

2009 Synapse Carbon

Cutting the Seat Post

Depending on the frame size of your Synapse Carbon, the seat post may require cutting to a shorter length. This must be performed by a professional bike mechanic. The Synapse Carbon frame has seat post depth in the seat tube that varies with the frame size. Small frame sizes can accept between 110-130mm. Larger frame sizes can accept between 110-150mm.

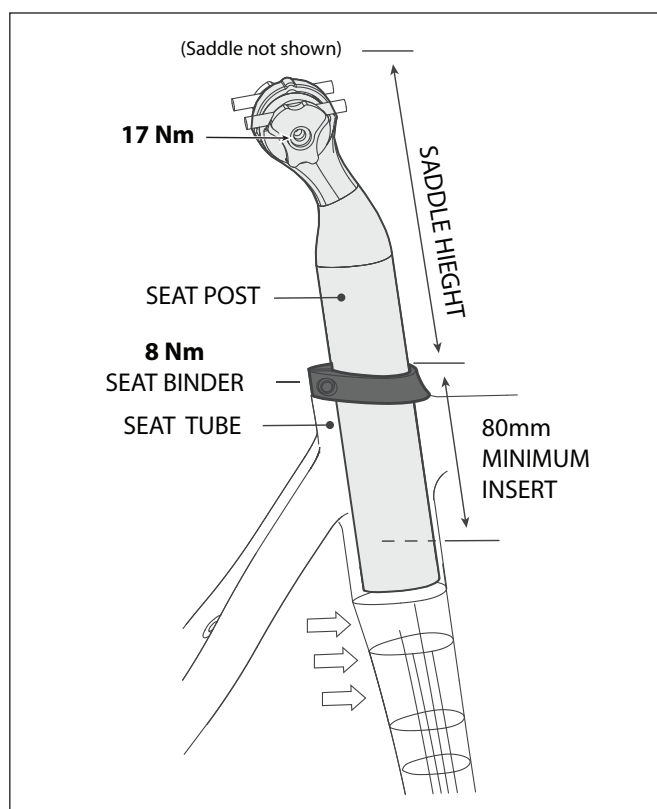


Figure 1.

To maximize saddle height adjustment range as well as maintain the necessary minimum insert depth of 80mm of any seat post, the seat post must be fitted (cut) to the frame.

To cut the seat post

1. Insert an uncut post into the seat tube. Insert it until it stops inside the frame. It should slide in easily. Do not force it into the seat tube. This is the maximum distance inside the seat tube the post will insert.
2. Determine the maximum desired adjustment range of the saddle that maintains the required 80mm of seat post inside the seat tube. See Figure 1.
3. Remove the excess section from the end of the seat post. You should use a cutting guide such as Park Tool SG-7 and a carbon specific saw blade. See Figure 2. You should also lightly sand the cut post to round and smooth the cut.
4. Re-mark the MINIMUM INSERT line 80mm up from the bottom of the cut seat post. Mark the seat post without scoring, scratching or otherwise damaging the surface of the seat post. Use a thin decal (automotive pin striping) or a paint marker.

