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# SLIM 450M User Manual

**Locomotive Driver Seat SLIM 450M Series**  
**FISA Item Nr. 1S450Mxxx Series**



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## GENERAL INDEX

GENERAL INSTRUCTIONS .....	3
SAFETY INSTRUCTIONS.....	3
GUARANTEE .....	3
SEAT MAIN ASSEMBLIES.....	4
SEAT FUNCTIONS AND MAIN REGULATIONS.....	5
SEAT MAINTENANCE.....	9
NOTES ON CLEANING THE SEAT COVERS .....	9
IDENTIFICATION OF SEAT AND COMPONENTS .....	9

## IMPORTANT REMARK

Pictures and diagrams contained in this document are for indication purposes only.  
The contents of this document are not referred to a specific product p/n but to a driver seat series.

## GENERAL INSTRUCTIONS

- The operating instructions must be read in full before use.
- The operating instructions must be kept in the vehicle and always be at hand.
- The driver's seat may only be fitted, serviced and repaired by specialist personnel, in accordance with national regulations and the vehicle manufacturer's fitting instructions.  
The national fitting regulations can be obtained from **F.I.S.A. SRL** or from agencies of the company, or from the vehicle manufacturer.
- A correctly functioning and individually adjusted driver's seat is essential to your health. Take adequate care of your seat and have it serviced regularly to ensure that it functions correctly.  
 The functional checks are to be carried out at least as regularly as vehicle services (see maintenance plan for vehicle).
- These operating instructions should always be kept with the driver's seat. If the seat is passed on to a third party, it must be accompanied by the relevant operating instructions.



