

**ROTORCRAFT  
FLIGHT MANUAL SUPPLEMENT  
For  
AS350 Series Helicopter with  
Geneva Aviation  
P122 or P132 Console**

**Registration Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

This **Electrical System Upgrade** installed in accordance with **STC SH4747NM** requires this supplement to be included in the FAA Approved Rotorcraft Flight Manual for the aircraft, only if any of the modifications shown in this Rotorcraft Flight Manual Supplement have been installed. The STC covers many modifications to the aircraft that are not listed in this supplement, and therefore do not require this supplement.

**THIS ROTORCRAFT FLIGHT MANUAL SUPPLEMENT  
IS FOR AIRCRAFT POST-MOD AMS07-4280**

This supplement only adds to the basic Rotorcraft Flight Manual. For limitations, normal procedures, emergency procedures and performance information not contained herein, consult the FAA Approved Rotorcraft Flight Manual.

*For* FAA Approval:   
Manager, Northwest Flight Test Section, AIR-715  
Federal Aviation Administration  
Seattle, Wa.

**LOG OF REVISIONS**

Rev. Level	Date	Description
-	1/24/2013	Initial Release
A	4/5/2013	Removed note in Section 3.4 on Analogue NR illumination; Updated Section 4.11 for Direct Battery switch operation. Added Section 4.14 for optional Position Light switch.
B	7/23/2013	Added P122 Console
C	8/27/2013	Added AS350B2
D	2/2/2017	Clarified labelling in Section 1.5. Added on-console float inflate switch in section 3. Modified emergency procedures for smoke in cockpit. Added Direct Battery switch information in Section 4. Added note on amber BATT light on CWP in Section 4.

**Note:**

The approval for the revision is implemented by the FAA Approval signature on the cover page.

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## 1. GENERAL INFORMATION

1.1. This document applies to AS350B2 and AS350B3 aircraft equipped with an electrical system post-mod AMS07-4280 "Change the Systems Control Unit SMS by a Multi Bloc Logical." It is incompatible with aircraft pre-mod AMS07-4280.

1.2. The electrical system in this rotorcraft has been modified by changing push button switches to toggle switches, as well as various other optional changes.

1.3. An optional Auxiliary Circuit Breaker Panel provides space in front of the pilot for switches and circuit breakers.

1.4. Some of the circuits have been wired differently from the factory original wiring, although the functional operation is unchanged. Refer to the installation documents when performing electrical maintenance on this aircraft.

1.5. Some switch names on the factory installed console may be changed on the Console (P122 or P132 Console). The following is a non-inclusive list of common switch name changes:

Eurocopter Switch Name	Geneva Switch Name
BATT	<b>See Section 4.9</b>
ACCU TST	HYD TEST
W/LT TST and FIRE TST	WARN/FIRE TEST

## 2. LIMITATIONS

2.1 Cyclic travel restricted by pilot's or copilot's leg.

### **Note: this is applicable only for P132 Console**

The P132 Console could limit cyclic travel toward the console if the Pilot's or Copilot's leg is wedged between the console and the cyclic. This may not be noticed except during flights requiring cyclic movements near lateral limits (such as with a substantial lateral C.G. loading, high crosswinds, or slope landings). To address the potential of flight control restriction, this aircraft has been modified with replacement Pilot and Copilot Cyclic Sticks.

Before flight, the pilot must verify that the factory pilot and copilot cyclic sticks have been replaced with Geneva RH Cyclic Stick G12316-26 or G12425-26 for the RH seat position and Geneva LH Cyclic Stick G12324-26 or G12426-26 for the LH seat position.

2.2 Placard, located on aft wall of P132 Console.

MAXIMUM INSTALLED RADIO WEIGHT: 30 LBS
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### 3. EMERGENCY PROCEDURES

3.1 Moving the MASTER CUTOFF switch toward the aircraft nose disconnects most electrical power to aircraft equipment except the following consumers:

- NR/N2 instrument
- Crew adjustable dome lights
- The FADEC engine start/stop switch (via a relay box) [AS350B3 only]

When the MASTER CUTOFF switch is in the CUTOFF position, devices powered by the Direct Battery bus will also receive power if the DIRECT BATTERY switch is in the ON position.

