1M23N29802

Futaba

Telemetry Adapter TMA-1

Instruction Manual

Thank you for purchasing a Futaba **TMA-1** Telemetry adapter. This **TMA-1** displays the telemetry data from a telemetry receiver on a tablet or smart phone. **TMA-1** is connected on a tablet or smart phone. An exclusive application is downloaded to the tablet or a smart phone. Telemetry data can be seen more legible.

Applicable systems: Futaba FASSTest, T-FHSS Telemetry system

Required

- **Tablet or smart phone.**

  The conditions of tablet or smart phone

  ◆ USB to electric supply is possible. ◆ Dual core ◆ OS：Android ™ 3.2 ～

  ◆ Memory：RAM 1GB ～ ROM 16GB ～ ◆ Internet connectivity

- **FASSTest or T-FHSS telemetry system transmitter and receiver .**
- **Telemetry sensor .**

⚠WARNING

Neither water nor fuel must adhere to TMA-1.

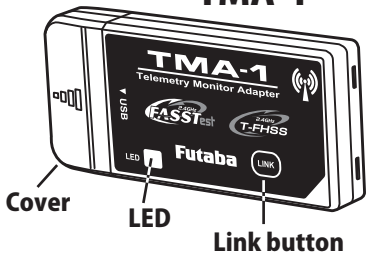
■ As with any electronic components, proper precautions are urged to prolong the life and increase the performance of the TMA-1.

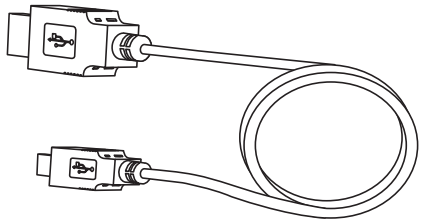
Do not use the TMA-1 with anything other than an R/C model.

An operator must not look at a screen.

■ You may loose sight of the aircraft during flight and this is extremely dangerous. Have an assistant on hand to check the screen for you. A pilot should NEVER take his eyes off his aircraft.

Connections and Name of Each Part of the TMA-1





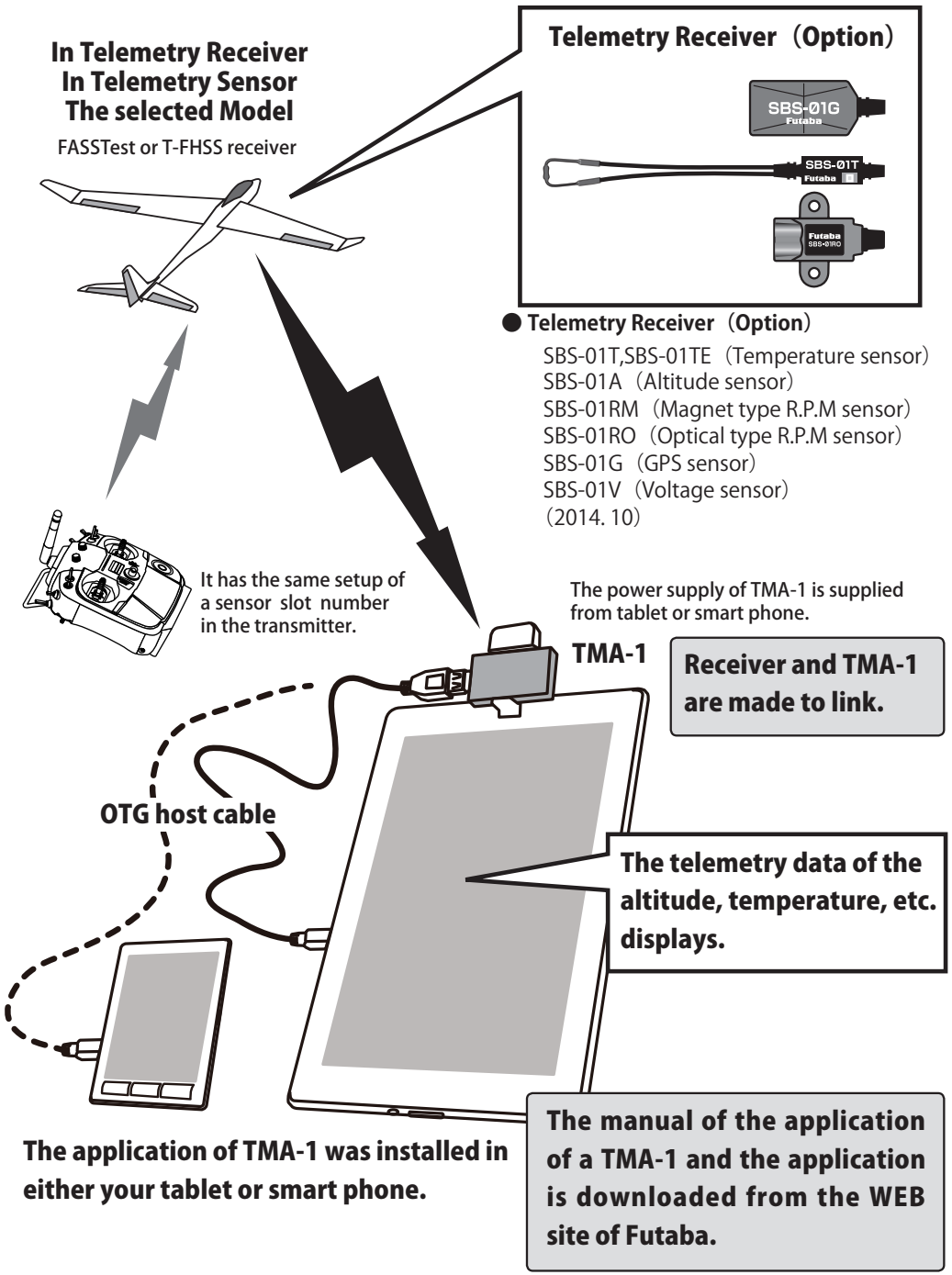
OTG (USB On-The-Go) host cable

Clip holder

TMA-1 ratings

- Size: 2.69 x 1.21 x 0.46 in. (68.3 x 30.8 x 11.6mm)
- Weight: 0.54 oz. (15.4g)
- Current drain: 140mA or less

Connection Method

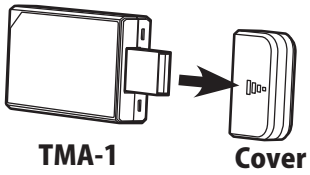


- **Telemetry Receiver（Option）**

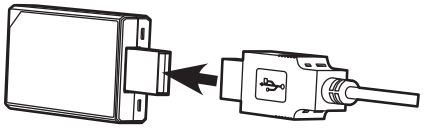
  SBS-01T,SBS-01TE（Temperature sensor）
  SBS-01A（Altitude sensor）
  SBS-01RM（Magnet type R.P.M sensor）
  SBS-01RO（Optical type R.P.M sensor）
  SBS-01G（GPS sensor）
  SBS-01V（Voltage sensor）
  （2014. 10）

Method of attachment

1. The cover of TMA-1 is removed.

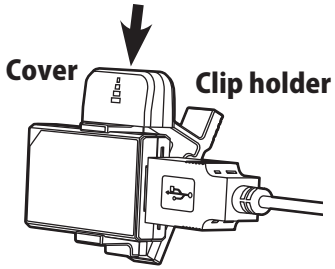


2. Tablet or smart phone is connected with TMA-1 by an OTG (USB On-The-Go) host cable.

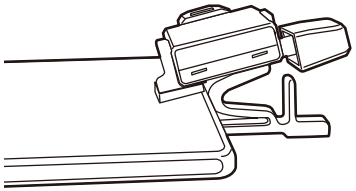


OTG (USB On-The-Go) host cable

3. TMA-1 is put in a clip holder and it is a tight fit. The cover is kept in the upper part of clip holder.



4. The TMA-1 insets into the tablet and or smart phone by using the the clip holder.



Tablet or smart phone

Download of application

1. With the tablet or smart phone that is to be use please open the Futaba WEB site.

www.futaba-rc.com

2. Select the tab of the file name TMA-1 application and download it.

3. Also download the manual of TMA-1 application.

Link

By linking the receiver and TMA-1, the data reception from a receiver becomes possible.

● **"System Set"** of TMA-1 is chosen from **FASSTest** or **T-FHSS**. The receiver to be used is followed. (**"System Set"** is shown in the initial screen of TMA-1 application.)

● Before connecting the TMA-1 to either a tablet or smart phone make sure the transmitter and receiver are already linked when using **FASSTest**. When using **T-FHSS** link all three simultaneous.

FASSTest (T18MZ,T14SG,FX-22 R7008SB,R7003SB)

1. First, a transmitter and a receiver are linked.

2. Transmitter is turned off.

3. The link button of receiver is pushed for a long time to LED red/green blink.

4. The link button of TMA-1 is pushed for a long time to LED blink.

Completion of a link will change LED of TMA-1 green from red only for a moment.

T-FHSS Air (T10J R3008SB)

1. The link button of TMA-1 is pushed for a long time to LED blink.

2. The transmitter is turned on and set to Link mode.

+ button → MDL-SEL → LINK → Jog button push

3. Receiver is turned on.

Completion of a link will change LED of TMA-1 green from red.

T-FHSS Car (T4PLS,T4GRS R304SB,R304SB-E)

1. The link button of TMA-1 is pushed for a long time to LED blink.

2. Transmitter is made into **DISP mode**.

RX MODE → LINK pushed for a long time.

3. The link button of receiver is pushed for a long time to LED blink.

Completion of a link will change LED of TMA-1 green from red only for a moment.

T-FHSS Car (T4PX R304SB,R304SB-E)

1. The link button of TMA-1 is pushed for a long time to LED blink.

2. The transmitter is turned on and set to Link mode.

Receiver → Link → Jog button push

3. The link button of receiver is pushed for a long time to LED blink.

Completion of a link will change LED of TMA-1 green from red.

Reference

*The tablet, smart phone, and cable to be used should use the elegance corresponding are OTC items. (A cable is less than 1 m)

*Transmitter is not turned on when changing TMA-1 system by an application.

* When you link, the distance of TMA-1 and a receiver shall be less than 1 meter.

*The amount display of servo operations may change with transmitters.

* T4PLS,T4GRS, make a sensor slot into default configuration.

Slot 0 ： Receiver Slot 1 ： Temperature Slot 2 ： RPM Sensor Slot 6 ： Voltage Sensor

* Don't use USB hub, when using TMA-1.

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Futaba

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 or more 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.

