

## Product Information

Product Name METER CONTROL UNIT ASSY

Model Name (Model No.) F7M-U820H

Brand Name (Trade Name) YAMAHA

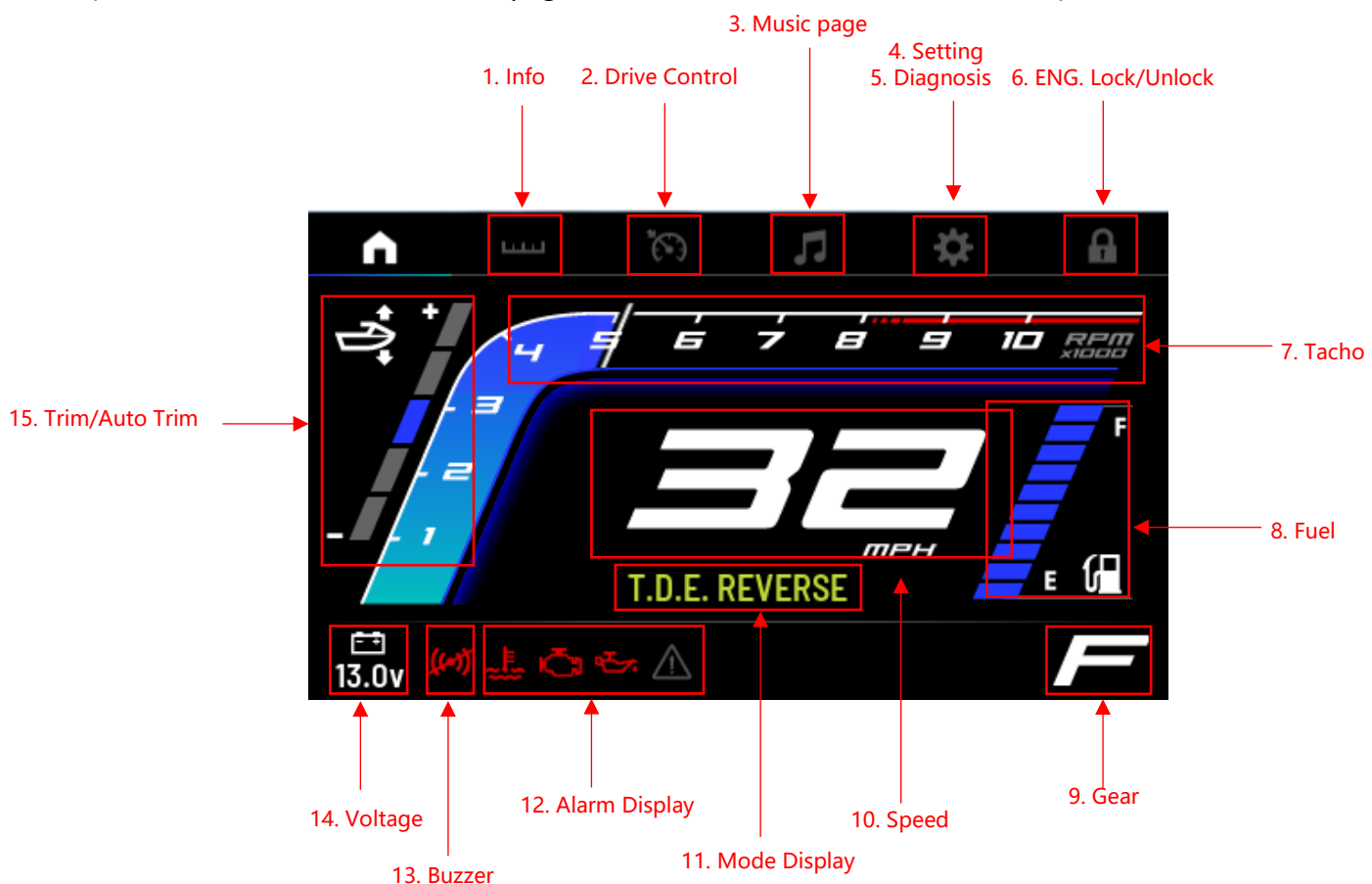
FCC ID No. 2AUXK-F7MU820H

IC No. (Canada IC ID) 740A-F7MU820H

### ① Home page UI overview

#### With CAN Communication

(Cannot switch to other function page when CAN communication connected)



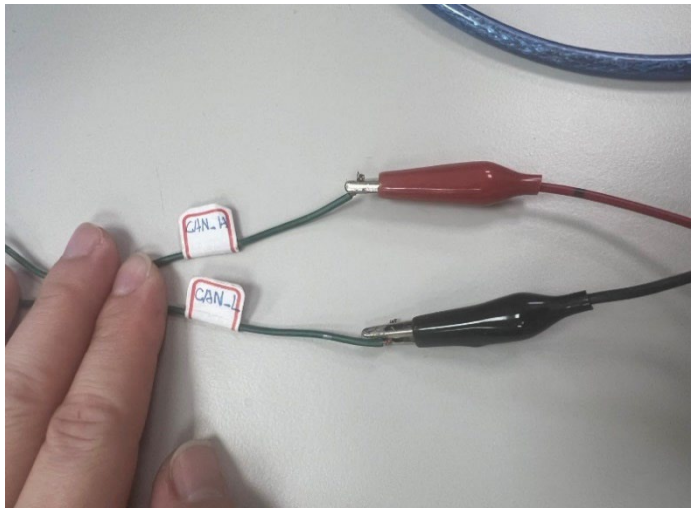
#### \*How to use CANPro Analyzer

1. CANalyst-II is connected to the computer and Device at the same time

Device side:

H end is connected to CAN\_H

L end is connected to CAN\_L



Computer side: Plug into USB port

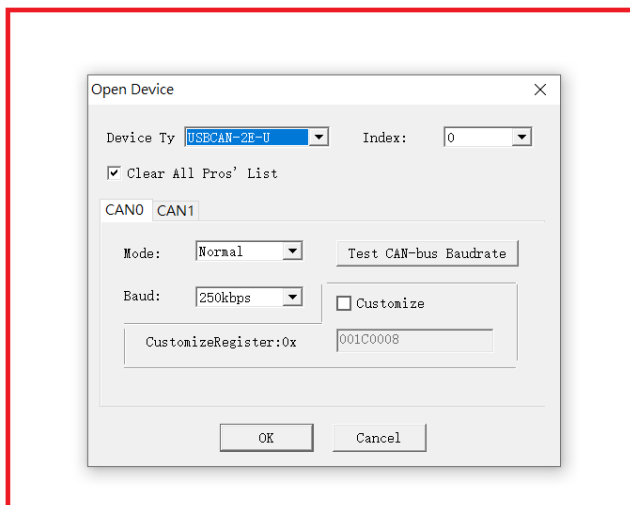
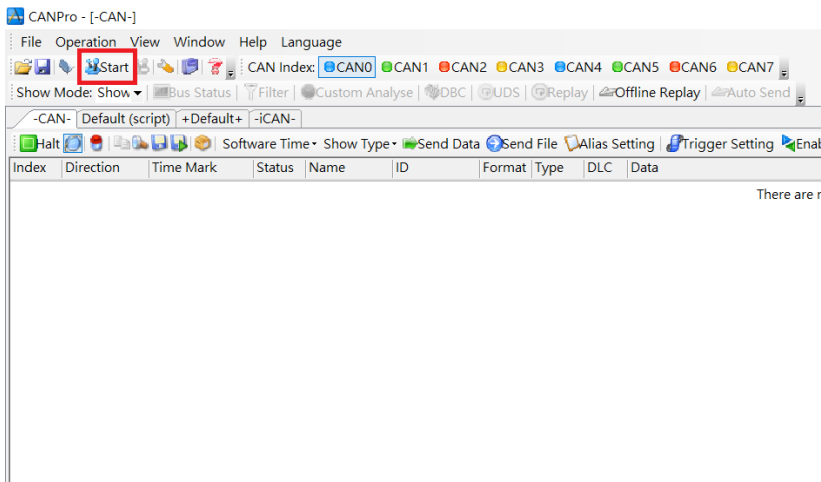
2. Open CANPro Analyzer
3. Click Start to pop up the Open Device window. After setting the following parameters, click OK

Device Type: USBCAN-2E-U

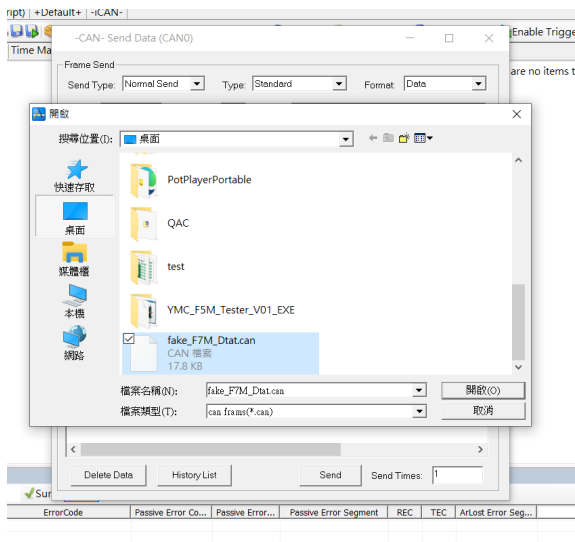
CAN0:

