



**IA DISC (1.0)
OWNER'S MANUAL SUPPLEMENT
SHIFT & BRAKE ROUTING**





INTRODUCTION

Congratulations on acquiring a Felt IA triathlon bike, and thank you for being a member of the “Felt family.” This guide is intended to provide instructional support for mechanics wishing to route mechanical wires, electronic wires, and brake hoses in their IA frame modules. Please note that the procedures depicted in this guide require above-average ability in bicycle mechanics, as well as special tools. If you are not a highly-skilled or experienced bicycle mechanic, we strongly recommend you take your bicycle to an authorized Felt Bicycles retailer in order to obtain the highest quality results.

For more information on warranty policy, please visit www.feltbicycles.com.

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IA with Shimano Di2 Electronic Drivetrain (with RS910 junction)

PARTS

- (2) Brake hoses
- (7) Shimano E-tube wires
- (1) Shimano “Y” E-tube connector (Shimano part number EW-JC130)
- (2) Shimano Junction B
- (1) Shimano Junction A (Shimano part number RS910)
- (1) Felt 8mm port, 2.5mm hole, conical grommet (“8mm/2.5mm conical grommet”)
- (1) Felt 8mm port, 2.5mm hole, flat grommet (“8mm/2.5mm flat grommet”)

NOTE

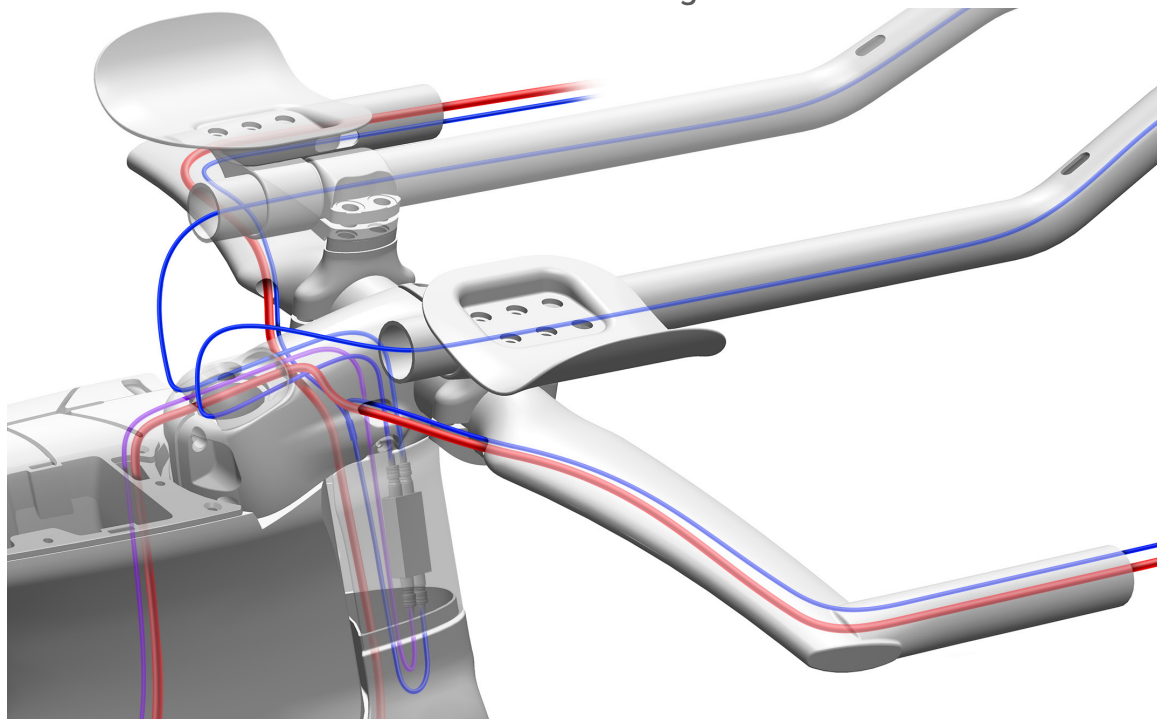
In the following diagrams, blue, purple, and green components are electronic wires; and red components are brake hoses.

SHIFTERS

STEP 1

Start at the basebar. See Figure A1. Using a Shimano “Y” E-tube connector (Shimano part number EW-JC130), connect its two electronic shift wires located where the brake levers will go, and connect to the Junction B box located under the front cover. Connect an electronic wire (850mm) to each shifter located in the aerobar extensions, and then connect them to the Junction B box located under the front cover.

Figure A1

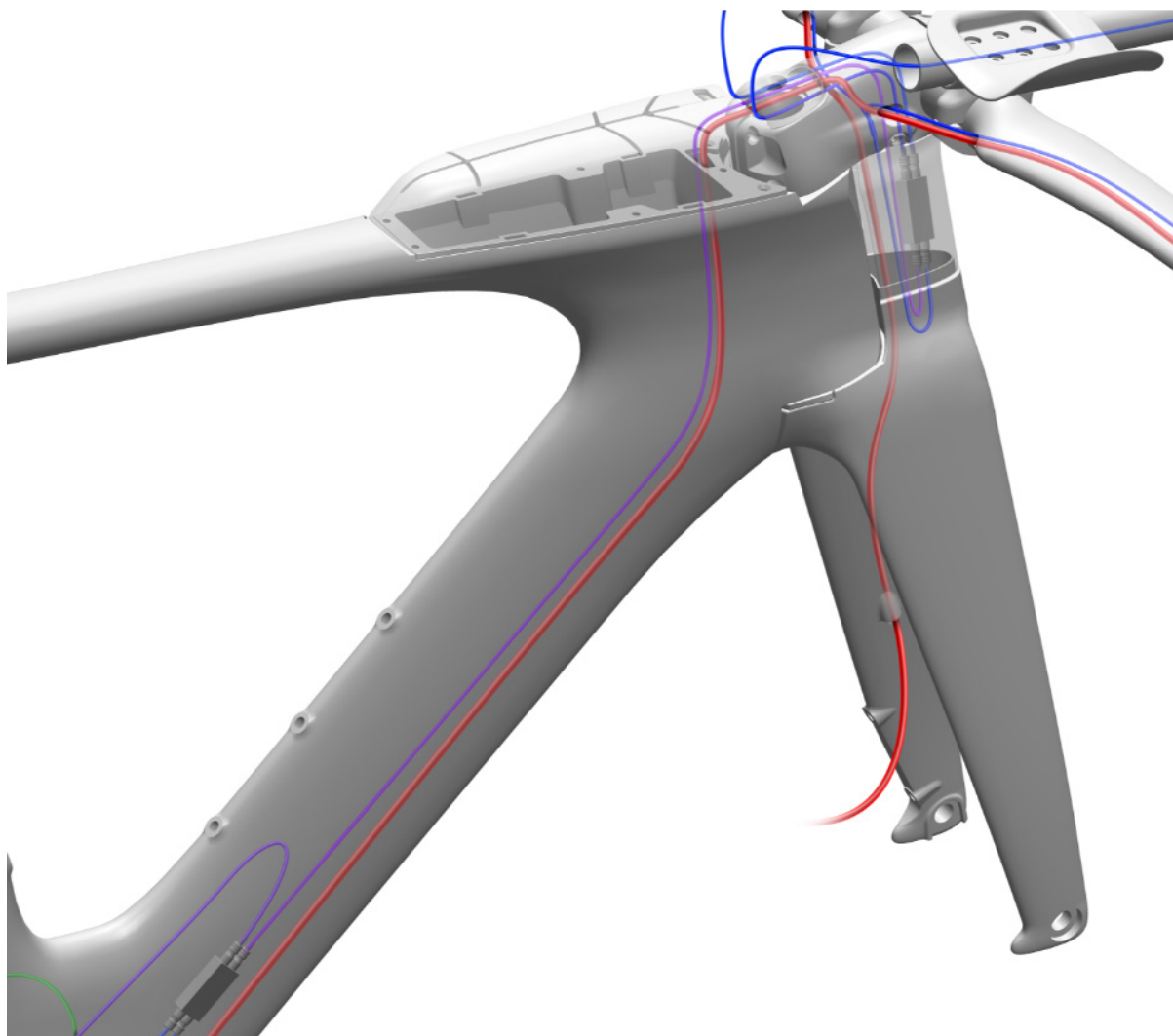




STEP 2

From the Junction B box located under the front cover, connect a (1200mm) wire to it and route through the stem and into the frame where the top tube-mounted storage box is located. Then continue routing through the downtube to Junction B box located around the bottom bracket area. See Figure A2.

Figure A2

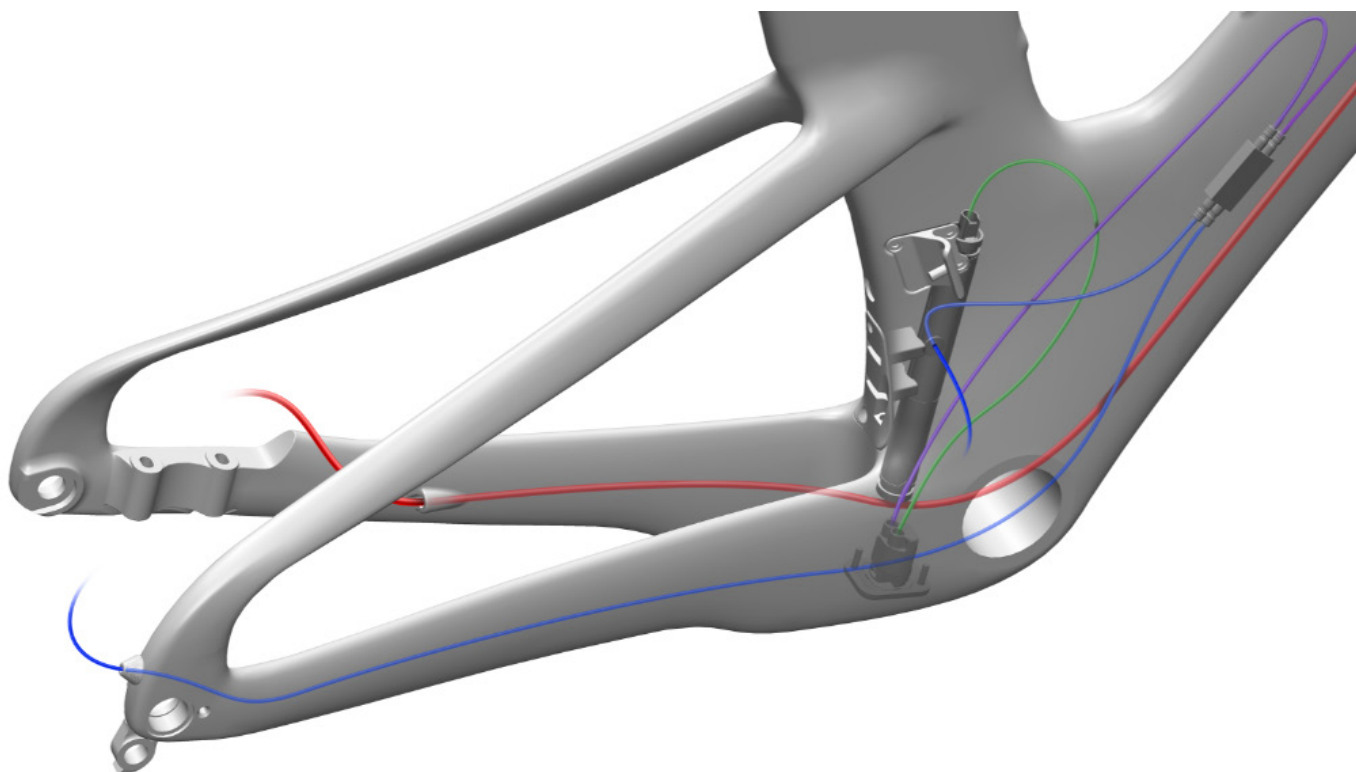




STEP 3

- See Figure A3.
- Connect an electronic wire (300mm) from the Junction B box located near the bottom bracket to the Junction A (RS910) located underneath the bottom bracket shell.
- Connect an electronic wire (300mm) (shown in green in Figure A3) from Junction A (RS910) to the battery.
- Connect a wire (300mm) from the Junction B box located near the bottom bracket to the front derailleur using the 8mm/2.5mm flat grommet.
- Connect another wire (750mm) from the Junction B box to the rear derailleur and install using the 8mm/2.5mm conical grommet.

Figure A3





REAR BRAKE HOSE

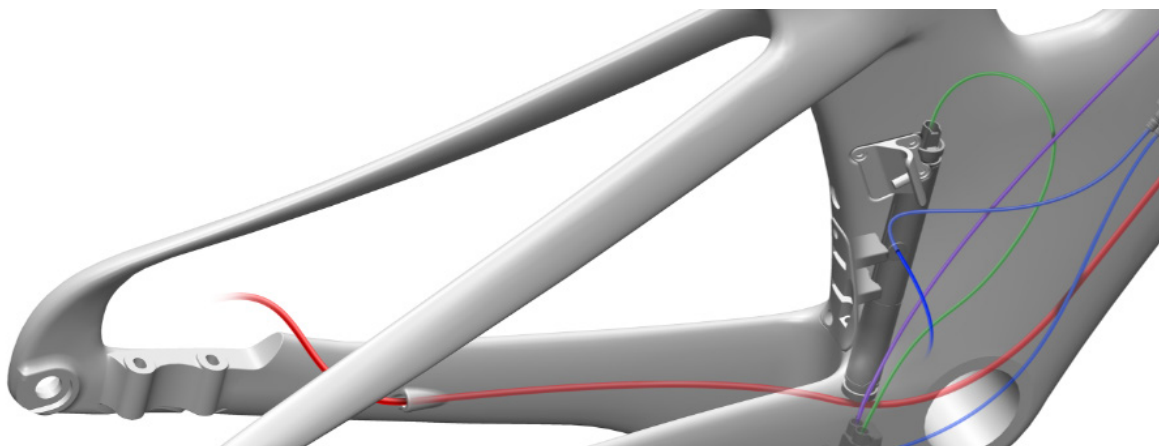
NOTE

A Park Tool IR-2 specialty tool is very helpful when doing some of the next steps, but is not necessary.

