

MST-3000

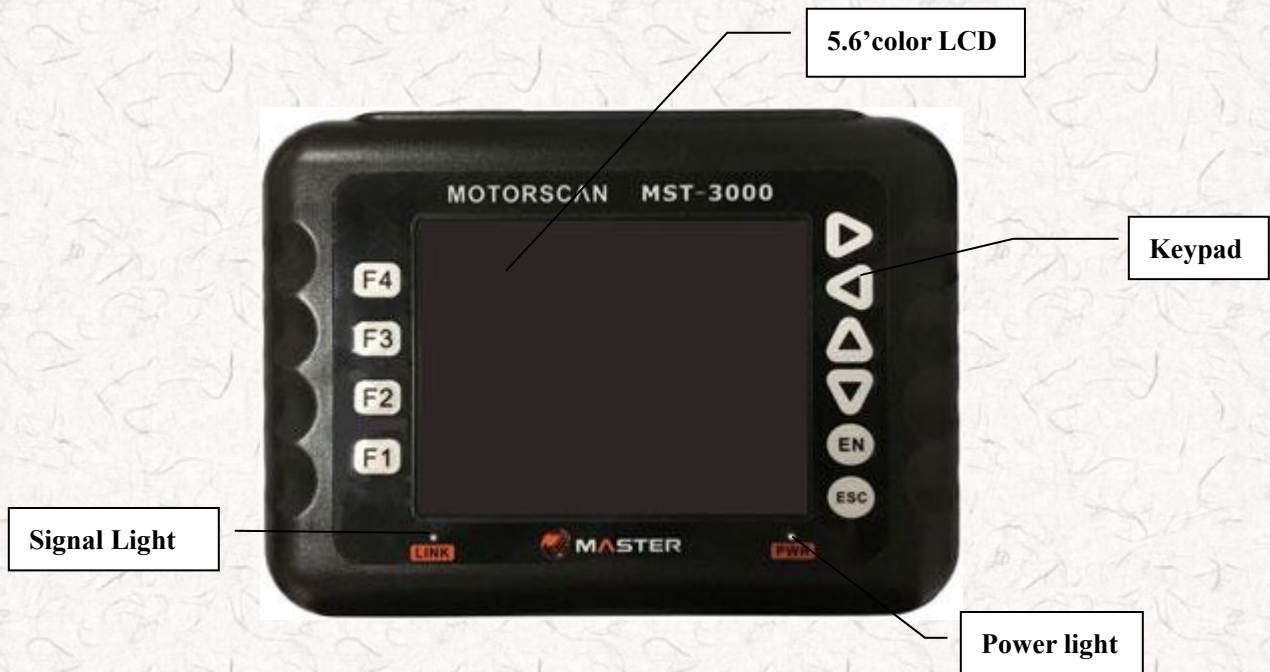
Motorcycle Diagnostic



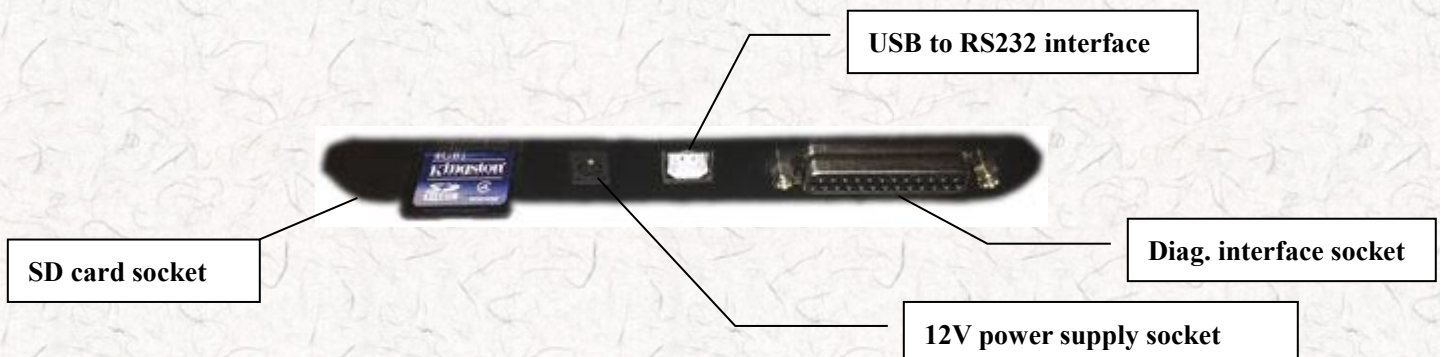
Instruction

Part 1 Scanner Introduction & Attentions

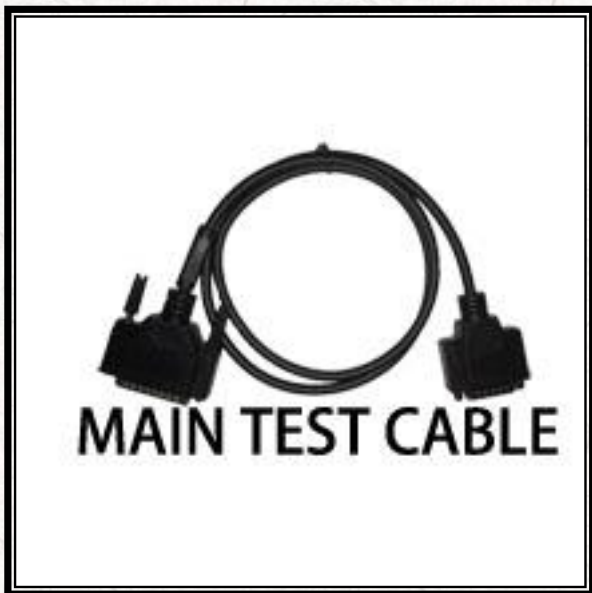
- Scanner appearance and keys:



Top view:



● **Diag. accessories:**





KAWASAKI-1



KAWASAKI-2



KAWASAKI-3



KAWASAKI-4



KAWASAKI-5



KAWASAKI-6



KTM



KYMCO



PGO



PIAGGIO/VESPA



POWER CABLE



YAMAHA(1)



※Please connect the power cable to the scanner's 12V socket when diagnosis with YAMAHA models.

※Please connect the power cable to the scanner's 12V socket when diagnosis with HONDA models.

Buttons descriptions

▲▼ Up down Arrow Keys: Choose items

◀▶ Left right arrow keys: Shift pages

Enter: Perform

Esc: Return

F1,F2,F3,F4 Function keys: Reserved



Attentions

Use restrictions

1. The displays screen and illustrations (such as key markings) in this manual are for illustrative purpose only, and may differ somewhat from the actual items they represent.
2. The contents of this manual are subject to change without notice.
3. In no event shall **Shenzhen Zeus Technology Co., LTD** be liable to anyone for special, collateral, incidental, or consequential damages in connection with or arising out of the purchase or use of these materials.
4. Shall **Shenzhen Zeus Technology Co., LTD** not be liable for any claim of any kind whatsoever against the use of these materials by any other party.
