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Honeywell International s.r.o.
V Parku, 16, Praha4, 14800, Czech Republic


EASA.21J.694

Generic guideline for AMT 700 conversion kit installation
Installation Guideline

Document Number:
INM-69410000-001

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A

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Revisions


Revision	Page	Description of change	Date [MM-DD-YYYY]
A	All	Initial release	12-01-2020

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Acronyms & Abbreviations

HGA	High Gain Antenna
ACU	Antenna Control Unit
IPC	Illustrated Part Catalogue
P/N	Part Number
SN	Serial Number
COG	Center of Gravity

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1 Introduction

1.1 Purpose

Purpose of this document is to provide generic guidance for installation of AMT 700 conversion kit (P/N 90411021-00X) on targeted platforms (see Table 1) with no specific details for each configuration (generic description).

Addressing of specific configuration shall be managed thru additional change, which will also activate the antenna AMT 700 function.

1.2 Applicability

This guideline is applicable for all operators planning to perform replacement of AMT 50 antenna (P/N 0476-A-00377) by AMT 700 (P/N 1428-A-0010-02) antenna with using Conversion Kit P/N 90411021-00X.

1.3 Installation Overview

This installation covers the mechanical installation of brackets with AMT 700 antenna and electrical provision.

Installation kit consists of mechanical (brackets) and electrical (wiring harnesses) provision. Mechanical provisions (brackets) assure fitting of the AMT 700 HGA (P/N 1428-A-0010-02) antenna to the same location as AMT 50 (P/N 0476-A-00377) with no changes to the aircraft structure.

Wiring harnesses provides provision for AMT 700 installation, however activation and function of AMT 700 antenna is not covered by this guideline.

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2 Limitations and Considerations

2.1 Platform Limitations

Conversions kit (P/N 90411021-00X) is applicable for following targeted platforms (see Table 1) which conforms with required configuration of AMT 50 antenna mounting on the aircraft, therefore Conversion kit as designed can be used.

Operators are advised to share with Honeywell configuration details to assess applicability of the Conversion kit to the specific aircraft's configuration.

OEM	Model
Bombardier	Global Express
Bombardier	Challenger 600
Bombardier	Challenger 300
Boeing	BBJ 737
Gulfstream	GIV
Gulfstream	GV
Dassault	Falcon 900

TABLE 1 – Targeted platforms

2.2 Performance Limitations

No limitations are caused by this installation.

2.3 Operations Limitations

No limitations are caused by this installation.

2.4 Weight and Balance


Replacement of original AMT 50 (P/N 0476-A-00377, weight 5.25 lb MAX) with Brackets (P/N 90411022 and P/N 90410817), weight of brackets with related fasteners 0.546 lb) and AMT 700 (1428-A-0010-02, weight 4.16 lb MAX) reduces the weight by 0.54 lb. ACU removed which reduces the weight by 7.1 lb.

Weight of new cable harness will be equivalent as original +/- 20% and will have COG on same place.

Description	Part Number	QTY	Weight [lb]
AMT 50	1428-A-0010-02	1	-5.25
ACU	0811-A-0001	1	-7.1
Brackets + AMT 700	90411022 + 90410817 +0476-A-00377	1	+4.71
Overall Weight Change			-7.64

Total Weight for the upgrade was reduced by 7.64 lb and overall static moment shall be calculated based on LRUs locations.

Generally, the change has negligible impact to the overall aircraft weight and balance.

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2.5 Electrical Load

No change to the electrical load as a result of this installation.

2.6 Conformity

All parts from 4.2 “Required parts” shall have appropriate conformity certificate in order to be eligible for installation on an aircraft.

3 Planning Information

3.1 Prerequisite

Suitable configuration of the mounting of the AMT 50 antenna (see example of suitable configuration on Figure 1)

3.2 Tooling

Screwdriver with cross recess per NASM9006 with torque control.

Wrench, hexagonal, 3/8” and 7/16” size with torque control.

