



# **RACE TECH**

**THE SCIENCE OF SUSPENSION**

**SUSPENSION | PERFORMANCE | ENGINEERING**



## Welcome

Dear Enthusiast,

Race Tech is preparing to celebrate its 30th Anniversary in 2014, and, I'd like to thank you for your interest in Race Tech. The past few years have been the best in history!

As you may know we are constantly working on our products and settings, as well as adding new ones to the lineup. Be sure to see the full lineup of Gold Valve Kits, G3-S Shocks, RT Hi-



Performance Springs, and a large selection of parts and tools to supply any suspension tuner.

If you have a motorcycle, ATV, or UTV; it is likely we have high-performance suspension products to offer. If we don't, let us know and we'll create some!

Visit racetech.com and do a Product Search to see what we offer for your bike, or give our knowledgeable and friendly sales staff a call at 951.279.6655 and we will help you select the ultimate setup.

We are pleased to manufacture in the USA, and remember; **everything we do is guaranteed.**

Good luck and great riding,

Paul Thede

## Table of Contents

### 3 Product Search/Learn Suspension

#### 4 Gold Valves

Forks and Shocks

#### 6 RT Hi-Performance Springs

Front and Rear Applications

#### 7 G2-R Cartridge Kits

Custom Suspension

#### 8 G3-S Custom Series Shocks

Front and Rear Applications

#### 10 ATV/UTV

OEM Shock Upgrades

#### 12 BMW

Complete Kits Front and Rear

#### 13 Sport Touring

Complete Kits Front and Rear

#### 14 Harley-Davidson

Complete Suspension/Lowering Kits

#### 15 Cruiser/Touring

Complete Kits Front and Rear

#### 16 Vintage

Forks, Shocks and More for Vintage

#### 18 Mini Bikes/Flat Track/Hillclimb

Mini Bikes, Flat Track and Hillclimb

#### 19 Supermoto/Super Singles/Drag Racing

Drag Racing/Land Speed Racing, 450 Super Single and Supermoto

#### 20 Adventure/Dual Sport

Suspension Upgrades Front and Rear

#### 21 Customs/Freestyle

Custom Bikes, Freestyle MX and Freestyle-Stunt Riding

#### 22 Coatings/Parts

Coatings, Fork Tubes and Suspension

#### 23 Parts

Replacement and Repair Parts

#### 24 Tools

Dedicated Tools and Lubricants

#### 27 Accessories

Apparel, Stickers, DVDs, etc...

#### 28 Distributors/Installers

Our Associates

## Product Search on racetech.com

Discover what Race Tech offers for you bike, ATV, or UTV by visiting the Product Search link at racetech.com. Using this feature, you can see a full listing of the parts available for your specific model, view part numbers and pricing, and even find out what spring rates are recommended for you. If you have a motorcycle, ATV, or UTV; it is likely we have high-performance suspension products to offer. If we don't, let us know and we'll create some!



## Motorcycle Suspension Bible

The *Motorcycle Suspension Bible* is based on Paul Thede's wildly popular Race Tech Suspension Seminars taught around the world. This step-by-step guide shows anyone how to make their bike, or their kid's, handle like a pro's. This book provides a clear understanding of the most misunderstood aspect of motorcycle performance. It explains the three forces of suspension, testing procedures, and the black art of chassis geometry. **IBSB01**



## Suspension Seminars 2014

Paul Thede's mechanical engineering degree along with racing and practical experience benefits those interested in suspension tuning. The Seminars are taught with a straightforward approach that emphasizes learning and progress – not confusing engineering terminology! Students leave with the practical understanding of suspension. If you are seriously interested in state-of-the-art suspension technology and tuning, you can't afford to miss these classes!



**Twice a year in Corona, CA**

**Suspension Theory**

**Shop Skills**

**Advanced Class**

### Trackside Testing Class

This class takes you trackside with RT Head of R&D, Rob Brown. You will get a first-hand look into Race Tech's R&D process using test riders. This course includes the former Kinologix class developed to teach riders and technicians interpret data acquisition information and use it to train riders to the highest levels.

\*Note: This class takes place trackside at a local motocross track.

## Gold Valve® Kits

Gold Valves kits allow for a custom setup for all riders, all skills and all terrains. Gold Valve pistons optimize the flow area putting valving control on the shim stack versus restricted stock pistons. This results in outstanding tunability. The Gold Valve System is a proven bolt-on valving package that improves control, traction, bottoming resistance and provides a firm yet plush ride. **Results are guaranteed!**



### Valve Kits for Forks

#### Type 1 Gold Valve®

These compression pistons remove the limitations of stock designs and provide a plush feel with drastically improved bottoming resistance. Type 1 Gold Valves soak up the small bumps and absorb the hard landings while also providing great comfort and control.



#### G2-R Gold Valve®

G2-R Fork Gold Valves are Dual Port Pistons often referred to as the "tuner's" valve. Designed to optimize the loading of the shims while improving flow, these valves can be preloaded, freeloader, and/or restricted. These valves are recommended for experienced tuners who are looking for limitless adjustment options.



#### Gold Valve® Combo Kits

Because Race Tech has found a high demand for models requiring upgraded Rebound Gold Valves along with mid-valve tuning, Race Tech is offering Compression and Rebound Fork Gold Valves in Combo Kits for 2014. The combination of Compression and Rebound Gold Valves creates unmatched plushness, bottoming resistance, and traction.

#### Gold Valve Cartridge Emulators®

Gold Valve Cartridge Emulators make damping rod style forks perform like cartridge forks. These tunable valves sit on top of the damping rods and are held in place with the main spring. This is a simple device that transforms antiquated damping rod forks found on many mini's, dual sport, vintage, cruisers and street bikes.

- Firm Yet Plush Ride • Completely Tunable • Improved Control and Handling • Cost Effective
  - Easy to Install • AHRMA Legal • Dirt or Street
- Like cheating, but it's not!**

#### Rebound Gold Valve® Fork Kits

Many rebound valving systems are grossly inadequate. Our dirt FRGV kits allow adjusting the mid-valve and provides better tuning options. For Street and Road Race our HFR (Hi-Frequency Response) kits are specifically designed for racing but can be used for street applications as well. They provide better traction on small or sharp bumps that require fast valve opening and closing.



FRGV Series



**Race Tech's Digital Valving Search (DVS)** carefully calculates proper suspension setup for the individual rider including spring rates, shim stacks, and clicker settings. With over 300,000 possible combinations, DVS allows each Gold Valve Kit to be a professional "revalve in a box", whether you're an experienced suspension tuner or a first time installer.

