Lecitrailer Chassis Manual

V26.1

LeciTrailer

Welcome to Lecitrailer

This Manual will give you information about basic issues for the standard usage of the product, or an emergency repair, with easy solutions.

1 USAGE INSTRUCTIONS

Before running mode

DAILY

- Check lock position in 5th wheel. Lever has to be completely closed and lock activated.
- Verify that landing legs are high enough to avoid hitting the floor.
- Check light and brakes system functioning.
- Check position for parking brake.
- Verify that the suspension lever is in running position (central).
- Presurize up to service pressure brake and pneumatical air tanks.
- Connect coupling heads, electrical, pneumatical and ABS/EBS.

PERIODICALLY

- Check tyres regular usage.
- Verify tyres pressure.
- Check visually the usage of brake linings or brake pads.
- Check the torque for wheel nuts.
- Verify that air bellows are without bends.
- Empty brake and suspension air tanks.

2 MAIN REMARKS

- Before any action on the vehicle, check that brakes are not activated, and the vehicle is stopped. For more safety put always wheel chocks in tyres.
- Clean nuts and parts you have to manipulate.
- Do not touch brake valves regulating screws.
- Never stop the vehicle after brakes overheating. Keep running until they cool down.
- Do not go under the vehicle until the tyres and brakes are cool enough.
- Do not modify working suspension heights.
- Do not overpass tyres work pressure.
- Do not manipulate the brakes levers nearby area.
- Do not park in ramps without acting semi-trailer parking brake.

3 COUPLING AND UNCOUPLING

COUPLING ARTICULATED VEHICLE

1. Check semi-trailer king-pin height and tractor head 5th. wheel. Adjust tractor's pneumatic suspension and semi-trailer's landing legs.
2. Open 5th. wheel locking device.
3. Verify that 5th. wheel plate has enough grease.
4. Immobilize the semi-trailer. Check parking brake is activated. Pull red switch from control box. If the parking brake is not in the control box, it should be in the chassis.
5. Make coupling manoeuvre. Check that 5th. wheel lock has blocked the king-pin.
6. Connect electric and pneumatic installations between tractor head and semi-trailer. Open tractor head air connectors if exisiting. Check correct brake and lights functioning.
7. Put semi-trailer's pneumatic lever on road position. Lever in control box.
8. Unlock and fold landing legs if vehicle is equipped with it, and if they are installed.
9. Release parking brake. Press red trigger from control box.
10. Fold landing legs as much as possible.
11. Before starting, verify that the tractor head air manometer are freely spinning.

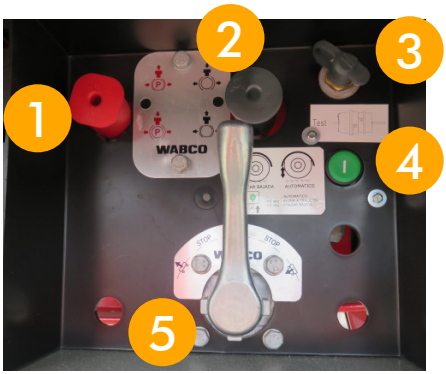
UNCOUPLING Semi-trailer

1. Close tractor head air valves.
2. Release electric and pneumatic connections.
3. Move suspension lever valve.
4. If the vehicle is going to be unloaded, and need a specific height, reach this height and lock it in stop position. If the vehicle is equipped with rear folding legs, put them in the desired height.
5. Block semi-trailer with parking brake, pulling the red button.
6. Put down the landing legs until they are in contact with the ground. Turn the handle initially in fast speed (pull handle) until landing legs reach the floor. Pass on to low speed (push handle and turn until the tractor head springs are in “empty position”). If tractor unit is pneumatic suspension type, there’s no necesary to put short speed.
7. Lock 5th. wheel lever, and make sure the king-pin is free now.
8. Move tractor head forward.

4 CONTROL BOX

Normally is located in the left and rear part of vehicle, as per driving sense.

All of them are grouped in a single box and each control has a specific funcion. The pneumatic air suspension control box has 4 elements (5 in case of choosing the axle lift control option):



1. Red button: Parking brake.
2. Black button: It is used to unlock the vehicle, once it has been unhooked from the tractor head.
3. MOT pressure tap.
4. Axle lift control. (Optional Equipment):

   Used to raise and lower the lifting axle, keeping all axles on the ground.

   Press for less than 5 seconds to activate start aid. The axle rises and weight is transmitted to the tractor unit: 30% overload allowed on the axles and it disconnects at 30 km/h

   Press for more than 5 seconds to force the axle down and keeps all axles on the ground.

