

Battery Electrical System Analyser T11

QUICK START GUIDE



Paper installation on Printer

1. Lift the catch until a tick sound can be heard.
2. Pull the printer cover by pushing upwards to open (Fig1).

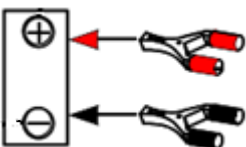


3. Place the thermal paper roll into the slot with paper edge facing to the bottom of the tester (Fig2).
4. Leave 1.0 inch (25.4mm) paper protruding when printer cover is closed.



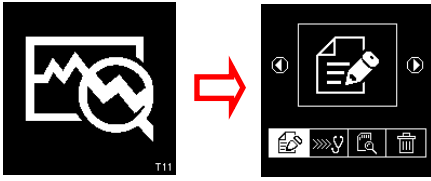
Operation

5. Clamp tester black clip to battery negative terminal (-) and red clip to battery positive terminal (+).




T11 QUICK START GUIDE

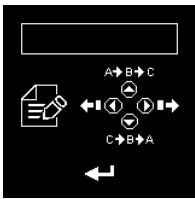
The tester powers up.




Main Menu

New Test: Key-in Particulars


6. Select  - begin new test and type customer name, battery model, car plate as reference of the test.
7. Press ▲ to scroll upwards A,B,C ~Z and numbers 1,2,3~0. Press ▼ to scroll downwards from Z,Y,X~A or 0,9,8~1. Press ► move one space to the right, press ◀ move one space backwards to edit entry.




Continue Test (No Key-in Particulars)

8. Select  - proceed to other tests and update the result in the memory from the last test without typing any reference.


View Test Results from the memory

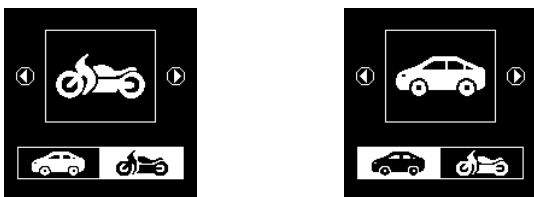
9. Select  - view stored results from the memory with the particulars Key-in during the test



Delete stored result in the memory

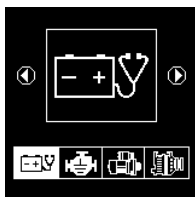
10. Select  - delete the selected result individually from the memory

Car Battery Test (12V)

11. Select  to test car battery (100- 2000A).



12. Select  Battery test and then press  (Enter).



13. Select battery types WET (SLI), AGM Flat, AGM Spiral, EFB (Start/Stop) and Gel cell.



T11 QUICK START GUIDE

14. Check specified rating on battery label



15. Select rating standard on the tester menu CCA, SAE, EN, IEC, DIN, CA and JIS #.

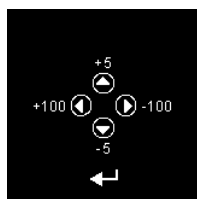


16. If battery is rated in JIS # (Japanese Industrial Standard), refer to the CCA conversion chart provided with the Tester to convert JIS number to CCA rating.

Battery Model (JIS#)		CCA			Battery Model (JIS#)		CCA		
NEW	OLD	WET	MF	CMF SMF	NEW	OLD	WET	MF	CMF SMF
50D20R		310	380	480	80D26L	NX110-5L	580	580	630
50D20L		310	380	480	85B60K				500
50D23R	85BR60K	500			85BR60K				500
50D23L	85B60K	500			95D31R	NX120-7	620	660	850
50D24R	NT80-S6	390			95D31L	NX120-7L	620	660	850
50B24L	NT80-S6L	390			95E41R	N100	515	640	770
50D26R	50D20R		370		95E41L	N100L	515	640	770

17. Enter CCA value in the tester; press to increment or to decrement by hundredth.

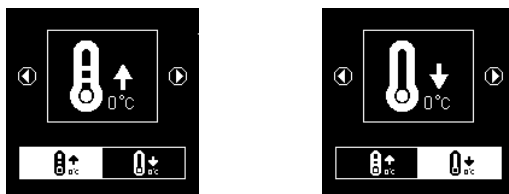
Use or to increase or decrease the last two digits by 5.





