SUNRACE DRIVEN













2009~2010 / Product Catalogue

Introduction



SunRace Sturmey-Archer, the manufacturer of SunRace, Driven, and Sturmey-Archer brands of bicycle components, proudly present our 2009-2010 SunRace and Driven product lines.























2009 New Products







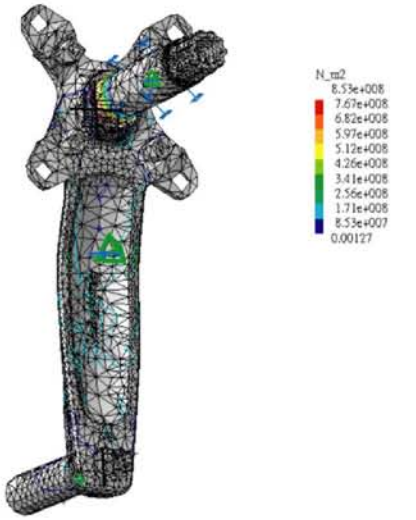














New Integrated ISIS Crank Arm and External Bearing Bottom Bracket System for Cranksets.

New Integrated System is much more durable, rigid, and stronger than previous Integrated System.

Refined Crank Arm Shape adds strength and rigidity.

SUNRACE

2009 New Products



RDRZ



RDMZ

New Full Carbon Derailleur Cage made from CNC process for our MZ and RZ series is now lighter and stronger than before.

- RDRZ1 New Carbon Cable Adjuster.
- RDMZ7



RDM97



RDM97

New Colors for M90 Avantgarde Rear Derailleur RDM97.

- RDM97 (B) All Black
- RDM97 (S) All Silver



MFE90



MFE60

New MFE Series 9-Speed and 8-Speed freewheels are made with higher precision and tighter tolerances.
MFE Series also incorporate new chrome plating process that is more rust resistance than before.
MFE Series is designed specifically for demanding E-Bikes.

- MFE90 9CU 9-Speed 13-32T
- MFE60 8CU 8-Speed 13-32T
- MFE60 8CS 8-Speed 13-28T



TSM28

New M20 Series Twist Shifter features light action dual-way shifting with refined body shape and new cable adjuster.

- TSM28 - R7, R6, R5, LF, L3.



TSM10

New M10 Series Twist Shifter features light action dual-way shifting with ergonomically designed grip.

- TSM10 - RF, LF.



CSR96

New R90 and R80 Series road cassettes with 12-25T ratio.

- CSR96 9BQ 9-Speed 12-25T
- CSR86 8BQ 8-Speed 12-25T



CSR86



MFR30

New R30 Series road freewheel with 13-25T ratio.

- MFR30 7CQ 7-Speed 13-25T.



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NMZ  P.09

Driven MZ, top of the line 27 speed MTB components.

NMX  P.10

Driven MX, race ready no holds barred 27 speed MTB components.

M90 Avantgarde  P.11

Sun Race performance 27 speed MTB group.

M90 SunRace  P.12

Sun Race entry 27 speed MTB group.

SUNRACE

Content

M60 SUNRACE



Sun Race performance 24 speed MTB group. P.13

M50 SUNRACE



Sun Race entry 24 speed MTB group. P.14

M40 SUNRACE



Sun Race MegaDrive 21 speed MTB group. P.15

M30 SUNRACE



Sun Race 21/18 speed MTB group. P.16



Content

M20 SunRACE



Sun Race entry 21/18 speed MTB group. P.17

M05 SunRACE



Sun Race friction 21/18/15 speed MTB group. P.19

nRZ



Driven RZ, top of the line 10x2 speed Road group. P.21

nRX



Driven RX, race ready no holds barred 10x2 speed Road group P.22

SUNRACE

Content

RS SunRACE



Sun Race performance 10x2 speed Road group. P.23

R90 SunRACE



Sun Race performance 9x2 or 9x3 speed Road group. P.24

R80 SunRACE



Sun Race 8x2 or 8x3 speed Road group. P.25

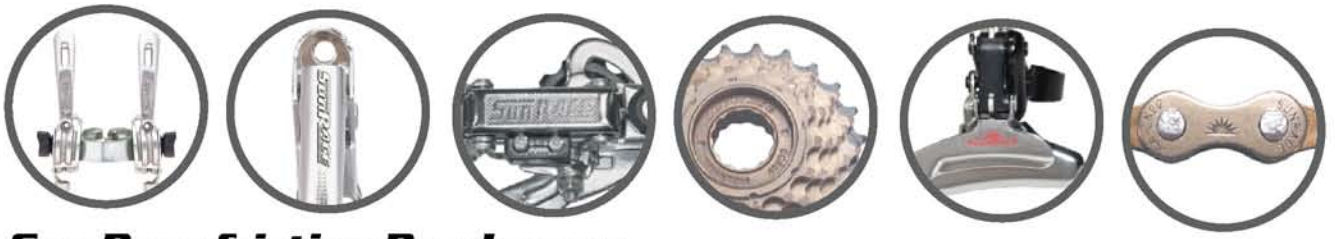
R30 SunRACE



Sun Race 7x2, 6x2, 5x2 speed Road group. P.26



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Sun Race friction Road group.

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Specifications

SUNRACE









HBMZ7 F/R9
[Titanium QR Axle]
[7075 Cassette Carrier]
[Sealed Cartridge Bearings]
[197.5/342.5g incl. QR]



FCMZ7 (D1) 44-32-22T
[Carbon Reinforced Crank]
[Titanium Axle]
[7075 Chainrings]
[7075 Bolts & Nuts]
[7075 Axle Bolt]
[905g incl. BB]



CNM9Z [Hollow Pins & Plates]
T[Titanium-Nitride]
[255g/110L]



BBMZ (D1)
[Int. BB FCMZ]
[127g]



CSMD7 8AT 11-30T
8AS 11-28T
[Alloy Spoke Guard]
[6061 Lockring]
[Alloy Spacers]
[9-Speed Spacing]
[387.5~406g incl. Alloy Guard]









[P]
P[Titanium-Alloy-Nitride]



[T]
T[Titanium-Nitride]

CSMZ7 9AV 11-34T
9AU 11-32T
[7075 3-Piece Spider]
[6061 Lockring]
[275~287g]



RDMZ LD/MD
[Carbon Cage]
[Forged Alloy Links]
[7075 Pulleys]
[Sealed Cartridge Bearings]
[241g]





HBMD7 F/R9
[Through Axle Type]
[7075 Cassette Carrier]
[Sealed Cartridge Bearings]
[386.5/694.5g incl. QR]



HBMX7 F/R9
[7075 Cassette Carrier]
[Sealed Cartridge Bearings]
[206.5g/354.5g incl. QR]



FCMX7 (D1) 44-32-22T
[6061 Forged Alloy Crank]
[Chromoly Axle]
[7075 Chainrings]
[7075 Bolts & Nuts]
[7075 Axle Bolt]
[930g incl. BB]



BBMX (D1)
[Int. BB FCMX]
[127g]



CNM9X [Hollow Pins & Plates]
S[Chrome]
[255g/110L]









CSMX7 9AV 11-34T
9AU 11-32T
[7075 3-Piece Spider]
[6061 Lockring]
S[Satin]
[275~287g]



CSMX5 9AV 11-34T
9AU 11-32T
[6061 Lockring]
[Alloy Spacers]
S[Satin]
[345~357g]



RDMX LD/MD
[7075 Pulleys]
[Forged Alloy Links]
[Alloy Cage]
[Sealed Cartridge Bearings]
[252g]









DRIVEN
27 Speed

M90 Avantgarde



DLM93 R9/L3
S[Silver]/B[Black]
[Alloy Up-Shift Lever]



FDM97 LD/MD/SD
[44-32-22T or 48-36-26T]
[Alloy Body]
[Dual Pull]



FCM99 (S1) [7075 44-32-22T]
FCM97 (S1) [7075 44T]
44-32-22T
[6061 Forged Alloy Crank]
[SCM435 Bolts & Nuts]
[Chromoly Axle]
[7075 Axle Bolt]



BBM97 (S1)
[Int. BB FCM99/97]



CSM96 9AV 11-34T
9AU 11-32T
S[Satin]
[Light Weight Design]



HBM96 F/R9



CNM99 [Hollow Pins]
S[Chrome]/Y[Gray]



B[Black]



S[Silver]

RDM97 LD
[Alloy Links]





DLM90 R9/L3
[Composite Shift Levers]



FCM9A [7075 44T]
FCM9B
44-32-22T
[Square Taper]



BBS15-BSG
[BC-68/113mm]



CSM9S 9AU 11-32T
U[UCP]
[Light Weight Design]



MFM90 9CU 13-32T
U[UCP]/C[CP]
MFE90 9CU 13-32T
C[CP]
[Lockring Design]
[Light Weight Design]



FDM96 LD/MD/SD
[44-32-22T or 48-36-26T]
[Alloy-Steel Body]
[Dual Pull]



CNM94
S[Chrome]/Y[Gray]



RDM90 LD
[Alloy Outer Link]
[13T Tension Pulley]



SUNRACE
27 Speed Performance

M60



TSM63 R8/R7/L3/LF
[Force Adjuster]
[Alloy C-Clamp]



HBM63 F/R8



FCM63 42-32-22T
[Alloy I-Crank]

[M]



BBS15-BSK
[BC-68/119mm]



CSM66 8AV 11-34T
8AU 11-32T
8AS 11-28T
8BV 12-34T
8BU 12-32T
CSM63 7AS 11-28T
7BS 12-28T
S[Satin]
[Light Weight Design]



MFM60 8CV 13-34T
8CU 13-32T
8CS 13-28T
U[UCP]/C[CP]

MFE60 8CU 13-32T
8CS 13-28T
C[CP]
[Lockring Design]
[Light Weight Design]



FDM67 LD/MD/SD
[42-32-22T]
[Alloy Clamp]
[Dual Pull]

FDM66 LD/MD/SD
[42-32-22T]
[Alloy-Steel Clamp]
[Dual Pull]



RDM63 LD
[Magnesium Outer Link]
[Alloy Outer Cage]
[13T Tension Pulley]



CNM89 [Hollow Pins]
S[Chrome]/Y[Gray]



DLM53 R8/R7/L3
[Alloy Up-Shift Lever]



DLM33 R8/R7/L3
[Composite Levers]



FCM52 42-34-24T
[Alloy I-Crank]

[M]



BBS15-BSN
[BC-68/122mm]



TSM53 R8/L3/LF
[Cyclop Display]
[Alloy C-Clamp]



HBM53 F/R8



FDM56 LD/MD/SD
[42-34-24T]
[Alloy-Steel Clamp]
[Dual Pull]



RDM56 LD
[Alloy Outer Link]
[13T Tension Pulley]



CSM56 8AU 11-32T
U[UCP]
[Light Weight Design]



MFM56 8CV 13-34T
U[UCP]
[Lockring Design]



CNM84
S[Chrome]/Y[Gray]



SUNRACE

24 speed

SunRace MegaDrive 21 speed





TSM4S R7/L3
[Cyclop Display]
[Alloy C-Clamp]



HBM40 F/R8/R7
[QR or Nutted Type]



MFM4S 7CV 13-34T
U[UCP+Black Combination]
[Lockring Design]
[Light Weight Design]



[2]

MFM2A 7DV 14-34T
3[UCP+Black Combination]
2[Brown+Black Combination]
[Lockring Design]



CNM54
Y[Gray]



RDM4S XD/XB
[Mega 15T Tension Pulley]
[Index Cable Adj.]