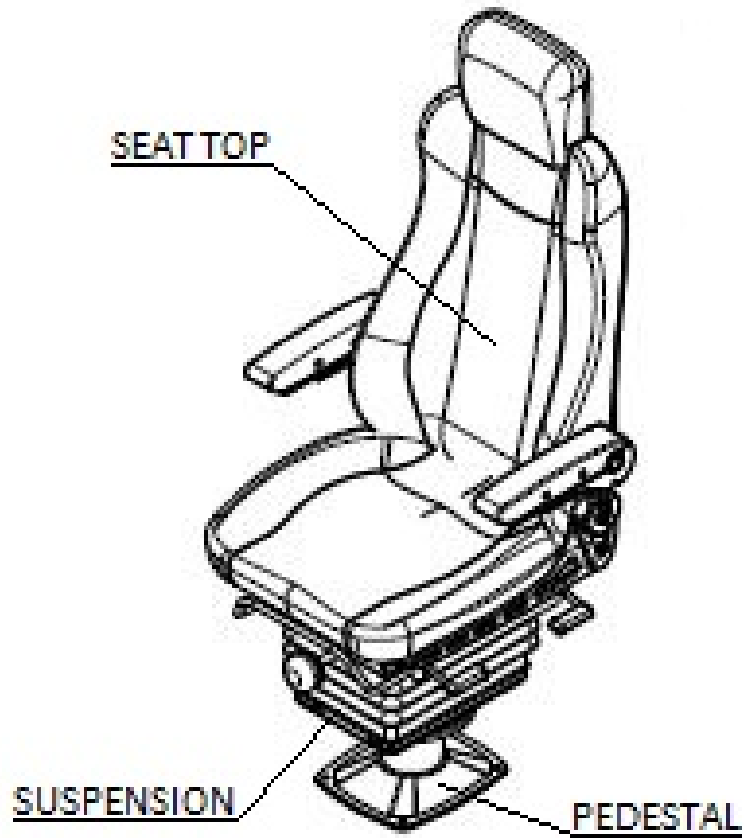
## SAFETY INSTRUCTIONS

- Driver's seats that have been adjusted incorrectly have a smaller moving area. To prevent damage to the driver's back and to the seat, the driver's seat must be adjusted for the driver's weight **before use** and **before every change of driver**.
- To prevent injury, **no objects should be placed within the moving area** of the driver's seat.
- **Before commissioning** of the driver's seat, possible **packaging material** has to be removed from the seat cushion and the backrest upholstery.
- To eliminate any risk of accident, the settings must be checked to ensure they are correctly engaged **before the vehicle is driven**.
- Adjustments must **not** be made **while driving**.
- The backrest frame must be held, (for example with one hand at the upper part), before the backrest adjuster is operated, when the seat is not occupied. If you fail to do so, there is a danger that the backrest may jerk forward and **cause injury**.
- **Any changes to the series standard of the seat** (for example fitting parts which are not original **F.I.S.A. SRL** parts) may impair the safety standard to which it has been tested. **Functions may be impaired**, threatening your **safety**. For this reason, **any change in design of the seat** must be approved by **F.I.S.A. SRL**.
- During the removal and installation of the driver's seat, the corresponding instructions by the specific vehicle manufacturer must be strictly observed!
- Do not hold onto the covers for lifting the driver's seats. If you do so anyway, there is an **increased risk of injury due to loosening or breaking covers**.
- Fasteners must be **checked regularly for tight seat**. If the seat wobbles, there may be loose bolts or other faults. Check regularly the fixing points of the seat.
- If you notice that the seat does not function correctly (for example a defective seat suspension; improper curvature of the lumbar support or damaged bellows), **contact a specialist workshop immediately** to arrange for repairs to be carried out.  
If you fail to do so, your health may be affected and the **risk of accident increased**.
- Do not indent the bellows while there is load on the driver's seat. **RISK OF CRUSHING**.
- Make sure that the **interior of the driver's seat** remains free of **foreign particles** or **liquids**.
- The driver's seat is **not watertight** and must be protected against splashes of water!
- Any conversion or refitting work on a **F.I.S.A. SRL** driver's seat must be performed exclusively in **authorized workshops** by **trained or suitably qualified personnel** and in adherence with the applicable operating, maintenance and installation instructions and in compliance with all relevant national regulations.
- **Improper installation and assembly** bear the risk of **bodily injury** or **property damage** and the proper function of the driver's seat or mounted parts can no longer be guaranteed.