### Valve Kits for Shocks

#### G3-LD Gold Valve®

New Shock Gold Valve Kits for the 46mm KYB and 50mm WP, KYB, and Showa shocks provide better control for the rider. One of over 60 Gold Valve designs, this piston design creates more shim leverage and decreases the angular shim deflection. The benefit is more consistent damping and faster lap times!

36, 40, 46 and 50mm



#### Steering Damper Gold Valve®

These Gold Valve Kits are for the steering dampers found on the 2008+ Honda CRF450Rs. The stock damping is inadequate. Our kits provides 3 options: soft, standard and hard. **CMGV Series**



#### PDS Telescopic Needles

Telescopic Needles replace the stock, shorter compression-metering needle. This innovative design is gradually tapered and collapsible making it more progressive and consistent. **SWCN Series**

Special thanks to Terry Hay of Shock Treatment for the design of the Telescopic Needles and Rebound Separator Valves

2010  
SWCN 14



A Must Have for  
SX/FMX/Supermoto

#### Shock Rebound Separator Valves

Rebound Separator Valves replace the Shock Shaft Nut with an asymmetric valve (it has a different flow rate in each direction). Testing shows that when rebound damping is quick enough to get good traction, the compression is too mushy. In Dirt the RSV cures the vague feeling and bottoming. For Pavement, the added benefit is pitch control (front to back movement during acceleration and braking).

**SMRS Series**





## RACE TECH HI-PERFORMANCE SPRINGS

for Dirt and Street

**These are the finest springs in the industry.**

We manufacture over 500 precision spring designs. Our HP Springs have a high stiffness-to-mass ratio. In other words; our springs are lightweight for their particular rate. This requires the finest materials and processing.

- Extremely Close Rate Tolerances
- Shot-Peened, Heat-Treated and Pre-Set Means No Sacking
- Guaranteed

Go To  
Spring Rate Search  
at [racetech.com](http://racetech.com)



SPECIAL APPLICATION

### KTM PDS Springs

The Race Tech SRSP 6326P Series HP Springs are far more progressive than stock! They give your KTM more resistance to bottoming and a plusher ride at the same time. The difference is amazing! Guaranteed.

FOR 65's, 85's, and BIG BIKES



### Sportbike Springs

Race Tech HP Shock Springs for Sportbikes are made of the same high quality materials, have the same tolerances, and high stiffness-to-mass ratio as all our springs.

FOR CBR, GSX-R, R1/ R6, ZX and DUCATI

### Twin Chamber Pressure Springs

Race Tech's Dual Chamber Pressure Springs (FRSP 2610) fit both Showa and KYB forks. See website for recommended rates.

Pressure Springs Available

FRPS 261010 - 1.0 kg/mm • FRPR 261014 - 1.4 kg/mm

FRPS 261018 - 1.8 kg/mm • FRPS 261022 - 2.2 kg/mm

See Product Search at [racetech.com](http://racetech.com)

### G2-R 25mm Cartridge Fork Kit

G2-R 25mm Cartridge Kits for Sportbikes provide a firm, plush, and consistent stroke resulting in a ride that provides more "feel" and outstanding traction. Made of the highest quality materials, these complete kits come pre-valved and include fine tuning charts.

- 25mm G2-R Gold Valves • Hi-Frequency Response Rebound Gold Valves
- Ultra-low friction piston bands • Special Low Friction Coatings
- Modular Design for Quick New Model Fitment



FRCK Series

### More G2-R Cartridge Kit Applications

Check out Product Search at [racetech.com](http://racetech.com) to see if a G2-R Cartridge Kit is available for your model. If your model isn't listed, but you'd like us to develop a G2-R Cartridge Kit for you, please contact us. With some basic information, we can create a custom kit for you.

### 25mm G2-R Cartridge Kits XR1200

Race Tech's 25mm G2-R Cartridge Kit provides Rebound and Compression Adjustability. Our Cartridge Kit comes with Fork Caps that provide Preload Adjustment for both fork legs.



Used to win the  
AMA XR1200  
Championship Series  
in back to back  
seasons!



### 25mm G2-R Cartridge Kits BMW

F800GS/ST, G650 X-Challenge, HP2



Motorcycles/Quads/UTV/SxS/Trophy Karts/Mini Sprints

## G3-S Custom Series Shocks

All shocks are built to order. Valving and spring rates are selected dependent on individual needs (weight, height, riding type and skill level). The same quality components are used on all front and rear Race Tech G3-S Custom Series Shocks whether they are standard or long-travel, non-reservoir, remote-reservoir or piggyback.

These shocks can be updated or changed as skill increases or applications change.

- Large Diameter Shafts
- Gold Valves
- High-Performance Chrome Silicone Springs
- Stainless Steel Spherical Bearings
- Ultra Slick Shock Fluid
- Any Length - Any Travel

IFP Series



Honda GROM Shock Options



## ATV Piggyback Series

These shocks feature huge 52mm Bladder Reservoirs and extremely adjustable Hi and Low Speed Compression and Rebound Adjusters. The shocks come standard with Gold Valves, Dual or Triple Rate High-Performance Springs and Race Tech's DVS custom valve and spring settings.

- Custom Setup - Performance Guaranteed!

### Steve Prieto - ATV G3-S Shocks

"I am currently racing the ATV WORCS series. My results have improved immediately after adding your G3-S suspension to my quad."

## G3-S Custom Series Shock Options



1 Rebound Adjustment



2 High and Low Speed Compression Adjustment

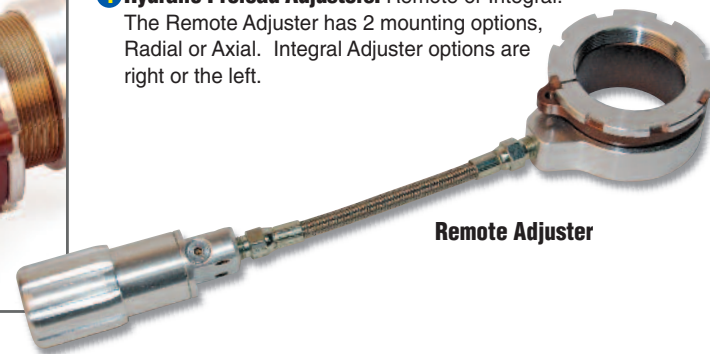


3 Ride Height Adjuster



Integral Adjuster

- 4 Hydraulic Preload Adjusters: Remote or Integral. The Remote Adjuster has 2 mounting options, Radial or Axial. Integral Adjuster options are right or the left.



