Verify Correct EZ Flap Model Selection

Before installation, please <u>verify</u> that your EZ Flap unit is the correct unit for your aircraft. EZ Flap is produced in two different styles, which cover nearly all US built manual flap aircraft. However, the two styles <u>are **not** interchangeable.</u> Installing the incorrect version will **not** work, is **not** approved, and may cause **unsafe** interference with other aircraft components. Before proceeding, please verify that you have purchased the correct EZ Flap unit for your aircraft!

The **original** style EZ Flap unit has a data tag specifying part number EZ-16, and a three digit serial number hand engraved on the very bottom of the unit next to the threaded clamp bolt holes such as 001, 016, 027, 152, etc.

This model fits:

- Cessna 170, 172, 175, 180, 182 and 185
- Piper PA-28, PA-32, PA-34, PA-44 ("Cherokee" family)
- Beechcraft 19 /23 /24 ("Musketeer" family)

EZ Flap "Style 18" units have a data tag specifying part number EZ-21, and a four digit serial number beginning with "18-" hand engraved on the very bottom of the unit next to the threaded clamp bolt holes such as 18-06, 18-30, 18-54, etc.

This model fits:

- Piper PA-18, PA-19, PA-20, PA-22 ("Super Cub", "Pacer", "Tri-Pacer" family)
- Stinson 108 family
- Maule Aircraft family

If your aircraft parts supplier has accidentally shipped the incorrect EZ Flap unit for your aircraft, feel free to contact EZ Flap directly and we will exchange the product for the correct unit at no charge. Please DO NOT attempt to install the wrong unit on your aircraft - there **is** a difference, it is **not** safe or legal, and you will **not** experience all the performance or safety benefit available for your aircraft.

STOP!

FAA Documentation Requirement

The FAA **requires** the STC holder (EZ Flap) to keep records of the <u>aircraft type</u>, <u>registration and serial number</u> of every aircraft upgraded with this STC.

The FAA approval of this product **also requires** that an "Installation Authority" STC approval is issued and signed by the STC holder (not the installing mechanic) for your specific aircraft, and is placed in the aircraft records.

This is in addition to your mechanic signing the logbooks and FAA Form 337

It is the legal responsibility of the aircraft owner and/or the installing mechanic to get the FAA approved "installation authority" issued for the specific aircraft and signed by the STC holder. By purchasing and/or installing this product, the aircraft owner agrees to furnish the STC holder with the aircraft type, registration and serial number of the aircraft, and to keep the "installation authority" form as part of the aircraft records.

The installation of this EZ Flap STC product is **not approved**, and the aircraft **cannot be returned to service**, and **no warranty or guarantee will be honored** until the aircraft information is furnished to the STC holder and "installation authority" form is signed and issued for each aircraft being upgraded with this STC.

To comply with these FAA requirements, you may choose either of the following:

Fill out the included "Installation Authority" form with

- 1) the **name** and **address** of the aircraft owner,
- 2) aircraft **type** (C-172, etc.), **registration** (N12345, etc.), **serial number** (172-12345)

and mail it to:

To: **EZ Flap Installation Authority**21033 Strathern St.
Canoga Park, CA 91304

OR:

Contact EZ Flap 818-634-9762, or you may e-mail info@ezflaphandle.com Subject: Installation Authority

Thank you for your purchase of the **EZ Flap** flap handle extension STC!

EZ Flap FAA-PMA STC# SA02246LA Cessna Piper Maule Stinson Beech www.ezflaphandle.com For Installation or Operational Problems Call 818-634-9762

Installation Authority

Permission and authority i	s hereby given to					_for the
installation of STC SA	A02246LA and	the	associated	FAA-PMA	flap	handle
extension/assist device on t	the following indiv	vidua	l aircraft:			
Type of Aircraft	Registra	ation		Serial Numb	er	·
The installation shall be ac manual and performing, inspecting an insuring that this STC does equipment, and that the in approved configuration, ar operation of any flight or experience.	d also in accordance of accordance of a condition accordance of a cond	ince instal h any t hav	with AC 4 llation of the part of the e any adver	3.13-1B. The aircraft or in see effect on a	e mec espons stalled any pro	hanic(s) sible for aircraft eviously
By installing this STC, to installed properly, fully further aircraft owner(s)/pilot(s) that all documentation income the aircraft records.	nction-tested and s) have been inform	shov med	of the proper	e for flight o	peration this S	ons, that TC, and
EZ Flap William M. Berle	Date					

