



### PUSHING THE BOUNDARIES

SRAM has had some incredible moments on the road over the past six years. Our road component groups have become a favorite the world over, beginning with the initial launch of SRAM Force and SRAM Rival, continuing with SRAM RED and then SRAM Apex. In that same short span of time our athletes have won Grand Tours, including the Tour de France, the Giro, Classics, and World Championships on the Road, Cyclocross and Triathlon. It would be hard to expect more from our componentry, our staff, and our sponsored athletes, but we do and it is time to move forward.

From concept, to fabrication, to final presentation, the development of new componentry is a fascinating process. I get to see SRAM's passion for excellence through personal discussions with those involved as they work towards making a new gruppo reality. We have never pushed the boundaries of innovation as we have with new SRAM RED.

Our engineers began with a baseline of what was already the lightest, most ergonomic and efficient mechanical groupset in the world, and then they literally started over. At SRAM we are all avid cyclists who want to improve the cycling experience for everyone. New technologies, new features, and new thinking have been bred into every single component.

We look forward to helping you understand the innovation, the elegance of design, and the advantage of our systems. And we look forward to giving you, as well as our athletes and teams, the tools to achieve the same Performance Advantage on the road that you've come to expect of your equipment.

Sincerely, Stan Day President, SRAM



# THE PEOPLE BEHIND THE PRODUCT

"The new SRAM RED components have been designed with the twin goals of eliminating the superfluous while focusing on an overall synergy. The Yaw<sup>™</sup> FD and the X Glide R<sup>™</sup> rings were designed together to eliminate the need for trim while allowing full gear range selection."

Charles Becker, Global SRAM Road & Tri Category Manager

# "Who doesn't want simpler, lighter and faster?"

Bill Keith, SRAM Road Product Manager



"New SRAM RED is not slight revisions of what we had, it is a new gruppo.

We took what we knew and then started over, a new approach to everything."

Stan Day, President, SRAM

# "This is the most refined, evolved, and performance based road groupset ever designed and built."

Chris Raymo, Team Leader, Road Drivetrain Development

"We take complex systems and we simplify them, we make them better."

Kevin Wesling, SRAM Advanced Development Engineer



## NEW SRAM RED CHANGES EVERYTHING

NEW SRAM RED REPRESENTS THE PINNACLE OF ROAD RACING TECHNOLOGY AND DELIVERS COUNTLESS PERFORMANCE ADVANTAGES TO THE PROFESSIONAL AND ENTHUSIAST ALIKE.

For 2012, the new SRAM RED continues in the SRAM tradition as the leader in light weight, flawless shifting, and ergonomic advantage with gorgeous aesthetic styling. How did we improve on the world's best mechanical gruppo? We started with everything we knew, and then designed a brand new drivetrain from scratch. Each part was engineered with the twin goals of eliminating the superfluous while focusing on an overall synergy that translates into unmatched performance. Elegant and simple, SRAM RED perfects the riding experience through genuine innovation. SRAM RED changes everything.



### THE PERFORMANCE ADVANTAGE

### WE FEEL INCREDIBLY CONFIDENT ABOUT THE SUPERIORITY OF OUR PERFORMANCE ADVANTAGE WITH RESPECT TO THE FOLLOWING CRITICAL ASPECTS:

- Ergonomic advancement New ErgoDynamics<sup>™</sup> hoods fit the hand even better, while independent adjustment for shift paddle and brake lever reach offer an unprecedented level of comfort.
- Weight advantage approximately one pound (half a kilo) lighter\*.
- Practicality of Innovation No unneeded glitz. No smoke and mirrors. Nothing was included in the new SRAM RED drive train unless it had a direct impact on the riding experience. That is real progress.

### SRAM'S SUPERIOR ERGONOMICS AND FUNCTION:

- Customize your brake and shifter lever reach to fit to your hands with easy to access and adjust Independent Reach Adjust™.
- Proper fitment of a bike is not just a modern trend, it is a performance necessity. The shifter controls are the most critical contact point of the bike, and the new SRAM RED's independent shifter and lever reach are the absolute best way to achieve precise fit adjustments.
- Better ergonomics provide better control, a better ride experience, a better connection to the bike, and in the end, a happier rider.

