



**SUBJECT: AIRFRAME FUEL FILTER (P/N 350-600024)**

The Airframe Fuel Filter enables operation of the helicopter at low temperatures without the use of anti-ice additives in the fuel. The filter is designed to collect ice particles.

**APPLICABILITY :**

This Flight Manual Supplement must be used when the Airframe Fuel Filter is installed on PRE MOD 4305 AS 350 B3 helicopters with the Arriel 2B or 2B1 engine.

Department of Transport  
(Canada) Approved

**IMPORTANT NOTE**



THE INFORMATION AND DATA CONTAINED IN THIS DOCUMENT SUPERSEDE OR SUPPLEMENT THAT CONTAINED IN THE BASIC APPROVED FLIGHT MANUAL FOR THE AS 350 B3 HELICOPTER IN THOSE AREAS LISTED HEREIN. FOR LIMITATIONS, PROCEDURES AND PERFORMANCE NOT CONTAINED IN THIS DOCUMENT REFER TO THE APPROVED FLIGHT MANUAL AND OTHER APPLICABLE APPROVED FLIGHT MANUAL SUPPLEMENTS.

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SECTIONS 2, 3, 4, AND 5 OF THIS DOCUMENT COMPRISE THE APPROVED FLIGHT MANUAL SUPPLEMENT. COMPLIANCE WITH SECTION 2, LIMITATIONS, IS MANDATORY.

SECTIONS 1 AND 6 ARE UNAPPROVED AND ARE PROVIDED FOR INFORMATION ONLY.

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**RECORD OF REVISIONS**

Rev.	Pages at this Revision	Description, Reason Changed Pages	Prepared (name and date)	Checked (name and date)	App'd/Acc'd (Civil A/W Authority) (name and date)	Released (name and date)
0	1 through 5	Original Issue	H. Paulisch	B. Manson	TCCA Eric Cheung 10 Sept., 1998	B. Manson
1	1 through 5	Pages 4, revised Temperature Limitations	D. Kerr 13 May, 2003	B. Manson	TCCA Eric Cheung 13 May, 2003	B. Manson
2	1 through 7	Pages 1 through 7. Format update, text revisions.	D. Kerr 19 Dec., 2003	T. Czarnecki 19 Dec., 2003	TCCA Eric Cheung 19 Dec., 2003	B. Manson 19 Dec., 2003
3	1 through 7	Pages 1 through 7. Format update, text revisions.	D. Kerr 21 July 2004	C. Timmins 21 July 2004	TCCA E. Cheung 3 Aug. 2004	R. Manson 3 Aug. 2004
4	1 through 9	Revised Preflight Checks and operation of Press to Test button. Placard locations clarified. (Pages 3 to 7)	D. Kerr 12 June 2008	C. Timmins 13 June 2008	TCCA J. Palmer 13 June 2008	P. Garofalo 14 June 2008
5	1 through 8	Addition of illustration to Section 3. Revised Section 4, Normal Procedures, Before the First Flight of Each Day added before the Pre-Flight Check. Section 6, location of the Weight and Balance information corrected. (Page 6 to 8)	D. Kerr 17 August 2008	C. Timmins 18 August 2008	TCCA J. Palmer 7 December 2008	R. Manson 11 December 2008
6	1 through 8	Replace "boost" pump reference with "fuel" pump in Sec. 4. Addition of placard on Fuel Filter. (Pages 4 to 7)	D. Kerr 28 March 2008	C. Timmins 28 March 2008	TCCA J. Palmer 7 April 2008	R. Manson 9 April 2008

NOTE: Revisions to this document will be distributed to operators of this equipment by the STC holder.

NOTE: Revised portions of affected pages are identified by a vertical black line in the margin adjacent to the change.





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## 1. GENERAL (unapproved)

The installation of the Airframe Fuel Filter system enables operation of the helicopter at low operating temperatures (below  $-20^{\circ}\text{C}$ ) without the use of anti-ice additives in the fuel. The filter is designed to collect ice particles.

