2017

Sugino

SPIRIT of JAPAN

2017

Bicycle PARTS

Brand Story

Sugino has over a century of experience as a bicycle parts maker focusing on high-end parts.
Because of its reliable quality, Sugino also produces OEM parts for well-known complete bicycle makers.
Especially, its drive-train parts are chosen by many athletes in various competitions, such as Tour de France, Giro d'Italia, World Championship, Olympics, etc. And contribute their winnings.
Thus, with the know-how accumulated through its long experience, Sugino can offer higher-quality parts.

www.suginoltd.co.jp/us/

ENGLISH

SUGINO ENGINEERING CORPORATION
https://www.suginoltd.co.jp/us/
Feb. 2017 Sugino Printed in Japan

OX

Ø24mm Through Axle

Road · Hill climb · Cyclocross · Touring · Granfondo · Triathlon

The OX crank offers advanced performance in various scenes. Unique system called "Compact Plus+" enables the use of super small inner rings. OX901D is 10% lighter than the conventional model, and designed anew for smoother shifting.

11 SPEED · 10 SPEED · IDS24 Ø24mm Axle · 160 - 175mm



OX901D Compact Plus+
OX901D Classic Compact Plus+

P.C.D.	:	110mm - 110mm / 74mm
Axle Type	:	IDS24
B.B.	:	MB-608 (BSA) STEEL with B.B.
Compatibility	:	SHIMANO 11 Speed / 10 Speed
Chain Line	:	43.5mm
Q-Factor	:	145mm
Crank Material	:	Hard forged aluminum alloy
Crank Length	:	160 / 165 / 167.5 / 170 / 172.5 / 175mm
Color	:	Silver / Black
Combinations	:	52-36T 50-36T / 50-34T 48-36T / 48-34T / 48-32T 46-36T / 46-34T / 46-32T / 46-30T 44-32T / 44-30T

11 SPEED · 10 SPEED · IDS24 Ø24mm Axle · 160 - 175mm

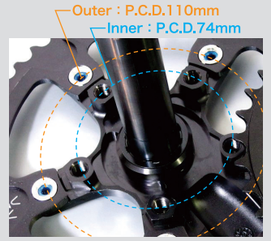


Color :
Silver
Black

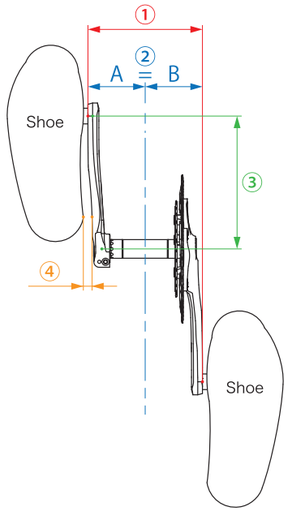
OX601D Compact Plus+

What is the Compact Plus+?

It is a double crank but designed to use both 74mm and 110mm PCDs. This mounting pattern is Sugino original, called "Compact Plus+", which enables the use of inner ring smaller than 34T and ensures a wide range of compatible rings and effective gear ratios. Compact Plus+ offers higher performance in such scenes that require physical strength, like hill climbing, cyclocross, granfondo.



Compact	Compact Plus+
PCD 110mm	PCD 110mm-74mm
52-36T	48-32T
50-36T / 50-34T	46-32T / 46-30T
48-36T / 48-34T	44-32T / 44-30T
46-36T / 46-34T	



Not only a wide range of gearing ratios, OX offers superior shifting for various riders in various scenes. Thus, we never compromise on quality of performance.

Special feature of the OX crank is dual-PCD design. Inner ring can either be a 110mm or 74mm PCD. The system called ***"Compact Plus+"*** enables the use of super small inner rings and ensures a wide range of gearing ratios.

