Konnwei KW650 Motorcycle & Car Battery Tester

Specifications:

- Model: KW650
- Screen: 2.4" TFT
- Supported OS: XP, Win7, Win8, Win10
- Supported languages: English, French, German, Dutch, Spanish, Italian, Russian, Portuguese, Chinese, Japanese, Arabic
- Supported battery voltage: 6V - 12V
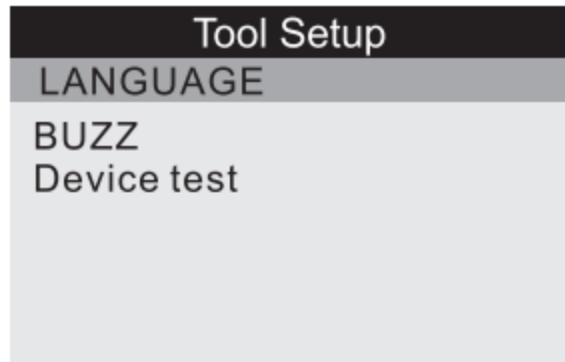- Dimensions: 12,5cm x 7cm x 2cm
- Weight: 300g

Buttons:

1. Waveform function - display waveform voltage
2. Enter button - confirms a selection/action
3. ESC button - returns to previous menu
4. Up button - move cursor up for selection
5. Down button - move cursor down for selection

Tool setup:

- From the startup screen, or press the ESC button to enter the Main Menu. Press the Up/Down button to select the setup function and press the Enter button, the screen will display the interface as shown below in the picture.

```
                    Tool Setup
  LANGUAGE
  BUZZ
  Device test
```

Select language:

- Press the Up/Down button to choose desired language and press the Enter button, the screen will display the interface as shown below in the picture.
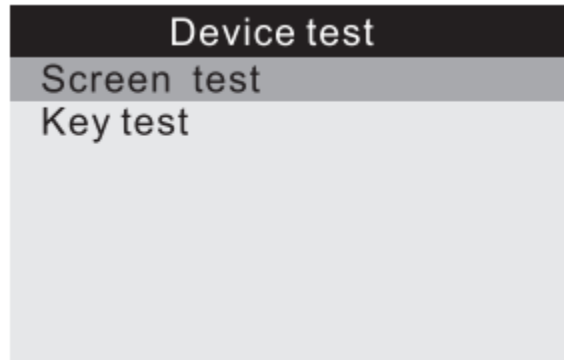
```
                    LANGUAGE
  中文
  日本语
  English
  Français
  Español
  Deutsch
```

Buzz:

- Press the Up/Down button to choose on/off the beeper and press Enter button, the screen will display the interface as shown below in the picture. Press the ESC button to return.

```
                      BUZZ
  BUZZ  ON
```

Device test:

- Press the Up/Down button to test the device and press the Enter button, the screen will display the interface as shown below in the picture.
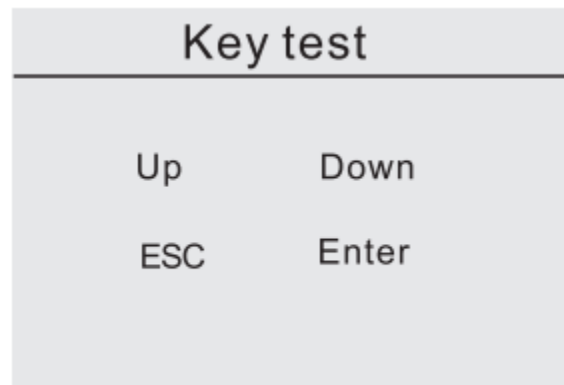

Screen test:

- The screen test function checks if the LCD display is working normally. Press the Up/Down button to select the screen test and press the Enter button to start the test. Look for missing sports in the color bar, white, black LCD. When the test is finished, press the ESC button to exit.
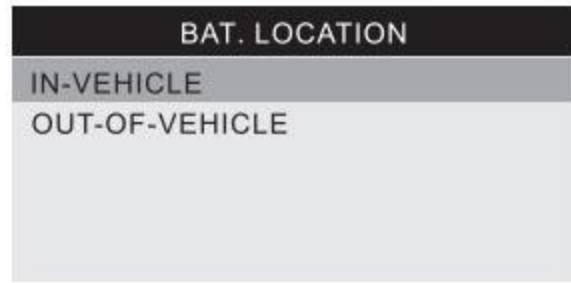
Key test:

- The key test function verifies if the keys are functioning properly. Press the Up/Down button to select the key test and press the Enter button, then press any key to start the test. When you press a key, the key name should be observed on the display. The screen will display the interface as shown below in the picture. Double press the ESC button to return to the previous menu.
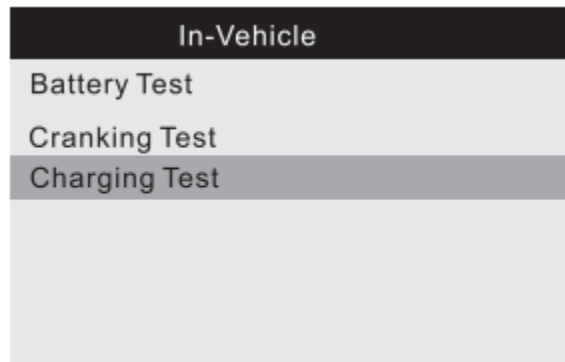

Car battery test:

- From the startup screen, or press the ESC button to enter the Main Menu. Press the Up/Down button to select the Car and press Enter. After entering the car program, it displays the battery location (in-vehicle, out-of-vehicle), press the Enter to select.
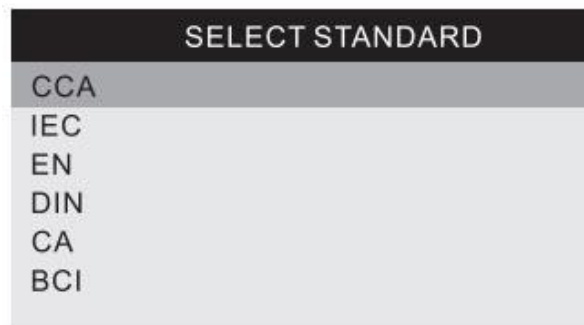
Battery test in-vehicle/out-of-vehicle:

- When the surface charge is detected by the tester, it prompts "Surface charge, turn lights on". Turn lights on to eliminate battery surface charge, then it shows the following messages (shown below in the picture).
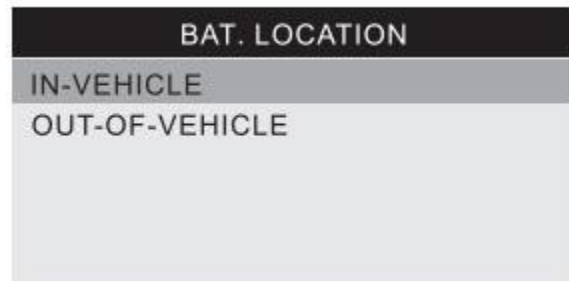

Now it detects the surface charge has been eliminated, turn lights off, then press Enter key, it will recover automatic test.

After the battery charge status is selected, you need to choose the battery type. Use the Up/Down button to select the battery type and press Enter to confirm. Then you need to choose the battery system standard and rating (marked on the battery). Input correct test standard and rating and press Enter button to start the test (for about 1sec it will display the result).

