Kelly Aerospace
Willoughby, OH
NC-15-011, Rev. A

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR

TEXTRON AVIATION INC. (CESSNA) 206H AND T206H

BACKUP ALTERNATOR SYSTEM

Aircraft SN: _____

Aircraft Registration Number: _____

This supplement must be attached to the FAA approved flight manual when the Kelly Aerospace backup alternator system is installed in accordance with **STC** SA04369CH. The information contained in this document supplements or supersedes the basic manual only in those areas listed. For limitations, procedures, performance, and loading information not contained in this supplement, consult the basic FAA airplane flight manual.

Manager, Southwest Flight Test Section, AIR-713
Federal Aviation Administration
Ft. Worth, TX

DATE 10/25/2018

LOG OF REVISIONS

REV.	PAGES	DESCRIPTION	FAA-APPROVED	DATE
A	1-9	INITIAL RELEASE	[signature]	10/25/2018

FAA Approved

DATE OCT 25 2018

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FAA Approved

DATE OCT 25 2018

SECTION 1
GENERAL

This supplement supplies information necessary for the operation of the airplane when the optional Backup Alternator System is installed in accordance with FAA Approved Data, either STC or Original Equipment.

SECTION 2
LIMITATIONS

Do not operate the air conditioning system or the 12V cabin power converter while using the Backup Alternator. The following placard is installed in the cockpit for the pilot's reference.

Figure 1 - Backup Alternator Limitation Placard

If there is an emergency situation which requires the use of the Backup Alternator, perform load shedding per Section 3 of this AFMS; then perform load shedding per the OEM flight manual if necessary.

SECTION 3
EMERGENCY PROCEDURES

LOW VOLTS ANNUNCIATOR COMES ON OR DOES NOT GO OFF AT HIGHER RPM

1. BEFORE STEP 1 OF LOW VOLTAGE ANNUNCIATOR COMES ON OR DOES NOT GO OFF AT HIGHER RPM in Section 3 of OEM POH: PERFORM THE FOLLOWING STEPS
2. Electrical Load – REDUCE IMMEDIATELY as follows:
   a. ELECTRICAL A/C Switch (IF INSTALLED) – OFF
   b. CABIN PWR 12V Switch – OFF
3. ALTERNATOR SELECTOR Switch – Move to BACKUP ALT (See Figure 2, Section 7)
4. BACKUP ALT Indicator - ILLUMINATED
5. BUS VOLTS – CHECK 27.5 V (minimum)
6. BATT AMPS – CHECK CHARGING (+)

IF LOW VOLTS ANNUNCIATOR REMAINS ON

7. ALTERNATOR SELECTOR Switch – Move to PRIMARY ALT
8. PRIMARY ALT Indicator - ILLUMINATED
9. REGULATOR SELECTOR Switch – Move to BACKUP REG
10. BACKUP REG Indicator - ILLUMINATED
11. BUS VOLTS – CHECK 27.5 V (minimum)
12. BATT AMPS – CHECK CHARGING (+)

IF LOW VOLTS ANNUNCIATOR REMAINS ON

13. REGULATOR SELECTOR Switch – Move to PRIMARY REG
14. PRIMARY REG Indicator - ILLUMINATED
15. RETURN TO STEP 1 OF LOW VOLTAGE ANNUNCIATOR COMES ON OR DOES NOT GO OFF AT HIGHER RPM in OEM POH

HIGH VOLTS ANNUNCIATOR COMES ON OR BATT AMPS MORE THAN 40 (or Full Scale Deflection)

1. BEFORE STEP 1 OF HIGH VOLTS ANNUMCIATOR COMES ON OR BATT AMPS MORE THAN 40 in Section 3 of OEM POH: PERFORM THE FOLLOWING STEPS
   REGULATOR SELECTOR Switch – Move to BACKUP REG
   (See Figure 2, Section 7)
2. BACKUP REG Indicator – ILLUMINATED

IF HIGH VOLTS ANNUNCIATOR REMAINS ON OR BATT AMPS MORE THAN 40 (or Full Scale Deflection)

3. REGULATOR SELECTOR Switch – Move to PRIMARY REG
4. PRIMARY REG Indicator - ILLUMINATED
5. Electrical Load – REDUCE IMMEDIATELY as follows:
   a. ELECTRICAL A/C Switch (IF INSTALLED) – OFF
   b. CABIN PWR 12V Switch – OFF
6. ALTERNATOR SELECTOR Switch – Move to BACKUP ALT
7. BACKUP REG Indicator – ILLUMINATED