DLM33 R8/R7/L3
[Composite Shift Levers]



FCM33 48-38-28T
[Alloy I-Crank]



[M] [1]



BBS15-BSU
[BC-68/127mm]



FDM34 LD/MD/SD
[48-38-28T]
[Alloy-Steel Clamp]
[Dual Pull]



TSM33 R7/R6/L3/LF
[Cyclop Display]



FCM31 48-38-28T
[Alloy A-Crank]



[M] [1]



RDM36 SD/SB
[6-Speed]
[Index Cable Adj.]



RDM37 LD/LB/SD/SB
[7-Speed]
[Index Cable Adj.]



MFM30 7CS 13-28T
C[CP]
[Lockring Design]
[Light Weight Design]



MFM3S 7CS 13-28T
U[UCP]
[Lockring Design]
[Light Weight Design]



MFM20 6DS 14-28T
U[UCP]
[Light Weight Design]



CNM54
Y[Gray]



SUNRACE
21 speed Performance





TSM28 R7/R6/R5/LF/L3
[Cable Ajuster]
[Light Action Shift - Dual Ways]
[TPR Grip]



SLM2T R7/R6/R5/L3/LF



FDM2S
SB/ST/MB/MT
[42-34-24T]
[Heat Treated Chainguide]



FDM2A
SB/ST/MB/MT
[48-38-28T]
[Heat Treated Chainguide]



FDM2B [48-38-28T]
FDM2C [42-34-24T]
SB/ST/MB/MT
[Friction]



RDM15 LD/LB
SD/SB
[5-Speed]
[Index Cable Adj.]



RDM2T LD/LB
SD/SB
[7 & 6-Speed]
[Index Cable Adj.]



CNM54
Y[Gray]



[3]



[2]

MFM2A 7DV 14-34T
3[UCP+Black Combination]
2[Brown+Black Combination]
[Lockring Design]



[1]



[2]

MFM2A 7DS 14-28T
6DS 14-28T
5DS 14-28T
1[UCP+Black Combination]
2[Brown+Black Combination]
[Lockring Design]



SUNRACE

21&18&15 speed Index

SUNRACE Friction





TSM10 RF/LF
[Light Action Shift-Dual Ways]
[TPR Grip]
[Friction]



SLM10 RF/LF



MFM05 7DS 14-28T
6DS 14-28T
5DS 14-28T
[Friction]



FDM06 SB
[Double]



FDM05 SB/MB
[48-38-28T]
[Friction]



RDM10 LD/LB
[Friction]



CNM22
B[Black]


SUNRACE
www.sunrace.tw
SUNRACE
www.sunrace





STRZ RT/L2
[Carbon Reinforced Brake Lever]
[7075 Forged Alloy Up-Shift Lever]
[383g/pair]



CSRZ TAO 11-23T
TBO 12-23T
TBQ 12-25T
[7075 Sprockets]
[6061 Lockring]
M[Ceramic Coated]
[105~120g]



FCRZ6 [D1] 50-34T FCRZ1 [D1] 53-39T
Z7 [D1] 50-36T Z3 [D1] 52-39T
[BCD 110mm] [BCD 130mm]
[Carbon Crank]
[Titanium Axle]
[7075 Chainrings]
[7075 Bolts & Nuts]
[7075 Axle Bolt]
[756~760g incl. BB]



FDRZ BB
[56~50T Double]
[Carbon Reinforced Cage]
[Forged Alloy Links]
[101.5g]



CNR 1Z [Hollow Pins & Plates]
T[Titanium-Nitride]
[242g/110L]



BBRZ [D1]
[Int. BB FCRZ]
[127g]



RDRZ1 SD
[Carbon Reinforced Link]
[Carbon Cage]
[Carbon Cable Adj.]
[7075 Pulleys]
[Sealed Cartridge Bearings]
[7075 Bracket Bolt]
[10 & 9-Speed]
[194g]



STRX RT/L2
[Forged Alloy Brake Lever]
[7075 Forged Alloy Up-Shift Lever]
[387g]



FCRX6 [D1] 50-34T
X7 [D1] 50-36T
[BCD 110mm]

FCRX1 [D1] 53-39T
X3 [D1] 52-39T
[BCD 130mm]

[6061 Forged Alloy Crank]
[Chromoly ISIS Axle]
[7075 Chainrings]
[7075 Bolts & Nuts]
[7075 Axle Bolt]
[885~927g incl. BB]



BBRX [D1]
[Int. BB FCRX]
[127g]



CNR 1X [Hollow Pins & Plates]
S[Chrome]
[242g/110L]



FDRX BB
[56~50T Double]
[Forged Alloy Links]
[98.5g]



RDRX SD
[Alloy Links & Cage]
[7075 Pulleys]
[Sealed Cartridge Bearings]
[7075 Bracket Bolt]
[10 & 9-Speed]
[197.5g]



DRIVEN
10 X 2 Speed





STRS RT/L2
[Forged Alloy Brake Lever]
[Rubber Cushioned Up-Shift Lever]
[418g]



FCRS6 (S1) 50-34T FCRS1 (S1) 53-39T
[BCD 110mm] [BCD 130mm]
[6061 Forged Alloy Crank]
[7075 Chainrings]
[7075 Bolts & Nuts]
[7075 Axle Bolt]
[910g~927g incl. BB]



CNR10 [Hollow Pins]
S[Chrome]



BBRS (S1)
[Int. BB FCRX]
[127g]



FDRS0 BB/LB/MB
[56~50T Double]
[Forged Alloy Links]
[99g]



RDRS SD
[7075 Bracket Bolt]
[Alloy Links]
[Alloy Cage]
[10 & 9-Speed]
[195g]



BCRS F/R/P
[Quick-Release]
[Forged Alloy Caliper]
[Cartridge Brake Shoe Pads]
[Convex Washer Adj. Shoes]
[184g]



STR90 R9/LL
STR97 L3(For FDR97)
[Forged Alloy Brake Lever]
[Rubber Cushioned Up-Shift Lever]
[418g/pair]



SLR90 R9/LF
B[28.6mm]
C[44mm]



FCR9F 50-34T
FCR9A 53-39T
[Alloy Chainrings]
[SCM435 Bolts & Nuts]
[6061 Forged Alloy Crank]



FCR96 50-34T FCR97 52-42-30T
FCR91 53-39T
[SCM435 Bolts & Nuts]
[6061 Forged Alloy Crank]



FDR90 BB/LB/MB
[56~50T Double]
[Forged Alloy Links]



BBS20-BSA/BSF
[BC-68/(103mm FCR9F)/(111mm FCR9A)]



BBS15-BSA/BSF
[BC-68/(103mm FCR96)/(111mm FCR91/97)



CSR96 9AQ 11-25T
9BQ 12-25T
S[Satin]
[Light Weight Design]



FDR97 BB/MB/SB [52T]
FDR99 BB/LB/MB [50T]
[Triple]
[Forged Alloy Links]



RDR90 SD/LD
[Alloy Links]
[9-Speed]



BCR90 P/F/R
[Quick-Release]
[Forged Alloy Caliper]
[Cartridge Brake Shoe Pads]



CNM99 [Hollow Pins]
S[Chrome]/Y[Gray]



CNM94
S[Chrome]/Y[Gray]



SUNRACE
9 X 2/3 Speed

SunRace 8 X 2/3 Speed



STR80 R8/LL
[Forged Alloy Brake Levers]
[Rubber Cushioned Up-Shift Lever]
[418g/pair]



Brazed on: R8/LF B[28.6mm]
C[44mm]
Clamp: 8F H[22.2mm]
G[25.4mm]
D[28.6mm]



FCR81 53-39T
83 52-42T
FCR87 52-42-30T
[6061 Forged Alloy Crank]
[SCM435 Bolts & Nuts]



FCR86 50-34T
[6061 Forged Alloy Crank]
[SCM435 Bolts & Nuts]



BBS15-BSB/BSA/BSF
[BC-68/(107mm FCR81/83)
/(103mm FCR86)
/(111mm FCR87)]



CSR86 8AO 11-23T
8BQ 12-25T
CSR63 7AP 11-24T
7BP 12-24T
S[Satin]
[Light Weight Design]



FDR80 BB/MB/SB
[56~50T Double]
[Forged Alloy Links]



FDR87 BB/MB/SB
[52T Triple]
[Forged Alloy Links]



CNM89 [Hollow Pins]
S[Chrome]/Y[Gray]



CNM84
S[Chrome]/Y[Gray]



RDR86 SD/LD
[8-Speed]



BCR80 P/F/R
[Quick-Release]
[Forged Alloy Caliper]



BLR31 P/R/L



SLR39

Brazed on: R7/R6/R5/LF B[28.6mm] C[44mm]

Clamp: 7F/6F/5F H[22.2mm] G[25.4mm] D[28.6mm]



FCR31 53-39T
FCR33 52-42T
[6061 Forged Alloy Crank]
[SCM435 Bolts & Nuts]
[Friction]



BBS15-BSB
[BC-68/107mm]



MFR30 7CQ 13-25T
C[CP]
[Locking Design]
[Light Weight Design]



MFR3S 7CP 13-24T
I[UCP+Black+Combination]



MFR2A 6DP 14-24T
2[Brown+Black Combination]



FDR31 SB/MB
[53~52T Double]



RDR31 SD
[7-Speed]



CNM54
Y[Gray]



BCR30 P/F/R
[Forged Alloy Caliper]

SUNRACE
7/6/5 X 2 Speed



BLR02



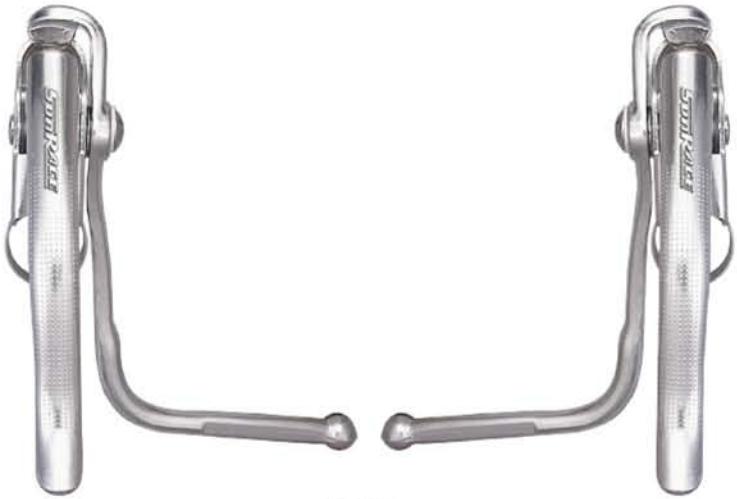
SLR03 FF/RF
Clamp:(H) 22.2mm (D)28.6mm



FDM06 SB
[Double]
[Friction]



CNM22
B[Black]



BLR03



MFR2A 6DP 14-24T
2[Brown+Black Combination]



RDM10 SD/SB
[Friction]

(ISIS)



BBI 40
[Hollow SCM435 Axle]
[Alloy RH & LH Cups]
[Alloy Sleeve]
[Alloy Stopper]
[Sealed Cartridge Bearings x 4]



BBI 30
[Hollow SCM435 Axle]
[Alloy RH & LH Cups]
[Eng. Polymer Sleeve]
[Alloy Stopper]
[Sealed Cartridge Bearings]



BBI 20
[Hollow SCM435 Axle]
[Alloy Cups]
[Alloy Sleeve]
[SCM415 Stopper]
[Sealed Cartridge Bearings]