\* than a battery assisted system









# T H E P E R F O R M A N C E A D V A N T A G E

6 BRAND NEW COMPONENTS: SL, RD, FD, BR, CR, CS NEW FRONT SHIFTING TECHNOLOGY: Fast / efficient / low noise FULLY INTEGRATED POWERMETER: New Quarq Technology AMAZING NEW FINISH: Two-tone Falcon Grey / Black look SRAM RED TOTAL WEIGHT: 1739g (BB30)







# SHIFTERS

The new SRAM RED ErgoDynamics<sup>™</sup> Shifters represent our most advanced thinking yet on perfecting the interface between rider and bike. We have scrutinized everything, including the transition between handlebar and hoods, the grip texture, finger wrap, and the separate interfaces with both the shifter and brake lever. The result is an extremely comfortable, highly individual fit that makes the shifters feel like a natural extension of the rider.

- ErgoFit textured body improves grip and finger wrap with reduced diameter, providing better control, and a better transition to the bar
- Individual Reach Adjust<sup>™</sup> of brake and shift lever, now easier to access and uses a standard hex key, puts the controls exactly where you want them
- Larger carbon ErgoBlade lever improves shifting from the drops
- DoubleTap® technology delivers both shifts from the single lever
- ZeroLoss<sup>™</sup> shifting, shifts engage immediately
- New clamp allows better fit and adjustment for modern carbon and ergo bars

#### **KEY TECHNOLOGIES**









HOOD SHAPE TALLER BUMP PROFILE PROVIDES ADDITIONAL RIDER CONTROL

### ErgoDynamics

- ERGOBLADE: LONGER BRAKE LEVER WITH IMPROVED REACH FROM THE DROPS
- EASY ACCESS REACH ADJUST FOR SHIFT AND BRAKE LEVERS
- ERGOFIT: REDUCED GRIP DIAMETER AND TALLER BUMP PROFILE

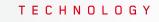
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### 🗾 Double Tap

- ONE SHIFT LEVER FOR UP- AND DOWNSHIFTING: FASTER AND EASIER GEAR CHANGE - LARGER SHIFT PADDLE FOR COMFORT AND EXCELLENT HANDLING

REACH ADJUST SIMPLE TO ADJUST SHIFT REACH WITH 2.5MM HEX.





sram.com



HOOD TEXTURE SPECIALLY DESIGNED TEXTURE ZONES TO IMPROVE GRIP ON HOODS





### REAR DERAILLEUR

If you want the fastest, quietest shifting around, look no further. The new SRAM RED Rear Derailleur has been designed to deliver the performance advantage you have come to expect from SRAM. The derailleur is designed with our Exact Actuation<sup>™</sup> technology for precise, efficient shifting. We have paid rapt attention to the finer details, like adding a hollow titanium anchor bolt and even refining tooth geometry of the jockey wheel. The result is that the chain runs through the new SRAM RED Rear Derailleur smoother and quieter than ever before.

- Exact Actuation<sup>™</sup> shifting provides fast, accurate shifts ٠
- More clearance with 28t cassettes thanks to a longer B-knuckle ٠
- New silent shifting with optimized AeroGlide Pulleys<sup>™</sup>, ceramic bearings ٠
- New spring-fixed barrel adjuster ٠
- New chain pulley cage adds precise chain management ٠
- Titanium pinch bolt keeps a low profile while minimizing weight ٠

#### **KEY TECHNOLOGIES**









B-KNUCKLE EXTENDED B-KNUCKLE FOR IMPROVED CLEARANCE FOR 28T CASSETTES

### Exact Actuation

 HELPS TO STABILIZE THE UNEASY ACT OF BALANCING REAR DERAILLEUR HANGER DESIGN, TIGHT COG SPACING AND EXACT CABLE TENSION
 EVEN AND PRECISE 3 MM SHIFT BETWEEN EVERY SINGLE GEAR PROVIDES THE MOST CONSTANT 10 SPEED ROAD SHIFTING SYSTEM

