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SYSTEM 5 AND SYSTEM 3 STEERING DAMPER OWNER'S MANUAL



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1. Introduction

Congratulations on your purchase of this steering damper. Thank you for choosing Fastway.

This owner's manual is your complete guide to install, adjust and fine-tune your steering damper to get the maximum performance out of your purchase. It also offers important information about maintenance, warranty, and servicing of this product. Carefully read this manual before installing your steering damper.

The Fastway steering damper is a hydraulic device intended to reduce the force required to maintain control of your vehicle over obstacles and choppy terrain, when <u>properly</u> <u>adjusted</u>. Without proper adjustment, this device could render the vehicle harder to control and/or to steer. It is mandatory to carefully read this manual and make sure you understand the adjustment procedures before operating your vehicle once the steering damper is installed.

DO NOT OVER-ADJUST or turn the adjustment knobs past their adjustment range. Forcing or turning them too far can damage the sensitive needle valves inside the stablizer, and voids any warranty.

2. Important Safety Information

A steering damper is a component that can noticeably alter the handling of your vehicle, and this owner's manual explains how to install and adjust it properly. If you are uncomfortable installing your steering damper or are unsure of the method, have a qualified mechanic install it for you. Improper installation and adjustment could potentially lead to injuries, death and/or damage to your vehicle. You should never take any chances with your own safety.

Before installing your steering damper, carefully read this owner's manual to learn the correct installation procedures and avoid the consequences of an incorrect installation.

Always wear the appropriate protective equipment and follow your region's regulations when riding your vehicle. Fastway is constantly introducing new products and improving existing ones. For this reason, Fastway reserves the rights to modify products and add accessories with no obligations to make such changes to earlier models.

When your steering damper requires an oil change or other internal maintenance, the Fastway Factory Service Department is the only qualified service center that can provide the necessary service or repairs without voiding your warranty.

Fastway steering dampers are manufactured exclusively for the vehicle that they were ordered for. Switching the unit or mounting brackets between different vehicles may not only affect the performance but might also cause damage to the vehicle and could seriously harm or be lethal to the rider. Always call Fastway to verify compatibility or get the appropriate parts before switching a unit from one vehicle to another.

3. Warranty

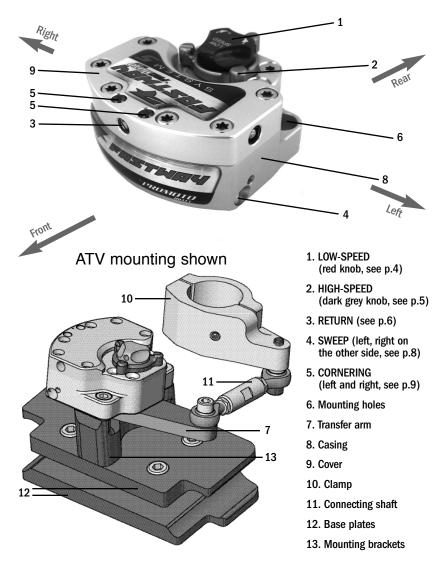
Fastway products are guaranteed against any manufacturing defects for a period of one (1) year from the purchase date. This warranty does not cover damages resulting from any of the following situations: abuse of the product, racing accidents, improper installation, disassembly or modifications, unauthorized oil changes, damage occuring during transportation (the purchase of full insurance coverage for shipping is recommended)

A copy of the original invoice is necessary for any claim or service shipment. Fastway reserves the right to make the final decision in all matters pertaining to its warranty. Because Fastway products are designed for use in racing and extreme driving conditions, Fastway cannot guarantee any of its products, other than from manufacturing defects, because we have no control over how our products are used after installation. In addition, the purchaser assumes full responsibility to the extent legally permitted for the risks of personal injury, death and/or damage to the purchaser's vehicle or to any third party that may be involved directly or inderectly in an incident with the purchaser.

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4. Location of the adjustments



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5. Adjustment procedures: LOW-SPEED

SYSTEM 3 AND SYSTEM 5



LOW-SPEED DAMPING LEVEL:

The RED KNOB controls the resistance level when turning the handlebars at low speed, such as when turning or making corrections when going straight. The low-speed damping reduces the effort required from the rider to hold its line when turning, cornering and when going straight. Also reduces high speed head-shake.

