

FLIGHT MANUAL SUPPLEMENT S08

2ND MAIN SYSTEM BATTERY

FOR THE POWERED GLIDER STEMME S10, VARIANT S12



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STAMP

SIGNATURE

AIRFRAME TYPE : STEMMER S12
TYPE CERTIFICATE :
SERIAL NUMBER : 12-
REGISTRATION :

This powered sailplane must be operated in compliance with the instructions and limitations contained in the associated Aircraft Flight Manual and this Supplement.

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0.1 RECORD OF AMENDMENTS

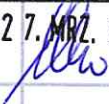
The following table documents all amendments for the supplement S08 to the Flight Manual for the aircraft STEMME S10, variant S12.

Minor revisions to the STEMME S12 Aircraft Flight Manual are approved and countersigned by the Design Organization DOA EASA.21J.250 based on its privilege.

All other amendments are approved by the agency stating the EASA or FAA approval number (countersigned by DOA EASA.21J.250). In the table hereafter only the latest approved revision must be countersigned.

New or corrected text sections of the revised page(s) will be marked by a vertical line on the outer side of the page. The newest revision number of all revisions on the page is mentioned in the footnote section of the page, along with the date of the newest revision.

Compliance with the following information and the corresponding aircraft is documented by the signature of the correcting person in the table below.

AM. NO.	RE-MOVED PAGES	INSERTED PAGES	DATE OF AMENDMENT	REFERENCE	APPROVAL	DATE OF INSERTION	SIGNATURE
-	---	ALL	OCT 22, 2018	FIRST ISSUE	27. MAR. 2019 		

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0.2 LIST OF EFFECTIVE PAGES

This list is only valid for the aircraft serial number mentioned on the title page.

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CHAPTER 0			
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1. GENERAL

1.1 INTRODUCTION

This supplement for the STEMME S12 optionally equipped with a 2nd Main System Battery contains additional information and instructions which are necessary for a safe and efficient operation and required by the CS-22 airworthiness requirements.

For sections not included, no specific information is needed related to the operation of the 2nd Main System Battery. In this case, the standard text of the pertinent basic S12 Aircraft Flight Manual is applicable.

1.5 CERTIFICATION BASIS

The 2nd Main System Battery is part of the Type Certificate of the STEMME S12. The certification has been followed through on the certification basis as applied during the original approval of the variant STEMME S12.

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2. LIMITATIONS

- No change to the basic S12 Aircraft Flight Manual. -

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3. EMERGENCY PROCEDURES

3.9 OTHER EMERGENCIES

3.9.4 SYSTEM MALFUNCTIONS

3.9.4.6 RED BATTERY CHARGE WARNING LIGHT FOR THE EXTERNAL ALTERNATOR ILLUMINATED

In case of a failed alternator, the 1st Main System Battery is the only source of electrical energy and will be discharged continuously.

However, if the 2nd Main System Battery is installed, the pilot can switch between the 1st and the 2nd Main System Battery. The respective selected Main System Battery will then be discharged continuously.

Energy can be saved by switching OFF all non-essential electrical consumers (mainly in the avionic panel), extending time for the most important systems. A fully charged 1st Main System Battery should provide a minimum operating time of 42 minutes. The total minimum operating time can be almost doubled if a fully charged 2nd Main System Battery is installed.

NOTICE

The general recommended procedure in the basic S12 Aircraft Flight Manual must be taken into consideration.

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4. NORMAL OPERATING PROCEDURES

4.4 PRE-FLIGHT INSPECTIONS

4.4.1 CHECKS BEFORE ENTERING COCKPIT

In addition to the instructions provided in the basic S12 Aircraft Flight Manual the following checks have to be performed during Pre-Flight Inspection:

- CHECK 2nd battery installed?
- CHECK condition and correct attachment of the battery container.
- CHECK plug is connected to the socket in the front tail baggage compartment wall.



WARNING

For the operation and inspection of the condition and function of the 2nd Main System Battery, the instructions of the manufacturer must be observed.

4.5 NORMAL OPERATING PROCEDURES AND RECOMMENDED AIRSPEEDS

4.5.1 ENGINE START, WARM-UP AND TAXI PROCEDURES

4.5.1.1 ENGINE START



CAUTION

CHECK all installed batteries for sufficient voltage before flight. Note that LiFePO accumulators have got a more shallow voltage drop than Pb types.

4.5.3 CRUISE AND CROSS-COUNTRY FLYING

4.5.3.1 GENERAL REMARKS

 **CAUTION**

If the 2nd Main System Battery is installed, avoid selecting a Main System Battery without sufficient voltage. Otherwise some devices will shut down due to low voltage.