   It restarts when the contact is removed.

5. 3 ways pneumatic suspension control lever valve:

5.1. Central. Very important!, this position is mandatory for driving.

5.2. Raise suspension: From the central position, push the control inwards and move to the left to raise the vehicle. If we want to leave it at a certain height, we must bring the control handle to the stop position. Important!: Once the suspension reaches the point of its maximum height, it is not advisable to continue adding more pressure.

5.3. Lower suspension: The same operation as to raise it, but turning the knob to the right.

5 AIR BELLOW CANCELLATION

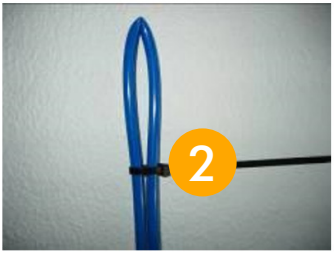
Facing an air bellow rupture or air loss, we can make a small task that can let us continue our trip until we reach the nearest repairing workshop.

Empty totally the suspension air circuit with the lever from control box.

Turn lever and maintain in this position until there is no more air in air bellow. For more safety, press manually the air bellow to check there is no air inside.

Once this operations are done we have to bend the air entry pipe as per the below picture. If we have plastic bridles, put them in order to avoid air flow into air bellow. We can also do this with a piece of rope or similar.

1. Air entry



2. Pipe cancellation

We put the suspension lever in running position, and we can drive again, considering we do not have perfect pneumatical suspension functioning.

6 AIR CIRCUIT LEAKAGE OR RUPTURE

Air likeage in pneumatical circuit can occur due to a friction between the pipe and a mecanical device, or by hitting the pipes. In this situation, we should act as follows:

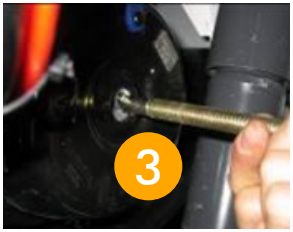
1. Take out air circuit, through the lever if it is a suspension pipe, or with the air tanks purging tap (do not forget to release the coupling heads)
2. Once we find the air leakage, (1) we cut the pipe as straight as possible in the dammaged area. (2) We put afterwards a small connecting raccord as the picture, pushing the pipe inside until we hear a small "click". (3) We do the same operation in the other pipe side.
3. Prior to start the vehicle, we have to check that there is no leakage in the connection done.

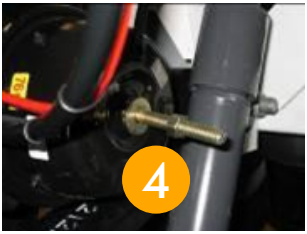
7 BRAKE CHAMBERS UNLOCKING

We could say that brake chamber or parking brake has its own life. Meanwhile the other circuit valves need air pressure to work, these ones do not need this pressure to accomplish their function.

In case a vehicle is blocked by an actuator, by low pressure or air leakage in the circuit, we have to do as follows:

1. Release the front part cover.
2. Dissasemble the side screw
3. Put screw in the hole prepared for it in the front part of actuator.
4. Turn bolt until the whole screw is out.

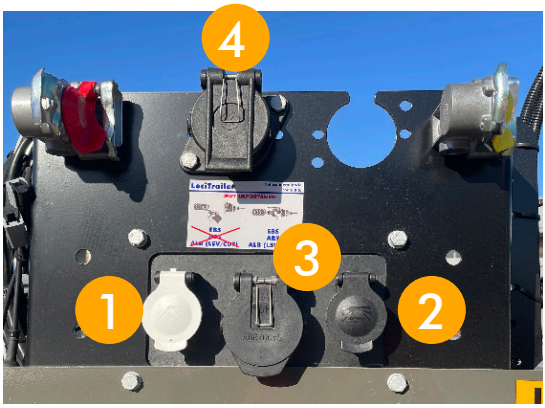




Never disassamble rear bridle

8 ELECTRICAL CONNECTIONS, ABS AND EBS

Electrical basic connections are as follows:



1. 24 S - ISO 3731
2. 24 N - ISO 1185
3. 15 Poles - ISO 12098 / DIN 72570
4. ABS/EBS. ISO 7638.

ABS CONNECTION

ABS system does not give a better braking to the vehicle. Its main function is to avoid the vehicle looses its trayectory in case an emergency brake or a bad road condition. Also we will have a shorter stopping distance. Is compulsery to have always connected the system

EBS CONNECTION

EBS is a braking system and it gives higher braking efficiency, integrated in a single system. ABS and ALB functions (braking adjustments depending on load). This system is compulsery to have it always connected, otherwise we loose the ABS function and ALB function. It means the vehicle will brake with the pressure requested by the feet, not as per load control, and we will have a high percentage of tyres blocking, and as we mentioned we would loose the ABS function, we would loose also the vehicle direction.