Remote Adjuster

5 Black Anodizing



Drop Piggyback

6 Custom Spring Colors —Any Color You Want!



Remote Reservoirs



Piggyback



## High Performance Springs

for ATV and UTV

Most ATV and UTV stock shocks are under-sprung. **Race Tech Shock HP Spring Kits** provide a personalized setup for your type of ATV/UTV action.

**Race Tech ATV Front Shock HP Spring Kits** are dual or triple rate depending on the application. They contain all necessary Springs, Separators, and Retainers as well as additional Crossover Rings for adjustment.

- The **Rear Sport\* Setup** calls for a single Main Spring and, in some cases, special Sport Mounting Hardware.
- The **Rear Race\* Setup** consists of a Base Unit and a Main Spring. The Base Unit contains special Race Mounting Hardware and the NPL (no preload) Spring. The Main Spring is purchased separately.

All of the Spring Kits include complete instructions.  
See [racetech.com](http://racetech.com) for applications.

Made in  
U.S.A.



## ATV Race and Sport Series

\*What's the difference?

**Race Series** is a no-preload (NPL) setup for riding types such as motocross and cross-country racing where a low center-of-gravity and high speed cornering is required. The Race setup allows the ATV to sit lower than stock without sacrificing wheel travel. The Ride Height is fully adjustable to compensate for various track conditions.

**Sport Series** is a preloaded setup that maintains a "close to stock" ride height. The Sport setup is good for, but not limited to, desert racing and recreational riding where maximum active travel and ground clearance is desired.



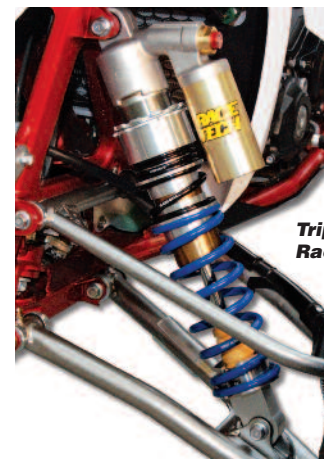
## Conversion Kits

**One of the most challenging aspect of ATV Suspension Setup** is there are practically no two vehicles the same! With the massive number of A-Arm and wheel offsets available as well as the number of types and styles of riding, the combinations are staggering. **Race Tech's ATV Gold Valve Conversion Kits transform your stock shocks into a high performance, state-of-the-art, racing suspension.** Whether it's racing, dune riding or family trail rides, we have suspension products to give you performance you crave and safety you demand. We determine your custom settings with our DVS (Digital Valving System) that selects valving, spring rates and settings from the riders weight, riding style, terrain and vehicle type. **Results are guaranteed!**



- Custom Setup
- Low-Friction Seals
- Ultra Slick Shock Fluid
- Race Tech Gold Valves
- HP Spring Kits

Conversion Kits are virtually complete as is!



Triple Rate  
Race Setup



## ATV Springs

See [racetech.com](http://racetech.com) for applications.

### ATV Rider Magazine

"The suspension feels plush when you're riding slow, and firm when you're riding hard- it really is the best of both worlds. You can jump the Raptor, blitz it through whoops, and slam it into corners, and it does all of this with zero drama. It really is a stellar package, without the added cost of extended A-arms and a longer swingarm."

**We also service, revalve, and respring all major ATV O.E.M. and aftermarket shocks** including hlns, Fox, Custom Axis, Works Performance, P.E.P., Elka, KYB, Showa and TCS. With TCS shocks, your Remote Reservoir and Non-Reservoir Front Shocks can be **converted** to Piggyback Reservoir Shocks, and we have replacement parts!





## HP Fork Springs, Cartridge Fork Kits, Adjustable Fork Caps and G3-S Shocks for BMW

**All suspension is built to order.** Valving and spring rates are selected dependent on individual needs (setup, weight, height, riding type and skill level). The same quality components are used on all Race Tech G3-S Custom Series Shocks whether they are standard or long-travel, piggyback, remote-reservoir, or internal reservoir. **Satisfaction guaranteed!**

### IFP Series

- IFP (Internal Floating Piston) non-remote reservoir style shock has Adjustable Rebound and Spring Preload



Made in U.S.A.

### Modular Piggyback Reservoir

- Modular Piggyback Reservoir has externally adjustable High and Low Speed Compression Damping, Adjustable Rebound and Spring Preload
- Hydraulic Preload Adjuster Available



- Spring colors are not guaranteed but are customizable

### Andrew Macpherson – BMW HP2

"I had the 'full kit' with Race Tech's springs and revalved cartridges dialed in to my ride weight. The bike has gone from being a little skitterish and never feeling 100% stable mid corner on California's rough and bumpy mountain roads, to feeling like it is gliding on rails...The difference is so incredible that it defies belief, all I can say is if you haven't done this upgrade, it is an absolute must do for the Megamoto."

### 25mm G2-R Fork Kit



### Remote Reservoir Style

- Remote Reservoir style has externally adjustable High and Low Speed Compression Damping, Adjustable Rebound and Spring Preload



### Fork Emulator Gold Valve Kit

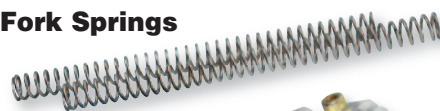


### Adjustable Preload Fork Caps

- External Compression and rebound adjustability F800GS and F800ST



### HP Fork Springs



## G3-S Shock for Front Telelever System

- Piggyback Reservoir Style
- Adds Preload, Compression and Rebound Adjustability



## HP Fork Springs, Complete Fork Kits, Adjustable Fork Caps, Shock Kits and G3-S Shocks for Sport Touring

**We created Fork and Shock kits** to address the special needs of the Sport Touring models. Our innovative kits include Complete Fork Kits, HP Springs, Fork and Shock Gold Valve Kits and the all new G3-S Custom Series Shocks. Go to our website and read the rider testimonials.

### Suspension Upgrades for These Bikes & More!

- ST1100/1300 • VFR750/800 • ZG1000/1400 Concours • V-Strom 650/1000 • Bandit 1200/1250
  - FJR1300 • Tiger 1050 • Triumph Sprint ST/RS
- See [racetech.com](http://racetech.com) for applications

## Fork and Shock Valving Kits

We've been setting up sport touring and touring bikes for quite a while now! Our technology began with damping rod forks and has expanded to cartridge forks and shocks. Our latest Gold Valve Fork Kits include both compression and rebound valving. The shock Gold Valve Kits dramatically improve the damping and provide more consistent rebound. We also have the proper spring rates available.

