

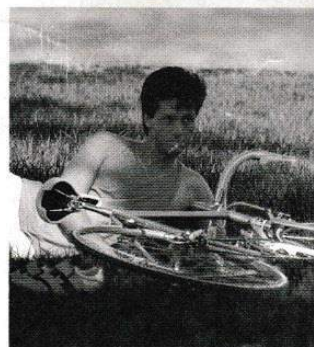
Dealer Catalog ENGLISH (E)



SHIMANO

BICYCLE SYSTEM COMPONENTS

1988



 **SHIMANO**

TABLE CONTENTS

Over the years SHIMANO has continually worked to improve and develop its components to fill the needs of demanding bicycle manufactures, dealers and riders.

We have been producing parts catalogs and technical information to supply you with the information you need to service our components for many years.

We hope this material has been valuable.

SHIMANO has felt it was necessary to supply up-to-date technical/parts information, in an easy to use system which could be up-dated with new service/parts bulletins as new products are introduced.

We hope this new SHIMANO DEALER CATALOG will be used to up-date your current technical/parts information and will continue to be an often used source of valuable information.

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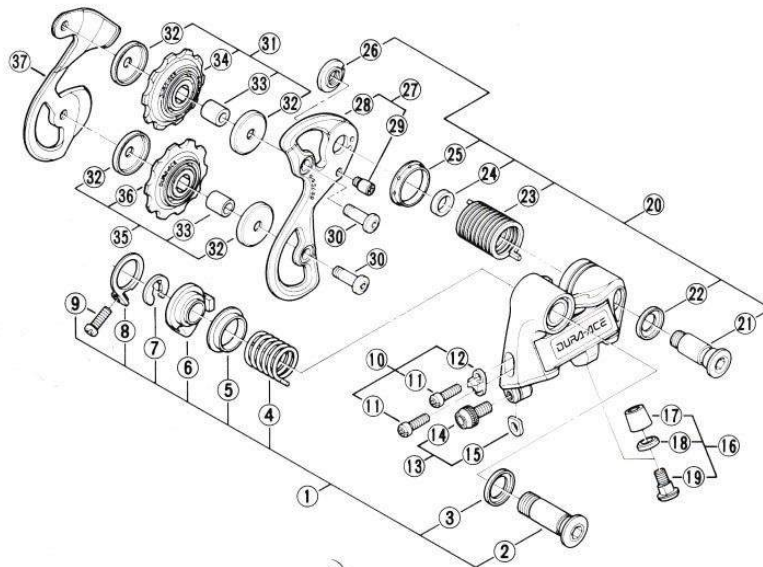
Rear Derailleur RD-7401



Rear Derailleur RD-7401

Specifications

- Features**
- 6-speed and 7-speed SIS Compatible (w/Dura-Ace shifting levers only)
 - Double Servo-Panta Mechanism, Centeron Guide Pulley, Sealed Mechanism, Sintered Alloy Guide Pulley Teeth, Ceramic Pulley Bushing, Brass Bushings & Stainless Steel Pins in Link Pivots, B-Tension Adjustment Bolt, Double Spoke Barrier
- Capacity**
- Minimum Rear Sprocket: 12T.
 - Maximum Rear Sprocket: 26T.
 - Maximum Front & Rear Sprocket Difference: 26T.
- Weight**
- 7.2 oz. (205g.)
- Material**
- Light Alloy • Color Anodized (Bracket & Plate Body)
 - Light Alloy • Inlaid Epoxy Finish (Right Link)
 - Light Alloy • Anodized Finish (Left Link, Right & Left Plate)



Dura-Ace (RD-7400 with B-Tension adjustment bolt)
Dura-Ace (RD-7400)
Shimano 600EX (RD-6208)

Dura-Ace (RD-7400 with B-Tension adjustment bolt)
Dura-Ace (RD-7400)
Shimano 600EX (RD-6208)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-560 9820	Bracket Axle Assembly	A B
2	560 5300	Bracket Axle	A B
3	516 0300	Bracket Axle Collar	A A
4	516 3400	B-Tension Spring	A A
5	516 0400	B-Seal Ring	A A
6	3-560 9821	Bracket Axle Bushing	A B
7	516 0700	Stop Ring (φ6.5mm)	A A
8	516 0800	B-Tension Adjusting Plate	A A
9	000 1016	B-Tension Adjusting Bolt	A A
10	3-560 9813	Stroke Adjusting Screw & Plate	A A
11	560 0500	Stroke Adjusting Screw	A A B
12	560 0600	Stroke Adjusting Plate	A A
13	3-560 9810	Cable Adjusting Barrel & Plate	A A
14	3-560 9812	Cable Adjusting Barrel	A A
15	560 0800	Cable Adjusting Plate	A A
16	3-516 9803	Cable Fixing Bolt Unit	A A A
17	516 2200	Cable Fixing Nut	A A A
18	567 0700	Cable Fixing Plate	A A A
19	516 2100	Cable Fixing Bolt	A A A
20	3-560 9807-1	Plate Axle Assembly	A A
21	560 1200	Plate Mounting Bolt	A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
22	560 2600	Plate Mounting Collar A	A A
23	560 1500	P-Tension Spring	A A
24	541-2500	Plate Mounting Bush	A A
25	569 8200	Plate Mounting Sleeve	A A
26	528 1801	Plate Mounting Nut	A A
27	3-560 9822	Outer Plate & Plate stopper Screw	A
28	560 5508	Outer Plate	A
29	559 1900	Plate Stopper Screw	A B A
30	560 2400	Pulley Bolt	A B
31	3-560 9825	Guide Pulley	B B B
32	545 2801	Pulley Cap	B B
33	559 2300	Pulley Bushing	A B
34	3-560 9824	Guide Pulley	B B
35	3-560 9827	Tension Pulley Unit	B B
36	3-560 9826	Tension Pulley	B
37	560 5600	Inner Plate	A B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (RD-7401).

8606-E752A



Rear Derailleur

RD-5001 (Short Cage)

RD-5001-LS (Middle Cage)



Rear Derailleur

RD-5001 (Short Cage)

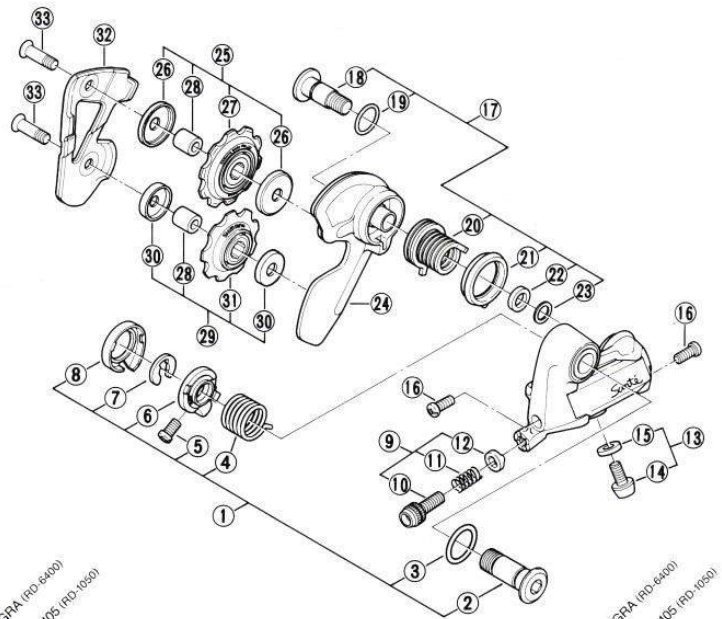
RD-5001-LS (Middle Cage)

■ Specifications

- Features
- 6-speed and 7-speed SIS Compatible
 - Double Servo-Pantograph Mechanism, Centeron Guide Pulley, Sealed Mechanism, Ceramic Guide Pulley Bushing, Brass Pivot Bushings, Stainless Steel Pivot Pins, Double Spoke Barrier, B-Tension Adjustment Bolt, Digital Cable Adjust Mechanism
- Capacity
- Minimum Rear Sprocket: 12T.
 - Maximum Rear Sprocket: 24T. (Short Cage), 23~28T. (Middle Cage)
 - Maximum Front & Rear Sprocket Difference: 24T. (Short Cage), 28T. (Middle Cage)
- Weight
- Short Cage: 6.7 oz. (191g.)
- Material
- Light Alloy•Silver Paint (Bracket & Plate),
 - Light Alloy•Pearl White Paint (Right Link),
 - Light Alloy•High-Tech Gray Paint (Right Pulley Cage),
 - Light Alloy•High-Tech Gray Anodized Finish (Left Link & Left Pulley Cage)



Short Cage



800 ULTEGRA (RD-6400)
Shimano 105 (RD-1050)

800 ULTEGRA (RD-6400)
Shimano 105 (RD-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-529 9850	Bracket Axle Assembly	
2	529 2300	Bracket Axle	
3	529 1700	O Shape Ring for Bracket Axle	
4	529 2400-1	B Tension Spring	
5	529 4500	B-Tension Adjusting Bolt	
6	3-529 9851	Stopper Plate Unit	
7	516 0700	Stop Ring (φ6.5mm)	
8	529 1800-1	Bracket Body Cover	
9	3-559 9802	Cable Adjusting Barrel Unit	A B
10	559 0300	Cable Adjusting Barrel	A
11	559 0500	Cable Adjusting Spring	A
12	559 0400	Cable Adjusting Plate	A
13	3-529 9804	Cable Fixing Bolt & Plate	
14	581 6500	Cable Fixing Bolt	
15	567 0700	Cable Fixing Plate	
16	000 1010	Stroke Adjusting Screw	
17	3-529 9852	Plate Axle Assembly	
18	529 2800-1	Plate Axle	
19	529 3300	O-Shape Ring for Plate Axle	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
20	529 2900-1	P-Tension Spring	
21	529 2600	Plate Mounting Collar	
22	529 2700-1	Plate Mounting Bush	
23	529 4400-1	Plate Mounting Shim	
24	3-529 9853	Outer Plate	
25	3-529 9801	Guide Pulley Unit	A B
26	545 2801	Guide Pulley Cap	A
27	3-559 9810	Guide Pulley	A
28	559 2300	Pulley Bush	A
29	3-529 9807	Tension Pulley Unit	
30	556 3000	Tension Pulley Cap	
31	3-529 9808	Tension Pulley	
32	529 3800	Inner Plate	
33	529 4000	Pulley Bolt	

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Santé (RD-5001).

8700-E840

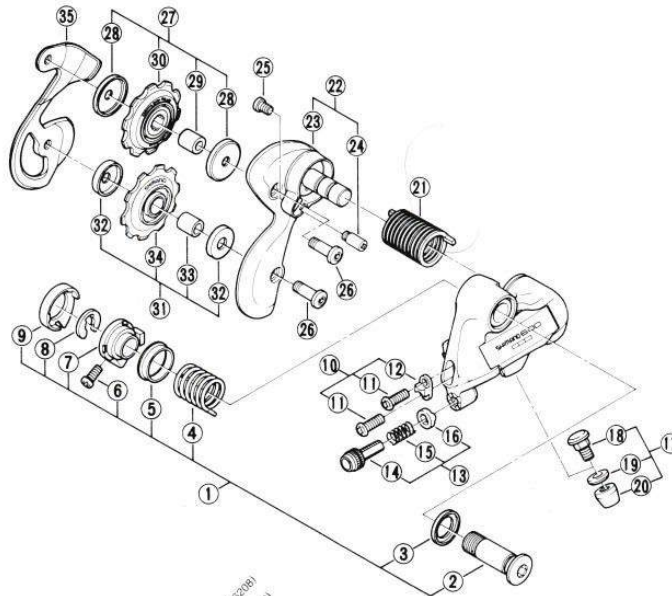
Rear Derailleur RD-6400



Rear Derailleur RD-6400

Specifications

- Features**
- 6-speed and 7-speed SIS Compatible.
 - Double Servo-Pantograph Mechanism, Centeron Guide Pulley, Sealed Mechanism, Ceramic Guide Pulley Bushing, Brass Pivot Bushings, Stainless Steel Pivot Pins, Double Spoke Barrier, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt
- Capacity**
- Minimum Rear Sprocket: 12T.
 - Maximum Rear Sprocket: 28T.
 - Maximum Front & Rear Sprocket Difference: 28T.
- Weight**
- 76 oz. (216g.)
- Material**
- Light Alloy • Dark Gray Paint (Bracket & Plate Body).
 - Light Alloy • Silver Paint (Right Link).
 - Light Alloy (Pulley Plates & Left Link)



Dura-Ace (RD-7401)
Shimano 600EX (RD-6200)
Shimano 105 (RD-1050)