BBI 10
[Hollow SCM435 Axle]
[Steel RH & LH Cups]
[Steel Sleeve]
[SCM415 Stopper]
[Sealed Cartridge Bearings]

(Square Taper)



BBS 20
[Hollow SCM415 Axle]
[Alloy RH & LH Cups]
[Alloy Sleeve]
[Eng. Polymer Stopper]



BBS 15
[Steel Axle]
[Steel RH & LH Cups]
[Steel Sleeve]
[Eng. Polymer Stopper]
[Sealed Cartridge Bearings]



BBS 10
[Steel Axle]
[Steel RH Cup & Eng. Polymer LH Cup]
[Steel Sleeve]
[Eng. Polymer Stopper]
[Sealed Cartridge Bearings]



BBS 05
[Steel Axle]
[Steel RH & LH Cups]
[Eng. Polymer Sleeve]
[Ball Cage Bearings]

Chains

(10-Speed)



CNR1Z (T)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Hollow Plates]
T[Titanium-Nitride]
244g/110L



CNR1X (S)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Hollow Plates]
S[Chrome]
244g/110L



CNR10 (S)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Plates]
S[Chrome]
246g/110L

(9-Speed)



CNM9Z (T)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Hollow Plates]
T[Titanium-Nitride]
254g/110L



CNM99 (S)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Plates]
S[Chrome]
256g/110L



CNM94 (S)
[1/2" x 11/128"]
[Chromized Pins]
[Chromoly Plates]
S[Chrome]
273g/110L



CNM9X (S)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Hollow Plates]
S[Chrome]
254g/110L



CNM99 (Y)
[1/2" x 11/128"]
[Chromized Hollow Pins]
[Chromoly Plates]
Y[Gray]
256g/110L



CNM94 (Y)
[1/2" x 11/128"]
[Chromized Pins]
[Chromoly Plates]
Y[Gray]
273g/110L

(8-Speed)



CNM89 (S)
[1/2" x 3/32"]
[Chromized Hollow Pins]
S[Chrome]
257g/110L



CNM89 (Y)
[1/2" x 3/32"]
[Chromized Hollow Pins]
Y[Gray]
257g/110L



CNM84 (S)
[1/2" x 3/32"]
S[Chrome]
274g/110L



CNM84 (Y)
[1/2" x 3/32"]
Y[Gray]
274g/110L



(7 & 6-Speed)



CNM54 (S)
[1/2" x 3/32"]
Y[Gray]

(Friction)



CNM22 (B)
[1/2" x 3/32"]
B[Black]

(Fixed / BMX)



CNX46 (S)
[Heavy Duty]
[1/2" x 1/8"]
S[Chrome]

(Single Speed / Internal Gear Hub)



CNS22 (D)
[1/2" x 3/32"]
D[Dacromet]



CNS10 (D)
[1/2" x 1/8"]
D[Dacromet]



CNS10 (B)
[1/2" x 1/8"]
B[Black]





Guide Pin For Chain

CNP10 [10 Speed]
CNP09 [9 Speed]





Easy Links

CNQ10 [10 Speed]
CNQ09 [9 Speed]
CNQ87 [8/7 Speed]

Service Parts



3503.0195.003 [11T]
3503.0195.004 [12T]

Lock Ring For Cassettes
[11T & 12T Option]
[Forged Alloy]



3399.0000.009

Rear Derailleur Pulley
[11T]
[7075 Alloy/CNC]
[Sealed Cartridge Bearing]



SP-850

Rear Derailleur Pulley
[10T]



SP-550I-2

Rear Derailleur Bracket



QRZ7R



QRZ7F

Quick Release
[Titanium Axle]
[Alloy Lever & Nut]



QRX7R



QRX7F

Quick Release
[SCM435 Axle]
[Alloy Lever & Nut]



BAS05



BAS15

BB Axle Bolt
[M8]



BAI30
[M15 Alloy Bolt]



BAI40
[M12 Chromoly Bolt]

BAI20
[M15 Chromoly Bolt]

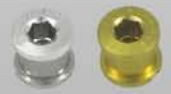
BAI10
[M15 Chromoly Bolt]

BB Axle Bolt [ISIS]
[M12 & M15 Option]
[Alloy Cup]





Chainrings Combinations
[7075 Alloy/CNC]
53/52-39
50/34
50/36



3499.0000.039 [Silver]
3499.0000.040 [Gold]

Bolt & Nut Set for Chainrings
[7075 Alloy]



GPM50TO [Open]
GPM50TC [Closed]

End Grip - TPR
[Open 80mm]
[Closed 86mm]



SPFDCA01LBD0 [ø34.9]
SPFDCA01MBD0 [ø31.8]
SPFDCA01SBD0 [ø28.6]

Front Derailleur Clamp
[Forged Alloy]
[ø34.9,ø31.8,ø28.6mm Option]

Casings



OCSSP-SP Index Type Ø5mm



OCRSP-SP Index Type Ø4mm



OCS2S-2SP Index Type Ø5mm



OCR2S-2SP Index Type Ø4mm



OCS2P-2P Friction Type Ø5mm



OCR2P-2P Friction Type Ø4mm



OCS1P-1P Friction Type Ø5mm

Color options available

After Market

DRIVEN





BP



HP



SUNRACE

Trigger Shifters

Model No.	DLM93		DLM90		DLM53		
	R9	L3	R9	L3	R8	R7	L3
Side and Speed	Right 9-Speed	Left 3-Speed	Right 9-Speed	Left 3-Speed	Right 8-Speed	Right 7-Speed	Left 3-Speed
Display Type	Podium Top		Podium Top		Podium Top		
Cable Adjuster	●		●		●		
Clamp Screw	SUS302 Stainless Steel		SUS302 Stainless Steel		SCM435 Chromoly		
Large Lever	Aluminum		Engineering Polymers		Aluminum		
Small Lever	Engineering Polymers		Engineering Polymers		Engineering Polymers		
Cable Type	Slick-Galvanized		Slick-Galvanized		Slick-Galvanized		
Cable Length	2,050mm	1,600mm	2,050mm	1,600mm	2,050mm		1,600mm
Casing Compatibity	SP		SP		SP	2SP AND ↑	2SP AND ↑
Finish	(S) Silver / (B) Black		Black		Black		
Average Weight	156g	153g	158g	157g	156g	156g	154g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 60 ~ 80 kgf-cm

Model No.	DLM33		
	R8	R7	L3
Side and Speed	Right 8-Speed	Right 7-Speed	Left 3-Speed
Display Type	Podium Top		
Cable Adjuster	●		
Clamp Screw	SCM435 Chromoly		
Large Lever	Engineering Polymers		
Small Lever	Engineering Polymers		
Cable Type	Galvanized		
Cable Length	2,050mm		1,600mm
Casing Compatibity	SP	2SP AND ↑	2SP AND ↑
Finish	Black		
Average Weight	158g	158g	157g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 60 ~ 80 kgf-cm



Twist Shifters

Model No.	TSM63				TSM53		
	R8	R7	L3	LF	R8	L3	LF
Side and Speed	Right 8-Speed	Right 7-Speed	Left 3-Speed	Left Friction	Right 8-Speed	Left 3-Speed	Left Friction
Cyclops Display	×				●		
Force Adjuster	●				×		
Cable Adjuster	●				●		
Clamp Type	C-Clamp				C-Clamp		
Cable Type	Slick-Galvanized				Slick-Galvanized		
Cable Length	1,850mm		1350mm		1,850mm	1,400mm	
Casing Compatibity	SP	2SP AND ↑	2SP AND ↑	2P AND ↑	SP	2SP AND ↑	2P AND ↑
Average Weight	109g	109g	107g	107g	89g	86g	86g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 15 ~ 25 kgf-cm

Model No.	TSM4S		TSM33			
	R7	L3	R7	R6	L3	LF
Side and Speed	Right 7-Speed	Left 3-Speed	Right 7-Speed	Right 6-Speed	Left 3-Speed	Left Friction
Cyclops Display	●		●			
Cable Adjuster	●		●			
Clamp Type	C-Clamp		C-Clamp			
Cable Type	Slick-Galvanized		Slick-Galvanized			
Cable Length	1,900mm	1,400mm	1,850mm		1,400mm	
Casing Compatibity	SP	2SP AND ↑	SP	2SP AND ↑	2SP AND ↑	2P AND ↑
Average Weight	114g	112g	89g	89g	86g	86g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 15 ~ 25 kgf-cm

M Specifications

Twist Shifters

Model No.	TSM28				
	R7	R6	R5	LF	L3
Side and Speed	Right 7-Speed	Right 6-Speed	Right 5-Speed	Left Friction	Left 3-Speed
Cable Adjuster	●				
C-Clamp	×				
Cable Type	Galvanized				
Cable Length	1,900mm			1,400mm	
Casing Compatibity	2SP AND ↑			2P AND ↑	2SP AND ↑
Average Weight	90g	90g	90g	87g	87g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 15 ~ 17 kgf-cm

Model No.	TSM10	
	RF	LF
Side and Speed	Right Friction	Left Friction
Cable Adjuster	×	
C-Clamp	×	
Cable Type	Galvanized	
Cable Length	1,900mm	1,400mm
Casing Compatibity	2P AND ↑	2P AND ↑
Average Weight	86g	86g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 15 ~ 17 kgf-cm

Thumb Shifters

Model No.	SLM2T					SLM10	
	R7	R6	R5	L3	LF	RF	LF
Side and Speed	Right 7-Speed	Right 6-Speed	Right 5-Speed	Left 3-Speed	Left Friction (3 / 2)	Right Friction (7 / 6 / 5)	Left Friction (3 / 2)
Cable Adjuster	×			●	×	×	
Cable Type	Galvanized					Galvanized	
Cable Length	1,900mm			1,400mm		1,950mm	1,450mm
Casing Compatibity	2SP AND ↑			2SP AND ↑	2P AND ↑	1P AND ↑	
Average Weight	64.5g	64.5g	64.5g	65g	65g	64.5g	61.5g

Handlebar diameter 22.2 ±0.2 mm / Tighten torque 20~ 25 kgf-cm



Front Derailleurs

Model No.	FDM97	FDM96	FDM67	FDM66	FDM56		FDM34
Rear Compatibility	9-Speed		8 / 7-Speed		8 / 7-Speed		8 / 7-Speed
Chainring Compatibility	Triple		Triple		Triple		Triple
Top Gear Teeth	44T or 48T		42T		42T		48T
Top-Low Max. Capacity	22T		20T		18T		20T
Top-Middle Min. Capacity	12T		10T		8T		10T
Cable Routing	(D) Dual Pull		(D) Dual Pull		(D) Dual Pull		(D) Dual Pull
Clamp Diameter	(L) 34.9 / (M) 31.8 / (S) 28.6mm*		(L) 34.9 / (M) 31.8 / (S) 28.6mm*		(L) 34.9 / (M) 31.8 / (S) 28.6mm*		(L) 34.9 / (M) 31.8 / (S) 28.6mm*
Clamp Material	Aluminum	Aluminum-Steel	Aluminum	Aluminum-Steel	Aluminum-Steel		Aluminum-Steel
Chain Stay Angle	66~69°		66~69°		66~69°		66~69°
Average Weight	144g(M)	153g(M)	141g(M)	150g(M)	150g(L)	159g(L)	145g(M)