5. Avoid use and storage in areas subjected to temperature extremes. Very low temperatures can cause slow display response, total failure of the display. Also avoid leaving the scanner in direct sunlight, near anywhere else it might be exposed to very high temperatures. Heat can cause discoloration or deformation of the scanner's case, and damage to internal circuitry.
6. Never attempt to disassemble the scanner or tamper with the connection settings without permission.
7. Never press the keys of the scanner with a ballpoint pen or other pointed object.
8. Use a soft, dry cloth to clean the exterior of the scanner. If the scanner becomes very dirty, wipe it off with a cloth moistened in a weak solution of water and a mild neutral household detergent. Wring out all excess moisture before wiping the scanner. Never use thinner, benzene or other volatile agents to clean the scanner. Doing so can remove printed markings and can damage the case.
9. Working conditions:
Temperature: 0~60°C ; Humidity: relative humidity below 80%.
10. Don't connect to diagnostic test sync when examine the ignition system sparking voltage Test, or high-pressure disturbance may result in equipment damage

Checking when use

1. Check whether the ignition is on.
2. Check the whether the scanner's power light is on (red light), when testing the system whether the signal light is flash.
3. check the diagnostic cable and the interface whether is bad contact or short-circuit.
4. Check whether the software version is applicable to the vehicle types

Part 2 Connection Specifications

1、Scanner accessories

- Testing accessories



Scanner



Main test cable

3pin diagnostic adaptor

- Connection methods:



