

# ...BOLT DECODER

BEFORE YOU START SCREWING WITH THE SCREWS THAT HOLD YOUR BIKE TOGETHER, KNOW WHERE THEY ARE AND WHAT THEY DO. BY JENNIFER SHERRY

## Brakes

**1 BRAKE BOLT**  
FASTENERS: One 5mm bolt, behind top of fork below down tube, and one on rear brake bridge above wheel; some brakes use a T25 bolt head  
PURPOSE: Attaches brake system to both fork and rear brake bridge  
TOOL: 5mm hex or T25 Torx wrench

**2 BRAKE CABLES**  
FASTENERS: One 5mm cable pinch bolt (front and rear); also, some brakes have a spring-tension screw to allow adjustment for even tension on the brake caliper  
PURPOSE: Pulls calipers against rims  
TOOL: 5mm hex wrench for pinch bolt; hex wrench or Phillips screwdriver (depending on type) for spring-tension screw

**3 BRAKE-PAD BOLT**  
FASTENERS: One 4- or 5mm bolt; brake pads with replaceable shoes also have a brake-shoe retaining bolt  
PURPOSE: Holds brake pad to brake caliper  
TOOL: 4 or 5mm hex wrench

## Stem/bar

**4 FACEPLATE**  
FASTENERS: Two or four hex bolts, at front of faceplate  
PURPOSE: Secures handlebar to stem  
TOOL: 4 or 5mm hex wrench

**5 TOP CAP**  
FASTENERS: One adjusting bolt, on top of stem  
PURPOSE: Holds together headset, which connects fork to frame  
TOOL: 4 or 5mm hex wrench

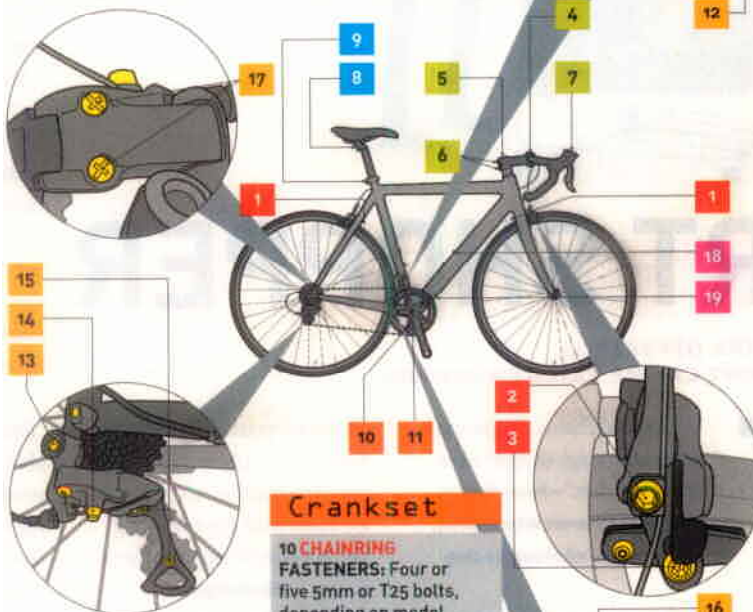
**6 STEM**  
FASTENERS: Usually two pinch bolts, on stem where it slides over steerer tube  
PURPOSE: Secure stem to fork; pinch bolts offer adjustability  
TOOL: 4 or 5mm hex wrench

**7 SHIFT/BRAKE LEVER**  
FASTENERS: One 5mm bolt, inside brake lever at the top (Campagnolo), or on outside under brake hood (Shimano)  
PURPOSE: Attaches shift/brake lever system to handlebar

## Seat

**8 SADDLE CLAMP**  
FASTENERS: One or two 4-, 5- or 6mm hex bolts, on clamp attached to saddle rails  
PURPOSE: Attaches saddle to post; allows for adjustment  
TOOL: 4, 5 or 6mm hex wrench

**9 SEAT BINDER**  
FASTENERS: One or two 4, 5 or 6mm binder bolts, on clamp at top of seat tube right above top tube  
PURPOSE: Secures seatpost at right height inside seat tube  
TOOL: 4, 5 or 6mm hex wrench



## Crankset

**10 CHAINRING**  
FASTENERS: Four or five 5mm or T25 bolts, depending on model  
PURPOSE: Holds middle and large chainrings to each other, then to crankarm; on a triple cassette, the small ring is attached by its own set of 5mm bolts  
TOOL: 5mm hex or T25 Torx wrench

**11 CRANKARM**  
FASTENERS: Fixing bolts (number and sizes vary). Newer Campy cranks attach at the center to the bottom bracket with a 10mm bolt; modern Shimano attach to the nondrive side with two 5mm bolts; old-school types use 8mm bolts on both sides.  
PURPOSE: Attaches crankarm to bottom bracket  
TOOL: Hex wrench (size

## Derailleurs

**12 CLAMP BAND**  
FASTENERS: One 5mm clamp bolt, on front derailleur  
PURPOSE: Attaches front derailleur to seat tube  
TOOL: 5mm hex

**13 HANGER**  
FASTENERS: One 5mm bolt, on rear derailleur  
PURPOSE: Attaches derailleur to hanger, which is suspended beneath the right rear dropout  
TOOL: 5mm hex

**14 CABLE ANCHOR**  
FASTENERS: One 5mm cable pinch bolt on both derailleurs  
PURPOSE: Secures shifter cables and pulls them taut to allow for gear shifting  
TOOL: 3mm hex

**15 REAR DERAILLEUR JOCKEY AND IDLER PULLEYS**  
FASTENERS: 3 or 4mm bolt, at center of pulley  
PURPOSE: Jockey pulley guides chain from cog to cog; idler pulley keeps chain tension constant  
TOOL: 3 or 4mm hex

**16 FRONT DERAILLEUR CAGE**  
FASTENERS: Phillips-head screw  
PURPOSE: Holds inner and outer cage plates together; separating them makes chain more accessible for removal or replacement  
TOOL: Phillips screwdriver

**17 LIMIT SCREWS**  
FASTENERS: Each derailleur has an upper and lower limit screw. (Some are labeled U and L; if yours aren't, check with the manufacturer to find out which screw is which.)  
PURPOSE: One prevents the chain from jumping off the top of the cassette and into the spokes; the other keeps it from dropping off the smallest cog into the frame  
TOOL: 3mm hex wrench or

## Frame

**18 BOTTLE-CAGE MOUNTS**  
FASTENERS: Usually two sets, but sometimes as many as four, of 5mm bolts on front triangle  
PURPOSE: Holds bottle cages  
TOOL: 5mm hex wrench

**19 CABLE GUIDE BOLT**  
FASTENERS: Usually one 3 or 4mm hex bolt on the under side of the bottom bracket shell; not all bikes have one  
PURPOSE: Guides front and rear derailleur cables; also secures them to the frame

**SNUG IT RIGHT:** Check each part's manufacturer-recommended torque setting, especially with carbon. Undertightening causes things to come loose; overtightening causes stuff to fail.