

Handheld User Manual



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Introduction

The handheld utilizes a 5.0" capacitive touch screen and six physical buttons. The LCD is with very delicate color display and large display size. There are navigation buttons on both sides. The external interface is CAN bus interface and a type-C USB interface. All operations are done by touching the screen or the physical buttons on both sides.

The handheld can be used for monitoring and calibrating the system (for example: idle speeds, AFR targets, Fuel pump, etc.) after connecting it with the ECU. It is very portable and very convenient for tuning at any time.

1. Connection

The handheld is connected to the ECU through the CAN bus. Operations such as program upgrading and etc. Can be done through the Type-C USB interface.

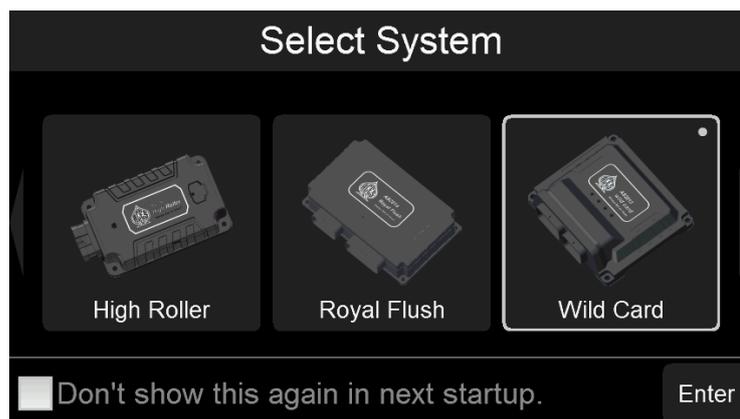
2. Basic Operations

There are buttons on both sides of the display and handheld. They match with each other. The user can operate handheld by touching the screen or the buttons on both sides, such as switching the interface, adjusting the calibration data, uploading/downloading calibration data and etc.

3. Operation Interfaces

3.1 Startup Screen

When the handheld is turned on, it will prompt the user to select the specific system, such as Jackpot, Killshot, High Roller, etc. The system can only work well if it is connected to the correct system. If the user selects "Don't show this again in next startup", then, when it is started next time, it will directly enter into the system selected last time. If the user wants to change the selection, change it in "Setting" -> "System Select".



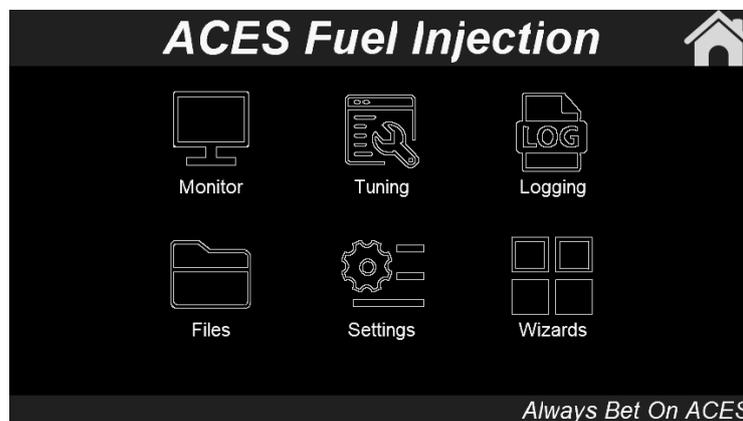
3.2 Home Screen

The Home Screen shows RPM and some other basic system parameters and the user can also customize the parameters that need to be monitored (More details about how to customize the parameters will be explained below later). Click the "⚙️" icon in the upper left corner to enter the detailed configuration interface.



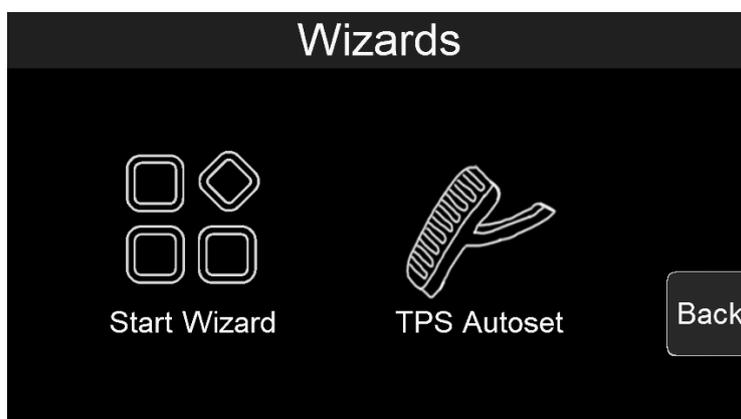
3.3 Main Menu

The Main Menu has 6 selections (see following figure): Monitor, Tuning, Logging, Files, Settings, Wizards. Click the "🏠" icon in the upper right corner to return to the Home Screen.



3.4 Wizards

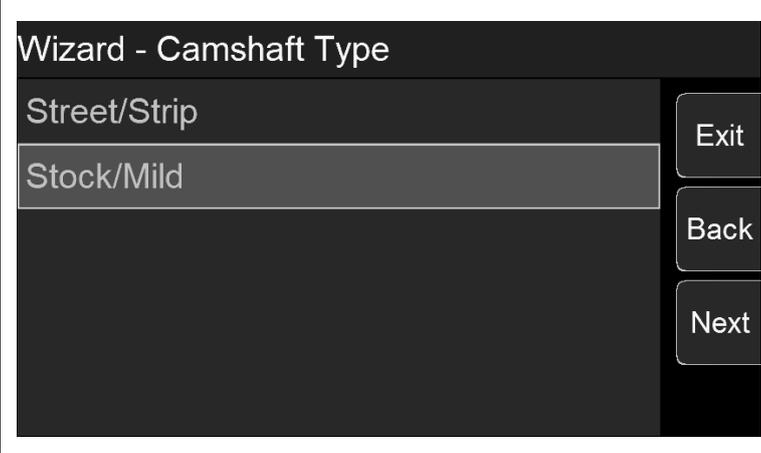
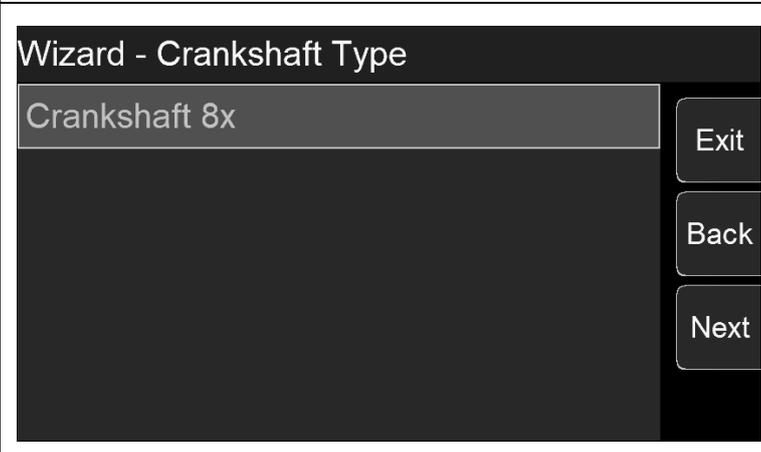
At the first time of using ECU, the user needs to set up according to the engine type. Click the "Wizards" icon in the main menu to enter the wizards interface. See following Fig.



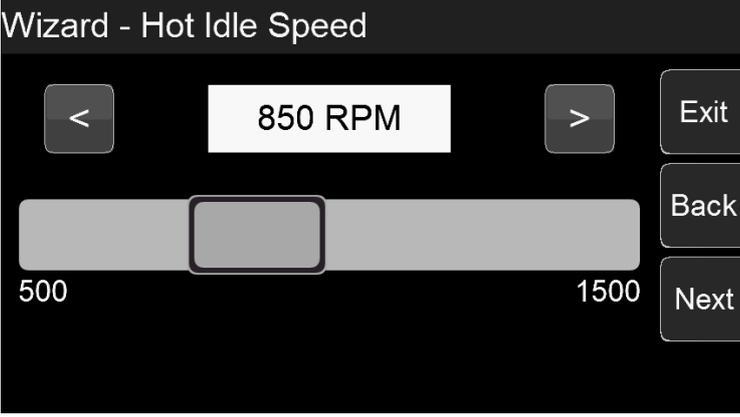
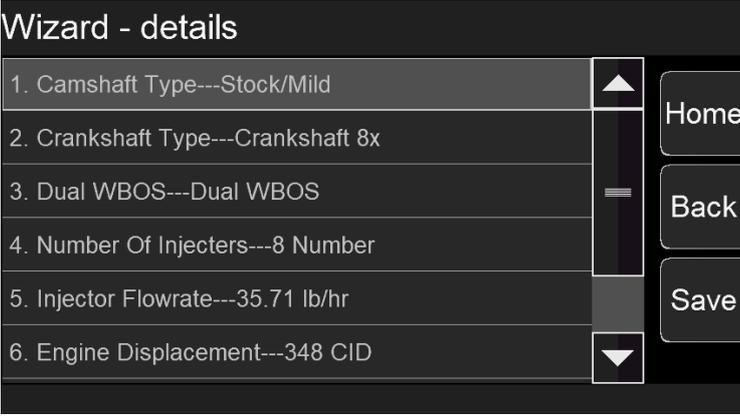
3.4.1. Start Wizard

Click the "Wizards" icon in the main menu to enter the wizards interface and the user can set up the

parameters of the product for the car. The user can click "Next" or "Back" to switch to the next or previous page, and click "Exit" to exit the wizards. Click the "To Metric Units"/"To Imperial Units" button to switch between imperial or metric units.