HI

Road Races / Triathlon
For high speed races, the 52-36T is most suitable. The outer chainring should be chosen among from 48T~52T depending on course conditions and rider's abilities.
48T/34T · 50T/34T · 52T/36T

Granfondo / Touring
In order to ride with constant speed over a long distance, the outer chainring should be chosen among from the 46T~50T. For mountain courses, the inner chainring between 30T~32T would be the best choice.
46T/30T · 48T/32T · 50T/34T

Cyclocross
When riding off-roading, performance becomes more important than speed. So, the 44T~46T are the most suitable outer chainrings.
44T/30T · 44T/32T · 46T/34T

Hill Climbing
The average speed is comparatively-slow, but a great deal of stamina is required. So, by using the 30T~32T inner chainring, you can maximize your energy.
44T/30T · 46T/30T · 48T/32T

SPEED

LOW — PERFORMANCE — HI

① Super Low Q-factor 145mm
② Perfectly symmetrical Q-factor
It ensures smoother and efficient pedaling.

③ Variety of crank lengths
Available from 160mm up to 175mm depending on physical needs and riding styles.

④ Large ankle clearance
It keeps the shoe from rubbing the crank.

ACCESSORY



* See page 10.

We offer two graphic designs and two color options on each design, bringing your choices to four.



* The same specification but with different graphics.

B.B. CONVERTER

The BB Converter series makes it possible to install a 24mm spindle in various frames.

NEW

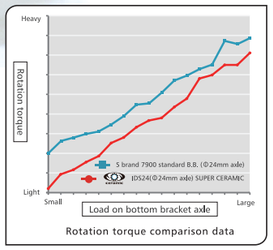
The BB converter series is completely renewed. In addition to the excellence of the rotational performance, the stiffness of the cup is increased, so the cup is less deformable when press-fitted to the frame. The seal is also improved, providing a great protection against dust without impairing the rotational performance.



SUPER CERAMIC

ceramic

High-end, high precision ceramic bearing realizes smooth rotation. Riding on the ceramic bearing gives you lighter pedal strokes and improve your pedal technique. So, it helps you maximize your performance during competitions.

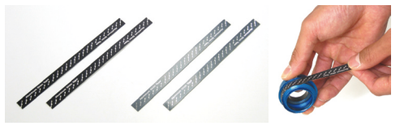


Rotation torque comparison data

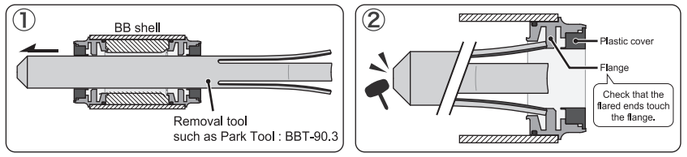
Aluminum Shim Tape

For Sugino press fit BB series, which is used to compensate for gaps between the BB and frame by wrapping it around the BB cup and secure the BB.

Set contents : 2 x Black (thick) & 2 x Grey (thin)



NEW For the Press fit BB, a hammer type removal tool can be used.

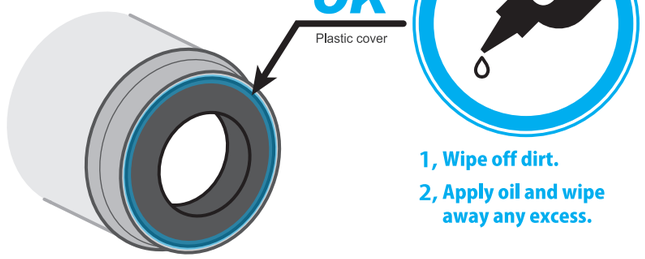


Sugino BB converter series

Extremely Important Points for Maintenance



Do Not Disassemble

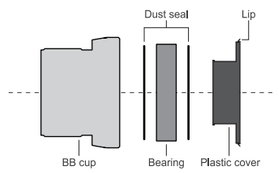


1, Wipe off dirt.

2, Apply oil and wipe away any excess.

Do Not Disassemble

Never remove plastic cover and dust seal of the bearing. The warranty is void if part is disassembled.



As the bearing is a very precise part, its assembly must be spotlessly clean. So, overhauling the cup unit will impair its functions. Sugino BB converter series includes excellent water and dustproof structure and provides maintenance-free operation.

Periodical maintenance on the plastic cover will add longevity, (as per the left illustration).

