

SERVICE BULLETIN REVISION TRANSMITTAL SHEET

MODEL CL-600-2B16

Discard the Basic Issue of this Service Bulletin dated Oct 30/2023 and replace in its entirety with this Revision 01.

Service Bulletin No. 604-32-033

Date of Basic Issue Oct 30/2023

Revision No. 01 Dated Nov 04/2025

This revision has no effect for aircraft on which the Basic Issue of this Service Bulletin was done thus no other action is necessary. Do not sign the log book if you have not done this revision. Keep the previous log book entry. You may make an entry as Not Applicable for this revision.

This revision is issued to:

1. Change, in the Service Bulletin Summary Sheet, to revise the AD Note.
2. Change, in Paragraph 1, to update Note 3 and 4.
3. Change, in Paragraph 1.B., to revise the objective/benefit statement.
4. Change, in Paragraph 1.C., to revise the instructions statement.
5. Change, in Paragraph 1.G., to add the universal coupling information.
6. Change, in Paragraph 1.K., to delete the TCCA AD reference and update MM revision.
7. Change, in Paragraph 2.B., to delete existing Steps (2) and (3), and revise current Steps (2) and (3).
8. Make miscellaneous minor changes, as necessary, with no change of context.

SERVICE BULLETIN SUMMARY

This Service Bulletin is available at:
my.businessaircraft.bombardier.com

MODEL CL-600-2B16

ATA 32-51

LANDING GEAR

MODIFICATION – NOSEWHEEL STEERING – REPLACEMENT OF POTENTIOMETER UNIVERSAL COUPLING (T16-6) SETSCREWS

The information below is provided for your reference. For full details, including labor and part coverage, please see corresponding paragraph contained within this bulletin.

RECOMMENDED	COMPLIANCE TIME	
SPECIFIED TIME COMPLIANCE	Within 36 months from this Service Bulletin release date (Basic Issue)	
EFFECTIVITY: CL-600-2B16 aircraft, Serial No. 5301 to 5665		
MANPOWER: 4 hours		
CONTINUED AIRWORTHINESS (CAW) FLEET CAMPAIGN	YES ☐	NO ☒
TLMC, CH 5 AFFECTED	YES ☒	NO ☐
KITS and/or PARTS	YES ☒	NO ☐
TOOLING/GSE	YES ☐	NO ☒
PLANNING INFORMATION: See important information at the start of Paragraph 1.	YES ☒	NO ☐
DEDICATED SCHEDULE	YES ☐	NO ☒
PREREQUISITE SERVICE BULLETINS: N/A		
NOTE: This Service Bulletin is subject to an Airworthiness Directive.		

To place an order for part and/or kit, please call Bombardier Parts Services at:
514-855-2999 or 1-866-538-1247

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1. PLANNING INFORMATION

- NOTES:
1. **Before you do this Service Bulletin, examine all STC, STA or equivalent action changes to make sure that this Service Bulletin can be completed.**
 2. The Time Limits/Maintenance Checks (TLMC) is impacted by this Service Bulletin. Refer to the applicable TLMC RS references.
 3. After the incorporation of this Service Bulletin for any future rigging/part replacement of the NWS rudder potentiometer, Operators must use the content of AMM Rev 104 and subs (new self-locking setscrew, coupling replacement, new torque value and application of anaerobic retaining compound).
 4. The AMM tasks referenced in SB 604-32-033 as “Post SB 604-32-033” shall be found in the AMM Rev 104 and subs.

A. Effectivity

CL-600-2B16 aircraft, Serial No. **5301** to **5665**.

All other subsequent CL-600-2B16 aircraft are scheduled for the modification in production (Ref.: Modification Summary 600-13625).

NOTE: The instructions given in this Service Bulletin are only applicable to the systems and parts installed at the time of delivery of the aircraft or as changed by Bombardier Service Bulletins.

Refer to applicable governmental agency regulations and requirements and make sure that the work described in this Service Bulletin is performed in compliance with manufacturer's recommendations and/or acceptable industry standards.

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B O M B A R D I E R
CHALLENGER 604

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B. Reason

1. Condition:

Due to rudder pedal potentiometer universal coupling setscrews possibly having inadequate torque and the use of non self-locking setscrews.