3.3 Affected Publications requiring amendment

Title	Note
Illustrated Parts Catalog	Section with AMT 50, DLNA, ACU
Maintenance manual	Section with AMT 50 and ACU
Wiring manual	SATCOM Section
System Schematic manual	SATCOM Section


3.4 Required Documents and Drawings

ID	Title
DWG-69410003-00X	AMT 700 Installation Kit Assembly (P/N 90411021-00X)

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4 Material Information

4.1 Parts Removed

Item Number (Figure 1)	Part Number	Description	QTY	Vendor
5	0476-A-00377	AMT 50 HGA	1	Honeywell
10	as per IPC	Screw	8	
15	as per IPC	Washer, Flat	8	

Item Number (Figure 2)	Part Number	Description	QTY	Vendor
5	0811-A-0001	ACU	1	Honeywell
10	as per IPC	Screw	4	
15	as per IPC	Washer, Flat	4	
95B	as per IPC	WIRE HARNESS S/ASSY	1	


4.2 Parts Required

Item Number (Figure 3)	Part Number	Description	QTY	Vendor
5	1428-A-0010	Assy, AMT 700 HGA	1	Honeywell
6A	90410817	Bracket, Right, AMT 700	1	Honeywell
6B	90411022	Bracket, Left, AMT 700	1	Honeywell
10B	NAS1801-3-6 as applicable	Screw	8	
15B	NAS1149D0332H as applicable	Washer	8	
16	NAS1149D0432H as applicable	Washer	4	
17	NAS1801-4-8 as applicable	Screw	4	
70	90411023-00X	AMT 700 Power and Data Cable	1	Honeywell
71	90411024	AMT 700 RF Cable	1	Honeywell

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5 Accomplishment Instructions

All instructions stated within this section are to be carried out in accordance with the relevant sections of the Aircraft Maintenance Manual (AMM).

To accomplish this installation instruction, gain access to the affected areas of the aircraft by opening or removing appropriate doors, panels or radome.

5.1 Aircraft Preparation

Task Description	MECH	INSP
5.1.1 Gain access to the affected area (Vertical stabilizer tip), to inspect the installation area.		


5.2 Equipment Removal

Task Description	MECH	INSP
5.2.1 Identify ACU		
5.2.2 Disconnect existing connector (Figure 2, Item Number 80) from ACU port labeled J2.		
5.2.3 Disconnect existing connector (Figure 4, Item Number 50) from port J4 of the DLNA (Figure 1, Item Number 2).		
5.2.4 Disconnect existing connector (Figure 1, Item Number 7) from port J1 of the AMT 50.		
5.2.5 Unscrew and release all cable clamps on several places along the path of the cable (Figure 2, Item Number 95B)		
5.2.6 Physically remove the cable (Figure 2, Item Number 95B)		
5.2.7 Identify original AMT 50 antenna		
5.2.8 Disconnect existing RF connector from DLNA port labeled J1. (Figure 1, Item Number 3)		
5.2.9 Remove original antenna according to its removal procedure described in maintenance manual		
5.2.10 Disconnect existing connector (Figure 2, Item Number 75) from ACU port labeled J1.		
5.2.11 Disconnect existing bonding connection, from the ACU. (The wire may not be present)		
5.2.12 Remove ACU according to its removal procedure described in maintenance manual		