STEP 1

Using the correct length of hose (see Appendix A, “Wire & Hose Lengths”), start from the rear brake caliper. Have the brake hose enter the non-drive-side chainstay and route over the bottom bracket shell. Then feed the hose up through the downtube. See Figure A4.

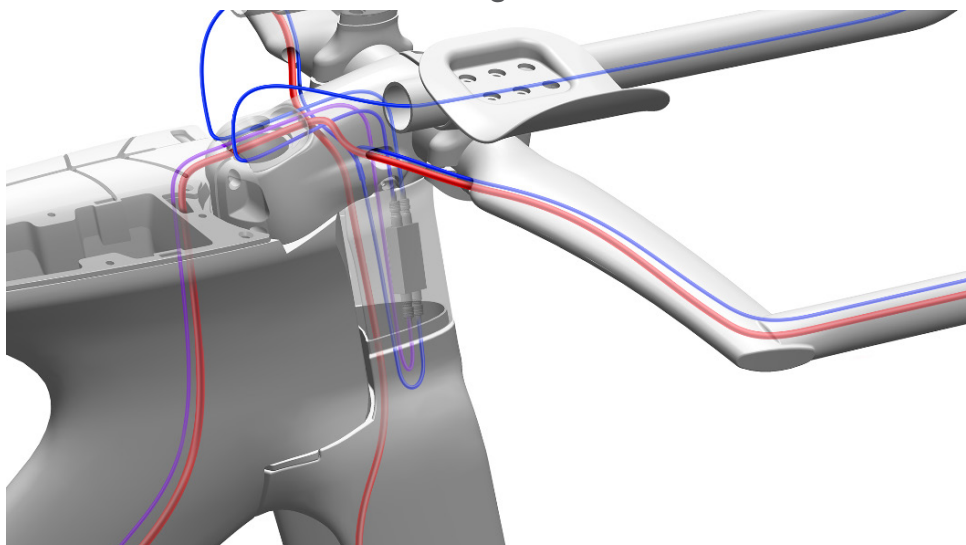
Figure A4



STEP 2

Exit where the integrated storage compartment is positioned along the top tube. Route through the stem and then into the basebar, then towards the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure A5.

Figure A5



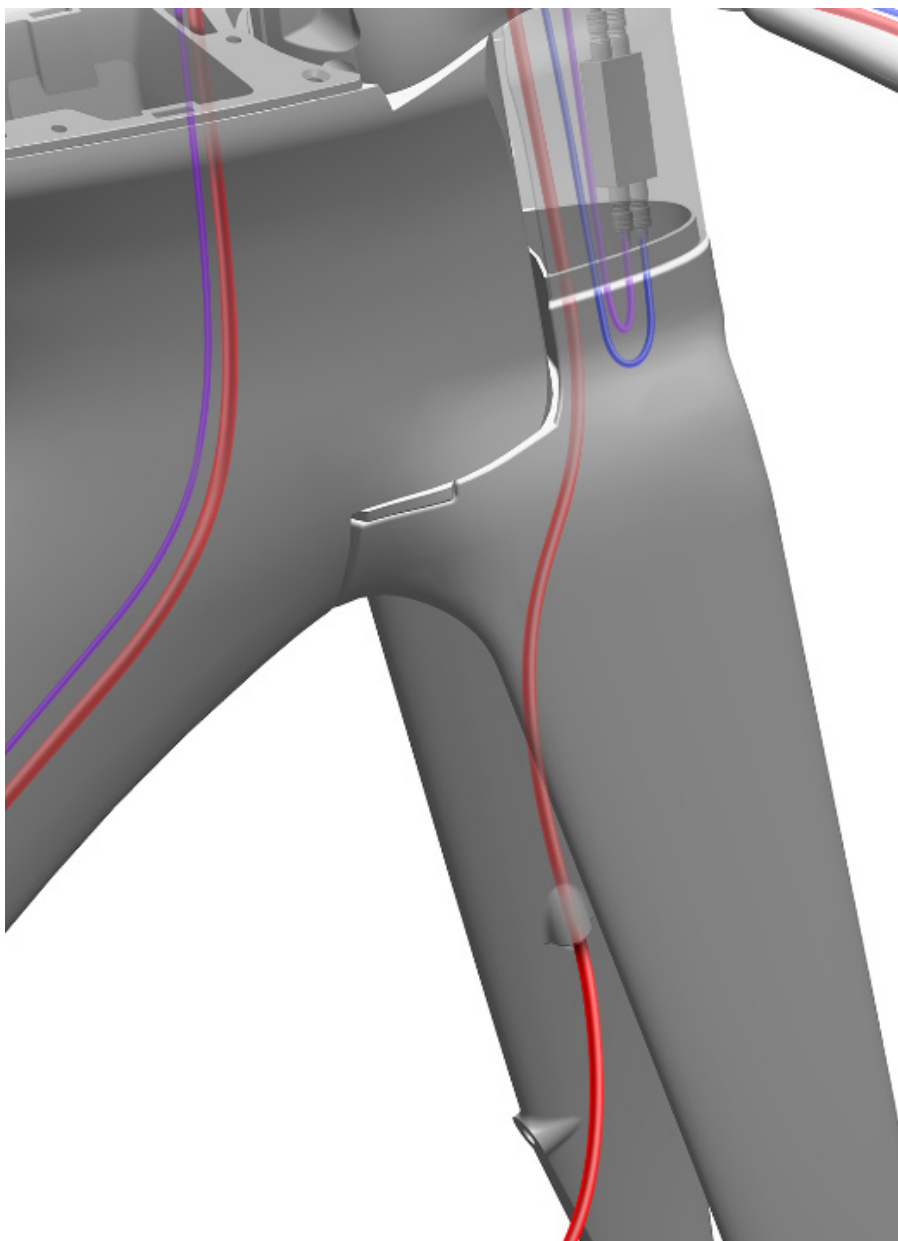


FRONT BRAKE HOSE

STEP 1

Make sure that your frame's front headtube cover is removed for easier access and visibility. Using the correct length of hose (see Appendix A, "Wire & Hose Lengths"), start by routing the front brake hose into the fork and feed the hose upwards. The hose should exit behind the front headtube cover. See Figure A6.

Figure A6

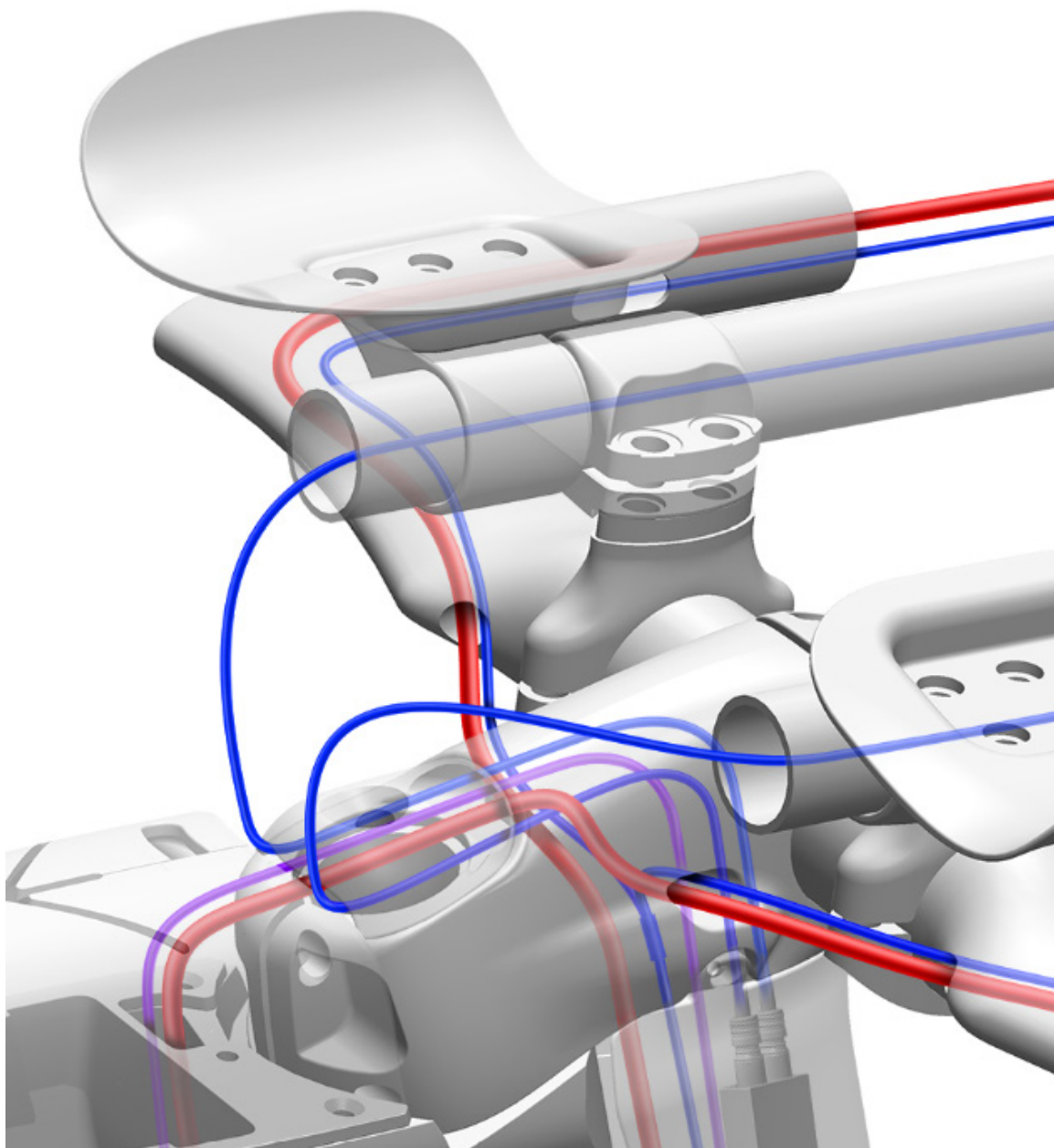




STEP 2

Feed the hose into the stem, then out and into the basebar. Route the hose to the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure A7.

Figure A7

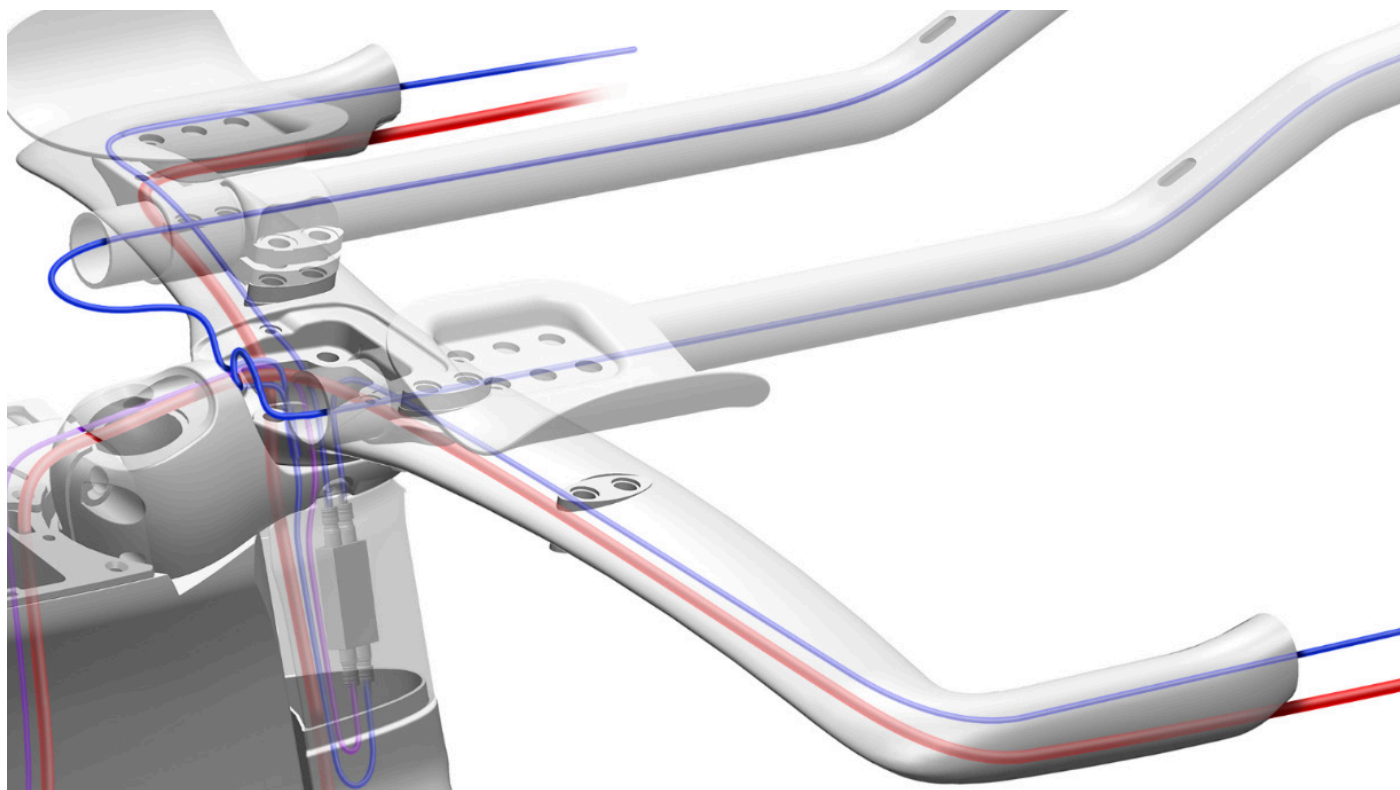




USING A DIRECT-MOUNT BAR/STEM

If you are using an integrated basebar, please note the following diagram in regards to routing cables and hoses in and around the bar (all other steps are the same). See Figure A8. Using a Shimano “Y” E-tube connector (Shimano part number EW-JC130), connect its two electronic shift wires located where the brake levers will go, and connect to the Junction B box located under the front cover. Connect an electronic wire to each shifter located in the aerobar extensions, and then connect them to the Junction B box located under the front cover.

