



SERVICE INSTRUCTION M20-119

Date: August 25, 2011

**SUBJECT:** To ADVISE OWNERS/OPERATORS of the of the Corrected Flap Position Discrete Input Check Procedures, found in the GARMIN G1000/GFC700 System Maintenance Manual (see attached).

**MODELS/ SN AFFECTED:** All M20 Series Aircraft equipped with GARMIN G1000/GFC700

**TIME OF COMPLIANCE:** AT SCHEDULED TIME OF MAINTENANCE

**INTRODUCTION:** There has been an error identified in the *Garmin G1000/GFC700 System Maintenance Manual for Mooney Model Aircraft (MANUAL #190-00638-01)*. This revision of paragraph 4 on page 4-10 corrects the description of trim wheel travel during the Flap Discreet Input Check. The same description found in paragraph 8, page 8-5 is correct and should not be modified.

**INSTRUCTIONS:** Please print the attached replacement paragraph 4, page 4-10, and affix it over the existing paragraph 4.

Make notation on RECORD OF REVISIONS page A of the *Garmin G1000/GFC700 System Maintenance Manual for Mooney Model Aircraft (MANUAL #190-00638-01)* as follows:

Revision	Revision Date	Description	ECO #
Mooney SI-M20-119	(Date of Compliance)	Page 4- 10 paragraph 4	N/A

**WARRANTY:** N/A

**REFERENCE DATA:** GARMIN G1000/GFC700 System Maintenance Manual # 190-00638-01

**PARTS LIST:** N/A

## 4.8 Flap Position Discrete Input Check

To perform this check, all G1000 and GFC 700 equipment must be installed and operational. Start the G1000 system in Configuration Mode and go to the GIA Page Group and select the GIA I/O Configuration Page using the FMS knob. Perform the following checks:

GIA I/O CONFIGURATION									
SELECT GIA UNIT			SELECT INPUT/OUTPUT						
GIA1			DISCRETE IN						
CONFIGURATION									
CHANNEL	DATA	DATA TYPE		INVERTED		ACTV DEBNCE (ms)		INACTV DEBNCE (ms)	
		SET	ACTIVE	SET	ACTIVE	SET	ACTIVE	SET	ACTIVE
IN* 1	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 2	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 3	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 4	<input type="checkbox"/>	AFCS GO AROUND	AFCS GO AROUND	FALSE	FALSE	0	0	0	0
IN* 5	<input type="checkbox"/>	PLT CTRL WHL	PLT CTRL WHL	FALSE	FALSE	0	0	0	0
IN* 6	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 7	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 8	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 9	<input type="checkbox"/>	PLT PIT TRM ARM	PLT PIT TRM ARM	FALSE	FALSE	0	0	0	0
IN* 10	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 11	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 12	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN 13	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN 14	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN 15	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN 16	<input type="checkbox"/>	FLAP EXTEND	FLAP EXTEND	FALSE	FALSE	0	0	0	0
IN 17	<input type="checkbox"/>	FLAP RETRACT	FLAP RETRACT	FALSE	FALSE	0	0	0	0
IN* 1A	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 2A	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 3A	<input type="checkbox"/>	PLT PIT TRM UP	PLT PIT TRM UP	FALSE	FALSE	0	0	0	0
IN* 4A	<input type="checkbox"/>	PLT PIT TRM DWN	PLT PIT TRM DWN	FALSE	FALSE	0	0	0	0
IN* 5A	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0
IN* 6A	<input type="checkbox"/>	OFF	OFF	FALSE	FALSE	0	0	0	0

Figure 4-1. GIA I/O Page

1. Extend the flaps down. While the flaps are transitioning down, check that the discrete input labeled 'FLAP EXTEND' lights up green.
2. Retract the flaps up. While the flaps are transitioning up, check that the discrete input labeled 'FLAP RETRACT' lights up green.
3. Restart the G1000 system in normal mode. Wait until the AHRS and ADC systems come online and for the AFCS Pre-flight Test to complete.
4. Press the FD key on the MFD to engage the Flight Director. Press the AP key to engage the Autopilot. Press the CWS button for a few seconds and release; verifying there is no residual force on the control wheel for the pitch axis. Extend the flaps to approach position. The trim wheel should immediately run in the **UP** direction. Now retract the flaps. The trim should immediately run in the **DOWN** direction.
5. The flap discrete input check is complete.