AIRBUS HELICOPTERS

REVISION TO AIRCRAFT PUBLICATION: EC 155 B1 LCH

PUBLICATION CONCERNED: FLIGHT MANUAL

CUSTOMIZATION AIRCRAFT S/N:

Regulatory Part	**RN 1**	**Date code 23-26**	**Certification code**	**A**

- The outline of the revision is given below:
  - Pages affected (added or modified),
  - Major points of the revision.
- Check that pages in each section or supplement are those specified in the list of effective pages.
- Withdraw old and insert new pages affected by this revision.
- Return the acknowledgement card.
- This list of amended pages may be filed (apart from the manual).

THE CONTENT OF THE FLIGHT MANUAL REVISION MUST BE BROUGHT TO THE ATTENTION OF FLIGHT CREWS.

UPDATE GUIDE

	UPDATE GUIDE					
	DELETED PAGES			INSERTED PAGES		
	SECTION / SUP / APP	PAGES	DATE CODE	SECTION / SUP / APP	PAGES	DATE CODE
Flight Manual Revisions Status	-	1	May 18, 2023	-	1	June 15, 2023
NORMAL REVISION	**Regulatory Part**		**RN1 23-26**			
	0.0.P5	*1 to 6*	*21-44*	**0.0.P5**	**1 to 6**	**23-26**
	1.0.P6	*1*	*21-44*	**1.0.P6**	**1**	**23-26**
	1.3	*1 to 4*	*21-44*	**1.3**	**1 to 4**	**23-26**
	-	-	-	**1.3**	**5**	**23-26**
	2.1	*1*	*21-44*	*2.1*	*1*	*21-44*
	2.1	*2*	*21-44*	**2.1**	**2**	**23-26**
	3.0.P6	*1*	*21-44*	**3.0.P6**	**1**	**23-26**
	3.0.P6	*2*	*21-44*	*3.0.P6*	*2*	*21-44*
	3.2	*29 to 32*	*21-44*	**3.2**	**29 to 32**	**23-26**
	3.2	*35*	*21-44*	**3.2**	**35**	**23-26**
	3.2	*36*	*21-44*	*3.2*	*36*	*21-44*
	4.2	*1 to 2*	*21-44*	**4.2**	**1 to 2**	**23-26**
	4.3	*3 to 4*	*21-44*	**4.3**	**3 to 4**	**23-26**
	4.3	*7*	*21-44*	*4.3*	*7*	*21-44*
	4.3	*8*	*21-44*	**4.3**	**8**	**23-26**
	4.3	*9*	*21-44*	*4.3*	*9*	*21-44*
	4.3	*10*	*21-44*	**4.3**	**10**	**23-26**
	4.6	*1*	*21-44*	**4.6**	**1**	**23-26**

SECTION / SUP / APP	PAGES	DESCRIPTION OF THE REVISION
Regulatory Part		**RN1 23-26**
0.0.P5	1 to 6	- Update of the List of approved effective pages and Log of approved normal revisions.
1.0.P6	1	- Update of Section 1.3 §2 page number.
1.3	1 to 4	- Update of the list of symbols and abbreviations.
1.3	5	- Correction of paragraph number.
2.1	2	- Spelling correction.
3.0.P6	1	- Spelling correction.
3.2	29	- Addition of "back-up" for SAS mode.
3.2	30	- Spelling correction.
3.2	31	- Addition of the sentence "Digital SAS is automatically engaged". - Addition of a NOTE "Join VMC conditions if possible".
3.2	32	- Addition of "CONTINUE FLIGHT". - Deletion of VOR A amber alert.
3.2	35	- Spelling corrections.
4.2	1	- Addition of a fuel tank purge before moving the aircraft, before the first flight of the day.
4.2	2	- Deletion of "Battery.....Plugged".
4.3	3	- Spelling correction.
4.3	4	- Modification of fuel booster pumps check procedure. - Spelling correction.
4.3	8	- Modification of fuel booster pumps check procedure.
4.3	10	- Correction of paragraph number.
4.6	1	- Spelling correction.

Issue dated: **June 15, 2023**

EC 155 B1 LCH

FLIGHT MANUAL REVISIONS STATUS

EASA CERTIFICATION

This manual must contain the normal revision (RN) and rush revisions (RR) listed under the relevant issue (EDIT).

PRESCRIBED PART Volume 1				COMPLEMENTARY PART Volume 2		
SECTION / SUP.	**EDIT.1**	**DATE**		**SECTION / APPENDIX**	**EDIT.1**	**DATE**
0 → 5	RN 1	23-26	R	0, 6 → 10	RN 3	23-20
SUP.0	RN 0	21-44		APP.9.1	RN 0	21-44
SUP.1	RN 0	21-44				
SUP.6	RN 0	21-44				
SUP.11	RN 0	21-44				
SUP.31	RN 0	21-44				
SUP.33	RN 0	21-44				
SUP.56	RN 0	21-44				
SUP.58	RN 0	21-44				
SUP.62	RN 0	21-44				
SUP.63	RN 0	21-44				

LIST OF APPROVED EFFECTIVE PAGES

EASA CERTIFICATION

(1) PAGE REVISION CODE:

- R ..... Revised, to be replaced
- N ..... New, to be inserted

(2) VARIANT OF STANDARD DEFINITION EFFECTIVITY:

- Without indication..... Applicable to all aircraft.
- LCH..... Specific to LCH standard: S/N 7062 - 7063 - 7064 - 7065.

