



OPERATION MANUAL

INTELLIGENT BATTERY TESTER 612

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The story so far.

Regal Electro was first founded in 1981 in Cape Town, South Africa, supplying mostly security components and batteries to security installers. In 1998, the business was sold and the Managing Director, Philip Daries, immigrated to Australia. The year 1999 saw the opening of the newly renamed Regal Electro, a battery and security component supplier based in Lake Cargelligo, NSW.

Over the next few years, it became apparent that there was a growing need in the industry for a battery supplier who knew not only the characteristics of various technologies, but also understood the technical manufacturing procedures to ensure a quality product.

The growing team at Regal Electro worked to position the company as a premium supplier of fine energy solutions, offering a complete packaged solution to a wide range of clients.

In 2009, Regal Electro opened its very own custom built premises in Hallam, VIC to ensure fast service and delivery to its clients. 2010 saw the establishment of a presence in New Zealand.

To keep up with every-increasing growth, the Lake Cargelligo Head Office moved into a brand new purpose built facility in 2012.

In 2015, Regal Electro successfully completed its first ENLIFEN Energy Storage Optimiser (ESO) prototype which was put proudly on display at the Comms Connect Exhibition in Melbourne.

In 2017, Regal Electro went through another major change with the rebranding and reinvigorating of its core product range, Power Charge. The Power Charge range was renamed Valen, which in Latin means 'Power'. Brisbane operations also began at this time.

A Sydney head office and logistics centre was opened in Lawson in April 2018 with the view to further improve the level of service offered to clients.

In July 2018, Regal Electro made the key strategic decision to go through another rebranding and changed the company name to Valen. This decision was made to strengthen the brand and recognition within the industrial battery market.

As of today, Valen has grown exponentially since its humble beginnings to become a trusted advisor to clients throughout Australia and New Zealand. Valen is an industry leader in energy storage for mission critical applications and continues to innovate and evolve, keeping abreast of new technologies as they emerge.



A company built on its Core Values.



Wow Customers through Service

- Our customers want service and we want our employees to go above and beyond for our customers.
- We expect our employees to deliver a WOW experience with customers.



Move Fast & Remain Focused to Get Results

- We are serious about results and we must never lose focus on our goals and our sense of urgency to achieve.
- Do something once and do it right.
- We believe in working hard and putting in extra effort to get things done.



Upbeat Positive Attitude

- If our employees have a positive attitude and constantly strive to give your best effort, eventually we will overcome our immediate problems and find you are ready for greater challenges.
- Positive and negative are directions that lead to different outcomes. We expect our employees to move in the right direction each day.



Challenge the Status Quo

- We are committed to great results and good is the enemy of great. We want our employees to embrace & drive change



Play as a Team

- Working effectively as a team creates momentum, improves morale.
- The difference between success and failure is a great team and we expect our employees to work together as a team.

⚠ WARNING! *To test a lead acid battery accurately, you need to know which type you are testing.*

Type - Sealed Lead Acid (SLA)

Standby Sealed Lead Acid (SLA) batteries. Standard battery used in standby applications such as alarm systems, power supplies, etc. If unsure of the battery technology, use this calibration setting as the default.



To measure the Ah capacity available in standby SLA batteries adjust the Ah calibration control with a screwdriver to the '0' Ah CAL position.

Type - Gel

Cyclic Gel batteries used in cyclic applications such as mobility scooters and golf carts, etc. These batteries are specified as Gel technology.



To measure the Ah capacity available in Cyclic Gel technology batteries, adjust the Ah calibration control with a screwdriver to the '+' Ah CAL position.

Type - Flooded Lead Acid (FLA)

Flooded Lead Acid (FLA) batteries commonly used in motor vehicles and starting applications. These batteries have traditionally removeable caps so the user can visually check the acid and water levels.



To measure the Ah capacity available in Flooded batteries, adjust the Ah calibration control to the '-' Ah CAL position.

OPERATION

1. Observe polarity, connect the test lead clips exactly as shown for the types of battery terminals pictured.



2. After connection, provided there is sufficient charge in the battery, the message 'POWERING UP' is displayed.

POWERING UP ...

3. The message 'SET CALIBRATE' reminds you to check that the Ah CAL position is adjusted to test a standby SLA, Gel or Flooded battery.

SET CALIBRATE

4. When the battery voltage appears, record it onto a label for future reference.

12.66 VOLTS

5. When ready, press and hold the test button (approx. 1 sec.) to test the Ah capacity available in the battery.

PRESS TO TEST

6. Record the Ah reading obtained onto a label for future reference.

TESTING Ah...

7.2Ah

7. If required, press the test button again to verify the Ah reading obtained.

⚠ IMPORTANT!

Capacities below 8Ah will be displayed with a decimal point up to 7.9Ah. Capacities above will be rounded up from 8Ah to 99Ah. Capacities over 99Ah will be displayed as 'OVER 100Ah'.

8. Recharge or replace when the Ah capacity available in the battery falls below 65% of the stated battery Ah capacity.
NOTE! Ah capacity can be affected by the batteries temperature and state of charge (SOC).

FLAT BATTERY

9. This message indicates low battery voltage or Ah capacity. Recharge or replace the battery and re-test.

HIGH VOLTAGE

10. This message indicates that the input voltage exceeds 15V.

REMOVE IMMEDIATELY!

BATTERY TESTING TIPS

1. Don't buy flat batteries! Lead acid batteries normally discharge about 3%/month. It is very important to decipher the date of manufacture code stamped on the battery. This is essential; for inventory rotation and to avoid stocking old batteries. If you cannot decipher the date code, contact your supplier. Be aware that new batteries can take many months to ship from manufacturers, before going through your distributor to you.
2. To avoid potential battery failure problems, it is essential to check the voltage level in new lead acid batteries to ensure that they have been sufficiently charged by the distributor. Any new battery with less than 6.1V for 6V and 12.2V for 12V must be recharged overnight and retested before use.
3. Lead acid batteries require a constant voltage, irrespective of Ah capacity size to charge efficiently. The optimum charge voltage required is 2.3VPC which is 6.9V for a three cell 6V battery and 13.8V for a six cell 12V battery. Voltage tolerance is 2.2VPC min. and 2.4VPC max.
4. Recharge immediately to prevent damage caused by sulphation. A new battery should have about 70% of its stated Ah capacity. A battery with a terminal voltage of less than 6.1V = 6V and 12.2V = 12V batteries must be fully charged overnight and retested before use.
5. For maximum life and performance, a lead acid battery should be maintained at between 20°C to 25°C. At significantly higher or lower temperatures, the Ah capacity available could vary by up to 50%. The hotter the battery, the shorter its life.
6. To ensure maximum efficiency and to avoid charging problems, where two or more lead acid batteries are connected in parallel or series, make sure that they are the same make, type and Ah size and after testing, have about equal Ah capacity available.
7. To ensure efficiency, battery suppliers recommend to recharge or replace the battery when it's available Ah capacity falls below 65%. However, if your requirements recommend a higher or lower percentage, then recharge or replace accordingly.