Check [racetech.com](http://racetech.com) and search your bike model for a complete list of available parts.

### Complete Fork Kits



- ST1300 Fork Caps
- Preload and External Compression and Rebound Adjusters



### Shock Gold Valve Kits

### Jeff Tanner – ST1300

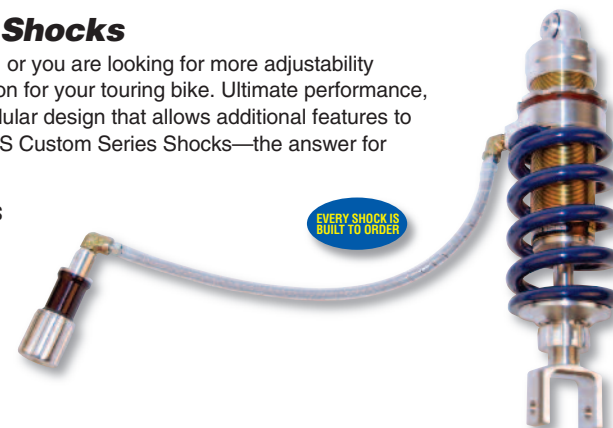
"I am extremely pleased with the modified Race Tech suspension setup for my ST1300! Wow, what a difference in overall performance. One more request – would you please send me some Race Tech stickers to adorn the ST and provide some free advertising?"

## G3-S Custom Series Shocks

If your stock shock is not rebuildable, or you are looking for more adjustability consider our replacement shock option for your touring bike. Ultimate performance, adjustability options, and unique modular design that allows additional features to be added later, make Race Tech G3-S Custom Series Shocks—the answer for touring bikes!

- Remote and Non-Reservoir Setups
- Large Diameter Shafts
- Gold Valves • HP Springs
- External Compression and Rebound Adjustability
- Guaranteed • Made in the USA

Check out [racetech.com](http://racetech.com) for details and bike models.



EVERY SHOCK IS BUILT TO ORDER



### Complete Suspension and Lowering Kits for Harleys

Our innovative Suspension Kits for Harleys are complete suspension packages. Each kit contains HP Springs and valving. It also includes related hardware to lower the motorcycle if you choose.

#### Kits for Most Models



Made in U.S.A.

Custom Lowering Available thru Race Tech's Service Department

### G3-S Custom Series Shocks

- IFP or Piggyback Style Available
- Large Diameter Shafts • Gold Valves
- High-Performance Chrome Silicone Springs
- Stainless Steel Spherical Bearings
- Externally Adjustable Compression and Rebound Damping
- Ultra Slick Shock Fluid



### 25mm G2-R Cartridge Kits XR1200

Race Tech's 25mm G2-R Cartridge Kit provides Rebound and Compression Adjustability. Our Cartridge Kit comes with Fork Caps that provide Preload Adjustment for both fork legs.



Winner of the AMA XR1200 Championship Series in back to back seasons!

### Gold Valve Cartridge Emulators®

- Tunable valves sit on top of the damping rods held in place with the main springs
- Make damping rod forks perform like well-tuned cartridge forks
- Guaranteed!

### Caddies Softail Shocks

- Compact shock body of only 2.5 inches in diameter
- Innovative internal cartridge eliminates cavitation
- Race Tech Gold Valves at the heart of the damping system and can be custom valved
- Come with HP Chrome Silicon Springs
- Constructed of the highest quality materials
- Rebuildable
- Guaranteed



### HP Fork Springs, Complete Fork Kits, and G3-S Shocks for Cruiser and Touring

Race Tech has the solution for the mushy forks and soft rear shocks found on most cruisers and touring bikes. Proper fork and shock spring rates are the very first suspension modification you should consider. Secondly, our Fork Gold Valve Kits provide more damping and rebound control for your riding. Finally, we have replacement G3-S Shocks for most models.

#### Suspension Upgrades for These Bikes & More!

- Gold Wing GL1800 • GL1500 Gold Wing • Valkyrie • VTX1300 • VTX1800
- VN1500 Vulcan • ZG1200 Voyager • Boulevard & Intruder • Rocket 3 • V-Star & Road Star

See [racetech.com](http://racetech.com) for applications



### G3-S SHOCKS

Race Tech has replacement shocks for most cruiser models. Please check our Product Search for details on the style shock available.

#### Gold Wing GL1800 Shock Options

You have two options to upgrade the shock:

- The first option is a **Gold Valve Conversion**. With some modification the stock shock is fully rebuildable. We install a Shock Gold Valve and spring with custom settings.
- The second option is a new **G3-S Custom Series Shock** that comes with an external Rebound Adjuster.
- Both options include a new upgraded steel Hydraulic Line to solve the preload issues.



#### Marc Connelly – GL1800 G3-S

"I am really impressed at how good a GL 1800 can feel with the G3-S Shock installed. I have total confidence that this shock will never have a customer bringing a bike back 'cause the ride is not to their liking. The ability for the bike to quickly go from right tire side to left tire side is incredible! Absolute planted rear end!!!"





## Vintage Bikes

Race Tech welcomes Vintage Enthusiasts! We have expanded our Gold Valve Cartridge Emulator, Fork Spring Kits, Shock Gold Valve Kits and G3-S Custom Series Shock Applications.

**Custom applications welcomed, contact us if your bike is not listed on the web.**



Race Tech is proud to be the co-title sponsor of AHRMA Racing.

- G3-S Custom Series Shocks
- Fork Emulators • Fork Springs
- New Gold Valve Shock Kits for Vintage
- Kits for Works Performance Shocks
- Brake Arcing • Re-Chroming • Rebuilds

**Dean Middleton – AHRMA Vintage Street**  
2010 WERA Regional and National Champion

*"I won every race I entered this year, barring one weekend... With the help of Matt at Race Tech I managed to get the bike handling better than ever and shaved seconds off many of my best lap times at various tracks..."*

Race Tech supports CALVMX



## Fork Emulator Kits

We have been custom valving vintage bikes way before they were vintage bikes! Gold Valve cartridge Emulators have proven to be one of Paul Thede's most successful inventions. Some of our new Emulator fork kits for vintage bikes have a unique adapter that has a piston ring which seals the fork chamber for better damping. This provides much better compression damping and more consistent rebound.

- 33 to 43mm and many more!
- KYB, Marzocchi, Maico, Betor, Ceriani and Showa forks

Go to [racetech.com](http://racetech.com) for a complete list of available bike models.