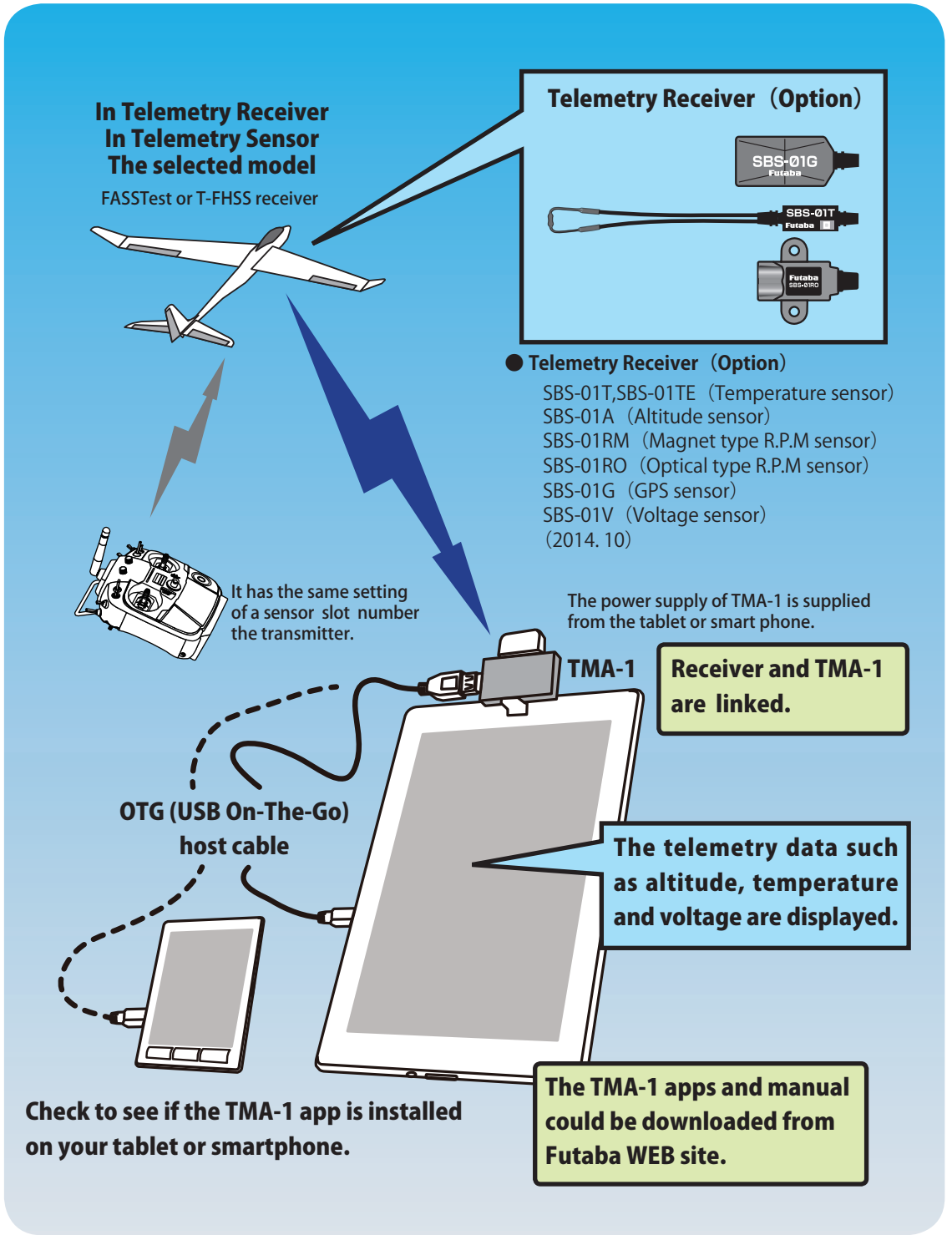
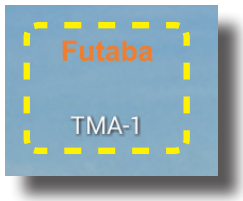


Table of contents

Start-up TMA-1



Visit Futaba WEB site **www.futaba-rc.com** and download the 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.

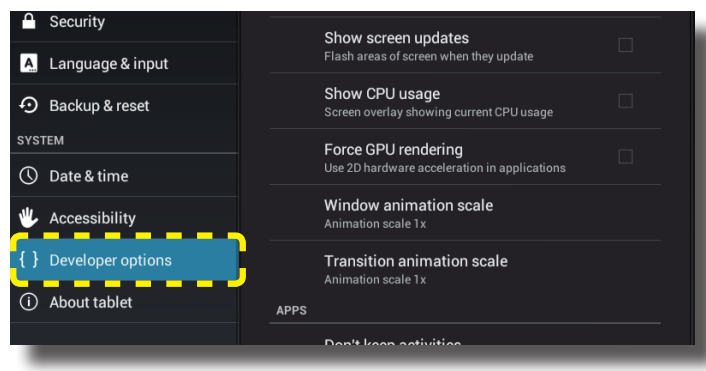
Touch the TMA-1 icon to start it.

Troubleshooting

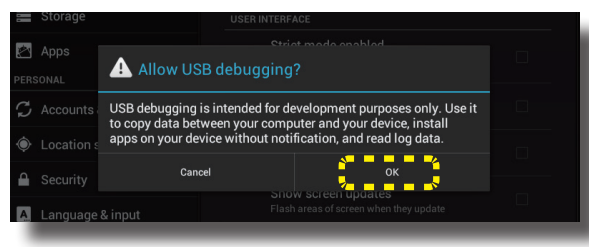
1. When TMA-1 doesn't work on your device.(phone or tablet) go to Developer options on the tablet or phone, tap **"Setting"** → **"Developer Options"** → **"USB debugging"** for enabling.

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.

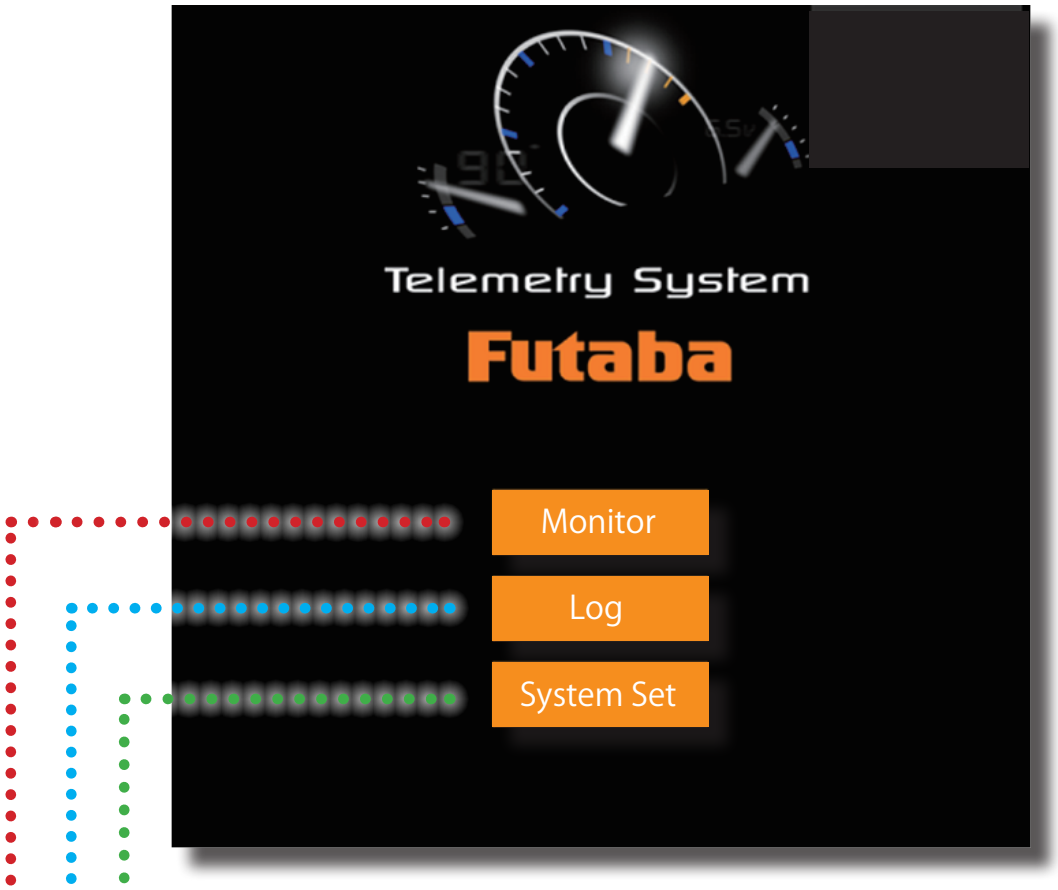


2. Enable USB Debugging.



Initial Screen

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



◆ Monitor : Each telemetry sensor data can be displayed on the screen.

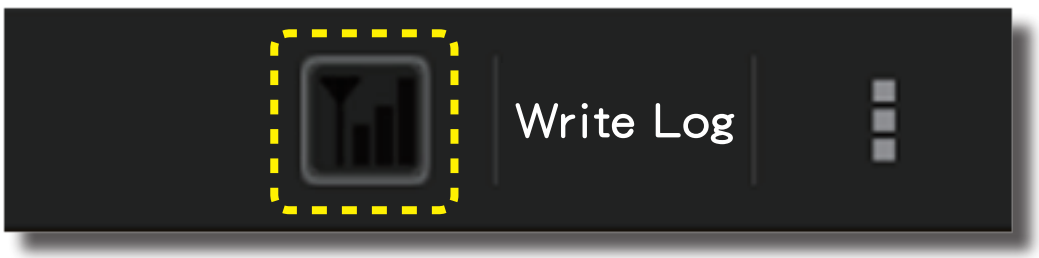
◆ Log : Record telemetry data.

◆ System Set : Select FASSTest or T-FHSS in accordance with your radio system.

