

	<b>Standard Modification</b> Issue 1	Mod No. SM10163
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		Compiled : N. Battye
		Approved : A. Moore

## TITLE : Canopy Safety Latch

**APPLICABILITY :** Team Minimax  
**Mod Type :** New Build & Retro-fit

### 1. Introduction

The purpose of this modification is to replace the canopy safety latch shown on Team Drawing No 6. This modification now positively locks the canopy-opening lever in the closed position.

### 2. Parts List

2.1 Manufacture and procure the following new parts:

Qty	Part No.	Description	Source
AR	xxx	19swg (0.04") light alloy	Ref. Info note 21
AR	xxx	Shim Steel	Ref. Info note 21
1	xxx	3/4" Brass Hinge	Ref. Info note 21
1	xxx	3/32" Brass Rod	Ref. Info note 21
1	xxx	3/16" o.d. Alloy Tube	Ref. Info note 21
1	xxx	16swg i.d. brass Tube	Ref. Info note 21
1	xxx	Knob (~3/4" Diameter)	Ref. Info note 21
4	xxx	1/16" CS Rivets	Ref. Info note 21
1	xxx	1/16" x 1.25" Split Pin	Ref. Info note 21
2	xxx	1x1/2" Brass Woodscrews	Ref. Info note 21
AR	xxx	Operating placards	Ref. Info note 21

2.2 List of related drawings / photos

Drawing No.	Title / Description	Issue
SM10163-1	Cross Section of latch (Locked)	1
SM10163-2	Backplate, hinge, spring & lockplate assembly	1
SM10163-3	Assembly (folded)	1
SM10163-4	External pull handle	1
SM10163-5	Internal Locking Plate	1
SM10163-6	External Pull Knob	1

### 3. Action

- 3.1 Prior to installing this modification the standard canopy latch mechanism must be installed and working satisfactorily.
- 3.2 Manufacture/procure parts listed. (The ears on the lock plate must be less than 5/16" deep (Confirm on individual aircraft), or the plate will not clear

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the latch when unlocked. The leaf spring must be riveted to the lock plate; otherwise the back plate is difficult to screw onto the canopy.)

- 3.3 Manufacture thread (8BA) on operating rod to carry locking nut and pull knob. (Note that the rod is intended to be a loose fit in the tube, to allow for radial movement of the lock plate about the hinge).
- 3.4 Position, mark and drill holes for alloy tube and pilot holes for securing screws.
- 3.5 Trim to fit, and epoxy carrying tube in place.
- 3.6 Cut brass tubing to fit snugly between the ears of the lock plate.
- 3.7 Position and fix Backplate to inside of canopy structure.
- 3.8 Trim operating rod to length so that the spring holds the Lock plate over the canopy-opening handle (A small final adjustment may be made within the knob and knob-locking nut).
- 3.9 Bound and solder tube to operating rod.
- 3.10 Insert split pin through locking plate and tube on operating rod.
- 3.11 Paint lock plate in contrasting colours to the latch lever so that it is highly visible and obvious, e.g. Alternate red and yellow diagonal stripes.
- 3.12 Fit operating placards inside and outside the canopy. To make it clear that additional actions are required to unlock the canopy both from inside and out.
- 3.13 Inspector to inspect and verify conformity & workmanship.

#### **4. Flight Test and Special Inspections**

- 4.1 Inspector to conduct functional check of finished installation, ensuring that the canopy can be closed, locked, unlocked and opened from inside and out without undue force or any risk of jamming.

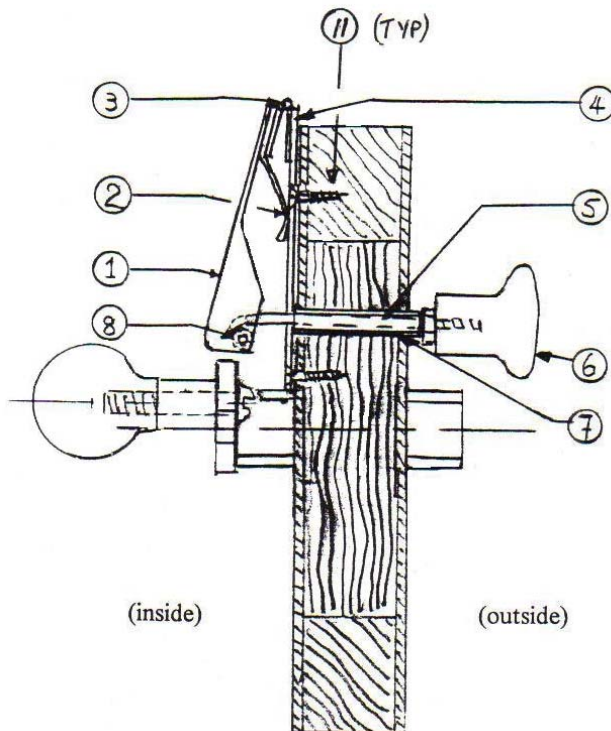
#### **5. Weight and Balance**

- 5.1 To be included in initial weight and balance schedule.
- 5.2 For retro-fits Weight & Balance found to be negligible.

