# MST-3000 Motorcycle Diagnostic



## Instruction

## Part 1 Scanner Introduction & Attentions

• Scanner appearance and keys:

Tellan Tell	每天已经高		F Calle
12/2012		5.6'color LCD	1.22
125 Same	Maseron and a company	3 2	- 175
12 12 12 1	MOTORSCAN MST-3000	D	
F4		0	Keypad
F3		4	4399
F2			C Dalle
		ESC	2.612
Signal Light		min By	Part B
Later Barren	PANSAUP	Power lig	ht
STEP STA	5-21-51-56	21111	
Ton view:	201723	-17-22	21/2
Top view.		TOP IN	
TAR STREET	合派了的合	STATE AND	The file
25/2135	12321	7.25	1387
Res CERES		USB to RS232 interface	
A BARCE C	Norr	N C	(5 × 10)
			Diag. interface socket
SD card socket			
107 10107		12V power supply s	socket







**\***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:  $0 \sim 60^{\circ}$ 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:

ehicle Selection	Automatic	1
• KAWI SAKI OLAJI MATIC SEARCH		(1/1)
02.VEHICLE SELECTION		
(ENT)Select		00/08

•Choose one way to enter at random

	AUTOWATIC SEARCH 01-Engine 02.485		(1/1)
ehicle-mounted system	03.1mmobilizer 04.TPMS		
-3 D-17	5		
	V. BERT		
			1-1
TO ALLAN			11-11
	(ENT)Select	· · · · · · · · · · · · · · · · · · ·	00:09

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

🔶 Kawasaki DFI	(1/1)
01.ECU Data	
02.Current Data	
03.Freeze frame Data	
04.Read Fault Code	
05.Erase Fault Code	
06.Actuators Test	
	The second s
	the state
the second se	
(ENT)Select	00:08

Otherwise connection fail, it will appear:

AUTOMATIC SEARCH	It indicate	that
02.ABS	failure to con	nect
03.Immobilizer		
04.TPMS		/
Connection	×	
Communication fail.		
	DIAL AND	
ОК		
	prover a	-
	112122	
		252
(ENT)Coloct		124

#### 01. ECU Data.

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

🔶 ECU Data					(1/1
ECM ID: 21175-	0166				
Builder: DENSO					
Model/Year/Co	untry: ZF	R1000-B8F/	08/USA/USA	(California)	
	1				
ESCIEvit					00:08

#### **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:

	K		
Ourrent Data		(1/4)	Current page and
Throttle opening angle	4.30	V	total pages
2 Intake or pressure	758.2	mmHg	total pages
2)Water temperature	80.0	0	
②Intake air temperature	40.0	0	
2 Atmospheric pressure	758.2	mmétig	
2 Engine speed	0	RPM	Unit
2 Battery voltage	12.3	\ v	PAR LOSE Y NOS 2
2)Vehicle speed	0	Km/h	
2)Secondary throttle opening angle	0.00	V	Current value
2 Fuel cut-off sensor	0.0	v	
2 Exhaust throttle valve opening angle	1.48	v	
2)Internal control voltage IA	3.1	v	
flirottle sensor	1	failure	
ntake air pressure sensor	I	faiture	
Coolant temperature sensor	ī	faiture	A Le Charles
ENDQraph	Carrier Contraction	00:15	Current time
Full name displa	y	Nº 2	AGAD FIN'S

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
Grankshaft sensor 1	2	failure
Camshaft 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]

🔶 Item name		(1/1)
umber of detect	ons of a non-registered key	
		a contraction work
		REAL PROPERTY.
		NS STATES
		The state of the s
		00.11

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:

123	Item name	Current	
S			Per ser
1000	Throttle opening angle	4.30 V	
Sourt.		/	Shape of
Mars.			
			1760
Upper limit			The second
Lower limit	(1.00[7.00) [↑↓ +→]Set	00:48	- Diril
Lower limit	(1.00[7.00) [↑ ↓ ←→]Set	00:48	1027

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.Erease Fault Code:**

In the function list select Erase Fault Code will display:

🔶 Kawasaki DFI		(1/1)
01.ECU Data		
02.Current Data		
03.Freeze frame Dat	ta	
04.Read Fault Code		
05.Erase Fault Code	Enase Fault Code	
06.Actuators Test	Sure to erase DTCs? (Condition:KEY ON,ENGINE OF F)	
FNDSelect		(0).15

**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:

SYSTEM :	ETUP	(1/1)
01.BASIC SE	TUP	
02.DATETIM	E SETUP	
		La harden star and
		NAUTER DAVE REAL
110425		
1000		
		00.16

#### 1. Basic setup

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

BASIC SETUP		
SOUND: ON		
LANGUAGE: ENGLISH		
L T I JSELEC	T [+-→]MODIFY	
NT)Save(ESC)Exit		00:16

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.

DATE:	2000/00/00	
TIME:	00:16:17	
	[←→]SELECT [ ↑ ↓ ]MODIFY	
ENDSau	w/ESC/Exit	00:16

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  $(3.0 \sim 3.3 \text{ V})$  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,

Select update file <3.0>	(1/1
File: MOTOR.BIN Updating, please wait	

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.