

Department of Transportation—Federal Aviation Administration

Supplemental Type Certificate

Number SA00861SE

This certificate, issued to

J. P. Instruments
P.O. Box 7033
Huntington Beach, CA 92646

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)
Make: No. SA00861SE for a list of approved airplane
Model: models and applicable airworthiness regulations.

Description of the Type Design Change: Installation of J.P. Instruments (JPI) fuel flow indicating system in accordance with JPI Installation Manual FS-450, Report No. 400, Revision -, dated August 16, 2000, or later FAA approved revision.

Limitations and Conditions: Approval of this change in type design applies to the aircraft models listed on the AML only. This approval should not be extended to other aircraft of these models on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this Certificate, FAA Approved Model List (AML) No. SA00861SE, and Airplane Flight Manual Supplement No. 1, dated December 18, 2000, or later FAA approved revision, must be maintained as part of the permanent records for the modified aircraft.

Note: This STC requires the installation of a fuel flow transducer per STC SA00432SE; or aircraft listed on the FAA approved AML SA00432SE and that have been previously modified with a fuel flow indication system that utilizes the Flowscan fuel flow transducer, P/N: 201-A, 201-B, 201-C or 231 are eligible for installation for the FS-450. This certificate does not constitute installation approval of the fuel flow transducer.

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.

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: April 7, 2000

Date reissued:

Date of issuance: December 18, 2000

Date amended:



By direction of the Administrator
Adrian Pas
(Signature)

Acting Manager, Seattle Aircraft
Certification Office

(Title)

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 in accordance with FAR 21.47.

**J.P. INSTRUMENTS FAA APPROVED MODEL LIST for STC SA00861SE
FOR
INSTALLATION OF THE (FS-450) 450000 SERIES FUEL FLOW INSTRUMENT**

Issue Date: December 18, 2000

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	AML REVISION DATE
1.	Aerostar (Piper)	PA-60-600, 601, 601P PA-60-602P, -700P	A17WE	FAR 23	12-18-2000
2.	Aerostar (Piper)	650, 680, 700, 700A, 700CR with STC SA1658NM Machen engine Conversion	A17WE	FAR 23	12-18-2000
3.	Aero Commander	100-180	1A21	CAR 3	5-31-2001
4.	American Champion Aircraft Corp.	8KCAB	A21CE	FAR 23	12-18-2000
5.	American Champion Aircraft Corp.	7GCBC, 7ECA, 7GCBA, 7GCAA, 7KCAB	A-759	CAR 4a	12-18-2000
6.	American Champion Aircraft Corp.	8GCBC	A21CE	FAR 23	4-9-2002
7.	American General Aircraft Holdings, Grumman	AA-5, AA-5A, AA-5B	A16EA	FAR 23	12-18-2000
8.	American General Aircraft Holdings, Grumman	AG-5B	A16EA	FAR 23	12-18-2000
9.	American General Aircraft Holdings, Grumman	AA-1, AA-1A, AA-1B, AA-1C	A11EA	FAR 23	4-9-2002
10.	American General Aircraft	GA-7 Twin	A17SO	FAR 23	5-31-2001
11.	Aviat Aircraft Inc.	A-1, A-1A, A-1B	A22NM	FAR 23	4-9-2002
12.	Beech Twin	D18S, D18C, E18S, C-45G, TC-45G, C-45H, TC-45H, TC-45J or UC-45J (SNB-5), RC-45J (SNB-5P), E182- 9700, G18S, JRB-6, 3N, 3NM, 3TM,	A-765	CAR 3	5-31-2001
13.	Beech	35-C33A, E33A, E33C	3A15	CAR 3	5-31-2001
14.	Beech	(YT-34) 45, (T-34A, B-45) A45, (T-34B) D45 Cont. E-225-8	5A3	CAR 3	12-18-2000
15.	Beech	B23,C23	A1CE	CAR 3	12-18-2000
16.	Beech	C24R, B24R	A1CE	CAR 3	12-18-2000
17.	Beech	35, A35, B35, C35, D35, E35, F35, G35, 35R	A-777	CAR 3	12-18-2000
18.	Beech	H35	3A15	CAR3	1-27-2003
19.	Beech	J35, K35, M35, N35	3A15	CAR 3	12-18-2000