(3) GROUP OF AIRCRAFT EFFECTIVITY:

- Without indication..... Applicable to all aircraft.
- XXXX ..... Specific to XXXX.

SECTION	PAGE	DATE CODE	(1)	(2)	(3)
0.0.P1	1	21-44		LCH	
0.0.P1	2	21-44		LCH	
0.0.P1	3	21-44		LCH	
0.0.P2	1	21-44		LCH	
0.0.P3	1	21-44		LCH	
0.0.P4	1	21-44		LCH	
0.0.P5	1 to 6	23-26	R	LCH	
1.0.P6	1	23-26	R	LCH	
1.1	1	21-44		LCH	
1.1	2	21-44		LCH	
1.2	1	21-44		LCH	
1.2	2	21-44		LCH	
1.3	1	23-26	R	LCH	
1.3	2	23-26	R	LCH	
1.3	3	23-26	R	LCH	
1.3	4	23-26	R	LCH	
1.3	5	23-26	N	LCH	
1.4	1	21-44		LCH	

SECTION	PAGE	DATE CODE	(1)	(2)	(3)
2.0.P6	1	21-44		LCH	
2.0.P6	2	21-44		LCH	
2.1	1	21-44		LCH	
2.1	2	23-26	R	LCH	
2.1	3	21-44		LCH	
2.2	1	21-44		LCH	
2.2	2	21-44		LCH	
2.2	3	21-44		LCH	
2.3	1	21-44		LCH	
2.3	2	21-44		LCH	
2.3	3	21-44		LCH	
2.3	4	21-44		LCH	
2.3	5	21-44		LCH	
2.4	1	21-44		LCH	
2.4	2	21-44		LCH	
2.4	3	21-44		LCH	
2.4	4	21-44		LCH	
2.5	1	21-44		LCH	
2.5	2	21-44		LCH	
2.5	3	21-44		LCH	
2.5	4	21-44		LCH	
2.5	5	21-44		LCH	
2.5	6	21-44		LCH	
2.5	7	21-44		LCH	
2.6	1	21-44		LCH	
2.6	2	21-44		LCH	
2.7	1	21-44		LCH	
2.7	2	21-44		LCH	
3.0.P6	1	23-26	R	LCH	
3.0.P6	2	21-44		LCH	
3.1	1	21-44		LCH	
3.1	2	21-44		LCH	

SECTION	PAGE	DATE CODE	(1)	(2)	(3)
3.2	1	21-44		LCH	
3.2	2	21-44		LCH	
3.2	3	21-44		LCH	
3.2	4	21-44		LCH	
3.2	5	21-44		LCH	
3.2	6	21-44		LCH	
3.2	7	21-44		LCH	
3.2	8	21-44		LCH	
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3.2	14	21-44		LCH	
3.2	15	21-44		LCH	
3.2	16	21-44		LCH	
3.2	17	21-44		LCH	
3.2	18	21-44		LCH	
3.2	19	21-44		LCH	
3.2	20	21-44		LCH	
3.2	21	21-44		LCH	
3.2	22	21-44		LCH	
3.2	23	21-44		LCH	
3.2	24	21-44		LCH	
3.2	25	21-44		LCH	
3.2	26	21-44		LCH	
3.2	27	21-44		LCH	
3.2	28	21-44		LCH	
3.2	29	23-26	R	LCH	
3.2	30	23-26	R	LCH	
3.2	31	23-26	R	LCH	
3.2	32	23-26	R	LCH	
3.2	33	21-44		LCH	
3.2	34	21-44		LCH	
3.2	35	23-26	R	LCH	
3.2	36	21-44		LCH	
3.2	37	21-44		LCH	
3.2	38	21-44		LCH	
3.2	39	21-44		LCH	
3.2	40	21-44		LCH	
3.2	41	21-44		LCH	
3.2	42	21-44		LCH	
3.2	43	21-44		LCH	

SECTION	PAGE	DATE CODE	(1)	(2)	(3)
3.2	44	21-44		LCH	
3.2	45	21-44		LCH	
3.3	1	21-44		LCH	
3.3	2	21-44		LCH	
3.3	3	21-44		LCH	
3.3	4	21-44		LCH	
3.3	5	21-44		LCH	
3.3	6	21-44		LCH	
3.3	7	21-44		LCH	
3.3	8	21-44		LCH	
3.3	9	21-44		LCH	
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3.3	11	21-44		LCH	
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3.3	13	21-44		LCH	
3.3	14	21-44		LCH	
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4.0.P6	2	21-44		LCH	
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4.1	2	21-44		LCH	
4.2	1	23-26	R	LCH	
4.2	2	23-26	R	LCH	
4.2	3	21-44		LCH	
4.3	1	21-44		LCH	
4.3	2	21-44		LCH	
4.3	3	23-26	R	LCH	
4.3	4	23-26	R	LCH	
4.3	5	21-44		LCH	
4.3	6	21-44		LCH	
4.3	7	21-44		LCH	
4.3	8	23-26	R	LCH	
4.3	9	21-44		LCH	
4.3	10	23-26	R	LCH	
4.3	11	21-44		LCH	
4.4	1	21-44		LCH	
4.4	2	21-44		LCH	