Dura-Ace (RD-7401)
Shimano 600EX (RD-6200)
Shimano 105 (RD-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-530 9801	Bracket Axle Assembly	B B B
2	530 0200	Bracket Axle	
3	516 0300	Bracket Axle Collar	A A A
4	516 3400	B Tension Spring	A A
5	530 0300	B Seal Ring	
6	511 0501	B-Tension Adjusting Bolt	B
7	3-530 9802	Bracket Axle Bushing	
8	516 0700	Stop Ring (φ6.5mm)	A A A
9	530 0500	Bracket Body Cover	
10	3-530 9803	Stroke Adjusting Screw & Plate	
11	542 0500	Stroke Adjusting Screw	A A
12	560 0600	Stroke Adjusting Plate	A
13	3-559 9802	Cable Adjusting Barrel Unit	A B
14	559 0300	Cable Adjusting Barrel	A
15	559 0500	Cable Adjusting Spring	A
16	559 0400	Cable Adjusting Plate	A
17	3-516 9814	Cable Fixing Bolt Unit	A B A
18	546 2100	Cable Fixing Bolt	A A
19	567 0700	Cable Fixing Plate	A A A
20	557 0600	Cable Fixing Nut	A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
21	557 1000	P-Tension Spring	A
22	3-530 9805	Outer Plate w / Mounting Shaft & Plate Stopper Screw	
23	3-530 9806	Outer Plate w / Mounting Shaft	
24	557 1500	Plate Stopper Screw	B B A
25	557 1300	Plate Fixing Screw	A A
26	560 2400	Pulley Bolt	A
27	3-529 9806	Guide Pulley Unit	B A B
28	545 2801	Guide Pulley Cap	A A B
29	559 2300	Guide Pulley Bushing	A A
30	3-559 9810	Guide Pulley	B A
31	3-516 9812	Tension Pulley Unit	B B B
32	511 2701	Tension Pulley Cap	A B
33	511 2901	Tension Pulley Bushing	B A
34	3-516 9811	Tension Pulley	B B
35	559 2000	Inner Plate	B A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (RD-6400).

8709 E8320

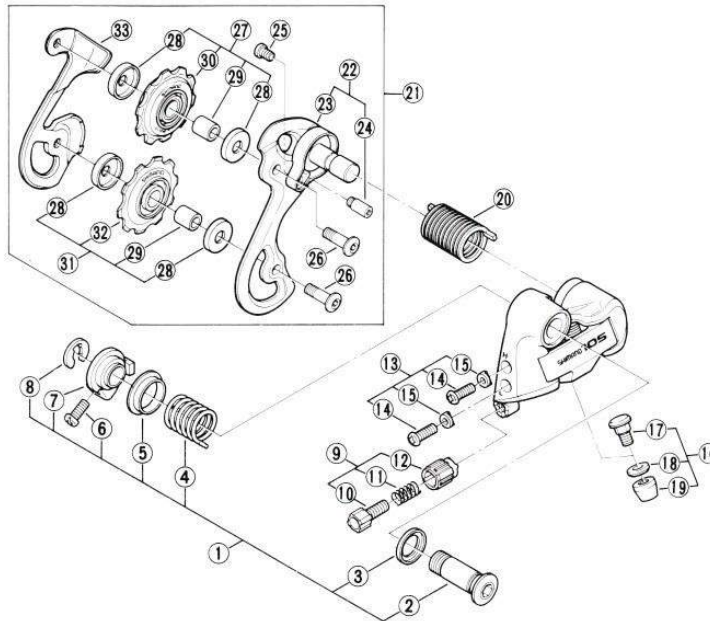
Rear Derailleur RD-1050



Rear Derailleur RD-1050

■ Specifications

- Features**
- 6-speed SIS Compatible
 - Double Servo-Panta Mechanism, Centeron Guide Pulley, Sealed Mechanism, Sintered Alloy Guide Pulley Bushing, Double Spoke Barrier, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt
- Capacity**
- Minimum Rear Sprocket: 12T.
 - Maximum Rear Sprocket: 28T.
 - Maximum Front & Rear Sprocket Difference: 28T.
 - Maximum Front Sprocket Difference: 13T.
- Weight**
- 9.1 oz. (257g.)
- Material**
- Light Alloy (Bracket & Plate Body)
 - Light Alloy • Dark Gray Metallic Finish (Right Link)



Shimano 600EX (RD-6300)
Old Shimano 105 (RD-A105)
Shimano L (RD-L250)

Shimano 600EX (RD-6300)
Old Shimano 105 (RD-A105)
Shimano L (RD-L250)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-516 9802	Bracket Axle Assembly	B A
2	516 0200	Bracket Axle	A A
3	516 0300	Bracket Axle Collar	A A
4	516 3400	B-Tension Spring	A A
5	516 0400	B-Seal Ring	A A
6	511 0500	B-Tension Adjusting Bolt	B B
7	3-559 9809	Bracket Axle Bushing	B A
8	516 0700	Stop Ring (φ6.5mm)	A A
9	3-516 9801	Cable Adjusting Barrel Unit	B A
10	516 0900	Cable Adjusting Barrel	A A
11	516 1000	Cable Adjusting Spring	A A
12	516 1100	Cable Adjusting Plate	A A
13	3-512 9801	Stroke Adjusting Screw & Plate	A A
14	542 0500	Stroke Adjusting Screw	A A
15	563 5000	Stroke Adjusting Plate	A A
16	3-516 9814	Cable Fixing Bolt Unit	B
17	546 2100	Cable Fixing Bolt	A
18	567 0700	Cable Fixing Plate	A A
19	557 0600	Cable Fixing Nut	B B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
20	557 1000	P-Tension Spring	
21	3-557 9803	Pulley Plate Assembly	
22	3-557 9802	Outer Plate w / Mounting Shaft & Plate Stopper Screw	
23	3-557 9801	Outer Plate w / Mounting Shaft	
24	557 1500	Plate Stopper Screw	
25	557 1300	Plate Fixing Screw	
26	569 5400	Pulley Bolt	A B B
27	3-563 9837	Guide Pulley Unit	B A
28	551 2700-1	Pulley Cap	A A
29	511 2901	Pulley Bushing	B B A
30	3-513 9817	Guide Pulley	B A
31	3-563 9839	Tension Pulley Unit	B A A
32	521 3100	Tension Pulley	B A A
33	539 2201	Inner Plate	A A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 105 (RD-1050).
8709-E763A

Rear Derailleur

RD-M730-GS (Long Cage)

RD-M730-SGS (Super Long Cage)



Rear Derailleur

RD-M730-GS (Long Cage)

RD-M730-SGS (Super Long Cage)

■ Specifications

Features ● 6-speed SIS Compatible

- Double Servo-Panta Mechanism, Centeron Guide Pulley, Ceramic Guide Pulley Bushing, Sealed Mechanism, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt, Brass Bushings & Stainless Steel Pins in Link Pivots, Double Spoke Barrier, Chain Retainer

Capacity ● Minimum Rear Sprocket: 12T.

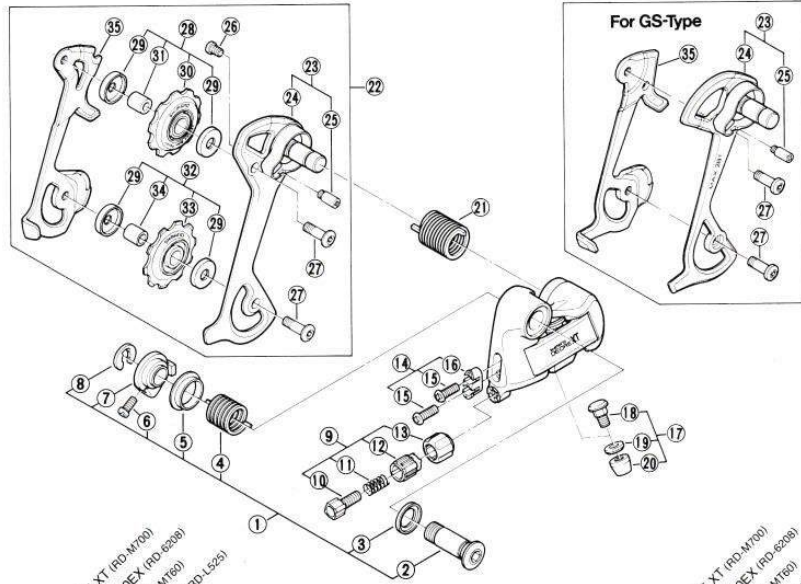
- Maximum Rear Sprocket: 28T. ~32T. (Super Long Cage)/(Using SFR, SF Fork Ends)
- Maximum Front & Rear Sprocket Difference: 38T. (Super Long Cage)

Weight ● Super Long Cage: 9.3 oz. (265g.)

Material ● Light Alloy (Bracket & Plate Body, Pulley Plate),
● Light Alloy+Black Finish (Right Link)



RD-M730-SGS



Old DEORE XT (RD-M700)
Shimano 600EX (RD-620B)
DEORE (RD-M760)
Shimano L (RD-L525)

Old DEORE XT (RD-M700)
Shimano 600EX (RD-620B)
DEORE (RD-M760)
Shimano L (RD-L525)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-550 9804	Bracket Axle Assembly	A
2	516 0210	Bracket Axle	A A A
3	516 0300	Bracket Axle Collar	A A A
4	556 0200	B-Tension Spring	A A
5	516 0400	B-Seal Ring	A A A
6	556 2500	B-Tension Adjusting Bolt	A
7	3-556 9809	Bracket Axle Bushing	B A A
8	516 0700	Stop Ring (φ6.5mm)	A A A
9	3-556 9807	Cable Adjusting Barrel Unit	B B B
10	516 0900	Cable Adjusting Barrel	A A
11	516 1000	Cable Adjusting Spring	A A A
12	516 1101	Cable Adjusting Plate	A B
13	556 0300	Cable Adjusting Cap	
14	3-559 9803	Stroke Adjusting Screw & Plate	A A
15	542 0500	Stroke Adjusting Screw	A A
16	559 0200	Stroke Adjusting Plate	A A
17	3-546 9814	Cable Fixing Bolt Unit	B A A
18	546 2100	Cable Fixing Bolt	A A A
19	567 0700	Cable Fixing Plate	A A A
20	557 0600	Cable Fixing Nut	B B A
21	556 1300	P-Tension Spring	A
22	3-556 9820	Pulley Plate Assembly for GS-Type	
	3-556 9808	Pulley Plate Assembly for SGS-Type	B
23	3-556 9821	Outer Plate (GS-Type) & Plate Stopper Screw	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
23	3-556 9803	Outer Plate (SGS-Type) & Plate Stopper Screw	B
	3-556 9822	Outer Plate w / Mounting Shaft for GS-Type	
24	3-556 9802	Outer Plate w / Mounting Shaft for SGS-Type	B
25	557 1500	Plate Stopper Screw	A
26	557 1300	Plate Fixing Screw	A
27	560 2400	Pulley Bolt for GS-Type	
	569 5400	Pulley Bolt for SGS-Type	B A A B
28	3-556 9805	Guide Pulley Unit	B B B
29	556 3000	Pulley Cap	B B B
30	3-556 9804	Guide Pulley	
31	559 2300	Guide Pulley Bushing	A
32	3-556 9806	Tension Pulley Unit	B A B B
33	521 3102	Tension Pulley	B A B B
34	511 2900	Tension Pulley Bushing	A A A A
	511 0401	Inner Plate for GS-Type	
35	556 0900	Inner Plate for SGS-Type	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE XT (RD-M730).
8709-E774E

