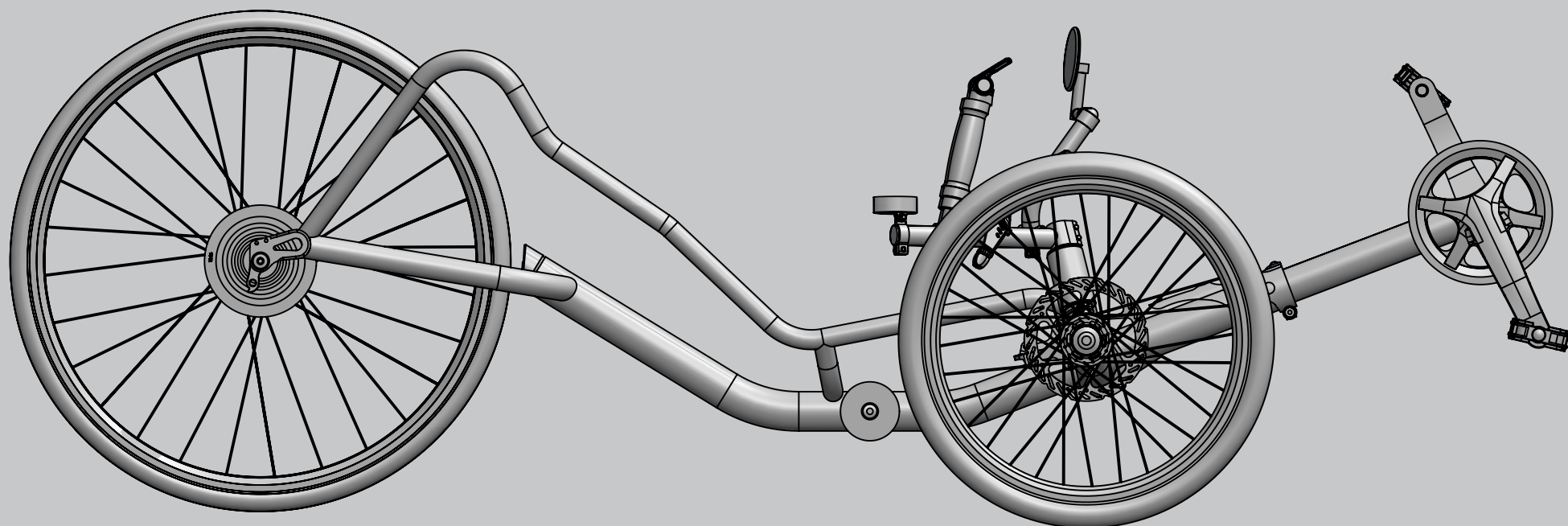


# CATRIKE



## EXPEDITION

TECHNICAL MANUAL

HEADSET ASSEMBLY ..... 2

SPINDLES ..... 3-4

TIE ROD ..... 5

FRONT WHEEL INSTALL ..... 6-9

REAR WHEEL INSTALL ..... 10

TIE ROD ADJUSTMENT ..... 11-12

HANDLEBARS ..... 13-14

BOOM ADJUSTMENT ..... 15-16

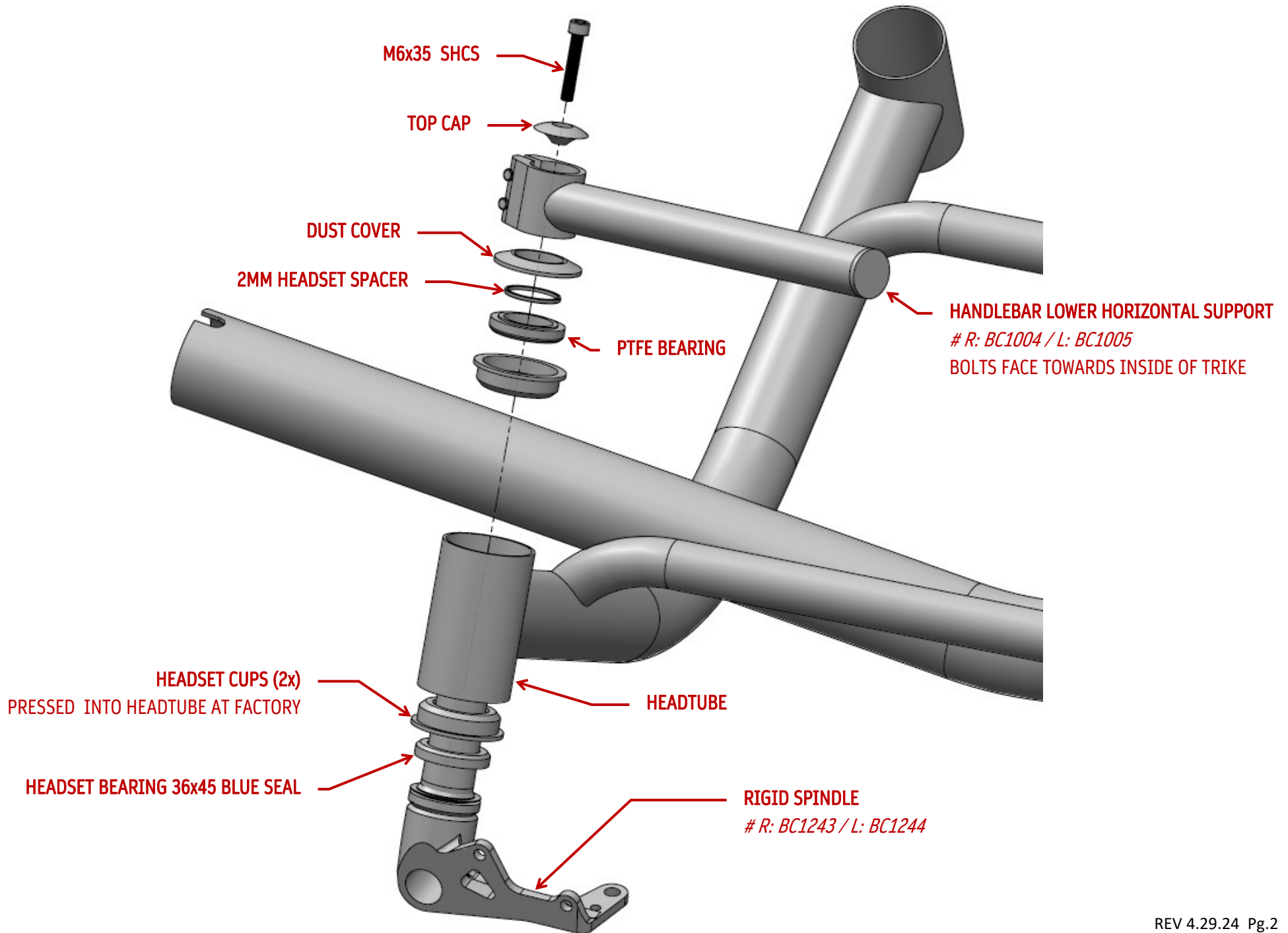
CABLE ROUTING ..... 17

CHAIN ROUTING ..... 18

ECAT ..... 19-28

REAR FENDER ASSEMBLY ..... 29-31

# HEADSET ASSEMBLY

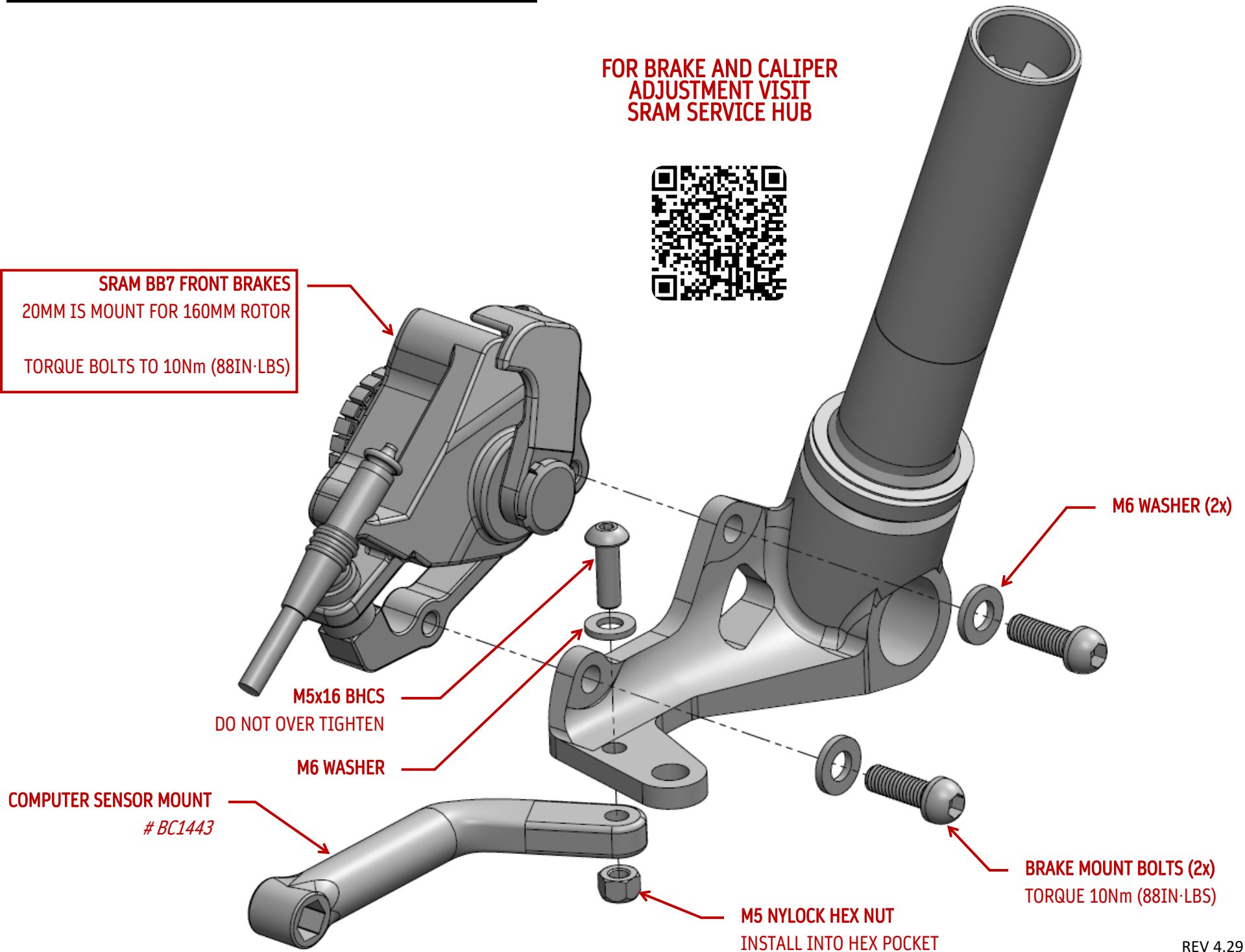


# RIGID SPINDLE MAIN ASSEMBLY LEFT

FOR BRAKE AND CALIPER  
ADJUSTMENT VISIT  
SRAM SERVICE HUB



SRAM BB7 FRONT BRAKES  
20MM IS MOUNT FOR 160MM ROTOR  
TORQUE BOLTS TO 10Nm (88IN·LBS)

