
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Instruments and Automatic Pilots

AD/INST/51

Flight Management Computers

13/2002

Applicability: Rockwell Collins, Inc. Model FMC-4200, FMC-5000 and FMC-6000 Flight Management Computers (FMC) with the following Model/Part Number combinations:

Model	Part Number
FMC-4200	822-0783-002
FMC-4200	822-0783-006
FMC-4200	822-0783-010
FMC-5000	822-0891-001
FMC-6000	822-0868-004
FMC-6000	822-0868-010
FMC-6000	822-0868-021

Note 1: The FMC units are known to be installed on, but not limited to the following aircraft models:

Manufacturer	Aircraft Model
<i>Raytheon</i>	<i>Beechjet 400A and 400T (T-1A)</i>
<i>Bombardier</i>	<i>CL-600-2B19 Regional Jet Series 100 and CL-600-2B16 (variant CL-604)</i>

Requirement: 1. Remove any FMC unit specified in the Applicability Statement of this Directive and install a modified or new FMC unit, as listed below, in accordance with the applicable maintenance manual.

Note 2: When selecting a replacement FMC part number, determine if the part number has been certified for installation on the particular aircraft through either the Type Certification or Supplemental Type Certification process. Also, determine whether additional avionics units must be upgraded at the same time to be compatible with the selected replacement FMC part number.

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Removed FMC Part Number	Acceptable replacement FMC Part Number
822-0783-002	822-0783-011 or 822-0783-013
822-0783-006	822-0783-011 or 822-0783-013
822-0783-010	822-0783-011 or 822-0783-013
822-0891-001	822-0891-005 or 822-0891-008
822-0868-004	822-0868-029, 822-0868-030, 822-0868-031 or 822-0868-032
822-0868-010	822-0868-029, 822-0868-030, 822-0868-031 or 822-0868-032
822-0868-021	822-0868-029, 822-0868-030, 822-0868-031 or 822-0868-032

2. FMC units specified in the Applicability Statement of this Directive may not be installed on any aeroplane as a replacement part or new installation unless the unit has been modified to the replacement part number specified in the Requirement 1 table above.

Note 3: FAA AD 2002-22-13 Amdt 39-12939 refers.

Compliance: For Requirement 1 - Within 24 calendar months after the effective date of this Directive.

For Requirement 2 - As of the effective date of this Directive.

This Airworthiness Directive becomes effective on 26 December 2002.

Background: This Directive requires the removal of affected FMC units and replacement with either a new FMC unit or an FMC unit that has been modified to correct a problem with the flight management system (FMS) accepting new information when an existing procedure or flight plan is changed.

Instruments and Automatic Pilots

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These actions are intended to prevent the FMC from retaining and displaying original altitude constraints when an edit or a replacement is made to a procedure or flight plan that shares a waypoint with another procedure or an airway, and there is an altitude constraint on the shared waypoint. Such a condition could cause the pilot to fly the airplane out of the range of the correct altitude constraint. This condition could result in air traffic control or the pilot making flight decisions that put the airplane in unsafe flight conditions.



James Coyne
Delegate of the Civil Aviation Safety Authority

18 November 2002