2. Evidence:

There is one report of uncommanded steering resulting in lateral runway excursion due to the rudder pedal potentiometer universal coupling not properly clamping the potentiometer shaft. This resulted in the pedals moving the potentiometer in one direction only (ratcheting). Due to normal repeated usage at landing, the potentiometer was not following pedal command.

3. Objective/Benefit:

The Service Bulletin instructs to replace the T16-6 coupling and its setscrews, application of anaerobic retaining compound and rigging of nosewheel steering alignment if required.

C. Description

This Service Bulletin gives instructions to:

- Gain access to potentiometer universal coupling,
- Remove and replace the universal coupling,
- Remove and discard the existing setscrews,
- Install the new setscrews,
- Verify the rudder pedal potentiometer voltage and rig if necessary,
- If required, replace the potentiometer, and
- Do the necessary tests to make sure that the system operates correctly.

D. Compliance

Recommended within 36 months from this Service Bulletin release date (Basic Issue).

E. Approval

The technical content of this Service Bulletin has been approved under the authority of Transport Canada Civil Aviation (TCCA) Design Approval Organization (DAO) No. DAO #93-Q-02.

- NOTES:**
1. The technical content of this Service Bulletin is accepted by the FAA under the Canada/USA bilateral Aviation Safety Agreement.
 2. The technical content of this Service Bulletin is accepted by the EASA under the Canada/EU bilateral Aviation Safety Agreement.

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F. Manpower

NOTES: 1. The hours given are to help you schedule the tasks given in this Service Bulletin. The hours are for direct labor performed by an experienced crew and do not include the time for familiarization, planning, aircraft preparation in hangar such as towing and positioning of scaffolds, removal of interior furnishings, repainting, supervision and inspection.

For more information related to the manpower, refer to SB 604-00-002.

2. This Service Bulletin may require consumable materials that have specific curing times (refer to Paragraph 3.C). The accumulated curing time is not included in the hours and should be considered for planning purposes before you schedule this Service Bulletin.
3. Labor hours are based on the fact that the modification will be done at the next scheduled maintenance task or inspection. Therefore no hours are allotted to prepare the aircraft for maintenance or to prepare for this Service Bulletin.

4 hours are necessary to do this Service Bulletin.

The labor required to do this Service Bulletin is at no cost if:

- the work is done during new aircraft warranty period, and
- the work is done at Bombardier or Authorized Service Facilities (ASF), and
- this Service Bulletin is scheduled in less than 36 months from its release date (Basic Issue).

G. Material – Cost and Availability

Kit 650K32-007 and a new universal coupling T16-6 are necessary to do this Service Bulletin. For material data, refer to Paragraph 3.C.

KIT NO.	PRICE
650K32-007	Please contact Bombardier Parts Services, in Montreal, for delivery lead times and confirmation of prices.

The part listed in Paragraph 3.B. may be necessary to do this Service Bulletin.

For all parts transactions, Bombardier's current Spare Parts and Component Repair Price Catalogue General Terms and Conditions apply. These terms and conditions are found at my.bombardier.com.

The kit and/or part are available at no cost if:

- ordered during new aircraft warranty period, and

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- a no-charge purchase order is sent to Bombardier in less than 36 months from this Service Bulletin release date (Basic Issue).

For those aircraft in new aircraft warranty at the time of Service Bulletin distribution, Smart Parts does not pay for the kit at any time.

For those aircraft out of new aircraft warranty at the time of Service Bulletin distribution, Smart Parts pays for the kit for up to 36 months from Service Bulletin distribution date (Basic Issue).

H. Tooling

The equipment and tools listed below are necessary to do this Service Bulletin:

GSE REFERENCE NO.	PART NO.	DESCRIPTION
Commercially Available	–	Digital Voltmeter
Commercially Available	–	Screwdriver Extension, Rigid 2 in (50.8 mm)
Commercially Available	–	Screwdriver Bit, Cut to 1 7/8 in (47.6 mm)
Commercially Available	–	Screwdriver Bit Holder
Commercially Available	–	Screwdriver, Torque 5 to 6 lbf in (0.56 to 0.68 Nm)

- NOTES:**
1. Refer to the CL-604 Illustrated Tool and Equipment Manual (ITEM) to make sure that you use the correct equipment configuration.
 2. Refer to the Liability Statement in the ITEM for the CL-604 of the publication listed in NOTE 1 for acceptable GSE equivalents.
 3. This list is provided for quick reference. In case of discrepancy between this list and the tools called in the SPM, WM, Chapter 20, then the tools called in the SPM-WM prevail. Other approved alternative tools are acceptable and can also be used.
 4. Do not use other tool in lieu of the screwdriver listed in table.

