



United States of America
Department of Transportation
Federal Aviation Administration

Supplemental Type Certificate

Number: SA01866WI

This certificate issued to: Garmin International, Inc.
1200 East 151st Street
Olathe, KS 66062

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 23* of the Federal Aviation Regulations

Original Product – Type Certificate Number:
Multiple – AML STC

Make:
Model: See FAA Approved Model List (AML) SA01866WI for approved aircraft models and applicable airworthiness regulations

Description of Type Design Change:

Installation of Garmin GFC 500 Autopilot with Electronic Stability and Protection

Data Required:

- (1) Garmin Master Drawing List (MDL) 005-01264-00, Revision 1, dated December 21, 2017
- (2) Garmin GFC 500 Automatic Flight Control System Part 23 AML STC Maintenance Manual (includes Instructions for Continued Airworthiness) 190-02291-01, Revision 1, dated December 21, 2017

Later FAA-approved revisions to the data listed above are incorporated without amendment to this certificate

Limitations and Conditions:

- (1) Compatibility of this design change with previously approved modifications must be determined by the installer.
 - (2) Aircraft modified by this STC must be operated in accordance with the Airplane Flight Manual Supplement (AFMS) identified on the Approved Model List.
 - (3) Aircraft modified by this STC must be maintained in accordance with the Instructions for Continued Airworthiness (ICA) identified above.
- (continued on Page 3)

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

Date of Application: August 24, 2017

Date Reissued:

Date of Issuance: December 21, 2017

Date Amended: March 15, 2019; May 4, 2020; September 10, 2020, October 15, 2020; November 13, 2020; April 27, 2021; November 12, 2021; February 1, 2022; July 21, 2023; September 8, 2023

By Direction of the Administrator

Signature Erik Frisk

Title Erik Frisk
ODA STC Unit Administrator
ODA-240087-CE

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



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Supplemental Type Certificate

INSTRUCTIONS: The transfer endorsement below may be used to notify the appropriate FAA Aircraft Certification Office of the transfer of this Supplemental Type Certificate. The FAA will reissue the certificate in the name of the transferee and forward it to him.

Transfer Endorsement

Transfer the ownership of Supplemental Type Certificate Number:

To (Name and address of transferee)

From (Name and address of grantor)

Extent of Authority (if licensing agreement):

Date of transfer:

Signature of grantor: _____

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Supplemental Type Certificate
 (Continuation Sheet)

Number: SA01866WI

September 8, 2023

- (4) The installation of a Garmin G5 Electronic Flight Instrument per Garmin AML STC SA01818WI or a Garmin G3X Touch EFIS per Garmin AML STC SA01899WI or a Garmin GI 275 per Garmin AML STC SA2658SE must be accomplished prior to or concurrent with this STC installation.
- (5) If the holder agrees to permit another person to use this certificate to alter the product, the holder must give the other person written evidence of that permission.
- (6) All aircraft listed on the Approved Model List (AML) meet the requirements for airplane certification level 1 and 2, and airplane performance level: low speed.

*Certification Basis

Based on 14 CFR 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for this change is as follows:

- a. The certification basis for parts not changed or not affected by this change remains unchanged from the original approval.
- b. The certification basis for parts changed or affected by this change is:

<u>Section</u>	<u>Amdt.</u>	<u>Section</u>	<u>Amdt.</u>
23.143	23-50	23.863 (a)(b)	23-34
23.301 (a)	23-48	23.1301 (a)(b)(c)(d)	23-20
23.303	Orig.	23.1309 (a)(1)(2)(3)(b)(c)(d)(e)	23-49
23.305 (a)(b)	23-45	23.1321 (e)	23-49
23.307 (a)	Orig.	23.1322	23-43
23.337	23-48	23.1329	23-49
23.395 (a)(1)	23-7	23.1331 (b)(1)	23-43
23.397 (a)(b)	23-45	23.1335	23-20
23.405	Orig.	23.1351 (a)(1)(2)(i)	23-49
23.561 (a)(b)(3)(e)	23-48	23.1353 (h)	23-49
23.601	Orig.	23.1357 (a)(b)(c)(d)	23-43
23.603	23-23	23.1359	23-49
23.605 (a)	23-23	23.1365 (a)(b)(d)(e)	23-49
23.607 (a)(b)(c)	23-48	23.1381 (a)	Orig.
23.609	Orig.	23.1431 (a)(b)	23-49
23.611	23-48	23.1501 (a)(b)	23-21
23.613 (a)(b)	23-45	23.1523 (a)(b)(c)	23-34
23.627	Orig.	23.1525	23-45
23.671 (a)(b)	Orig.	23.1529	23-26
23.675	23-17	23.1555 (a)(b)	23-50
23.677 (a)(d)	23-49	23.1581 (a)(b)(d)(f)	23-50
23.681 (a)	Orig.	23.1583 (h)	23-50
23.683	23-7	23.1585 (a)	23-50
23.685 (a)(c)(d)	23-17	23.2000	23-64
23.689 (a)(2)(3)(b)(c)(e)	23-7	23.2005	23-64
23.771 (a)	23-14	23.2010 (a)(b)	23-64
23.773 (a)(2)	23-45	23.2335	23-64
23.777 (a)(b)	23-51	23.2515 (a)(b)*	23-64
23.779 (a)	23-51	23.2520 (a)(b)*	23-64
23.853 (a)	23-49		

*23.2515(b) and 2520(b) are applicable to the GI 275 interface only.

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FAA Approved Model List (AML)

STC Number SA01866WI

GFC 500 Autopilot with Electronic Stability and Protection



Issued Date: 12/21/2017

Amended Date: 9/8/2023

FAA Approved Model List (AML) STC Number SA01866WI

AML Amendment Log

Date	Description
12/21/17	Original
3/13/18	Add S35, V35, V35A, V35B
3/16/18	Add PA-28-150, -160, -180, -151, -161, -181
5/11/18	Add 172E
7/27/18	Added AA-5, AA-5A, AA-5B, AG-5B
8/9/18	Added 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33/G33, F33A, F33C
8/29/18	Added PA-28-140
10/16/18	Added 210K, T210K, 210L, T210L, 210M, T210M, 210N, T210N
11/05/18	Added F33A (S/N CE-316 thru CE-1791)
1/18/19	Added M20M, M20R, M20S
3/7/19	Added 180/185 series
3/8/19	Added 36, A36, A36TC
3/14/19	Added M20J, M20K
5/30/19	Added R172K, FR172K, and F172E
7/03/19	Added R182, TR182, and FR182
7/30/19	Added PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T
7/30/19	Added PA-32R-300, PA-32R-301(SP), PA-32R-301(HP), PA-32R-301T
10/15/19	Reordered by Make/TC number, Added PA-28-201T, PA-28-236, PA-32-260, PA-32-300
12/16/19	Added 177B, 177RG, and F177RG
12/19/19	Added PA-28-235, PA-32-301, PA-32-301T, PA-32-301FT, PA-32-301XTC
02/28/20	Added PA-28RT-201 and PA-28RT-201T
03/27/20	Added B36TC
5/1/20	Added U206F (S/N U20602200 and later, TU206F (S/N U20602200 and later), U206G, TU206G, 206H, and T206H
5/4/20	Added A-1, A-1A, A-1B, A-1C-180, A-1C-200