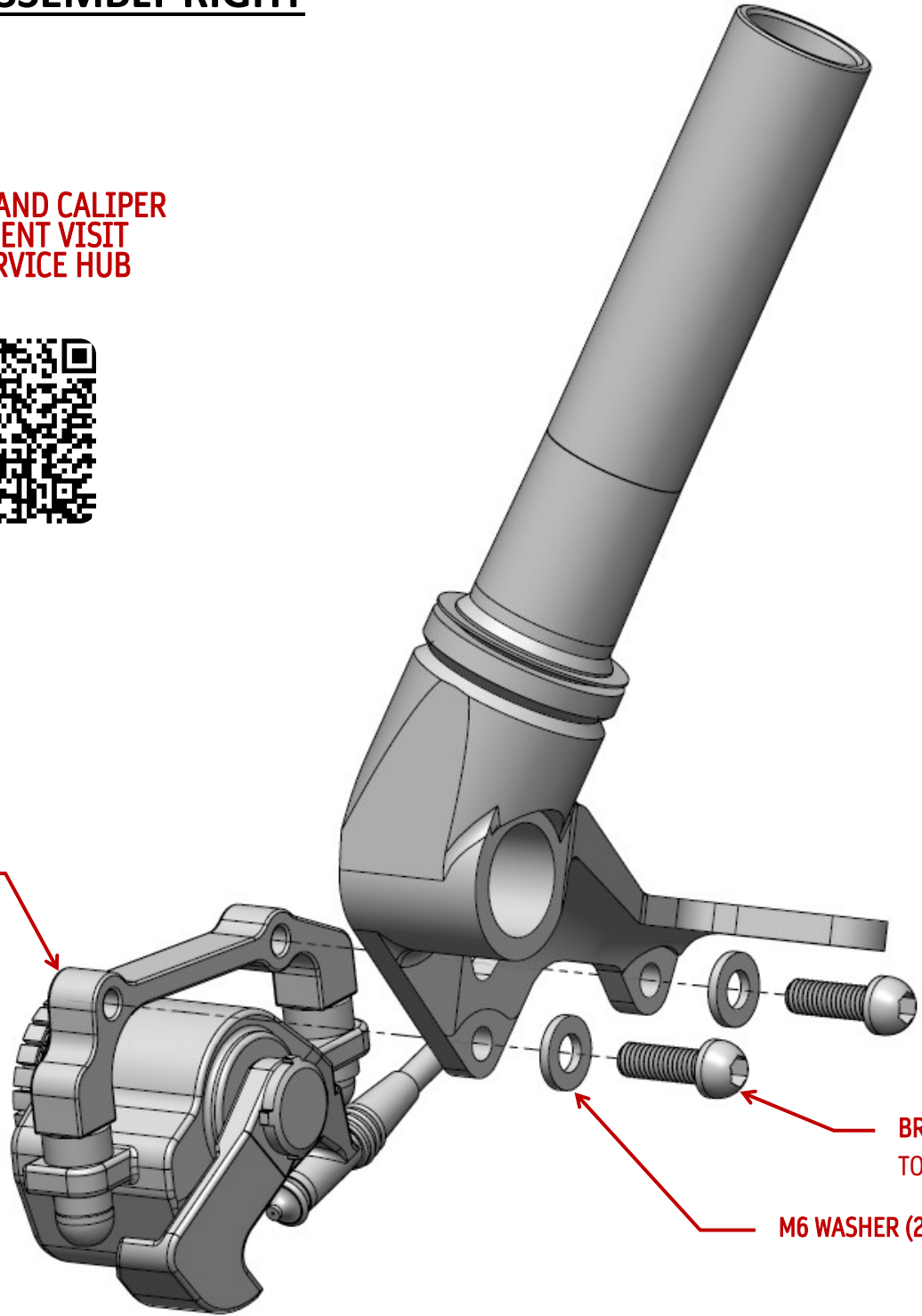


# RIGID SPINDLE MAIN ASSEMBLY RIGHT

FOR BRAKE AND CALIPER  
ADJUSTMENT VISIT  
SRAM SERVICE HUB



**SRAM BB7 FRONT BRAKES**  
20MM IS MOUNT FOR 160MM ROTOR  
TORQUE BOLTS TO 10Nm (88IN·LBS)



**BRAKE MOUNT BOLTS (2x)**  
TORQUE 10Nm (88IN·LBS)

**M6 WASHER (2x)**

# TIE-ROD ASSEMBLY

MEDIUM TIE-ROD (ASSEMBLY)  
# BC1340  
HARDWARE INCLUDED IN EACH ASSEMBLY

M8x35 BHCS

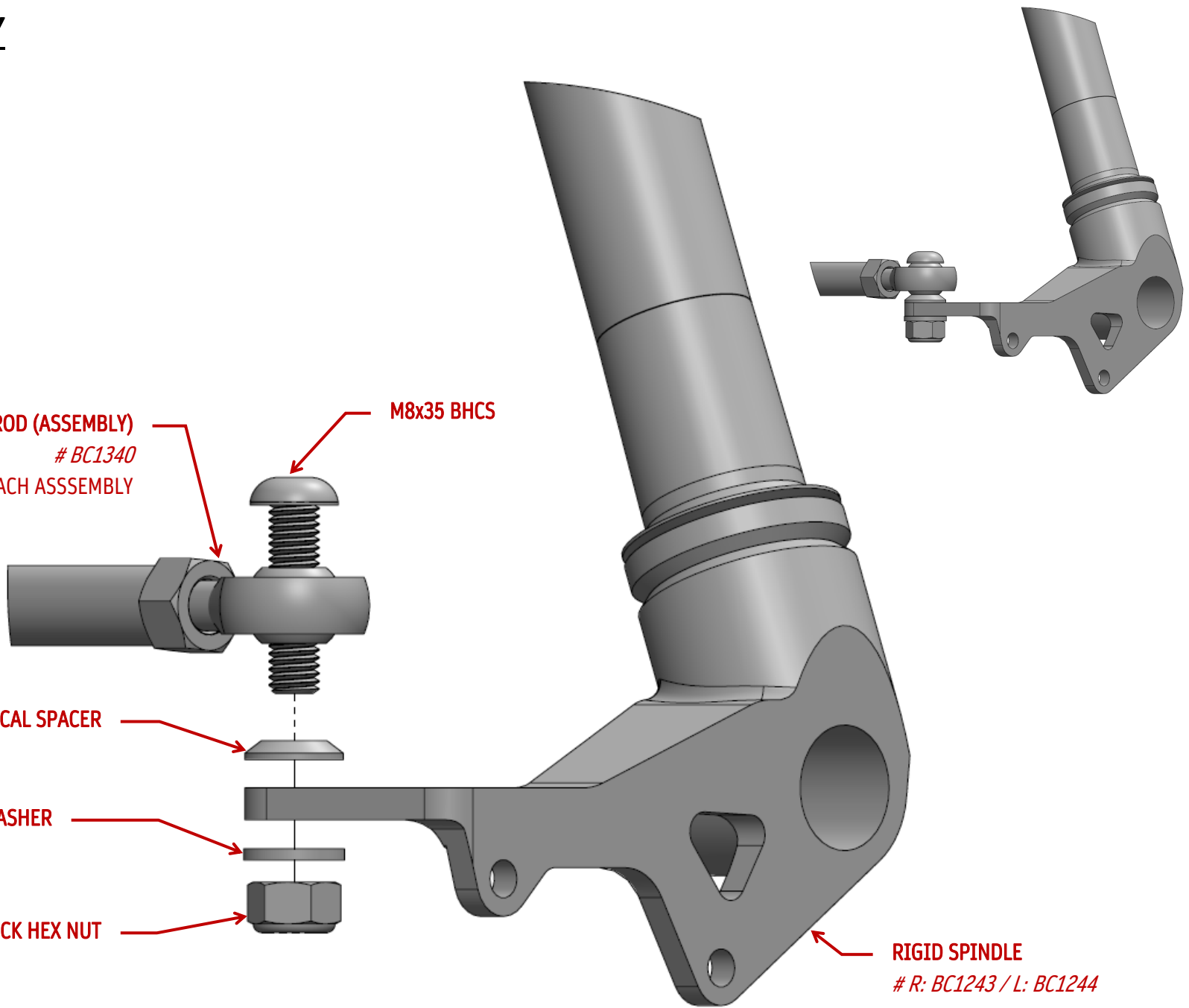
SLIM CONICAL SPACER

M8 WASHER

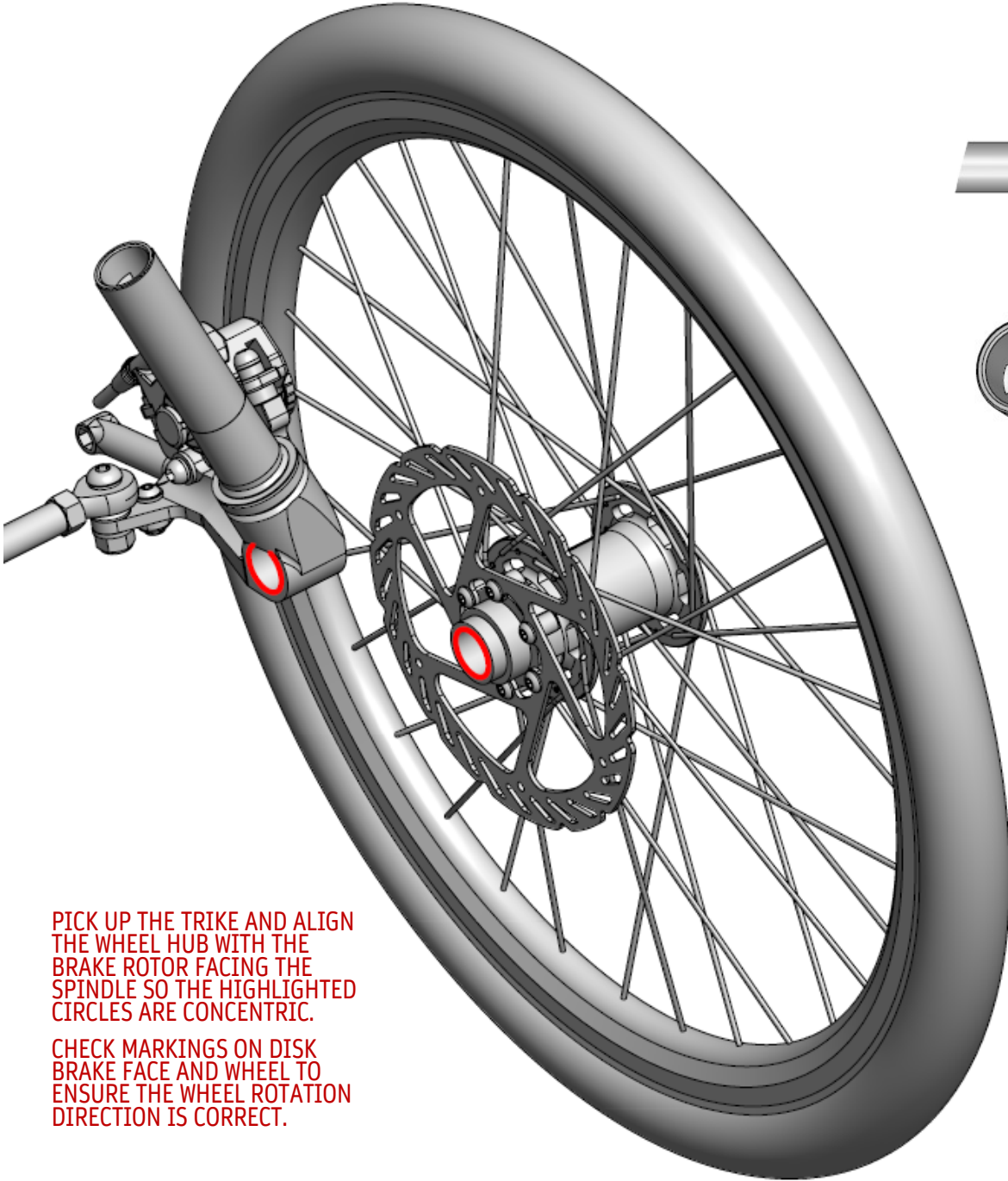
M8 NYLOCK HEX NUT

RIGID SPINDLE

# R: BC1243 / L: BC1244

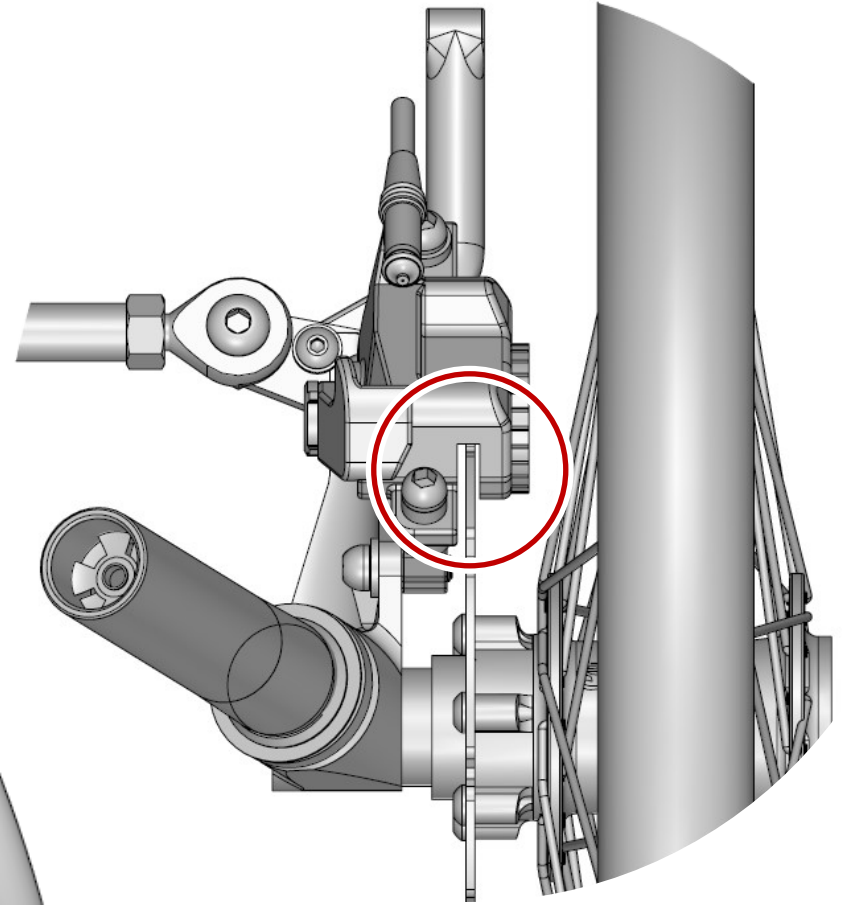


# WHEEL INSTALL STEP 1



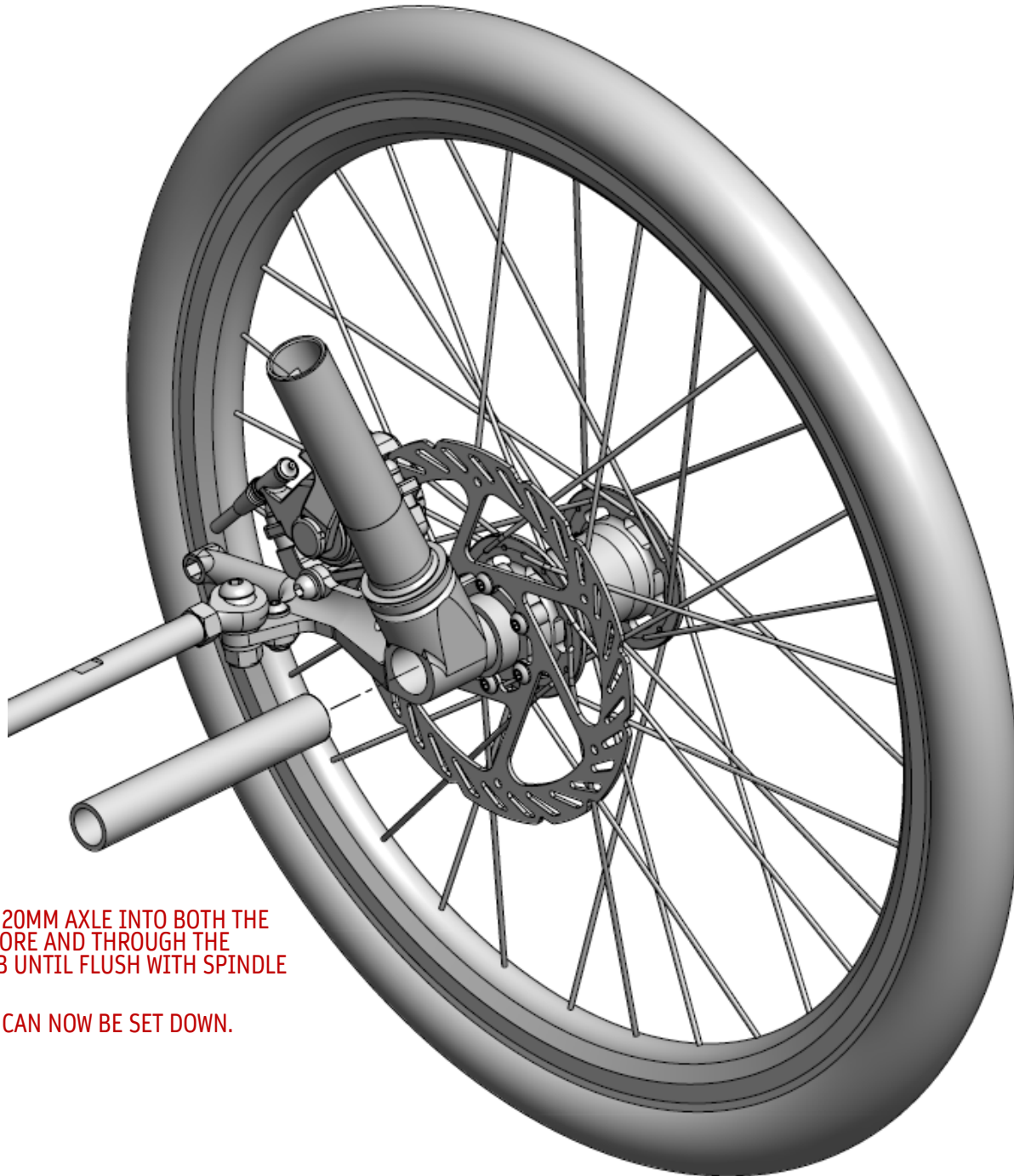
PICK UP THE TRIKE AND ALIGN THE WHEEL HUB WITH THE BRAKE ROTOR FACING THE SPINDLE SO THE HIGHLIGHTED CIRCLES ARE CONCENTRIC.

CHECK MARKINGS ON DISK BRAKE FACE AND WHEEL TO ENSURE THE WHEEL ROTATION DIRECTION IS CORRECT.



MAKE SURE THAT THE BRAKE ROTOR GOES IN THE CALIPER OPENING WHEN INSTALLING THE WHEEL.

## WHEEL INSTALL STEP 2



SLIDE THE 20MM AXLE INTO BOTH THE SPINDLE BORE AND THROUGH THE WHEEL HUB UNTIL FLUSH WITH SPINDLE SURFACE.