Figure A8





IA with Shimano Di2 Electronic Drivetrain (with Standard Junction A)

PARTS

- (2) Brake hoses
- (6) Shimano E-tube wires
- (1) Shimano “Y” E-tube connector (Shimano part number EW-JC130)
- (1) Shimano Junction B
- (1) Shimano Junction A (Standard)
- (1) Felt 8mm port, 2.5mm hole, conical grommet (“8mm/2.5mm conical grommet”)
- (1) Felt 8mm port, 2.5mm hole, flat grommet (“8mm/2.5mm flat grommet”)

NOTE

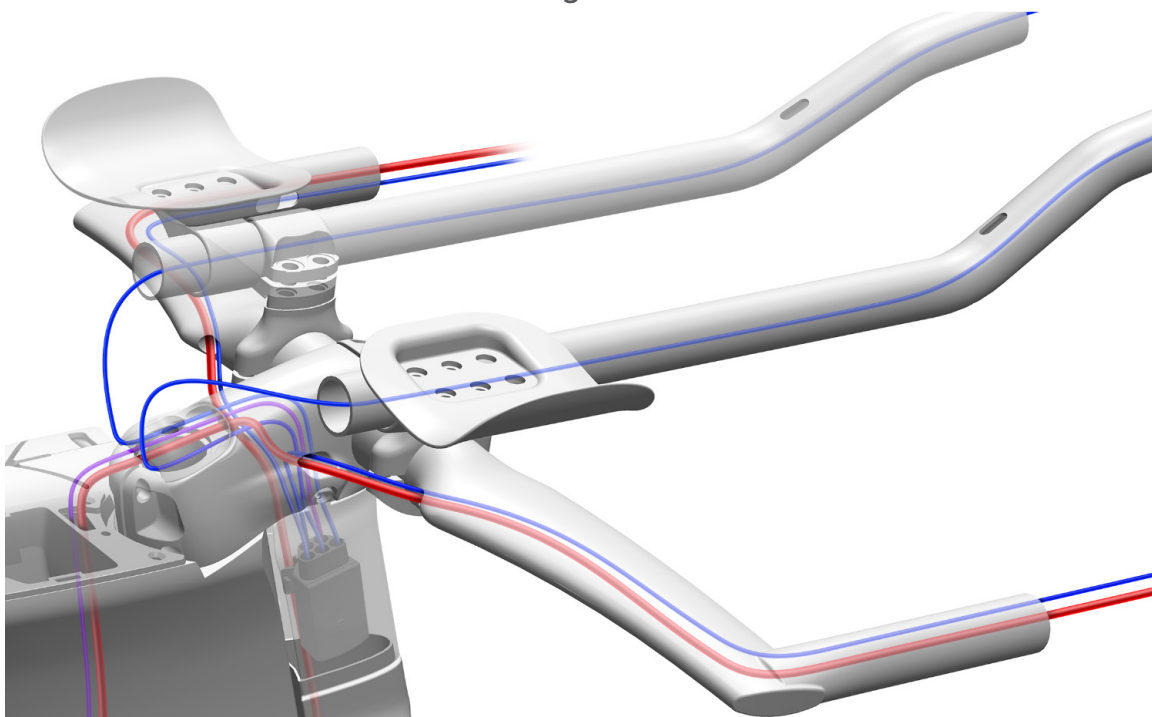
In the following diagrams, blue, purple, and green components are electronic wires; and red components are brake hoses.

SHIFTERS

STEP 1

Start at the basebar. See Figure B1. Using a Shimano “Y” E-tube connector (Shimano part number EW-JC130), connect its two electronic shift wires located where the brake levers will go, and connect to the 4-port Junction A box located under the front cover. Connect an electronic wire (850mm) to each shifter located in the aerobar extensions, and then connect them to the Junction A box located under the front cover.

Figure B1

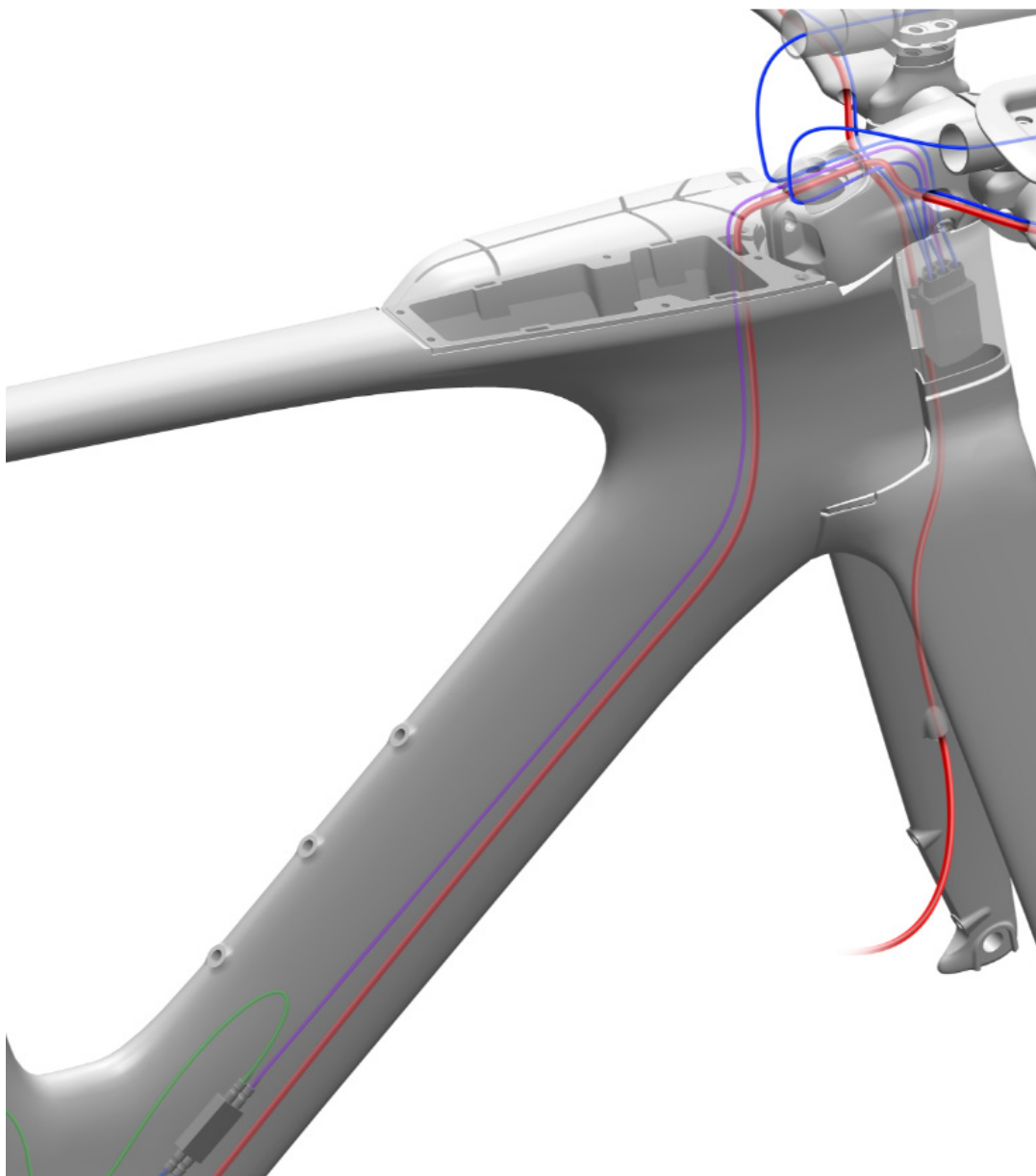




STEP 2

Connect a wire (1200mm)—shown in purple in the diagram—to the Junction A box located under the front cover and route through the stem and into the frame where the top tube-mounted storage box is located. Then continue routing through the downtube to Junction B box located around the bottom bracket area. See Figure B2.

Figure B2

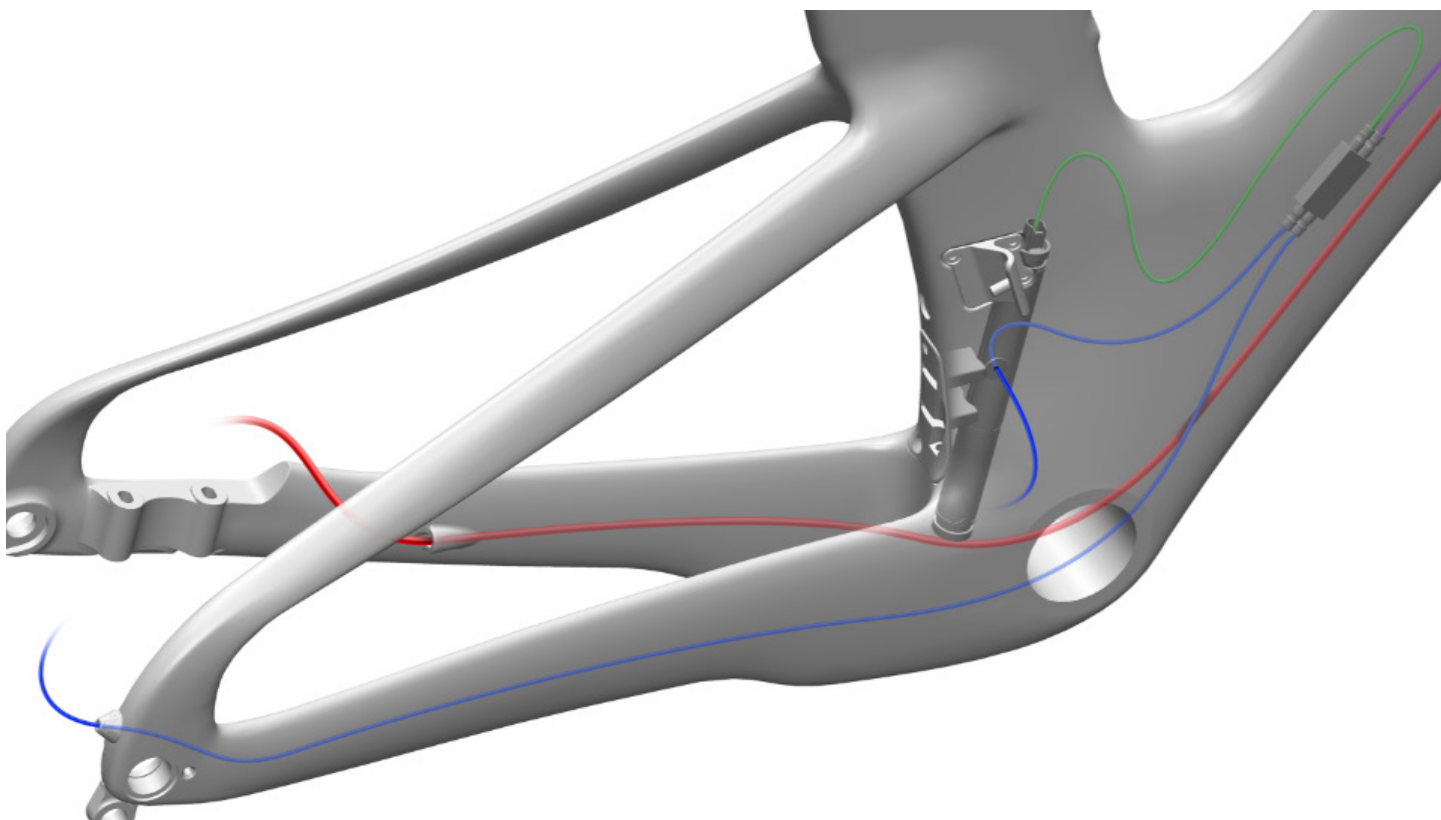




STEP 3

- See Figure B3.
- Connect an electronic wire (250mm)—shown in green in the diagram—from the Junction B box located near the bottom bracket to the battery.
- Connect a wire (300mm) from the Junction B box located near the bottom bracket to the front derailleur using the 8mm/2.5mm flat grommet.
- Connect a wire (750mm) from the Junction B box to the rear derailleur and install using the 8mm/2.5mm conical grommet.

