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COMPETITIONEGEBIKES

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# Introduction

1996 marks the 5th year of refinements to the Competition Series, and through this period and into the future it is, and has been our policy to create the best quality product for the money. We believe that by working with responsible stores that carry quality products, you can be assured that the purchase of a Norco Bicycle will never be regretted. We build Bicycles based



on our passion as cyclists, not on a costly marketing/image scheme conjured up by a person vaguely familiar with mountain biking.

The majority of our Competition Series frames are built with chro-moly steel tubing, which to us represents the best balance between weight, durability and price. Typically aluminum frames weigh slightly less and cost more to manufacture than chro-moly steel frames. This weight reduction however results in a shorter frame life span which is justifiable to riders who must have the very lightest possible bike. With this in mind, we offer the Mocha and Java built with aluminum tubing which weigh about 200 grams less than the less expensive chro-moly frames. Like most bicycle companies, we would like our bikes to weigh the least, however as our 17 member Norco Mountain bike racing team will attest, saving weight in the wrong area can cost you a race or leave you stranded in the middle of nowhere. By collecting product evaluations from the members of our racing team, we can constantly refine and develop products that reflect the best choice between weight, durability and performance.

It is with this philosophy that Norco proudly presents its 1996 Competition Series.





Marzocchi XC-700. The ultimate suspension system. 1380 grams, 51mm travel. 6-position externally adjustable speed sensitive valving. New dust wiper with integrated weather boot for improved reliability.

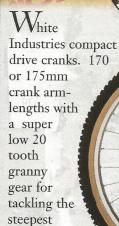
- (stainless steel eyelets)
- Panaracer Smoke/Dart Magic Kevlar tires
- Frame sizes: 15", 17", 18.5", 20" & 22"
- Frame weight: (Aermet 1650g), (WCS 1800g)
- Bike weight: (Aermet 10.83kg/23.83lbs) (WCS 11kg/24.20lbs)
- Colour: Electrostatic Plated Aermet Finish





# TORRENT

Tektro CNC machined low profile cantilevers. Dual spring tension adjusters. Easy brake pad toein design. RBP cross-over triangle. 336 grams/set.



Featuring Sugino Super Shifter III chain rings.

terrain.

-Manitou Mach 5 SX-



Manitou Mach 5 SX suspension fork. New posi link brace maximizes torsional rigidity and arch stiffness. The SX incorporates cartridge hydraulics with hand accessibility for adjustments to both pre-load and damping. 64mm travel, 1410 grams.

- Ritchey WCS Logic/Tange Ultimate Superlight/ Tange Concept main triangle
- 24-speed Gripshift SRT-900i shifters and ESP rear derailleur
- Tapered chro-moly AFS "S" bend rear-stays with Ritchey "Lost Wax" dropouts
- Titec double-butted alloy seat-post and 150g titanium bars
- Avid SD-2.0. Adjustable mechanical advantage brake levers
- Ritchey Vector titanium rail saddle
- XT rear hub and Hugi Sport oversized front hub
- Sun CR-17A double wall rims (eyeleted) with DT 15-16g DB spokes
- Panaracer Smoke/Dart Kevlar tires
- Frame sizes: 15", 17", 18.5", 20" & 22"
- Frame weight: 1850g Bike weight: 11.10kg (24.45 lbs.)
- Colour: Copper



• Frame sizes: 15", 17", 18.5", 20" & 22"

• Colour: Jewel Green

• Frame weight: 1900g • Bike weight: 11.40kg (25.1 lbs.)



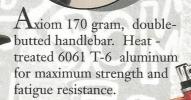
### -Manitou Mach 5 Pro fork-



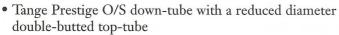
Manitou Mach 5 Pro suspension fork. Posi link brace maximizes torsional rigidity and arch stiffness. The Pro features E clip adjustable preload, multi-stack MCU elastomers, Easton taperwall stantion tubes, and boots. 57mm travel, 1320 grams.