**NEW APPLICATIONS:**  
Kits for Maico and CZ



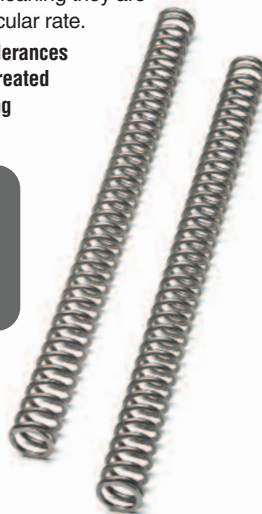
## High Performance Fork Springs

Our HP Springs for vintage bikes are made of the same finest materials and quality processing as our modern bike springs. Our springs have a high stiffness to mass ratio; meaning they are lightweight for their particular rate.

- Extremely Close Rate Tolerances
- Shot-Peened and Heat-Treated
- Pre-Set means no sacking

**31 to 43mm forks.**  
Available for Betor, Ceriani, KYB, Marzocchi, Maico, and Showa forks

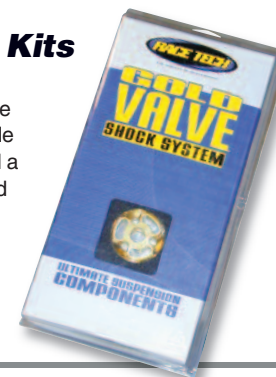
Please see [racetech.com](http://racetech.com) for custom spring rate search and available rates.



## Shock Gold Valve Kits for Vintage

Many of the old bikes had too little room on the shaft for modern style valving. We have just developed a really cool solution that fits a Gold Valve to many of these models.

**Call for details!**



**Gary King – Vintage DIRT G3-S**

*"I wish I would have just bought these shocks 2 1/2 years ago. It would have saved me a lot of money. I have only adjusted the high speed compression 1/2 turn in since installation. I am no longer afraid of missing a landing on doubles and table tops. No more death grip is needed through whoop sections. I actually find myself looking forward to the long whoop sections."*

## G3-S Custom Series Shocks

Race Tech has replacement shocks available for vintage bikes! The same quality G3-S Custom Series Shock components are used on our shocks for vintage dirt and street. Piggyback, Remote and Non-Reservoir styles available.

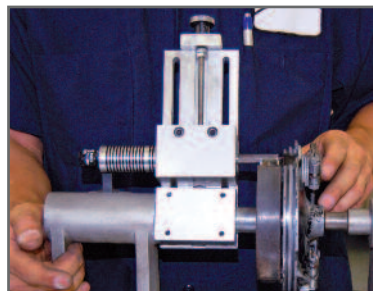
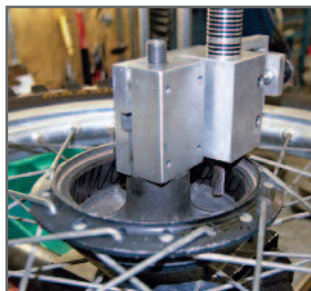
- Large Diameter Shafts • Gold Valves • HP Springs
- External compression and rebound adjustability

Check out [racetech.com](http://racetech.com) for details and bike models.



## Drum Brake Arcing - Street & Dirt

We've been brake arcing since back in the day! This includes turning the drums (with the wheels laced) and arcing the shoes to the specific drum size. **Call us for details.**





## Mini Bikes

For the special mini bikes such as the Metrakit Road Racer, Cobra Motocrosser and KLX/DRZ 110 Pit Bike, Race Tech has complete shock and fork kits and custom shocks. G3-S Custom Series Shocks use the same proven Gold Valve technology and HP Springs as the big model Shocks. They are hard-anodized, billet aluminum, have remote reservoirs with adjustable preload and compression and rebound adjusters. Fork Kits contain HP Springs and Gold Valves.

## Gold Valve Fork Kits for KTM 50/65

- The Race Tech Gold Valve Fork Kit for the KTM 50/65SX (2012-2014) adds a Gold Valve and modern shim design valving to control damping, providing a plush initial feel with drastically improved bottoming resistance. In addition, a reservoir is added to separate the air and oil providing a smoother and more consistent feel. Each setup is personalized for you and 100% guaranteed to exceed even your highest expectations.



## Flat Track

Whether you are racing with a framer or a converted motocrosser, we have custom solutions! The first step is getting the right springs. This helps to achieve a balance between shock and forks. For cartridge or damping rod forks we have Gold Valve Kits. For the rear we can custom build a G3-S Shock for any bike.



### Jimmy Wood – Dirt Track

*"The gains in performance that I got with the Race Tech shock dropped my lap times the first session I went out! I really liked how controlled and stable it made my bike!"*

## Hillclimb

The challenges of hillclimb racing are numerous. Course conditions, hill steepness, and obstacles are never the same; and each bike is drastically different. Race Tech has been perfecting hillclimb settings and winning for years with Team Peterson. Careful setup is required; call us to get the proper setup for your hillclimber.



## Drag Racing/Land Speed Racing

Race Tech has suspension modifications for Drag Racing, Bonneville Salt Flats and Dry Lake bikes! FL Racing, together with Race Tech has set over 50 Land Speed Records since 2004—Race Tech Owner/President Paul Thede has 13!



## 450 Super Single

Race Tech is pleased to support the exciting new 450 Super Singles Road Racing Class based on popular 450cc MX and Enduro bikes. This requires converting the stock suspension from Off-Road to Road Race and installing special Triple Clamps and Fork Bottoms to obtain the correct geometry! Complete Fork & Shock Conversion packages and Chassis optimization are available! **Call for details.**



## SuperMoto Suspension

We have spent countless hours developing and testing suspension settings with Supermoto Champions Darryl Atkins, Micky Dymond, Benny Carlson and 2009 AMA Supermoto Champion Sylvan Bidart. Our Setup includes: Gold Valves, High Performance Springs, Rebound Separator Valves, Chassis Modifications, special Extreme Riders Adjustable Fork Bottoms, or Triple Clamps (depending on model). Kits installed exclusively through Race Tech and select Race Tech Centers. **Guaranteed!**



**Fork Bottoms provide the correct geometry**

### Shane Narbonne – Supermoto

*"At the Supermoto race at Loudon, NH...I bolted the suspension right up. Went out for practice and the bike worked so good! At race time there was a lot of fast guys and I was starting from the third row so I had some work to do to get up to the front. On the first lap I was 2nd and then going into turn one, I took over the lead. After that I never looked back and I opened a gap of 7 seconds by the end of the race. It makes a big difference having Race Tech suspension on a motard bike."*



## Adventure/Dual Sport Riding

Race Tech has suspension upgrades available for the popular Adventure/Dual Sport riding segment. For BMW, Honda, Kawasaki, KTM, Suzuki and Yamaha models we have suspension modifications available to firm up and upgrades to add performance to your ride. For both front and rear we have solutions!