OVERSIZED BB SYSTEMS IDS24 CONVERTER

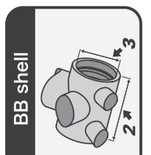
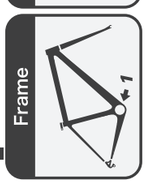
IDS24 Ø24mm Axle

B.B. converter List

SUPER CERAMIC

ceramic

NEW MODEL		BB30A–IDS24 SUPER CERAMIC CONVERTER	NEW MODEL		BB30A–IDS24 STEEL CONVERTER
		BB30–IDS24 SUPER CERAMIC CONVERTER			BB30–IDS24 STEEL CONVERTER
NEW MODEL		PF30A–IDS24 SUPER CERAMIC CONVERTER	NEW MODEL		PF30A–IDS24 STEEL CONVERTER
		PF30–IDS24 SUPER CERAMIC CONVERTER			PF30–IDS24 STEEL CONVERTER
		BB386EVO–IDS24 SUPER CERAMIC CONVERTER			BB386EVO–IDS24 STEEL CONVERTER
		SHPF (BB86) SUPER CERAMIC			SHPF (BB86) STEEL
		MB–608 (BSA) SUPER CERAMIC	STEEL BEARING		MB–608 (BSA) STEEL

Press fit	BB30A	Φ42mm	73mm	 Spacer
	BB30	Φ42mm	68mm	
	PF30A	Φ46mm	73mm	
	PF30	Φ46mm	68mm	**SHIMANO Di2 compatible** Due to the shape of the water sheath, there is enough space for Di2 internal cable routing.
	PF BB86	Φ41mm	86.5mm	
	BB386EVO	Φ46mm	86.5mm	 **Compatible with;** Sugino IDS24 series SHIMANO Ø24mm axle * Please contact a professional for installation and settings.
Threaded	BSA	BC1.37×24T	68mm	BB shell  Frame 

1 2 3

* When purchasing the BB, please consult with a specialty store.

CXC

Ø24mm Through Axle

Cyclocross

The chainwheel set specialized for Cyclocross, featuring CYCLOID II inner ring and high-rigid aerodynamic outer ring.



11 SPEED | 10 SPEED | IDS24 Ø24mm Axle | 160 - 175mm

NEW

CXC901D

P.C.D.	:	110mm - 74mm
Axle Type	:	IDS24
B.B.	:	MB-608 (BSA) STEEL with B.B.
Compatibility	:	SHIMANO 11 Speed / 10 Speed
Chain Line	:	43.5mm
Q-Factor	:	145mm
Crank Material	:	Hard forged aluminum alloy
Crank Length	:	160 / 165 / 167.5 / 170 / 172.5 / 175mm
Color	:	Black
Combinations	:	46-36T

Outer chainring

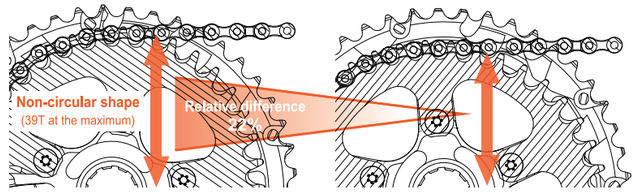
High-rigid, aerodynamic chainring offers advanced performance in all high speed sections where sprint is necessary. As the solid plate ring provides more surface area, it effectively keeps foreign matter from getting inside.

Inner chainring CYCLOID II

Non-circular inner ring incorporating Autofocus mechanism alternates gearing up to 39T. The extreme relative difference allows you to quickly spin through the top and bottom dead spots and ride through difficult terrain such as mud, soil and steep slope.

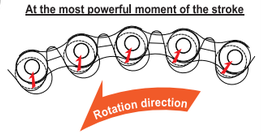


The special tooth profile prevents chain-drop and mud clogging.

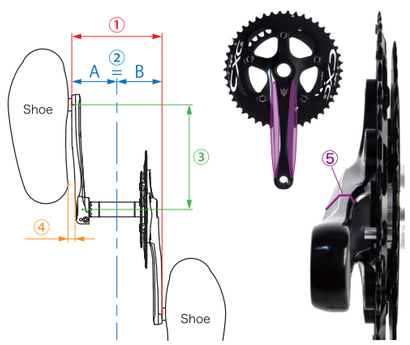


What is Autofocus mechanism?

