



U.S. Department of
Transportation
Federal Aviation
Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act 1958)

1. Aircraft	Make Cessna	Model 182L
	Serial No. 18258940	Nationality and Registration Mark N42279
2. Owner	Name (As shown on registration certificate) Mann Richard G	Address (As shown on registration certificate) 5611 Starboard Dr Discovery Bay, CA 94514-9324

3. For FAA Use Only

4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in item 1 above)			☐	☒
POWERPLANT				☐	☐
PROPELLER				☐	☐
APPLIANCE	Type			☐	☐
	Manufacturer			☐	☐

6. Conformity Statement

A. Agency's Name and Address J and R Electronics 20511 Skywest Drive Hayward, CA 94541	B. Kind of Agency ☐ U.S. Certified Mechanic ☐ Foreign Certified Mechanic ☒ Certified Repair Station ☐ Manufacturer	C. Certificate No. XB3R965L Class I & II Radio Limited Radio & Inst Specialized Service
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date March 8, 2006	Signature of Authorized Individual
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7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ APPROVED ☐ REJECTED

BY	☐ FAA Fit Standards Inspector	☐ Manufacturer	☐ Inspection Authorization	Other (Specify)
	☐ FAA Designee	☒ Repair Station	☐ Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 3/8/06		Certificate or Designation No. XB3R965L	Signature of Authorized Individual 	

United States Of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

Number SA02154AK

This Certificate issued to Garmin AT, Inc.
2345 Turner Road, S.E.
Salem, Oregon 97309

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

Original Product Type Certificate Number: * * See attached FAA Approved Model List (AML) No. SA02154AK. Original Issue, dated February 18, 2000, amended May 11, 2005, for list of approved airplane models and applicable airworthiness regulations
Make: *
Model: *

Description of Type Design Change:

Configuration 1

Installation of the Garmin AT, Inc., Apollo MX20 Multi-Function Display, P/N 430-0270-501, in accordance with Garmin AT, Inc., Apollo MX20 Supplemental Type Certificate Master Drawing List, P/N 560-5050-05, Revision H, dated April 22, 2005, or later FAA approved revision.

(See Continuation Sheet 3)

Limitations and Conditions:

1. Airplane Flight Manual Supplement or Supplemental Airplane Flight Manual, P/N 560-1032-05, Revision G, FAA approved May 11, 2005, or later FAA approved revision, is a required part for installation of Configuration 1, 2, and 3.

(See Continuation Sheet 3)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

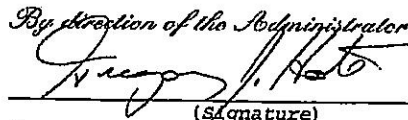
Date of application: June 15, 1999

Date reissued: October 14, 2003

Date of issuance: February 18, 2000

Date amended: December 21, 2000;
May 16, 2002; July 2, 2002;
August 14, 2002;
February 26, 2003; June 8, 2004,
January 12, 2005; May 11, 2005



By direction of the Administrator

(Signature)

Gregory J. Holt
Manager
Anchorage Aircraft Certification Office

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States Of America
Department of Transportation - Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number SA02154AK

Date of application: June 15, 1999

Date of issuance: February 18, 2000

Date reissued: October 14, 2003

Date amended: December 21, 2000; May 16, 2002;
July 2, 2002; August 14, 2002;
February 26, 2003; June 8, 2004;
May 11, 2005

Description of Type Design Change:

Configuration 2

Installation of the Garmin AT, Inc., Apollo MX20 Multi-Function Display, IO Traffic, P/N 430-0270-600, in accordance with Garmin AT, Inc., Apollo MX20 Supplemental Type Certificate Master Drawing List, P/N 560-5050-05, Revision H, dated April 22, 2005, or later FAA approved revision.

Configuration 3

Installation of the Garmin AT, Inc., Apollo MX20 Multi-Function Display, IO Traffic/Radar, P/N 430-0270-700, in accordance with Garmin AT, Inc., Apollo MX20 Supplemental Type Certificate Master Drawing List, P/N 560-5050-05, Revision H, dated April 22, 2005, or later FAA approved revision.