- Shimano XT rear derailleurs and LX front derailleur
- Shimano Deore LX front and rear hubs
- Tektro cantilever brakes
- Tektro RBP 3-finger brake levers
- Aluminum AFS "S" bend seat-stays
- Vetta TT tri-shock saddle
- Axiom 170g alloy bars and satin finish alloy seat-post
- Sun CR-18 double wall rims
- DT Swiss competition spokes
- Frame sizes: 15", 17", 18.5", 20" & 22"
  Frame weight: 1650g Bike weight: 11.14kg (24.5 lbs.)
- Colour: Ball burnished aluminum with clearcoat





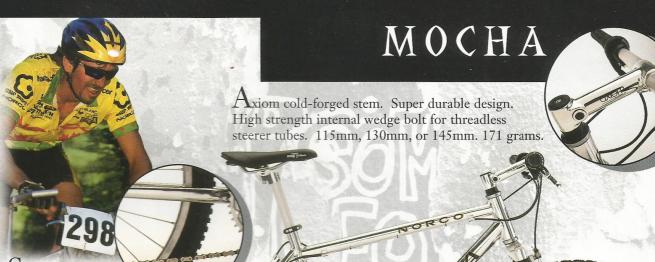
Tektro RBP brake lever.
Designed for use with
GripShift shifters. Stiff,
responsive cold-forged
lever. Easy to use 10mm
cable adjusters.
204 grams/pair.



- 24-speed Gripshift SRT-600i shifters
- Chro-moly AFS "S" bend seat-stays
- Shimano XT rear derailleur
- Shimano LX front derailleur
- Ritchey Vector saddle
- Alloy SR compact drive cranks
- Frame sizes: 15", 17", 18.5", 20" & 22"
- Frame weight: 2100g Bike weight: 11.6kg (25.5 lbs.)
- Colour: Transparent Red

### -Manitou Mach 5 Comp fork-

Manitou Mach 5 Comp. Posi link brace maximizes torsional rigidity and arch stiffness. The Comp features. E-clip adjustable preload, MCU Elastomer damping, 7075 aluminum stantion tubes, and boots. 51mm travel, 1360 grams.



Sun AT-18 rims. Tall 11mm brake surface for easy pad setup. 0 degree "ABT" sidewalls for maximum braking response. Lightweight 460 grams.

#### -Marzocchi Zokes Pro fork-



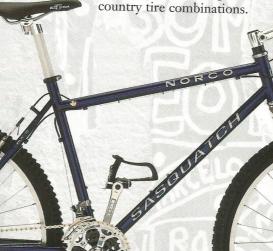
Marzocchi Zokes Pro suspension fork. Externally adjustable 6-stack Elastomer system. 1480 grams. 55mm travel. Torsionally rigid brake bridge and lower leg assembly.

- 7005 Aluminum heat-treated T-6 frame with oversized top- tube and down-tube
- 24-speed Gripshift SRT-600i shifters
- Aluminum AFS "S" bend seat-stays
- Shimano Deore XT rear derailleur
- Shimano LX rear hub/Axiom sealed front hub
- Tektro RBP cantilevers and 3 finger brake levers
- SR compact drive cranks with high polished arms
- DT Swiss stainless spokes
- Panaracer Smoke/Dart tires
- Frame sizes: 17", 18.5" & 20"
- Frame weight: 1750g Bike weight: 11.46kg (25.25 lbs.)
- Colour: Ball burnished silver with clearcoat

# SASQUATCH

SR low profile compact drive cranks. Super Shifter rings make front shifting crisp and effortless. 170 or 175mm, crank arms.

Panaracer Smoke rear and Dart front tire. The choice of top pros. Rated as one of the best single track cross country tire combinations.



- Tange double-butted chro-moly main frame
- 24-speed Gripshift SRT-600i shifters
- Chro-moly AFS "S" bend seat-stays
- Deore XT rear derailleur and STX front derailleur
- Tektro RBP cantilevers and 3 finger brake levers
- Deore LX rear hub and Axiom sealed front hub
- Vetta TT tri-shock saddle
- Axiom alloy 170g bars, 6061 alloy stem, and satin finish alloy seat-post
- Frame sizes: 15", 17", 18.5", 20" & 22"
- Frame weight: 2150g Bike weight: 11.75kg (25.9 lbs.)
- · Colour: Ink Blue

-Marzocchi Zokes fork-



Marzocchi Zokes suspension fork. 1440 grams. 51 mm travel. 6-stack Elastomer with allen key pre-load adjusters.