18. Press to confirm entry and start the test.

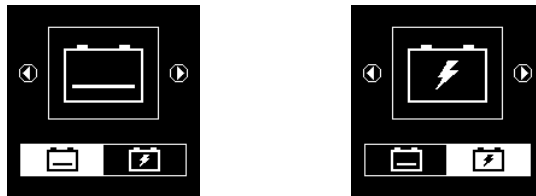


19. When battery condition is marginal (SOH below <75%) the tester prompts temperature selection to take into consideration the surrounding temperature.



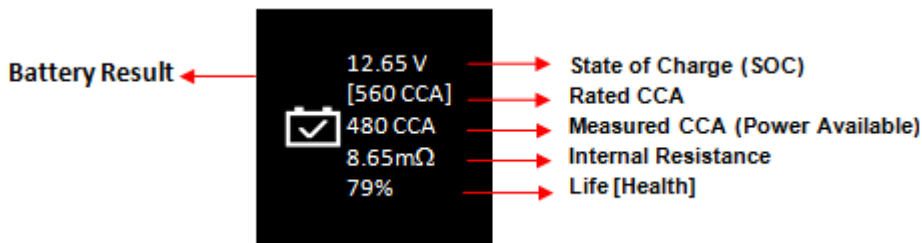
20. Select  if for example the surrounding temperature is 15°C then press .

21. If the battery State of Charge (SOC) is below <50%, the tester prompts Before charge or After charge selection to determine the final results.



Before charge After charge

22. If the battery condition is very good (e.g. having more than 75% Life) for less than 8 seconds the results will be displayed as shown.


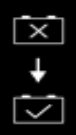
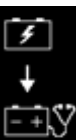


Motorcycle Battery Test (12V)

23. Select  for Motorcycle Battery (40-600A) test and press  key.

Note: Motorcycle option is intended only for Battery Test.

Interpretation of Results:

- A.  – Good battery.
- B.  – Weak, replace battery.
- C.  – Low voltage (SOC), recharge and test again

- ❖ **Volts: 12.65V (State of Charge [SOC])**
Indicates the State of Charge (SOC) of the battery being tested.
- ❖ **Battery Rating : 560 CCA**
The capacity rating of the battery stated on the label.
- ❖ **Measured CCA: 480CCA**

T11 QUICK START GUIDE

The power available or the State of Health of the battery.

D. Internal Resistance: 8.65 mΩ- corresponds the internal cells resistance of the battery


Under normal condition, the internal resistance between is 2.0m Ω – 15.0m Ω and 5.0m Ω – 45.0m Ω for motorcycle. The higher the battery CCA readings, the lower the internal resistance should be.

E. LIFE: 75% (Health)

Indicates the battery life expectancy [Health] in percentage.

If the life falls below 50%, the RESULT will display  and it is time to change to a new battery.



24. To print out results, just press  key on the Analyser.

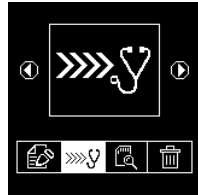
Starter Test (12V & 24V)


25. Engine OFF, vehicle in NEUTRAL for Manual and PARK for Automatic and apply hand brake.

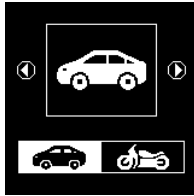
26. Connect tester clips to battery terminals and the displays will light up as shown below.



