

# SUSPENSION SETUP

— **AURUM** <sup>HSP</sup> —

ADVENTURE  
BEGIN  
HERE.

**NORCO**  
BICYCLES



## DESIGNED TO MAXIMIZE GRIP AND DIMINISH RIDER FEEDBACK

Follow these steps to get the most out of your Aurum HSP.

### SIZING AND STOCK SHOCK CONFIGURATION

Find your correct frame size from the guide and the stock spring and tune that comes with it

### SET-UP PREPARATION

Set up fork and bar height based on your height

### BASELINE SETTINGS

Baseline tune based on your weight

### TAILOR TO YOUR BODY TYPE

Fine tune your baseline settings to your body type for next-level performance

### TAILOR TO YOUR TERRAIN

Trouble shooting for terrain variation and preference

# 1

# BIKE SIZING AND BASE TUNE

To get the best start on your Aurum HSP choose the correct frame size based on your height.

Each size comes with an appropriate spring and tune as outlined in the chart below.

To maximize the bike's performance and handling, you may need to change your spring and/or tune dependent on your weight and body type.

HEIGHT CM			152.5	155	157.5	160	162.5	165	167.5	170	172.5	175	177.5	180	182.5	185	187.5	190	
HEIGHT FT/IN			5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	
FRAME SIZES	SPRING	TUNE																	
XS/S	300	MM																	
S/M	350	MM																	
M/L	400	MM																	
L/XL	450	HM																	

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FRAME SIZES	SPRING	TUNE																	
M/L	400	MM																	
L/XL	450	HM																	

## SHOCK SPRING PRELOAD

- 1 Bike in the stand, wheels off the ground.
- 2 Loosen spring preload collar until the spring is slightly loose.
- 3 Ensure the shock is fully extended and that the spring is now fully seated against the spring seat, the lowest portion of the spring, closest to the rebound adjuster.
- 4 Rotate spring preload collar until it just evenly contacts the spring. At this stage, by exerting downwards pressure by hand, on the spring you should still be able to move it away from the preload collar, and the spring will easily move side to side. This is zero preload.
- 5 Rotate the spring preload collar two complete clockwise rotations from zero preload.
- 6 Make sure to correctly align lower spring collar (seat) so that the gap does not line up with the end of the spring.

		TIRE PRESSURE	
WEIGHT		FRONT PSI	REAR PSI
100-120 lbs	45-54 kg	20	23
120-140 lbs	54-64 kg	21	24
140-160 lbs	64-73 kg	23	25
160-180 lbs	73-82 kg	24	27
180-200 lbs	82-91 kg	25	28
200-220 lbs	91-100 kg	26	29
220-240 lbs	100-109 kg	27	30

## 2 SET-UP PREPARATION

Based on your bike size follow the fork setup instructions and apply the base fork height and bar height

HSP 1	XS/S - S/M	M/L - L/XL
<b>FORK HEIGHT</b>	162 MM	162 MM
<b>SPACER STACK BELOW TOP CROWN</b>	10 MM	10 MM
<b>STOCK BAR RISE</b>	25 MM	38 MM

HSP 2	XS/S - S/M	M/L - L/XL
<b>FORK HEIGHT</b>	162 MM	162 MM
<b>SPACER STACK BELOW TOP CROWN</b>	15 MM	28 MM
<b>STOCK BAR RISE</b>	20 MM	20 MM

### BOXXER ALIGNMENT PROCEDURE

Follow the procedures below to ensure the highest level of grip and reduce the amount of wear on your suspension components. To be performed at time of assembly for best performance.

