

# OWNERS MANUAL



**STRUCTURE**

cycleworks





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## Safety

### **WARNING**

Keep this manual handy for reference.

It is strongly recommended that you follow Structure Cycleworks' and component manufacturers' instructions where indicated in this manual, as many tasks should only be performed by a bicycle repair technician.

Adhere to all torque and sizing specifications. Over-tightening can damage threads or cause parts to fail. Using the wrong size part can cause part failure and may cause a crash, which can result in serious injury or death.

More than most machines, a mountain bike is subject to wear and high stresses. Various materials and components react to wear and stress in different ways and may suddenly fail and cause a crash, which can result in serious injury or death. Any form of scratch, crack, unusual noise, dent, fiber delamination, or change in colouring can indicate that a component should be inspected by dealer service personnel and/or replaced before riding.

In the event of an impact or crash, damage to carbon fiber components or frame may be invisible. Consult your dealer service department immediately for inspection.

Your bicycle requires regular maintenance, frequent inspection, and timely replacement of parts to address any issues.

Excessive vibration or noise from the wheels, pivots, or frame indicates a serious problem. Stop riding immediately and consult your dealer.

Do not expose your bicycle to temperatures of 65°C (150°F) or higher. High temperatures can damage carbon fiber resin or frame joints.

Do not attempt to repair damaged carbon fiber components. Contact Structure Cycleworks customer service for crash replacement if necessary. Repairing a carbon fiber frame component can compromise safety and will void the warranty.

Do not place your hands near a moving wheel or drive train components. A spinning wheel can catch your hand between the spokes and frame and crush, pinch, or lacerate your hand. Areas where the chain contacts sprockets can pinch and cause injury, and sprocket teeth and brake rotors have sharp edges that can cut.

Wear appropriate PPE (personal protective equipment) when cutting, drilling, using chemicals, or performing other tasks than may expose you to harm while working on a bicycle.





## Components

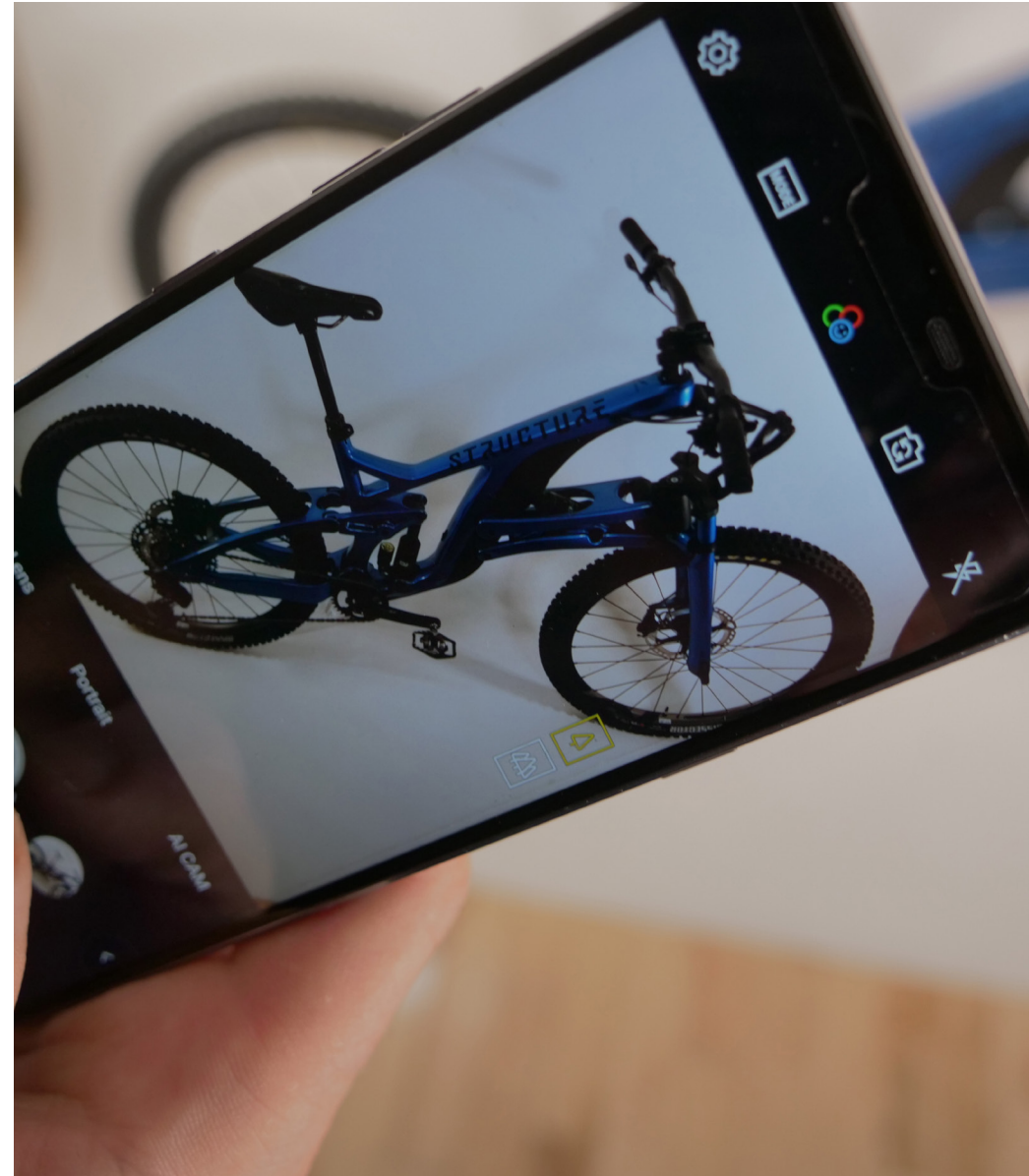
We outline the basics of installation for each the components included on a complete bike purchase. If you find these instructions hard to follow or need a more step-by-step guide go to the manufacturers website and download the PDF or follow the online instructions or video.

Full instructions on all components available on the following websites:

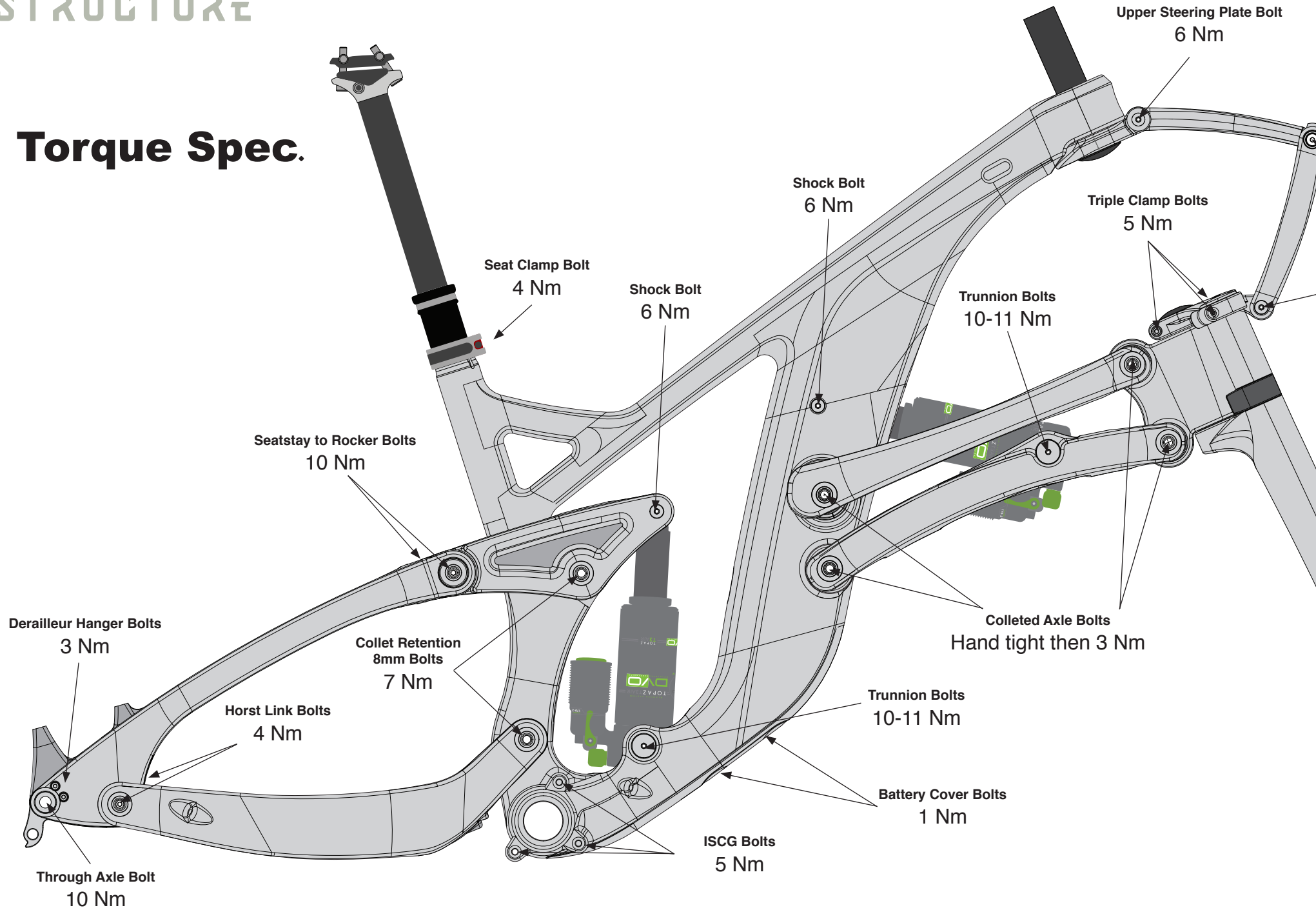
[dvosuspension.com](http://dvosuspension.com)  
[oneupcomponents.com](http://oneupcomponents.com)  
[magura.com](http://magura.com)  
[sram.com](http://sram.com)

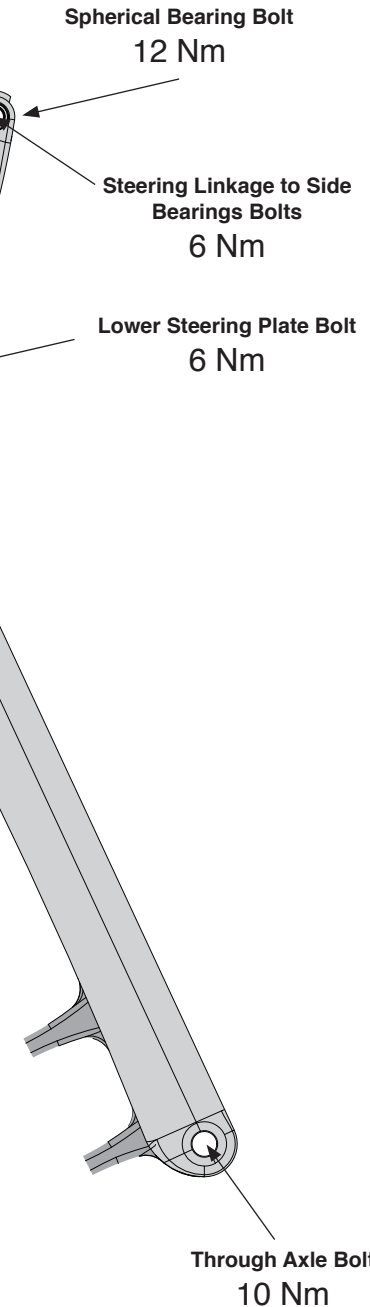
### **WARNING**

Please follow component manufacturer's installation, torque, and adjustment instructions for each component. Failure to do so may result in component malfunction, injury, or death.