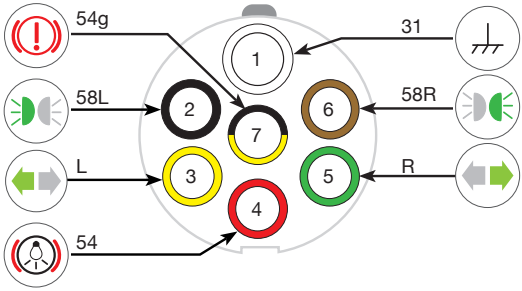
ELECTRIC CONNECTION

Following, we explain the function and colors for each electrical conection pins

FUNCTION	COLOR	ISO 1185- 24N	ISO 3731-24S	15 POLES
Turning light left	Yellow	3 / L	--	1
Turning light right	Green	5 / R	--	2
Antifog rear	Blue	--	7	3
Earth	White	1 / 31	--	4
Rear left positioning light	Orange	2 / 58L	--	5
Rear right positioning light	Brown	6 / 58R	--	6
Stop Light. Brake	Red	4 / 54	--	7
Rear Gear	Yellow-White	--	3 / L	8
Supply	Black		4 / 54	9
Brake pad control	Brown-Red	--	--	10
Trailer brake	Yellow-Orange	7	--	11
Axle lifter	Pink	--	6 / 58 r	12
Earth	White-Black	--	1 / 31	13
Non assigned	Violet	--	2 / 58L	14
Non assigned	Orange	--	5 / R	15

