SUBJECT:

Required maintenance for the Airframe-Mounted Fuel Filter with Crash-Resistant Fuel System Installation (P/N 350-600044).

APPLICABILITY :

Aircraft with the subject modification embodied in accordance with TCCA STC No. SH21-25 or any relevant foreign approvals.

	NAME AND SIGNATURE	DATE	COMPANY DEPARTMENT
PREPARED BY:	D. Kerr	Digitally signed by D. Kerr Date: 2023.01.23 10:38:23 -05'00'	AHCA ENGINEERING
PREPARED BY:			
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REV. 1 ACCEPTED (Civil A/W Authority)	(As per ICA Compliance Check Sheet)		TCCA
REV. 1 RELEASED BY:	Loic Meuret	Digitally signed by Loic Meuret Date: 2023.03.06 12:04:28 -05'00'	AHCA ENGINEERING

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 42	Original Issue	D. Kerr 2 June 2021	P. Sharpe 2 June 2021	TCCA G. David 3 June 2021	P. Sharpe 3 June 2021
1	1 through 42	MOD OP4305 and 0720034 referenced in General Section. Addition of Export Control statement. Fasteners securing drain sump assembly modified. Rivet code changed for filler installation. Flat clamp omitted from harness routing. Weight and Balance chart revised. (Pages 5, 7 to 9, 11, 32, 34, 36, 37)	See page 1.	See page 1.	See page 1.	See page 1.

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.
NOTE: Minor changes are released in accordance with TCCA - ACCEPTED CAR 521-154 procedures (ref. DAPM-E-0001).

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1. GENERAL

A. The installation of the Airframe- Mounted Fuel Filter with Crash- Resistant Fuel System provides additional fuel filtering capability upstream of the existing engine mounted fuel filter. The unit has a finer filtration rating than the existing engine mounted fuel filter. This installation must be used with AS 350 B3 helicopters with Arriel 2D engine (MOD OP4305) and Fuel System Improving Crashworthiness (MOD OP4605 or MOD 0720034). Refer to Figure 1 for General Layout.

An annunciator light on the Instrument Panel will illuminate indicating an impending bypass. Refer to Figure 1.

The fuel filter unit is mounted on the transmission deck. A containment box surrounds the filter which has a removable maintenance cover. The fuel lines are of the same double walled construction as the remaining fuel lines on the aircraft.

The Airframe- Mounted Fuel Filter consists of the following main components:

Fixed Provisions

- Transmission Deck Doubler
- Filter Support Assembly
- Bottom Plate
- Drain Pan Assembly
- Harness Assembly

Detachable Provisions

- Fuel Filter
- Fuel Filter Cover Assembly
- Hose Assemblies

The Airframe- Mounted Fuel Filter is installed in accordance with Installation Procedure IP- AHCA- 142.

B. These Instructions for Continued Airworthiness are applicable to aircraft with the subject modification embodied.

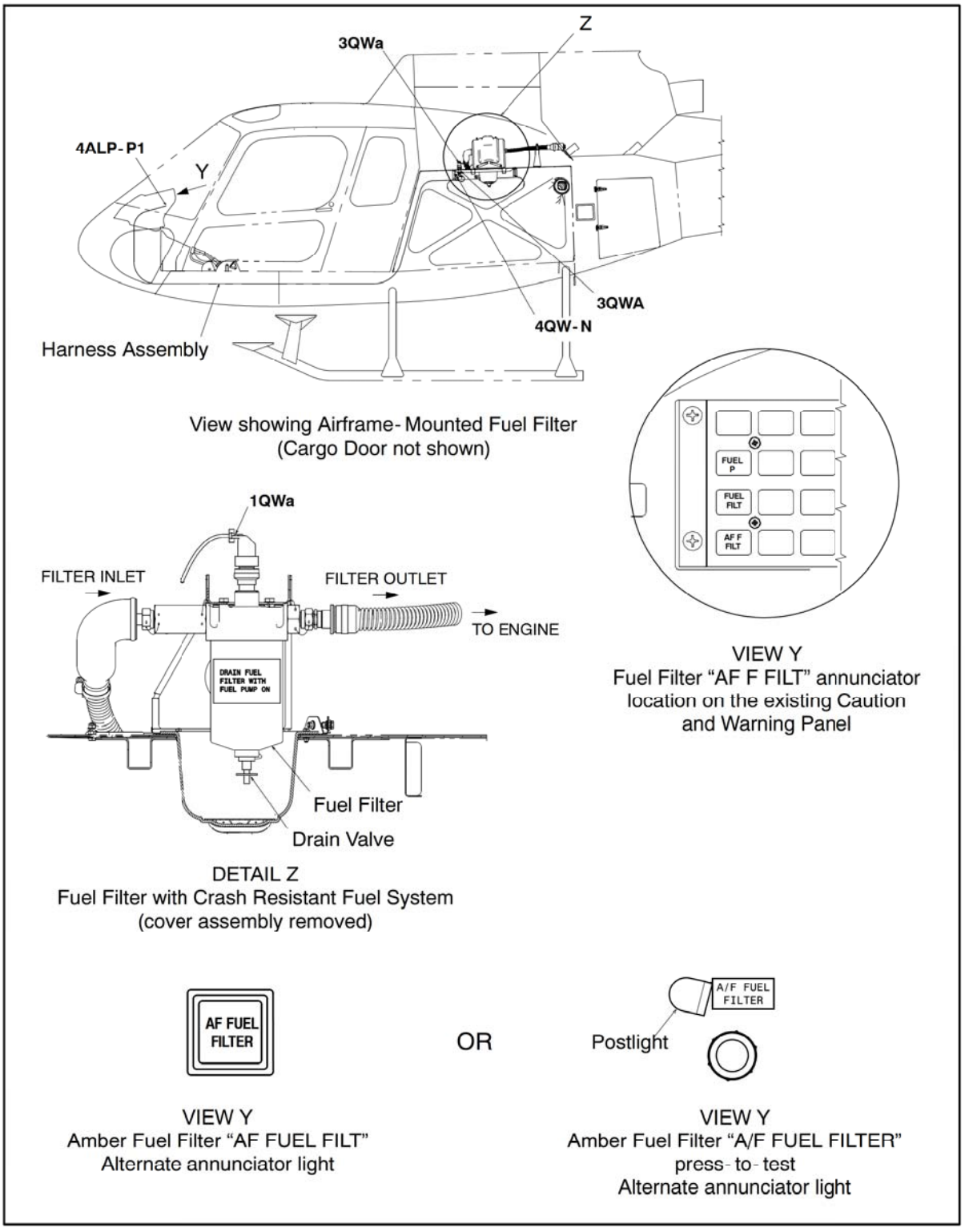

Figure 1 General Layout

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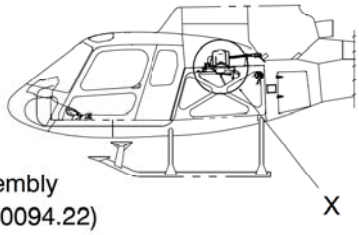
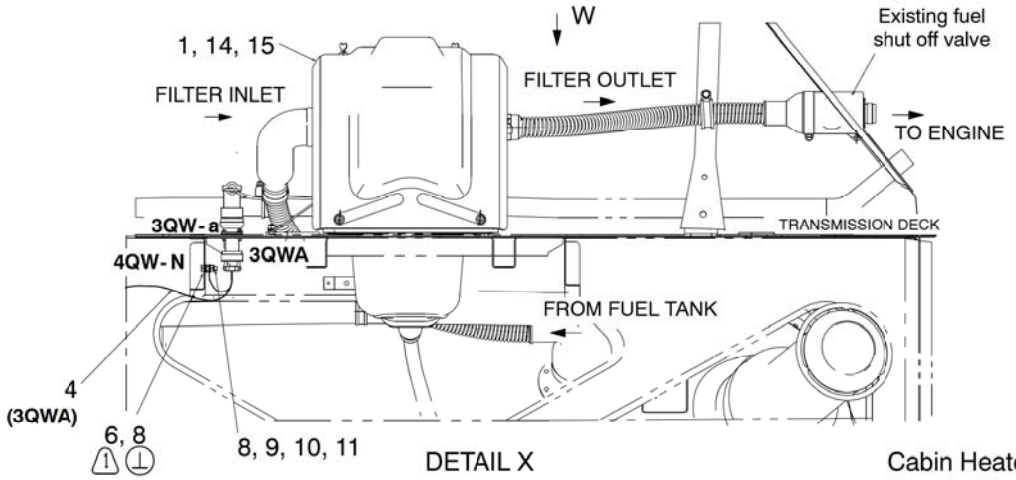
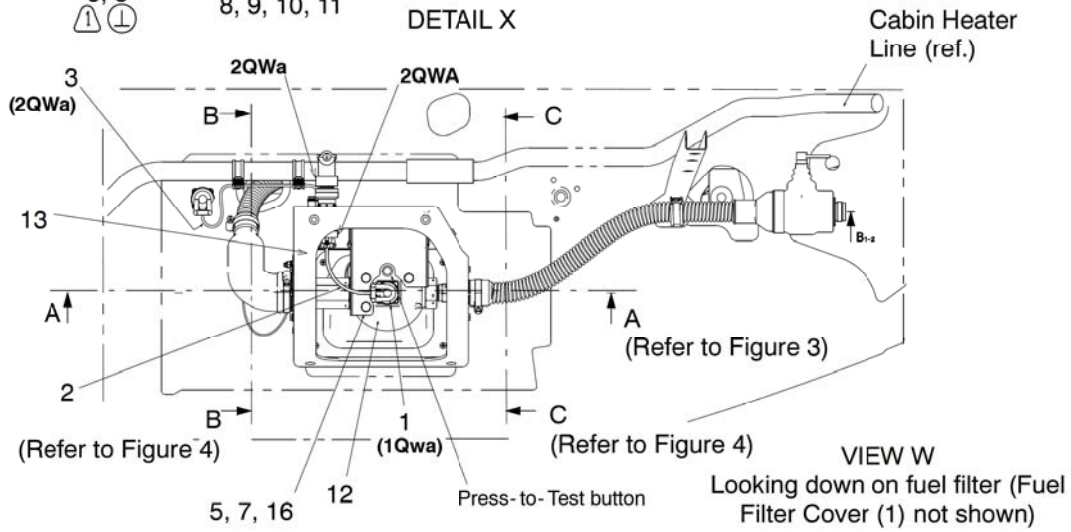
Legend (for Figure 2)

Item	Description
1.	Fuel Filter Cover Assembly
2.	Harness (P/N 130- 901614- 01)
3.	Harness (P/N 130- 901614- 02)
4.	Harness (P/N 130- 901614- 04)
5.	Screw (P/N AN4H4A)
6.	Screw (P/N LN9038- 05020)
7.	Washer (P/N AN960- 416)
8.	Washer (P/N LN9016- 05K)
9.	Washer (P/N LN9166- 5.3)
10.	Nut (P/N LN9343- 05)
11.	Nut (P/N LN9348.05)
12.	Fuel Filter
13.	Fuel Filter Enclosure Assembly
14.	Rubber Seal (P/N 350- 600094.22)
15.	Adhesive (P/N DHS172- 113.20)
16.	Lockwire
17.	Protective Coating (Nycote 7- 11 or ECS2228- 10)







For electrical bonding, contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover electrical bondings with protective coating (17) to overlap screw and washer by approximately 3mm.

NOTES:

Figure 2 Fuel Filter Installation

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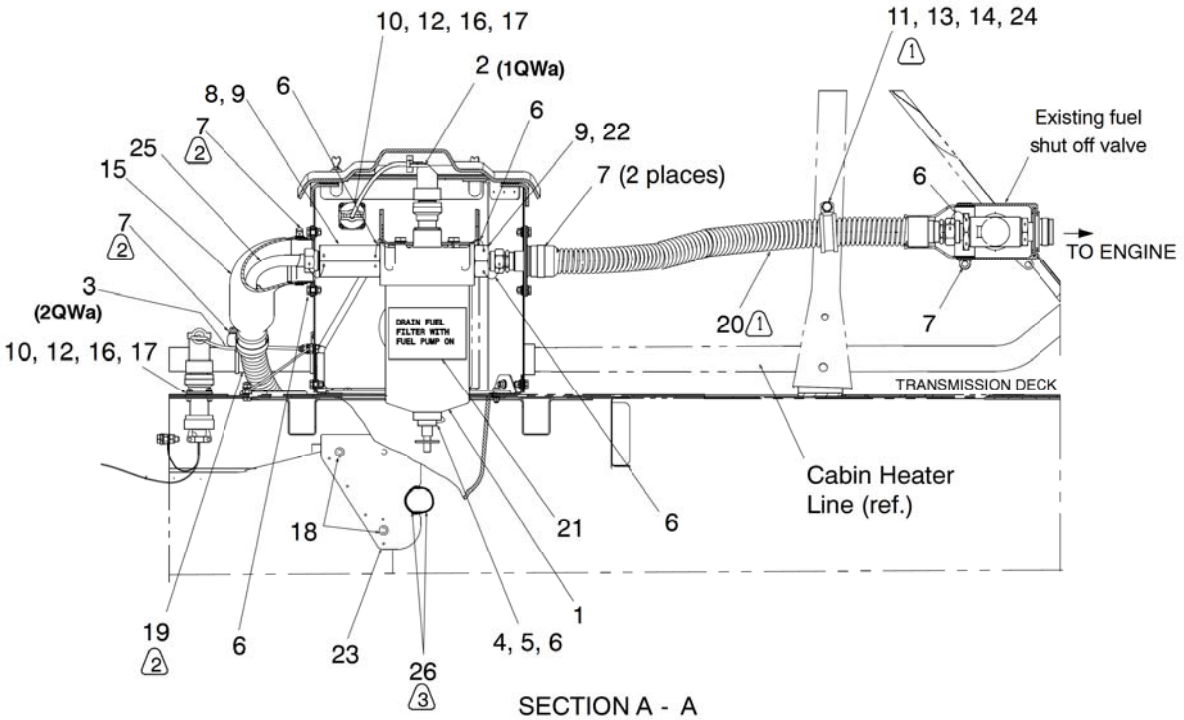
Legend (for Figure 3)

Item	Description
1.	Fuel Filter
2.	Harness (P/N 130- 901614- 01)
3.	Harness (P/N 130- 901614- 02)
4.	Drain Valve
5.	Packing (P/N MS29513- 012)
6.	Lockwire
7.	Hose Clamp
8.	Inlet Adapter Fitting
9.	Packing (P/N M83248/2- 912)
10.	Screw (P/N MS35206- 215)
11.	Screw (P/N 22208BC050012L)
12.	Washer (P/N AN960- 4)
13.	Washer (P/N 23111AG050LE)
14.	Nut (P/N ASN5230BH050N)
15.	Elbow
16.	Nut Plate
17.	Gasket
18.	Clip (P/N 133800B)
19.	Inlet Hose Assembly (P/N 9993190)
20.	Outlet Hose Assembly (P/N 9993191)
21.	Label (P/N 130- 600004.27)
22.	Outlet Adapter Fitting
23.	Filler
24.	Clamp
25.	Tube Assembly
26.	Edge Protection (P/N MBBN3406- 8)



SECTION A - A
(Refer to Figure 2)
Airframe Fuel Filter Installation

3. Apply edge protection (26) to hole, slotted area and front and rear panels.
2. Orient inlet hose (19) ends and tube assembly (25) and install hose clamps (7) to ensure constant upward slope from fuel tank to fuel filter (1).
1. Install clamp (24) to ensure constant upward slope of hose (20) from fuel filter (1) to fuel shut off valve.