Date	Description
5/13/20	Added PA-32RT-300 and PA-32RT-300T
6/26/20	Added N35 and P35
6/30/20	Added 210G, T210G, 210H, T210H, 210J, T210J
10/15/20	Added M20F/M20G
10/26/20	Added U206C, TU206C, P206C, TP206C, U206D, TU206D, P206D, TP206D, U206E, TU206E, P206E, TP206E, U206F (S/N U20602199 and earlier), TU206F (S/N U20602199 and earlier)
11/13/20	Added SR22
11/16/20	Added 172RG
12/01/20	Added M20C/M20D/M20E (1965 and later)
3/3/21	Added TB20/21
4/27/21	Added PA-24, PA-24-250, and PA-24-260
6/16/21	Added 210D/E/F
6/17/21	Added H35, J35, K35, M35
6/25/21	Added M20C/M20D/M20E (pre-1965)
9/2/21	Added 19/23/24 Series
9/28/21	Added 182, 182A, 182B, 182C, 182D
11/12/21	Added C35, D35, E35, F35, G35
11/30/21	Added Cirrus SR20
1/14/22	Added Commander 114, 114A, 114B, 114TC
2/1/22	Added Piper PA-30/39
5/4/22	Added Cessna 172D/P172D
5/24/22	Added Commander 112B, 112TC, 112TCA
7/20/22	Added 8GCBC
2/10/23	Added Commander 112
2/16/23	Added Cessna 172A/B/C, 175A/B/C
3/7/23	Updated Cessna 172A/B/C and 175A/B/C serial number effectivity
7/21/23	Added Textron A45, D45
8/25/23	Added Cessna 177/177A
9/8/23	Added Piper PA-34-200T and PA-34-220T

FAA Approved Model List (AML) STC SA01866WI

Aircraft Make (TCDS Holder) [common name or previous make]	Aircraft Model	Type Certificate Number	TC Certification Basis*	MDL 005-01264-00 Rev.**	AML Amended Date	AFMS Part Number	AFMS Rev. **
American Champion (American Champion Aircraft Corp.) [Bellanca] [Champion]	8GCBC	A21CE	FAR 23	75	7/20/22	190-02291-95	1
Aviat Aircraft, Inc. (Aviat Aircraft, Inc.) [Aviat]	A-1, A-1A, A-1B, A-1C-180, A-1C-200	A22NM	FAR 23	30	5/4/20	190-02291-39	1
Cirrus Design Corporation (Cirrus Design Corporation) [Cirrus]	SR22 (S/N 22-0002 thru 22-4434) (except those with G1000)	A00009CH	FAR 23	42	11/13/20	190-02291-55	1
	SR20 (S/N 20-1005 thru 20-1877 and 20-1879 thru 20-1885)			64	11/30/21	190-02291-85	1
Commander (Commander Aircraft Corporation.) [Commander]	114, 114A, 114B, 114TC	A12SO	FAR 23	67	1/14/22	190-02291-89	1
	112B, 112TC, 112TCA			74	5/24/22	190-02291-89	2
	112			78	2/10/23	190-02291-89	3
Mooney (Mooney International Corporation) [Mooney]	M20M, M20R, M20S (except those with G1000)	2A3	CAR 3 FAR 23	11	1/18/19	190-02291-18	1
	M20J, M20K			14	3/14/19	190-02291-20	1
	M20F, M20G		CAR 3	40	10/15/20	190-02291-64	1
	M20C (S/N 2742, 2807 and later) M20D (S/N 252-260) M20E (S/N 400, 470 and later)			44	12/01/20	190-02291-70	1
	M20C (S/N 1852, 1940 thru 2806, except 2742) M20D (S/N 1, 101 thru 251) M20E (S/N 101 thru 469, except 400)			59	6/25/21	190-02291-70	2
Piper Aircraft, Inc. (Piper Aircraft, Inc.) [Piper]	PA-24, PA-24-250, PA-24-260	1A15	CAR 3	56	4/27/21	190-02291-62	1