Figure B3





REAR BRAKE HOSE

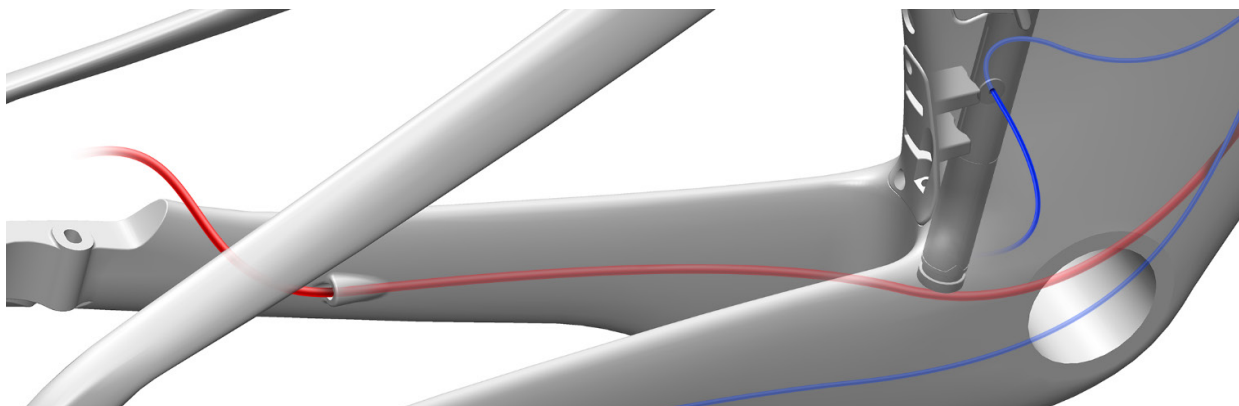
NOTE

A Park Tool IR-2 specialty tool is very helpful when doing some of the next steps, but is not necessary.

STEP 1

Using the correct length of hose (see Appendix A, “Wire & Hose Lengths”), start from the rear brake caliper. Have the brake hose enter the non-drive-side chainstay and route over the bottom bracket shell. Then feed the hose up through the downtube. See Figure B4.

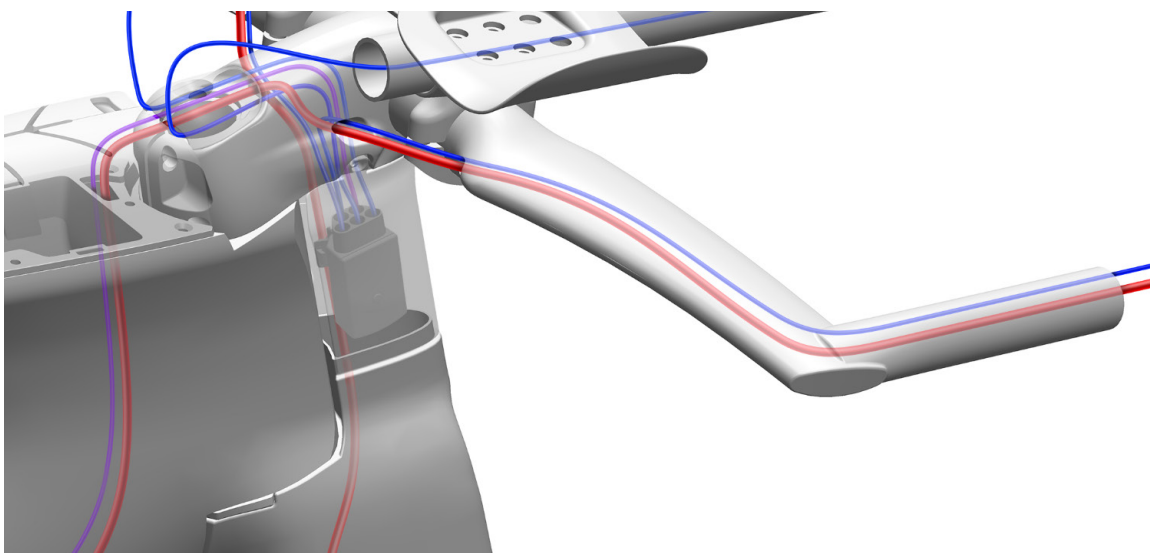
Figure B4



STEP 2

Exit where the integrated storage compartment is positioned along the top tube. Route through the stem and then into the basebar, then towards the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure B5.

Figure B5



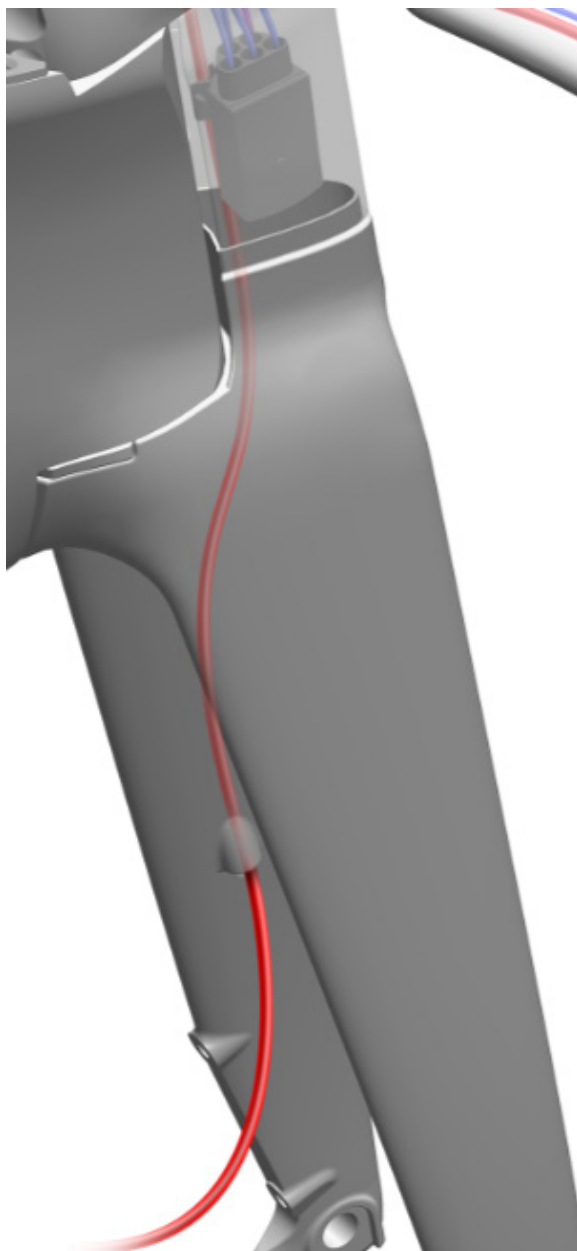


FRONT BRAKE HOSE

STEP 1

Make sure that your frame's front headtube cover is removed for easier access and visibility. Using the correct length of hose (see Appendix A, "Wire & Hose Lengths"), start by routing the front brake hose into the fork and feed the hose upwards. The hose should exit behind the front headtube cover. See Figure B6.

Figure B6

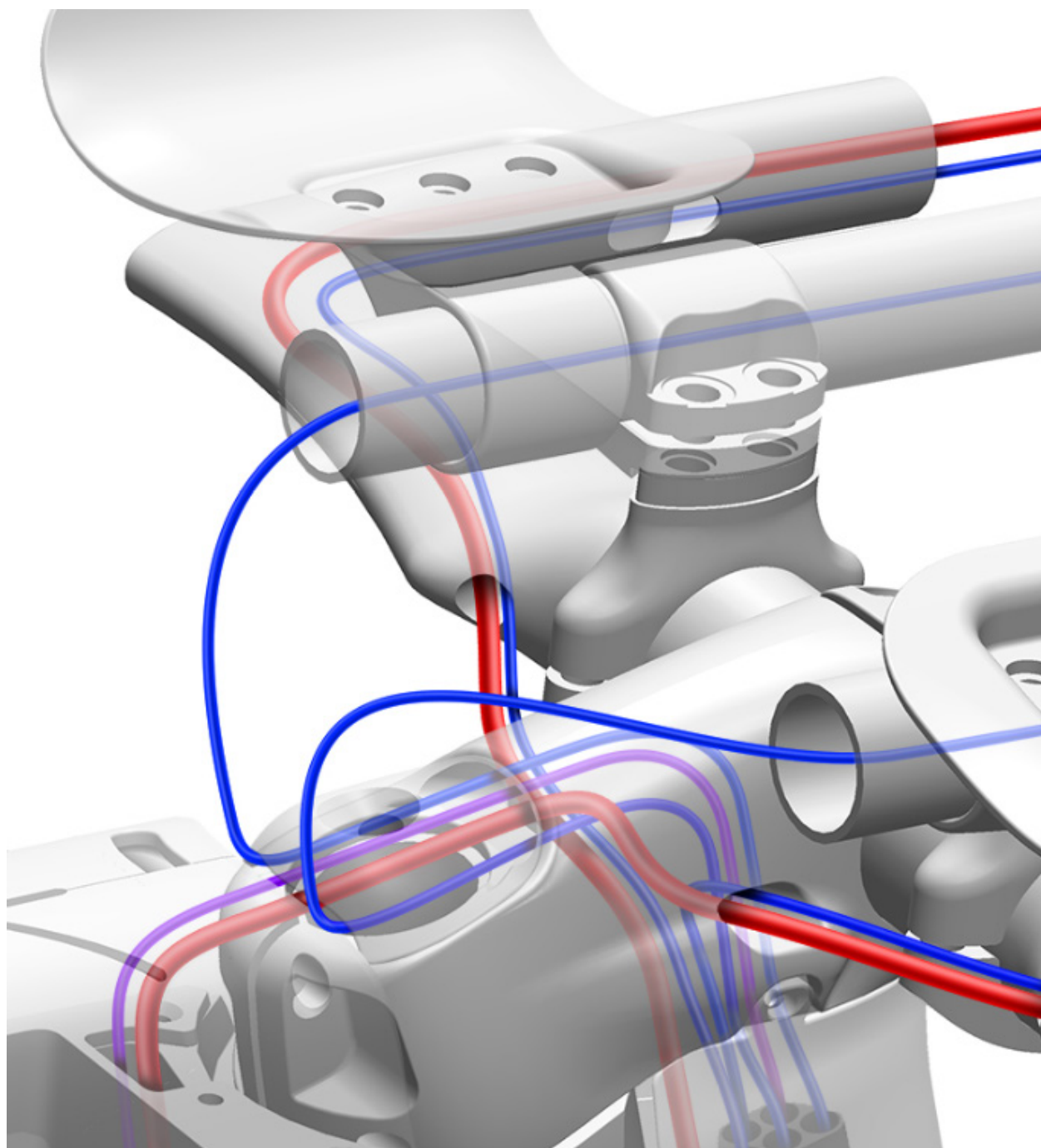




STEP 2

Feed the hose into the stem, then out and into the basebar. Route the hose to the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure B7.

Figure B7

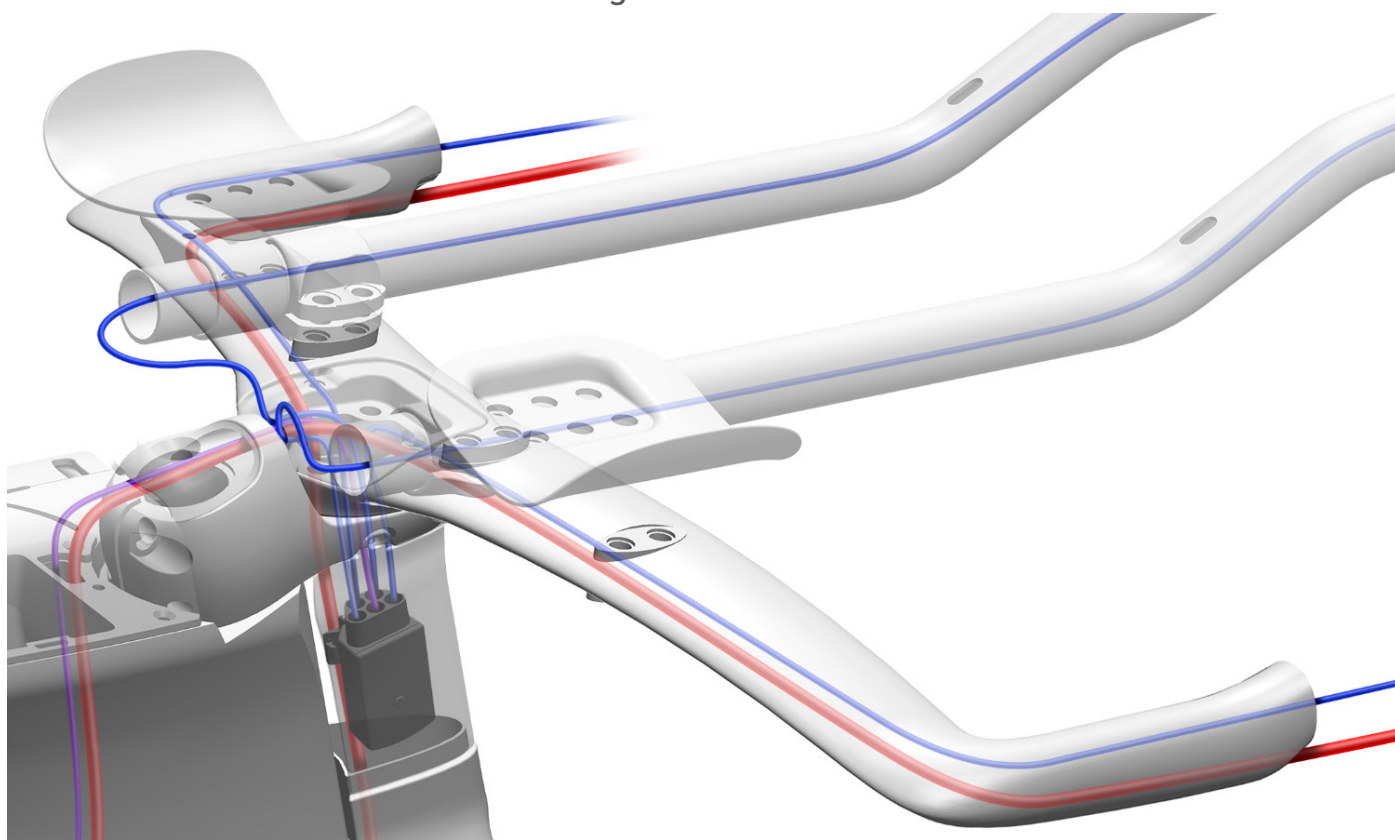




USING A DIRECT-MOUNT BAR/STEM

If you are using an integrated basebar, please note the following diagram in regards to routing cables and hoses in and around the bar (all other steps are the same). See Figure B8. Using a Shimano “Y” E-tube connector (Shimano part number EW-JC130), connect its two electronic shift wires located where the brake levers will go, and connect to the Junction B box located under the front cover. Connect an electronic wire to each shifter located in the aerobar extensions, and then connect them to the Junction B box located under the front cover.