* with multi clamp band

Model No.	FDM2A	FDM2S	FDM2B	FDM2C
Rear Compatibility	7 / 6-Speed		7 / 6-Speed	
Chainring Compatibility	Triple		Triple Friction	
Top Gear Teeth	48T	42T	48T	42T
Top-Low Max. Capacity	20T	18T	20T	18T
Top-Middle Min. Capacity	10T	8T	10T	8T
Clamp Diameter	(M) 31.8 / (S) 28.6mm		(M) 31.8 / (S) 28.6mm	
Cable Routing	(T) Top Pull / (B) Bottom Pull		(T) Top Pull / (B) Bottom Pull	
Chain Stay Angle	66~69°		66~69°	
Average Weight	154g(M)	144g(M)	154g(M)	144g(M)

Model No.	FDM05	FDM06
Rear Compatibility	7 / 6 / 5-Speed	6 / 5-Speed
Chainring Compatibility	Triple Friction	Double Friction
Top Gear Teeth	48T	48T
Top-Low Max. Capacity	20T	10T
Top-Middle Min. Capacity	10T	×
Clamp Diameter	(M) 31.8 / (S) 28.6mm	(S) 28.6mm
Cable Routing	(B) Bottom Pull	(B) Bottom Pull
Chain Stay Angle	66~69°	66~69°
Average Weight	148g	142g

Front Cranksets

Model No.		FCMZ7 (D1)	FCMX7 (D1)	FCM99 (S1)	FCM97 (S1)
Compatibility		9-Speed	9-Speed	9-Speed	9-Speed
Function		Super Fluid Drive	Super Fluid Drive	Super Fluid Drive	Super Fluid Drive
Crank Arm Spline Type		Integrated ISIS External BB (D1)	Integrated ISIS External BB (D1)	Integrated ISIS External BB (S1)	Integrated ISIS External BB (S1)
Number of Teeth		44-32-22T	44-32-22T	44-32-22T	44-32-22T
Outer Chainring		7075 Aluminum / Anodized / CNC	7075 Aluminum / Anodized / CNC	7075 Aluminum / Anodized	7075 Aluminum / Anodized
Middle Chainring		7075 Aluminum / Anodized	7075 Aluminum / Anodized	7075 Aluminum / Anodized	Hi-Tensile Steel / Painted
Inner Chainring		7075 Aluminum / Anodized	7075 Aluminum / Anodized	7075 Aluminum / Anodized	Hi-Tensile Steel / Painted
Removable Chainrings		●	●	●	●
Chainguard Option		●	●	●	●
Crank Arms		Carbon Reinforced Forged Aluminum	6061 Aluminum Forged / Anodized	6061 Aluminum Forged / Anodized	6061 Aluminum Forged / Anodized
Crank Arm Length		175mm	175mm	175mm	175mm
Axle Material		Titanium	Chromoly	Chromoly	Chromoly
Axle Bolt		7075 Aluminum	7075 Aluminum	7075 Aluminum	7075 Aluminum
Chainring Bolts & Nuts		7075 Aluminum / Gold Anodized	7075 Aluminum / Silver Anodized	SCM435 Chromoly	SCM435 Chromoly
Bolt Circle Diameter		104mm/64mm	104mm/64mm	104mm/64mm	104mm/64mm
Bottom Bracket (Included)	Model	BBMZ (D1)	BBMX (D1)	BBM97 (S1)	BBM97 (S1)
	Adapter	Aluminum / Gold Anodized	Aluminum / Silver Anodized	Aluminum / Silver Anodized	Aluminum / Silver Anodized
	Shell Width	BC-68 /73mm	BC-68 /73mm	BC-68 /73mm	BC-68 /73mm
	Chain Line	50mm	50mm	50mm	50mm
	Weight	127g/set	127g/set	127g/set	127g/set
Crank(R) Weight		582g (175)	617g (175)	621g (175)	687g (175)
Crank(L) Weight		196g (175)	186g (175)	188g (175)	188g (175)
Total Average Weight		905g (175)	930g (175)	936g (175)	1,002g (175)



Front Cranksets

Model No.		FCM9A	FCM9B
Compatibility		9-Speed	9-Speed
Function		Fluid Drive Plus	Fluid Drive Plus
Crank Arm Spline Type		Square Taper	Square Taper
Number of Teeth		44-32-22T	44-32-22T
Outer Chainring		7075 Aluminum / Anodized	Hi-Tensile Steel
Middle Chainring		Hi-Tensile Steel	Hi-Tensile Steel
Inner Chainring		Hi-Tensile Steel	Hi-Tensile Steel
Removable Chainrings		●	●
Chainguard Options		●	●
Crank Arms		Forged Aluminum / Black Anodized	Forged Aluminum / Black Anodized
Crank Arm Length		175mm	175mm
Chainring Bolts & Nuts		SCM435 Chromoly	SCM435 Chromoly
Bolt Circle Diameter		104mm/64mm	104mm/64mm
Bottom Bracket (Optional)	Model	BBS15	BBS15
	Shell Width	68mm(S)	68mm(S)
	Spindle Length	113mm(G)	113mm(G)
	Chain Line	50mm	50mm
Crank(R) Weight		560g (175)	696g (175)
Crank(L) Weight		254g (175)	254g (175)
Total Average Weight		814g (175)	950g (175)

Model No.		FCM63	FCM52	FCM33	FCM31
Compatibility		8 / 7-Speed	8 / 7-Speed	7 / 8-Speed	7 / 8-Speed
Function		Fluid Drive Plus	Fluid Drive Plus	Fluid Drive	Fluid Drive
Number of Teeth		42-32-22T	42-34-24T	48-38-28T	48-38-28T
Outer Chainring		Hi-Tensile Steel	Hi-Tensile Steel	Hi-Tensile Steel	Hi-Tensile Steel
Middle Chainring		Hi-Tensile Steel	Hi-Tensile Steel	Hi-Tensile Steel	Hi-Tensile Steel
Inner Chainring		Hi-Tensile Steel	Hi-Tensile Steel	Hi-Tensile Steel	Hi-Tensile Steel
Chainguard Options		Ring Type	Ring Type	Full or Ring Type	Full or Ring Type
Crank Style		I-Crank	I-Crank	I-Crank	A-Crank
Crank Arms		A356.2 Aluminum	A356.2 Aluminum	A356.2 Aluminum	A356.2 Aluminum
Crank Arm Length (mm)		175/170mm	175/170/165/162.5/152mm	175/170/165/162.5/152mm	175/170/165/162.5/152mm
Bottom Bracket (Optional)	Model	BBS15	BBS15	BBS15	BBS15
	Shell Width	68mm(S)	68mm(S)	68mm(S)	68mm(S)
	Spindle Length	119mm(K)	122mm(N)	127mm(U)	127mm(U)
	Chain Line	50mm	50mm	50mm	50mm
Crank(R) Weight		635g (175)	685g (175)	800g (175)	805g (175)
Crank(L) Weight		235g (175)	235g (175)	235g (175)	210g (175)
Total Average Weight		885g (175)	920g (175)	1,035g (175)	1,015g (175)

Cassettes

Model No.	CSMD7 8AT (S)	CSMD7 8AS (S)
Speeds	8-Speed	8-Speed
Function	Fluid Drive Plus	Fluid Drive Plus
Number of Teeth	11-30T	11-28T
Gear Combination	11-12-14-16--18-21-24-30	11-12-14-16--18-21-24-28
Sprocket Material	Hi-Tensile Steel	Hi-Tensile Steel
Sprocket Finish	(S) Sandblast Satin	(S) Sandblast Satin
Light Weight Holes	●	●
Spacer Material	Aluminum / Gold Anodized	Aluminum / Gold Anodized
Lock Ring	Aluminum / Black Anodized	Aluminum / Black Anodized
Protecter Material	6061 Aluminum	6061 Aluminum
Proctector Finish	Anodized Gold	Anodized Gold
Chain Compatibility	6.6mm	6.6mm
Average Weight	406g	387.5g

Model No.	CSMZ7 9AV (P)	CSMZ7 9AU (P)	CSMZ7 9AV (T)	CSMZ7 9AU (T)	CSMX7 9AV (S)	CSMX7 9AU (S)	CSMX5 9AV (S)	CSMX5 9AU (S)
Speeds	9-Speed		9-Speed		9-Speed		9-Speed	
Function	Super Fluid Drive		Super Fluid Drive		Super Fluid Drive		Super Fluid Drive	
Number of Teeth	11-34T	11-32T	11-34T	11-32T	11-34T	11-32T	11-34T	11-32T
Gear Combination	11-12-14-16--18-21-24-28-34	11-12-14-16--18-21-24-28-32	11-12-14-16--18-21-24-28-34	11-12-14-16--18-21-24-28-32	11-12-14-16--18-21-24-28-34	11-12-14-16--18-21-24-28-32	11-12-14-16--18-21-24-28-34	11-12-14-16--18-21-24-28-32
Sprocket Finish	(P) Titanium-Aluminum Nitride		(T) Titanium-Nitride		(S) Sandblast Satin		(S) Sandblast Satin	
Sprocket Material	Hi-Tensile Steel		Hi-Tensile Steel		Hi-Tensile Steel		Hi-Tensile Steel	
Light Weight Holes	●		●		●		●	
Spider Spacer	●		●		●		×	
Spacer Material	Spider Carrier 7075 Aluminum / Black Anodized						Aluminum / Silver Anodized	
Lock Ring	Aluminum / Black Anodized						Aluminum / Black Anodized	
Chain Compatibility	6.6mm		6.6mm		6.6mm		6.6mm	
Average Weight	287g	275g	287g	275g	287g	275g	357g	345g



Cassettes

Model No.	CSM96 9AV (S)	CSM96 9AU (S)	CSM9S 9AU (U)
Speeds	9-Speed		9-Speed
Function	Super Fluid Drive		Super Fluid Drive
Number of Teeth	11-34T	11-32T	11-32T
Gear Combination	11-12-14-16--18-21-24-28-34	11-12-14-16--18-21-24-28-32	11-12-14-16--18-21-24-28-32
Sprocket Finish	(S) Sandblast Satin		(U) Zinc
Sprocket Material	Hi-Tensile Steel		Steel
Light Weight Holes	●		●
Spacer Material	Engineering Polymers		Engineering Polymers
Lock Ring	Steel		Steel
Chain Compatibility	6.6mm		6.6mm
Average Weight	358g	346g	336g

Model No.	CSM66 8AV(S)	CSM66 8AU(S)	CSM66 8AS(S)	CSM66 8BV(S)	CSM66 8BU(S)	CSM63 7AS(S)	CSM63 7BS(S)
Speeds	8-Speed			8-Speed		7-Speed	
Function	Super Fluid Drive			Super Fluid Drive		Super Fluid Drive	
Number of Teeth	11-34T	11-32T	11-28T	12-34T	12-32T	11-28T	12-28T
Gear Combination	11-13-15-18--21-24-28-34	11-13-15-18--21-24-28-32	11-12-14-16--18-21-24-28	12-14-16-18--21-24-28-34	12-14-16-18--21-24-28-32	11-13-15--18-21-24-28	12-14-16--18-21-24-28
Sprocket Finish	(S) Sandblast Satin			(S) Sandblast Satin		(S) Sandblast Satin	
Sprocket Material	Hi-Tensile Steel			Hi-Tensile Steel		Hi-Tensile Steel	
Light Weight Holes	●			●		●	
Spacer Material	Engineering Polymers			Engineering Polymers		Engineering Polymers	
Lock Ring	Steel			Steel		Steel	
Chain Compatibility	7.1~7.3mm			7.1~7.3mm		7.1~7.3mm	
Average Weight	346g	334g	265g	346g	334g	248g	258g