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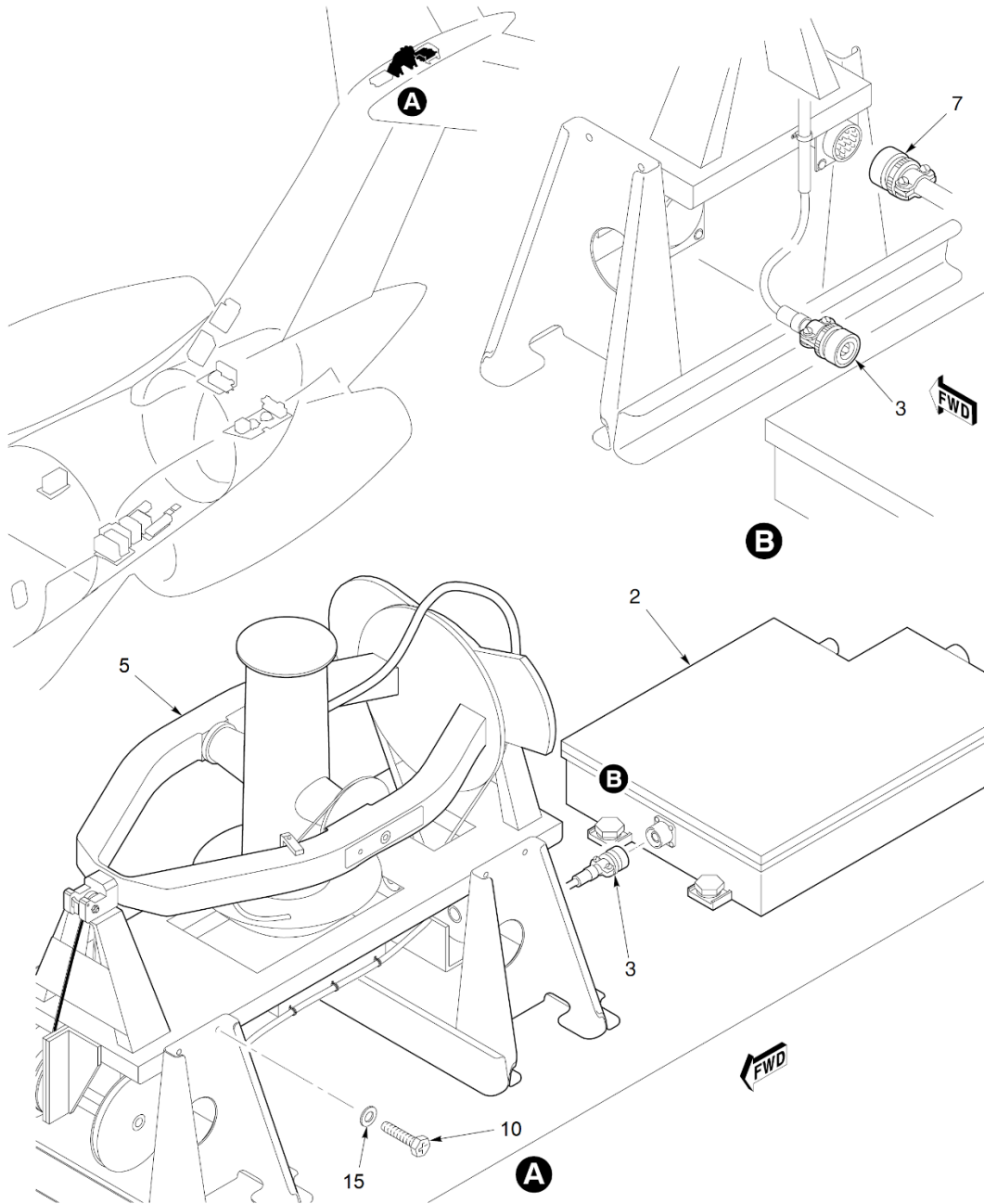


Figure 1: Original Antenna Removal in Vertical stabilizer tip – **FOR ILLUSTRATION ONLY**