NOTES:

Figure 3 Airframe- Mounted Fuel Filter Installation - detachable provisions

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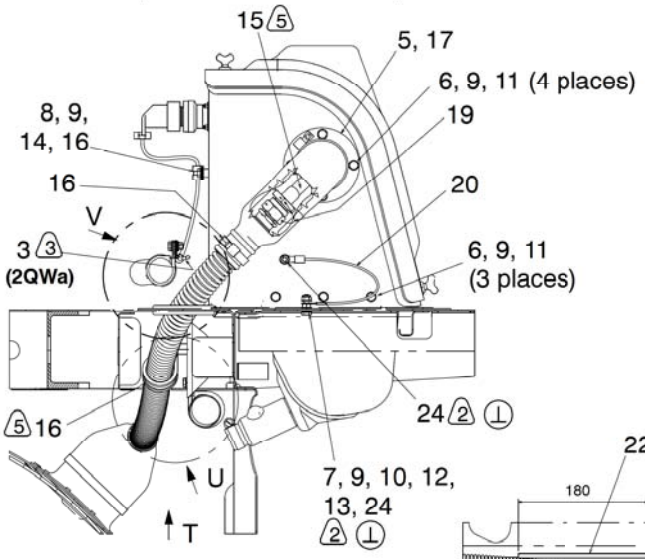
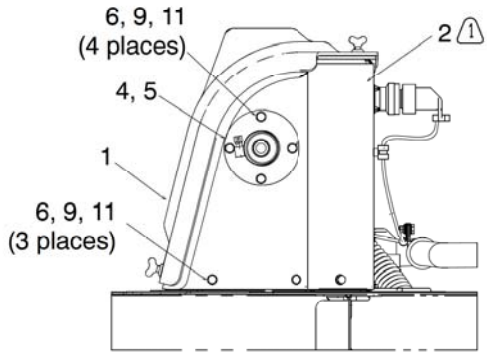
Legend (for Figure 4)

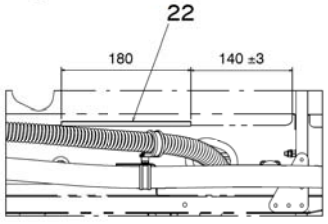
Item	Description
1.	Fuel Filter Cover Assembly
2.	Fuel Filter Enclosure Assembly
3.	Harness (P/N 130- 901614- 02)
4.	Outlet Hose Adapter
5.	Gasket
6.	Screw (P/N 22208BC050012L)
7.	Screw (P/N LN9038- 05020)
8.	Screw (P/N 22201BC050010L)
9.	Washer (P/N 23111AG050LE)
10.	Washer (P/N LN9166- 5.3)
11.	Nut (P/N ASN5230BH050N)
12.	Nut (P/N LN9343- 05)
13.	Nut (P/N LN9348- 05)
14.	Spacer (P/N NAS43DD3- 12)
15.	Tube Assembly
16.	Clamp
17.	Inlet Hose Adapter
18.	Inlet Hose Assembly (P/N 9993190)
19.	Lockwire
20.	Bonding Jumper
21.	Grommet
22.	Edge Protection (P/N MBBN3406- 7 - 180mm long)
23.	Sealant (P/N PR1422 B2)
24.	Protective Coating (P/N Nycote 7- 11)



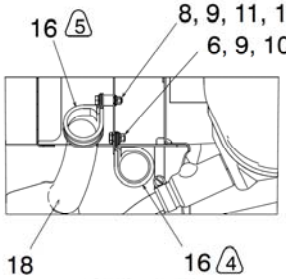
SECTION B - B
Filter Inlet side (Refer to Figure 2)



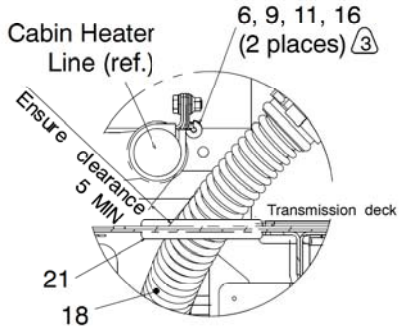
SECTION C - C
Filter Outlet side (Refer to Figure 2)



DETAIL T
Looking up at Inlet Hose Assembly and Edge Protection (Rotated 90°)



DETAIL U
Showing Inlet Hose Clamp below transmission deck



DETAIL V
Showing Wiring Harness clamped to P2 Line inboard side of Fuel Filter

(5) Orient inlet hose ends and tube assembly (15) and install clamp (16) to ensure constant upward slope from fuel tank to Fuel Filter.

(4) Re- route existing tank vent hose.

(3) Secure electrical harness (3) using clamps (16).

(1) (2) For electrical bonding, contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover electrical bondings with protective coating (24) to overlap screw, washers, nuts and bonding jumper by approximately 3mm.

(1) Fill gaps around edges of fuel filter enclosure (2) with sealant (23).

NOTES:

Figure 4 Airframe- Mounted Fuel Filter Installation

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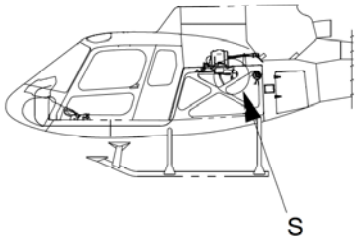
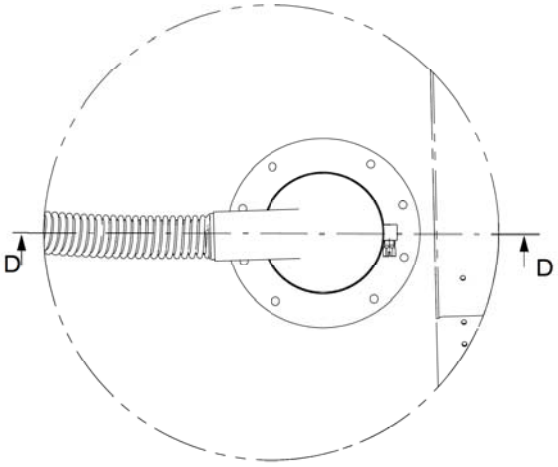
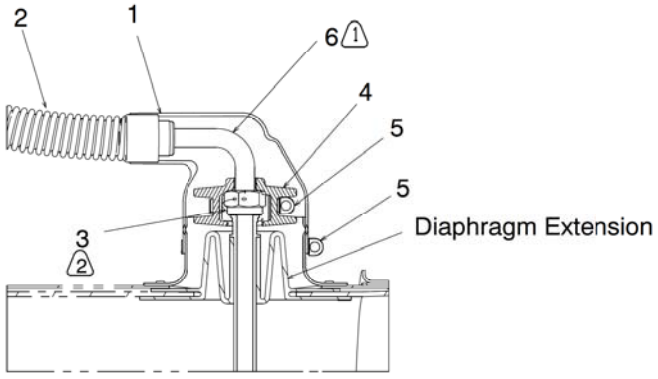
Legend (for Figure 5)

Item	Description
1.	Rubber Elbow
2.	Inlet Hose Assembly
3.	Lockwire
4.	Collar
5.	Hose Clamp
6.	Tube Assembly





DETAIL S



SECTION D - D

(2) Ensure lockwire (3) does not touch the inside of collar (4). Position hose clamp (5) in groove of collar (4).

(1) Orient inlet hose (2) ends and tube assembly (6) and install clamp (16, SECTION B- B in Figure 4) to ensure constant upward slope from fuel tank to fuel filter

NOTES:

Figure 5 Fuel Tank Outlet

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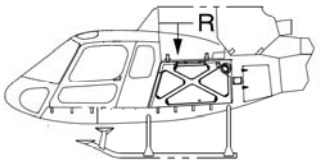
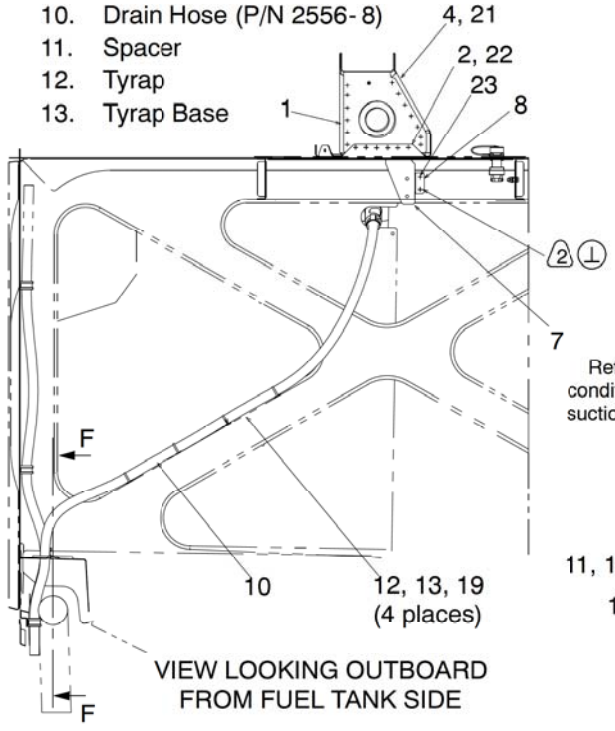
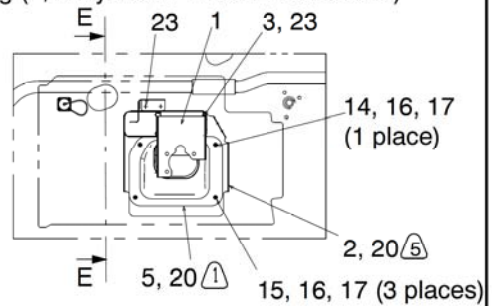
Legend (for Figure 6)

Item	Description
1.	Filter Support Assembly
2.	Base Plate
3.	Clip
4.	Plate
5.	Drain Sump Assembly
6.	Sleeve
7.	Bracket
8.	Angle
9.	Clamp
10.	Drain Hose (P/N 2556- 8)
11.	Spacer
12.	Tyrap
13.	Tyrap Base
14.	Screw (P/N LN9439M4X14)
15.	Screw (P/N LN9439M4X18)
16.	Washer (LN9016- 04K)
17.	Nut (LN 9338- 04)
18.	Tag (P/N 350- 600004.15)
19.	Clickbond Adhesive (P/N CB200- 40)
20.	Sealant (P/N PR 1422 B2)
21.	Rivet (P/N CR3213- 4- 5)
22.	Rivet (P/N MS20426AD4- 5)
23.	Rivet (P/N MS20470AD4- 5)
24.	Protective Coating (P/N Nycote 7- 11 or ECS2228.10)

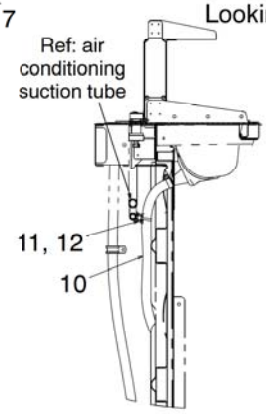




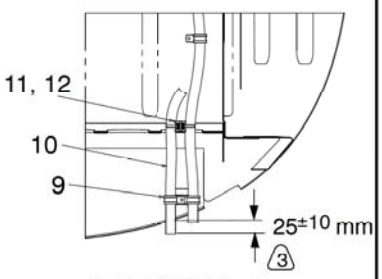
VIEW LOOKING OUTBOARD FROM FUEL TANK SIDE



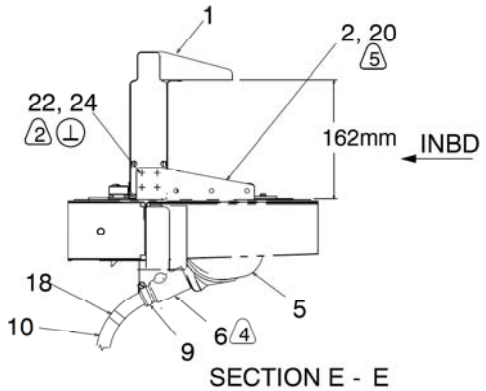
VIEW R
Looking down on transmission deck



Drain hose routing for aircraft equipped with Air Comm Air Conditioning System (Ref. TCCA STC SH18- 11, FAA STC SR00643DE)



SECTION F - F



SECTION E - E

5 Seal faying surface and fillet seal base plate (2) to transmission deck using sealant (20).
4 Sleeve (6) must contact drain sump assembly (5).
3 Trim to desired length.
⊥ 2 For electrical bonding, contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover rivet with protective coating (24) to overlap rivet by 3mm.
1 Seal faying surface of drain sump assembly (5) with sealant (20).