> BARREL ADJUSTER SPRING FIXED BARREL ADJUSTER DELIVERS INCREMENTAL CABLE ADJUSTMENT AND IMPACT DURABILITY



- CERAMIC HYBRID BEARINGS REDUCE ROLLING RESISTANCE AND ARE MORE DURABLE THAN STEEL BEARINGS Ceramic Bearings

B-BOLT 5MM B-BOLT HEX WITH IMPROVED INSTALLATION CLEARANCE

> CARBON CAGE NEW CARBON CAGE DESIGNED FOR PRECISE CHAIN MANAGEMENT AND NEW REDUCED PROFILE CARBON INNER CAGE

AEROGLIDE PULLEYS SUPER EFFICIENT AND SILENT



### AeroGlide Pulleys

- NEW TOOTH PULLEY DESIGN WITH SOUND DAMPING EFFECT - SUPER EFFICIENT AND SILENT



SMOOTH CABLE PATH CABLE ANCHOR INTEGRATED HOLLOW TI CABLE ANCHOR BOLT AND WASHER FOR EASY CABLE INSTALLATION









### FRONT DERAILLEUR

The new SRAM RED Front Derailleur changes everything. Instead of simply moving back and forth, the derailleur cage actually rotates to maintain a consistent angular relationship with the chain. We call it Yaw<sup>™</sup> Technology, and it eliminates the need for shifter trim. As a result, shifts feel more direct, more precise, and combined with the new SRAM RED crankset and chainrings, delivers an unmatched performance advantage in front shifting.

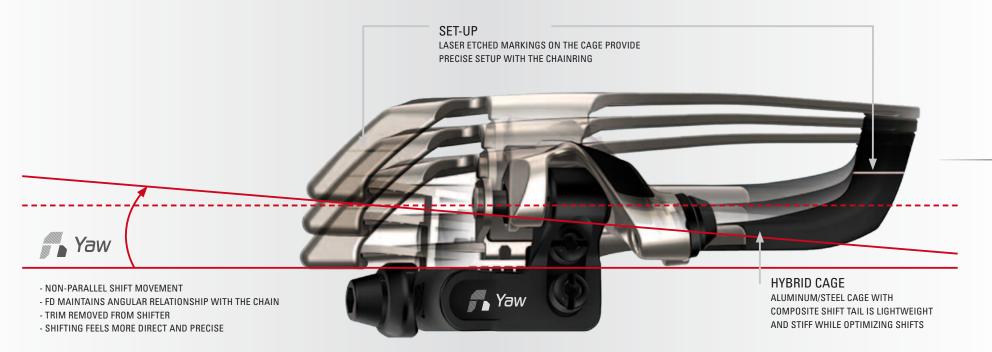
- Yaw<sup>™</sup> cage rotates in line with chain, improving the shifting speed and precision while eliminating the need for shifter trim
- Slim spring design eliminates frame interference
- Optimized for shifting with X Glide R<sup>™</sup> Chainrings
- Best combination of aluminum and steel for the strongest and most durable cage we have ever made
- Precision install markings
- Integrated chain spotter protects your frame without adding any extra clunk, and adjusts independently of the derailleur itself

#### **KEY TECHNOLOGY**









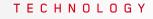
A 3D BODY CAN BE ROTATED THREE ORTHOGONAL AXES. BORROWING AVIATION TERMINOLOGY, THESE ROTATIONS WILL BE REFERRED TO AS **YAW**, **PITCH**, AND **ROLL**:

YAW: IF AN AIRCRAFT OR SHIP YAWS, IT MOVES SLIGHTLY TO THE SIDE OF ITS INTENDED DIRECTION.

ROLL: IF AN AIRCRAFT OR A SHIP ROLLS, IT LEANS TO ONE SIDE AND THEN TO THE OTHER BECAUSE OF THE WIND OR WAVES.

PITCH: IF AN AIRCRAFT OR A SHIP PITCHES, IT MOVES UP AND DOWN. PITCH CHANGES THE VERTICAL DIRECTION THE AIRCRAFT'S NOSE IS POINTING UP AND DOWN.







