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4-Arm Cranksets and Chainrings

Congratulations!

Thank you for purchasing a Truvativ crankset. The following instructions should be read thoroughly before installation. Improper installation of your Truvativ crankset may cause an unexpected failure of the parts that could cause you to lose control of your bicycle resulting in serious injury or death. We recommend having your parts installed by a qualified bicycle technician. Truvativ assumes no responsibility for malfunction or injury due to faulty installation.

Application Chart

Part	Road	XC	AM	DH
X-Flow*, Iso Flow, Five-D, Firex				
Blaze				
Holzfelder, Hussefelt				

Key: XC = Crosscountry, AM = All-Mountain, DH = Downhill
*X-Flow crankset does not have removable chainrings

Chainring, Crankbolt, and Bottom Bracket Compatibility

Truvativ chainrings are stamped with a datecode, either 1999 or 2000 (even for 2003 chainrings). Only rings with the same datecode will work together properly. The following Truvativ MTB chainring combinations were designed to work together:
•22/32/42 or 44
•26/36/48 or 28/38/48

Pairing the wrong chainrings together can result in poor shifting performance. All Truvativ chainrings were designed to work with 8 speed and 9 speed drivetrains. For best shifting performance, use a 9-speed chain

M15 and M12 crankbolts are compatible with any ISIS Drive certified bottom bracket with the corresponding sized threaded hole. M15 is typically used for crosscountry and road bike bottom brackets while M12 is typically used on downhill/all-mountain/BMX or titanium bottom brackets. ISIS Drive cranks must be used with a certified ISIS Drive bottom bracket.

The M8 crankbolt is for use on all square taper and Power Spline bottom brackets. Square taper interface cranks must be used with a Truvativ XR or LE Square bottom bracket. Power Spline cranks must be used with a Truvativ Power Spline bottom bracket.

Crankarm Model	Interface	Spindle Width				Recommended Bottom Bracket Model
		108	113	118	128	
X-Flow Triple	Square	48.5				Square XRLLE
IsoFlow Triple		48.5				Square XRLLE
IsoFlow SS		46	48.5			Square XRLLE
5-D Triple		48.5				Square XRLLE
5-D SS		46	48.5			Square XRLLE
X-Flow Triple	Power Spline	48.5				Power Spline
IsoFlow Triple		48.5				Power Spline
IsoFlow SS		46	48.5			Power Spline
5-D Triple		48.5				Power Spline
5-D SS		46	48.5			Power Spline
Blaze Triple	ISIS Drive	48.5				Giga Pipe SLLT, Giga Pipe Team SL, Overdrive SL
Blaze Triple		48.5				Giga Pipe SLLT, Giga Pipe Team SL, Overdrive SL
Blaze Triple		48.5				Giga Pipe SLLT, Giga Pipe Team SL, Overdrive SL
Firex Triple	ISIS Drive	48.5				Giga Pipe SLLT, Giga Pipe Team SL, Overdrive SL
Firex Triple		48.5				Giga Pipe SLLT, Giga Pipe Team SL, Overdrive SL
Firex Triple		48.5				Giga Pipe SLLT, Giga Pipe Team SL, Overdrive SL
Hussefelt	ISIS Drive	48.5	51	56	66	Giga Pipe DHLT, Giga Pipe Team DH, Overdrive DH
Holzfelder		48.5	51	56	66	Giga Pipe DHLT, Giga Pipe Team DH, Overdrive DH

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Parts and Tools

Parts:

Chainrings: Left Crankarm, Right Crankarm

Rockguard (singlespeed or double only), 22, 24, 26 or 28 small, 32, 34, 36 or 38 middle, 34, 36, 38, 40, 42, 44, or 48 large

Chainring spacers (optional, for DH single ring applications), qty: 4, M8 or M8.5 bolt (5mm hex) qty: 4 aluminum + qty: 4 steel OR M8.5 nut - slotted qty: 4

Crankbolt assemblies: Self-extractor, Thin Washer, Plastic plug, M15, M12 Capless ISIS Drive or capless M8 crankbolt, ISIS Drive Crank Washer (not used with M8/square taper and Power Spline)

Miscellaneous: Self-extractor crankbolt assembly qty: 2 OR Capless crankbolt assembly qty: 2, Pedal washer qty: 2, Aeroguard (optional), Aeroguard mounting screws (optional) qty: 4

- Tools:**
- 5mm, 8mm hex key, 10mm hex key (for self extracting crankbolts, if applicable.)
 - Chainring nut spanner Park Tool™ CNW-1 or equivalent for slotted chainring nuts or 6mm hex key for hex chainring nuts
 - Phillips head screw driver for Aeroguard, if applicable
 - Torque wrench

- Supplies:**
- Grease or titanium anti-seize for titanium bottom brackets

Parts Preparation

Grease or Ti anti-seize ISIS Drive and Power Spline only

Attention: Do not apply grease to square taper interface!