## Torque Spec.

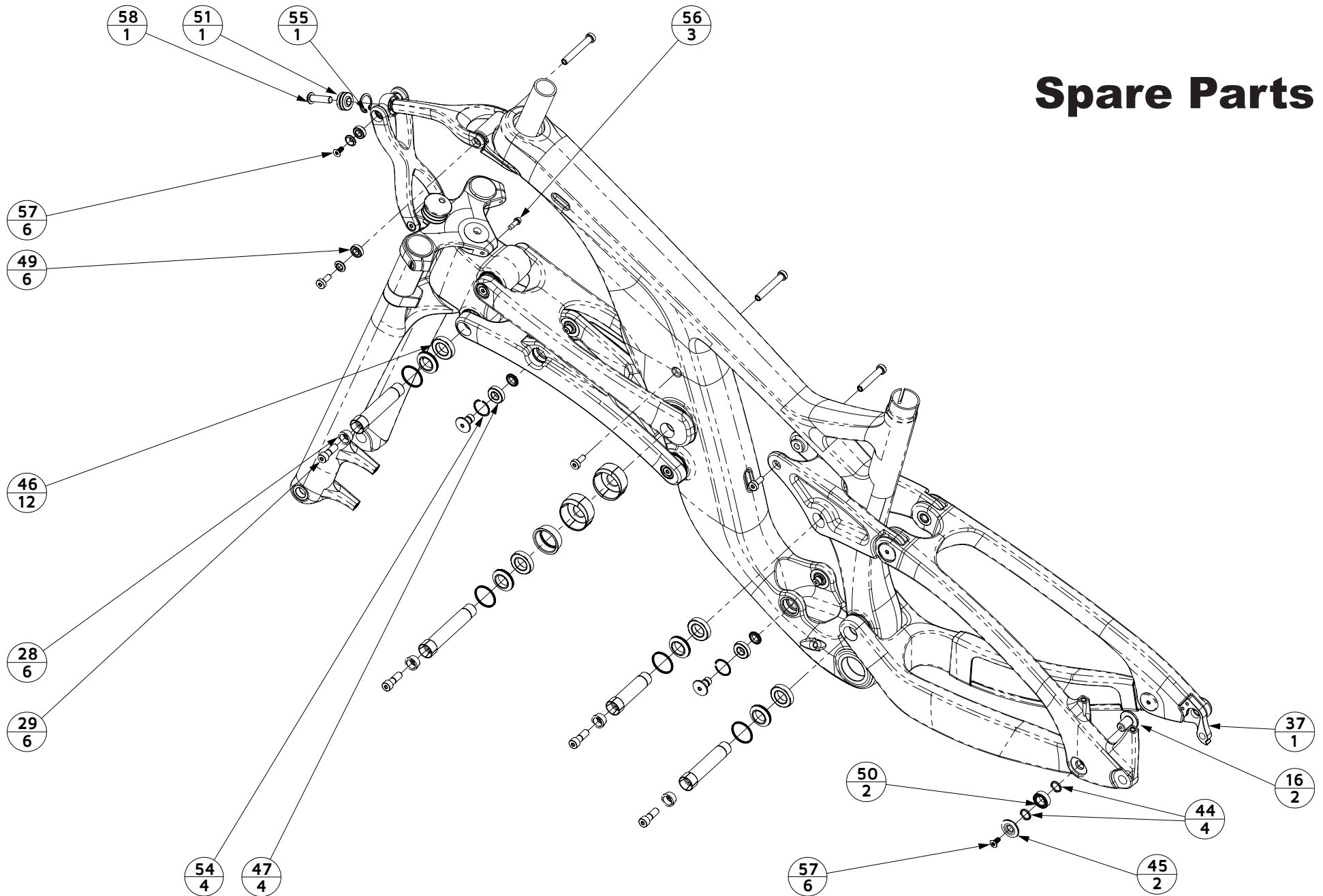




## Other Torque Spec.

Headset preload	5mm Hex	3 Nm
Seat rail clamp bolts	5mm Hex	8 Nm
Remote bar clamp	3mm Hex	1 Nm
Remote cable clamp	3mm Hex	3 Nm
Remote body to clamp	4mm Hex	3 Nm
Stem top bar bolts	4mm Hex	Until no gap
Stem bottom bar bolts	4mm Hex	6 Nm
Stem steerer bolts	5mm Hex	9 Nm
Grips	3mm Hex	2 Nm
<b>Brakes:</b>		
Bar clamp top bolt	T25	Until no gap
Bar clamp bottom bolt	T25	4 Nm
Calipers	T25	6 Nm
Rotor bolts	T25	4 Nm
Banjo bolt loosen	T25	30° max
Banjo bolt tighten	T25	3 Nm
Sleeve nut	8mm wrench	4 Nm
<b>Drive train:</b>		
Cassette	Lock ring tool	Hand thread then 40 Nm
Shifter mount	T25 or 4mm Hex	2 Nm
Rear derailleur	5mm Hex	11 Nm
Derailleur cable	T25 or 4mm Hex	4.5 Nm
Bottom bracket Cups	12 notch tool	50 Nm
Crank set	8mm Hex	54 Nm
BB preload on crank	2mm Hex	Until ends touch
Pedals	Pedal specific tool	54 Nm or mfg. spec.

## Spare Parts







<b>Most Common Spare Parts Listing and Number on Bike</b>			
#	Part Number	Description	QTY
16	KQS 3791	Pivot bolt, rear triangle	2
28	KQS 2723	Collet washer	6
29	KQS 3785	Bolt Collet M8	6
37	KQS 3550	Rear derailleur hanger	1
44	KQS 3793	Bearing spacer, rear triangle	4
45	KQS 3792	Horst link pivot washer	2
46	6903-2RS	Bearing 6903	12
47	6900-2RS	Bearing 6902	4
48	3802-2RS	Bearing 15x24x7	2
49	688-2RS	Bearing 688	6
50	3801-B-2RS-TVH	Bearing 3801	2
51	COM-M8T	Spherical bearing, 22mm OD x 8mm bore x 12mm wide ball	1
55	98394A440	Internal Retaining Ring, 22mm ID	1
56	BN15857	M5 x 15 Stem Bolt	3
57	BN3803	M5 x 0.8 x 12 Flat Head Cap Screw - T25 Driver	6
58	BN6404	M8 x 1.25 x 30 Button Head Cap Screw	1
59	BN15857	M4 x 0.7 x 12 Socket Head Cap Screw	2

## Specifications

Frame-fork-set Details	
Frame/Fork	Carbon fiber, including fork, linkages and rear triangle
Travel	153mm front / 154mm rear
Wheel size	27.5" (650b)
Tire clearance	2.6" with generous mud clearance
Hardware	17mm colleted aluminum through-axles, machined and engraved 7075 triple clamp
Shocks (2)	DVO Topaz / T3AIR custom tuned / 205x65 Trunnion mount
Headsets (2)	Cane Creek / 40 series
Axles	Boost 15 x 110 mm GW Twist Lever front / 12 x 148 mm stealth rear
Bearings	high precision sealed cartridge: 6903 Main pivots / 6902 Trunnion end bearing / 3802 Rocker-seat / 688 Steering link pivots / 22x8x9 Spherical - Teflon-coated stainless
Chain line	Boost 52 mm (also non-Boost compatible)
Chain ring clearance	34 T Boost / 32 T non-Boost
Front derailleur	Single-ring only / chain guide & bash guard compatible
Chain guide mounts	ISCG-05
Bottom bracket	BSA
Seat post clamp	36.0 mm / Alloy clamp included
Seat post diameter	31.6 mm
Seat post stroke	150mm (G1), 180mm (G2), 210mm (G3)
Cable routing	Internal, sleeved / Di2 compatible, wire guides and internal battery mount
Derailleur hanger	Replaceable
Brake mounts	203 mm post front / 180 mm post rear
Water bottle mount	G1-G3 1 under frame at Di2 battery cover - G3 size has mount in main triangle for 16oz side load bottle



# General Service and Care

## STORING

Store your bicycle where it will not be an obstacle and with protection from the elements. Do not park your bicycle near electric motors; ozone from motors can damage rubber and paint. Rain or snow can cause the metal on your bicycle to corrode. Ultraviolet radiation from the sun can fade the paint and crack the rubber or plastic on your bicycle. Before you put away your bicycle for an extended time, clean and service it and apply frame polish. Hang your bicycle off the ground with the tires at approximately half the recommended inflation pressure. Before you ride your bicycle again, be sure it operates correctly.

## MAINTENANCE

Bicycle service requires special knowledge and tools and should be performed by a professional bicycle mechanic. This user manual is to be used in conjunction with the manuals supplied by the component manufacturers. If you did not receive the manual provided by the component manufacturer, download the materials off the Internet or contact your local dealer. Consult your local dealer to create a maintenance plan and refer to the Maintenance Schedule on the next page as a guide for frequent inspection, service, and replacement of parts.

## INCIDENTAL DAMAGE

Do not let your bicycle fall. Do not set your bicycle down with the frame or derailleur touching the ground. Use care with car racks and work stands. Clamping devices, such as those found on a work stand or car carrier, can cause damage to the paint or tubes of bicycle frames. To hold the bicycle for repairs, clamp the seat post. To hold

the bicycle for transportation on a motor vehicle, clamp the bicycle by the wheels or fork. If you accidentally apply a bending force to the fork, do not ride the bicycle until your retailer has inspected the fork for damage. The finish, or paint, on your bicycle can be damaged by chemicals (including some sports drinks) or abrasive contact. Dirt can scratch or remove paint (and even frame material), especially where a cable rubs or a strap is placed around a tube. Keep the bicycle clean. Use adhesive padding to prevent rubbing in critical spots.

## CLEANING

Clean your bicycle with a soft, moist cloth and bicycle cleaner or a solution of dish soap and water. Do not use industrial solvents or harsh chemicals that can damage the paint or moving parts. Do not use high-pressure water. Every three months, clean and polish the frame finish. Some finishes do not require polish. If you are not certain, consult your retailer.