Mode: Normal

Baud : 250kbps

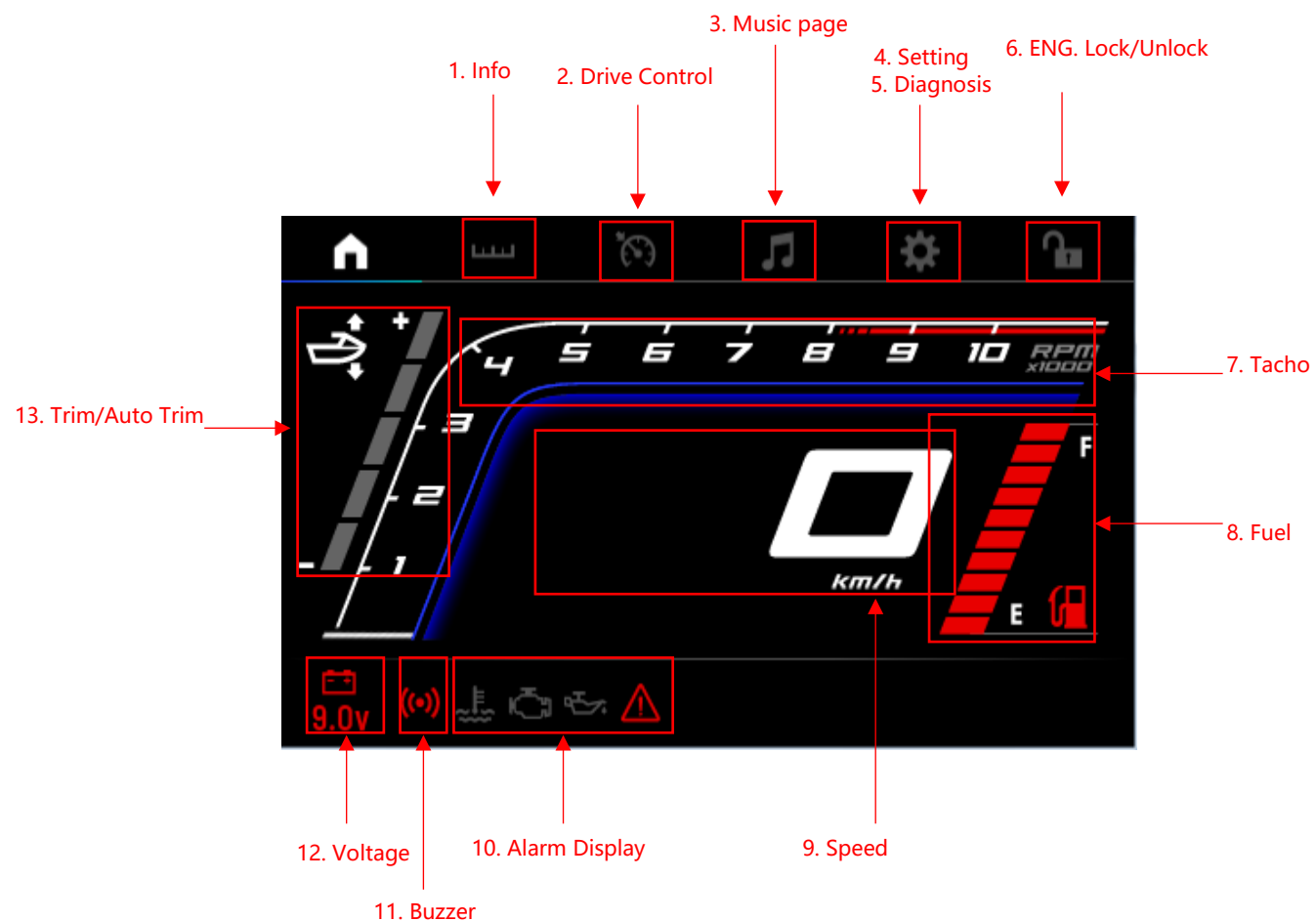


4. Press Replay, select the .can file, and press to open



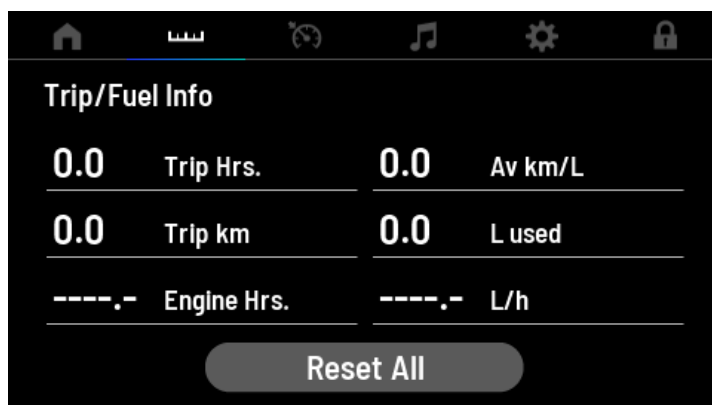
5. Enter -1 in Send Times and press Send to send and play back the pre-recorded CAN signal.

### Without CAN Communication



Press   from touchpad control to switch to other function page

## ② Trip/Fuel Info Page



### Function overview

#### ②-① Trip Hrs Action

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Display type                 | TFT 5 digits (99999 display) + dot + "Trip Hrs" |
| Display range                | 0.0 ~ 9999.9 (Trip Hrs)                         |
| Resolution                   | 0.1 (Trip Hrs)                                  |
| Start accumulation condition | CAN Communication connected                     |
| Stop accumulation condition  | CAN Communication disconnected                  |
| Reset                        | Press the "OK" button for 3 seconds             |

#### ②-② Trip Miles / km Action

|                              |                                                          |
|------------------------------|----------------------------------------------------------|
| Display type                 | TFT 5 digits (99999 display) + dot + "Miles" / "km" icon |
| Display range                | 0.0 ~ 9999.9 (Miles / km)                                |
| Resolution                   | 0.1 (Miles / km)                                         |
| Start accumulation condition | CAN Communication connected and Speed > 0                |
| Stop accumulation condition  | CAN Communication disconnected and Speed = 0             |
| Reset                        | Press the "OK" button for 3 seconds                      |

#### ②-③ Engine Hrs Action

|                              |                                                                        |
|------------------------------|------------------------------------------------------------------------|
| Display type                 | TFT 5 digits (99999 display) + dot + "Engine Hrs" icon                 |
| Display range                | 0.0 ~ 9999.9 (Engine Hrs)                                              |
| Resolution                   | 0.1 (Engine Hrs)                                                       |
| Start accumulation condition | ECU signal control Engine Hours , When Engine Total Hours of Operation |
| Stop accumulation condition  | Meter OFF 、 Engine Comm Error and TFT display "----.-"                 |

②-④ Av MPG / km/L Action

|                              |                                                          |
|------------------------------|----------------------------------------------------------|
| Display type                 | TFT 5 digits (99999 display) + dot + "MPG" / "km/L" icon |
| Display range                | 0.0 ~ 9999.9 (MPG / km/L)                                |
| Resolution                   | 0.1 (MPG / km/L)                                         |
| Start accumulation condition | Trip Miles and Gal used are not 0                        |
| Stop accumulation condition  | Meter OFF                                                |
| Reset                        | Press the "OK" button for 3 seconds                      |

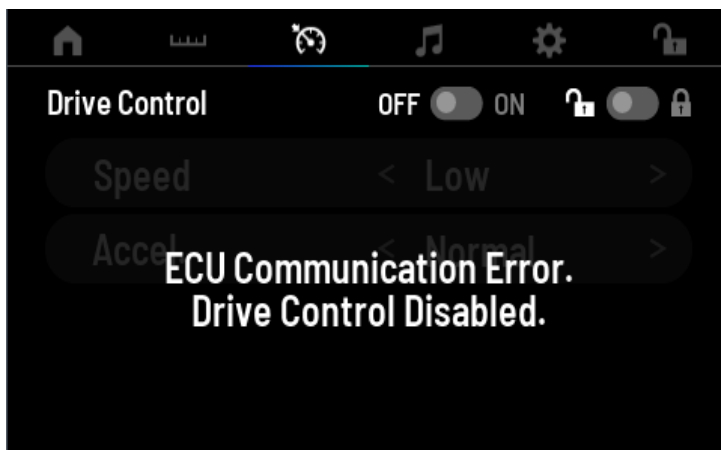
②-⑤ Gal used / L used Action

|                              |                                                                          |
|------------------------------|--------------------------------------------------------------------------|
| Display type                 | TFT 5 digits (99999 display) + dot + "Gal. used" / "L used" icon         |
| Display range                | 0.0 ~ 9999.9 (Gal. used / L used)                                        |
| Resolution                   | 0.1 (Gal. used / L used)                                                 |
| Start accumulation condition | ECU signal control Instantaneous Fuel Parameters , When Engine Fuel Rate |
| Stop accumulation condition  | Meter OFF 、 Engine Comm Error                                            |
| Reset                        | Press the "OK" button for 3 seconds                                      |