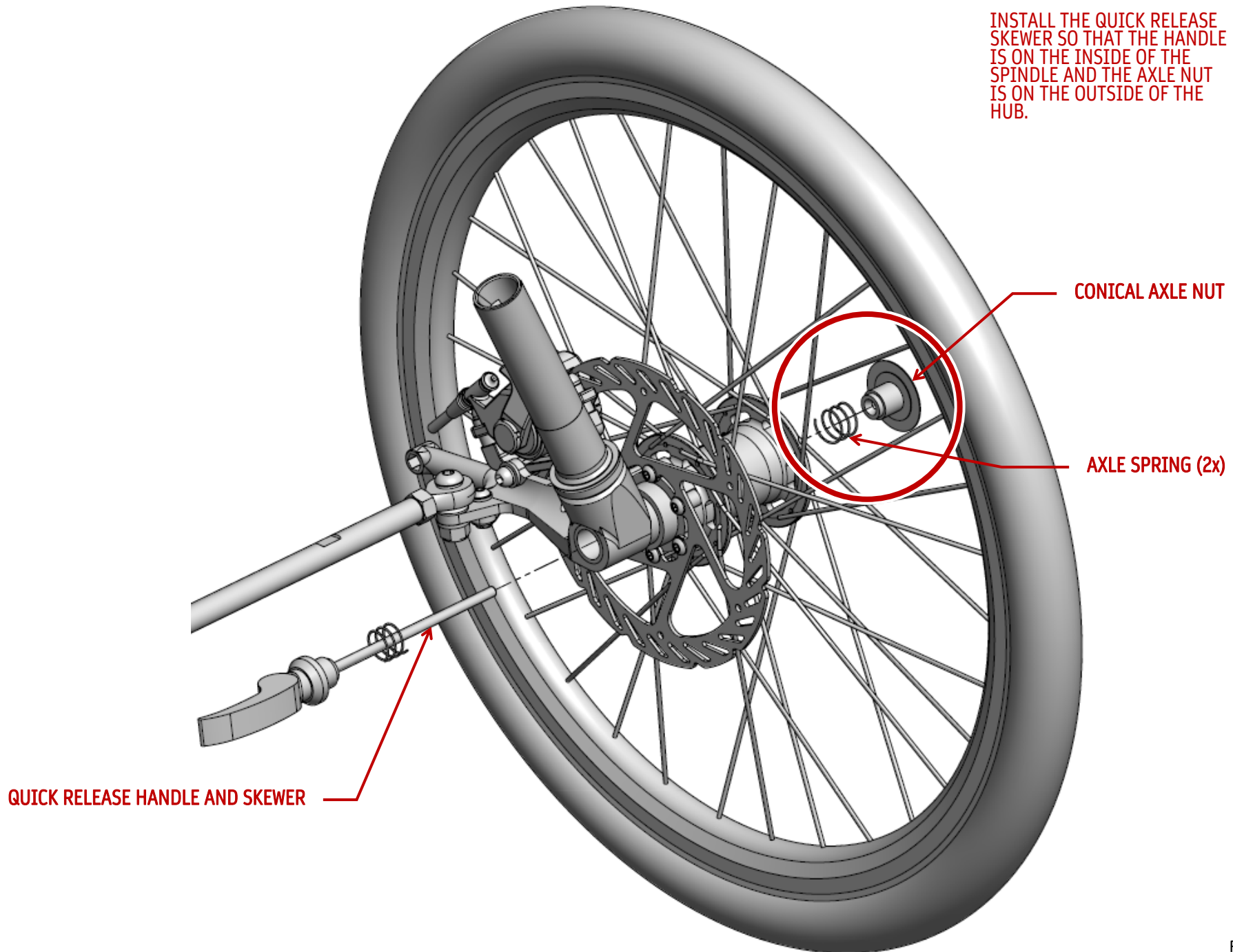
THE TRIKE CAN NOW BE SET DOWN.



## WHEEL INSTALL STEP 3

INSTALL A SPRING ON EACH  
SIDE OF THE AXLE ASSEMBLY.

INSTALL THE QUICK RELEASE  
SKEWER SO THAT THE HANDLE  
IS ON THE INSIDE OF THE  
SPINDLE AND THE AXLE NUT  
IS ON THE OUTSIDE OF THE  
HUB.

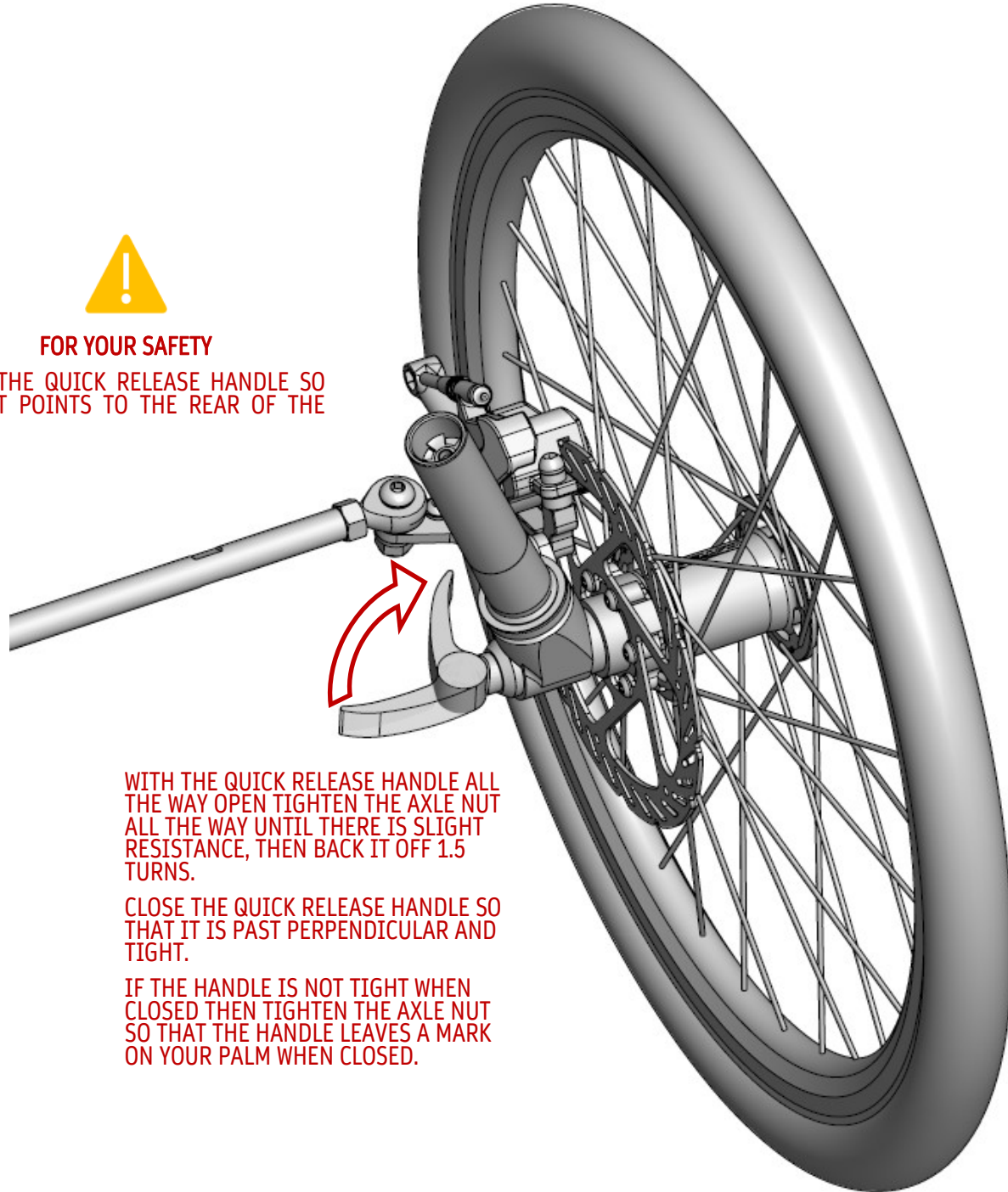


## WHEEL INSTALL STEP 4



### FOR YOUR SAFETY

CLOSE THE QUICK RELEASE HANDLE SO THAT IT POINTS TO THE REAR OF THE TRIKE



WITH THE QUICK RELEASE HANDLE ALL THE WAY OPEN TIGHTEN THE AXLE NUT ALL THE WAY UNTIL THERE IS SLIGHT RESISTANCE, THEN BACK IT OFF 1.5 TURNS.

CLOSE THE QUICK RELEASE HANDLE SO THAT IT IS PAST PERPENDICULAR AND TIGHT.

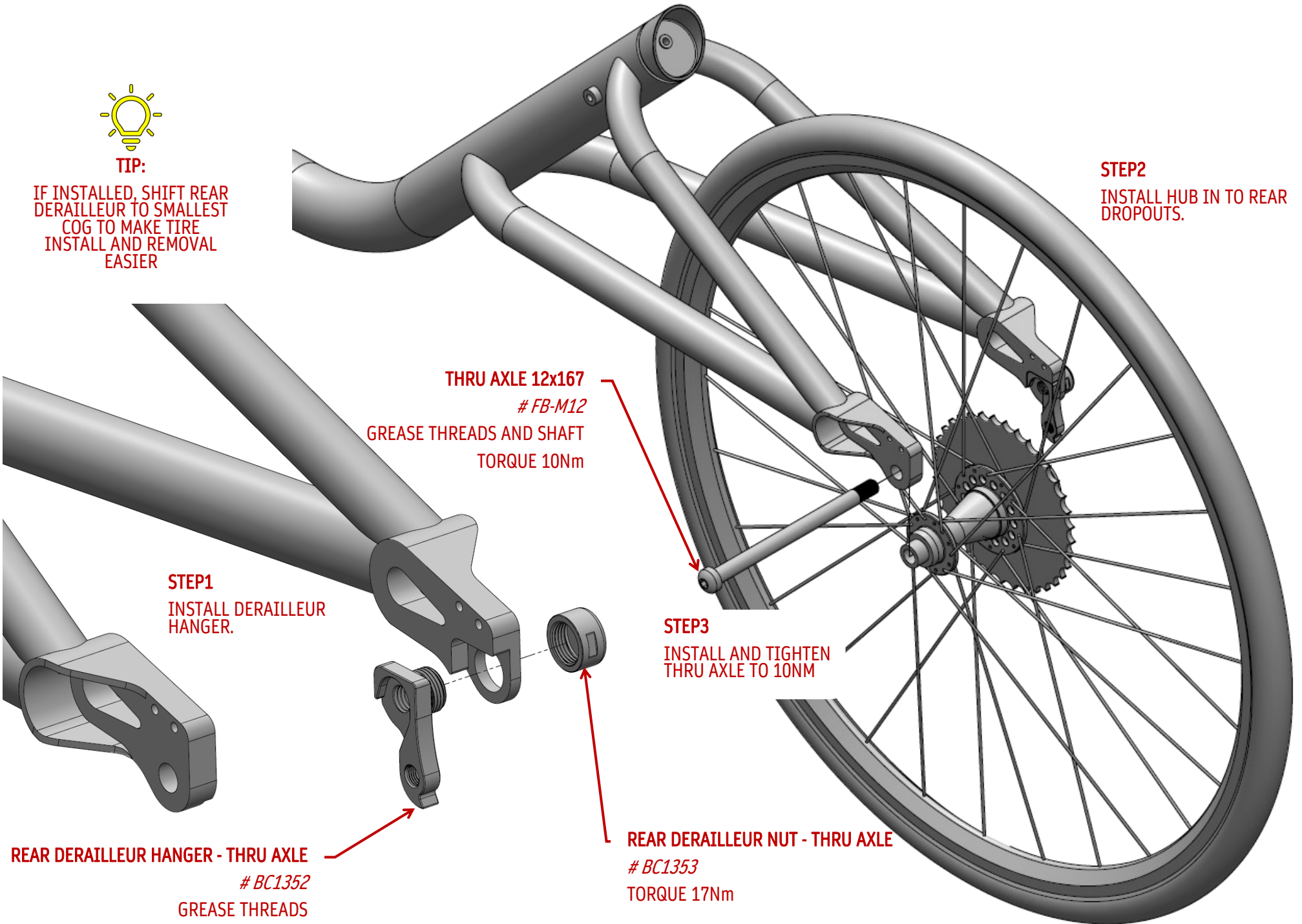
IF THE HANDLE IS NOT TIGHT WHEN CLOSED THEN TIGHTEN THE AXLE NUT SO THAT THE HANDLE LEAVES A MARK ON YOUR PALM WHEN CLOSED.

# THRU AXLE HUB & HANGER INSTALL



## TIP:

IF INSTALLED, SHIFT REAR DERAILLEUR TO SMALLEST COG TO MAKE TIRE INSTALL AND REMOVAL EASIER



## STEP2

INSTALL HUB IN TO REAR DROPOUTS.

THRU AXLE 12x167

# FB-M12

GREASE THREADS AND SHAFT  
TORQUE 10Nm

## STEP1

INSTALL DERAILLEUR HANGER.

REAR DERAILLEUR HANGER - THRU AXLE

# BC1352

GREASE THREADS

## STEP3

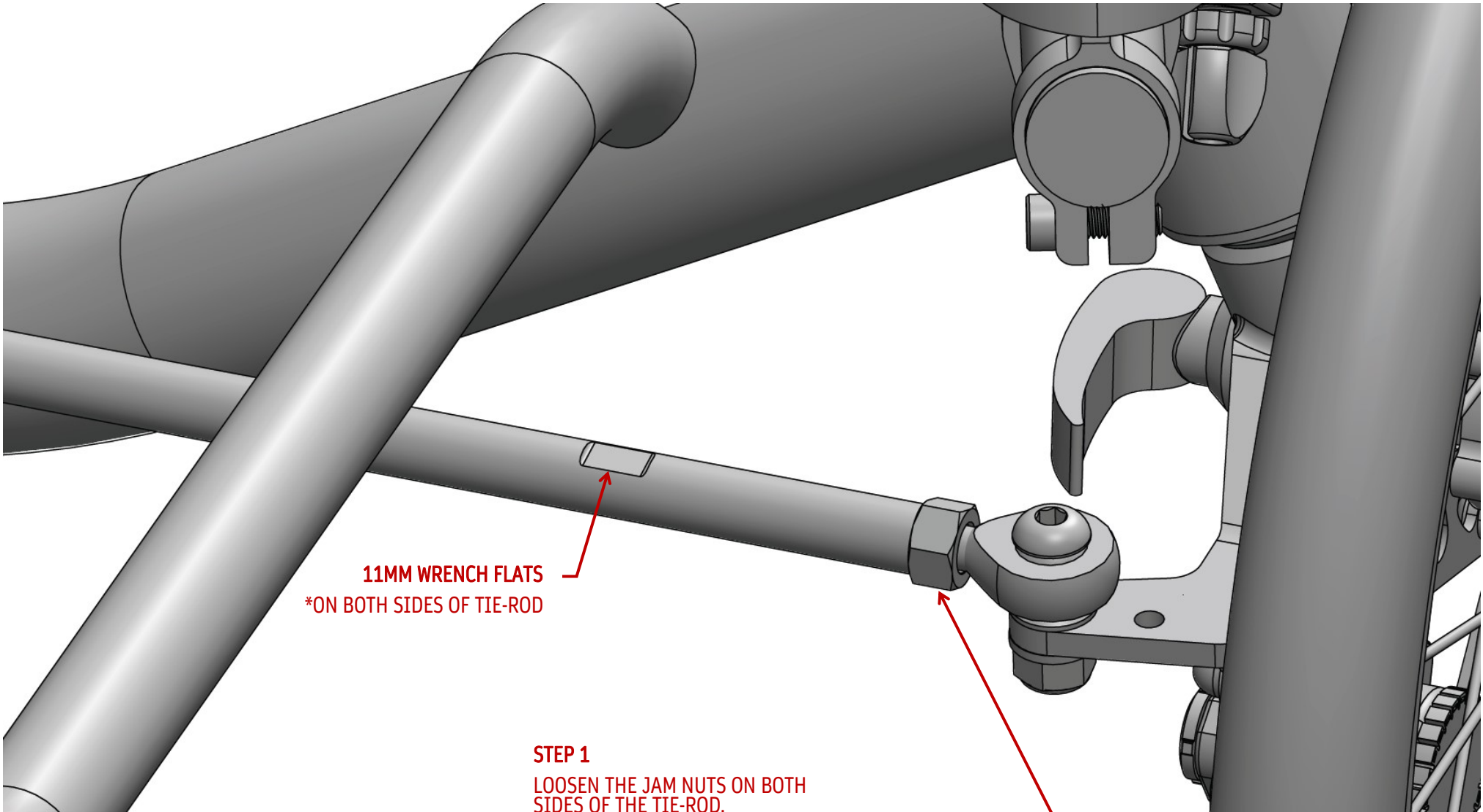
INSTALL AND TIGHTEN  
THRU AXLE TO 10NM

REAR DERAILLEUR NUT - THRU AXLE

# BC1353

TORQUE 17Nm

# TIE-ROD ADJUSTMENT



**11MM WRENCH FLATS**  
\*ON BOTH SIDES OF TIE-ROD

**STEP 1**  
LOOSEN THE JAM NUTS ON BOTH  
SIDES OF THE TIE-ROD.  
NOTE THAT ONE SIDE OF THE TIE-  
ROD IS REVERSE THREADED.

