

## Flight Manual LS4-a General

### Log of Revisions

Any revision of the present manual, except actual weighing data, must be recorded in the following table and in case of approved sections endorsed by the responsible airworthiness authority.

The new or amended text in the revised page will be indicated by a black vertical line in the right hand margin, and the revision No. and the date will be shown on the bottom of the page.

Rev. No.	Pages affected	Date of issue	Approval	Date of approval	Date of insertion	Signature
1	Cover, 1-1, 1-2, 2-4, 2-5	Jan. 5, 1984				
2	1-1, 1-2, 4-6, 4-10	Oct. 1999	LBA	4.11.99		
3	1-1, 1-2, 3-1, 4-2 TN4032 Rev. 1	Oct. 2010	EASA	3.11.2010		
4	1-1, 1-2, 1-4, 2-3, remove pages 6-3 ÷ 6-5 TN LS-S-01	May 2011	EASA	2.09.2011		
5	1-1, 1-2, 3-1, 4-2 TN4032 Rev. 2	May 2011	EASA	28.09.2011		

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# Flight Manual LS4-a Emergency Procedures

## Spin Recovery

- Rudder - Opposite to spin rotation
- Elevator - Neutral or slightly forward
- Aileron - Neutral
- Smooth pull-out
- Altitude loss - About 50 m (150 ft)

## Emergency Canopy Release and Exit

Pull open both canopy locks and pull emergency canopy release handle until the stop. Push the canopy upwards.

### **With TN 4032 executed:**

To bail out open canopy locking handles, then pull the red canopy emergency release handle until the canopy hinge disengages.

A spring at the canopy hinge lifts the canopy at the front end.

Only in case the canopy doesn't separate by itself from the fuselage, you have to push the canopy upwards with both hands on the Plexiglas.

The latch on the rear of the canopy is held back by a spring in the fuselage.

This creates a point of rotation to ensure a safe separation of the canopy.

## Other Emergencies

### Stalls

- Warning - Slight tail shudder prior to stall entry
- Aileron - Effectiveness reduced by about 50%
- Sink rate - Increases considerably
- Termination - Stick forward to neutral

### Spiral Dive

At high speeds (250 km/h, 135 kts, 157 mph) stable against spiral dive (load factor of 2G).

At low speeds slight tendency.

- Elevator - Pull
- Rudder - Hold opposite to dive rotation
- Aileron - Hold opposite to angle of bank

## Flight Manual LS4-a Normal Procedures

### Daily Inspection continued

#### 6. Cockpit

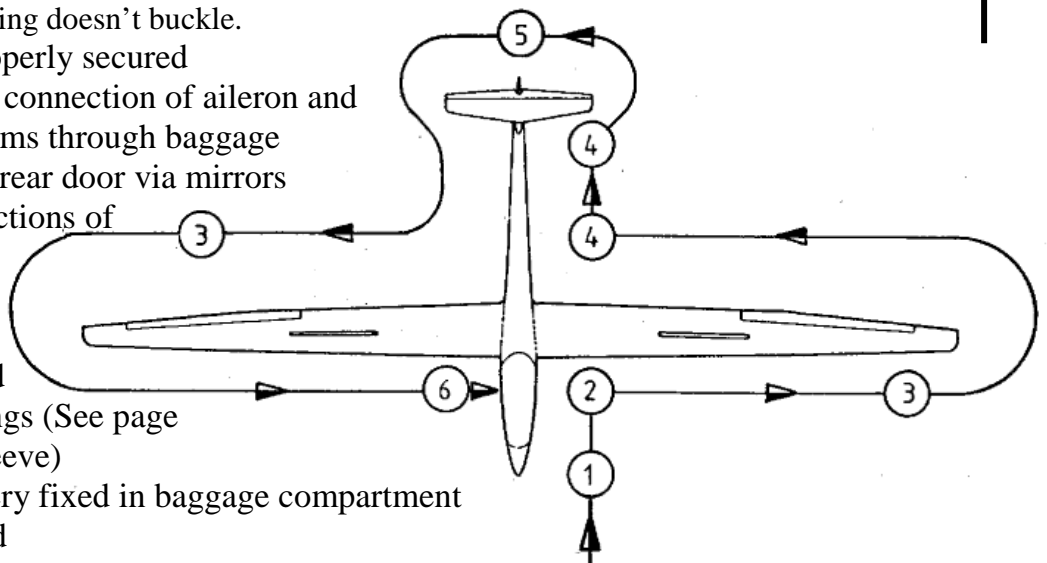
- Canopy cleaned, if necessary
- Proper function of canopy locking and emergency release (not daily, but to be completed at minimum every 3 months):
  - a) "Pilot" in seat, both canopy locking handles opened. One person at the front end to lift the canopy from the fuselage.
  - b) After pulling the emergency canopy release handle the pilot pushes the canopy up at the rear to disengage the LS-Latch (Röger hook) from the spring on the fuselage.  
After pulling the emergency canopy release handle the canopy must be freely moveable at the front.  
**With TN4032 executed:** The canopy must be lifted at the front by the spring at the hinge by about 60 mm <2.4 in.>.
  - c) Then the pilot lifts the canopy at the rear end up as far as possible, the person at the front end holds the canopy.

**Caution:** The person at the front end should not lift the canopy too far up. Otherwise this would unduly deform the spring of the LS-Latch (Röger hook) located at the fuselage.

**Note:** b) and "Caution\*" apply only if TN 4032 LS-Latch (Röger Hook) has been completed

**Reinstalling the canopy:** 2 persons are needed

- a) Pull up the canopy hinge to the open position.
  - b) One person (at the front end) holds with one hand the emergency release lock in open position (rotate clockwise) and places the canopy with the other hand onto the hinge. The other person holds the canopy at the rear end so far up that it matches the canopy hinge.
  - c) The front person engages the canopy by turning the emergency release lock anti-clockwise to the stop.  
**With TN4032 executed:** The spring fixed at the canopy must be inserted into the ring at the canopy lifting mechanism. When pressing down the canopy make sure that the spring doesn't buckle.
- Main pins properly secured
  - Check proper connection of aileron and airbrake systems through baggage compartment rear door via mirrors
  - Secure connections of aileron and airbrake systems using LS-sleeve and colour markings (See page 4-3 for LS-sleeve)
  - Charged battery fixed in baggage compartment and connected



For assembly and disassembly procedures see Chapter 8.