When the great amount of power is produced in the pedal stroke, the chain moves outward, and the ring increases the diameter to the maximum. As the gearing is modulated automatically according to the pedal power, you can get effective gearing throughout the pedal stroke.



- There is no need of pedal stroke analysis for detecting peak point or adjustment of mounting position.
- As positional relation with outer ring is fixed, excellent shifting is ensured.



Crank

①Super Low Q-factor 145mm
②Perfectly symmetrical Q-factor
It ensures smoother and efficient pedaling.

③Variety of crank lengths
Available from 160mm up to 175mm depending on physical needs and riding styles.

④Large ankle clearance
It keeps the shoe from rubbing the crank and helps to prevent mud clogging.

⑤Chamfering
The chamfering applied on the side of the crank helps to clear mud.

Sugino

EXP

Ø30mm Through Axle

Triathlon | Timetrial | Road | Cyclocross

The chainwheel set for professionals, combining both lightweight and high strength, with a 30mm axle for BB30 or PF30 bottom bracket.

11 SPEED | 10 SPEED | IDS30 Ø30mm Axle | BB30 / PF30 | 165 - 175mm



High-end model featuring "ZEN STRADA"

EXP130 ZEN STRADA

P.C.D.	:	130mm
Axle Type	:	IDS30
B.B.	:	select from ①~④ types below
Compatibility	:	SHIMANO 11 Speed / 10 Speed
Chain Line	:	43.5mm
Q-Factor	:	145mm
Crank Material	:	Hard forged aluminum alloy
Crank Length	:	165 / 167.5 / 170 / 172.5 / 175mm
Color	:	Black
Combinations	:	54-42T / 54-39T 53-42T / 53-39T



PCD110mm model with various gearing options

EXP110 - 901D

P.C.D.	:	110mm
Axle Type	:	IDS30
B.B.	:	select from ①~④ types below
Compatibility	:	SHIMANO 11 Speed / 10 Speed
Chain Line	:	43.5mm
Q-Factor	:	145mm
Crank Material	:	Hard forged aluminum alloy
Crank Length	:	165 / 167.5 / 170 / 172.5 / 175mm
Color	:	Black
Combinations	:	52-36T 50-36T / 50-34T 48-36T / 48-34T 46-36T / 46-34T



Entry-level model

EXP110 - 601D

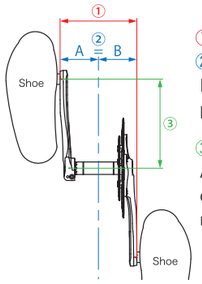
P.C.D.	:	110mm
Axle Type	:	IDS30
B.B.	:	select from ② or ④ types below
Compatibility	:	SHIMANO 11 Speed / 10 Speed
Chain Line	:	43.5mm
Q-Factor	:	145mm
Crank Material	:	Hard forged aluminum alloy
Crank Length	:	165 / 167.5 / 170 / 172.5 / 175mm
Color	:	Silver / Black
Combinations	:	52-36T 50-36T / 50-34T 48-36T / 48-34T 46-36T / 46-34T



"ZEN STRADA" is Super high-performance chainring, the only road model in ZEN series.

- Aero-shape design suitable for time trial and triathlon
- The world highest level of rigidity
- Precision machined ultra-round ring, no wobbling, less chain noise
- Smooth shifting without loss of power

Weight reduction is also achieved by recessing the backside without impairing rigidity.



①Super Low Q-factor 145mm
②Perfectly symmetrical Q-factor
It ensures smoother and efficient pedaling.

③Variety of crank lengths
Available from 165mm up to 175mm depending on physical needs and riding styles.



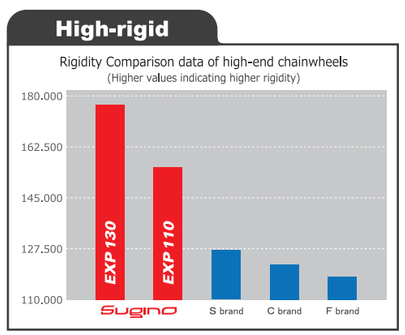
Super Aero

As the spider arms are flat in the same plane as the chainring, the arms are invisible when viewed from the front of the bike.
Thus, it is designed to minimize air resistance and maximize aerodynamic effect.