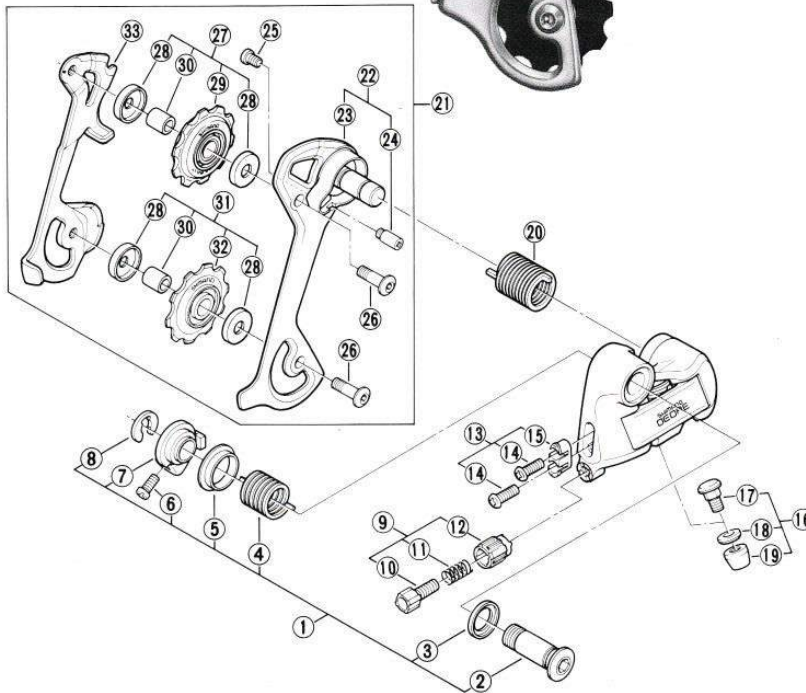
Rear Derailleur RD-MT60



Rear Derailleur RD-MT60

Specifications

- Features**
- 6-speed SIS Compatible
 - Double Servo-Panta Mechanism, Centeron Guide Pulley, Sealed Mechanism, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt, Brass Pivot Bushings & Heat Treated Steel Pins in Link Pivots, Double Spoke Barrier, Chain Retainer
- Capacity**
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 28T. ~32T. (Using SFR, SF Fork Ends)
 - Maximum Front & Rear Sprocket Difference: 38T.
- Weight**
- 11.0 oz. (311g.)
- Material**
- Light Alloy



DEORE XT (RD-M730)
Shimano L (RD-L525)

DEORE XT (RD-M730)
Shimano L (RD-L525)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-550 9804	Bracket Axle Assembly	A
2	516 0210	Bracket Axle	A A
3	516 0300	Bracket Axle Collar	A A
4	556 0200	B-Tension Spring	A
5	516 0400	B-Seal Ring	A A
6	556 2500	B-Tension Adjusting Bolt	A
7	3-556 9809	Bracket Axle Bushing	A B
8	516 0700	Stop Ring (φ6.5mm)	A A
9	3-550 9805	Cable Adjusting Barrel Unit	A B
10	516 0900	Cable Adjusting Barrel	A A
11	516 1000	Cable Adjusting Spring	A A
12	516 1101	Cable Adjusting Plate	A B
13	3-559 9803	Stroke Adjusting Screw & Plate	A
14	542 0500	Stroke Adjusting Screw	A
15	559 0200	Stroke Adjusting Plate	A
16	3-546 9814	Cable Fixing Bolt Unit	A
17	516 2100	Cable Fixing Bolt	A
18	567 0700	Cable Fixing Plate	A
19	557 0600	Cable Fixing Nut	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
20	556 1300	P-Tension Spring	A
21	3-550 9801	Pulley Plate Assembly	B
22	3-550 9802	Outer Plate w / Mounting Shaft & Plate Stopper Screw	B
23	3-550 9803	Outer Plate w / Mounting Shaft	B
24	557 1500	Plate Stopper Screw	A
25	557 1300	Plate Fixing Screw	A
26	569 5400	Pulley Bolt	A B
27	3-563 9837	Guide Pulley Unit	B A
28	511 2700-I	Pulley Cap	B B
29	3-513 9817	Guide Pulley	A A
30	511 2901	Pulley Bushing	A A
31	3-563 9839	Tension Pulley Unit	B A
32	521 3100	Tension Pulley	B A
33	556 0900	Inner Plate	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE (RD-MT60).

8709-E793B

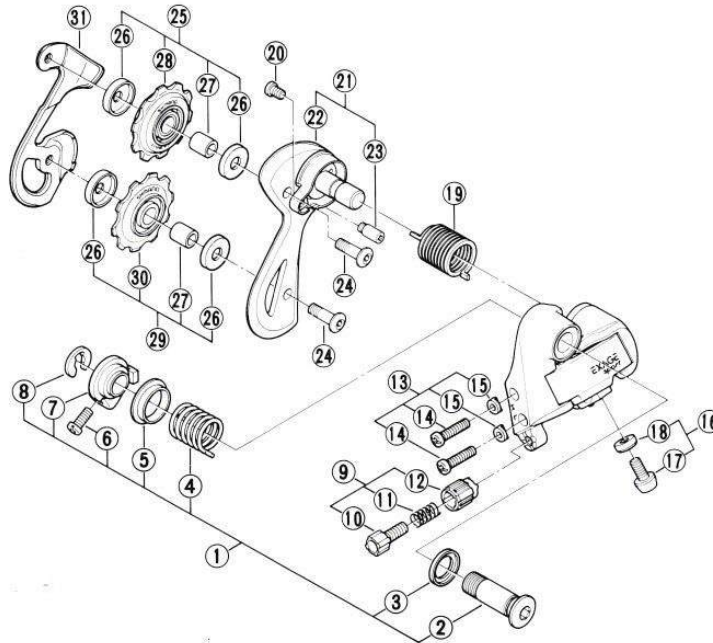
Rear Derailleur
RD-A450



Rear Derailleur
RD-A450

■ Specifications

- Features
- 6-speed SIS Compatible
 - Pre-Select Mechanism (Cable Saver Arm), Double Servo-Panta Mechanism, Double Spoke Barrier, Sealed Mechanisms, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt
- Capacity
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 28T.
 - Maximum Front & Rear Sprocket Difference: 28T.
- Weight
- 10.7 oz. (302g.)
- Material
- Light Alloy•Cosmos Blue Metallic Finish (Bracket & Plate Body)
 - Steel•Silver Finish (Right & Left Links)
 - Steel•Pearl Bright Finish (Pulley Plates)



ITEM NO.	PART NO.	DESCRIPTION
1	3-51A 9803	Bracket Axle Assembly
2	530 0201	Bracket Axle
3	516 0300	Bracket Axle Collar
4	516 3101	B-Tension Spring
5	516 0400	B-Seal Ring
6	511 0500	B-Tension Adjusting Bolt
7	3-559 9809	Bracket Axle Bushing
8	516 0700	Stop Ring (φ6.5mm)
9	3-516 9801	Cable Adjusting Barrel Unit
10	516 0900	Cable Adjusting Barrel
11	516 1000	Cable Adjusting Spring
12	516 1100	Cable Adjusting Plate
13	3-563 9840	Stroke Adjusting Screw & Plate
14	541 1800	Stroke Adjusting Screw
15	563 5000	Stroke Adjusting Plate
16	3-563 9841	Cable Fixing Bolt & Plate

ITEM NO.	PART NO.	DESCRIPTION
17	581 6500	Cable Fixing Bolt
18	563 6300	Cable Fixing Plate
19	530 1600	P-Tension Spring
20	557 1300	Plate Fixing Screw
21	3-51A 9801	Outer Plate w / Mounting Shaft & Plate Stopper Screw
22	3-51A 9802	Outer Plate w / Mounting Shaft
23	557 1500	Plate stopper Screw
24	569 5100	Pulley Bolt
25	3-563 9837	Guide Pulley Unit
26	511 2700-1	Pulley Cap
27	511 2901	Pulley Bushing
28	3-513 9817	Guide Pulley
29	3-563 9839	Tension Pulley Unit
30	521 3100	Tension Pulley
31	539 2202	Inner Plate

8710-E863

Rear Derailleur

RD-M450-GS (Long Cage)

RD-M450-SGS (Super Long Cage)



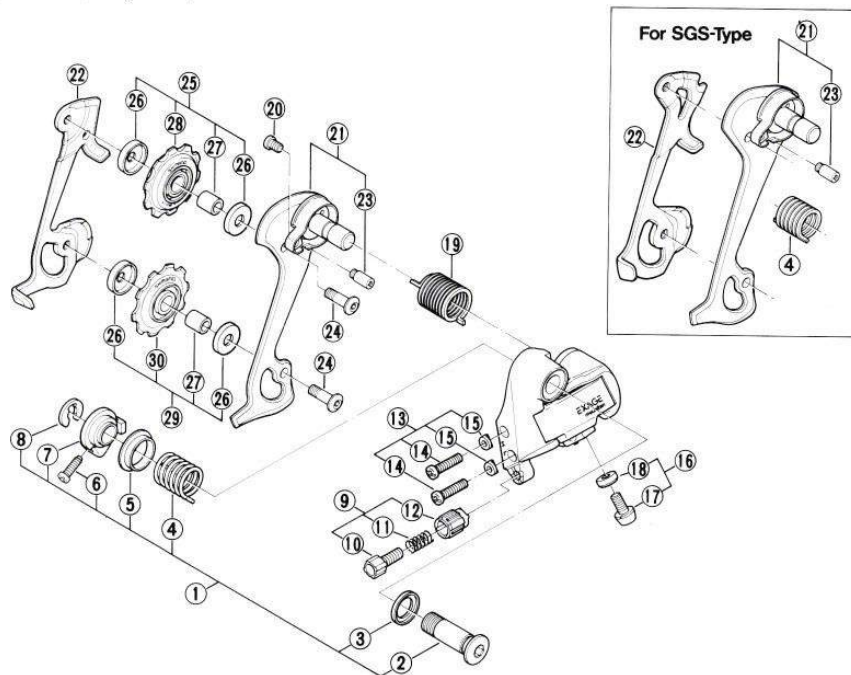
Rear Derailleur

RD-M450-GS (Long Cage)

RD-M450-SGS (Super Long Cage)

■ Specifications

- Features
- 6-speed SIS Compatible
 - Pre-Select Mechanism (Cable Saver Arm), Double Servo-Panta Mechanism, Double Spoke Barriers, Chain Retainer, Sealed Mechanism, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt
- Capacity
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 30T. (Long Cage), 32T. (Super Long Cage)
 - Maximum Front & Rear Sprocket Difference: 36T. (Long Cage), 38T. (Super Long Cage)
- Weight
- Long Cage: 11.7 oz. (332g.)
 - Super Long Cage: 11.8 oz. (335g.)
- Material
- Light Alloy • Graphite Gray Metallic Finish (Bracket & Plate Body)
 - Steel • Silver Finish (Right & Left Links),
 - Steel • Pearl Bright Finish (Pulley Plates)



ITEM NO.	PART NO.	DESCRIPTION
1	3-518 9805	Bracket Axle Assembly for GS-Type
	3-518 9806	Bracket Axle Assembly for SGS-Type
2	530 0201	Bracket Axle
3	516 0300	Bracket Axle Collar
	516 3401	B-Tension Spring for GS-Type
4	518 0310	B-Tension Spring for SGS-Type
5	516 0100	B-Seal Ring
6	556 2501	B-Tension Adjusting Bolt
7	3-559 9809	Bracket Axle Bushing
8	516 0700	Stop Ring (φ6.5mm)
9	3-516 9801	Cable Adjusting Barrel Unit
10	516 0900	Cable Adjusting Barrel
11	516 1000	Cable Adjusting Spring
12	516 1100	Cable Adjusting Plate
13	3-563 9840	Stroke Adjusting Screw & Plate
14	541 1800	Stroke Adjusting Screw
15	563 5000	Stroke Adjusting Plate

ITEM NO.	PART NO.	DESCRIPTION
16	3-563 9841	Cable Fixing Bolt & Plate
17	581 6500	Cable Fixing Bolt
18	563 6300	Cable Fixing Plate
19	530 1600	P-Tension Spring
20	557 1300	Plate Fixing Screw
21	3-518 9801	Outer Plate (GS-Type) & Plate Stopper Screw
	3-518 9802	Outer Plate (SGS-Type) & Plate Stopper Screw
22	511 0401	Inner Plate for GS-Type
	556 0900	Inner Plate for SGS-Type
23	557 1500	Plate stopper Screw
24	569 5400	Pulley Bolt
25	3-563 9837	Guide Pulley Unit
26	511 2700 1	Pulley Cap
27	511 2901	Pulley Bushing
28	3-513 9817	Guide Pulley
29	3-563 9839	Tension Pulley Unit
30	521 3100	Tension Pulley

8711-ER60A

Rear Derailleur

RD-M350-GS (Long Cage)

RD-M350-SGS (Super Long Cage)



Rear Derailleur

RD-M350-GS (Long Cage)

RD-M350-SGS (Super Long Cage)

■ Specifications

Features ● 6-speed SIS Compatible

- Pre-Select Mechanism (Cable Saver Arm).
- Double Servo-Panta Mechanism,
- Double Spoke Barriers,
- Chain Retainer,
- Sealed Mechanism,
- Digital Cable Adjust Mechanism,
- B-Tension Adjustment Bolt

Capacity ●

- Minimum Rear Sprocket: 13T.
- Maximum Rear Sprocket: 30T. (Long Cage), 32T. (Super Long Cage)
- Maximum Front & Rear Sprocket Difference: 36T. (Long Cage), 38T. (Super Long Cage).