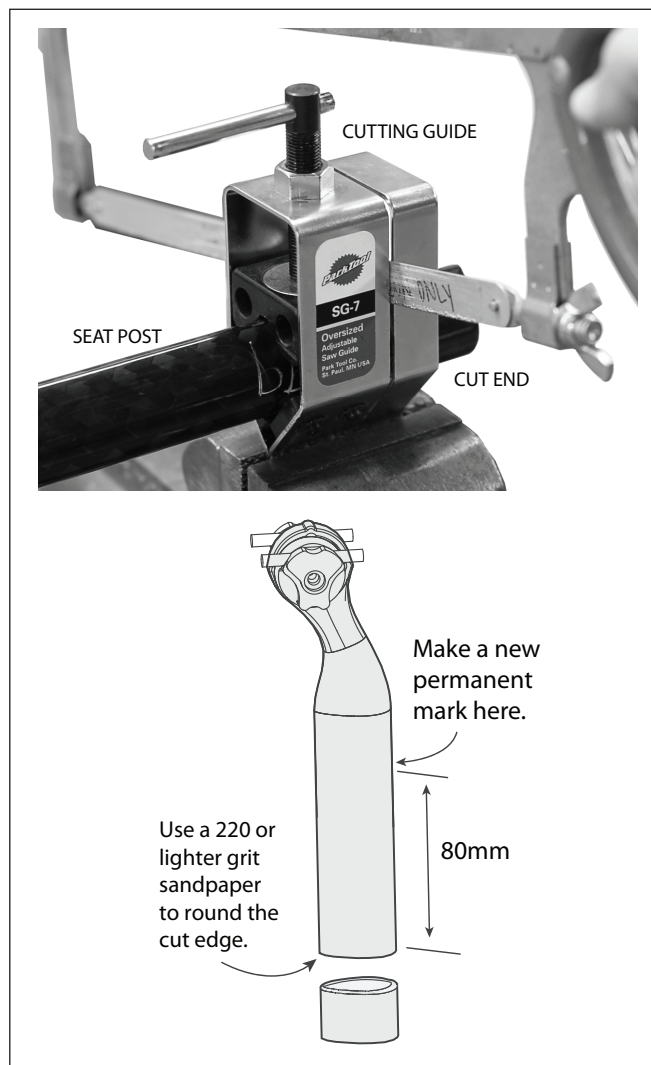


Figure 2.

NOTE: U.S. Consumer Product Safety Commission (CPSC) bicycle regulations require minimum seat post insertion be marked on the seat post.

WARNING

If the seat post requires cutting, have it done by a professional bike mechanic with experience cutting high-performance carbon components.

YOU CAN BE SEVERELY INJURED, PARALYZED OR KILLED IF YOU IGNORE THIS WARNING.

More Information on Carbon Seat Posts

For more information about carbon fiber seat posts, see also "APPENDIX D. Care and Maintenance of Carbon Fiber Seat Posts" in your [Cannondale Bicycle Owner's Manual](#).

