	SAFETY ALERT	
	Flight Design GmbH Zum Tower 4 01917 Kamenz Germany Tel.: +49 (0)3578 37335 0 Fax: +49 (0)3578 37335 69 E-Mail: airworthiness@flightdesign.com	SA-ASTM-CTLS-05 SA-ASTM-CTHL-03 SA-ASTM-MC__-04 Revision 01
		Date of Initial Publication: 31-Oct-2014 Publication Date of this Revision: 04-Nov-2014

SAFETY ALERT

Installation Verification of BRS Pickup Collar

SA-ASTM-CTLS-05
SA-ASTM-CTHL-03
SA-ASTM-MC__-04

Repeating Symbols:

Please pay attention to the following symbols throughout this document emphasizing particular information.

- ▲ **Warning:** Identifies an instruction, which if not followed may cause serious injury or even death.
- **Caution:** Denotes an instruction which if not followed, may severely damage the aircraft or could lead to suspension of warranty.
- **Note:** Information useful for better handling.

1 Planning Information

1.1 Affected Aircraft


Type:	CT	MC
Model:	CTLS-LSA; CTLSi-LSA CTLSi-LSA CTLE-LSA CTLSst-HL-LSA	MC-LSA
Serial Number:	All aircrafts with Airframe Emergency Parachute System BRS 1350 HS installed, and with S/N up to F-13-09-04, C-11-11-02, A-12-04-33, included. Aircraft with higher S/N are not affected.	
Applicable Countries:	Not limited	

1.2 Concurrent Documents

- [1] BRS Service Bulletin SB 07-03 Revision 4 (or newer, published by BRS Parachutes, USA)

1.3 Reason

During routine maintenance, one aircraft was identified where the pick-up collar that connects the extractor with the harness of the Parachute System was installed incorrectly. Further detailed investigation did not lead to a reliable conclusion to limit the potentially affected aircraft and also could not safely exclude the possibility of incorrect installation during maintenance. The defect does not reduce the regulatory airworthiness and compliance of the aircraft as such, but could affect the correct operation of the recovery system, if activated.

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1.4 Subject

Verifying the correct installation of the pick-up collar to the extractor of the BRS 1350 HS Airframe Emergency Parachute System.

In case of incorrect installation, correction of the installation.

1.5 Compliance

The inspection must be complied with prior to next flight.

In case the pickup collar is installed incorrectly, the installation must be corrected prior to next flight.

▲ Warning: Non-compliance with these instructions could result in further damages, personal injuries or death.

1.6 Approval

This SA is approved by the aircraft manufacturer i.a.w. ASTM F2483 for conduct on aircraft as defined in 1.1. Subsequent to complete and correct conduct of this SB the aircraft will still meet the requirements of the applicable ASTM design and performance specification subsequent to the modification.

1.7 Type of Maintenance

Heavy

1.8 Personnel Qualifications

Qualification to conduct the inspection:

Owner/Operator;


Qualification to correct an incorrect installation:

RLSA-M, A&P (or mechanic with appropriate qualification to conduct maintenance on the BRS 1350 HS system as per national requirements).

1.9 Release to Service

Conduct of the inspection may be documented by the Owner/Operator and shall be confirmed at the next annual inspection by an aircraft inspector according to the national applicable regulations for the country of registry of the aircraft.

Correction of a detected incorrect installation must be inspected and confirmed immediately by an aircraft inspector according to the national applicable regulations for the country of registry of the aircraft.

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1.10 Weight and Balance

-none-

1.11 References

-none-

1.12 Superseded Documents

- none -

1.13 Contact Details

For further information on conduct of this SA, or to report any Safety of Flight or Service Difficulty issues contact your Distributor responsible for your country. Your Distributor can be located via the Flight Design website: www.flightdesign.com under "Dealer Location".

Specific contact in USA:

Flight Design USA
 P.O. Box 325 South Woodstock, CT 06267
 Tel: 860 963 7272 / Fax: 860 963 7152
 Web: www.flightdesignUSA.com
 E-Mail: airworthiness@flightdesignUSA.com

In cases where the local distributor is not known or available contact Flight Design GmbH directly: airworthiness@flightdesign.com.

1.14 Disclaimer

This Service Alert has been generated with utmost care. Nevertheless errors and misunderstandings can never be fully excluded. In case of any doubts the applicant of this Service Alert is requested to contact Flight Design immediately to clarify the issue.