Monitor

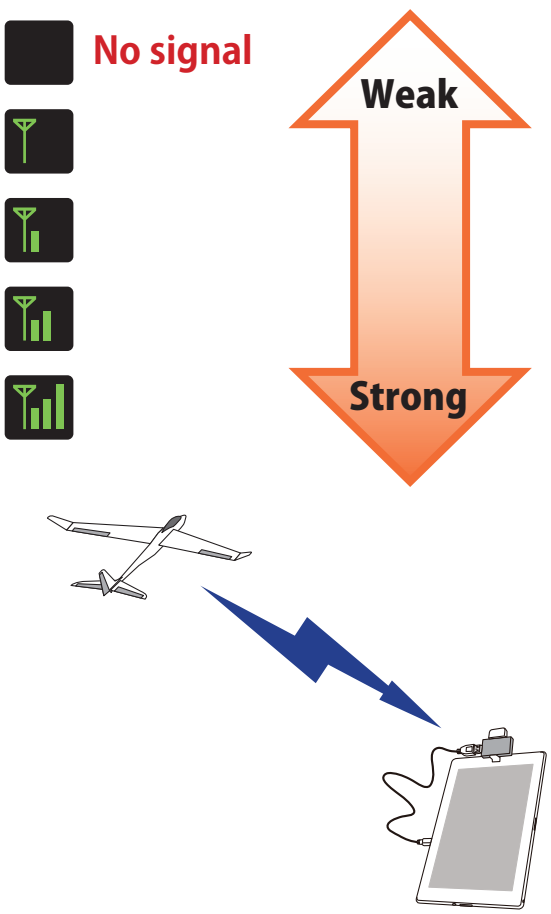
Multiple sensor data can be shown on one screen. This app offers a streamlined approach. (see. Page7)

1. Receiving Signal Level

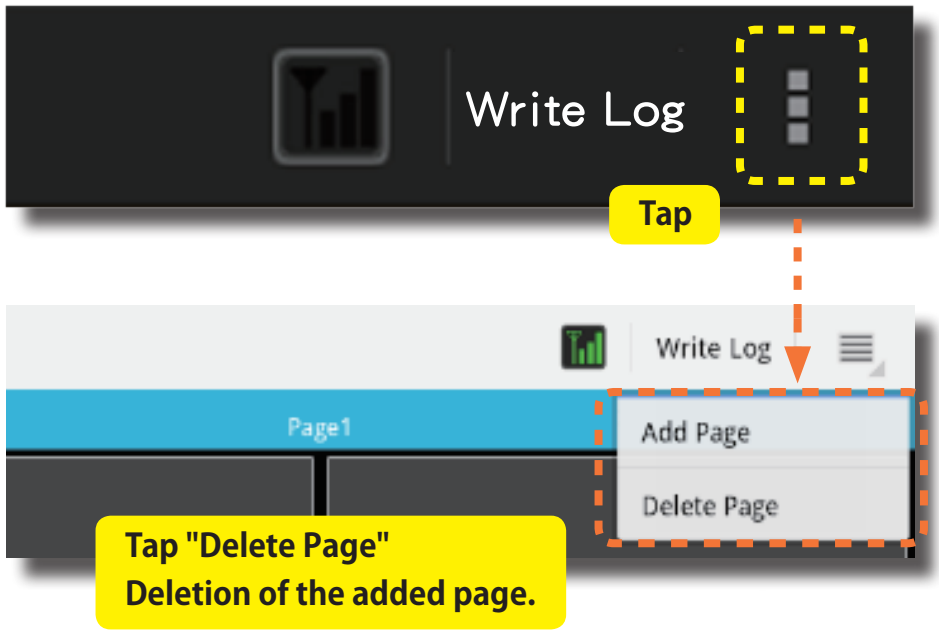


Signal level of the TMA-1 from a receiver can be checked by the signal level icon that is on the upper right of your screen.

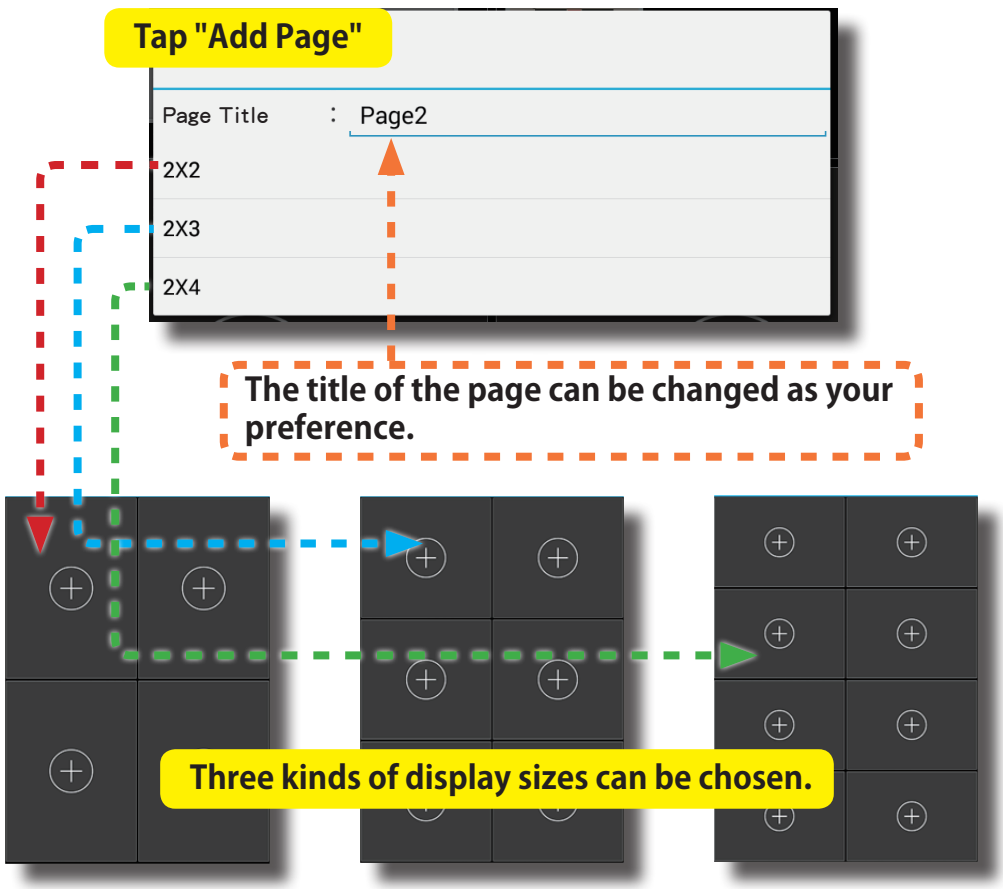
*It does not show the signal level from a transmitter to a receiver.