#### **6. Certification**

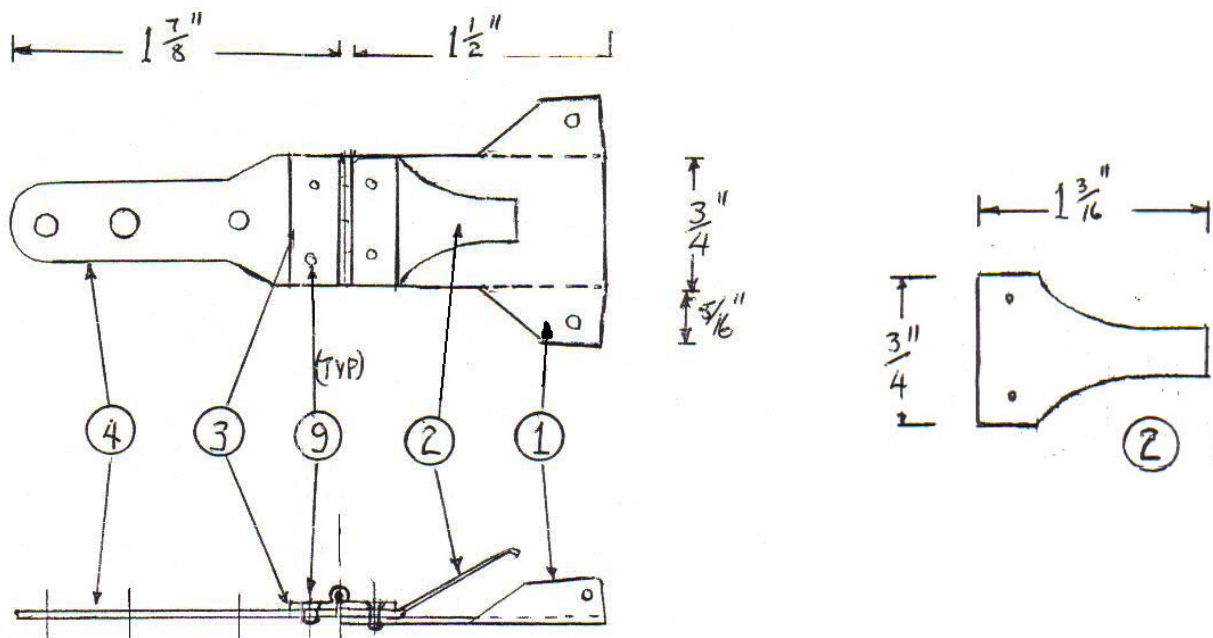
- 6.1 Appropriate logbook entry to be made by approved LAA inspector.

**SM10163-1 Cross Section of latch (Locked)**



- 1- Lock Plate
- 2- Spring
- 3- Hinge
- 4- Backplate
- 5- Operating Rod
- 6- Knob
- 7- Tube
- 8- Tube
- 9- Rivets
- 10- Split pin
- 11- Woodscrews

**SM10163-2 Backplate, hinge, spring & lockplate assembly**

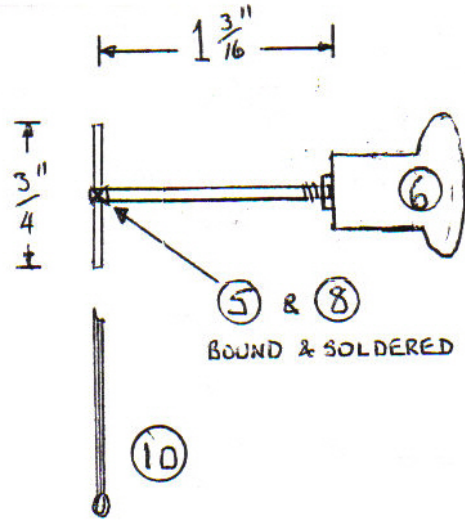


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**SM10163-3 Assembly (folded)**



**SM10163-4 External pull handle**



**SM10163-5 Internal Locking Plate**



**SM10163-6 External Locking Pull Knob**

