

From Fremantle Volunteer Sea Rescue Group – VN6DI

By Frank Pisani

Safety Tips

Flat batteries and other electrical failures represent around 15% of calls to us for assistance. In most cases we are able to jump start vessels. This eliminates the need for a tow and allows the owner to continue the outing. However, in some cases, especially if vessels are at sea, we will tow members back to their pens.

The battery is the heart of your vessel, but also probably the least thought of in respect to regular maintenance and care. Now would be an opportune time to prepare for the boating season.

- **Check all battery levels:** Even if batteries have been on permanent charge whilst in the pen, as charging will cause the electrolyte to evaporate. Top-up batteries where necessary but only with distilled or demineralised water. Check all cells with a hydrometer. Any irregular reading between cells on the same battery is a good indication of a faulty battery. If unsure have the battery load tested.
- **Ensure all terminals are clean and secure:** Dirty or loose terminals can result in starting and charging problems. Ensure the battery itself is secure. Leaking batteries can produce hydrogen (explosive) gas.
- **Correct operation of dual battery banks:** Most boats will have dual battery banks with the ability to switch between either bank or to operate on both for greater cranking capacity. **Tip - do not operate on both continuously.** The idea of dual battery banks is to have a backup if a bank is drained. Whilst operating on both:
 - a. The alternator will charge both banks simultaneously and treats both as one battery (both get same charge), therefore if one bank has a weak cell and demands a large charge from the alternator the fully charged battery also receives the same charge, resulting in the good battery being overcharged.
 - b. The concept of operating on a single bank is to leave the other as an emergency backup.

Whilst operating on both you will be able to operate all your domestic needs for much longer, but will have no back up on realising that you have discharged all batteries. Whilst on a mooring this is merely inconvenient, at sea it could be far more serious, especially as your radios will also be affected.

The above is a brief summary of battery care. There are many variations of battery set up and many devices available to isolate battery banks to reduce the chance of any of the above scenarios occurring.

If you want to get more information or discuss any of the above issues please do not hesitate to contact us.

Remember to Log ON and OFF with VN6DI on all your voyages
27.90 – VHF 73

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R100 Returns

13th August 2005 was a day of celebration for members of the Fremantle Volunteer Sea Rescue Group and the metropolitan boating community. In April 2004 *R100*, the most recognised rescue craft on the coast, had been lost after being hit by a freak wave at Rottneest. During its 11 years of service *R100* had logged more than 6500 hours and been involved in more than 2000 boating incidents. She had kept her crew safe in the worst possible conditions.

In the following 16 months the group continued to respond to calls with its two smaller vessels. Although many say "bigger is better", our years of experience have dispelled this theory. We knew that a 10 m vessel was all that was needed to accommodate up to seven crew members, tow vessels in excess of 30 m and still be able to operate in reef areas and shallow water.

Our new vessel - *R100* - is again a custom design (Mark Ellis Marine Design). *R100* is the first surveyed power boat to be manufactured in the southern hemisphere using a technique known as 'vacuum infusion process' (VIP).

VIP allows for a much stronger and lighter vessel. Key factors in the design were stability; vision; wide walkways; reliable and state of the art electronics; and the best communications available. *R100* has a greater capability to operate anywhere it is required along our coast, in the worst of conditions and is limited only by its fuel range. *R100* has a top speed of 34 knots and an endurance of 24hrs; it is 10 m in length, 4 m beam and can operate in 0.7 m of water. It is powered by twin state of the art Volvo 310HP common rail injected diesel engines through stern drives and duo props.



During the entire construction process our crews have been travelling up to an hour to Westcat in Kelmscott to help with the fit out. Over the last two weeks of fit out, whilst in Fremantle on the hardstand, crews have worked from 8am to around 10pm every night. On the night prior to the launch we thought the weather had beaten us, but the crew got together, arranged tarps and worked in the rain until midnight returning at 6:30am on launch morning. Thousands of volunteer hours have been put in with several hundred more still to go to make the vessel 100% operational. This new *R100* has already become more than just a boat, it is part of the group and this bond of crew with vessel is what makes Fremantle Volunteer Sea Rescue the group that it is. Our crews would be very happy to show interested persons the boat during deployment (safety patrols).

R100 will also be available for inspection at the FSC season opening day.