CHECK the respective battery voltages before switching the source of power for the main system.

 **CAUTION**

If the aircraft is optionally equipped with a 2nd Main System Battery, but this battery is not installed:

- Do not select the 2nd Main System Battery as a source of power, otherwise the main system shuts down immediately.
 - The 2nd Main System Battery voltage and current are indicated as zero.
 - Use a red sticker »INOP.« at the toggle switch of the cockpit panel.
-

5. PERFORMANCE

- No change to the basic S12 Aircraft Flight Manual. -

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6. WEIGHT AND BALANCE

6.4 OPERATING WEIGHT AND OPERATING CG

6.4.1 WEIGHT AND MOMENTS LOGSHEET

Calculation of the proper loading for flight		STEMME S12 Reg.-No.:	
		Weight [kg / lb]	Moment [kgm / lb in]
1.	Empty Weight and Empty Weight Moment (from current Report of Empty Weight and CG Location.)		
2.	Pilot and Copilot.	left	
		right	
3.	Baggage behind seats.		0
4.	Baggage in tail boom.		
*5.	2 nd Main System Battery, if installed.	3.7 / 8.16	5.74 / 498.21
6.	Ballast in vertical tail.		
7.	Fuel (l * 0,75 kg / l = kg)		
Total Sum			



CAUTION

* If the 2nd Main System Battery is installed,

- the weight and moment have to be taken into account (item 5).

7. SYSTEM DESCRIPTION OF THE S12 AND ITS EQUIPMENT

7.9 LUGGAGE COMPARTMENT

NOTICE

If the 2nd Main System Battery is installed, the total volume of the tail baggage compartment is reduced to 87 l.

7.12 ELECTRICAL SYSTEM

7.12.1 DESCRIPTION

When the 2nd Main System Battery is installed, the pilot can switch between the 1st and 2nd Main System Battery via toggle switch. The pilot will be able to select one of the Main System Batteries for charging during powered flight and as a source of power for the main system. When both Main System Batteries are discharged, the pilot can recharge the currently selected in powered flight with the external alternator.

The pilot can switch between the indication of voltage and current of the 1st and 2nd Main System Battery and the Engine System Battery via rotary switch.

NOTICE

The indication of the batteries' voltage and current is independent of their potential selection as a source of power. Hence, it is possible to switch between the batteries in terms of voltage and current indication while keeping the selected sources of power unchanged.

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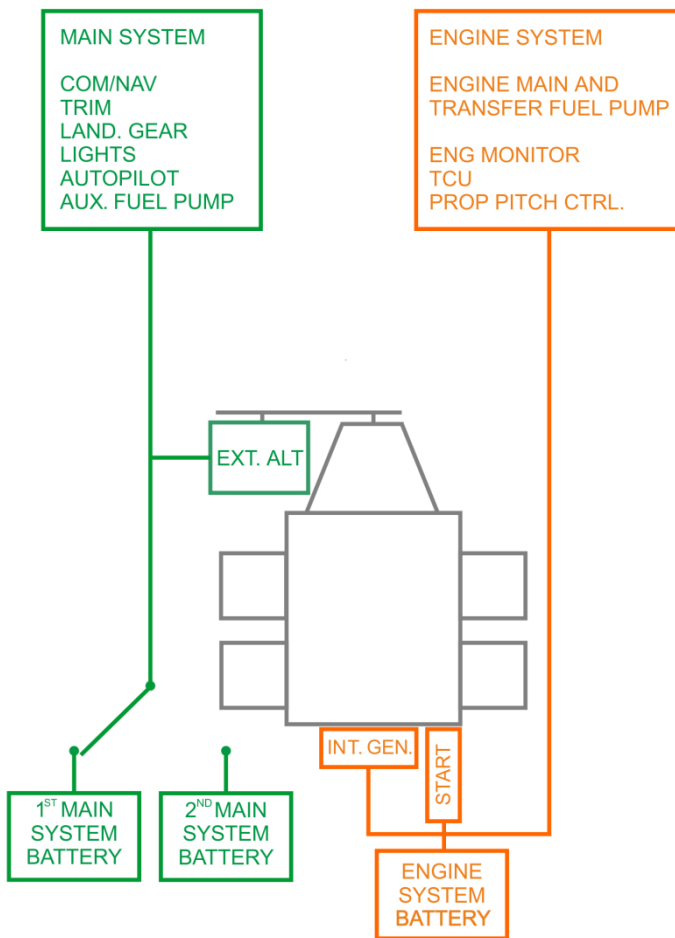


Figure 7.12.1.a
Electrical System

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8. HANDLING, MAINTENANCE AND SERVICE

– No change to the basic S12 Aircraft Flight Manual. –

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