Sabik Marine Controller Functionality

Sabik PDA Programmer
or Sabik USB Interface

LED Current Output

SABIK MARINE CONTROLLER

IR

Event Log

LEDDriver

Flasher

Programmable Flash Code

Illumination h

Photocell

1-Wire Synchronization

Solar Charger PWM, 16 A

Production Ah

Load Ah

Battery Management

Voltage, Avg/max/Min

Main Battery

SECONDARY BATTERY INTERFACE

Used Ah

Used Ah

Battery Switch

Primary Battery

AUXILIARY BOARD

DO

DI

RS485 Interface

GPS/GSM BOARD

Acceleration Sensor

GPS

LIGHTGUARD
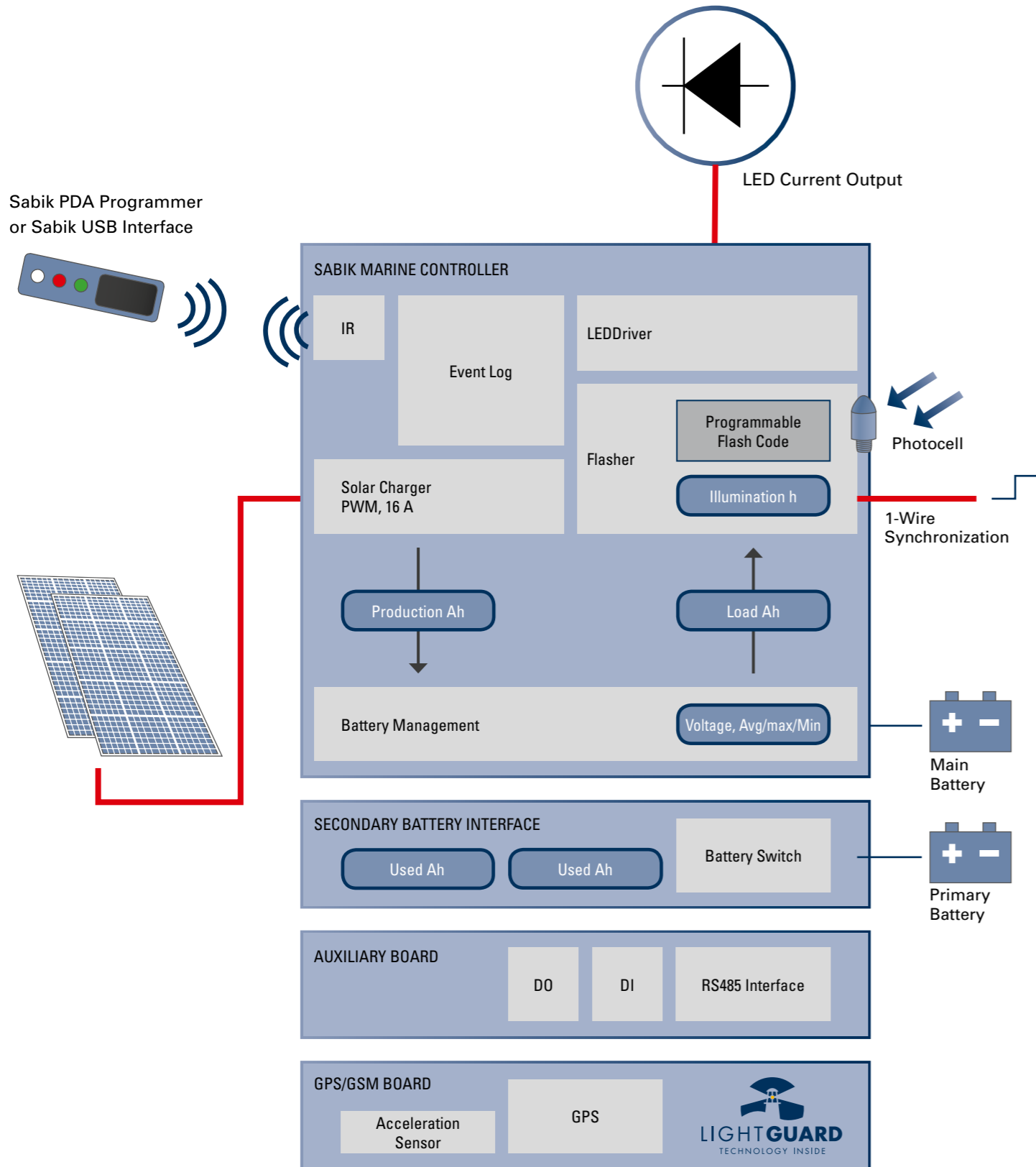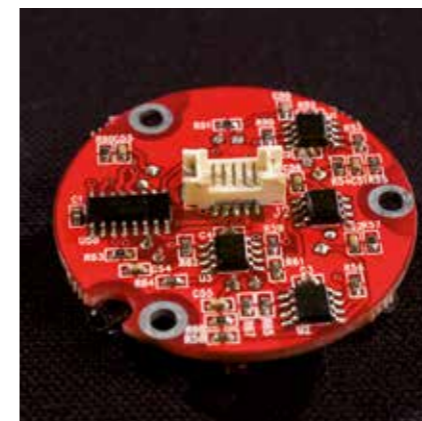TECHNOLOGY INSIDE