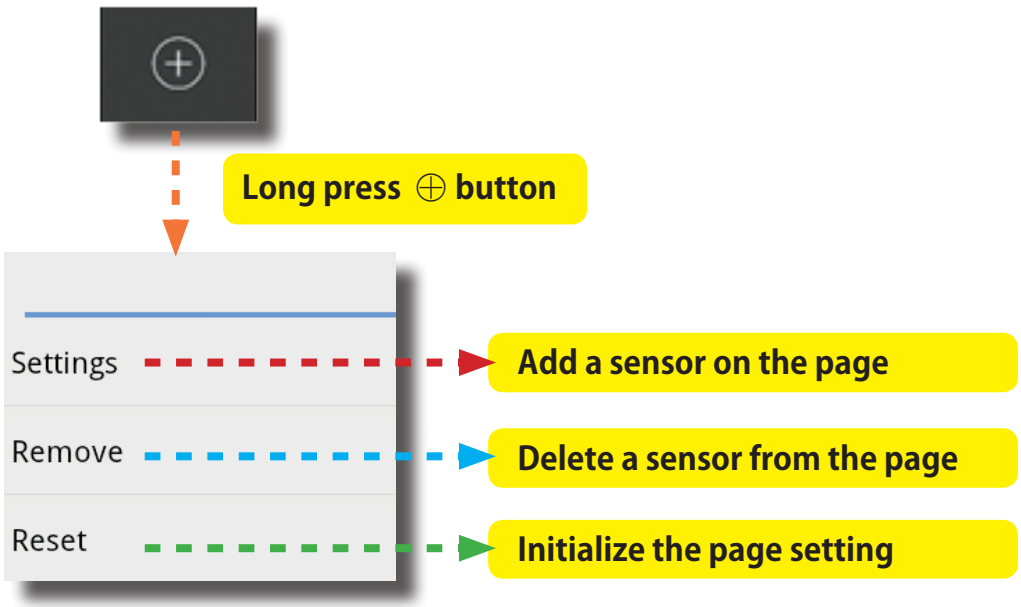
2. Sensor Setting



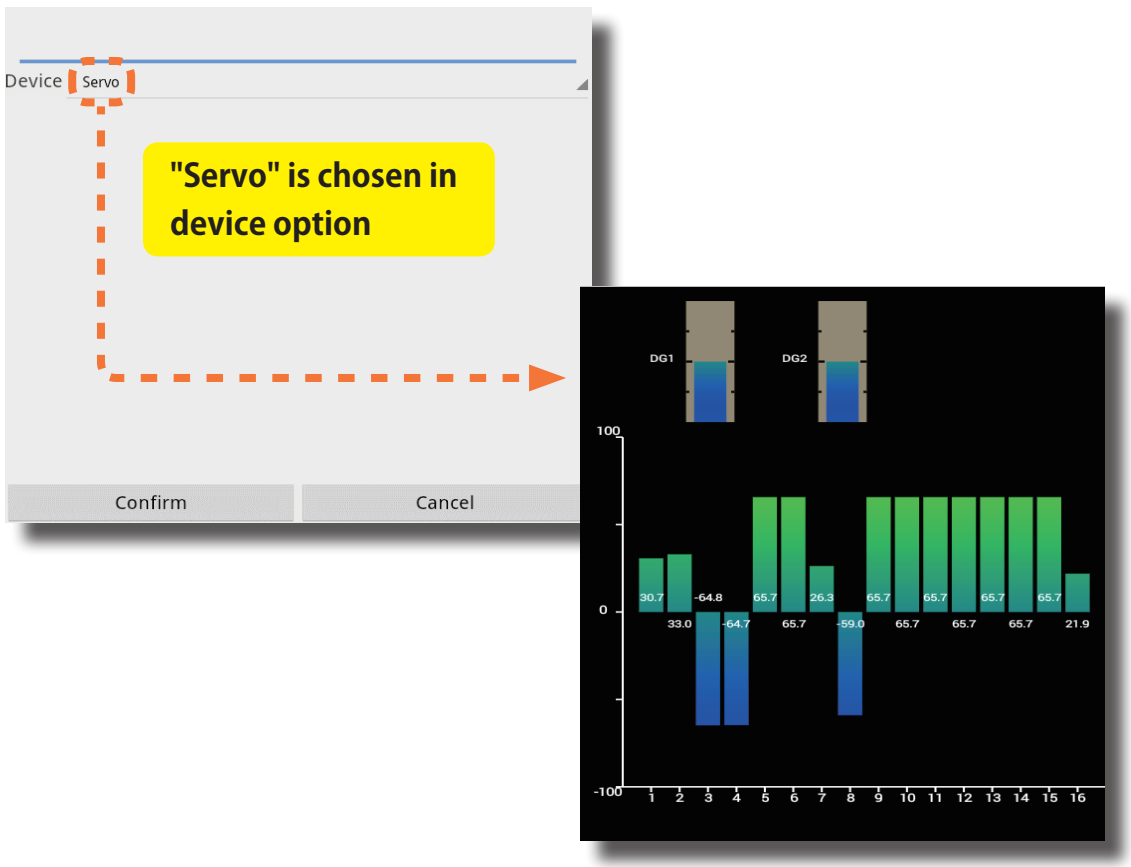
◆ Add Page



◆ Sensor Setting



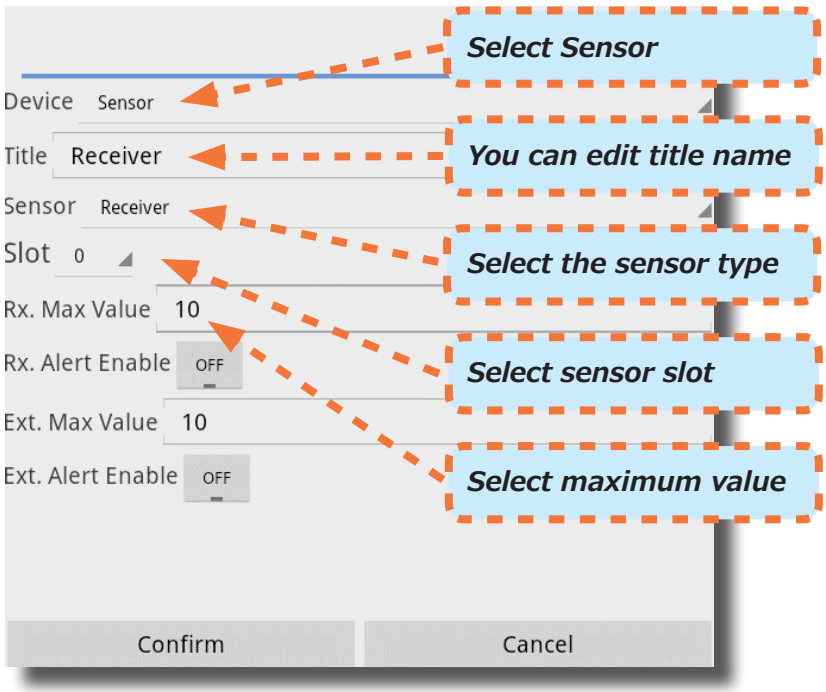
◆ Servo Monitor

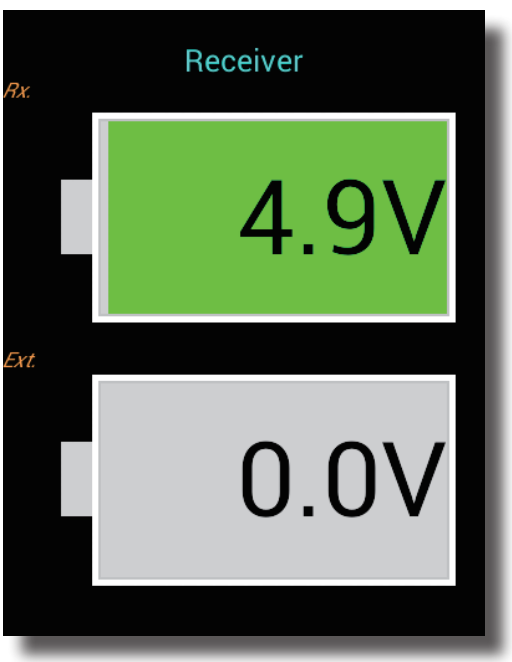


◆ Receiver & External Battery Voltage ＜ Setting ＞

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

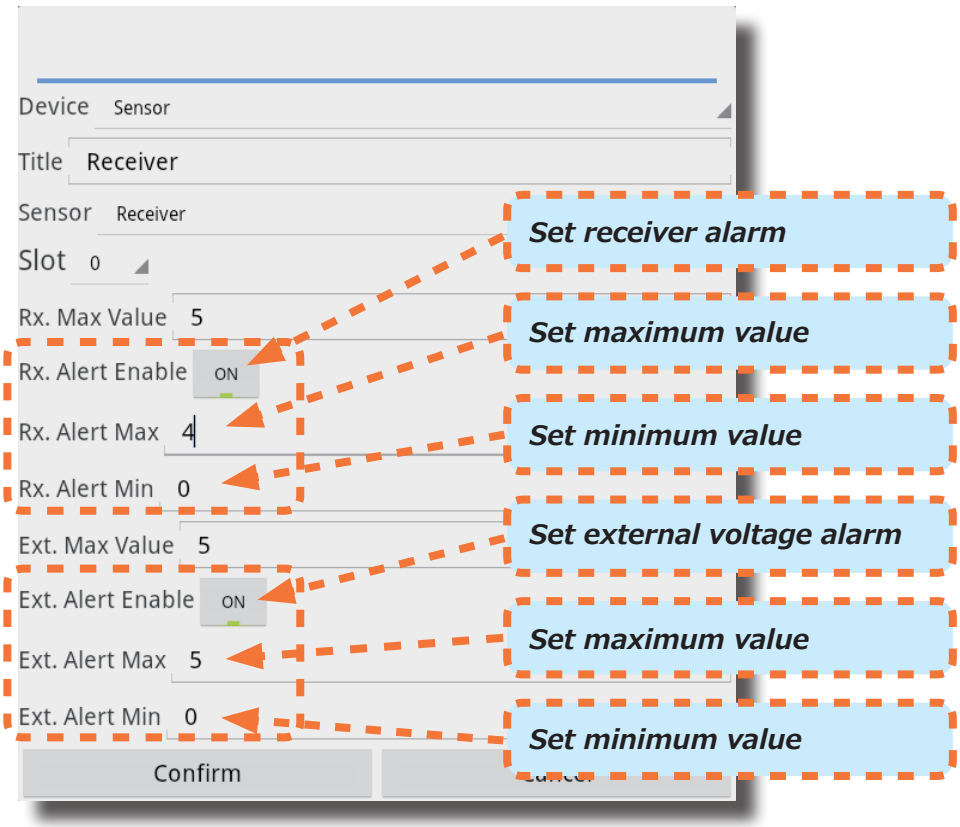
Long press the ⊕ button → Setting → Device → Sensor or receiver voltage display item pushed for a long time, this display will appear.



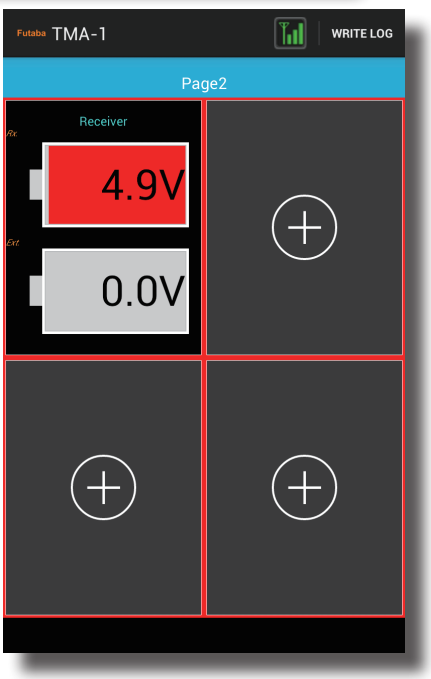


◆ Receiver & Voltage　　< Alert >

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



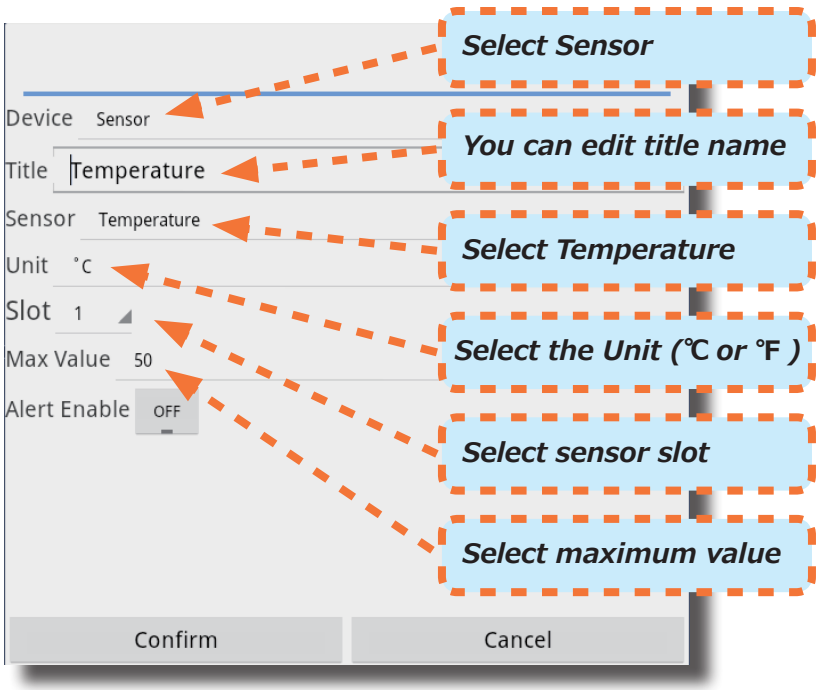
Alert Display

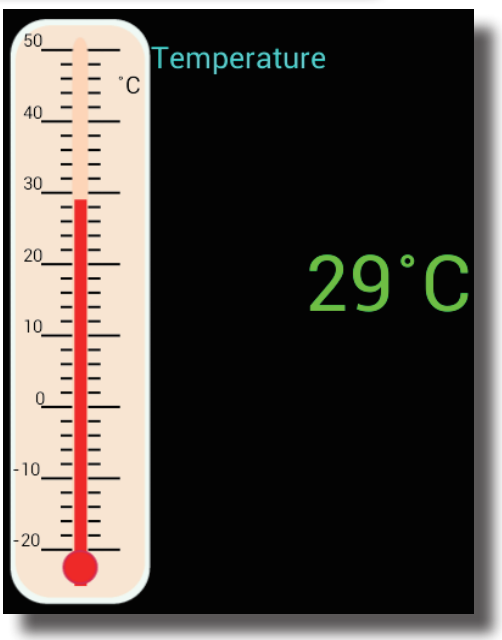


◆ Temperature　　< Setting >

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

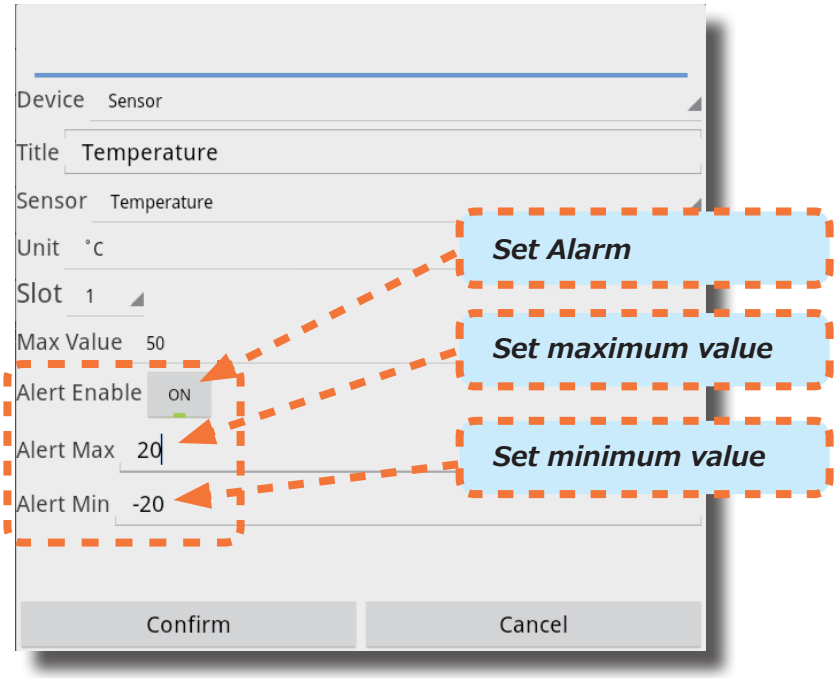
Long press the ⊕ button → Setting → Device → Sensor or temperature display item pushed for a long time, this display will appear.



