

Safety Alert 171228

Addition of Safety Cables to Existing Parachute Retention Lines

1.1 ISSUED BY: TL-Ultralight s.r.o.
Budova č.84 Letiště, 503 41 Hradec Králové
Czech Republic
Tel: +420 495 211 753
URL: www.tl-ultralight.cz

DATE OF NOTICE: 28 December 2017

EFFECTIVE DATE: Immediately

AFFECTED MODELS - INSTALLATION REQUIRED: TL-2000; StingSport & Sting S3

AFFECTED SERIAL NUMBERS: All

NOTICE ID: SA171228

PAGES: This is page 1 of 5.

1.2 SUBJECT: Mandatory addition of 2 additional safety cables to existing TL-2000 parachute retention line system.

1.3 TYPE OF MAINTENANCE: Line Maintenance. An addition of two new 6mm safety cables from the airframe to the GRS parachute system. ***Without compliance with this Service Alert 171228 the GRS parachute system is not airworthy and may fail during activation.***

1.4 QUALIFICATIONS: The aircraft Owner is responsible to obtain services from qualified installers. The holder of an LSA (RI) / (RM) repairman certificate or an FAA A&P is qualified to perform this work. A list of service centers and installation locations is available on request. No special tools are required. No drilling or cutting will be required.

1.5 REFERENCES: TL-2000 Aircraft Parts Manual (APM)
TL-2000 Aircraft Maintenance Manual (AMM),
TL-2000 Aircraft Operation Instructions (AOI),
TL-2000 Pilot Operating Handbook (POH)

1.6 DISTRIBUTION: This Service Alert (SA) is sent by mail to all registered TL-2000 StingSport, Sting S3 owners on record. It will be posted on the website of the US distributor: ***www.sting.aero/owner/notices***

1.7 DISCUSSION: This Service Alert establishes procedures to add two (left & right) 6mm backup safety cables from the aircraft spars to the existing GRS parachute attachment system.

- A. All StingSport and Sting S3 aircraft models must be retrofitted with these safety cables whether or not the parachute system has been replaced/updated due to time/life limits.
- B. The requirement to accomplish this Service Alert does not depend on the current condition of the aircraft parachute system.

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- C. Some aircraft serial numbers may include Kevlar belts in combination with steel cables.
- D. Early aircraft cable size was acceptable but below the current standard to protect the occupants during high speed deployments at high aircraft gross weights.
- E. Experience has indicated that environmental conditions affect the internal core of the cables. Aircraft stationed, at any time, in high humidity or salt air environments will accumulate internal corrosion which will reduce ultimate cable strength.
- F. Age and normal galvanic internal deterioration will eventually require 4 cable replacement (higher cost) or additional 2 cable installation (lower cost) for all aircraft.
- G. As the entire fleet ages, additional notices may be issued to address continued cable life safety.
- H. If so required, the two new safety cables added by this SA will carry entire chute opening loads at the extreme limits of the aircraft performance envelope.
- I. Parachute system operation directions or limits remain unchanged and are not affected by this SA.
- J. Total estimated labor time is 3.0 hours. Including inspection and re-lube of the 4 wing torsion balls, forward and aft of the wing spars.
- K. Order cables from: SportairUSA, LC
(TL SA171228)
8222 Remount Road
North Little Rock, AR 72118

Contact: 501-228-7777
info@sportair.aero

Price: \$200.00 USD / Set + shipping

1.8 WEIGHT AND BALANCE: No change.

1.9 CORRECTIVE ACTION:

- A. **This Safety Alert requires immediate action.**
- B. See the attached left side view drawing with details noted on page 5.
- C. General procedures:
 - 1. Remove aircraft seats
 - 2. Remove rear access panel
 - 3. Remove rear baggage compartments
 - 4. Prepare for wing fore and aft torque ball inspection. See the AMM for wing inspection procedures.
 - a. Since the wings are extended for the cable installation an

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inspection of the torsion balls can also be accomplished at the same time.

