CSP

BT-102

Motorcycle Battery Analyzer

Instruction Manual

DYNAVOLT®

power your life

Convenient / Accurate / Easy to use

BATTERY ANALYZER

CONTENTS

1、Notice：

This machine is for 12V vehicle battery only.

Please don't store the machine in high temp. or humidity place. It'll damage the machine.

The working voltage range is 9V ~ 15V DC, don't operate _on a series battery(24V).

Please operate after tum on the headlight 3~5 minutes to clean the surface voltage when the battery was just full recharged.

2、Graphic Instructions

① Monitor Zone: Show Functions & Information

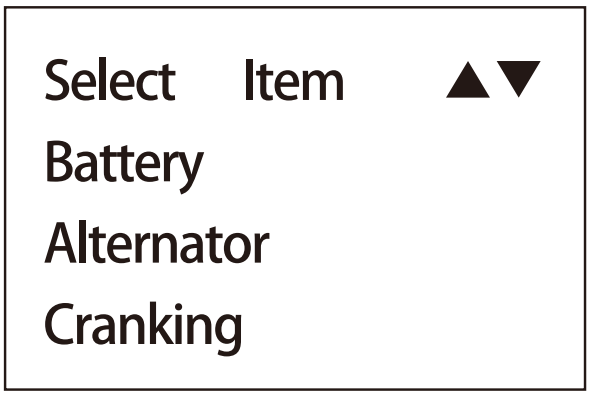
② Function Zone: Input Data & Select Functions

Enter: Confirm the selected function or data

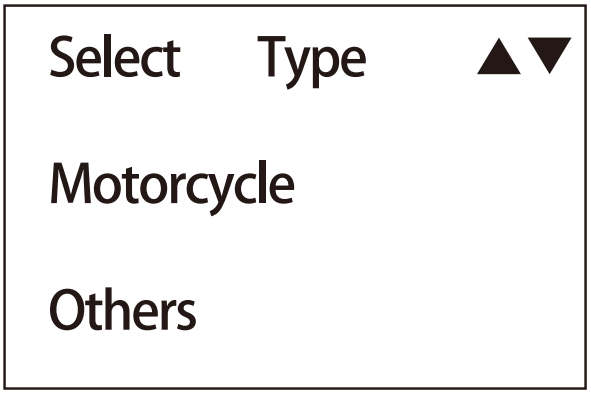
Exit: Abort the function or clear the data.

Select: Press Up/Down/Left/Right to input data or select function.

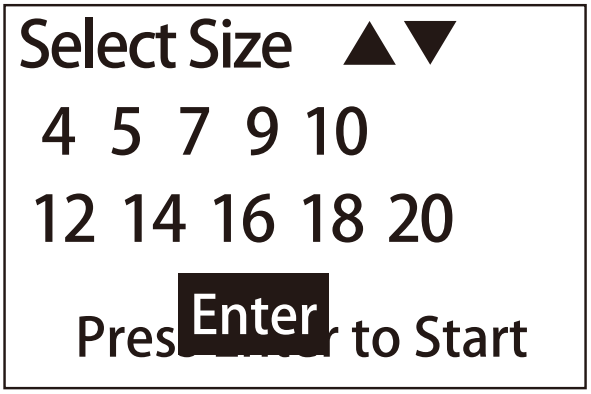
3、How to operate



Select Test Item - Battery



Select Battery Type



Enter Battery Rating

Waiting for Result

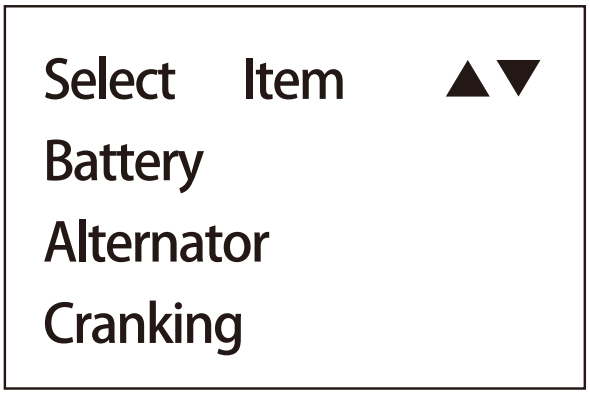
RESULTS	Good
12.46V	406 CCA
Int.R	6.72 mΩ
LIFE	50%