I. Weight and Balance

No change.

J. Electrical Load Data

No change.

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K. References

- Bombardier, Restriction and/or Special Instruction (RSI), C-4306, Rev. --1.
- Bombardier, Kit Drawing, K600-90101, Rev. --.
- CL-604 Time Limits/Maintenance Checks (TLMC), RS-CL604-XXX.
- Bombardier, Standard Practice Manual (SPM), Chapters 20 and 51.
- CL-604 Aircraft Maintenance Manual (AMM), Chapters 6, 24, 32, 52 and 53.
- CL-604 Aircraft Illustrated Parts Catalog (AIPC), Chapters 27 and 32.
- CL-604 Aircraft Maintenance Manual (AMM), Rev 104 and subs.
- CL-604 Aircraft Illustrated Parts Catalog (AIPC), incorporating the intent of TR 27-31 and TR 32-27.

L. Other Publications Affected

- CL-604 Aircraft Maintenance Manual (AMM) Revision 100, Chapter 32.
- CL-604 Aircraft Illustrated Parts Catalog (AIPC) Revision 100, Chapter 32.

M. Equivalent Service Bulletins

- For the Challenger 600 aircraft, use the SB 600-0782.
- For the Challenger 601 aircraft, use the SB 601-1114.
- For the Challenger 605 aircraft, use the SB 605-32-010.
- For the Challenger 650 aircraft, use the SB 650-32-007.

2. ACCOMPLISHMENT INSTRUCTIONS

- NOTES:**
1. All TASKs given in the procedures that follow are from the CL-604 Aircraft Maintenance Manual unless otherwise specified.
 2. All references made to zones, access panels and/or doors, are from the CL-604 Aircraft Maintenance Manual, Chapter 6.
 3. For technical support or deviations, contact Bombardier via the SRPSA form available in the Services & Support section of my.bombardier.com. Refer to the latest applicable SRPSA pricing in the same section.

A. Aircraft Setup

- (1) Obey all the electrical/electronic safety precautions. Refer to AMM 24-00-00-910-801.
- (2) Remove the flight-controls access panels (131AL/132AR). Refer to AMM 52-44-20-000-801.
- (3) Remove the flight compartment floor-panel (221CLF). Refer to AMM 53-01-01-000-801.

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B. Modification

NOTE: It may be required to remove the passenger system oxygen cylinder in accordance with applicable SMM procedures. This may provide better access to the rudder potentiometer universal coupling location.

- (1) Get access to potentiometer universal coupling, Part No. T16-6 on rudder feel unit assembly.
- (2) Replace the rudder potentiometer universal coupling as follows:
 - (a) Remove the potentiometer and coupling per AMM 32-51-04-000-801 in accordance with AMM Rev 104 and subs, per the applicable procedure (Pre SB 604-32-033).
 - (b) Install the new coupling and potentiometer per AMM 32-51-04-400-801 in accordance with AMM Rev 104 and subs, including the task instructions related to Post SB 604-32-033 (using new coupler, new type self-locking setscrews, anaerobic retaining compound and specified torque).
 - (c) Rig the potentiometer per AMM 32-51-04-820-801 in accordance with AMM Rev 104 and subs, following task instructions related to Post SB 604-32-033.
- (3) If required, replace the potentiometer per AMM 32-51-04-400-801 and rig the potentiometer per AMM 32-51-04-820-801, respectively in accordance with AMM Rev 104 and subs, including the task instructions related to Post SB 604-32-033.

C. Testing

- (1) Do the operational test of the nosewheel steering system. Refer to AMM 32-51-00-710-801.

D. Close-out

- (1) Remove all tools, equipment and unwanted materials from the aircraft.

NOTE: Make sure to remove the rigging pin that was installed in the rudder pedal system forward quadrant.
- (2) If previously removed, re-install the passenger system oxygen bottle in accordance with the SMM requirements.
- (3) Install the flight-controls access panels (131AL/132AR). Refer to AMM 52-44-20-400-801.
- (4) Install the flight compartment floor-panel (221CLF). Refer to AMM 53-01-01-400-801.

E. Recording

When this Service Bulletin is completed, make an entry in the aircraft log and send the attached Incorporation Sheet to Bombardier.