EZ Flap

Flap Handle Extension Installation Procedure P-200

(applicability: Piper PA-18/20/22,, Stinson108, Maule M5/M6/M7/M8/M9)

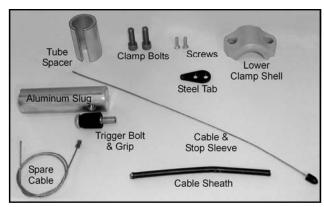
EZ Flap Flap Handle Extension Device STC SA02246LA

Drawing #15
Installation and Adjustment
Instructions P-200

Release Date September 10, 2010 Revision B William M. Berle

welliams

Please read through these instructions once fully to familiarize yourself with the procedure, then go back and perform each step in sequence as shown to complete your installation.





Note: EZ Flap may be shipped either partially assembled or fully assembled. Some or all of the parts and/or sub-assemblies may have been completed at the factory before shipping.

You will need:

- Drill with #36 or 7/64" bit
- 6-32 "plug tap" (and "starting" tap if available)
- Phillips screwdrivers medium and large
- 3/16" Allen hex key wrench
- Drop cloth, large rags, towels, etc.
- Medium strength thread locking compound,
- Good quality grease

Rev.	Description	Date	Signature
NC	Initial Release	12-11-09	W. Berle
A	Addresses factory pre-assembly	3-25-10	W. Berle
В	Adds Stinson, Maule & Piper Aircraft	9-10-10	W. Berle

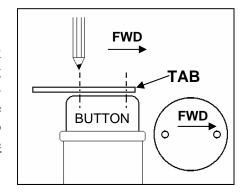
Before you begin installation of the *EZ Flap* upgrade:

- 1. **Remove** all molded plastic or foam grips, "grip tape", padding, etc. from the flap handle.
- 2. Move the flap handle to the **fully deployed** position and allow the un-lock button to engage.
- 3. <u>Inspect & Repair any corrosion</u> on the steel flap handle and apply protective paint or primer as needed. Do not mount the aluminum EZ Flap unit onto exposed bare steel!
- **4.** <u>Verify that no placards will be obscured by the EZ Flap device</u>. If any placard is obscured you must move the placard until it is completely visible, or install a new placard.
- **5. Place towels** around the base of the flap handle to keep drill shavings out of the mechanism. Tape around the base of the flap un-lock button to keep shavings out of the gap.

Step 1:

Piper and Maule Installations

Using the **steel tab** as a guide (as shown in the illustration) mark the location of the two holes on the end of the flap un-locking button. Hold the steel tab in position as shown, and mark the center of the two mounting holes using a felt tip marker. Remove the tab and establish the hole centers using a center punch. The two mounting holes should be <u>aligned parallel</u> to the centerline of the <u>fuselage</u> (fore and aft). The holes will be close to the edge.



Stinson 108 Installations - See Appendix 1 Now

There is a short procedure <u>required</u> to change over to a different steel tab, and prepare the domed button for mounting the tab. Perform this procedure now as shown in **Appendix 1**, before proceeding to the next step. <u>Stinson owners please contact EZ Flap for your **free drill jig tool**, which guarantees the (critical) <u>correct alignment of the holes and prevents breakage of the drill</u>. Read **Step 2** (below) for information on safely tapping the holes without breakage.</u>

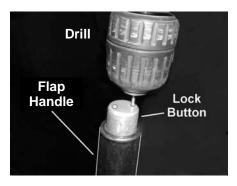
Step 2:

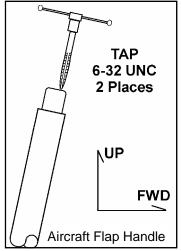
Note: The hole locations on the **Maule** and **Piper** are close to the edge of the aluminum button, and <u>must be drilled with care</u>.

See Appendix 1 for important details on the **Stinson** installation.

Check several times to be sure the holes are marked correctly, then **drill** the holes with a #36 or 7/64" drill to a depth of 3/4", being <u>sure</u> to drill "straight" into the flat surface of the button so the holes are not angled.