REFINED MOUNTING YAW FD'S SLIM SPRING AND FRAME MOUNT DESIGN ELIMINATE FRAME INTERFERENCE

#### INTEGRATED CHAIN SPOTTER

- 2.5MM MOUNTING AND ADJUSTING HEX BOLTS
- FULLY ADJUSTABLE TO FIT MOST SRAM CHAINRING SETS
- SIMPLE TO INSTALL OR REMOVE WITHOUT LOSS
- OF THE FD POSITION OR TUNING
- SUPERIOR CHAIN MANAGEMENT









# **C R A N K S E T**

Innovation often comes from places you would least expect. In order to make a lighter crankset, we made it bigger. To add stiffness, we used less material. The new SRAM RED Exogram<sup>™</sup> Crankset is completely hollow all the way to the spider. Its hidden bolt pattern makes better use of carbon fiber to further improve stiffness and shed weight. The stunning X Glide R<sup>™</sup> chainrings are optimized for use with the Yaw<sup>™</sup> Technology in the front derailleur, delivering seamless, flawless performance.

- Exogram<sup>™</sup> technology uses a large, hollow cross section all the way to the spider, minimizing weight while maximizing stiffness. Our stiffest crank ever
- Hidden bolt pattern leverages the characteristics of carbon fiber while presenting a sleek appearance
- Stiffer X Glide R<sup>™</sup> chainrings feature thicker construction, advanced shift timing pins and ramps, which are optimized for shifting with the Yaw<sup>™</sup> Front Derailleur
- Stunning two-tone finish
- GXP, PressFit, BB30, PressFit 30 availability

#### **KEY TECHNOLOGIES**







### Exogram

- HOLLOW CARBON CONSTRUCTION MAXIMIZES STIFFNESS TO WEIGHT RATIO

> HIDDEN SPIDER TAB BOLT FOUR ARM SPIDER REDUCES CRANK WEIGHT AND ADDS STIFFNESS

BB30 LEFT ARM (NOT PICTURED) NON-DRIVE ARM USES A CO-CURED SPINDLE TO SAVE ADDITIONAL WEIGHT, ELIMINATING REDUNDANT STRUCTURE



# T E C H N O L O G Y

**SRAM**.Red™

NEW SRAM RED RINGS ARE CNC MACHINED FROM 5MM THICK 7075-T6 ALUMINUM PLATES CNC MACHINING ALLOWS FOR PRECISION CONTROL OF EACH TOOTH SHAPE, RAMP, AND NEARLY EVERY SHIFTING FEATURE OF THE CHAINRING

CHAINRINGS, CHAIN, AND FRONT DERAILLEUR ARE DESIGNED AS A SINGLE INTEGRATED SYSTEM FOR OPTIMIZED PERFORMANCE

### X Glide<sup>R</sup>

- X GLIDE R<sup>™</sup> CHAINRINGS ARE DESIGNED TO OPTIMIZE SHIFTING PERFORMANCE WITH THE YAW<sup>™</sup> FD
   - STIFFER RINGS (MATERIAL AND SHAPE)
- ADVANCED SHIFT TIMING PINS AND RAMPS
- STUNNING TWO-TONE FINISH







