FEC HELIPORTS & HELIPORT EQUIPMENT
Designed, Manufactured and Installed...we do it all.

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HEMS-Star®

HEMS-Stars are completely self-contained, advanced portable lighting solutions, incorporating; microprocessor main controller, magnetic control switches, advanced LED driver units, visible and infra-red LEDs, Li-Ion battery, advanced battery charging control and monitoring system, charging studs, USB port for field upgrade of the software and a UHF wireless interface for programming, monitoring and controlling the light from either: a Remote Lighting Controller, a PC with the provided wireless 'dongle' or an optional Key Fob Controller (KFC).

Wireless Status LEDs

'On' Sensor

Charging Status LEDs

'Off' Sensor

Ring of Visible LEDs

Triangle of Infra-Red LEDs

Program Indicator

Battery Status Indicator LEDs

'Program' Sensor

USB Port

Charging Power Studs (on case front)
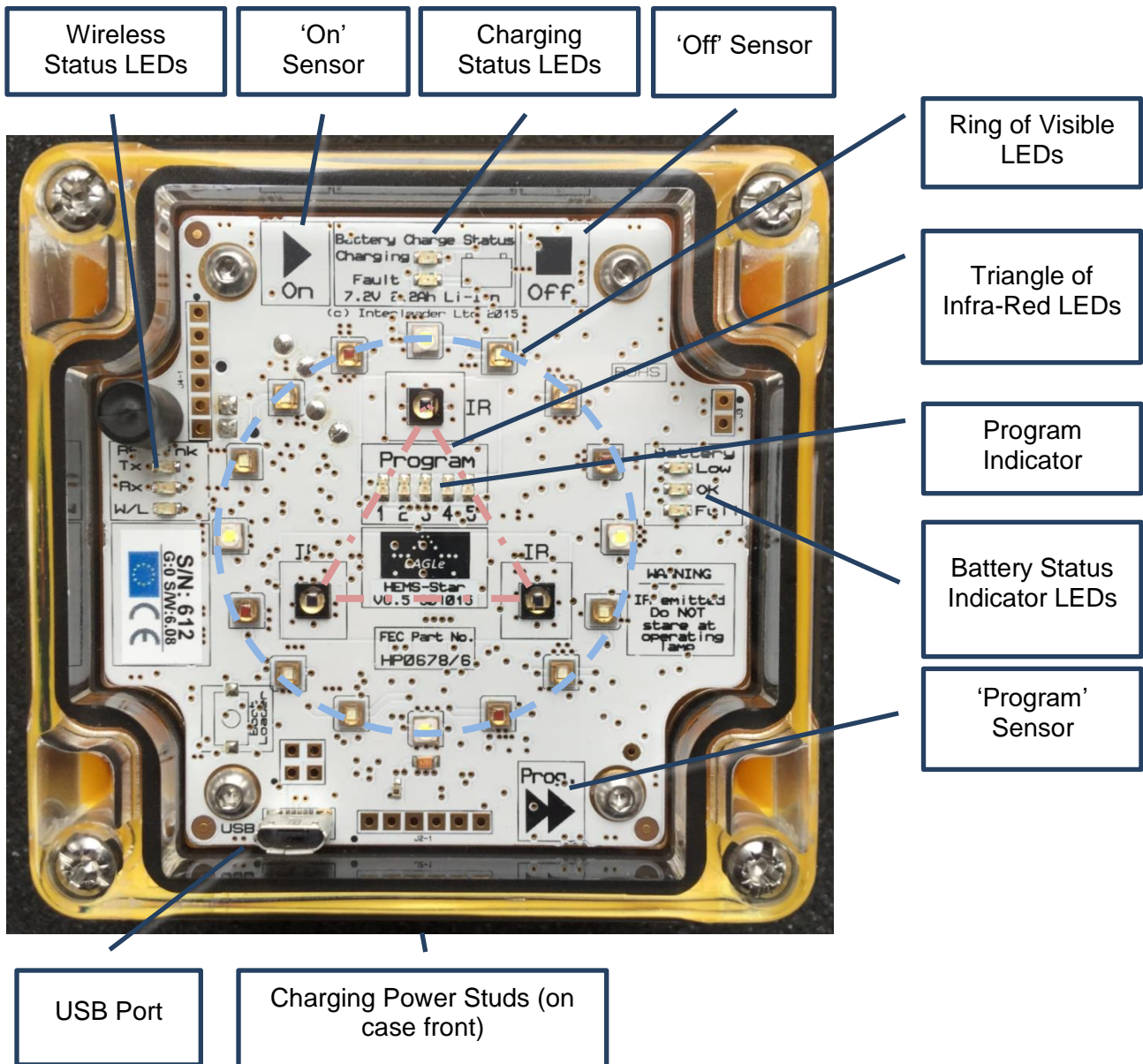
To get the most from your HEMS-Stars please read the manuals thoroughly

eAGLe

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1.   Basic Operation

Basic On/Off/Program selection of the HEMS-Star is achieved by activating magnetic sensors inside the unit using a small magnet (supplied).