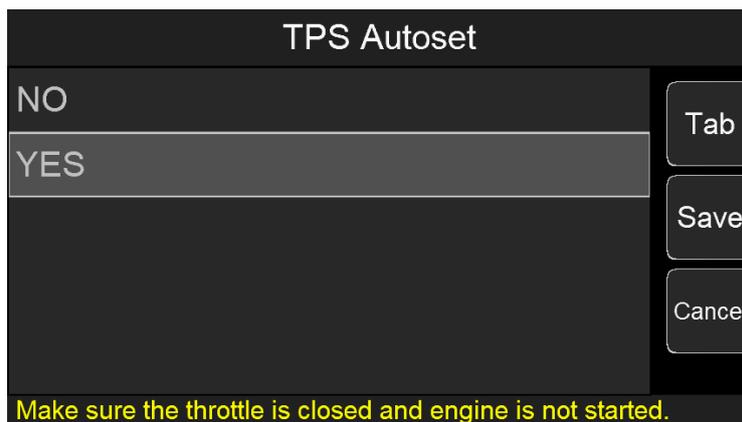
	<p>"Camshaft Type"</p>
	<p>"Crankshaft Type"</p>
	<p>"Dual WBOS"</p>

	<p>"Number Of Injector"</p>
	<p>"Injector Flowrate"</p>
	<p>"Engine Displacement"</p>
	<p>"Firing Order" The "Firing Order" can be edited, the "Firing Order" is from left to right.</p>

	<p>“Hot Idle Speed”</p>
	<p>Click "Save" to save the configuration to the ECU, click "Back" to return to wizard for modifying configuration, click "Home" to return to the main menu.</p>

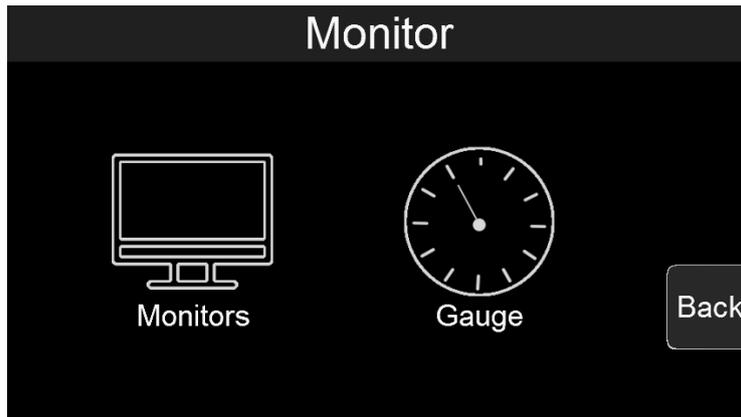
3.4.2. TPS Autaset

Click “TPS Autaset” to enter TPS self-learning page. If you select “YES”, Make sure the throttle is closed and engine is not started.



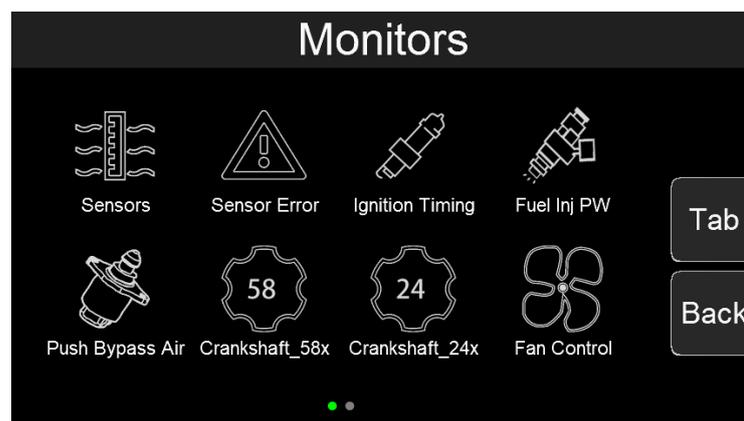
3.5 Monitor

Click “Monitor” Icon on the Main Menu and it has two selections: Monitors and Gauge. Click “Back” to return to the previous interface.



3.5.1 Monitors

(1) Click the "Monitors" icon to enter the Monitors interface, where all monitoring groups are displayed. Click the "Tab" button on the right to switch to the next page, and click "Back" to return to the previous page.



(2) Click the icon of monitored parameter to view the specific data of the system, as shown in the figure below, click "UP" or "Down" to switch pages up and down, and click "Back" to return to the previous interface.

Sensors			
Battery	13.0	V	Up
Run Time	0	Sec	
RPM	0	RPM	Down
MAP	11.8	Psi	
MAT	99	F	Back
ECT	-40	F	

1/4

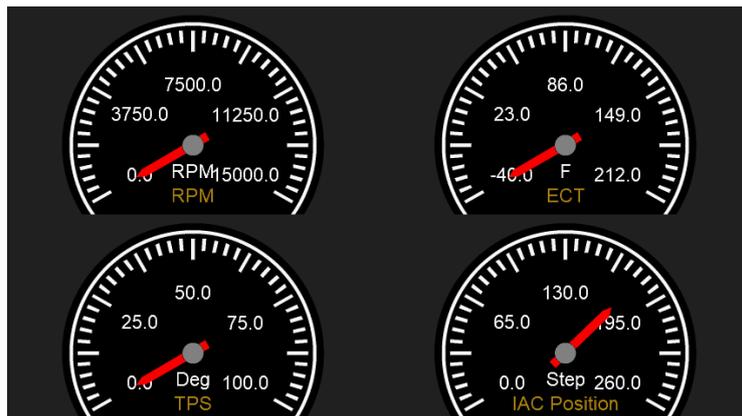
3.5.2 Gauge

(1) Click the "Gauge" icon to enter the Gauge interface. There are three Dashes and one "Home Setup". The three Dashes are customizable Dash. "Home Setup" can configure the items on the main menu.

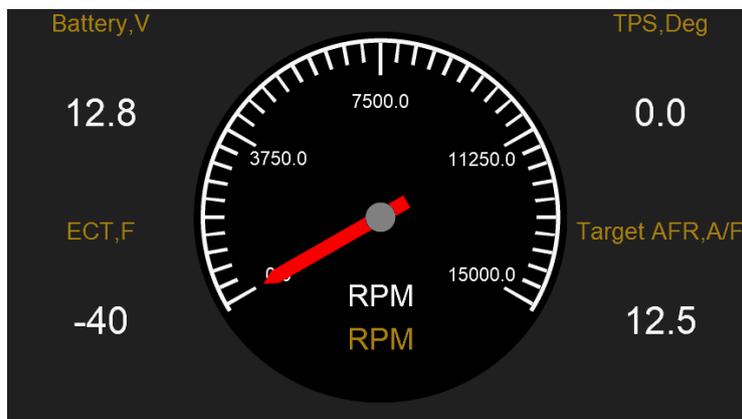


Dash

(2) Click "Dash #1" or other Dash icons to enter the Dash interface



Dash #1

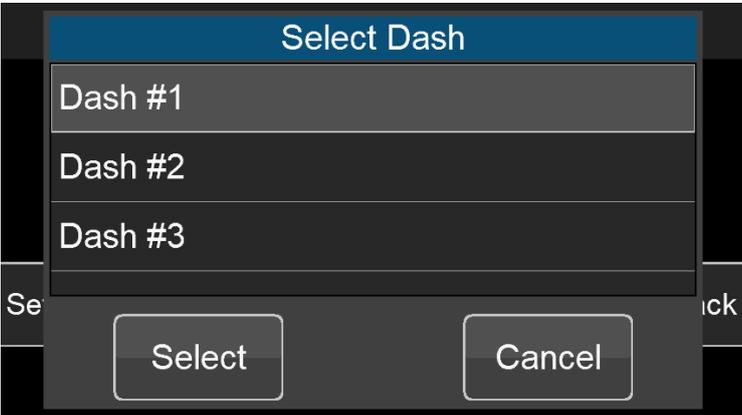
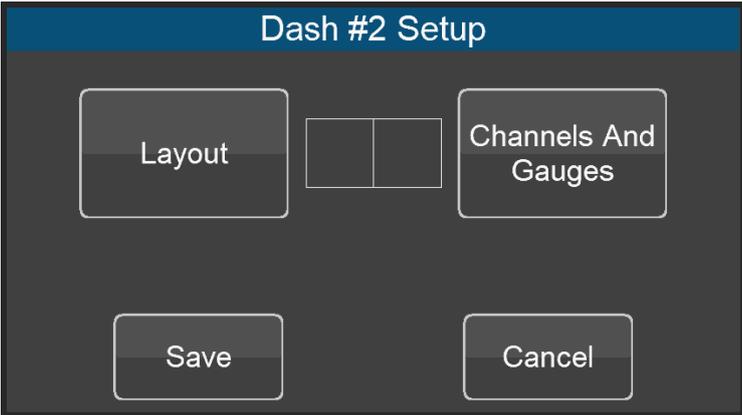