Lantern Technology

Sabik Marine Controller (SMC) is the new generation lantern controller (flasher) replacing the LEDFlasher in most of our lanterns. The new SMC comes with all the proven solutions invented by Sabik for the previous generation controllers. A wide range of new innnovative functions are included and we are setting a new standard for efficiency of flashers.

SMC is a versatile controller with a whole range of functions integrated as standard and a variety of add-on options. Development and testing of the new SMC has taken over 3 years with every single function carefully designed and optimized by our engineering team.

Key features include:

- Low energy consumption in all operating stages (daytime idle, night-time active and between flashes). Consumption never exceeds 12 mW (1 mA @ 12VDC)
- Larger intensity dynamics from 5 % to 100 %
- Wireless infrared communication link for configuration and maintenance
- Daytime sensor calibrated in lux with user configurable levels
- 16 amp. PWM solar panel charger with temp sensor and user controllable levels
- Event log/black box that logs and stores all status changes in the lantern
- Power output to LEDs measured, enabling accurate power management of light

Options include:

- New generation of GSM monitoring with integrated GPS receiver as plug-in units
- Power consumption of GSM monitoring less than 25 mW (2 mA) in average
- Optical Feedback system for all 155-series lanterns
- Tilt switch
- Secondary battery switch enables lantern to run on two battery sources, one acting as hot standby.

User interfaces:

- Windows PDA and Easy Programmer for configuration and data collection. Collected data can be uploaded to a PC
- Configuration templates for easy configuration of all technical parameters
- New Windows based software for configuration and maintenance
- Programmer Mk 2 for previous generation electronics

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Sabik Marine Controller Feature	Standard	Option
Wide input voltage range – range of 6 - 30 V enables operation with all kinds of DC power supplies – stable output intensity within the whole input voltage range	✓	
Pulse Width Modulated (PWM) solar panel charger – 16 ampere (200 watts) charging current	✓	
Solar panel production Ampere Hour meter – measures and logs the total solar panel production and daily min/max current	✓	
Event log – stores all main events in memory – events include lantern start/stop, errors, change of setting, power failure – protected by a four week back up battery (capacitor)	✓	
Black box – same unit as the Event log, events stored in a non volatile Flash memory		✓
Secondary battery interface – an auxiliary board enabling hot switch to a standby battery if the main battery fails		✓
Cable sync – one wire cable sync, where all lanterns are masters and/or slaves		✓
Output power measurement – measurement of power output to LED load is recorded	✓	
Operating hours counter – stores the lantern »mileage« in a non volatile memory	✓	
Wireless infrared communication port – IR port with secured two-way communication protocol – programming with Windows software or Windows Mobile device (PDA)	✓	
Wired communication port – RS-232 serial communication port		✓
Intensity setting – Can be adjusted from 5 % to 100 %	✓	
Optical Feedback Monitoring – auxiliary OFBS sensor card that monitors LED degradation over time – available to most lanterns		✓
Auxiliary card – enables connection of two external I/O's – can be used as a digital alarm output – RS 485 port integrated for connection to host system (MODBUS)		✓
Tilt switch – switches off the light when the lantern is tilted over in close to horizontal position (buoy in storage or under the ice)		✓

Sabik PDA programmer

• **Portable Windows mobile device**
• **Rugged, waterproof, shockproof**
• **Integrated two-way infrared port for communication with lantern**
• **Sabik PDA software preloaded**
• **Lantern configuration and service**
• **Lantern data stored automatically at site**
• **Delivered with a docking station and dual batteries**
• **Lantern data can be downloaded to a PC**

Product code

Sabik PDA programmer

980330

Sabik Easy Programmer

• **User friendly and compact in size**
• **Integrated infrared port**
• **Two-way communication**
• **Lantern data can be downloaded to a PC**

Product code

Sabik Easy programmer

980332

Sabik IR interface and Windows program

• **USB to IR interface suitable for Windows computer with USB port**
• **Lantern configuration and service**
• **Delivered as a set with a one meter long USB extension cable and software on memory stick**

Product code

Sabik IR interface and
Windows program

980336

Sabik Programmer Mk 2

• **Programmer with keypad and display for LEDFlasher and SmartFlasher lanterns**
• **Delivered with a 1.8 meter coiled cable and a data connector**
• **Firmware updates via serial port**

Product code

Sabik Programmer Mk 2

980320