- 1 With the front wheel installed in the fork, loosen but do not remove all bolts: axle (both sides), bottom crown (4) and top crown (3), the stem where it holds on to the steer tube and/or top crown if applicable (loosening the handlebar fixing clamp is not necessary). Please be aware that the stanchion tubes will most likely slip out of the crowns at this point. Tighten the spring side lower crown bolt to temporarily hold the tubes in place.
- 2 Compress the fork a few times by pulling on the fork arch. Be aware that the damper side upper tube will likely slide upwards into the crowns. Keeping a hand on the damper side top cap will help to keep the upper tube in place.
- 3 Tighten the drive side of the axle to manufacturer torque spec. Repeat step 2
- 4 Tighten the non-drive side of the axle to manufacturer torque spec. Repeat step 2
- 5 Before moving on to tightening the lower crown bolts, you will have to set the height of the stanchion in the lower crowns first. See fork height measurements in above chart for guidelines. Fork height measures the distance from the top of the upper tube to the top of the lower crown. This distance must be 164mm ( $\pm 2$ mm).
- 6 Tighten the lower crown bolts to specified torque follow this tightening pattern: Top bolt on spring leg, top bolt on opposite leg, then lower bolt on spring leg followed by lower bolt on opposite leg. Move along in this sequence in small increments, until all bolts are tightened to manufacturer torque.
- 7 At this point you may alter the preload on your headset bearings by tightening or loosening your top cap, as necessary.
- 8 Tighten both top crown stanchion bolts to manufacturer torque spec. Pick a side, tighten the crown bolt lightly, then move over to the other side and tighten crown bolt lightly. Go back and forth until both bolts are tightened to manufacturer torque spec.
- 9 Tighten the bolt at the top crown and steer tube junction to manufacturer torque spec.
- 10 Tighten the stem bolts to stem manufacturer torque spec.

### FORK INFLATION PROCEDURE

The DebonAir air spring requires a specific inflation procedure. Please refer to Manufacturer Guidelines [here](#).

### NOTES

Measurements shown in mm.

Fork height measures the distance from the top of the upper tube to the top of the lower crown. This distance must be 164mm ( $\pm 2$ mm).

### WARNING!

Refer to Manufacturer Guidelines [here](#) for specifications.

# 3 BASELINE SETTINGS

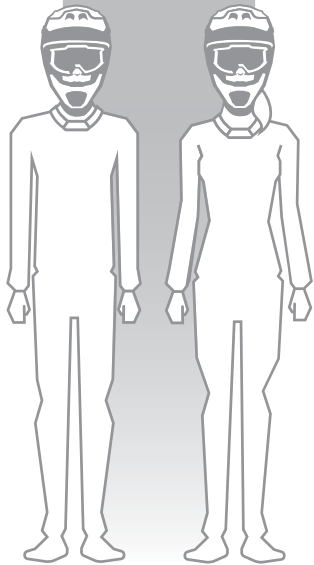
RIDER WEIGHT		MY18 ROCKSHOX BOXXER WC 200MM					MY18 ROCKSHOX SUPER DELUXE COIL 225X75MM (27.5) OR 225X70MM (29)				
LBS	KG	AIR/PSI	AIR VOL	REBOUND	HSC	LSC	TUNE	SPRING/LBS	PRELOAD	REBOUND	COMP
100	45	95	0X	10-11 OUT	3-4 OUT	15-18 OUT	MM	300	2 TURNS IN	10 OUT	9-12 OUT
110	50	100	0X	10 OUT	3-4 OUT	15-18 OUT	MM	350	2 TURNS IN	9 OUT	9-12 OUT
120	54	105	0X	10 OUT	3-4 OUT	15-18 OUT	MM	350	2 TURNS IN	9 OUT	9-12 OUT
130	59	110	0X	9-10 OUT	3-4 OUT	15-18 OUT	MM	400	2 TURNS IN	8 OUT	9-12 OUT
140	64	115	0X	9 OUT	3-4 OUT	15-18 OUT	MM	400	2 TURNS IN	8 OUT	9-12 OUT
150	68	120	0X	9 OUT	3-4 OUT	15-18 OUT	HM	450	2 TURNS IN	7 OUT	9-12 OUT
160	73	125	0X	8-9 OUT	3-4 OUT	15-18 OUT	HM	450	2 TURNS IN	7 OUT	9-12 OUT
170	77	130	0X	8 OUT	3-4 OUT	15-18 OUT	HM	500	2 TURNS IN	6 OUT	9-12 OUT
180	82	135	0X	8 OUT	3-4 OUT	15-18 OUT	HM	500	2 TURNS IN	6 OUT	9-12 OUT
190	86	140	0X	7-8 OUT	3-4 OUT	15-18 OUT	HM	550	2 TURNS IN	5 OUT	9-12 OUT
200	91	145	0X	7 OUT	3-4 OUT	15-18 OUT	HM	550	2 TURNS IN	5 OUT	9-12 OUT
210	95	150	0X	7 OUT	3-4 OUT	15-18 OUT	HM	600	2 TURNS IN	4 OUT	9-12 OUT
220	100	155	0X	6-7 OUT	3-4 OUT	15-18 OUT	HM	600	2 TURNS IN	4 OUT	9-12 OUT
230	104	160	0X	6 OUT	3-4 OUT	15-18 OUT	HH	650	2 TURNS IN	3-4 OUT	10-12 OUT
240	109	165	0X	6 OUT	3-4 OUT	15-18 OUT	HH	650	2 TURNS IN	3-4 OUT	10-12 OUT

