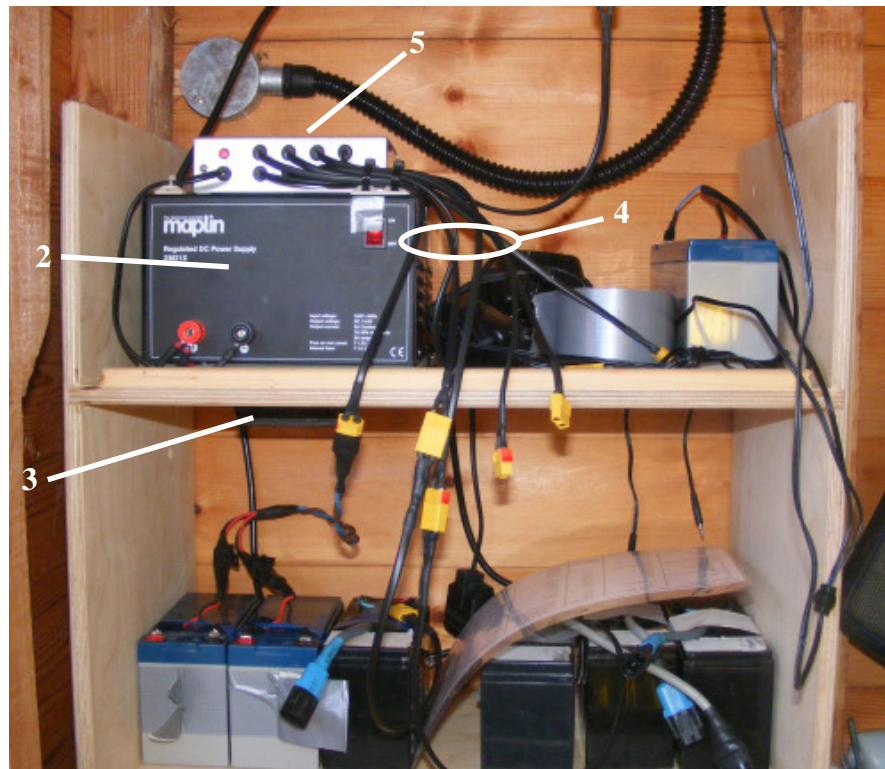


# NFDS BATTERY CHARGING SYSTEM - USER GUIDE

Ver 1. 24/11/12

Ver 2. July 2013



**Fig 1. Charging Station Components**

## **Key to Fig 1**

1. *unallocated*
2. D.C. Supply
3. Cooling Fan
4. Battery Supply Leads (8)
5. Distribution Board

## **Power Supply**

1. The NFDS Charging Station is wall-mounted in the NorthEast corner of the 'Oppie' shed. Its 240 V AC supply is taken from the adjacent mains sockets. The supply switches should remain ON at all times. This supply lead carries a 5 Amp (Max) fuse.

## **D.C. Supply**

2. The output voltage of this (nominal) 12V Direct Current supply has been modified for Sealed Lead Acid battery 'float' charging. The output connections are permanently connected to the Distribution Board (Fig 1, Item 5). No other connections are to be made. The ON/OFF switch on the front panel must remain ON at all times.

## **Cooling Fan**

3. The small computer-type cooling fan is permanently connected and may be heard quietly running. Airflow through the charging system must not be impeded by placing any loose items on or around the system.

## **Battery Supply Leads**

4. Eight separate battery leads come from the Distribution Board (Fig 1, Item 5) and are terminated by polarised 2-pin (Yellow) connectors. These are available

for connection to any 12 Volt Sealed Lead Acid Battery. All eight outputs may be used simultaneously.

## **Distribution Board**

5. The Distribution Board contains components to isolate the separate battery supplies and to limit the maximum current that can be drawn. The values chosen may be expected to achieve a steady state of approximately 13.4V at the battery. Consequently, those batteries may remain permanently connected to the charging system and should therefore always be ready for use.

**Note:** It is intended to add a separate PMR Radio battery (AAA cells) Distribution Board in the future.

## **12 Volt SLA Batteries in Servo Boats**

6. Steering and Winch batteries from the NFDS servo boats should always be removed from the boat(s) after sailing. They should be connected to the charger as part of the boat securing drill and will then be ready for next use. Batteries may be connected individually to the charging leads or in pairs with a 'Y' lead.

## **Malfunctions**

7. If any problem is encountered with this system, the NFDS Boatswain is to be advised as soon as possible. [bosun@newforestsailability.co.uk](mailto:bosun@newforestsailability.co.uk)