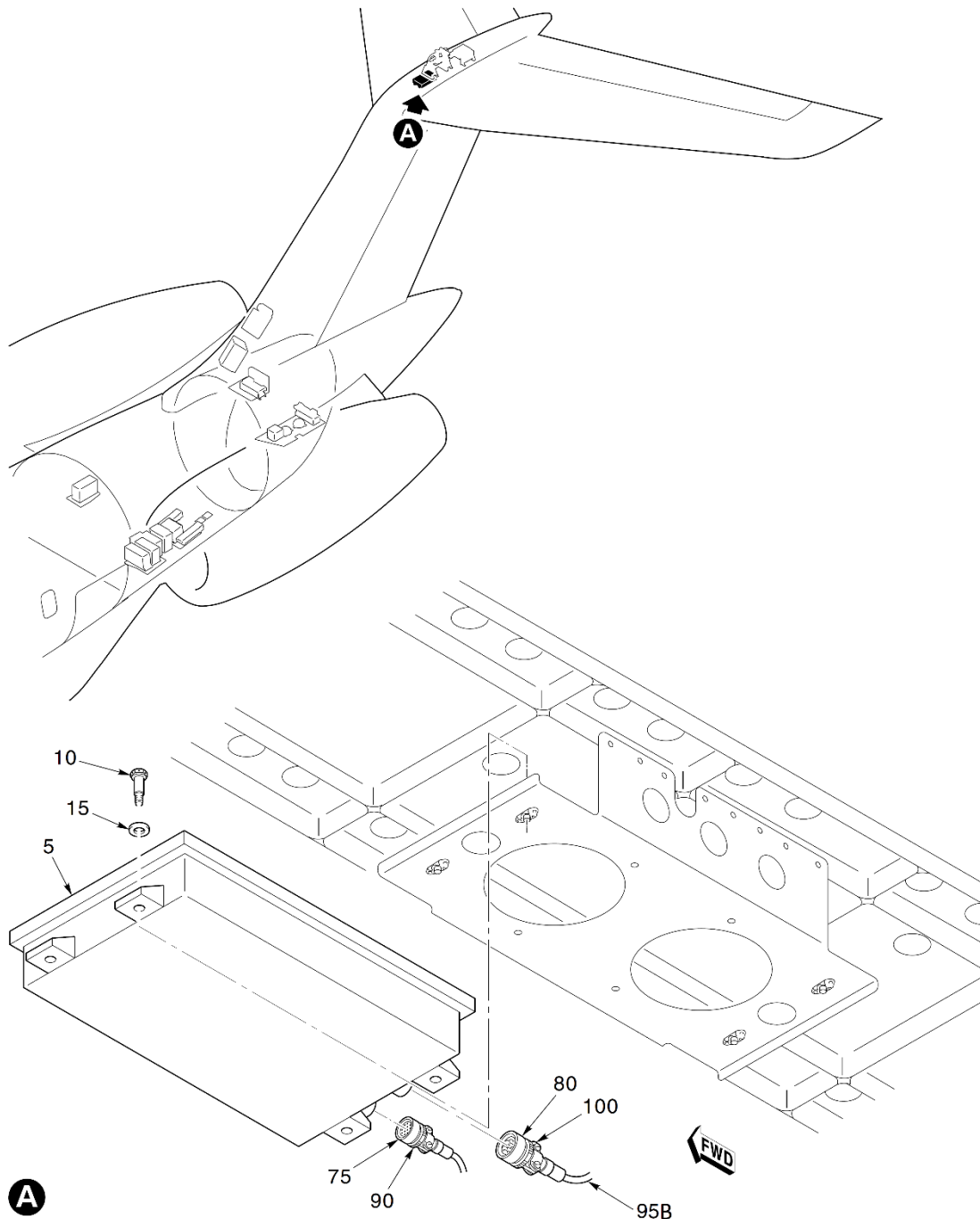



Figure 2: ACU in Vertical stabilizer tip – FOR ILLUSTRATION ONLY

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5.3 Equipment Installation

Task Description	MECH	INSP
5.3.1 Identify installation location (see Figure 3 for reference).		
5.3.2 Mount Brackets (Item Number 6A and 6B, Figure 3) to Antenna, using screws and washers (Item Numbers 16 and 17 respectively, Figure 3) loosely fitted.		
5.3.3 Mount Brackets with Antenna to aircraft structure, using screws and washers (Item Numbers 10B and 15B respectively, Figure 3) loosely fitted. For screws (Item Number 10B) apply small amount of threadlocker.		
5.3.4 Torque screws (Item Number 10B, Figure 3) to 36-40 in-lbs / 4.0-4.5 Nm.		
5.3.5 Torque screws (Item Number 17, Figure 3) to 75-84 in-lbs / 8.5-9.5 Nm.		
5.3.6 Connect Power and Data Cable J3 (Item Number 70, Figure 3) to Antenna J1 (Item Number 5, Figure 3)		
5.3.7 Connect Power and Data Cable plug connector J1 (Item Number 70, Figure 3) with existing connector (Figure 2, Item Number 75)		
5.3.8 Arrange the new connector connection near existing cable clamp and tie the connector to the aircraft structure on two places at the distance less than 1 inch from the connector backshell on each side.		
5.3.9 Use the existing cable arrangement clamps and route the cable via original path to the DLNA and AMT-700 positions. Adjust the length by making coil or reroute as necessary.		
5.3.10 Connect Power and Data Cable connector J2 (Item number 70, Figure 3) to DLNA port labeled J4 (Item number 5, Figure 4). Use existing cable clamps to secure the new cable to the airframe.		
5.3.11 Connect Power and Data Cable J2 (Item Number 70, Figure 3) to DLNA J4 (Item Number 5, Figure 4)		
5.3.12 Connect RF Cable J2 (Item Number 71, Figure 3) to Antenna J2 (Item Number 5, Figure 3)		
5.3.13 Connect RF Cable J1 (Item Number 71, Figure 3) to DLNA J1 (Item Number 5, Figure 4)		
5.3.14 Secure the new RF cable to the airframe using cable clamps.		

