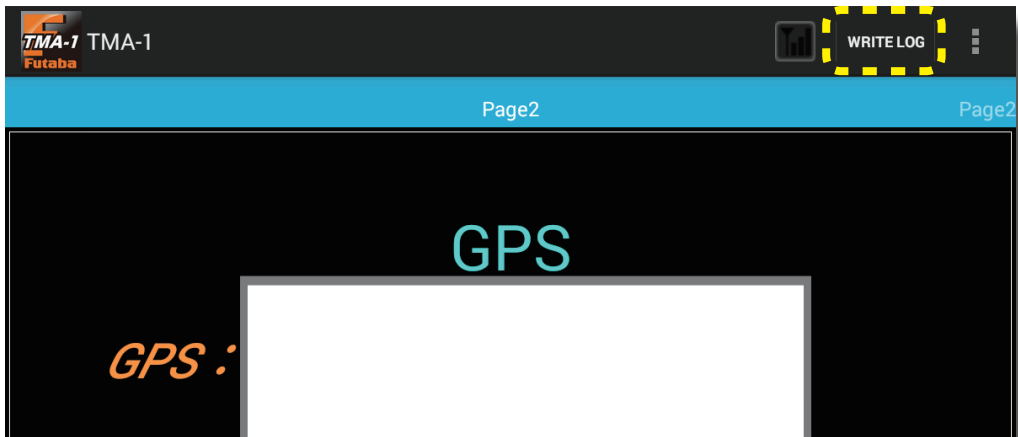


Log

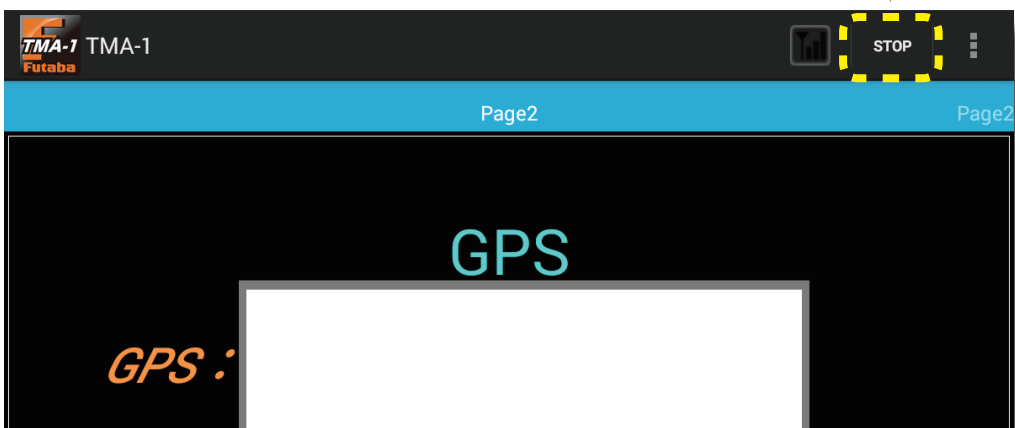
TMA-1 can take and save sensor log data as text data.

1. Start Data Logging

Tap this button to start data logging

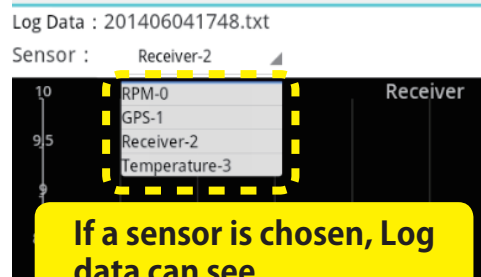
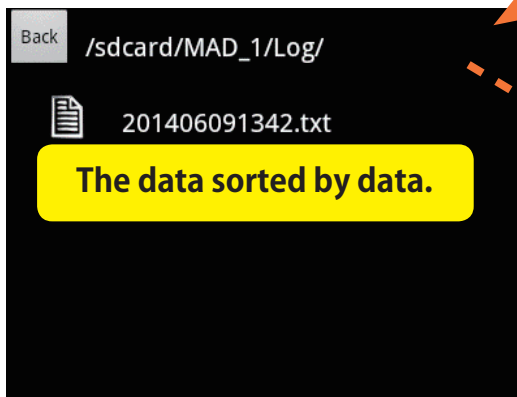
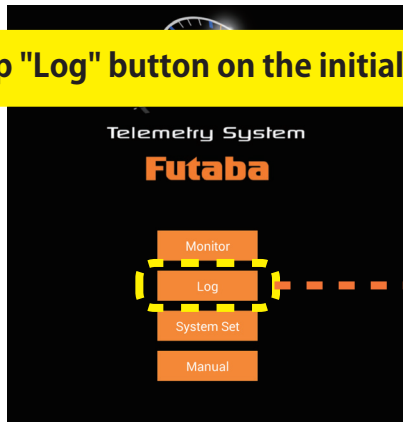