NOTES:

Figure 6 Airframe- Mounted Fuel Filter Installation - fixed provisions

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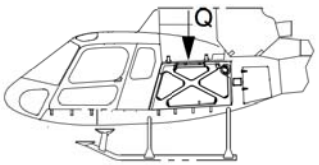
Legend (for Figure 7)

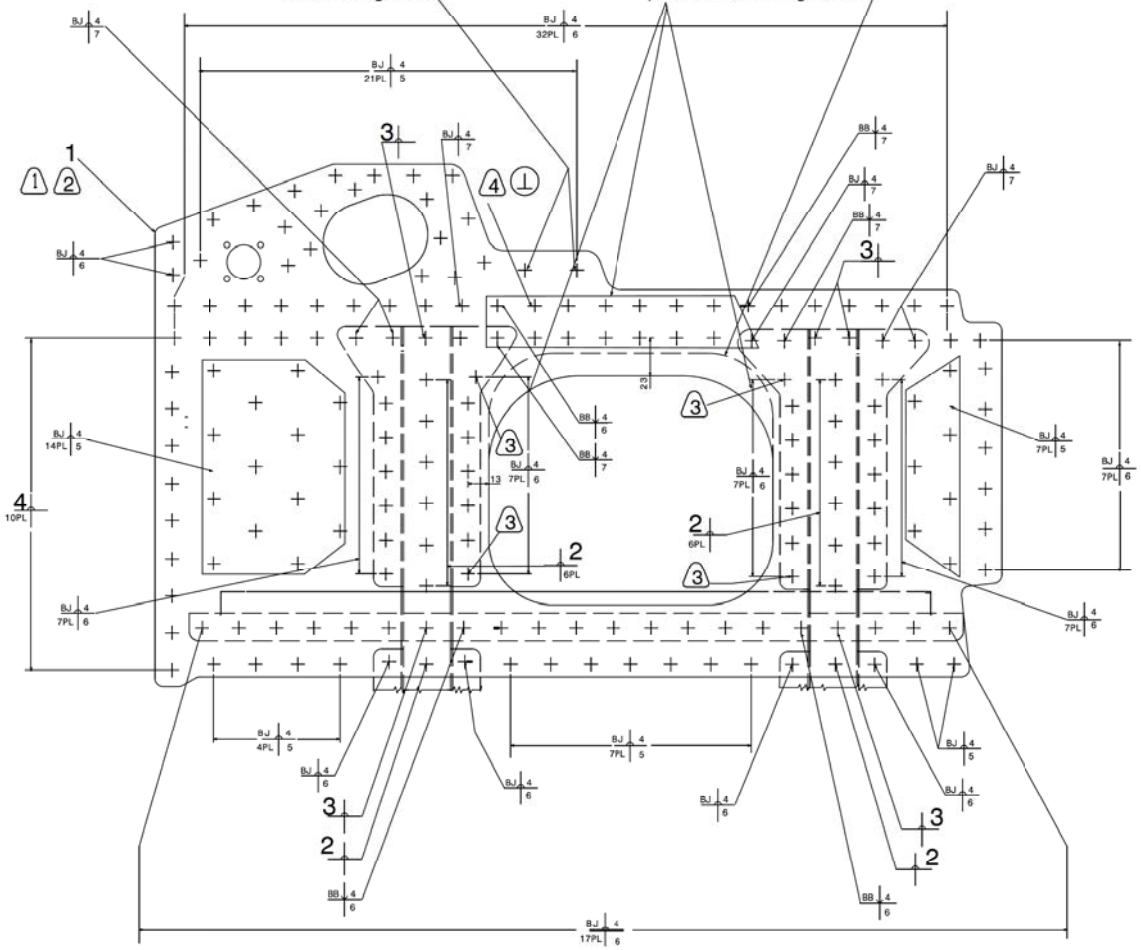
Item	Description
1.	Doubler
2.	Blind Rivet (P/N CR3213- 4- 02 or NAS9301B- 4- 02)
3.	Blind Rivet (P/N CR3213- 4- 03 or NAS9301B- 4- 03)
4.	Monel Blind Rivet (P/N NAS9307M- 4- 03 or CR3523- 4- 03)
5.	Sealing Compound (P/N PR 1422 B2 or P/N PR 1771 B2)



Existing cutout in transmission deck if AHCA Fuel Filter P/N 350- 600024 has been removed.

Rivets installed with base plate. Refer to Figure 8.

Rivets installed with base plate. Refer to Figure 8.



VIEW Q
View looking down on Transmission Deck

Rivet Code

Code	Type
BB	MS20426AD
BJ	MS20470AD

(4) For electrical bonding, contact area to be cleared of all non- conductive coating 2- 4mm beyond contact area.

(3) If helicopter was equipped with previous AHCA P/N 350- 600024, match drill holes in these locations.

(2) Edge of doubler (1) may be trimmed if required. Maintain a minimum rivet edge of 6mm.

(1) Seal faying surfaces and fillet edges of both doubler (1) to transmission deck using sealant (5).

NOTES:

Figure 7 Installation of Doubler on Transmission Deck

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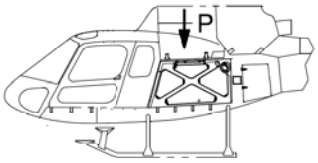
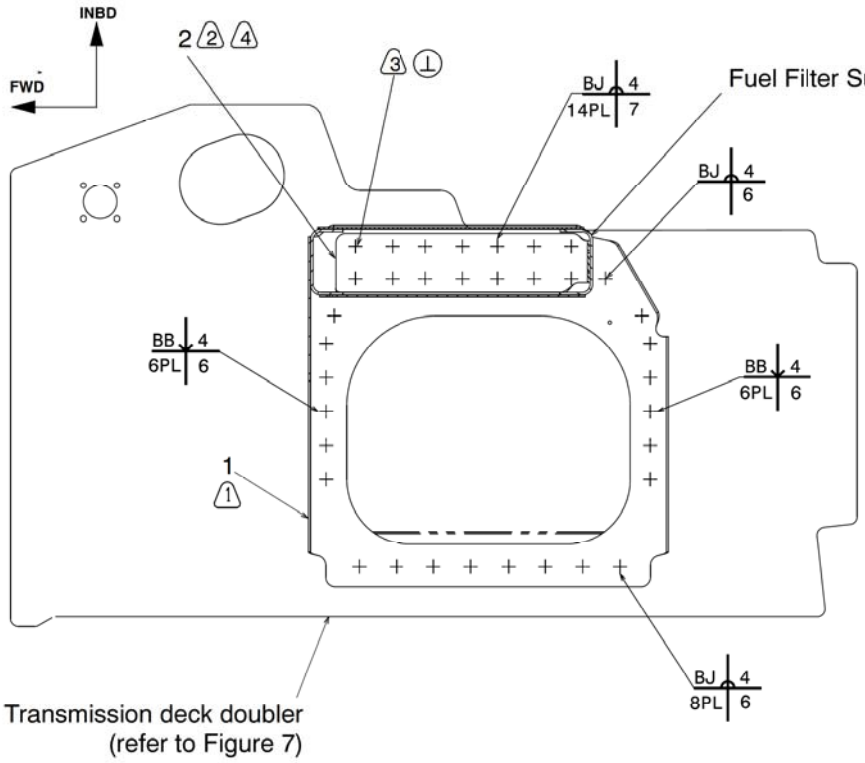


Legend (for Figure 8)

Item	Description
1.	Base plate
2.	Clip
3.	Sealing Compound (P/N PR 1422 B2)
4.	Protective Coating (P/N Nycote 7- 11 or ECS2228.10)



VIEW P

View looking down on Clip and Bottom Plate

Rivet Code

Code	Type
BB	MS20426AD
BJ	MS20470AD

4 To locate clip (2), position fuel filter support onto base plate (1).

⊥ 3 For electrical bonding, contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover rivet with protective coating (4).

2 Seal faying surfaces and fillet edges of clip (2) to base plate (1) using sealant (3).

1 Seal faying surfaces and fillet edges of base plate (1) to transmission deck doubler using sealant (3).

NOTES:

Figure 8 Bottom Plate and Clip on Transmission Deck

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C. REFERENCES

DOCUMENT	DOCUMENT TITLE
AC- 43.13- 1B	Advisory Circular, Acceptable Methods, Techniques and Practices - Aircraft Inspection and Repair
AMM	Aircraft Maintenance Manual
IP- AHCA- 142	Installation Procedure
Manual Number- 1743640- 01	"Operating and Design Specifications", Fuel Filter Assembly, Purolator Products Company
MTC	Standard Practices Manual

D. ABBREVIATIONS & DEFINITIONS

ABBREVIATION	DEFINITION
Acc'd	Accepted
AF F FILT	Airframe Fuel Filter
AHCA	Airbus Helicopters Canada Limited
App'd	Approved
App	Appendix
A/W	Airworthiness
CAR	Canadian Aviation Regulations
CRFS	Crash Resistant Fuel System
DAPM	Design Approval Procedure Manual
EASA	European Aviation Safety Agency
FAA	Federal Aviation Administration
FUEL FILT	Fuel Filter
FUEL P	Fuel Pressure
FWD	Forward
ICA	Instructions for Continued Airworthiness
INBD	Inboard
LH	Left- Hand
LHS	Left- Hand Side
max.	maximum
MDL	Master Drawing List
MOD	Modification
min.	minimum
No.	Number
OAT	Outside Ambient Temperature
P/N	Part Number
Para.	Paragraph
ref.	reference

D. **ABBREVIATIONS & DEFINITIONS** (continued)

ABBREVIATION	DEFINITION
Rev.	Revision
STC	Supplemental Type Certificate
TCCA	Transport Canada Civil Aviation
WDM	Wiring Diagram Manual

E. **UNITS OF MEASUREMENT**

ABBREVIATION / SYMBOL	UNIT OF MEASUREMENT
D	Days
FH	Flight Hours
hrs	hours
in	inch
kg	kilogram
lb	pound
mm	millimeters
M	Months
Nm	Newton Meter

2. AIRWORTHINESS LIMITATIONS

Canadian Approval
The Airworthiness Limitations section is approved by the Minister of Transport and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA Approval
The Airworthiness Limitations section is FAA approved per Article II of the Bilateral Aviation Safety Agreement (BASA 2000) and Section III, Para. 3.2.2 of the implementation procedures, 2008 and specifies inspections and other maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

EASA Approval
The Airworthiness Limitations section is approved and variations must also be approved.

No Airworthiness Limitations associated with this installation.

3. CONTROL AND OPERATION

Apart from the following, control and operation of the aircraft remains unchanged:

The Airframe- Mounted Fuel Filter with Crash- Resistant Fuel System provides additional fuel filtering capability upstream of the existing engine mounted fuel filter. An annunciator light will illuminate indicating an impending bypass. Refer to Figure 1. A partially blocked filter element will cause the differential pressure switch in the head assembly to close and an annunciator to illuminate. If the filter element becomes fully blocked, a differential pressure activated valve will permit fuel to bypass the filter.

If the annunciator is the press- to- test type, a post light, controlled by an existing dimmer switch located on the Instrument Panel is used to illuminate a label. Refer to Figure 1.

For information on operating the "Purolator" Fuel Filter, refer to the "Purolator" Operating and Design Specifications, Fuel Filter Assembly Manual, Document Number 1743640- 01 (Appendix A).

4. INSPECTION SCHEDULE AND MAINTENANCE ACTION

NOTE: Filter Element can be replaced more frequently if operational requirements dictate.

NOTE: Should the "AF F FILT" annunciator (or alternate) illuminate, the fuel filter element must be replaced.

Refer to Section 8 if removing or replacing any parts.

Refer to the "Purolator" Operating and Design Specifications, Fuel Filter Assembly Manual, Document Number 1743640- 01, Revision A, dated December 29, 2020 (or latest version). Refer to Appendix A of this document.

NOTE: Use torque per MTC, Chapter 20.02.05.404, unless otherwise specified.

NOTE: Remove Fuel Filter Cover Assembly to gain access to filter assembly and re- install after inspection/maintenance.

4.1. INSPECTION SCHEDULE

4.1.1. Before the first flight of each day:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Ensure fuel pump is off and check Fuel Filter (1) and lines, shown in Figures 3 and 6 for:	
	a. debris in drain sump assembly (5), below the filter and/or on the transmission deck. (Refer to Figure 6).	a. Remove debris and clean as necessary.
	b. secure mounting and connection of fuel filter (1), inlet hose (19) and outlet hose (20). (Refer to Figure 3).	b. Secure as required.
B	- Turn on fuel pump and check for water residing in fuel filter unit. If OAT>0°C, open drain valve and purge any water from the filter unit. Close drain valve and check Fuel Filter (1) and lines, shown in Figure 3 for:	
	a. leaks and security	a. Check valve seating, replace packing (3, P/N MS29513- 012) as necessary. Secure as required.

Table 1 Inspection Schedule and Maintenance Action
Before the first flight of each day
(continued on following page)

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.1. Before the first flight of each day:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
C	- Press the Press- to- Test button located on the inboard side of the Fuel Filter, shown in Figure 2:	
	a. The AF F FILT annunciator - lamp must illuminate.	a. If lamp fails to illuminate, refer to Section 6, Troubleshooting, item 3, in this document.
	b. Ensure light goes out when Press- to- Test Button is released.	b. If lamp fails to go out, do the fault isolation procedure for the Caution and Warning Panel. Refer to AS 350 B2/B3 AMM, Chapter 31- 51- 00, 1- 1.

Table 1 Inspection Schedule and Maintenance Action
Before the first flight of each day

NOTE: The "Before the first flight of each day" task can be carried out by a suitably trained pilot or maintenance personnel.

4.1.2. Engine Prestart Check (if operating with "A/F FUEL FILTER" Press- To- Test annunciator light):

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Press "A/F FUEL FILTER" by- pass "PRESS- TO- TEST" annunciator light:	
	a. apply power to 4 Alpha Warning Panel (Master/Battery switch to ON) and press "A/F FUEL FILTER" by- pass PRESS- TO- TEST annunciator - lamp must illuminate.	a. If lamp fails to illuminate, refer to Section 6, Troubleshooting, Item 1, in this document.

Table 2 Inspection Schedule and Maintenance Action
Engine Prestart Check

NOTE: The "Engine Prestart Check" task can be carried out by a suitably trained pilot or maintenance personnel.

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.3. Every 150 FH or 12 M (Margin: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	- Push the Press- to- Test button located on the inboard side of the Fuel Filter, shown in Figure 2:	
	a. The "AF F FILT" annunciator - lamp must illuminate.	a. If lamp fails to illuminate, refer to Chapter 6, Troubleshooting, item 3, in this document.
	b. Ensure light goes out when Press- to- Test Button is released.	b. If lamp fails to go out, do the fault isolation procedure for the Caution and Warning Panel. Refer to AS 350 B2/B3 AMM, Chapter 31- 51- 00, 1- 1.
B	- Check postlight (if applicable) on instrument panel, shown in Figure 1 for:	
	a. proper operation	a. If light is not functioning refer to Section 6.
	b. security	b. Secure as required.
C	- Visually inspect Harness Assemblies (2, 3 & 4), shown in Figure 2 for:	
	a. cracks, fraying, burns and chaffing	a. Contact AHCA for replacement harness.
	b. security	b. Secure as required.
D	- Check hardware at ground location (4QW- N) shown in Figure 2 for:	
	a. security	a. Secure as required.
E	- Check mounting hardware (8 & 10) for harness item 2, shown in Figure 3 for:	
	a. security	a. Secure as required.
F	- Check inlet hose (19) and outlet hose (20), shown in Figure 3 for:	
	a. leaks	a. If leaks are found, contact AHCA for replacement hose. Refer to Figure 3 for part numbers.
	b. cracking	b. No cracking is allowed. If cracking is found, contact AHCA for replacement parts.