Turn HEMS-Star On

To turn a HEMS-Star on, momentarily bring the Magnetic Key Controller (MKC) in line with the 'On' sensor on the unit's top panel (picture top right).

Turn HEMS-Star Off

To turn a HEMS-Star off, momentarily bring the Magnetic Key Controller (MKC) in line with the 'Off' sensor on the unit's top panel (picture middle right).

If the unit is off, bringing the MKC in line with the 'Off' sensor, displays the current Program and battery status (useful for a quick check without having to turn the unit on)

Advance HEMS-Star Program

To advance the HEMS-Star to the next Program, momentarily bring the Magnetic Key Controller (MKC) in line with the 'Program' sensor on the unit's top panel (picture lower right). Program advance is:
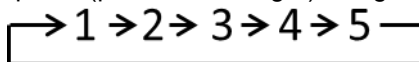
$$\rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow$$

The Program can also be advanced with the unit off in which case the current Program is briefly shown and then the Program advances by one.
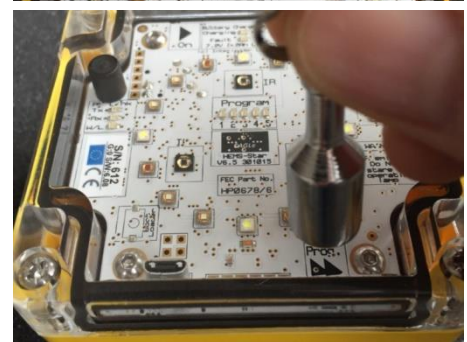
2.   Default Program Settings

The default program settings are:

Program	1	2	3	4	5
Colour	Green	Green	Green	Red	White
Level	60%	60%	60%	80%	100%
Single/Dual	Single	Single	Dual	Single	Single
Dual Ratio	30%	30%	50%	30%	30%
Mode	Steady	Steady	Steady	Flash	Flash
Flash Pattern	1:3	ID Single	ID Dual	ID Dual	Morse 'H'
Normal/Sunset Switching	Normal	Sunset	Normal	Normal	Normal
Stealth	Normal	Normal	Normal	Normal	Normal
Comment	Shipping setting		**Warning IR Emitted**		

Note that greyed-out figures above mean that these are set in the program memory but ignored because of the other settings. e.g. in program 1 the dual ratio is set at 30% but is ignored because program 1 is set to Single Mode.

3. Battery Capacity 'Traffic Light' LED indicators

LED Status	Battery Voltage	Meaning
Red flash every 10s	<6.00V	Battery exhausted – Switch off & Recharge
Flashing Red every 1s	6.00V - 6.25V	Battery nearing exhaustion. Switch off & Recharge
Solid Red	6.25V – 6.80V	Battery low (<20% remaining).
Solid Orange	6.80V – 7.50V	Battery OK (between 20% and 80% capacity)
Solid Green	>7.50V	Battery Full (>80% capacity)
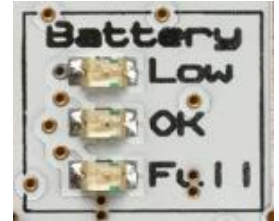
4. Charging

<p style="text-align:center">Do NOT Charge from mains with the Case Lid Shut</p>

The lights are charged in their carrying case using the integrated mains Power Supply Unit or from a nominal 12V or 24V DC supply (e.g. car or truck) or directly from a 12V (nominal) PV Solar Panel.

Battery Charge Status LEDs (visible when in the case) indicate:

Charging: Green LED lit while charging – Goes out when fully charged

Fault: Red LED lit if there is a battery fault – stop charging and investigate cause (see manual)
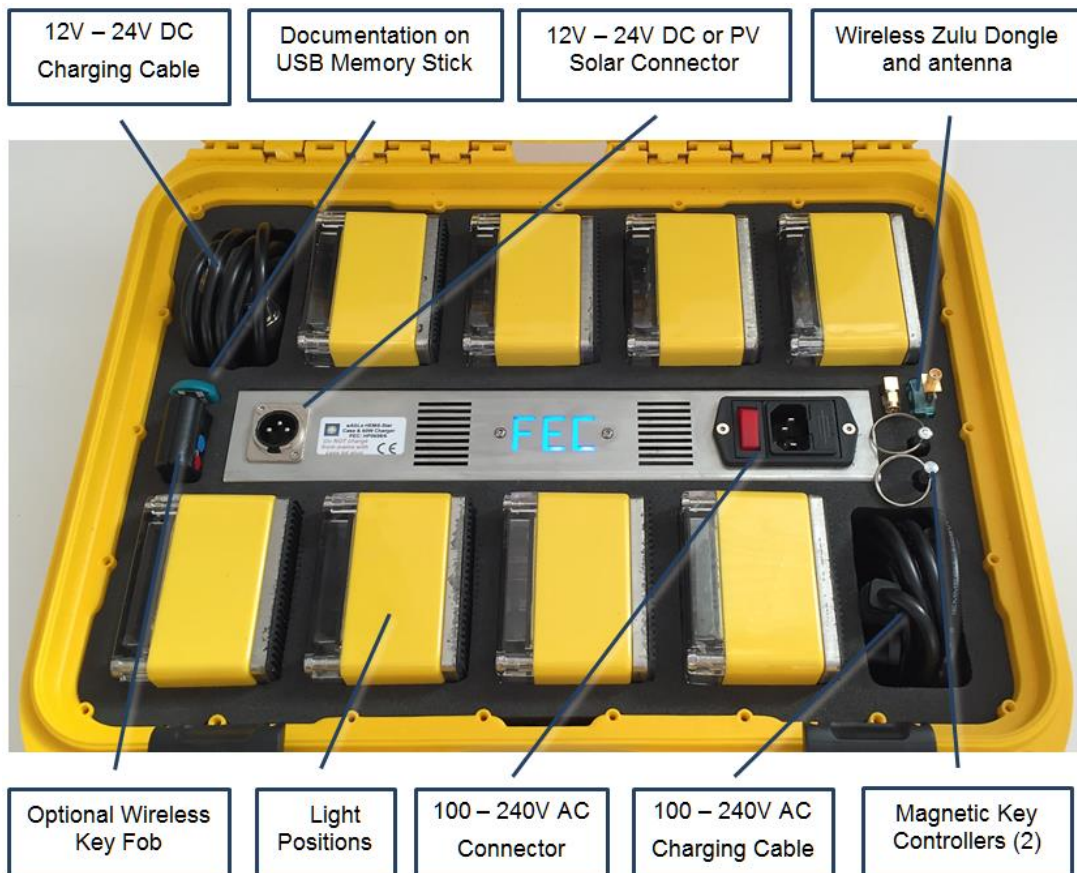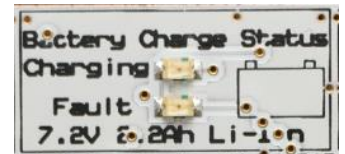
A refresh cycle should be performed once every 6 month (more frequently in very hot conditions – see manual) to maintain full charge and best battery condition and life.
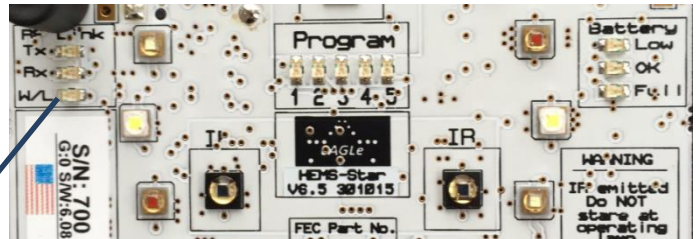
5. Wireless Controller

All lights are shipped in manual mode and will operate at the colour and intensity selected by default Program 1 (Green, 60% of max) when first turned on.

All lights will come on in manual mode and the blue Wireless LED will be off.

Wireless LED (Blue)

The wireless (blue LED) will light when the unit is in 'Standby' wireless mode.

Wireless Groups

To enable control of a specific group of lights in a situation where multiple groups are deployed (for example, multiple adjacent pads), all lights belong to a 'Group'.

Groups of lights will then respond to Wireless PC Controller or Remote Lighting Controllers (RLC) set to that group number. Lights are shipped set at Group 0 (as is the RLC default settings).

If multiple groups of lights are to be controlled then each set needs to have their Group set using the wireless PC Controller software.

6. Support Documentation

Documentation, including this manual, is contained on the USB memory stick in the case (colour of USB stick will vary).

Also on the USB memory stick are short video clips that demonstrate various aspects of setting up and using the lights and charger. Updates may also be posted on the FEC website.

Material on the USB Stick:

There are a number of folders and files on the USB Memory Stick containing:

Application Files	PC Controller Software
Battery Data	Manufacturers declaration about the battery
HEMS-Star Software	Software running the lights
KFC Software	Software for the optional Key Fob Controller
Labels	Battery shipping labels
Manuals	HEMS-Star summary (flier in case) HEMS-Star manual (this document) HEMS-Star PC Controller manual Key Fob Controller manual
Videos	Short videos showing basic operations
HEMS-Star PC Controller V1.0	HEMS-Star PC Controller software
Setup	Setup file for PC Controller Software