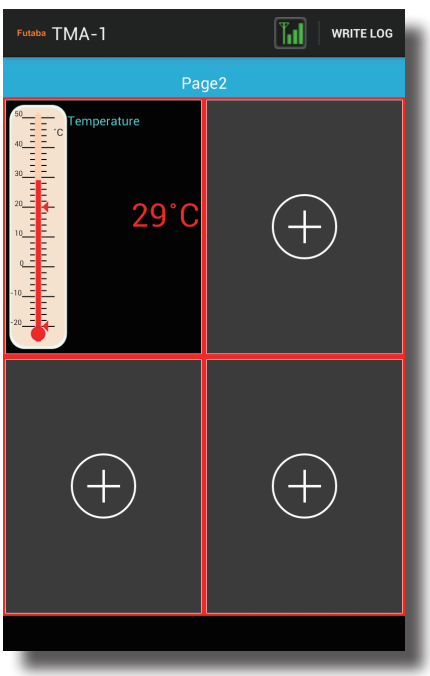


◆ Temperature　　< Alert >

High/Low temperature alarm can be enabled.



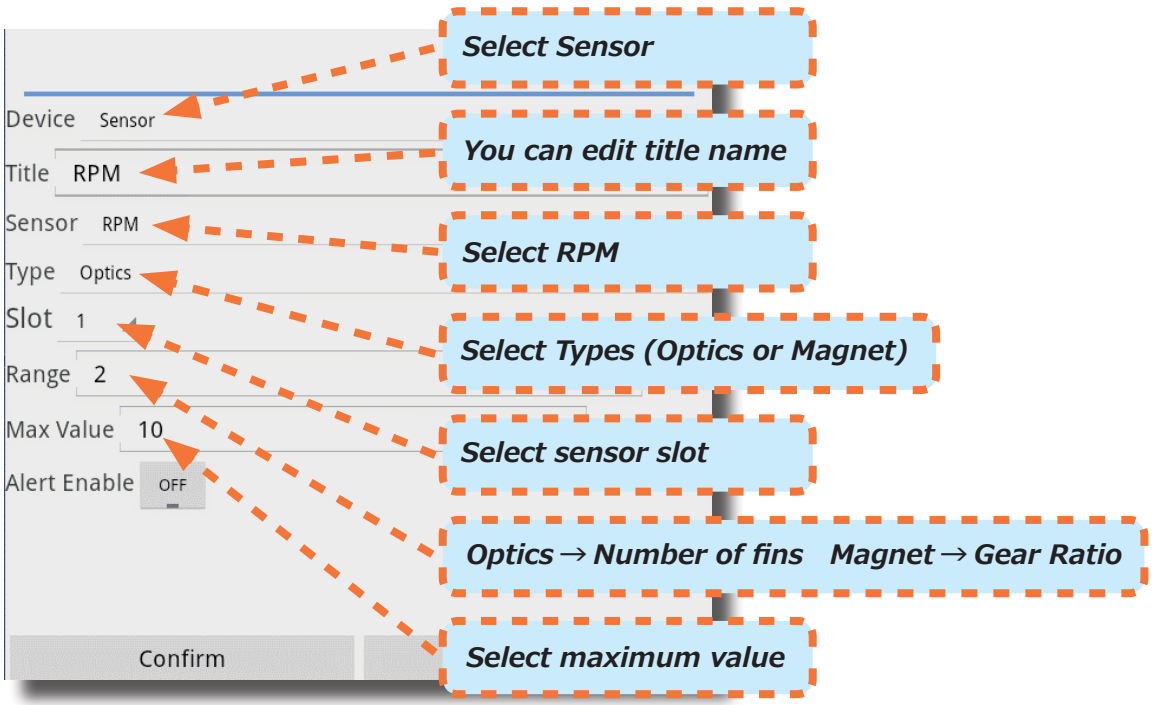
Alert Display

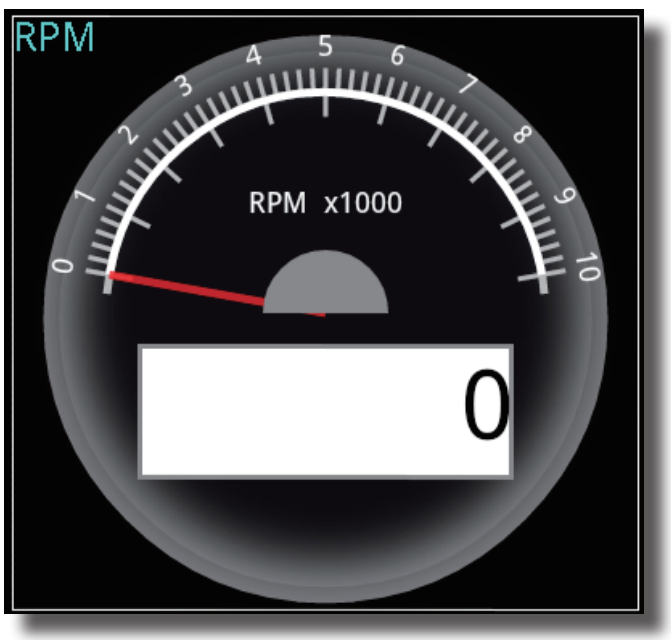


◆ RPM　　< Setting >

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

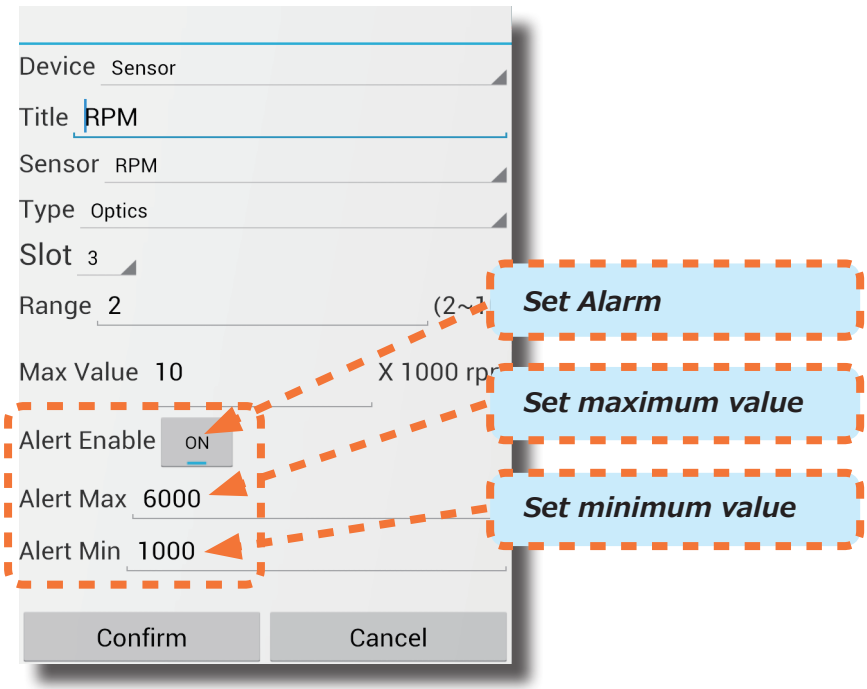
Long press the ⊕ button → Setting → Device → Sensor or RPM display item pushed for a long time, this display will appear.



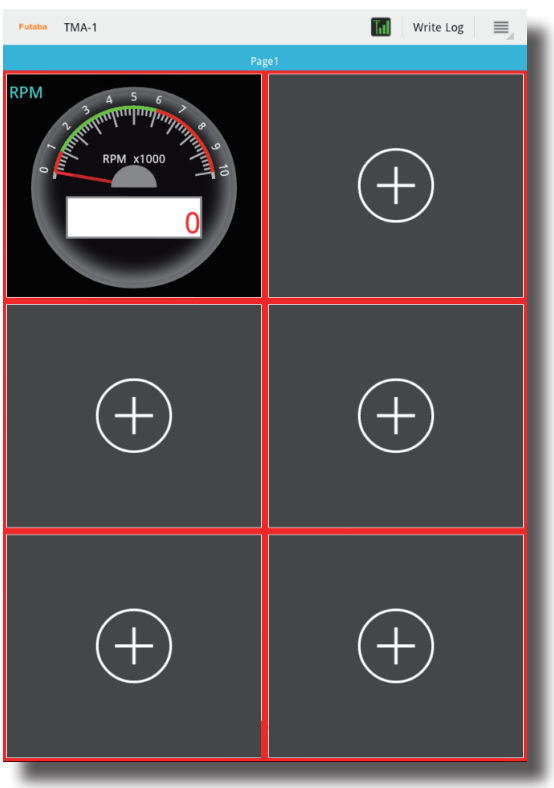


◆ RPM　　< Alert >

High/Low RPM alarm can be enabled.