Table 3 Inspection Schedule and Maintenance Action
Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first
(continued on following page)

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.3. Every 150 FH or 12 M (Margin: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
G	- Check rubber seal (14), shown in Figure 2 for:	
	a. security	a. Secure rubber seal using adhesive (15, P/N DHS172- 113.20).
	b. cracking	b. No cracking is allowed. If cracking is found, contact AHCA for replacement parts.
H	- Check fuel filter cover assembly (1) and fuel filter enclosure assembly (2), shown in Figure 4 for:	
	a. cracking	a. No cracking allowed. If cracks are found contact AHCA for replacement parts.
	b. loose hardware at attachment locations	b. Secure as required.
I	- Check bonding jumper (20), shown in Figure 4 for:	
	a. security	a. Secure as required.
	b. cracking	b. No cracking is allowed. Contact AHCA for replacement part if cracking found.
	c. kinking	c. If kinking found, adjust as required.
J	- Check edge protection (26) on FWD and AFT panel in cargo compartment, shown in Figure 3 for:	
	a. wear on hole, slotted area and front and rear panels	a. Replace edge protection if signs of deterioration or damage is present.
K	- Check edge protection (22) on aircraft frame in cargo compartment, shown in Figure 4 for:	
	a. wear	a. Replace edge protection if signs of deterioration or damage is present.
L	- Check drain sump assembly (5), shown in Figure 6 for:	
	a. cracks or deformation	a. No cracks or deformation are allowed. If cracks or deformation are found, contact AHCA for replacement parts.
M	- Check sleeve (6), shown in Figure 6 for:	
	a. security	a. Secure as required.
	b. dislocation	b. Locate sleeve to contact drain sump assembly (5).

Table 3 Inspection Schedule and Maintenance Action
Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first
(continued on following page)

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.3. Every 150 FH or 12 M (Margin: 15 FH or 36 D) to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
N	- Check drain hose (10), shown in Figure 6 for:	
	a. leaks	a. If leaks are found, contact AHCA for replacement hose. Refer to Figure 6 for Part Number.
	b. cracking	b. No cracking is allowed. If cracking is found, contact AHCA for replacement parts.
	c. Check clamp (9) for security	c. Secure as required.
O	- Check top doubler (1) and bottom doubler (2), shown in Figure 7 for:	
	a. cracks or corrosion	a. No cracks or corrosion are allowed. If cracks or deformation are found, contact AHCA for replacement parts.
P	- Check base plate (1) and clip (2), shown in Figure 8 and filter support assembly (1), shown in Figure 6 for:	
	a. cracks or corrosion	a. No cracks or corrosion are allowed. If cracks or corrosion are found, contact AHCA for replacement parts.
Q	- Check placards and markings shown in Figures 15, 16, 17, 18 & 19 (Section 10) for:	
	a. legibility	a. If placards and markings have become illegible, contact AHCA for replacement parts.
	b. secure mounting	b. Secure, reattach placards as required

Table 3 Inspection Schedule and Maintenance Action
Every 150 FH or 12 M, to coincide with the 150 FH or 12 M helicopter inspection, whichever occurs first

4.1.4. Every 600 FH or 24 M (Margin: 60 FH or 73 D) to coincide with the 600 FH or 24 M helicopter inspection, whichever occurs first:

ITEM	INSPECTION OR MAINTENANCE WORK	CORRECTIVE ACTION
A	Perform Operational Test - Fuel Filter Switch and Bypass Valve	See Operational Test Instructions in Section 4.1.5. of this document.
B	Replace Fuel Filter Element	See Replacement Instructions in Section 4.1.6. of this document.

Table 4 Inspection Schedule and Maintenance Action
Every 600 FH or 24 M, to coincide with the 600 FH or 24 M helicopter inspection, whichever occurs first

4. **INSPECTION SCHEDULE AND MAINTENANCE ACTION** (continued)

4.1.5. Operational Test - Fuel Filter Switch and Bypass Valve

NOTE: This test simulates a clogged filter test.

a. Observe FUEL SYSTEM General Safety Instructions. Refer to AMM, Chapter 28- 00- 00, 3- 1.

b. Remove cover from enclosure.

c. Apply power to annunciator panel. Press the Press- To- Test button located on the top inboard side of the fuel filter, "AF F FILT", annunciator (or alternate) must illuminate depending on configuration.

d. Drain filter bowl into a container.

e. Replace filter element with clean dummy element (P/N 1741185) and re- install filter bowl.

f. Turn on fuel pump and start engine. Failure to start engine may indicate improper bypass valve functioning.

g. The "AF F FILT", annunciator (or alternate) should illuminate.

h. When test is successfully completed, shut down engine, turn off fuel pump and drain filter bowl into a container. Remove dummy element and install filter element. Follow instructions given in Section 4, 4.1.6. Replacement - Fuel Filter Element.

i. Open fuel filter bowl drain valve and operate fuel pump until all air is purged. Close fuel filter drain valve and ensure there are no leaks.

j. Replace cover of enclosure.

4.1.6. Replacement - Fuel Filter Element

a. Observe FUEL SYSTEM General Safety Instructions. Refer to AMM, Chapter 28- 00- 00, 3- 1.

b. Remove cover from enclosure.

c. Drain fuel from filter bowl into a container.

d. Refer to Appendix A "Operating Instructions" Purolator Products Company for Fuel Filter Element Change.

e. Once fuel filter is installed, operate fuel pump and open fuel filter bowl drain valve until all air is purged.

NOTE: The Purolator Filter Assembly (Part No. 1743640- 01) Replacement Element Kit is also available, Purolator Products Company Part No. 1743645.01. This kit consists of a seal, an O- ring and an element assembly.

5. **REPLACEMENT COMPONENTS AND REPAIR/OVERHAUL INFORMATION**

Contact AHCA for replacement parts. No overhaul information required for this installation.

For replacement components or repair information:

Airbus Helicopters Canada Limited
1100 Gilmore Road, P.O. Box 250
Fort Erie, Ontario L2A 5M4 Canada
Telephone: (905) 871- 7772

Website: www.airbushelicopters.ca

6. TROUBLESHOOTING

For electrical system troubleshooting, refer to Figures 9 to 14, Airframe-Mounted Fuel Filter, Wiring Diagrams. Remove cover to gain access to fuel filter and re-install after maintenance.

ITEM	TROUBLE SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
1a	If "A/F FUEL FILTER" Press-to Test lamp does not illuminate during either the "Engine Prestart Check Inspection", "150 flight hours check" or the "Operational Test (600 flight hours check)".	Bulb burnt out.	Replace bulb, P/N MS25237-327.
		Break or short in annunciator circuit	Perform circuit continuity check and repair/replace wiring as applicable in accordance with AC 43.13-1B, Chapter 11, Section 1.
		Fuel Filter Head Assembly defective	Replace Head Assembly, refer to the Purolator Documentation
1b	If "AF FUEL FILTER" lamp does not illuminate during either the "Before the first flight of each day Inspection", "150 flight hours check" or the "Operational Test (600 flight hours check)".	Bulb burnt out.	Replace bulb, P/N LED-40-17-HE-E06LN.
		Break or short in annunciator circuit	Perform circuit continuity check and repair/replace wiring as applicable in accordance with AC 43.13-1B, Chapter 11, Section 1.
		Fuel Filter Head Assembly defective	Replace Head Assembly, refer to the Purolator Documentation
1c	"AF F FILT" lamp does not illuminate during either the "Before the first flight of each day Inspection", "150 flight hours check" or the "Operational Test (600 flight hours check)".	Break or short in annunciator circuit	Do the fault isolation procedure for the Caution and Warning Panel. Refer to AS 350 B2/B3 AMM, Chapter 31-51-00, 1-1.
		Caution and Warning Panel	Do the fault isolation procedure for the Caution and Warning Panel. Refer to AS B2/B3 AMM, Chapter 31-51-00, 1-1.
		Fuel Filter Head Assembly defective	Replace Head Assembly, refer to the Purolator Documentation
2	Annunciator lamp illuminates during operations.	Excessive contamination in fuel supply.	Check quality of fuel supply.
		Filter is blocked.	Replace filter element.
		Short in annunciator circuit.	Perform circuit continuity check and repair/replace wiring as applicable in accordance with AC 43.13-1B, Chapter 11, Section 1.
3	Postlight not working (part of press-to-test annunciator option only)	Postlight not receiving power	Check System Circuit Breakers
		Bulb burnt out	Replace bulb P/N 34-0618060-WO

Table 5 Troubleshooting Guide

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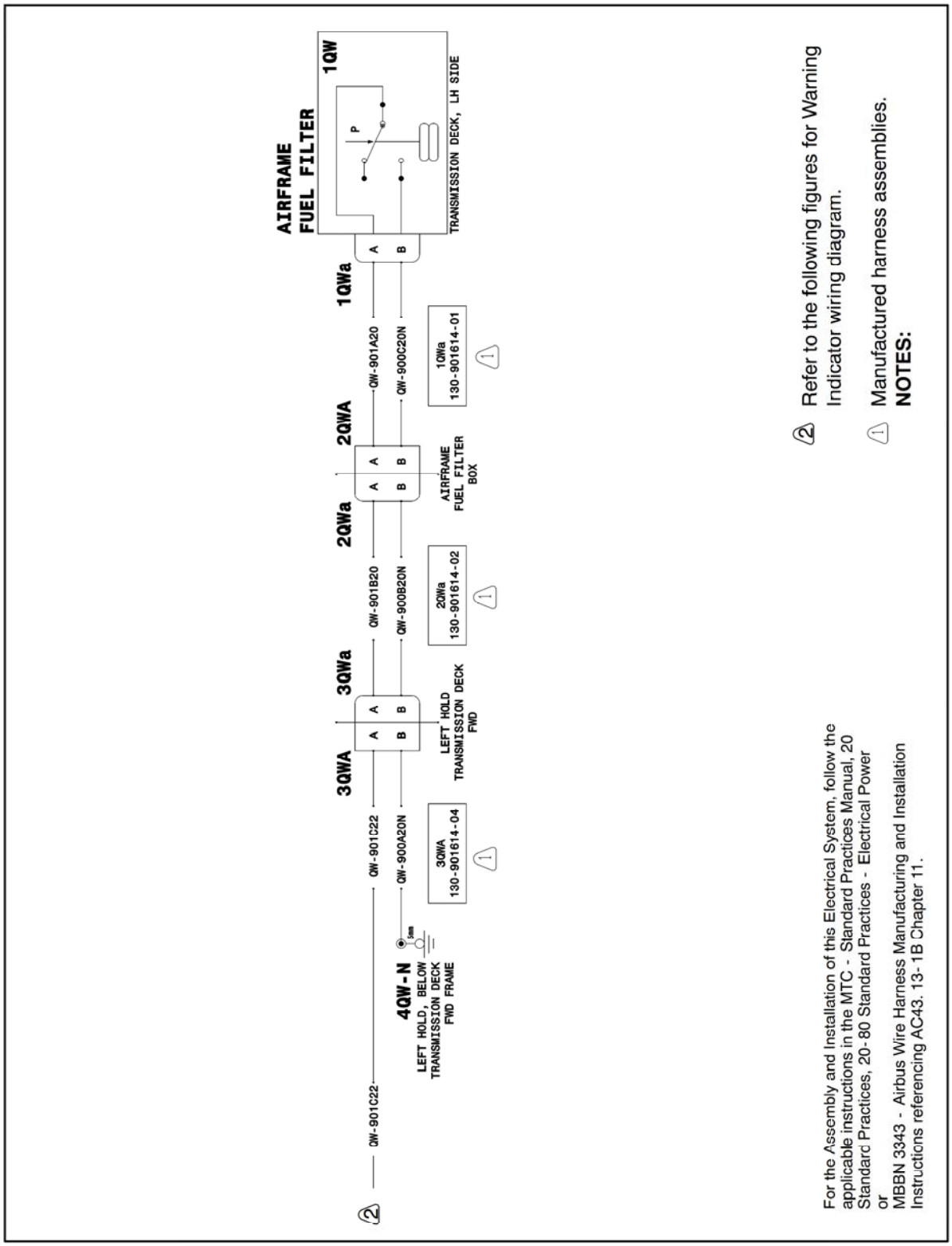

Figure 9 Airframe- Mounted Fuel Filter - Installation, Wiring Diagram

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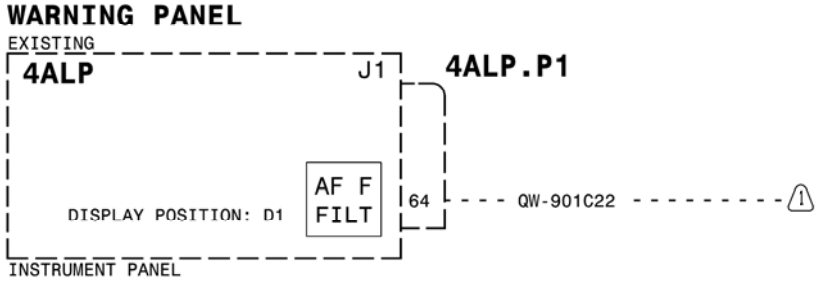

SEE 350-600134 FOR REPLACEMENT LABEL

350- 600134- 01 Installation,
Caution and Warning Panel Indicator

1 Refer to Airframe- Mounted Fuel Filter - Installation, Wiring Diagram.

NOTES:

For the Assembly and Installation of this Electrical System, follow the applicable instructions in the MTC - Standard Practices Manual, 20 Standard Practices, 20- 80 Standard Practices - Electrical Power
or
MBBN 3343 - Airbus Wire Harness Manufacturing and Installation Instructions referencing AC43. 13- 1B Chapter 11.

