



**P&P CARTRIDGE**

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# 1 Important Safety Symbols

In this manual, mounting instructions and other technical documents, important information concerning safety is distinguished by the following notations.



## WARNING!

The warning symbol means: Failure to follow warning instructions can result in severe or fatal injury to anyone working with, inspecting or using the shock absorber, or bystanders.



## CAUTION!

The caution symbol means: Special precautions must be taken to avoid damage to the shock absorber.



## NOTE!

The note symbol indicates information that is important regarding procedures.

## Read these Safety Precautions before installing the product.



This product was developed and designed exclusively for a specified vehicle and shall only be installed on the intended vehicle in its original conditions as delivered from the vehicle manufacturer.



This product contains pressurized nitrogen gas (N<sub>2</sub>). Do not open, service or modify this product without proper education and proper TracTive tools.



After installing this product take a test ride at low speed to make sure that your vehicle has maintained its stability.



If the function of the shock is irregular or if it makes an abnormal noise or if you notice any leakage from the product, stop the vehicle immediately and return the product to a TracTive Suspension retailer.



Read and make sure that you understand the information in this manual and the mounting instructions before you use this product.



TracTive Suspension B.V. cannot be held responsible for any damage to the shock absorber, vehicle, other property or injury to persons, if the instructions for installing and maintenance are not followed exactly.



When working on this product, always read the Vehicle Service Manual.

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## 2 Cartridge set design and function

The Cartridge set in this manual is a closed cartridge type. This means that the cartridges are already filled with oil when you open the package. Remember that the oil inside is shock absorber oil. If there is oil inside the package then this front fork oil is required for lubricating of the bearings etc. (outside the cartridge) The closed cartridges have a bladder inside which separates the oil from the gas. Pressurization of the fluid is made with nitrogen. Closed cartridge models biggest advantage is that they create immediate damping when moving.

This cartridge set comes with a plug and play cartridge (PNP) and a support leg cartridge (SPL).



The preload of the (SPL)-cartridge can be adjusted.

### How does this cartridge work?

The cartridge in this manual works the same way as a shock absorber. Oil is forced through an electrical valve at a low rate of flow and through a number of orifices in the piston at a high rate of flow. The flow through these orifices is regulated by shims (thin steel washers) that at high pressure are deflected to open for the oil to pass. The electrical valve can be adjusted with the original knobs from the bike. By altering the size of the shim-stack the characteristics of the damping action can be changed.



Damping action altering can only be done by an authorized TracTive Suspension retailer.



When installing extended length suspension, always check carefully if all wires, cables and hoses still have free play at full extension of the suspension. Check clearance on both sides with full steering lock  
Always check carefully if the bike is still stable on its center stand and/or kickstand.

## 3 Mounting in fork

For removal and re-fitting read the mounting instruction. Provided tool must be used to mount the cartridge in the original outer fork tube. See picture.



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## 4 Set-up the vehicle



Before riding, always ensure that the basic settings made by TracTive are intact. Adjust in small steps and make only one adjustment at a time.

**Spring preload:** spring preload is a crucial part of setting your vehicle since it affects the height of the vehicle and the fork angle.

Follow this procedure to set-up the spring preload.

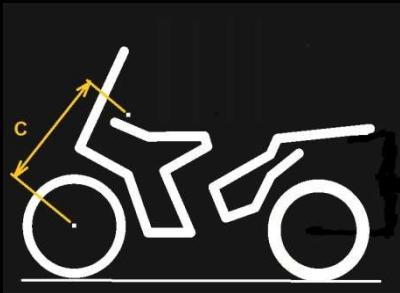
- a) Lift up the front to a fully extended position. (when the front wheel can rotate)
- b) Measure the distance of the chrome tube. (b)
- c) Put the vehicle back on the wheels. (without rider) and repeat the measuring procedure. (c )
- d) Then take the same measurements with the rider and equipment on the motorcycle. (d)  
It's important that the rider is balancing on the correct riding posture and repeat the measuring procedure one more time.

## Recommended measurements

If no other recommendations are given in the mounting Instructions follow the measures below:

Free sag:

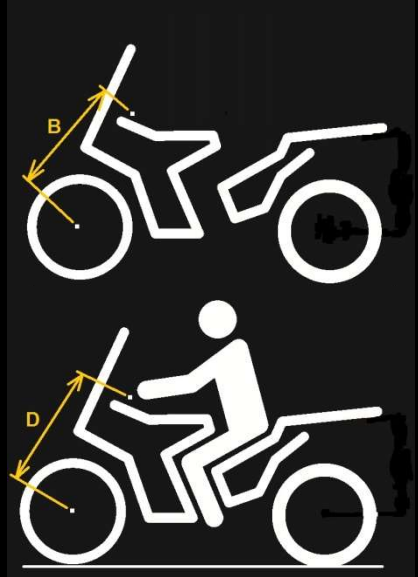
Distance (b) minus distance (c) = called the free sag.



Free sag: Is approx. 10% +15mm of the wheel travel.

**Ride height:**

Distance (b) minus distance (d) = called the ride height.



Ride height: Is approx. 20% +15mm of the wheel travel

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## 5 Adjust spring preload

If your free sag measurements differ significantly from the recommendations then you must adjust the hexagon on top of the SPL fork.

(See chapter-6 How to set the preload).



Incorrect spring rate may result in a geometry that is either too steep or too flat. This can result in a tendency of under or over steering, that could seriously affect the handling characteristics of the vehicle.

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## 6 How to alter the preload

It's easy to set the preload of the SPL leg. Simply screw the hexagon on top of the SPL leg with the provided TracTive tool. Clockwise is more preload and anti-clockwise is less preload. One complete turn is 1mm extra preload.



The spring preload is fundamental for the function of the suspension. If the preload is incorrectly set, any other adjustments will not help to get the intended performance from the suspension.

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## 7 Removal and re-fitting springs

Lift the bike at the front and disconnect the connector. Remove the fork leg. Clamp the outer tube carefully in a vise. Remove the orange cover on top of the screwcap (PNP leg). Open the screwcap from the outer tube with the TracTive tool and press the outer tube down. Push the spring so far down that you can put a wrench 15mm between the spring and the screwcap.

Now you can remove the screwcap using the TracTive tool. See picture.

### PNP leg



Remove the wrench 15mm by pushing the spring down again. The spring can be removed. Re-fitting is the same procedure.



Make sure the parts are tightened with 30Nm torque.

## SPL leg



Same procedure. Use the other side off the TracTive tool

## 9 Maintenance and inspection

Preventive maintenance and regular inspection reduce the risk of functional disturbance. If there is any need for additional service, please contact an authorized TracTive Suspension Centre.

### Inspection points

- 1) Check the air release screw on top of the screwcaps every half year.
- 2) Check the inner tube for external damage and leakage.

### Recommended Service Interval

Regular on road use: Every 30.000 km

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## 8 Air release screw

Sometimes front forks are sucking in air through the seals at the bottom of the outer leg. If this is happening the fork will become harder and harder while riding.

On top of the screwcap we put an air release screw to solve the problem. Lift the front wheel of the ground and open the screw. The pressure inside the fork can now reduce to 0 bar again. After 1 or 2 seconds you can close the screw again.



### Disposal

Discarded TracTive product should be handed over to an authorized TracTive retailer or distributor for proper disposal.



Do not open the nitrogen filling plug. Special charging tools and access to nitrogen is required to fill the cartridge with pressure again.



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