## TANGO

Axiom seat-post. Rear offset design for maximum saddle position adjustment. External head reduces weight and dramatically increases strength. 300 or

350mm. 280 grams.



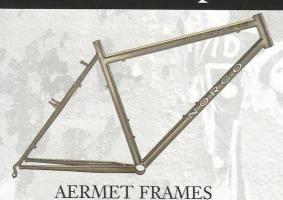




Tektro 870 cantilever brakes. Stiff responsive forged cantilever arms. Convenient spring tension adjuster. Complete with RBP crossover triangle. 376 grams/set.

- Tange double-butted chro-moly down and top-tube
- 24-speed Gripshift SRT-600i shifters
- Chro-moly AFS "S" bend seat-stays
- Shimano STX front derailleur, Deore XT rear derailleur
- Tektro RBP cantilevers and 3 finger brake levers
- Deore LX rear hub and Axiom sealed front hub
- Vetta TT tri-shock saddle
- Alloy SR compact drive cranks with high polished arms
- Panaracer Smoke/dart tires on Sun AT-18 rims
- Frame sizes: 15", 17", 18.5", 20" & 22"
- Frame weight: 2150g Bike weight: 11.4kg (25.1 lbs.)
- Colour: Deep Burgundy

# Tech Specs



Aermet is a specially treated steel alloy originally produced for use in supersonic military aircraft. This lightweight and durable material rivals the strength to weight ratio of Titanium yet does not dent as easily as thin wall chromoly. Aermet is tortionally stiffer than chro-moly yet offers a smoother ride than a heat-treated aluminum frame. These characteristics combine to produce a long lasting frame that won't constantly remind you that you're riding a hard tail.

Aermet Frame Weight: 1650g Aermet Bike Weight: 23.83lbs.



#### STOULITE STAYS

New for 1996, the stoulite chain and seat-stays (Team Issue and Team Issue LE) are double-butted and heat-treated with increased wall thickness used only where absolutely necessary. The result is a ultralight yet stiff rear triangle.

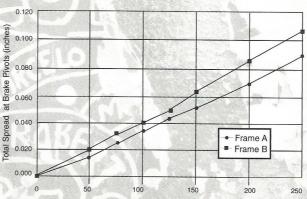
#### **AFS STAYS**

The S-bend AFS stays allow Norco to substantially reduce frame weight by utilizing lighter guage stays, with no sacrifice in strength. They produce in excess of 15% additional braking power over standard stays.

(Reference Graph below)

Frame B represents "AFS" seat-stays.

#### NORCO PRODUCTS LTD.



Simulated Brake Load (lbs)

The following models are available in a frame only, or frame and fork set. See your Norco Dealer for more details.

Team Issue LE (Aermet)

Team Issue WCS

Torrent

Java

FTS

# Parts



#### EXUS EM-1 PEDALS

The Exus EM-1 pedals deliver the performance demanded by top off-road racers. The pedals feature a forged aluminum body, oil impregnated LSL and sealed ball bearings encased in a sealed cartridge unit for easy serviceability. At 370 grams they weigh significantly less than industry standard clipless pedals.



#### AXIOM BOTTOM BRACKET

19mm oversize 6AV/4L titanium axle with dual alloy adjustable caps and lock rings allow fine tuning of chainline and bearing pre-load. SFK sealed cartridge bearings are long lasting and serviceable with standard Bottom Bracket tools (162grams). Coming in the spring of '96 is a chro-moly version designed specifically for our FTS.



#### PANARACER MAGIC TIRES

Binary function compound, (B.F.C.) is an exclusive compound used only on Panaracer Magic tires. This compound allows the tire tread and carcass to stretch laterally (side to side). This unique feature provides superior traction in severe cornering situations over loose surfaces.



#### SUN RIMS/DT SPOKES

All Norco Competition Bikes utilize Sun rims and DT spokes exclusively. All Sun rims feature "ABT" (Advanced Brake Track) sidewalls for maximum braking response and shudder free seams. The DT stainless steel spokes used range from the top of the line revolution superlight butted spokes to the ultra durable stainless steel plain guage versions.