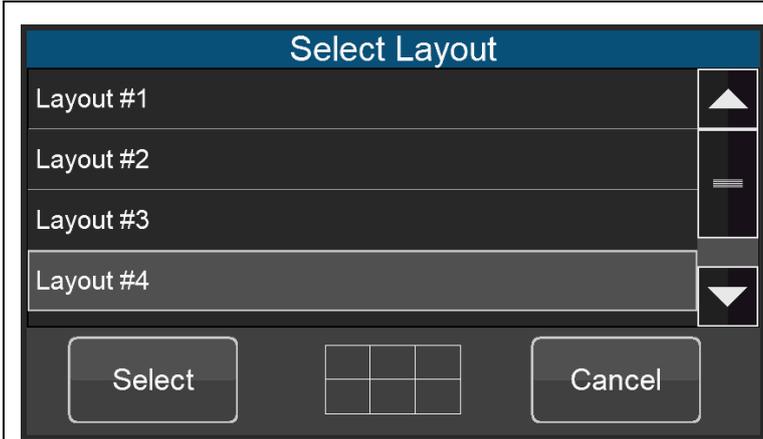
Dash #2

Battery,V	Run Time,Sec	RPM,RPM
12.8	0	0
MAP,Psi	ECT,F	Ign Advance,Deg
79.8	-40	7.4

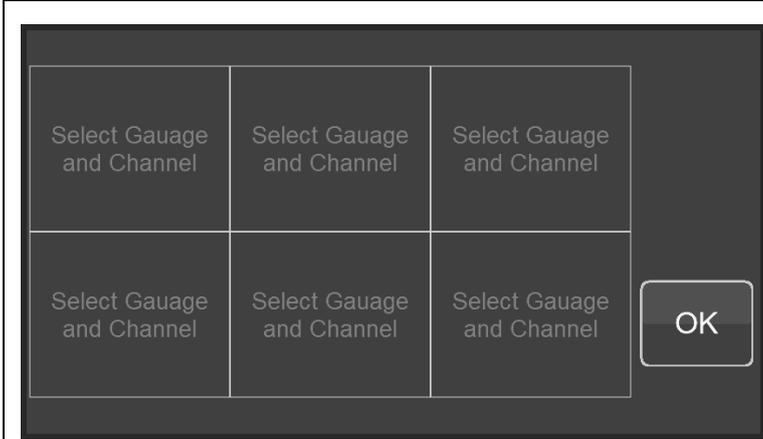
Dash #3

(3) Click "Setup" in the lower left corner to customize the configuration of the three Dashes.

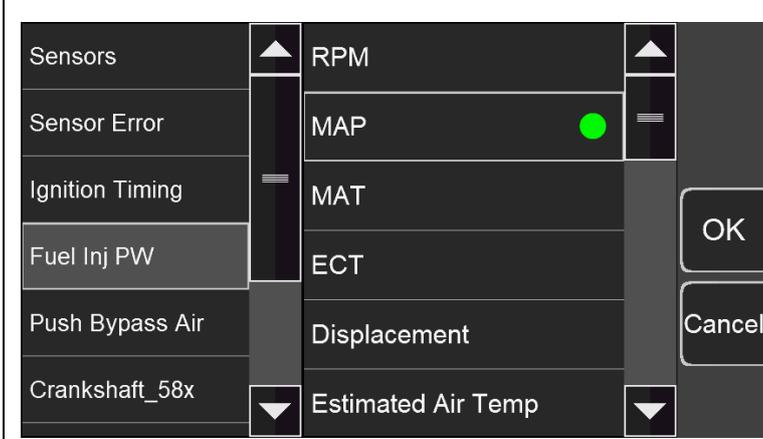
	<p>Select the Dash that needs to be customized.</p>
	<p>Click "Layout" to configure the layout, click "Channels And Gauges" to configure the channels, click "Save" after the configuration is completed, and click "Cancel" to cancel the save.</p>



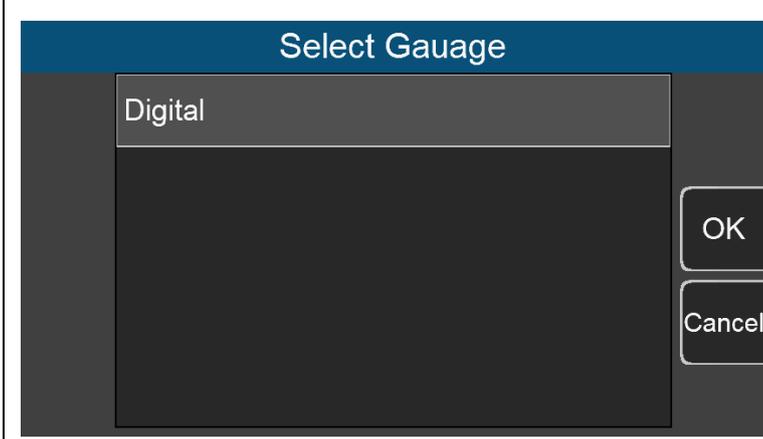
Enter Layout interface to select Layout, click "Select" to select Layout, click "Cancel" to cancel the selection.



Click "Channels And Gauges" to enter the channel selection interface, click "Select Gauge and Channel" to select a specific channel, and click "OK" after the configuration is completed.



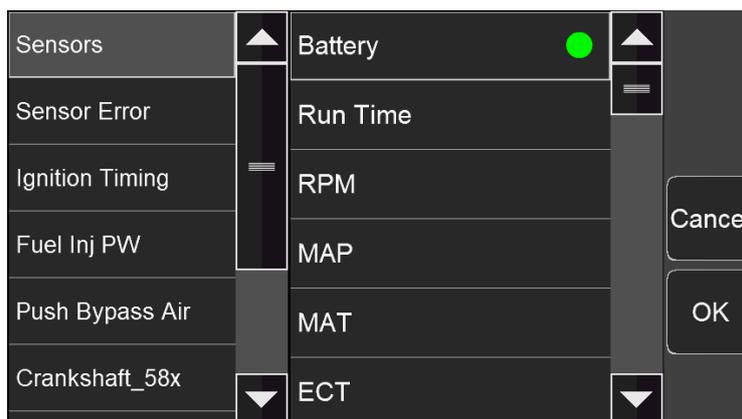
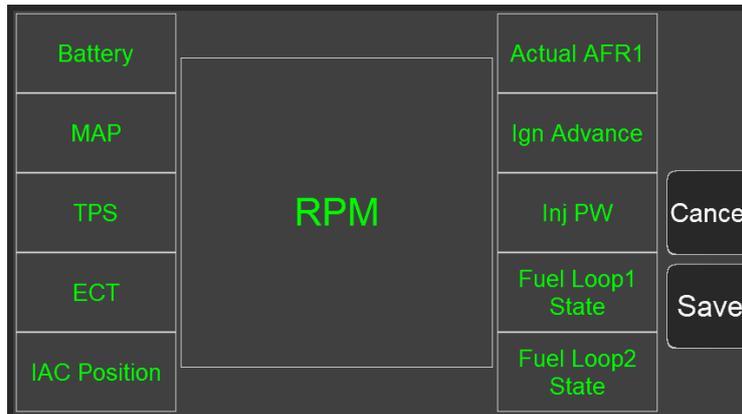
Select the object to be monitored. The left side is the monitoring group, and the right side is each item of the group.



Choose the type of Dash. There are three types of Dash (Digital, State, and Round) for each monitor to choose.



(4) Click "Home Setup" to enter the "Home Setup" interface. Click the item in the cells to modify the configuration, for example, click "Battery" to enter the channel selection interface. Click "Save" to save, and click "Cancel" to cancel the modification.