Figure B8





IA with SRAM eTap Wireless Electronic Drivetrain

PARTS

- (2) Brake hoses
- (1) SRAM eTap BLIP unit
- (1) SRAM eTap CLIC unit
- (1) SRAM eTap AXS BlipBox
- (2) Felt 8mm grommet plug

NOTE

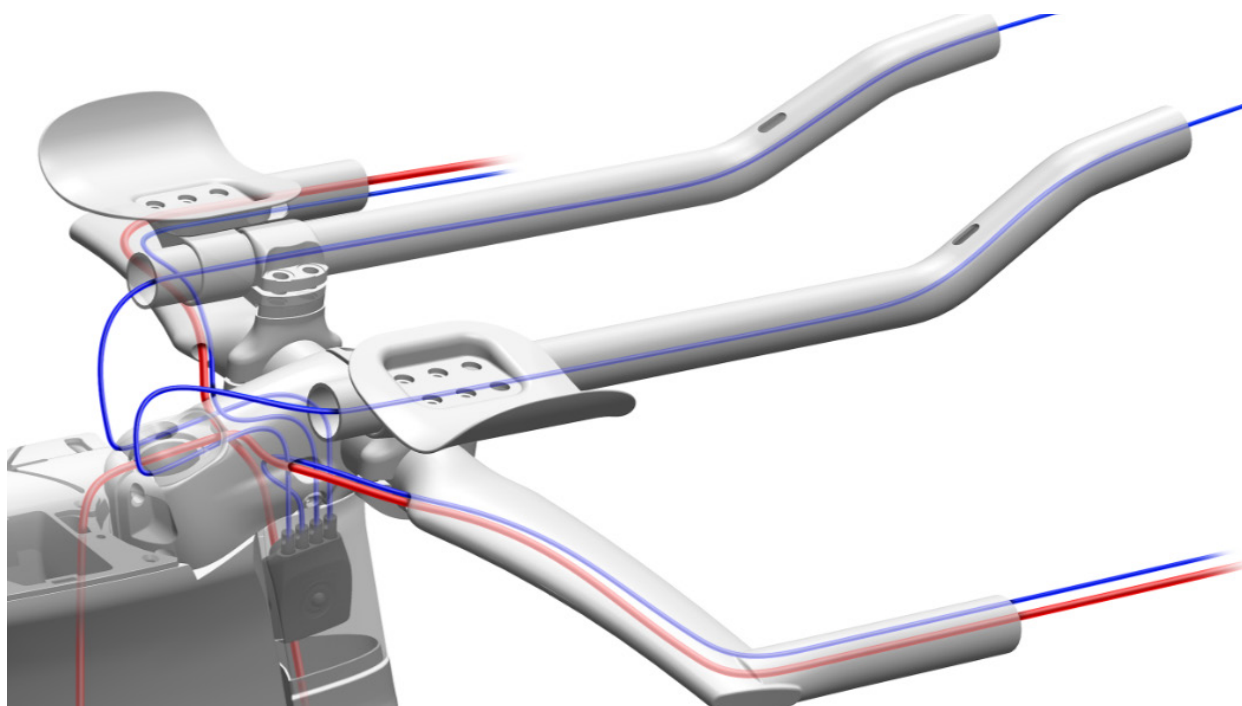
In the following diagrams, blue components are electronic wires, and red components are brake hoses.

SHIFTERS

STEP 1

Start by routing the electronic shift wires into the basebar ends (where your brake levers will eventually go). See Figure C1. Then continue routing into the stem, and then connect them to the BlipBox located under the front cover. Next, route the electronic shift wires through the aerobar extensions and then into the stem. Connect them to the BlipBox box located under the front cover. If necessary, follow SRAM's instructions for pairing the eTap AXS BlipBox to the front and rear derailleurs.

Figure C1





REAR BRAKE HOSE

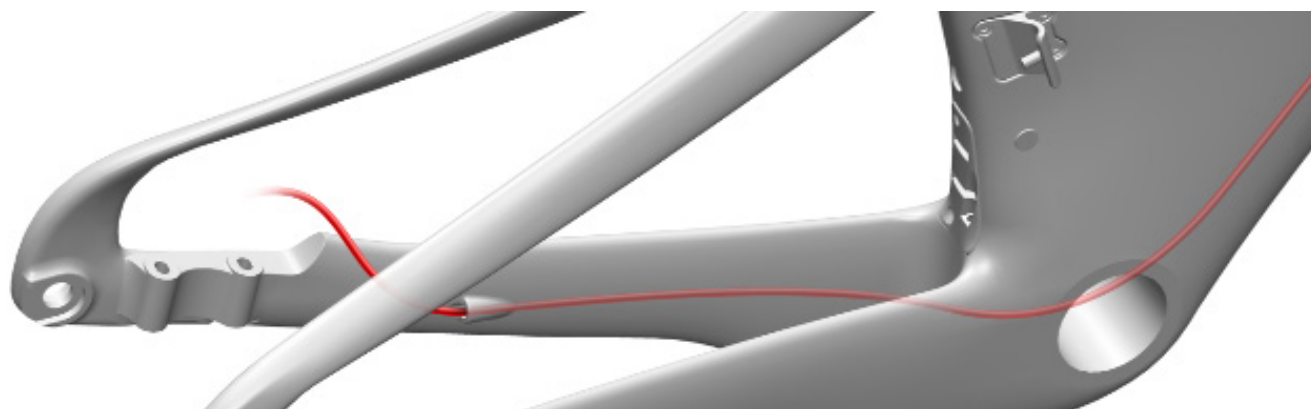
NOTE

A Park Tool IR-2 specialty tool is very helpful when doing some of the next steps, but is not necessary.

STEP 1

Start from the rear brake caliper and enter the non-drive-side chainstay. Route over the bottom bracket shell and feed the hose through the downtube. See Figure C2.

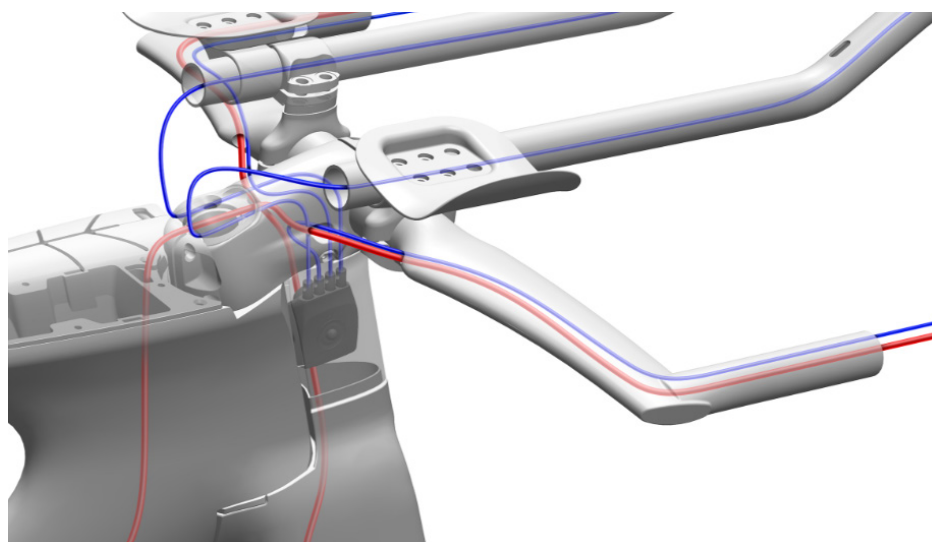
Figure C2



STEP 2

Exit where the integrated storage compartment is positioned along the top tube. Route through the stem and then into the basebar, then towards the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure C3.

Figure C3



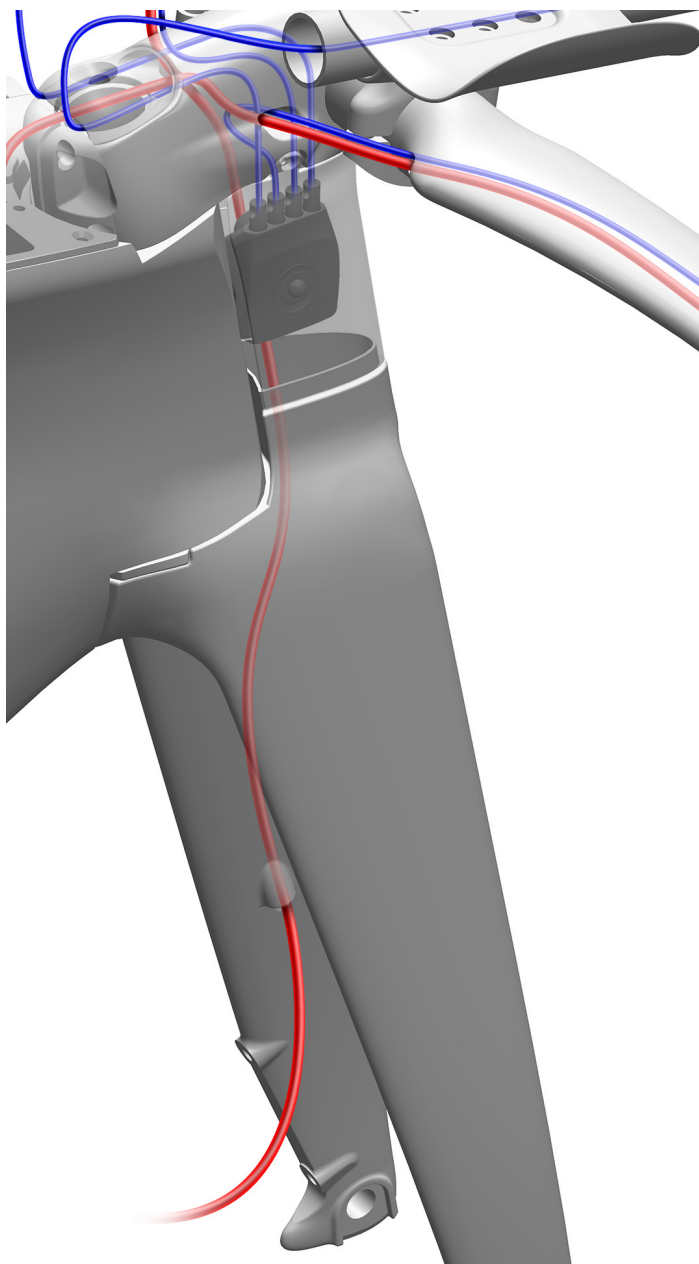


FRONT BRAKE HOSE

STEP 1

Make sure that your frame's front headtube cover is removed for easier access and visibility. Start by routing the front brake hose into the fork and feed the hose upwards. See Figure C4. The hose should exit behind the front headtube cover.

