



## SureFly Ignition Modules

# SIM4P, SIM4N, SIM6L & SIM6C

## APPLICATION GUIDE

Document No. SF2010, Revision K

### Revision History

Revision:	Date:	Description:	Approved By:
IR	07/18/2019	Initial release.	RVC
A	08/27/2019	Fixed PA-12 & PA-24 eligibility.	RVC
B	08/29/2019	Updated variable timing availability for AML amendment dated 08/27/2019.	RVC
C	12/10/2019	Fixed 172K, SR20, PA24-260 & PA28-235 eligibility.	RVC
D	02/05/2020	Added turbocharged aircraft	RVC
E	02/20/2020	Added Pre-Installation checklist	JDH
F	03/27/2020	Removed pending status from SR20 and DA20-C1	RVC
G	04/21/2020	Added Multiengine Turbocharged Models	RVC
H	07/22/2020	Updated variable timing availability for 300HP aircraft, AML amendment dated 07/07/2020.	RVC
J	10/14/2020	Added multiengine normally aspirated models	RVC
K	07/19/2021	Included Note 1 to Beechcraft A23 & A23A	JDH

**THIS DOCUMENT IS A QUICK REFERENCE APPLICATION GUIDE ONLY.**

**THIS GUIDE DOES NOT AUTHORIZE INSTALLATION. PLEASE SEE SUREFLY'S  
FAA APPROVED AML STC'S FOR AUTHORIZATION.**

**MANY AIRCRAFT NOT LISTED IN THIS GUIDE ARE PENDING FAA APPROVAL.**

**PLEASE CALL SUREFLY @ 817-373-5161 WITH APPLICATION QUESTIONS.**

## IMPORTANT!

**MUST** Read Prior to Installation



**SUREFLY**  
ELECTRONIC IGNITION

If any of the following items apply to your installation, please call SureFly at 817-373-5161 before proceeding with the purchase or installation of a SureFly Ignition Module:

- 1) Your aircraft tachometer is one of the following:
  - Horizon,
  - Electronics International,
  - EFIS or Engine Monitor that requires magneto P lead inputs,
  - EFIS or Engine Monitor that requires a 0-5 volt square wave input,
- 2) Your aircraft has an existing electronic ignition,
- 3) Your aircraft has one of the following STC's:
  - Western Skyways Turbo STC,
  - Auto Fuel STC.

SureFly strongly recommends that you **replace the ignition harness** with a new "Slick" style harness. A large number of existing ignition harnesses have been discovered to be deficient even after passing a high-tension lead test. SureFly will not warrant a SIM for a rough running engine unless the harness and spark plugs have been replaced.

A slight engine stumble during mag-check is expected and *normal*. This condition is caused by a magneto switch that grounds both ignitions during the transition between left and right. A startup delay is designed into the SureFly to determine proper rotation. In many cases this condition can be masked by changing the cadence in which the switch is cycled.

**NEVER perform a high voltage (high tension) lead test on an ignition harness while it is connected to a SIM.**

### Warranty Terms

By proceeding with installation of a SIM, you agree to the following terms of warranty:

- ▶ SureFly Partners, Ltd. ("SureFly") warrants SureFly Ignition Modules ("SIM") to be free from defects in materials and workmanship for a period of two years from the date of installation.
- ▶ Any customer suspecting a SIM to be defective must first contact SureFly for troubleshooting assistance.
- ▶ If SureFly determines the Ignition Module may be faulty, the customer will be provided a Return Authorization (RA) and return instructions.
- ▶ Warranty service is only available for SIMs returned to the factory per the instructions herein.
- ▶ SureFly warranty covers only rebuild or replacement of the SIM for reasons SureFly deems to be warrantable at its sole discretion.
- ▶ This warranty does not cover labor, inconvenience, transportation or loss of business due to any SureFly product failure.
- ▶ The SIM must be shipped to the SureFly factory at the customer's cost for warranty evaluation.
- ▶ SureFly makes no warranty as to suitability of its products for the intended application.
- ▶ SureFly does not reimburse purchases of replacement products made from a retailer or distributor.