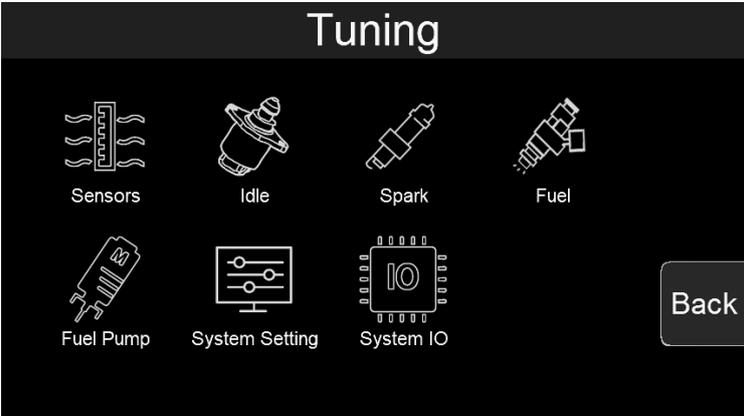


The left side is the monitoring group, and the right side is the monitoring object of the monitoring group.

3.6 Tuning

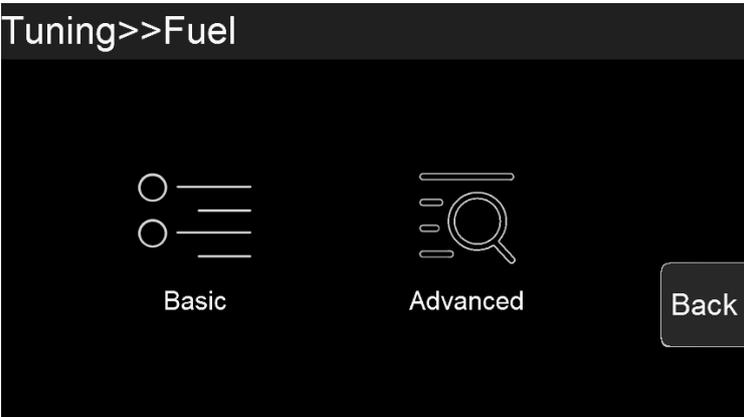
Click the "Tuning" icon on the Main Menu to enter the Tuning interface. The interface shows tuning groups.

Click the icons to view the system calibration data. Click "Tab" to switch the selected tuning options, click "Enter" to calibrate the selected item, and click "Back" to return.



3.6.1 Tuning Groups

Click the "Fuel" icon to enter "Tuning>>Fuel", which is divided into basic calibration group and advanced calibration group. Click "Basic" to enter the basic calibration group, and click "Advanced" to enter the advanced calibration group.

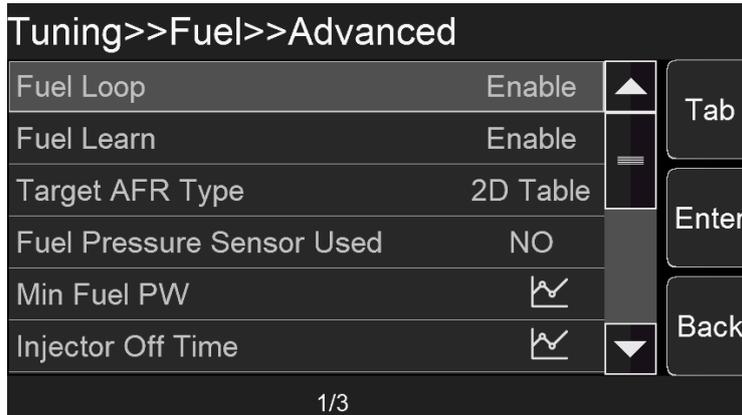


"Tunning>>Fuel"

The image shows the 'Tuning>>Fuel>>Basic' menu. It has a dark background with white text. At the top, 'Tuning>>Fuel>>Basic' is displayed. Below it, there is a list of calibration parameters and their values. On the right side, there are three buttons: 'Tab', 'Enter', and 'Back'. At the bottom, there is a page indicator '1/3'.

Parameter	Value	Unit
Rated Injector Pressure	43.5	Psi
Clear Flood TPS	65.0	Deg
Fuel Prime Percent	100.0	%
Idle AFR	13.7	A/F
Cruise AFR	14.7	A/F
WOT AFR	12.0	A/F

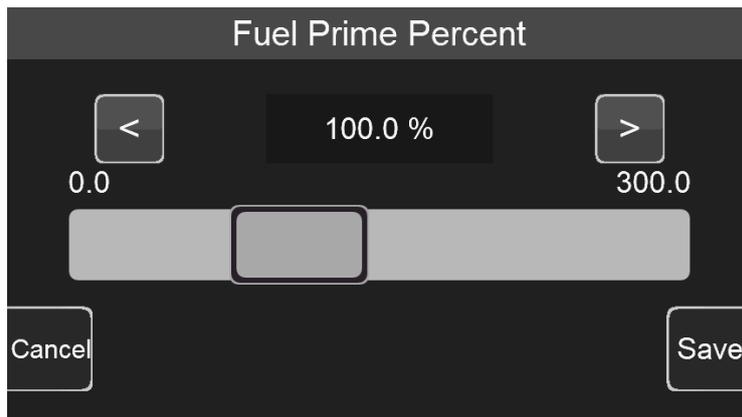
"Tunning>>Fuel>>Basic"



"Tunning>>Fuel>>Advanced"

3.6.2 Making Adjustments

(1) Slider Bar: Slide the bar or click "<" and ">" to adjust the parameters, click "Save" to save, and click "Cancel" to cancel saving.



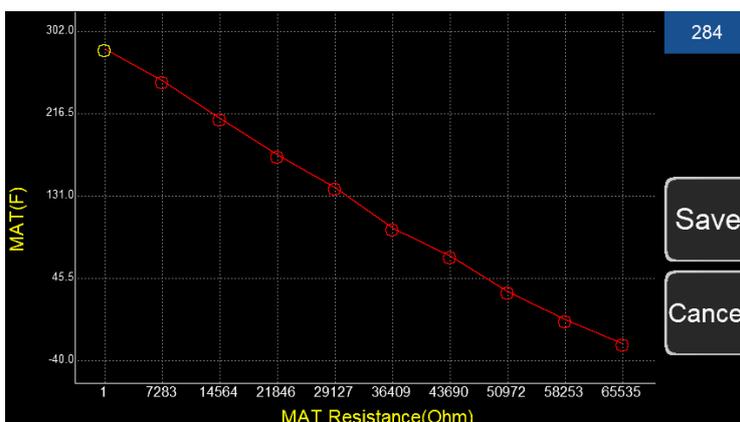
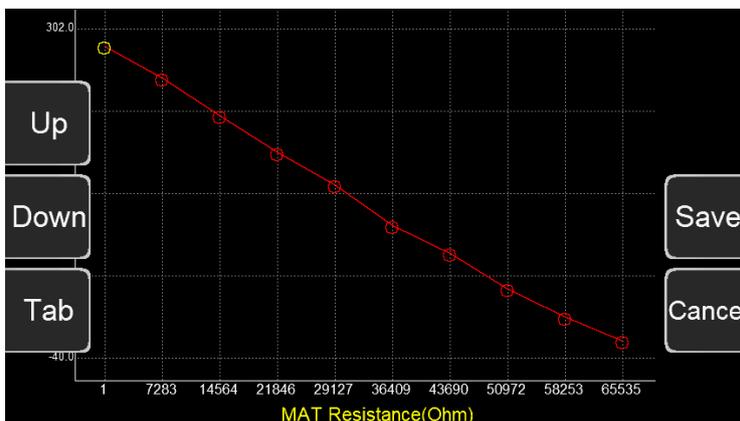
(2) Numeric keyboard: Click the edit box "100.0%" above the sliding bar to pop up the numeric keyboard.



(3) 2D Graph: The user can drag the red dot on the graph or click the mechanical button on the left to adjust the parameters. When adjusting the parameters, the upper right corner will display the Y-axis coordinate value of the currently adjusted parameter. The three buttons on the left side of the interface will disappear after a short display.

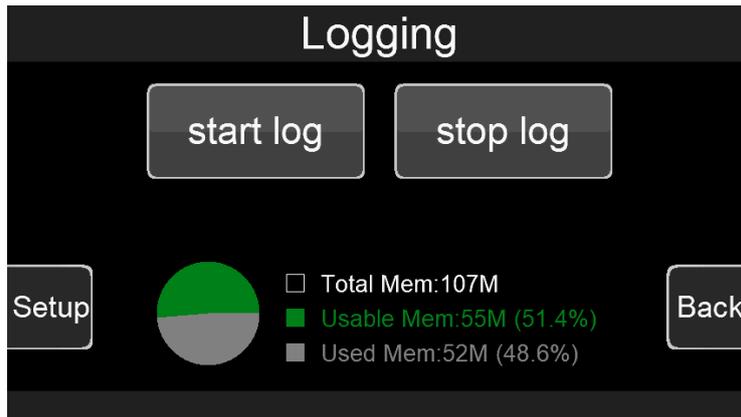
Click the mechanical button on the lower left corner to switch the position of the small yellow dot, click the middle button on the left to lower the yellow dot, and click the mechanical button in the upper left corner to lower the yellow dot. Click the mechanical button in the upper left corner to raise the yellow dot. The Y-axis coordinate value of the yellow dot is displayed in the upper right corner of the interface.