Model No.	CSM56 8AU(U)
Speeds	8-Speed
Function	Super Fluid Drive
Number of Teeth	11-32T
Gear Combination	11-13-15-18--21-24-28-32
Sprocket Finish	(U) Zinc
Sprocket Material	Steel
Light Weight Holes	●
Spacer Material	Engineering Polymers
Lock Ring	Steel
Chain Compatibility	7.1~7.3mm
Average Weight	334g

M Specifications

Freewheels

Model No.	MFE90 9CU (C) MFM90 9CU (C)	MFM90 9CU (U)	MFM60 8CV (C)	MFM60 8CV (U)	MFE60 8CU (C) MFM60 8CU (C)	MFM60 8CU (U)	MFE60 8CS (C) MFM60 8CS (C)	MFM60 8CS (U)
Speeds	9-Speed		8-Speed		8-Speed		8-Speed	
Lock Ring Type	●		●		●		●	
Function	Fluid Drive Plus		Fluid Drive Plus		Fluid Drive Plus		Fluid Drive Plus	
Number of Teeth	13-32T		13-34T		13-32T		13-28T	
Gear Combination	13-14-15-16-18-21-24-28-32		13-15-17-19-21-24-28-34		13-15-17-19-21-24-28-32		13-15-17-19-21-23-25-28	
Sprocket Finish	(C) Chrome Plated	(U) Zinc	(C) Chrome Plated	(U) Zinc	(C) Chrome Plated	(U) Zinc	(C) Chrome Plated	(U) Zinc
Sprocket Material	Steel		Steel		Steel		Steel	
Light Weight Holes	●		●		●		●	
Spacer Material	Engineering Polymers		Engineering Polymers		Engineering Polymers		Engineering Polymers	
Chain Compatibility	6.6mm		7.1~7.3mm		7.1~7.3mm		7.1~7.3mm	
Average Weight	563g		605g		580g		578g	

Model No.	MFM56 8CV (U)	MFM4S 7CV (U)	MFM30 7CS (C)	MFM3S 7CS (U)	MFM20 6DS (U)
Speeds	8-Speed	7-Speed	7-Speed	7-Speed	6-Speed
Lock Ring Type	●	●	●	●	×
Function	Fluid Drive	Fluid Drive Plus	Fluid Drive Plus	Fluid Drive Plus	Fluid Drive Plus
Number of Teeth	13-34T	13-34T	13-28T	13-28T	14-28T
Gear Combination	13-15-17-19-21-24-28-34	13-15-17-19-21-24-34	13-15-17-19-21-24-28	13-15-17-19-21-24-28	14-16-18-21-24-28
Sprocket Finish	(U) Zinc + EDB	(U) Zinc + EDB	(C) Chrome Plated	(U) Zinc	(U) Zinc
Sprocket Material	Steel	Steel	Steel	Steel	Steel
Light Weight Holes	×	●	●	●	●
Spacer Material	Engineering Polymers	Engineering Polymers	Engineering Polymers	Engineering Polymers	Engineering Polymers
Chain Compatibility	7.1~7.3mm	7.3mm	7.3mm	7.3mm	7.3~7.8mm
Average Weight	609g	504g	460g	460g	433g



Freewheels

Model No.	MFM2A 7DV (3)	MFM2A 7DV (2)	MFM2A 7DS (1)	MFM2A 7DS (2)	MFM2A 6DS (1)	MFM2A 6DS (2)	MFM2A 5DS (1)	MFM2A 5DS (2)
Speeds	7-Speed		7-Speed		6-Speed		5-Speed	
Lock Ring Type	●		●		●		●	
Function	Fluid Drive		Fluid Drive		Fluid Drive		Fluid Drive	
Number of Teeth	14-34T		14-28T		14-28T		14-28T	
Gear Combination	14-16-18-20-22-24-34		14-16-18-20-22-24-28		14-16-18-20-24-28		14-16-20-24-28	
Sprocket Finish	(3) Zinc+EDB	(2) Brown+EDB	(1) Zinc	(2) Brown+EDB	(1) Zinc	(2) Brown+EDB	(1) Zinc	(2) Brown+EDB
Sprocket Material	Steel		Steel		Steel		Steel	
Spacer Material	Engineering Polymers		Engineering Polymers		Engineering Polymers		Engineering Polymers	
Chain Compatibility	7.3mm		7.3mm		7.3~7.8mm		7.8mm	
Average Weight	535g		495g		458g		416g	

Model No.	MFM05 7DS	MFM05 6DS	MFM05 5DS
Speeds	7-Speed	6-Speed	5-Speed
Lock Ring Type	×		
Function	Friction		
Number of Teeth	14-28T	14-28T	14-28T
Gear Combination	14-16-18-20-22-24-28	14-16-18-20-24-28	14-16-20-24-28
Sprocket Finish	(B) Black		
Sprocket Material	Steel		
Light Weight Holes	×		
Spacer Material	Engineering Polymers		
Chain Compatibility	7.3mm	7.3~7.8mm	7.8mm
Average Weight	480g	468g	432g

Rear Derailleurs

Model No.	RDMZ LD	RDMZ MD	RDMX LD	RDMX MD	RDM97 LD	RDM90 LD
Cage Type	(L) Long	(M) Medium	(L) Long	(M) Medium	(L) Long	(L) Long
Mounting Type	(D) Direct		(D) Direct		(D) Direct	(D) Direct
Speeds	9-Speed		9-Speed		9-Speed	9-Speed
Max. Sprocket	34T		34T		34T	32T
Min. Sprocket	11T		11T		11T	11T
Rear Capacity	23T		23T		23T	21T
Total Capacity	45T	33T	45T	33T	45T	41T
Outer Link	Aluminum Forged/ Anodized / CNC		Aluminum Forged/ Anodized / CNC		Aluminum	Aluminum
Inner Link	Aluminum Forged / Anodized		Aluminum Forged / Anodized		Steel	Steel
Bracket Body	Aluminum Forged / Anodized / CNC		Aluminum Forged / Anodized / CNC		Aluminum	Engineering Polymers
Plate Body	Aluminum Forged / Anodized / CNC		Aluminum Forged / Anodized / CNC		Aluminum	Engineering Polymers
Outer Plate Cage	Carbon		Aluminum / Anodized / CNC		Steel	Steel
Inner Plate Cage	Aluminum / Anodized		Aluminum / Anodized		Steel	Steel
Guide Pulley	11T / 7075 Aluminum / Cartridge Bearing		11T / 7075 Aluminum / Cartridge Bearing		11T (Bushing)	11T (Bushing)
Tension Pulley	11T / 7075 Aluminum / Cartridge Bearing		11T / 7075 Aluminum / Cartridge Bearing		11T (Bushing)	13T (Bushing)
Bracket Bolt	7075 Aluminum / Gold Anodized		7075 Aluminum / Black Anodized		Steel	Steel
Pin Bushing Outer Link	●		●		●	✕
Pin Bushing Inner Link	●		●		✕	✕
Cable Adjuster	✕		✕		●	●
Average Weight	241g	236g	252g	247g	243.5g	343g



Rear Derailleurs

Model No.	RDM63 LD	RDM56 LD
Cage Type	(L) Long	(L) Long
Mounting Type	(D) Direct	(D) Direct
Speeds	8-Speed	8-Speed
Max. Sprocket	34T	34T
Min. Sprocket	11T	11T
Rear Capacity	23T	23T
Total Capacity	43T	43T
Outer Link	Magnesium Alloy	Aluminum
Inner Link	Steel	Steel
Bracket Body	Engineering Polymers	Engineering Polymers
Plate Body	Engineering Polymers	Engineering Polymers
Outer Plate Cage	6061 Aluminum	Steel
Inner Plate Cage	Steel	Steel
Guide Pulley	11T(bushing)	11T(bushing)
Tension Pulley	13T(bushing)	13T(bushing)
Pin Bushing Outer Link	●	×
Pin Bushing Inner Link	×	×
Average Weight	292 g	343g

Model No.	RDM4S XD	RDM4S XB	RDM37 LD	RDM37 LB	RDM37 SD	RDM37 SB	RDM36 SD	RDM36 SB
Cage Type	(X) X-Long	(X) X-Long	(L) Long	(L) Long	(S) Short	(S) Short	(S) Short	(S) Short
Mounting Type	(D) Direct	(B) Bracket	(D) Direct	(B) Bracket	(D) Direct	(B) Bracket	(D) Direct	(B) Bracket
Speeds	7-Speed		7-Speed		7-Speed		6-Speed	
Max. Sprocket	34T		30T		30T		30T	
Min. Sprocket	13T		13T		13T		13T	
Rear Capacity	21T		17T		16T		16T	
Total Capacity	41T		37T		36T		36T	
Guide Pulley	11T (bushing)		11T		11T		11T	
Tension Pulley	15T (bushing)		11T		11T		11T	
Average Weight	245g	285g	230g	270g	225g	265g	225g	265g

Rear Derailleurs

Model No.	RDM2T LD	RDM2T LB	RDM2T SD	RDM2T SB	RDM15 LD	RDM15 LB	RDM15 SD	RDM15 SB
Cage Type	(L) Long	(L) Long	(S) Short	(S) Short	(L) Long	(L) Long	(S) Short	(S) Short
Mounting Type	(D) Direct	(B) Bracket	(D) Direct	(B) Bracket	(D) Direct	(B) Bracket	(D) Direct	(B) Bracket
Speeds	7 / 6-Speed		7 / 6-Speed		5-Speed		5-Speed	
Max. Sprocket	28T		28T		28T		28T	
Min. Sprocket	13T		13T		13T		14T	
Rear Capacity	15T		15T		15T		14T	
Total Capacity	35T		27T		35T		26T	
Average Weight	265g	290g	251g	276g	265g	290g	253g	278g

Model No.	RDM10 LD	RDM10 LB
Cage Type	(L) Long	(L) Long
Mounting Type	(D) Direct	(B) Bracket
Speeds	Friction	
Max. Sprocket	28T	
Min. Sprocket	13T	
Rear Capacity	15T	
Total Capacity	35T	
Average Weight	265g	290g



Hubs

Model No.	HBMD7		HBMZ7		HBMX7	
	F	R9	F	R9	F	R9
Cassette Carrier Material	---	7075 Aluminum	---	7075 Aluminum	---	7075 Aluminum
Cassette Carrier System	---	3 Pawls	---	3 Pawls	---	3 Pawls
Hub Shell Material	6061 Aluminum		6061 Aluminum		6061 Aluminum	
Bearing	Cartridge(□2)	Cartridge(□5)	Cartridge(□2)	Cartridge(□4)	Cartridge(□2)	Cartridge(□4)
D-Dimension	---	41mm	---	41mm	---	41mm
Axle Diameter	20mm	12mm	9mm	10mm	9mm	10mm
Over Lock Dimension	110mm	150mm	100mm	135mm	100mm	135mm
Hub Axle Material	---	SCM435	7075 Aluminum		7075 Aluminum	
Hub Axle Length	148mm	150mm	110mm	145mm	110mm	145mm
Spoke Holes	32H		32H		32H	
Pitch Circle Diameter	58mm		R38.5mm / L58mm	R48mm / L58mm	R38.5mm / L58mm	R45.5mm / L58mm
Flange Width	56.5mm	74.4mm	56mm	56.7mm	56mm	56.9mm
QR Lever Material	6061 Aluminum	6061 Aluminum	6061 Aluminum		6061 Aluminum	
QR Nut Material	6061 Aluminum	6061 Aluminum	6061 Aluminum		6061 Aluminum	
QR Axle Material	6061 Aluminum / SCM435	SCM435	Titanium		SCM435	
QR Axle Length	148mm	166mm	112mm	149mm	112mm	149mm
Finish	Gold Anodized		Gold Anodized		Black Anodized	
Average Weight	386.5g(W/QR)	694.5g(W/QR)	197.5g(W/QR)	342.5g(W/QR)	206.5g(W/QR)	354.5g(W/QR)