## TRANSPORT

When packaging your bicycle for travel, use a hard case or carton that will protect it from damage. Attach padding to all the frame and fork tubes, and use a rigid block to protect the fork tips and maintain structural support of the fork blades. If the bicycle is not packaged correctly, it could be easily damaged in transit. If you are not sure, ask your retailer to package your bicycle for you.

## Assembly

### Tools required

- 1 – T25 Torx tool
- 1 – T30 Torx tool
- 1 – ball end hex tool set with 2.5, 3, 4, 5, 6, 8, and 10-millimeter drivers
- 1 – cassette tool
- 1 – 24mm socket and ratchet for above
- 1 – torque wrench, 3-20 Nm range
- 1 – torque wrench, 20-80 Nm range
- 1 – brake bleed kit with royal blood (blue mineral oil)
- 1 – hydraulic hose cutter
- 1 – cable cutter

Unbox bike frame, fork, and parts bags. Lay out on a soft surface. Locate shocks and depressurize by depressing Schrader valve. Remove retention o-ring at the piston end of the main air canister. Holding the top of the shock, twist and push the outer canister cover down. Insert 3 volume spacers into the positive air chamber of the front shock and 3 volume spacers into the positive air chamber of the rear shock, per DVO's instructions. Without pinching the o-ring that separates positive and negative air chambers, carefully slide the cover back into position until fully seated and replace o-ring.

The SCW1 is delivered with three volume spacers in the positive air chamber of the front shock and three in the rear shock. This allows for plush, responsive small-bump compliance in early in the travel, with strong resistance to bottom-out. If you determine that you would like to change the number of volume spacers in your DVO shocks, please

follow DVO's instructions found on their website.

Please refer to the accompanying graph as a chart to setting shock pressures as a starting point according to riding style. 

Locate shock fasteners and bearing washers, place washers (with smaller taper toward the trunnion(upper eyelet) bearing's inner race) against bearing, then hold them in place by putting the trunnion bolt through the bearing from the outside, just far enough to hold the washer.

NOTE: For rear shock only, it is best to have trunnion end fully installed and tightened before fastening small end. Align the shock with chamber down and wiggle the trunnion end between both spacer washers until one of the bolts engages threads in the shock body. Start threading one side and then the other side and ensure both trunnion end bolts are engaging threads smoothly. Torque to 10-11Nm. Repeat for the other shock.

For shock small end(lower eyelet), use DVO 8mm x 30mm fitment kit, installed according to DVO instructions. Work the shock's small end into position, then install 8mm female bolt from the drive side with a small amount of assembly grease on the outside surface. Install male bolt with medium thread locker. While holding male bolt with T30 Torx driver, from the drive side of the bike apply 6 Nm of torque to the female bolt only.

Locate fork, steering linkage, headsets and stem. Install the bumpers onto the fork making sure the flats align (moisture will help slide them on). Set aside crown races (unnecessary). Install lower headset bearings at both upper and lower steering heads, using a plastic dead-blow hammer (if necessary) to gently seat the bearings. Place fork



into lower steering head and install top headset bearing and split race on top of fork steerer tube (for fork only, set aside top cap, as it will not be used).

On the steering linkage, loosen all three cinch bolts on the triple clamp and carefully slide the triple clamp over the three tops of the fork. Install headset top cap and bolt and tighten until bearings are engaged but not overly tight (4 Nm). Fold and/or rotate linkage to

Rider Weight, With Gear (lbs)	Rear Shock			Front Shock		
	Plush (3 vol. spacers)	Aggressive (2 vol. spacer)	Bike Park Jump (2 vol. spacers)	Plush (3 vol. spacers)	Aggressive (3 vol. spacers)	Bike Park Jump (3 vol. spacers)
100	90	95	100	55	60	65
110	99	105	110	61	66	72
120	108	114	120	66	72	78
130	117	124	130	72	78	85
140	126	133	140	77	84	91
150	135	143	150	83	90	98
160	144	152	160	88	96	104
170	153	162	170	94	102	111
180	162	171	180	99	108	117
190	171	181	190	105	114	124
200	180	190	200	110	120	130
210	189	200	210	116	126	137
220	198	209	220	121	132	143
230	207	219	230	127	138	150
240	216	228	240	132	144	156
250	225	238	250	138	150	163
Compression (min/med/max)	min	min	med	min	min	med
Rebound (clicks from 0)	+6	+5	+6	+6	+5	+6



# STRUCTURE

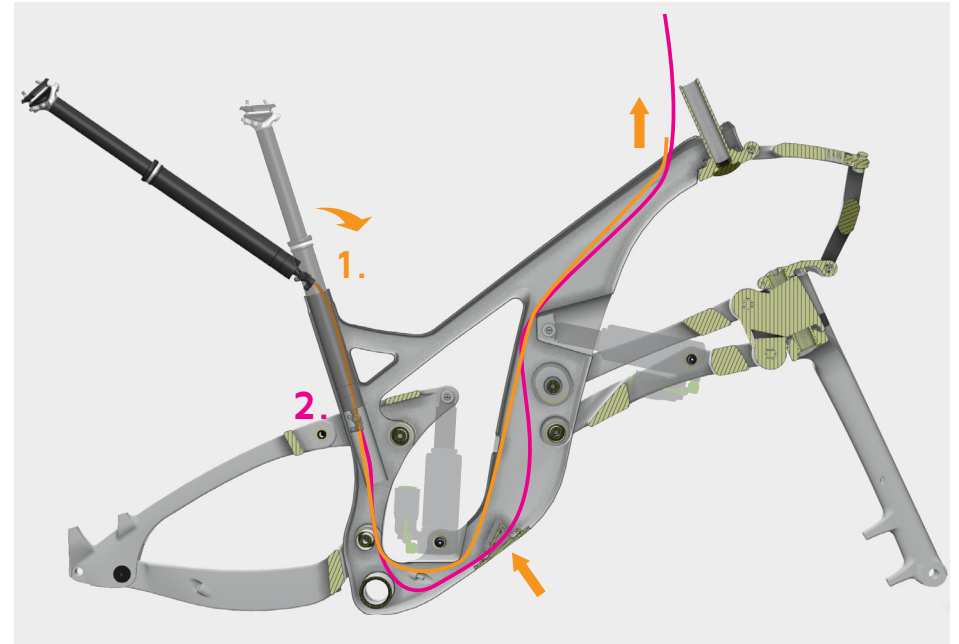
correctly orient the links before installing the upper steerer through the main frame headset. Install top cover, making sure split ring is in place. Using assorted 5mm and 10mm steerer spacers to set desired stem height, install the stem on the steerer.

Tighten preload cap to set headset preload, applying no more than 4Nm of torque. Set preload on lower headset in the same manner, using no more than 4Nm of torque. Once the fork and steering assembly rotate smoothly – without looseness or play in either steerer – tighten stem bolts per stem manufacturer's torque specification; then add thread locker and tighten triple clamp bolts to 7 Nm. Go over all of the fasteners in the steering system a second time to confirm correct torque at each fastener.

Using a non-marring tool, carefully pry out the two front rubber cable outlets, starting from a bottom corner. Slowly work the rubber cable outlet out of the frame.