## QUARQ POWER METER

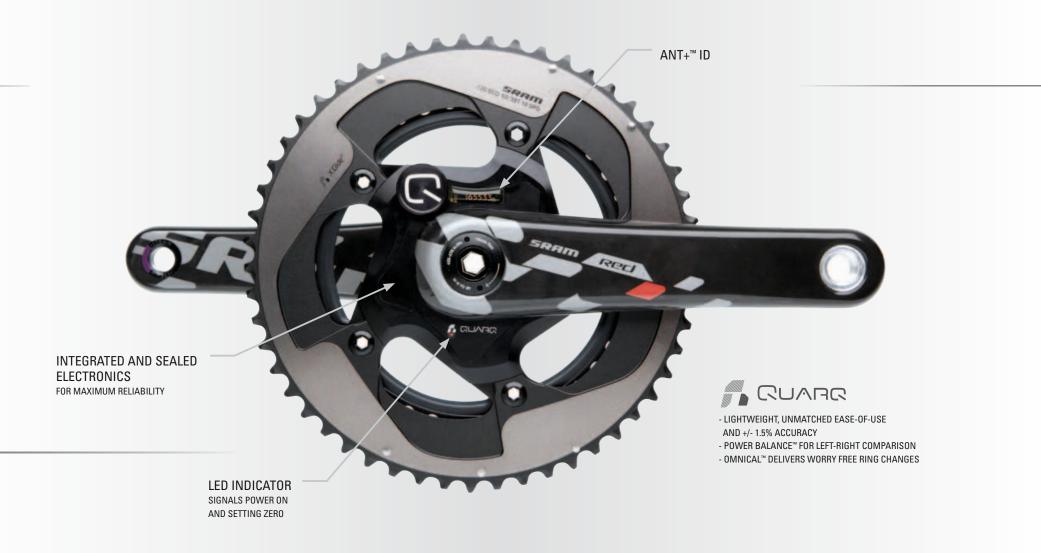
A lighter, more accurate power meter completely integrated with the philosophy and performance of SRAM RED. Advances in technology and performance paired with unrivaled ease-of-use. The sleek new geometry reduces system weight and delivers clearance for oversized frames and aerodynamic chainrings. The only visible power component is the low profile, all aluminum battery case. New stress flow lifts accuracy to +/- 1.5% and makes power measurement independent from chainring selection. Integrated electronics minimize interconnections and reduce exposure to the elements, bringing unmatched durability and reliability.

- Power Balance<sup>™</sup> and ANT+<sup>™</sup> give you compatibility, flexibility and every available metric
- ANT+<sup>™</sup> ID is clearly visible to aid pairing and operation
- LED indicator signals power on and setting zero
- Tool-less, user-replaceable battery is a cycling industry standard CR2032
- OmniCal<sup>™</sup>: TT chainrings can be fitted without recalibration
- Rain, mud and snow; the waterproof design will survive the worst conditions

#### **KEY TECHNOLOGY**









130 BCD 53/

NEW SPIDER GEOMETRY REDUCES WEIGHT AND INCREASES ACCURACY

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## BRAKESET

Your brakes should not slow you down until you squeeze the levers. That is why the new SRAM RED Brakeset has been created with a host of wind-cheating features to make the brake body more aerodynamic, helping you keep your speed until the moment you are ready. The new patented AeroLink<sup>™</sup> arm reduces frontal area while improving braking performance and modulation. The brake body has been sculpted to provide a sleek aerodynamic profile to the wind. Even the smallest details, like the barrel adjuster, point away from the wind. And to finish off the package, SwissStop<sup>®</sup> Flash Pro pads come standard with the brake. It is a better brake in every way.

- AeroLink<sup>™</sup> arm amplifies braking power while reducing frontal area
- Aero design extends to the shape of the indexed four-position quick release, the bladed barrel adjuster, low-profile pinch bolts, and recessed spring tension adjusters
- Wider clearance for modern wheelsets
- Lighter, aero pad retainers carry SwissStop® Flash Pro pads standard

#### KEY TECHNOLOGY







BARREL ADJUSTER AERO, TWO-POSITION BARREL ADJUSTER WITH SOFT TOUCH COATING

31MM

QUICK RELEASE AERO, EASY ACCESS, FOUR-POSITION INDEXED QUICK RELEASE

> CABLE CLAMP LOW PROFILE CABLE PINCH BOLT WITH INTEGRATED STRAIN RELIEF

SPRING ADJUSTERS RECESSED SPRING TENSION ADJUSTERS

BRAKE PAD SWISSSTOP® FLASH PRO CUSTOM PAD COMPOUND

> WHEEL CLEARANCE PAD TO PAD WIDTH OF UP TO 31MM ALLOWS COMPATIBILITY WITH 28MM TIRES AND WIDE AERO RIMS



PATENTED MULTI-LINK ARM MULTIPLIES BRAKE FORCES, PROVIDING IMPROVED POWER, CONTROL AND MODULATION THE LIGHTWEIGHT AND AERODYNAMIC WAY OF PROVIDING SUPERIOR CONTROL AND POWER