Grease or Ti anti-seize

Chaining bolts and nuts

Capless bolt assembly

SE bolt assembly

Assembly

Step 1

Aluminum or steel slotted M8 or aluminum 6mm hex M8.5 chainring nuts

Aluminum bolts torque to: 8-9 N•m (5.9-6.6 ft•lbf, 82-92 kgf•cm)
Steel bolts torque to: 12-14 N•m (8.9-10.3 ft•lbf, 122-143 kgf•cm)

Embossed text toward bike frame

Align tab with crankarm

Large chainring pin facing toward crankarm

Aluminum or steel 5mm hex M8 or M8.5 chainring bolts

Figure 1

Using a 5mm hex wrench and a chainring nut spanner or 6mm hex wrench, depending on the chainring nuts that were included with your crankset, assemble the large chainring, middle chainring, and prepared chainring nuts and bolts as shown in Figure 1. Make sure the large pin on the large chainring and the alignment tab on the middle ring are oriented in line with the crankarm as shown in Figure 1. Single and double ring applications (DH, FR, or singlespeed) substitute chainring spacers or a Rockguard/Bashguard in place of the large chainring. Downhill chainrings may be mounted in either the middle or large ring position on the crank spider. Use a torque wrench to tighten the bolts to 8-9 N•m (5.9-6.6 ft•lbf, 82-92 kgf•cm) for aluminum nuts and bolts, 12-14 N•m (8.9-10.3 ft•lbf, 122-143 kgf•cm) for steel nuts and bolts

Step 2

Embossed text faces towards bike frame

M8 STEEL chaining bolts torque to: 12-14 N•m (8.9-10.3 ft•lbf, 122-143 kgf•cm)

Align tab with crankarm

Figure 2

Mount the small chainring as shown in Figure 2 with the only alignment tab in line with the crankarm. Install STEEL chainring bolts with 5mm hex wrench and torque to 12-14 N•m (8.9-10.3 ft•lbf, 122-143 kgf•cm) using a torque wrench.

Step 3 (optional)

M3 Phillips Screws torque to: 2 - 2.3N•m (1.5 - 1.7ft•lbf, 20 - 23 kgf•cm)

Crankarm relief

Figure 3

Step 3 (cont'd)

Insert the four M3 Phillips screws from the back into the optional AEROGUARD and tighten to the torque requirements shown in Figure 3.

Step 4

Use 10mm hex wrench to install self extractor

Attention: Washers must be used with ISIS Drive cranks!

Torque self extractor cup to 12-15N•m (8.9-10.3 ft•lbf, 122-153 kgf•cm)

M15 OR M12 self extractor

M15, M12, or M8 capless (M8 uses no washer)

Figure 4

If the crankbolts have not been assembled yet, assemble them as shown in Figure 4. ISIS Drive cranks MUST use the crank washer or damage will result when the cranks are installed. Note that the crank washer may be manufactured so that it is permanently installed on the crankbolt. M8 crankbolts used with square taper and Power Spline cranks do not use a crank washer.

Step 5

Attention drivetrain side right hand pedal-thread

Pedal Assembly torque to: 31-34 N•m (23-25 ft•lbf, 318-346 kgf•cm)

Attention non drivetrain side left hand pedal-thread

ISIS Drive Interface torque to: 38-42 N•m (28-31 ft•lbf, 387-429 kgf•cm)

ISIS Drive Interface torque to: 43-47 N•m (32-35 ft•lbf, 442-484 kgf•cm)

Figure 5

Apply grease to ISIS Drive and Power Spline bottom bracket splines, for square taper make sure the splines are clean and free of grease. Assemble the crankarms to the bottom bracket using an 8mm hex wrench. Grease the pedal threads and assemble the pedals to the crankarms, and torque all bolts as shown in Figure 5.

Warranty

We at Truvativ stand behind our products and our customers. Our Blaze, Firex, Holzfelder, and Hussefelt cranksets are warranted for 2 years from the date of purchase against manufacturing defects and workmanship. All other cranksets are warranted for 1 year from the date of purchase against manufacturing defects and workmanship. This warranty is not valid for "abused" or neglected products, or products that are damaged by improper installation or assembly. We define an abused product as one that was subjected to use outside of its design intent. Please pay special attention to the Application Chart shown earlier in this manual to verify you are using the product for its intended purpose.

If you feel you have a warranty claim, would like to learn more about our warranty policy, or have further questions or comments please visit our web site at www.truvativ.com. You may also contact us using the information below:

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