**NOTE** This document is only applicable to PRE MOD 4305 AS 350 B3 helicopters equipped with the Arriel 2B or 2B1 engine. For POST MOD 4305 AS 350 B3 helicopters equipped with the Arriel 2D engine, see Eurocopter Canada Limited FMS-ECL-154.

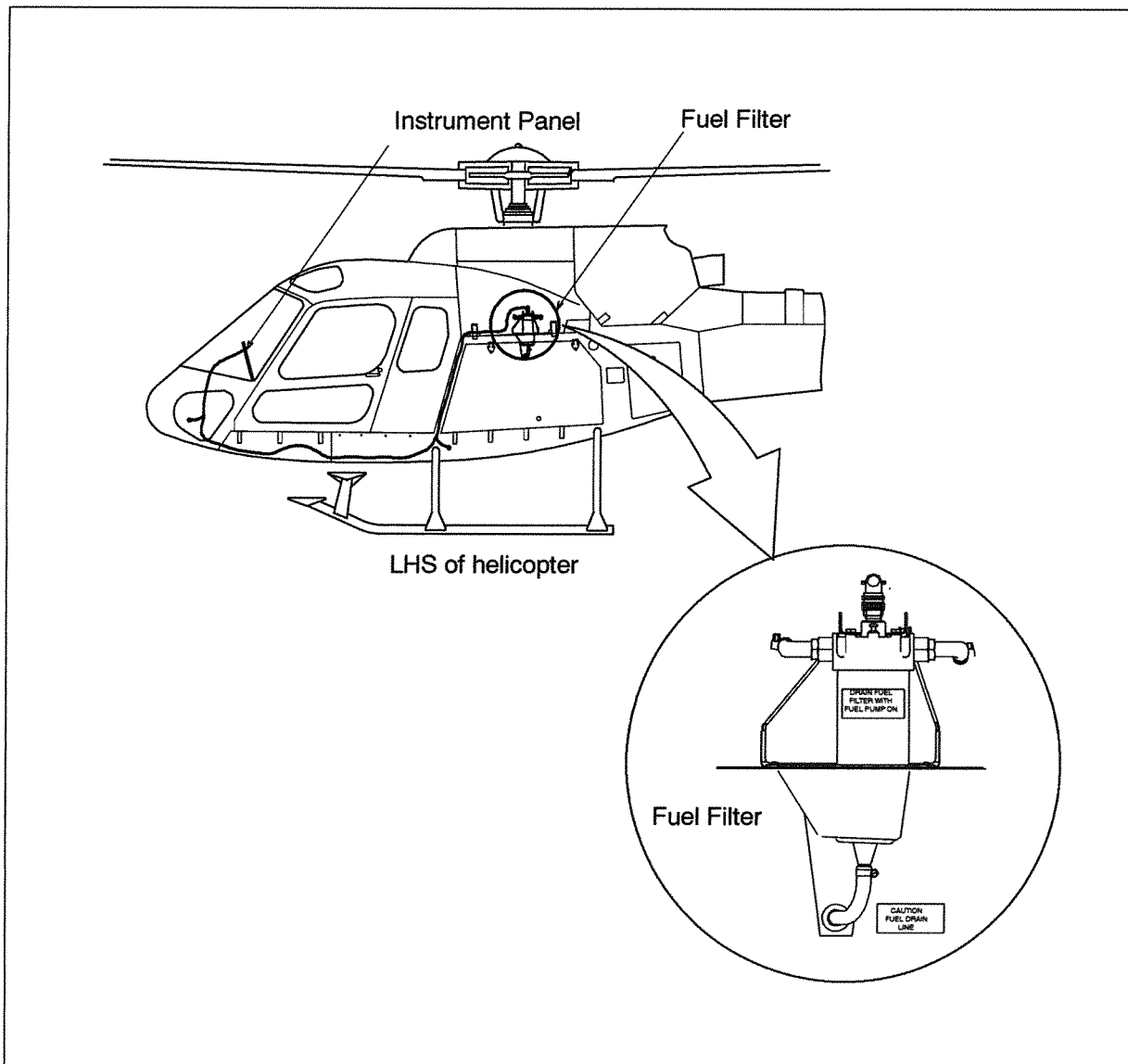


Figure 1 General Layout

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1. **GENERAL (unapproved) (continued)**