②-⑥ GpH / L/H Action

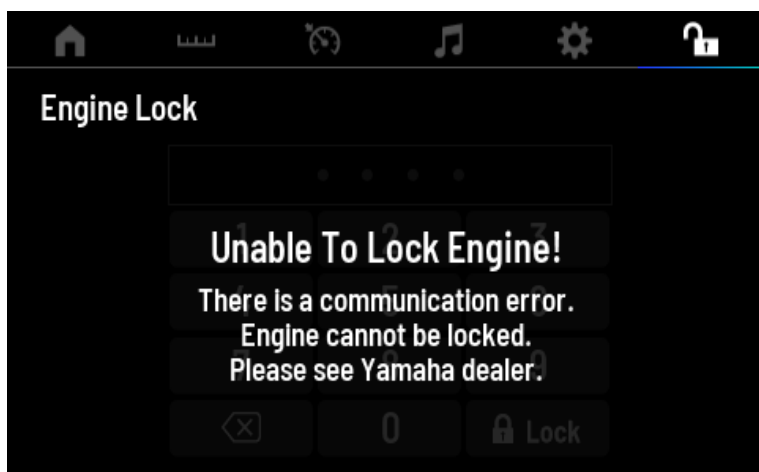
|                              |                                                                          |
|------------------------------|--------------------------------------------------------------------------|
| Display type                 | TFT 5 digits (99999 display) + dot + "GpH" / "L/H" icon                  |
| Display range                | 0.0 ~ 9999.9 (GpH / L/H)                                                 |
| Resolution                   | 0.1 (GpH / L/H)                                                          |
| Start accumulation condition | ECU signal control Instantaneous Fuel Parameters , When Engine Fuel Rate |
| Stop accumulation condition  | Meter OFF 、 Engine Comm Error and TFT display "<br>— — — — . —           |

### ③ Drive Control Page



Note: This function can be operated on a real machine)

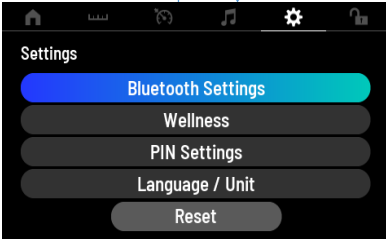
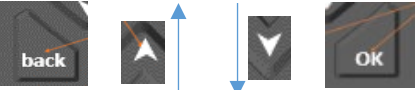
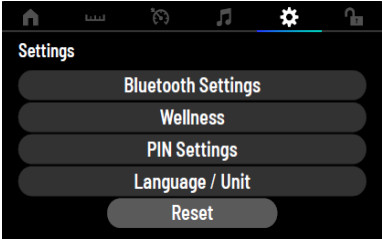
### ④ ENG. Lock/Unlock Page



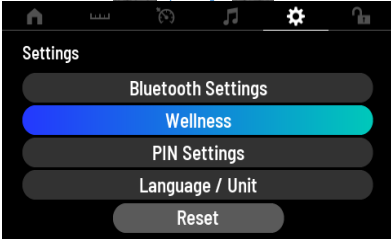
Note: This function can be operated on a real machine

⑤ Settings Page

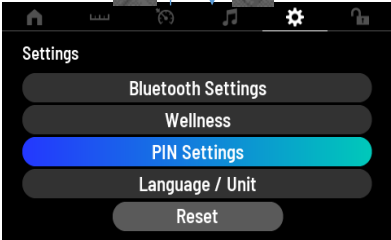
⑤-① Display method



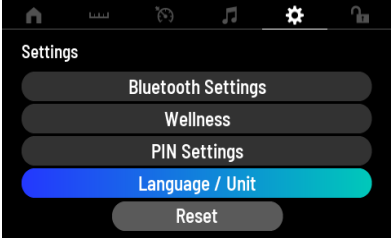
Enter Setting Bluetooth page



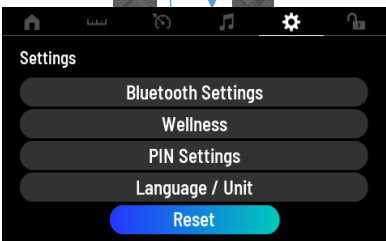
Enter Setting Wellness page



Enter Setting PIN Settings page



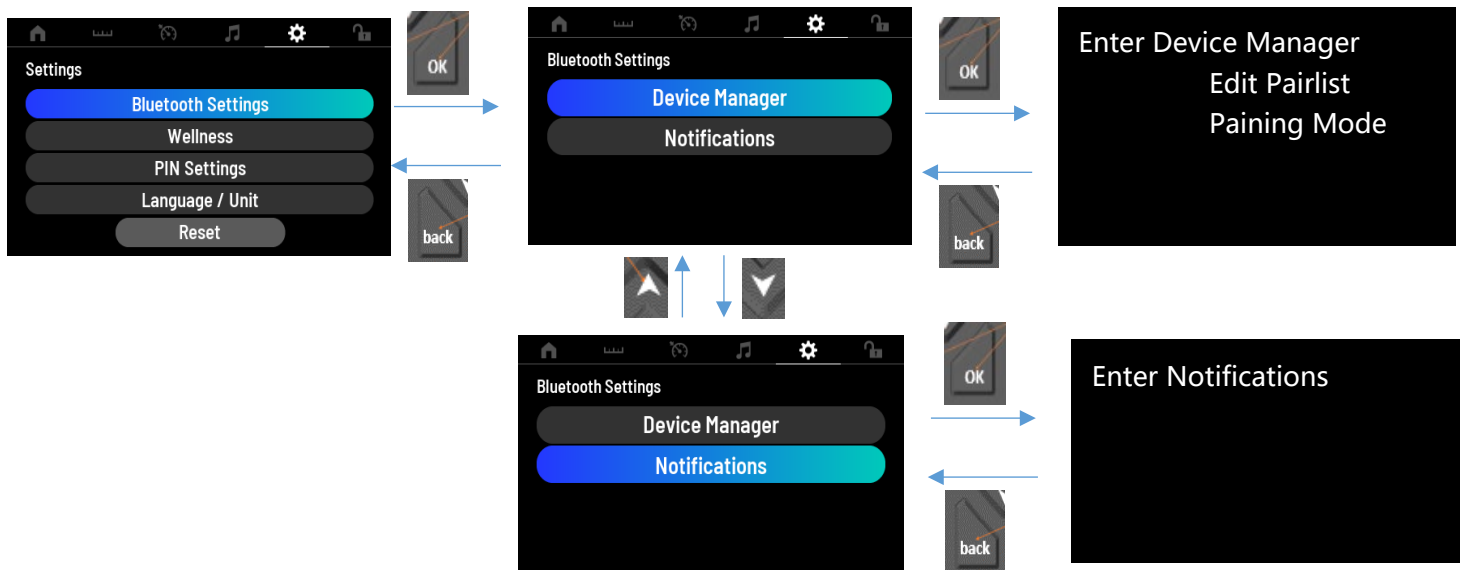
Enter Setting Language page



Enter Setting Reset page

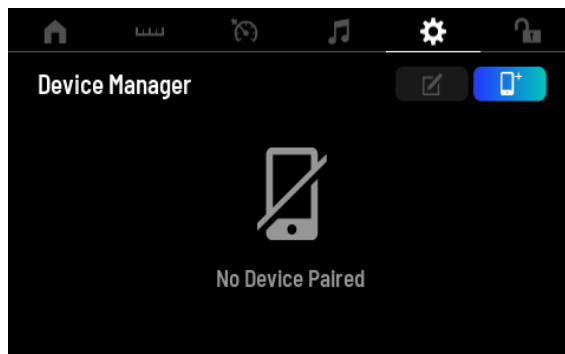


## ⑤-② Settings – Bluetooth Settings



## ⑤-②-① Bluetooth Settings – Device Manger

Display method (No device paired)

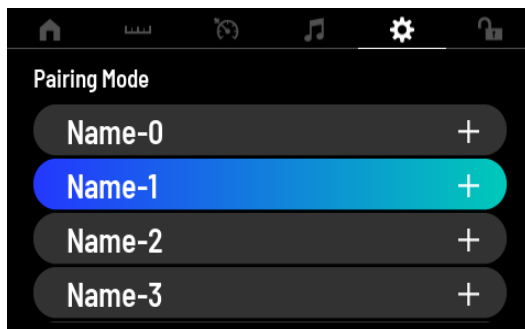


## ⑤-②-① Bluetooth Settings – Pairing Mode

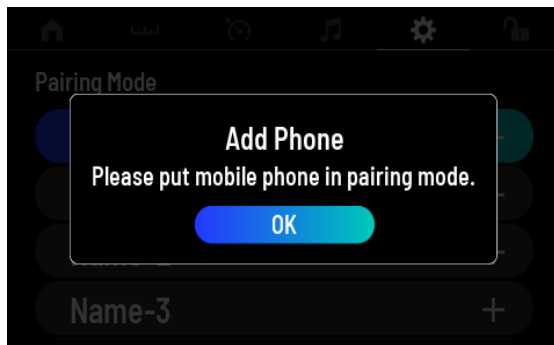
1. Search for up to 8 devices in the pairing list
2. The Device Name will be presented as "WAVERUNNER"
3. Max number of paired device is 5, when reach the max number, user need to Delete paired device before new Pairing.

