

**SUPPLEMENT N010  
TO THE AIRPLANE FLIGHT MANUAL  
JCAB Supplement for Model DA 42 NG**

**Operation in Japan**

**Doc. No.** : 7.01.16-E  
**Date of Issue of the Supplement** : 02-Feb-2021  
**Design Change Advisory** : NÄM 42-010  
**Aircraft Serial Number** : \_\_\_\_\_  
**Registration** : JA \_\_\_\_\_

**Effectivity: S/N 42.N100 and subsequent**

This Supplement is approved by JCAB.

This airplane must be operated in compliance with the information and limitations contained herein.

Prior to operation the pilot must take notice of all information contained in this supplement to the Airplane Flight Manual.

飛行規程承認書  
Approval of Flight Manual

航空機 Aircraft	種類 Classification	飛行機 Airplane		
	型式 Type and Model	ダイヤモンド・エアクラフト式DA42NG型 Diamond Aircraft Model DA42NG		
	適用 Applicability	改修 MAM 42-600 実施機 Airplanes with the modification MAM 42-600 incorporated S/N 42.N100 以降 S/N 42.N100 and subsequent		
	型式証明番号 Type Certificate Number	第 65-1 号 No. 65-1		
	国籍記号及び登録記号 Nationality and Registration mark	JA -----	製造番号 Aircraft Serial Number	-----
飛行規程 Flight Manual	管理責任者 Administration personnel	ダイヤモンド・エアクラフト・インダストリーズ DIAMOND AIRCRAFT INDUSTRIES GMBH		
	管理責任者による種類 Classification by administration personnel	<input checked="" type="checkbox"/> TC <input type="checkbox"/> 原 <input type="checkbox"/> 個別 <input type="checkbox"/> STC <input type="checkbox"/> 修改 Original    Individual    Repair Alteration		
	構成による区分 Category by construction	<input type="checkbox"/> 基本 Basic (Status: ) <input checked="" type="checkbox"/> 追加 Supplement N010 (表題 Title : Operation in Japan) (Status: Revision 1)		
	承認事由 Approval reason	<input type="checkbox"/> 型式証明 Type Certificate (TC) <input type="checkbox"/> 型式設計変更 Amendment TC <input type="checkbox"/> 追加型式設計承認 Supplemental Type Certificate (STC) <input type="checkbox"/> 追加型式設計変更承認 Amendment STC <input type="checkbox"/> 修理改造設計承認 Repair or Alteration Design <input type="checkbox"/> 修理改造設計変更承認 Amendment Repair or Alteration Design <input type="checkbox"/> 耐空証明 (新規) Airworthiness Certificate (Initial) <input type="checkbox"/> 耐空証明 (更新) Airworthiness Certificate (Renewal) <input type="checkbox"/> 修理改造検査 Inspection for repair and alteration <input checked="" type="checkbox"/> その他 Others		
上記の航空機の飛行規程について承認する。 Flight Manual for the above-mentioned aircraft is hereby approved.				
航空機安全課長 Director, Airworthiness Division				
				
承認年月日 : 2024 年 2 月 7 日 Date of approval : February 7, 2024				

## 0.1 RECORD OF REVISIONS

Rev. No.	Reason	Chapter	Page(s)	Date of Revision	Approval Note	Date of Approval	Date Inserted	Signature
-	Initial Issue	all	all	02-Feb-2021	see page 9-N010-2	22-Feb-2021	-	-
1	Update of listed Supplement revisions	all	all, except cover page	07-Jul-2023	see page 9-N010-2	07-Feb-2024		

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**0.2 LIST OF EFFECTIVE PAGES**

