

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT

For
SYSTEM INSTALLATION
Of
**EA-15000 IGNITION/STARTER SWITCH PANEL FOR
TWO MAGNETOS**

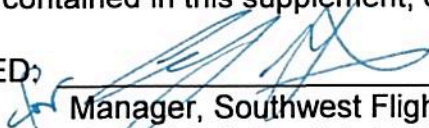
Registration No. _____

Serial No. _____

This supplement must be attached to the FAA approved Aircraft Flight Manual when the Electroair EA-15000 has been installed per FAA STC SA04280CH

The information contained herein supplements or supersedes the basic Aircraft Flight Manual only in those areas listed. For limitations, procedures, and performance information not contained in this supplement, consult the basic Aircraft Flight Manual.

FAA APPROVED:



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Log of Revisions:


Revision	Pages Affected	Date of Revision	Description of Revision	Approved by	Date of FAA Approval
00	All	10/30/2017	Initial Release		
01	1-7	01/31/2018	Format changes, Added pictures, Reduced redundancy, and other minor changes.	 For ERIC Kuey	2/5/2018

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Section 1: General:

This Aircraft Flight Manual Supplement contains the necessary information required for the operation of an ignition/starter switch panel installed onto aircraft using two magnetos.

A. FUNCTIONAL OVERVIEW

The Electroair EA-15000 Ignition/Starter Switch Panel is designed as an option to replace rotary ignition type switches that are commonly found in small aircraft. The option makes for a more intuitive operation of ignition systems and reduces maintenance cost.

The EA-15000 has two options that the installer/user can choose. Option A is a horizontal layout, and option B is a vertical layout. The installer/user of the EA-15000 will choose which option based on their own preference or what can fit onto the aircraft's instrument panel. Both options function in the same way.



Figure 1: Option A, Horizontal Layout



Figure 2: Option B, Vertical Layout

B. SYSTEM OPERATION

Under normal operating conditions, the EA-15000 switch panel will be controlled by the flight crew. The AFMS shall be updated by adding the task pushing the switch buttons instead of rotating a key switch for controlling the ignition systems.

Section 2: Limitations:

PLACARDS

Ignition switch panels will be placarded in accordance with installation instructions, identifying the left and right magneto. See Figure 1 and Figure 2 for reference.

Section 3: Emergency/Abnormal Procedures:

Emergency Procedures

No Change

Abnormal Procedures

Alternator/Generator Failure:

No Change

Problem: Rough running engine and/or high CHTs:

Follow baseline AFM/POH procedures. Determine if one of the magnetos is bad and isolate the bad/suspected magneto.

Problem: Severe loss in engine power and/or low CHTs, engine operating smoothly:

Follow baseline AFM/POH procedures. Determine if one of the magnetos is bad and isolate the bad/suspected magnetos.

Section 4: Normal Procedures:

I. Preflight:

No Change

II. Starting:

The magneto starting switch configuration is dependent on the particular aircraft installation. Starting magnetos should be placed in the ON position for start while non-impulse or direct-drive magnetos should be in the OFF position. At the time of installation, the correct configuration should be determined and noted in the table below with a check mark (✓) next to the proper row:

Magneto Switch Position for Engine Start			
Select (✓)	Left	Right	Notes
	ON	OFF	Left is the starting magneto Right is impulse or direct drive magneto
	ON	ON	Both left and right magnetos are starting magnetos
	OFF	ON	Right magneto is the starting magneto Left is impulse or direct drive magneto

With switches in the correct positions, **push the red START button** to engage starter

III. Ignition Check:

Procedure, With EA-15000:

The ignition check shall be made at the same RPM as defined in the AFM/POH.

Ignition BOTH (Left and Right) ON
 LEFT Magneto OFF – Note RPM Drop _____
 LEFT Magneto ON
 RIGHT Magneto OFF – Note RPM Drop _____
 RIGHT Magneto ON

Magneto RPM drop should not exceed the RPM defined in the AFM/POH. If there is a doubt concerning operation of the ignition systems, RPM checks at higher engine speeds will usually confirm whether a deficiency exists. At the end of the ignition check, verify both ignition switches are in the "ON" position.

IV. Takeoff:

No Change

V. Cruise:

No Change

VI. Descent:

No Change

VII. Landing:

No Change

VIII. Shutdown:

No Change

IX. Post-flight:

No Change

Section 5: Performance:

No Changes

Section 6: Weight and Balance:

A new weight and balance should be calculated for the aircraft after the removal of old components and the installation of the EA-15000. The weight of the EA-15000 is 1.4 ounces. All future loading calculations should use the updated aircraft weight and balance.

Section 7: Glossary and Abbreviations:

AD(s) – Airworthiness Directive(s)

AFM – Aircraft Flight Manual

AFMS – Aircraft Flight Manual Supplement

ALS – Aircraft Limitations Section

AML – Approved Model List

APU – Auxiliary Power Unit

BTDC – Before Top Dead Center

CFR – Code of Federal Regulations

CSTW – Crank Shaft Trigger Wheel

EIS – Electronic Ignition System

FAA – Federal Aviation Administration

Ignition Timing – is the process of setting the angle relative to piston position and crankshaft angular velocity that a spark will occur in the combustion chamber near the end of the compression stroke.

MAG – magneto

MAP – Manifold Absolute Pressure

May/Should – an optional requirement

MTH – Mag Timing Housing

Must/Shall – a mandatory requirement

RPM – Revolutions per Minute

POH – Pilot's Operating Handbook

STC – Supplemental Type Certificate

TDC – Top Dead Center