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3. MATERIAL INFORMATION

NOTE: For technical support or deviations, contact Bombardier via the SRPSA form available in the Services & Support section of my.bombardier.com. Refer to the latest applicable SRPSA pricing in the same section.

A. Kit

Kit 650K32-007 is necessary to do this Service Bulletin and contains the part that follows:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
B0201102-2-220	8	Self-locking Setscrew	MS18063-2	Discard

- NOTES:**
1. In case of discrepancy between this list and the Service Bulletin Kit Parts List contained in the respective kit, then the later list prevails.
 2. The actual quantity for some of the hardware contained in the kit can be greater than the amount shown in the table as these items are supplied in prepackaged quantities.
 3. The self-locking setscrew can be identified by its yellow locking patch.

B. Parts

The parts that follow may be necessary to do this Service Bulletin and are available from Bombardier Parts Services, Montreal:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
7149-3 or 8978-3	1	Potentiometer	-	-
T16-6	1	Universal Coupling	-	-

NOTE: The part numbers for the items listed above are subject to change without revision to this Service Bulletin. In case of discrepancy between this list and any other list, the Illustrated Parts Catalog prevails and shall be used to determine the latest part number.

C. Materials

The materials that follow, or equivalent, are necessary to do this Service Bulletin. These can be purchased from a local supplier. Bombardier does not pay for these consumables.

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DESCRIPTION	PART NO./NAME	SPECIFICATION	QUANTITY	SUPPLIER (SEE NOTE)
Anaerobic Retaining Compound	Loctite 243	–	As Necessary	Code: A
Lockwire	MS20995C32	–	As Necessary	Code: A

- NOTES:**
1. Refer to the table that follows for each suppliers address listed by codes.
 2. The Curing Time (CT), if applicable, for each consumable material is indicated with the description of each product.
 3. At time of release of this Service Bulletin, the information on the supplier was valid and accurate. In the event that this information has changed, the operator is encouraged to use the World Wide Web to find a local supplier.

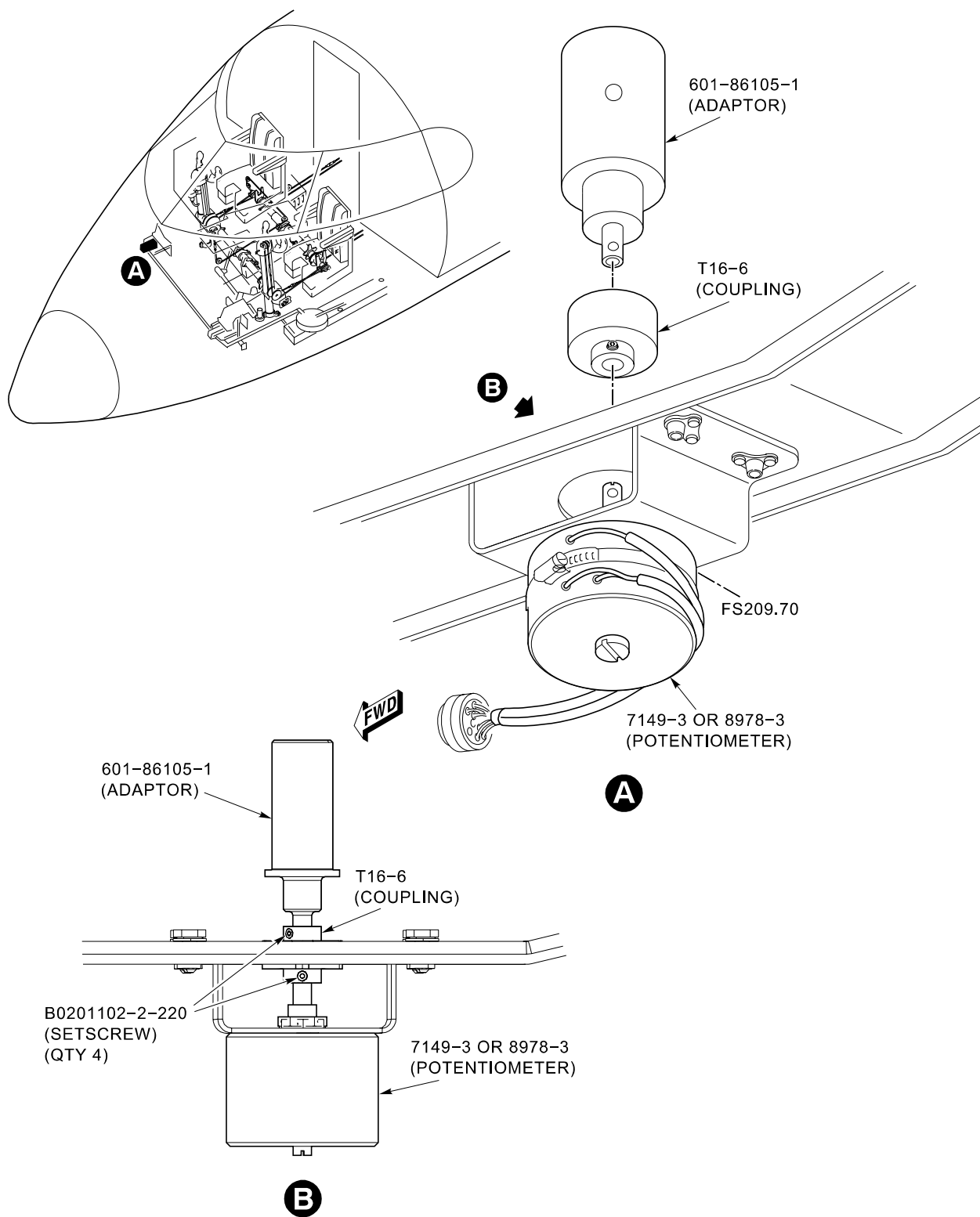
SUPPLIERS ADDRESSES BY CODES
Code: A Commercially Available