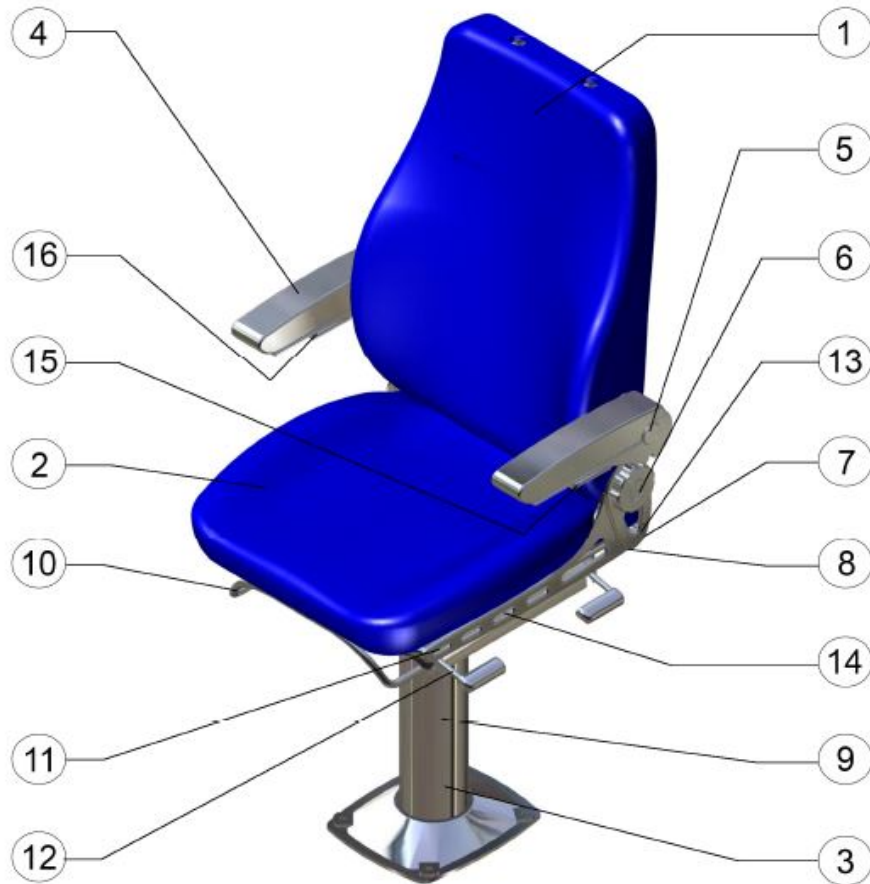
## GUARANTEE

- **F.I.S.A. SRL** can provide no guarantee for damage resulting from incorrect assembly, use or repair of the driver's seats.
- The guarantee on the products granted by **F.I.S.A.** is 12 months, unless differently specified in the contract.