1.Connect the main test cable cable



2.Connect the diagnostic cable



3.Connect to the car diagnostic

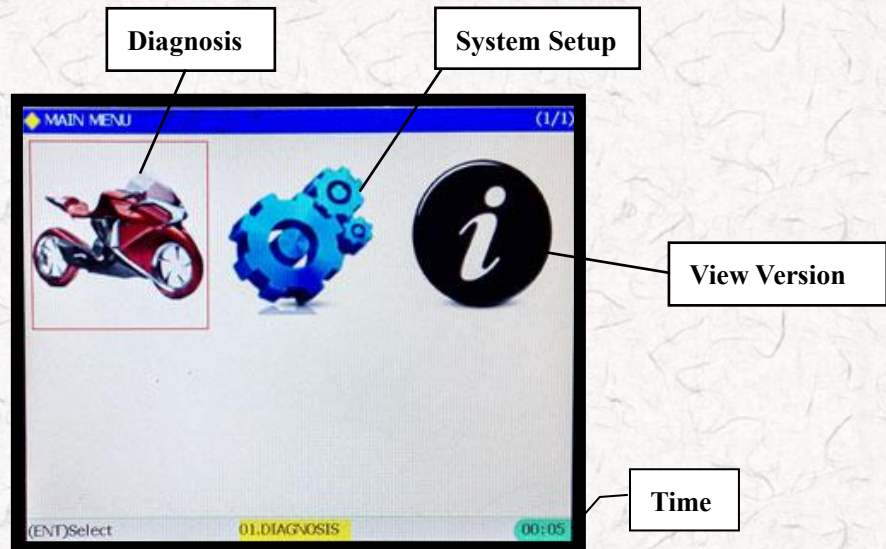
Part 3 Operation Descriptions (Take Kawasaki ZR1000 as sample)

1. Connection

Connect Scanner to motorcycle by following the steps of **Part 2**.

2. Perform function options

Start the scanner, it will come out options as below



Perform: 1.**DIAGNOSIS**: Enter maintenance diagnostic procedure.

Perform: 2.**SYSTEM SETUP**: Set up and test basic function as sound, language, date, time, LCD test, Keypad test, LED test etc.

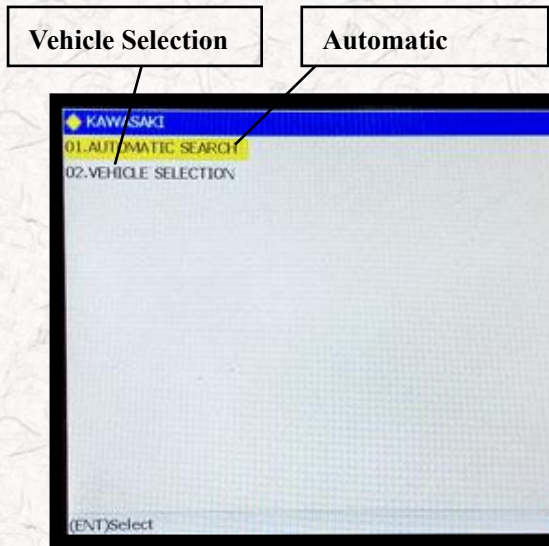
Perform: 3.**VIEW VERSION**: Read out scanner's S/N ,S/W,H/W.

3.DIAGNOSIS

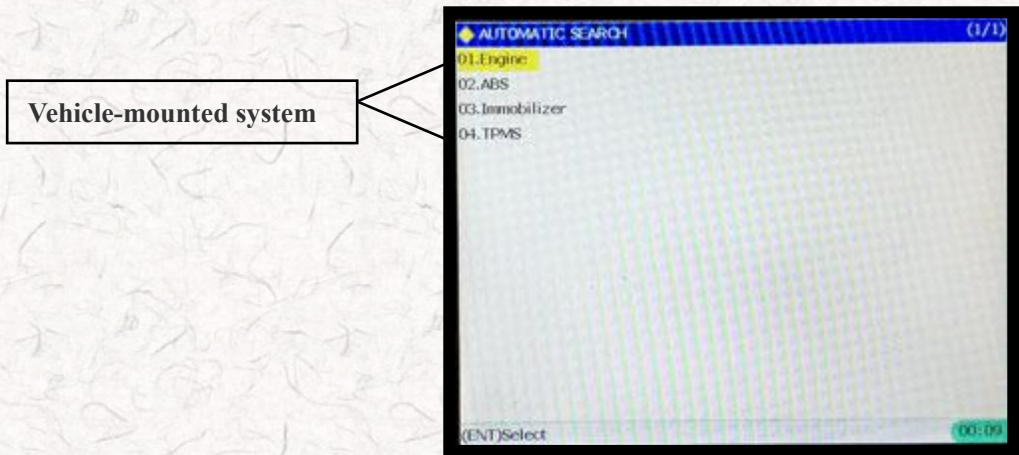
●Press <Enter> to enter **DIAGNOSIS**, it will come out Models selection as below