After the configuration is complete, click "Save" to download the calibration data to the ECU; click "Cancel" to cancel the modification.

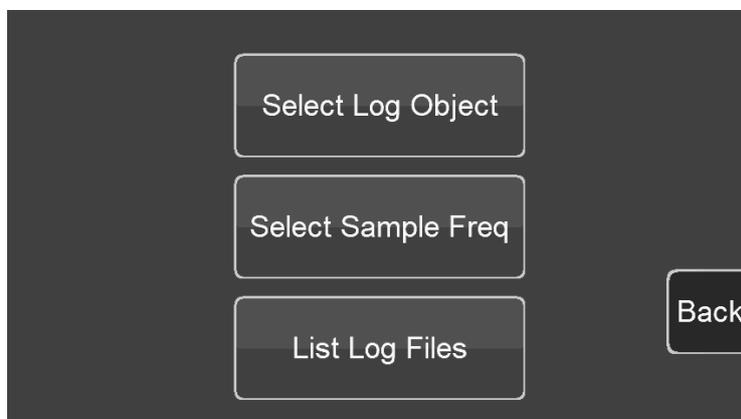


3.7 Logging

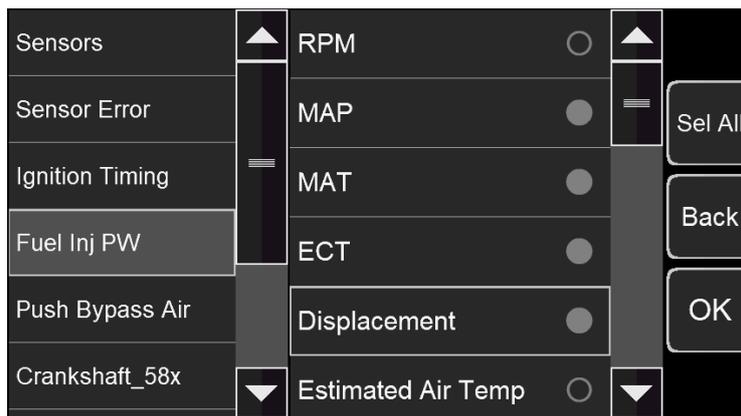
Click the "Logging" icon on the Main Menu to enter the logging interface. Click "start log" to start logging, and click "stop log" to stop logging. This interface also shows the current memory usage of the handheld.



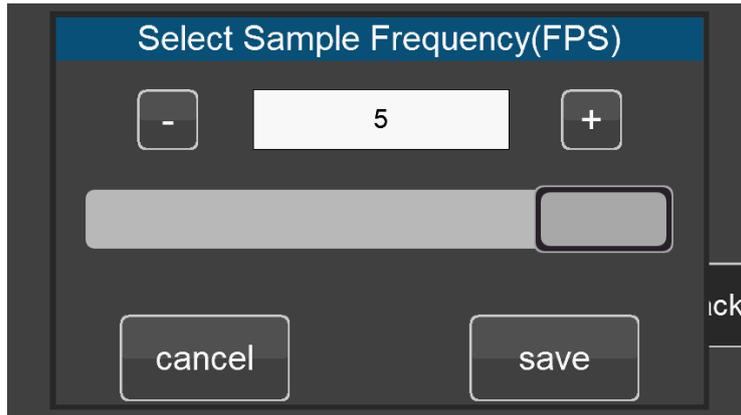
(1) Click the "Setup" button in the lower left corner to enter the log configuration interface.



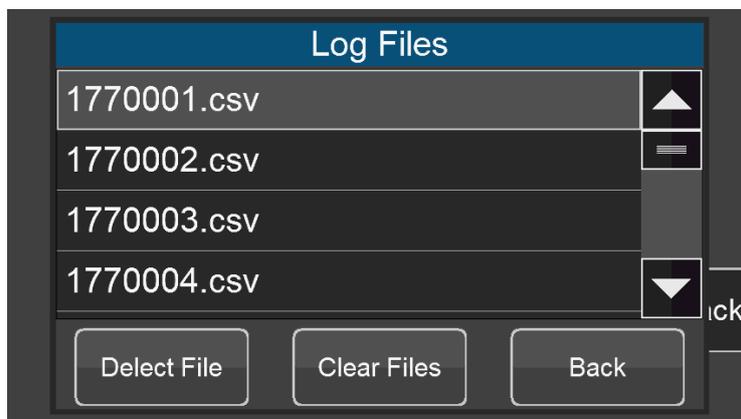
(2) Click "Select Log Object" to select the object to be logged, and only log one group at a time. Select the log group on the left, and select multiple objects in this group to log at the same time on the right. Click "Sel All" to select all the objects in the group for recording, and click "OK" to save.



(3) Click "Select Sample Freq" to select the logging frequency, click "Save" to save, and click "Cancel" to cancel the modification.

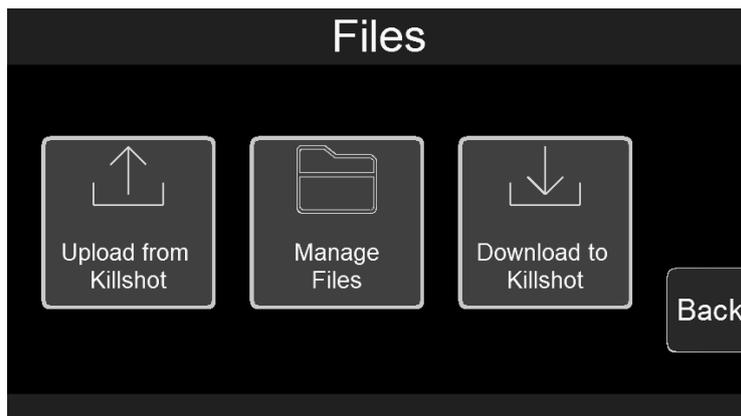


(4) Click "List Log Files" to view the log files, or delete or empty the log files.



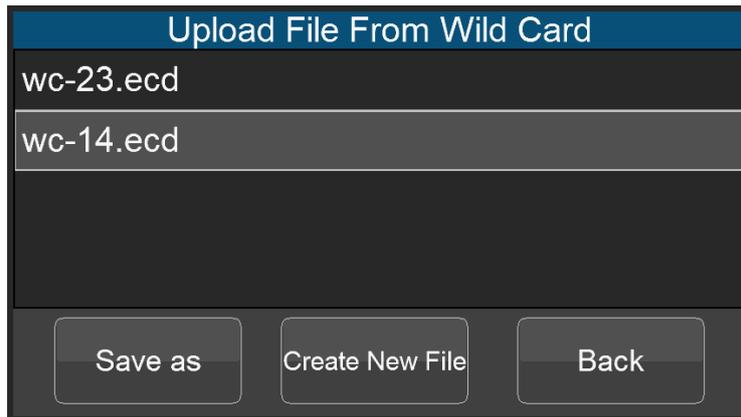
3.8 Files

Click the "Files" icon on the Main Menu to enter the file interface, where you can upload and download the calibration data, and manage the calibration data files.



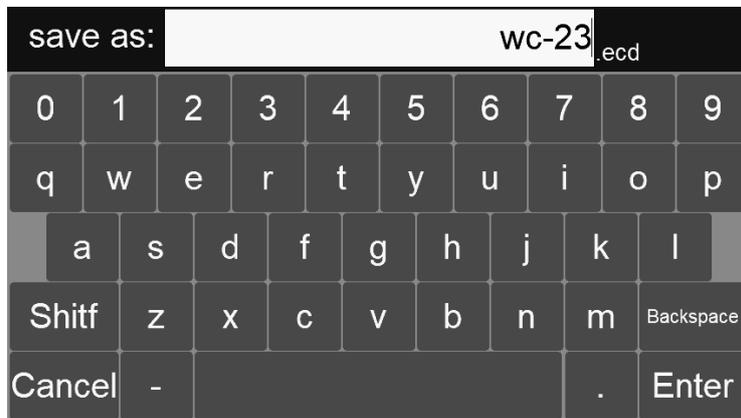
3.8.1 Uploading Calibration Data

(1) Click "Upload from Jackpot" to upload ECU calibration data and save it.