Weight ●

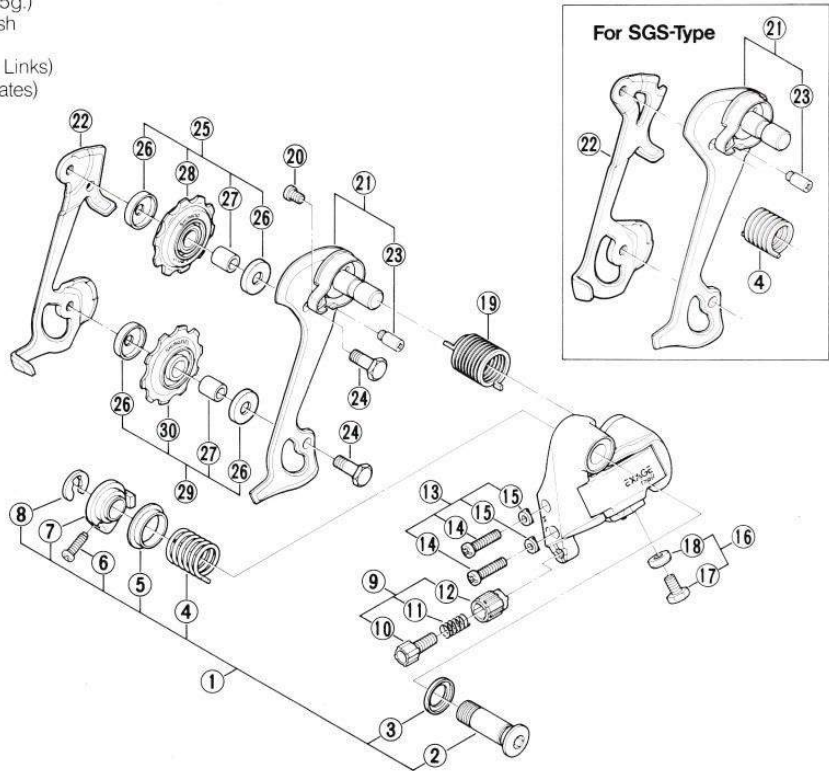
- Long Cage: 11.7 oz. (332g.)
- Super Long Cage: 11.8 oz. (335g.)

Material ●

- Light Alloy • Graphite Black Finish (Bracket & Plate Body)
- Steel • Satin Finish (Right & Left Links)
- Steel • Chrome-Plated (Pulley Plates)



RD-M350-GS



ITEM NO.	PART NO.	DESCRIPTION
1	3-51B 9805	Bracket Axle Assembly for GS-Type
	3-51B 9806	Bracket Axle Assembly for SGS-Type
2	530 0201	Bracket Axle
3	516 0300	Bracket Axle Collar
	516 3401	B-Tension Spring for GS-Type
4	51B 0310	B-Tension Spring for SGS-Type
5	516 0400	B-Seal Ring
6	556 2501	B-Tension Adjusting Bolt
7	3-559 9809	Bracket Axle Bushing
8	516 0700	Stop Ring (φ6.5mm)
9	3-516 9801	Cable Adjusting Barrel Unit
10	516 0900	Cable Adjusting Barrel
11	516 1000	Cable Adjusting Spring
12	516 1100	Cable Adjusting Plate
13	3-563 9840	Stroke Adjusting Screw & Plate
14	541 1800	Stroke Adjusting Screw
15	563 5000	Stroke Adjusting Plate

ITEM NO.	PART NO.	DESCRIPTION
16	3-563 9834	Cable Fixing Bolt & Plate
17	000 1115	Cable Fixing Bolt
18	563 6300	Cable Fixing Plate
19	530 1600	P-Tension Spring
20	557 1300	Plate Fixing Screw
21	3-51C 9801	Outer Plate (GS-Type) & Plate Stopper Screw
	3-51C 9802	Outer Plate (SGS-Type) & Plate Stopper Screw
	511 0402	Inner Plate for GS-Type
22	556 0901	Inner Plate for SGS-Type
23	557 1500	Plate Stopper Screw
24	569 0800	Pulley Bolt
25	3-563 9837	Guide Pulley Unit
26	511 2700-1	Pulley Cap
27	511 2901	Pulley Bushing
28	3-513 9817	Guide Pulley
29	3-563 9839	Tension Pulley Unit
30	521 3100	Tension Pulley

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Rear Derailleur

RD-L532-SS (Short Cage)
RD-L532-GS (Long Cage)

RD-L532-SGS (Super Long Cage)

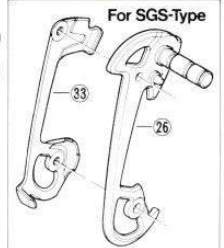
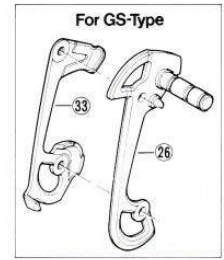
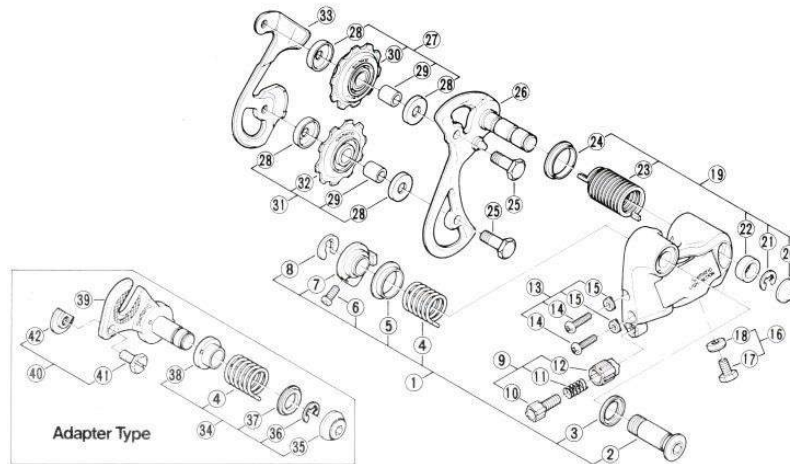


Rear Derailleur

RD-L532-SS (Short Cage)
RD-L532-GS (Long Cage)
RD-L532-SGS (Super Long Cage)

■ Specifications

- Features
- 6-speed SIS Compatible (Short Cage)
 - Pre-Select Mechanism (Cable Saver Arm), Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushings in Link Pivots, Centeron Guide Pulley, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt, Chain Retainer (Long, Super Long)
- Capacity
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 28T. (Short Cage), 34T. (Long, Super Long.)
 - Maximum Front & Rear Sprocket Difference: 28T.(Short Cage)/ (Using All Shimano Fork Ends), 34T. (Long Cage), 40T. (Super Long Cage)/ (Using FE-SF21, SF22 & PR20 Fork Ends)
- Weight
- Short Cage: 9.6 oz. (272g.)
 - Long Cage: 10.3 oz. (293g.)
 - Super Long Cage: 10.8 oz. (306g.)
- Material
- Light Alloy (Bracket Body, Plate Body)
 - Steel (Right & Left Link, Pulley Plate)



ITEM NO.	PART NO.	DESCRIPTION
1	3-516 9802	Bracket Axle Assembly
2	516 0200	Bracket Axle
3	516 0300	Bracket Axle Collar
4	516 1400	B Tension Spring
5	516 0400	B-Seal Ring
6	516 3500	B-Tension Adjusting Bolt
7	3-559 9800	Bracket Axle Bushing
8	516 0700	Stop Ring (φ6.5mm)
9	3-516 9801	Cable Adjusting Barrel Unit
10	516 0900	Cable Adjusting Barrel
11	516 1000	Cable Adjusting Spring
12	516 1100	Cable Adjusting Plate
13	3-516 9803	Stroke Adjusting Screw & Plate
14	582 3000	Stroke Adjusting Screw
15	563 5000	Stroke Adjusting Plate
16	3-563 9834	Cable Fixing Bolt & Plate
17	000 1115	Cable Fixing Bolt
18	563 6300	Cable Fixing Plate
19	3-518 9804	Plate Axle Small parts
20	518 0600	Plate Axle Cap
21	518 0800	Stop Ring (φ5mm)
22	518 0200	Plate Mounting Collar A
23	518 0500	P-Tension Spring

ITEM NO.	PART NO.	DESCRIPTION
24	559 1000	Plate Mounting Collar B
25	569 0800	Pulley Bolt
26	3-518 9801	Outer Plate w / Mounting Shaft for SS-Type
26	3-518 9802	Outer Plate w / Mounting Shaft for GS-Type
26	3-518 9803	Outer Plate w / Mounting Shaft for SGS-Type
27	3-563 9837	Guide Pulley Unit
28	511 2700-1	Pulley Cap
29	511 2901	Pulley Bush
30	3-513 9817	Guide Pulley
31	3-563 9839	Tension Pulley Unit
32	521 3100	Tension Pulley
33	539 2201	Inner Plate for SS-Type
33	563 6100	Inner Plate for GS-Type
33	514 0400	Inner Plate for SGS-Type
34	3-515 9807	Bracket Axle Small Parts
35	554 0900	Cap
36	521 3001	Stop Ring (φ6mm)
37	515 0600	Bracket Axle Collar A
38	515 0800	Bracket Axle Collar B
39	3-515 9808	Adapter w / Mounting Shaft
40	3-525 9069	Adapter Screw & Nut
41	000 1104-1	Adapter Screw
42	511 3500-1	Adapter Nut

Rear Derailleur

RD-L525-SS (Short Cage) RD-L525-SGS (Super Long Cage)
RD-L525-GS (Long Cage)



Rear Derailleur

RD-L525-SS (Short Cage)

RD-L525-GS (Long Cage)

RD-L525-SGS (Super Long Cage)

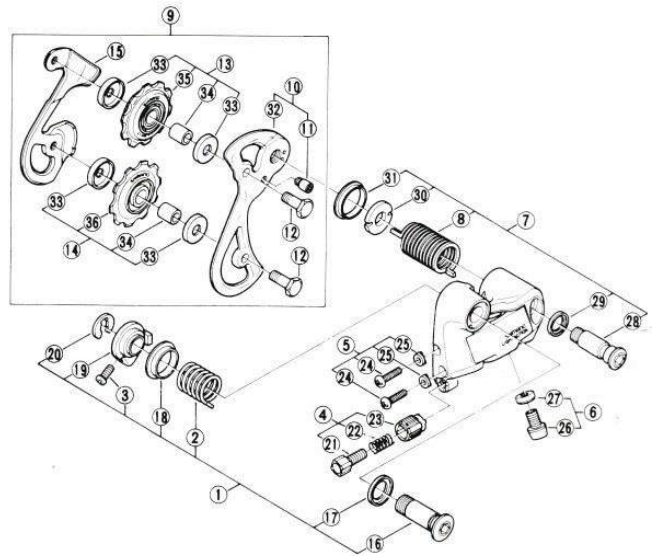
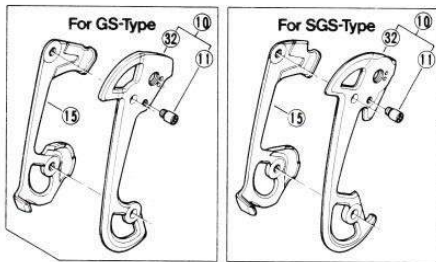
■ Specifications

- Features
- 6-speed SIS Compatible (Short Cage)
 - Pre-Select Mechanism (Cable Saver Arm), Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushings in Link Pivots, Centeron Guide Pulley, Digital Cable Adjust Mechanism, B-Tension Adjustment Bolt, Chain Retainer (Long Cage, Super Long Cage)

- Capacity
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 28T. (Short Cage), 34T. (Long, Super Long Cage)
 - Maximum Front & Rear Sprocket Difference: 28T. (Short Cage)/ (Using Shimano Fork Ends), 34T. (Long Cage), 40T. (Super Long Cage)/ (Using FE-SF21, SF22 & PR20 Fork Ends)

- Weight
- Short Cage: 9.3 oz. (265g.)
 - Long Cage: 10.0 oz. (284g.)
 - Super Long Cage: 10.4 oz. (294g.)