Tester powers up

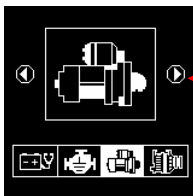


Select Continue test and press  key




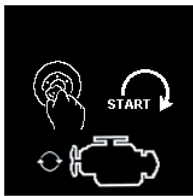
Select Automotive and press  key

27. On main MENU, select  by scrolling left using  key.



Starter Test

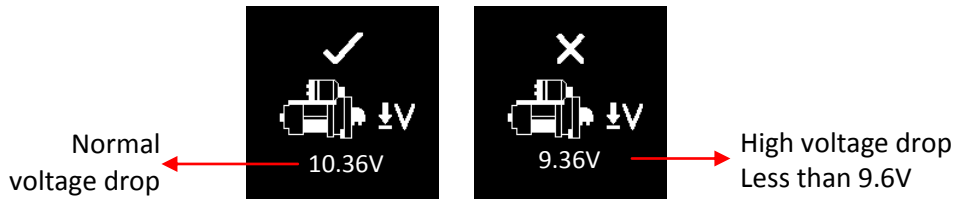
28. Press  key to continue and the display will show:




29. Switch the ignition key ON and start the engine.

T11 QUICK START GUIDE

Results:

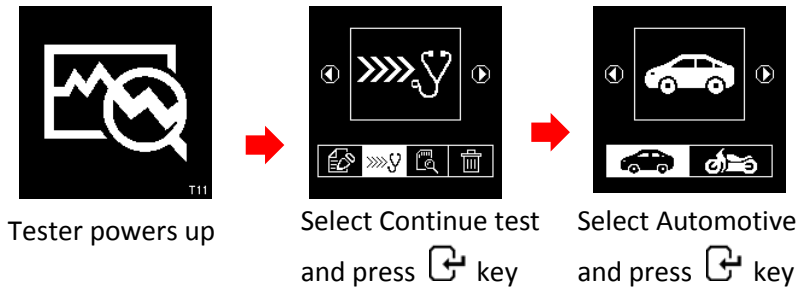


30. To print out results, press  key on the tester.

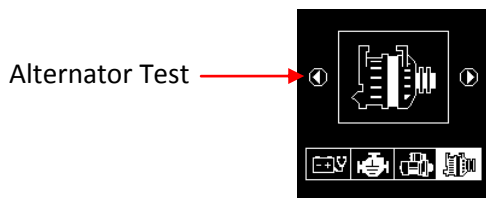
Alternator Test (12V & 24V)


No Load Test at 3000 RPM

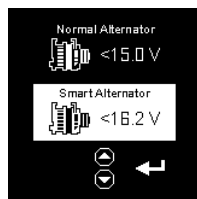
- 31. Engine OFF, vehicle in NEUTRAL for Manual or PARK for Automatic and apply brake.
- 32. Connect the tester clips onto the battery terminal posts and the tester powers up as shown below:




33. On the main MENU, select  by scrolling left using  key.




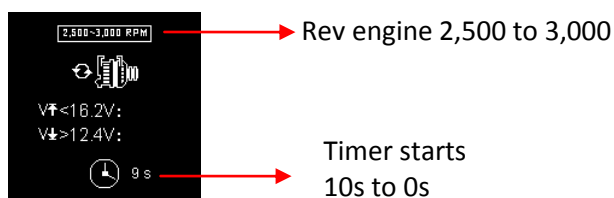
34. Press  then select Alternator type (Normal or Smart Alternator)



35. Press  and start engine at idling speed. Air condition OFF.

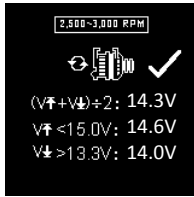


36. Rev engine to 3,000 RPM and hold. Press  key to continue.

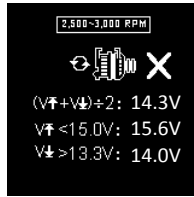


T11 QUICK START GUIDE

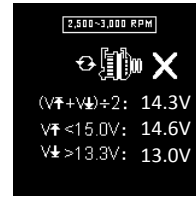
37. Results display



Good



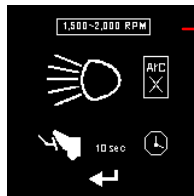
Charging High



Charging Low

Load Test at 2000 RPM

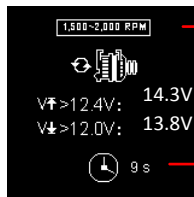
38. Press to start.