Direct Drive

As the spider arms are flat in the same plane as the chainring, the pedaling power is directly transmitted to the drive.

High-rigid





Mighty

Square Taper Axle

Road Touring

The classic style, square taper chainwheel set, 11 speed compatible, excellent in shifting, incorporating latest technologies.

The classic style unaltered through time, succeeded the name of

Sugino MIGHTY

Mighty Series is popular for its classic, slim style and strikingly beautiful finish. For longtime bike lovers, Mighty series makes your bike more grand and gorgeous.

11 SPEED / 10 SPEED / JIS 4-TAPER

Mighty series is 11 speed / 10 speed compatible and works with many of the current Shimano components, used on JIS square taper BB (CBBAL-110).



160 - 175mm

PCD130mm model, available in bigger chainrings

Mighty Comp.Road - 901D

P.C.D.	: 130mm
Type	: 4-TAPER (JIS)
B.B.	: CBBAL-110
Compatibility	: SHIMANO 11 Speed / 10 Speed
Chain Line	: 43.5mm
Crank Material	: Forged aluminum alloy
Crank Length	: 160 / 165 / 167.5 / 170 / 172.5 / 175mm
Color	: Silver / Black
Combinations	: 53-39T / 53-38T 46-39T / 46-38T



Black



160 - 175mm

PCD110mm model with various gearing options

Mighty Tour - 901D

P.C.D.	: 110mm
Type	: 4-TAPER (JIS)
B.B.	: CBBAL-110
Compatibility	: SHIMANO 11 Speed / 10 Speed
Chain Line	: 43.5mm
Crank Material	: Forged aluminum alloy
Crank Length	: 160 / 165 / 167.5 / 170 / 172.5 / 175mm
Color	: Silver / Black
Combinations	: 52-36T 50-36T / 50-34T 48-36T / 48-34T 46-36T / 46-34T



Black



Short Crank 140 - 155mm

Available from 140 to 155mm, hard-to-find sizes, for more comfortable and efficient ride for shorter riders.

Very short crank model

Mighty Mignon - 901D

P.C.D.	: 110mm
Type	: 4-TAPER (JIS)
B.B.	: CBBAL-110
Compatibility	: SHIMANO 11 Speed / 10 Speed
Chain Line	: 43.5mm
Crank Material	: Forged aluminum alloy
Crank Length	: 140 / 145 / 150 / 155mm
Color	: Silver / Black
Combinations	: 52-36T 50-36T / 50-34T 48-36T / 48-34T 46-36T / 46-34T



Black

Touring

ALPINA2

NEW

Touring | 10 SPEED | JIS 4-TAPER | 165 - 175mm | Triple gear



ALPINA2 Triple

P.C.D.	: 110mm - 110mm - 74mm
Type	: 4-TAPER (JIS)
B.B.	: CBBAL-113
Compatibility	: SHIMANO 10 Speed
Chain Line	: 45mm
Crank Material	: Forged aluminum alloy
Crank Length	: 165 / 170 / 175mm
Color	: Silver
Combinations	: 48-36-26T 46-36-26T

48-36-26T
46-36-26T

Triple model for long distance ride, such as touring, brevet, makes your ride more comfortable and more fun.

XD3BX

Road Touring | 10 SPEED | 9 SPEED | JIS 4-TAPER | 160 - 175mm



XD3BX - 701D

P.C.D.	: 110mm
Type	: 4-TAPER (JIS)
B.B.	: CBBF-110
Compatibility	: SHIMANO 10 Speed / 9 Speed
Chain Line	: 43.5mm
Crank Material	: Forged aluminum alloy
Crank Length	: 160 / 165 / 167.5 / 170 / 172.5 / 175mm
Color	: Silver / Black
Combinations	: 50-36T / 50-34T 48-36T / 48-34T 46-36T / 46-34T



4-TAPER series



JIS TAPER

CBBAL

Axle Type	: 4-TAPER(JIS)
Axle	: 103 / 110 / 113 / 116 / 119mm
Cup Thread	: BC1.37 x 24T
B.B. Width	: 68mm
Cup Material	: Aluminum alloy

* Italian (110mm spindle only, shell width 70mm, cup thread M36x24T) is available.