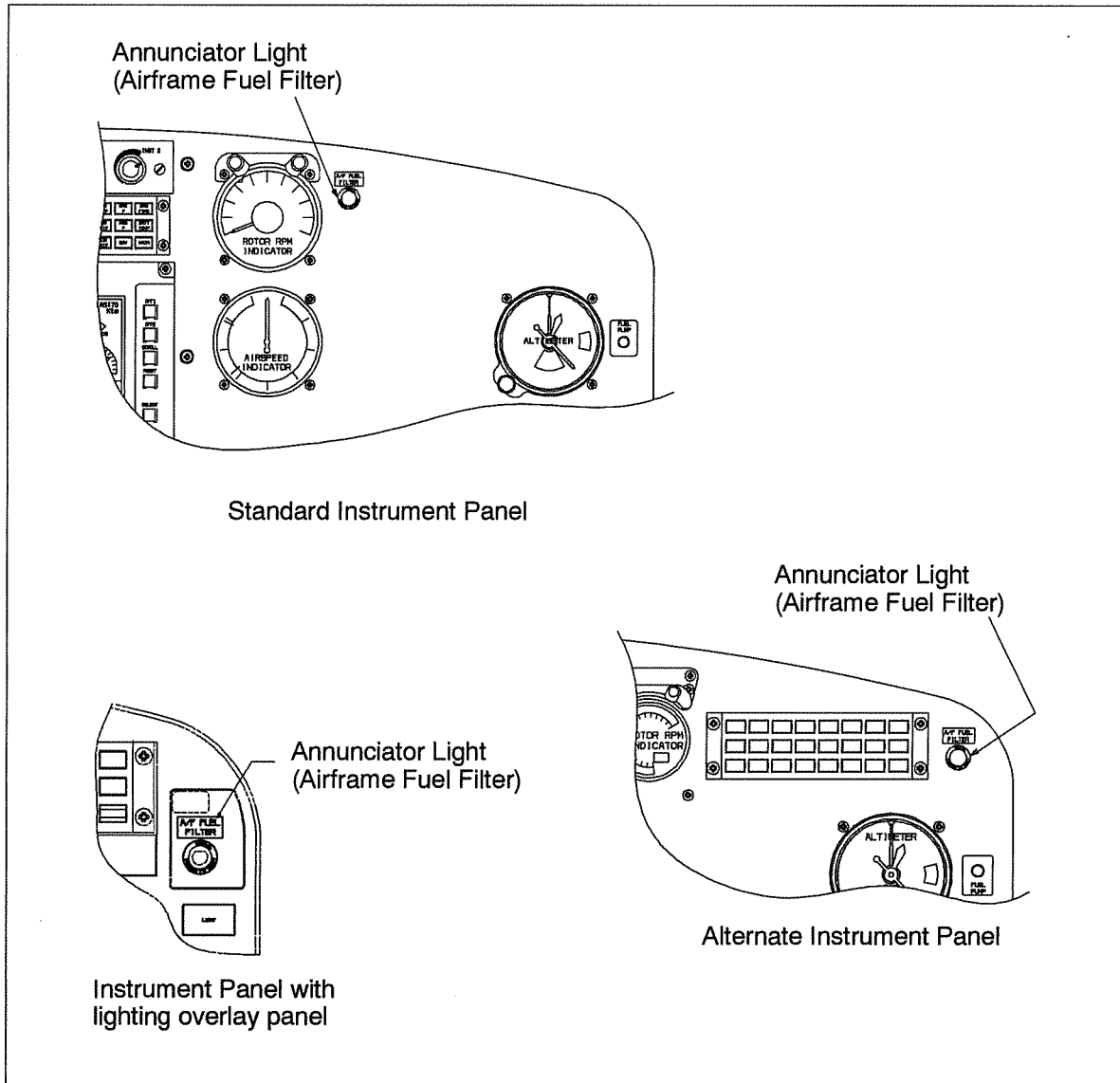


Figure 2 Annunciator Light locations on Instrument Panel

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**1. GENERAL (unapproved) (continued)**

Abbreviations and Definitions

ABBREVIATION	DEFINITION
A/F	Airframe
A/W	Airworthiness
Acc'd	Accepted
App'd	Approved
°C	Degrees Celsius
EC	Eurocopter France
ECL	Eurocopter Canada Limited
FILT	Filter
FMS	Flight Manual Supplement
Ft.	feet
Hp	Pressure Altitude
ISA	International Standard Atmosphere
LHS	Left Hand Side
MOD	Modification
Ng	Engine Generator Speed
P/N	Part Number
RHS	Right Hand Side
RPM	Revolutions Per Minute
STC	Supplemental Type Certificate
TCCA	Transport Canada Civil Aviation

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**2. LIMITATIONS**

**a. Operation**

Maximum Operating Altitude in Flight

Jet A	-	Hp = 21,000 ft.
Jet B	-	Hp = 15,000 ft.

Temperature Limitations

i. Minimum Temperature	-		No change
ii. Maximum Temperature	-	Jet A	- No change
	-	Jet B	- ISA + 30° C
			- Limited to + 43° C

Fuel Additives

Anti-ice additives are not required when operating with the standard fuel system.

When an operating Ferry Flight Fuel Tank is installed, anti-ice additives must be used at temperatures below -20°C.

**b. Placards**

There is one placard associated with the Airframe Fuel Filter Installation.

1) Placard:



**Location:** Located on the RHS of the Rotor RPM Indicator on the Standard Instrument Panel.

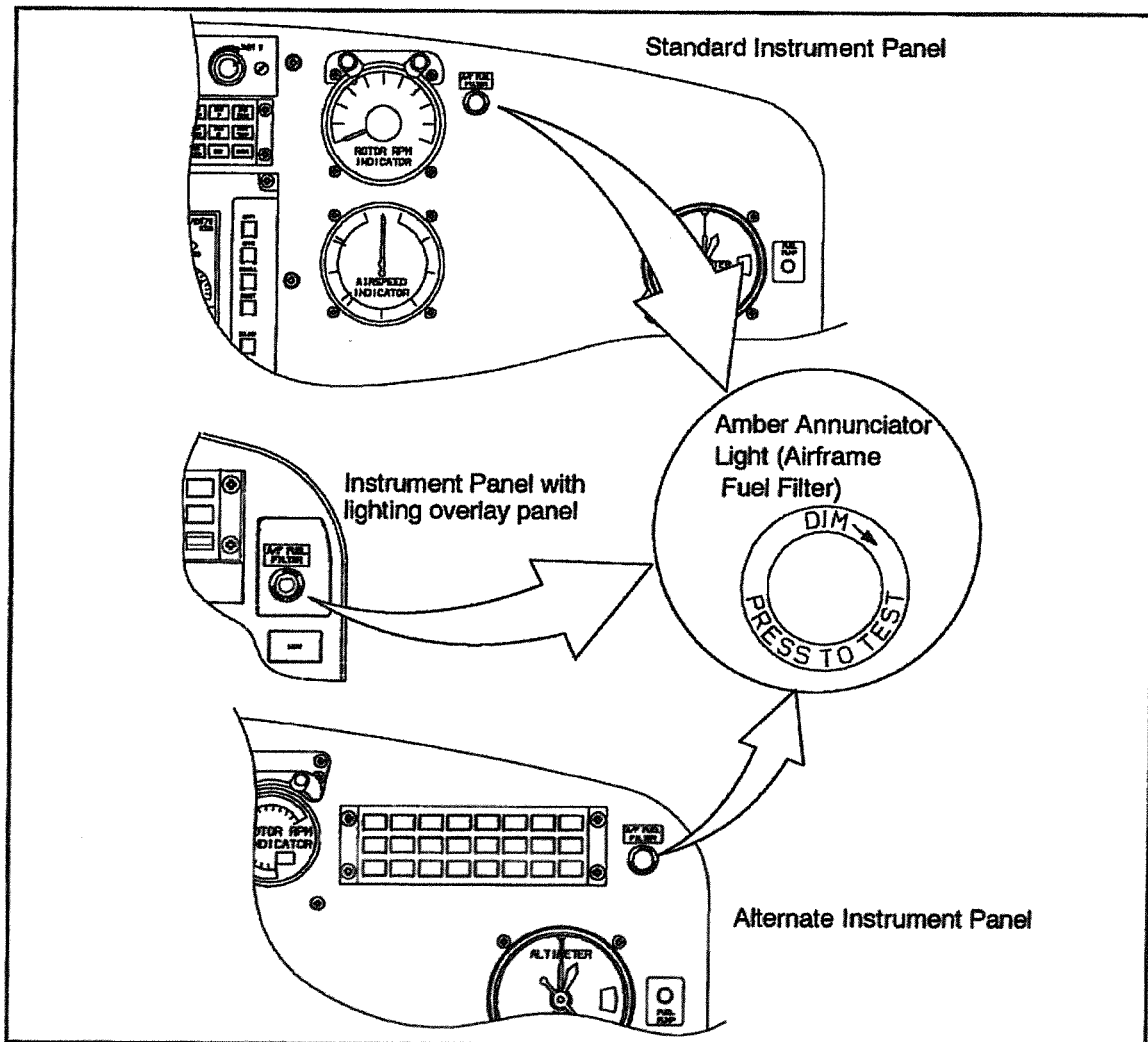
Located on the RHS of the Annunciator Panel Instrument Panel on the Alternate Instrument Panel or on the lighting overlay panel. All locations are in view of the pilot. Refer to Figure 2.



**3. EMERGENCY PROCEDURES**

- |   |   |
|---|---|
| <p>FUEL FILT LIGHT ON<br/><u>OR</u><br/>A/F FUEL FILTER LIGHT ON</p>  | <p>- Follow basic Flight Manual procedures for FUEL FILT LIGHT ON.</p>  |
| <p>FUEL FILT LIGHT ON<br/><u>AND</u><br/>A/F FUEL FILTER LIGHT ON</p> | <p>- Land as soon as possible<br/>- Monitor Ng; if oscillations occur, land immediately apply autorotation procedure.</p> |

**NOTE** If annunciator light illuminates during flight it may indicate an impending bypass of the filter.



**Figure 3 Press to Test / Annunciator Light on the Instrument Panel**



#### 4. NORMAL PROCEDURES

##### a. Before the first flight of each day

- Battery - ON
- Fuel pump - ON
- Fuel filter and lines - Open drain valve, purge any air or water from the system. Close drain valve.
- Drain valve and fuel filter - Check for leaks
- Fuel Pump - OFF
- Battery - OFF
- Fuel drain and transmission deck - No debris on fuel drain and/or transmission deck

##### b. Pre-Flight Check

- Battery - ON
- Press A/F FUEL FILTER by-pass "press to test" caution light - Caution light illuminates

#### 5. PERFORMANCE DATA

No Change.



## **6. WEIGHT AND BALANCE (UNAPPROVED)**

Total changes to weight and balance resulting from this modification are covered in the applicable instructions for continued airworthiness.

Items that are removed between routine operations: Not applicable

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