- NOTES
- 1 Damper settings are measured in number of clicks out = number of clicks counter-clockwise starting from all the way clockwise.
  - 2 Ensure shock tunes are appropriate for the spring rate you use:  
300-400 springs = MM tune 450-600 springs = HM tune 650 spring = HH tune
  - 3 Consult your SRAM service center for altering shock tune.
  - 4 For HSP 2, follow the fork pressure / volume / rebound settings and rear shock settings above.

# 4 TAILOR TO YOUR BODY TYPE

Select your body type below to fine tune your baseline settings for next level performance

## ECTOMORPH

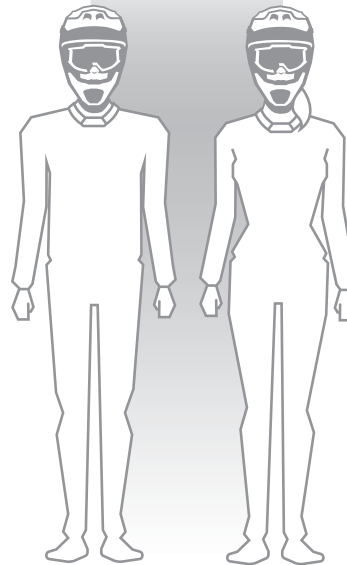


### I TYPE

#### CHARACTERISTICS

- Thin body & bone structure
- Long limbs
- Lean muscle mass
- High center of mass

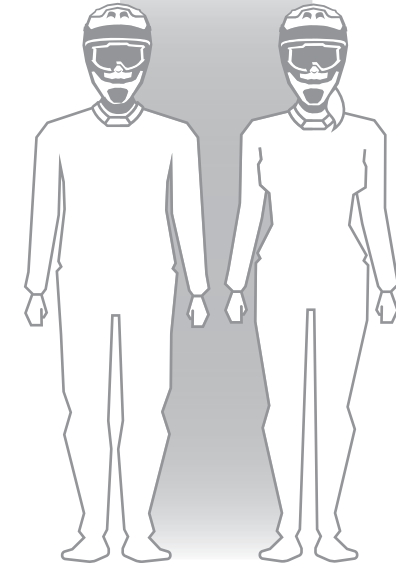
## MESOMORPH



### V TYPE

- Medium sized bone structure
- Rectangular body shape (Male)  
Hourglass body shape (Female)
- Builds muscle easily
- Middle center of mass

## ENDOMORPH



### O TYPE


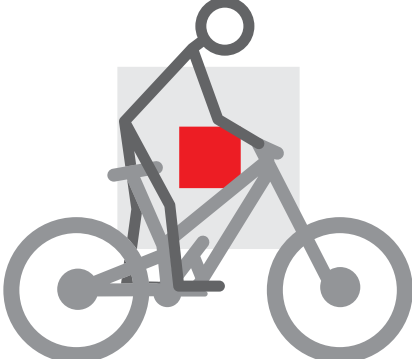

- Large bone structure
- Rounder body shape
- Shorter limbs
- Higher amounts of total body mass
- Low center of mass

# 4 TAILOR TO YOUR BODY TYPE

Below shows the details of your body type and how to adjust for your center of gravity

BODY TYPE	ECTOMORPH	MESOMORPH	ENDOMORPH
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## CENTER OF GRAVITY

HORIZONTAL PLANE	CENTER FORWARD	CENTER MIDDLE	CENTER BACK
VERTICAL PLANE	HIGH	MIDDLE	LOW
Rider center of gravity is shown to be exaggerated			

