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ROLLADEN-SCHNEIDER

Flight Manual LS4

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### Limitation of High Speed Flight

If there are indications while flying under large cloud buildt-ups, or while flying in clouds, that the maximum permissible rough air speed will be exceeded, dive brakes should be deployed carefully before 180 km/h (97 kts, 112 MPH) is reached. Dive brakes can also be deployed in emergencies up to a speed of 270 km/h (146 kts, 168 MPH}. However, one should remember that after unlocking dive brakes will open rapidly and cause uncomfortable negative accelerations.

When dive brakes are deployed during descent after high altitude wave flights, a speed of 180 km/h (97 kts, 112 MPH) should not be exceeded because of possible severe turbulence.

### Emergency Canopy Release

Pull red handle on right side of instrument panel to release forward canopy hinge, then open canopy locks on both sides of cockpit and push canopy off.

Reverse sequence is also possible.

#### **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.

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Pre—flight Checks:

1. Check water drain holes and check for leaks in water ballast tanks.
2. Check static ports, pitot and total energy tube for clogging.
3. Check tire pressure in wheel (3 — 3.5 bar, 43 - 50 psi). in tail wheel (2.5 bar, 36 psi)
4. Check wheel brake effectiveness.
5. Check tow release.
6. Check 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.  
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.>.
  - 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.
  - 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.
7. Check weight and balance, especially minimum and maximum cockpit loads, trim weights and battery position.
8. Check instruments including radio.
9. Adjust backrest and rudder pedals.
10. Check papers.
11. Before take off carry out check in accordance with check list under Instrument panel cover.