Figure C4

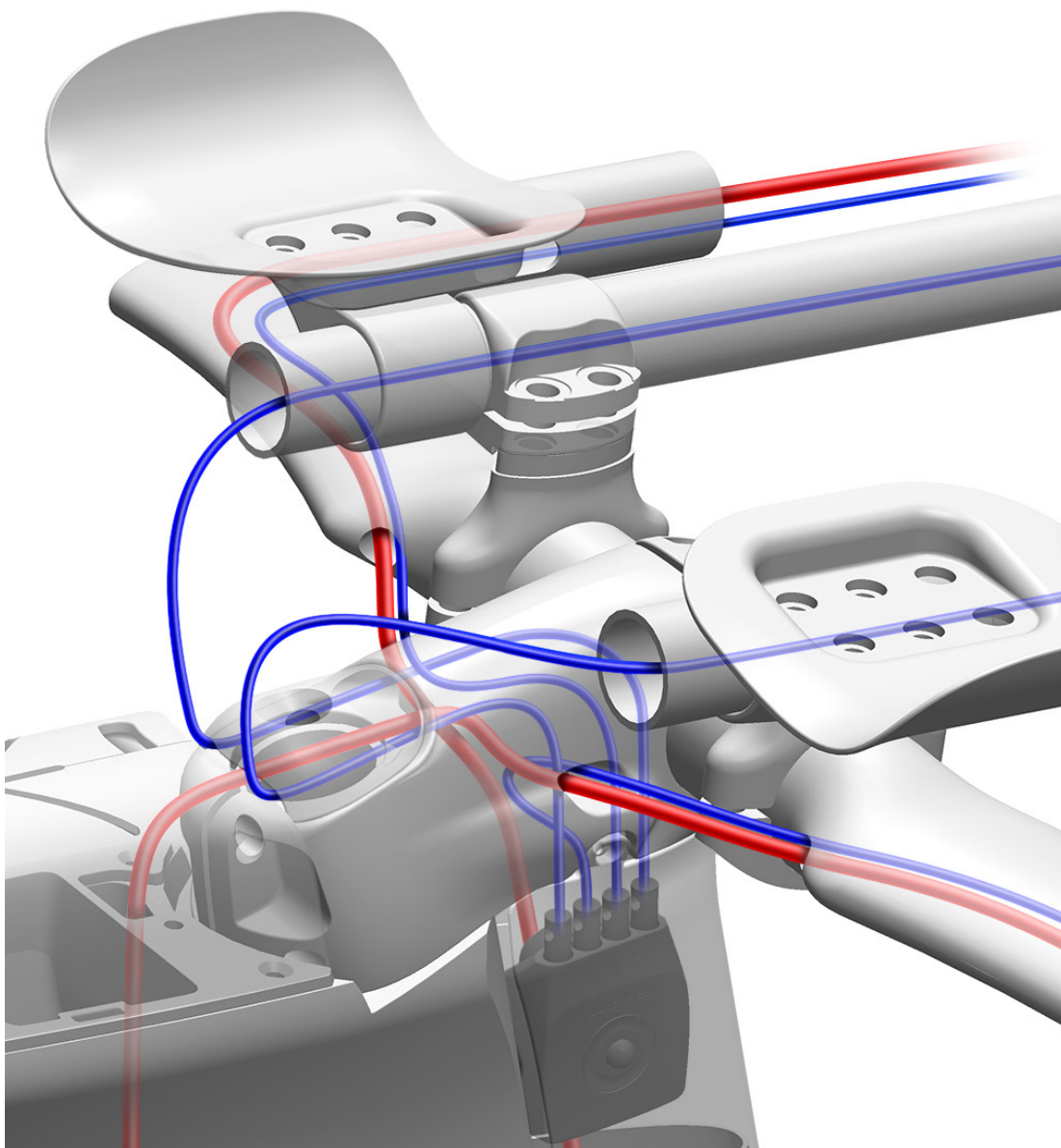




STEP 2

Feed the hose up into the stem, then out of the stem and into the basebar. Route the hose to the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure C5.

Figure C5



USING A DIRECT-MOUNT BAR/STEM

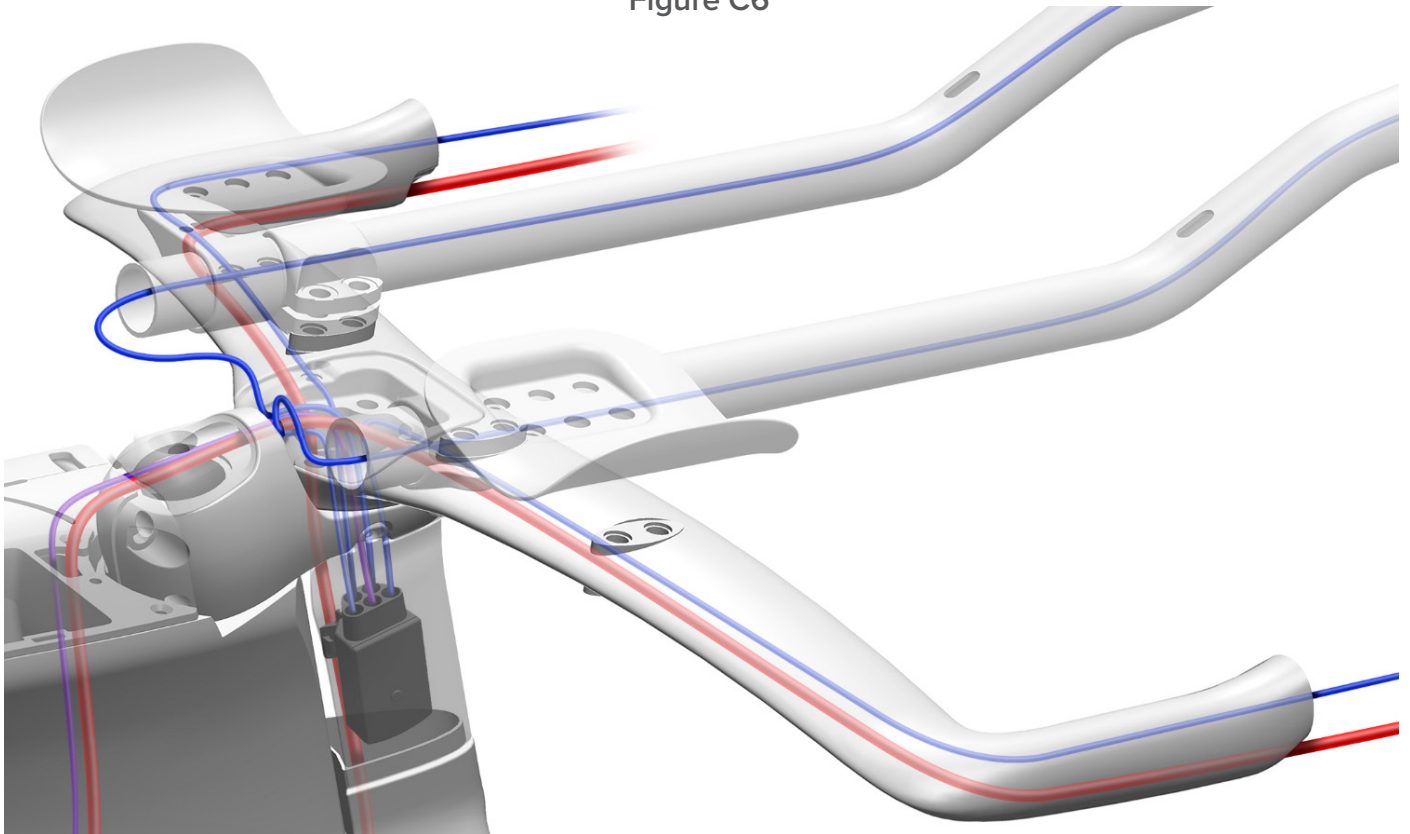


If you are using an integrated basebar, please note the following diagram in regards to routing cables and hoses in and around the bar (all other steps are the same). See Figure C6. Route the brake hose through the stem and into the base bar. Then you'll be able to connect each brake hose to its corresponding lever.

Start by routing the electronic shift wires into the basebar ends (where your brake levers will eventually go). Then continue routing through the basebar and down into the integrated stem.

Connect the wires to the BlipBox located under the front cover. Next, route the electronic shift wires through the aerobar extensions and then into the stem. Connect them to the BlipBox box located under the front cover. If necessary, follow SRAM's instructions for pairing the eTap AXS BlipBox to the front and rear derailleurs.

Figure C6





IA with Mechanical Drivetrains

PARTS

- (2) Brake hoses
- (4) 4mm shift housing sections (see Appendix A, “Wire & Hose Lengths”)
- (1) Felt 8mm port, 4mm hole, conical grommet
- (1) Felt 8mm grommet plug

NOTE

In the following diagrams, blue, purple, and green components are electronic wires; and red components are brake hoses.

SHIFTERS & DERAILLEURS

NOTE

In the following diagrams, blue components are shifter cables, and red components are brake hoses.

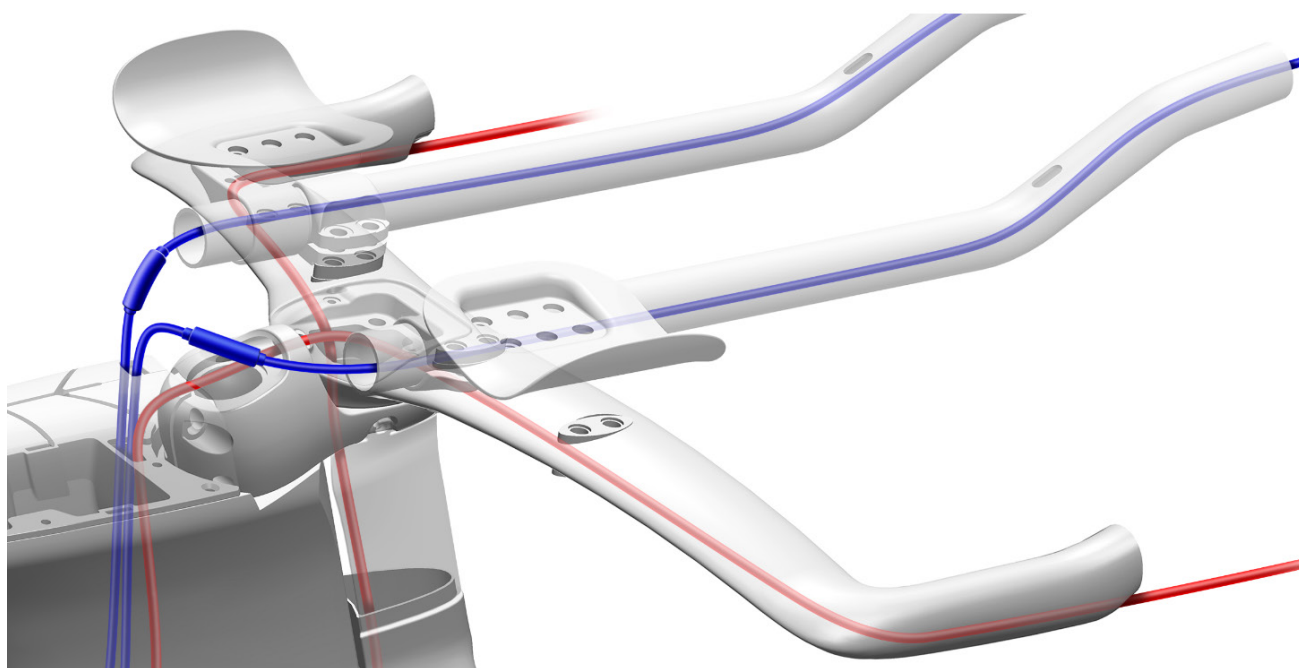
STEP 1

Start by cutting two (2) pieces of housing for the left and right extensions. Then refer to Appendix A “Wire & Hose Lengths” and cut the two (2) additional lengths of housing as needed for your frame size.

STEP 2

After cutting the necessary lengths of housing, route the two housing pieces through the extensions. See Figure D2. Insert the ends of the housing lengths into micro adjusters.

Figure D2





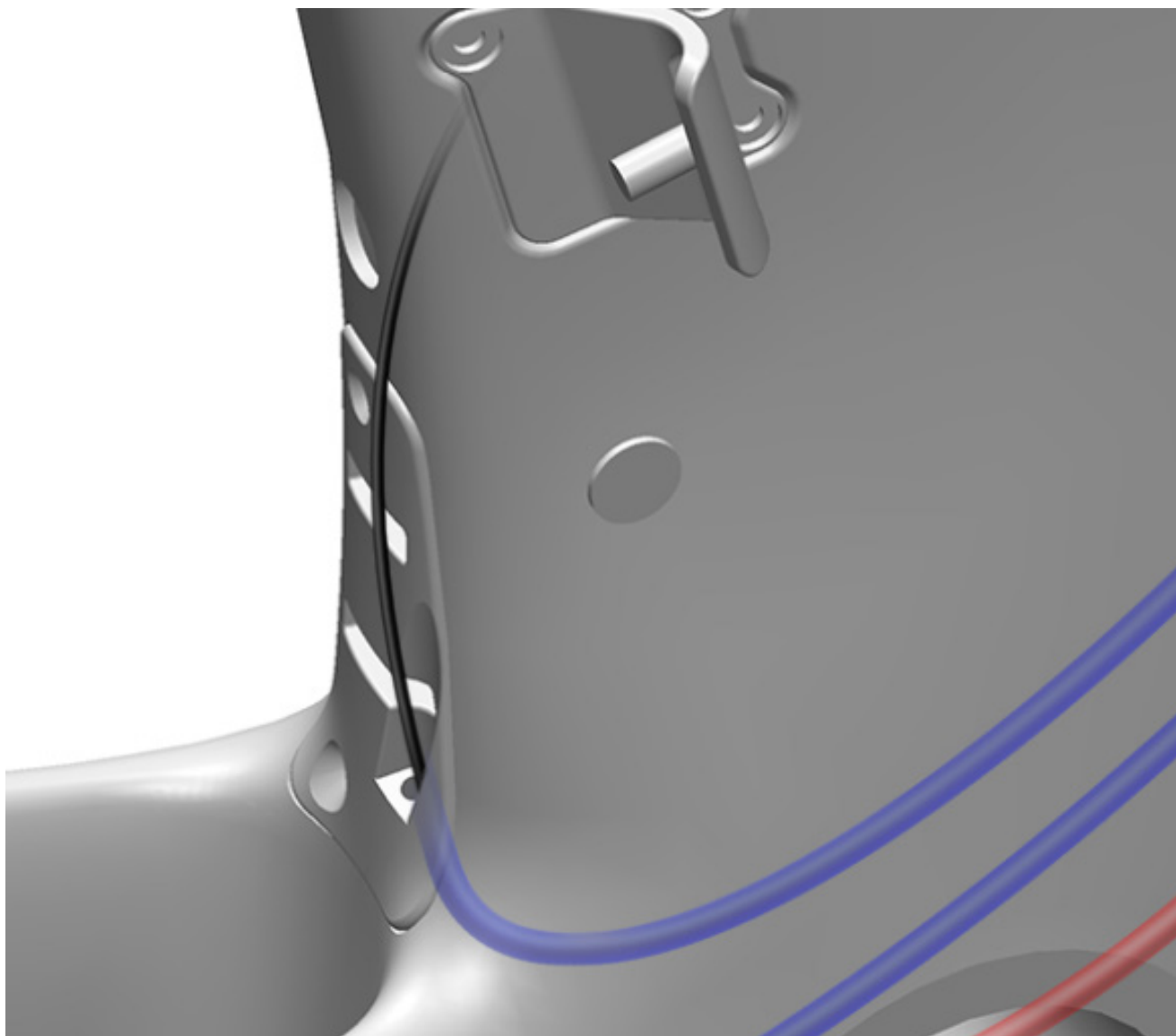
NOTE

A Park Tool IR-2 specialty tool is very helpful when doing some of the next steps, but is not necessary.