IF HIGH VOLTS ANNUNCIATOR REMAINS ON OR BATT AMPS MORE THAN 40 (or Full Scale Deflection)

8. ALTERNATOR SELECTOR Switch – Move to PRIMARY ALT
9. PRIMARY ALT Indicator - ILLUMINATED
10. RETURN TO STEP 1 OF HIGH VOLTS ANNUNCIATOR COMES ON OR BATT AMPS MORE THAN 40 in OEM POH (or Full Scale Deflection)

SECTION 4
NORMAL PROCEDURES

BACKUP ALTERNATOR & REGULATOR BEFORE FLIGHT CHECKLIST

1. Start aircraft as normal with the ALTERNATOR SELECTOR Switch in the PRIMARY ALT Position and the REGULATOR SELECTOR Switch in the PRIMARY REG Position. When normal checklist is complete proceed to BACKUP ALTERNATOR & REGULATOR BEFORE FLIGHT CHECKLIST.
2. Electrical Load – LOAD SHED as follows:
   a. ELECTRICAL A/C Switch (IF INSTALLED) – OFF
   b. CABIN PWR 12V Switch – OFF

   ALTERNATOR SELECTOR Switch – Move to BACKUP ALT
   (See Figure 2, Section 7)
3. BACKUP ALT Indicator - ILLUMINATED
4. BUS VOLTS – CHECK 27.5 V (minimum)
5. BATT AMPS – CHECK CHARGING (+)
6. REGULATOR SELECTOR Switch – Move to BACKUP REG
7. BACKUP REG Indicator - ILLUMINATED
8. BUS VOLTS – CHECK 27.5 V (minimum)
9. BATT AMPS – CHECK CHARGING (+)
10. ALTERNATOR SELECTOR Switch – Move to PRIMARY ALT
11. PRIMARY ALT Indicator - ILLUMINATED
12. BUS VOLTS – CHECK 27.5 V (minimum)
13. BATT AMPS – CHECK CHARGING (+)
14. REGULATOR SELECTOR Switch – Move to PRIMARY REG
15. PRIMARY REG Indicator - ILLUMINATED
16. BUS VOLTS – CHECK 27.5 V (minimum)
17. BATT AMPS – CHECK CHARGING (+)
18. Electrical Load – LOAD SHED as follows:
    a. ELECTRICAL A/C Switch (IF INSTALLED) – RETURN TO NORMAL
    b. CABIN PWR 12V Switch – RETURN TO NORMAL
19. Return to normal pre-flight checklist.

SECTION 5
PERFORMANCE

The performance of the aircraft is not affected with the Backup Alternator System Installed.

SECTION 6
LOADING INFORMATION

Factory installed or aftermarket installed optional equipment is listed in the weight and balance section of this Pilots Operating Handbook or Aircraft Flight Manual.

SECTION 7
DESCRIPTION AND OPERATION OF THE BACKUP ALTERNATOR SYSTEM

Description

The Backup Alternator System consists of a 70 Amp Alternator, an independent voltage regulator, 3 relays, drive system and switches. The 70 Amp Alternator is mounted to the front passenger side of the engine. The alternator is belt driven. The drive pulley is mounted to the starter gear flywheel on the front of the engine.

The 70 Amp backup alternator can be utilized to power the main aircraft bus in the event of a primary alternator failure. Load shedding may be required. The voltage regulator can be utilized in the event of a primary regulator failure.

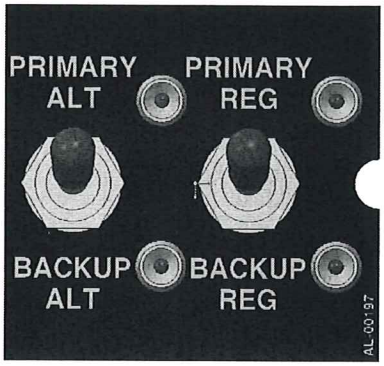

Figure 2 – Alternator and Regulator Selection Switch

Operation

The system is set up to allow either the primary alternator or the backup alternator power the electrical system with either the primary regulator or the backup regulator controlling the operating alternator. The system is set up in a manner that will not allow both alternators to be on the main bus at the same time. To operate the backup alternator, move the alternator selector switch to the backup regulator position. Load shedding may be required. To operate the backup regulator, move the regulator selector switch to the backup regulator position. Refer to Section 3 for the checklist to operate the Backup alternator and/or regulator correctly.