




SEALEY BT2015 Battery and Alternator Tester Instruction Manual

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SEALEY BT2015 Battery and Alternator Tester



Product Information

Specifications:

- **Model No:** BT2015
- **Voltage Compatibility:** 6/12/24V
- **Features:** Digital Start/Stop Battery & Alternator Tester with Printer

Product Usage Instructions

Preparation for Test:

- Be sure the area around the battery is well-ventilated while testing.
- Clean battery terminals, avoiding contact with corrosion.
- Check for any cracks or damage on the battery.
- For non-sealed batteries, add distilled water if needed.
- If removing the battery, always disconnect the ground terminal first.

Operation:

- **Start Stop Battery Test:**
 - Press the designated button to select START-STOP test.
 - Select the battery type (EFB or AGM FLAT PLATE).
 - Choose the battery rating (SAE, EN, IEC, or DIN).
 - Enter the battery capacity within the specified range.
 - Follow instructions to remove any surface charge if detected.
 - Initiate the test and confirm the battery temperature.
 - Review the test results displayed on the screen.

Frequently Asked Questions (FAQ):

- **Q: Can this tester be used on all types of batteries?**

A: The tester is suitable for use on EFB and AGM FLAT PLATE batteries with specific capacities and ratings as mentioned in the instructions.

- **Q: How do I interpret the test results?**

A: The results will indicate whether the battery is in good condition, needs recharging, requires further testing after recharging, or needs replacement based on the displayed messages.

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



SAFETY

DANGER! BE AWARE, LEAD-ACID BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS VERY IMPORTANT TO READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY, EACH TIME YOU USE THE BATTERY TESTER.

Follow these instructions and those published by the battery and vehicle manufacturers, and the maker of any equipment you intend to use in the vicinity of the battery. Remember to review warning marks on all products and on engines.

PERSONAL PRECAUTIONS

- Ensure that there is another person within hearing range and close enough to come to your aid, should a problem arise when working near a lead-acid battery.
- Wear safety eye protection and protective clothing. Avoid touching eyes while working near battery.
- Have fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- Wash immediately with soap and water if battery acid contacts skin or clothing. If acid enters eye, flush eye immediately with cool, clean running water for at least 15 minutes and seek immediate medical attention.
- Remove personal metallic items such as rings, bracelets, necklaces and watches. A lead-acid battery can produce a short-circuit current which is high enough to weld such items to the vehicle and cause severe burns.
- Ensure that hands, clothing (especially belts) are clear of fan blades and other moving or hot parts of engine. Remove ties and contain long hair.
- DO NOT smoke or allow a spark or flame in the vicinity of the battery or engine.

GENERAL SAFETY

- Familiarise yourself with the application, limitations and potential hazards of the tester. Also refer to the vehicle manufacturer's hand book. IF IN ANY DOUBT CONSULT A QUALIFIED VEHICLE ELECTRICIAN.
- Ensure that the tester is in good condition before use. If in any doubt do not use the unit and contact a qualified vehicle electrician.
- Only use recommended attachments and parts. To use unapproved items may be dangerous and will invalidate your warranty.
- Keep tools and other items away from the engine and ensure that you can see the battery and working parts of engine clearly.
- Determine the system voltage before using the tester.
- If the tester receives a sharp knock or blow the unit must be checked by a qualified service agent before using.
- If the battery terminals are corroded or dirty clean them before using the tester.
- Keep children and unauthorised persons away from the work area.
- DO NOT disassemble the tester for any reason. The tester must only be checked by qualified service personnel.
- WARNING! To prevent the risk of sparking, short circuit and possible explosion DO NOT drop metal tools in the battery area, or allow them to touch the battery terminals.
- DO NOT cross-connect tester to battery. Ensure positive (RED) clamp is to positive terminal and negative (BLACK) clamp is to negative terminal. If battery symbols cannot be distinguished, remember that the negative terminal is the one directly connected to the vehicle bodywork.
- DO NOT use the tester outdoors, or in damp, or wet locations and DO NOT use in the vicinity of flammable liquids or gases.
- Ensure there is effective ventilation to prevent a build-up of explosive gases.
- DO NOT use the tester for a task for which it is not designed.
- When not in use, store the tester carefully in a safe, dry, childproof location.