Configuration 4

Installation of the Goodrich i-linc Multi-Function Display, P/N 430-0270-800, in accordance with Garmin AT, Inc., Apollo MX20 Supplemental Type Certificate Master Drawing List, P/N 560-5050-05, Revision H, dated April 22, 2005, or later FAA approved revision.

Configuration 5

Installation of the Goodrich i-linc, Radar, Multi-Function Display, P/N 430-0270-900, in accordance with Garmin AT, Inc., Apollo MX20 Supplemental Type Certificate Master Drawing List, P/N 560-5050-05, Revision H, dated April 22, 2005, or later FAA approved revision.

Limitations and Conditions:

2. Airplane Flight Manual Supplement or Supplemental Airplane Flight Manual, P/N 560-1045-02, Revision G, FAA approved May 11, 2005, or later FAA approved revision, is a required part for installation of Configuration 4 and 5.
3. For Continued Airworthiness Instructions of Configuration 1, refer to the Apollo MX20 Installation Instructions, P/N 560-1025-02, dated January 17, 2000, or later FAA approved revision.
4. For Continued Airworthiness Instruction of Configurations 2, 3, 4, and 5, refer to the Apollo Instructions for Continued Airworthiness, P/N 560-1048-00, Revision -, dated June 26, 2002, or later FAA approved revision.
5. Compatibility of this design change with previously approved modifications must be determined by the installer.
6. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

- End -

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

Garmin AT, Inc.
2345 Turner Rd. SE
Salem, OR 97302

Approved Model List For STC No. SA02154AK
Original Issue; Date: February 18, 2000
Amendment A: June 8, 2004
Amendment B: January 12, 2005
Amendment C: May 11, 2005

<u>Aircraft Make and Model Designation</u>	<u>Original Type Certificate Number</u>	<u>Certification Basis</u>
Britten-Norman (B-N Group Limited)		
BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, BN-2T-4R	A17EU	FAR23
BN2A MK. III, BN2A MK. III-2, BN2A MK. III-3	A29EU	FAR 23
Cessna		
120, 140	A-768	CAR 3
140A	5A2	CAR 3
150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, A150L, A150M, 152, A152	3A19	CAR 3
170, 170A, 170B	A-799	CAR 3
172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 172R, 172S	3A12	CAR 3, FAR 23
172RG, P172D, R172E, R172F, R172G, R172H, R172J, R172K, 175, 175A, 175B, 175C	3A17	CAR 3
177, 177A, 177B	A13CE	FAR 23
177RG	A20CE	FAR 23
180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K	5A6	CAR 3
182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182S, 182T, R182, T182, TR182, T182T	3A13	CAR 3, FAR 23
185, 185A, 185B, 185C, 185D, 185E, A185E, A185F	3A24	CAR 3
190, 195, 195A, 195B	A-790	CAR 3
210, 210A, 210B, 210C, 210D, 210E, 210F, T210F, 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, T210M, 210N, P210N, T210N, 210R, P210R, T210R, 210-5 (205), 210-5A (205A)	3A21	CAR 3
206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D, TP206E, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G, 206H, T206H	A4CE	CAR 3, FAR 23
207, 207A, T207, T207A	A16CE	FAR 23
208, 208A, 208B	A37CE	FAR 23
T-303 (Crusader)	A34CE	FAR 23
310, 310A (USAF U-3A), 310B, 310C, 310D, 310E (USAF U-3B), 310F, 310G, 310H, E310H, 310I, 310J, 310J-1, E310J, 310K, 310L, 310N, 310P, T310P, 310Q, T310Q, 310R, T310R	3A10	CAR 3
320, 320A, 320B, 320C, 320D, 320E, 320F, 320-1, 335, 340, 340A	3A25	CAR 3
336	A2CE	CAR 3
337, 337A (USAF 02B), 337B, T337B, 337C, 337E, T337E,	A6CE	CAR 3, FAR