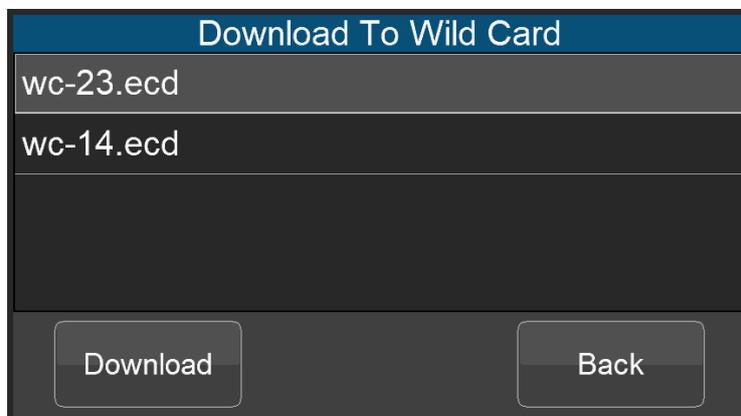
(2) Click "Save as" to save the uploaded data to the currently selected file. Note that the calibration data of the selected file will be replaced by the new calibration data.

(3) Click "Create New File" to create a new file to save the calibration data, and the user can customize file name.



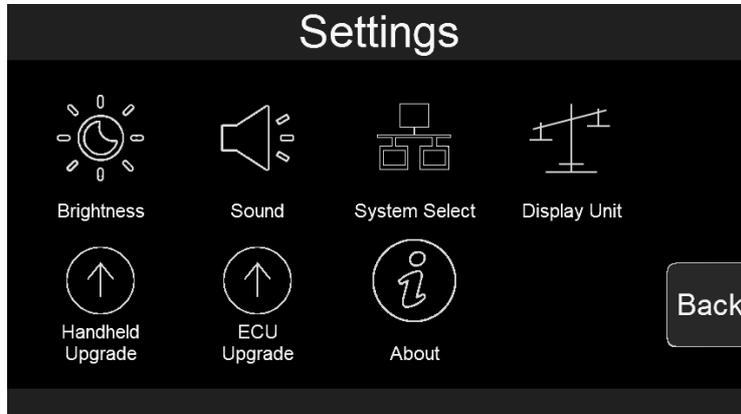
3.8.2 Downloading Calibration Data

Click "Download to wildcard" to download the calibration data to the ECU. Select the calibration data file to be downloaded and click "Download" to download it to the ECU.



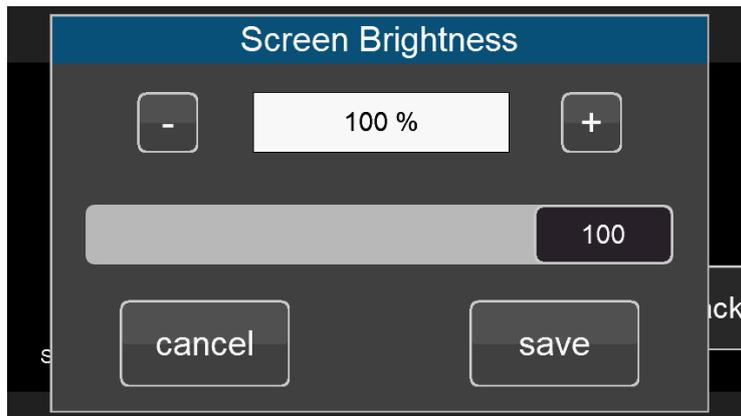
3.9 Settings

Click the "Settings" icon on the Main Menu to enter the settings interface, where you can set the display brightness, sound effects, display unit, Upgrade, etc.



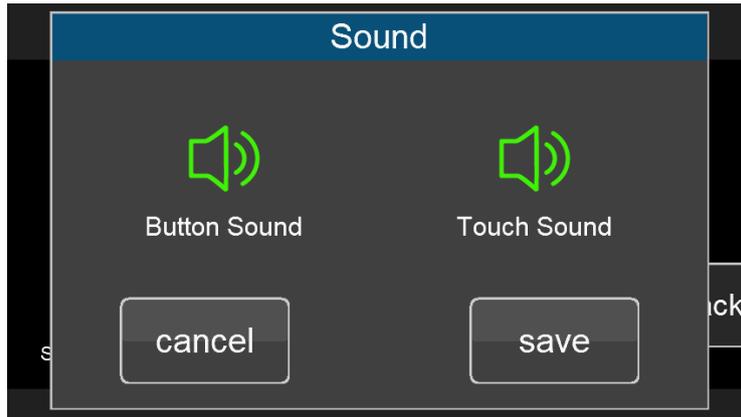
3.9.1 Screen Brightness Setting

Click the "Brightness" icon to enter the brightness setting interface. You can slide the bar or click the "-" and "+" to set the screen brightness. After the setting is completed, click "Save" to save the settings, and click "Cancel" to cancel saving the changes.



3.9.2 Sound Setting

Click the "Sound" icon to enter the sound effect setting interface, and click the horn icon to switch the sound effect. "Button Sound" is the sound effect switch for mechanical buttons, and "Touch Sound" is the touch sound effect switch. After the setting is completed, click "Save" to save the setting, and click "Cancel" to cancel the saving and modification.



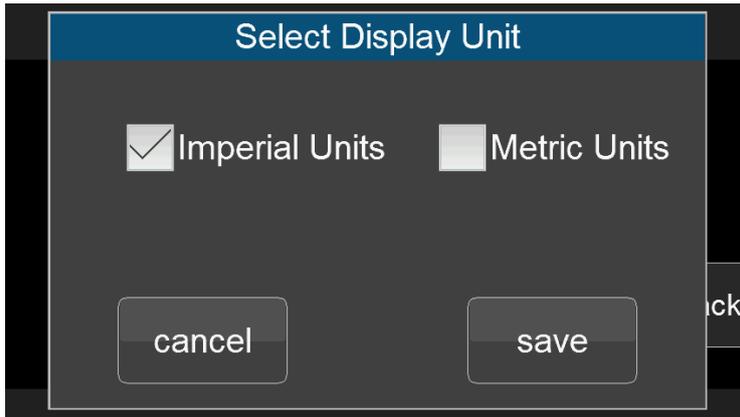
3.9.3 Select System

Click the "System Select" icon to enter the system selection interface. The user selects the corresponding system according to the product. If the correct product is not selected, the system will not work right.



3.9.4 Select Display Unit

Click the "Display Unit" icon to enter the display unit setting interface. The user can select the imperial units or the metric units. After the setting is completed, click "Save" to save the setting, and click "Cancel" to cancel the saving and modification.



3.9.5 System Upgrade

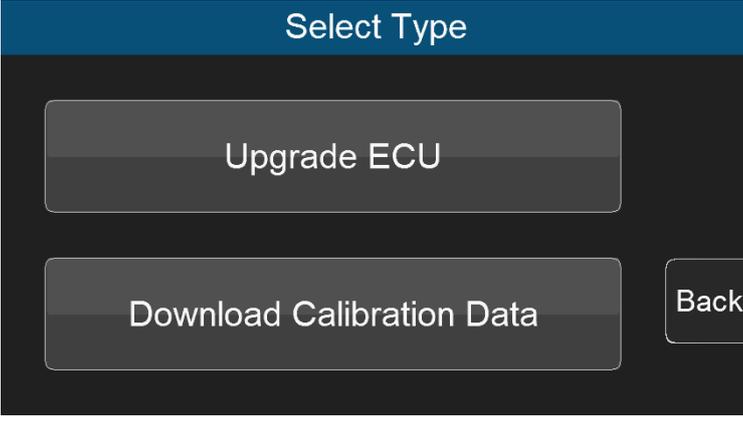
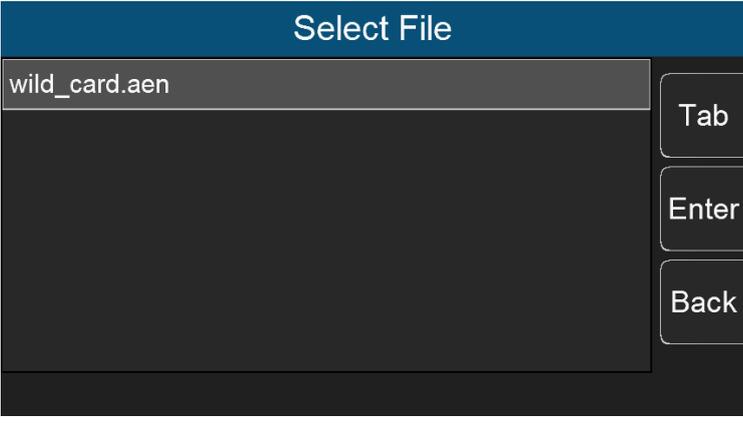
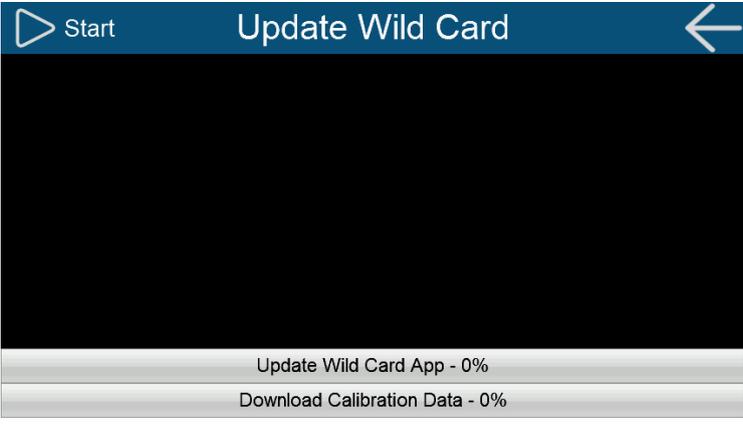
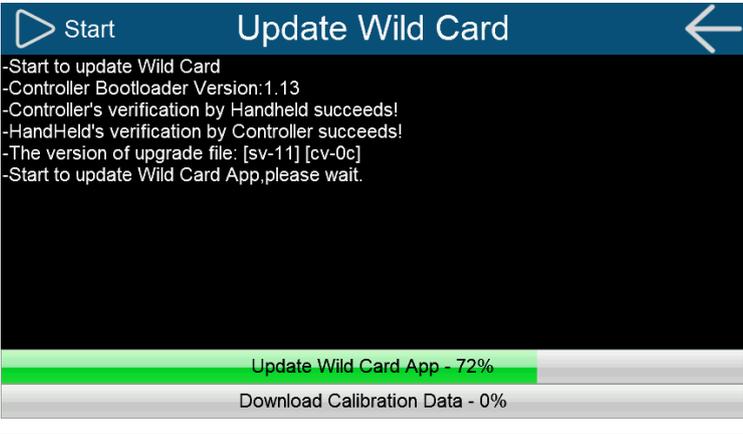
Click "Handheld Upgrade" and follow the prompts to upgrade the Handheld.