INTRODUCTION

Professional diagnosis of battery and alternator faults with the added facility to print the results. Tests batteries up to 3000 CCA* SAE with as little as 1.5V of residual charge. No heat, no sparks and no misdiagnosis. Checks condition of alternator, no complicated connections or interpretation required. Analyse the charging system at rest and under load to determine condition of the alternator. Suitable for use on motorcycles, cars (including start/stop), and commercial vehicles. Connect and follow the prompts on the 4-line/16-character LCD screen for straightforward answers. Supplied in storage case, two rolls of printing paper, PC software and instruction manual.

SPECIFICATION

- **Model no:**BT2015
- **Battery:**6 x AA (not supplied)
- **Charging System Capability:**.....12/24**
- **Compatibility:**Windows XP, 7, 8, 10
- **Consumable Parts:** ...BT2012.V2-01 – Printing Roll Pack of 2
- **Minimum Power Requirement:**1.5V
- **Note:** *CCA – Cold Cranking Amps, **24V Alternator Test only
- **Rated Battery Voltage:**6/12V
- **Rating systems:**DIN, EN, IEC, JIS, SAE

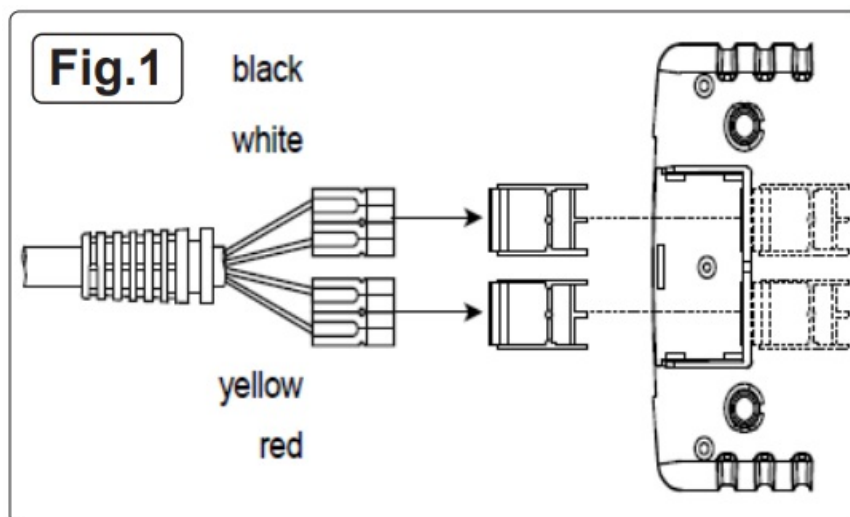
- **Voltage Range:**1.5-30V

PREPARATION FOR TEST

1. Be sure area around battery is well ventilated while battery is being tested.
2. Clean battery terminals. Be careful to keep corrosion from coming in contact with eyes.
3. Inspect the battery for cracked or broken case or cover. If battery is damaged, DO NOT use tester.
4. If the battery is not sealed maintenance-free, add distilled water in each cell until battery acid reaches level specified by the manufacturer. This helps purge excessive gas from cells. DO NOT overfill.
5. If it is necessary to remove battery from vehicle to test, always remove ground terminal from battery first. Make sure all accessories in the vehicle are off to ensure there is no arcing.

OPERATION

INSERTION OR REPLACEMENT OF LEAD WIRE Refer to fig.1



1. Remove the cover on the backside bottom of the battery tester.
2. Insert the connectors which contain a black-yellow pair and a yellow-red pair, in one end of the lead wire into the sockets which can be found when the cover is removed as above. Make sure the colours match between the connectors and sockets as shown in fig.1.

BEFORE TESTING

1. Before you test a battery in a vehicle, turn off the ignition, all accessories and loads.
2. Make sure you have put 6 x AA 1.5V batteries into the battery chamber. Oxyride batteries are not recommended because of the initial 1.7 Volt output. If the internal 1.5V batteries run out of power, the display will show "POWER LOW". Replace those 6 x AA 1.5V batteries before starting a new test.
3. Note that nothing will be seen on the display until the tester is connected to a vehicle battery.
4. Make sure all battery terminals are clean and wire brush them if necessary. Connect the red clamp to the positive battery terminal post, then connect the black clamp to the negative battery terminal post. For the most accurate results, clamp on the lead part of the terminal only.
5. Attaching to the clamp or other fixture rather than directly on the terminal could result in a unstable incorrect

test result.