Tap the holes for 6-32 thread size, <u>backing off the tap frequently to prevent breaking it</u>, and cleaning the cutting debris from the slots. Use a good quality **cutting oil** or tapping fluid. If you have a long tapered "**starting tap**", <u>it will be much easier (and less risk of breaking the tap) to begin the threading process with this tool</u>, followed by a "bottoming tap" or "plug tap" to thread the holes all the way to the bottom.

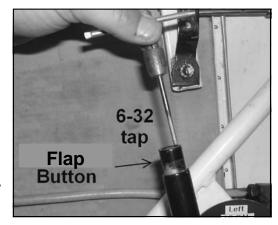




(Step 2, cont'd)

Test-fit the **6-32 screws** and re-tap if needed until they engage fully. When satisfied, clean any debris out the tapped holes and clean the hole threads with solvent spray. Remove the rag or towels and tape, making sure to remove all debris from inside the aircraft flap handle tube. A "shop-vac" with small attachments is recommended. **Verify** that the button can be depressed normally with only a small thumb force.

Important! If your aircraft's flap system requires significant thumb "push" force to un-lock the flap mechanism, **stop now** and **clean**, **lubricate** or **repair** the flap system until it operates smoothly and with only a slight force.



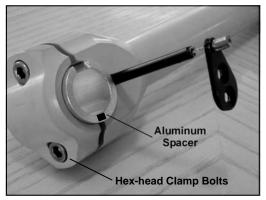
Step 3:

Aluminum spacers are used to adapt the main EZ Flap clamp onto the smaller Piper, Maule, or Stinson flap handles. A 7/8" inside diameter tube spacer is used for Stinson and a few Piper installations, while two 3/4" inside diameter "half-tube" spacers are used for Maule and most Piper installations. Choose the correct spacer that fits your aircraft's flap handle tube. If the correct spacer was not included with your EZ Flap unit, contact us and one will be provided free of charge.

Put the hex head **Clamp Bolts** through the lower clamp shell, and <u>partly</u> screw them into the threaded holes in the lower portion of the main handle clamp.

Slide the **aluminum spacer(s)** into the assembled clamp so the slots are at the 3 O'clock and 9 O'clock position (next to the gap between the upper and lower clamp halves).

The cable sheath sits in the notch in the main handle clamp "above" the spacer, <u>not</u> "pinched" between the spacer and the aircraft's flap handle.





Step 4:

Important! This process of carefully "locating" the EZ Flap unit, and <u>verifying over and over that it remains clear of (and does not interfere with access to) any flight/engine/fuel control, is the most critical and important step... it **must** be completed and tested thoroughly and carefully before flight!</u>

Slide the EZ Flap handle and spacer(s) into position on the aircraft flap handle. Center the spacers inside the lower clamp. Slide this assembly down on the aircraft flap handle until it is approximately two inches aft (below) the end of the aircraft flap handle tube.

Push the flap button down with your thumb and swing the flap handle through its full movement (zero flap through full flap) several times while adjusting the position of the EZ Flap unit forward or aft. Find the best position for EZ Flap, where it **stays clear** of the instrument panel, **all flight** and **engine controls**, **fuel** valves and controls, **seats** and **seat cushions**, etc. throughout the **entire range** of movement. <u>Center</u> the upper EZ Flap handle between the front seats unless an off-center position is required for proper working clearance.

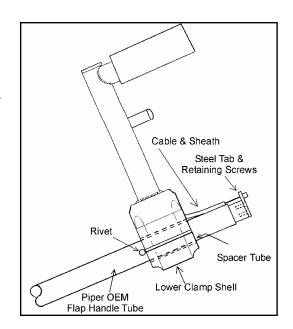
Once the correct position is found, move the cable sheath in and out through the lower clamp notch until the front edge of the sheath is just below/behind the end of the flap handle <u>tube</u> (*not* the button). Verify that the cable sheath lays down straight on top of the flap handle.

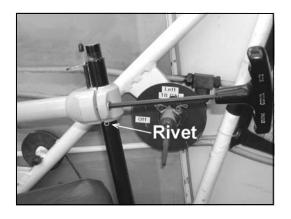
At this stage, the steel tab is still hanging from the cable and not attached to the un-lock button <u>Tighten the lower clamp</u> bolts **just snug**, using the 3/16" Allen hex wrench.