## OPTIMAL SUSPENSION SAG

FORK SAG	LOW END OF RANGE (LOWER %)	MID RANGE	HIGH END OF RANGE (HIGHER %)
SHOCK SAG	HIGH END OF RANGE (HIGHER %)	MID RANGE	LOW END OF RANGE (LOWER %)

## HOW TO REACH OPTIMAL SUSPENSION SAG

BAR HEIGHT	RAISE BAR HEIGHT	MID RANGE	LOWER BAR HEIGHT
FORK PSI	HIGH END OF RANGE	MID RANGE	LOW END OF RANGE
SHOCK SPRING*	LOWER RATE	TEST RIDE TO ASSESS	HIGHER RATE

\*If at the cusp of two spring rates, your body type may help you determine which one will work best

# 5

# TAILOR TO YOUR TERRAIN

Is your HSP showing limitations in certain circumstances? The following recommendations within baseline ranges will help adjust your settings to terrain variations and preferences. Be sure to make one change at a time to assess which adjustment delivers the best result.

### AVERAGE DESCENDING GRADE

BAR HEIGHT	LOWER BAR HEIGHT
	AND/OR
FORK	- PSI AND/OR - HSC
	AND/OR
SHOCK	+ COMPRESSION

### STEEP DESCENDING GRADE

BAR HEIGHT	RAISE BAR HEIGHT
	AND/OR
FORK	+ PSI AND/OR + HSC
	AND/OR
SHOCK	- COMPRESSION

### SMOOTH JUMP TRAIL

FORK	+ PSI AND/OR + RBD AND/OR + HSC
SHOCK	+ COMPRESSION AND/OR + RBD

### ROCKY/ROOTY/SQUARE EDGE

FORK	- RBD AND/OR - HSC
SHOCK	- COMPRESSION

### IF RIDER IS GETTING PULLED BACK OVER THE REAR WHEEL (SQUATTING)

BAR HEIGHT	LOWER BAR HEIGHT
	AND/OR
FORK	+PSI (STEP 1 FOR OVERALL MORE SUPPORT WHILE MAINTAINING GRIP) AND/OR +LSC (MORE SUPPORT UNDER BRAKING AND WEIGHT SHIFTS) AND/OR +HSC (MORE SUPPORT IN MULTIPLE LEDGES AT SPEED, HEAVY COMPRESSIONS) AND/OR +1 TOKEN (SAME AS HSC - WITH POTENTIALLY BETTER SQUARE EDGE PERFORMANCE)
	AND/OR
SHOCK	- COMPRESSION OR DROP A SPRING RATE IF AT THE CUSP OF THE SPRING RATE.

### IF RIDER IS GETTING PULLED FORWARD OVER THE FRONT WHEEL (DIVING)

BAR HEIGHT	RAISE BAR HEIGHT
	AND/OR
FORK	+ PSI AND/OR + LSC / +1 TOKEN IF 155-175LBS
	AND/OR
SHOCK	- COMPRESSION AND/OR IF AT THE CUSP OF TWO SPRING RATES, USE THE LOWER OF THE TWO

\* To fine tune your HSP 2 with the Rockshox Boxxer RC using the charts above, substitute LSC and HSC for Compression on the RC damper. All other adjustment queues (psi, volume, rebound and rear shock related ) will transfer over.

## NOTES IN RELATION TO WEIGHT DISTRIBUTION AND TERRAIN FACTORS

- All recommendations made for tailoring of baseline setting according to your body type/weight distribution and terrain being ridden. Start with baseline settings. Changes within the chart can be made individually for subtle effects or together for a more pronounced change in feel.
- Aim is optimal balance of grip, support and minimized rider feedback.
- Small differences in settings make a substantial difference in how the bike adapts to rider weight distribution and terrain specificities. We recommend making only incremental changes at a time: 2-5 psi changes, and/or 1-2 clicks of damper changes at a time.
- Over the course of the testing period, please be considerate of your comfort level with the test track and accrued rider fatigue. In general, if a rider is riding stiff and braking more than usual, the bike will always feel harsher.
- When at the cusp of a spring rate and considering adding compression or upping spring rate for more support, most of the time best results will be achieved with upping spring rate and using less compression. When at the cusp of a spring rate and considering dropping compression or dropping spring rate, start by running less compression (up to all the way out), then only if necessary drop the spring rate and add compression within baseline range as needed.