3.2 To engage the Generator Reset function, move the toggle of the GENERATOR ON / RESET switch to the aft position and hold in place for 2 seconds. Also, there is no GENE or GENE RST breaker on the Console; its function is handled by the CRANK breaker, located on the Console.

3.3 For Consoles equipped with a FLOAT ARM switch: The FLOAT INFLATE switch may be located on the cyclic stick mounted to the tube below the grip. To activate the switch, open up the cover and flip the toggle. Alternatively, the switch may be a locking toggle switch on the console. To activate the switch, pull out the toggle and move the switch forward. Refer to the float manufacturer's RFMS for procedures on inflating the floats.

3.4 The following changes must be made to the Eurocopter Flight Manual. Section numbers are given for the B3 version. Section numbers for the B2 manual are in brackets.

F/M Section 3.4.1 [3.5.1 for B2], Smoke in Cockpit/Cargo:  
Source not identified: replace steps 1-7 with:

- 1a. **[MASTER CUTOFF]** .....**CUTOFF**
- 1b. **[DIRECT BATT]** .....OFF
- 1c. **[BATT-EXT PWR]** .....OFF
2. **[GENERATOR]** .....OFF
3. **[AVIONICS MASTER]** .....OFF
4. Ventilate the Cabin:  
When smoke clears:
5. All Consumers .....OFF
- 6a. **[DIRECT BATT]** .....ON, Check DC  
parameters
- 6b. **[MASTER CUTOFF]** .....OFF, Check DC  
parameters
- 6c. **[BATT-EXT PWR]** .....ON, Check DC  
parameters
7. **[GENERATOR]** .....ON, Check DC  
parameters

F/M Section 3.4.1 [3.5.1 for B2]: replace CAUTION with:

**CAUTION:**

When MASTER CUTOFF is actuated or battery and generator are off line, the VEMD goes off and only the analogue NR indication remains on. Apply the procedure for failure of both screens (§ 3.5.1 [3.6.1 for B2] VEMD SCREEN FAILURE Section 3).

F/M Section 3.6.1 [3.7.1 for B2]: replace all references to:

**[BATT] ..... OFF**

With:

**[MASTER CUTOFF] ..... CUTOFF**

**[DIRECT BATT] ..... OFF**

F/M Section 3.5.1 [B3 only], Failure of Both Screens:

replace:

Can be a single failure when [BATT] and [GENE] are in "OFF" position (fire and smoke detection procedure)

With:

Can be a single failure when [MASTER CUTOFF] or battery switches and DC Generator are in "OFF" position (fire and smoke detection procedure)

F/M Section 3.6.4 [3.7.4 for B2]: replace references to:

**[BATT]**

With:

**[BAT-EXT PWR] and [DIRECT BATT]**

F/M Section 4.3.1: replace:

**[BATT] ..... ON**

With:

**[BAT-EXT PWR] ..... ON**

**[DIRECT BATT] ..... ON**

F/M Section 4.8: replace:

**[BATT] ..... OFF**

With:

**[BAT-EXT PWR] ..... OFF**

**[DIRECT BATT] ..... OFF**

## 4. NORMAL PROCEDURES

4.1 Push button switches on the console switch panel have been replaced with toggle switches. When a procedure calls for the "pushed" position for a switch, move the correct toggle switch to the ON position. For most switches, the ON position is toward the nose of the aircraft, or toward the ceiling if mounted on a vertical panel. Some switches may be a center-off type of switch with two ON positions.

4.2 For a center-off type of switch, the label will designate the action performed in each non-center position. For example, the anti-collision light switch is normally a center-off switch.

The label: ANTI-COL ALL / TAIL indicates that the up position turns on all strobe lights attached to this switch, and the down position turns on only the tail strobe light. When you see the slash character, think of it this way:  
UP / DOWN.