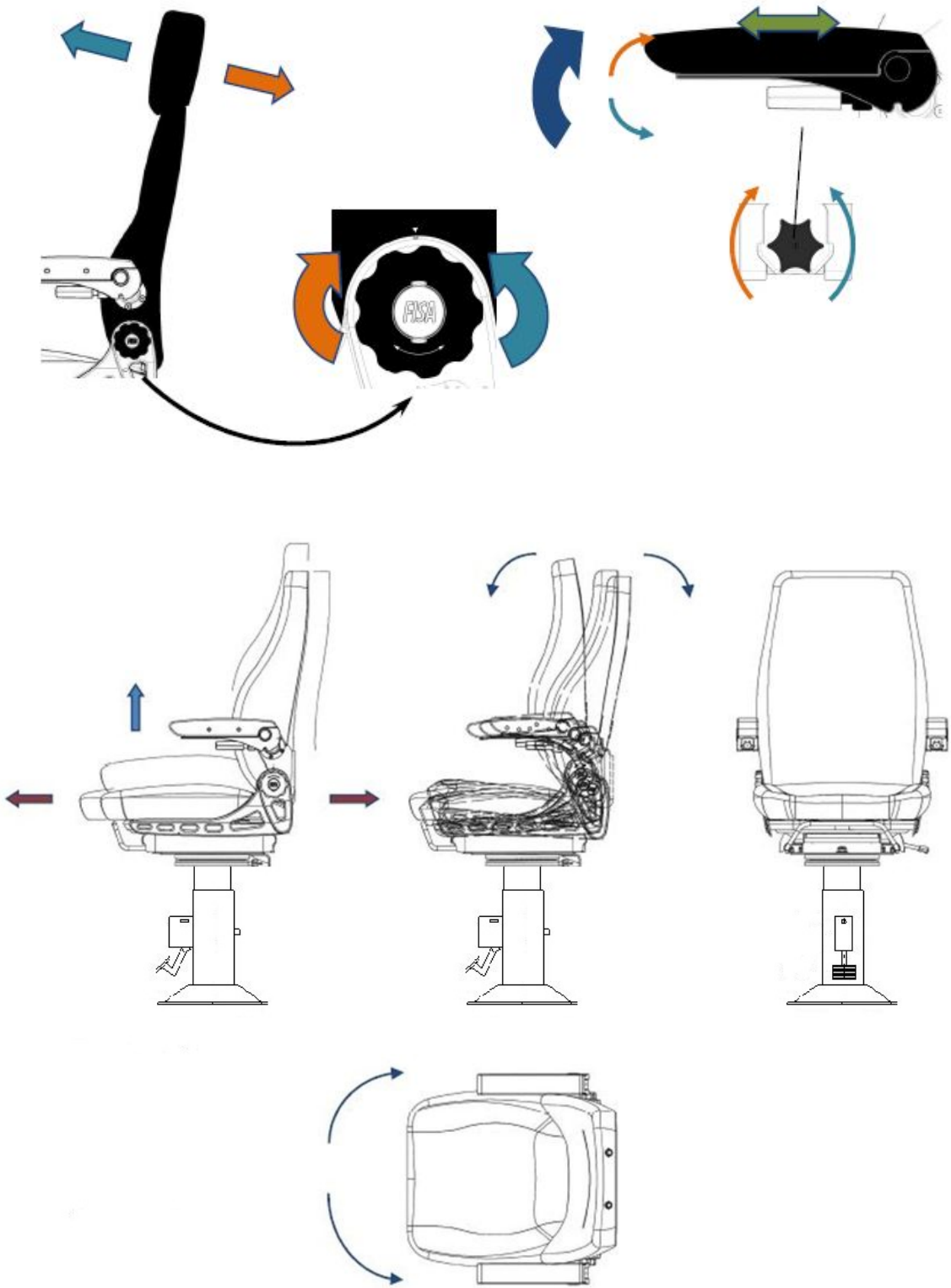
**SEAT MAIN ASSEMBLIES**



## SEAT FUNCTIONS AND MAIN REGULATIONS



POS.	DESCRIPTION
1	BACKREST UNIT
2	CUSHION UNIT
3	PEDESTAL UNIT (FOR SOME VERSION WITH HEIGHT ADJUSTMENT AND/OR MECHANICAL SUSPENSION)
4	RH ARMREST
5	LH ARMREST
6	BACKREST ANGLE ADJUSTMENT
7	TURNTABLE
8	ROTATION MECHANISM
9	COLUMN PEDESTAL WITH HEIGHT ADJUSTMENT (WHERE REQUIRED)
10	SLIDING GUIDES AND LEVER
11	COMPLETE HEIGHT/TILT ADJUSTER
12	HEIGHT/TILT ADJUSTER LEVERS
13	CUSHION FRAME
14	HEIGHT/TILT ADJUSTER CARTERS
15	LH ARMREST ADJUSTMENT
16	RH ARMREST ADJUSTMENT



### Mechanical suspension and weight adjustment (if included as optional)

The mechanical suspension has a regulation range of 50-130 Kg.

It can be adjusted by rotating the clear plastic knob positioned in the frontward or lateral side of the suspension. The setting value of the knob with regards to the graduated scale should be the same as the value of the driver's weight.



**Warning! Risk of accident!**

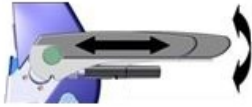
**Do not operate the Mechanical suspension and weight adjustment while driving.**

### Armrests

The armrests can be folded up if required.

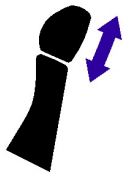
The inclination of the armrests can be modified by turning the adjustment knob.

When turning the knob to the outside the front part of the armrest will be lifted; when turning the knob to inside it will be lowered.



### Headrest

The headrest can be individually adjusted for height by pulling it upwards or pushing it downwards over the various locking increments up to the end stop.



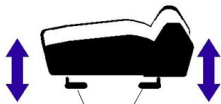
### Backrest adjustment

The backrest can be adjusted forward or backward simply by turning the adjustment knobs on the sides of the seat clockwise or counterclockwise (see picture at page 6).

### Height and pan angle adjustment (backwards and forwards)

To adjust the height and the angle of the back of the seat, pull the lever upwards. By simultaneously exerting pressure on or off the front part of the seat pan, the back part of the seat can be moved upwards or downwards.

To adjust the height and the angle of the front of the seat, pull the lever upwards. By simultaneously exerting pressure on and off the front part of the seat pan, the front part of the seat can be moved upwards or downwards.



### Swivel and height adjustment (if included as optional)

The seat pedestal (the part fixed to the vehicle's floor) allows an angle rotation and a height adjustment too.

The height adjustment travel has a series of fixed positions, it can be actuated by pressing the pedal.

The seat swivel can be adjusted by using the lever placed on the right side of the cushion, or with a pressure device without lever, depending from the seat version.

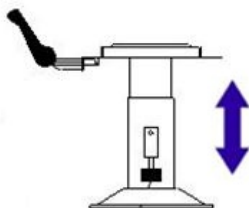
It allows for a free pivoting of the seat until it comes to an end stop towards the right or the left.

The locking is always effected in the driving direction.



**Warning! Risk of accident!**

**Do not operate the swivel while driving.**



### Fore/aft adjustment

The fore/aft adjustment can be adjusted by pulling the locking lever and by simultaneously sliding the seat forwards or backwards.

