
ISRI 1000/515, 6000/515(517), 6500/515(517)

General / Connection data.....	1.1.0
Troubleshooting, pneumatics.....	2.1.0
Backrest.....	3.1.0
Seat cushion.....	3.1.0
Seat frame.....	3.1.0
Suspension unit.....	3.1.0
Horizontal adjustment.....	3.1.0
Bellow.....	3.1.0
Seat-and backrest cover.....	3.2.0
Heating elements.....	3.2.0
Air chambers LS / IPS.....	3.2.0
Compressor.....	3.2.0
Latch mechanism for backrest.....	3.2.0
Handles for height and slope adjustment.....	3.2.0
Valve for lumbar support (LWS / IPS).....	3.3.0
Air spring ISRI 6500.....	3.3.0
Vertical damper ISRI 6500.....	3.3.0
Valve / Control disk ISRI 6500.....	3.3.0
Damper for horizontal suspension.....	3.4.0
Vertical damper ISRI 6000.....	3.4.0
Handwheel for weight adjustment ISRI 6000.....	3.4.0
Tension springs ISRI 6000.....	3.4.0

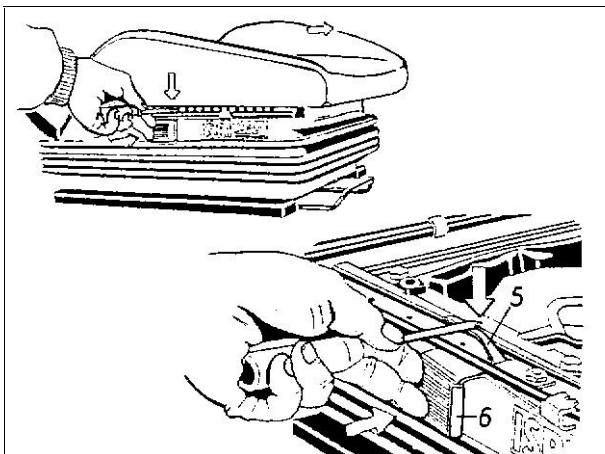
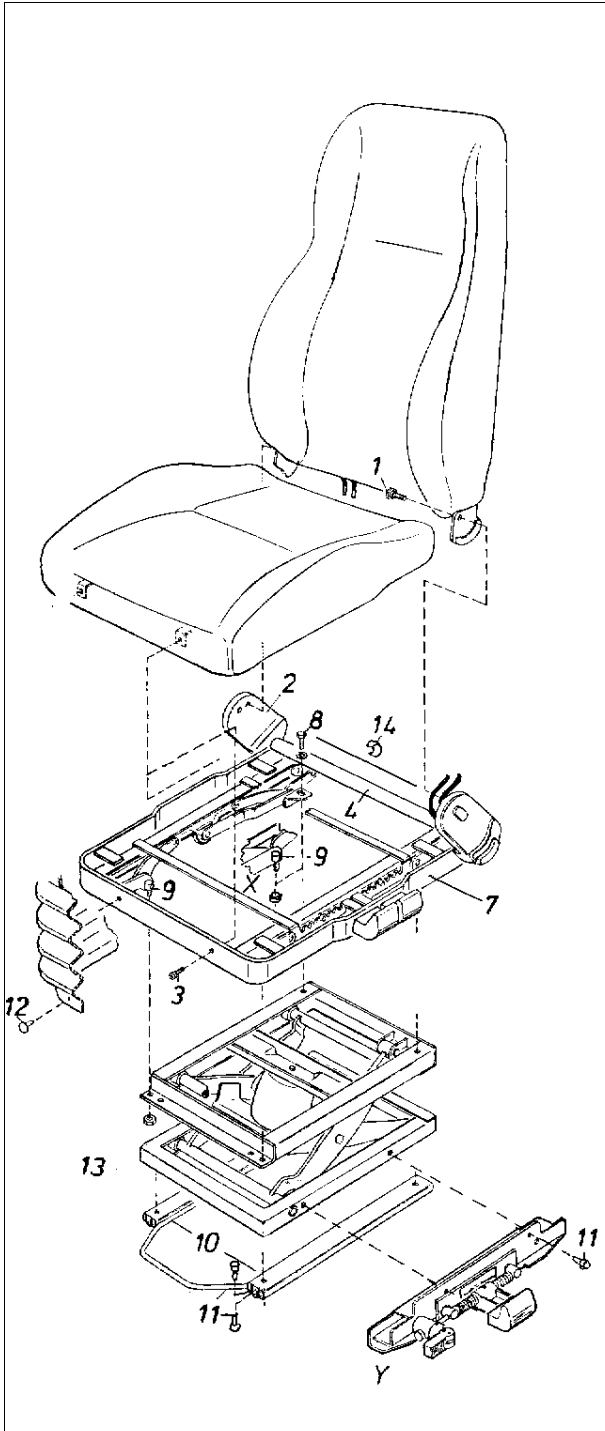
General:

- For sparepart orders please specify seat part number and serial number if possible.
- Seat repairs have to be carried out by competent staff only.
- The presentation in this booklet shows as a rule the left seat resp. the left seat side.
On the right seats resp. right seat side the repair will be carried out accordingly.
- The following pages describe the removal of sundry parts, the installation generally happens in reverse sequence.
- Pull off compressed air connector before exchanging the control components.
- After repairs etc. pneum. lines and electrical cables have to be layed and fixed acc. to original condition.
After each repair a functional test and, if pneumatic parts are involved, a leaktest has to be effected.
- Hoses and bowden cables must not be creased.
- backrest in forward folded position must not be used as ascent help.
- further details are shown in the explosive drawings of spare parts list.

Connection Data :

Operating pressure range :	7-10 bar
Colour:	black = compressed air (P hose) grey= exhaust air (E hose)
Operating pressure range:	7 10 bar
Heating:	operating voltage 12V / 24V power up ca. 22°C Cut off ca. 39°C

	fault description	inspection	remedy	notice
1	Seat does not go up.	<p>check hoses for kinks.</p> <p>airleakage:</p> <p>valve does not work, tappet is stuck.</p> <p>valve, airspring, hoses leaky.</p>	<p>remove kink, if necessary repair it.</p> <p>exchange valve.</p> <p>exchange defective part.</p>	
2	Seat goes to upmost position, resp. stays under pressure.	<p>airspring fully inflated:</p> <p>valve does not work, tappet is stuck.</p> <p>vitiated air hose is jammed.</p>	<p>exchange valve.</p> <p>remove kink, if necessary repair it.</p>	
3	Lumbar support without function.	<p>incoming air hose is jammed.</p> <p>LS valve without function.</p> <p>deflation noises (LS valve, resp. Hoses leaky).</p>	<p>remove kink, if necessary repair it.</p> <p>exchange LS valve.</p> <p>exchange faulty part.</p>	
4	Mechanical function working hard.	foreign body in face of pulley.	clean and grease face of pulley (attention: grease faces of roller only at front side).	
5	Seat overshoots.	<p>shock absorder oily, investigate on even tensile and compressive force.</p> <p>Shock absorder defective.</p>	exchange shock absorder.	



Backrest

- Unscrew bolt (1).
- Fold down backrest forward.
- If mounted, disconnect connectors of pneum.- and electric lines.
- Unhook backrest from sideplate (2).

Seat cushion (without seat cushion adjustment)

- Unscrew 2 screws (3) and pull off seat cushion from seat frame cross tube (4) (clamped).
- Pull apart plug connection of electric cable, if necessary.

Seat cushion (with seat cushion adjustment) - see picture below -

- Move seat cushion to the foremost position.
- Press down stop spring (5) through one of the side - rear latch holes of one seat cushion slide. At the same time operate the release lever (6).
- Pull seat cushion further forward.

Seat frame

- Remove seat cushion and backrest (s.a.).
- Remove bellow from seat frame.
- Unscrew boltings (8) and (9) (detail X for ISRI 6000).
- Disconnect connectors of pneum.- and electric lines, if necessary.

