

## REMOTE DISPLAY AND PROGRAMMER FOR THE FUNCTIONS OF THE GENIUS® AND BRAVO® CHARGE REGULATORS



**MAESTRO®** is the best solution to visualize in a clear and precise way all the electric parameters of the photovoltaic system, allowing the user to manage correctly the available energy.

**MAESTRO®** has a backlit LCD to allow the reading of the system parameters even during nighttime and can be installed at a distance of 10m from the charge regulator (Standard supplied cable length 3m) for the remote check of the system.

Easy to install, it is equipped with an interchangeable and elegant black cover plate which can be eventually

replaced with another one of a different colour when desired.

**MAESTRO®** coupled to the GENIUS® and BRAVO® charge regulators visualizes the voltages of all the batteries of the photovoltaic system, the charge current coming from the photovoltaic modules, the power percentage used during the battery recharge and finally the real State of Charge of the battery ("SOC"), that is the actual quantity of the available energy.

If it is used together with the charge controller GENIUS® equipped with the special accessory "Amperometric Shunt" that allows the reading of the current absorbed from the battery, **MAESTRO®** will display the energetic balance of the photovoltaic system by the counting of amperehour in and out from the battery.

This important solution has been designed by Helios Technology to guarantee to the user a complete energy management of the system.

Thanks to its four programming buttons and several available menus, **MAESTRO®** is a powerful device for the programming of the functions "Energy of the System" and for the visualization of its parameters, that is the best answer to the user's energy management requests.

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## REMOTE PROBE FOR THE READING OF THE BATTERY HOUSING TEMPERATURE



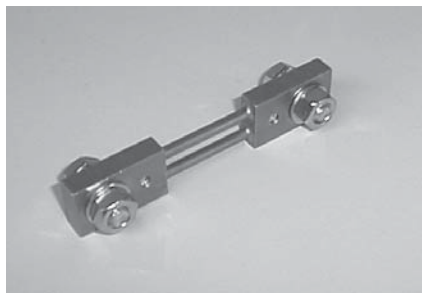
Sometimes the batteries are contained in different housings than the one where is placed the charge regulator. In these cases the charge regulator will not be able to recharge the batteries properly because it cannot check their actual temperature.

The **REMOTE PROBE** for the reading of the battery temperature coupled to the GENIUS® charge regulator solves this problem. In fact it allows the best recharge of the battery because it transmits to the GENIUS® charge regulator the real temperature of the battery

housing so that this one will adjust the charge threshold voltages consequently. In this way the system will have more stored energy available and the average operating lifetime of the battery will be longer. When the batteries are placed far from the charge regulator, such as in remote housings or in outside places especially during the winter season, when the low temperatures strongly reduce their capacity, the charge regulator will be never able to optimize their charge.

The **REMOTE PROBE** is easy to be installed and coupled to the GENIUS® charge controller, is the solution for this problem as it allows the best recharge of the battery.

## AMPEROMETRIC SHUNT



Sometimes in a photovoltaic system the increase energy demand by the loads could force the user to connect them directly to the battery or to recharge this one with some additional conventional battery charger.

In this way the charge regulator will not check properly the available energy of the system. To allow even in these cases the correct energy balance of the system, Helios Technology has designed the **AMPEROMETRIC SHUNT** accessory.

This device, coupled to the GENIUS<sup>®</sup> charge regulator with display or together with the MAESTRO<sup>®</sup> display, allows the correct reading of the currents flowing through the battery up to 100A, and the visualization of the real state of charge and energy balances.

For this reason it represents the best solution for this kind of special applications.

## REMOTE UNIVERSAL DISPLAY



The **REMOTE UNIVERSAL DISPLAY** is the ideal instrument able to satisfy the exacting demand for information on the photovoltaic system.

In fact this instrument coupled to the BRAVO<sup>®</sup> charge regulator, BOOSTER MAGNUM or MULTIBATTERY DEVIATOR will display particular information depending on the accessory to which it has been connected, thanks to two LEDs and one key for specific operations.

The **REMOTE UNIVERSAL DISPLAY** connected with BRAVO<sup>®</sup> charge regulator gives information about the state of the system and the key allows the forced ON/OFF switch of the load output.

The **REMOTE UNIVERSAL DISPLAY** connected with the BOOSTER MAGNUM checks its operativeness and allows a rough estimation of its output current amount.

Meanwhile if it is coupled to MULTIBATTERY DEVIATOR, lets the user know which battery is working and if the device is operating in automatic or manual mode.

The **REMOTE UNIVERSAL DISPLAY** is equipped with a standard phone cable 5m long to make easier the electric connection and with an adhesive mask included into the packaging that allows the mechanical installation.

## OUTSIDE BOX FOR MAESTRO<sup>®</sup> DISPLAY



The outside box for the MAESTRO<sup>®</sup> display is an accessory able to contain the display itself for palm and portable use, or to satisfy all those applications where there is not the possibility to make a rectangular hole to for the containing of the display.

For the mechanical installation it is enough to make two holes of 3mm diameter on the inside mounting frame of the display. If the outside box must be fixed on the wall, use the two central holes placed inside the box or fix it using an adhesive strap on its back.

Fix mechanically the display to the fixing lugs using the suitable supplied screws. Then snap-fix the external cover plate on the elastic fixing points of the internal mounting frame.