



U. S. Department of Homeland Security
United States Coast Guard
Certificate of Approval

Coast Guard Approval Number: 161.112/92/0

Expires: 05 March 2024

LIFEJACKET LIGHT (SOLAS)

ACR ELECTRONICS, INC.
5757 RAVENSWOOD ROAD
FORT LAUDERDALE FL 33312-6645

FIREFLY Pro and FIREFLY Pro Waterbug, MS-2000 series, manually or water-activated lifejacket light.

Flashing lifejacket lights with a sliding ON/OFF switch. Approved with either manual or water (automatic) activation; water activated model named "Waterbug." Lights use an LED under a low profile lens.

Power source is two replaceable AA alkaline batteries which must be replaced annually. For SOLAS use, the power source is two replaceable AA lithium batteries which must be replaced five years before battery manufacturer's marked expiration date.

Acceptable for use on all U.S. registered vessels. Evaluated, tested and found to be in compliance with the IMO LSA Code (Res. MSC.48(66)), as amended through Res. MSC.218(82).

For SOLAS use, must be marked 161.112/92/0 and "SOLAS". May be labeled as 161.012/93/0.

Identifying Data: Final Assembly, MS-2000 LED Drawing A3-06-2806 Rev. D dated 24 April 2017, and IMANNA Laboratory test reports numbers 19833-2B and 3B.

Approval valid only for equipment produced at the above manufacturing location.

Production test reports in accordance with 46 CFR 159.007-11 due annually.

Extends certificate dated March 5, 2014; updated power source information, identifying data and added manufacturing location.

*** End ***

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.

GIVEN UNDER MY HAND THIS 05th DAY OF
MARCH 2019, AT WASHINGTON D.C.



B. A. BALDWIN
Chief, Lifesaving and Fire Safety Division
BY DIRECTION OF THE COMMANDANT

TERMS: The approval of the item described on the face of the Certificate has been based upon the submittal of satisfactory evidence that the item complies with the applicable provisions of the navigation and shipping laws and the applicable regulations in Title 33 and/or Title 46 of the Code of Federal Regulations. The approval is subject to any conditions noted on this Certificate and in the applicable laws and regulations governing the use of the item on vessels subject to Coast Guard inspection or on other vessels and boats.

Consideration will be given to an extension of this approval provided application is made 3 months prior to the expiration date of this Certificate.

The approval holder is responsible for making sure that the required inspections or tests of materials or devices covered by this approval are carried out during production as prescribed in the applicable regulations.

The approval of the item covered by this certificate is valid only so long as the item is manufactured in conformance with the details of the approved drawings, specifications, or other data referred to. No modification in the approved design, construction, or materials is to be adopted until the modification has been presented for consideration by the Commandant and confirmation received that the proposed alteration is acceptable.

NOTICE: Where a manufacturer of safety-at-sea equipment is offering for sale to the maritime industry, directly or indirectly, equipment represented to be approved, which fails to conform with either the design details or material specifications, or both, as approved by the Coast Guard, immediate action may be taken to invoke the various penalties and sanctions provided by law including prosecution under 46 U.S.C. 3318, which provides:

"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*) and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."