## SPECS

Model	Team Issue	FTS	Torrent	Rampage		
Frame:	Aermet 100 main triangle, OR, WCS/Tange superlight, Stoulight butted stays. AFS "S" bend seat stays. Ritchey lost wax dropouts	Interrupted seat-tube design with active rear suspension, T-6 alu- minum tubing. Risse shock. Oil light pivot bearings	Ritchey WCS/Tange Ultimate Super light main triangle. AFS "S" bend seat stays. Ritchey lost wax dropouts	Tange Ultimate Ultra/Super light main triangle. AFS "S" bend sea stays. Ritchey forged dropouts		
Front Fork:	Marzocchi XC-700 suspension fork. 52mm travel. 6 pos.speed sensitive valving	Manitou Mach 5 SX suspension fork. Cartridge system externally adjustable. 64mm travel	Manitou Mach 5 SX suspension fork. Cartridge system externaly adjustable. 64mm travel	Manitou Mach 5 Pro suspensio fork. E-clip adjusters. 57mm travel. Multi stack MCU elastomers		
Headset:	1-1/8" Tange threadless	1-1/8" dia-compe STE threadless	1-1/8" Tange threadless	1-1/8" Dia-compe STE threadles		
Handlebar:	Titec 150g titanium	Axiom 170g T-6 alloy	Titec 150g titanium	Axiom 170g T6 alloy		
Stem:	Axiom cold forged threadless 6061 alloy			Axiom cold forged threadless 6061 alloy		
Saddle:	Ritchey Vector titanium rails	Vetta TT tri-shock, syn. leather cover	Ritchey Vector titanium rails	Vetta tt tri shock, hollow Manganese rails		
Seat Post:	Titec 225g alloy	Axiom 400 double bolt alloy (satin)	Titec 225g alloy	Axiom 400 double bolt alloy (satin)		
Shifters:	Gripshift SRT-900i 8sp. indexed rear, short rotation friction frt.	Gripshift SRT-600i 8sp. short rotation friction frt.	Gripshift SRT-900i 8sp. indexed rear, short rotation friction frt.	Gripshift SRT-600i 8sp. indexed rear, short rotation friction frt.		
Derailleurs:	Shimano XT 1-1/8" top-pull type front. Gripshift ESP rear	Shimano Deore XT rear. LX 1 1/8" top-pull front	Gripshift ESP rear. Shimano XT 1-1/8" top-pull front	Shimano Deore XT rear. Shimano XT 1-1/8" top-pull front		
Freewheel:	Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type		
Crankset:	Race Face LP compact (170, 175 or 180mm) 20-32-42T. Axiom tit. BB, alloy c-ring bolts	White Industries compact (170 or 175mm). 20-32-42T. Shimano cartridge BB	White Industries compact. (170 or 175mm) 20-32-42T. Shimano cartridge BB	Sugino Impel 350 compact (170 or 175mm) 22-32-42T. Shimano cartridge BB		
Brakes:	Tektro 872 CNC tubular cantis with RBP triangle and cold forged levers	Tektro 870 cantis with RBP triangle and cold forged levers	Tektro 872 CNC tubular cantis with RBP triangle and cold forged levers	Tektro 871 tubular cantis with RBP triangle and cold forged levers		
Pedals:	Exus EM-1 clipless	Victor clipless VP-102	Victor clipless VP-102	Victor clipless VP-102		
Chain:	Shimano IG-90	Sachs silver ATB	Shimano IG-70	Sachs silver, ATB		
Hubs:	Shimano Deore XT rear 8sp., Hugi sport front w. o/s axle	Deore LX rear 8sp., LX front	Shimano Deore XT rear 8sp., Hugi sport front w. o/s axle	Deore LX rear 8sp., LX front		
Spokes:	DT 2.0-1.5 revolution stainless steel	DT 1.8 stainless steel	DT 1.8-1.6 double-butted stainless steel	DT 1.8-1.6 double-butted stainless steel		
Rims:	Sun CR-17A with eyelets, 32 hole, silver. ABT sides	Sun CR-18 double wall, 32 hole, silver. ABT sides	Sun CR-17A with eyelets, 32 hole, silver. ABT sides	Sun CR-17a with eyelets, 32 hole, silver. ABT sides		
Fire:	Panaracer Smoke/Dart Magic Kevlar	Panaracer Smoke/Dart 26 x 2.0 all black skinwall Kevlar	Panaracer Smoke/Dart Kevlar	Panaracer Smoke/Dart Kevlar		
Frame Weight:	WCS 1800g	2500g	1850g	1900g		
Bike Weight:	WCS 11.00Kg / 24.2lbs	11.8Kg / 26lbs	11.10Kg / 24.45lbs	11.4Kg / 25.1lbs		