Chapter	Page		Date
0	(out of scope for approval)	9-N010-1	02-Feb-2021
		9-N010-2	07-Jul-2023
		9-N010-3	07-Jul-2023
		9-N010-4	07-Jul-2023
		9-N010-5	07-Jul-2023
		9-N010-6	07-Jul-2023
1	(out of scope for approval)	9-N010-7	07-Jul-2023
		9-N010-8	07-Jul-2023
2	(JCAB Approved)	9-N010-9	07-Jul-2023
		9-N010-10	07-Jul-2023
		9-N010-11	07-Jul-2023
3	(out of scope for approval)	9-N010-12	07-Jul-2023
4A	(out of scope for approval)	9-N010-12	07-Jul-2023
4B	(out of scope for approval)	9-N010-12	07-Jul-2023
5	(JCAB Approved)	9-N010-13	07-Jul-2023
		9-N010-14	07-Jul-2023
		9-N010-15	07-Jul-2023
6	(out of scope for approval)	9-N010-16	07-Jul-2023
7	(out of scope for approval)	9-N010-16	07-Jul-2023
8	(out of scope for approval)	9-N010-16	07-Jul-2023
Appendix A	(JCAB Approved)	9-N010-17	07-Jul-2023
Appendix B	(out of scope for approval)	9-N010-18	07-Jul-2023
		9-N010-19	07-Jul-2023
Appendix C	(out of scope for approval)	9-N010-20	07-Jul-2023
Appendix D	(out of scope for approval)	9-N010-21	07-Jul-2023
		9-N010-22	07-Jul-2023

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## 1.GENERAL

### 1.10 JCAB REQUIREMENTS

#### Applicable Coverage

This Flight Manual supplements apply for the Japanese Registered Airplanes which has the Japanese Type Certificate in accordance with Civil Aeronautics Act 12.

<b>Model</b>	<b>Basic Flight Manual</b>
DA 42 NG (S/N 42.N100 and subsequent)	Doc. No. 7.01.16-E

#### TC Holder & Aircraft Manufacturer

Diamond Aircraft Industries  
Nikolaus-August-Otto Straße 5  
2700 Wr. Neustadt, Austria

- (Refer to the JCAB TCDS No. 65, latest for details.)

#### Kind and Class of Aircraft

Kind: Aeroplane

Class: Multi-Engine Piston Land

#### Airworthiness Category

Airplane Normal

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**Type and Number of Engine, Propeller**

Make/Manufacturer: Austro Engine

Model: E4-C

Number: Two (2)

Type of Propeller: MTV-6-R-C-F/CF190-69

**Dimensions**

Length: 8.56m

Width: 13.42m

Height: 2.49m

Refer to the Airplane Flight Manual DA 42 NG, Doc. No. 7.01.16-E for details.

**Weight and Center of Gravity**

Maximum certified weight and center of gravity range:

Refer to the JCAB-TCDS No. 65-1 and Airplane Flight Manual DA 42 NG, Doc. No. 7.01.16-E for details.

**Fuel tanks / Oil tank Capacity**

MAX Oil Level (FULL line): 7.4 quarts (2.1 quarts Usable, 5.3 quarts Unusable)

Refer to the JCAB-TCDS No. 65-1 for details.

**JCAB Approved Flight Manual List**

Airplane Flight Manual DA 42 NG, Doc. No. 7.01.16-E.

Refer to Appendix A, JCAB Approved Flight Manual List for Model DA 42 NG.



## 2. OPERATING LIMITATIONS

### 2.16 OTHER LIMITATIONS

#### 2.16.13 JCAB LIMITATIONS

The limitations are the same as those in the basic EASA Approved Flight Manual except:

##### Operation Method Limitation Placard

The following placard must be installed in the forward view of the pilot

The following operating methods are eligible when appropriate instruments and equipment required by the airworthiness and operating requirements are installed on this aircraft:  
Flight under instrument flight rules, Instrument flight, Flight under instrumental navigation, Visual flight other than flight under instrumental navigation, Night operations, Day operations, Flight under icing meteorological conditions, High altitude operations

##### Japanese Placards

The following Japanese placards must be installed:

Emergency Exit, beside the Door Locking Device installed in the Passengers' Door:

**非常脱出口：  
飛行中はキーロックを  
解除しておくこと。**

No Smoking, on the Right-Hand Side of the Instrument Panel above the Circuit Breakers:

**禁煙**

**Occupants Limits**

Maximum Occupancy:

1 Pilot and 3 Passenger

Refer to Airplane Flight Manual DA 42 NG, Doc. No. 7.01.16-E for details.