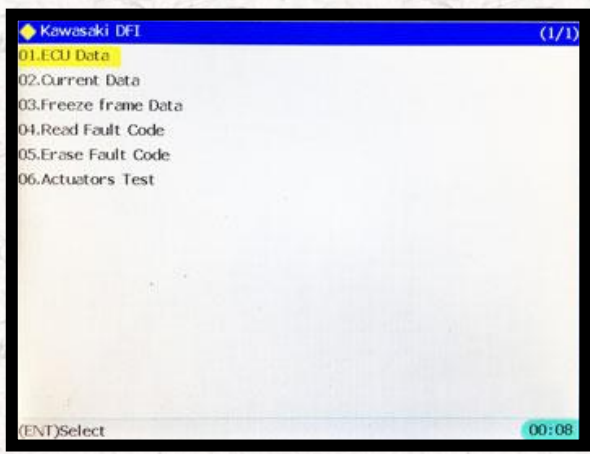
●Press <Enter> to enter **Kawasaki**, it will come out function selection as below:



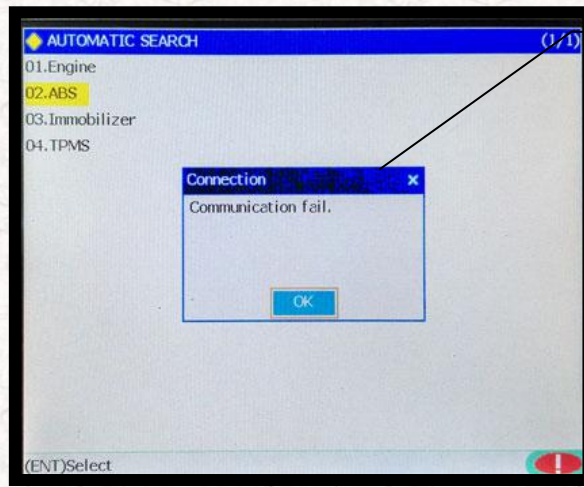
•Choose one way to enter at random



•If press <Enter> to enter Engine. If successful, will appear:



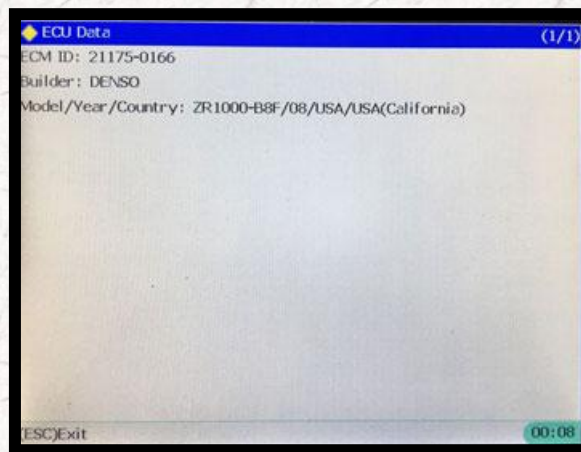
Otherwise connection fail, it will appear:



It indicate that failure to connect

01. ECU Data.

Enter this option will display the information of ECU, as below:



02.Current Data

Current Data is the numeric figures of the working status for motor engine, through this data we can know whether motor works normally.