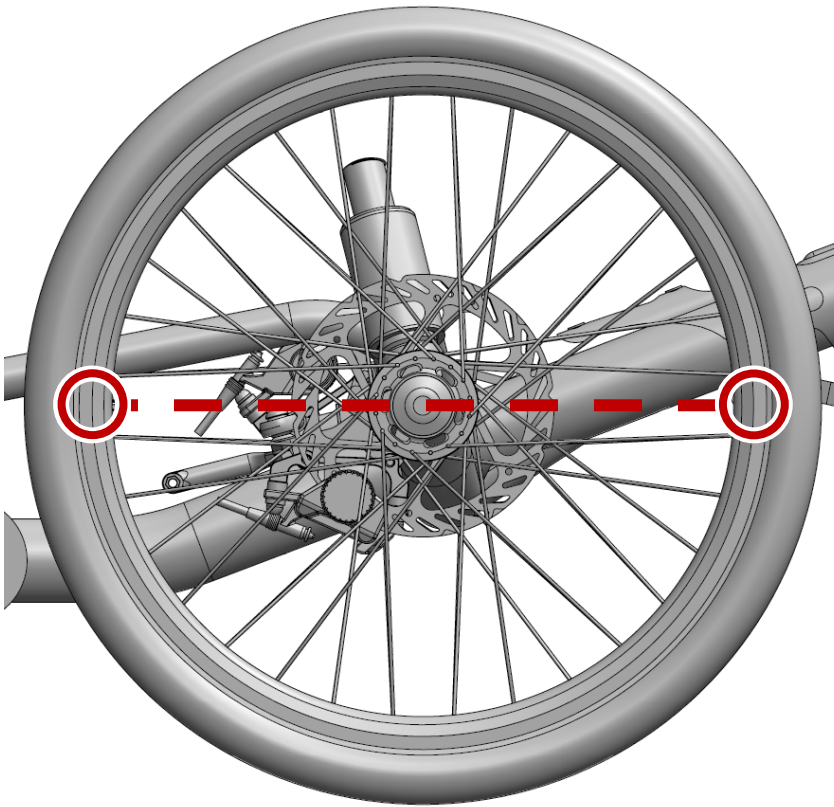
**JAM NUT - 14MM WRENCH**  
\*ONE SIDE IS REVERSE THREADED

# TIE-ROD ADJUSTMENT CONTINUED

## STEP 2

WITH THE WHEELS POINTING AS STRAIGHT AS POSSIBLE, USE THE CALIBRO TOOL OR A TAPE MEASURE TO MEASURE ACROSS THE FRONT WHEELS AT THE RIM FROM AXLE HEIGHT; TWO POINTS CIRCLED BELOW.

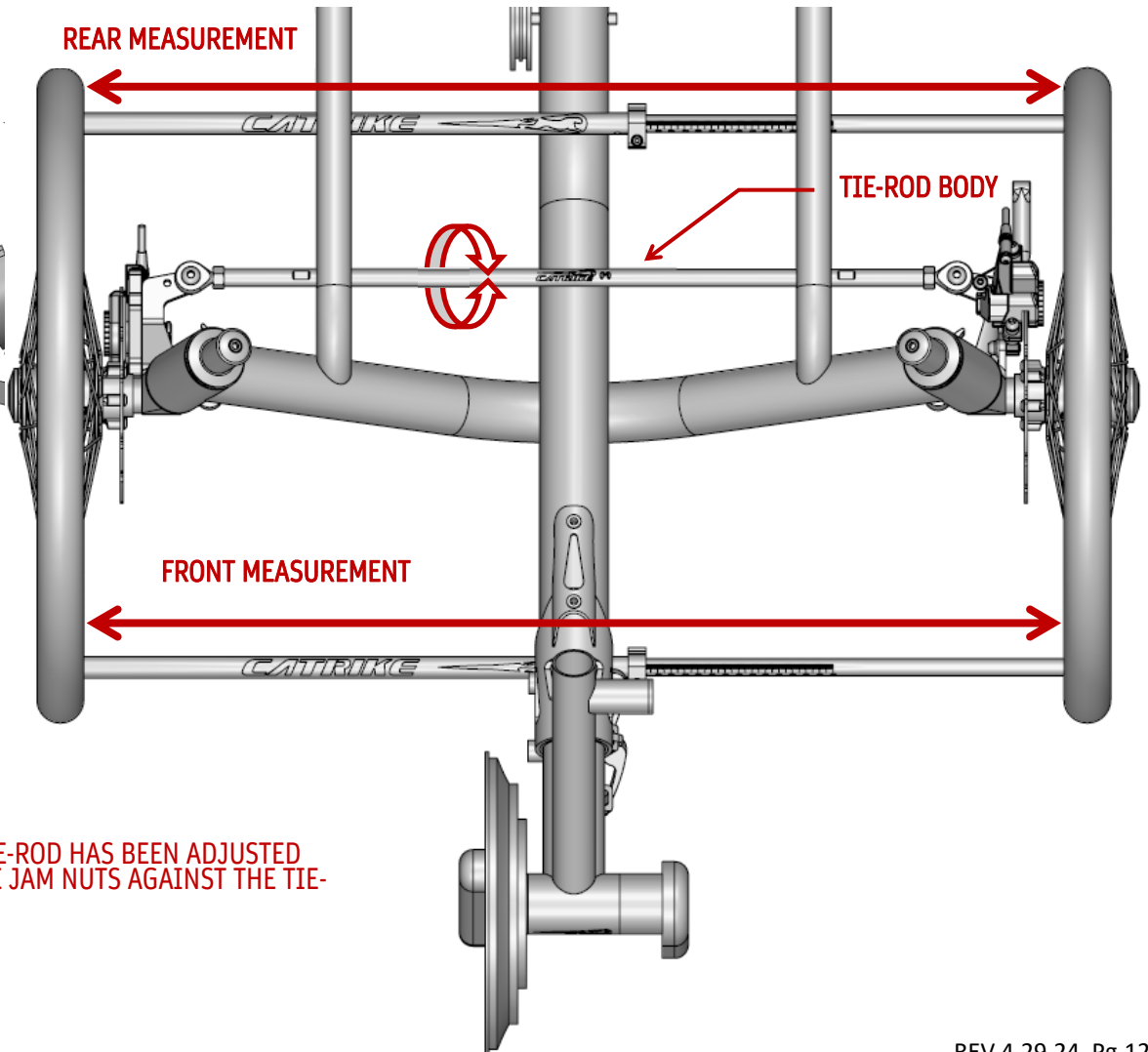
COMPARE THE MEASUREMENTS FROM BOTH POINTS.



## STEP 3

USING THE MEASUREMENTS TAKEN FROM THE PREVIOUS STEP, ADJUST THE TIE-ROD BY SPINNING THE MAIN BODY SO THAT THE WHEELS ARE TOED-IN A MAXIMUM OF 0-2MM.

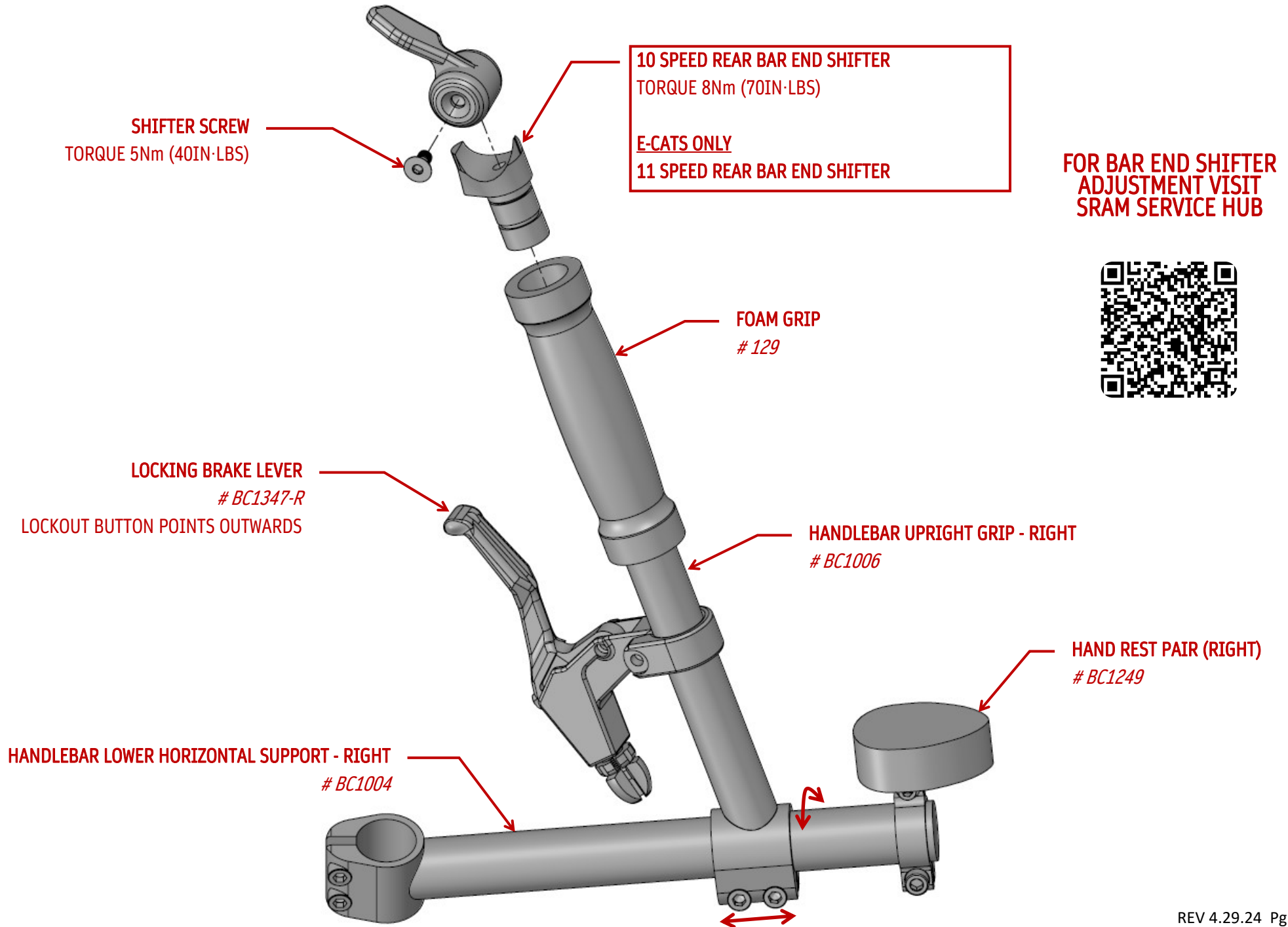
IN OTHER WORDS THE MEASUREMENT FROM THE FRONT SHOULD BE 0-2MM SMALLER THAN THE MEASUREMENT TAKEN FROM THE REAR OF THE RIM



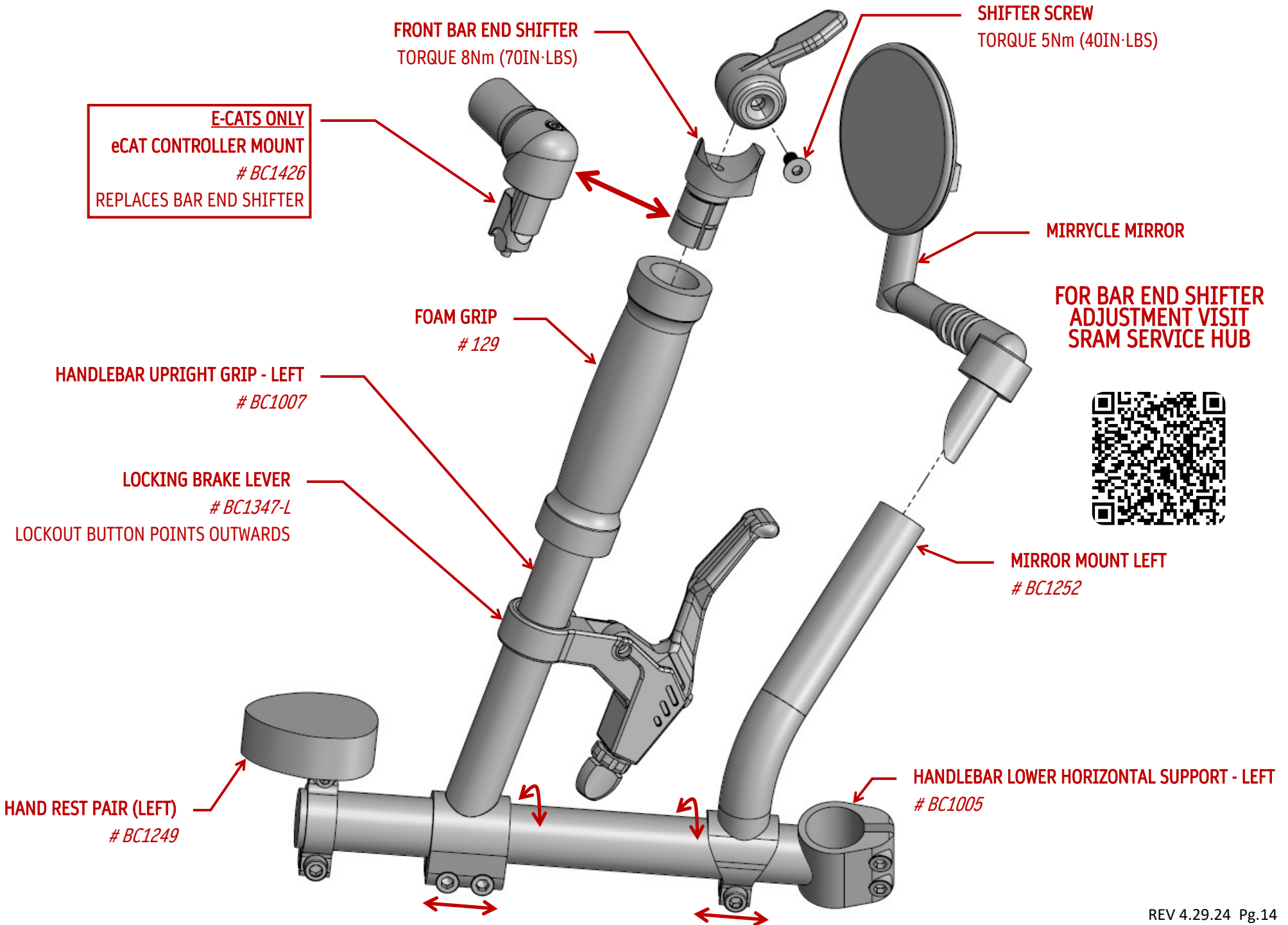
## STEP 4

ONCE THE TIE-ROD HAS BEEN ADJUSTED TIGHTEN THE JAM NUTS AGAINST THE TIE-ROD BODY.

