

EASA	AIRWORTHINESS DIRECTIVE																				
	AD No.: 2010-0204 [Correction: 07 June 2011] Date: 06 October 2010 Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.																				
This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].																					
Type Approval Holder's Name : Rockwell-Collins Inc.	Type/Model designation(s) : TDR-94 and TDR-94D Transponders																				
ETSO Approval : EASA.210.280 Rev. C																					
Foreign AD : None																					
Supersedure : None																					
ATA 34	Navigation Systems – Mode-S Transponder – Modification / Replacement																				
Manufacturer(s):	Rockwell-Collins Inc.																				
Applicability:	Rockwell Collins Mode S Transponders identified by type and Part Number (P/N) as follows: <table border="1"> <thead> <tr> <th>Type</th><th>P/N (all serial numbers)</th></tr> </thead> <tbody> <tr> <td>TDR-94</td><td>622-9352-007, 622-9352-207, 622-9352-008, 622-9352-108, 622-9352-308, 622-9352-309, 622-9352-408, 622-9352-409</td></tr> <tr> <td>TDR-94D</td><td>622-9210-007, 622-9210-207, 622-9210-008, 622-9210-108, 622-9210-308, 622-9210-309, 622-9210-408, 622-9210-409</td></tr> </tbody> </table> when installed in combination with certain Rockwell Collins Air Data Computers (ADC) as specified below, and the Rockwell Collins Commercial Standard Digital Bus (CSDB) databus is being used to transfer altitude information between the ADC and the transponder(s). <table border="1"> <thead> <tr> <th>ADC Type</th><th>P/N (all suffixes, all serial numbers)</th></tr> </thead> <tbody> <tr> <td>ADC-81A</td><td>622-4401-XXX</td></tr> <tr> <td>ADC-82A</td><td>622-6475-XXX</td></tr> <tr> <td>ADC-82C</td><td>622-8329-XXX</td></tr> <tr> <td>ADC-82L</td><td>622-8105-XXX</td></tr> <tr> <td>ADC-85</td><td>622-8051-XXX</td></tr> <tr> <td>ADC-85A</td><td>822-0370-XXX</td></tr> </tbody> </table>	Type	P/N (all serial numbers)	TDR-94	622-9352-007, 622-9352-207, 622-9352-008, 622-9352-108, 622-9352-308, 622-9352-309, 622-9352-408, 622-9352-409	TDR-94D	622-9210-007, 622-9210-207, 622-9210-008, 622-9210-108, 622-9210-308, 622-9210-309, 622-9210-408, 622-9210-409	ADC Type	P/N (all suffixes, all serial numbers)	ADC-81A	622-4401-XXX	ADC-82A	622-6475-XXX	ADC-82C	622-8329-XXX	ADC-82L	622-8105-XXX	ADC-85	622-8051-XXX	ADC-85A	822-0370-XXX
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	For fixed-wing aeroplanes to which this AD applies, refer to Rockwell-Collins, Inc. Service Information Letter 08-1 to identify whether an installation is affected. Additionally, Rockwell-Collins, Inc. Service Information Letter 2-85 details the part numbers assigned for aeroplanes certified with the ADS-81/82 Air Data System. This AD applies only to fixed-wing aeroplanes with the affected transponders installed and operating under Instrument Flight Rules (IFR) in the designated Enhanced Surveillance (EHS) airspace in Europe. These transponders, in combination with CDSB altitude information transfer, are known to be installed on, but not limited to: - Hawker Beechcraft 200 (King Air) series and 1900D aeroplanes, - Dassault Aviation Mystère-Falcon 20 and Mystère-Falcon 50 aeroplanes, and - SAAB SF340A and 340B aeroplanes. For more information regarding Mode-S EHS, please consult the EUROCONTROL website and local Aeronautical Information Circulars (AIC).
Reason:	The Rockwell-Collins TDR-94/94D Transponders listed in the applicability section of this AD, when used in combination with certain Rockwell Collins ADC unit(s) and connected through a CDSB type databus may transmit incorrect Selected Altitude parameters due to a databus interface protocol incompatibility. This condition, if not corrected, could result in disruptions in the Air Traffic Management process, potentially compromising aircraft safety. To address and correct this unsafe condition, Rockwell-Collins have developed a software update, available for in-service application through Rockwell-Collins Service Bulletins TDR-94/94D-34-508 and -509, respectively, that remedies the problem. For the reasons described above, this EASA AD requires the modification of all affected Rockwell-Collins TDR-94/94D Mode-S transponders to incorporate the new software update, or replacement of the transponder with a modified unit. This AD has been republished to correct a typographical error in the Applicability section of the AD, where a wrong P/N for Rockwell Collins ADC-85A was quoted.
Effective Date:	20 October 2010
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 12 months after the effective date of this AD, accomplish one of the following actions: (1.1) Modify the transponder and the aeroplane in accordance with approved aeroplane modification instructions. Details of the transponder modification are provided in Appendix 1 of this AD, Table 1 or Table 2, as applicable to transponder type design. or (1.2) Replace the transponder, in accordance with approved aeroplane modification instructions, with a TDR-94 unit identified by P/N 622-9352-310 or 622-9352-410, or a TDR-94D unit identified by P/N 622-9210-310 or 622-9210-410, as applicable. Note 1: The referenced Rockwell Collins SB, as applicable, does not contain approved aeroplane modification instructions. Note 2: Rockwell Collins TDR 94 transponders with P/N 622-9352-410 and

	TDR94D transponders with P/N 622-9210-410 are ADS-B capable. Concurrent with accomplishment of the modification of the aeroplane as required by paragraph (1) of this AD, the ADS-B function must be disabled, unless compliance with EASA AMC 20-24 has been demonstrated. (2) SAAB aeroplanes modified in accordance with SAAB Service Bulletin (SB) 340-34-207 (modification n° 3325) are not affected by this AD, as this modification is equal to the requirements of paragraph (1) of this AD.
Ref. Publications:	Rockwell-Collins, Inc. Service Bulletin TDR-94()-34-508, Publication Number 523-0817821-001000, Initial Release dated 16 September 2009. Rockwell-Collins, Inc. Service Bulletin TDR-94()-34-509, Publication Number 523-0817822-001000, Initial Release dated 16 September 2009. Rockwell-Collins, Inc. Service Information Letter 08-1, Publication Number 523-0817148-001000, Initial Release dated 20 February 2009. Rockwell-Collins, Inc. Service Information Letter 2-85, Publication Number 523-0791628-401000, Revision No.4 dated 14 January 2004.
Remarks :	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 13 January 2010 as PAD 10-009 for consultation until 10 February 2010. The Comment Response Document can be found at http://ad.easa.europa.eu. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Rockwell Collins Inc., 400 Collins Road NE, Cedar Rapids, Iowa 52498, United States of America, telephone +1-319-265-5467 Website: www.rockwellcollins.com Email: response@rockwellcollins.com

APPENDIX 1 – Transponders and Service Bulletins for modification

Table 1 – TDR-94 Transponders

Current P/N	New P/N (options)	Rockwell Collins Service Bulletin (SB) instructions to be used for modification
622-9352-007 622-9352-008 622-9352-207 622-9352-308 622-9352-309	622-9352-310	TDR-94()-34-508
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Table 2 – TDR-94D Transponders

Current P/N	New P/N (options)	Rockwell Collins SB instructions to be used for modification
622-9210-007 622-9210-008 622-9210-207 622-9210-308 622-9210-309	622-9210-310	TDR-94()-34-508
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