Switch ON all electrical loads
(Head lights – High & Low,
Radio, Heater, etc.)

39. Switch ON all electrical loads (Head Lights, Radio, Rear Demister, Heater, etc.).

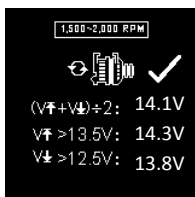
40. Rev 2000 RPM for 10s.



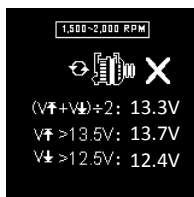
Rev engine to 2,000 RPM.

Timer countdown
10s to 0s

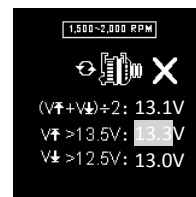
41. Results display



Good



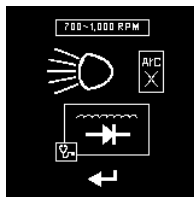
Charging High



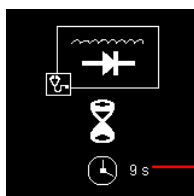
Charging Low

Diode Ripple Test

42. Press to continue.



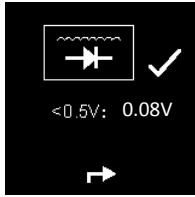
43. Engine OFF and headlights (low and high beams) ON. Press .



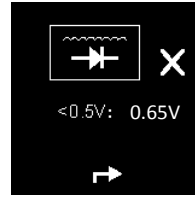
Timer countdown
10s to 0s

T11 QUICK START GUIDE


44. Result display.




Ripple Good



High Ripple

45. To printout the results, just press  key on the tester.

Grounding Test (12V)


This test is only available in  Test only.

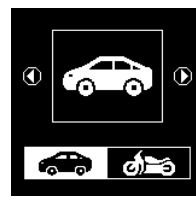
46. Engine OFF. Attach the clips to the battery posts (red to +, black to -) and the tester powers up