Suspension unit

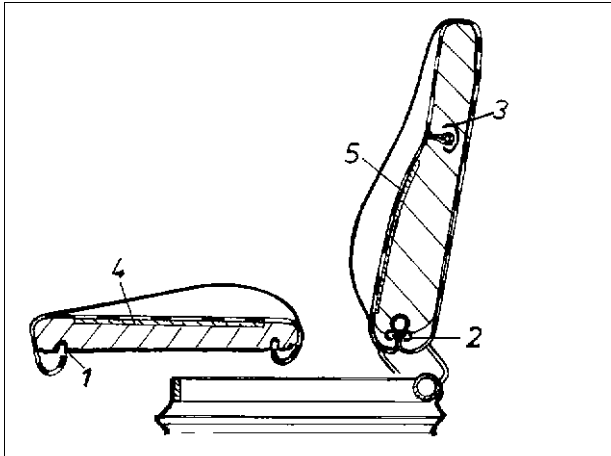
- Remove seat cushion (s.a.)
- Remove bellow from the lower frame(13) of the suspension unit.
- Disconnect connectors of pneum.- and electric lines, if necessary.
- Unscrew boltings (8) and (9) of seat frame (7).
- Disassemble horizontal adjustment.

Horizontal adjustment

- Push forward, resp. back, the slides (10) and remove bolts (11) (detail Y: A- Type slides for ISRI 1000 will be screwed seatsided as per detail Y to the metal trestle).

Concertina bellow

- Remove seat from vehicle.
- Remove sundry plugs (12) from seat frame (7) and lower frame (13) of suspension unit, as well as 4 clamps (14) from the seat frame cross tube (4).

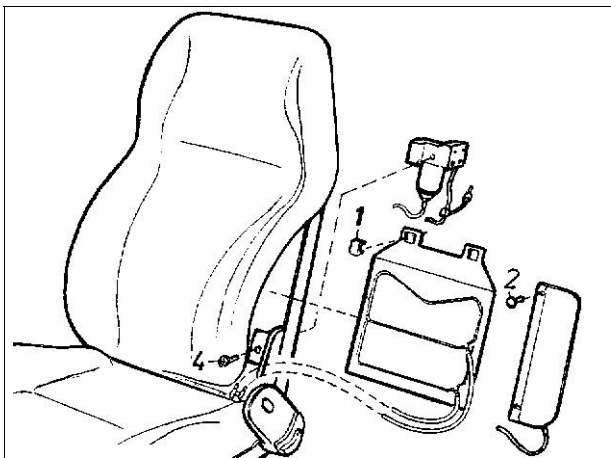


Cover / heating element for seat cushion

- Remove seat cushion (see 1.1.0).
- Remove cover from circumferential crease (1) of the seat pan.
- Pull off heating element (4) from pad carefully (use a knife for separation if necessary).
- Fix new heating element with double-faced adhesivetape.

Cover / heating element for backrest

- Remove seat cushion (see 1.1.0).
- Remove backrest cover from C-profile (2) of the backrest frame and pull upwards.
- Loosen clamps (3) from the wire inside the pad (cut off if necessary).
- **heating element (5) (s.a., seat cushion)** : do not remove clamps for cover fixation (3).



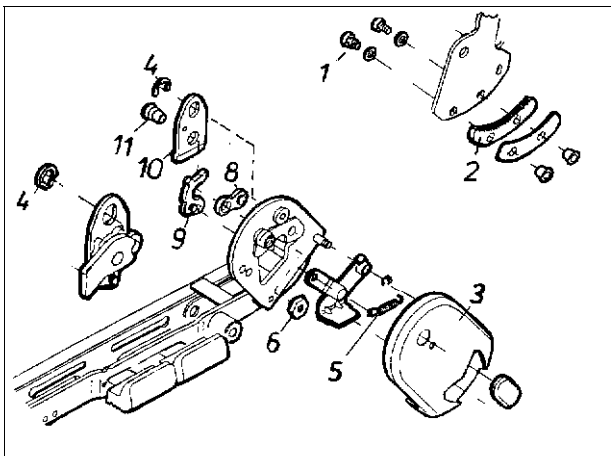
Air chambers of lumbar support (LS / IPS) / compressor

LS / IPS

- Remove backrest cover partly (s.a., without clamp (3).
- Disconnect pneumatic lines at connector.
- Loosen backrest pad from the frame partly.
- Remove retaining clips (1) for LS- chambers and, if existing, retaining plugs (2) for lateral chambers (IPS).