HOW TO ADJUST THE LOW-SPEED :

- Sitting on the vehicle in riding position, steer the handlebars back and forth at low speed to simulate a turning or cornering and fine-tune the adjustment until you feel some resistance, but not too much- so you are able to steer comfortably without any lag.
- Turn CLOCKWISE to INCREASE the damping, adding hydraulic resistance thus making the handlebars HARDER to turn at low speed
- Turn COUNTER-CLOCKWISE to DECREASE the damping, reducing hydraulic resistance thus making the handlebars EASIER to turn at low speed

CHARACTERISTICS:

- can be adjusted from no damping (easy to turn) to full damping (harder to turn)
- When the low-speed adjustment is set within the last
 7 clicks from the full-in position (hardest), the effect of the high-speed adjustment will become less noticeable

IMPORTANT SAFETY WARNING :

Too much low-speed damping will make the vehicle harder to steer, requiring more effort from the rider. This can lead to potentially dangerous situations if the rider is not able to make corrections to the steering quickly enough, causing a loss of control of the vehicle.

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6. Adjustment procedures: HIGH-SPEED

HIGH-SPEED DAMPING LEVEL:

The dark grey 3 point knob (under the red knob) controls the protection level for high-speed impacts such as roots and rocks. The high-speed damping circuit reduces the force of impacts through the bars at high speeds to help reduce rider fatigue and keep the vehicle going in a straight line.

HOW TO ADJUST THE HIGH-SPEED :

- Sitting on the vehicle in riding position, steer the handlebars back and forth quickly to simulate an impact. Then fine-tune the adjustment until you feel enough resistance to absorb an impact, but not translate it through the handlebars. You want to have it set so it takes high speed impacts while still allowing you to make quick steering moves. If you feel the high speed circuit engage while you are steering, lower the resistance level.
- Turn CLOCKWISE to INCREASE the sensitivity or protection level of the high speed circuit, thus making the handlebars HARDER to turn in a HIGH SPEED motion. Clockwise equals more high speed protection from sudden impacts to the front wheel. Too much high speed damping may limit your ability to quickly turn the bars.
- Turn COUNTER-CLOCKWISE to DECREASE the sensitivity or protection level of the high speed circuit, thus making the handlebars EASIER to turn in a HIGH SPEED motion.

CHARACTERISTICS:

- 9 clicks (dark grey knob, behind red knob)
- Can be adjusted from no damping (less resistance to high-speed impacts) to full damping (more resistance/protection from high-speed impacts)





7. Adjustment procedures: RETURN

SYSTEM 3 AND SYSTEM 5



RETURN TO CENTER DAMPING LEVEL:

This adjustment controls the protection/resistance level when the handlebars return to the center position (from both sides). When set towards free returning, this adjustment allows the vehicle to steer back to center or exit corners quicker. When set towards full damping, this adjustment helps the vehicle to hold its line while in a turn or cornering.

HOW TO ADJUST THE RETURN :

- Sitting on the vehicle in riding position, use a small flat screwdriver to adjust the resistance to your preference, making sure the resistance does not affect your ability to make quick corrections to the steering when needed
- Turn CLOCKWISE to INCREASE the damping- adding hydraulic resistance- thus making the handlebars HARDER to return to center.
- Turn COUNTER-CLOCKWISE to DECREASE the damping, reducing hydraulic resistance- and making the handlebars EASIER to return to the center.

EASIER

CHARACTERISTICS:

- 3.5 turns, no clicks (screw in front of the unit's cover)
- Can be adjusted from no damping (free returning) to full damping on return to center
- The return adjustment acts in a way that the resistance level of the return will never exceed the resistance level set by the main high- and low-speed adjustments

IMPORTANT SAFETY WARNING :

Too little damping on the return to the center can allow some steering input through the handlebars and make the steering less predictable, as impacts on the wheel will not be absorbed by the damping system when steering back to center.

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8. Adjustment order: System 3



1. ADJUST THE LOW-SPEED (p.4)

 Using the RED KNOB, set the LOW-SPEED adjustment to your liking, making sure you are able to steer comfortably without any lag. The type of terrain you ride may require different settings.



2. ADJUST THE HIGH-SPEED (p.5)

- Using the DARK GREY KNOB, adjust the HIGH-SPEED adjustment to your likings.



3. ADJUST THE RETURN (p.6)

 Set the RETURN adjustment to control the damping level when the handlebars return to the center position. More return damping will help you hold your line in corners.