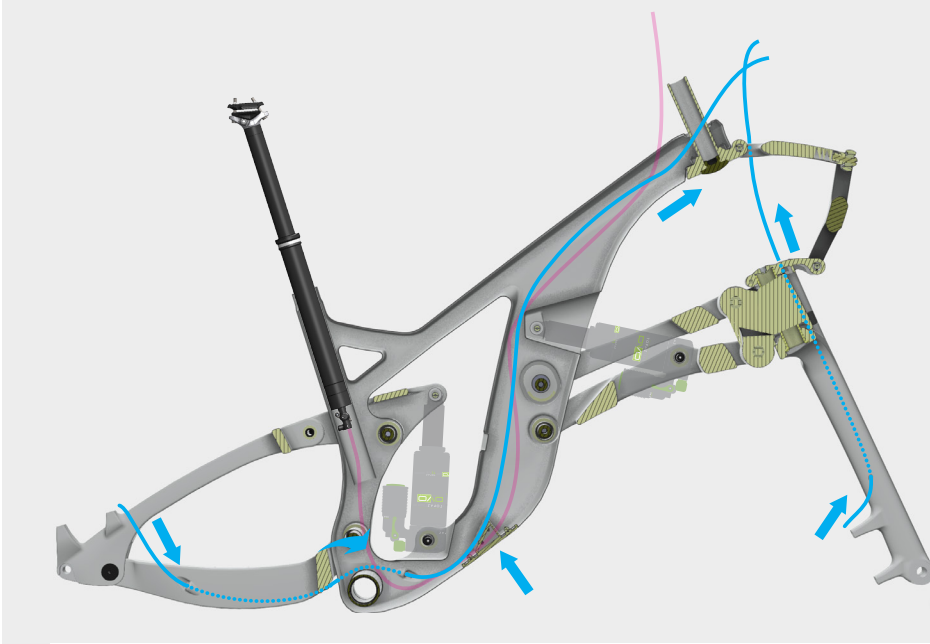
Locate seat post collar and place it on the frame with bolt forward and the reading upright. Locate seat post and lever/cable kit. Apply assembly grease to the inside of the frame set through the hole in the bottom bracket shell to facilitate sliding of the cable housing past the tight radius at the bottom bracket.

Install the cable housing from the top of the seat tube, guiding it past the front of the chain stay pivot to the hole in the frame's bottom bracket shell. With one finger, guide the cable housing forward to feed it across to the Di2 battery opening in the bottom of the down tube. Push until it extends out of the battery opening, pulling through until 20mm remains above the seat collar.



Feed end at battery port through one of the smaller foam silencing tubes and then up into the frame. Aim the cable housing to the space in the down tube behind the front shock pocket and continue feeding the housing until it becomes visible at the cable outlets in the top tube.

Use a spoke or wire with a small hook in the end to grab the housing and pull it through the non-drive side cable exit, remembering to twist the loop at the battery opening to straighten the cable housing in the frame. Install the supplied cable barrel onto the cable.



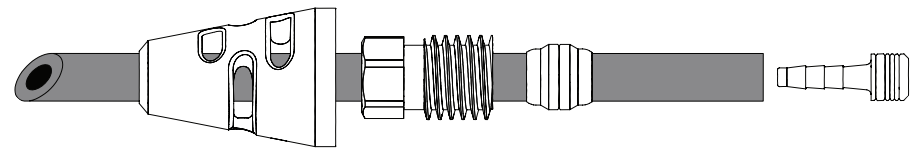
Attach cable to seat post actuator, place a ferrule on the seat post end of the housing and feed the cable into the housing until snug, grab the cable at the front of the bike pushing the housing back and ease the seat post into the frame while pulling the cable and housing out the front.

Tighten the seat post clamp to 4 Nm and then clamp the bike onto the stand by the seat post. Remove saddle clamps to access Schrader valve on top of seat post; attach shock pump and pressurize to 275 psi. Replace clamps and attach the seat. Now you may attach the handlebar to the stem. Locate the brakes, front and rear will have different length hoses. For the front brake, disconnect the hose at the lever. Placing the lever on the bar with the open end up, slide the cover and sleeve bolt back. Using a utility blade or hose cutter, cut

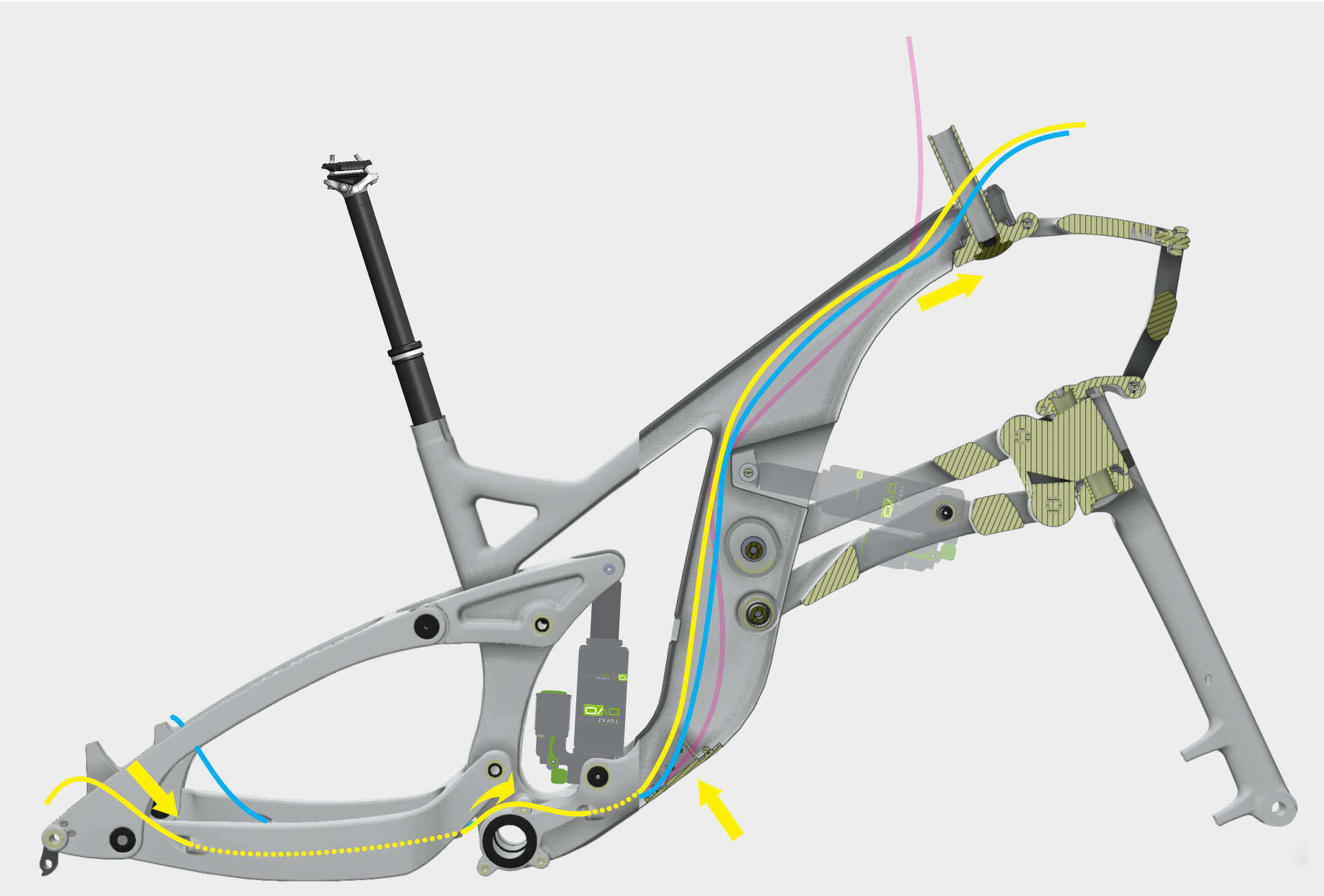
the hose behind the olive and insert a hose plug. Then insert the hose end into the fork leg until it comes out the top hole and loosely bolt the caliper to the fork.