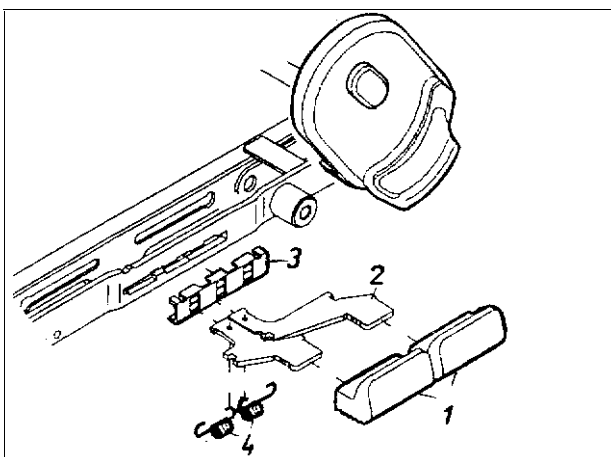
Compressor

- Remove backrest cover partly (s.a., without clamp (3).
- Loosen backrest pad from the frame partly.
- Disconnect pneumatic lines at connector.
- Cut electric cable feeding the compressor.
- Remove screw (4).



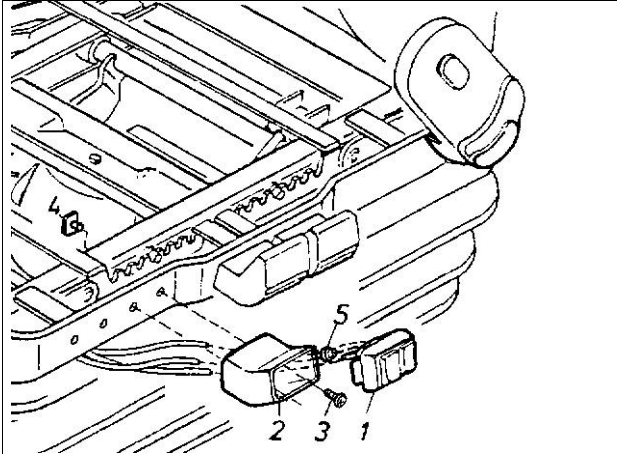
Latch mechanism for backrest

- Remove backrest (see 1.1.0).
- Loosen bolting (1) for toothsegment (2).
- For welded versions the exchange is only conditioned feasible (possibly contact ISRI - service).
- Remove seat cushion (see 1.1.0).
- Remove circlip (4).
- Unhook tension spring (5).
- For screwed versions : unscrew nut (6) and take off parts (8)(9)(10) and (11).



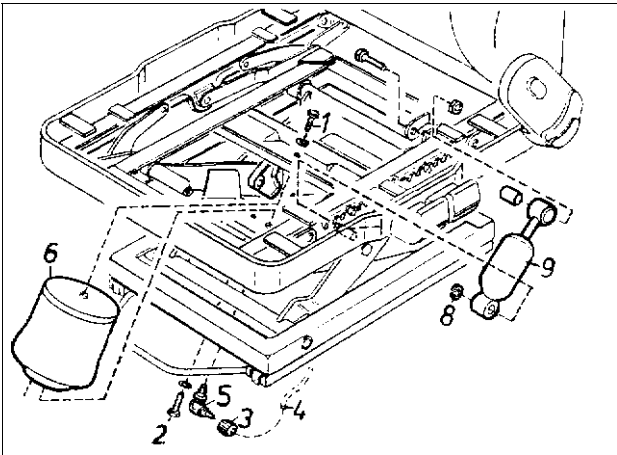
H.a.S. - handles with accessories

- Pull off handles (1) from levers (2).
- Loosen bellow from seat frame in the area of the levers (2).
- Remove bearing ledge (3) from lever guide of the seat frame and unhook tension spring (4).