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20.	Beech	V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, S35, P35, N35 E33, E33A, E33C, F33, F33A, F33C, G33, 36, A36, A36TC, B36TC	3A15	CAR 3	12-18-2000
21.	Beech	V35, V35A, V35B with Optional engine TSI0-520 per STC SA1035WE	3A15	CAR 3	5-31-2001
22.	Beech	58, 58A	3A16	CAR 3	12-18-2000
23.	Beech	58P, 58PA, 58TC, 58TCA	A23CE	FAR 23	12-18-2000
24.	Beech	95-55, -A55, -B55, -B55A, -C55, C55A, D55, D55A, E55, E55A, 95-58, 58A	3A16	CAR 3	12-18-2000
25.	Beech	60, A60, B60	A12CE	FAR 23	1-27-2003
26.	Beech	76	A29ce	FAR 23	1-27-2003
27.	Beech	95, B95	3A16	CAR 3	12-18-2000
28.	Bellanca	14-19-2	1A3	CAR 3	4-9-2002
29.	Bellanca	17-30	1A3	CAR 3	12-18-2000
30.	Bellanca	17-31ATC	1A3	Far 23	12-18-2000
31.	Boeing Stearman	75, A75, E75, A75L300, A75, B75, A75N1, A75JI	A-743	CAR 4a	12-18-2000
32.	Cessna	120, 140, with 0-200 Conversion per STC SA547EA 140A, with 0-200 Conversion per STC SA547EA	A-768 A-5A2	CAR 3 CAR 3	5-31-2001
33.	Cessna	150, 150A, B, C, D, E, F, G, H, J, K, L, M, A150K, A150L, A150M, 152, A152 150, 150A, B, C, D, E, F, G, H, J, K, L, M, A150K, A150L, A150M, 152, A152 per STC SA4795SW, SA3788NM	3A19	CAR 3	4-9-2002
34.	Cessna	170, 170A, B	A-799	CAR 3	12-18-2000
35.	Cessna Cessna	172, 172A, B, C, D, E, F, G, H, 172 I, K, L, M, N, P, Q	3A12 3A12	CAR 3	12-18-2000
36.	Cessna	172R	3A12	FAR 23	12-18-2000
37.	Cessna	172S	3A12	FAR 23	1-27-2003
38.	Cessna	172RG	3A17	CAR 3	12-18-2000
39.	Cessna	R172E, F, G, H, J, K, 175, 175A, B, C, P172D	3A17	CAR 3	12-18-2000
40.	Cessna	177, 177A, 177B	A13CE	FAR 23	12-18-2000

**J.P. INSTRUMENTS FAA APPROVED MODEL LIST for STC SA00861SE
FOR
INSTALLATION OF THE (FS-450) 450000 SERIES FUEL FLOW INSTRUMENT**

Issue Date: December 18, 2000

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41.	Cessna	177RG	A20CE	FAR 23	12-18-2000
42.	Cessna	180, 180A, B, C, D, E, F, G, H, J, K	5A6	CAR 3	12-18-2000
43.	Cessna	182, 182A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R	3A13	CAR 3	12-18-2000
44.	Cessna	182E, F, G, H, J, K, L, M, N, P, Q (Peterson, STC SA3825SW)	3A13	CAR 3	5-31-2001
45.	Cessna	182T	3A13	CAR 3	5-31-2001
46.	Cessna	T182T	3A13	CAR 3	5-31-2001
47.	Cessna	182 Series Air Planes Corp, STC SA00152WI Engine IO-520 and IO-550	3A13	CAR3	12-18-2000
48.	Cessna	182S	3A13	FAR 23	12-18-2000
49.	Cessna	R182, T182, TR182	3A13	CAR 3	12-18-2000
50.	Cessna	185, 185A, B, C, D, E, A185E, A185F	3A24	CAR 3	12-18-2000
51.	Cessna	188, 188A, 188B, A188, A188A, A188B, T188C	A9CE	FAR 21	12-18-2000
52.	Cessna	195, A, B	A-790	CAR 3	12-18-2000
53.	Cessna	206, 206, P206A, B, C, D, E, TP206A, B, C, D, E, U206, U206A, B, C, D, E, F, G, TU206A, B, C, D, E, F, G	A4CE	CAR 3	12-18-2000
54.	Cessna	206H	A4CE	CAR 3	5-31-2001
55.	Cessna	T206H	A4CE	FAR 23	12-18-2000
56.	Cessna	U206A, B, C, D, E, F, G. (with Lycoming TIO-540- series engine per STC SA2123NM)	A4CE	CAR 3	12-18-2000
57.	Cessna	207, 207A, T207, T207A	A16CE	FAR 23	12-18-2000
58.	Cessna	210, 210A, B, C, D, E, F 210-5, 210-5A, T210F, 210G, T210G, 210H, T210H, 210J, T210J, T210K, 210K, 210L, T210L, 210M, T210M, 210N, P210N, T210N, 210R, P210R, T210R	3A21	FAR 23	12-18-2000
59.	Cessna	T303	A34CE	FAR 23	1-27-2003
60.	Cessna	310, C, D, E, F, G, H, E310H, 310I, J, K, L, N, P, Q, R 310J-1, E310J, T310P, Q, R, T310Q, 310R, T310R	3A10	CAR 3	12-18-2000
61.	Cessna	320, A, B, C, D, E, F, 320-1, 335, 340, 340A	3A25	CAR 3	12-18-2000
62.	Cessna	336	A2CE	CAR 3	12-18-2000