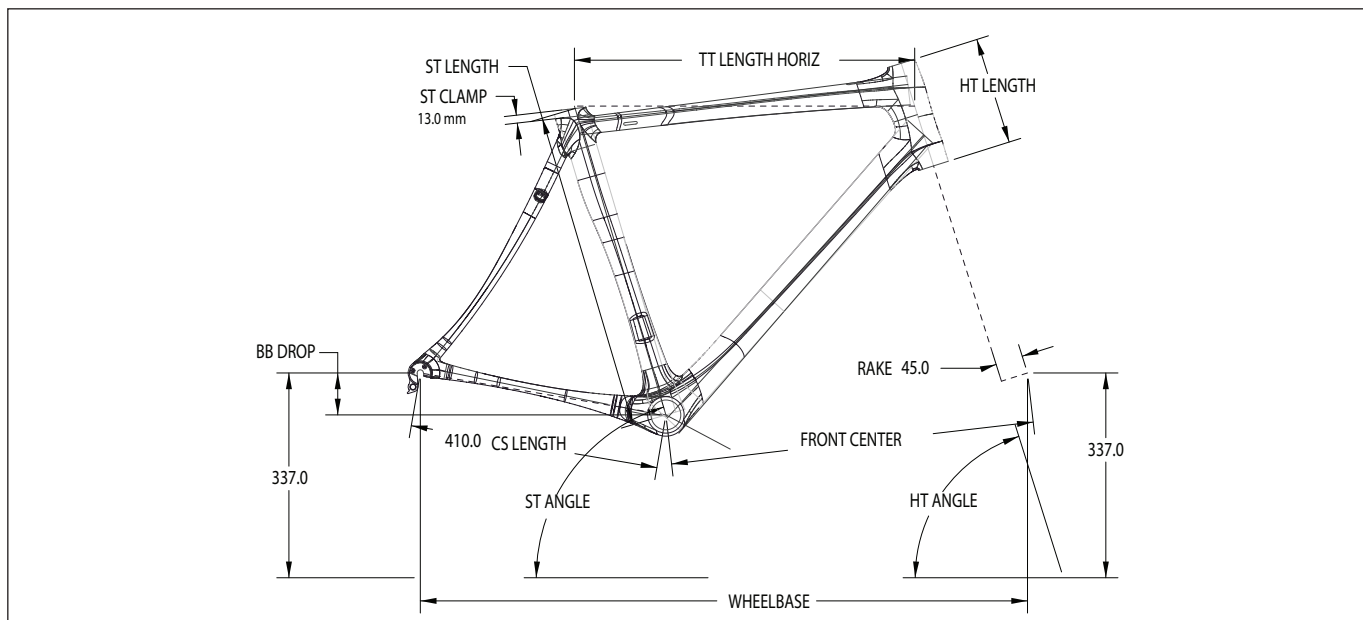


Figure 3.

Geometry and Specifications

SIZE (cm)	ST LENGTH (cm)	TT LENGTH HORIZ (cm)	HT ANGLE	ST ANGLE	BB DROP (cm)	HT LENGTH (cm)	FRONT CENTER (cm)	WHEELBASE (cm)
48	436	510	71°	74.5°	72	130	565.8	964.8
51	466	525	72°	74°	72	145	570.7	969.8
54	496	540	72°	74°	69	165	587.3	987.4
56	526	560	72.5°	73.5°	69	180	599.1	99.3
58	546	580	73°	73°	67	200	610.3	1011.1
61	576	600	73°	72.5°	67	220	624.9	1025.8

Feminine

44	396	500	70.5°	76°	72	125	567.5	966.5
48	436	510	71°	74.5°	72	130	565.8	964.8
51	466	525	72°	74°	72	145	570.7	969.8
54	506	535	72.5°	74°	72	160	578	977.1

HEADSET	Campy style bearings: 41.8mm OD w/ 45° chamfers		MAXIMUM WEIGHT LIMIT		
	RIDER	LUGGAGE	TOTAL		
SEAT POST DIA.	Synapse Carbon specific		275 lbs / 125 kg	10 lbs / 4.5 kg	285 lbs / 129 kg
SEAT BINDER	BINDER CLAMP MAX TORQUE: 8 Nm SADDLE CLAMP TORQUE: 17 Nm				
DROPOUT SPACING	FRONT	100mm	* Seat Bag / Handlebar Bag Only		
	REAR	130mm			
FRONT DERAILLEUR TYPE	BRAZE ON				
BOTTOM BRACKET	BB30				
	68mm English (w/ adapter)				

Intended Use

The intended use of your bike or frameset is CONDITION 1 / HIGH PERFORMANCE ROAD.

WARNING

UNDERSTAND YOUR BIKE AND ITS INTENDED USE. CHOOSING THE WRONG BICYCLE FOR YOUR PURPOSE CAN BE HAZARDOUS. USING YOUR BIKE THE WRONG WAY IS DANGEROUS.

Industry usage Conditions 1 - 5 are generalized and evolving. Consult your Cannondale Dealer about how you intend to use your bike.

Please read your [Cannondale Bicycle Owner's Manual](#) for more information about Intended Use and Conditions 1-5.

Important Composites Message

Your bike is made from composite materials also known as "carbon fiber."

All riders must understand a fundamental reality of composites. Composite materials constructed of carbon fibers are strong and light, but when crashed or overloaded, carbon fibers do not bend, they break.

For your safety, as you own and use the bike, you must follow proper service, maintenance, and inspection of all the composites (frame, stem, fork, handlebar, seat post, etc.) Ask your Cannondale Dealer for help.

We urge you to read PART II, "Section D. Inspect For Safety" in your [Cannondale Bicycle Owner's Manual](#) BEFORE you ride.