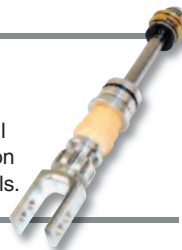
### Honda CRF250L

Honda recently launched a new entry into the dual sport market with their very economical and extremely fun CRF250L. In stock form, the forks, featuring a single spring design are undersprung for any rider over 100 pounds, and the non-rebuildable rear shock lacks the ability for tuning an extremely undersprung and under-damped rear end. Race Tech went to work to develop an RT Hi-Performance Fork Spring Kit, Gold Valve Fork Kit, and G3-S Custom Series Shock for the CRF250L.



### BMW R1200GS

The R1200GS suffers from soft suspension when riding off-road or braking hard on the street. Our goal was to make it firmer without losing its plushness. We decided the best way to go is to create a G3-S Custom Series Shock for the Telelever front end and one for the rear. There are two versions of the G3-S Shock available for the rear - with and without a remote reservoir.



### Suzuki DR650SE/Kawasaki KLR650

For the Suzuki DR650SE and Kawasaki KLR650 we have developed our Fork Emulator Kit, Shock Gold Valve Kit, optional Fork and Shock Spring rates and our all new Shock Shaft Assembly. The Shock Shaft Assembly provides custom suspension options and tuning adjustments for your DR or KLR 650. See page 3 for more details.



### Suzuki DL650 V-strom

For the 2004-10 Suzuki DL650SE we have a Fork Emulator Kit, HP Fork Springs, a Shock Gold Valve Kit, and a complete G3-S Custom Series Shock. All of the kits allow for custom tuning and provide a better ride on and off-road. Our G3-S Shock is available - with or without a Hydraulic Preload Adjuster.

### KTM 620 LC4 Duke

For KTM's older models such as the 620LC4 we have fork and shock Gold Valve Kits that dramatically improve the ride quality. We custom valve the settings that suit your riding style and terrain preferences.

### KTM 950-990 Adventure/Super Enduro

For the popular KTM on/off-road models we have our Fork Emulator Kits and Fork Springs available to customize and firm up the front end for off-road riding.

### KTM 990 Super Duke

This bike model has inspired many RTW expeditions! We have both fork and shock Gold Valve Kits available to customize the damping settings for your riding. We also have fork and shock spring optional rates to help firm up the ride for off-road movement.



## Customs

For over 26 years Race Tech has engineered suspension for Custom and Café Racer machines. Race Tech offers Gold Valve Fork and Shock Kit upgrades, HP Spring Kits and Suspension Services for OEM components. All-new custom built G3-S Shocks are also available. From Classic Café Machines and Vintage Racers to Modern Retro Bikes, Race Tech offers suspension you never dreamed possible!

### Café Racer Magazine

*"Back before, the forks (Project CB) would dive so much under braking that you could hear them bottom out. That caused me to be careful using the brakes...The Race Tech fork rebuild cured all of that nose-dive nonsense!"*



## Freestyle MX

Since its inception, Race Tech has been the leading name in FMX suspension. With settings developed by top riders like Mike Metzger and Destin Cantrell, no one knows Freestyle MX suspension like Race Tech. **Race Tech has the answers!**

### Destin Cantrell - Freestyle MX

*"In freestyle it's a must to have great suspension and Race Tech by far is the leader in the suspension industry"*

### Paul Smith - Freestyle MX

*"I'm not just a ramp kid...I was a pro level MX racer before I went into FMX full time, so I know suspension and Race Tech is the best in the business!"*



## Freestyle/Stunt Riding

Race Tech has worked with top rider, Edub, shredding front tires during nose wheelies; and successfully earned the World Record for longest nose wheelie with Kane. Race Tech has been involved with Freestyle Street Riding since the beginning and has the settings to make the best even better. **Race Tech has the answers!**





## COATINGS

Race Tech has been testing and applying special coatings on suspension components for over 25 years. Check out our exclusive next generation coating - **DLC<sup>2</sup>**. Call for details.

- Fork Tubes
- Fork Caps
- Fork Feet
- Fork Rods
- Shock Shafts
- Shock Bodies
- Shock Collars
- Shock Reservoir Caps
- DLC<sup>2</sup>
- Anodizing
- Kashima Coating
- Hard Chrome
- Ultra Slick Surface Treatment



### STEEL COMPRESSION POSTS

A must have for pro SX, AX, FMX. Extremely durable for extreme environments.



### 19MM SHOCK SHAFT KIT

Kit style internals for increased durability. Includes integrated rebound separator. For pro SX, AX, FMX.



### ALUMINUM RESERVOIR PISTONS

RT Billet Dual-Chamber Fork Reservoir Pistons replace stock plastic pistons which have a tendency for failure.



### TNK FORK TUBES

Titanium coated, high-quality OEM replacement fork tubes available in 4 different colors.



### EXTREME RIDERS FORK BOTTOMS

A.K.A. Axle Holders, Axle Lugs - we change the wheel offset for radically improved geometry. Supermoto and Super Singles.



### FORK TANKS

Air Control System allows oil level to automatically adjust for big hits, braking bumps and G-outs.

- FMTK 01 - Big Bikes
- FMTK 02 - Mini Bikes



### PIVOT WORKS PRODUCTS

Race Tech distributes Pivot Works' Kits for modern dirt bikes and ATV's. The OEM Quality Replacement suspension parts come as a complete kit.



### ADJUSTABLE PRELOAD FORK CAPS

Provides external Compression and Rebound adjustability. Available for BMW, Ducati, Hyosung, Kawasaki, and Suzuki models.



### R1 & R6 PRELOAD ADJUSTER

Stock R1 & R6 ramp style spring preload adjusters provide a very limited range of adjustment. This threaded collar design provides a wide and precise adjustment. **SYPA S4001**



### SHOCK LOWERING SPACERS

Internally install on the shock shaft to lower the bike up to 4 inches depending on models. Not available for shocks with top-out spring. 14, 16 and 18mm shock shafts. **SPLS Series**

## Race Tech has the largest assortment of replacement and repair parts for motorcycle and ATVs!

- Bushings • Seals • Bumpers • Bladders • Bearings

Please check [racetech.com](http://racetech.com) or call for a list of available parts.