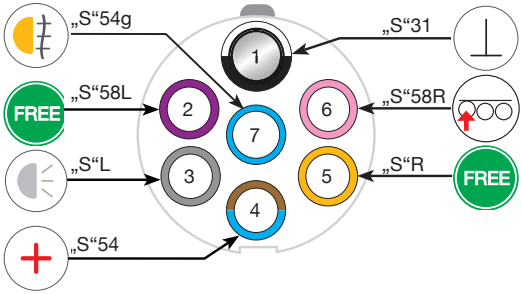
24N

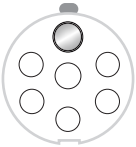
ISO 1185
7 pin



24S

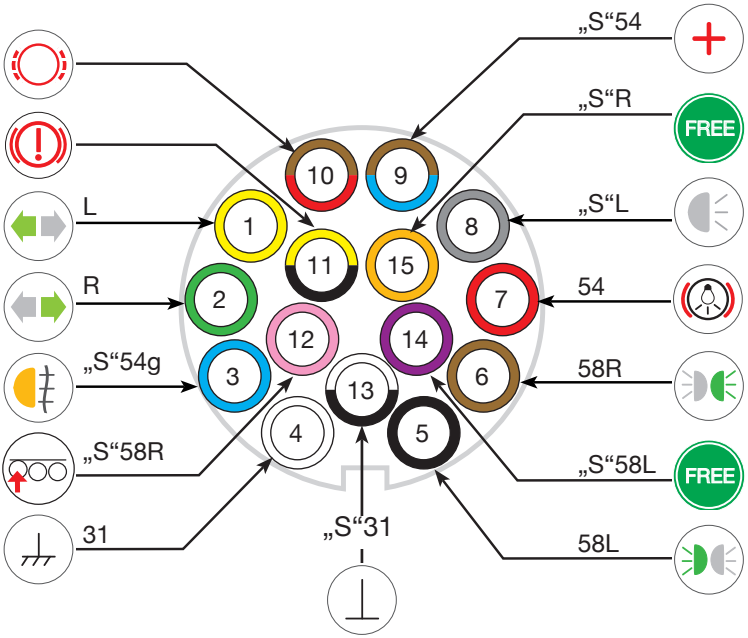
ISO 3731
7 pin

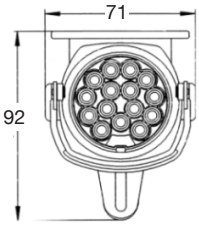




15P

ISO
12098
15 pin





SYMBOLS

Symbol				
	Earth	massa	Masse	Masa
	LH rear direction indicator	freccia sinistra	Clignotant gauche	Intermitente izquierdo
	RH rear direction indicator	freccia destra	Clignotant droit	Intermitente derecho
	stop	stop	Feu stop	Luz de freno
	LH Tail	posizione sinistra	Feu de position gauche	Lus posición izquierda
	RH Tail	posizione destra	Feu de position droit	Lus posición derecha
	rear fog	retronebbia	Feu de brouillard	Luz antiniebla
	reverse	retromarcia	Feu de recul	Luz marcha atrás
	permanent power supply	positivo permanente	Alimentation électrique permanente (+)	corriente continua
	axle lift	Sollevatore	Relevage d'essieu	dispositivo de elevación del eje
	braking control	Controllo funzionamento freni	Contrôle freinage remorque	Control de frenos para trailers
	brake pad wear Indicator	Controllo usura pastiglie	Témoin d'usure des plaquettes de frein	Indicador de desgaste de las pastillas de freno
	Earth - Data	Massa per elettronica	Masse des éléments électroniques	masa funciones electrónicas
	unallocated	libero	Libre	Libre elección

9 CALIPER UNBLOCKING

In case a vehicle equipped with disc brake blocks its caliper, we can disable it as follows:

1. Remove cover.
2. Screw for caliper unlocking.

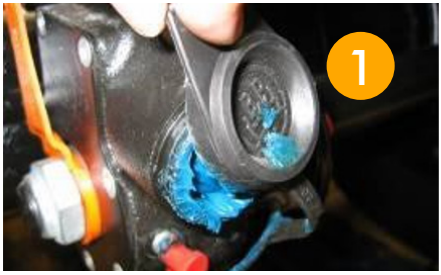
When turning the screw that is in the inside, we will ear an initial “click”. We will release the screw until the brake pads are totally separated from discs.

Never force the screw, maximum strength 4K/cm, if screw breaks we have to change the whole caliper.

10 RELEASE OF A BRAKE DRUM

As in the previous case, we can also release a brake drum. In this case we have to release the brake lever as follows:

1. Take out cover from rear part of lever.
2. Inside we will see a screw totally covered with grease. Clean the minimum as possible and release the screw 2 complete turns. Before initiating driving, check that tyre turns without any friction.



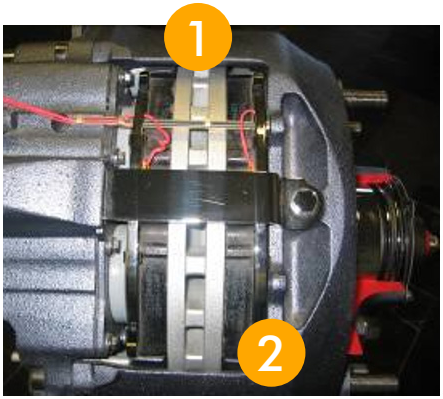
11 DISC BRAKE CHECKING

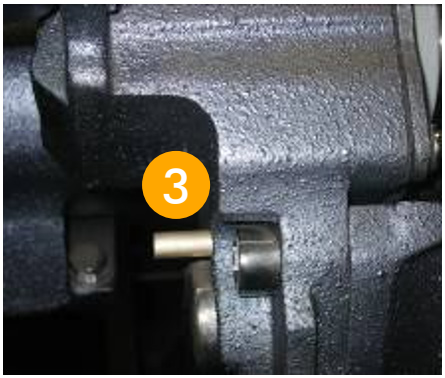
DISC BRAKES

The brakes pads and disc have some usage limits before we have to change them.

In case of tablets, we must not circulate with a thickness less than that indicated by the manufacturer.

Apart from being able to directly view the brake pad, there is an external indicator that shows its status all the time. It is located inside the caliper, as can be seen in the pictures.





1. Disc
2. Brake pads
3. Brake pads usage gauges.

CHECK BRAKES PADS AND DISC

As well as the disc brake, the drum brake has a external gauge to control brake shous usage. Its location is in the cover we have inside part of drum (see picture)

First we take out the cover as the image, and we will be able to check the brake shoes dimention

When the brakes linings reach the minimum thickness according to the manufacturer indications, we must proceed to replace them.

It is important that once the inspection has been carried out, has to be put back in position.

12 SAFETY WARNING

IMPORTANT !

Before handling any moving parts of the semi-trailer, ensure that the tractor-semi-trailer combination is properly immobilised, with the engine switched off, the parking brake engaged and the safety chocks in place.

Keep limbs, clothing, and tools away from moving parts.

Improper intervention may result in entrapment, serious injury, and damage to the equipment.

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If you have a breakdown on the road, we advise you to contact:

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and Saturdays (8 a.m. to 1 p.m.)

Tel: +34 976 462 121 / +34 976 462 929
where you will be informed of the nearest workshop.

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