SECTION	PAGE	DATE CODE	(1)	(2)	(3)
4.5	1	21-44		LCH	
4.5	2	21-44		LCH	
4.6	1	23-26	R	LCH	
4.7	1	21-44		LCH	
4.7	2	21-44		LCH	
4.8	1	21-44		LCH	
4.8	2	21-44		LCH	
4.9	1	21-44		LCH	
4.9	2	21-44		LCH	
4.9	3	21-44		LCH	
4.9	4	21-44		LCH	
4.9	5	21-44		LCH	
4.9	6	21-44		LCH	
4.9	7	21-44		LCH	
4.9	8	21-44		LCH	
4.9	9	21-44		LCH	
4.9	10	21-44		LCH	
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5.1	1	21-44		LCH	
5.1	2	21-44		LCH	
5.1	3	21-44		LCH	
5.1	4	21-44		LCH	
5.1	5	21-44		LCH	
5.1	6	21-44		LCH	
5.1	7	21-44		LCH	
5.1	8	21-44		LCH	
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5.1	12	21-44		LCH	
5.1	13	21-44		LCH	
5.1	14	21-44		LCH	
5.1	15	21-44		LCH	
5.1	16	21-44		LCH	
5.1	17	21-44		LCH	
5.1	18	21-44		LCH	
5.1	19	21-44		LCH	

SECTION	PAGE	DATE CODE	(1)	(2)	(3)
5.1	20	21-44		LCH	
5.1	21	21-44		LCH	
5.1	22	21-44		LCH	
5.1	23	21-44		LCH	
5.2	1	21-44		LCH	
5.3	1	21-44		LCH	

LOG OF APPROVED NORMAL REVISIONS

NORMAL REVISION 0 date code 21-44	Approved on September 27, 2022 under the authority of EASA Design Organization Approval n. 21J.700.
Main points	Flight Manual creation for EC155 B1 LCH standard, based on EC155 B1 Flight Manual RN21 date code 20-50 and APP.1.20 RN0 date code 20-37 approved by EASA on October 26, 2020 (approval No. 10074654).
Revised information	All sections.
Deleted information	None.
NORMAL REVISION 1 date code 23-26	Approved on June 14, 2023 under the authority of EASA Design Organization Approval n. 21J.700.
Main points	Improvement of Autopilot emergency procedures. Addition of a fuel tank purge before the first flight of the day. Update of engine booster pump test during pre-flight inspections.
Revised information	0.0.P5 pages 1 to 6 - Section 1.0.P6 page 1 - Section 1.3 pages 1 to 5 - Section 2.1 page 2 - Section 3.0.P6 page 1 - Section 3.2 pages 29 to 32 and page 35 - Section 4.2 pages 1 to 2 - Section 4.3 pages 3, 4, 8 and 10 - Section 4.6 page 1.
Deleted information	None.

SECTION 1

GENERAL

CONTENTS

PAGE

SECTION 1.3

SYMBOLS AND CONVERSION TABLES

1 SYMBOLS AND ABBREVIATIONS

DESCRIPTION	SYMBOL OR ABBREVIATION
SPEED	
Calibrated Airspeed	CAS
Ground speed	Gs
Indicated Airspeed	IAS
Main rotor rotation speed	NR
Rate of Climb (Vertical Speed)	R/C
Rate of Descent (Vertical Speed)	R/D
True Airspeed	TAS
Decision speed	V1
Horizontal speed at MCP rating	V_H
Never-Exceed speed	VNE
Vertical Speed	VS
Takeoff or landing Safety Speed	VTOSS
Optimum climbing speed	Vy
ALTITUDE / HEIGHT	
Decision Height	DH
Height	H
Pressure altitude	Hp
Density altitude	$H\sigma$
WEIGHT	
All-Up Weight	AUW
Equipped Empty Weight	EEW
Empty Weight	EW
Maximum permissible Takeoff Weight	MTOW
Operating Empty Weight	OEW
Payload	P/L
Useful Load	UL

DESCRIPTION	SYMBOL or ABBREVIATION
ATMOSPHERE	
Outside Air Temperature	OAT
Outside Air Pressure	P
Relative air density	σ
ENGINE PARAMETERS	
All-Engines Operative	AEO
Powerplant (Engine)	ENG
Maximum Continuous Power	MCP
Maximum TakeOff Power	MTOP
Gas generator speed	N1
Gas generator speed difference	ΔN1
Free turbine speed	N2
One-Engine Inoperative	OEI
• 30 s single-engine rating	OEI 30 s or HI
• 2 min single-engine rating	OEI 2 min or LO
• Continuous single-engine rating	OEI cont. or CT
TakeOff Power	TOP
Exhaust gas temperature	TOT
Torque	TRQ
MISCELLANEOUS	
Airborne Collision Avoidance System	ACAS
Air Data Computer	ADC
Automatic Direction Finder	ADF
Automatic Dependent Surveillance Broadcast	ADSB
Automatic Flight Control System	AFCS
Attitude and Heading Reference System	AHRS
Automatic Pilot	AP
Automatic Pilot Mode Selector	APMS
Air Traffic Control	ATC
Caution and Advisory Display	CAD
Center of Gravity	CG
Central Panel Display System	CPDS
Cruise Height	CR.HT
Cockpit Voice and Flight Data Recorder	CVFDR
Cockpit Voice Recorder	CVR