## Pair with Smart phone from WAVERUNNER

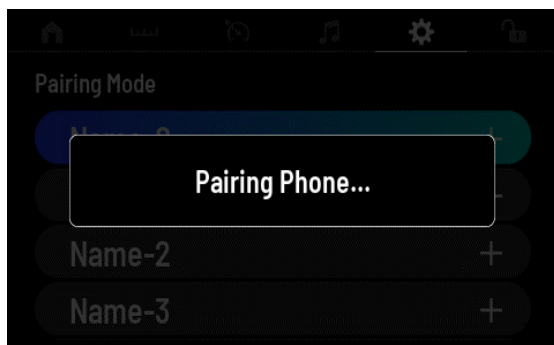
1. Select Pairing Mode icon and press OK → Enter Pairing Mode page



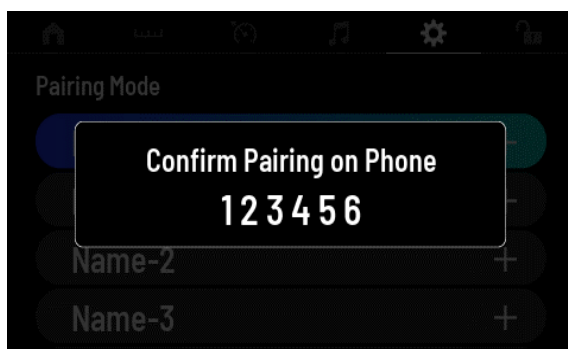
2. Choose the device and press OK, popup message:



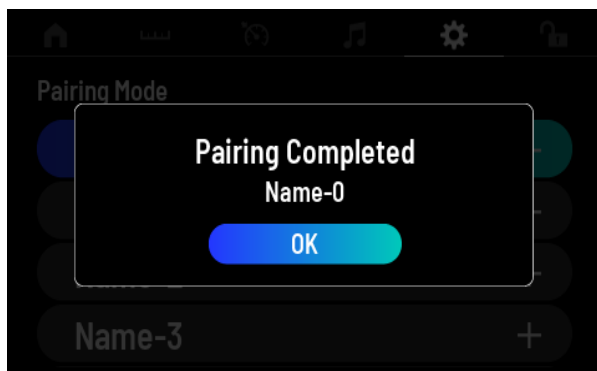
3. Press OK, popup message:



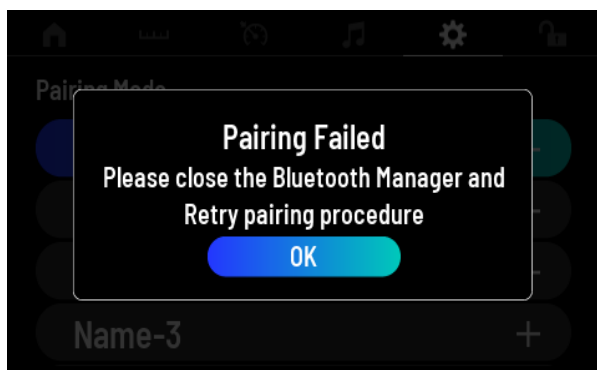
4. Popup Pair PIN Code, and waiting for device accept



5. Confirm that the "Pairing Completed" message appears if the pairing process is successful.

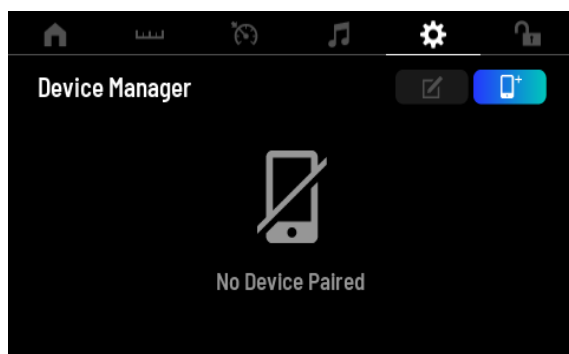


6. If the pairing fails, observe the display of the "Pairing Failed" message.



#### Pair with WAVERUNNER from Smart phone

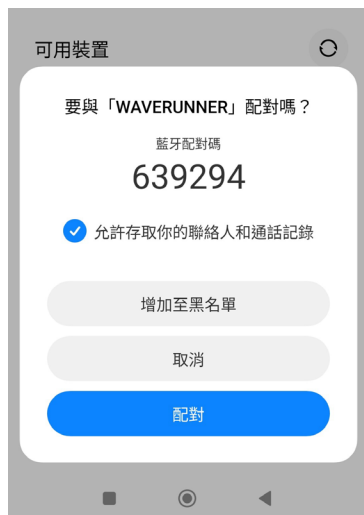
1. Open the Bluetooth setting (smart phone side)
2. Enter to Bluetooth Settings -> Device Manager page



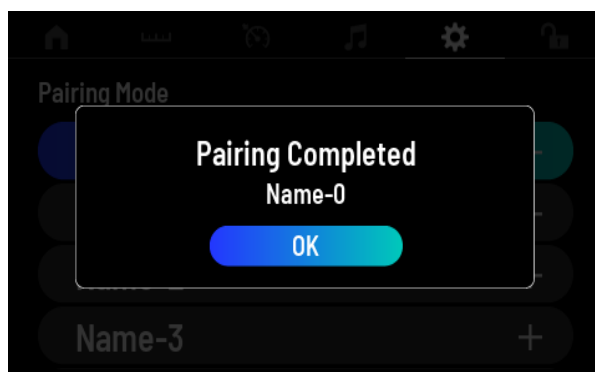
3. On the Smart phone side, initiate a search for nearby Bluetooth devices, and wait for the "WAVERUNNER" to appear in the list of available devices.
4. Select the WAVERUNNER from the list on the Smart phone side, and initiate the pairing process.



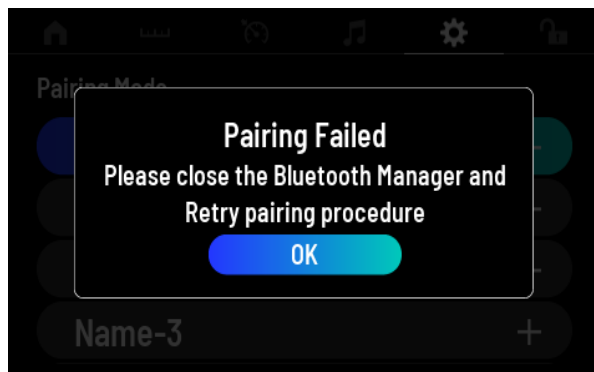
5. Check Pair PIN Code, and follow the on-screen prompts to confirm the pairing request and press the "Accept" button