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63.	Cessna	337, 337A, B, C, D, E, F, G, H, T337B, C, D, E, F, G, H, M337B, P337H, T337H-SP	A6CE	CAR 3	12-18-2000
64.	Cessna	401, 401A, B, 402, 402A, B, C, 411, 411A, 414, 414A, 421, 421A 421B, 421C	A7CE	CAR 3	12-18-2000
65.	Cirrus	SR-20	A00009CH	FAR 23	5-31-2001
66.	Cirrus	SR-22	A00009CH	FAR 23	1-27-2003
67.	Commander	112, B, TC, TCA, 114, A, B, TC	A12SO	FAR 23	12-18-2000
68.	EXTRA	EA-300, S, L, EA-300/200	A67EU	FAR 21.29 FAR 23	12-18-2000
69.	EXTRA	EA-400	A43CE	FAR 23	4-9-2002
70.	GENERAL AVIA	F20	A38EU	CAR 3	12-18-2000
71.	GENERAL AVIA	F22B F22C	A75EU	FAR 23	12-18-2000
72.	Grumman (Dennis Buehn)	HU-16C	A23NM	FAR 21.25	1-27-2003
73.	Helio (Alliance Aircraft)	H-295, HT-295, H-395	1A8	CAR 3	1-27-2003
74.	Twin Commander Aircraft Corp.	500-A, 685	6A1 2A4	CAR 3	12-18-2000
75.	Jobmaster Company	DGA-15P (Army UC-70, Navy GH-1, GH-2, GH-3, NH-1)	A-717	CAR4a	12-18-2000
76.	Lancair	LC40-550FG	A00003SE	FAR-23	5-31-2001
77.	Maule	MX-7-180, A, B MXT-7-180, A, B	3A23	CAR 3	12-18-2000
78.	Maule	MXT-7-160	3A23	CAR 3	1-27-2003
79.	Maule	M-7-260	3A23	CAR 3	12-18-2000
80.	Maule	M-7-260C, MT-7-260,	3A23	CAR 3	4-9-2002
81.	Maule	M-4-210, C, S, T, M-5-210C	3A23	CAR 3	12-18-2000
82.	Maule	M-5-235C	3A23	CAR 3	12-18-2000
83.	Maule	M-7-235C	3A23	CAR 3	12-18-2000
84.	Maule	M-4-220C	3A23	CAR 3	5-31-2001

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85.	Maule	M-5-180C	3A23	CAR 3	5-31-2001
86.	Maule	M-6-235			
87.	Maule	MX-7-180C, AC	3A23	CAR 3	4-9-2002
88.	Maule	M-7-235A, B, C, MT-7-235	3A23	CAR 3	4-9-2002
89.	Prop-Jet inc. (Meyers)	200B, C, D	3A18	CAR 3	4-9-2002
90.	Moravan (Zlin)	Z-143L	A76EU	FAR 23	4-9-2002
91.	Revo Inc. LAKE	LA-4, LA-4-200 Lake Model -250	1A13	CAR 3 FAR 23	12-18-2000
92.	Mooney	M20A, B, C, D, G, J, M, R	2A3	CAR 3	12-18-2000
93.	Mooney	M20, E, F, M20K	2A3 2A3	CAR 3	12-18-2000
94.	Mooney	M20S	2A3	CAR 3	4-9-2002
95.	Mooney Rocket Eng. Conv.	M20K Rocket 305 (STC SA5691NM)	2A3	FAR 23	12-18-2000
96.	Mooney Rocket Eng. Conv.	M20J Missile (STC SA 00472SE)	2A3	FAR 23	12-18-2000
97.	Mooney	M22	A6SW	CAR 3	12-18-2000
98.	Piper	PA-12, -12S	A-780	CAR 3	4-9-2002
99.	Piper	PA-12, -12S, with Lycoming O-320 STC SA4-456	A-780	CAR 3	1-27-2003