DESCRIPTION	SYMBOL or ABBREVIATION
Distance Measuring Equipment	DME
Data Transfer Unit	DTU
Environmental Control System	ECS
Emergency Locator Transmitter	ELT
Engine Power Check	EPC
Full-Authority Digital Electronic Control	FADEC
Flight Control Display Module	FCDM
Flight Control Display System	FCDS
Flight Data Recorder (System)	FDR(S)
First Limitation Indicator	FLI
Flight Management System	FMS
Global Navigation Satellite System	GNSS
Global Positioning System	GPS
Ground Power Unit	GPU
Glide Slope	G/S
Heading	HDG
Horizontal Situation Indicator	HSI
Instrument Control Panel	ICP
Intercom System	ICS
Instrumental Flight Rules	IFR
In Ground Effect	IGE
Instrument Landing System	ILS
Instrumental Meteorological Conditions	IMC
Landing Decision Point	LDP
Landing Gear	L/G
Aircraft Recording and Monitoring System	M'ARMS
Main Gearbox	MGB
Main Rotor Head	MRH
Navigation Display	ND
Out of Ground Effect	OGE
Primary Flight Display	PFD
Radio Altimeter	RA
Reconfiguration Control Unit	RCU
Area Navigation	RNAV
Revolution per minute	RPM / rpm
Stability Augmentation System	SAS

DESCRIPTION	SYMBOL or ABBREVIATION
Smart Electro Mechanical Actuator	SEMA
Smart Multi-mode Display	SMD
Takeoff Decision Point	TDP
Tail Gearbox	TGB
Vehicle and Engine Management Display	VEMD
Visual Flight Rules	VFR
Visual Meteorological Conditions	VMC
VHF Omnidirectional Range	VOR
Video RADAR Unit	VRU
Audio warn	

2 CONVERSION TABLES

2.1 METRIC UNITS TO OTHER UNITS

Multiply	by	To obtain
Centimeter (cm)	0.3937	Inch (in)
Meter (m)	3.2808	Foot (ft)
Meter per second (m/s)	196.85	Foot per minute (ft/min)
Kilometer (km)	0.5400	Nautical mile (NM)
Liter (l)	0.2642	US gallon (US gal)
Liter (l)	0.2200	UK gallon (UK gal)
Kilogram (kg)	2.2046	Pound (lb)
Bar (bar)	14.5040	Pound per Square Inch (psi)
Kilometer per hour (km/h)	0.5400	Knot (kt)

2.2 OTHER UNITS TO METRIC UNITS

Multiply	by	To obtain
Inch (in)	2.5400	Centimeter (cm)
Foot (ft)	0.3048	Meter (m)
Foot per minute (ft/min)	0.00508	Meter per second (m/s)
Nautical mile (NM)	1.8520	Kilometer (km)
US gallon (US gal)	3.7850	Liter (l)
UK gallon (UK gal)	4.5460	Liter (l)
Pound (lb)	0.4536	Kilogram (kg)
Pound per Square Inch (psi)	0.0689	Bar (bar)
Knot (kt)	1.8520	Kilometer per hour (km/h)

SECTION 2.1

GENERAL

CAUTION

THIS FLIGHT MANUAL IS APPLICABLE ONLY TO EC 155 B1 LCH STANDARD.

1 APPLICABILITY

COMPLIANCE WITH THE LIMITATIONS PRESCRIBED IN THIS SECTION IS MANDATORY.

The limits specified herein apply to the basic aircraft version.

Any further restrictions arising from optional equipment systems are specified in the relevant SUPPLEMENTS.

2 APPROVED TYPES OF OPERATION

The helicopter operation is approved, except in icing conditions, for:

- Day and night VFR - IFR.

3 CERTIFICATION CRITERIA

The helicopter is approved in the TRANSPORT category under JAR 29 Issue 1 and CS29 Amendment 3, CATEGORY B and CATEGORY A.

CATEGORY A operation is covered by SUPPLEMENT 1.

4 PROHIBITED MANEUVERS

The following are prohibited:

- Aerobatics.
- Running landings at Gs > 35 kt (64 km/h), except emergency maneuver and associated training.
- Intentional running landings on soft ground.
- Intentional full autorotation landings.
- Intentional single-engine flight in normal operation, except for maintenance test flight.
- Single-engine training and demonstration flight, except training mode (refer to SUP.56).
- Intentional use of engine backup, except in case of FADEC failure.
- External loads in IMC.
- Back course approaches.
- Use of CR.HT in IMC or over the ground.
- Deliberate penetration into clouds with massive vertical development.

5 MINIMUM FLIGHT CREW

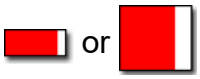
Minimum flight crew.....one pilot in right-hand seat.