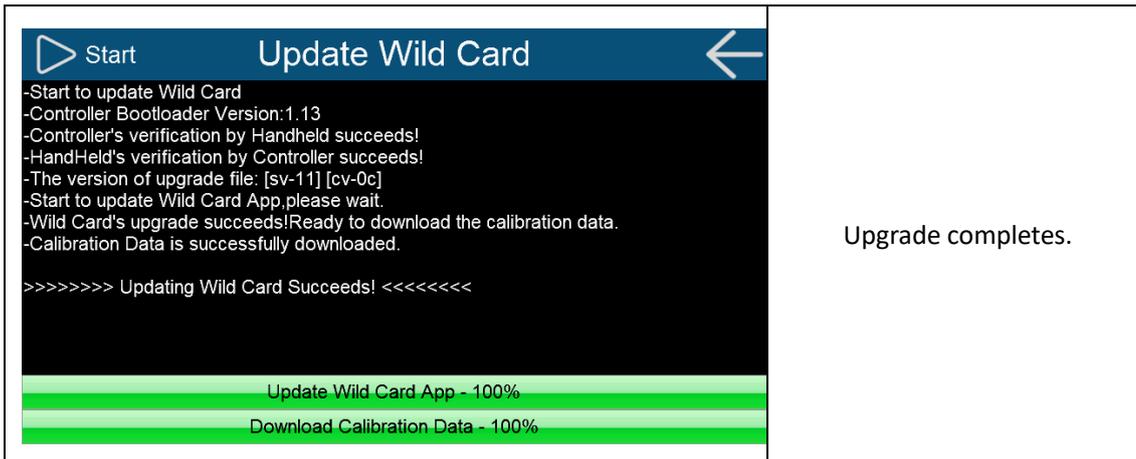


3.9.6 ECU Upgrade

Click the "ECU Upgrade" icon to enter ECU upgrade interface, and the user can select the corresponding product and file to upgrade the system.