Slightly loosen the banjo bolt and rotate the hose to an optimal position and re-tighten to 3Nm (27 in-lb) Determine the hose length for the front brake, ensuring that it is not long enough to contact the upper steering link when the suspension is fully compressed. Cut the hose and slide on cover, bolt and olive. Grip the hose using two transport devices and insert barb into hose end. Slide olive and sleeve nut forward and reconnect the hose to the lever by hand while a steadily pushing the hose into the lever to assure proper crimping of the olive. Torque sleeve nut to 4Nm (35 in-lb) Disconnect hose from rear brake lever, slide cover and sleeve bolt back, cut hose below the olive, and insert a hose plug. Insert the hose on the non-drive-side lower stay, feed until it comes out the front outside of the stay, then feed directly into the main chassis. Guide the hose out the battery port and loosely attach the caliper to the frame.

Slide the 6mm foam dampening cover onto the extended hose, then loop back into the frame and guide against the rear of the down tube until you feel it reach the top tube; slowly feed until it is visible through the right hand port and use a hook to pull it out and route it through one of the two drive-side cable guide holes. Slightly loosen the banjo bolt and rotate the hose to an optimal position and re-tighten to 3Nm (27 in-lb).



# STRUCTURE





Determine the hose length for the rear brake after rotating the handlebar bumper to bumper. Cut the hose and slide on cover, bolt and olive. Grip the hose using two transport devices, insert barb into hose end, slide olive and sleeve nut forward and reconnect the hose to the lever by hand while pushing hose steadily into the lever, then torque sleeve nut to 4Nm (35 in-lb)

**Drive train** - Locate the shifter, derailleur, and shifter housing. Starting at the drive side port in the chain stay near the derailleur, slide the shifter housing through to the front of the chain stay, pulling it until only enough housing is exposed to reach the derailleur, then guide the forward end into the frame opening adjacent to the upper ISCG-5 tabs. Find the housing as it reaches the Di2 port and guide the forward end out of the port. Slice the remaining 5mm silencing sleeve over the housing and guide the forward end up into the frame past the rear of the front shock opening until the forward end can be hooked and pulled out of the drive side cable port.

Attach shifter to the bar with a 5mm hex socket and derailleur to the hanger and torque to 11 N-m (97 in-lb). Fit a ferrule to the shifter end of the housing and guide the housing into the shifter. Rotating bars lock to lock to determine the correct amount of housing to leave between the cable exit and shifter. Pull excess housing through the frame and then measure the housing to the derailleur. Retract the cable forward toward the shifter so it is not cut, then cut the housing to the correct length. Add a ferrule to the derailleur end of the housing.

Locate bottom bracket and determine drive and non-drive sides, then thread in as far as you possible by hand. Using an appropriate bottom bracket socket, torque to 50Nm (443 in-lb).

Insert drive side crank through bottom bracket and tap with soft mallet until seated. Attach the non-drive side crank with an 8mm hex by hand, then use a torque wrench to tighten the crank arm bolt to 54 Nm (478 in-lb). Remove play from the system by turning the preload adjuster in the + direction until it stops or makes contact with the bearing shield. Use a 2 mm hex wrench to tighten the bolt until the adjuster edges touch. Check the cranks for play by rocking the crank arms back and forth. There should be no side-to-side play present.

**Pedals** - Install the washer between the crank arm and pedal. Tighten the pedal shaft to 54 Nm (478 in-lb) unless otherwise specified by the pedal manufacturer. Note that the non-drive side is reverse threaded.

**Wheels** - Tighten the rotor bolts in an alternating sequence until a torque of 6.2 Nm (55 in-lb) is achieved for each bolt. Install the cassette onto the driver body until it is fully seated with the splines engaged, then tighten the cassette with a cassette installation tool. Torque to 40 Nm (354 in-lb).

**Tubeless tire setup** - Follow the instructions on the sealant product you've purchased.

Install wheels on bike. For the rear wheel, place the rear derailleur in lock position, place the chain on the smallest cassette cog, and guide the rotor into the caliper. Insert the axle and with a 5mm hex key torque to 12.4 Nm (110 in-lb). It is a good idea to get used to the feel of this torque, as trailside repairs may require removal and re-installation of the rear wheel.

The front wheel uses a QR style through axle. Once wheel is in position with rotor in caliper, thread the axle until hand tight, then pull lever outward and align lever arm with fork leg.

Brake centering – Pull and release the lever a couple of times while helping the caliper center itself. Pull and hold brake lever, then tighten retaining screws alternately and in stages to torque of 6 Nm (53 in-lb). Check that wheel spins freely – if necessary, loosen the retaining screws until caliper can move and repeat the above steps.

With the rear wheel installed – viewing the cassette from the rear of the bike – adjust the inside adjustment screw on the derailleur (3mm hex) until the top cog on the derailleur is centered on the outside edge of the smallest cog on the cassette.

Attach the shift cable to the derailleur, pulling it tight without deflecting the derailleur, and tighten clamp screw to 4.5 Nm (T25 or 4mm hex).

Shift the derailleur to the largest cog using the thumb shifter and adjust the outside adjustment (3mm hex) screw until the top cog on the derailleur is centered on the center of the largest cog. Shift back to the smallest cog and install the chain.

**Note:** the chain supplied with your bike has been pre-cut to the correct length. With the rear derailleur still in lock position, feed the chain from the chain stay over the cassette and into the derailleur – over the top pulley and under the bottom one. Wrap the chain over the front chain ring and insert the joiner links onto the ends. Engage the joiner and lock by holding the wheel and rotating the crank until the joiner link clicks. Unlock the derailleur by rotating the pulley arm forward to release, then ease back until the chain is tensioned.

## Set up - Test Ride

Now you are ready to throw a leg over and check the setup. Have a multi tool and with you and roll around near home to adjust handlebar and control angles, seat height and angle and to check for anything that might be amiss.





## Colleted Axle Removal and Installation

Colleted axles are used at all main pivots. To remove an axle, first remove the 8mm collet bolt using a T-30 Torx driver. Remove the tapered collet using an 8mm hex and turn gently by hand until the collet comes free. The axle itself can then be removed using a 10mm hex driver.

After removing the axle, swing the suspension arm out of the way to expose the bearing caps. Remove bearing caps carefully to avoid damaging the seals. Each of the bearing caps on the main front and rear linkage bearings includes an x-ring seal. To prevent water intrusion and creaking due to misalignment of suspension arms with the bearing cap, it is very important to make sure that the seal on each bearing cap is fully seated and is not flipped or bulging from its groove. Carefully and fully seat the seal on each bearing cap before installing the suspension arm and colleted axle.

