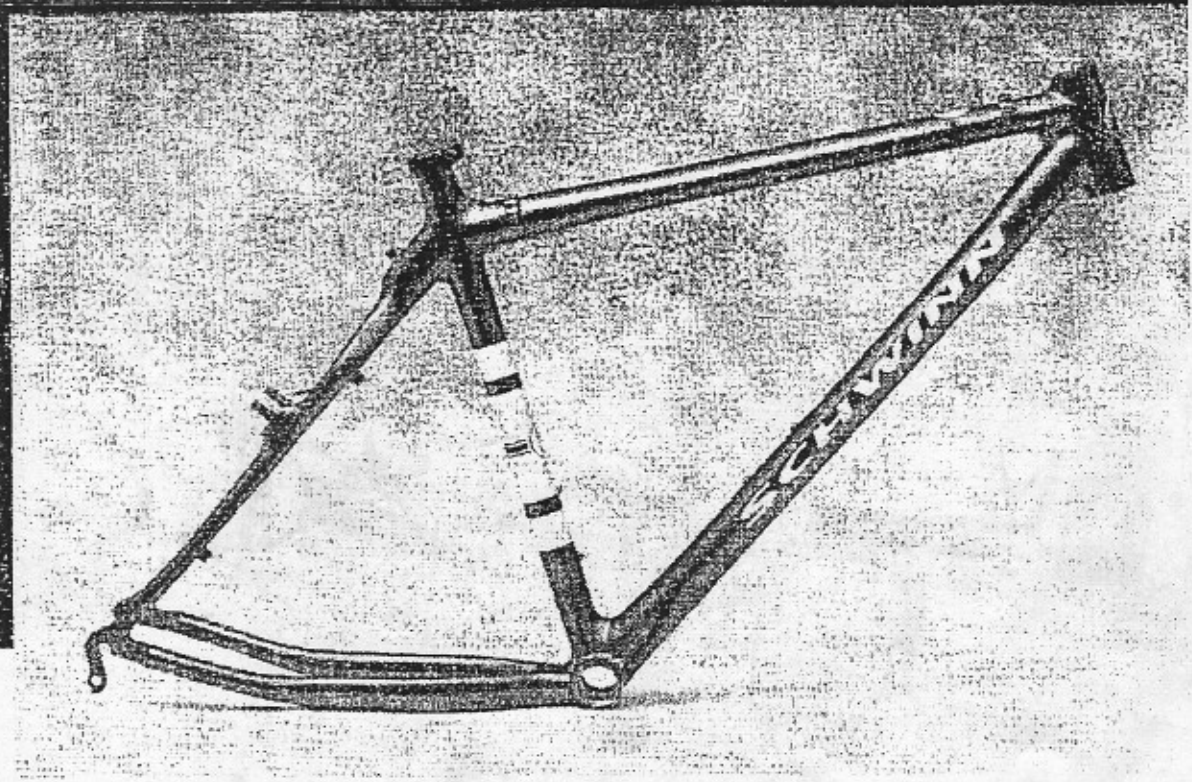


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A ride so subversive,
we had to take it Underground.

Project Underground

Composite Bike



TOP Key
TIWIAN

Attention shop employees: the latest development from Project Underground, Schwinn's secretive and diabolical design effort, is now available for your purchase.

If you're a fan of steel, aluminum, titanium or any other material found on the official table of elements, prepare for conversion. If you're currently on carbon, then we invite you to step it up a notch. Schwinn's new composite frame performs like nothing you've ever ridden. This bike has a soul. Sure, it's been tinkered with by the lab coats. But it's also been flogged, tweaked, and dialed by some of the sickest individuals to ever turn a crankset in the Rockies.

26.8 seat post
75 XTR
113

The Project Underground is not available to anyone but Schwinn shop employees. Each one will be generously coated with our trick "Bass Boat Blue" race paint. Quantities are extremely limited. If you plan on getting one of these ultra-rare rigs, you should order as soon as possible—the few that are made will go very quick.

So call your Schwinn inside Sales Representative today for information on the new composite Project Underground. One ride and you're a convert.



V Brake bosses
drop outs
Titanium

What a ride.

V Brake Compatible



Project Underground[™] Composite Bike

SCHWINN COMPOSITE FRAME FEATURES

CONSTRUCTION METHOD

The Schwinn composite frame is made in two pieces: A primary piece and a mono/seat-stay "sub assembly." The entire front triangle and chain stays are molded as one integral part. This ensures that there are no bonding seams on the two most highly loaded frame joints (bottom bracket and head tube). By contrast, other all-composite frames can be formed from as many as 11 pre-made pieces of carbon. And unlike molded monocoques, we are "seamless" in that we are not laid up in two halves. The carbon in our tubes is laid up as a "jelly roll" to ensure it is seamless.

TUBE SHAPE

Our composite bike takes our "laterally stiff / vertically compliant" philosophy to the next level. The bike has a bi-oval top tube and epi-center seat stays. The seat stays are also sideways ovals. All four stays are curved to provide more vertical compliance. The down tube has a unique "bell" shape at the bottom bracket to keep it laterally rigid without being over-sized. The chain stays are specially shaped for huge tire clearance.

By contrast, other well known composite bikes use tubes which are as simple as possible. Every tube is straight. The main tubes are round and untapered. The stays only have simple oval cross sections. This means an optimum riding bicycle cannot be produced. Tire clearance is also restricted.

LAY-UP

Lay-up is the placement of the fibers. It greatly influences the "feel" of the bike. The Schwinn lay-up has been carefully "tailored" to provide optimum riding feel. This has been done through computer analysis, load-deflection lab testing, and rider feedback.