# STANDARD HANDLEBAR ASSEMBLY RIGHT



# STANDARD HANDLEBAR ASSEMBLY LEFT



# BOOM ADJUSTMENT



WHILE SITTING, SLIDE BOOM UP TO HEEL OF FULLY EXTENDED LEG.

BOOM CAN BE CUT FOR SHORTER RIDERS.

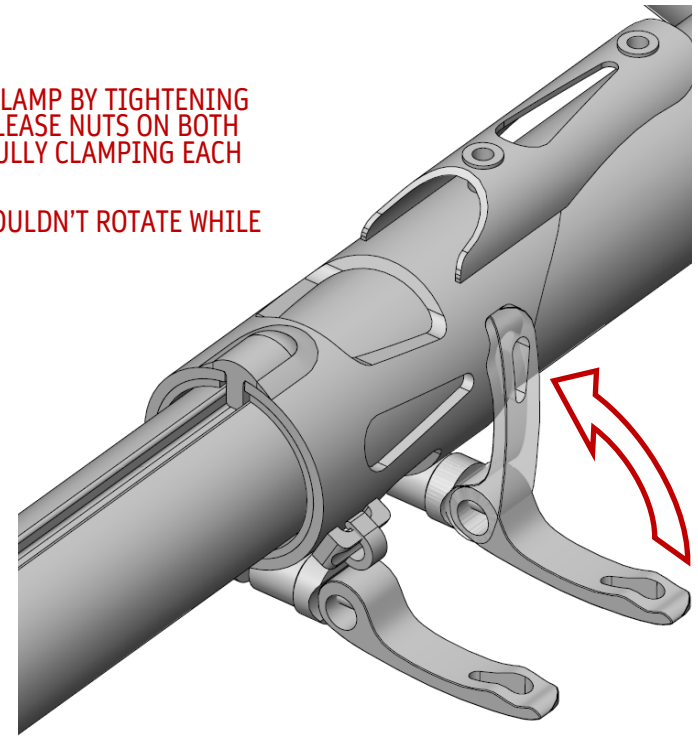


ONCE CLIPPED IN, THE EXTENDED LEG SHOULD NOW HAVE A SLIGHT BEND.

BOOM ADJUSTMENT IS UP TO RIDER PREFERENCE.

CLOSE BOOM CLAMP BY TIGHTENING THE QUICK RELEASE NUTS ON BOTH LEVERS AND FULLY CLAMPING EACH HANDLE.

THE BOOM SHOULDN'T ROTATE WHILE PEDALING.