- b. Generally, disconnect aileron push rods, if the other connections to the wing, fuel lines, electrical or pitot are long enough to allow the wings to be extended about 4" they do not need to be disconnected. However, do not place stress on any line by hyperextension. Drain the main fuel tank to assure no wing fuel remains and remove the wing tank hoses if necessary.
 - c. Add supports to each wing at mid-point. Cushion the wing lower surfaces to prevent dents or scratches.
 - d. Remove wing attach bolt.
 - e. Extend the wings outboard about 4-6", only enough to clear both of the structural torsion balls ahead and behind the main spars.
 - f. Accomplish the torsion ball inspection and re-lube to prevent corrosion while the wings are extended. See AMM for procedures. Enter the inspection in the aircraft log.
5. Push the large loop end on the of safety cable forward under both spars, then up and aft. See the drawing for orientation assistance.
 6. Pass the small loop end of the cable through the large loop end so that the cable aims aft and low and captures both spars in a large 'lasso'. Secure the created lasso loop around the spars with plastic ties. See figure 1 on the attached drawing
 7. Extend the remaining end of the cable out of the lower (under the seats) cabin area then aft of the second spar and to the outside of the fuselage. Remove any slack and secure it in place with plastic ties. See the attached drawing, figure 1.
 8. Extend the cable further aft and **UNDER** the aft torsion ball. See the attached drawing, figure 2.
 9. Extend the cable to reenter the fuselage at the forward opening of the flap torque tube. See the attached drawing, figure 3.
 10. Reinstall the wings before climbing back onto the aircraft. Confirm that the new safety cable(s) remains **UNDER** the aft torsion bar and free of the flap torque tube as the wings attach to the fuselage. See the AMM for wing re-install procedures.
 11. Back inside the aft fuselage, take up the cable slack from the wing and secure the cable to the aft torsion bar inside the fuselage. Tie the cable in two locations to prevent any interference with the movement of controls, wires, lines or the flap torque tube. (The existing aft chute cables are also attached to the outboard ends of this torsion bar.) See the attached drawing for details.
 12. Locate the hole in the left/right forward corner of the aft deck where the existing cables enter the upper surface of the deck.
 13. Push the small loop end of the new safety cable through the same

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opening and extend both ends aft to the parachute carabiner connector to the main parachute belt.

14. Lay the new safety cables along the left/right outer side of the aft deck and remove all twist to get the cables to lay as flat as possible.
15. Open the existing main carabiner connector and secure the small loop of the new safety cables to the main carabiner. Use plastic ties to keep the cables in place and laying as flat as possible.
16. Close the carabiner threads which will now have 7 loops attached. Use a bit of medium strength thread locker on the threads.
17. If there is not sufficient room on the single carabiner, an additional may be ordered from SportairUSA. See the attached drawing figure 5 to distribute the cables to the main parachute belt. **Do not install a non-load rated carabiner!**
18. Working forward from the aft carabiner, tie all cables together with plastic ties at loose intervals to keep them following the perimeter of the aft deck next to the aft canopy.
19. From under the aft deck take any excess length of each new safety cable and secure the loose length with plastic ties to prevent any interference. See the drawing for details.
20. Repeat the same above processes for both left and right sides.
21. Inspect for any cable interference with existing wires, pushrods, fuel lines, chute cables or control systems.
22. Check all connections and fuel lines for leaks.
23. Reinstall the rear storage compartments
24. Reinstall the aft seat panel
25. Reinstall the seats
26. Enter compliance in the aircraft log iaw SA171228.

- D. **Without compliance with this Service Alert 171228 the GRS parachute system is not airworthy and may fail during activation.**
- E. After compliance, file this Safety Alert in the front of the aircraft installed AOI/POH.
- F. This Safety Alert is not cause for grounding. The parachute system is not a 'required-for-flight' item however, if it is installed, this SA is required service to maintain the aircraft in a condition for safe operation. Flight for re-positioning to complete services required in this Service Alert is acceptable.
- G. Enter compliance with this Service Alert in the aircraft log books.

3.0 CONTINUED AIRWORTHINESS

- A. Inspect all parachute cables at each annual condition inspection for retention, security, freedom from other controls and lines, wear at the spars and fuselage penetration points.

This bulletin iaw ASTM Designation: F 2295 / Standard Practice for Light Sport Airplane Continued Operational Safety Monitoring
SAFETY ALERT requires immediate action. / SERVICE BULLETIN recommends future action. / SERVICE NOTIFICATION continued airworthiness information.