Figure 10 350- 600134- 01 Installation - Caution and Warning Panel Indicator, Wiring Diagram

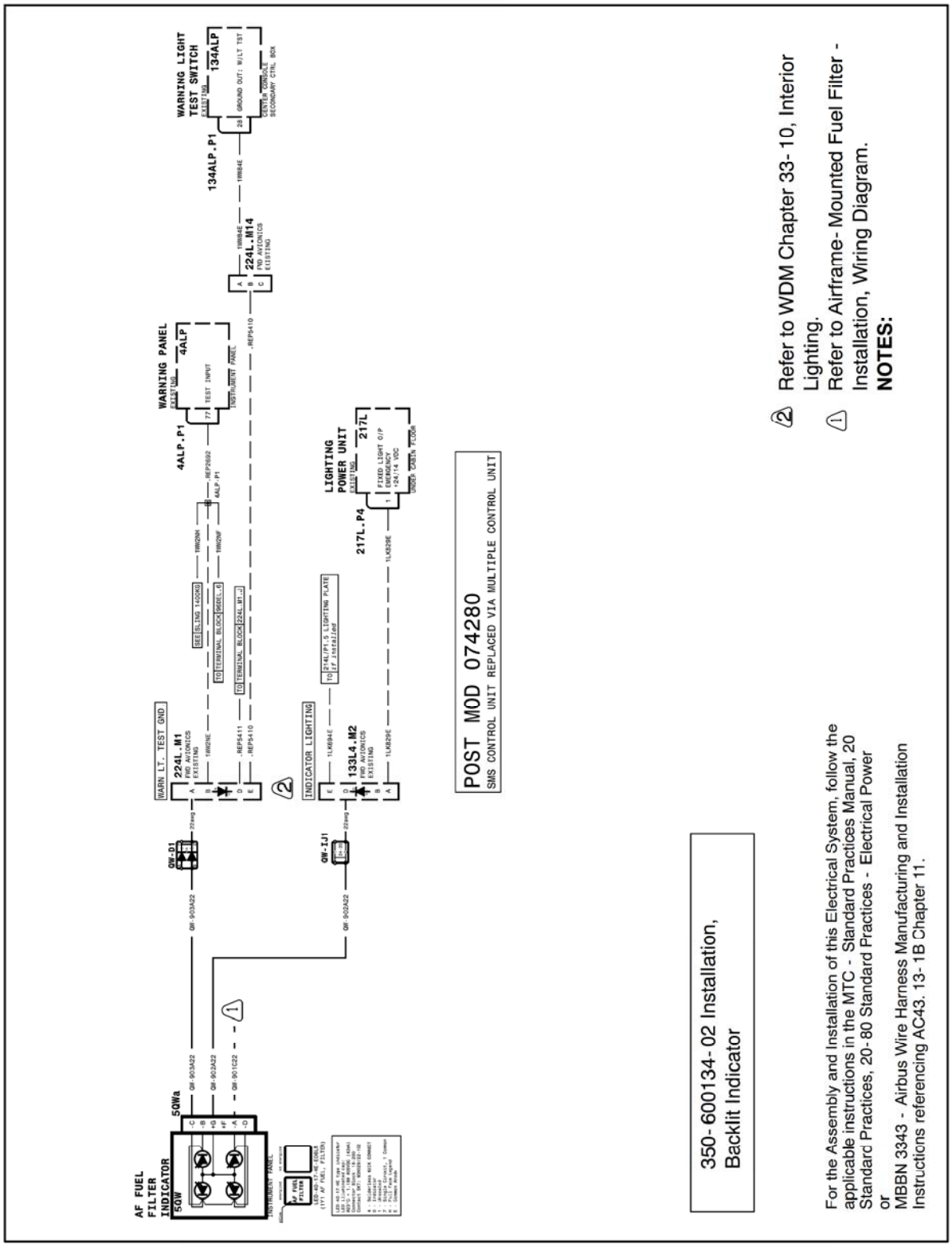

Figure 11 350-600134-02 Installation - Backlit Indicator Wiring Diagram

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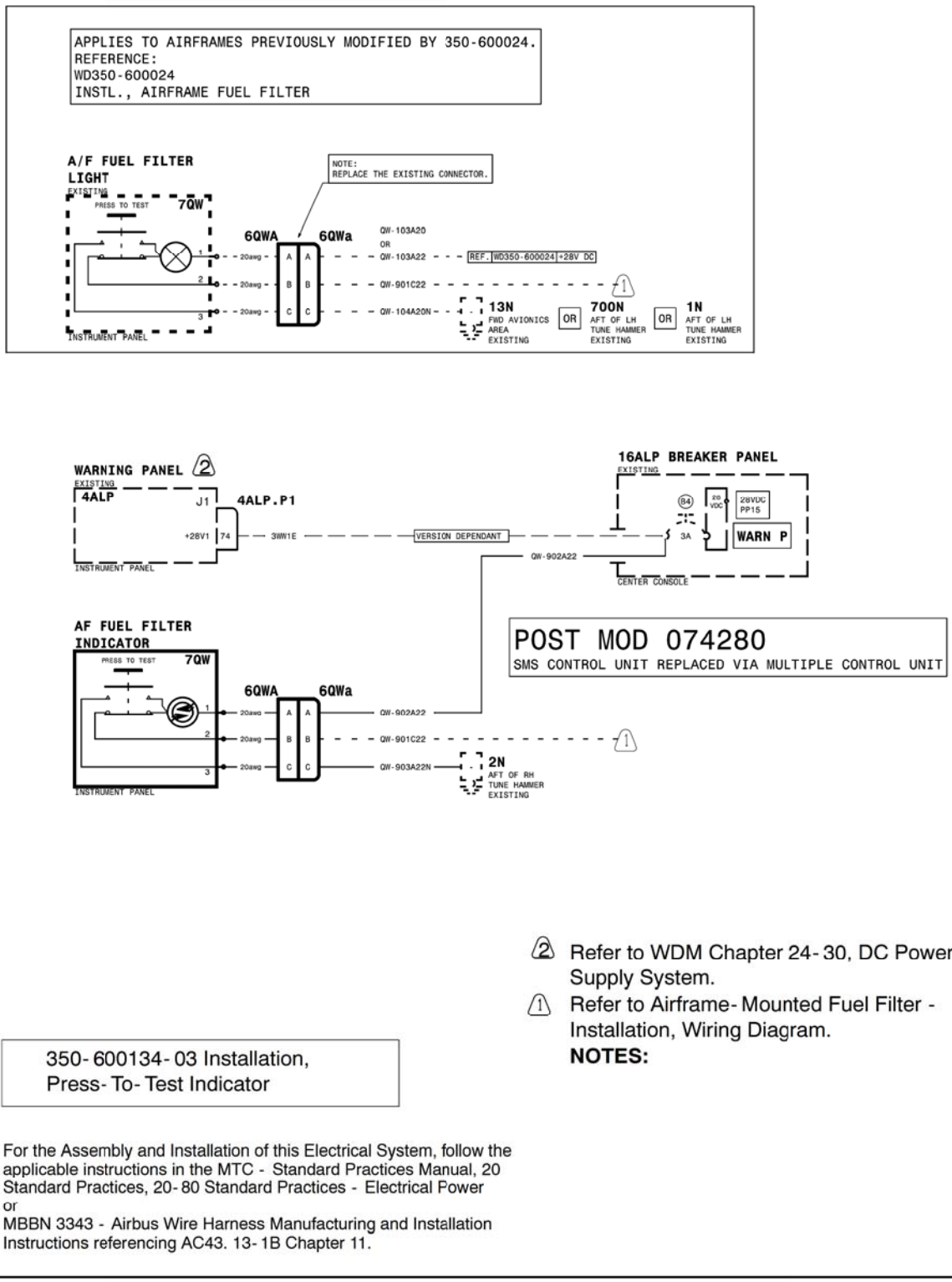

2 Refer to WDM Chapter 24- 30, DC Power Supply System.

1 Refer to Airframe- Mounted Fuel Filter - Installation, Wiring Diagram.

NOTES:

350- 600134- 03 Installation, Press- To- Test Indicator

For the Assembly and Installation of this Electrical System, follow the applicable instructions in the MTC - Standard Practices Manual, 20 Standard Practices, 20- 80 Standard Practices - Electrical Power
or
MBBN 3343 - Airbus Wire Harness Manufacturing and Installation Instructions referencing AC43. 13- 1B Chapter 11.

Figure 12 350- 600134- 03 Installation - Press- To- Test Indicator Wiring Diagram

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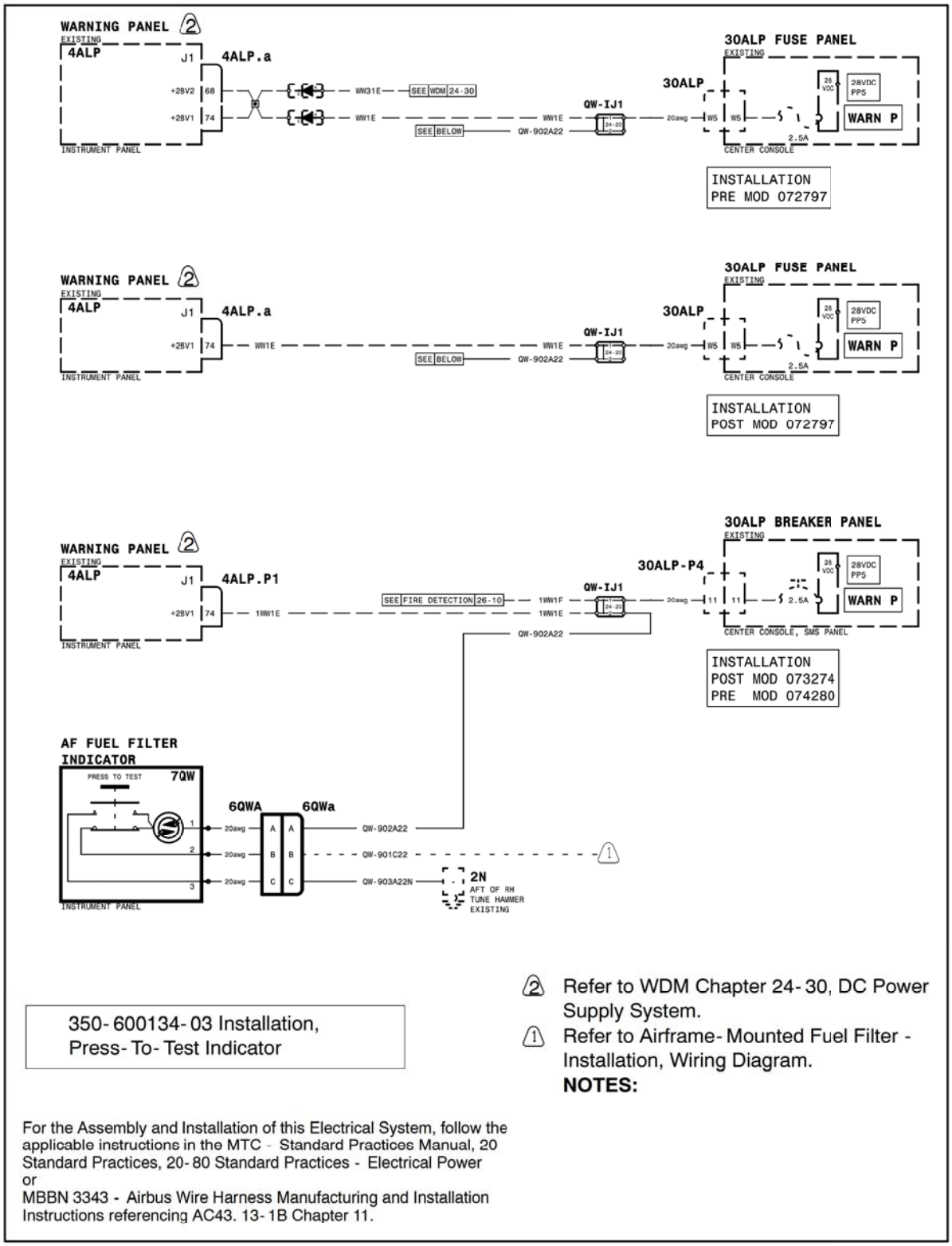

Figure 13 350-600134-03 Installation - Press-To-Test Indicator Wiring Diagram

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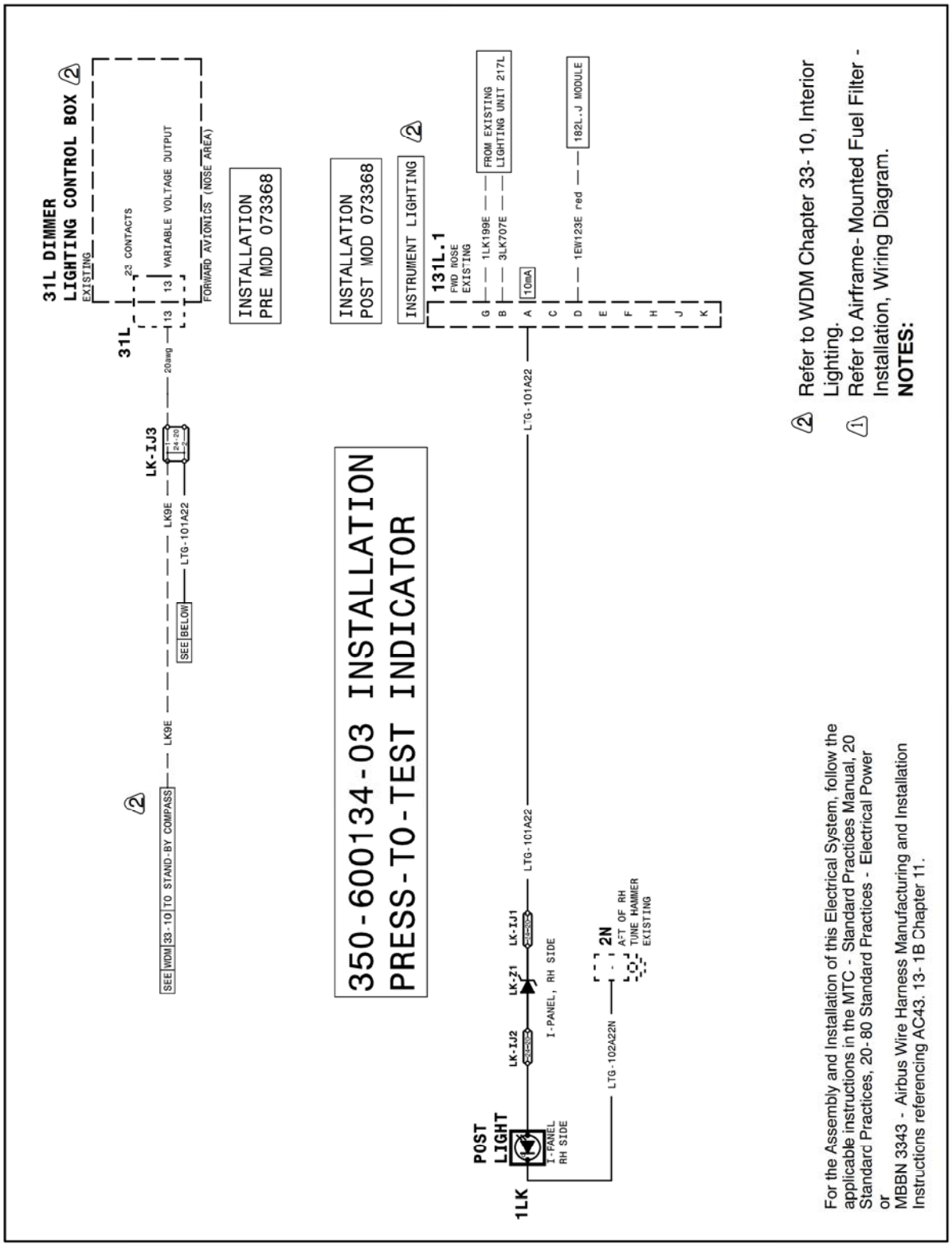

Figure 14 350-600134-03 Installation - Warning Indicator Wiring Diagram

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7. SPECIAL TOOLING

No special test equipment or tools are required. Standard tools are adequate.