- Material
- Light Alloy (Bracket & Plate Body, Right Link)
 - Steel•Pearl Bright Finish (Pulley Plate & Left Link)
 - Steel (Left Plate)



ITEM NO.	PART NO.	DESCRIPTION
1	3-516 9802	Bracket Axle Assembly
2	516 3400	B Tension Spring
3	516 3500	B-Tension Adjusting Bolt
4	3-516 9801	Cable Adjusting Barrel Unit
5	3-516 9803	Stroke Adjusting Screw & Plate
6	3-514 0811	Cable Fixing Bolt & Plate
7	3-550 9811	Plate Axle Assembly
8	514 5300	P Tension Spring
9	3-513 9811	Pulley Plate Assembly for SS Type
	3-513 9812	Pulley Plate Assembly for GS-Type
	3-513 9813	Pulley Plate Assembly for SGS-Type
10	3-513 9814	Outer Plate (SS-Type) & Plate Stopper Screw
	3-513 9815	Outer Plate (GS-Type) & Plate Stopper Screw
	3-513 9816	Outer Plate (SGS-Type) & Plate Stopper Screw
11	559 1900	Plate Stopper Screw
12	569 0800	Pulley Bolt
13	3-563 9837	Guide Pulley Unit
14	3-563 9839	Tension Pulley Unit
	539 2202	Inner Plate for SS Type
15	563 6110	Inner Plate for GS-Type
	514 0410	Inner Plate for SGS Type
16	516 0200	Bracket Axle
17	516 0300	Bracket Axle Collar

ITEM NO.	PART NO.	DESCRIPTION
18	516 0400	B Seal Ring
19	3-559 9809	Bracket Axle Bushing
20	516 0700	Stop Ring (φ6.5mm)
21	516 0900	Cable Adjusting Barrel
22	516 1000	Cable Adjusting Spring
23	516 1100	Cable Adjusting Plate
24	582 3000	Stroke Adjusting Screw
25	563 5000	Stroke Adjusting Plate
26	571 1600	Cable Fixing Bolt
27	563 6310	Cable Fixing Plate
28	559 0700	Plate Mounting Bolt
29	559 0800	Plate Mounting Collar A
30	559 0900	Plate Mounting Collar B
31	559 1900	P Seal Ring
	513 1400	Outer Plate for SS Type
32	563 6010	Outer Plate for GS-Type
	514 0310	Outer Plate for SGS Type
33	511 2700	Pulley Cap
34	511 2901	Pulley Bush
35	3-513 9817	Guide Pulley
36	521 3100	Tension Pulley

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Rear Derailleur

RD-L523-SS (Short Cage) **RD-L523-SGS** (Super Long Cage)
RD-L523-GS (Long Cage)

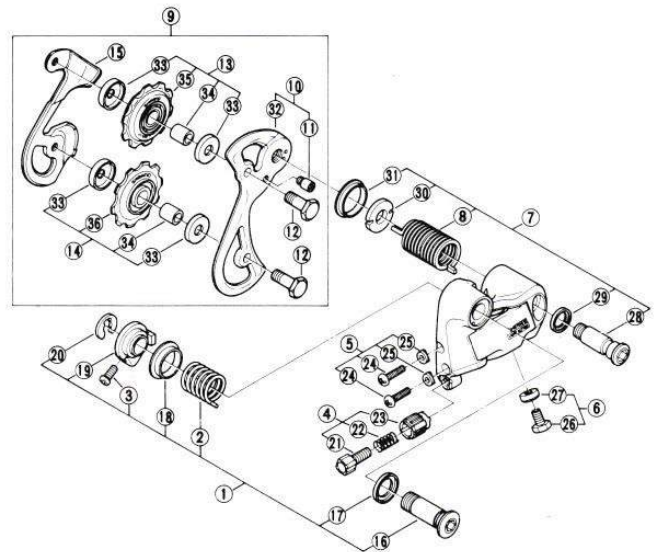
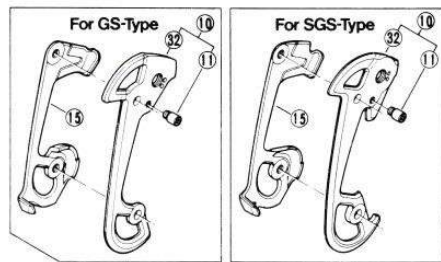


Rear Derailleur

RD-L523-SS (Short Cage)
RD-L523-GS (Long Cage)
RD-L523-SGS (Super Long Cage)

■ Specifications

- Features**
- 6-speed SIS Compatible (Short Cage)
 - Pre-Select Mechanism (Cable Saver Arm), Double Servo-Panta Mechanism, Double Spoke Barrier Mechanism, Sealed Mechanism, Steel Bushings in Link Pivots, Chain Retainer (Long Cage, Super Long Cage)
- Capacity**
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 28T. (Short Cage), 34T. (Long, Super Long Cage)
 - Maximum Front & Rear Sprocket Difference: 28T. (Short Cage), 34T. (Long Cage), 40T. (Super Long Cage)/(Short: Using all Shimano Fork Ends, Long & Super Long: Using FE-SF21, SF22 & PR22 Fork End)
- Weight**
- Short Cage: 9.7 oz. (274g.)
 - Long Cage: 10.3 oz. (293g.)
 - Super Long Cage: 10.6 oz. (300g.)
- Material**
- Light Alloy (Bracket & Plate Body)
 - Steel•Pearl Bright Finish (Right Link, Pulley Plate)
 - Steel (Left Plate)



ITEM NO.	PART NO.	DESCRIPTION
1	3-516 9802	Bracket Axle Assembly
2	516 3400	B-Tension Spring
3	516 3500	B-Tension Adjusting Bolt
4	3-516 9801	Cable Adjusting Barrel Unit
5	3-516 9803	Stroke Adjusting Screw & Plate
6	3-563 9834	Cable Fixing Bolt & Plate
7	3-559 9811	Plate Axle Assembly
8	514 5300	P-Tension Spring
	3-513 9811	Pulley Plate Assembly for SS-Type
9	3-513 9812	Pulley Plate Assembly for GS-Type
	3-513 9813	Pulley Plate Assembly for SGS-Type
	3-513 9814	Outer Plate (SS-Type) & Plate Stopper Screw
10	3-513 9815	Outer Plate (GS-Type) & Plate Stopper Screw
	3-513 9816	Outer Plate (SGS-Type) & Plate Stopper Screw
11	559 1900	Plate Stopper Screw
12	569 0800	Pulley Bolt
13	3-563 9837	Guide Pulley Unit
14	3-563 9839	Tension Pulley Unit
	530 2202	Inner Plate for SS-Type
15	563 6110	Inner Plate for GS-Type
	514 0410	Inner Plate for SGS Type
16	516 0200	Bracket Axle
17	516 0300	Bracket Axle Collar

ITEM NO.	PART NO.	DESCRIPTION
18	516 0100	B-Seal Ring
19	3-559 9809	Bracket Axle Bushing
20	516 0700	Stop Ring (φ6.5mm)
21	516 0900	Cable Adjusting Barrel
22	516 1000	Cable Adjusting Spring
23	516 1100	Cable Adjusting Plate
24	582 3000	Stroke Adjusting Screw
25	563 5000	Stroke Adjusting Plate
26	900 1115	Cable Fixing Bolt
27	563 6300	Cable Fixing Plate
28	559 0700	Plate Mounting Bolt
29	559 0800	Plate Mounting Collar A
30	559 0900	Plate Mounting Collar B
31	559 1000	P-Seal Ring
	513 1400	Outer Plate for SS-Type
	563 6010	Outer Plate for GS-Type
	514 0310	Outer Plate for SGS Type
32	511 2700-1	Pulley Cap
	511 2901	Pulley Bush
33	511 2700-1	Pulley Cap
34	511 2901	Pulley Bush
35	3-513 9817	Guide Pulley
36	521 3100	Tension Pulley

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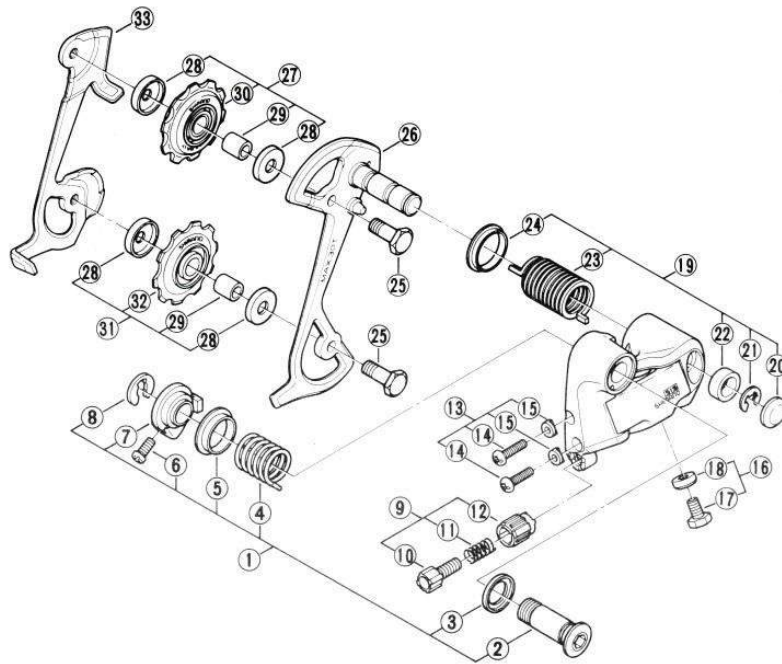
Rear Derailleur
RD-M531-GS (Long Cage)

Rear Derailleur
RD-M531-GS (Long Cage)



■ Specifications

- Features
- 6-speed SIS Compatible
 - Pre-Select Mechanism (Cable Saver Arm), Double Servo-Panta Mechanism, Double Spoke Barrier, Sealed Mechanism, Steel Bushing in Link Pivots, Centeron Guide Pulley, Chain Retainer
- Capacity
- Minimum Rear Sprocket: 13T.
 - Maximum Rear Sprocket: 30T.
 - Maximum Front & Rear Sprocket Difference: 36T. (Using FE-SF21, SF22 & PR20 Fork Ends)
- Weight
- 10.4 oz. (294g.)
- Material
- Light Alloy (Bracket Body), Steel (Right & Left Link, Plate Body & Pulley Plate)



ITEM NO.	PART NO.	DESCRIPTION
1	3-511 9801	Bracket Axle Assembly
2	516 0200	Bracket Axle
3	516 0300	Bracket Axle Collar
4	516 3400	B-Tension Spring
5	516 0400	B-Seal Ring
6	511 0500	B-Tension Adjusting Bolt
7	3-559 9809	Bracket Axle Bushing
8	516 0700	Stop Ring (φ6.5mm)
9	3-550 9805	Cable Adjusting Barrel Unit
10	516 0900	Cable Adjusting Barrel
11	516 1000	Cable Adjusting Spring
12	516 1101	Cable Adjusting Plate
13	3-516 9803	Stroke Adjusting Screw & Plate
14	582-3000	Stroke Adjusting Screw
15	563 5000	Stroke Adjusting Plate
16	3-563 9834	Cable Fixing Bolt & Plate
17	800 1115	Cable Fixing Bolt

ITEM NO.	PART NO.	DESCRIPTION
18	563 6300	Cable Fixing Plate
19	3-518 9804	Plate Axle Small Parts
20	518 0600	Plate Axle Cap
21	518 0800	Plate Axle (φ5mm)
22	518 0200	Plate Mounting Collar A
23	518 0500	P-Tension Spring
24	559 1000	Plate Mounting Collar B
25	569 0800	Pulley Bolt
26	3-511 9802	Outer Plate w / Mounting Shaft
27	3-563 9837	Guide Pulley Unit
28	511 2700-I	Pulley Cap
29	511 2001	Pulley Bush
30	3-513 9817	Guide Pulley
31	3-563 9839	Tension Pulley Unit
32	521 3100	Tension Pulley
33	511 0400	Inner Plate

8701-ER006

Rear Derailleur

RD-P500-GS (Long Cage)

RD-P500-SGS (Super Long Cage)



Rear Derailleur

RD-P500-GS (Long Cage)

RD-P500-SGS (Super Long Cage)

■ Specifications

Features ● PPS (Positive Pre-Select) System, Servo-Panta Mechanism, Double Spoke Barrier