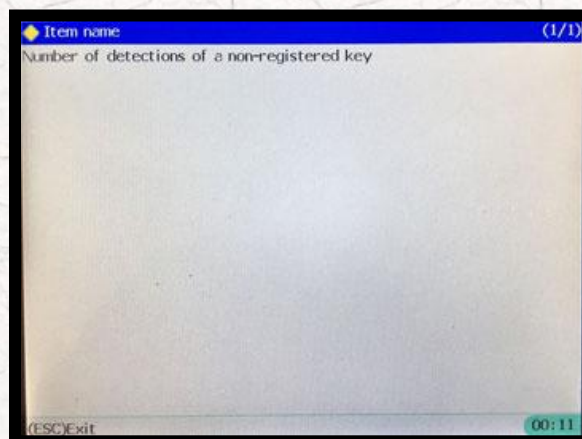
Select **Current Data** to enter Current Data interface:

| Item name | Current value | Unit |
|--|---------------|---------|
| Throttle opening angle | -4.30 | V |
| ② Intake air pressure | 758.2 | mmHg |
| ② Water temperature | 80.0 | °C |
| ② Intake air temperature | -40.0 | °C |
| ② Atmospheric pressure | 758.2 | mmHg |
| ② Engine speed | 0 | RPM |
| ② Battery voltage | 12.3 | V |
| ② Vehicle speed | 0 | Km/h |
| ② Secondary throttle opening angle | 0.00 | V |
| ② Fuel cut-off sensor | 0.0 | V |
| ② Exhaust throttle valve opening angle | 1.48 | V |
| ② Internal control voltage 1A | 3.1 | V |
| Throttle sensor | 1 | failure |
| Intake air pressure sensor | 1 | failure |
| Coolant temperature sensor | 1 | failure |

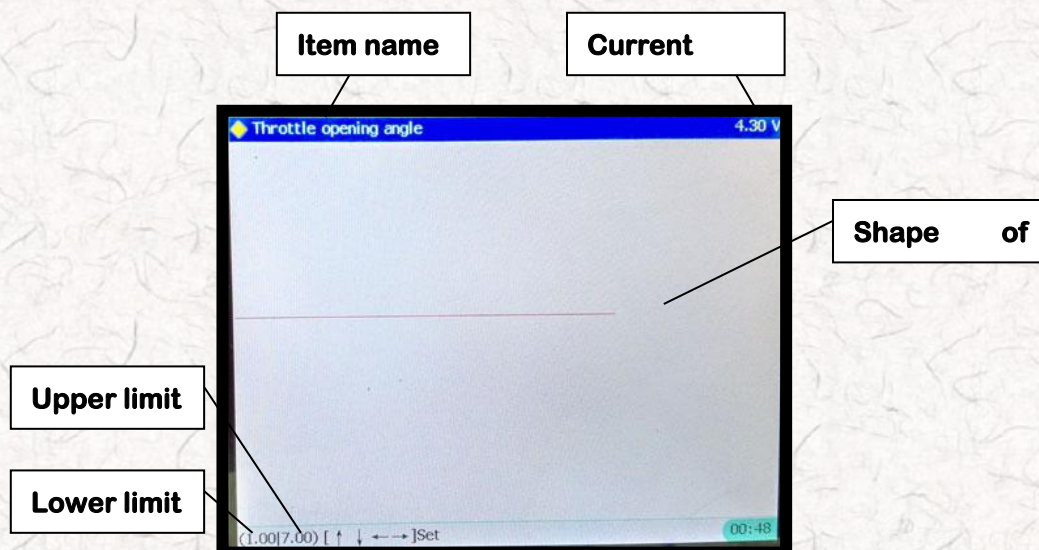
You can press [F1] key to show more information if the item name shows incompletely. Just as below in yellow:

| ◆ Current Data (2/4) | | |
|--|---|---------|
| Atmospheric pressure sensor | 1 | failure |
| Crankshaft sensor 1 | 2 | failure |
| Camsshaft sensor | 2 | failure |
| Vehicle speed sensor | 0 | failure |
| Vehicle on ground sensor | 3 | failure |
| Gearbox position sensor | 0 | failure |
| Ignition coil 1 | 0 | failure |
| Ignition coil 2 | 0 | failure |
| Ignition coil 3 | 0 | failure |
| Ignition coil 4 | 0 | failure |
| Error detection counter | 3 | failure |
| Secondary throttle sensor | 1 | failure |
| Secondary throttle actuator error | 0 | failure |
| Number of faults of the air switching valv | 1 | failure |
| Number of detections of a non-registered k | 0 | failure |
| (ENT)Graph | | 00:11 |