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100.	Piper	PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special) PA-18A, PA-18 "125" (Army L-21A) PA-18S "125", PA-18AS "125", PA-18 "135" (Army L-21B), PA-18A "135", PA-18S "135", PA-18AS "135", PA-18 "150", PA-18A "150", PA-18S "150", PA-18AS "150", PA-18A, PA-18A "135", PA-18A "150"	1A2	CAR 3	5-31-2001
			AR-7	CAR 8.10b	5-31-2001
101.	Piper	PA-18A"150" PA-18"150" (Crosswinds STOL STC SA682AL) or (Penn-Yan, STC SA00035NY)	AR-7 1A2	CAR 8.10b CAR 3	5-31-2001
102.	Piper	PA20, PA20S, PA20"115", PA20S"115", PA20"135", PA20S"135"	1A4	CAR 3	12-18-2000
103.	Piper	PA22, PA22-108, PA22-135, PA22S-135, PA22S-150, PA22-160, PA22S-160	1A6	CAR 3	12-18-2000
104.	Piper	PA 23, PA23-160, PAE23-250, PA23-250	1A10	CAR 3	12-18-2000
105.	Piper	PA 23-235	1A10	CAR 3	4-9-2002
106.	Piper	PA24, PA24-250, PA24- 260	1A15	CAR 3	12-18-2000
107.	Piper	PA24-400	1A15	CAR 3	12-18-2000
108.	Piper	PA28-140,-150,-151,-160,-161, -180, PA28S-160, -180 PA28R-180	2A13	CAR 3	12-18-2000
109.	Piper	PA28-181, PA28R-200, PA28R-201, -201T, PA28-201T, PA28RT-201, PA28RT-201T	2A13	CAR 3	12-18-2000
110.	Piper	PA28-235, -236	2A13	CAR 3	12-18-2000
111.	Piper	PA30, PA39, PA40	A1EA	CAR 3	12-18-2000
112.	Piper	PA31-350	A20SO	CAR 3 FAR 23	12-18-2000
113.	Piper	PA31-325	A20SO	CAR 3	12-18-2000
114.	Piper	PA31	A20SO	CAR 3	1-27-2003

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115.	Piper	PA32-300, PA32S-300, PA32R-301, PA32R-300, PA32-301	A3SO	CAR 3	12-18-2000
116.	Piper	PA32RT-300	A3SO	CAR 3	12-18-2000
117.	Piper	PA32-260 PA32RT-300T PA32R-301T, PA32-301T	A3SO	CAR 3	12-18-2000
118.	Piper	PA34-200	A7SO	FAR 23	12-18-2000
119.	Piper	PA34-200T, -220T	A7SO	FAR 23	12-18-2000
120.	Piper Twin	PA44-180, -180T	A19SO	FAR 23	12-18-2000
121.	Piper	PA46-350P	A25SO	FAR 23	12-18-2000
122.	Piper	PA46-310P	A25SO	FAR 23	12-18-2000
123.	Robinson Helicopter Co.	R22, R22 ALPHA, R22 BETA, R22 MARINER	H10WE	FAR 27	12-18-2000
124.	Robinson Helicopter Co.	R44	H11NM	FAR 27	12-18-2000
125.	Sky Enterprises (Republic)	RC-3	A-769	CAR 3	12-18-2000
126.	PITTS (AVIAT) White Inter.Ltd.	S-2S, S-2B	A8SO	FAR 23	12-18-2000
127.	Christen (AVIAT) White Inter.Ltd.	A-1, S-2B	A22NM	FAR 23	12-18-2000
128.	Navion Aircraft Company LTD	Navion, Navion A, B, C, D, E, F, G With IO-520 Series eng.	A-782	CAR 3	12-18-2000
129.	Navion Aircraft Company LTD	Navion, Navion A, B with IO-470 Series eng.	A-782	CAR 3	12-18-2000
130.	Navion Aircraft Company LTD	Navion, Navion B, D, E	A-782	CAR 3	12-18-2000
131.	Navion Aircraft Company LTD	Navion F, G, H	A-782	CAR 3	12-18-2000
132.	Twin Commander Aircraft	500-S, -U with Merlyn STC SA5969NM	6A1	CAR 3	4-9-2002
133.	S.O.C.A.T.A Aerospatale	TB10, TB20, TB21,200	A51EU	FAR 21.29	12-18-2000
134.	Siai-Marchetti	F.260, F.260B, F.260C F260D, F.260E, F.260F	A10EU	FAR 23 CAR 10	12-18-2000
135.	Siai-Marchetti	F20	A38EU	FAR 23 CAR 10	12-18-2000
136.	Swift Museum	GC-1B (with Continental IO-360 series engine per	766	CAR4a	12-18-2000

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		STC SA53NW)			
137.	Weatherly	620B	A26WE	FAR 21.25(a)	12-18-2000

Issue Date: December 18, 2000

Revisions: May 31, 2001 (Rev A), April 9, 2002 (Rev B), November XX, 2002 (RevC)

AMENDED DATE _____

FAA Approved: _____

Acting Manager,
Seattle Aircraft Certification Office