8. REMOVAL AND REPLACEMENT

PRELIMINARIES

- Comply with General Safety Instructions for the Fuel System in accordance with AS 350 B2/B3, AMM, Chapter 28- 00- 00, 3- 1.
- Defuel the helicopter in accordance with Filling/Draining- Servicing AS 350 B2/B3 AMM Chapter 12- 10- 00, 3- 2.
- Comply with General Safety Instructions for the Mechanical assemblies in accordance with AS 350 B2/B3 AMM Chapter 60- 00- 00, 3- 1.
- Read General Safety Instruction - Electrical Power Supply System, AS 350 B2/B3 AMM, Chapter 24- 00- 00, 3- 1.
- Comply with Instructions Applicable during Maintenance, refer to MTC, Chapter 20- 07- 03- 401.
- Observe General Repair Instructions Unriveting Principle, refer to MTC, Chapter 20- 03- 01- 102.
- Disconnect the external power in accordance with AS 350 B2/B3, AMM, Chapter 24- 00- 00, 2- 1a PRE MOD 07- 4280 or 24- 00- 00, 2- 1b POST MOD 07- 4280 (if required).
- Disconnect the battery in accordance with AS 350 B2/B3 AMM, Chapter 24- 33- 00, 4- 1.
- Open the LH MGB cowling and LH lateral cargo hold door.
- Remove the FWD and AFT panels in the LH cargo compartment.
- Remove fuel filter Cover Assembly (1) to gain access to the fuel filter. Refer to Figures 2 and 5.

A. REMOVAL

1) FUEL FILTER HARNESSES (Refer to Figures 2 & 3 and Figure 9 Airframe- Mounted Fuel Filter, Wiring Diagram)

   a) If removing harness assembly (1QWa) (2), disconnect harness assembly (2QWa) (3) connection located behind the fuel filter enclosure assembly (13). Refer to VIEW W in Figure 2.

   b) Remove screws (10, 4 places), washers (12, 4 places), gasket (17) and nut plate (16) securing harness assembly (1QWa) (2) to fuel filter enclosure assembly (13). Disconnect opposite end of harness from connector located on top of fuel filter (1). Refer to Figure 2.

   c) If removing harness assembly (2QWa) (3), disconnect harness from behind fuel filter enclosure (13) and at transmission deck location. Refer to Figure 2.

   d) If removing harness assembly (3QWA) (4) disconnect harness assembly (2QWa) (3) from connection located on the transmission deck. Refer to DETAIL X in Figure 2.

   e) Remove screws (10, 4 places), washers (12, 4 places), gasket (17) and nut plate (16) to disconnect harness assembly (3QWA) (4, refer to figure 2) from underneath the transmission deck. Refer to SECTION A - A in Figure 3.

   f) Disconnect ground wire (4QW- N) and retain hardware. Refer to DETAIL X in Figure 2.

   g) Follow harness under the cabin floor along the LHS of the aircraft to the Instrument Panel and disconnect existing wire QW- 901C22. Wire location will depend on aircraft configuration. Refer to DETAIL X in Figure 2 and Wiring Diagrams in Figures 9 to 14.

8. **REMOVAL AND REPLACEMENT** (continued)

A. REMOVAL (continued)

2) HOSES

OUTLET HOSE ASSEMBLY (Refer to Figure 3)

a) On the outlet side of fuel filter (1) disconnect hose clamp (7). Refer to SECTION A - A in Figure 3.

b) Cut and remove lockwire (6) between outlet hose assembly (20) and outlet adapter fitting (22) and disconnect hose.

NOTE If outlet hose assembly (20) is not being replaced, position hose out of work area and cap end.

If hose is being replaced:

c) Remove screw (11, 1 place), washers (13, 2 places) and nut (14) that secure clamp (24) to the aircraft frame. Retain hardware for reinstallation. Remove hose clamp (7), cut and remove lockwire (6) from existing fuel shut- off valve and remove outlet hose assembly (20). Retain hardware for reinstallation.

INLET HOSE ASSEMBLY (Refer to Figures 3, 4 & 5)

a) On the inlet side of fuel filter (1) disconnect both hose clamps (7) from elbow (15). Refer to SECTION A - A in Figure 3.

b) Remove screws (6, 4 places), washers (9, 4 places) and nuts (11, 4 places) and remove gasket (5) and inlet hose adapter (17) to gain access to tube assembly (15). Refer to SECTION B - B in Figure 4.

c) Cut and remove lockwire (6) between tube assembly (25) and inlet hose assembly (19) and disconnect hose. Refer to Figure 3.

d) Cut and remove lockwire (6) between tube assembly (25) and inlet adapter fitting (8) and disconnect tube assembly. Refer to Figure 3.

NOTE If inlet hose assembly (19) is not being replaced, position hose out of work area and cap end. Refer to Figure 3.

If inlet hose is being replaced:

e) Disconnect inlet hose clamp (16) located under the transmission deck. Retain hardware for reinstallation. Refer to SECTION B - B and DETAIL U in Figure 4.

f) Remove hose clamp (5) securing rubber elbow (1) to fuel tank outlet flange and pull diaphragm extension out of fuel tank to enable access to fuel tank connection. Refer to Figure 5.

g) Carefully pull back rubber elbow (1) and remove hose clamp (5) from collar (4) and remove lockwire (3). Remove collar (4). Disconnect hose fitting.

h) Retain hardware for reinstallation.

3) FUEL FILTER (Refer to Figures 2 & 3)

NOTE: Fuel Filter Hoses and Harness Assemblies must be disconnected.

a) Cut and remove lockwire (6) between outlet adapter fitting (22) and outlet hose assembly (20). Refer to Figure 3.

b) Cut and remove lockwire (6) between inlet adapter fitting (8) and tube assembly (25).

c) Remove screws (5, 3 places), washers (7, 3 places) and lockwire (16) securing fuel filter (12). Remove the fuel filter and retain hardware. Refer to VIEW W and Figure 2.

d) Remove outlet adapter fitting (22). Remove packing (7) from adapter fitting and discard.

e) Remove inlet adapter fitting (8). Remove packing (9) from inlet adapter fitting (8) and discard.

8. **REMOVAL AND REPLACEMENT** (continued)

A. REMOVAL (continued)

4) FUEL FILTER ENCLOSURE ASSEMBLY (Refer to Figures 4)

NOTE: Ensure Harness Assemblies on inboard side of enclosure and hoses are disconnected.

a) Remove nut (13) and washer (9) securing bonding jumper (19) to the transmission deck. Retain hardware for reinstallation. Refer to SECTION B - B.

b) Remove screws (6, 6 places), washers (9, 12 places) and nuts (11, 6 places) securing fuel filter 'enclosure assembly (2) to base plate (2, shown in Figure 6). Refer to SECTION B - B and SECTION C - C.

5) DRAIN SUMP ASSEMBLY AND DRAIN HOSE (Refer to Figures 3 & 6)

NOTE: Remove fuel filter and fuel filter enclosure.

a) Remove clips (18, 2 places) securing FWD and aft panels in cargo compartment and remove both panels. Refer to Figure 3.

b) Disconnect clamp (9) from sleeve (6) and pull sleeve back exposing clamp. Disconnect clamp from drain sump funnel and remove both clamps and sleeve. Retain clamps and sleeve for reinstallation. Refer to VIEW LOOKING OUTBOARD and SECTION E - E in Figure 6.

If removing drain sump assembly

c) Remove screw (14), screws (15, 3 places), washers (16, 8 places) and nuts (17, 4 places) securing drain sump assembly (5) and remove. Retain hardware for reinstallation. Refer to VIEW R in Figure 6.

If drain hose is being replaced,

d) Cut tyraps (12) securing drain hose (10) behind X member. Refer to VIEW LOOKING OUTBOARD in Figure 6.

Remove tyrap (12) from spacer (11) and remove existing hardware securing drain hose (10) to clamp (9). Refer to SECTION F - F in Figure 6.

Remove drain hose (10) and discard. Refer to VIEW LOOKING OUTBOARD in Figure 6.

6) FILTER SUPPORT ASSEMBLY, BASE PLATE, CLIP (Refer to Figure 6)

NOTE: Remove drain sump assembly (if removing base plate (2)).

a) Drill out rivets securing filter support assembly (1) to clip (3) and base plate (2).

b) Drill out rivets securing clip (3) and base plate (2) to the transmission deck.

c) If replacing either the filter support assembly (1) the clip (3) or base plate (2), discard damaged part. Refer to SECTION E - E and VIEW R.

7) DOUBLER (Refer to Figures 6 & 7)

NOTE: Remove filter support assembly (1), drain sump assembly (5), base plate (2) and clip (3). Refer to Figure 6.

a) Drill out rivets securing doubler (1) to the transmission deck and discard damaged part. Refer to Figure 7.

b) The existing floor stiffeners under the transmission deck will now become suspended. Retain for reinstallation.

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT

NOTE Use torque per MTC, Chapter 20.02.05.404, unless otherwise specified.

Comply with general safety instructions for mechanical assemblies - AMM, Chapter 60- 00- 00, 3- 1

General Sealing procedures - MTC, Chapter 20- 05- 01- 101

General methods of applying sealing compounds - MTC, Chapter 20- 05- 01- 102

General rules for bonding with adhesives - MTC, Chapter 20- 06- 01- 101

Application of PR 1422 Class B sealant - MTC, Chapter 20- 05- 01- 206

Observe General Repair Instructions Unriveting Principle - MTC, Chapter 20- 03- 01- 102

Replacement of rivets - refer to MTC, Chapter 20- 03- 02- 101

Electrical Bonding - MTC, Chapter 20.02.07.101

Safetying with cotter pin - MTC, Chapter 20- 02- 06- 404

Safetying with lockwire - MTC, Chapter 20- 02- 06- 402

1) DECK DOUBLER, FILTER SUPPORT ASSEMBLY, BASE PLATE, CLIP (Refer to Figures 6, 7 & 8)

a) Reposition doubler (1) onto transmission deck. If replacing doubler (1), position new doubler (1) onto transmission deck. Align opening and existing pilot holes. Back drill holes from transmission deck into doubler (1). Refer to VIEW Q in Figure 7.

b) Reposition base plate (1) and clip (2) onto doubler (1) using the filter support to locate clip (2). If replacing base plate (1) or clip (2) back drill holes from transmission deck through base plate and clip and temporarily secure. Refer to VIEW P and flag NOTE 4 in Figure 8.

c) Reposition fuel filter support assembly (1) inside base plate. If replacing fuel filter support assembly (1), match drill holes from base plate (1) and clip (2) and temporarily secure. Refer to Figure 8.

NOTE Ensure filter support asssembly (1) is correct height (162mm) from base plate. Refer to SECTION E - E, Figure 6.

d) Reposition existing plate (4) and match drill holes into fuel filter support (1). Refer to SECTION E - E in Figure 6

e) Remove plate (4), filter support assembly (1), clip (2), base plate (1) and doubler (1). Deburr all holes. Refer to Figures 6, 7 and 8.

f) Clean debris from transmission deck.

g) Apply fay sealant (5) and wet install doubler (1) to the transmission deck. Secure doubler using rivets. Secure the suspended floor stiffeners to their locations under the transmission deck. Refer to Figure 7.

NOTE For electrical bonding of doubler (1). contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Refer to NOTE 4 in Figure 7.

h) Apply sealant (3) and wet install base plate (1) onto doubler (1, show in Figure 7) already on transmission deck and secure using rivets. Refer to Figure 8.

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT

i) Apply fay sealant (3) and wet install clip (2) on base plate (1) and secure using rivets. Apply fillet seal to outer edges of clip to base plate (1) using sealant (3). Refer to NOTE 2 in Figure 8.

NOTE For electrical bonding of rivet located fwd inboard of base plate (1) and clip (2). Contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover rivet with protective coating (4). Refer to NOTE 3 in Figure 8.

j) Secure inboard side of filter support assembly (1) to base plate (2) using rivets (22, 6 places). Refer to VIEW LOOKING OUTBOARD FROM FUEL TANK SIDE in Figure 6.

k) Secure clip (3) to base plate (2) using rivets (23, 4 places). Refer to VIEW R in Figure 6.

i) Secure filter support assembly (1) to base plate (2) using rivets (22, 4 places). Refer to SECTION E - E in Figure 6.

NOTE For electrical bonding of rivet (22), contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover rivet with protective coating (24) to overlap rivet by 3mm. Refer to NOTE 2 in Figure 6.

m) Reposition plate (4) onto filter support assembly (1) and secure using rivets (21, 18 places). Refer to VIEW LOOKING OUTBOARD FROM FUEL TANK SIDE in Figure 6.

n) Apply fay sealant (20) and wet install drain sump assembly (5) and secure using screw (14), screws (15, 3 places), washers (16, 8 places) and nuts (17, 4 places). Apply fillet seal to outer edges of base drain sump assembly (5) using sealant (20). Refer to VIEW R and Note 1 in Figure 6.