## Bearing Removal and Installation

A bearing puller is recommended for bearing removal. However, Structure Cycleworks bicycles are designed so that bearings may be driven out from the opposite side of the frame. If a puller is not used, to remove a bearing use a plastic dead blow hammer and drive the bearing out with light, even, alternating taps to opposite sides of the bearing, taking care to drive the bearing out evenly and avoid damage to the bearing seat.

To install a bearing, a bearing driver or installation tool is recommended. Before installing, wipe the bearing seat clean and use a thin smear of grease on the outer surface of the bearing. While

To install the axle, ensure that the threads of the axle and suspension arm are clean and free of contaminants using mild solvent such as isopropyl alcohol and shop air.

Apply medium strength thread locker to dry threads and tighten the axle by hand until slight load is placed on the bearings. This is best felt by hand. It should feel like the axle is just beginning to tighten. Once slight preload on the bearings is felt, back the axle off and re-tighten until it feels like the axle is just beginning to tighten and there is no slack between suspension arms, bearing caps, and bearings. No additional preload is required. Over-tightening can create noise and accelerated bearing wear.

Install the axle collet with a smear of grease on the outer surface to ease future removal. Apply medium strength thread locker to the threads of the 8mm collet bolt and torque the bolt to 7 Nm.

making sure that the bearing is sitting flush with the outer edge of the cup, slowly draw the bearing into the cup with the bearing driver until the bearing is fully seated.

Install the bearing cap, ensuring that the x-ring seal around its perimeter is fully seated and not twisted or bulging.

### **WARNING**

If the seal is pinched or bulging, water intrusion, noise, and/or accelerated bearing wear may occur.

## Brake Dive Reduction Eccentric Position.

The SCW1 utilizes eccentric bearing housings at the aft end of the upper front control arm at the down tube. The purpose of the eccentric housings is to allow selection of one of four dive reduction settings. Telescoping forks are approximately 30% pro-dive under application of the front brakes. Structure's Without Telescoping Fork suspension system reduces front brake dive by 17% (Plush), 22% (Low), 33% (High), or 41% (Race), depending on the eccentric housing that is installed and its orientation up or down.

All SCW1 bikes are delivered to owners with the eccentric in the Plush (17% dive reduction) setting. To change the amount of front brake dive reduction, consult the following: Note that the set of eccentric housings for 17% dive reduction is thin



17% dive reduction position



22% dive reduction position



33% dive reduction position



41% dive reduction position

at the upper edge. This set of eccentrics flips 180° to provide 41% dive reduction. A separate set of eccentrics (provided to the owner of each bike) - with a slightly thicker upper edge at 22% than the eccentric for 17% - is used to provide 22% and 33% dive reduction. Make sure to always use correctly matched pairs of eccentric housings.

When installing the eccentrics, a thin smear of grease is recommended

on the outer surface of the eccentric to ensure ease of removal in the future.

Ensure that the bearing caps are fully seated and that the x-ring seals are not twisted or bulging, as improperly seated seals can allow water penetration to the bearing and may cause excess friction or noise in the pivot.



To install a colleted axle, prepare the axle with medium thread locker on the threads and a small amount of grease on the shaft. Make sure that the rubber seals of the bearing caps are fully seated on both sides of the frame and apply a smear of grease on the outer surface. Align the swinging arm with the frame and slide the axle through until the threads make contact.

With a 10mm hex, tighten the axle to 3Nm. Back the axle out slightly and tighten by hand only until a slight load is felt on the bearings. Install tapered collet with a smear of grease on the outer surface. Install 8mm collet bolt with medium thread locker and tighten to 6Nm.



22%/33% dive reduction eccentrics on left,  
17%/41% dive reduction eccentrics on right.

## Spherical Bearing Replacement

The spherical bearing in the steering linkage of your SCW 1 is a vital link between the handlebars and the fork. It is a high-precision PTFE-coated part and is self-lubricating. If lubrication is applied to this bearing, only a dry-type chain lube should be used.

Should the bearing become worn and introduce noise or play into the connection between the handlebars and fork, use the following procedure to replace the bearing:

1. Remove the 8mm bolt using a T-40 Torx driver.
2. Use snap-ring pliers to remove the snap-ring on the inboard side of the spherical bearing. Save for re-use.
3. Use a bearing removal tool such as Rapid Racer Products' bearing press/extraction tool to press out the spherical bearing.

4. Use the bearing press to install the new spherical bearing. A small amount of grease on the external surface of the bearing will ease installation.
5. Use snap-ring pliers to re-install the snap ring.

### CAUTION

Make sure the snap-ring is fully seated in its groove.

6. Apply medium-strength thread locker to the threads of the 8mm bolt. Install bolt and torque to 12 Nm.
7. Hold the wheel while twisting the handlebar and inspect for any play or noise. There should be no discernible play in the steering linkage system

## Maintenance

BEFORE EVERY RIDE	WEEKLY	MONTHLY	EVERY 3 MONTHS	ANNUALLY/150 HOURS
Check the frame and fork for signs of stress, scratches, cracks, dents, deformation or discoloration. Inspect the chain slap guard and make sure it is correctly and securely attached	Check that all bolts are tightened to proper torque specifications. Make sure to include pedals and accessories	Check that the bottom bracket is tightened to proper torque specifications	Inspect the drive train for wear	Annual service at your dealer. Overhaul service and inspection of frame, suspension, and all other components. Service and/or replace parts as needed
Check that wheels remain true	Check rims and spokes for damage	Check shifter cable and brake hoses for wear	Inspect crank arms and pedals	Clean and lubricate all parts as recommended by your component manufacturer's instructions or consult dealer
Check tire pressure	Clean the bicycle	Check that the headset is adjusted correctly	Inspect suspension parts for wear	
Check the brakes, including brake pads, rotors, caliper bolts, and brake lines	Check tires for damage and wear	Check that the chain is tensioned correctly	Check tire sealant levels	
Check that both wheels are secure	Clean suspension dust seals	Check the chain slap guard and bottom bracket guard (if applicable) for wear		
Check that handlebar and stem are correctly positioned and inspect for signs of stress, scratches, cracks, dents, deformities, and discoloration				
Check that suspension settings are at your preferences				
Check that saddle and seat post are correctly positioned and tightened				
Check for smooth shifting operation				
Lubricate the chain				

This list provides some guidelines, but is not to be considered complete. Following these guidelines will help maintain the performance of your bicycle and prevent serious problems from arising. It is important to remember that service intervals can vary depending on climate, trail conditions, and riding frequency and intensity. For service instructions for your specific components, visit the manufacturer's website. If you detect any problems with your bike and are not able to complete repairs, take your bike to an authorized dealer for service. Service shocks with new seals and fluid.



# Warranty

## LIFETIME FRAME AND FORK WARRANTY

1. Structure warrants all frame parts and bearings to be free from defects in materials or workmanship for the life of the original owner from the original purchase date (product registration required). Non-transferable.
2. Modified, misplaced, misused, melted, improperly installed, or blatantly abused Structure product is not covered by warranty. Purchases made through eBay or similar resale sites are not supported by Structure Cycleworks.
3. Warranty claims for Structure products purchased through a dealer will be handled by the dealer for frame / bearing defects only, and will be handled between dealer representative and Structure customer service agent.
4. Warranty claims for Structure products purchased online for direct-to-consumer delivery will be handled between the customer and Structure customer service agent for frame /bearing defects only.