JIS TAPER

CBBF

Axle Type	: 4-TAPER(JIS)
Axle	: 103 / 110 / 113 / 119mm
Cup Thread	: BC1.37 x 24T
B.B. Width	: 68mm
Cup Material	: Steel

TL-CBB

Installation and removal Tool for cartridge BB.



Extractor #202 / #203B

Square taper crank removal tool.



ACCESSORY



* See page 10.

ROAD CHAINRING

11 Speed / 10 Speed (SHIMANO compatible)

11 SPEED / 10 SPEED

Model	ZEN STRADA	EV130S	EV110S	CP110S / CP74S	
Image					
Type	for Double	for Double	for Double	for Double (*OX901D Compact Plus+)	
P.C.D.	130mm	130mm	110mm	110mm	74mm
Outer	53 / 54 / 55T	46 / 53T (56T Black)	46 / 48 / 50 / 52T	44 / 46 / 48T	–
Inner	39 / 42T	38 / 39T (42 / 44T Black)	34 / 36T	–	30 / 32T
Color	●Black	●Black , ○Polish	●Black , ○Polish	●Black , ○Polish	



The chainring is precision CNC (Computer Numerical Control) machined. Both front and back sides are precisely machined. The high rigid shifting pins ensure excellent shifting performance. Weight reduction is also achieved by providing recesses without impairing rigidity and strength.



10 Speed / 9 Speed (SHIMANO compatible)

10 SPEED / 9 SPEED

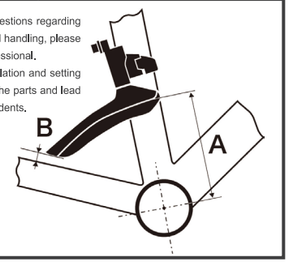
Model	POE110S (D)	POE110S (T)	
Image			
Type	for Double	for Triple	
P.C.D.	110mm	110mm	74mm
Outer	46 / 48 / 50T	46 / 48T	–
Center	–	36T	–
Inner	34 / 36T	–	26T
Color	○Silver	○Silver	

Front Derailleur Position for installing Chainwheel

Before installation, please measure the A and B dimensions as shown in the illustration and check them to make sure that they meet dimensional requirements in the table below.

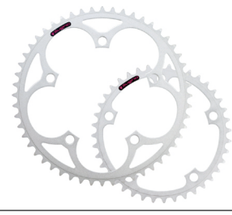
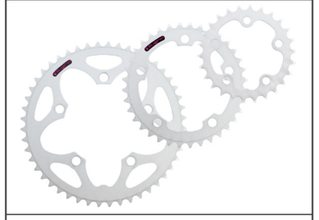
	Teeth number of outer chainring							
	56T	54T	53T	52T	50T	48T	46T	44T
A dimension (from center of BB to front end of FD)	117 mm	113 mm	111 mm	109 mm	105 mm	101 mm	97 mm	93 mm
B dimension (from chain stay to rear end of FD)	2mm or more							

If you have questions regarding installation and handling, please contact a professional.
Incorrect installation and setting may damage the parts and lead to serious accidents.



8 Speed / 7 Speed

8 SPEED / 7 SPEED

Model	130J	110J	74J	110J & 74J	
Image					
Type	for Double	for Double / Triple	for Triple	Triple set	
P.C.D.	130mm	110mm	74m	110 - 110 - 74mm	
Outer	46 / 48 / 50 / 52 / 53 / 54 / 56 / 60T	46 / 48 / 50 / 52 / 53 / 54T	–	Combination 110J - 110J - 74J	48 - 38 - 28T 48 - 36 - 26T 48 - 36 - 24T
Center	–	34 / 36 / 38 / 39 / 40 / 42 / 44T (*Double inner / Triple center)	–		
Inner	38 / 39 / 40 / 42 / 44T		24 / 26 / 28 / 30 / 32T		
Color	○Silver	○Silver	○Silver	○Silver	