FAA Approved Model List (AML) STC SA01866WI

Aircraft Make (TCDS Holder) [common name or previous make]	Aircraft Model	Type Certificate Number	TC Certification Basis*	MDL 005-01264-00 Rev.**	AML Amended Date	AFMS Part Number	AFMS Rev. **
Piper Aircraft, Inc. (Piper Aircraft, Inc.) [Piper]	PA-28-150, PA-28-160, PA-28-180, PA-28-151, PA-28-161, PA-28-181 (except those with G1000)	2A13	CAR 3 FAR 23	4	3/16/18	190-02291-07	1
	PA-28-140			8	8/29/18	190-02291-07	3
	PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T			20	7/30/19	190-02291-29	1
	PA-28-201T			22	10/15/19	190-02291-48	1
	PA-28-236					190-02291-34	1
	PA-28-235			24	12/19/19	190-02291-53	1
	PA-28RT-201			26	02/28/20	190-02291-60	1
	PA-28RT-201T			26	02/28/20	190-02291-50	1
Piper Aircraft, Inc. (Piper Aircraft, Inc.) [Piper]	PA-30, PA-39	A1EA	CAR 3 FAR 23	68	2/1/22	190-02291-90	1
Piper Aircraft, Inc. (Piper Aircraft, Inc.) [Piper]	PA-32R-300, PA-32R-301(SP), PA-32R-301(HP), PA-32R-301T	A3SO	CAR 3 FAR 23	21	7/30/19	190-02291-27	1
	PA-32-260, PA-32-300			22	10/15/19	190-02291-47	1
	PA-32-301, PA-32-301T, PA-32-301FT, PA-32-301XTC (except those with G1000)			24	12/19/19	190-02291-27	2
	PA-32RT-300			31	5/13/20	190-02291-65	1
	PA-32RT-300T			31	5/13/20	190-02291-52	1
Piper Aircraft, Inc. (Piper Aircraft, Inc.) [Piper]	PA-34-200T, PA-34-220T	A7SO	FAR 23	84	9/8/23	190-02291-0H	1
SOCATA	TB20, TB21 (S/N 275 thru 2184, 2191, 2192, 2194, 2195, 2196, and 2203)	A51EU	FAR 23	50	3/3/21	190-02291-73	1
Textron Aviation (Textron Aviation Inc.) [Beechcraft]	C35, D35, E35, F35, G35	A-777	CAR 3	63	11/12/21	190-02291-87	1

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Aircraft Make (TCDS Holder) [common name or previous make]	Aircraft Model	Type Certificate Number	TC Certification Basis*	MDL 005-01264-00 Rev.**	AML Amended Date	AFMS Part Number	AFMS Rev. **
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	172A (S/N 46755 thru 47746)	3A12	CAR 3	80	3/1/23	190-02291-0C	1
	172B (S/N 17247747 thru 17248734)						
	172C (S/N 17248735 thru 17249544)						
	172E		CAR 3	5	5/11/18	190-02291-02	2
	172F (USAF T-41A), 172G, 172H (USAF T-41A), 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 172R, 172S (except those with G1000)		CAR 3 FAR 23	1	12/21/17	190-02291-02	1
	172D		CAR 3	73	5/4/22	190-02291-96	1
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	182, 182A, 182B, 182C, 182D	3A13	CAR 3 FAR 23	61	9/28/21	190-02291-23	5
	182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182S, 182T, T182, T182T (except those with G1000)			1	12/21/17	190-02291-06	1
	R182, TR182		19	7/03/19	190-02291-32	1	
Textron Aviation (Textron Aviation Inc.) [Beechcraft]	S35, V35, V35A, V35B	3A15	CAR 3	3	3/13/18	190-02291-09	1
	35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33/G33 (S/N CD-1244 thru CD-1304), F33A (S/N CE-290 thru CE-315), F33C (S/N CJ-52 thru CJ-179)			7	8/9/18	190-02291-16	1
	F33A (S/N CE-316 thru CE-1791)			10	11/05/18	190-02291-16	1
	36, A36, A36TC (S/N EA-1 thru EA-272, except EA-242)			13	3/8/19	190-02291-25	1
	B36TC			28	3/27/20	190-02291-25	3
	N35, P35			34	6/26/20	190-02291-59	1
	H35, J35, K35, M35			58	6/17/21	190-02291-77	1
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	R172K	3A17	CAR 3 FAR 23	17	5/30/19	190-02291-02	6
	172RG			43	11/16/20	190-02291-68	1
	P172D		CAR 3	73	5/4/22	190-02291-96	1
	175A (S/N 56239 thru 56777)		CAR 3	80	3/1/23	190-02291-0C	1
	175B (S/N 17556778 thru 17557002)						
	175C (S/N 17557003 thru 17557119)						