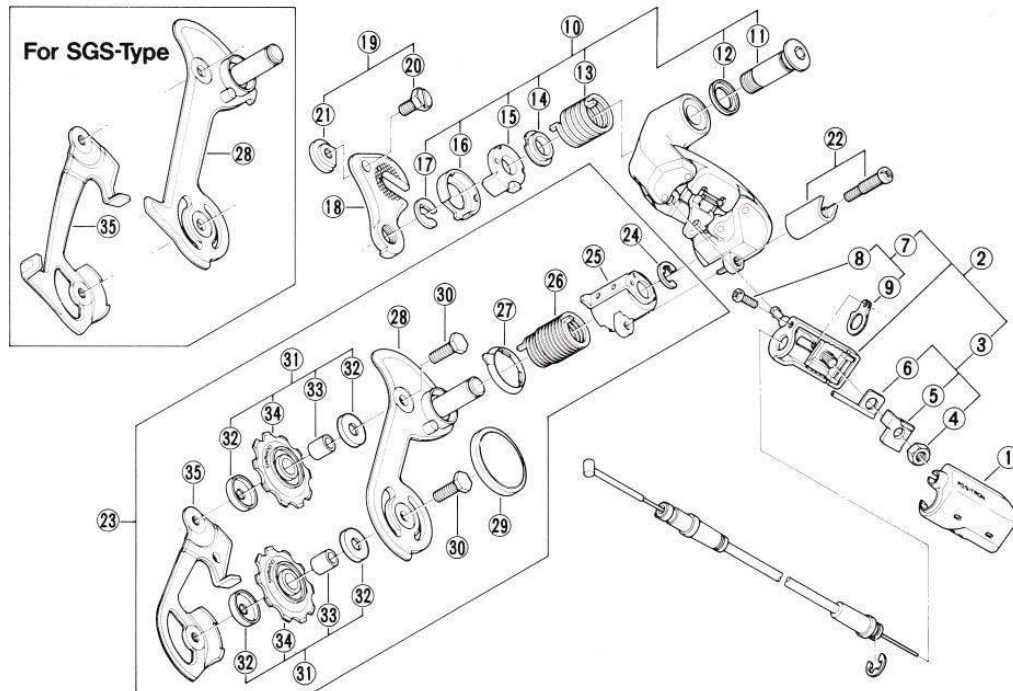
Capacity ● Minimum Rear Sprocket: 13T., ● Maximum Rear Sprocket: 32T., ● Front Sprocket Difference: Long; 10T. or less, Super Long; 20T. or less ● Maximum Front & Rear Sprocket Difference: Long; 30T., Super Long; 38T.

Weight ● Long; 11.6 oz. (330g.) Super Long; 11.9 oz. (337g.)

Material ● Steel



RD-P500-GS



ITEM NO.	PART NO.	DESCRIPTION
1	51D 4000	Cover
2	3-51D 9801	Index Unit
3	3-51D 9802	Cable Fixing Nut Unit
4	54I 2401	Cable Fixing Nut
5	51D 3300	Cable Fixing Plate
6	533 1200-1	Inner Sleeve
7	3-51D 9803	Select Screw & Shim
8	51D 3600	Select Screw
9	51D 4200	Shim
10	3-51D 9804	Bracket Axle Assembly
11	530 0201	Bracket Axle
12	516 0300	Bracket Axle Collar
13	51D 3700	B-Tension Spring
14	51D 0400	Bracket Body Spacer
15	51D 0300	Stopper Plate
16	51D 0200	Bracket Body Cover
17	516 0700	Stop Ring (φ6.5mm)
18	54I 2705	Adapter
19	3-525 9069	Adapter Screw & Nut

ITEM NO.	PART NO.	DESCRIPTION
20	000 1101-1	Adapter Screw
21	511 3500-1	Adapter Nut
22	3-51D 9805	Stroke Adjusting Screw & Plate
23	3-51D 9806	Pulley Plate Assembly for GS-Type
24	3-51D 9807	Pulley Plate Assembly for SGS-Type
25	521 3001	Stop Ring (φ6mm)
26	3-51D 9808	Plate Axle Holder
27	51D 2100	P-Tension Spring
28	3-51D 9809	Outer Plate w / Mounting Shaft for GS-Type
29	3-51D 9810	Outer Plate w / Mounting Shaft for SGS-Type
30	51D 2800	Outer Plate Cap
31	524 7200	Pulley Bolt
32	3-534 9805	Pulley Unit
33	511 2700-1	Pulley Cap
34	511 2900	Pulley Bushing
35	521 3102	Pulley
	51D 2700	Inner Plate for GS-Type
	51B 0200	Inner Plate for SGS-Type

Front Derailleur

FD-7400-B (Band Type)

FD-7400-F (Italian, Brazed-on Type)

DURA-ACE

Front Derailleur

FD-7400-B (Band Type)

FD-7400-F (Italian, Brazed-on Type)

■ Specifications

Features ● Sealed Mechanism, Chain Release Dish-out, Helicoil-Secured Cable Fixing Screw, Heat Treated Cable Fixing Bolt

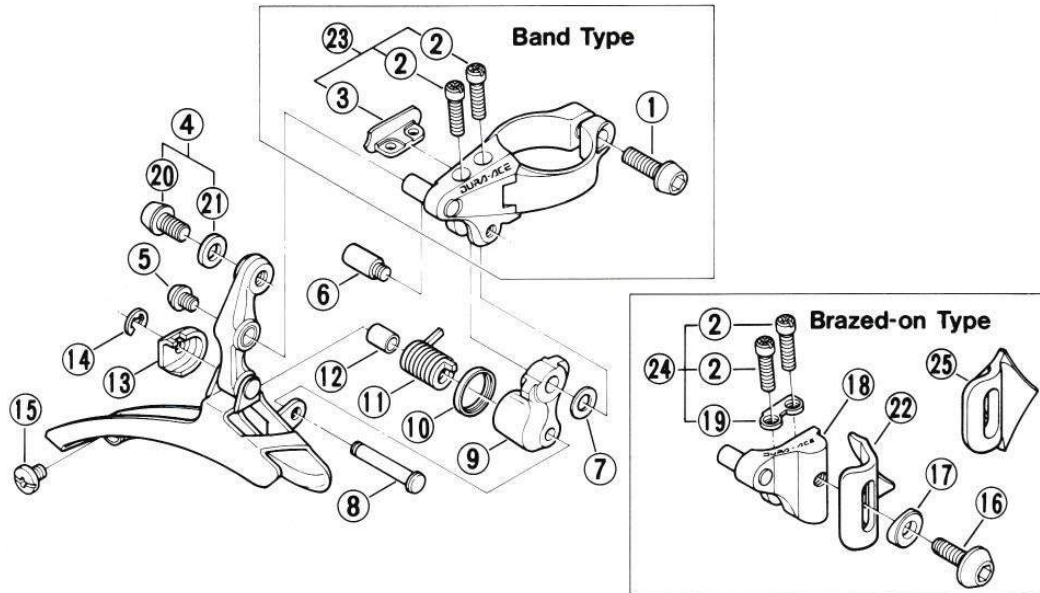
Capacity ● Maximum: 15T.

Weight ● Band Type: 3.2 oz. (93g.)

Material ● Light Alloy•Anodized Finish (Front & Rear Band)
● Light Alloy•Color Anodized Finish (Right Link)
● Light Alloy (Left Link)
● Heat Treated Steel•Chrome-Plated (Chain Guide, Clamp Bolt)

Clamp Diameter

● 1-1/8" (28.6mm.)



Dura-Ace EX
Shimano 800EX (FD-6207)

Dura-Ace EX
Shimano 800EX (FD-6207)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	580 1700	Clamp Bolt (M5 x 14.4)	B
2	580 1800	Stroke Adjusting Screw (M4 x 14)	B B
3	580 1500	Stroke Adjusting Plate	
4	3 571 9004	Cable Fixing Bolt (M5 x 8.5) & Plate	B A
5	580 2100	Link Fixing Bolt (M4 x 5)	B
6	580 1200-1	Link Axle B	
7	580 2200	Spacer for Link Axle B	
8	580 0700	Inner Link Fixing Axle	
9	580 0400	Inner Link	
10	580 1600	Inner Link Spacer	
11	580 0800	Return Spring	
12	580 1100	Sleeve B	
13	580 0900	Spring Cover	
14	584 2200	Stop Ring	A
15	583 7101	Chain Guide Fixing Screw	
16	587 6600	Clamp Bolt (M5 x 14.5) for Brazed-on Type	B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
17	580 3100	Radius Washer for Brazed-on Type	A
18	3-580 9802	Bracket Body for Brazed-on Type	
19	579 2200	Stroke Adjusting Plate for Brazed-on Type	A
20	581 6500	Cable Fixing Bolt (M5 x 8.5)	
21	571 1700	Cable fixing Plate	A
22	580 3200	Brazed-on Bracket (SM-FD74)	A
23	3-580 9803	Stroke Adjusting Screw (M4 x 14) & Plate	
24	3-580 9804	Stroke Adjusting Screw (M4 x 14) & Plate for Brazed-on Type	B
25	580 3210	Brazed-on Bracket (SM-FD74-LW) Investment Cast	A

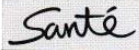
A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (FD-7400).

8608 EB75G

Front Derailleur

FD-5000-B (Band Type)

FD-5000-F (Italian, Brazed-on Type)



Front Derailleur

FD-5000-B (Band Type)

FD-5000-F (Italian, Brazed-on Type)

■ Specifications

Features • Leading Action Pantograph Mechanism, Rigid
Chainguide, Sealed Mechanism,

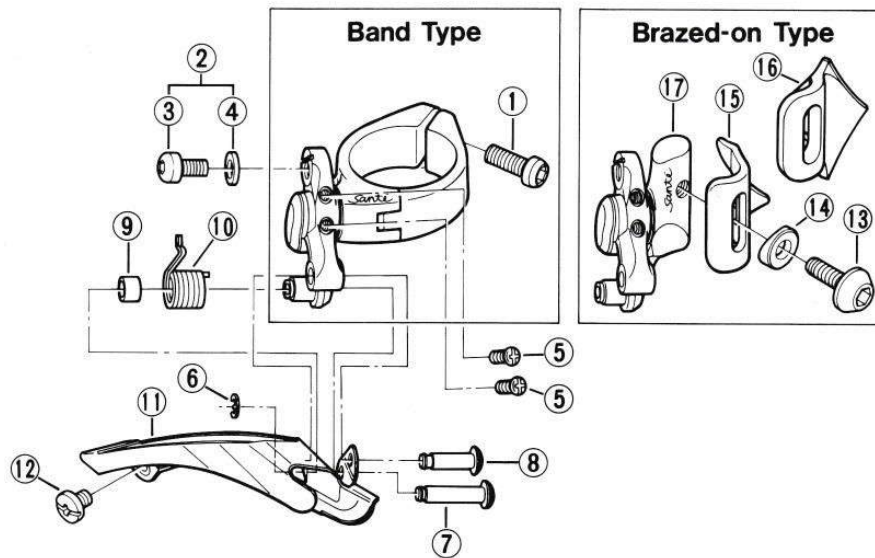
Capacity • Maximum: 14T.

Weight • Band Type: 3.5 oz. (100g.)

Material • Light Alloy • Silver Paint (Clamp Band),
Light Alloy • Pearl White Paint (Right Link),
Light Alloy • High-Tech Gray Anodized Finish (Left Link),
Heat-Treated Steel • Chrome-Plated (Chain Guide)

Clamp Diameter

- 1-1/8" (28.6mm.)



Dura-Ace (FD-2400)
Shimano 600EX (FD-6207)
Shimano 105 (FD-1050)

Dura-Ace (FD-2400)
Shimano 600EX (FD-6207)
Shimano 105 (FD-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY	
1	570 1400	Clamp Bolt (M5 x 15)	B	B
2	3 570 9802	Cable Fixing Plate & Bolt	B	B B
3	570 1500	Cable Fixing Bolt (M5 x 8.5)	B	B B
4	571 1700	Cable Fixing Plate	B	B B
5	000 1010	Stroke Adjusting Screw (M4 x 10)		
6	584 2200	Stop Ring	A	A
7	581 6000	Axle D		A
8	581 5900	Axle C		A
9	581 6100	Sleeve		A
10	587 5600	Return Spring		
11	587 5500	Chain Guide		B
12	583 7101	Chain Guide Fixing Screw	A	B
13	587 6600	Clamp Bolt (M5 x 14.5) for Brazed-on Type	A	B A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY		
14	580 3100	Radius Washer for Brazed-on Type	A	A	A
15	580 3200	Brazed-on Bracket (SM-FD74)	A	A	A
16	580 3210	Brazed-on Bracket (SM-FD74-LW)	A	A	A
		Investment Cast			
17	3-587 9801	Bracket Body Assembly for Brazed-on Type			

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Santé (FD-5000).