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9. Adjustment procedures: SWEEP

CORNERING OR SWEEP ANGLE :

This adjustment controls the transition between the "cornering' stage and when going straight. There are two independent adjustments, one for each side. In the graphic, dark grey is 'damping', light grey is where it "breaks to free". This circuit allows you to set areas where there is no damping (breaks to free). The next circuit-(cornering damping) controls the amount of damping in the "free" zones you tune here in this circuit.

HOW TO ADJUST THE SWEEP :

- Start by setting the LOW-SPEED adjustment (p.4) about 4 clicks from the full-in position and set the CORNERING adjustment (p.9) to the full-out position. These settings will exaggerate the transition between the "straight" and "cornering" stages of the damping and provide a better feel of where the SWEEP adjustment will set the transition between the two stages.
- Choose Position 1 (dots at the bottom) for no damping difference between "cornering" and "straight" stages
- Choose Position 2 (dots at the front) for a wide angle for going straight and a narrow "cornering" angle
- Choose Position 3 (dots at the top) for regular angles suitable for most riding types
- Choose Position 4 (dots at the rear) for a narrow angle for going straight and a wide "cornering" angle

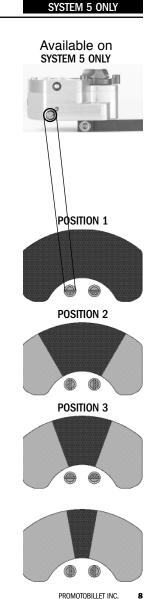
CHARACTERISTICS:

 4-position adjustment with clicks
 (2 screws, one on each side) that can be adjusted independently on each side (great for oval tracks)

- Effective only when the CORNERING adjustment (p.9) is set to have a different resistance for the "cornering" stage of damping (other than the full-in position)

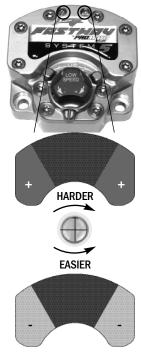
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10. Adjustment procedures: **CORNERING**

Available on SYSTEM 5 ONLY



CORNERING DAMPING LEVEL:

This adjustment controls the resistance level when the handlebars are turned into the "cornering" range (lighter grey areas in graphic below), as set by the SWEEP adjustment (p.8). Basically, you set the Cornering or Sweep adjustment to establish the "range" of protection, left to right, that you want (p.8). When the damper "breaks to free" (light grev areas) this Cornering Damping level adjusts "how much" it breaks away i.e. does it go from full damping/protection to zero, or anywhere in between where your Low and High speed knobs are set and zero.

These circuits allow you to tune the System 5 to the type of track or course you ride. Ex.: You can set the Sweep so there is only damping/protection in the center (for high speed straights), and have it break to free on each side to allow faster cornering. Then you add or subtract damping in the "free" zone to your liking.

HOW TO ADJUST THE CORNERING :

- Set the SWEEP adjustment (p.8) to position 3 (dots at the top) to allow enough range for the CORNERING adjustment to engage
- Turn CLOCKWISE to INCREASE the damping, adding hydraulic resistance thus making the handlebars HARDER to turn in the "cornering" range
- Turn COUNTER-CLOCKWISE to DECREASE the damping, reducing hydraulic resistance thus making the handlebars EASIER to turn in the "cornering" range
- Resume the SWEEP adjustment to your preferred position

CHARACTERISTICS:

- 3 turns, no clicks (screws on top of the unit's cover)
- Each side can be adjusted independently

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11. Adjustment order: System 5

1. ADJUST THE SWEEP (p.8)

- Set the LOW SPEED (p.4) adjustment to about 4 clicks from the full-in position and set the CORNERING adjustment (p.9) to the full-out position.
- Adjust the SWEEP so the "cornering" stage engages where you feel the most comfortable with.

2. ADJUST THE LOW-SPEED (p.4)

- Set the CORNERING adjustment (p.9) to the full-in position (so there's no difference between the "straight" and "cornering" stages).
- Set the LOW-SPEED adjustment to your likings, making sure you are able to steer comfortably without any lag.

3. ADJUST THE HIGH-SPEED (p.5)

- Set the HIGH-SPEED adjustment to your likings.

4. ADJUST THE CORNERING (p.9)

- Set the CORNERING adjustment to control the damping level of the "cornering" stage.

5. ADJUST THE RETURN (p.6)

- Set the RETURN adjustment to control the damping level when the handlebars return to the center position.



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