The seat must lock into place with an audible click when the lever is released.



**Warning! Risk of accident!**  
Do not operate the locking lever while driving.

### Lumbar support (curvature and height) (if included as optional)

By turning the right knob for the lumbar support the curvature of the backrest can be adjusted individually.

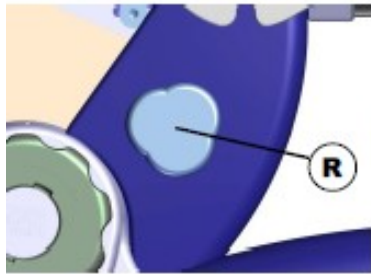
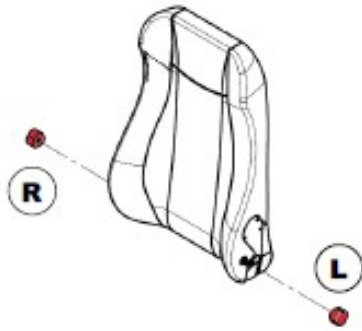
Turning in forward direction: Curvature becomes more inwardly bowed.

Turning in backward direction: Curvature becomes less inwardly bowed.

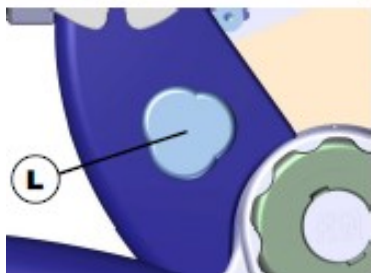
By turning the left knob for the lumbar support the height of the curvature of the backrest can be adjusted individually.

Turning in forward direction: curvature down.

Turning in backward direction: curvature up.



With the handle on the right side (R) adjust the thickness of the support



With the handle on the left side (L) shift the lumbar support vertically



## SEAT MAINTENANCE

The following maintenance procedures are recommended to make sure that the seat works properly at all times.

FREQUENCY	OPERATION
Every 6 months	Check that all adjustment mechanisms and suspensions work properly
Every 12 months	Clean the seat and grease all moving parts

## NOTES ON CLEANING THE SEAT COVERS

### General cleaning instructions

Regularly remove the dust by means of an industrial-type vacuum cleaner. Do the same prior to removing the single stain.

### Stain Removal

The wet stains should be removed with a damp cloth.

- Dilute a soft cleansing agent following the respective instructions for use.
- Moisten a synthetic sponge with this cleansing agent and dab the stain (do not rub in).
- Then, remove the cleansing agent by means of an absorbent, clean and white cloth or paper.

### Note:

Use cleaning agents with a neutral pH value (pH7), because acidic or alkaline products reduce the product lifetime.

Ber, wine, fruit juice, coke, chocolate, sauce	Lukewarm mild detergent solution	Apply with a white cloth and dab off.
Blood, egg yolk, egg white	1. Cold water 2. Warm mild detergent solution	1. Dab on and soak. 2. Apply with a white cloth.
Color	1. Turpentine 2. Benzine	1. Soak a white cloth and rub the color off. 2. Further treatment
Grease	Purified benzine	Soak a white cloth and rub the grease off.
Coffee, tea	1. Benzine soap 2. Water	1. Soak a white cloth and rub the dirt off. 2. Further treatment
Chewing gum	Coolant spray	Spray, then carefully scrape off.
Ball-point pen	Benzine	Soak an absorbent cloth/paper, then carefully dab off.
Lipstick, shoe polish, soup	1. Petroleum ether 2. Mild detergent	1. Soak a cloth and rub the dirt off. 2. Further treatment
Urine	1. Soda 2. Water	1. Dissolve in lukewarm water, soak a cloth and rub the dirt off. 2. Further treatment
Pressure marks, basic cleaning	Without chemical agents, if possible	Spray extraction device

## IDENTIFICATION OF SEAT AND COMPONENTS

An adhesive label is applied on each driver seat (dimensions approx 70x35mm) with informations as per example here below represented:



A list of the seat components is shown in the driver seat spare parts drawing and list. Please refer to these documents when requiring to identify the components of the seat.