**REFER TO THE NOTES COLUMN FOR YOUR PARTICULAR AIRCRAFT TO DETERMINE SUITABILITY.**

<b>Make</b>	<b>Model</b>	<b>SIM</b>	<b>Notes</b>
<b>Aeronca</b> AeroSedan, LLC	15AC, S15AC	<b>Pending</b>	1, 3, 4
<b>Airvan</b> GA 8 Airvan (Pty) Ltd	GA8, GA8-TC320	<b>SIM6L</b>	4
<b>American Champion</b>	7ECA, 7GCAA, 7GCBC, 7KCAB, 7EC, S7EC, 7FC, 7GC, 7HC, 7GCA, 7JC, 7GCB, 7KC, 7GCBA, 7AC, 7BCM, 7CCM, 7DC, S7DC, S7CCM	<b>SIM4P -or- SIM4N</b>	2, 3
	8KCAB, 8GCBC	<b>SIM4P -or- SIM4N</b>	
<b>Beechcraft</b>	19A, B19, M19A, 23, A23, A23A, A23-19, A23-24, B23, C23, A24, A24R, B24R, C24R	<b>SIM4P -or- SIM4N</b>	1
	35-C33A, E33A, E33C, F33A, F33C, S35 Non-turbo, V35 Non-turbo, V35A Non-turbo, V35B Non-turbo, 36, A36, G36	<b>SIM6C</b>	
	S35 Turbo, V35 Turbo, V35A Turbo, V35B Turbo	<b>SIM6C</b>	4
	E33, F33, G33, H35, J35, K35, M35, N35, P35, 35-33, 35-A33, 35-B33, 35-C33	<b>SIM6C</b>	
	35, A35, B35, C35, D35, E35, F35, G35, 35R	<b>Pending</b>	1, 3, 4
	A36TC, B36TC	<b>SIM6C</b>	4
	D55, D55A, E55, E55A	<b>SIM6C</b>	
	56TC, A56TC	<b>SIM6L</b>	4
	58, 58A, G58	<b>SIM6C</b>	
	58P, 58PA, 58TC, 58TCA	<b>SIM6C</b>	4
	60, A60, B60	<b>SIM6L</b>	4
	65 (L-23F), 65-80, 65-A80, 65-A80-8800, 65-B80, 65-88, A65, A65-8200, 70	<b>SIM6L</b>	4
	77 (Skipper)	<b>SIM4P -or- SIM4N</b>	4
	95, B95, B95A, E95	<b>SIM4P -or- SIM4N</b>	
	D95A, 95-55, 95-A55, 95-B55, 95-B55A, 95-B55B (Military T-42A), 95-C55, 95-C55A	<b>SIM6C</b>	
<b>Bellanca</b> Alexandria Aircraft	14-19, 14-19-2, 14-19-3, 14-19-3A	<b>SIM6C</b>	3, O-435 N/A
	17-30, 17-30A	<b>SIM6C</b>	
	17-31, 17-31A	<b>SIM6L</b>	
	17-31TC, 17-31ATC	<b>SIM6L</b>	4

<b>Cessna</b>	120,140	<b>SIM4P -or- SIM4N</b>	
	150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, A150K, 150L, A150L, 150M, A150M, 152, A152	<b>SIM4P -or- SIM4N</b>	
	170, 170A, 170B	<b>Pending</b>	1, 3
	172I, 172K, 172L, 172M, 172P, 172Q, 172R, 172S	<b>SIM4P -or- SIM4N</b>	
	172, 172A, 172B, 172C, 172D, 172E, 172F (USAF T-41A), 172G, 172H (USAF T-41A)	<b>Pending</b>	1, 3
	Cessna F172D, Cessna F172E, Cessna F172F, Cessna F172G, Cessna F172H, Cessna F172K, Cessna F172L, Cessna F172M, Cessna F172N, Cessna F172P, Cessna FP172D	<b>SIM4P -or- SIM4N</b>	4
	Cessna FR172K, Cessna FR172E, Cessna FR172F, Cessna FR172G, Cessna FR172H, Cessna FR172J	<b>SIM4P -or- SIM4N</b>	4
	175, 175A, 175B, 175C, P172D, R172E (USAF T-41B) (USAF T-41C or D), R172F (USAF T-41D), R172G (USAF T-41C or D), R172H (USAF T-41D), R172J, 172RG, R172K	<b>SIM4P -or- SIM4N</b>	1, 3, 5
	177, 177A, 177B	<b>SIM4P -or- SIM4N</b>	
	177RG	<b>SIM4P -or- SIM4N</b>	5
	Cessna F177RG	<b>SIM4P -or- SIM4N</b>	5
	180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K	<b>SIM6C</b>	
	182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R,	<b>SIM6C</b>	
	182S, 182T	<b>SIM6L</b>	
	T182T	<b>SIM6L</b>	4
	Cessna F182P, Cessna F182Q	<b>SIM6C</b>	
	185, 185A, 185B, 185C, 185D, 185E	<b>SIM6C</b>	
	A185E, A185F	<b>SIM6C</b>	
	206, P206, P206A, P206B, P206C, P206D, P206E, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G	<b>SIM6C</b>	
	206H	<b>SIM6L</b>	4
	TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G	<b>SIM6C</b>	4
	TP206A, TP206B, TP206C, TP206D, TP206E	<b>SIM6C</b>	4
	T206H	<b>SIM6L</b>	4
	210, 210A, 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, 210R, 210-5 (205), 210-5A (205A)	<b>SIM6C</b>	
	T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, T210R	<b>SIM6C</b>	4
	P210N, P210R	<b>SIM6C</b>	4
	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, 310Q, 310R	<b>SIM6C</b>	