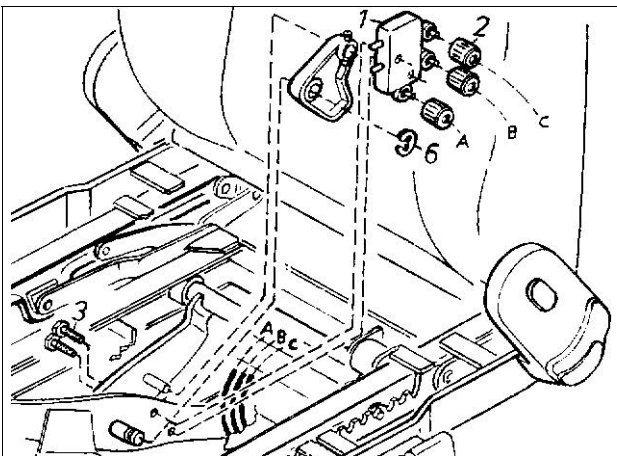
**Valve for lumbar support
LS (2 buttons) IPS (3 buttons)**

- Remove seat cushion (see 1.1.0).
- Remove slide for seat cushion adjustment on the valveside, if necessary.
- Take off valve (1) from the housing (2) (not always possible without destroying valve and holder).
- Unscrew the screws (3) out of the thread parts (4) and remove holder.
- Remove clamping sleeve (5) from the hose in the middle (PU, D = 3 mm).
- Notice: this pneumatic hose is permanently pressurized (air supply for vehicle).
- Disconnect pneum. lines from the valve connectors.



Air spring

- Remove seat from the vehicle (separate pneum.lines).
- Remove seat cushion (see 1.1.0).
- Secure suspension unit in topmost position.
- Loosen bellow from the lower frame partly. Unscrew bolts (1) and (2).
- Unscrew sleeve nut (3) and pull apart hose (4).
- Pull angle stub (5) out of the air spring.
- Take air spring out of the suspension unit (frontside).
- Do not mount air spring twisted. Loosen screw (1) slightly.
- Release and compress suspension unit under pressure.
- Screw tight bolt (1) while air spring is pressurized.

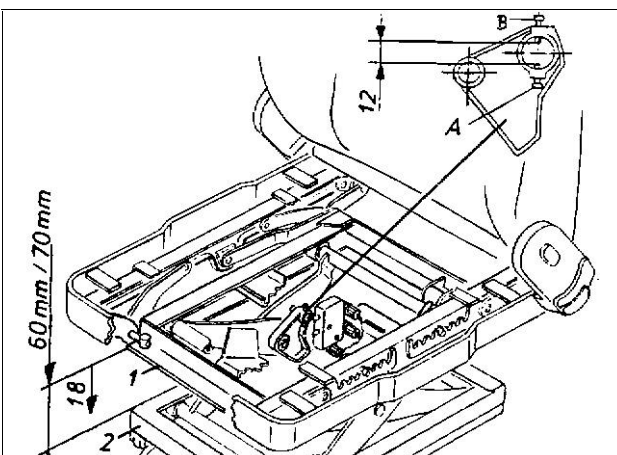


Valve (1)

- Unscrew sleeve nuts (2) and pull apart hoses.
- Unscrew 2 bolts (3) out of valve (1).