28 December 2017

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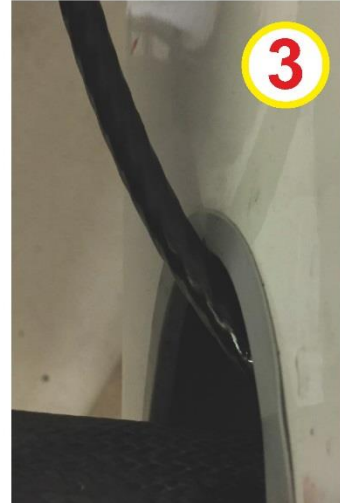
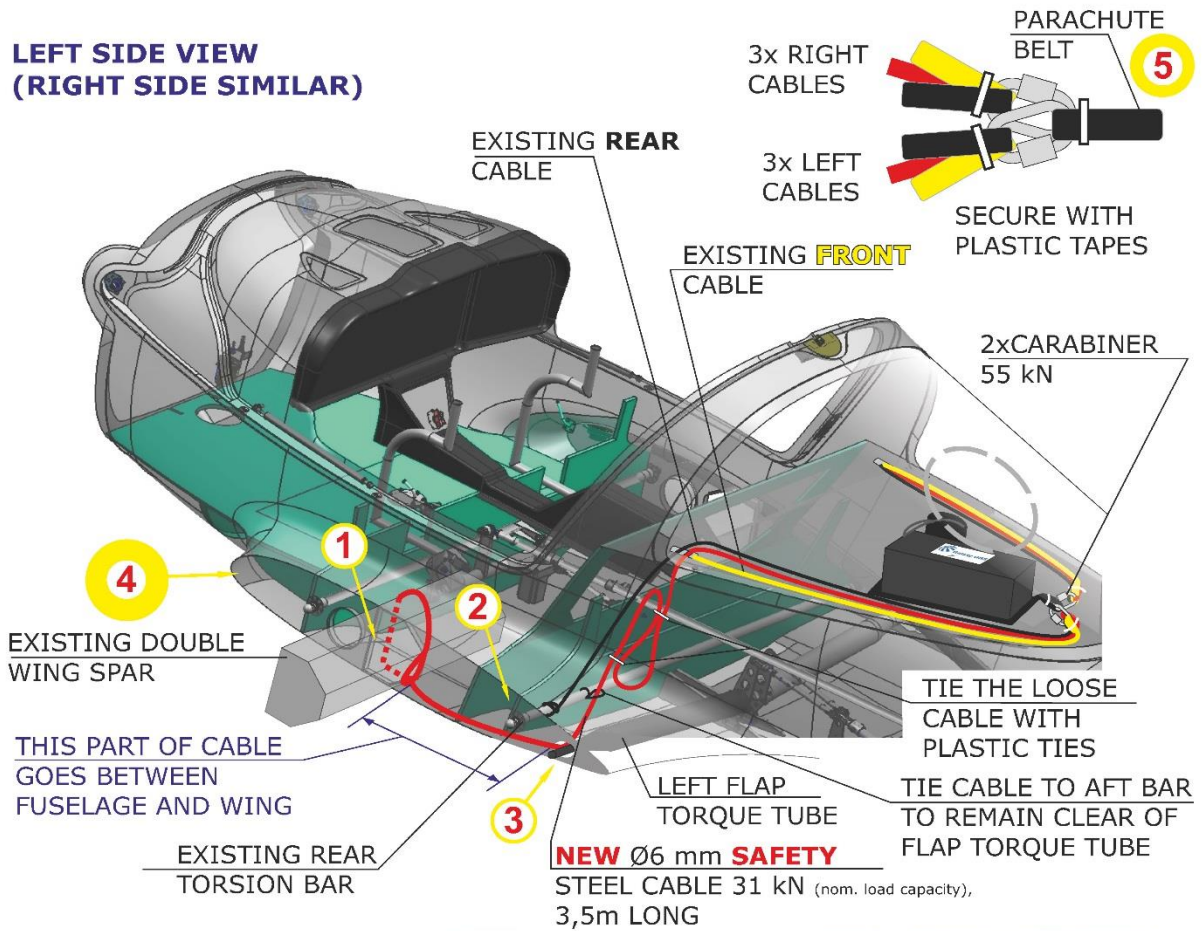
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**LEFT SIDE VIEW
(RIGHT SIDE SIMILAR)**



Left Side Drawing for Reference, Right Side installation is similar.
END SA171228