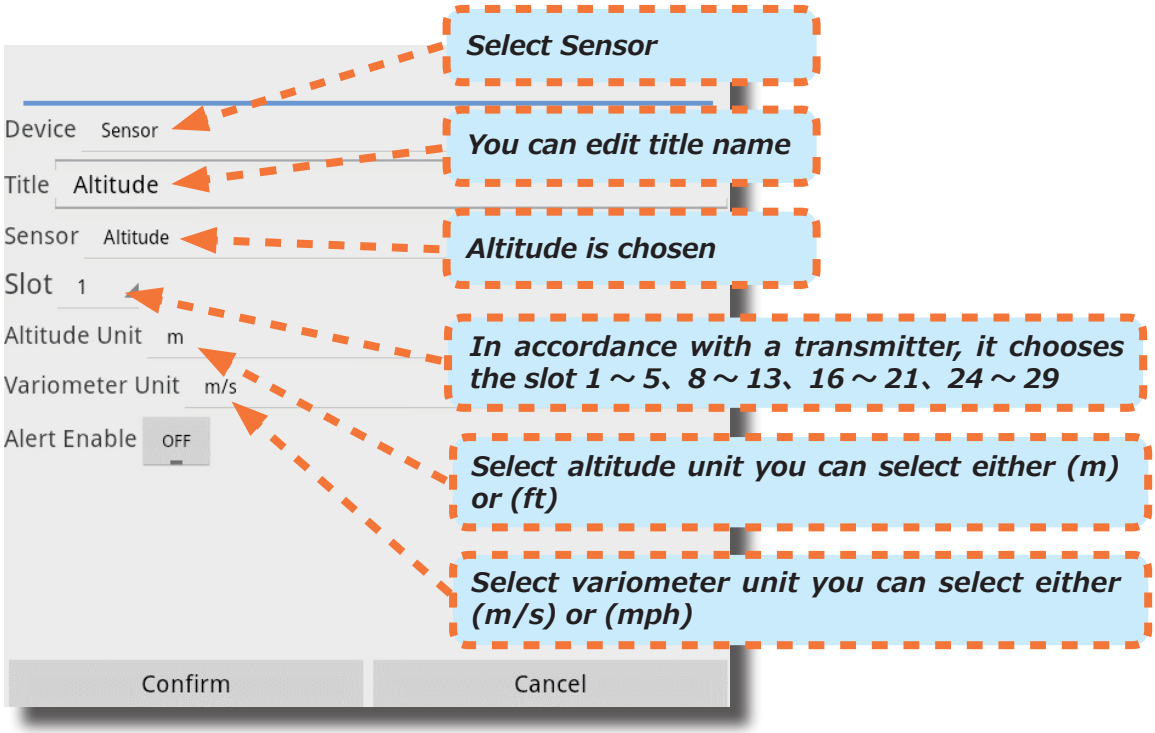
Alert Display

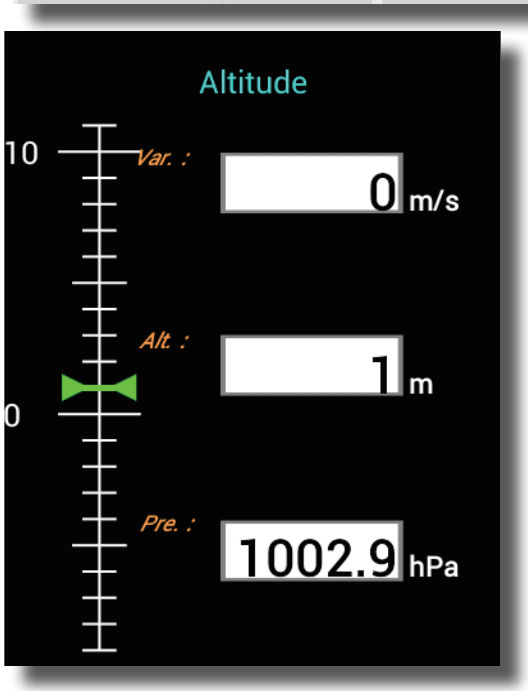


◆ Altitude　　< Setting >

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

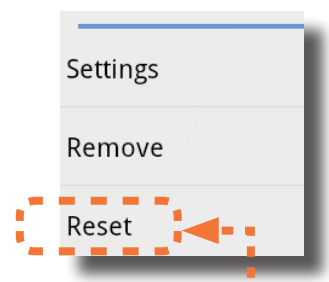
Long press the ⊕ button → Setting → Device → Sensor or Altitude display item pushed for a long time, this display will appear.





< Altitude reset >

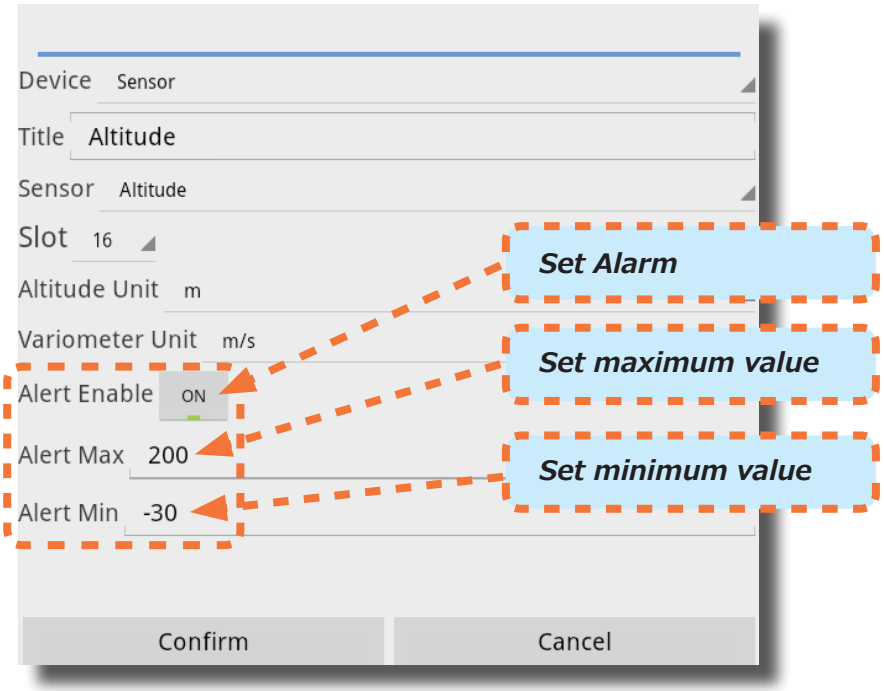
By long pressing the altitude item, you'll get a menu to reset altitude sensor.



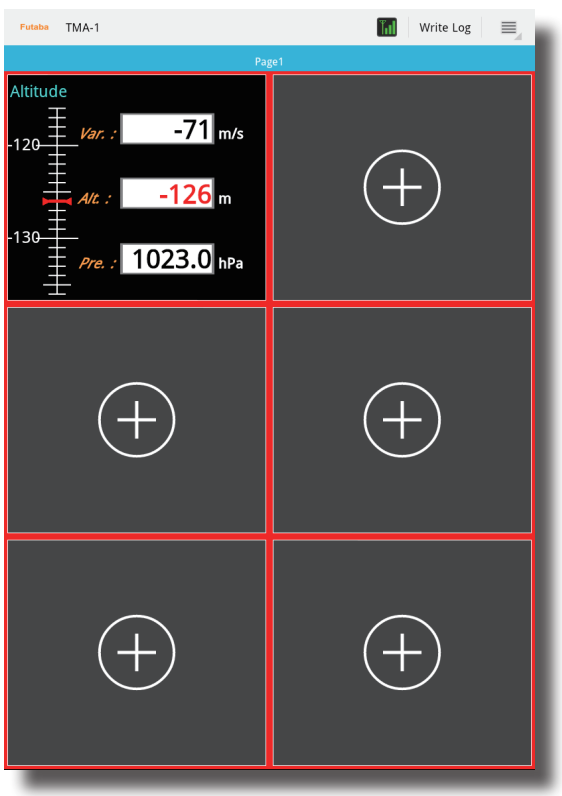
Please [Reset] the altitude sensor before flight. It will display the altitude as its 0m.

◆ Altitude　　< Alert >

High/Low altitude alarm can be enabled.



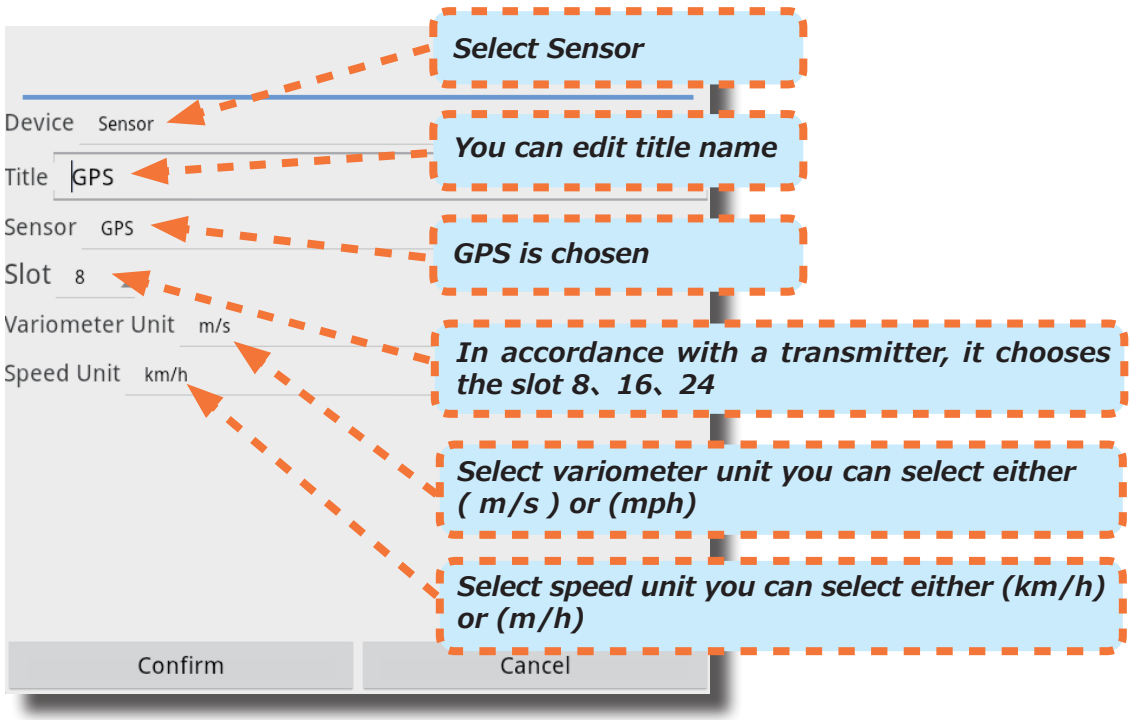
Alert Display

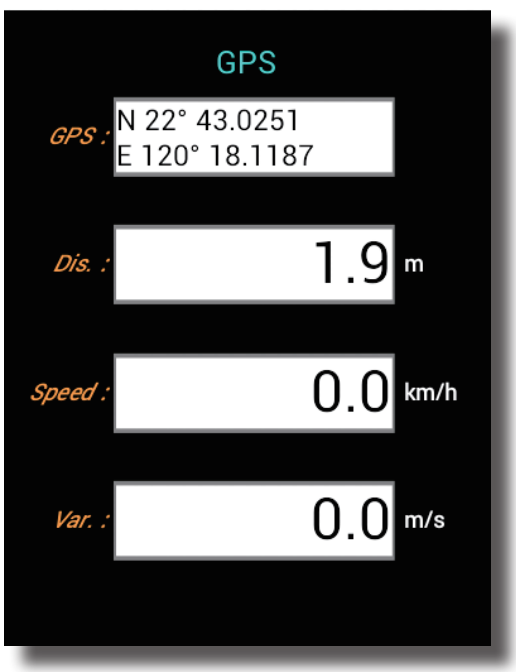


◆ GPS　　< Setting >

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

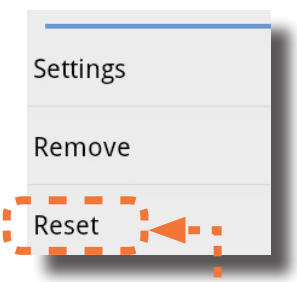
Long press the ⊕ button → Setting → Device → Sensor or GPS display item pushed for a long time, this display will appear.