Hubs

Model No.	HBM96		HBM63		HBM53	
	F	R9	F	R8	F	R8
Cassette / Freewheel	---	SCM435	---	Cassette	---	Cassette
Double Rubber Seal	---	3 Pawls	○		○	
Hub Shell Material	6061 Aluminum		6061 Aluminum		6061 Aluminum	
Bearing	Precision Ground Loose Ball		Precision Ground Loose Ball		Loose Ball	Loose Ball
D-Dimension	---	41mm	---	41mm	---	41mm
Axle Diameter	9mm	10mm	9mm	10mm	9mm	10mm
Over Lock Dimension	100mm	135mm	100mm	135mm	100mm	135mm
Hub Axle Material	7075 Aluminum		SCM435		SCM435	
Hub Axle Length	108mm	145mm	108mm	145mm	108mm	145mm
Spoke Holes	32H		32H/36H		32H/36H	
Pitch Circle Diameter	58mm	58mm	40mm	45.5mm	38.5mm	45.5mm
Flange Width	58mm	57mm	63.4mm	58mm	72mm	58mm
QR Lever Material	6061 Aluminum		6061 Aluminum		6061 Aluminum	
QR Nut Material	6061 Aluminum		6061 Aluminum		6061 Aluminum	
QR Axle Material	SCM435		SCM435		SCM435	
QR Axle Length	112mm	149mm	112mm	149mm	112mm	149mm
Finish	Black Anodized		Black Anodized		Natural Alloy	
Average Weight	304g(W/QR)	492g(W/QR)	250.5g(W/QR)	457g(W/QR)	220g(W/QR)	440g(W/QR)



Hubs

Model No.	HBM40(Q)			HBM40(A)	
	F	R7	R8	F	R7
Cassette / Freewheel	---	Freewheel		---	Freewheel
Hub Shell Material	6061 Aluminum			6061 Aluminum	
Bearing	Loose Ball			Loose Ball	
D-Dimension	---	38mm	41mm	---	38mm
Axle Diameter	9mm	10mm		3/8"	
Over Lock Dimension	100mm	135mm		100mm	135mm
Hub Axle Material	S45C			S45C	
Hub Axle Length	108mm	145mm		108mm	145mm
Spoke Holes	36H			36H	
Pitch Circle Diameter	38mm	45.5mm		38mm	45.5mm
Flange Width	72mm	57mm		72mm	57mm
QR Lever Material	6061 Aluminum			n/a (Nutted)	
QR Nut Material	6061 Aluminum				
QR Axle Material	SCM435				
QR Axle Length	112mm	149mm			
Finish	Natural Alloy			Natural Alloy	
Average Weight	210g(W/QR)	310g(W/QR)	310g(W/QR)	220g	390g

ST Shifter-Brake Levers

Model No.		STRZ		STRX	
		RT(10)	L2	RT(10)	L2
Speed	Rear	10-Speed	×	10-Speed	×
	Front	×	2-Speed	×	2-Speed
Max.Single-Stroke Shifts		3(rear)	1(front)	3(rear)	1(front)
Brake Lever		Carbon Reinforced Forged Aluminum		Aluminum Forged	
Shift Lever	Large Lever	Forged Aluminum		Forged Aluminum	
	Small Lever	Engineering Polymers		Engineering Polymers	
Cable Type		Stainless Steel		Stainless Steel	
Cable Length		2,100mm	1,650mm	2,100mm	1,650mm
Casing Compatibity		SP		SP	
Bracket		Engineering Polymers		Engineering Polymers	
Handle Bar Diameter		23.8~24.2mm		23.8~24.2mm	
Average Weight		383g(Pair)		387g(Pair)	

Model No.		STRS		STR90		STR97	STR80	
		RT(10)	L2	R9	LL	L3	R8	LL
Speed	Rear	10-Speed	×	9-Speed	×		8-Speed	×
	Front	×	2-Speed	×	2/3 Speed	3-Speed	×	2/3-Speed
Max.Single-Stroke Shifts		3(rear)	1(front)	3(rear)	1(front)	1(front)	3(rear)	1(front)
Brake Lever		Aluminum Forged		Aluminum Forged			Aluminum Forged	
Shift Lever	Large Lever	Rubber Cushioned		Rubber Cushioned			Rubber Cushioned	
	Small Lever	Engineering Polymers		Engineering Polymers			Engineering Polymers	
Cable Type		Stainless Steel		Stainless Steel			Stainless Steel	
Cable Length		2,100mm	1,650mm	2,100mm	1,650mm		2,100mm	1,650mm
Casing Compatibity		SP		SP			SP	
Bracket		Engineering Polymers		Engineering Polymers			Engineering Polymers	
Handle Bar Diameter		23.8~24.2mm		23.8~24.2mm			23.8~24.2mm	
Average Weight		418g(Pair)		418g(Pair)			418g(Pair)	



Thumb Shifters

Model No.		SLR90		SLR63		
		R9	LF	R8	LF	8F
Speed	Rear	9-Speed	×	8-Speed	×	8-Speed
	Front	×	Friction (3 / 2)	×	Friction (3 / 2)	Friction (3 / 2)
Mounting		(B) Brazed On Type 28.6mm / (C) Brazed On Type 44mm		(B) Brazed On Type 28.6mm / (C) Brazed On Type 44mm		(D) Down Tube 28.6mm Clamp / (G) Handlebar Stem 25.4mm Clamp / (H) 22.2mm Clamp
Cable Type		Slick-Galvanized		Slick-Galvanized		Slick-Galvanized
Cable Length		1,950mm	1,450mm	1,950mm	1,450mm	R:1,950mm / L:1,450mm
Casing Compatibity		SP	2P AND ↑	SP	2P AND ↑	R: SP / L: 2P AND ↑
Average Weight		56g		56g		(D) 119g / (G) (H) 134g

Model No.		SLR39						
		R7	R6	R5	LF	7F	6F	5F
Speed	Rear	7-Speed	6-Speed	5-Speed	×	7-Speed	6-Speed	5-Speed
	Front	×			Friction (3 / 2)	Friction (3 / 2)		
Mounting		(B) Brazed On Type 28.6mm / (C) Brazed On Type 44mm				(D) Down Tube 28.6mm Clamp / (G) Handlebar Stem 25.4mm Clamp / (H) 22.2mm Clamp		
Cable Type		Galvanized				Galvanized		
Cable Length		1,950mm			1,450mm	R:1,950mm / L:1,450mm		
Casing Compatibity		SP	2SP AND ↑		2P AND ↑	R: SP / L: 2P AND ↑	R: 2SP AND ↑ / L: 2P AND ↑	
Average Weight		56g				(D) 119g / (G) (H) 134g		

Model No.		SLR03	
		FF	RF
Speed	Rear	Friction (8 / 7 / 6)	
	Front	Friction (3 / 2)	×
Mounting		(D) Down Tube 28.6mm Clamp (H) Handlebar Stem 22.2mm Clamp	
Cable Type		Galvanized	
Cable Length		R:1,950mm / L:1,450mm	
Casing Compatibity		1P AND ↑	
Average Weight		(D) 78g / (H) 70g	(D) 45g / (H) 37g

Front Derailleurs

Model No.	FDRZ	FDRX	FDRS	FDR90
Rear Compatibility	10-Speed	10-Speed	10-Speed	9-Speed
Chainring Compatibility	Double	Double	Double	Double
Top Gear Teeth	56~50 T	56~50 T	56~50 T	56~50T
Capacity	16T	16T	16T	16T
Mounting	Brazed on	Brazed on	Band / (B) Brazed on	Band / (B) Brazed on
Band Diameter	×	×	(L) 34.9 / (M) 31.8mm*	(L) 34.9 / (M) 31.8mm*
Cable Routing	(B) Bottom Pull	(B) Bottom Pull	(B) Bottom Pull	(B) Bottom Pull
Band & Brazed on	Aluminum Forged	Aluminum Forged	Aluminum Forged	Aluminum Forged
Outer Link	Aluminum Forged	Aluminum Forged(W/CNC)	Aluminum Forged	Aluminum Forged
Inner Link	Aluminum Forged	Aluminum Forged	Aluminum Forged	Aluminum Forged
Chain Guide	Carbon Reinforced Steel	Steel / Chrome Plated	Steel / Chrome Plated	Steel / Chrome Plated
Applicable Chainline	43.5mm	43.5mm	43.5mm	43.5mm
Chain Stay Angle	61~66°	61~66°	61~66°	61~66°
Average Weight	101.5g	98.5g	110.5g / 99g(B)	110.5g / 99g(B)

* With Multi Clamp Band

Model No.	FDR97	FDR99	FDR80	FDR87
Rear Compatibility	9-Speed		8-Speed	
Chainring Compatibility	Triple		Double	Triple
Top Gear Teeth	52T	50T	56~50T	52T
Capacity	22T	20T	16T	22T
Mounting	Band / (B) Brazed on		Band / (B) Brazed on	
Band Diameter	(M) 31.8 / (S) 28.6mm*	(L) 34.9 / (M) 31.8mm*	(M)31.8 / (S) 28.6mm*	
Cable Routing	(B) Bottom Pull		(B) Bottom Pull	
Band & Brazed on	Aluminum Forged		Aluminum Forged	
Outer Link	Aluminum Forged		Aluminum Forged	
Inner Link	Aluminum Forged		Aluminum Forged	
Chain Guide	Steel / Chrome Plated		Steel / Chrome Plated	
Applicable Chainline	45mm		43.5mm	45mm
Chain Stay Angle	63~66°		61~66°	63~66°
Average Weight	131g / 119.5g(B)	114g / 99g(B)	114g / 99g(B)	115g / 100g(B)

* With Multi Clamp Band



Front Derailleurs

Model No.	FDR31	FDM06
Rear Compatibility	7 / 6 / 5-Speed	6 / 5-Speed
Chain Ring	Double Friction	Double Friction
Top Gear Teeth	53 T	48T
Top-Low Max. Capacity	14 T	10T
Top-Low Min. Capacity	10 T	8T
Clamp Diameter	(M) 31.8 / (S)28.6mm	(S) 28.6mm
Cable Routing	(B) Bottom Pull	(B) Bottom Pull
Chain Stay Angle	63~66°	66~69°
Average Weight	150g	142g