Motorcycle battery test:

- From the startup screen, or press the ESC button to enter the Main Menu. Press the Up/Down button to select the Motorcycle and press Enter. After entering the Motorcycle program, you need to select the battery model by pressing the Enter button (for about 1sec it will display the result).
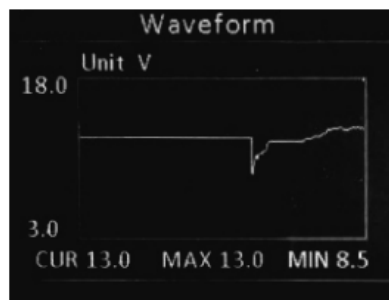

Results:

1. Good Battery - without any problem
2. Good-Recharge - good battery but low current, recharge before using
3. Replace - you need to replace the battery
4. Bad Cell - battery interior is damaged, replace it
5. Charge-Retest - if the same test result appears after recharge and retest, the battery is damaged

Note: If "Replace" resulted from In-Vehicle mode, it might be the reason that the vehicle cable is not well connected. Remove the cable and retest the battery under Out-the-Vehicle mode before replacing it.

Waveform:

- Press the Waveform button, the screen will display the interface as show below in the picture.
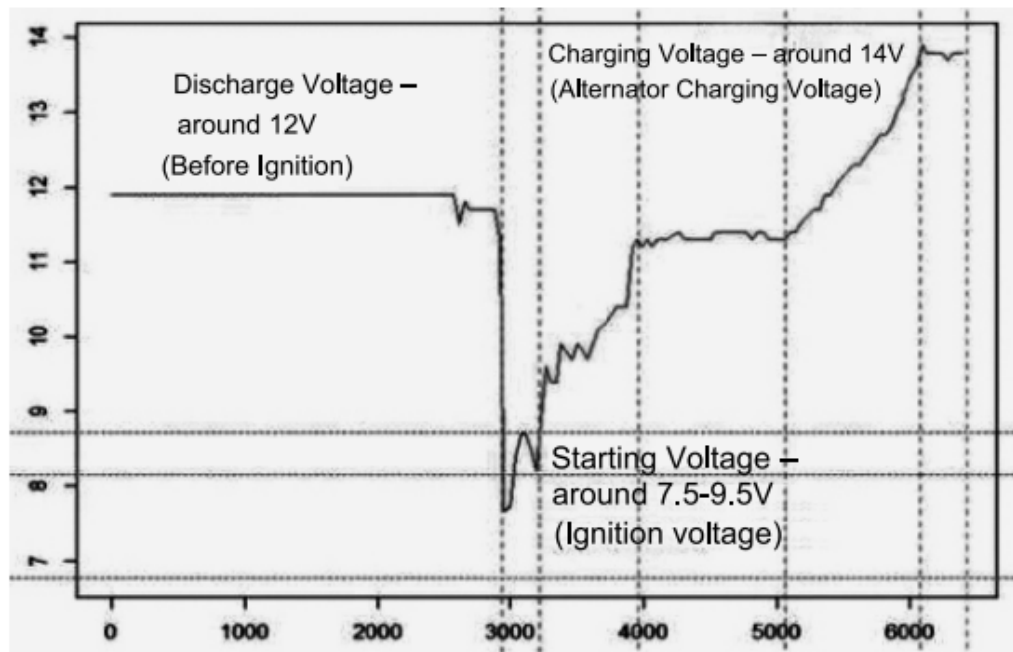
CUR - current voltage
MAX - maximum voltage during ignition
MIN - minimum voltage during ignition

The waveform will stay static until changes in the voltage are detected.

Voltage analyses:
1. Discharge voltage
2. Starting voltage
3. Charging voltage

Discharge voltage:
- When the ignition is OFF, the engine is OFF over 20min, the discharge voltage should be around 12V. If it's lower than 11V, it will be hard to turn the ignition ON. If it's continuously staying under 11V, it means the battery is aging and needs to be replaced.

Starting voltage:
- During ignition, the voltage will drop to a certain point, the minimum point is Starting voltage (around 7.5V-9.5V). If it's continuously staying under 7.5V, it means the battery capacity is low and needs to be replaced.

Charging voltage:
- When the ignition is ON, the engine is ON, the alternator will continuously charge the car battery, normally is around 14V.