6. Confirm that the "Pairing Completed" message appears if the pairing process is successful.

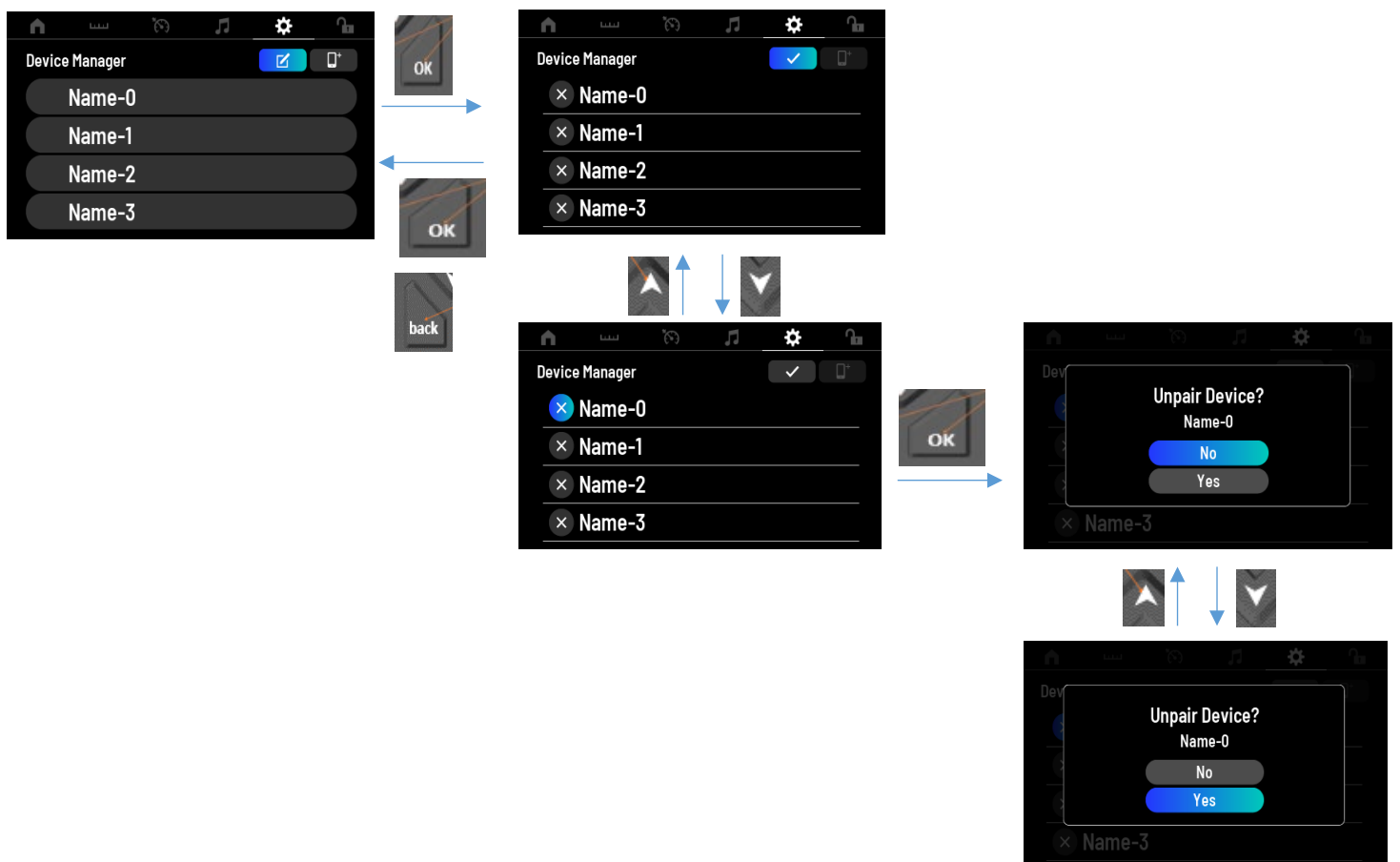


7. If the pairing fails, observe the display of the "Pairing Failed" message.

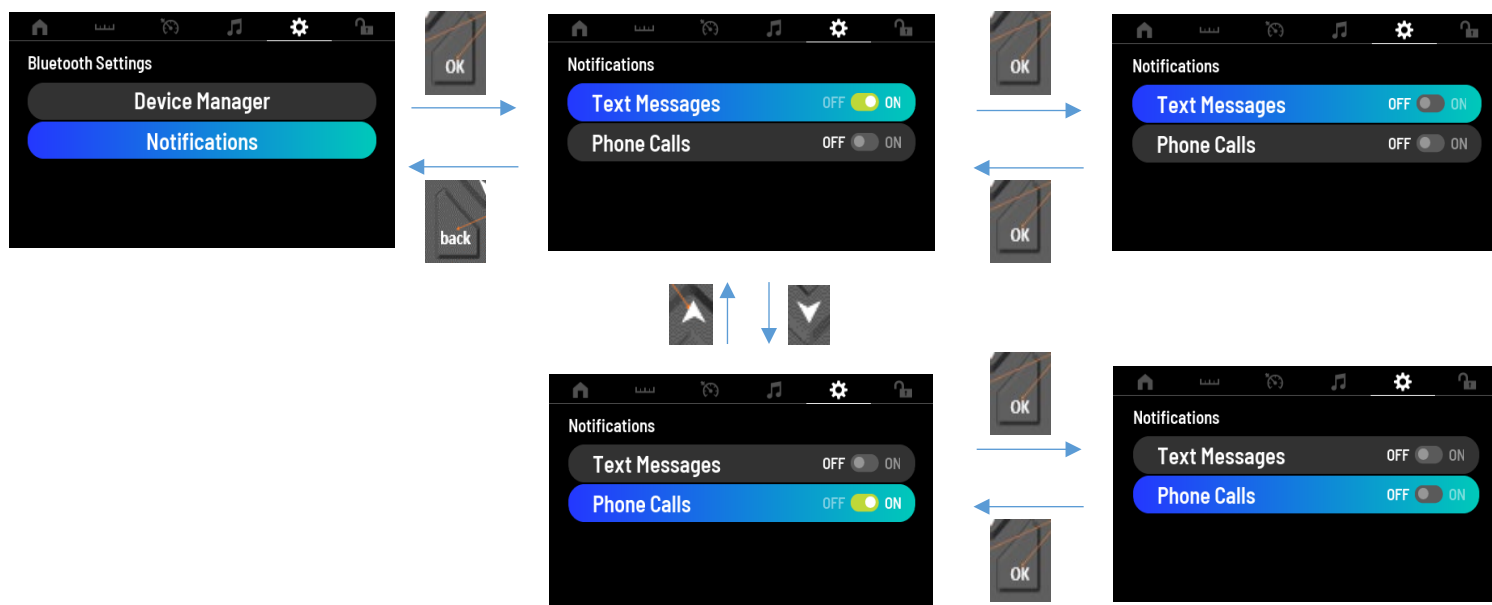


### ⑤-②-① Edit Pair list

1. User can use button Up/Down to select which device need to be removed
2. Press OK on the select device will pop up a dialog to confirm delete
3. Delete device in the meter will not affect the setting on the smartphone



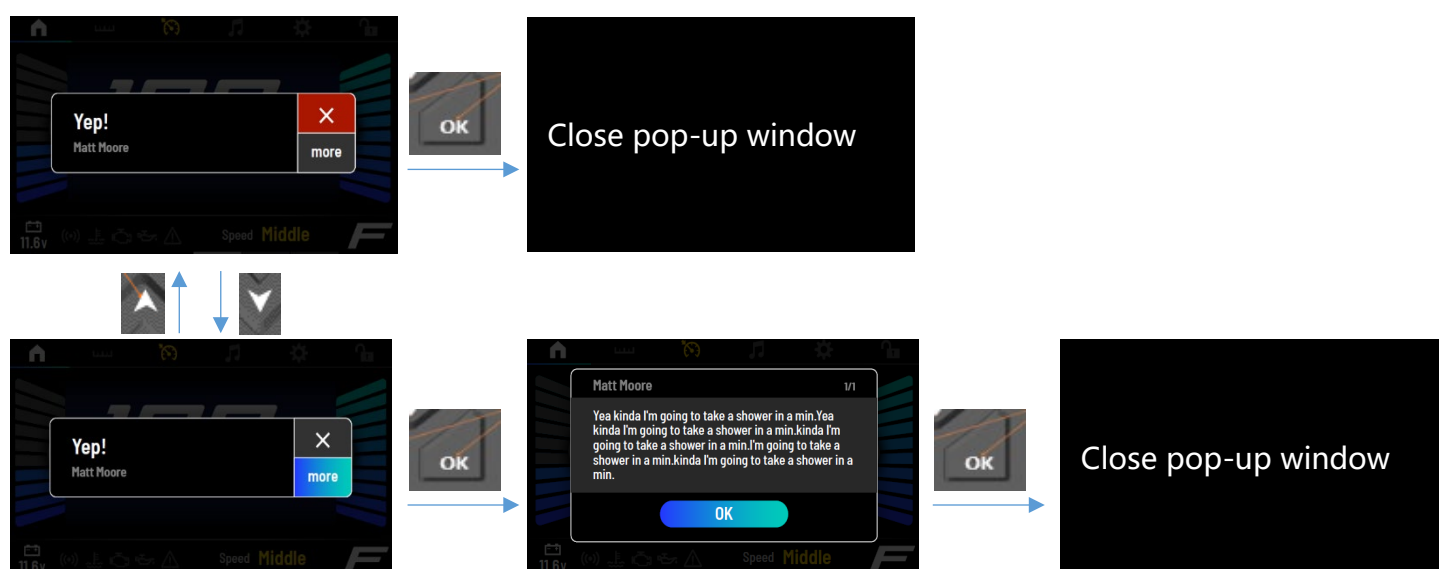
## ⑤-②-② Notifications



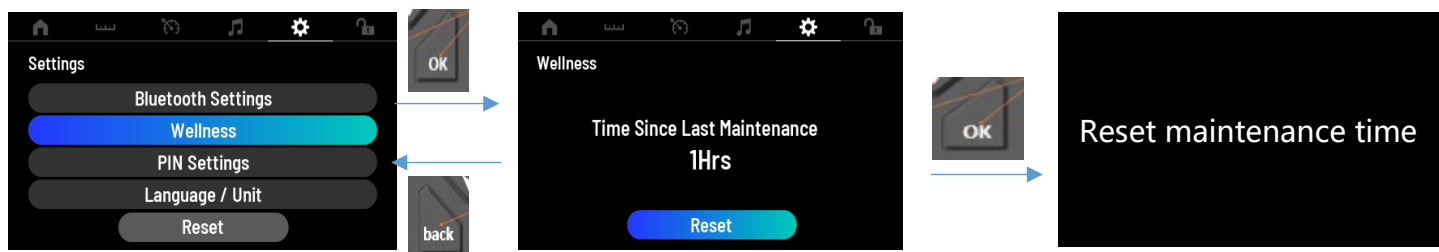
1. If "Phone Calls" OFF→ON, when the connected smart phone receives a call, the phone pop-up window will be displayed on the TFT, otherwise it will not be displayed.