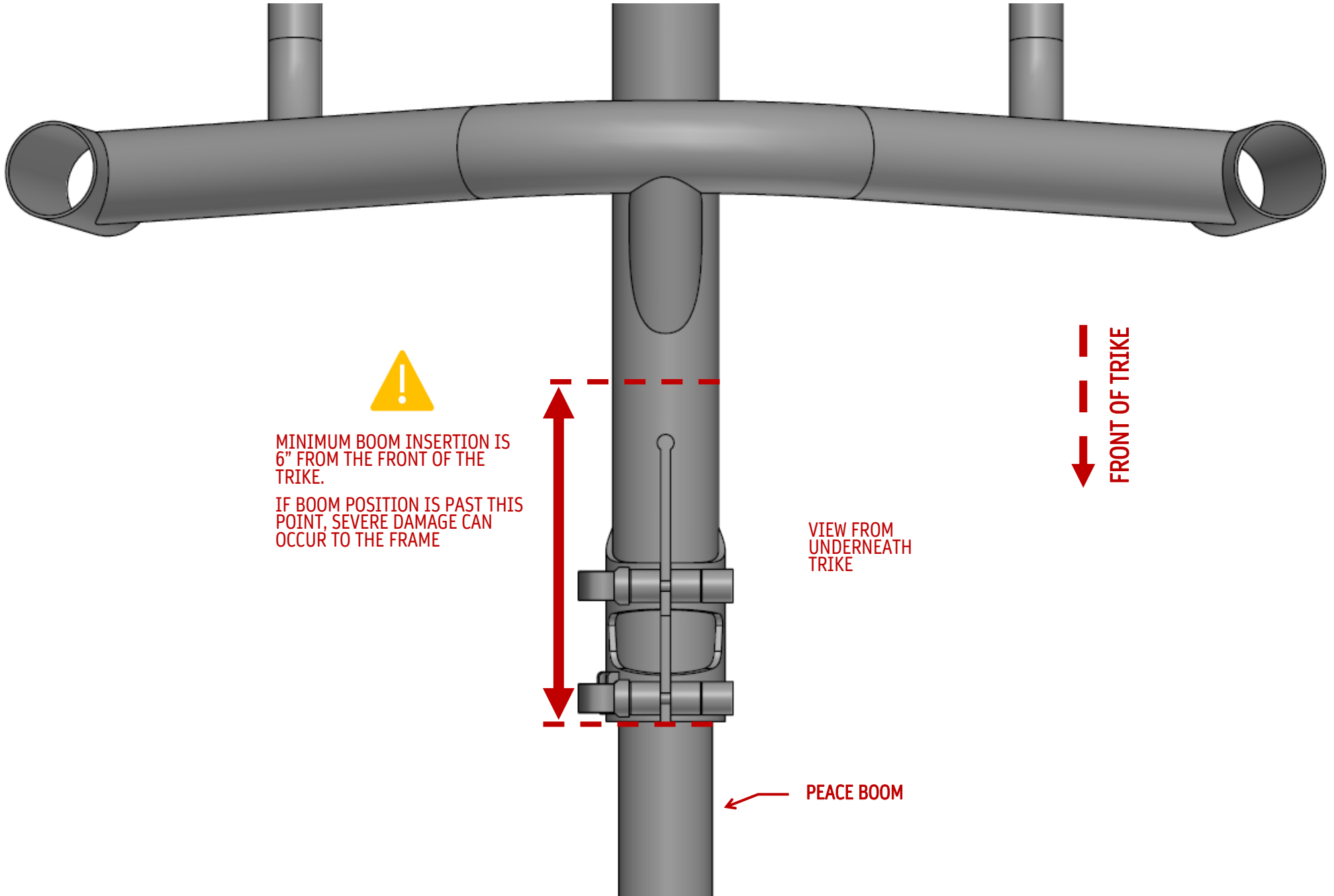


**CLIPLESS SHOES ARE STRONGLY RECCOMENDED**

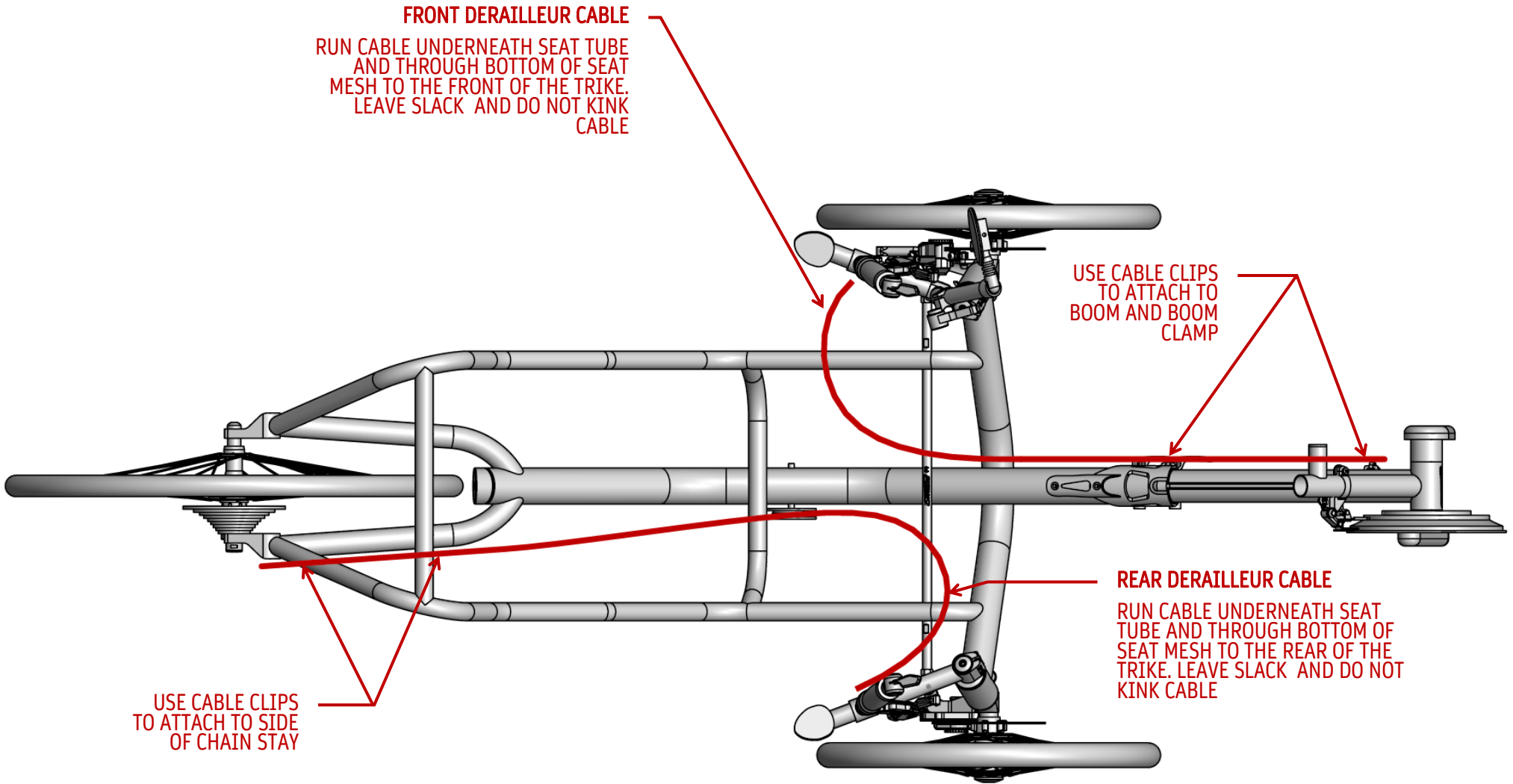
**SEE WARNING ON NEXT PAGE REGARDING MINIMUM BOOM INSERTION**



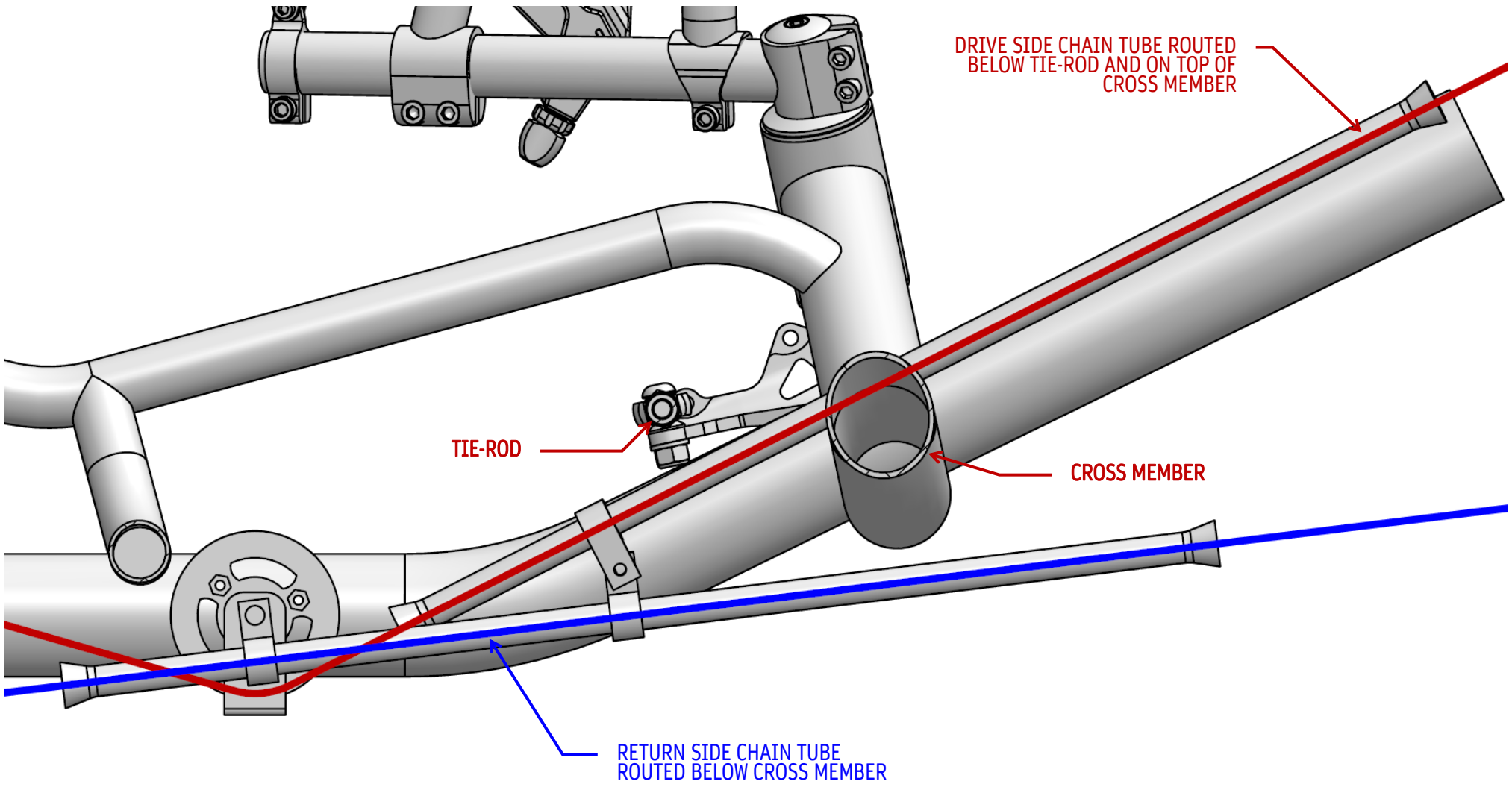
# BOOM INSERTION



# CABLE ROUTING



# CHAIN ROUTING



# EKIT BATTERY CLAMP ASSEMBLY

  
**DO NOT TIGHTEN  
BOLTS ALL THE  
WAY YET**

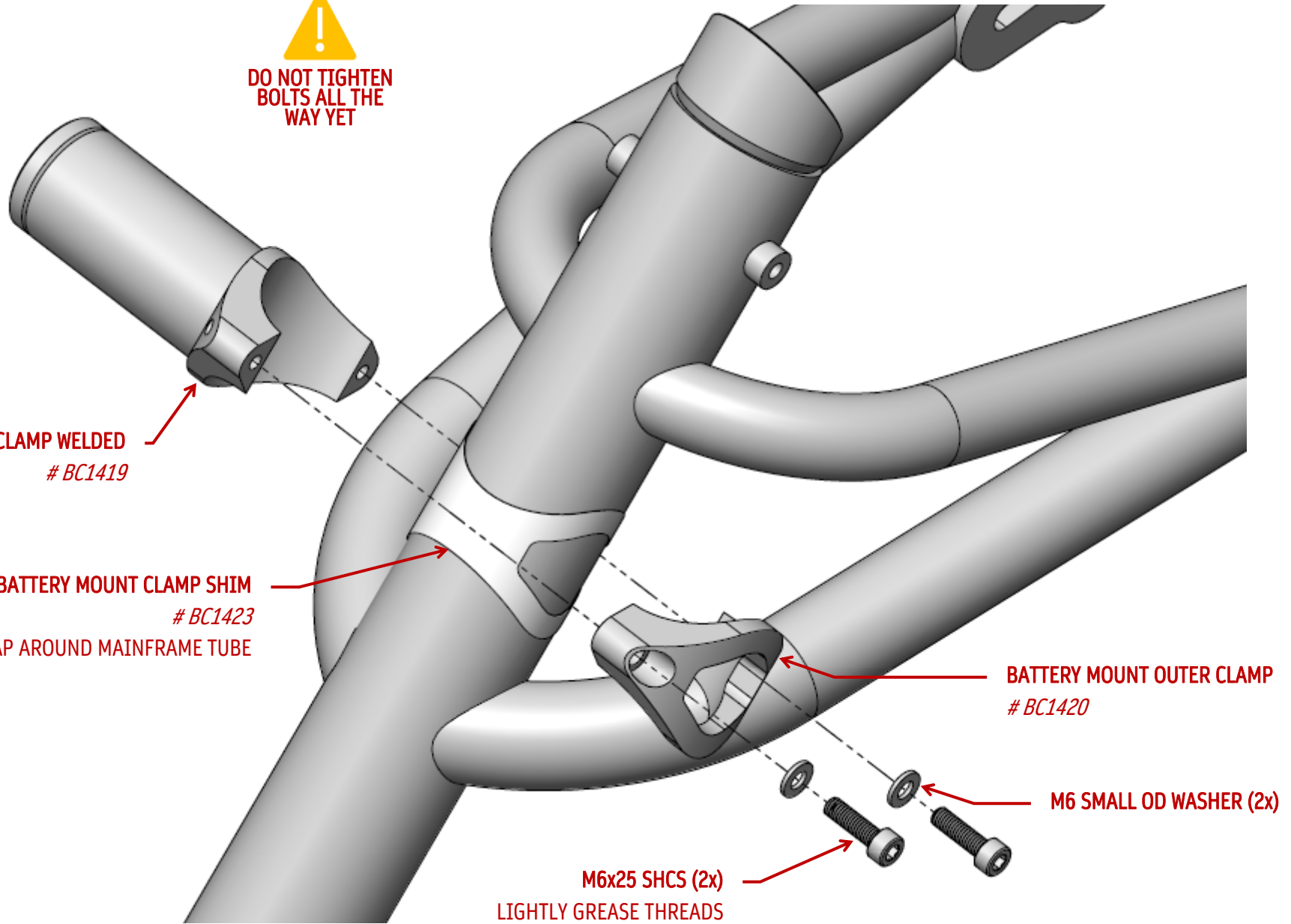
**BATTERY MOUNT CLAMP WELDED**  
# BC1419

**BATTERY MOUNT CLAMP SHIM**  
# BC1423  
WRAP AROUND MAINFRAME TUBE

**BATTERY MOUNT OUTER CLAMP**  
# BC1420

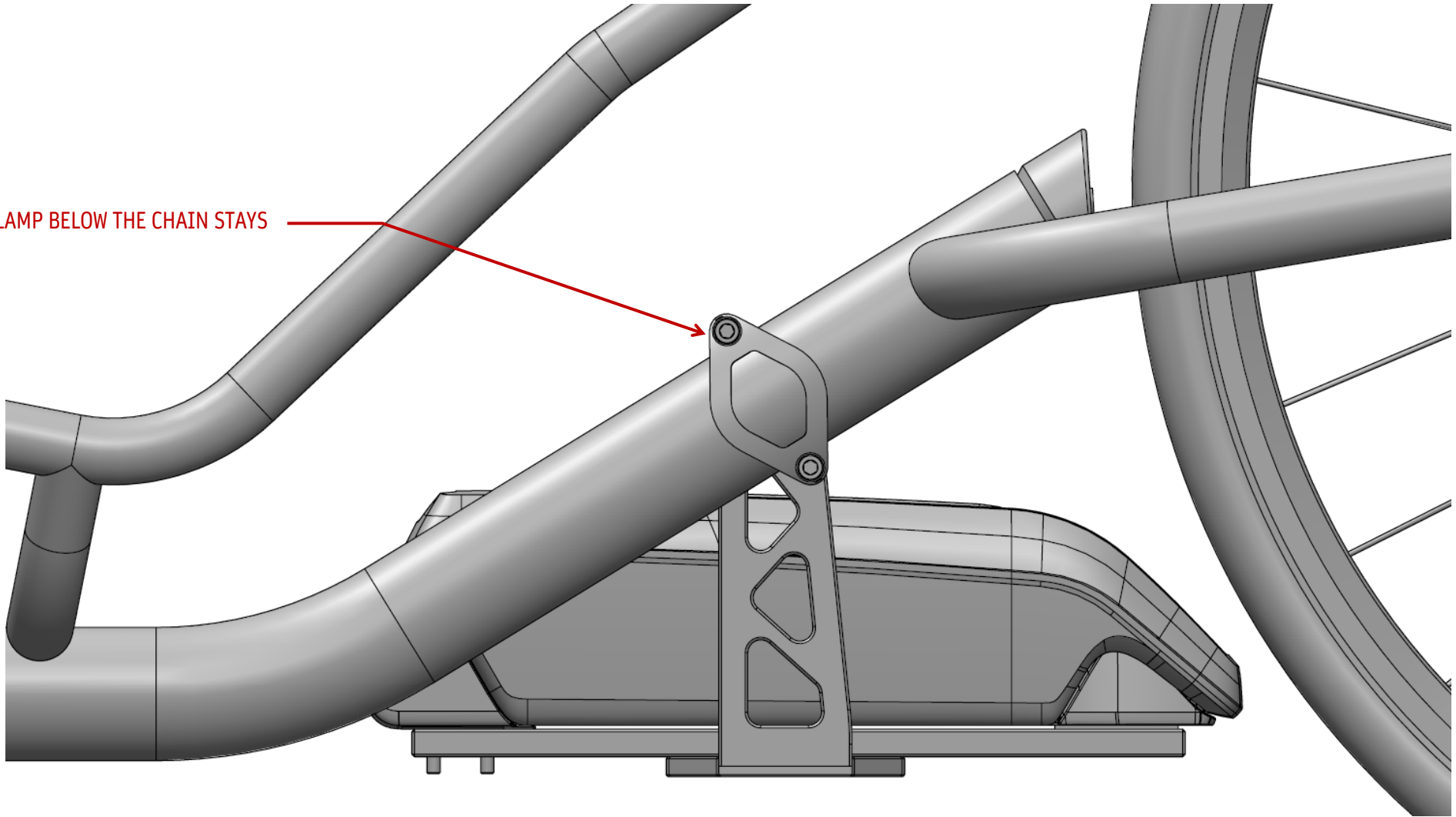
**M6 SMALL OD WASHER (2x)**

**M6x25 SHCS (2x)**  
LIGHTLY GREASE THREADS

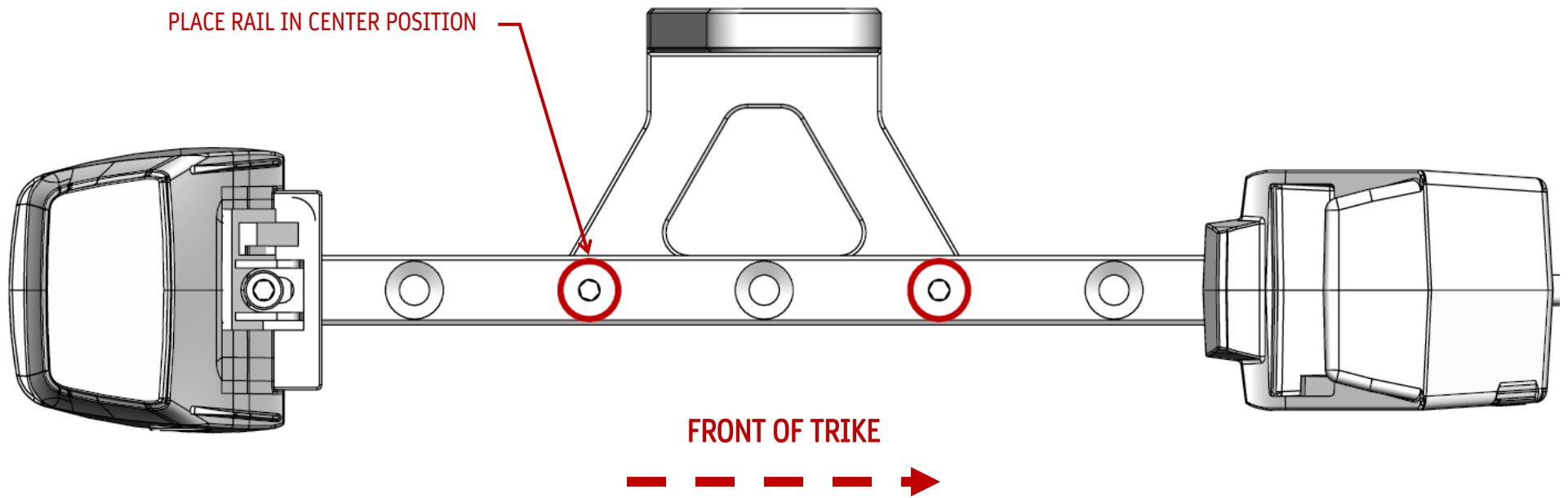


## EKIT BATTERY CLAMP POSITION

PLACE CLAMP BELOW THE CHAIN STAYS



# EKIT BATTERY RAIL POSITION



# EKIT BATTERY RAIL ASSEMBLY



**DO NOT TIGHTEN  
BOLTS ALL THE  
WAY YET UNLESS  
SPECIFIED**

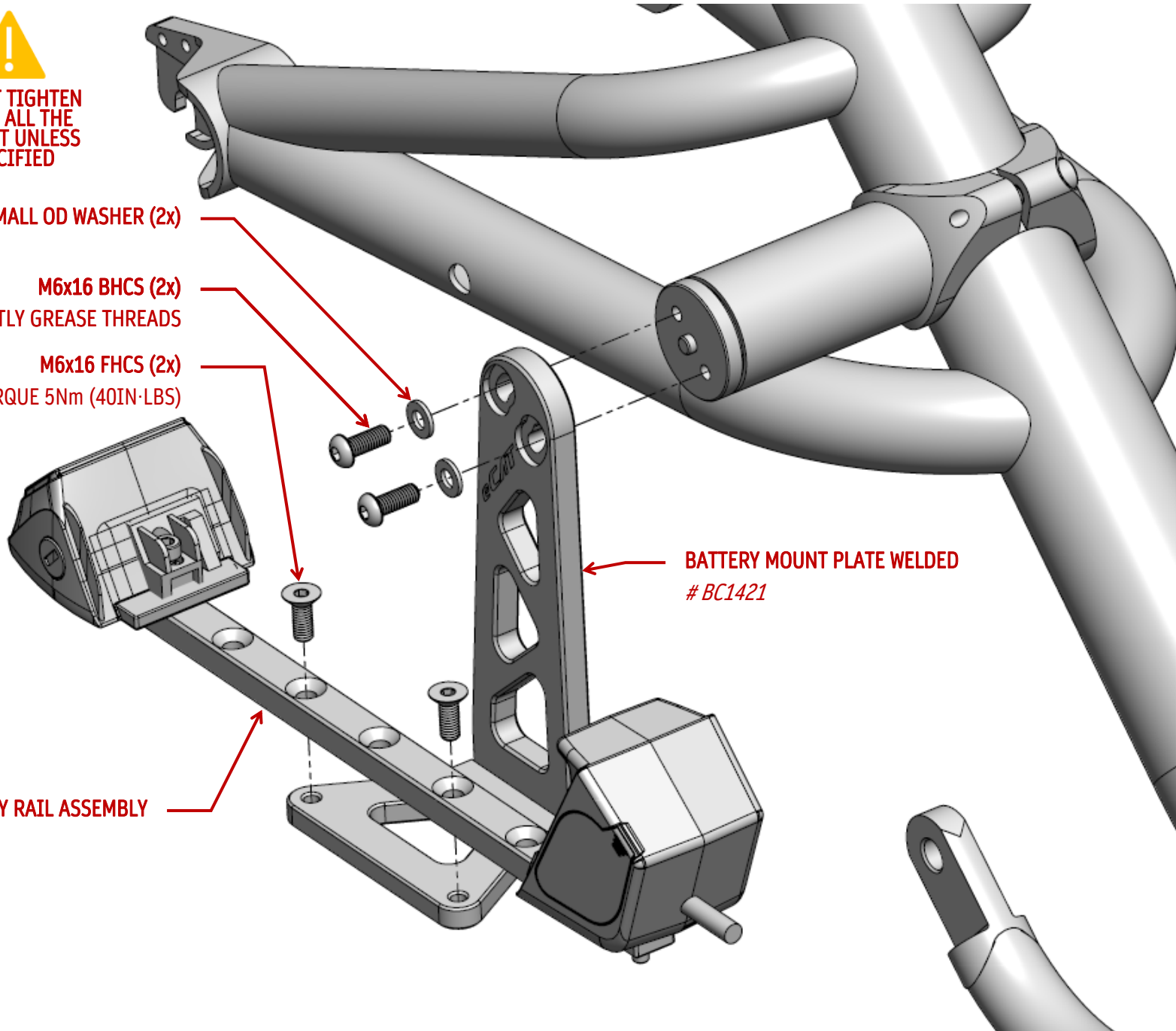
**M6 SMALL OD WASHER (2x)**

**M6x16 BHCS (2x)  
LIGHTLY GREASE THREADS**

**M6x16 FHCS (2x)  
TORQUE 5Nm (40IN-LBS)**

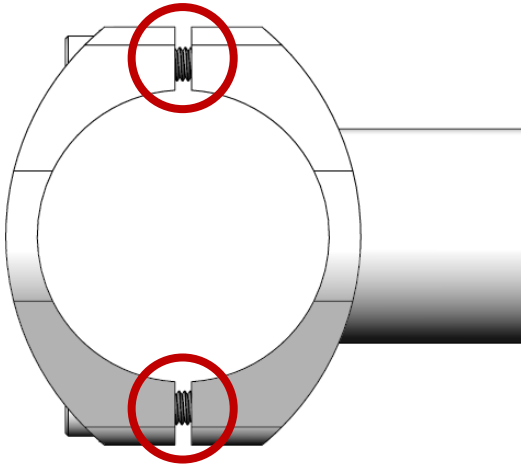
**BATTERY MOUNT PLATE WELDED  
# BC1421**