### SUZUKI LTR450 CAPTURED NEEDLE BEARING

The LTR450 stock shock needle bearing are not captured so they fall out easily. This replacement needle cage solves the problem.

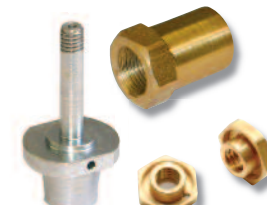
**HMMB 162212**



### VALVING SHIMS

We have a wide variety of the highest quality valving shims. 6, 8, 10, 11, 12, 16 and 20mm ID

**Call for details**  
**Quantity Breaks Available**



### THREAD REPAIR KITS

- Fork Rebound Holder
- Dampening Rod
- Repair Nut



### BUSHINGS

OEM quality fork and shock bushings.

**FMBI Series:** Inner Bushings

**FMBO Series:** Outer Bushings

**SMSB Series:** Shock Bushings



### SEALS

OEM quality KYB, Showa and WP Fork dust and oil seals, shock seals, and seal head assemblies.



### BOTTOM-OUT BUMPERS

Check your bumpers for wear and tear at every rebuild. OEM quality for KYB, Showa and WP shocks.

**See [racetech.com](http://racetech.com) for Applications**



### BLADDER CONVERSION KITS

Bladder Conversion Kits.

**SMBK Y4001** - Raptor/Warrior

**SWBL 01/02/03** - WP

**SWBL 04** - KTM 65

**SWBL 05** - 08/10 KTM 52mm WP

SWBL 04/05 Kits include reservoir tube & cap



### HI-VOLUME RESERVOIR CAPS

Billet aluminum, increased volume, and Schrader Valve.

**SMRC Series** - 40, 40.5, 46,

48.5, 52, 54, 57, 60, 64mm



### BLADDERS

Replacement bladders for KYB and Showa.

**SKBL Series** - KYB

**SSBL Series** - Showa





### FORK SPRING COMPRESSOR

Compresses the spring while the fork cap is removed from the rod. **TFSC 01**



### FOOT-OP SPRING COMPRESSOR

This unique FOOT operated fork spring compressor saves time. Mounts on the wall. **TFSC 02**



### BPF FORK TOOL

Removes the seal head assembly from the lower fork tube in 41/43mm BPF. **TFCH 06**



### FORK TUBE TOOL

Used to assemble and disassemble fork tubes from the axle lugs. **TFTT 01**



### CARTRIDGE HOLDING TOOLS

Castle-style tool holds cartridges during disassembly. **TFCH Series**



### CARTRIDGE ROD HOLDING PLATE

Allows you to work on the bottom nut or the fork cap. Fits 10 to 12.5 mm rods. **TFHP 01**



### FORK BLEEDING TOOLS

**TFBT 1010** 10x1.0 & 10x1.25  
**TFBT 1212** 12x1.0 & 12x1.25  
**TFBT 02S** - set includes both (Use with TFSC tools.)



### FORK SEAL DRIVERS

For inverted and conventional forks. **TFSD Series**



### 24/32/41mm FORK CAP WRENCH

This unique tool for Fork Caps offers three sizes (24, 32, 41 mm) and fits a variety of Sportbikes. **TFCW 243241H**



### SHOWA 46/50mm FORK CAP WRENCH

Showa 46 & 50 mm Dual Chamber Fork Caps. **TFCW 4650**



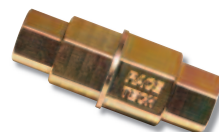
### 45/49mm FORK CAP WRENCH

Fits KYB Dual-Chamber and Showa BPF forks. **TFCW 4549**



### KTM WP FORK CAP WRENCHES

**TFCW 02** - KTM forks that require a pin spanner.  
**TFCW 50H** - 50mm hex head for 2007+ SX.



### 17/19/22/24mm HEX AXLE TOOL

A.K.A. Big old Allen wrench. Fits many sport and dirt bikes. **TFHD 1724**



### COMPRESSION ADJUSTER TOOLS

**TFCA 01** - A.K.A. Really short screwdriver.



### YZ DUAL CHAMBER COMPRESSION TOOL

Removes the Compression Assembly from the cartridge. **TFCT 35**



### KTM REBOUND PISTON RING COMPRESSOR

This tool compresses the rebound piston ring to insert it into the cartridge tube. **TFPC 2328**



### DAMPING ROD HOLDING TOOL

Some Damping Rods are difficult to remove because they spin. This tool solves that issue.



### PRO FORK OIL LEVEL TOOL

Collapsible measuring tube for easy two handed use, not three hands! **TFOL 02**



### GRADUATED CYLINDER

500cc capacity. **TFGC 500**



### FORK SEAL INSTALLATION BAGS

Fork Seal Installation Tool is a really thick Poly Bag that is handy when installing fork seals on the tube. 5 pack. **TFBS 01**



### VACUUM MASTER SHOCK FILLING TOOL

This cost-effective tool fills and bleed shocks, virtually eliminating air pockets. **TSVM 01**



### "BULLET" TOOLS

Protects the shock shaft seal during installation. 12.5, 14, 16, 18x12, 18x16mm **TSSB Series**



### SEAL HEAD SETTING TOOLS

**TSSS 01** (40 to 50 mm)  
**TSSS 01S** (street shocks)  
**TSSS 02** (50 mm WP)  
**TSSS 03** (33 to 36 mm)



### BUSHING DRIVERS

Installs shock shaft bushings into seal heads. 12.5, 14, 16 & 18 mm **TSBD SET**



### SWINGARM PIVOT NUT TOOL

Made of hardened tool steel. Fits Suzuki SV650/1000, DL650/1000 and GSX-R750W/1100W's. **TCPN 4301**



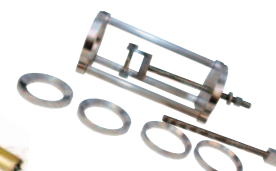
### WP PDS SHOCK NEEDLE TOOL

Removes the compression metering pin from the shock body on early KTM WP PDS. **TSPS 1524**



### WP PDS SHOCK NEEDLE T-HANDLE

Self-centering T-Handle, pro version. **TSPS T-Series**



### PORTABLE SHOCK SPRING COMPRESSOR

Simple and easy to use. Pat. Pend. **TSSC 02**



### SHOCK SPRING COMPRESSOR

Special safety pin. Easy maintenance for shocks. **TSSC 01**



### SHOCK PRELOAD ADJUSTING TOOL

Bent tip adjusts spring collars in difficult to reach places. **TSPP 01**



### CLIP TOOL

Gets behind the wire clips without digging into the shock bodies. **TSCP 01**



### RESERVOIR CAP TOOL

Screws onto the valve for easy removal of the bladder cap. **TSCT 01**



### SAG MASTER™

Makes measuring 'Race Sag' a snap. No need to subtract. **TSSM 01**





### NITROGEN GAUGE

Does not require a wrench. Easily reaches recessed valve stems. 0 to 300 psi. **TSNG 02**



### NITROGEN CHARGING TOOL FOR WP SHOCKS

The Race Tech tool clamps on to the reservoir. **TSNC 02** (Use with TSNG 02.)