6 MAXIMUM PEOPLE TRANSPORT CAPABILITY

Maximum number of seats (including flight crew).....15.

7 INSTRUMENT MARKINGS

7.1 COLOR CODE AND MARKINGS

INDICATORS	VEMD	DESCRIPTION
		Safety limit (min. or max.)
		Caution range
		Normal operating range
		Transient limit
		Equipment operating limit

SECTION 3

EMERGENCY PROCEDURES

CONTENTS

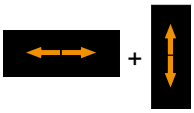
PAGE

PAGE

8 AP FAILURES

GENERAL:

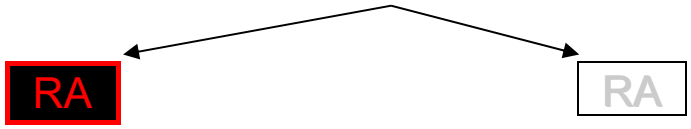
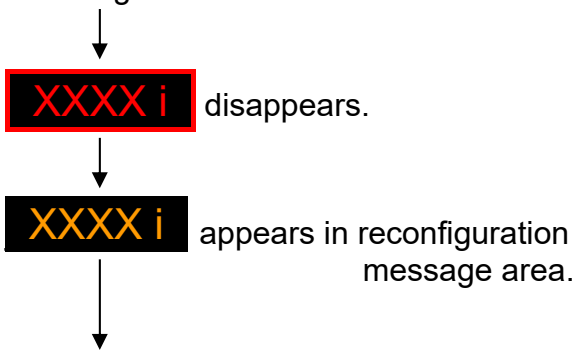
- Red warning: AP is disengaged.
- CAD CAUTION indicates a degradation of basic AP stabilization.
- Amber indication on PFD with no CAD caution indicates an upper mode degradation and requires pilot's attention.

	CORRECTIVE ACTIONS
AP + AP + On PFD 10 s flashing C YR P + AP disengagement	• **Take over the controls.** **1 - Back-up SAS** ..... **ON** SAS. **CONTINUE THE FLIGHT** **NOTE** **In IMC: Vy ≤ IAS ≤ 120 kt**
AHRS DISC + On PFD C RY P + possibly  + ATT AHRS discrepancy	• **Take over the controls.** 1 - With standby horizon: Failed AHRS..... Determine. 2 - On RCU: AHRS .....Reconfigure. ↓ AHRS i on PFD. 3 - Upper mode ..... Reengage XXX. **CONTINUE THE FLIGHT**

	CORRECTIVE ACTIONS
ACTUATOR + on PFD C and R or P or xxx Loss of series actuator	Attitude hold is degraded. **NOTE** • **IAS < 60 kt collective upper mode is disengaged.** • **IAS > 60 kt (except CR.HT) collective upper mode shift on pitch axis.** **CONTINUE THE FLIGHT**
ACTUATOR + on PFD Y or xxx Loss of yaw series actuator	1 - Feet ..... on pedals. • No yaw stabilization. • Upper mode control via roll axis. **CONTINUE THE FLIGHT**
TRIM + on PFD C Loss of collective trim or stick position sensors	**NOTE** • **IAS < 60 kt collective upper mode is disengaged.** • **IAS > 60 kt (except CR.HT) collective upper mode shift on pitch axis.** • **AP reverts to 3 axis.** • **Longitudinal modes (IAS, ALT, ALTA, VS, GA) cannot be engaged below 60 kt.** **If** COLL LINK : ○ **Loss of collective pre-command.** ○ **Pilot must move the collective pitch slowly.** **CONTINUE THE FLIGHT**

	CORRECTIVE ACTIONS
TRIM + on PFD R P + on AP box **A. TRIM CYC** OFF Loss of R and P auto-trim	1 - Cyclic stick .....Hands on. Digital SAS is automatically engaged. ● Attitude hold is degraded. ● Loss of HDG and all navigation upper modes. ● Loss of IAS upper mode. ● Vertical upper modes remain available on collective axis. **CONTINUE THE FLIGHT**
TRIM + on PFD Y or xxx on lateral axis + on AP box **A. TRIM YAW** OFF Loss of yaw trim or pedal position sensors	On PFD: ● If left or right ▲: Respective pedal .....Push to extinguish. **NOTE** **If the slip indicator is not centered, there is a loss of pedal position sensors: Pilot must control the yaw pedals.** **CONTINUE THE FLIGHT**
SAS Loss or degradation of SAS stabilization	● With AP OFF : **LIMIT DURATION OF FLIGHT** **NOTE** **Join VMC conditions if possible.** ● With AP : **CONTINUE THE FLIGHT**

	CORRECTIVE ACTIONS
XXX one or several upper modes amber Degradation of sensor or link between AP and sensor (AHRS, ADC, FLI, ILS)	• Pilot's attention required. **CAUTION** **FOR LOC AND G/S, IF ANY DOUBT ON ILS, PILOT MUST GO AROUND.** **NOTE** **In 4 axis, monitor the power.** **If any doubt on auto pilot power management, revert to 3 axis.** **CONTINUE THE FLIGHT**
VOR + To/from fluctuation overstation sensing or deviation needle fluctuation VOR fluctuation	• Heading is resumed to course track with last estimated drift correction. **CONTINUE THE FLIGHT**
/ / / Degraded reliability of displayed references	• The displayed references may drift. • Closely monitor the engaged references (Attitude, IAS, ALT, etc.). **NOTE** **The upper mode references can no longer be "trimmed".** **Once an upper mode is disengaged, it cannot be reengaged.** **CONTINUE THE FLIGHT**