**OPERATING LIMITATIONS**

This airplane may be operated in the following kinds of operation when appropriate equipment is installed.

- Flight under instrument flight rules (Flight under instruction of air traffic control all times)
- Instrument flight (Flight in instrument meteorological conditions)
- Flight under instrumental navigation (Flight over cloud or over water beyond the distance and time specified in Article 66 of the Regulation under visual meteorological condition)
- Visual flight other than flight under instrumental navigation
- Night operations
- Day operations
- Flight under icing meteorological conditions (as approved in type certificate)
- High altitude operations (above 3,000 meters of altitude)

**OPERATIONAL CAPABILITIES**

**Category I Operations**

The installed equipment for Category I operations complies with the equipment requirements described in the Appendix 2 of the JCAB Circular No. 5-001, "Criteria for approval of Category I operations and Evaluation guideline of Category I operations."

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GPS (Operational Implementation Standards using GPS for the Instrumental Flight Method)

The installed GPS complies with the equipment requirements described in the JCAB Circular No. 5-005, "Operational Implementation Standards using GPS for the Instrumental Flight Method", Chapter 3-1, 4-1, and 5-1.

- The installed Garmin G1000 system is compliant with AC 20-138D.
- The GDU105(x) is compliant with TSO-C115c and TSO-C146c.
- The GIA64W is compliant with TSO-C145d Class 3.

ADS-B (Automatic Dependent Surveillance-Broadcast)

The installed ADS-B OUT complies with the equipment requirements described in the JCAB Circular No. 5-019, "Implementation Approval Criteria using ADS-B OUT", Chapter 3.

- The installed ADS-B OUT system is compliant with 14 CFR 91.225 and 91.227, CS ACNS.D.ADSB (1090 MHz Extended Squitter ADS-B Out), and CS ACNS.D.ELS/EHS (Mode S Elementary/Enhanced Surveillance).
- The optional GTX 3X5R is compliant with TSO-C166b.

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### **3. EMERGENCY PROCEDURES**

No change.

### **4A. NORMAL OPERATING PROCEDURES**

No change.

### **4B. ABNORMAL OPERATING PROCEDURES**

No change.

## **5. PERFORMANCE**

### **5.3 PERFORMANCE TABLES AND DIAGRAMS**

#### **5.3.13 APPROVED NOISE DATA**

This aircraft complies with the requirements of Civil Aeronautics Regulations, Annex 2, "Aircraft Noise Standard" and ICAO Annex 16, Volume I, Appendix 6, Amendment 9, Aircraft Noise, Chapter 10 (effective November 20, 2011).

This Noise Document is made pursuant to Annex 16, Volume I, Attachment G to the Convention on International Civil Aviation (hereinafter referred to as "ICAO Format") and approved as a part of the Aircraft Flight Manual.

In Japan, Compliance to the Noise Requirement is certified as a part of Airworthiness Certification. Noise Certificate is not issued and Noise Characteristics are described in Aircraft Flight Manual. Therefore, Japan determined to incorporate this Noise Document into the Aircraft Flight Manual.

Accordingly, Item 18 "Statement of Compliance", Item 19 "Date of Issuance" and Item 20 "Signature", which are parts of "ICAO Format" but not appropriate for inclusion in the Aircraft Flight Manual, are deleted.

In respect of the Aircraft Flight Manual which is published and managed by Aircraft Type, it may be a case that Item 4 "Nationality and Registration Marks" and Item 6 "Aircraft Serial Number" are blank.