2) FUEL FILTER (Refer to Figures 2, 3 and 4)

a) If fuel filter is being replaced, place on work bench and install new packing (5). Install drain valve (4) to the base of the fuel filter. Safety using lockwire (6). Refer to SECTION A - A in Figure 3.

b) Repack inlet and outlet adapter fittings (8 and 22) with new packing (9). Reconnect the shorter fitting to the filter outlet side and longer adapter fitting to filter inlet side of the fuel filter. Safety using lockwire (6). Refer to in Figure 3.

c) Position fuel filter (12) into the channel of filter support assembly (1, refer to Figure 6) and secure using screws (5, 3 places) and washers (7, 3 places). Safety using lockwire (16). Refer to VIEW W in Figure 2.

d) Attach label (21) facing outboard on new fuel filter (1). Refer to SECTION A - A in Figure 3.

e) Reposition fuel filter enclosure assembly (2) and secure using screws (6, 6 places), washers (9, 12 places) and nuts (11, 6 places). Refer to SECTION B - B in Figure 4.

f) Fill in gaps around edge of fuel filter enclosure assembly (2) with sealant (23). Refer to SECTION C - C and NOTE 1 in Figure 4.

g) Secure bonding jumper (20) to deck using washer (9) and nut (13). Refer to SECTION B - B in Figure 4.

h) Reconnect existing tube assembly (15) to the inlet side of the fuel filter. Refer to SECTION B - B in Figure 4

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT

3) HOSES (Refer to Figure 3, 4 and 5)

a) If inlet hose assembly (2) is being replaced, connect hose fitting to fuel tank connection. Refer to SECTION D - D in Figure 5.

b) Route inlet hose assembly (18) from the fuel tank through grommet (21) in the transmission deck and temporarily connect to tube assembly (15). Refer to DETAIL V and SECTION B - B in Figure 4.

c) Orient inlet hose ends to ensure an upward slope from the fuel tank to the fuel filter. Ensure inlet hose distance from the cabin heater line in clamp (16) above the transmission deck is 5 mm MIN. Refer to DETAIL V, SECTION B - B and NOTE 5 in Figure 4.

d) Once inlet hose assembly (18) is adjusted secure hose to aircraft frame with clamp (16, under the transmission deck), spacer (14) screw (8), washers (9, 2 places) and nut (11). Refer to DETAIL U in Figure 4.

e) Pull diaphragm extension out of fuel tank and torque nuts of inlet hose assembly (2). Safety inlet hose asssembly (2) to fuel tank connection with lockwire (3). Position the two pieces of collar (4) to center the pipe and secure with hose clamp (5) in groove of collar (4). Refer to NOTE 2 and Section D - D in Figure 5.

NOTE: Ensure lockwire (3) does not touch collar (4). Refer to NOTE 2 in Figure 5.

f) Reposition diaphragm extension into the fuel tank and secure rubber elbow (1) to fuel tank flange using hose clamp (5). Refer to SECTION D - D in Figure 5.

g) Safety tube assembly (15) to inlet adapter fitting (8) with lockwire (6). Refer to SECTION A- A in Figure 3.

h) Disconnect inlet hose assembly (19) from tube assembly (25). Refer to SECTION A- A in Figure 3.

i) Slide inlet hose adapter (17) and gasket (5) over tube assembly (15) and secure to fuel filter enclosure (2) using screws (6, 4 places), washers (9, 4 places) and nuts (11, 4 places). Refer to SECTION B - B in Figure 4.

j) Slide elbow (15) over tube assembly (25) and secure to inlet hose adapter (17, shown in Figure 4) and secure using clamp (7). Refer to Figure 3.

k) Reconnect inlet hose assembly (18) to tube assembly (15). Safety using lockwire (19). Refer to SECTION B - B in Figure 4.

l) Pull elbow (15) over tube assembly (25) and secure to inlet hose assembly (19) using clamp (7). Refer to Figure 3.

m) If outlet hose assembly (20) is being replaced, reconnect outlet hose assembly (20) to outlet adapter fitting (22) and secure using lockwire (6). Refer to Figure 3.

n) Connect opposite end of outlet hose assembly (20) to the existing fuel shut off valve and secure using lockwire (6). Secure rubber hose end to to fuel shut off using hose clamp (7).

o) Once hose is adjusted ensuring a constant upward slope from fuel filter (1) to the fuel shut off valve, secure using clamp (24), screw (11), washer (13) and nut (14). Refer to NOTE 1 in Figure 3.

NOTE For electrical bonding of bonding jumper (20), contact area to be cleaned of all non- conductive coating 2- 4mm beyond contact area. Cover electrical bondings with protective coating (24) to overlap screw, washers, nuts and bonding jumper by approximately 3mm. Refer to NOTE 2 and SECTION B - B in Figure 4.

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT

3) HOSES (continued)

p) If replacing drain hose (10), connect drain hose to drain sump assembly (5) and secure using clamp (9). Wrap sleeve (6) around drain sump funnel and secure with clamp (9). Refer to NOTE 4 and SECTION E - E in Figure 6.

q) Route drain hose (10) behind X frame and secure to existing tyrap bases (13) using tyrap (12). Refer to VIEW LOOKING OUTBOARD and SECTION E - E in Figure 6.

r) If aircraft is equipped with Air- Comm Air Conditioning System, place spacer (11) between existing air- conditioning suction hose and drain hose (10). Secure using tyraps (12). Refer to Drain hose routing for aircraft equipped with Air Comm Air Conditioning System in Figure 6.

s) If replacing drain hose (10) trim hose to desired length and secure to existing drain hose using spacer (11) and tyrap (12) and clamp (9) using existing hardware. Refer to SECTION F - F in Figure 6.

t) Attach new tag (18) on replaced drain hose (10) and reposition the FWD and aft panel in the cargo compartment and secure using clips (18, 2 places shown in Figure 3). Refer to SECTION A - A in Figure 6.

4) FUEL FILTER HARNESSES (Refer to Figures 1, 9, 10, 11, 12, 12, and 14)

a) Refer to Airframe- Mounted Fuel Filter, Wiring Diagram in this document to replace damaged components or wiring. Refer to Figure 9 to 14.

b) Install in accordance with AC43.13- 13- 1B, Chapter 11.

c) If connecting harness assembly (1QWa) (2) attach connector to the top of fuel filter (1). Refer to Figure 3.

d) Secure opposite end of harness assembly (1QWa) (2) to inboard side of fuel filter enclosure assembly (13, Figure 2) and secure using nut plate (16), gasket (17), screws (10, 4 places) and washers (12, 4 places). Refer to Figure 3

e) Reconnect harness assembly (2QWa) (3) to back side of the fuel filter enclosure assembly. Refer to VIEW W in Figure 2.

f) If installing harness assembly (2QWa) (3) connect to back of fuel filter enclosure (13) and at transmission deck location. Refer to Figure 2.

g) If installing harness assembly (3QWA) (4), secure harness underneath the transmission deck using nut plate (16), gasket (17) screws (10, 4 places) and washers (12, 4 places). Reconnect harness assembly (2QWa) (3) to the transmission deck. Refer to Figure 2.

h) Run harness assembly (3QWA) (4) under transmission deck and secure to existing flat clamp support (17) and cable support using tyrap (19). Refer to DETAIL X in Figure 2.

j) Locate ground wire (4QW- N) picking up on existing hole in aft frame and secure using existing hardware. Refer to DETAIL X and NOTE 1 in Figure 2.

NOTE For electrical bonding of ground wire (4QW- N) to the transmission deck, contact area to be cleaned of all non- conductive coating 2- 4 mm beyond contact area.

j) Run harness (3, refer to Figure 4) in LHS fuel tank bay under the transmission deck, then under the cabin floor following existing harness along the LHS of the helicopter to the instrument Panel and connect existing wire QW- 901C22. Refer to DETAIL X in Figure 2 and Wiring Diagrams 9 to 14.

k) Use an ohm meter, point to point check all connections to ensure correct installation.

8. **REMOVAL AND REPLACEMENT** (continued)

B. REPLACEMENT

1) Refuel the helicopter in accordance with Filling/Draining-Servicing, AS 350 B2/B2, AMM, Chapter 12-10-00, 3-2.
2) Check After Maintenance Work - Fuel System, Inspection/Check in accordance with AS 350 B2/B2, AMM, Chapter 28-00-01, 6-2.
3) Comply with General Safety Instructions - Electrical Power Supply, AS 350 B2/B2, AMM, Chapter 24-00-00, 3-1.
4) Close all areas opened for service in the PRELIMINARIES paragraph of this section.
5) Apply battery in accordance with AS 350 B2/B2, AMM, Chapter 24-33-00, 4-1.
6) Apply external power unit in accordance with AS 350 B2/B2, AMM, Chapter 24-00-00, 2-1a PRE MOD 07-4280 or 24-00-00, 2-1b POST MOD 07-4280 (if required).
7) Reference functional test - DC Power Supply System in accordance with AS 350 B2/B2, AMM, Chapter 24-30-00, 5-1.
8) Push the "Press to Test Button" located on the inboard side of the Fuel Filter. The "AF F FILT" annunciator lamp must illuminate.
9) As per Section 4.1.5. Operational Test - Fuel Filter Switch and Bypass Valve of this document, check for the correct operation of the fuel filter bypass function.
10) Install the fuel filter element (P/N 1743645-01) and perform a leak check on runup.
11) Perform operational check of all systems that were serviced in accordance with the AS 350 B2/B2 procedures and the system's installation/operation manual.
12) Secure the fuel filter cover assembly over the enclosure and lock into place.
13) Close the LHS MGB engine cowling.

9. **WEIGHT AND BALANCE DATA**

A. Removed Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
Transmission Deck Cut-outs	-0.09	-0.19	3.48	137.09	-0.30	-26.05
Existing Fuel Hose	-0.39	-0.86	3.87	152.36	-1.52	-131.03
Tube Assembly	-0.08	-0.17	3.96	155.91	-0.31	-26.50
Total	-0.56	-1.22	3.83	150.48	-2.13	-183.58

D. Added Items

DESCRIPTION	WEIGHT		ARM		MOMENT	
	kg	lbs	m	in	kg m	lb in
Aircraft Provisions	0.36	0.79	3.43	134.84	1.24	106.52
Fixed Provisions	1.24	2.74	3.61	141.97	4.48	389.00
Detachable Provisions	3.60	7.92	3.49	137.40	12.55	1088.21
Harnesses	0.31	0.68	3.43	135.04	1.06	91.83
Total	5.51	12.13	3.51	138.13	19.33	1675.56

Transport Canada Accepted

10. **PLACARDS AND MARKINGS**

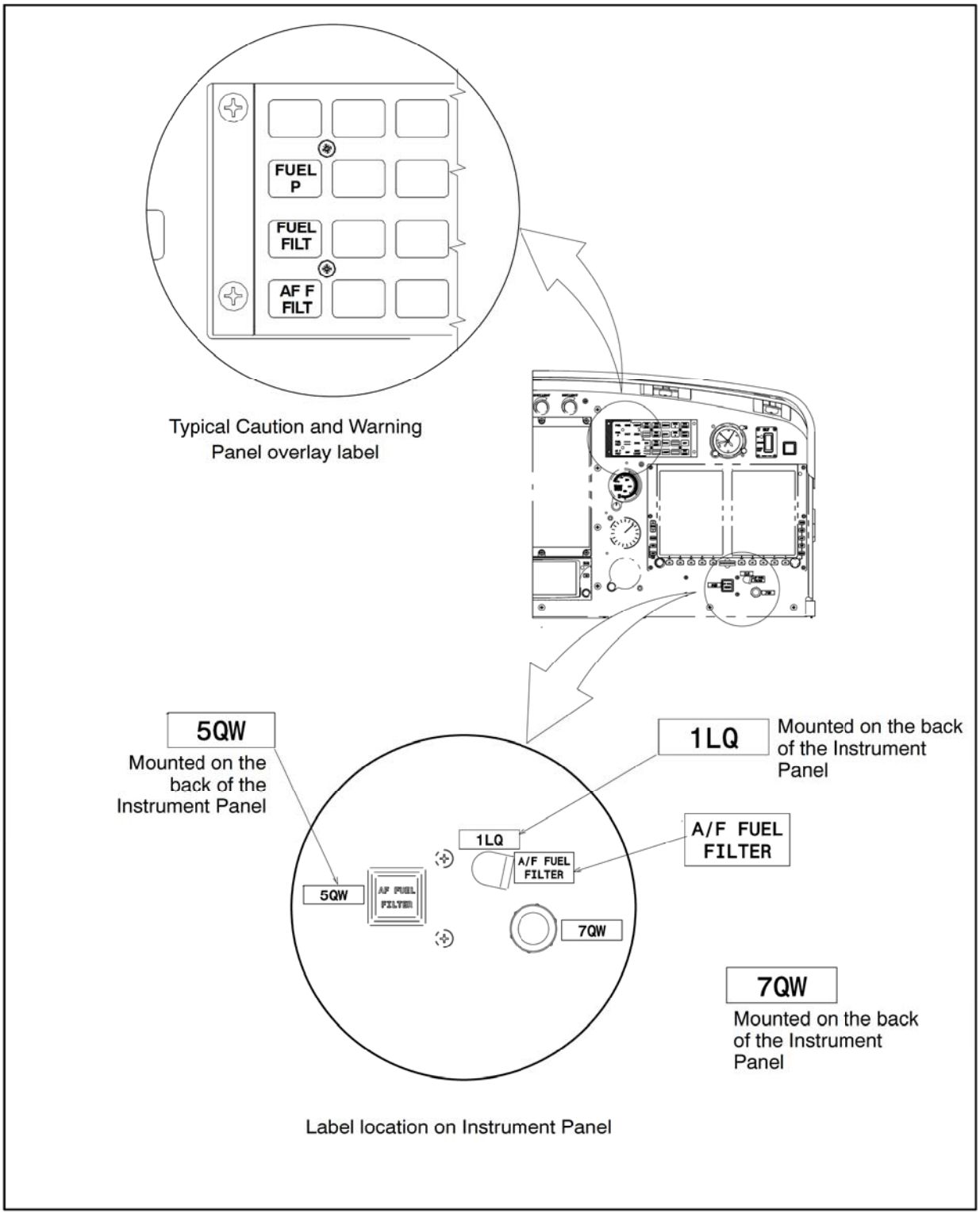
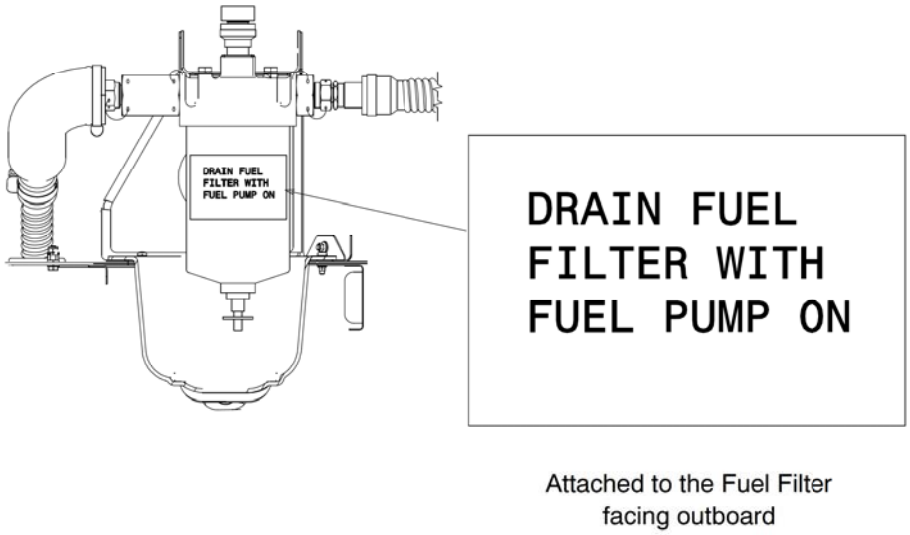