	CORRECTIVE ACTIONS
RA Radioaltimeter failure	1 - RAD ALT ..... ON.  Radioaltimeter failure CONTINUE THE FLIGHT CONTINUE THE FLIGHT **NOTE** **When RA is failed:** • **G/S label on PFD is displayed in amber.** • **The 80 ft level off at the end of an ILS is no longer available.** • **CR.HT mode is no longer available.** • **Reversion from VS to ALT is invalid.** Weather radar may no longer be used.
XXXX i (FCDM, AHRS, ADC, ICP) Sensor failure	1 - RCU .....Reconfigure.  CONTINUE THE FLIGHT
LOC i Corresponding reception not valid	CAUTION ILS APPROACH IS FORBIDDEN. CONTINUE THE FLIGHT
GS i Corresponding reception not valid	CAUTION G/S IS UNAVAILABLE / UNRELIABLE. CONTINUE THE FLIGHT

	CORRECTIVE ACTIONS
CHECK CONF On ground, Upon electrical power application	1 - All equipment items ..... Check ON.
CHECK FCDM Error detected by cross-monitoring	● With standby instrumentation: 1 - Ambiguity.....Solve. ● On RCU: 2 - FCDM..... Reconfigure. **CONTINUE THE FLIGHT**
CHECK SMD PFD / ND cross monitoring fault	1 - Information with valid screen .....Compare. 2 - SMD failed..... OFF if necessary. **CONTINUE THE FLIGHT**
CHECK PFD or CHECK ND PFD / ND cross monitoring fault on PFD or ND	1 - Information with valid screen .....Compare. 2 - PFD or ND..... OFF if necessary. **CONTINUE THE FLIGHT**
CHECK RANGE	1- Pilot and copilot range .....Align. **CONTINUE THE FLIGHT**

SECTION 4.2

PRE-FLIGHT INSPECTIONS

1 EXTERIOR INSPECTION

NOTE

- **Pay particular attention to the operations marked " * ".**
- **Check that area is clean and clear.**
- **Remove the picketing equipment where applicable (covers, blade socks, mooring lines, etc.).**
- **Perform the following checks.**

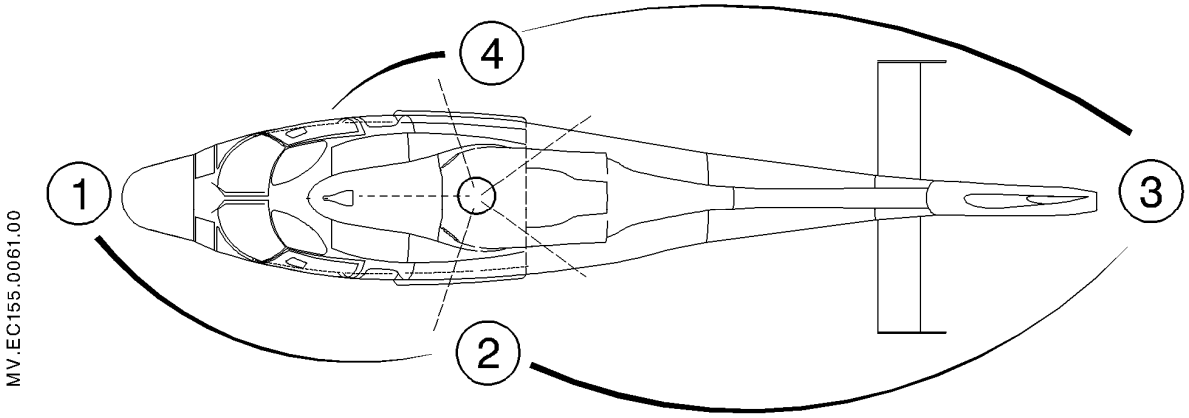


Figure 1

PRE-REQUIREMENTS

Before the first flight of the day:

- Purge fuel tanks before moving the aircraft.

  This task can be done whether by a mechanic or by a pilot who received sufficient training.
- Check that the bleeders are closed once the purge is done.

STATION 1

- General appearance ..... Condition - No traces of leakage.
- Transparent panels ..... Cleanliness.
- Air intakes (MGB and engine) ..... Check cleanliness; clean if necessary.
  On snow-covered ground, refer to SECTION 4.8.*
- Main blades and main rotor hub ..... Condition - General visual check from ground level.
- Pitots ..... Condition - No foreign object.

- Radome ..... Condition - Closed and locked.
- Nose landing gear ..... Visual examination.
- Battery compartment door ..... Locked.