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1. State of Registry:  Japan	2. Noise Document	3. Document Number:
4. Nationality and registration marks:	5. Manufacturer and manufacturer's designation of aircraft:  Diamond Aircraft Industries GmbH DA 42 NG	6. Aircraft serial number:
7. Engine:  Austro Engine E4-C	8. Propeller:  MTV-6-R-C-F/CF190-69	
9. Maximum take-off mass:  1999kg (4407lbs)	10. Maximum landing mass:  1999kg (4407lbs)	11. Noise certification standard:  Chapter 10
12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards: MÄM 42-678 and MÄM 42-600 (Operation with MZFM 1835kg, MLM 1999kg, MTOM 1999kg. Performance enhancement), E4-C (in accordance with DAI MSB E4-002), Silencer: Diamond Aircraft D64-7806-12-00 " _ " Standard Exhaust		
17. Take-off noise level:  75.0 dB(A)		
Remarks:		

1. State of Registry:  Japan	2. Noise Document	3. Document Number:
4. Nationality and registration marks:	5. Manufacturer and manufacturer's designation of aircraft:  Diamond Aircraft Industries GmbH DA 42 NG	6. Aircraft serial number:
7. Engine:  Austro Engine E4-C	8. Propeller:  MTV-6-R-C-F/CF190-69	
9. Maximum take-off mass:  1900kg (4189lbs)	10. Maximum landing mass:  1900kg (4189lbs)	11. Noise certification standard:  Chapter 10
12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards: MAM 42-600 (Performance enhancement), E4-C (in accordance with DAI MSB E4-002), Silencer: Diamond Aircraft D64-7806-12-00_( )		
17. Take-off noise level:  73.8 dB(A)		
Remarks:		

## 6. MASS AND BALANCE

No change.

## 7. DESCRIPTION OF THE AIRPLANE AND ITS SYSTEMS

No change.

## 8. AIRPLANE HANDLING, CARE AND MAINTENANCE

No change.



## APPENDIX A

JCAB Approved Flight Manual List for Model DA 42 NG.

Flight Manual (Basic) and Flight Manual Supplement(s) approved by JCAB are as below.

Flight Manual Doc. No.	Flight Manual Title	Certifying Authority or DOA approved date and Current Revision	JCAB approved date
7.01.16-E	AFM (Basic)	Nov 02, 2021 Rev. 5	Feb 07, 2024
Supplement A33	AFMS No. A33 Integrated Avionics System Garmin G1000 and G1000 NXi, SBAS and P-RNAV Operation	May 05, 2022 Rev. 4	Feb 07, 2024
Supplement A34	AFMS No. A34 Electronic Stability and Protection (ESP)	Jul 11, 2014 Rev. 0	Feb 22, 2021
Supplement S03	AFMS No. S03 Ice Protection System	Apr 20, 2023 Rev. 10	Feb 07, 2024
Supplement S04	AFMS No. S04 Continuous Flow Oxygen System	Mar 06, 2021 Rev. 1	Feb 07, 2024
Supplement S06	AFMS No. S06 G1000 Synthetic Vision Technology	Apr 01, 2012 Rev. 0	Feb 22, 2021
Supplement S07	AFMS No. S07 Recirculating Cabin - Air Cooling	May 05, 2014 Rev. 1	Feb 22, 2021
Supplement S12	AFMS No. S12 Amsafe Inflatable Restraint AAIR V23	Apr 12, 2019 Rev. 2	Feb 22, 2021
Supplement S13	AFMS No. S13 Flight Stream 510	Mar 19, 2019 Rev. 0	Feb 22, 2021
Supplement N010	AFMS No. N010 Operation in Japan	N/A	Feb 22, 2021

Note: JCAB approval is required for limitation section of each AFMs in above table.