R Specifications

Front Cranksets

Model No.		FCRZ1 (D1)	FCRZ3 (D1)	FCRZ6 (D1)	FCRZ7 (D1)	FCRX1 (D1)	FCRX3 (D1)	FCRX6 (D1)	FCRX7 (D1)	FCRS1 (S1)	FCRS6 (S1)
Compatibility		10-Speed				10-Speed				10-Speed	
Function		Super Fluid Drive				Super Fluid Drive				Super Fluid Drive	
Crank Arm Spline Type		Integrated ISIS External BB (D1)				Integrated ISIS External BB (D1)				Integrated ISIS External BB (S1)	
Number of Teeth		53-39T	52-39T	50-34T	50-36T	53-39T	52-39T	50-34T	50-36T	53-39T	50-34T
Outer Chainring		7075 Aluminum / Anodized / CNC				7075 Aluminum / Anodized / CNC				7075 Aluminum / Anodized	
Inner Chainring		7075 Aluminum / Anodized / CNC				7075 Aluminum / Anodized / CNC				7075 Aluminum / Anodized	
Removable Chainrings		●				●				●	
Crank Arms		Carbon				6061 Aluminum Forged / Anodized				6061 Aluminum Forged / Anodized	
Crank Arm Length		172.5mm				172.5mm				172.5mm	
Axle Material		Titanium				Chromoly				Chromoly	
Axle Bolt		7075 Aluminum				7075 Aluminum				7075 Aluminum	
Chainring Bolts & Nuts		7075 Aluminum / Gold Anodized				7075 Aluminum / Silver Anodized				7075 Aluminum / Silver Anodized	
Bolt Circle Diameter		130mm		110mm		130mm		110mm		130mm	110mm
Bottom Bracket (Included)	Model	BBRZ (D1)				BBRX (D1)				BBRS (S1)	
	Adapter	Aluminum / Gold Anodized				Aluminum / Silver Anodized				Aluminum / Black Anodized	
	Shell Width	BC - 68mm				BC - 68mm				BC - 68mm	
	Chain Line	43.5mm				43.5mm				43.5mm	
	Weight	127g				127g				127g	
Crank(R) Weight		474g	472g	464g	471g	558g	556g	516g	523g	558g	523g
Crank(L) Weight		165g	165g	165g	165g	242g	242g	242g	242g	242g	242g
Total Average Weight		766g	764g	756g	763g	927g	925g	885g	897g	927g	910g



Front Cranksets

Model No.		FCR9A	FCR9F	FCR91	FCR96	FCR97
Compatibility		9-Speed		9-Speed		
Function		Super Fluid Drive		Super Fluid Drive		
Crank Arm Spline Type		Square Taper		Square Taper		
Number of Teeth		53-39T	50-34T	53-39T	50-34T	52-42-30
Outer Chainring		7075 Aluminum / Anodized		Steel		
Inner Chainring		7075 Aluminum / Anodized		Steel		
Removable Chainrings		●		●		
Crank Arms		6061 Aluminum Forged / Anodized				
Crank Arm Length		172.5 / 170mm				
Chainring Bolts & Nuts		SCM435 Chromoly		SCM435 Chromoly		
Bolt Circle Diameter		130mm	110mm	130mm	110mm	130 / 74mm
Bottom Bracket (Optional)	Model	BBS20	BBS20	BBS15	BBS15	BBS15
	Shell Width	68mm(S)	68mm(S)	68mm(S)	68mm(S)	68mm(S)
	Spindle Length	111mm(F)	103mm(A)	111mm(F)	103mm(A)	111mm(F)
	Chain Line	43.5mm	43.5mm	43.5mm	43.5mm	45mm
Crank(R) Weight		488.5g	402g	678g	631g	861g
Crank(L) Weight		210.5g	200g	210.5g	200g	229g
Total Average Weight		699g	602g	888.5g	831g	1,090g

Model No.		FCR81	FCR83	FCR86	FCR87	FCR31	FCR33
Chain Compatibility		8-Speed		8-Speed		7-Speed	
Function		Super Fluid Drive		Super Fluid Drive		Friction	
Crank Arm Spline Type		Square Taper		Square Taper		Square Taper	
Number of Teeth		53-39T	52-42T	50-34T	52-42-30T	53-39T	52-42T
Outer Chainring		Steel		Steel		Steel	
Inner Chainring		Steel		Steel		Steel	
Removable Chainrings		●		●		●	
Crank Arms		6061 Aluminum Forged / Anodized		6061 Aluminum Forged / Anodized		6061 Aluminum Forged	
Crank Arm Length		170mm		170mm		170mm	
Chainring Bolts & Nuts		SCM435 Chromoly		SCM435 Chromoly		SCM435 Chromoly	
Bolt Circle Diameter		130mm		110mm	130 / 74mm	130mm	
Bottom Bracket (Optional)	Model	BBS15	BBS15	BBS15	BBS15	BBS15	BBS15
	Shell Width	68mm(S)	68mm(S)	68mm(S)	68mm(S)	68mm(S)	68mm(S)
	Spindle Length	107mm(B)	107mm(B)	103mm(A)	111mm(F)	107mm(B)	107mm(B)
	Chain Line	43.5mm	43.5mm	43.5mm	45mm	43.5mm	43.5mm
Crank(R) Weight		696g	689g	631g	861g	677g	670g
Crank(L) Weight		210g	210g	200g	229g	224g	224g
Total Average Weight		906g	899g	831g	1,090g	901g	894g

R Specifications

Cassettes

Model No.	CSRZ TAO	CSRZ TBO	CSRZ TBQ
Function	Fluid Drive Plus	Fluid Drive Plus	Fluid Drive Plus
Speeds	10-Speed	10-Speed	10-Speed
Number of Teeth	11-23T	12-23T	12-25T
Gear Combination	11-12-13-14-15-16-17-19-21-23	12-13-14-15-16-17-18-19-21-23	12-13-14-15-16-17-19-21-23-25
Sprocket Material	7075 Aluminum / CNC	7075 Aluminum / CNC	7075 Aluminum / CNC
Sprocket Finish	(M) Ceramic Coating	(M) Ceramic Coating	(M) Ceramic Coating
Light Weight Holes	N/A	N/A	N/A
Spacer Material	N/A	N/A	N/A
Lock Ring	Aluminum / Black Anodized	Aluminum / Black Anodized	Aluminum / Black Anodized
Chain Compatibility	5.9mm	5.9mm	5.9mm
Average Weight	105g	115g	120g

Model No.	CSR96 9AQ	CSR96 9BQ
Function	Fluid Drive Plus	Fluid Drive Plus
Speeds	9-Speed	9-Speed
Number of Teeth	11-25T	12-25T
Gear Combination	11-12-13-15-17-19-21-23-25	12-13-14-15-17-19-21-23-25
Sprocket Material	Steel	Steel
Sprocket Finish	(S) Sandblast Satin	(S) Sandblast Satin
Light Weight Holes	●	●
Spacer Material	Engineering Polymers	Engineering Polymers
Lock Ring	Steel	Steel
Chain Compatibility	6.6mm	6.6mm
Average Weight	280g	290g

Model No.	CSR86 8AO	CSR86 8BQ
Function	Fluid Drive Plus	
Speeds	8-Speed	
Number of Teeth	11-23T	12-25T
Gear Combination	11-12-13-15-17-19-21-23	12-13-15-17-19-21-23-25
Sprocket Material	Steel	
Sprocket Finish	(S) Sandblast Satin	
Light Weight Holes	●	
Spacer Material	Engineering Polymers	
Lock Ring	Steel	
Chain Compatibility	7.1~7.3mm	
Average Weight	235g	281g



Cassettes

Model No.	CSR63 7AP (S)	CSR63 7BP (S)
Function	Fluid Drive Plus	Fluid Drive Plus
Speeds	7-Speed	7-Speed
Number of Teeth	11-24T	12-24T
Gear Combination	11-12-14-16-18-21-24	12-13-14-16-18-21-24
Sprocket Material	Steel	Steel
Sprocket Finish	(S) Sandblast Satin	(S) Sandblast Satin
Light Weight Holes	●	●
Spacer Material	Engineering Polymers	Engineering Polymers
Lock Ring	Steel	Steel
Chain Compatibility	7.1~7.3mm	7.1~7.3mm
Average Weight	190g	208g

Freewheels

Model No.	MFR30 7CQ (C)	MFR3S 7CP (1)	MFR2A 6DP (2)
Speeds	7-Speed	7-Speed	6-Speed
Function	Fluid Drive	Fluid Drive	Fluid Drive
Lockring Type	●	●	●
Number of Teeth	13-25T	13-24T	14-24T
Gear Combination	13-15-17-19-21-23-25	13-14-16-18-20-22-24	14-16-18-20-22-24
Sprocket Finish	(C) Chrome / (U) Zinc	(1) Zinc	(2) Brown + EDB
Sprocket Material	Steel	Steel	Steel
Spacer Material	Engineering Polymers	Engineering Polymers	Engineering Polymers
Chain Compatibility	7.3mm	7.3mm	7.3~7.8mm
Average Weight	440g	430g	393g

R Specifications

Rear Derailleurs

Model No.	RDRZ1 SD	RDRX SD	RDRS SD	RDR90 SD	RDR90 LD
Cage Type	(S) Short	(S) Short	(S) Short	(S) Short	(L) Long
Mounting Type	(D) Direct	(D) Direct	(D) Direct	(D) Direct	(D) Direct
Speeds	10 / 9-Speed	10 / 9-Speed	10 / 9-Speed	9-Speed	
Max. Sprocket	27T	27T	27T	27T	27T
Min. Sprocket	11T	11T	11T	11T	11T
Rear Capacity	16T	16T	16T	16T	22T
Total Capacity	29T	29T	29T	29T	37T
Outer Link	Carbon Reinforced Aluminum	Aluminum	Aluminum	Aluminum	
Inner Link	Aluminum	Aluminum	Aluminum	Aluminum	
Bracket Body	Aluminum	Aluminum	Aluminum	Aluminum	
Plate Body	Aluminum	Aluminum	Aluminum	Aluminum	
Outer Plate Cage	Carbon	Aluminum / Anodized / CNC	Aluminum / Anodized	Steel	
Inner Plate Cage	Aluminum	Aluminum	Aluminum	Steel	
Bracket Bolt	7075 Aluminum / Gold Anodized	7075 Aluminum / Black Anodized	7075 Aluminum / Anodized	Steel	
Guide Pulley	11T / 7075 Aluminum / Sealed Cart. Bearing	11T / 7075 Aluminum / Sealed Cart. Bearing	11T	11T	
Tension Pulley	11T / 7075 Aluminum / Sealed Cart. Bearing	11T / 7075 Aluminum / Sealed Cart. Bearing	11T	11T	
Average Weight	194g	197.5g	195g	252g	273.5g

Model No.	RDR86 SD	RDR86 LD	RDR31 SD
Cage Type	(S) Short	(L) Long	(S) Short
Mounting Type	(D) Direct	(D) Direct	(D) Direct
Speeds	8-Speed	8-Speed	7-Speed
Max. Sprocket	27T	27T	24T
Min. Sprocket	11T	11T	11T
Rear Capacity	16T	16T	17T
Total Capacity	29T	37T	29T
Outer Link	Aluminum	Aluminum	Steel
Inner Link	Steel	Steel	Steel
Bracket Body	Aluminum	Aluminum	Aluminum
Plate Body	Aluminum	Aluminum	Engineering Polymers
Outer Plate Cage	Steel	Steel	Steel
Inner Plate Cage	Steel	Steel	Steel
Bracket Bolt	Steel	Steel	Steel
Guide Pulley	11T	11T	10T
Tension Pulley	11T	11T	10T
Average Weight	287g	308.5g	265g

Model No.	RDM10 SD	RDM10 SB
Cage Type	(S) Short	(S) Short
Mounting Type	(D) Direct	(B) Bracket
Speeds	Friction	
Max. Sprocket	28T	
Min. Sprocket	14T	
Rear Capacity	14T	
Total Capacity	24T	
Average Weight	255g	280g