Result

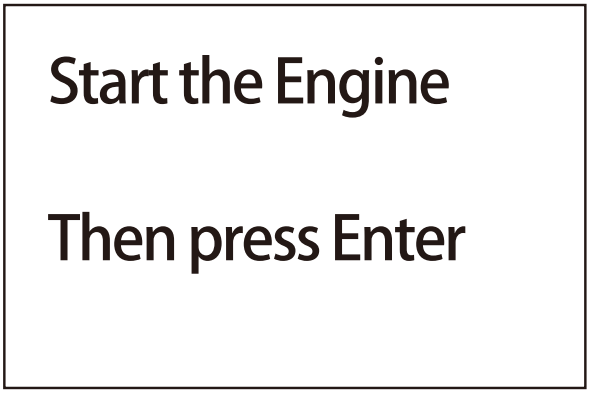
Battery Voltage	12.46V		
	Charged	100%	13.2V
		90%	12.9V
		75%	12.45V

CCA Value	406 CCA The computed CCA value
Internal Resist (Int.R)	6. 72mΩ It wi 11 between 2 - I 5mΩ Greater CCA with minor resist
LIFE	The computed li f e of battery.

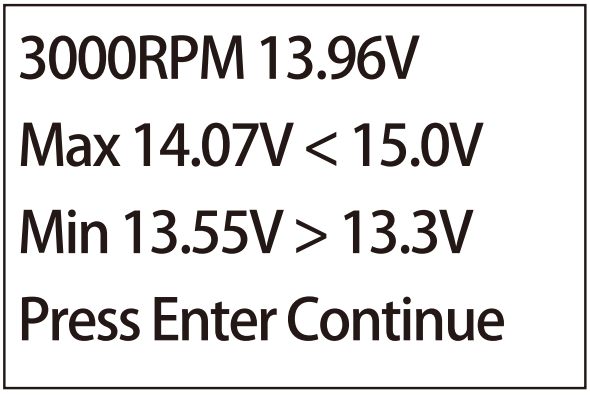
3.2、Alternator Test



Select Test Item - Altonator



Start the engine then press Enter to test



Pump to 3000 RPM for 3-5 Seconds,

Max Volt must under 15.0V, Min V must above 13.3V

Load is all opened

Then press Enter t

Turn on the headlight,

Then press Enter to start

2000RPM 13.89V

Max 13.96 V > 13.5V

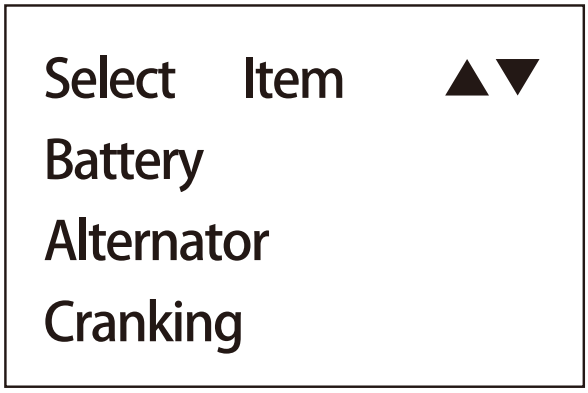
Min 13. 76V > 12.5V

Pump to 2000 RPM for 3-5 Seconds,

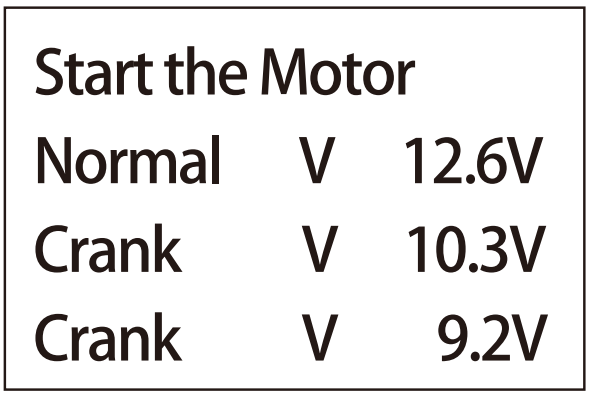
Max Volt must above 13.5V, Min V must above 12.5V

(When turn on all loads)

3.3、Crank Motor Test



Select Test Item - Cranking



The voltage should be above 9.2V when cranking.