8610-E797

Front Derailleur

FD-6400-B (Band Type)

FD-6400-F (Italian, Brazed-on Type)



Front Derailleur

FD-6400-B (Band Type)

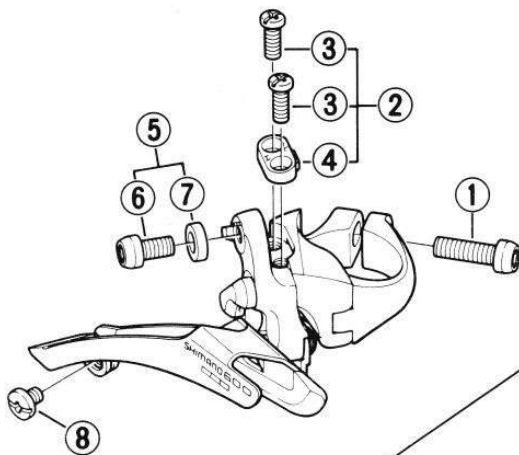
FD-6400-F (Italian, Brazed-on Type)

■ Specifications

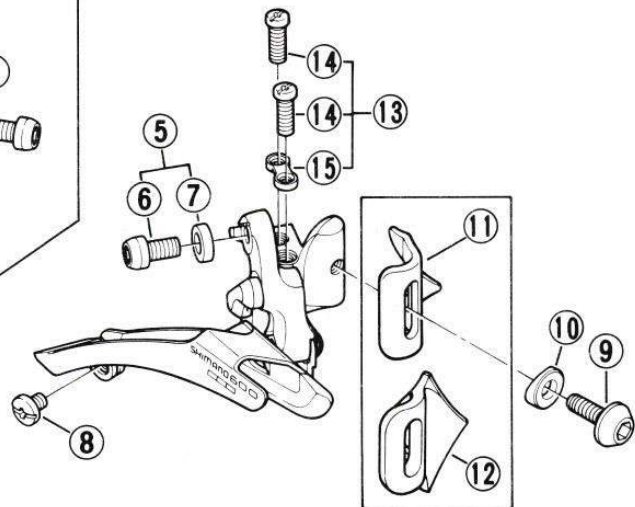
- Features ● Leading Action Pantagraph Mechanism,
Compact Design,
Rigid Chainguide
- Capacity ● Maximum: 14T.
- Weight ● Band Type: 3.7 oz. (104g.)
- Material ● Light Alloy•Dark Gray Paint (Clamp Band),
Light Alloy•Silver Paint (Right Link),
Heat-Treated Steel•Chrome-Plated (Chain Guide)
- Clamp Diameter
● 1-1/8" (28.6mm.)



Band Type



Brazed-on Type



Dura-Ace (FD-7400)
Sante (FD-5000)
Shimano 105 (FD-1050)

Dura-Ace (FD-7400)
Sante (FD-5000)
Shimano 105 (FD-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	58A 1300	Clamp Bolt (M5 x 17)	B B B
2	3-581 9802	Stroke Adjusting Plate & Screw	A
3	582 3003	Stroke Adjusting Screw (M4 x 12)	A
4	581 6200	Stroke Adjusting Plate	A
5	3-570 9802	Cable Fixing Plate & Bolt	B A B
6	570 1500	Cable Fixing Bolt (M5 x 8.5)	B A B
7	571 1700	Cable Fixing Plate	A A A
8	583 7101	Chain Guide Fixing Screw	A A B
9	587 6000	Clamp Bolt (M5 x 14.5) for Brazed-on Type	A A A
10	580 3100	Radius Washer for Brazed-on Type	A A A
11	580 3200	Brazed-on Bracket (SM-FD71)	A A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
12	580 3210	Brazed on Bracket (SM-FD71-LW) Investment Cast	A A A
13	3-581 9801	Stroke Adjusting Plate & Screw for Brazed-on Type	A
14	590 0900	Stroke Adjusting Screw (M4 x 13) for Brazed-on Type	A
15	581 6210	Stroke Adjusting Plate for Brazed-on Type	A

A: Same parts
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (FD-6400).

Front Derailleur

FD-1050-B (Band Type)

FD-1050-F (Italian, Brazed-on Type)



Front Derailleur

FD-1050-B (Band Type)

FD-1050-F (Italian, Brazed-on Type)

■ Specifications

Features • Leading Action Pantagraph Mechanism,
Upgraded Chain Guide Rigidity

Capacity • Maximum: 14T.

Weight • Band Type: 3.5 oz. (98g.)

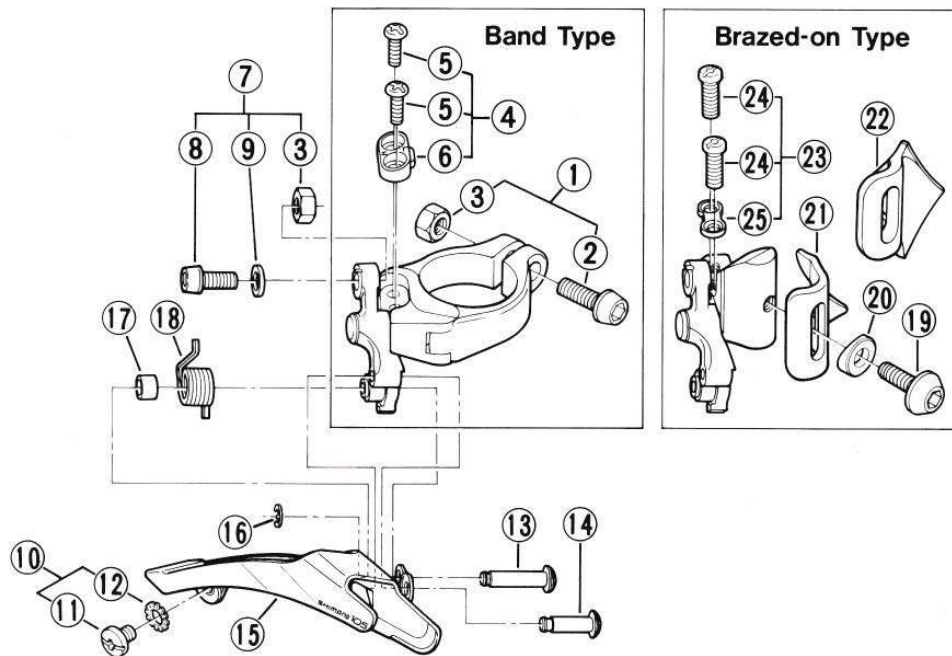
Material • Light Alloy (Clamp Band)

• Light Alloy•Dark Gray Metallic Finish (Right Link)

• Heat-Treated Steel•Chrome-Plated (Chain Guide)

Clamp Diameter

• 1-3/32" (28.0mm.) ~ 1-1/8" (28.6mm.)



Shimano 600EX (FD-8207)

Shimano 600EX (FD-8207)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-581 9803	Clamp Bolt & Nut	
2	581 6400	Clamp Bolt (M5 x 15)	
3	581 6300	Nut	
4	3-581 9802	Stroke Adjusting Plate & Screw	
5	582 3003	Stroke Adjusting Screw (M4 x 11)	
6	581 6200	Stroke Adjusting Plate	
7	3-581 9804	Cable Fixing Bolt Unit	
8	581 6500	Cable Fixing Bolt (M5 x 9)	B
9	571 1700	Cable Fixing Plate	A
10	3-581 9805	Chain Guide Fixing Screw & Teethed Washer	
11	583 7100	Chain Guide Fixing Screw	
12	581 2000	Teethed Washer	
13	581 6000	Axle D	
14	581 5900	Axle C	
15	581 5500	Chain Guide	
16	581 2200	Stop Ring	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
17	581 6100	Sleeve	
18	581 5600	Return Spring	
19	587 6600	Clamp Bolt (M5 x 14.5) for Brazed on Type	B
20	580 3100	Radius Washer for Brazed-on Type	A
21	580 3200	Brazed on Bracket (SM-FD74)	A
22	580 3210	Brazed on Bracket (SM-FD74-LW)	A
23	3-581 9801	Stroke Adjusting Plate & Screw for Brazed on Type	
24	590 0900	Stroke Adjusting Screw (M4 x 13) for Brazed-on Type	
25	581 6210	Stroke Adjusting Plate for Brazed-on Type	

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 105 (FD-1050).

8606-E761

Front Derailleur

FD-M730

FD-M730-EC (End-less Clamp Type)



Front Derailleur

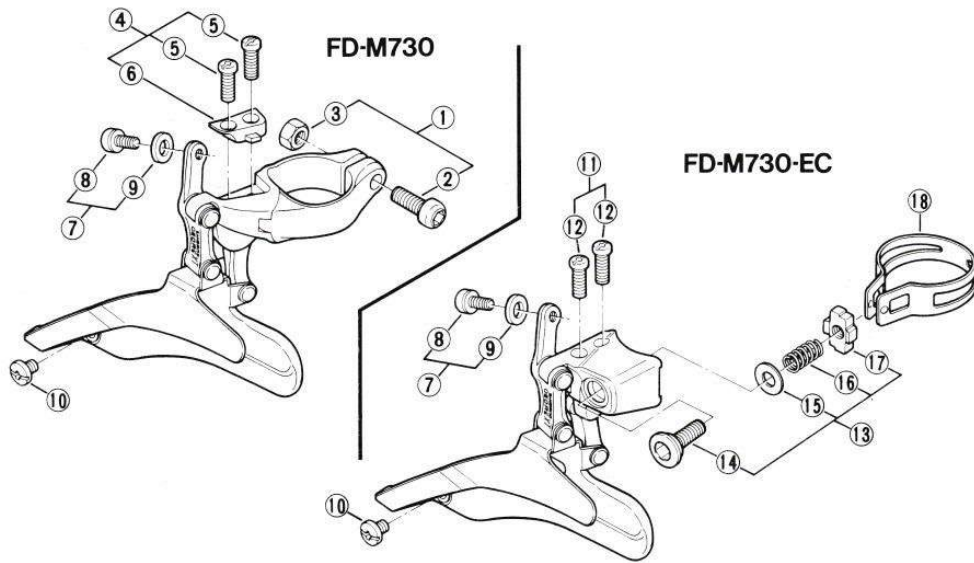
FD-M730

FD-M730-EC (End-less Clamp Type)

■ Specifications

- Features ● Trailing Action Pantagraph Mechanism, Rigid Chainguide
 Weight ● Normal Band Type: 40 oz. (112g.)
 Material ● Forged Light Alloy (Right Link)
 ● Light Alloy (Clamp Band)
 ● Heat-Treated Steel • Chrome-Plated (Chain Guide)

Capacity (Front gear difference)	FD-M730-AL (Alpine)	Round gear	8T. ~ 26T.
		Biopace gear (CR-BP10)	8T. ~ 22T.
	FD-M730-HS (Half-step)	Round gear	5T. ~ 26T.
		Biopace gray (CR-BP10)	5T. ~ 22T.
Band diameter	Band type	∅28.0 ~ 28.6mm. (1-3/32" ~ 1-1/8")	
	EC-type (End-less clamp type)	∅31.8mm. (1-1/4")	



Old DEORE XT (FD-M730)
 Shimano 600EX (FD-8207)
 DEORE (FD-M730)

Old DEORE XT (FD-M730)
 Shimano 600EX (FD-8207)
 DEORE (FD-M730)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-570 9801	Clamp Bolt & Nut	A
2	570 1401	Clamp Bolt (M5 x 16)	A
3	581 6300	Clamp Nut	A
4	3-570 9803	Stroke Adjusting Plate & Screw	A
5	590 0900	Stroke Adjusting Screw (M4 x 13)	A
6	570 1600	Stroke Adjusting Plate	A
7	3-570 9802	Cable Fixing Plate & Bolt	B B A
8	570 1500	Cable Fixing Bolt (M5 x 8.5)	B B A
9	571 1700	Cable Fixing plate	B B A
10	583 7101	Chain Guide Fixing Screw	A
11	3-570 9805	Stroke Adjusting Screw (M4 x 13) for EC-Type (2pcs.)	A A A
12	590 0901	Stroke Adjusting Screw (M4 x 13) for EC-Type	A A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
13	3-570 9804	Clamp Bolt Unit	
14	570 1410	Clamp Bolt for EC-Type	B B
15	579 3500	Clamp Washer	A A A
16	541 1100	Clamp Spring	A A A
17	579 3400	Clamp Nut for EC-Type	A A A
	590 4200	Clamp Band (∅28.6mm)	A
18	579 3200	Clamp Band (∅31.8mm)	A A A
	570 1800	Clamp Band (∅34.9mm)	A

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE XT (FD-M730).