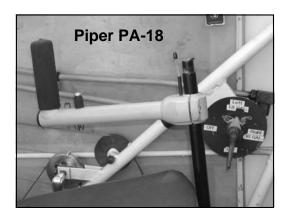
The optional foam tube lower grip, "racquet grip" wrap tape, "stretch tape", or upholstery can now be installed to cover the cable sheath if desired. Any such covering **cannot** cover or interfere with the cable itself, or free movement of the button.

(Piper PA-18 Installation)

"Rotate" the EZ Flap as needed to clear the cockpit structure, and to not interfere with the trim crank or fuel valve. <u>Test the movement of the flap control</u>, verifying that the pilot's hand will not come into contact with the fuselage structure, the elevator trim crank, fuel valve, or any switches or wiring throughout the full flap travel.







Step 5:

When satisfied that the EZ Flap unit is positioned correctly and cannot cause interference with any part of the aircraft, now finally tighten the lower main clamp bolts securely. (Carefully removing one bolt at a time and applying medium thread-locking compound is recommended)

Do <u>not</u> overtighten or apply enough force to crimp, collapse or bend the aircraft flap handle tube. <u>EZ Flap must be able to be kicked out of the way (rotated down) for emergency exit with moderate effort.</u>

Step 6:

Place the steel retaining tab back onto flap button. Install the steel tab using the two 6-32 screws. Use a drop of a medium strength thread locking compound on the threads to reduce maintenance and prevent the screws from loosening.

Step 7: Final Adjustment

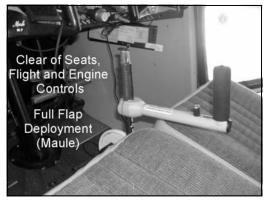
Loosen the **trigger bolt** so the cable can slide freely through the slug. Apply a drop of medium strength thread-locking compound to the bolt threads at the aluminum slug.

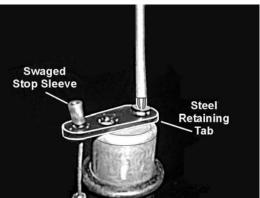
With the trigger bolt **not** tightened against the cable, verify that the flap control is in the fully deployed position and the aircraft's flap un-lock button is fully extended (locked). Wiggle the flap handle up and down to insure the button is fully in the locked position. Slide the cable rearward until the swaged "stop sleeve" is resting against the steel retaining tab.

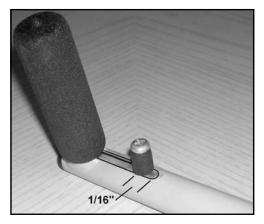
Holding the stop sleeve against the steel tab, move the slug (by holding the trigger bolt) so that the trigger bolt is 1/16" behind the **bottom** of the slot in the upright tube. Tighten the bolt until it securely clamps the cable inside the slug.

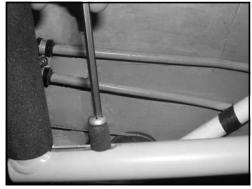
Pushing only the original aircraft lock button (and steel tab) to unlock the handle, lower the flaps to the fully retracted (cruise) position and allow the button to snap forward (locked).

Snap the **plastic cap** into the top of the upright tube, and slide the small rubber **protective cap** over the copper stop sleeve to prevent discomfort or injury.









Step 8: Testing

Verify that the cable stop sleeve can be pulled 1/16" away (forward) from the steel tab before the trigger bolt contacts the bottom part of the slot.

Verify that pulling the trigger bolt upwards with your little finger results in the cable pulling the un-lock button in, unlocking the flap lever. Verify also that moving the trigger bolt fully provides \underline{a} bit **more** button movement than the minimum necessary to unlock the flap handle.

Verify that the flaps do not un-lock until the trigger is pulled approximately **50%** of its movement.

Verify that the un-lock button "snaps" firmly back into the locked position when the trigger bolt is released and the flap handle is moved into <u>any and all</u> of the flap positions.

