



## FÉDÉRATION AÉRONAUTIQUE INTERNATIONALE

Maison du Sport International Avenue de Rhodanie 54 CH-1007 Lausanne Switzerland  
Tel: +41(0)21/345.10.70; Fax: +41(0)21/345.10.77; sec@fai.org

### FAI AEROMODELLING COMMISSION (CIAM) ELECTRONIC DEVICES IN COMPETITIONS WORKING GROUP (EDIC-WG)

#### References:

FAI web site: [www.fai.org](http://www.fai.org)  
CIAM website: [www.fai.org/aeromodelling](http://www.fai.org/aeromodelling)

**To:** CIAM web site under AMRT Approvals  
CIAM Technical Secretary  
F5 Sub Committee

**Copy:** Manufacturer Concerned

**Date:** 20 June 2015

#### CIAM APPROVAL FOR F5J ALTIMETER/MOTOR RUN TIMER (AMRT)

**Approval Reference:** AMRT016 and AMRT017  
**Manufacturer:** Soaring Circuits USA  
**Manufacturer Contact:** [soaringcircuits@gmail.com](mailto:soaringcircuits@gmail.com)  
**Device Name/s:** CAMF5J

- (i) *This document gives formal approval from the above date for the AMRT equipment described below to be used for competitions under the Sporting Code Section 4: Aeromodelling – Class F5J – Electric Thermal Duration Gliders.*
- (ii) *This document is the initial approval for this type of AMRT and only applies to the functions relevant to the F5J competition class rules.*
- (iii) *Tests undertaken by EDIC-WG (or such representative as it may appoint), are specifically concerned with the functions relevant to the F5J competition class rules. Other functions of the equipment are not part of this approval and the relevance of this document does not extend beyond the specific validation and certification purposes mentioned above.*
- (iv) *This document does not constitute a guarantee of compatibility of the device listed above with any associated devices with which it may be interconnected.*
- (v) *This document does not constitute any guarantee and/or statement by EDIC-WG, CIAM and/or FAI as to the reliability of the device listed above.*
- (vi) *This approval is not concerned with National and other regulations relating to electronic equipment and compliance with such regulations is not the responsibility of the FAI.*
- (vii) *This approval is not concerned with, and the FAI has no responsibility for, matters related to: (a) intellectual property and intellectual property rights and/or, (b) relations of the manufacturer listed above with any other entities except with FAI and its agents or as they affect the FAI, its agents and this approval.*

#### EQUIPMENT

##### 1 HARDWARE

###### 1.1 Equipment Name

###### 1.1.1 Soaring Circuits CAMF5J

## 1.2 Hardware Version

The Equipment Name defines the Hardware Version.

## 1.3 External Features

The AMRT module is an encased circuit board with two cables terminated in 3 pin JR style connectors for connection to the control equipment within a model.

The on board LED character display provides a readout of the F5J Start Height.

The AMRT has no functions additional to the F5J requirements. Consequently there are no additional hardware features.

## 1.4 Pressure Altitude Sensor

The pressure sensor module is manufactured by Freescale Semiconductor.

# 2 FIRMWARE

## 2.1 Firmware Versions

F1.2 and F1.3. F1.2 and F1.3 are operationally identical.

F1.2 is used in a limited number of early production devices; AMRT016.

F1.3 is used in current production devices; AMRT017.

## 2.2 Pressure to ISA Height Conversion

The pressure to altitude conversion is an inbuilt function of the Pressure Sensor. It is based on a polynomial series calculation and is compliant with the requirements specified in the EDIC Volume of the FAI – CIAM Sporting Code.

## 2.3 Temperature Compensation

This is incorporated within the pressure sensor module within the pressure to altitude conversion process.

## 2.4 Dynamic Response

The dynamic response of the AMRT does not contribute any significant discrepancy in readings in the context of the F5J competition application.

# 3 CONDITIONS OF APPROVAL

3.1.1 This Approval is only applicable to devices of the type described and manufactured to the same production standards as the example evaluated.

3.1.2 This Approval is not applicable to any device which has been subject to repair or modification by person(s) other than the original manufacturer or his authorised agent.

## 3.2 Withdrawal of Approval

If after this Approval has been issued, inconsistencies of performance are found in further examples of the device(s), Approval may be withdrawn upon notice to the manufacturer.

## 3.3 Changes to F5J Class Rules

If the F5J class rules are amended in any manner that affects the technical specification of the AMRT, the validity of this Approval will be subject to review.

#### 3.4 Expiry of Approval

This Approval remains active until it is either superseded or withdrawn. A list of all currently active Approvals can be obtained from the FAI CIAM website.

### **4 PRODUCTION STATUS**

At the date of issue of this Approval, the CAMF5J is in current production.

### **5 MANUFACTURER'S CHANGES**

Notification of any changes to hardware and/or firmware must be made by the manufacturer to the Chairman of EDIC-WG so that a decision can be made on any further testing that might be required to maintain CIAM Approval of the AMRT. This includes changes that are applicable to any additional functions of the device(s) that do not necessarily form part of the F5J requirements.

*(original signed)*

Eur Ing Paul Newell  
Chairman FAI-CIAM EDIC Working Group

Address any queries to:  
Chairman, FAI-CIAM EDIC Working Group  
email: [ciam-edic@fai.org](mailto:ciam-edic@fai.org)