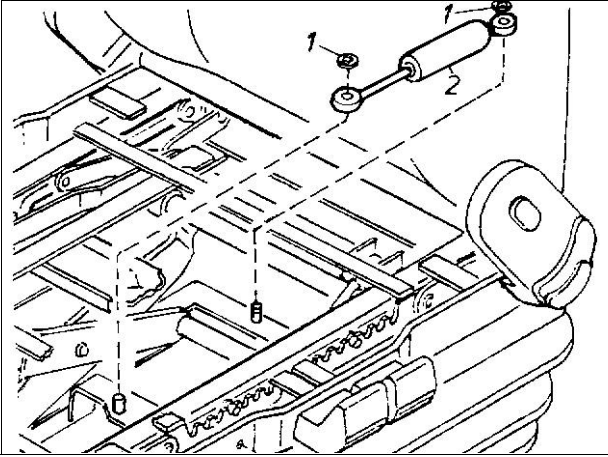
Control disc

- Remove retaining washer (6).
- Notice: consider adjusting instructions for control disk installation.



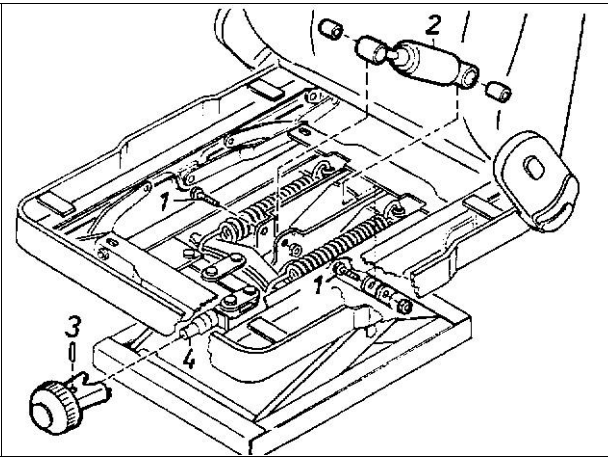
Adjusting instruction for control disk

- Remove seat cushion and loosen bellow at the frontside.
- Weight the seat and lower it to a distance of 60mm (for vehicle seats) resp. 70 mm (for bus seats) between upper frame (1) and lower frame (2) of the suspension unit.
- Lower the seat slowly a little bit more , until the valve reacts (beginning of air supply).
- The lowering down to that moment should come to a distance of 18 mm (60 mm / 70 mm minus 18 mm).
- If this is not the case , change the adjustment of the screws (A) and (B) as follows :
- Screw in bolt (A), if more than 18 mm had to be lowered.
- Screw out bolt (A), if it didn't come down for 18 mm. (One turn of the screw and the change of height makes 2 mm.)
- Adjust with bolt (B) a clear distance of 12 mm to bolt (A).



Damper for horizontal adjustment

- Remove seat cushion (see 1.1.0)
- Bring height adjustment in topmost position.
- Remove 2 retaining washers (1).



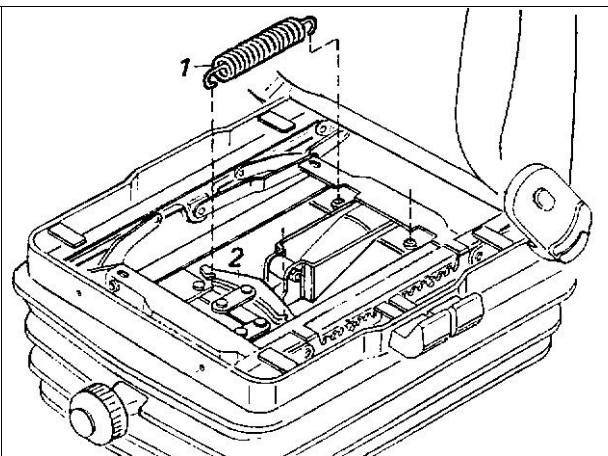
Vertical damper / Handwheel

Vertical damper

- Remove seat cushion (see 1.1.0) and loosen bellow partly.
- Unscrew 2 boltings (1) and remove damper (2).

Handwheel

- Remove seat cushion (see 1.1.0) and loosen bellow partly.
- Punch adaptor sleeve (3) out of lug (4) (attainable through opening in the holder for handwheel).



Tension springs

- Remove seat cushion (see 1.1.0) and loosen bellow partly.
- Secure suspension unit against lowering.
- Adjust handwheel to lowest weight.
- Push off one of the springs (1) from the holder (2) using an appropriate lever,
- Unhook the second spring.