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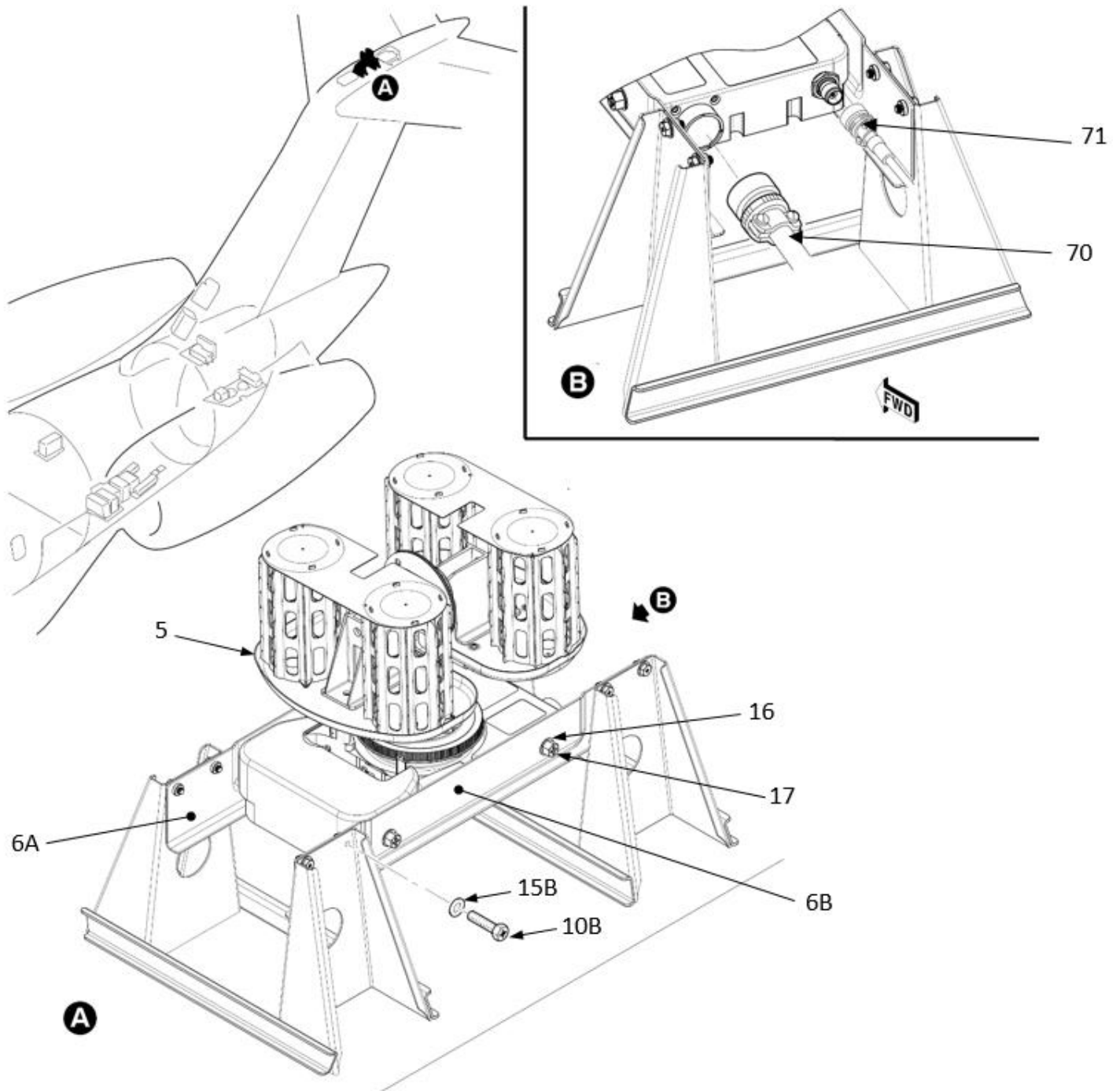


Figure 3: Assembly Installation in Vertical stabilizer tip – **FOR ILLUSTRATION ONLY**