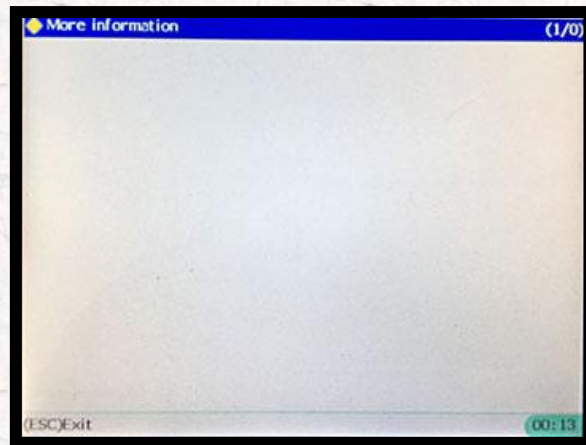
Press [F1]



In the current page, you can press YES to enter waveform function, it is able to display numerical changes of the selected item. As below:



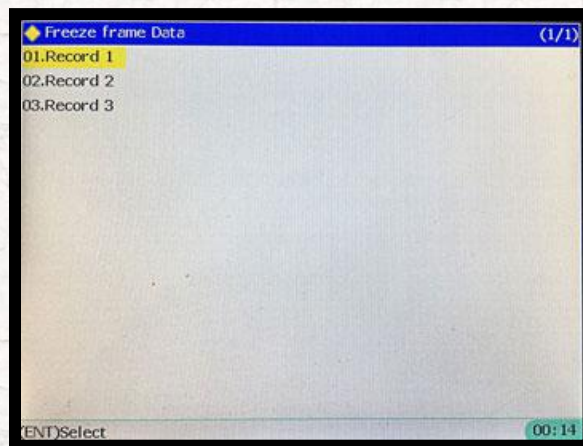
Please press [F2] if you want to know the item introduction in details, but it just be supported in some items.



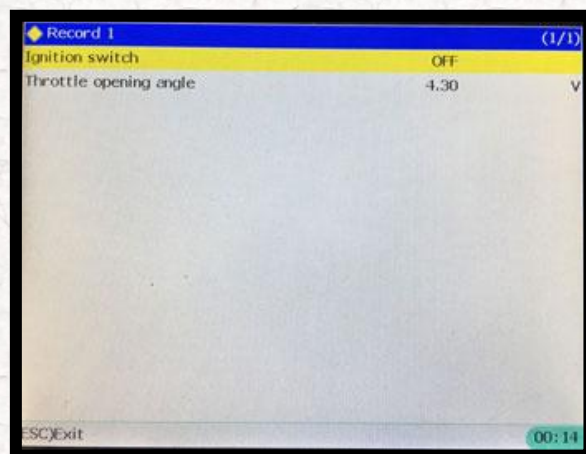
03. Freeze frame Data

In the function list select Freeze frame Data displays:

Freeze frame Data option:

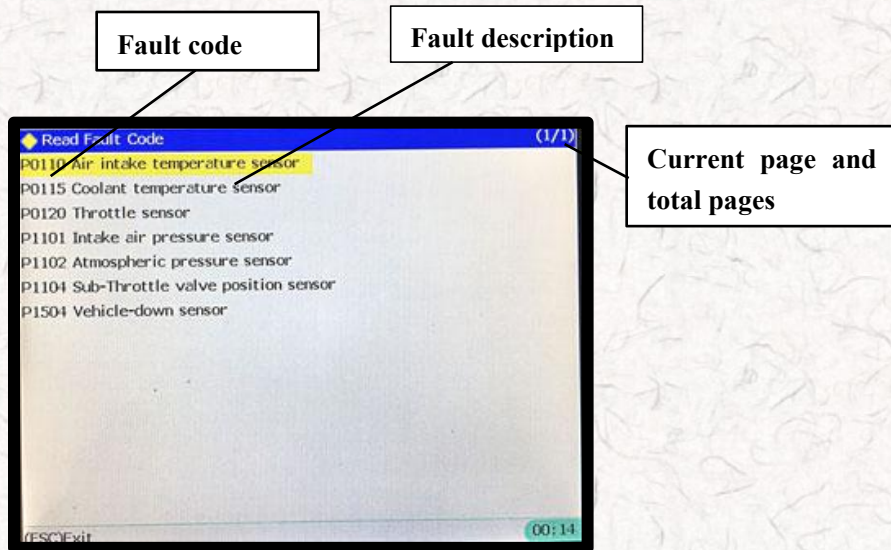


● Press <Enter>:



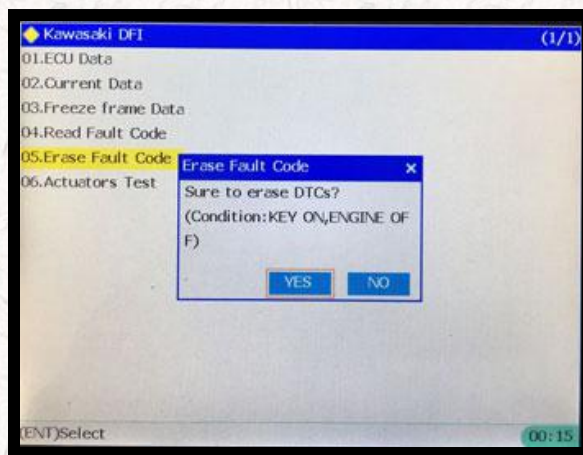
04. Read fault Data

In the function list select Read fault Data displays:
Read Fault Code option:



05. Erase Fault Code:

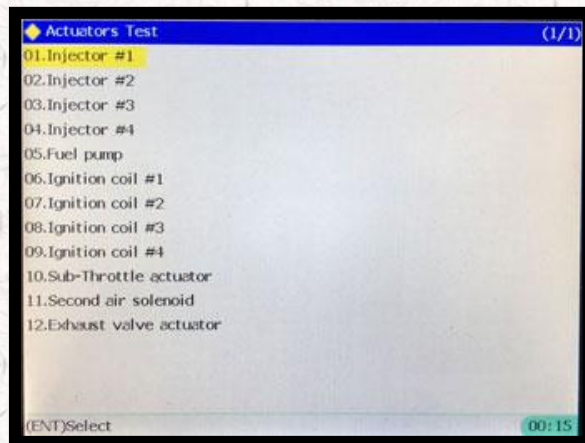
In the function list select Erase Fault Code will display:



Note! Before erase fault code please switch on the key and not to start engine.
Press YES to erase fault code.

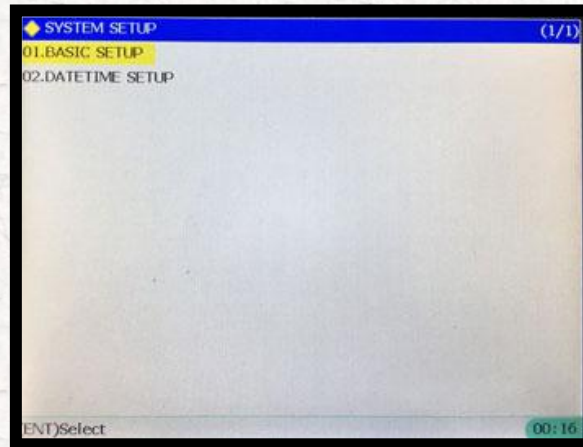
06.Actuators Test:

In the function list select Erase Fault Code will display:



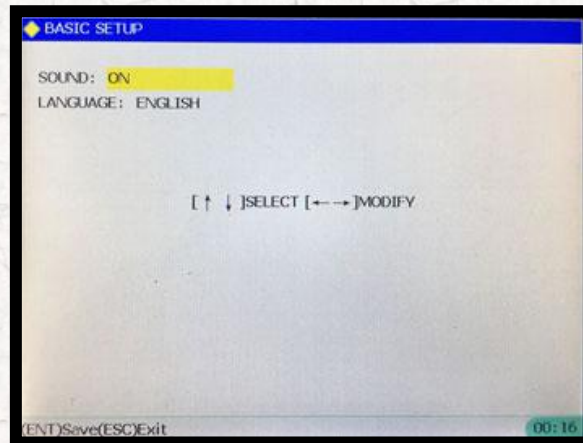
Part 4 System Settings And View Version

Select menu **SYSTEM SETUP** , Press **<Enter>** to enter next menu, as below:



1. Basic setup

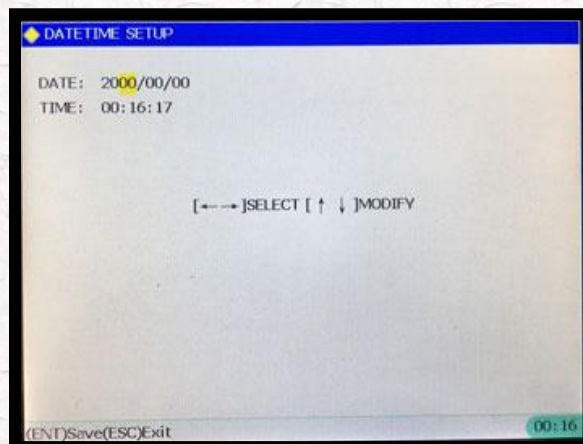
This function can set whether the buzzer sound, and modify the current language.



