



## McFarlane Aviation Products

### Instructions for Continued Airworthiness

McFarlane Aviation Inc. FAA-PMA Part Number MC0713041-1/ -1B Cowl Flap Control.  
FAA PMA Number: PQ3732CE

**Notice:** Verify that this document is the latest approved revision before use! Current version can be found at:  
[www.McFarlaneAviation.com/ICA](http://www.McFarlaneAviation.com/ICA)

Approved By:

  
Quality Assurance Manager  
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#### Revisions

Revision	Date	Summary
Original	01/12/2012	Original release
A	03/16/2023	Revised "System Description", "Special Operating Information", and "Part Removal, Replacement, and Service Information" sections to coincide with change to Turn-to-Lock mechanism.

#### List of Effective Pages

Page	Rev/Date
All	01/12/2012
All	03/16/2023

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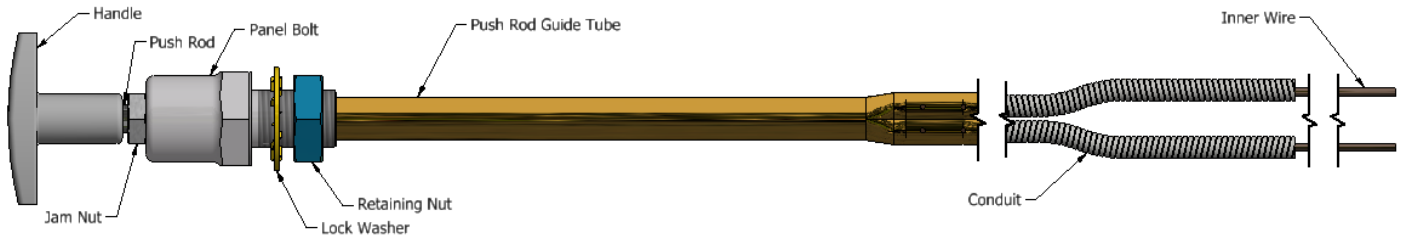
## INTRODUCTION

This document is intended to provide instructions for the continued airworthiness of McFarlane Aviation, LLC. PMA Cowl Flap Control eligible for installation on early model Cessna model 180 aircraft. The McFarlane Part Number is MC0713041-1 or MC0713041-1B and replaces Cessna Part Number 0713041-1.

This document specifically concerns the operation and installation of this control. For all items not related to the operation or installation of the McFarlane Aviation, LLC. control, refer to the basic airplane model service and parts manuals.

## SYSTEM DESCRIPTION

Cessna Model Series 180, 180A, and 180B aircraft employ moveable cowl flaps so as to provide variable engine cooling during operation. Control of these flaps is via a dual push/pull control. The OEM Cessna control (P/N: 0713041-1) utilizes a Push-to-Unlock style locking mechanism, while the McFarlane PMA Cowl Flap Control (P/N: MC0713041-1 & MC0713041-1B) utilizes a Turn-to-Lock style locking mechanism. An illustration is provided in Figure 1 below to clearly show the appearance of the McFarlane PMA Control.



**Figure 1:** MC0713041-1, Fully Extended w/ Subcomponent Descriptions

## SPECIAL OPERATING INFORMATION

The operation of the cowl flap control system changes from a Push-to-Unlock style to a Turn-to-Lock style with the installation of the McFarlane control. With the Turn-to-Lock style, the control has two states; locked and unlocked.

The control is locked when the handle is turned clockwise until tight and the word “LOCK” on the handle is horizontal with the letters right-side up, as seen in Figure 2. When the handle is in this position, the control’s movement is restricted and held in its current adjustment.



**Figure 2:** Turn-to-Lock Handle in Locked Position

The control is unlocked when the handle is turned counter-clockwise out of the locked position. In this state, the control is able to be easily adjusted through push-pull movements across the full range of travel.

To operate the control, turn the handle counter-clockwise to the unlocked position and adjust the control with a push-pull motion as normal. When the desired adjustment is reached, turn the handle clockwise to the locked position to secure the control in place. The control should be left in the locked position when not in use.

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**PART REMOVAL, REPLACEMENT, AND SERVICE INFORMATION**

Use of the McFarlane control has no impact on the current installation instructions found in the relevant Service Manual, D138-13 for the end of the control attached to the cowl flaps.

For the end attached to the control panel, the following instructions are provided to describe the various steps needed to replace the control.

1. Enlarge the mounting hole on the control panel from 7/16" to 1/2" with standard drilling equipment.
2. Remove the retaining nut and lock washer from the panel nut. Insert the control, conduit side first, through the enlarged mounting hole until the panel bolt head rests on the control panel. Place the control handle firmly in the locked position and orient the control so the word "LOCK" on the handle is horizontal and the letters are right-side up. Reinstall the lock washer followed by the retaining nut onto the back of the control with the control panel between the washer and the head of the panel bolt. Tighten the retaining nut until secure.
3. Route and secure the two wires/conduits. Routes should be as direct as possible. All routings should be made with the maximum possible radius.
4. Install conduit and wire clamping components. Adjust for proper cowl flap travel and secure clamps. Cowl flaps should be fully closed when control is pushed into the full forward position, and fully open when the control is pulled out to its maximum travel distance.
5. Cycle the control fully twice to verify proper functionality before returning to service. Control must work smoothly throughout the full travel range with the handle in the unlocked position. The control must lock in place when the handle is rotated to the locked position. The Cowl Flaps must fully open and close with no slippage at the conduit or wire attachment points.

**TROUBLESHOOTING**

Refer to the applicable Cessna Model Service Manual for troubleshooting instructions and the applicable Cessna Illustrated Parts Catalog for mating hardware and higher assembly part numbers. See listing in Data Section below. For troubleshooting, refer to Figure 12-15 in Manual D138-13.

**PLACARDS**

None applicable

**DATA**

All information to support the continued airworthiness of this replacement part is as defined herein and contained in:

- Relevant Cessna Model Service Manuals.
  - 100 series Service Manual D138-13 (1962 and Prior)
- Relevant Cessna Model Illustrated Parts Catalog.
  - 180/182 IPC P259-12 dated 6/1/1967

**INSPECTION**

Inspection intervals for the Cowl Flap Control and any related system are not affected by the use of the McFarlane PMA control. Refer to the Cessna Service Manual for inspection instructions.

**RECOMMENDED OVERHAUL PERIODS**

No additional overhaul time limitations exist with the use of these parts.

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**AIRWORTHINESS LIMITATIONS**

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sec. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved. No additional airworthiness limitations exist.

**ASSISTANCE & REVISIONS**

ICA revisions shall be made available on the McFarlane website, [www.mcfarlaneaviation.com/ICA](http://www.mcfarlaneaviation.com/ICA). For questions or assistance regarding these Instructions for Continued Airworthiness (ICA), contact McFarlane Aviation, Inc via email or phone. Email: [engineering@mcfarlaneaviation.com](mailto:engineering@mcfarlaneaviation.com) Phone: 1-800-544-8594 (within the US) or 1-785-594-2741.