2. If "Text Messages" OFF→ON, when the connected smart phone receives a sms, the sms pop-up window will be displayed on the TFT, otherwise it will not be displayed

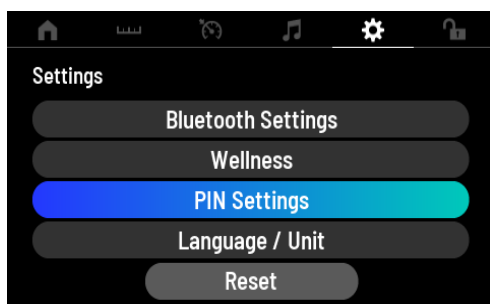


## ⑤-③ Settings – Wellness Settings

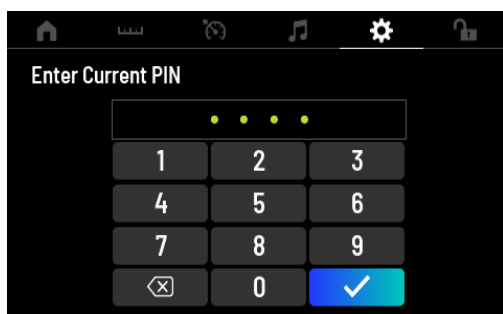
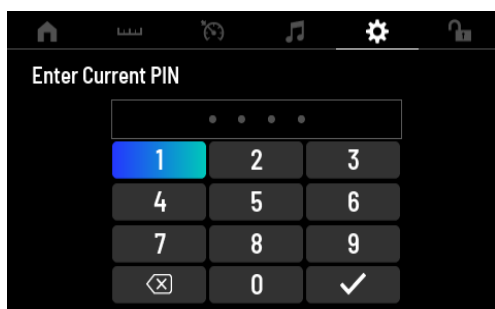


## ⑤-④ Settings – PIN Settings

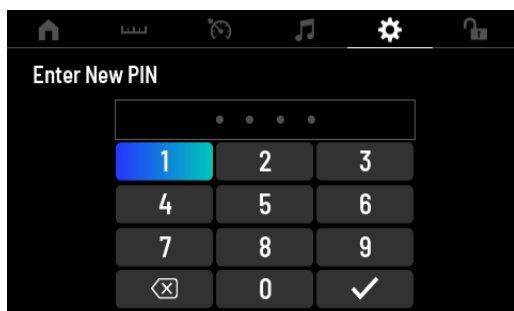
1. Press OK and enter PIN Settings page

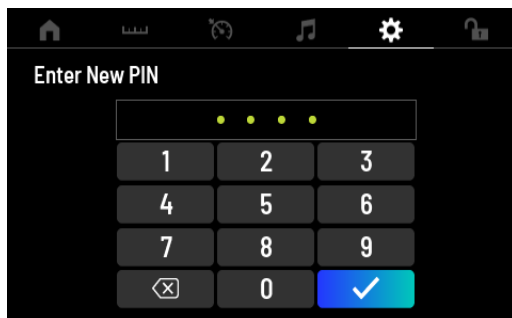


2. Enter Current PIN (Default PIN: 1234) and Select “✓” icon, press OK

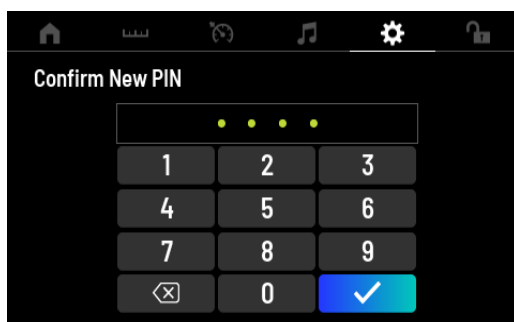
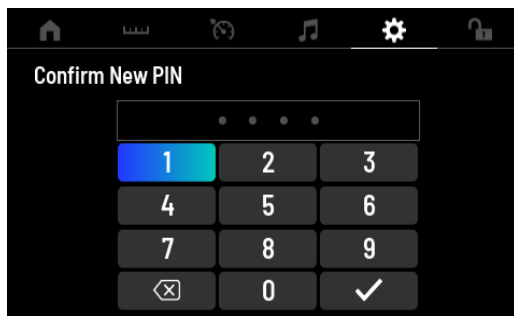


3. Enter New PIN and Select “✓” icon, press OK

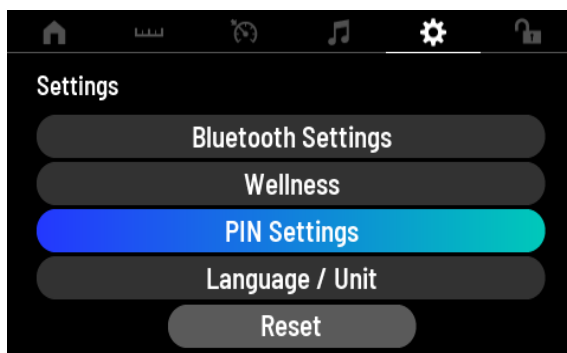




4. Confirm and enter New PIN. Select “✓” icon, press OK

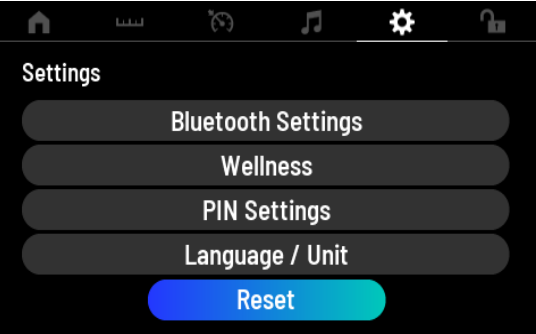


5. Back to Settings page

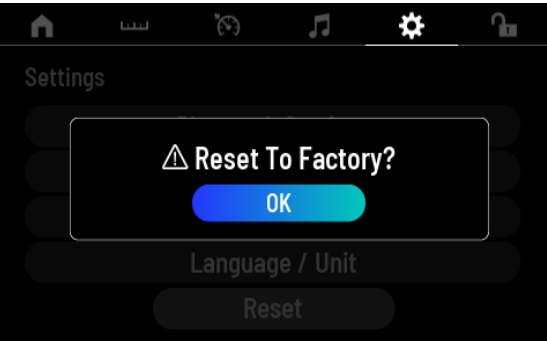


⑤-⑤ Settings – Reset

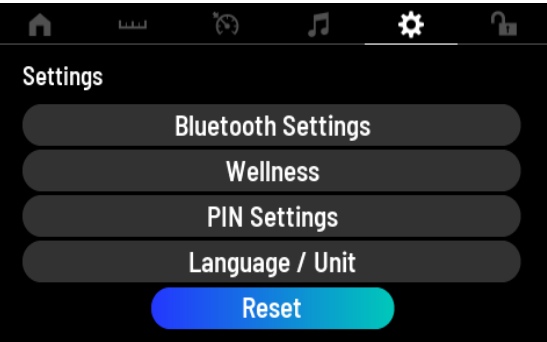
1. Press OK and enter Reset page



2. Popup message: '⚠ Reset To Factory ?', press OK



3. Reset Factory defaults and back to Settings page

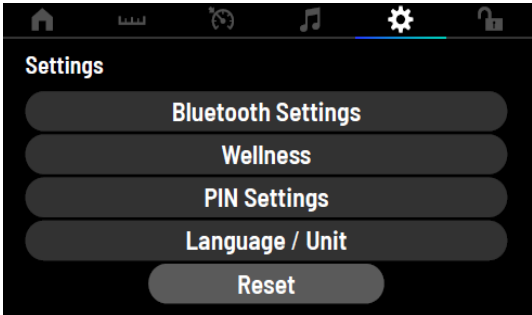


Reset Action

| Meter Factory Defaults |                |
|------------------------|----------------|
| Unit                   | U.S. Unit      |
| Language               | English        |
| Info-Trip Hrs          | 0.0 Trip Hrs   |
| Info-Trip Miles        | 0.0 Trip Miles |
| Info-Av MPG            | 0.0 Av MPG     |
| Info-Gal used          | 0.0 Gal used   |
| AudioVolum             | 16%            |
| Auto Vol.              | OFF            |
| SMS Notification       | ON             |
| Phone Notification     | ON             |