Press **UP** or **DOWN** to select item, Press **LEFT** or **RIGHT** to modify the option's values.

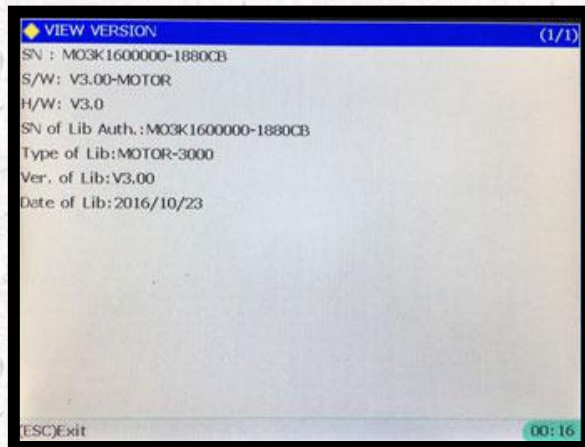
2. Date and time setup

This feature can be set the date and time of the host.



Press **LEFT** or **RIGHT** to select item, Press **UP** or **DOWN** to modify the option's values.

Select menu **View Version** , Press **<Enter>** to enter next menu, as below:



Note:

1. The clock chip need to use button batteries (3.0 ~ 3.3 V) power supply, prevent clock data is lost when the power is cut off.
2. If battery low, date/time will be set to zero when the power is cut off, but does not affect the use of other functions.

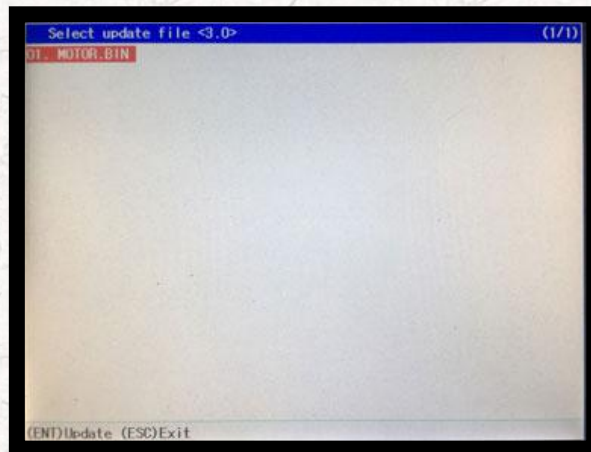
Part 5 Offline Upgrade

1. Extract the new package to a new folder;
2. Plug the SD card through the card reader to the PC and delete all files of the SD card;

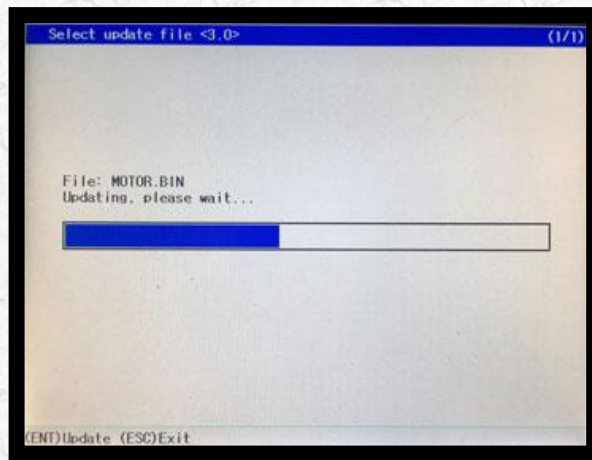


Sd card on the PC

3. Copy all the files to SD card from the folder which have the extracted files;
4. After finish copying, Unplug the SD card and insert to Scanner;
5. Use USB cable to connect the PC and Scanner, and then appear as below:



Press **ENT** to upgrade,



press **ESC** to cancel.

※Note: The scanner use SD card format for FAT32, please pay attention to when formatting the SD card, otherwise the tool will not be able to work properly.