Verify that there is <u>no interference</u> between any part of the EZ Flap device and the instrument panel, flight, trim or engine controls, any sub-panel, switch panel, any avionics or electrical components, interior upholstery, etc <u>at each and every flap position from fully retracted to fully deployed.</u>

Verify that the flaps can be fully deployed and retracted using the "new" device handle and trigger bolt, the "old" flap handle and un-lock button, and every possible combination of both. <u>Both flap actuating systems must work independently of each other in every way.</u>

Verify that any original flap control placard is not covered by the EZ Flap device and is fully legible. If the placard is not fully legible, remove the EZ Flap device, peel off the placard and move it aft on the flap lever (or re-install a replacement flap control placard) at a location where it is in full view of the pilot and not obscured by the EZ Flap device.

Step 9:

Make the appropriate entry in the logs and add the EZ Flap STC paperwork to the aircraft records. The overall change in weight and balance is usually considered **negligible**, approximately 1 lb. installed weight at a station fairly close to the wing leading edge.

Operation:

To <u>deploy</u> or <u>retract</u> the flaps using the EZ Flap handle, grasp the upper handle and pull the trigger bolt with your little finger until the flap mechanism unlocks, and either raise or lower the EZ Flap handle as desired, releasing the trigger bolt to lock the flaps into any of the original flap positions.

The EZ Flap handle can be used to deploy the flaps through the full range of movement if desired, however the original aircraft flap system remains fully operational and can be used at any time as well. Any combination of using the EZ Flap handle device and the original flap control can be used at the pilot's convenience.

EZ Flap flap handle extension device General Maintenance and Inspection

Any time that moving the EZ Flap trigger bolt does not easily move the un-lock button <u>a little</u> <u>more</u> than what is needed to un-lock the flap lever (due to <u>cable stretch</u> or general wear), repeat Step 8: Final Adjustment to take any slack out of the cable and re-tighten the trigger bolt.

Check the proper operation of the EZ Flap handle extension device through the full range of travel **during each pre-flight inspection**, <u>verifying</u> that the un-lock button "snaps" firmly into the extended (locked) position when the flap lever reaches each stage of deployment and retraction

Suggested annual or 100 hour inspection/maintenance checklist

Lightly lubricate the inside of the <u>upright tube</u> and <u>aluminum slug</u> using good quality grease at **each 100 hour / annual** inspection, <u>or when any significant friction is felt</u> in the trigger mechanism while actuating the flaps. Move the trigger and aluminum slug through its full travel several times to insure the grease is spread along the sides of the slug, and that there is no "grabbing" or "galling" between the tube and slug.

Lubricate the exposed surface of the <u>cable</u> (at the front of the cable sheath) with several drops of thin penetrating oil at **each 100 hour / annual** inspection, <u>or when any significant friction is felt</u> in the trigger mechanism while actuating the flaps. Make sure the penetrating oil is dribbled into the cable sheath along the cable, <u>while actuating the cable</u> back and forth with the trigger, to work the oil back into the cable sheath.

Inspect <u>lower clamp bolts</u> for looseness at **each 100 hour / annual** inspection, <u>or when any looseness / movement is felt</u> in the main attachment while actuating the flaps.

Inspect the <u>trigger bolt</u> and <u>steel tab attach screws</u> for looseness at **each 100 hour/annual** inspection, <u>or when any slippage or looseness is felt</u> while actuating the flaps.

Message From the Inventor

I sincerely hope that your EZ Flap flap handle extension provides you with a safer, more enjoyable flying experience, and that you enjoy increased capabilities and additional controllability of your aircraft. If you experience any problems installing or using your EZ Flap, feel free to contact me at info@ezflaphandle.com or the contact phone number at the website www.ezflaphandle.com .

I'd also love to hear your stories of how EZ Flap improved your ability to get the most out of your aircraft, or enhanced your safety and convenience!

Bill Berle Inventor/Designer, EZ Flap

have the correct steel tab (Step 6 above) Also contact EZ Flap to make sure you NOTE: Stinson owners please contact EZ Flap for your free drill jig tool which guarantees the correct (critical) hole alignment. which will be provided to you at no cost. Aluminum Button Steel Push-Pull Tube -Screw Hole File Top of **Button Flat** 10000 (No Scale) View A-A Push-Pull Tube Steel Tab P/N EZ-7 P/N EZ-9 Screws (Qty. 2)

Stinson 108 Steel Tab Replacement & Installation Procedure:

- Remove decorative plastic cap (at the top of the EZ Flap unit).
 - Pull excess cable free from inside upper handle.
- Loosen trigger bolt (releasing cable) and remove cable/tab/sheath ass'y.
 - Remove actuator cable from outer sheath.
- Remove smaller Piper/Maule steel tab from cable.
- Put larger Stinson tab onto cable, being careful not to "unwind" cable end! "countersunk" side of tab facing swaged "stop sleeve" at cable end) Ö.
- Re-insert cable through sheath, then through aluminum slug inside EZ Flap.
 - 8. Lightly finger-tighten trigger bolt (only to prevent cable falling loose)
- 9. Re-insert the excess cable in upper EZ Flap handle, replace plastic cap.
- 10. File top of Stinson aluminum button to create <u>flat mounting surface</u> for tab.
- 11. Drill 7/64" holes 3/4" deep into top of button to match hole spacing of new tab:
 - Hole location is critical, halfway between outer button circumference and do not allow drill to break by hitting the steel push-pull tube inside button! steel push-pull tube located inside button - Caution: minimal clearance,
- ► Holes are aligned fore-aft, parallel to fuselage axis
- 12. Tap holes for 6-32 machine screws, using tapping/cutting fluid and "backing off" the tap frequently to prevent breakage.
- 13. Clean debris out of holes with spray solvent through small "tube applicator".
- 14. Mount tab with 6-32 machine screws and medium thread-locking compound.

EZ Flap Manual Flap Handle Extension Stinson 108 Series Installation

Steel Retaining Tab Mounting Detail

Drawing 15 Appendix 1 No Scale Release Date August 26, 2010

William M. Berle

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U.S. Department of Transportation

Federal Aviation Administration Transport Airplane Directorate Los Angeles Aircraft Certification Office

3960 Paramount Boulevard Lakewood, California 90712-4137

November 16, 2010

In reply refer to: 120L-10-545

William M. Berle 21033 Strathern St. Canoga Park, CA 91304

Dear Sir:

Subject: Amendment to Approved Model List (AML) SA02246LA

Addition of Certain Models of the Piper, Hawker Beechcraft, Univair and Maule Aircraft

Flap Handle Extension Installation

We have completed our evaluation of the amendment to Approved Model List (AML) SA02246LA, to install your flap handle extension modification to certain Piper, Hawker Beechcraft, Univair and Maule Aircraft models as outlined in your Application for a Supplemental Type Certificate, FAA Form 8110-12.

We have reviewed William M. Berle Master Drawing List (MDL) MDL-1, Revision E, dated September 15, 2010, and concur with the approval per FAA Form 8110-3 by DER Robert Halvorson. We have amended AML SA02246LA to add certain models of the Piper, Hawker Beechcraft, Univair and Maule aircraft. We are enclosing your AML SA02246LA, amended November 16, 2010, and MDL-1, Revision E.

If you have any questions regarding this approval, please contact Ms. Nenita Odesa at (562) 627-5234, or by e-mail at nenita.odesa@faa.gov.

Sincerely,

Gregory S. DiLibero

Manager, Airframe Branch

Enclosure

cc: Mr. Robert M. Halvorson

William M. Berle

FOR INSTALLATION OF A FLAP HANDLE EXTENSION

Issue Date: August 5, 2009

		Original	Contification	N. A. a.d.	
G K		Onginai Type	Certification Basis	Maste	Master Drawing List
K	ft Aircraft	Certificate	for	The second secon	Revision No.
Item Make	Model	Number	Alteration	Number	& Date
1 Cessna	a 170, 170A, 170B	A-799	CAR 3	EZ-MDL-1	Rev. A, dated
+	-				July 15, 2009
2 Cessna	172, 172A, 1	3A12	CAR 3	EZ-MDL-1	Rev. A, dated
-					July 15, 2009
3 Cessna	175 (All models)	3A17	CAR 3	EZ-MDL-1	Rev. A, dated
-					July 15, 2009
4 Cessna	180 (All models)	5A6	CAR 3	EZ-MDL-1	Rev. A, dated
	-				July 15, 2009
Cessna	182, 182A, 182B, 182C, 182D	3A13	CAR 3	EZ-MDL-1	Rev. A, dated
-					July 15, 2009
o Cessna	185 (All models)	3A24	CAR 3	EZ-MDL-1	Rev. A, dated
j.				150	July 15, 2009
/ Piper	PA-18, PA-18S, PA-18A,	1A2	CAR 3	EZ-MDL-2	Rev. C, dated
	PA-180 125, PA-18AS"125",				February 15,
	PA-18AS"135", PA-18"150".				0102
	PA-18A"150", PA-18S"150",			2-3144	
	PA-18AS"150", PA-19,				