**BATTERY RAIL ASSEMBLY**

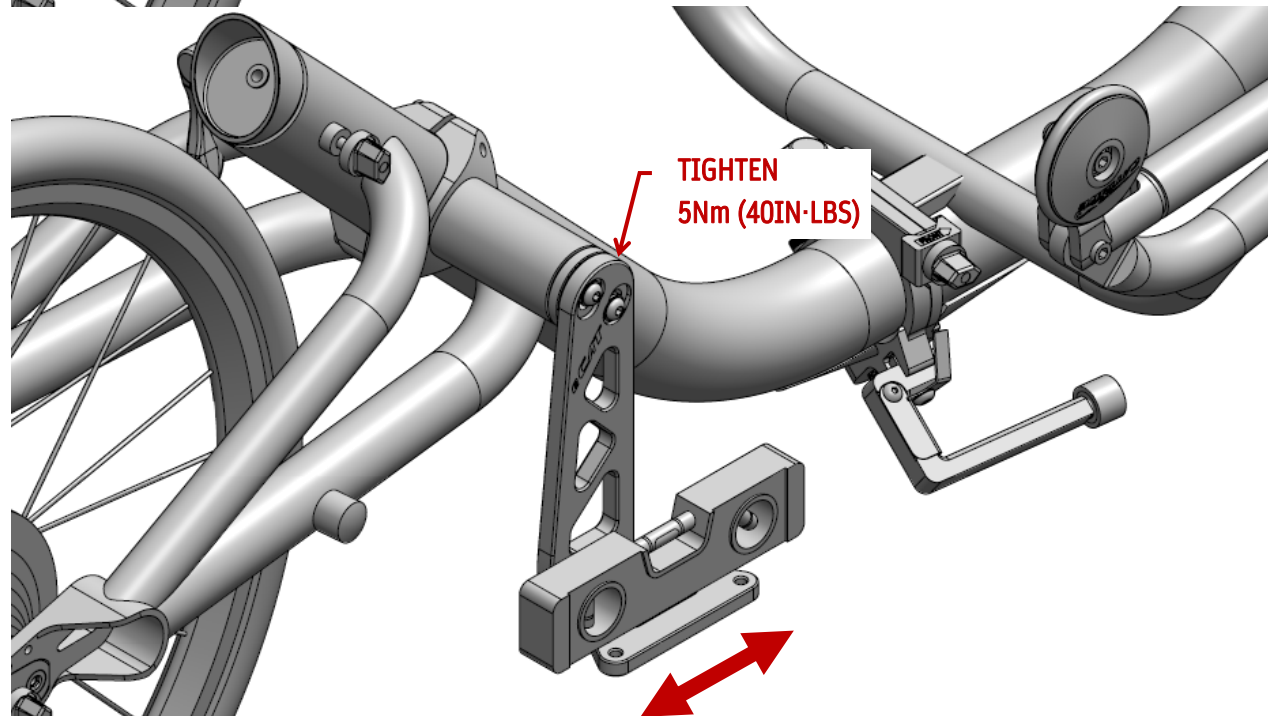
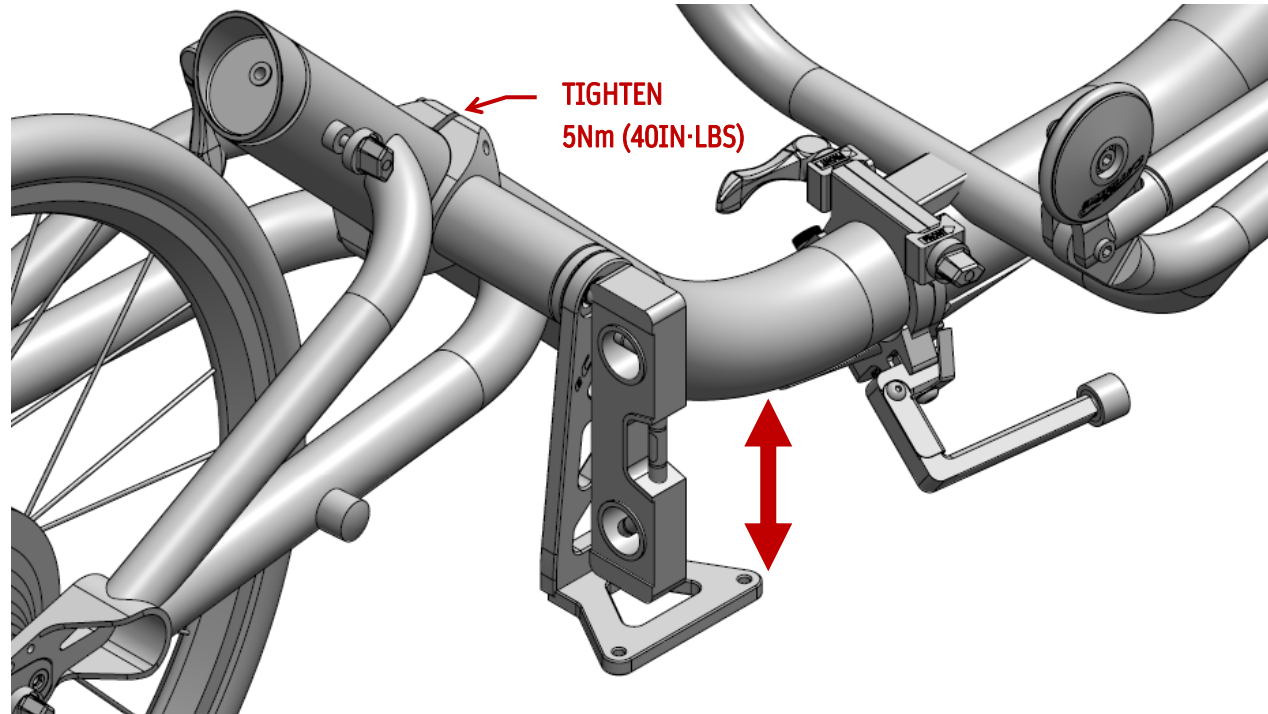