PAPER LOAD Refer to fig.2



Fig.2

1. Open the clear cover.
2. Place a new roll in the compartment.
3. Pull a short length of paper from the compartment and press down the clear cover to close.

START STOP BATTERY TEST

1. Press the ◀ ▶ to select START-STOP test. There are 3 tests for selection:

START STOP
XX.XXV

- START STOP TEST
- BATTERY TEST
- SYSTEM TEST

2. Press the ◀ ▶ key to select battery type:

BATTERY TYPE
EFB

- **a)** EFB (ENHANCED FLOODED)
- **b)** AGM FLAT PLATE

Press 'ENTER' to confirm choice.

3. Press the ◀ ▶ key to select the battery rating:

SELECT RATING
SAE

SAE (CCA), EN, IEC or DIN. Press 'ENTER' to confirm choice.

4. Press the ◀ ▶ key to input the battery capacity:

SET CAPACITY
XXXX SAE

- **SAE (CCA):** 40~3000
- **EN:** 40~2830
- **DIN:** 25~1685
- **IEC:** 30~1985

Press 'ENTER' to begin test.

5. Press the ◀ ▶ key to confirm the position of the battery if a surface charge is detected, follow the tester's instructions to remove the surface charge.

TEST IN VEHICLE?
NO

6. Testing battery.

TESTING

7. Press the ◀ ▶ key to confirm the temperature of the tested battery.

BAT. TEMPERATURE
ABOVE 32°F (0°C)?
YES/NO

8. When the test is completed, the display shows the results as following.

(Press the ◀ ▶ key to select: SOH (STATE OF HEALTH) or SOC (STATE OF CHARGE)).

- **GOOD & PASS**

The battery is good and capable of holding a charge.

GOOD & PASS
XX.XXV XXXXSAE

- **GOOD & RECHARGE**

The battery is good but needs to be recharged.

GOOD & RECHARGE
XX.XXV XXXXSAE

- **RECHARGE & RETEST**

Battery is discharged, the battery condition can not be determined until it is fully charged. Recharge & retest the battery.

RECHARGE &
RETEST
XX.XXV XXXXSAE

- **BAD & REPLACE**

The battery will not hold a charge, it should be replaced immediately.

BAD & REPLACE
XX.XXV XXXXSAE

- **BAD CELL & REPLACE**

The battery has at least one cell short circuited, it should be replaced immediately.

BAD CELL &
REPLACE
XX.XXV XXXXSAE

- **TEST CODE**

Press enter to get test code for records.

CODE
XXXXXXXXXX

BATTERY TEST

1. Press the ◀ ▶ key to select Battery Test. There are 3 tests for selection:

BATTERY TEST
XX.XXV

- START STOP
- BATTERY TEST
- SYSTEM TEST

Press 'ENTER' to proceed with the test for a regular starting battery.

2. Press the ◀ ▶ key to select the battery type:

BATTERY TYPE
AGM FLAT PLATE

- **a)** FLOODED
- **b)** AGM FLAT PLATE
- **c)** AGM SPIRAL
- **d)** VRLA/GEL

Press 'ENTER' to confirm choice.

3. Press the ◀ ▶ key to select the battery rating:

SELECT RATING
SAE

SAE (CCA), EN, IEC, DIN, or JIS. Press 'ENTER' to confirm choice.

4. Press the ◀ ▶ to input the battery capacity:

SELECT CAPACITY
XXXX SAE

- **SAE (CCA):** 40~3000
- **EN:** 40~2830
- **DIN:** 25~1685
- **IEC:** 30~1985
- **JIS:** Battery type no. Press 'ENTER' to begin test.