## XG 1090 CASSETTE

The new SRAM RED Powerdome X<sup>™</sup> is the most advanced cassette ever made. It is super light, deadly silent, and delivers an undeniable performance advantage. The eight cogs in the middle are machined from a single block of high grade tool steel, increasing stiffness while weighing even less than a titanium cassette. Between each cog in the block is a StealthRing<sup>™</sup> elastomer to reduce vibration and noise. Cutouts on the rear cog further reduce weight and add stiffness. It is the final piece in the drivetrain puzzle, paired with the new SRAM RED Rear Derailleur. It delivers ultra-fast, ultra-quiet shifts that will always put you in the right gear.

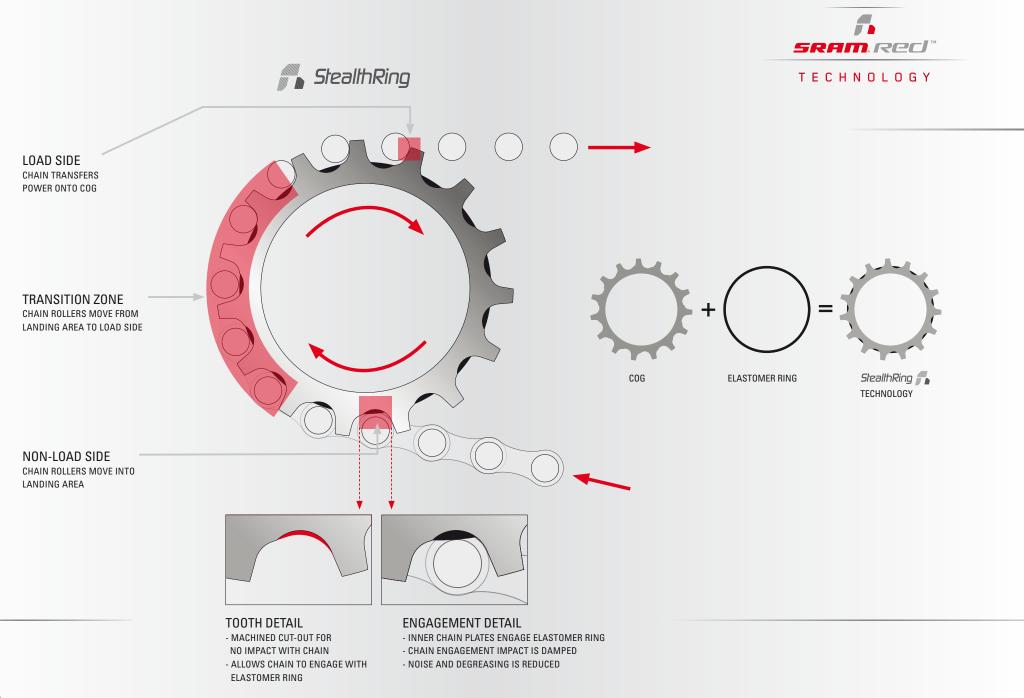
- Hollow steel dome makes for the stiffest gear cluster ever at the lightest weight
- Heat-treated, high-grade tool steel provide superlative durability and a beautiful finish
- StealthRing<sup>™</sup> elastomer and advanced tooth profiles eliminate vibration and noise for a smooth, silent ride
- Aluminum cog: lighter, stiffer, stronger due to the choice of design, material and production process

#### **KEY TECHNOLOGIES**





- ELASTOMERS AND 'SPECIAL' TOOTH PROFILE, TO ELIMINATE VIBRATION AND NOISE WHEN THE CHAIN ENGAGES THE COG, YET MAINTAINING LOSS-LESS POWER TRANSFER





and the

# PC 1091R CHAIN

The newest PC 1091R chain features more heavily chamfered outer plates for improved shifting and quieter running. Other advancements include a new inner plate finish plus chrome hardened pin construction, both for longer chain life. The HollowPin<sup>™</sup> construction of SRAM's 10 speed PowerChain<sup>™</sup> provides smooth, precise shifting and weight savings without sacrificing strength.