STEP 3

Remove the rear cover from the frame's seat tube to gain more visible access to the housing.
See Figure D3.

Figure D3





STEP 4

Take your other two (2) lengths of housing and route the longer one to the rear derailleur: Start by going through the removable top tube box and into the frame—See Figure D4. Then continue routing above the bottom bracket and through the drive-side chainstay, and out the rear exit hole near the rear derailleur—See Figure D5. Follow the same step for the front derailleur, and find the housing stop located in the rear cover you just removed.

Figure D4

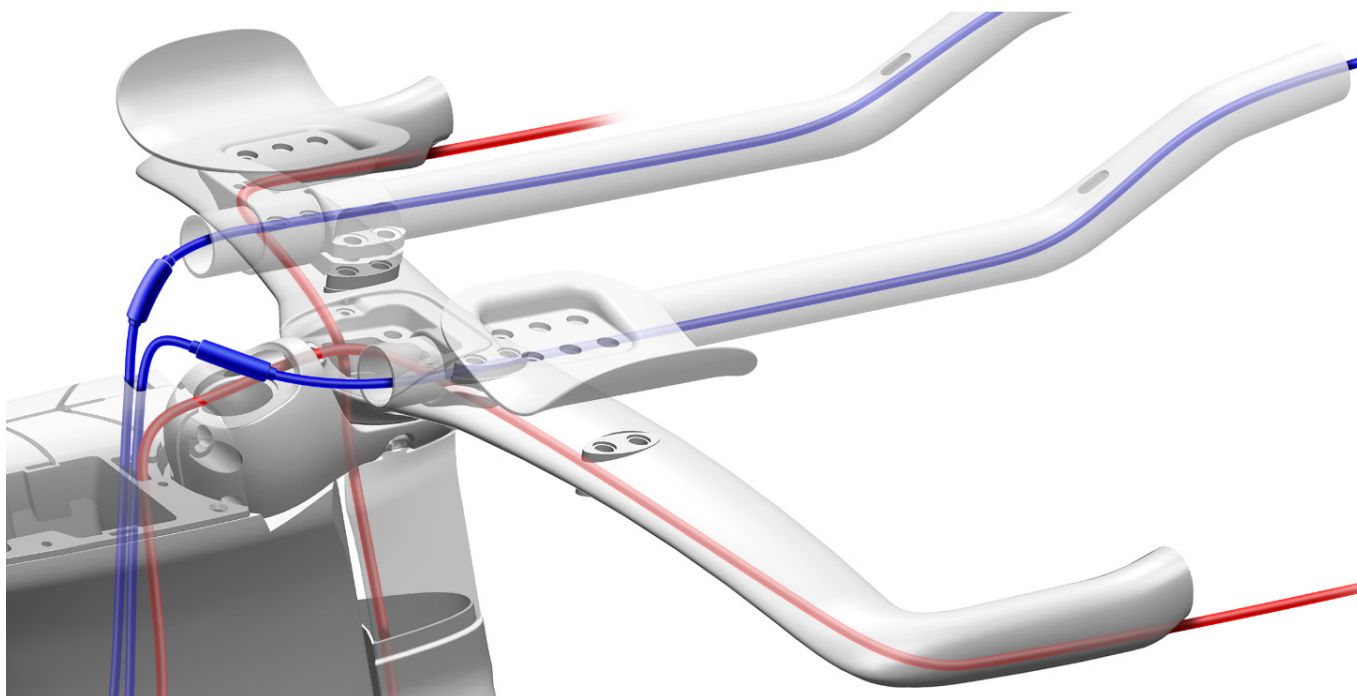
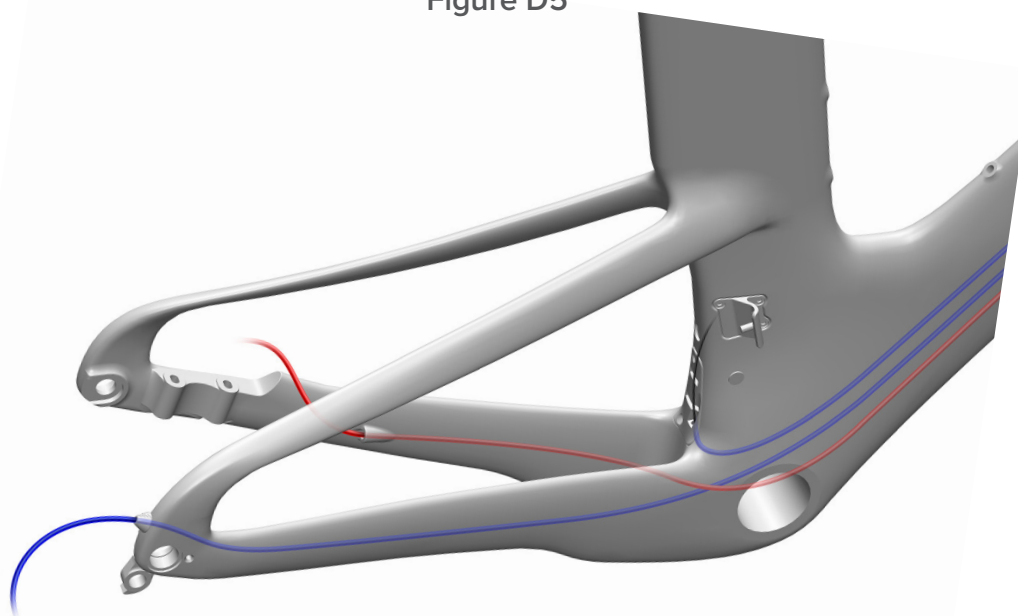


Figure D5



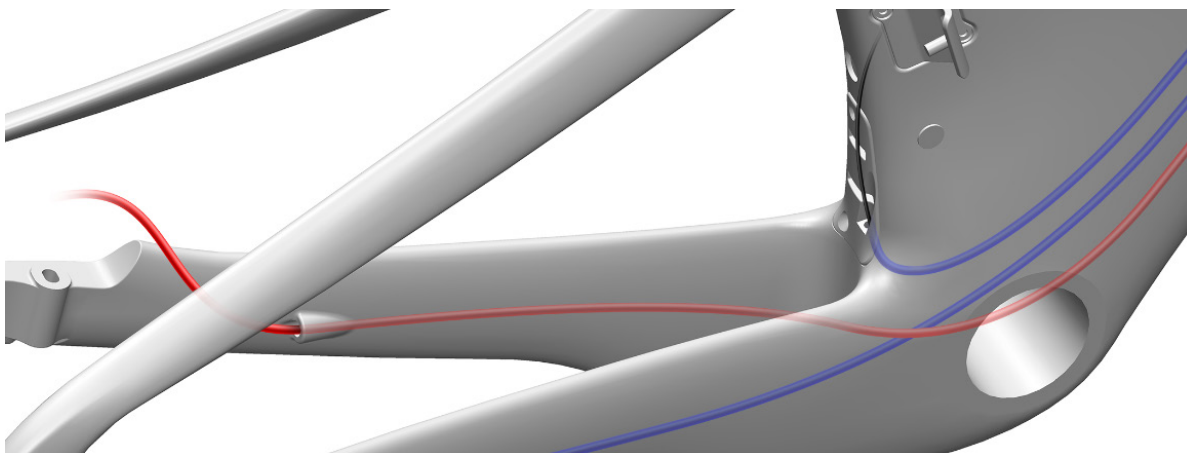


REAR BRAKE HOSE

STEP 1

Start from the rear brake caliper and enter the non-drive-side chainstay. Route over the bottom bracket shell and feed the hose through the downtube. See Figure D6.

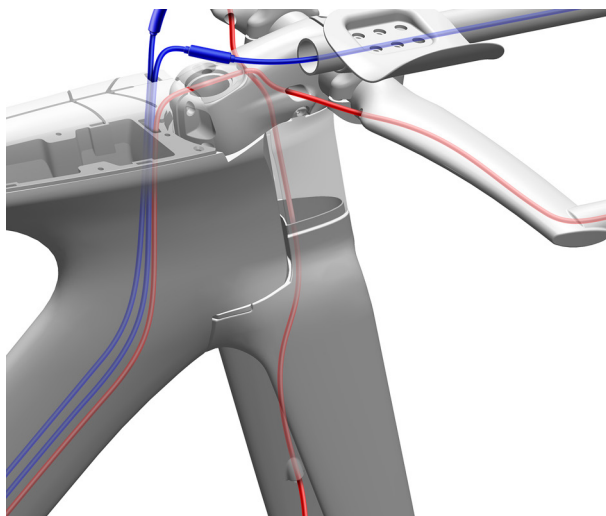
Figure D6



STEP 2

Exit where the integrated storage compartment is positioned along the top tube. Route through the stem and then into the basebar, then towards the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure D7.

Figure D7



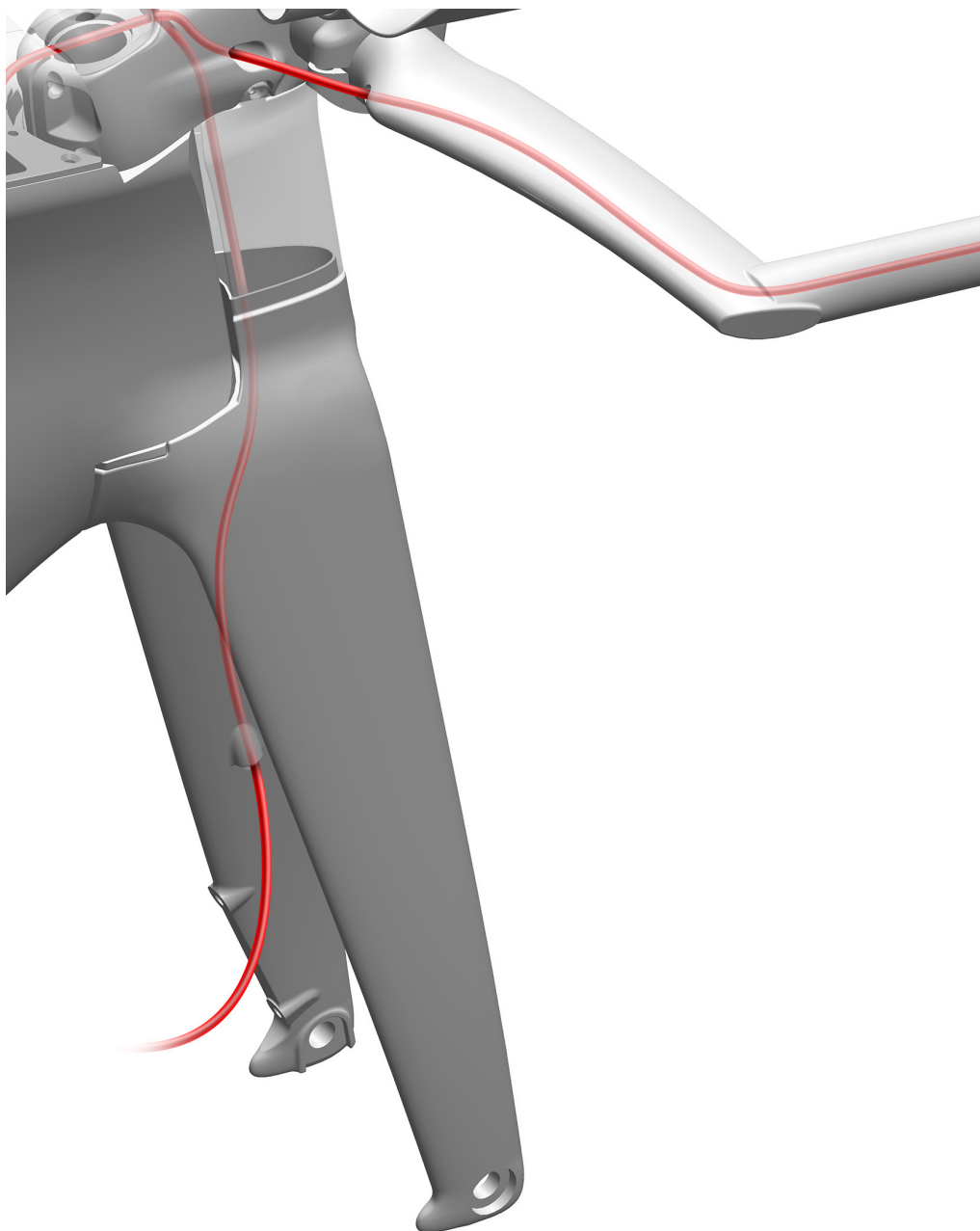


FRONT BRAKE HOSE

STEP 1

Make sure that your frame's front headtube cover is removed for easier access and visibility. Start by routing the front brake hose into the fork and feed the hose upwards. The hose should exit behind the front headtube cover. See Figure D8.