Brake Levers & Calipers

Model No	BCRS	BCR90	BCR80	BCR30
Type	Dual-pivot device	Dual-pivot device	Dual-pivot device	Dual-pivot device
Reach	39~49mm	39~49mm	39~49mm	39~49mm
Quick Release	●	●	●	×
Arm Material	Forged aluminum	Forged aluminum	Forged aluminum	Forged aluminum
Pads	Adjustable angle cartridge pad	Cartridge pad	Normal pad	Normal pad
Finish	High-polish silver anodized	High-polish silver anodized	High-polish silver anodized	High-polish silver anodized
Average Weight	184g (Wheel)	184g (Wheel)	181g (Wheel)	176g (Wheel)

Model No	BLR31	BLR03	BLR02
Return spring	●	×	×
Bar Diameter	22.2-23.8mm	22.2-23.8mm	22.2-23.8mm
Lever Material	Forged aluminum	Forged aluminum	Forged aluminum
Bracket Materal	Super Nylon composite	Forged aluminum	Forged aluminum
Cover Materal	Rubber	×	×
Finish	Anodized	Anodized	Anodized
Average Weight	248g (Pair)	270g (Pair)	164g (Pair)

Specifications

Bottom Brackets [ISIS]

Model No.		BBI40	BBI30	BBI20	BBI10
Type		ISIS	ISIS	ISIS	ISIS
Material	Axle	SCM435(Hollow)	SCM435(Hollow)	SCM435(Hollow)	SCM435(Hollow)
	Cups	Alloy W/Nylok	Alloy W/Nylok	Alloy W/Nylok	Steel
	Sleeve	Alloy	Engineering Polymers	Alloy(Cylindrical)	Steel(Cylindrical)
	Stopper	Steel	Alloy	SCM415	SCM415
Bearing		Sealed Cartridge x 4	Sealed Cartridge x 2	Sealed Cartridge x 2	Sealed Cartridge x 2
Shell Width		(S) 68 / (L) 73mm	(S) 68 / (L) 73mm	(S) 68 / (L) 73mm	(S) 68 / (L) 73mm
Spindle Length		(C)108* / (G)113 / (J) 118mm	(C)108* / (G)113 / (J) 118mm	(C)108* / (G)113 / (J) 118mm	(C)108* / (G)113 / (J) 118mm
Cup Thread		(B) BC 1.37 x 24T	(B) BC 1.37 x 24T / (M) M36 x 24T**	(B) BC 1.37 x 24T / (M) M36 x 24T**	(B) BC 1.37 x 24T / (M) M36 x 24T**
Axle Thread		M12 x P1.0	M15 x P1.0	M15 x P1.0	M15 x P1.0
Axle Bolt		Optional: BAI40	Optional: BAI30 / BAI20 / BAI10	Optional: BAI30 / BAI20 / BAI10	Optional: BAI30 / BAI20 / BAI10
Finish		Black	Black	Black	Black
Average Weight		366g(68/L113mm)	154g(68/L113mm)	236g(68/L113mm)	228g(68/L113mm)

*Only shell width 68mm

**Italian-Cup with All RH Thread

Bottom Brackets [Square Taper]

Model No.		BBS20	BBS15	BBS10	BBS05
Type		Square	Square	Square	Square
Material	Axle	SCM415(Hollow)	Steel	Steel	Steel
	Cups	Aluminum	Steel	R:Steel / L:Engineering Polymers	Steel (with Waterproof Seal)
	Sleeve	Aluminum (Cylindrical)	Steel(Cylindrical)	Steel(Cylindrical)	Engineering Polymers
	Stopper	Engineering Polymers	Engineering Polymers	Engineering Polymers	×
Bearing		Sealed Cartridge x 2	Sealed Cartridge x 2	Seal Cartridge x 2	Ball Cage
Shell Width		(S) 68 / (M) 70 / (L) 73mm	(S) 68 / (M) 70 / (L) 73mm	(S) 68 / (M) 70 / (L) 73mm	(S) 68 / (M) 70
Spindle Length		(A)103* / (B)107 / (F) 111/ (G) 113 / (5)115 / (H)116 / (J)118 / (K)119 / (N) 122 / (U) 127mm	(A)103* / (B)107 / (F) 111/ (G) 113 / (5)115 / (H)116 / (J)118 / (K)119 / (N) 122 / (U) 127mm	(A)103* / (B)107 / (F) 111/ (G) 113 / (5)115 / (H)116 / (J)118 / (K)119 / (N) 122 / (U) 127mm	(I)117.5 / (Q)124
Cup Thread		(B) BC 1.37 x 24T / (M) M36 x 24T**	(B) BC 1.37 x 24T / (M) M36 x 24T**	BC 1.37 x 24T(B) / M36 x 24T(M)**	(B) BC 1.37 x 24T / (M) M36 x 24T**
Axle Thread		M8 x P1.0	M8 x P1.0	M8 x P1.0	M8 x P1.0
Axle Bolt		Standard: BAS05 / Optional: BAS15	Standard: BAS05 / Optional: BAS15	Standard: BAS05 / Optional: BAS15	Standard: BAS05 / Optional: BAS15
Finish		Silver	Black	Black	Black
Average Weight		252g(68/L113.5mm)	338g(68/L113.5mm)	324g(68/L113.5mm)	360g(68/L120mm)

*Only shell width 68mm.

**Italian-Cup with All RH Thread.



Chains

Model	CNR1Z (T)	CNR1X (S)	CNR10 (S)
Speed	10-Speed	10-Speed	10-Speed
Pitch	1/2" x 11/128"	1/2" x 11/128"	1/2" x 11/128"
Pin Material	Chromized SCM / Hollow Pin	Chromized SCM / Hollow Pin	Chromized SCM / Hollow Pin
Pin Power	300kgf	300kgf	300kgf
Outer Plate Material	SCM435 Hollow Plate	SCM435 Hollow Plate	SCM435
Inner Plate Material	SCM430 Hollow Plate	SCM430 Hollow Plate	SCM430
Tensile Strength	920kgf	920kgf	920kgf
Finish	(T) Titanium-Nitride	(S) Chrome	(S) Chrome
Connect End Pin	×	×	×
Connect Guide Pin	CNP10 (included)	CNP10 (included)	CNP10 (included)
Connect Easy Link	CNQ10 (option)	CNQ10(option)	CNQ10 (option)
Average Weight	244g (110 Links)	244g (110 Links)	246g (110 Links)

Model	CNM9Z (T)	CNM9X (S)	CNM99 (S)	CNM99 (Y)	CNM94 (S)	CNM94 (Y)
Speed	9-Speed	9-Speed	9-Speed		9-Speed	
Pitch	1/2" x 11/128"	1/2" x 11/128"	1/2" x 11/128"		1/2" x 11/128"	
Pin Material	Chromized SCM / Hollow Pin	Chromized SCM / Hollow Pin	Chromized SCM / Hollow Pin		Chromized SCM	
Pin Power	300kgf	300kgf	300kgf		300kgf	
Outer Plate Material	SCM435 Hollow Plate	SCM435 Hollow Plate	SCM435		SCM435	
Inner Plate Material	SCM430 Hollow Plate	SCM430 Hollow Plate	SCM430		SCM430	
Tensile Strength	1,000kgf	1,000kgf	1,000kgf		1,000kgf	
Finish	(T) Titanium-Nitride	(S) Chrome	(S) Chrome	(Y) Gray	(S) Chrome	(Y) Gray
Connect End Pin	×	×	×		●	
Connect Guide Pin	CNP09 (included)	CNP09 (included)	CNP09 (included)		CNP09 (option)	
Connect Easy Link	CNQ09 (option)	CNQ09 (option)	CNQ09 (option)		CNQ09 (option)	
Average Weight	254g (110 Links)	254g (110 Links)	256g (110 Links)		273g (110 Links)	

Model	CNM89 (S)	CNM89 (Y)	CNM84 (S)	CNM84 (Y)	CNM54 (Y)	CNM22 (B)
Speed	8-Speed		8-Speed		7 / 6-Speed	Friction
Pitch	1/2" x 3/32"		1/2" x 3/32"		1/2" x 3/32"	1/2" x 3/32"
Pin Material	Chromized SCM / Hollow Pin		SCM420		SAE1022	SAE1022
Pin Power	200kgf		200kgf		150kgf	150kgf
Outer Plate Material	SAE1035		SAE1035		SAE1008	SAE1008
Inner Plate Material	SAE1035		SAE1035		SAE1008	SAE1008
Tensile Strength	920kgf		920kgf		920 kgf	820 kgf
Finish	(S) Chrome	(Y) Gray	(S) Chrome	(Y) Gray	(Y) Gray	(B) Black
Connect End Pin	●		●		●	●
Connect Guide Pin	×		×		×	×
Connect Easy Link	CNQ87 (option)		CNQ87 (option)		CNQ87 (option)	×

Specifications

Chains

Model	CNS22 (D)	CNS10 (D)	CNS10 (B)
Speed	Single / Internal Gear Hub	Single / Internal Gear Hub	Single / Internal Gear Hub
Pitch	1/2" x 3/32"	1/2" x 1/8"	1/2" x 1/8"
Pin Material	SAE1022	SAE1022	SAE1022
Pin Power	80kgf	80kgf	80kgf
Outer Plate Material	SAE1008	SAE1008	SAE1008
Inner Plate Material	SAE1008	SAE1008	SAE1008
Tensile Strength	820kg	1,000kgf	1,000kgf
Finish	(D) Dacromet	(D) Dacromet	(B) Black
Connect End Pin	●	●	●
Connect Guide Pin	×	×	×
Connect Easy Link	×	×	×

Model	CNX46 (S)
Speed	Single / Fixed / BMX
Pitch	1/2" x 1/8"
Pin Material	SCM420
Pin Power	200kgf
Outer Plate Material	SAE1035
Inner Plate Material	SAE1035
Tensile Strength	1,300kgf
Finish	(S) Chrome
Connect End Pin	●
Connect Guide Pin	×
Connect Easy Link	×

Guide Pins

Model	CNP10	CNP09
Chain Compatibility	10-Speed	9-Speed
Pin Width	6.0mm	6.7mm

Easy Links

Model	CNQ10	CNQ09	CNQ87
Chain Compatibility	10-Speed	9-Speed	8 / 7-Speed
Pitch	1/2" x 11/128"	1/2" x 11/128"	1/2" x 3/32"



Outer Casings

Model No.	OCS SP	OCR SP	OCS 2S	OCR 2S	OCS 2P	OCR 2P	OCS 1P
Type	SP		2SP		2P		1P
Application	Shift		Shift / Brake		Shift / Brake		Shift / Brake
Shifter Compatibility	Index - R10/R9/R8/R7/L3/LF		Index - R7/R6/R5/L3/LF		Friction - RF/LF		Friction - RF/LF
Outer Dimension	5mm	4mm	5mm	4mm	5mm	4mm	5mm
Inner Metal Lining	Straight Steel Wire		Curled Flat Steel Coil		Curled Flat Steel Coil		Curled Flat Steel Coil
Inner Plastic Lining	●		●		●		×
Ferrule Material	Brass	Plastic	Brass	Plastic	Brass	Plastic	Brass
Ferrule Finish	Chrome	Black	Chrome	Black	Chrome	Black	Chrome
Casing Length / Color	To Order		To Order		To Order		To Order

SUNRACE

M90 Avantgarde M90 SUNRACE M60 SUNRACE M50 SUNRACE M40 SUNRACE M30 SUNRACE M20 SUNRACE M05 SUNRACE

RS SUNRACE R90 SUNRACE R80 SUNRACE R60 SUNRACE R30 SUNRACE R03 SUNRACE

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NMZ NMX NRZ NRX

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