2 Resources


-none-

2.1 Workshop Conditions

-none-

2.2 Parts

1. Screws, Aluminum, BRS Part No. 017104-01, 2 pcs

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2.3 Materials

1. Thread locker blue AN 0321, such as Loctite blue 242

2.4 Tools

1. Torque Wrench

2.5 Special tools

- none -

2.6 Manpower

The described task can be performed within approximately 1 hour (working time).

2.7 Cost

Not applicable

3 Instructions

3.1 General

The inspection as per chapter 0 is required on every installation. Only when the inspection shows an incorrect installation, then the Correction as per chapter 3.3 is required.

Positively confirm that the safety pin is inserted to the activation handle of the rescue system, so that the handle cannot be pulled inadvertently.

▲Warning: Inadvertent activation of the extractor when conducting the inspection or maintenance can cause serious injuries or death.

▲Warning: In the case that the following instructions are not sufficient to correct a possible incorrect installation on your aircraft, you are required to immediately contact Flight Design for additional instructions on how to complete compliance with this SA

3.2 Inspection

The installation of your Airframe Emergency Parachute System BRS 1350 HS is accessible when you open the luggage hatches on the fuselage. Open the right side hatch to access the extractor installation. Use suitable handheld workshop lights and mirrors to ensure proper visibility of the installation details in question.

Fig. 1 shows the correct extractor installation. The component that slides over to top of the extractor, and is attached to the launch tube with two aluminum screws from the top, is called the pickup collar.

Fig 2 shows an Extractor prior to installation to the aircraft, where the correct orientation is visible. The labels identify the installation details to be checked during this inspection.



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Flight Design GmbH

Zum Tower 4
01917 Kamenz
Germany

Tel.: +49 (0)3578 37335 0
Fax: +49 (0)3578 37335 69

E-Mail: airworthiness@flightdesign.com

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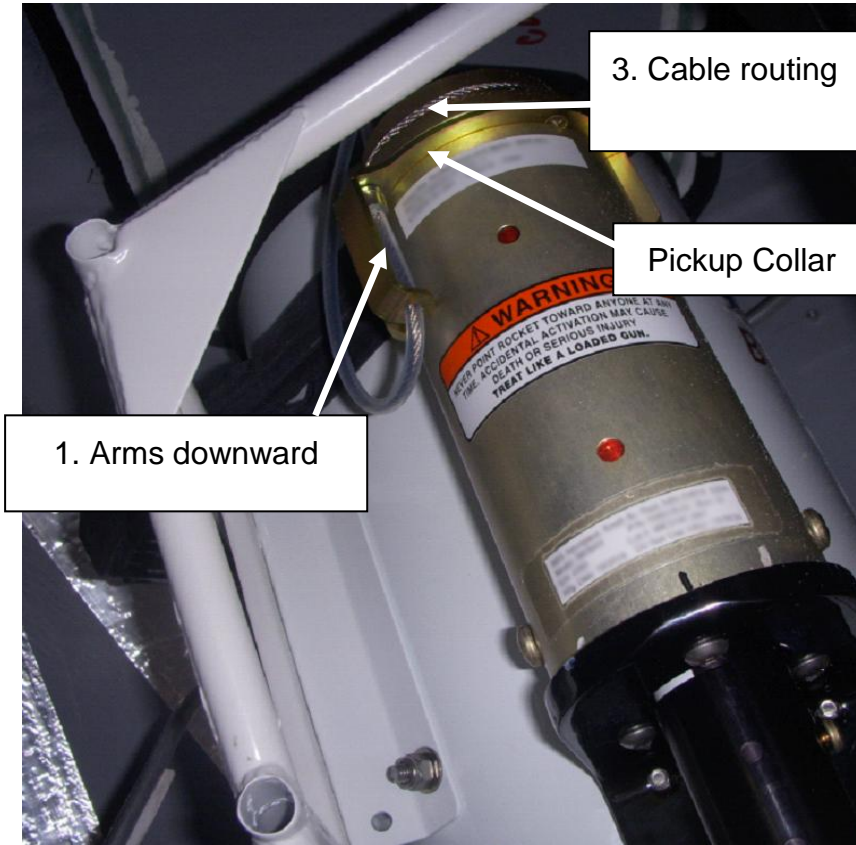


