

# RACE TECH

1501 Pomona Rd, Corona, CA 92880 USA • 951.279.6655 • fax 951.279.7171 • [www.racetech.com](http://www.racetech.com)

<IP G3-S DualShocks.doc> .

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2pgs

## Installation

1. G3-S Shocks are typically direct fit replacement for the OEM Shocks. Utilize the stock washers, spacers, hardware, etc. unless alternates were included with your shocks. Refer to your service manual for details for your motorcycle in regards to shock R&R, torque specs, etc. General instructions are noted below.
2. Secure the motorcycle in a wheel chock or use centerstand if so equipped. It will be necessary to support and move the swingarm during installation. Be careful not to push the motorcycle off the centerstand during installation of the shocks. Check condition of swingarm bearings: swingarm should move up & down smoothly with no side play. Service or replace bearings as needed to insure optimum performance, handling and safety.
3. G3- S shocks incorporate spherical bearing mounts providing a very precise fit. Check condition of the mounting stud threads, clean, chase or tap if needed. Replace any rounded or damaged nuts & bolts using suitable grade hardware. Clean any corrosion from the mounting studs; it may also be necessary to remove any paint from the studs using 320 grit wet-dry sandpaper. Apply light coating of waterproof grease the mounting studs and at shock bearing sleeves.
4. Remove the existing shocks one at a time, supporting the swingarm when removing the second shock. Be careful not to damage or stress brake lines, cables, etc. if the swingarm drops below its normal range of travel during the installation.
5. Mount the G3-S Shocks with the shock body (and reservoir if so equipped) at top, chrome shaft at the bottom unless otherwise noted with your shocks. Maintain the stock spacers orientation and position unless otherwise noted. After mounting the shocks check that they are aligned vertically top to bottom. If they are not it may be necessary to shim them for perfect vertical alignment. The spherical bearing mounts may allow the shocks to twist slightly; this is to minimize any binding that could occur during swingarm movement. After confirming correct mounting, torque all fasteners to spec.
6. Check the brake lines, cable, etc. for correct routing. Check and adjust drive chain or belt and drum brake adjustment. If your G3-S shocks are different length from stock these adjustments may be critical. Check tire PSI, brake light function, etc. If after riding you wish to make adjustments they are outlined on page 2. Sag setup below

## SETUP

G3-S shocks come preset with spring preload and damping settings we feel you will like. However it is best to check sag and adjust preload as needed for optimum sag. Review the sag specs below & adjust preload as need. Damping Adjuster details and adjustment options are on the following page. Adjust your shocks as needed to suit your personal taste and riding style

<b>Bike Type</b>	<b>Front %</b>	<b>Front mm</b>	<b>Rear %</b>	<b>Rear mm</b>	<b>Rear Free Sag mm</b>
Off-Road & MX Bikes	25-28%	75-85 mm	30-33%	95-100 mm	15-25 mm
Post Vintage MX & CC Long Travel	25-28%	65-70 mm	30-33%	75-80 mm	10-20 mm
Vintage MX & CC Short Travel	25-28%	40-50 mm	28-30%	25-30mm	5-10 mm
Street Bikes & Vintage Road Race	28-33%	30-35 mm	28-33%	30-35 mm	0-5 mm
Road Race Bikes	23-27%	25-30 mm	23-27%	25-30 mm	0-5 mm

**There is no magic sag number.** If you like the feel of the bike with less or more Sag than these guidelines, that is fine. Less Sag on the rear will make the bike turn quicker. More Sag will affect bottoming (though spring rate has a bigger affect than Sag). **Note:** If significant preload or no preload is required for proper sag spring rate change is required. Contact Race Tech if this option is needed.

## G3-S Dual IFP (Internal Floating Piston) Shock Adjustments



**Preload Adjuster Rings:**  
Sets Spring Tension to Adjust for Load & Sag

- Tighten for more preload/less sag
- Loosen for less preload/less sag
- Adjust in 1-2 turn increments
- Preload range 3-25mm
- Initial Setting 4mm Dirt, 8mm Street
- One turn on adjuster ring 1-1.5mm
- **5-10mm initial preload setting**

**Rebound Damping Adjuster Knob:**  
Controls Speed of Shock re-extension

- 30-40 Clicks possible adjustment:
- Inwards/Right = stiffer/slower
- Outwards/Left = softer/faster
- Adjust in 1 to 3 click increments
- **17-22 Clicks out standard initial setting**

**Ride Height Adjuster:**  
Changes Shock Length for Chassis Geometry  
(Optional, not pictured here, position reference only)

- Not shown in this picture, refer to Piggy Back Style below for Ride Height Adjuster Info
- Typically used on Road Race applications, not Street or MX.

## G3-S Dual Piggy Back Reservoir Shock Adjustments



**Compression Damping Adjuster Screw**  
Tunes Shock Low Speed Response to Bumps  
(Reservoir Style Only, not found on IFP Models)

- 4.5 turns adjustment:
- Initial Setting 2.5-3 turns
- Inwards = stiffer/slower
- Outwards = softer/faster
- Adjust in 1/2 turn increments
- **Initial setting is 2-3 turns out**

**Preload Adjuster Rings:**  
Sets Spring Tension to Adjust for Load & Sag

- Tighten for more preload/less sag
- Loosen for less preload/less sag
- Adjust in 1-2 turn increments
- Preload range 3-25mm
- Initial Setting 4mm Dirt, 8mm Street
- One turn on adjuster ring 1-1.5mm
- **5-10mm initial preload setting**

**Rebound Damping Adjuster Knob:**  
Controls Speed of Shock re-extension

- 40-45 Clicks adjustment:
- Inwards/Right = stiffer/slower
- Outwards/Left + softer/faster
- Adjust in 1 to 3 click increments
- **17-22 Clicks out standard initial setting**

**Ride Height Adjuster:**  
Changes Shock Length for Chassis Geometry  
(Optional, not found on all models)

- 6-10mm Adjustment Range
- Loosen jam nut, turn adjuster nut
- Initial setting is zero added length
- Turn outwards to increase shock length
- Turn inwards to decrease shock length
- Adjust in 2-3mm increments
- Typically used only on Road Race Shocks
- Optional on both IFP & Reservoir Shocks