FAA Approved Model List (AML) STC SA01866WI

Aircraft Make (TCDS Holder) [common name or previous make]	Aircraft Model	Type Certificate Number	TC Certification Basis*	MDL 005-01264-00 Rev.**	AML Amended Date	AFMS Part Number	AFMS Rev. **
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	210D, 210E, 210F, T210F	3A21	CAR 3 FAR 23	57	6/16/21	190-02291-81	1
	210G, T210G, 210H, T210H, 210J, T210J			36	6/30/20	190-02291-57	1
	210K, T210K, 210L, T210L, 210M, T210M, 210N, T210N			9	10/16/18	190-02291-14	1
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	185, 185A, 185B, 185C, 185D, 185E, A185E, A185F	3A24	CAR 3 FAR 23	12	3/7/19	190-02291-23	1
	180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K	5A6					
Textron Aviation (Textron Aviation Inc.) [Beechcraft]	A45 (T-34A, B-45), D45 (T-34B)	5A3	CAR 3	82	7/21/23	190-02291-0F	1
Textron Aviation (Textron Aviation Inc.) [Beechcraft]	19A, B19, M19A, A23A (S/N M-963 and later), A23-19, A23-24 (S/N MA-28 and later), B23, C23, A24, A24R, B24R, C24R	A1CE	CAR 3 FAR 23	60	9/2/21	190-02291-75	1
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	U206F (S/N U20602200 and later), TU206F (S/N U20602200 and later), U206G, TU206G, 206H, T206H (except those with G1000)	A4CE	CAR 3 FAR 23	29	5/1/20	190-02291-45	1
	U206C, TU206C, P206C, TP206C, U206D, TU206D, P206D, TP206D, U206E, TU206E, P206E, TP206E, U206F (S/N U20602199 and earlier), TU206F (S/N U20602199 and earlier)			41	10/26/20	190-02291-45	3
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	F172F, F172G, F172H, F172K, F172L, F172M, F172N, F172P	A4EU	CAR 3	1	12/21/17	190-02291-02	1
	F172E			17	5/30/19	190-02291-02	6
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	177, 177A	A13CE	FAR 23	83	8/25/23	190-02291-99	1
	177B			23	12/16/19	190-02291-41	1
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	FR172K	A18EU	CAR 3	17	5/30/19	190-02291-02	6
Textron Aviation Inc. (Textron Aviation Inc.) [Cessna]	177RG	A20CE	FAR 23	23	12/16/19	190-02291-41	1
Textron Aviation (Textron Aviation Inc.) [Cessna]	F177RG	A26EU	FAR 23	23	12/16/19	190-02291-41	1

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Aircraft Make (TCDS Holder) [common name or previous make]	Aircraft Model	Type Certificate Number	TC Certification Basis*	MDL 005-01264-00 Rev.**	AML Amended Date	AFMS Part Number	AFMS Rev. **
Textron Aviation (Textron Aviation Inc.) [Cessna]	F182P, F182Q	A42EU	CAR 3	1	12/21/17	190-02291-06	1
	FR182		CAR 3 FAR 23	19	7/03/19	190-02291-32	1
True Flight Holdings LLC (True Flight Holdings LLC) [Grumman]	AA-5, AA-5A, AA-5B, AG-5B (except those with G1000)	A16EA	FAR 23	6	7/27/18	190-02291-12	1

[* TC Certification Basis - See Type Certificate Data Sheet applicable to aircraft for complete certification basis.]

[** or later FAA-approved revision]

*****END*****