# EKIT BATTERY CLAMP LEVEL

LEVEL EACH OF THE SHOWN AXIS FOR THE BATTERY CLAMP AND BRACKET BEFORE TIGHTENING THE RESPECTIVE BOLTS

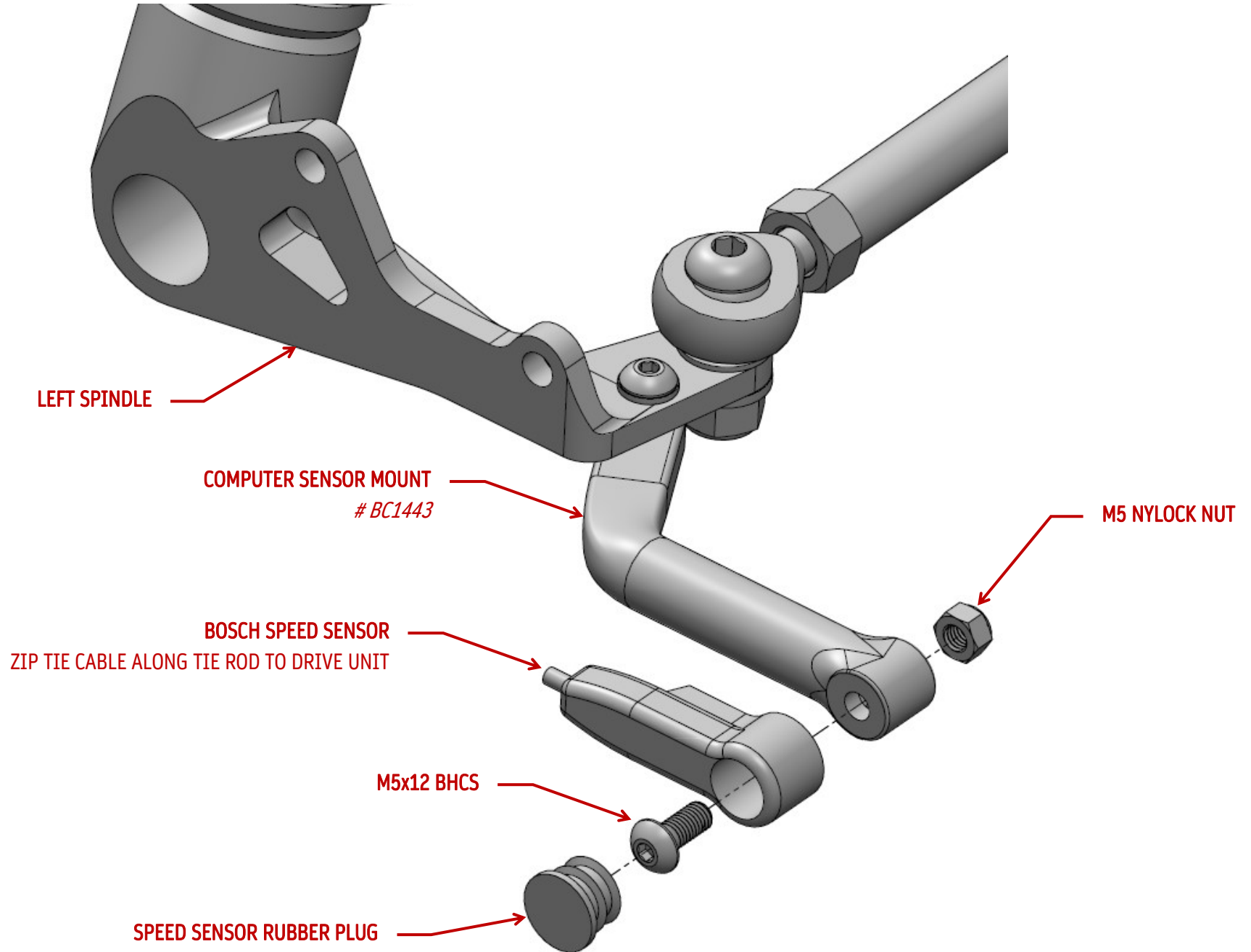


ENSURE EVEN GAP ON CLAMP WHEN TIGHTENING

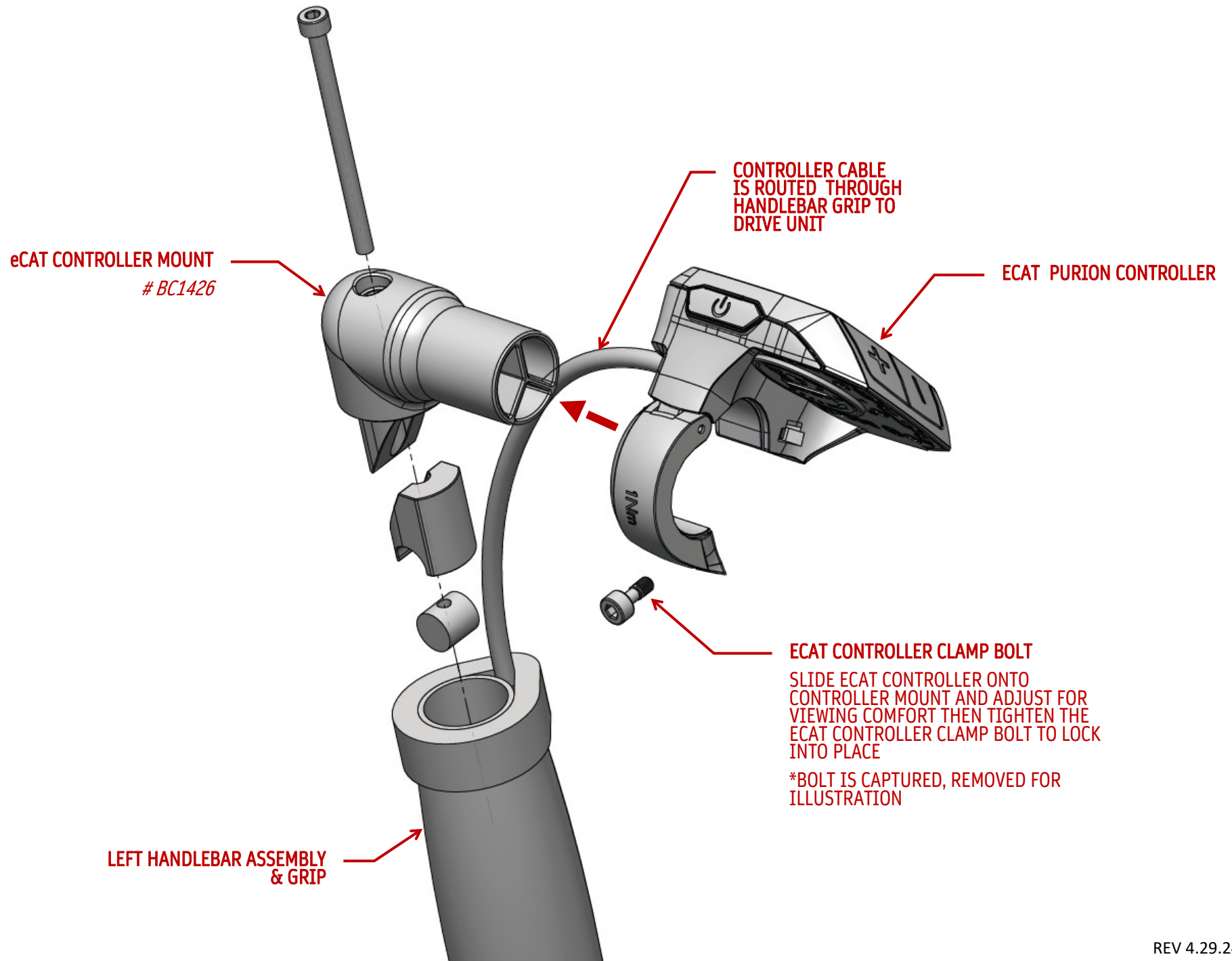




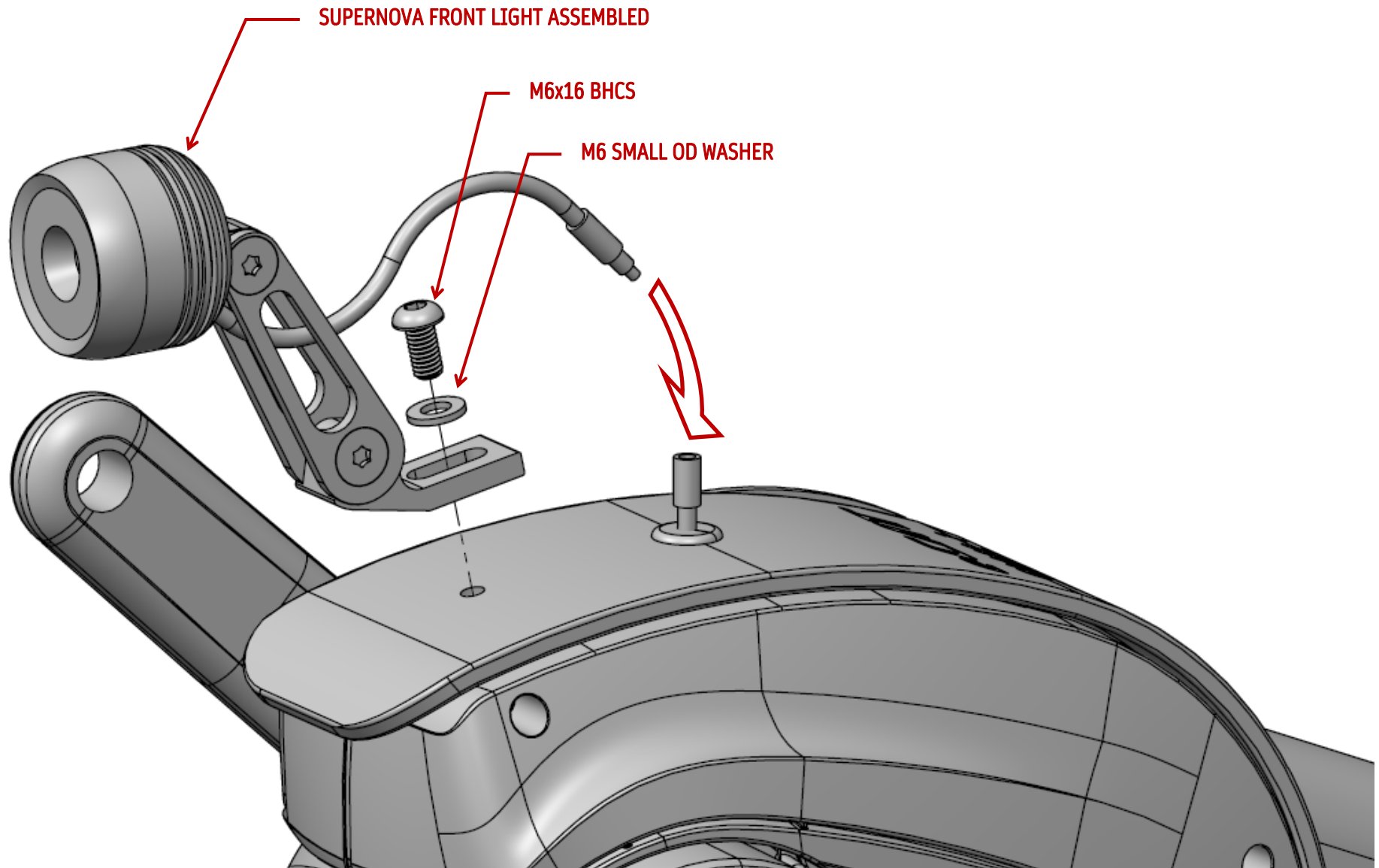
# EKIT SPEED SENSOR ASSEMBLY



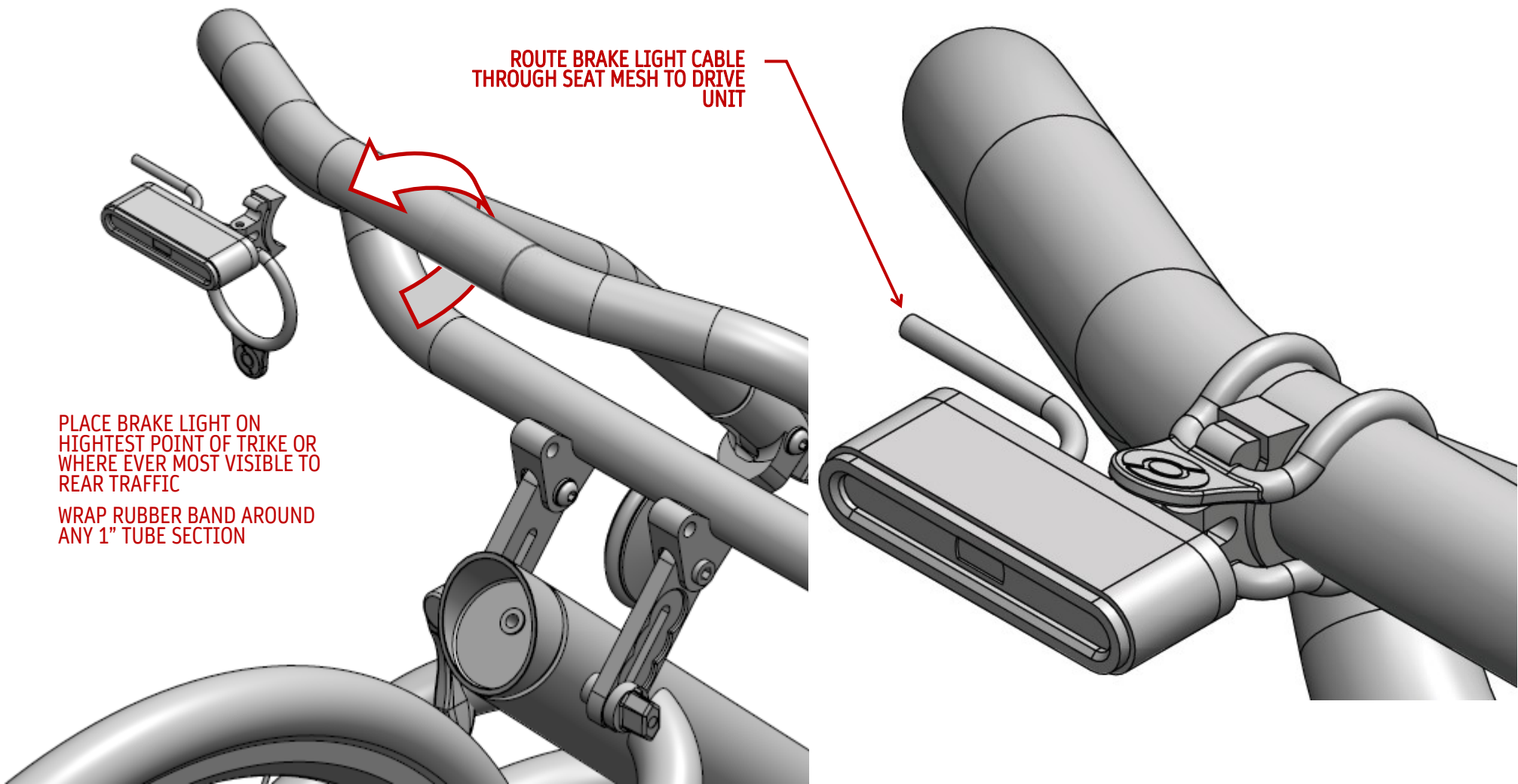
# EKIT CONTROLLER ASSEMBLY



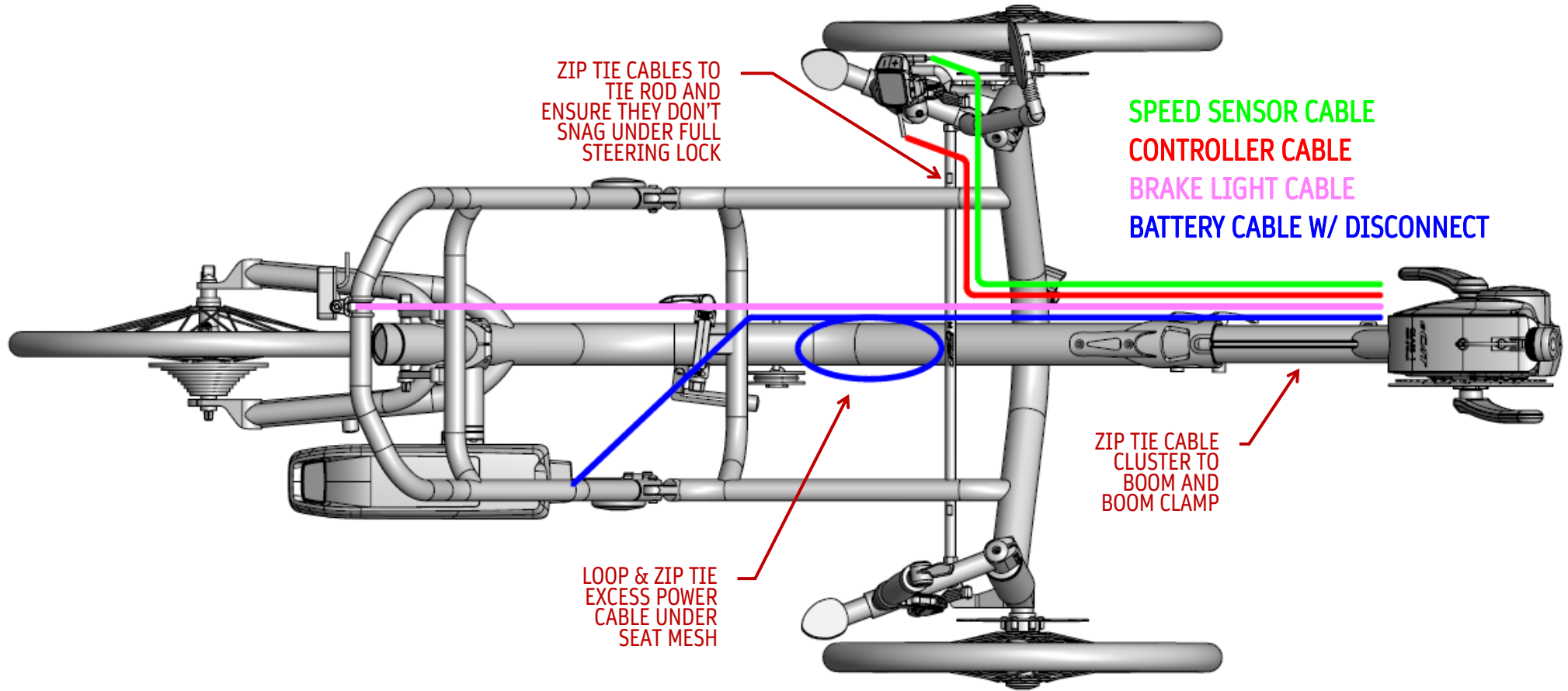
# EKIT FRONT LIGHT ASSEMBLY



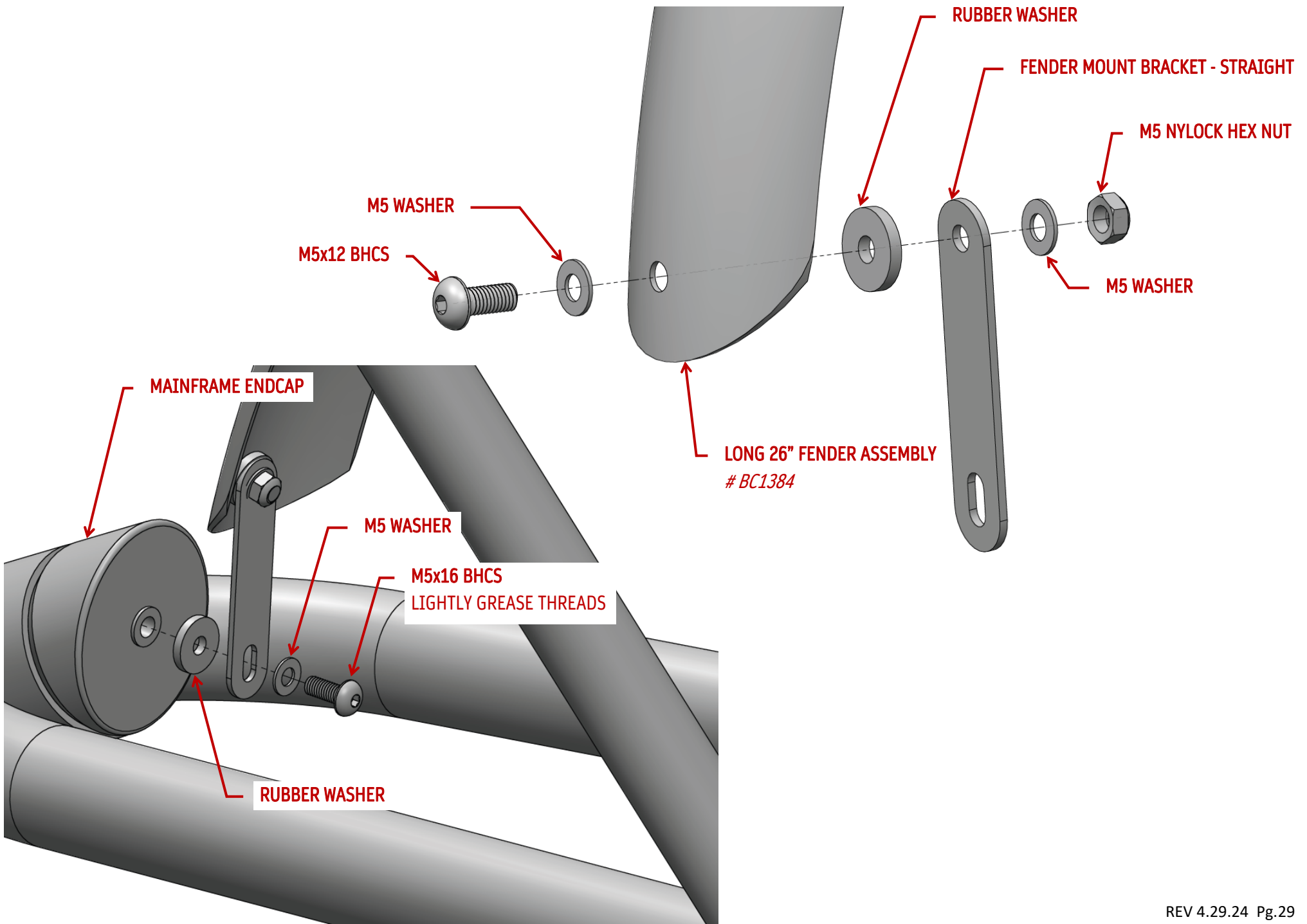
# EKIT REAR LIGHT ASSEMBLY



# EKIT CABLE ROUTING



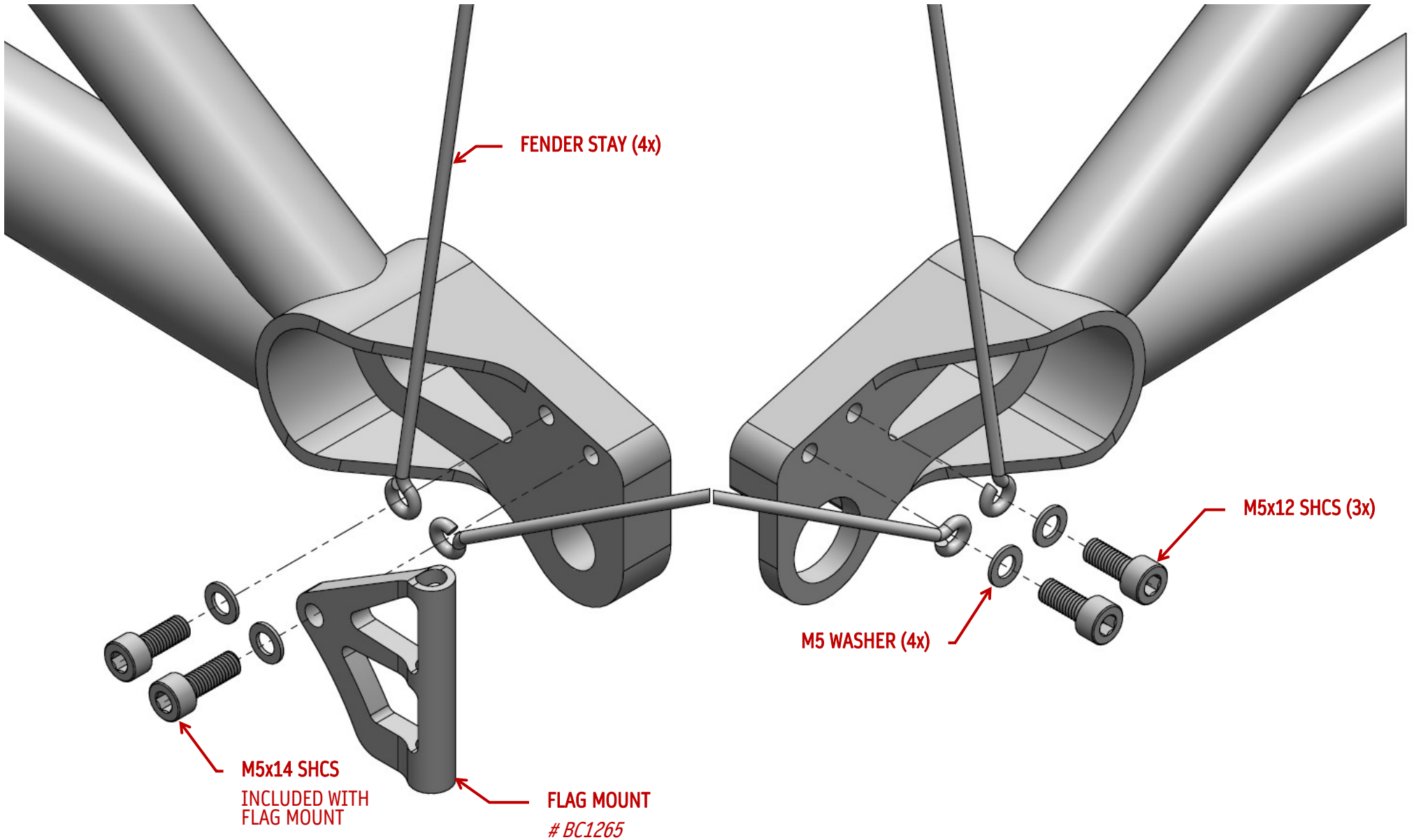
# FENDER TO FRAME INSTALLATION



# FENDER TO DROP OUT INSTALLATION

**LEFT DROP OUT**

**RIGHT DROP OUT**



# FENDER STAYS & FINAL INSTALLATION