- HollowPin<sup>™</sup> technology equals strength, incredible shifting efficiency, and light weight
- 255 grams, 114 links
- PowerLock<sup>™</sup> connector, easiest install in the world
- PowerLube<sup>™</sup>: High performance grease

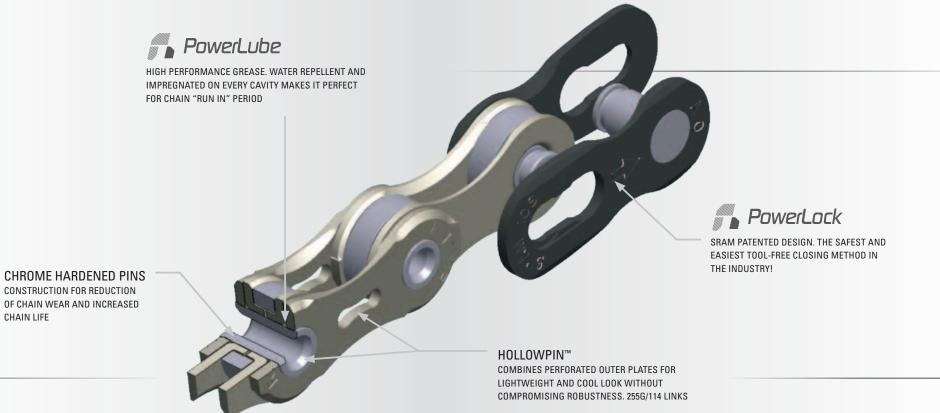
### **KEY TECHNOLOGIES**





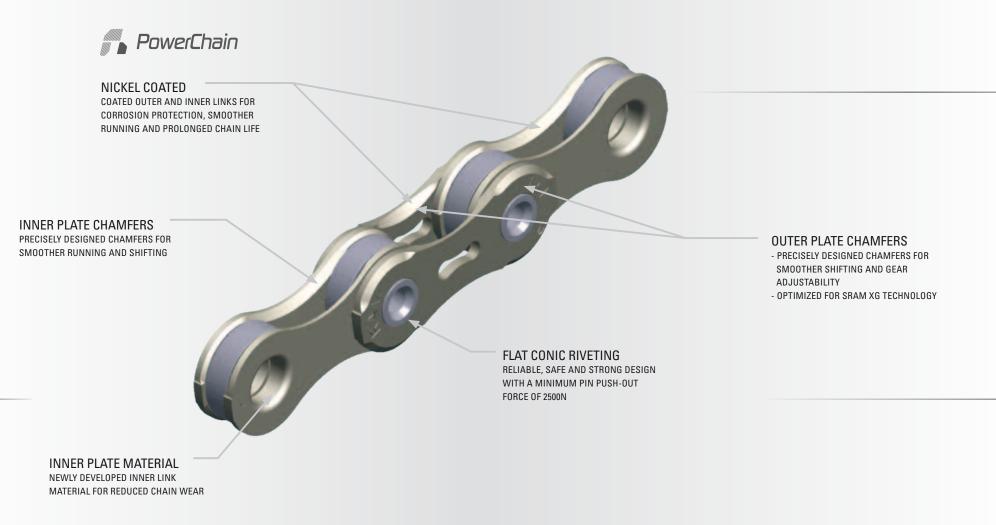


### TECHNOLOGY





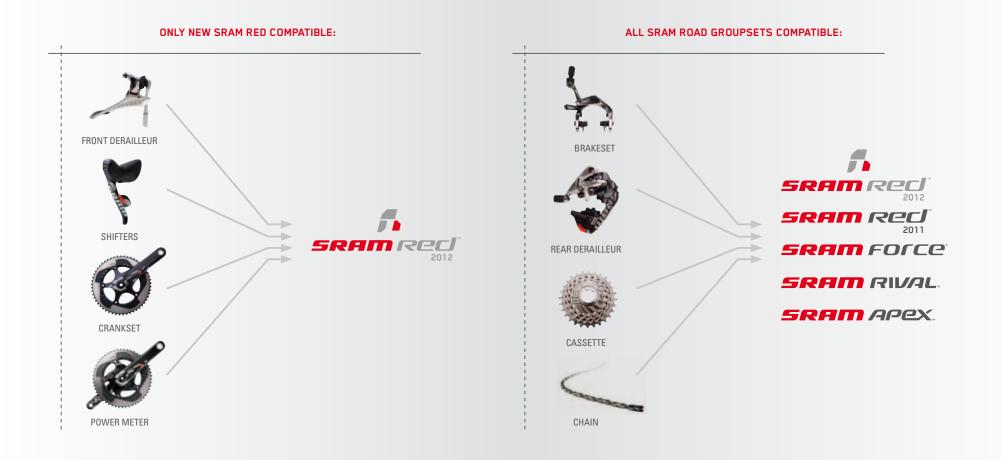








## COMPATIBILITY





## SPECIFICATIONS





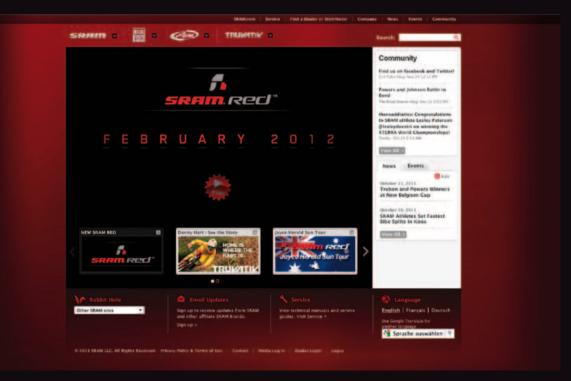
	SHIFTER	REAR DERAILLEUR	FRONT DERAILLEUR	CRANKSET	POWER METER	BOTTOM BRACKET	BRAKESET	CASSETTE	CHAIN
Technology		¦ AeroGlide Pulleys™/ ¦ High Grade Ceramic	Hybrid Cage / Integrated Chain Spotter	Crank Arm and Spider w /	Power Balance™ /	GXP / Press-Fit GXP / BB30 / Press-Fit 30	Barrel Adjuster	X Glide™ Cogs / StealthRings™	PowerChain™ / PowerLube <sup>™</sup> / PowerLock <sup>™</sup> / HollowPin <sup>™</sup> / Chrome Hardened Pins
Speeds	10 Rear / 2 Front	10	2	2	2	N/A	N/A	10	10
Weight	280g (Pair)	1	Chain Spotter with Hardware 12g	557g (BB30 172.5mm 53x39 BB not in- cluded) / 609g (GXP 172.5mm 53x39 BB not included)	0.	53g (BB30) / 105g (GXP)	240g (Pair)		255g (PC 1091 R / 114 links)