Figure 15 Overlay label on Caution and Warning Panel

Transport Canada Accepted

Export Control Classification Marking: 9E991

10. **PLACARDS AND MARKINGS**



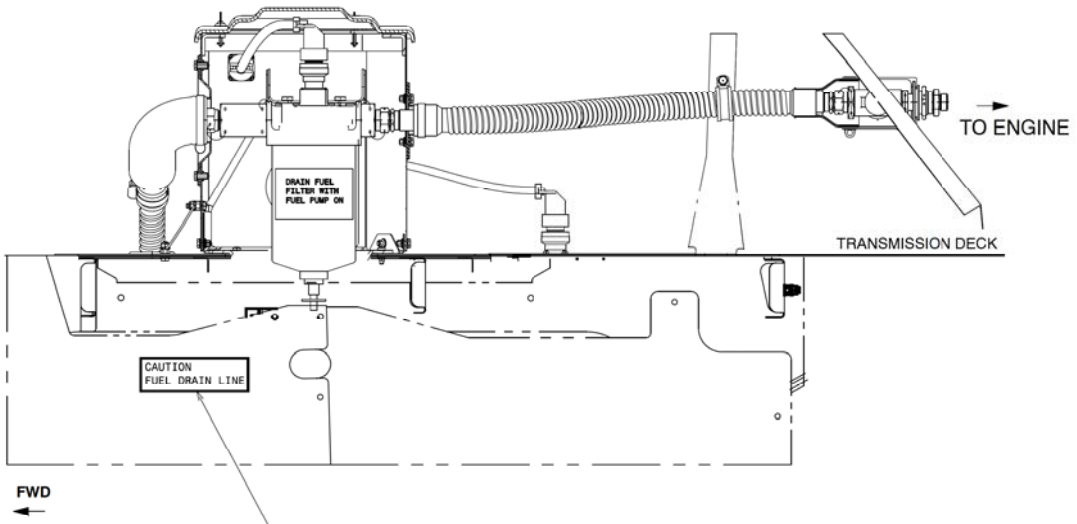
Attached to the Fuel Filter
facing outboard

Figure 16 Typical label location on the Fuel Filter

Transport Canada Accepted

Export Control Classification Marking: 9E991

10. **PLACARDS AND MARKINGS**



CAUTION
FUEL DRAIN LINE

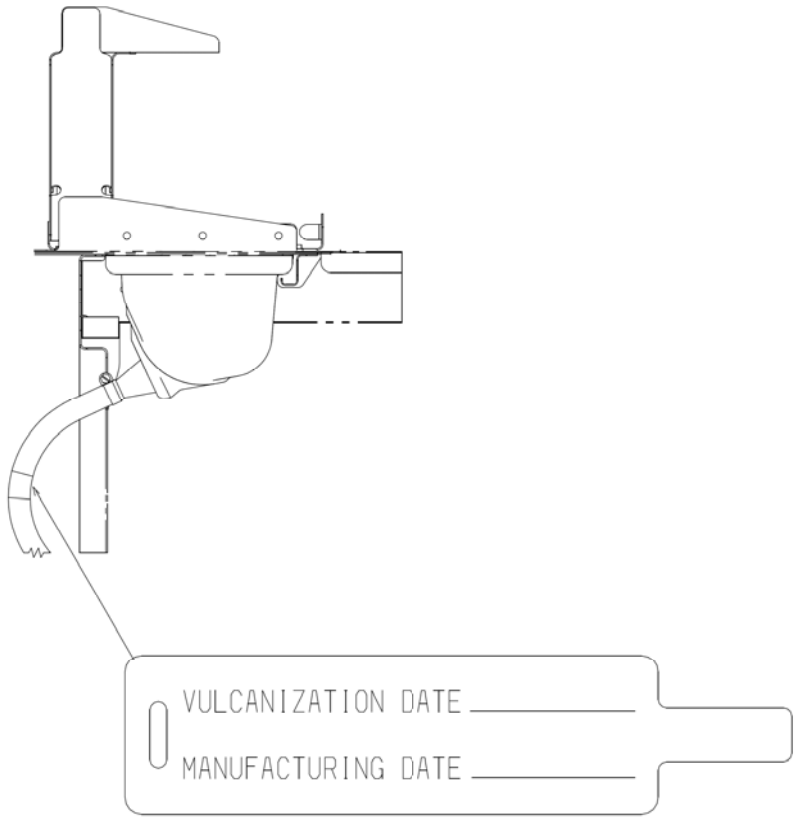
Attached to the FWD Panel inside
the cargo compartment

Figure 17 Typical label location inside cargo compartment

Transport Canada Accepted

Export Control Classification Marking: 9E991

10. **PLACARDS AND MARKINGS**

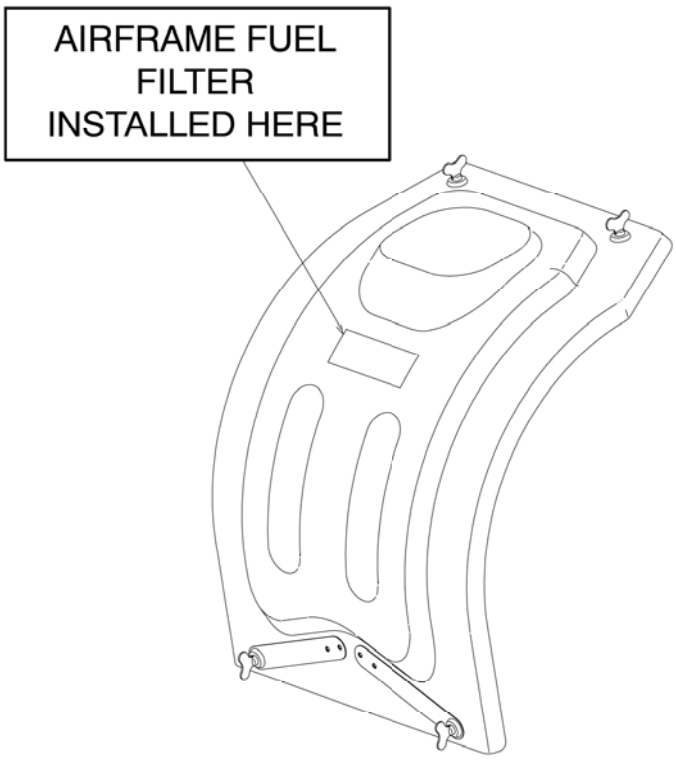


Attached to drain hose

Figure 18 Typical location for identification tag on hose

Transport Canada Accepted

10. **PLACARDS AND MARKINGS**



Attached to outside of Fuel Filter
Cover Assembly

Figure 19 Typical label location on Fuel Filter cover

Transport Canada Accepted

Export Control Classification Marking: 9E991

Operating Instructions
Fuel Filter Assembly
Part Number: 1743640-01

Contents:

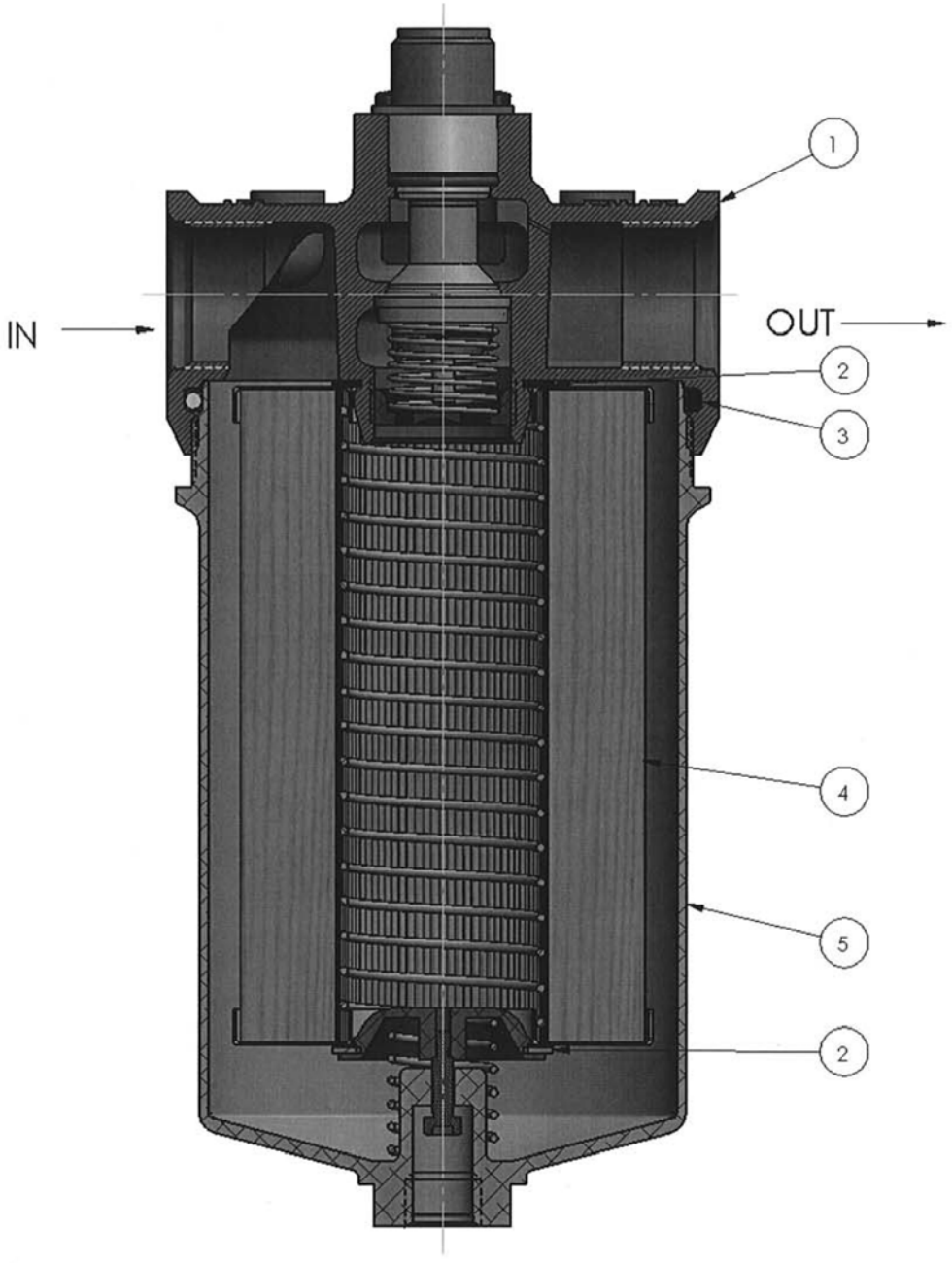
Operating & Design Specifications:

Parker Aerospace Filtration Div.
Purolator Facet Inc.
8439 Triad Drive
Greensboro, NC 27409-9621
(336) 668-4444, Fax (336) 668-4452

Record of Revisions

Revision No	Description	Date
A	Item 1 Replacement part (page 4) was 1744990-01	Dec. 29, 2020

Fuel Filter Assembly
Part No. 1743640-01



Replacement Parts for Filter Assembly Part No. 1743640-01

Item No.	Qty. Req.	Part No.	Description:
1.	1	2177100-30	Head Assembly
2.	2	1743629-01	Seal
3.	1	034921-01	O-Ring
4.	1	1743645-01	Element Assembly
5.	1	1745011	Bowl Assembly

NOTE: **Purolator replacement element kit part no. 1743645-02 consists of items 2, 3 & 4**

Operating Instructions:

Preflight Inspection Procedure Change:

1. Follow aircraft manufacturers recommended preflight instructions.

Scheduled Maintenance:

1. Fuel Filter Element Change:

   A. Replace element at the intervals specified by the aircraft manufacturer.

   B. Remove lockwire and unscrew filter bowl.

   C. Remove used element.

   D. Remove O-Ring and flat seals from filter head and inside of bottom of filter bowl.

   E. Install new seals P/N: 1743629-01 on the nipple of the filter head and retainer in the filter bowl.

   F. Install new filter element p/n: 1743645-01.

   G. Install new O-Ring P/N: 034921-01 in the filter head.

   H. Re-install filter bowl and torque to 130 ±20 inch pounds.

   I. Secure filter head to filter bowl with lock wire.

Purolator Fuel Filter Assembly
Part Number 1743640-01

Design Specifications:

1. Filtration Rating: 10 Micometres Nominal
2. Fluid: Mil-T 5624 Gr. JP-4, JP-5, ASTM-D-1655 Type A, A1or B.
3. Temperature Range: -65°F to +160°F.
4. Bypass valve cracking Pressure: 3.75 PSID.
5. Microdelta® Differential Pressure Switch actuates at 0.875 PSID
6. Pressures:

Operating:	60 PSI
Proof:	90 PSI
Burst:	180 PSI

7. Rated Flow: 0.5 GPM
8. Weight: 1.75 lbs. Max.