5. Press the ◀ ▶ to confirm the location of the battery if a surface charge is detected, follow the tester's instructions to remove the surface charge, then test proceed as follows:

TEST IN VEHICLE?
NO

6. Press the ◀ ▶ key to confirm the temperature of the tested battery.

BAT. TEMPERATURE
ABOVE 32°F (0°C)?
YES/NO

7. When the test is completed, the display shows the results as follows (press the ◀ ▶ key to select: SOH (STATE OF HEALTH) or SOC (STATE OF CHARGE)).

- **GOOD & PASS**

The battery is good & capable of holding a charge.

GOOD & PASS
XX.XXV XXXXSAE

- **GOOD & RECHARGE**

The battery is good but needs to be recharged.

GOOD & RECHARGE
XX.XXV XXXXSAE

- **RECHARGE & RETEST**

Battery is discharged, the battery condition can not be determined until it is fully charged. Recharge & retest the battery.

RECHARGE &
RETEST
XX.XXV XXXXSAE

- **BAD & REPLACE**

The battery will not hold a charge, it should be replaced immediately.

BAD & REPLACE
XX.XXV XXXXSAE

- **BAD CELL & REPLACE**

The battery has at least one cell short circuited, it should be replaced immediately.

BAD CELL &
REPLACE
XX.XXV XXXXSAE

- **TEST CODE**

Press 'ENTER' to get the test code for records.

CODE
XXXXXXXXXX

Note: Under certain conditions the following messages may be displayed.

- **LOAD ERROR**

The tested battery is bigger than 3000SAE (CCA), or the connection is not properly established. Check the capacity of the battery & make sure the clamps are properly connected.

LOAD ERROR

- **24V SYSTEM PRINTING**

To print a 24V system test result, the user must save the test results first. The test will be saved until you connect to a 12V battery. The message to check printout will be displayed after you reconnect to the battery.

PRINT 24V SYSTEM
RESULT? YES

SYSTEM TEST

1. Press 'ENTER' button, you will view the following screen.

SYSTEM TEST
XX.XXV

2. Turn off all vehicle accessory loads such as lights, air conditioning, radio etc. before starting the engine.

TURN OFF LOADS
START ENGINE

3. When the engine is started, one of three results will be displayed along with the actual measured result.

- **CRANKING VOLTS NORMAL**

The system is showing normal draw. Press 'ENTER' to perform the charging system test.

CRANKING VOLTS
XX.XXV NORMAL

- **CRANKING VOLTS LOW**

The cranking voltage is below normal limits, troubleshoot the starter motor with the manufacturer's recommended procedure.

CRANKING VOLTS
XX.XXV LOW

- **CRANKING VOLTS NOT DETECTED**

The cranking voltage is not detected.

CRANKING VOLTS
NOT DETECTED

4. If the cranking voltage is normal, press 'ENTER' to begin charging system test.

PRESS ENTER FOR
=CHARGING TEST=

5. Press the 'ENTER' key to view the following screen.

MAKE SURE ALL
LOADS ARE OFF

6. Press the 'ENTER' key, one of the following three results will be displayed along with the actual reading measured:

- **LOW CHARGING VOLTS WHEN TEST AT IDLE**

The alternator is not providing sufficient current to the battery. Check the belts to ensure the alternator is rotating with the engine running. If the belts are slipping or broken, replace the belts and retest. Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest. If the belts and connections are in good condition, replace the alternator.

ALT. IDLE VOLTS
XX.XXV LOW

- **CHARGING SYSTEM NORMAL WHEN TEST AT IDLE**

The system is showing normal output from the alternator, no problem is detected.

ALT. IDLE VOLTS
XX.XXV NORMAL

- **HIGH CHARGING VOLTS WHEN TEST AT IDLE**

The voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator. Check to ensure there are no loose connections and that the earth is connected properly. If there are no connection issues, replace the regulator. Since most alternators have the regulator built in, this will require replacement of the alternator. The normal high limit of a typical automotive regulator is 14.7 volts +/- 0.05. Check manufacturer specifications for the correct limit, as it will vary by vehicle type and manufacturer.

ALT. IDLE VOLTS
XX.XXV HIGH

7. Following the charging system at idle, press 'ENTER' for the charging system with accessory loads. Turn on the heater blower to high, high beam headlights and rear demister. DO NOT use cyclical loads such as air conditioning or windscreen wipers.