## SPECS

Java	Nitro	Mocha	Sasquatch	Tango		
Easton Elan 3 Aluminum main tubes. AFS "S" bend seat stays	Tange Prestige O/S d-tube with a reduced diameter 30.0 double butted t-tube, 28.6 s-tube. AFS "S" bend s-stays	7005 Aluminum heat treated T-6 0/S t-tube and d-tube. AFS seatstays	Tange MTB dble-butted cro-mo 33.0mm d-tube, 30.0mm t-tube, outer-butted cro-mo s-tube, over-sized 1-1/8" h-tube. Cro-mo triple tapered AFS stays	Tange MTB dble-butted cro-mo 33.0mm d-tube, 30.0mm t-tube outer-butted cro-mo s-tube, over-sized 1-1/8" h-tube. Cro-mo triple tapered AFS stays		
Manitou Mach 5 Pro suspension fork, E-clip adjusters, 57mm travel, Multi stack MCU elastomers	Manitou Mach 5 comp suspension fork. E-clip adjusters. 54mm travel.	Marzocchi Zokes Pro externaly adjustable suspension fork. 55mm travel	Marzocchi Zokes suspension fork. 52mm travel	Tange chro-moly unicrown. Long blade suspension friendly		
1-1/8" Dia-compe STE threadless	1-1/8" Tioga threadless	1-1/8" Dia-compe STE threadless	1-1/8" Dia-compe STE threadless	1-1/8" sealed mech, black, threader		
Axiom 170g T6 alloy	Axiom 170g T6 alloy	Axiom 170g T6 alloy	Axiom 170g T6 alloy	Axiom 170g T6 alloy		
Axiom cold forged threadless 6061 alloy	Axiom cold forged threadless 6061 alloy	Axiom cold forged threadless 6061 alloy	Axiom cold forged threadless 6061 alloy	Satin finish competition 10° rise		
		Vetta tt tri shock, silver rails, syn. leather cover	Vetta tt tri shock, silver rails, syn. leather cover	Vetta tt tri shock, silver rails, syn. leather cover		
Axiom 460 alloy (satin)	Axiom 400 double bolt alloy (satin)	Axiom 460 alloy (satin)	Axiom 460 alloy (satin)	Axiom 460 alloy (satin)		
Gripshift SRT-600i 8sp. indexed rear, short rotation friction frt.	Gripshift SRT-600i 8sp. indexed rear, short rotation friction frt.	Gripshift SRT-600i 8sp. indexed rear, short rotation friction frt.	Gripshift SRT-600i 8sp. indexed rear, short rotation friction frt.	Gripshift SRT-600i 8sp. indexed rear, short rotation friction frt.		
Shimano Deore XT rear. Shimano LX 1-1/8" top-pull front	Shimano Deore XT rear. Shimano LX 1-1/8" top-pull front	Shimano Deore XT rear. Shimano STX 1-1/8" top-pull front.	Shimano Deore XT rear. Shimano STX 1-1/8" top-pull front	Shimano Deore XT rear. Shima STX 1-1/8" top-pull front		
Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type	Shimano 8sp. cassette 11-28T. IG type		
SR CW -CM35 compact (170 or 175mm) 22-32-42T. Shimano cartridge BB	SR CW -CM35 compact (170 or 175mm) 22-32-42T. Shimano cartridge BB	SR CW -CM35 compact (170 or 175mm) 22-32-42T. Shimano cartridge BB	SR CW -CM35 compact (170 or 175mm) 22-32-42T. Shimano cartridge BB	SR CW -CM35 compact (170 or 175mm) 22-32-42T. Shimar cartridge BB		
Tektro 870 cantis with RBP triangle and cold forged levers	Tektro 870 cantis with RBP triangle and cold forged levers	Tektro 870 cantis with RBP triangle and alloy levers	Tektro 870 cantis with RBP triangle and alloy levers	Tektro 870 cantis with RBP triangle and alloy levers		
Alloy cage/resin body. Tioga Toe clips & straps	Alloy cage/resin body. Tioga Toe clips & straps	Alloy cage/resin body. Tioga Toe clips & straps	Alloy cage/resin body. Tioga Toe clips & straps	Alloy cage/resin body. Tioga Toe clips & straps		
Sachs silver, ATB	Sachs silver, ATB	Sachs silver, ATB	Sachs silver, ATB	Sachs silver, ATB		
Deore LX rear 8sp., LX front	Deore LX rear 8sp., LX front	Deore LX rear 8sp., Axiom front	Deore LX rear 8sp., Axiom front	Deore LX rear 8sp., Axiom fron		
DT 1.8mm stainless steel DT 1.8mm stainless steel		DT 2.0mm stainless steel	DT 2.0mm stainless steel	DT 2.0mm stainless steel		
Sun CR-18 double wall, 32 hole, silver. ABT sides			Sun AT-18, 32 hole, silver. ABT sides	Sun AT-18, 32 hole, silver. ABT sides		
Panaracer Smoke/Dart 26x2.0 black skinwall	Panaracer Smoke/Dart 26x2.0 black skinwall	Panaracer Smoke/Dart 26x2.0 black skinwall	Panaracer Smoke/Dart 26x2.0 black skinwall	Panaracer Smoke/Dart 26x2.0 black skinwall		
1650g	2100g	1750g	2150g	2150g		
11.14Kg / 24.5lbs	11.6Kg / 25.5lbs	11.46Kg / 25.25bs	11.75Kg / 25.9lbs	11.4Kg / 25.1lbs		