Figure C4

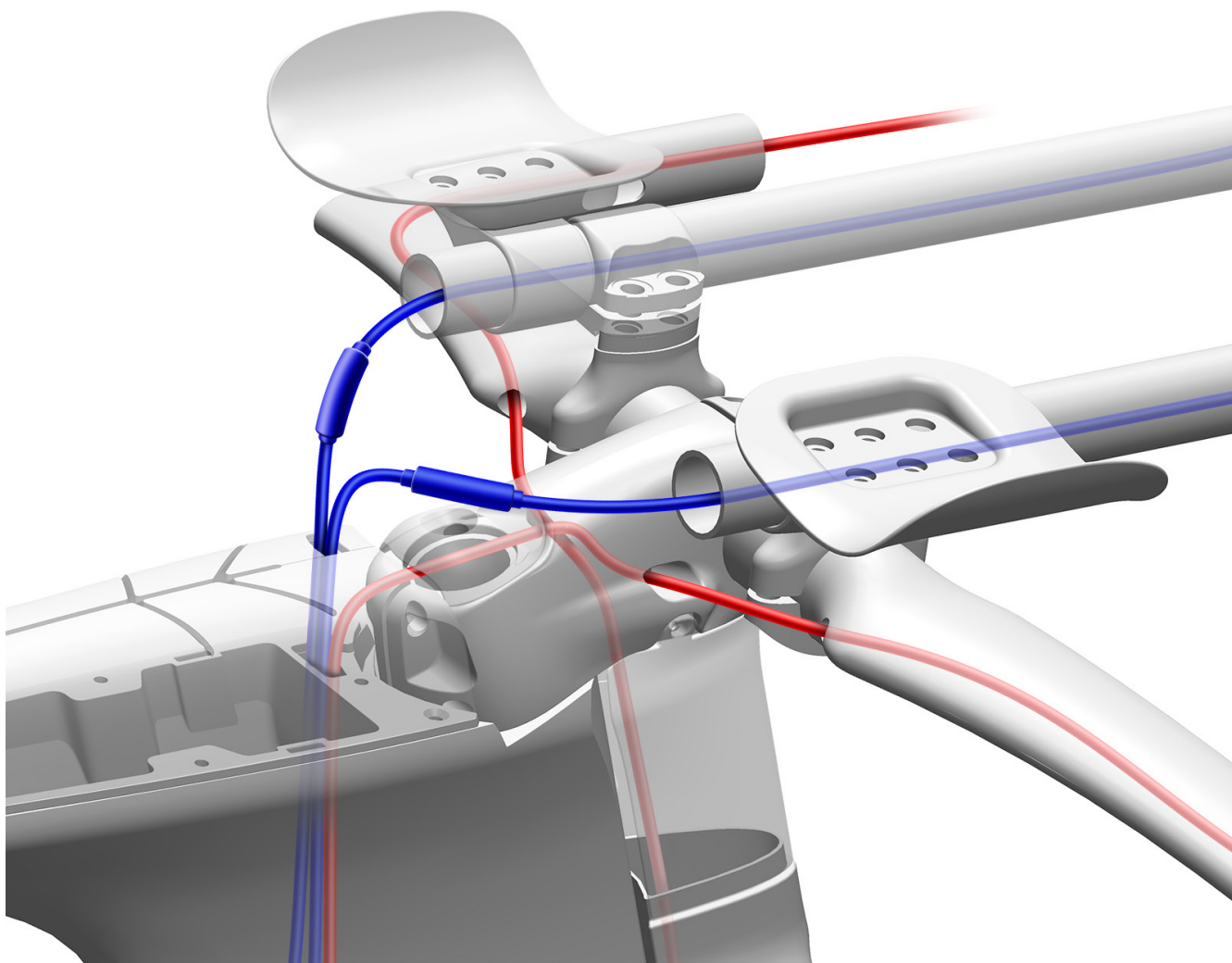




STEP 2

Feed the hose into the stem, then out towards the basebar. Route the hose to the brake lever. Here you'll be able to connect the brake hose to the brake lever. See Figure D9.

Figure D9

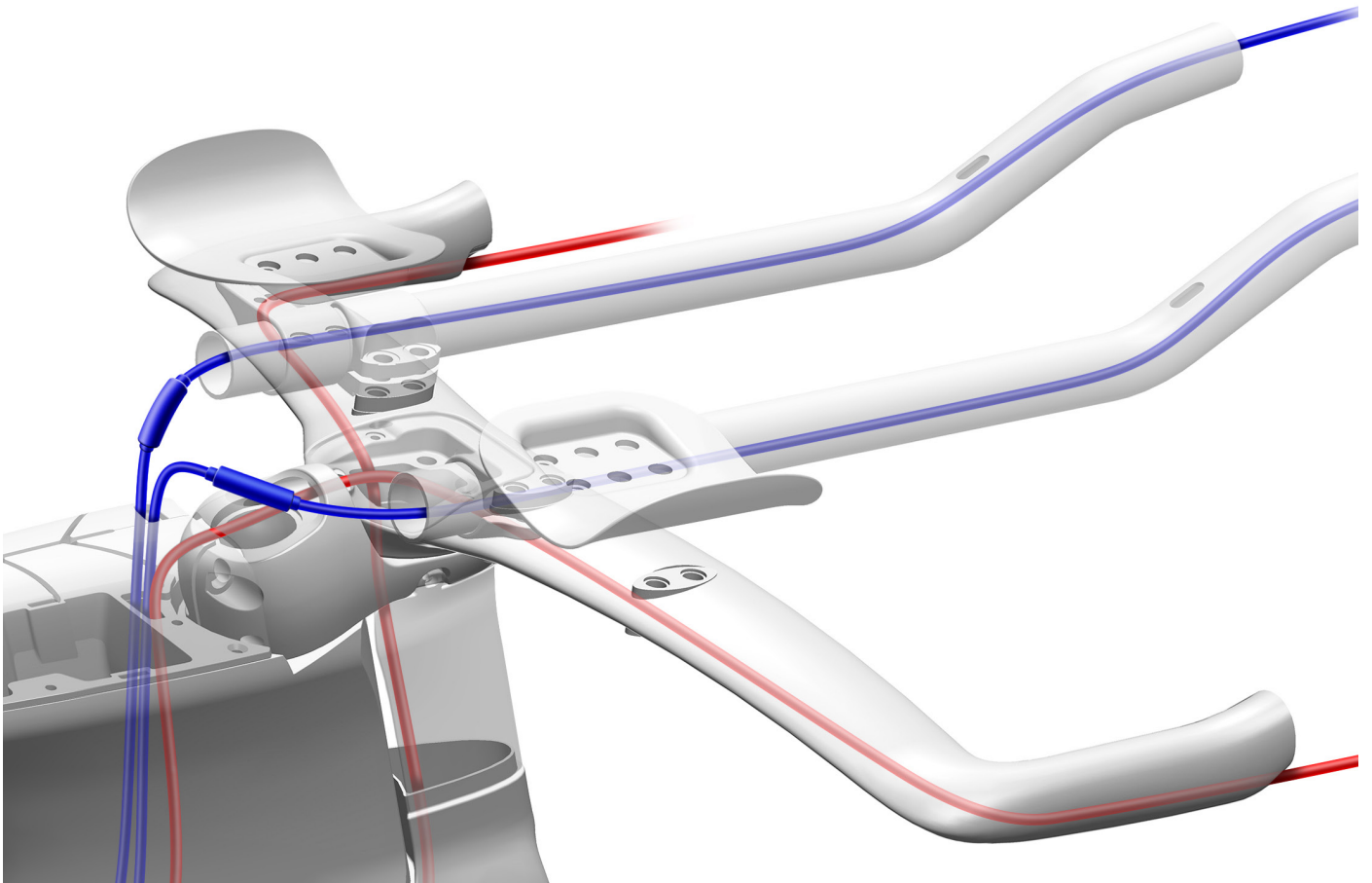


USING A DIRECT-MOUNT BAR/STEM



If you are using an integrated basebar, please note the following diagram in regards to routing cables and hoses in and around the bar (all other steps are the same). See Figure D10 Route the brake hose through the stem and into the base bar. Then you'll be able to connect each brake hose to its corresponding lever.

Figure D10



MODEL	FRAME SIZE	PART	MODEL2	LENGTH	QTY
Shimano Di2 w/RS910	48CM-58CM	E WIRE	EW-SD50I	1200MM	1
				750MM	1
				300MM	3
				850MM	2
	48CM	LEFT LEVER / FRONT BRAKE	L/ST-R9180(L)-70SS	750MM	1
			R/ST-R9180(R)-34SS	1550MM	1
	51CM	LEFT LEVER / FRONT BRAKE	L/ST-R9180(L)-70SS	800MM	1
			R/ST-R9180(R)-34SS	1600MM	1
	54CM	LEFT LEVER / FRONT BRAKE	L/ST-R9180(L)-70SS	800MM	1
			R/ST-R9180(R)-34SS	1650MM	1
	56CM	LEFT LEVER / FRONT BRAKE	L/ST-R9180(L)-70SS	800MM	1
			R/ST-R9180(R)-34SS	1700MM	1
	58CM	LEFT LEVER / FRONT BRAKE	L/ST-R9180(L)-70SS	850MM	1
			R/ST-R9180(R)-34SS	1700MM	1
Shimano Di2 w/ Standard Junction A	48CM-58CM	E WIRE	EW-SD50I	1200MM	1
				250MM	1
				300MM	1
				750MM	1
				850MM	2
	48CM	LEFT LEVER / FRONT BRAKE	L/HD-T910-70SS	750MM	1
		RIGHT LEVER / REAR BRAKE	R/HD-T910-34SS	1550MM	1
	51CM	LEFT LEVER / FRONT BRAKE	L/HD-T910-70SS	800MM	1
		RIGHT LEVER / REAR BRAKE	R/HD-T910-34SS	1600MM	1
	54CM	LEFT LEVER / FRONT BRAKE	L/HD-T910-70SS	800MM	1
		RIGHT LEVER / REAR BRAKE	R/HD-T910-34SS	1650MM	1
	56CM	LEFT LEVER / FRONT BRAKE	L/HD-T910-70SS	850MM	1
		RIGHT LEVER / REAR BRAKE	R/HD-T910-34SS	1700MM	1
	58CM	LEFT LEVER / FRONT BRAKE	L/HD-T910-70SS	850MM	1
		RIGHT LEVER / REAR BRAKE	R/HD-T910-34SS	1700MM	1
Mechanical	48CM-51CM	Rear shifter aduster to rear der	Cable B	1380MM	1
		Shifter from extensions to adjusters	Cable A	500MM	2
		Front shifter adjuster to front der	Cable C	920MM	1
	54CM-56CM	Rear shifter aduster to rear der	Cable B	1420MM	1
		Shifter from extensions to adjusters	Cable A	500MM	2
		Front shifter adjuster to front der	Cable C	960MM	1
	58CM-60CM	Rear shifter aduster to rear der	Cable B	1040MM	1
		Shifter from extensions to adjusters	Cable A	500MM	1
		Front shifter adjuster to front der	Cable C	1500MM	2
SRAM Wireless / Mechanical	48CM	LEFT LEVER / FRONT BRAKE	DB-S-900-A1-70SS	750MM	1
		RIGHT LEVER / REAR BRAKE	DB-S-900-A1-34SS	1550MM	1
	51CM	LEFT LEVER / FRONT BRAKE	DB-S-900-A1-70SS	800MM	1
		RIGHT LEVER / REAR BRAKE	DB-S-900-A1-34SS	1600MM	1
	54CM	LEFT LEVER / FRONT BRAKE	DB-S-900-A1-70SS	800MM	1
		RIGHT LEVER / REAR BRAKE	DB-S-900-A1-34SS	1650MM	1
	56CM	LEFT LEVER / FRONT BRAKE	DB-S-900-A1-70SS	800MM	1
		RIGHT LEVER / REAR BRAKE	DB-S-900-A1-34SS	1700MM	1
	58CM	LEFT LEVER / FRONT BRAKE	DB-S-900-A1-70SS	850MM	1
		RIGHT LEVER / REAR BRAKE	DB-S-900-A1-34SS	1700MM	1