TURN ON LOADS
AND PRESS ENTER

8. When testing older model diesel engines, the operator needs to run up the engine to 2500rpm for 15 seconds. The 'run engine up' instruction screen will appear:

RUN ENGINE UP TO
2500 RPM 15 SEC.

9. Press 'ENTER' to look for the amount of ripple from the charging system to the battery. One of these two testing results will be displayed along with the actual testing measured.

- **RIPPLE DETECTED NORMAL**

Diodes function well in the alternator/stator.

RIPPLE DETECTED
XX.XXV NORMAL

OR

NO RIPPLE
DETECTED

- **EXCESS RIPPLE DETECTED**

One or more diodes in the alternator are not functioning or there is stator damage. Check to ensure the alternator mounting is fixed securely and that the belts are in good shape and functioning properly. If the mounting and the belts are good, replace the alternator.

RIPPLE DETECTED
XX.XXV HIGH

10. Press the 'ENTER' key to continue testing the charging system with accessory loads. One of the following 3 results will be displayed along with the actual measured results.

- **CHARGING SYSTEM LOW WHEN TEST WITH ACCESSORY LOADS**

The alternator is not providing sufficient current for the system's electrical loads and the charging current for the battery. Check the belts to ensure the alternator is rotating with the engine running. If the belts are slipping or broken, replace the belts and retest. Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest. If the belts and connections are in good working condition, replace the alternator.

ALT. LOAD VOLTS
XX.XXV LOW

- **CHARGING SYSTEM NORMAL WHEN TEST WITH ACCESSORY LOADS**

The system is showing normal output from the alternator, no problem detected.

ALT. LOAD VOLTS
XX.XXV NORMAL

- **CHARGING SYSTEM HIGH WHEN TEST WITH ACCESSORY LOADS**

The voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator.

Check to ensure there are no loose connections and that the earth connection is properly connected. If there are no connection issues, replace the regulator. Since most alternators have the regulator built in, this will require you to replace the alternator.

ALT. LOAD VOLTS
XX.XXV HIGH

WHAT IS THE TEST CODE & HOW TO USE IT

1. Put the CD or CD/DVD/BLEUE RAY combination drive.
2. Follow the installation instructions and install the icon named "Decode_BT2010_Vxx.x" and the sheet below will pop up.

[illegible]

3. Input the “Test Code” into the chart manually or by barcode reader.
4. The test result will show in the chart after decoding.
5. The test data can be stored in the PC.

SETTINGS

LANGUAGE SELECT

1. Connect the tester to a battery.
2. The tester defaults to the BATTERY TEST display. Press the directional keys to get to the LANGUAGE SELECT display.
3. Press ENTER and the display will show the language options. Press the directional keys to select the language you want the tester to display.
4. Press ENTER and the display returns to BATTERY TEST.

SET THE DATE AND TIME

1. Connect the tester up to a battery.
2. The tester defaults to the BATTERY TEST display. Press the directional keys to get to the CURRENT DATE/TIME display.
3. Press ENTER and the display will show ADJUST YEAR. Press the directional keys to change the setting.
4. Press ENTER and the display will show ADJUST MONTH. Press the directional keys to change the setting.
5. Press ENTER and the display will show ADJUST DAY. Press the directional keys to change the setting.
6. Press ENTER and the display will show ADJUST HOUR. Press the directional keys to change the setting.
7. Press ENTER and the display will show ADJUST MINUTE. Press the directional keys to change the setting.
8. Press ENTER and the display returns to BATTERY TEST.

ADJUST THE DISPLAY BRIGHTNESS

1. Connect the tester to a battery.
2. Navigate to the BRIGHTNESS display.
3. Press the directional keys to adjust the brightness of the display.

ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

BATTERY REMOVAL

See section 5.2

Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd Batteries Producer Registration Number (BPRN) is BPRN00705.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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Documents / Resources

	<p>SEALEY BT2015 Battery and Alternator Tester [pdf] Instruction Manual BT2015 Battery and Alternator Tester, BT2015, Battery and Alternator Tester, Alternator Tester</p>
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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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