< Distance reset >

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

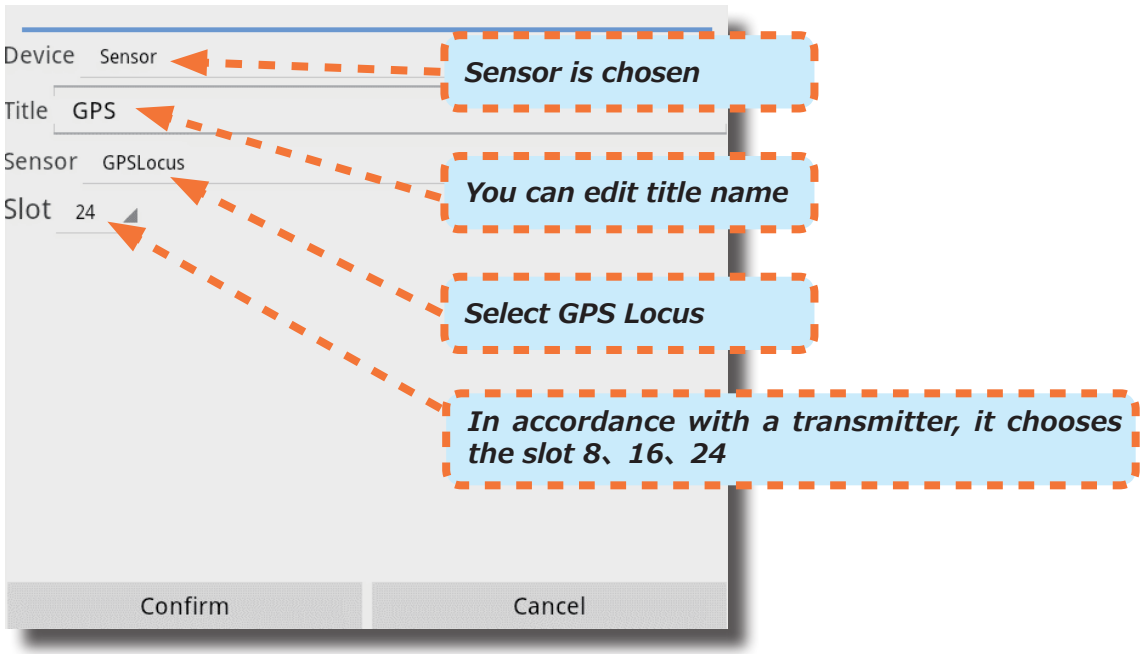


Please [Reset] the GPS sensor before flight. It will display the distance as its 0m.

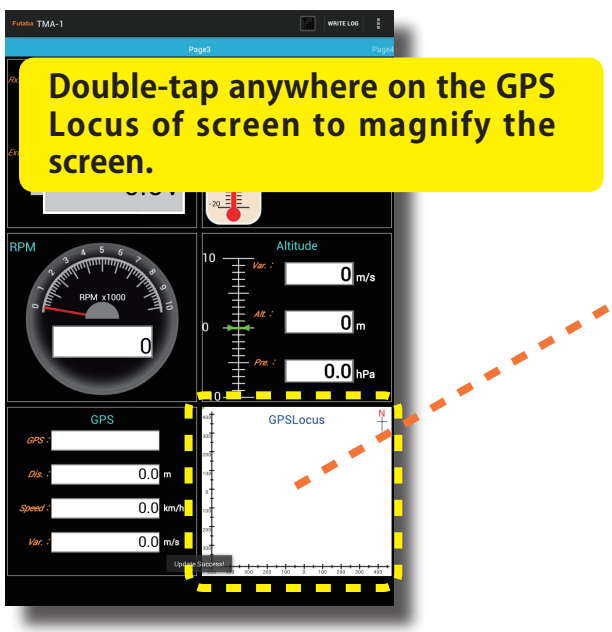
◆ GPS Locus ＜ Setting ＞

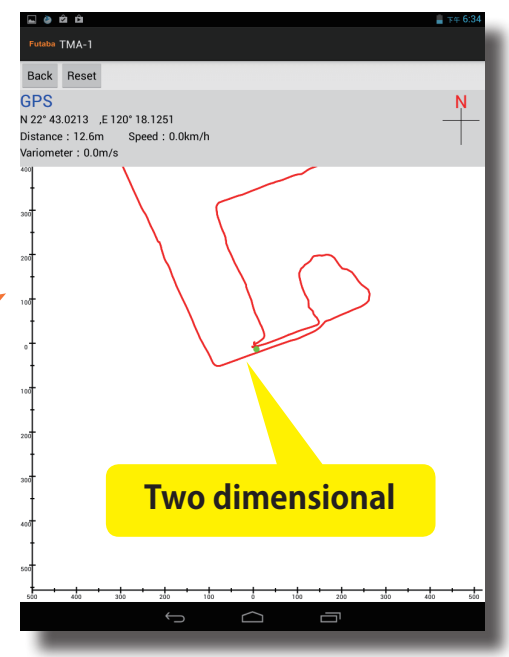
The controller monitor sets the course of the model to be sure the model stays on that course.