Our goal is to keep customers in the Structure family for life. No matter what the circumstance, as part of this program, the price of replacement Structure product is 50% off the listed local price. Please note that sales tax, freight, VAT/Import duties, shipping, and labor are not covered by Structure. Additional replacement parts are not covered by Structure but may be available for purchase. Please speak with a Customer Service representative for details. Phone: 866-230-3567. E-mail: [customerservice@structure.bike](mailto:customerservice@structure.bike)

## LIFETIME BEARING WARRANTY

Structure Cycleworks pivot bearings are warranted for life to the original owner of the bike. The return process is simple: fill out the Warranty Bearing Replacement Form, upload a copy of your purchase receipt, and we'll get bearings out to you within 48 hours or arrange for pickup at one of our partner bike shops.

## NO-FAULT CRASH REPLACEMENT

Structure Cycleworks will make replacement frame parts available to the original, registered owner at a reduced charge in the event of a crash or other non-warranty situation for the life of the bike.

## FILE A WARRANTY CLAIM

Something not right? Use our Warranty Claim Form to file a warranty claim. We'll do everything we can to get you back to riding as fast as possible.

If you have any other questions or would like to follow up on a warranty claim, contact Customer Service at email: [contactus@structure.bike](mailto:contactus@structure.bike), or call 866-230-3567.

## LIMITATIONS, EXCLUSIONS, AND DISCLAIMERS

The sole remedy available under the foregoing express warranty and all implied warranties is the repair or replacement of defective parts with those of equal or greater value, as determined by Structure Cycleworks in its sole discretion. The warranty does not cover labor costs, custom finishes, normal wear and tear, or damage from commercial use. The warranty is void if the part is modified from its original condition in any manner or used outside normal intended use, as determined by Structure Cycleworks in its sole discretion. The warranty for damage arising from accidents, crashes and other impacts is limited to offered replacement at a reduced charge as set forth above.

THE FOREGOING WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY OFFERED BY STRUCTURE CYCLEWORKS. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, ALL OTHER EXPRESS AND IMPLIED WARRANTIES (INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY DISCLAIMED. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL STRUCTURE CYCLEWORKS OR ANY OF ITS OWNERS, OFFICERS, EMPLOYEES, REPRESENTATIVES, AGENTS, OR AFFILIATES (OR ANY OF THEIR RESPECTIVE SUCCESSORS OR ASSIGNS) BE RESPONSIBLE OR OTHERWISE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE PURCHASE, USE, OR OWNERSHIP OF ITS PRODUCTS, INCLUDING WITHOUT LIMITATION DAMAGES FOR PERSONAL INJURY, PROPERTY DAMAGE, OR ECONOMIC LOSSES, WHETHER BASED ON CONTRACT, WARRANTY, NEGLIGENCE, PRODUCT LIABILITY, OR ANY OTHER THEORY.

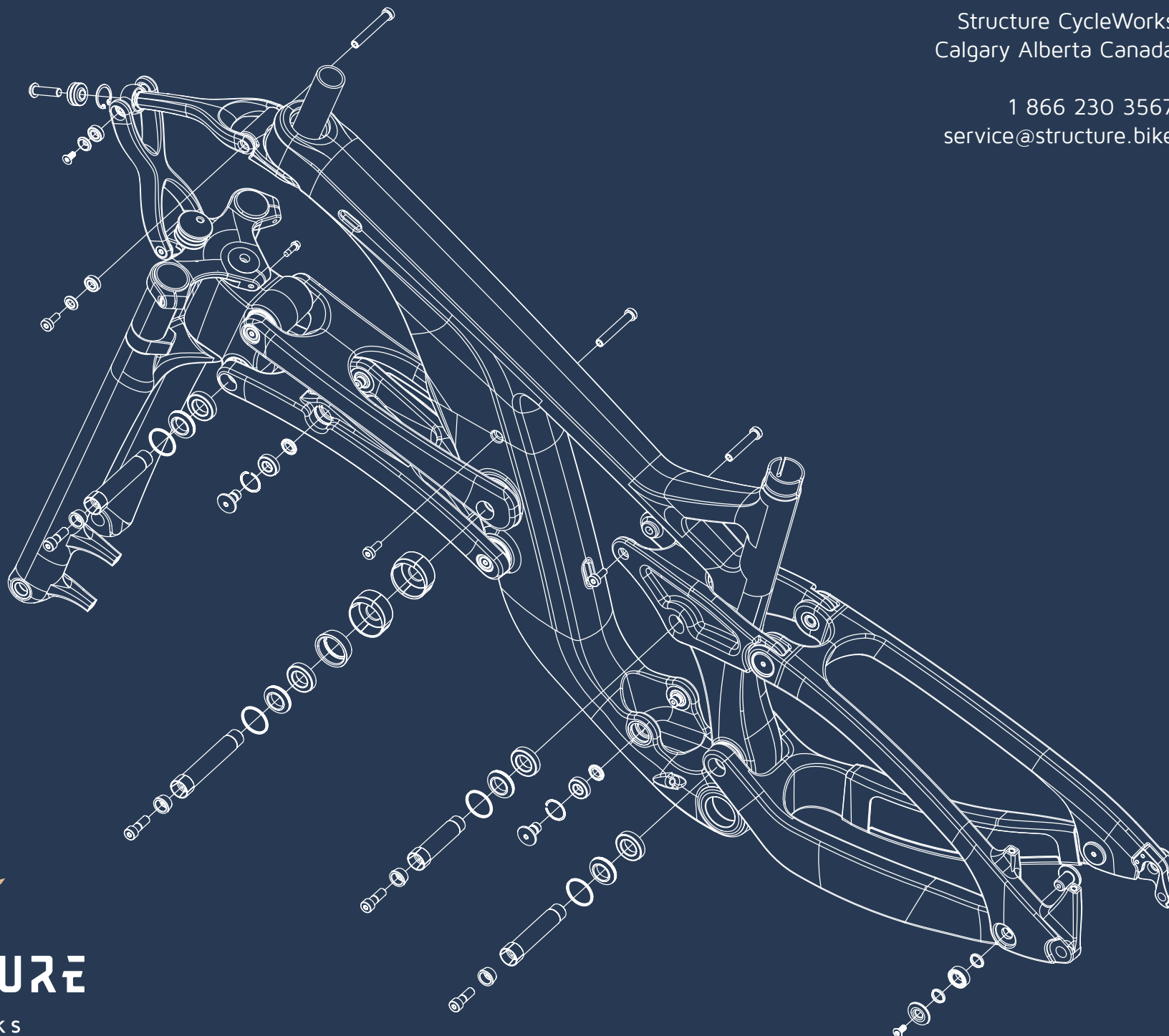
Some provinces/states/countries do not allow some or all of the foregoing exclusions or limitations, so they may not apply to you. If any portion of the foregoing warranty (or the exclusions or limitations thereto) is deemed invalid or unenforceable pursuant to applicable law, it shall be deemed modified so as to be valid and enforceable to the maximum extent consistent with such law. This warranty gives you specific legal rights, and you may also have other rights which vary depending on the province, state, or country where you live.

To print forms or to view the most current warranty information please visit [structure.bike](http://structure.bike)



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