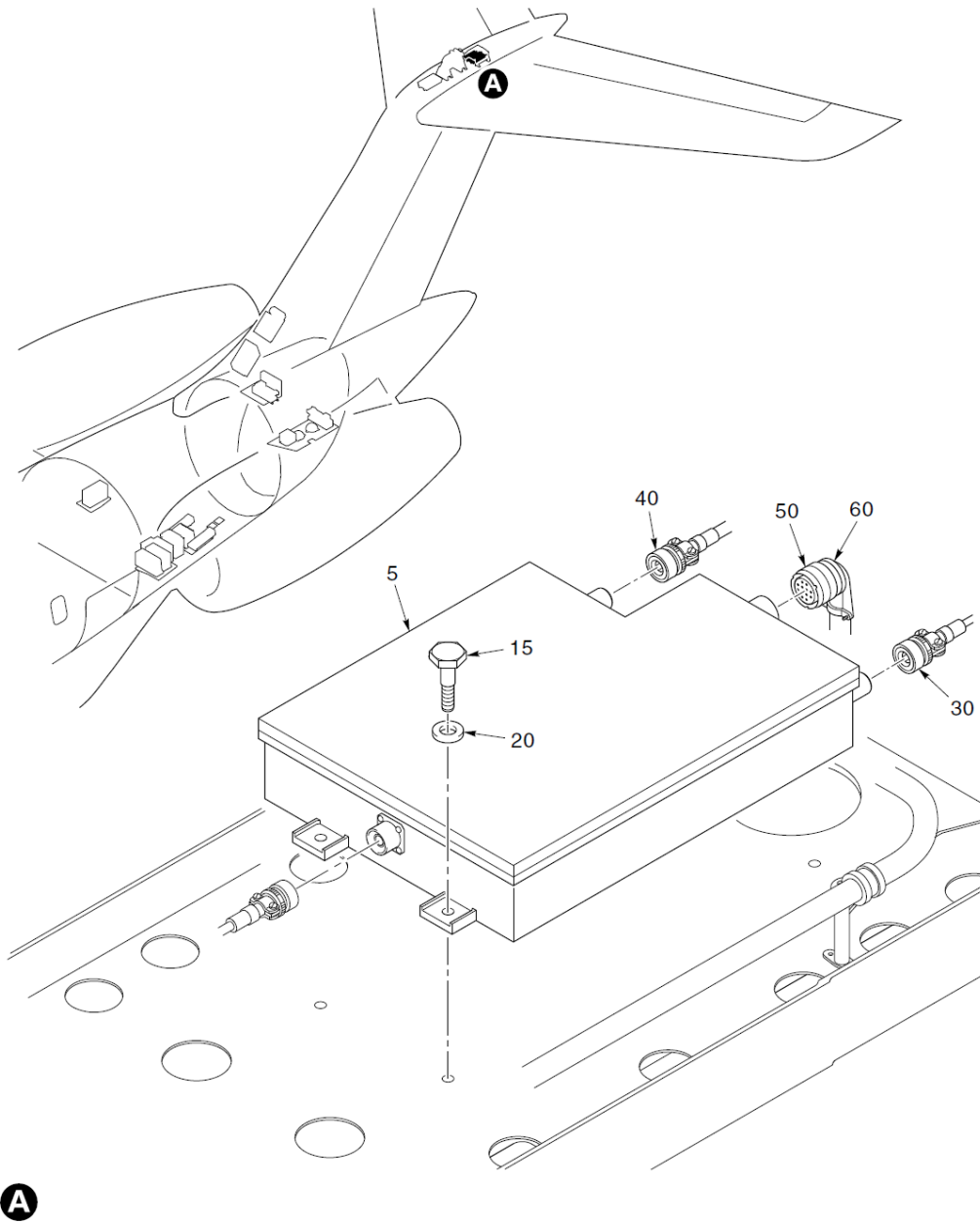



Figure 4: DLNA in Vertical stabilizer tip – **FOR ILLUSTRATION ONLY**

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5.4 ATC System Testing

No ATC system testing

5.5 Clear Up

Task Description	MECH	INSP
5.5.1 On completion of this Installation Instruction, ensure all tools are removed from the aircraft and any foreign debris are removed.		
5.5.2 Refit or close any panels removed or opened during the modification.		

6 Contact

In the event of any difficulty with the embodiment of this Installation Guideline or questions, contact Honeywell International s.r.o via e-mail DOA_Honeywell@honeywell.com or Honeywell Sales Manager at www.myaerospace.com.

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