D. Publications

No publications required.

BOMBARDIER
CHALLENGER 604

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Replacement of Universal Coupling (T16-6) Setscrews
Figure 1

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SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

SERVICE BULLETIN: 604-32-033 **ISSUE:** Rev. 01 **DATED:** Nov 04/2025

TITLE: MODIFICATION – NOSEWHEEL STEERING –
REPLACEMENT OF POTENTIOMETER UNIVERSAL COUPLING (T16-6)
SETSCREWS

For any information, correction(s), comment(s) and/or feedback regarding Service Bulletins released on the Customer Portal, please contact the Service Bulletin Group at the following email address:

bbad_SBgroup@aero.bombardier.com

NOTE: Please use Salesforce **only** for troubleshooting issues or when Engineering deviation is necessary to accomplish the Service Bulletin modification.

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SERVICE BULLETIN INCORPORATION SHEET – "604-32-033"

BOMBARDIER SUBMISSION	Upon completion of the Service Bulletin, please fill-in, fax to (514) 855-8798 or e-mail to Fracas at fracas.montreal@aero.bombardier.com If you're reporting Service Bulletin (SB) Incorporations to CAMP, sending this Incorporation Sheet to Bombardier is not mandatory. If your aircraft is on another tracking system, please contact Bombardier to make arrangements for automated data submission.
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Service Bulletin Number	Rev.	* Parts Completed	COMPLIED WITH			Remarks/Reason (Mandatory if N/A)
			YES	NO	N/A	
604-32-033	01	_____	☐	☐	☐	_____
_____	_____	_____	☐	☐	☐	_____
_____	_____	_____	☐	☐	☐	_____
_____	_____	_____	☐	☐	☐	_____
_____	_____	_____	☐	☐	☐	_____

Actual hours to accomplish Service Bulletin: _____

- * **NOTES:**
- Where the Service Bulletin is divided into a number of parts (e.g., PARTS A, B, C, D, etc.) which can be carried out separately, indicate only those parts completed at this time.
 - For repetitive checks (usually PART A) only the initial check should be reported unless otherwise stated in the Service Bulletin.
 - When more than one part is carried out at the same time, each part should be reported.
 - Fill in 'Remark/Reason' to explain compliance method when N/A is selected. (E.g. Part not installed, N/A by effectivity, N/A by Part Serial Number, etc.)
 - PCW means 'Previously Complied With'.

Aircraft Serial No. _____	Aircraft Reg. No. _____
Airframe Hours: _____	Airframe Landings _____
S.B. Incorporation Date _____ (dd/mm/yy)	Service Order No. _____
Facility incorporating S.B. _____	
Name _____	Signature _____ Date _____ Signature not required if sent by E-Mail (dd/mm/yy)