RIDE CHARACTERISTICS

Ride is a combination of geometry, frame lay-out (tube shapes) and material placement (lay-up). Quite simply we believe we beat all other composite frames in all three areas.

METAL FITTINGS

The Schwinn has the most "integrated" metal fittings of any composite bike ever built. All fittings are recessed into the carbon, even on complex curvature surfaces. Exotic cast titanium drop outs and stainless steel brake bosses are used. Titanium works much better than aluminum with carbon, which is why we use it for the highly-stressed drop outs. (Titanium is tougher and galvanic corrosion is not an issue).

Our head tube sleeve is unique in that it has a full aluminum face for the lower (more highly stressed) race. Also unique is the aluminum sleeve molded in the seat tube in the front derailleur clamp area. The front derailleur can be clamped firmly, without damaging the seat tube.

DAMAGE TOLERANCE

The epoxy matrix (glue) in our composite has been chemically "toughened" to improve the frame's resistance to knocks and dings. We also have protective outer fiberglass in key locations: down tube, drive side chain stay, mid-top tube, etc. Fiberglass is far more abrasion resistant than carbon.

Resistance to damage also comes from our metal fittings. Our titanium drop outs are tougher than aluminum ones. Our unique head tube sleeve spreads the loads from the fork. Our aluminum seat tube sleeve makes it very difficult for the front derailleur clamp to crack the frame.

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Project Underground

Composite Bike

Schwinn Frame Assembly

Congratulations on your new Schwinn frame! Although our frames have frequently been compared to works of art, we assume that this frame will be assembled into a complete bicycle. As with any bicycle, there is certain information which must be read and understood to make riding more enjoyable and to reduce the risk of damage or injury. Please carefully read the attached owners manual before riding the assembled bicycle. If your bicycle frame did not come with a manual, ask your dealer to provide one to you.

WARNING: This is a high-end frame which should only be assembled into a complete bicycle by a qualified bicycle mechanic. If you have any questions about your ability to assemble this frame correctly, STOP and take it to a professional bike mechanic. Failure to properly assemble the frame into a bicycle could result in serious injury or death.

Schwinn has no control over the types of components that will be used on this frame. As such, Schwinn cannot ensure that all parts are compatible with this frame and will function properly. The user and assembler are responsible for making sure the components are compatible with the frame and function properly. If you have any questions, ask your authorized Schwinn dealer for assistance.

Schwinn Composite Frame Assembly Notes

Congratulations on your new Schwinn composite frame! This frame has certain characteristics which differ from a conventional metal frame. To reduce the possibility of damaging the frame, and to ensure optimum safe use, please carefully

read the following instructions before assembly. This is a high-end frame which should only be assembled into a complete bicycle by a qualified bicycle mechanic. The information below highlights special aspects of the composite frame. This information is NOT a complete set of instructions for frame preparation and assembly. If you have any questions about your ability to assemble this frame correctly, stop and take it to a professional bike mechanic.

1. **WARNING: DON'T CLAMP THE TUBES IN A FRAME STAND!** Composite tubes can be damaged by the jaws of a work stand. Insert the seat post, and clamp the stand to the seat post. In addition, the use of car racks which clamp the down tube are strongly discouraged. Clamping can permanently damage the tubes and weaken the frame.
2. The frame is designed for a 26.8 mm diameter seat post. Do NOT grease the post or inside of the seat tube. The inside of the seat has a protective fiberglass sleeve. Grease is unnecessary.
3. The seat post clamp supplied with the frame has a 33.8 mm internal diameter. Do not use any other clamp. (Note - many clamps are 31.8 mm and will NOT fit the frame.) Tighten the clamp firmly, but slightly less than on a metal bike. The texture of the internal glass sleeve should hold the post securely. If the seat post slips, increase the clamp tightness slightly.
4. Normal tools are used to face and ream the head tube. When the head tube is properly faced, the top side will have visible an internal ring of aluminum and external ring of composite. The lower face will only have aluminum visible. (The sleeve is a special



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design. The more highly loaded lower head set cup rests only on aluminum.)

1. Normal tools are used to face and chase the bottom bracket. The frame comes with a stainless steel protective ring. This ring should be slipped over the right bottom bracket cup when the bottom bracket is installed. This ring helps "catch" the chain should it fall off while riding.
6. The seat tube has a special integral aluminum sleeve in the area of the front derailleur clamp. This prevents the front derailleur clamp from damaging the frame. We recommend tightening the front derailleur carefully to a torque of 50 in lb. If there is any slippage, increase the tightness slightly. Note: Only a conventional front derailleur can be used due to the design of the seat tube. A "top swing" derailleur will not fit.
7. The rear drop outs are cast titanium which is extremely strong and stiff. Should any derailleur hanger adjustment be needed, a conventional tool can be used. **A WHEEL (OR HUB) MUST BE TIGHTLY CLAMPED INTO THE FRAME**

PRIOR TO TRYING TO BEND THE HANGER. ONLY BEND THE HANGER SLIGHTLY.

8. The threads for the water bottle mounts are slightly recessed. For this reason, use water bottle screws that have at least 15 mm of thread length. ("Thread length" means the length of the threaded part of the bolt; not the length of the entire bolt.)
9. The design of the rear brake mounts means that Shimano parallelogram V-brakes (XT, XTR) will not fit. However, all other brakes will fit, including non-parallelogram V-brakes.
10. If you refinish the frame, do not bead blast or grind the frame. Do not use paint stripper.

Finally, we hope that all your rides are pleasant. However, should you ever suffer misfortune, this frame is covered by Schwinn's crash replacement program. Because Project Underground is a limited offering, a replacement frame is likely to be of a different frame material and/or value.

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