William M. Berle

FOR INSTALLATION OF A FLAP HANDLE EXTENSION

Issue Date: August 5, 2009

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Hawker Beechcraft	Piper	Piper	Piper	Aurcraft Make	re
19A, B19, M19A, 23, A23, A23A, A23-19, A23-24, B23, C23, A24R, B24R, C24R	PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28S-160, PA-28-161, PA-28-180, PA-28S-180, PA-28R-180, PA-28R-201, PA-28R-200, PA-28R-201, PA-28-201T, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-28-235, PA-28-236	PA-22, PA-22-108, PA-22-135, PA-22-150, PA-22-160, PA-22S-135, PA-22S-150, PA-22S-160	PA-20, PA-20 "115", PA-20 "135", PA-20S, PA-20S "115", PA-20S "135"	Aircraft Model	
AICE	2A13	1A6	1A4	Certificate Number	Original Type
CAR 3	CAR 3	CAR 3	CAR 3	for Alteration	Certification Basis
MDL-1	EZ-MDL-2	EZ-MDL-2	EZ-MDL-2	Number	Maste
Revision E Dated September 15, 2010	Rev. C, dated February 15, 2010	Rev. C, dated February 15, 2010	Rev. C, dated February 15, 2010	Revision No. & Date	Master Drawing List
November 16, 2010	March 9, 2010	March 9, 2010	March 9, 2010	Amendment Date	AMI

William M. Berle

FOR INSTALLATION OF A FLAP HANDLE EXTENSION

Issue D	
Issue Date: August 5, 2009	

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	A-767			A19SO				A7SO							11102	A3SO	Number	Corning	Certificate	Type	Original
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	November 16, 2010			November 16, 2010				November 16, 2010								November 16, 2010	Date	Amendment	1	AMI	

William M. Berle

FOR INSTALLATION OF A FLAP HANDLE EXTENSION

Issue Date: August 5, 2009

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											16	Item				
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MX-7-180, MX-7-235, MX-7-420, MXT-7-160, MXT-7-180A, MXT-7-180	MX-7-180AC, MX-7-180A, MX-7-180B, MX-7-180C,	MX-7-160C, MX-7-160,	M-8-235, MT-7-235, MT-7-260 MT-7-420	M-7-420AC, M-7-420A,	M-7-260C, M-7-260,	M-7-235C, M-7-235,	M-7-235B,	M-6-180, M-6-235, M-7-235A,	M-5-220C, M-5-235C,	M-5-210C, M-5-210TC,	M-5-180C, M-5-200,	Model	Aircraft			
											3A23	Number	Certificate	Type	Original	
											CAR 3	Alteration	for	Basis	Certification	
											MDL-1	Number			Maste	
							*		15, 2010	Dated September	Revision E	& Date	Revision No.	List	Master Drawing	X
				400						8	November 16, 2010	Date	Amendment	AML		

FAA Approved:

· 11/16/2010

Manager, Airframe Branch

Date:

United States Of America

Bepartment of Transportation - Federal Abiation Administration

Supplemental Type Certificate

Number SA02246LA

This Certificate issued to

William M. Berle 21033 Strathern St. Canoga Park, CA 91304

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 *3 of the Civil Soir Regulations.

Original Product Type Certificate Number: **See attached FAA Approved Model List (AML)

Make: *No. SA02246LA for list of approved aircraft

Model: *models and applicable airworthiness regulations.

Description of Type Design Change:

Installation of a flap handle extension in accordance with FAA Approved Model List (AML) SA02246LA, dated August 5, 2009, or later FAA approved revision.

Limitations and Conditions: The installation should not be incorporated in any airplane unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the airplane. The approval of this modification applies to the above noted airplane model series only. If the holder agrees to permit another person to use this certificate to alter their airplane, the holder shall give the other person written evidence of that permission. See continuation sheet.

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: May 6, 2009

Date of issuance:

August 5, 2009

Date reissued

Date amended

By direction of the Administrator

Manager, Airframe Branch Los Angeles 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.