### COMPRESSION ADJUSTER SOCKETS

Removes compression adjusters. Comes in a variety of sizes.

**TSCA Series**  
**TFCA 02** - R6 compression adjuster socket.



### NITROGEN REGULATOR

Accurately regulates nitrogen pressure from the bottle to the working pressure. 0 to 300 psi. **TSNR 01**



### WP NITROGEN FILL BOLT

A simple replacement for the stock WP Fill Bolt. **SPNV 0512** (Use with TSNN 01)



### NITROGEN HOSE

Special 800 psi nitrogen hose with "finger tight" flare nut quick couplings. **TSNH 48** (Use with TSNG 02, TSNR 01)



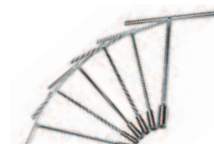
### NITROGEN NEEDLE

Used with self-sealing type rubber valves. **TSNN 01**  
**Replacement Needle TPNN 01** (Use with TSNG 02)



### DEBURRING TOOL

Handy tool removes burrs resulting from grinding away the factory peening during Fork Gold Valve installation. **TMBD 08**



### T-HANDLE TOOLS

High quality, deep sockets. **TTHS 02** (8,10,12,14,17 mm)  
**TTHS 03** (includes a 13mm)



### SHAFT HOLDING TOOLS

**TFSH 10** - 10,12,12.5, 14 mm  
**TFSH 14** - 14,16,18 mm  
**TFSH 20** - 20,24,29 mm  
**TFSH 32** - 32,35 mm



### PIN SPANNERS

Has unique reverse taper pins for superior grip. **TMPS 01** 4.0 & 4.5 mm  
**TMPS 02** 5.0 & 5.5 mm  
Replacement Pin Available



## LUBRICANTS



### Ultra Slick® Grease

Race Tech Ultra Slick Grease provides maximum lubrication and minimum friction for all seals, and bushing. **USSG 01**



### Ultra Slick® Suspension Fluids

Race Tech Ultra Slick Suspension Fluids are slippery, temperature-stable, long-lasting, non-foaming fluids which are at the heart of a "no-compromise" suspension setup. These are unique blends of aerospace fluids that include very special additives.

US Fluids are extremely slippery. They are so good many riders think we did special polishing to their forks and shocks. Expect to feel a significant reduction in stiction and, as a result, better traction.

Why new **fork only** and **shock only** fluids? Even though these are very expensive to produce they are even better and more cost effective than ever before! These fluids are serious about suspension!

Fork Oil: **USF-05** • **USF-10** • **USF-15** Shock Oil: **US-1 2.5-5w** • **US-2 7w**



### ROOST TEE

AT14 01 Series



### ROOST HOODIES

AS14 01 Series



### SNAPBACK HAT

AF01 01



### TECHNICAL EDGE DVDS

Technical Edge Fork and Shock Instructional DVDs.



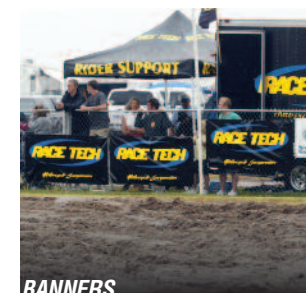
### KICK-STAND PADS

Get more stand-up support on soft asphalt or dirt. **AKSP Series**



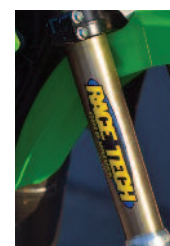
### WATER BOTTLE

Hydrate, hydrate, hydrate! **AA302W**



### BANNERS

Race Tech Black Banners with Ellipse Logo, 36 and 72" sizes. **PBRT 02/03**



### Fork Tube Stickers

Big Bike Fork Decal **PSRT FK090**  
Big Bike Gold Valve Fork Decal **PSRT FK090GV**  
Mini Bike Fork Decal **PSRT FK060**  
Mini Bike Gold Valve Fork Decal **PSRT FK060GV**



**Fork Foot and Shock Stickers**  
RT Gold Valves Decal **PSRT CE2 Series**  
RT G2-R Cartridge Kit Decal **PSRT CE Series**



### ELLIPSE STICKERS

Available in 3, 5, 9, 24 and 45" sizes. **PSRT E Series**





**To Print Application Guides or Price List  
go to the download section at [racetech.com](http://racetech.com).**

**For a complete list of Race Tech  
shop services go to  
our website!**

### **Race Tech Service Centers**

Allows you to get the same great Race Tech products and services in your own backyard. Each Authorized Race Tech Center has completed a mandatory training course and has access to the same research and great products as the technicians at Race Tech's headquarters in Corona, CA. Contact the Race Tech Center nearest you today to get top of the line products from a name you trust without the hassle and expense of shipping your suspension across the country or even around the world! Visit **[racetech.com](http://racetech.com)** to see a full listing of Race Tech Service Centers.

### **Race Tech Dealer Direct**

Race Tech Dealer Direct ordering is available. Race Tech Dealers receive access to an expanded list of Race Tech parts, tools, and services. Becoming an RT dealer is a great way to increase the profitability of your Service Department. Contact us to get started as a Race Tech Dealer.

### **Distributors**

#### **AUSTRALIA**

Shock Treatment  
61 247 739 115

#### **BRAZIL**

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55 21 2709 0640

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403 250 6611

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450 449 3903

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#### **ESTONIA**

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372 527 9471

#### **NEW ZEALAND**

Kiwi Suspension Solutions  
011 646 751 4550

#### **SINGAPORE**

Race Incorp  
65 67478713

#### **SOUTH AFRICA**

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27 11 425 1081

#### **SPAIN**

Race Tech S.L.  
34 96 290 8514

#### **SWEDEN**

Jofrab AB  
11 143 8503

#### **SWITZERLAND**

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011 4171 298 4844

#### **UNITED STATES**

Parts Unlimited  
608 758 1111

#### **Tucker Rocky**

817 258 9000

#### **Western Powersports**

208 376 8400

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