⑤-⑥ Settings – Diagnosis – Check Bluetooth version

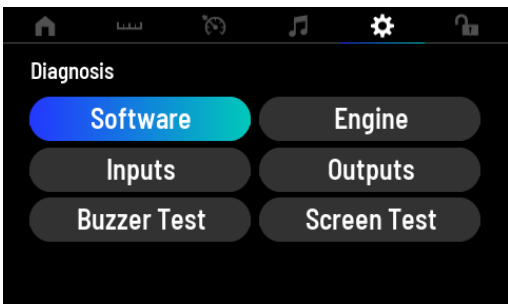
1. Switch to Settings page



2. Press OK + BACK button for 2 seconds

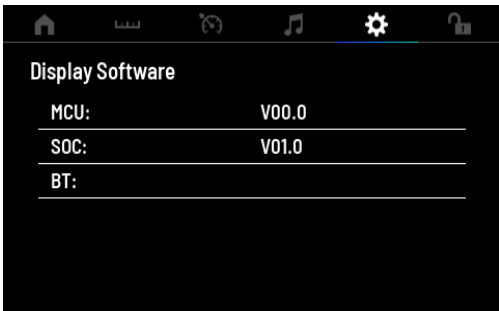


3. Enter to Diagnosis page



4. Select “Software” bar and press OK

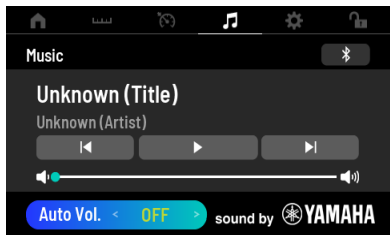
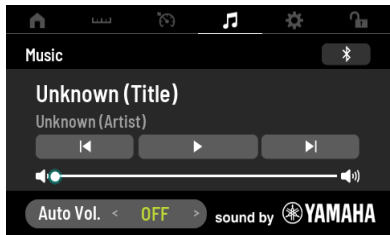
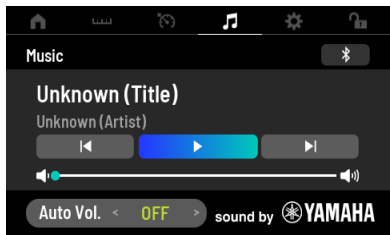
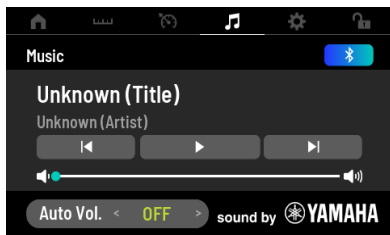
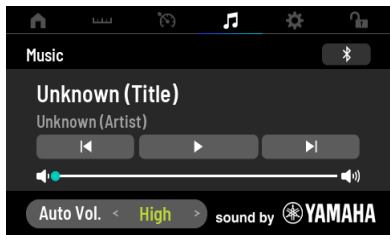
5. Enter Software page



| Version  |
|----------|
| BT:4.9.6 |

⑥ Music Page

⑥-① Display method

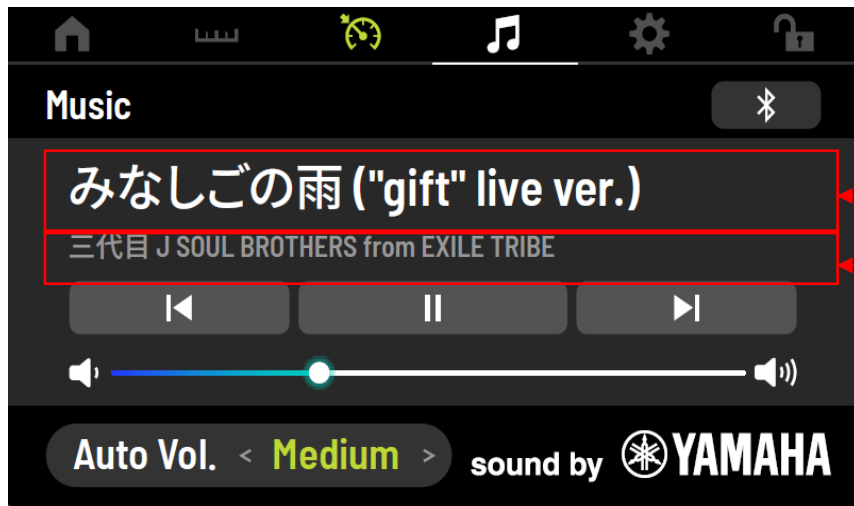


Enter ⑤ - ② Setting Bluetooth page

See ⑥ - ② Song Control

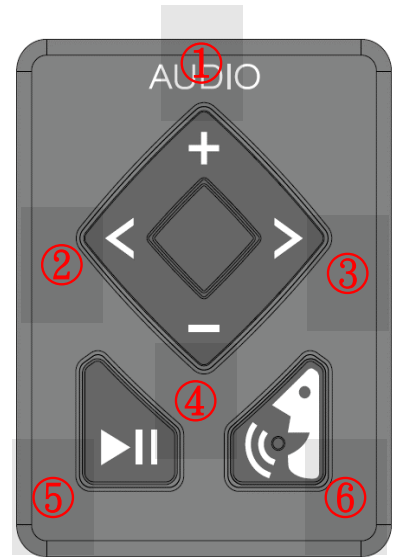
See ⑥ - ③ Volume Change

Auto Volume



Song title

Song artist



- ① Volume Up
- ② Prev Song
- ③ Next Song
- ④ Volume Down
- ⑤ Play/Pause
- ⑥ Music Shortcut

※Music title and artist support 9 languages: English / French / Spanish / Germany / Italian / Portuguese /  
Greek / Swedish / Japanese

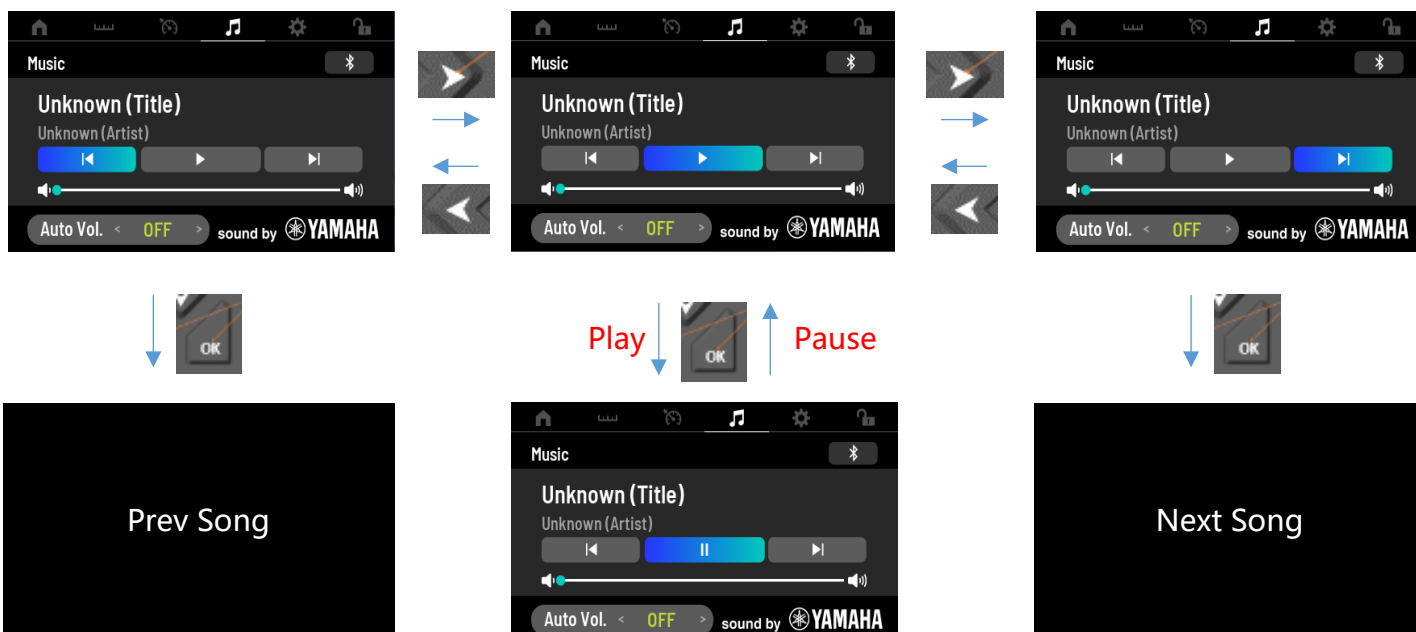
※When meter in the music page, using the audio button will not pop up the window

※Users can use "⑥ Music Shortcut" to jump from any page to the music page

※When the song name is too long to be displayed completely, the scrolling effect display will be enabled.