Tester powers up



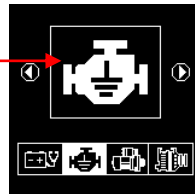
Select Continue test and press  key




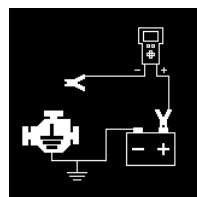
Select Automotive and press  key

47. On main menu, select  by scrolling left  key.

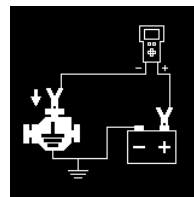
Grounding Test




48. Press  key to continue and the display will show:

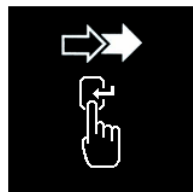


Flashing alternately



49. Transfer Black clip battery [-] terminal to engine or chassis body. RED clip remain at battery [+].

50. Press  key to continue.



51. Analysing starts.

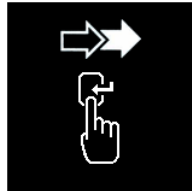


T11 QUICK START GUIDE

52. Take out the black clip from engine or chassis body and transfer to the battery negative [-] post within 15 seconds.



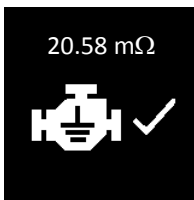
53. Press  key to continue



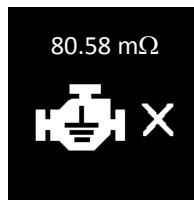
54. Analysing starts



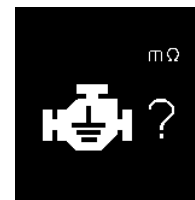
55. Results display



Resistance Good



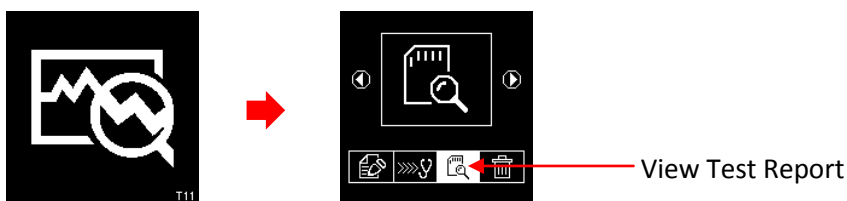
High Resistance




Incorrect procedure




View Test Results from memory:

56. On the main menu, select **View Test Report from memory** by scrolling left using  key to .



57. Press  key to see results as shown below.

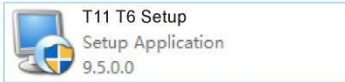



58. Select the particulars entered (typed) during test from the list by scrolling  or  keys then press  to display the data.


T11 QUICK START GUIDE

PC Link Connection

59. There are two softwares involve a. XP_Vista_7_8_Driver Installer b. T6 T11 Setup



60. Install XP_Vista_7_8_Driver Installer first. Double click the icon  and the installation will start.

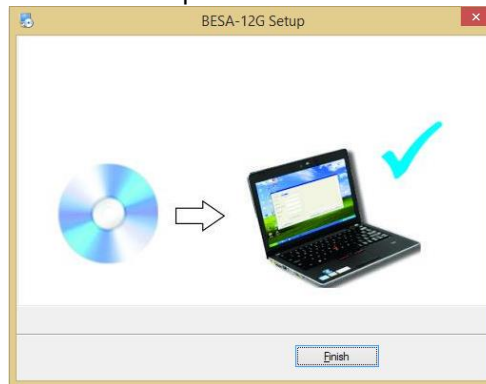
61. Install T6 T11 Setup. Double click the icon  to start the installation.


62. Click “OK” tab to continue the installation.

The default install location is “C:\NCM\T11-T6”, to change installation folder, click “Change” button and select your desired install location.



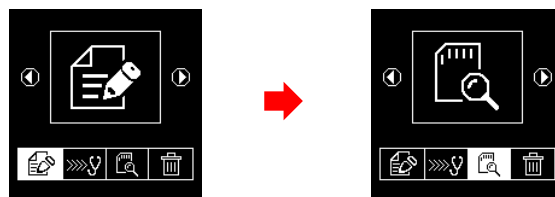
63. Click “Finish” and the installation is complete.




64. The icon  will appear on the desktop.

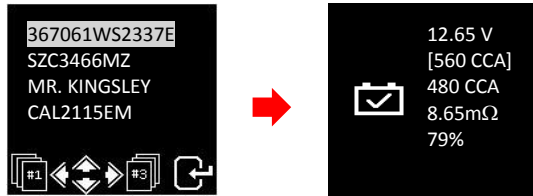
65. Plug the tester into the PC USB port with the USB cable provided.

66. On the tester main menu, select View Test Results by scrolling left using ► key then press .

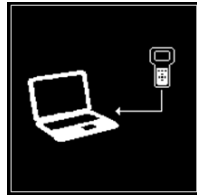



67. Select which results to view by scrolling ▼ or ▲ key and then press .

T11 QUICK START GUIDE



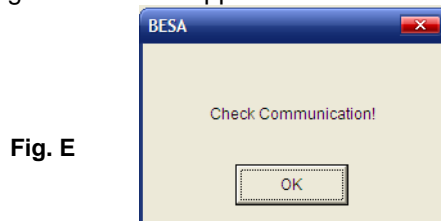
68. Press USB key on the keypad will display as shown below:



69. On the PC desktop look for  icon. Left click on the icon to open the program:

70. To transfer data from the tester, click  tab and the result will display.

71. In case no data, a message text box will appear



72. To rectify the problem, unplug the tester from the PC and repeat steps 65 to 67.