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**Appendix B**

JUDGEMENT TABLE FOR OPERATING METHOD LIMITATION  
(REQUIRED EQUIPMENT ON EACH OPERATING METHOD)

Equipments, etc.	Minimum quantity	Operating method							
		A	B	C	D	E	F	G	H
Gyroscopic attitude indicator	1	o	o						
Gyroscopic directional indicator	1	o	o						
Gyroscopic turn indicator	1 (Note 3)	o	o						
Slip indicator	1	o	o						
Precision altimeter	1	o	o						Note 8 o
Rate of climb indicator	1	o	o						
Airspeed indicator with anti-icing device	1	o	o						
Ambient air temperature indicator	1	o	o	o					
Clock with second indicator	1	o	o	o					
Airborne DME	1	o	o	o					
Direction finder, VOR receiver, Airborne TACAN receiver	1	Note 5 o	Note 6 o	Note 6 o					
Navigation lights						o			
Anti-collision lights						Note 7 o			
Anti-icing device								o	
Oxygen supply system (Note1)									o

In addition to the equipments, etc. listed above, it shall be necessary to obey the requirements for equipment specified in the Civil Aeronautic Regulations, etc.

### Category of Operating Methods

- A Flight under instrument flight rules (Flight under instruction of air traffic control all times)
- B Instrument flight (Flight in the instrument meteorological condition)
- C Flight under instrumental navigation (Flight over cloud or over water beyond the distance and time specified in Article 66 of the Regulations under visual meteorological condition)
- D Visual flight other than flight under instrumental navigation
- E Night operations
- F Day operations
- G Flight under icing meteorological condition (as approved in type certification)
- H High altitude operations (above 3,000 meters of altitude)

- (Note 1) Oxygen supply system with following capacity
- (a) When flight is conducted at altitude between 3,000 and 4,000 meters, necessary oxygen quantity shall be as much as for all occupants to use for the flight time equal to flight time related to the said flight minus 30 minutes.
  - (b) When flight is conducted at altitude beyond 4,000 meters, necessary oxygen quantity shall be as much as for all occupants to use for flight time related to the said flight.
- (Note 3) Aircraft equipped with gyroscopic attitude indicator which is able to indicate every attitude of aircraft may not be equipped.
- (Note 5) Either of direction finder, VOR receiver, onboard TACAN equipment will receive radio signals which are dependent on air route related to the flight from NDB, VOR or TACAN stations which exist compose air route. However, direction finder can be substituted with GNSS receiver.
- (Note 6) Either of direction finder, VOR receiver, onboard TACAN receiver be able to receive radio signals all through the flight from NDB, VOR or TACAN stations. However, direction finder can be substituted with GNSS receiver.
- (Note 7) Aircraft of which maximum takeoff weight is equal and more than 5,700 kg, and aircraft of which maximum takeoff gross weight is less than 5,700 kg and obtains initial airworthiness certification after January 17, 2003 must be equipped.
- (Note 8) Required for the flight at altitude of 16,000 ft or more under the Notice of the Director-General of Civil Aviation Bureau, KUUKOU No.551 dated December 9 of 1971, "Specification of Altimeters."



**Appendix D**

			Diamond Aircraft Industries GmbH - DA 42 NG
<p>Table of Supplemental Flight Manual</p> <p>JA _____ Registration mark</p>			
No.	Title	Date of Installation	Signature
1	Supplement A33 - Integrated Avionics System Garmin G1000 and G1000 NXi, SBAS and P-RNAV Operation		
2	Supplement A34 - Electronic Stability and Protection (ESP)		
3	Supplement S03 - Ice Protection System		
4	Supplement S04 - Continuous Flow Oxygen System		
5	Supplement S06 - G1000 Synthetic Vision Technology		
6	Supplement S07 - Recirculating Cabin - Air Cooling		
7	Supplement S12 - Amsafe Inflatable Restraint AAIR V23		
8	Supplement S13 - Flight Stream 510		
9	Supplement N010 - Operation in Japan		

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