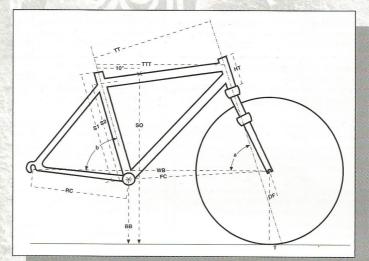
<sup>•</sup> Specifications are subject to change without notice • All weights are approximate

Race Proven Geometry

ur 1996 competition line-up represents a 5 year evolution of Norco's XC frame design. Each year we scrutinize every aspect of our frame sizing and geometry's based on feedback from our race team and our in-house hard-core riders. Norco's mountain bike designers are surrounded by trails that are so steep that the average person would have problems walking on them. These trails tend to turn poorly designed bikes into human catapults on the descents and garden slugs on the climbs. Finding the best combination of geometry's, then building them out of proven materials is our continuing formula for producing what we feel is the best XC frame design. Ride a Norco and see for yourself!

- S1 Seat Tube (centre-top)
- Seat Tube (centre-centre) S2
- SO Standover height (10" in front of TTT & S1 intersection)
- TTT Theoretical Top Tube
- Top Tube (centre-centre) TT
- Head Tube HT
- RC Chain Stay or Rear Centre
- Front Centre FC
- Wheelbase WB
- Head Tube length a
- Seat Tube angle b
- OF Fork Offset
- Bottom Bracket height BB
- All weights are approximate

in:



<ul> <li>All Norco bicycles are available</li> </ul>
15", 17", 18.5", 20" or 22".
(Exception: FTS S, M, L and
Java Mocha 17" 18 5" 20")

- · All data is based on geometry with Marzocchi XC700 fork.
  - For rigid bicycles the following changes are relevant.
  - FC (-6mm), WB (-6mm), a,b (+3/4°),
- BB (-8mm), SO (-8mm).

SIZE	S1	S2	S0	Ш	TT	HT	RC	FC	WB	a	b	OF	BB DROP
15"	381	306	685	543	525	100	425	608	1031	70.5°	74°	39	306
17"	435	360	725	565	543	116	425	625	1049	71°	74°	39	306
18.5"	475	400	752	590	563	130	425	640	1064	71°	73°	39	311
20"	510	435	778	612	587	145	425	660	1083	71°	72.5°	39	311
22"	560	485	818	630	610	166	425	673	1097	70°	72.5°	39	311

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Your 1996 Norco dealer

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VANCOUVER: V3C 6G1, TORONTO: L4L 3R7, MONTRÉAL: J4B 6G4