Tap this button again to stop the data logging



2. Check Log Data

Tap "Log" button on the initial screen.



3. Save Log Data

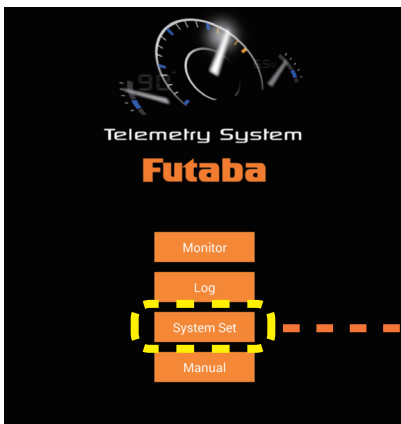
Log data is stored on the folder **Internal storage** → **TMA_1** → **Log** of the tablet smart phone.

System Set

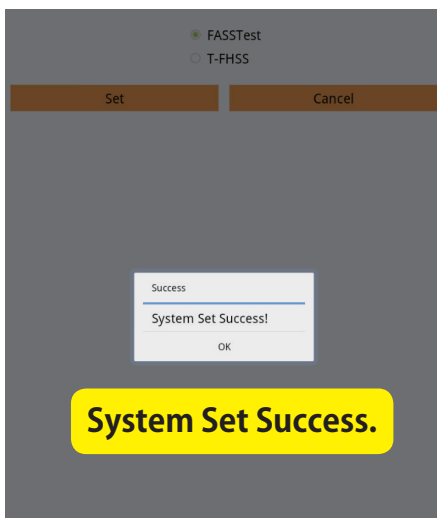
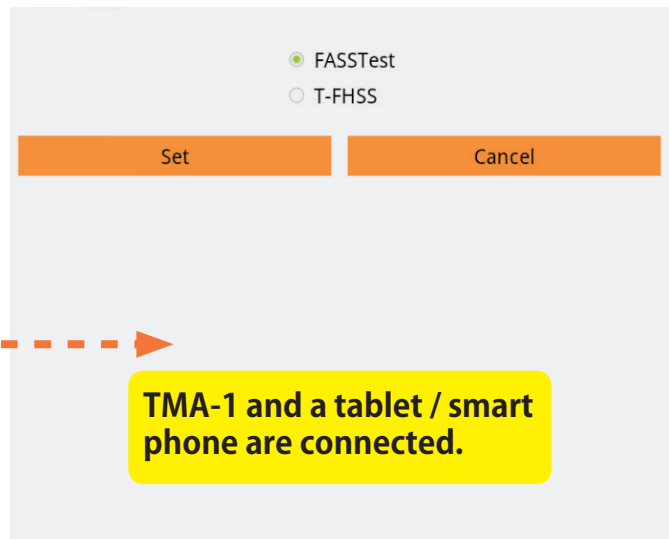
The TMA-1 app can be used on **FASSTest** and **T-FHSS** system.

1. Note

1. When you would like to change your transmission system, reset the TMA-1.
2. Turn OFF the receiver and transmitter before switching the transmission system (FASSTest or T-FHSS)



Tap the "System Set" button on the screen



Error

Error message: Please confirm link or restart link device.
Start by selecting either a tablet or smart phone.

Language

This system supports two languages, English and Japanese. You can select the language, English or Japanese by using the language bar in tablet or phone.

About

Tap the "About" button to find the software version.



Setting

Screen mode, alert sound and defaults can be set in this system.