	T310P, T310Q, T310R	SIM6C	4
	320, 320-1, 320A, 320B, 320C, 320D, 320E, 320F, 340, 340A, 335	SIM6C	4
	336	SIM6C	
	337, 337A (USAF 02B), 337B, 337C, 337D, 337E, 337F, M337B (USAF 02A), 337G, 337H	SIM6C	
	T337B, T337C, T337D, T337E, T337F, T337G, P337H, T337H, T337H-SP	SIM6C	4
	401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, 421C	SIM6C	4
<b>Cessna TTX, Lancair, Columbia</b>	LC40-550FG, LC42-550FG	SIM6C	
	LC41-550FG, T240	SIM6C	4
<b>Cirrus Design Corporation</b>	SR20 with Continental IO-360	SIM6C	
	SR20 with Lycoming IO-390	SIM4P -or- SIM4N	
	SR22	SIM6C	
	SR22T	SIM6C	4
<b>Commander Aircraft Corporation</b>	112, 112B	SIM4P -or- SIM4N	
	114B	SIM6L	
	114TC	SIM6L	4
<b>Twin Commander</b>	500, 500B, 500U, 500S	SIM6L	
	500A	SIM6L	
	680, 680E, 680F, 680FL, 680FL(P), 720	PENDING	1, 4
	685	SIM6C	4
<b>Diamond Aircraft Industries, Inc.</b>	DA20-C1	SIM4P	
	DA 40, DA 40 F	SIM4P -or- SIM4N	
<b>Ercoupe Univair Aircraft Corporation</b>	415-C, 415-CD	SIM4P -or- SIM4N	4
	415-D, A-2, A2-A, E, F-1A, F-1, G, M10	SIM4P -or- SIM4N	4
<b>Extra</b>	EA 300, EA 300/L, EA 300/S, EA 300/200, EA 300/LC	SIM6L	
<b>Falco (Aeromere)</b>	Falco F.8.L	SIM4P -or- SIM4N	4
<b>Found Pacific Aerospace Ltd.</b>	FBA-2C, FBA-2C1, FBA-2C2, FBA-2C3, FBA-2C4	SIM6L	4
<b>GROB Aircraft AG</b>	G120A	SIM6L	4
	G115, G115A, G115B, G115C, G115C2, G115D, G115D2, G115EG	SIM4P -or- SIM4N	4
<b>Grumman True Flight Holdings LLC</b>	AA-1, AA-1A, AA-1B, AA-1C	SIM4P -or- SIM4N	
	AA-5, AA-5A	SIM4P -or- SIM4N	
	AA-5B, AG-5B	SIM4P -or- SIM4N	
<b>Grumman</b>	GA-7	SIM4P -or- SIM4N	

Cougar Aircraft Corporation			
<b>Husky</b> Aviat Aircraft, Inc.	A-1, A-1A, A-1B, A-1C-180, A-1C-200	<b>SIM4P -or- SIM4N</b>	4
<b>Lake</b> Revo, Incorporated	Lake Model 250	<b>SIM6L</b>	
	Colonial C-1, Colonial C-2, Lake LA-4-200, Lake LA-4A, Lake LA-4P, Lake LA-4	<b>SIM4P -or- SIM4N</b>	
<b>Luscombe</b> Good Earthkeeping Organization, Inc.	8, 8A, 8B, 8C, 8D, 8E, 8F, T-8F	<b>SIM4P -or- SIM4N</b>	2, 3, 4
<b>Maule Aerospace Technology, Inc.</b>	M-4, M-4C, M-4S, M-4T, Bee Dee M-4, M-4-180V, M-4-210, M-4-210C, M-4-210S, M-4-210T, M-5-180C, M-6-180, MX-7-160, MX-7-160C, MX-7-180, MX-7-180A, MX-7-180AC, MX-7-180B, MX-7-180C, MXT-7-160, MXT-7-180, MXT-7-180A	<b>SIM4P -or- SIM4N</b>	1, 3, 5
	M-5-210C	<b>SIM6C</b>	CM IO-360
	M-5-235C, M-6-235, M-7-235, M-7-235A, M-7-235B, M-7-235C, M-7-260, M-7-260C, MT-7-235, MT-7-260, MX-7-235, M-8-235, M-9-235	<b>SIM6L</b>	3, 5
<b>Meyers</b> Interceptor Aircraft, Inc.	200, 200A, 200B, 200C, 200D	<b>SIM6C</b>	4
<b>MICCO Aircraft Company, Inc</b>	MAC-145	<b>Pending</b>	1, 3, 4
	MAC-145A	<b>SIM4P -or- SIM4N</b>	4
	MAC-145B	<b>SIM6L</b>	4
<b>Mooney International Corporation</b>	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J	<b>SIM4P -or- SIM4N SIM4N if engine has Shower Of Sparks</b>	5, J with IO-360–A3B6 engine only
	M20R, M20S, M20U	<b>SIM6C</b>	
	M20K, M20TN, M20V	<b>SIM6C</b>	4
	M20M	<b>SIM6L</b>	4
<b>Piper Aircraft, Inc.</b>	PA-12	<b>SIM4P -or- SIM4N</b>	
	PA-16, PA-16S	<b>SIM4P -or- SIM4N</b>	
	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-19 (Army L-18C), PA-19S	<b>SIM4P -or- SIM4N</b>	
	PA-20, PA-20S, PA-20 "115", PA-20S "115", PA-20 "135", PA-20S "135"	<b>SIM4P -or- SIM4N</b>	
	PA-23, PA-23-160	<b>SIM4P -or- SIM4N</b>	
	PA-23-235, PA-23-250, PA-23-250 (Navy OU-1), PA-E23-250	<b>SIM6L</b>	
	PA-24	<b>SIM4P -or- SIM4N</b>	
	PA-24-250, PA-24-260	<b>SIM6L</b>	5

	PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28S-160, PA-28R-180, PA-28S-180, PA-28-181, PA-28R-200, PA-28R-201, PA-28RT-201	<b>SIM4P -or- SIM4N</b>	
	PA-28-235	<b>SIM6L</b>	
	PA-28-201T, PA-28RT-201T, PA-28R-201T	<b>SIM6C</b>	4
	PA-30, PA-39	<b>SIM4P -or- SIM4N</b>	
	PA-31-300	<b>SIM6L</b>	
	PA-31, PA-31-350	<b>SIM6L</b>	5, 4
	PA-32-260, PA-32-300, PA-32S-300, PA-32R-301(HP), PA-32-301, PA-32-301FT	<b>SIM6L</b>	
	PA-32-301FT, PA-32-301XTC	<b>SIM6L</b>	4
	PA-34-200	<b>SIM4P -or- SIM4N</b>	
	PA-34-200T, PA-34-220T	<b>SIM6C</b>	4
	PA-38-112	<b>SIM4P -or- SIM4N</b>	4
	PA-46-310P	<b>SIM6C</b>	4
	PA-46-350P, PA-46R-350T	<b>SIM6L</b>	4
<b>Piper</b> Lavia Argentina S.A.	PA-25, PA-25-235, PA-25-260	<b>SIM6L</b>	4
<b>Piper</b> Aerostar	PA-60-601, PA-60-601P, PA-60-602P, PA-60-700P	<b>SIM6L</b>	4
<b>Pitts</b> Aviat Aircraft, Inc.	S-1S, S-1T, S-2, S-2A,	<b>SIM4P -or- SIM4N</b>	4
	S-2S, S-2B, S-2C	<b>SIM6L</b>	
<b>Siai Marchetti</b> (Aermacchi S.p.A)	F.260, F.260B, F.260C, F.260D, F.260E, F.260F	<b>SIM6L</b>	4
<b>SOCATA Morane</b> <b>Saulnier Rallye</b>	Rallye 235E, Rallye 235C	<b>SIM6L</b>	4
	Rallye 100S, Rallye 150ST, Rallye 150T, MS 880B, MS 885, MS 894A, MS 893A, MS 892A-150, MS 892E-150, MS 893E	<b>SIM4P -or- SIM4N</b>	1, 3, 4
<b>Swift Museum</b> <b>Foundation, Inc.</b>	GC-1A, GC-1B	<b>Pending</b>	1, 3, 4
<b>Wing</b> (Derringer) Emerald Enterprises	D-1	<b>SIM4P -or- SIM4N</b>	

**NOTE 1:** O-300 SERIES, C-145, E SERIES, GO, IO-346 ENGINES NOT AVAILABLE, INSTALLATION PENDING.

**NOTE 2:** C-75, C-85, C-90 WITH -12 OR LATER ACCESSORY CASES OK.

**NOTE 3:** AIRCRAFT WITH ENGINE UPGRADES MAY BE APPROVED.

**NOTE 4:** SIM LIMITED TO FIXED TIMING ONLY.

**NOTE 5:** BENDIX SINGLE DRIVE DUAL MAGNETO REPLACEMENT NOT AVAILABLE.