SMALL PARTS

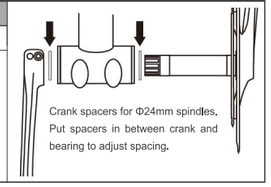
CHAINRING FIXING BOLTS & NUTS

Model	Color	Material	BOLT	NUT	Applicable Model
#801 for OX Compact	Silver, Black, Blue, Red, Gold, Pink, Green	Aluminum alloy	Torx 30	Hexagon 6	OX901D
#803 for OX Compact Plus+	Silver, Black, Blue, Red, Gold, Pink, Green	Aluminum alloy	Torx 30	Normal NUT	OX901D CXC901D
#703 for Double	Silver, Black, Blue, Red, Gold, Pink, Green	Aluminum alloy	Torx 30	Hexagon 6	EXP series Mighty series XD3BX-701D ALPINA2 Triple
#403 for Double	CP, Black	Steel	5 Hexagon	Normal NUT	
for Triple inner	CP			-	

CHAINRING SPACER

Model		
Chainring Spacer set 15 x 10 x 0.5	Chainring Spacer set 15 x 10 x 3.4	Put spacers in between outer ring and inner ring to adjust spacing between the rings.
Φ15 × Φ10mm t0.5mm 5 pieces set	Φ15 × Φ10mm t3.4mm 5 pieces set	

CRANK SPACER

Model	
2 piece Crank Adjust Spacer set	Crank spacers for Φ24mm spindles. Put spacers in between crank and bearing to adjust spacing.
 Φ29 × Φ24mm t0.5mm 3 pieces set	

4-TAPER BB AXLE BOLTS

Model	Tool	Material	Reference
KPB	8 Hexagon	Cr-Mo Steel	M8 × 0.1
14BK	14mm		
14CP	14mm		
15CP	15mm		

CRANK DUST CAP

Model	Tool	Material
CNS Alloy Dust Cap (with 14 bolt)	5 Hexagon	Aluminum alloy

The ultra-lightweight alloy cap and axle bolt set for square taper crank. The wide range of colors allows you to choose the most suitable one for your bike.

SEATPOST CLAMP BOLT

Model	Size	Tool	Material
Seatpost Clamp Bolt	17mm, 19mm, 22mm, 25mm	5 Hexagon	Cr-Mo Steel (CP finish)

Aluminum alloy

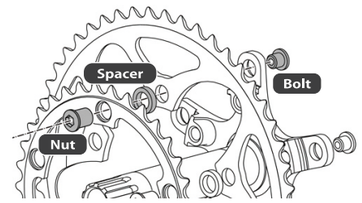
The high-strength aluminum alloy torx bolt is much more durable compared with a standard alloy bolt. It is lightweight, strong and beautifully colored.

COLOR: Silver, Black, Blue, Red, Gold, Pink, Green

#801 for OX Compact

For OX901D Compact (PCD110mm) w/3.4mm spacers

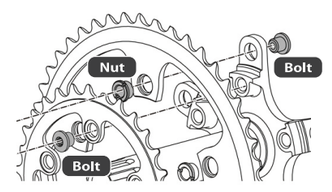




#803 for OX Compact Plus+

For OX901D Compact Plus+ (PCD110mm - 74mm) , For CXC901D





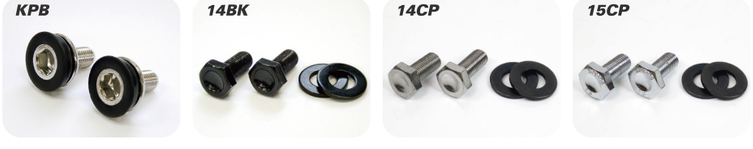
#703 for Double



#403 for Double ***#403 for Triple Inner***



KPB ***14BK*** ***14CP*** ***15CP***



COLOR: Silver, Violet, Blue, Aqua blue, Green, Black, Neon pink, Red, Bright orange, Brass gold





