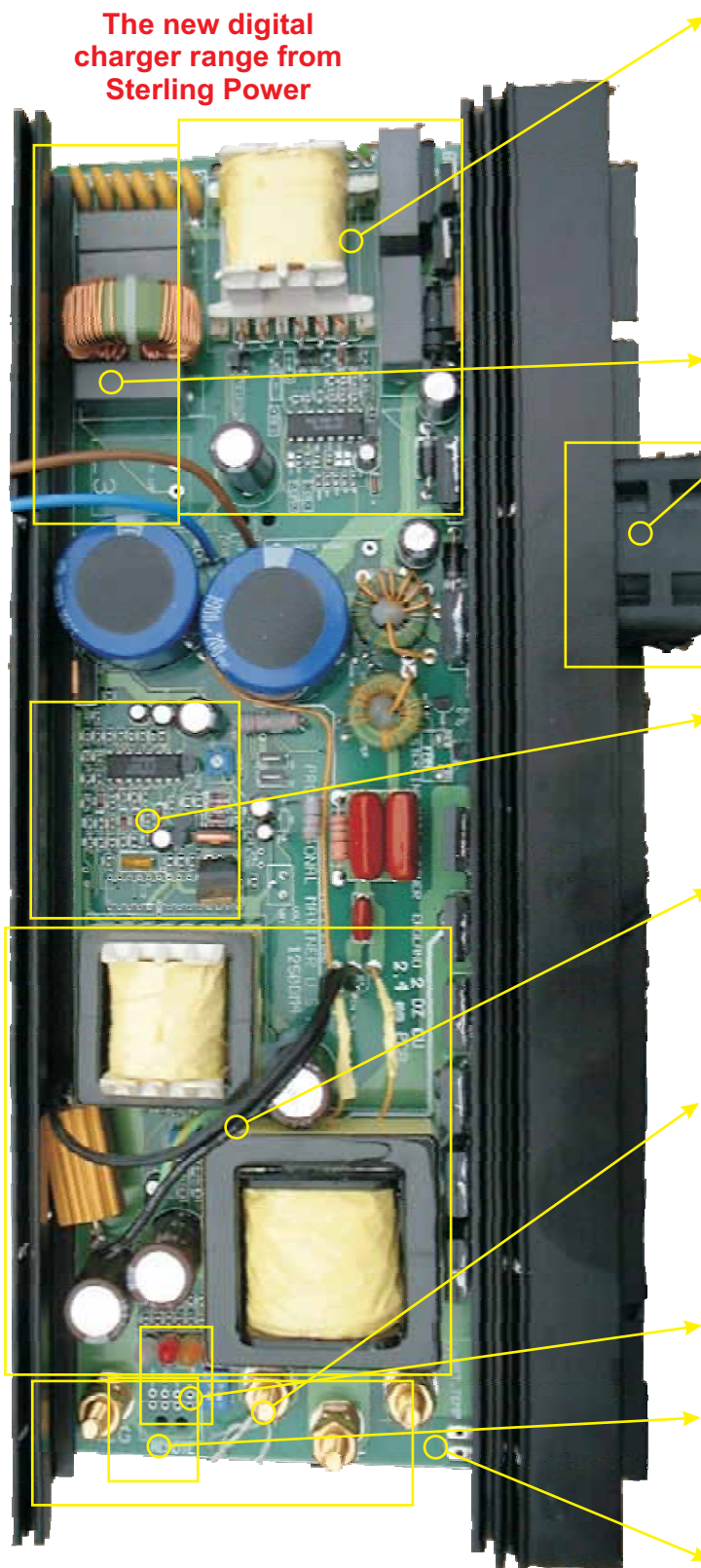


What's all the fuss, its just a battery charger



The new digital charger range from Sterling Power

This harmonic distortion section ensures the charger passes the new European laws (EN61000.3.2.2000) regarding harmonic distortion, and as such, as a boat builder, your boat will once again become legal. By removing the harmonic distortion caused by older equipment, the unit also has the added benefit that the power factor will be improved from a standard switch mode and conventional transformer figure of about 0.65 (which is now illegal), to the new legal requirement of about 0.95 +. This removes distortion on the 230 v mains, and has the following added advantages:
1) the input voltage range is now 80-300 volts
2) the input frequency is 20-400 hz
4) the input power consumption is down about 30% for the same

This section is the R.F.I. filter, which reduces the radiated emissions from the unit to below the European (CE) requirements.

This unit must pass the high temperature standards laid down by the major north american boat builders. They insist that the equipment will work continuously at an ambient temperature of 40 deg c (not many chargers pass this test). As such this unit has 2 fans , one for heat removal from the heat sink, and one for air removal from the inside of the box. The fans are thermostatically controlled from the central processing software chip, and come on at 50 deg c and off at 45 deg c. There is a safety shut down and progressive current reduction between 75-80 deg c should there be a major heat problem.

This section is the central processing section. The new unit is software controlled to ensure accurate and consistent performance. The digital aspect also ensures that any upgrades, if required, can take place quickly in software not hardware. It also enables a M.N.E.A. 400 port to be made (but the protocol has not been finalised by the boat builders. As such this is there but not active). A change to surface mount ensures the foot print of the unit remains the same while incorporating the extra features and functions

This section is the main transformer and choke, working with ceramic cores and high frequency switching. Sterling marine now has over 10 years experience in switch mode, and regards itself as one of the leaders, with equipment from 200 watts up to 4000 watts

Three isolated outputs ensure that most installations with multiple outputs can be catered for. The outputs are isolated and configured to ensure that the most current goes to the batteries with the greatest demand. Because the unit is also a power-pack, it is recommended that the unit be fitted at the start of a boat build without any batteries on the boat so that in the interests of safety, a mistake made by the builders does not cause a major short with the batteries and subsequent fire or explosion.

This also allows the charger a good burn in period, so if there is a faulty unit it can be sorted at the factory. In the interests of high quality and reducing problems in years to come, all sterling products have 24 kt gold plated output terminals

Programme function, the new digital system, has three charging curves programmed into its digital memory bank. The curves have been supplied by the major battery builders. Simply select 1 of the three battery types and the computer does the rest. As far as battery bank size and state of charge goes, the computer works this out and sets the equalising times accordingly. You will never get the same times twice, as your batteries are never in the same state .

Remote control option - a 2 line scrolling L.C.D. remote control is available for this model. This give amps /volts /temperature /equalising time/battery type/etc etc. This will also interface into new power systems developed by Sterling. And enables the charger output power to be reduced in 3 stages to facilitate marinas with low input power restrictions

Temperature sensing is fitted to this charger with a optional sensor which will reduce the charge voltage and eventually shut down the charger in the event of a major fault. This has proved to be unpopular with boat builders due to the extra work involved in fitting it. In the event of this option not being used the system will work set at a default temp of 20 deg c (we have worked for 10 years at this default).

Apart from that, its just a battery charger