STATION 2

- Main blades and main rotor hub ..... Condition - General visual check from ground level.
- Hydraulic reservoir ..... Level.
- Engine oil tank ..... Level (max oil consumption: 0.2 l/h).
- Cowlings (MGB and engine) ..... Closed - Locked.
- Fuel tank filler caps ..... Closed - Locked. Compartment door locked after checking caps.
- L/G units ..... Visual examination.
- Fire extinguisher ..... Pressure correct.
- Static ports ..... Condition - No foreign object.
- Luggage compartment ..... Door closed (if installed).
- Engine exhaust nozzle ..... No foreign object.

STATION 3

- Horizontal and vertical stabilizers ..... General condition.
- Shrouded tail rotor ..... No chafing of blades on structure. Condition of blades: leading edges and root in particular.
- TGB ..... Level.
- Tail skid ..... No distortion.

STATION 4

- Tail gearbox cowlings ..... Closed and locked.
- Static ports ..... Condition - No foreign object.
- Engine exhaust nozzle ..... No foreign object.
- Fire extinguisher ..... Pressure correct (if pressure gauge installed).
- Luggage compartment ..... Loads lashed, door closed.
- L/G unit ..... Visual examination.
- Cowlings (MGB and engine) ..... Closed - Locked.
- Engine oil tank ..... Level (max oil consumption: 0.2 l/h).
- Hydraulic reservoir ..... Level.
- Main blades and main rotor hub ..... Condition - General visual check from ground level.
- Ground power receptacle door ..... Locked (if starting with battery).

22. TRIM FEEL ..... ON.
23. Flight controls..... Travel check and centering :
    - LG PUMP ..... TEST HYD,
      (Do not exceed a duration of 2 min.)
    - Control travel on cyclic and collective .....Check LMT,
    - Collective lever .....Secured in low pitch position,
    - Cyclic stick ..... Centered,

      Use AP centering function if needed:
      - AP .....ON,
      - Centering pushbutton (Upper mode release) ..... Press more than 2 sec. (cyclic stick moves to neutral position),
      - AP .....OFF,
    - LG PUMP ..... NORM.
24. SERVO TEST pushbutton .....When pressing, check SERVO.
25. GEN 1 and 2 .....ON.
26. EMERGENCY CUT OFF .....PWR ON (forward and snap wired).
27. ENG# FIRE/FAIL control switch.....Perform engine fire system test :
    - FIRE position..... FIRE/FAIL + ENG FIRE + Fuel shutoff control lever red light On + WARN flashing,
    - FAIL position ..... FIRE/FAIL (failure detection).
28. LC FIRE FIRE/FAIL control switch..... Perform cargo fire system test :
    - FIRE position..... CAR FIRE + OVERHEAT + FIRE/FAIL + WARN flashing,
    - FAIL position ..... FIRE/FAIL (failure detection).
29. Standby magnetic compass.....Checked.
30. Lights illuminated on Red Warning Panel .....Check:
    ENG 1 + ENG 2 + MGB P + FUEL Q (refer to NOTE in item 34).
31. Clocks .....Wound and set.
32. Altimeter.....Set.
33. Landing Gear ..... Down with safety pin removed.

34. Fuel management panel:
    - FUEL TEST pushbutton ..... Press: Fuel level at 0 on CAD,
    - Test transfer pump ..... Green arrow + characteristic noise,
    - All booster pumps ..... ON,
    - For each engine ..... Check fuel pressure ≥ 0.4 bar on CAD.

NOTE

If feeder tank is not full, the FUEL Q + QTY (feeder tank level) lights may come on. Lights will go out only when jet pumps have filled the feeder tank.

35. Parking brake ..... Applied.
36. Nose wheel castoring lock..... As required.
37. Flight Data Recorder (M'ARMS):
    - On Menu Zone ..... FLIGHT DATA, DATA TRANSFER,
    - Press IND LTS pushbutton ..... CVR, FDR and HUMS,
    - Release IND LTS pushbutton ..... CVR, FDR and HUMS.

2 ENGINE STARTING

CAUTION

IF THE BATTERY HAS NOT BEEN UNPLUGGED AFTER THE LAST FLIGHT, REFER TO SECTION 8.2 § 3 BEFORE STARTING.

CAUTION

CHECK THAT THE CYCLIC STICK IS IN NEUTRAL POSITION AND THE COLLECTIVE PITCH LEVER LOCKED IN LOW PITCH POSITION.

DO NOT MOVE THE CONTROLS IF HYDRAULIC POWER IS NOT SUPPLIED (LG PUMP SWITCH SET TO TEST POSITION).

If needed, use the AP centering function to center the cyclic stick (refer to §1, item 23).

3 POST-STARTING CHECKLIST

3.1 OVERALL CHECKS

1. Ground power unit ..... Disconnected.
2. Exterior lights ..... As required.

NOTE

In some operational circumstances (clouds, dark night or others), the white strobe may disturb the pilot. Switch to red position if needed.