4.3 The BATT-EXT POWER, ACCU TST and MASTER CUTOFF switches are locking toggle style. Some of the remaining switches may optionally be locking toggle or normal toggle type switches. For locking toggle type switches, pull out on the toggle while moving it to disengage the locking feature. The MASTER CUTOFF switch, and no other, is color coded RED. The ACCU TST switch, and no other, is color coded YELLOW. Other switch toggles may optionally be color coded using colors other than red or yellow to help identify the switch.

4.4 The WARN / FIRE TST switch is a center-off type of switch. Move the switch toggle in the up direction to test all of the Caution Panel warning lights, and move the switch toggle in the down direction to test the Fire Warning System.

4.5 Most of the switch and circuit breaker locations are optional and will vary from aircraft to aircraft. Be sure to familiarize yourself with the arrangement of switches and circuit breakers in this particular aircraft.

4.6 The circuit breaker plunger can be pulled out to the OFF position. The plunger will "pop" out if the corresponding circuit is over-loaded. The circuit breaker can be reset by pushing in the plunger.

4.7 Circuit breakers may be located on the Console, the optional Auxiliary Circuit Breaker Panel, inside the Master Electrical Box, and are marked to identify the associated circuit.

4.8 The typical installation contains circuit breakers and switches for functions that may not be applicable to this particular aircraft. The non-applicable circuit breakers and switches may be re-labeled and wired for another function at the discretion of the installer, or they may be left uninstalled, otherwise they must be labeled to indicate that they are not used.

4.9 This rotorcraft is factory equipped with a 3-position BATT switch on the console. This switch has been replaced by the MASTER CUTOFF, BATT-EXT PWR and DIRECT BATTERY switches in the Console.

4.10 **NOTE:** Leaving the MASTER CUTOFF switch in the cutoff position (toggle toward the nose) provides power to certain devices, which will cause the battery to run down if this switch is left in the cutoff position when the aircraft is parked, regardless of the position of the BAT-EXT POWER switch.

4.11 The DIRECT BATTERY switch supplies some equipment directly through the PP50/PP46 bus-bar:

- Transponder
- VHF/NAV1
- Instrument Lighting (circuit No.2)
- One ICS Power Line (circuit No.2)

Thus on ground, powering the aircraft only via DIRECT BATTERY allows the crew to monitor radio communications and plan its navigation while saving battery power.

4.12 **NOTE:** When the BATT-EXT PWR switch is in the ON Position, the DIRECT BATTERY switch must be in the ON or the amber BATT light on the CWP will be illuminated.

4.13 **NOTE:** Leaving the DIRECT BATTERY switch in the ON position (toggle toward the nose) provides power to certain devices, which will cause the battery to run down if this switch is left in the ON position when the aircraft is parked, regardless of the position of the BAT-EXT POWER and MASTER CUTOFF switches.

4.14 The console switch legends are illuminated. Dimmer control for the legends is controlled by the rotary knob. For the P122, it is located on either the top of the console in the lower switch row or on the aft wall. For the P132 console, it is located on the RH side of the under the switch rail. Turning the knob clockwise increases the brightness for the legends.

4.15 For consoles equipped with a FLOAT ARM switch: Prior to takeoff over water, first check the FLOAT INFLATE switch to make sure it is OFF and covered. Next, ensure that the FLOAT ARM switch is in the armed position. Verify that the two FLOAT ARM amber indicator lights are illuminated.

4.16 For Consoles equipped with a POSITION LIGHT switch: Moving the switch to the OFF position switches off the position lights when the **[OFF / DAY / NIGHT]** selector on the instrument panel is in the "DAY" or "NIGHT" position. Optionally, moving the switch to the ON position may also switch on the position lights when the **[OFF / DAY / NIGHT]** selector on the instrument panel is in the "OFF" position.

**5. PERFORMANCE**

**5.1** No change to basic Flight Manual.