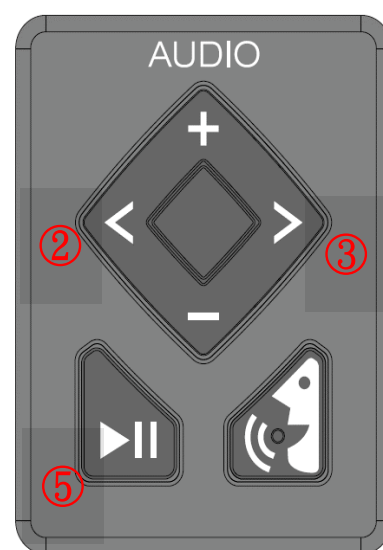
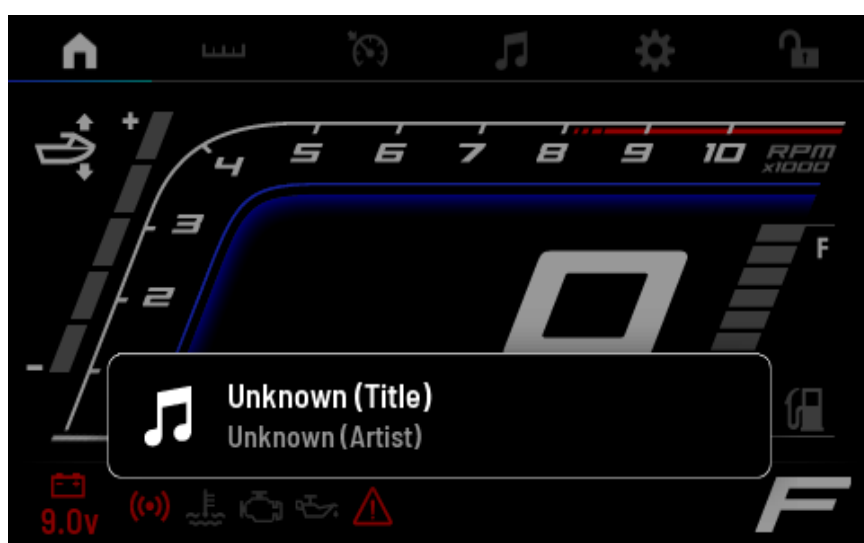
- Scrolling effect: When the leftmost side of the title hits the boundary,
- The special effect will pause for 2 seconds and then continue after 2 seconds

## ⑥-② Song control



※The audio buttons "②Previous song" and "③Next song" will pop up this window

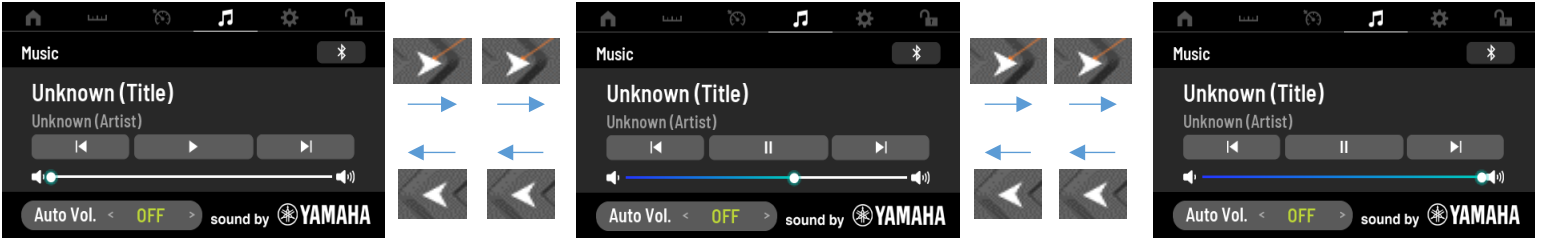
※The pop-up window will automatically close within  $2 \pm 0.25$  seconds



- ② Prev Song
- ③ Next Song
- ⑤ Play/Pause

⑥-③ Volume Changes

Display method



※The audio buttons "① Volume Up" and "④ Volume Down" will pop up this window

※The pop-up window will automatically close within 2±0.25 seconds

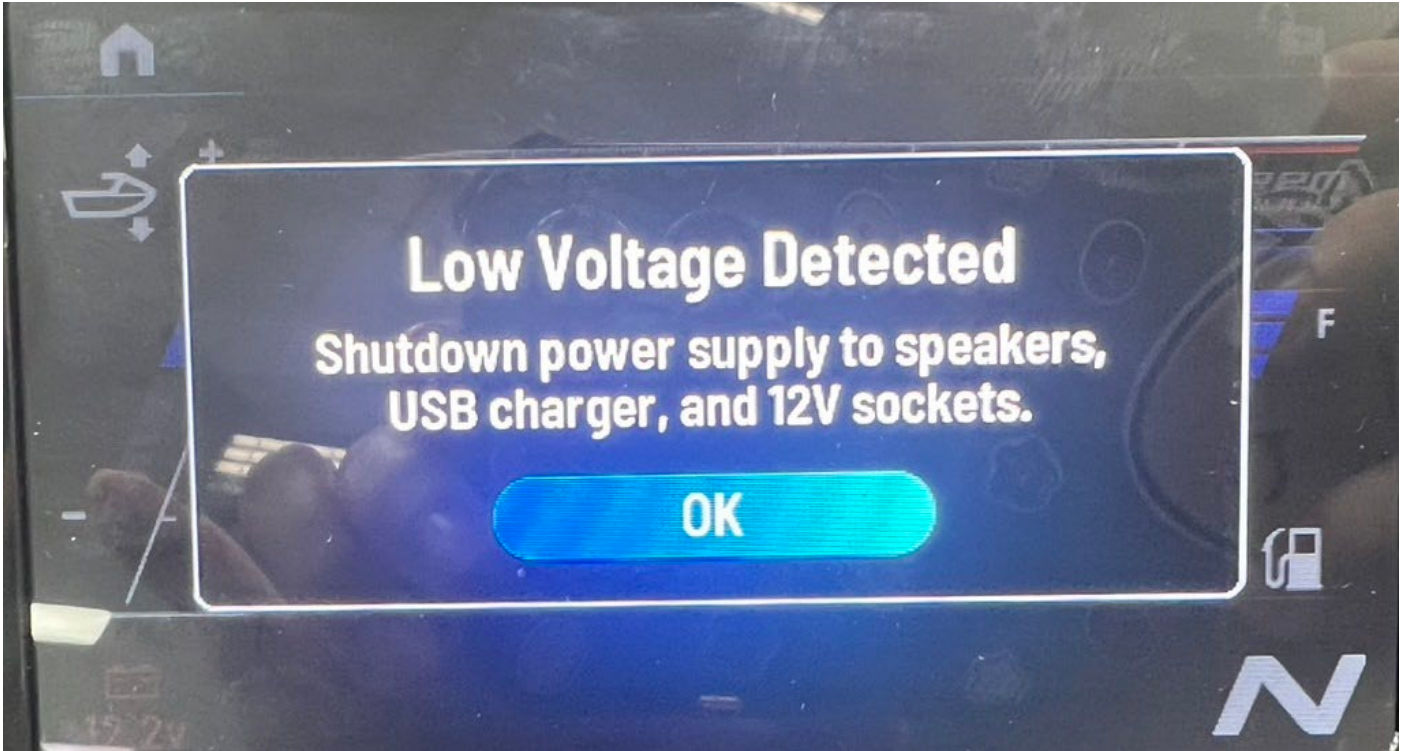


Action

|           |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|-----------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| Level     | 0 | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15  |
| Volume(%) | 0 | 16 | 22 | 28 | 34 | 40 | 46 | 52 | 58 | 64 | 70 | 76 | 82 | 88 | 94 | 100 |

## ⑦ Low voltage mode overview

When voltage  $\leq 12.2V$ , will pop up message and shutdown power supply to speakers, USB Charger and 12V sockets.



## Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## RSS-Gen Issue 4 8.4

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

## IC Radiation Exposure Statement:

This equipment complies with ICSED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

“La operación de este equipo está sujeta a las siguientes dos condiciones:

- (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y

(2)este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.”

**RES. 680 (RESTRICT RADIATION DEVICES):**

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

**低功率射頻器材技術規範\_章節 3.8.2**

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前述合法通信，指依電信管理法規定作業之無線電通信。

低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。