Fig. 1

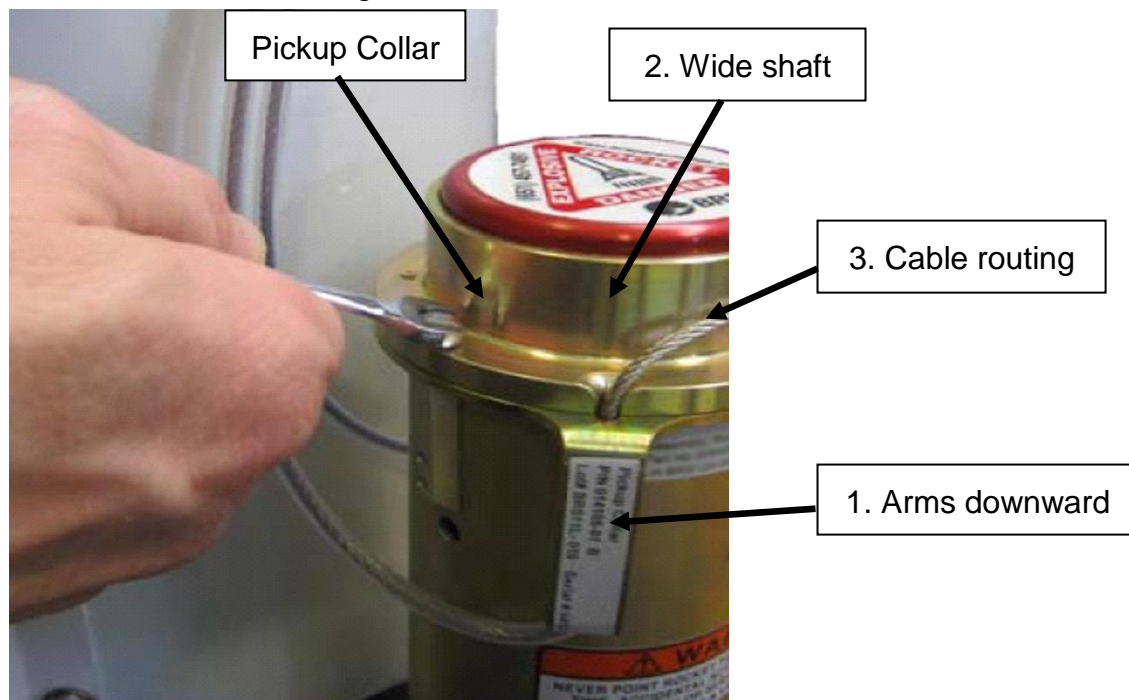



Fig. 2 – CORRECT installation of the pickup collar

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The following facts must be verified, see Fig. 2 showing the items with the same numbering as indicated in the following checklist:

1. The pickup collar is installed as shown on Fig. 1, with the two arms guiding the steel cables towards the AEPS harness pointing **downwards**. See Fig. 2 for additional reference.
2. The pickup collar installed to the top of the extractor has a long shaft, that covers the extractor as such nearly up to the red tip of the extractor, as shown on Fig. 2

Checked
OK?

Checked
OK?

For comparison: The **WRONG** collar has no shaft, as shown on Fig 3.

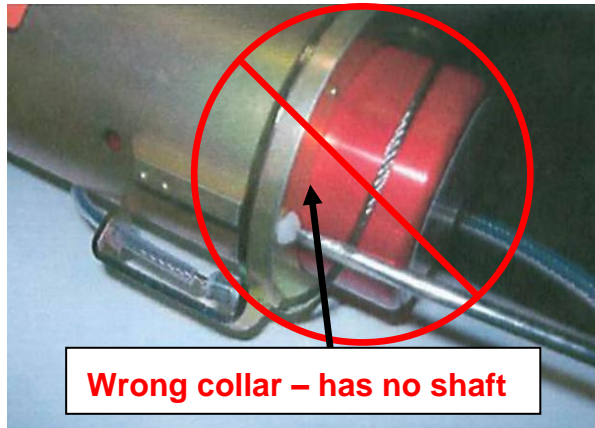


Fig. 3 **WRONG** pickup collar

3. The steel cable is routed on the outside of the pickup collar shaft. By no means it may be routed over the top of the extractor. For comparison: See Fig 4 for incorrect routing.

Checked
OK?

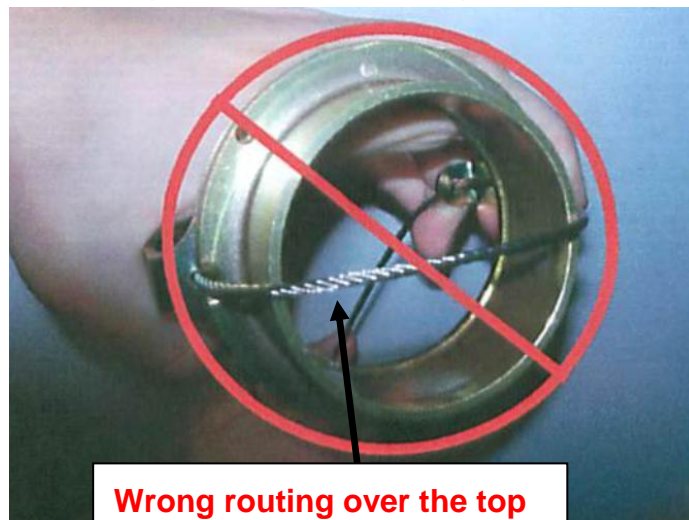



Fig. 4 **WRONG** cable routing

4. No other lanyards or bridles of the installation pass over the head of the extractor, the extractor points directly and unhindered to the rescue system hatch.