Please test the battery before testing the alternator and crank motor. The bad battery will affect the result of alternator and crank motor testing.

Where The Battery Model Number Is.

GS 9 Series

Dynavolt Battery

Yuasa 7 Series

Traditional test method (1/2 CCA Load Test)

A deep discharge test simulating the demands imposed on a battery. Test the ability to deliver a starter motor's cranking current requirements while maintaining a terminal post voltage above a minimum standard.

Apply a load equal to 1/2 the CCA rating for 15 seconds and measure the voltage drop. Compare the voltage to a voltage chart.

The battery state -of-charge must be 75% (12.4 v) to perform a 1/2 CCA test. If the battery is below 75% state-of-charge, it must be charged before testing.

New Measurement Techniques:
Ohmic Measurement

Resistance Measurements(DC method)

Impedance Measurements(AC method)

Conductance Measurements(AC method)

Resistance Measurement

Resistance measurements can be performed by applying a load across the cell/unit and measuring the step change in voltage and current. The Ohmic value is calculated by dividing the change in voltage by the change in current.

Impedance Measurements

Impedance measurements can be performed by passing a current of known frequency and amplitude through the battery and measuring the resultant ac voltage drop across each cell/unit. The ac voltage measurement is taken between the positive and negative terminals of individual cells or the smallest group of cells possible. Compute the resultant impedance by Ohm's law.

Conductance measurements(Our Test Method)

Conductance measurements can be performed by applying a voltage of known frequency and amplitude across a cell/unit and observing the ac current that flows in response to it. The conductance is the ratio of the ac current component that is in-phase with the ac voltage, to the amplitude of the ac voltage producing it.

The Benefit of Our Test Method

Conductance correlates directly to battery capacity Passive test method is safe & repeatable

Never discharges the battery

Can Test discharged batteries

Provides a unique indication of battery

Provides a unique indication of state of charge

4. Motorcycle Battery Reference Table

BATTERY TYPE		
TYPE I	TYPE II	C.C.A.
	YB3L-A/B	80
GT4(L/A)-BS	YB2.5LC-2	90
GM3-3A/B	YB3L-A/B	110
GT7B-4		230
GT9B-4	GM7Z-4A	290
GT12B-4		330
GT14B-4		340
GTZlOS	YTZlOS	310
GT12A-BS	YTZ12S	340
YB12AL	YTZ14S	350
	YTZ6S	105
GM4-3B	CB5L-B	150
YB4L-B	YT7B-4	150
	12N7A-3A	120
	12N7A-4A	120
GM5Z-3B	YT9B-4	155
GM7Z-4B	12N7-4A/B	170
YB7L-B	12N9-3A	180
YT12B-4	12N9-4B	250

BATTERY TYPE		
TYPE I	TYPE II	C.C.A.
GTX4L-BS	YG4L-BS	130
	GMX4L	130
GTX5L-BS	YB5L-BS	150
GTX7(L/A)-BS		220
GTX9-BS		295
GTXlO-BS	YTXlO-BS	300
GTX12-BS		320
GTX14-BS		340
GTX15-BS		340
GTX16-BS		340
GTX18-BS	C50-N18L-A	345
GTX19L-BS		350
GTX20-BS		350
YTX24HL-BS		355
	12N12A-4A	280
	YT14B-4	260
	12N14L-3A	350
YG12222	C50-N18A-A	380
YIX30L-BS	YG30L-BS	420
53030	C60-N30L-A/B	425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power your life
A Professional Accurate Measuring Tool