3. Windshield wiper selector ..... As required.
4. Heating/Ventilation ..... As required.
5. PITOT 1, 2 and EMER PIT ..... ON.
6. S/B HRZ power light ..... Check amber light Out (normal aircraft DC power supply).
7. Perform Tail Rotor servocontrol isolation test:
   - HYD ISOL ..... CUT OFF: HYD LEV RH then SERVO ,
   - HYD ISOL ..... NORM: HYD LEV RH and SERVO .
8. SERVO test ..... Performed: SERVO .
9. Electrical parameters ..... Checked.
10. Perform Chip Pulse System test:
    - CHIPS control switch ..... TEST: ENG CHIP .
11. Perform Chip detection system test:
    - CHIP TEST control switch ..... GB: MGB CHIP + TGB CHIP ,
    - CHIP TEST control switch ..... ENG: ENG CHIP .
12. Red Warning Panel and CAD ..... All lights out.
13. Temperature and pressure readings ..... Checked.
14. Engines and flight instruments ..... Checked.
15. RADAR test ..... Performed (refer to the equipment manufacturer's technical publication).

NOTE

If the copilot's seat is unoccupied, switch off the left screens.

16. Engine fuel pressure check:
    - Booster pumps ..... All OFF, check PRS LH + RH,
    - Test each booster pump:
        - PUMP # ..... ON,
        - Normal pressure ..... Check on CAD,
        - PUMP # ..... OFF,
    - Booster pumps ..... All ON.
17. Flight Data Recorder (M'ARMS):
    - Check ..... CVR and FDR.

3.2 SPECIAL CHECKS (FIRST FLIGHT OF THE DAY)

3.2.1. P2 valve and Heating system automatic switch-off test

1. VENT selector ..... HEAT ⊘.
2. Heating control ..... Aft.
3. Heating system off..... Check.
4. Engine associated with the valve to be tested..... IDL# (TNG mode).
5. Heating control ..... Forward: check heating system on.
6. Check that the TOT of the normally operating engine increases more than 10°C.

NOTE

If the TOT does not increase, the P2 valve of the idling engine is probably seized in the open position. Confirm the failure by applying the same procedure with collective pitch increased.

7. SOV CUT. ..... Press: check heating system off + ⊘ + reset.

NOTE

If SOV CUT test fails, automatic heating system switch off will not operate in case of engine failure.

8. Perform the same checks on the other engine.

3.2.2. Test of Autopilot

- Collective pitch.....Unlocked.
- Hands and feet .....Off.
- BEEP TRIM .....Check.
- AP.....OFF: OFF.
- TEST .....ON: ON flashes.

Successive flashing of:

- On PFD strip: C YR P + AP + WARN
- On CAD: TRIM
  ACTUATOR
  AHRS DISC
  SAS
  AP
- On PFD strip: / / /

Slight movement of cyclic stick, collective pitch and pedals then:

- Upon completion of the test:

TEST : [ ]

On CAD : AP TEST OK

- AP.....ON: AP TEST OK .
- AP.....OFF (cyclic).
- SAS .....ON: SAS .
- AP.....ON: SAS .

CAUTION

TAKEOFF WITH AUTOPILOT INOPERATIVE IS FORBIDDEN.

3.2.3 Miscellaneous AP failures

3.2.3.1 AP degraded

- "AP TEST OK" message on CAD:
  - Abnormal load on yaw control

    On PFD ..... ▲ flashing.

    On CAD ..... AP TEST OK.

    AP can normally be engaged. In flight, monitor yaw axis and push respective pedal to extinguish ▲.

- No "AP TEST OK" message on CAD:
  - Yaw trim failure

    On CAD ..... TRIM.

    On PFD ..... Y.

    On AP box ..... A.TRIM YAW OFF.

    AP can normally be engaged. In flight, monitor yaw axis and push respective pedal to extinguish ▲.

  - Collective trim failure

    On CAD ..... TRIM.

    On PFD ..... C.

    Switch off the collective button on overhead panel. AP can be engaged. The 4th axis is not operative.

  - Minor AP failure

    On AP box ..... TEST ON flashes.

    On PFD ..... ▭.

    AP can be engaged. Upper mode can not be used. Attitude hold only.

3.2.3.2 AP inoperative

- No "AP TEST OK" message on CAD:
  - Pitch or roll trim failure

    On CAD ..... TRIM.

    On PFD ..... R or P.

    On AP box ..... A.TRIM CYC OFF.

    AP must not be used (only SAS function on cyclic).

SECTION 4.6

APPROACH - LANDING

1 APPROACH - LANDING

Passenger ordinance lights ..... ON.

Extend the landing gear and check the following:

1. Gear ..... Down and locked.
2. Light ..... As required.
3. Nose wheel castoring lock ..... As required.
4. Parking brake ..... Released.
5. Caution, warning and instrument readings ..... Checked.
6. Heating ..... Switch off.

The recommended final approach speed is 45 kt.

The descent path must remain outside the risk zone specified on the height/velocity diagram (refer to SECTION 2).

- For IFR coupled approach at minima when in sight:

7. Upper mode ..... Disengaged.

NOTE

AP upper mode operation envelopes:

VOR interception	**Recommended minimum distance: 5 NM.**
LOC/GS interception	**Recommended minimum distance: 5 NM.** **Recommended angle ≤ 60°.**

CAUTION

ON GROUND, IN ORDER TO PREVENT ANY RISK OF VERTICAL OSCILLATIONS, THE TRIM LOADS MUST BE RELEASED BY DEPRESSING THE COLLECTIVE TRIM RELEASE TRIGGER WHENEVER THE COLLECTIVE LEVER IS MOVED.