Checked
OK?

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3.3 Correction

The following steps are required, when the checkpoints in Section 0 were not found to be OK.

3.3.1 Pickup Collar Alignment, Wrong Pickup Collar

When the one of the following has been observed:

1. Pickup collar arms are pointing upwards
2. Pickup collar does not have the long shaft

Then conduct correct installation of pickup collar, follow instructions of [1].

Following completion of this instruction, the pickup collar must be installed as shown in Fig 4. Fig 4 again is taken from a non installed system, for better visibility.

▲Warning: Ensure that cable loop is placed to side of the rocket - not over the top. Cable routed over top will cause deployment failure, possibly resulting in death or serious injury.

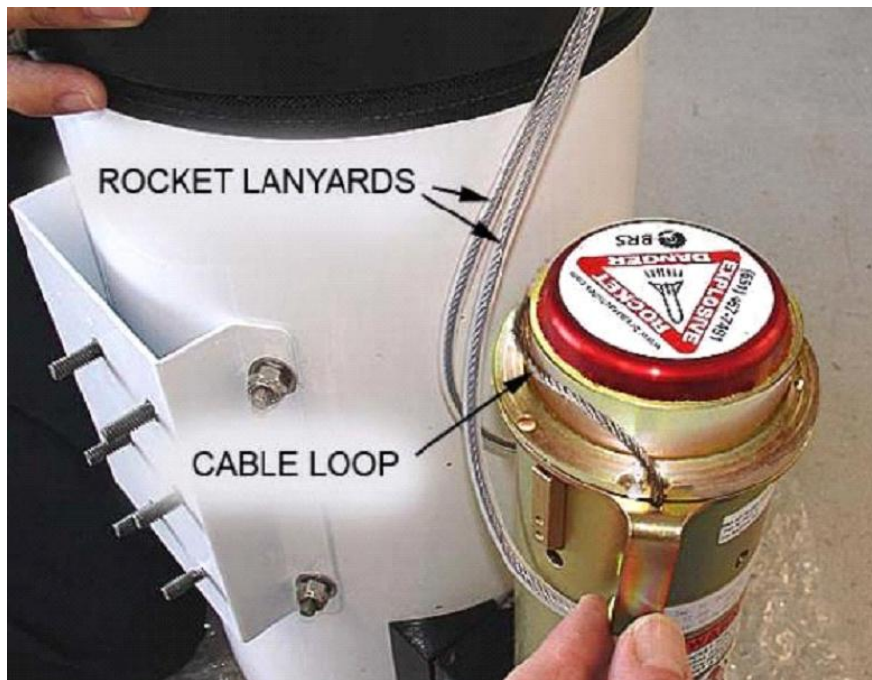



Fig.4

3.3.2 Steel Cable and Harness Routing

When the steel cable is routed over the top of the extractor, then move the steel cable to the side of the extractor as shown on Fig. 4. It may be necessary to remove the pickup collar from the launch tube in order to get the cable re-routed. In this case follow relevant instructions provided by [1] for correct installation.

▲Warning: In case you are not able to satisfactorily position the steel cable on the side of the pickup collar, so that it does remain in this position also when considering aircraft accelerations in flight, then contact Flight Design for further instructions on how to complete compliance with this SA.

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3.4 Documentation

Conduct of this SA must be logged in the aircraft log book with date and signature of the responsible Person conducting the SA.

Compliance with [1] must be logged in the aircraft log book with date and signature of the responsible Person conducting the SB, when applicable.

National regulations have to be considered.

4 Appendix

4.1 Changes to Previous Revision

Point 1.9 was updated.

4.2 Feedback Requirement

In those cases where you identify discrepancies during the check defined within Section 0 of this SA, you are required to provide feedback to Flight Design, documenting the nature of the discrepancy. Use the form Service Difficulty Report provided by the aircraft maintenance manual for this purpose, and enhance with meaningful pictures.

▲Warning: When this feedback has not been submitted after identification of discrepancies, this SA is considered not complied with.