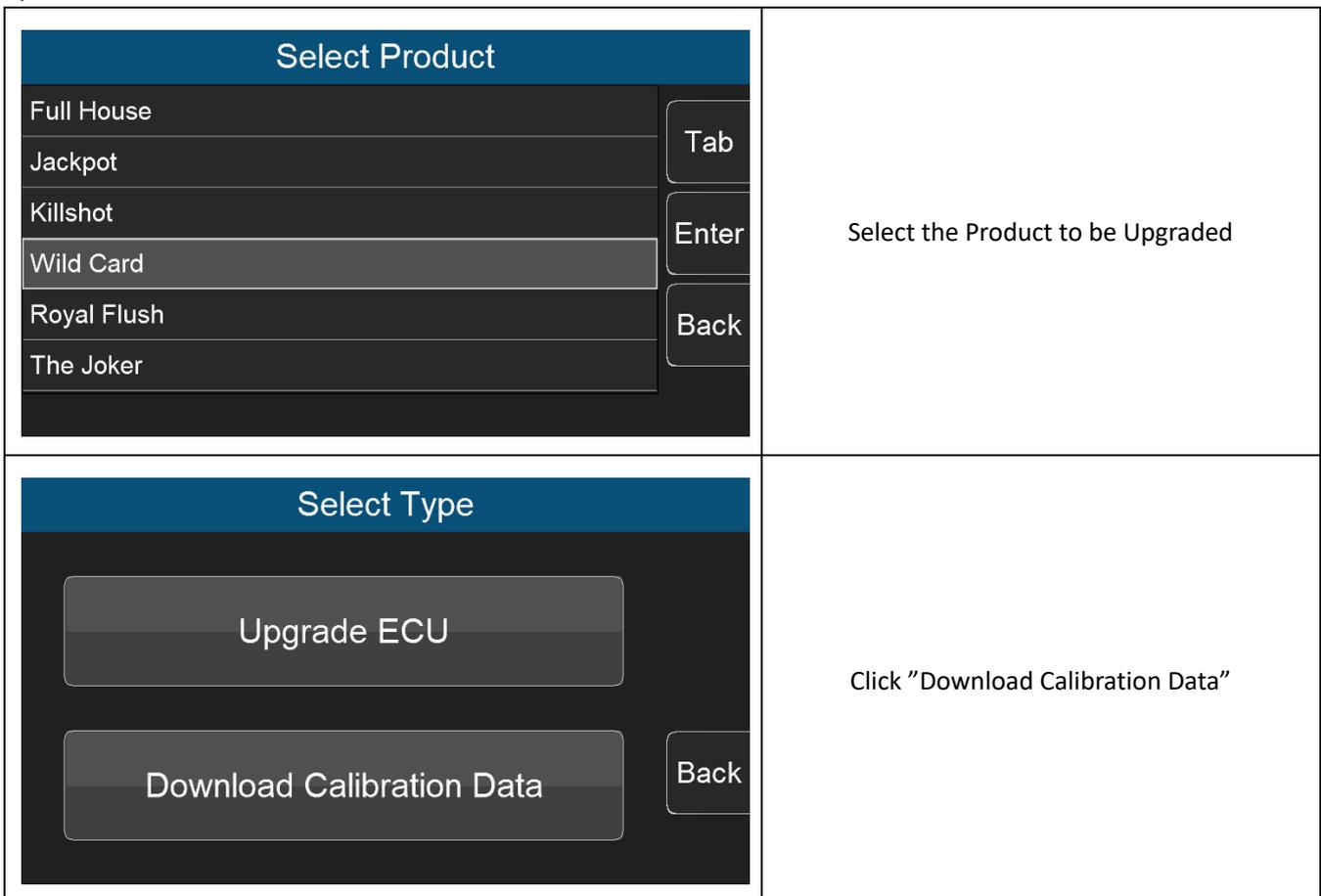


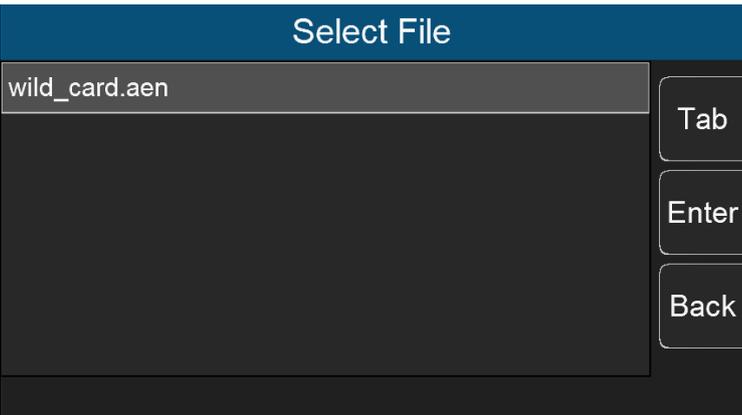
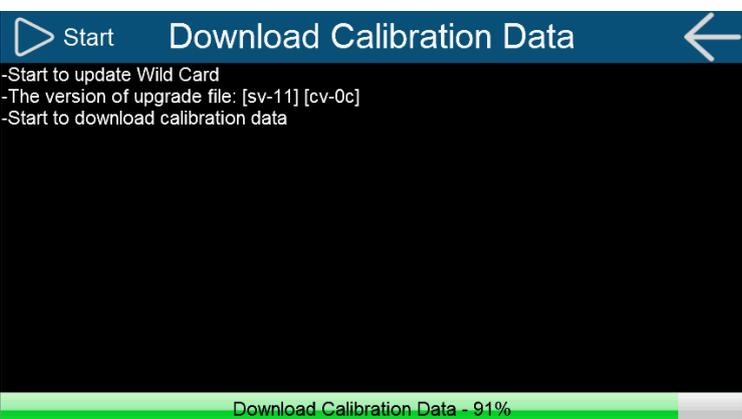
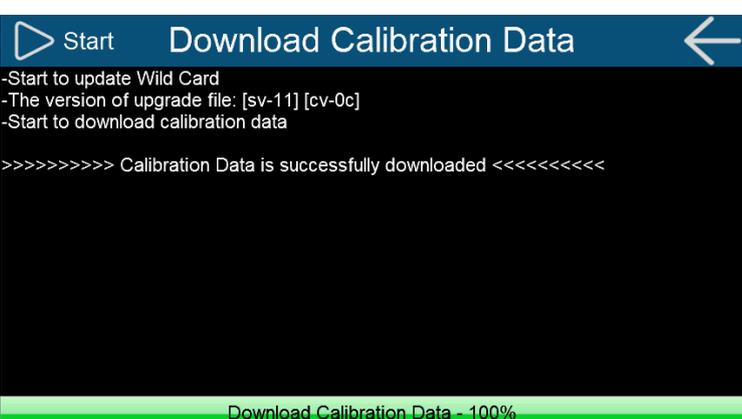
 <p>The screenshot shows a dark-themed interface with a blue header bar containing the text "Select Type". Below the header, there are two large, light-gray buttons with rounded corners. The top button is labeled "Upgrade ECU" and the bottom button is labeled "Download Calibration Data". To the right of the bottom button, there is a smaller "Back" button.</p>	<p>Click "Upgrade ECU"</p>
 <p>The screenshot shows a dark-themed interface with a blue header bar containing the text "Select File". Below the header, there is a list of files. The first file, "wild_card.aen", is highlighted with a light gray background. To the right of the file list, there are three buttons: "Tab", "Enter", and "Back".</p>	<p>Select Upgrade File</p>
 <p>The screenshot shows a dark-themed interface with a blue header bar containing the text "Update Wild Card". On the left side of the header, there is a "Start" button with a play icon. On the right side, there is a back arrow. Below the header, there is a large black area. At the bottom, there are two progress bars. The top one is labeled "Update Wild Card App - 0%" and the bottom one is labeled "Download Calibration Data - 0%".</p>	<p>Click "▶" button in the upper left corner or click the mechanical button in the upper left corner to start the upgrade. After the upgrade completes, click "◀" in the upper right corner to return.</p>
 <p>The screenshot shows a dark-themed interface with a blue header bar containing the text "Update Wild Card". On the left side of the header, there is a "Start" button with a play icon. On the right side, there is a back arrow. Below the header, there is a list of status messages: <ul style="list-style-type: none"> -Start to update Wild Card -Controller Bootloader Version:1.13 -Controller's verification by Handheld succeeds! -HandHeld's verification by Controller succeeds! -The version of upgrade file: [sv-11] [cv-0c] -Start to update Wild Card App,please wait. At the bottom, there are two progress bars. The top one is labeled "Update Wild Card App - 72%" and is partially filled with green. The bottom one is labeled "Download Calibration Data - 0%".</p>	<p>Upgrading the system and downloading the calibration data.</p>



3.9.7 Download Calibration Data

Click the "ECU Upgrade" icon to enter ECU upgrade interface, and the user can select the corresponding product and file to download the calibration data.



 <p>The screenshot shows a 'Select File' screen with a dark background. At the top, the text 'Select File' is displayed in white. Below it, the file name 'wild_card.aen' is highlighted in a grey bar. To the right of the file list are three buttons: 'Tab', 'Enter', and 'Back', each in a white box with a dark border.</p>	<p>Select calibration file for Jackpot</p>
 <p>The screenshot shows the 'Download Calibration Data' screen. At the top, there is a blue header bar with a play button icon, the text 'Start Download Calibration Data', and a left-pointing arrow. The main area is black. At the bottom, a progress bar shows 0% completion.</p>	<p>Click “▶” button in the upper left corner or click the mechanical button in the upper left corner to start to download. After downloading completes, click “◀” in the upper right corner to return.</p>
 <p>The screenshot shows the 'Download Calibration Data' screen with a progress bar at 91%. The text in the main area reads: '-Start to update Wild Card', '-The version of upgrade file: [sv-11] [cv-0c]', and '-Start to download calibration data'. The progress bar is green and shows 91% completion.</p>	<p>Downloading calibration data</p>
 <p>The screenshot shows the 'Download Calibration Data' screen with a progress bar at 100%. The text in the main area reads: '-Start to update Wild Card', '-The version of upgrade file: [sv-11] [cv-0c]', and '-Start to download calibration data'. Below this, it says '>>>>>>>>> Calibration Data is successfully downloaded <<<<<<<<<<'. The progress bar is green and shows 100% completion.</p>	<p>Downloading completes</p>

4. System Update

4.1 Handheld Update

There are two ways to update and/or upgrade the handheld:

(1) Copy the Handheld upgrade package into the USB flash drive. Before powering on, plug the USB flash drive into the USB interface of the handheld, press and hold the mechanical button in the lower left corner, and then power on. The system will pop up the upgrade interface when the system detects the upgrade package. At this time, release your hand, and the system will automatically upgrade.

(Note: Do not perform any operation on the handheld before it prompts to unplug the U disk)

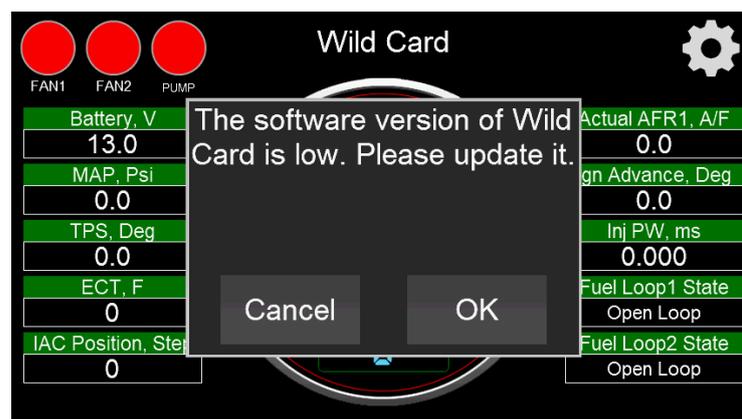
(2) Enter the system setting interface, click the "Handheld Upgrade" icon, and follow the prompts to upgrade. First plug the U disk with the upgrade package into the USB interface of the handheld, then press and hold the mechanical button in the lower left corner, and then click "OK". When the system upgrade interface appears, you can release the mechanical button in the lower left corner.

4.2 Version Detection

After powering on the HandHeld and entering the system, it will automatically detect and compare the version information of the handheld and the product. If the two versions do not match, the user will be prompted to update the system, otherwise it will not work right.

4.2.1 When ECU version is Low

When ECU version is too low, the user needs to update the ECU, otherwise it cannot work properly. Click "OK" to enter the ECU update interface, and click "Cancel" to cancel the update. Users can also go to "Setting"->"ECU Upgrade" to update ECU by themselves.



4.2.2 When Handheld version is Low

When HandHeld software Version is too low, the user needs to update the handheld, otherwise it cannot work properly. Click "OK" to enter the handheld update interface, and click "Cancel" to cancel the update. Users can also go to the "Setting"->"Handheld Upgrade" interface by themselves and follow the prompts to update the HandHeld.

Wild Card


 FAN1


 FAN2


 PUMP



Battery, V	13.0	Actual AFR1, A/F	0.0
MAP, Psi	0.0	Ign Advance, Deg	0.0
TPS, Deg	0.0	Inj PW, ms	0.000
ECT, F	0	Fuel Loop1 State	Open Loop
IAC Position, Ste	0	Fuel Loop2 State	Open Loop

The software version of handheld is low. Please update it.

Cancel
OK