Material // finish	Textured Hood Covers	Carbon Inner Links / Aero Designed Titanium Hardware // Falcon Grey & Black Anodized	Cage / Tool Steel	Machined Alloy		CNC Alloy Cups / High Grade Ceramic Bearings	Arms / Aero Designed Pinch Bolt / SwissStop® Pad Compound // Falcon Grey & Black	High Grade Tool Steel Cog Cluster / Heat Treatment Process / Heat Treated Aluminum Lowest Range Cog / Elastomer Rings	Nickel Silver
Compatibility		SRAM RED-2012 / RED Rear Shifter	SRAM RED-2012 / RED Front Shifter	Yaw™ FD	Yaw <sup>™</sup> FD	GXP/ BB-30	SRAM Road Shifters	SRAM 10 Speed	SRAM 10 Speed



# S O C I A L M E D I A



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**F** SRAM. Red™

## 2012 SRAM ROAD ProTeams

- AG2R La Mondiale
- Astana Pro Team
- Liquigas-Cannondale
- Omega Pharma-Quick-Step Cycling Team
- Team Saxo Bank





SPONSORSHIP/ PROTEAMS EXPERTS



PR EXPERTS









PRODUCT EXPERTS

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## SRAM ROAD TEAM

BRAND EXPERTS:1. Gaetan Vétois - Global SRAM Road Brand Manager2. Andy Paskins - Global Zipp Brand Manager

PR EXPERTS: 3. Michael Zellmann - US SRAM Road PR & Media Manager

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