FLASHER CSF M/R

The Cosema CSF M/R programmable, solid state flasher has been studied to guarantee maximum efficiency to solar plants; it holds in fact a **charge regulator** for photovoltaic systems.

The CSF M/R Flasher also incorporates a micro-processor that gives 256 flashing characteristics, covering all flashing sequences provided by I.A.L.A.; customers may carry out their own programming by means of two small hexadecimal switches without having to substitute any components.
To obtain a fixed light it is sufficient to cut off a circuit bridge.

The unit can be programmed for any characteristics up to 655 seconds in duration, with a timing accuracy greater than 0.1% of the set characteristic. The in-built micro-processor is able to synchronize with other types of flashers and operate with them in unison.

The charge regulator protects the battery from overcharging thus preventing the electrolyte from boiling and from overdischarging excluding the charge if the battery reaches 11.2 volts thus avoiding its early ageing.

The CSF M/R Flasher mounts a circuit with a "PWM" system that reduces the length of the pulses as the current exceeds the nominal voltage of the lamps of 6, 10.3 or 12 volts to avoid short filament life.

The unit is protected against reverse polarity and short circuits and can be used with lamps from 2 to 100 Watts.
It has been designed to operate with most lampchangers present on the market; when used with a twin filament lamp arrangement it powers the second filament only when the first has burnt out.

The light levels of the built-in **daylight control** are memorized on the micro-processor but for particular requirements they can be modified when programmed.
The lightweight, compact unit is housed in a gasketed, moulded nylon housing, providing excellent sealing against corrosive marine atmosphere.

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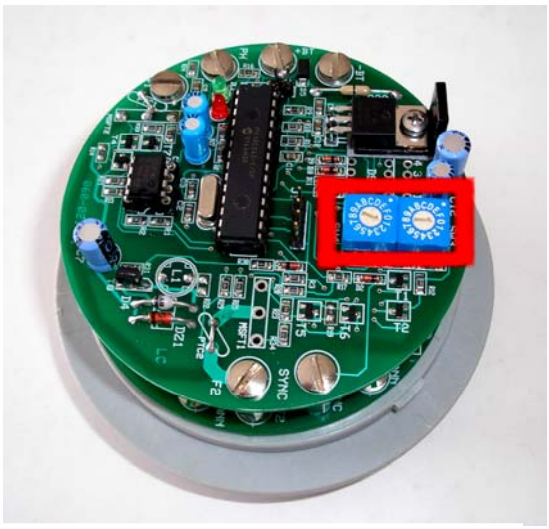
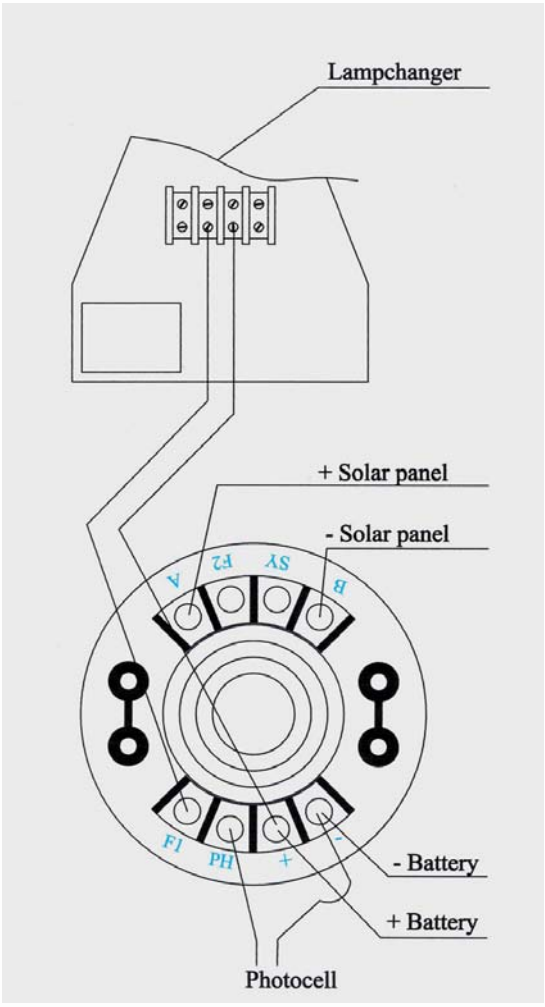
CSF M/R FLASHER



HEXADECIMAL SWITCHES

TECHNICAL DATA

Input Voltage:	11 to 20 Volt DC
Output Voltage:	Selectable at 6, 10.3, or 12 Volt RMS
Output Power:	2 to 100 Watts
Connections:	Eight 3 mm screws, coded terminals
Outputs:	Lampchanger or double filament lampholder
Characteristic:	Up to 655 seconds duration, minimum time interval 0.01 seconds
Synchronization:	Any quantity of flashers using two wire system
Accuracy:	Better than 0.1%
Change of Character:	Rotate the two hexadecimal switches
Temperature:	-40° + 60°
Materials:	Moulded nylon body and housing with silicon gasket
Weight:	0.5 Kg.
Dimensions:	mm. 104 x (h) 68



WIRING DIAGRAM