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



＜ Zoom-in ＞

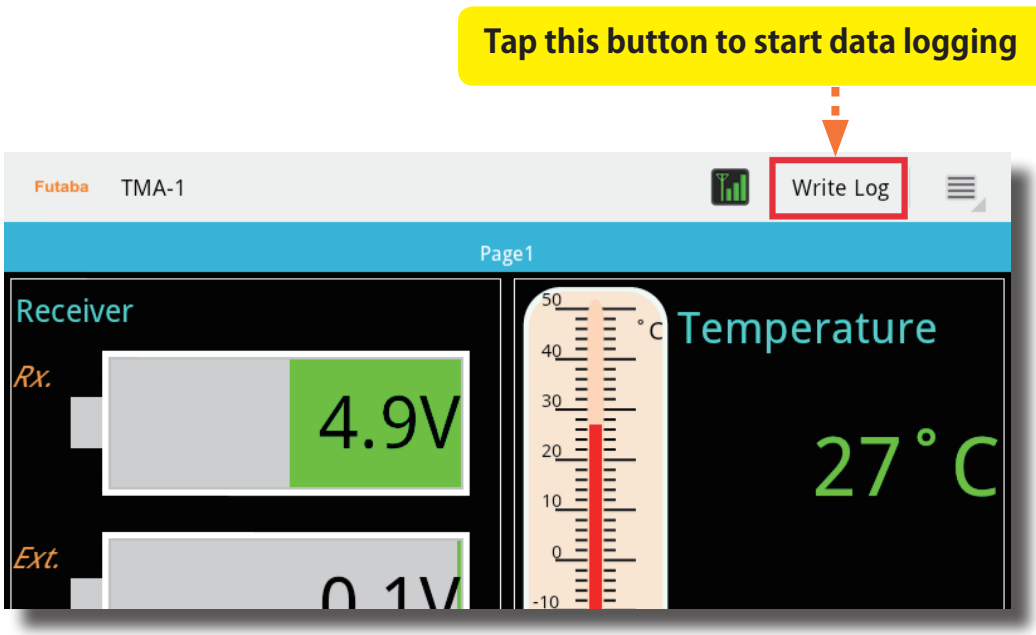


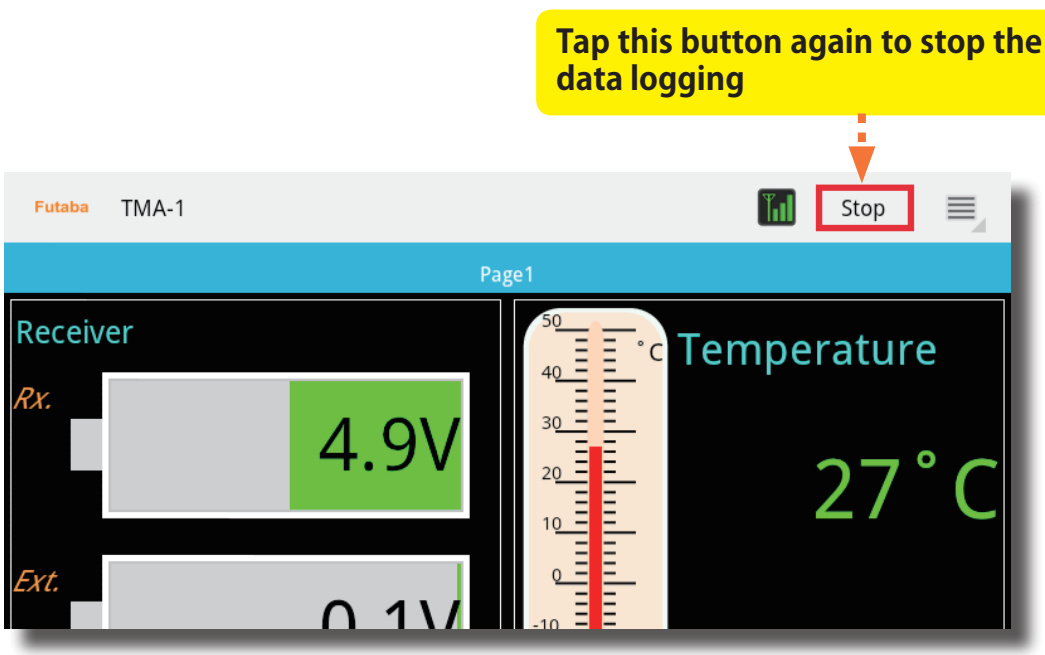


Log

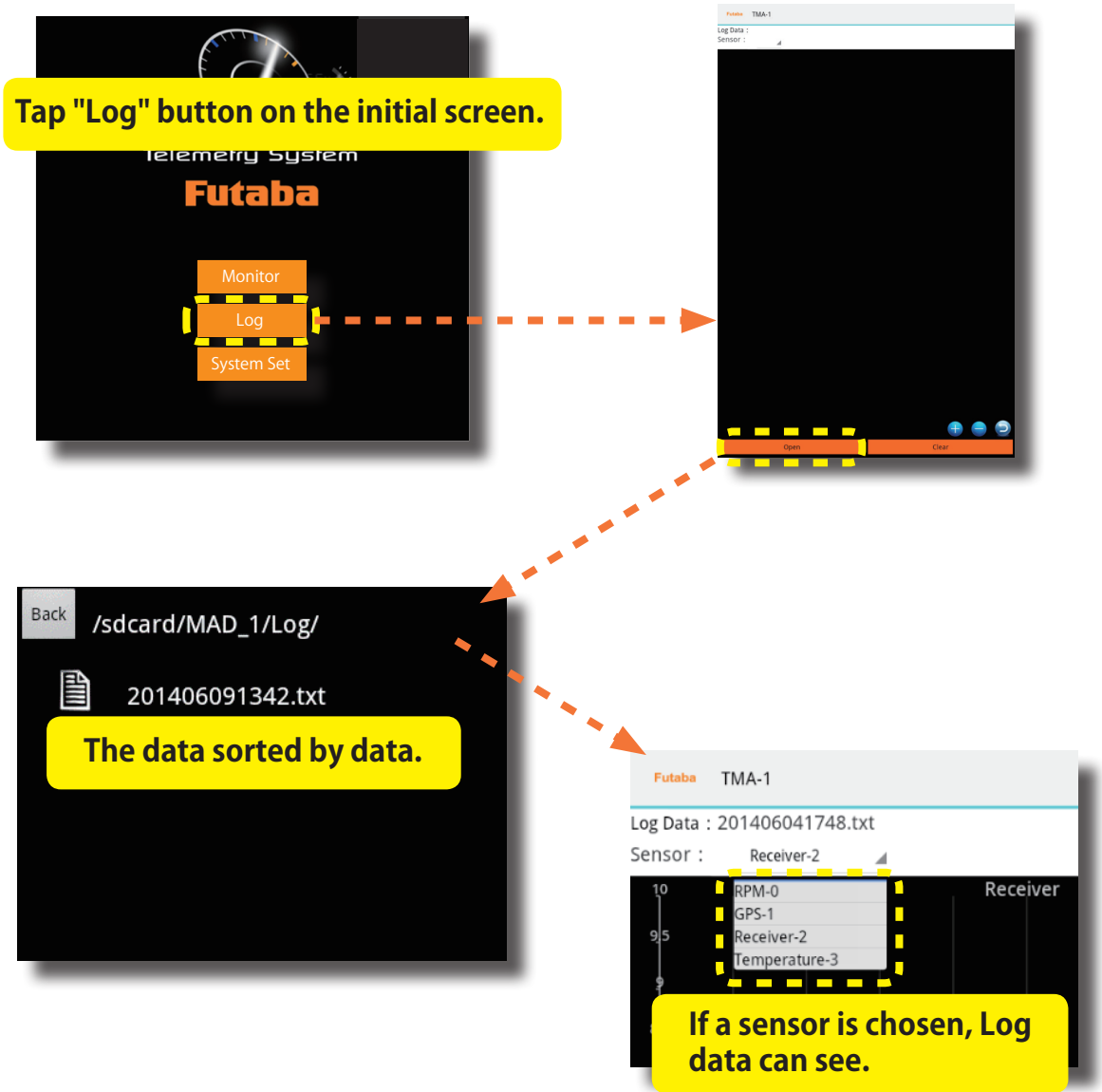
TMA-1 can take and save sensor log data as text data.

1. Start Data Logging





2. Check Log Data



3. Save Log Data

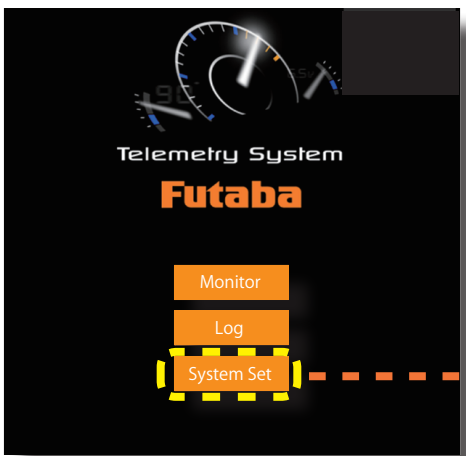
Log data is stored on the folder **Internal storage** → **TMA_1** → **Log** of the tablet smart phone.

System Set

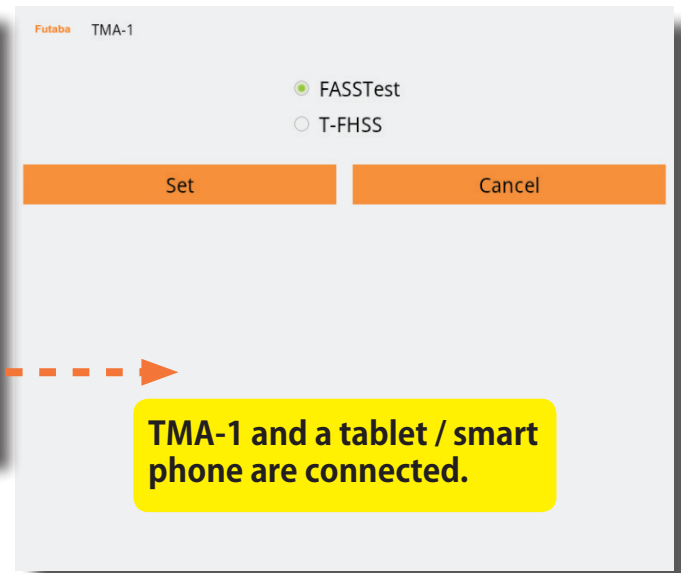
The TMA-1 app can be used on **FASSTest** and **T-FHSS** system.

1. Note

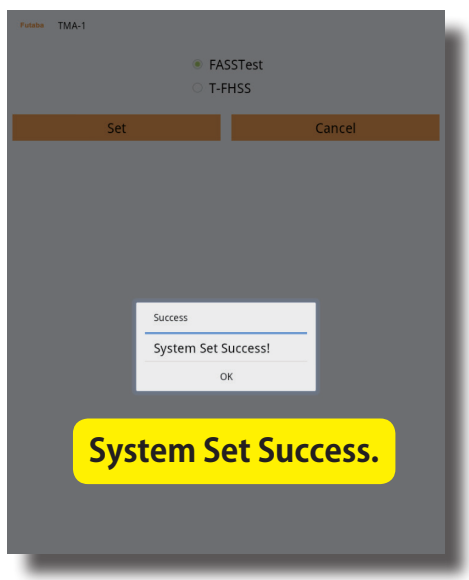
1. When you would like to change your transmission system, reset the TMA-1.
2. Turn OFF the receiver and transmitter before switching the transmission system (FASSTest or T-FHSS)



Tap the "System Set" button on the screen



TMA-1 and a tablet / smart phone are connected.



System Set Success.

Error

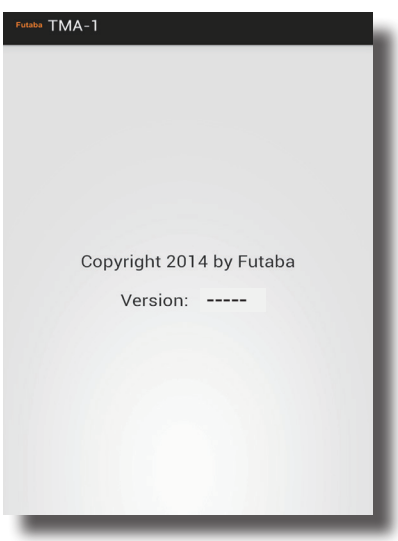
Error message: Please confirm link or restart link device.
Start by selecting either a tablet or smart phone.

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.

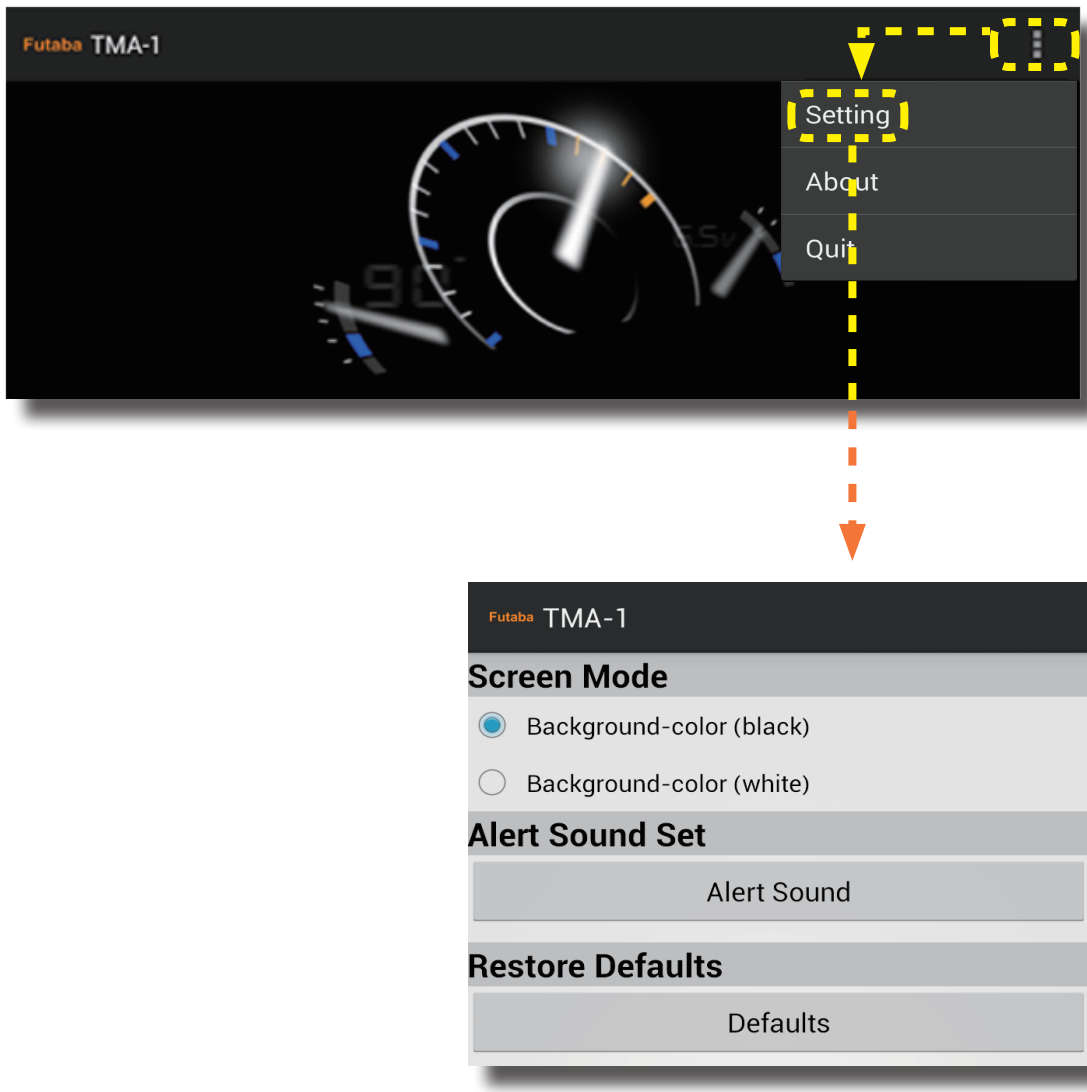
About

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



Setting

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



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