8705: E772B

Front Derailleur

FD-MT60

FD-MT60-EC (End-less Clamp Type)



Front Derailleur

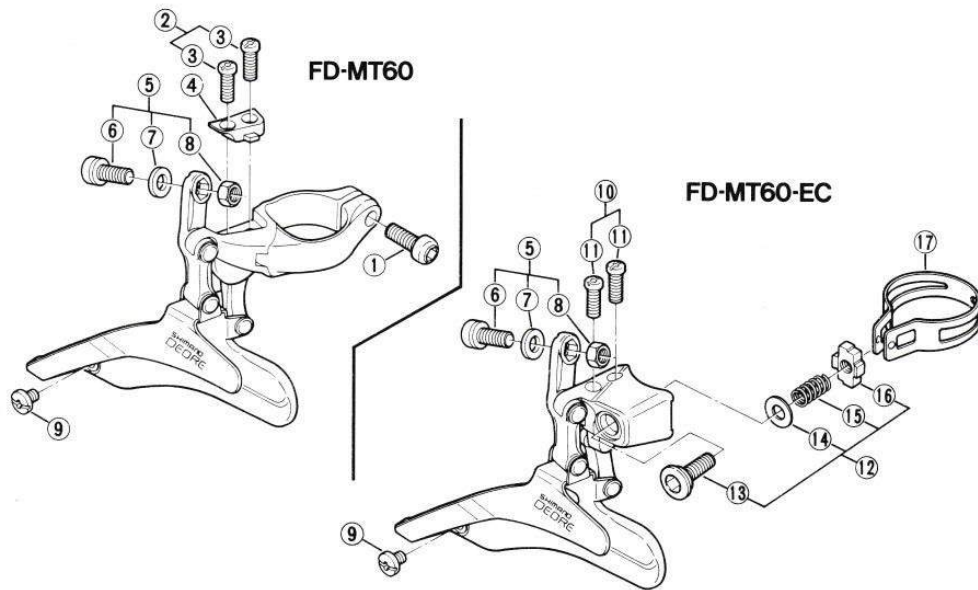
FD-MT60

FD-MT60-EC (End-less Clamp Type)

■ Specifications

- Features ● Trailing Action Pantagraph, Rigid Chainguide
 Weight ● Normal Band Type: 40 oz. (113g.)
 Material ● Light Alloy (Body & Clamp Band)
 ● Heat-Treated Steel•Chrome-Plated (Chainguide)

Capacity (Front gear difference)	FD-MT60-AL (Alpine)	Round gear8T. ~ 26T.
		Biopace gear (CR-BP10)8T. ~ 22T.
	FD-MT60-HS (Half-step)	Round gear5T. ~ 26T.
		Biopace gray (CR-BP10)5T. ~ 22T.
Band diameter	Band type \varnothing 28.0 ~ 28.6mm. (1-3/32" ~ 1-1/8")	
	EC-type (End-less clamp type) \varnothing 31.8mm. (1-1/4")	



DEORE XT (FD-M720)
 Old DEORE XT (FD-M700)
 Shimano Z (FD-Z266)

DEORE XT (FD-M730)
 Old DEORE XT (FD-M700)
 Shimano Z (FD-Z266)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	570 1400	Clamp Bolt (M5 x 15)	A
2	3-590 9810	Stroke Adjusting Screw (M1 x 13) 2pcs.	A A A
3	590 0900	Stroke Adjusting Screw (M1 x 13)	A A A
4	570 1600	Stroke Adjusting Plate	A
5	3-558 9801	Cable Fixing Bolt Unit	B
6	570 1500	Cable Fixing Bolt (M5 x 8.5)	A B B
7	571 1700	Cable Fixing Plate	A A A
8	581 6300	Cable Fixing Nut	A A A
9	583 7101	Chain Guide Fixing Screw	A
10	3-570 9805	Stroke Adjusting Screw (M1 x 13) for EC-Type (2pcs.)	A A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
11	590 0901	Stroke Adjusting screw (M4 x 13) for EC-Type	A A A
12	3-570 9804	Clamp Bolt Unit	A B B
13	570 1410	Clamp Bolt for EC-Type	A B B
14	579 3500	Clamp washer	A A A
15	511 1100	Clamp Spring	A A A
16	579 3400	Clamp Nut	A A A
17	579 3200	Clamp Band (\varnothing 31.8mm)	A A A
	570 1800	Clamp Band (\varnothing 34.9mm)	A

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE (FD-MT60).
 8612-E782A

Front Derailleur

FD-A450-B (Band Type)

FD-A450-F (Italian, Brazed-on Type)



Front Derailleur

FD-A450-B (Band Type)

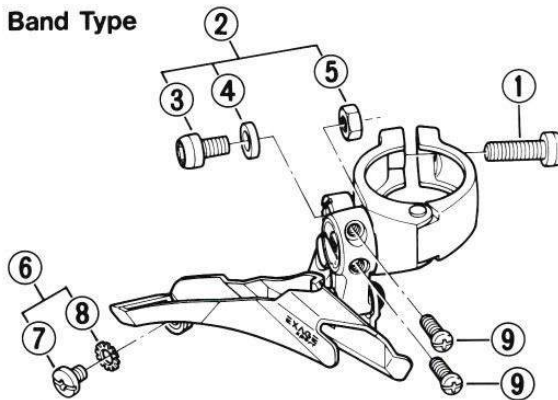
FD-A450-F (Italian, Brazed-on Type)

■ Specifications

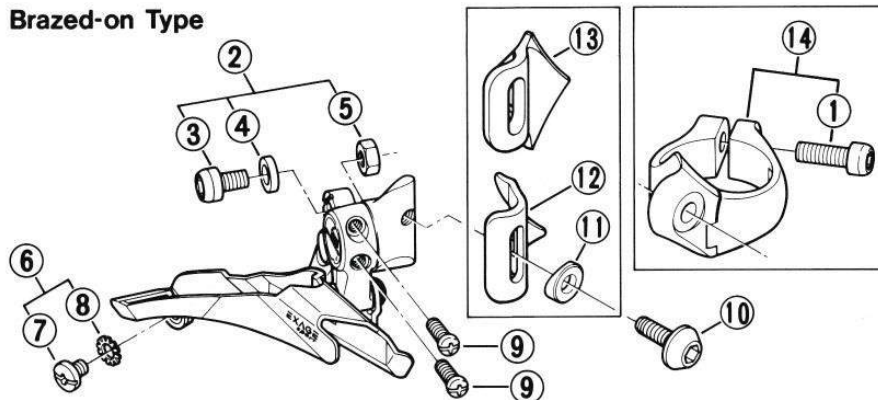
- Features ● Double Front SIS Compatible
 ● Leading-Action Pantagraph Mechanism,
 Rigid Chainguide,
 Brass Bushings
- Capacity ● Maximum: 14T.
 Weight ● Band Type: 3.7 oz. (105g.)
- Material ● Light Alloy•Cosmos Blue Metallic
 Finish (Right Link)
 ● Light Alloy•Silver Finish (Left Link)
 ● Steel•Cosmos Blue Metallic Finish (Clamp Band)
 ● Heat-Treated Steel•Satin Finish (Chainguide)
- Clamp Diameter
 ● 1-3/32" (28.0mm.) ~ 1-1/8" (28.6mm.)



Band Type



Brazed-on Type



ITEM NO.	PART NO.	DESCRIPTION
1	570 1401	Clamp Bolt (M5 x 16)
2	3-558 9801	Cable Fixing Bolt Unit
3	570 1500	Cable Fixing Bolt (M5 x 8.5)
4	571 1700	Cable Fixing Plate
5	581 6300	Cable Fixing Nut
6	3-581 9805	Chain Guide Fixing Screw & Teethed Washer
7	583 7100	Chain Guide Fixing screw

ITEM NO.	PART NO.	DESCRIPTION
8	584 2000	Teethed Washer
9	000 1010	Stroke Adjusting Screw (M4 x 10)
10	587 6600	Clamp Bolt (M5 x 14.5) for Brazed-on Type
11	580 3100	Radius Washer for Brazed-on Type
12	580 3200	Brazed-on Bracket (SM-FD74)
13	580 3210	Brazed-on Bracket (SM-FB74-LW) Investment Cast
14	3-57Y 9010	Clamp Band (φ31.8mm)

8711-BR49D

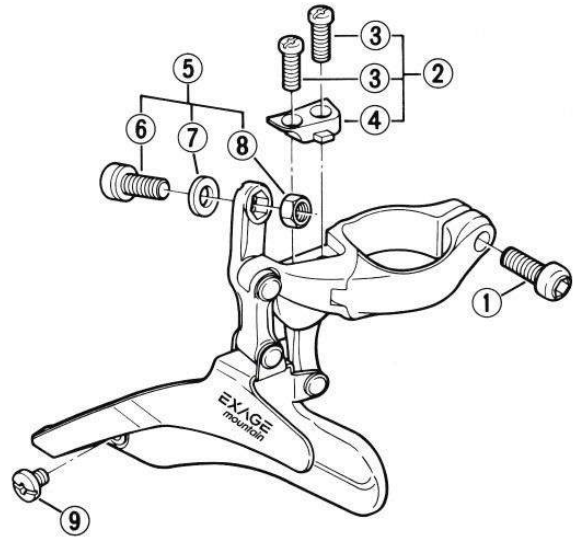
Front Derailleur
FD-M450

Front Derailleur
FD-M350



Front Derailleur
FD-M450

- Specifications
- Features • Triple Front SIS Compatible
- Trailing Action Pantagraph Mechanism
- Capacity • Maximum: 20T. (SIS), 24T. (Normal)
- Weight • Clamp Type: 3.8 oz. (108g.)
- Material • Light Alloy • Graphite Gray Metallic Finish (Body, Right Link)
- Heat-Treated Steel • Satin Finish (Chainguide)
- Clamp Diameter
 - Clamp Type: 1-3/32" (28.0mm.), 1-1/8" (28.6mm.),
 - EC Type: 1-1/4" (31.8mm.), 1-3/8" (34.9mm.)



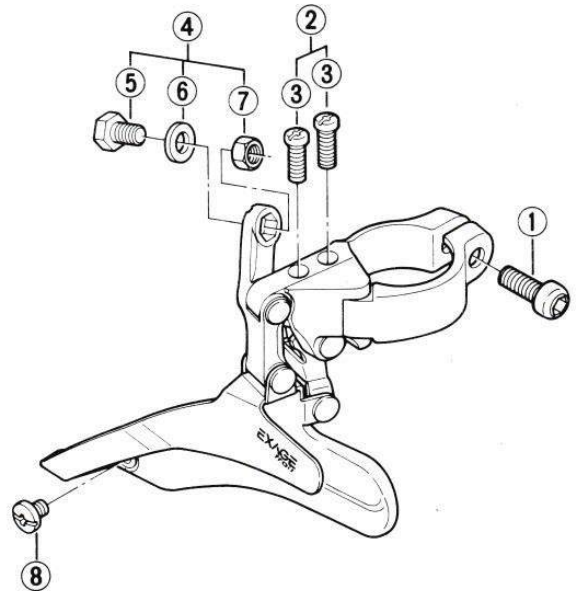
ITEM NO.	PART NO.	DESCRIPTION
1	570 1400	Clamp Bolt (M5 x 15)
2	3 570 9803	Stroke Adjusting Plate & Screw
3	590 0900	Stroke Adjusting Screw (M4 x 13)
4	570 1600	Stroke Adjusting Plate
5	3 558 9801	Cable Fixing Bolt Unit
6	570 1500	Cable Fixing Bolt (M5 x 8.5)
7	571 1700	Cable Fixing Plate
8	581 6300	Cable Fixing Nut
9	583 7101	Chain Guide Fixing Screw

8711-E857A



Front Derailleur
FD-M350

- Specifications
- Features • Trailing Action Pantagraph Mechanism, Rigid Chainguide
- Capacity • Maximum: 22T.
- Weight • Clamp Type: 5.4 oz. (125g.)
- Material • Light Alloy • Graphite Black Metallic Finish (Body)
- Light Alloy (Right Link)
- Heat-Treated Steel • Chrome-Plated (Chainguide)
- Clamp Diameter
 - Clamp Type: 1-3/32" (28.0mm.), 1-1/8" (28.6mm.), 1-9/64" (29.0mm.),
 - EC Type: 1-1/4" (31.8mm.), 1-3/8" (34.9mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	570 1401	Clamp Bolt (M5 x 16)
2	3 570 9805	Stroke Adjusting Screw (M4 x 13) 2pcs.
3	590 0901	Stroke Adjusting Screw (M4 x 13)
4	3 57F 9801	Cable Fixing Bolt Unit
5	57F 0500	Cable Fixing Bolt (M5 x 8.5)
6	571 1700	Cable Fixing Plate
7	581 6300	Cable Fixing Nut
8	583 7101	Chain Guide Fixing Screw

8711-E874

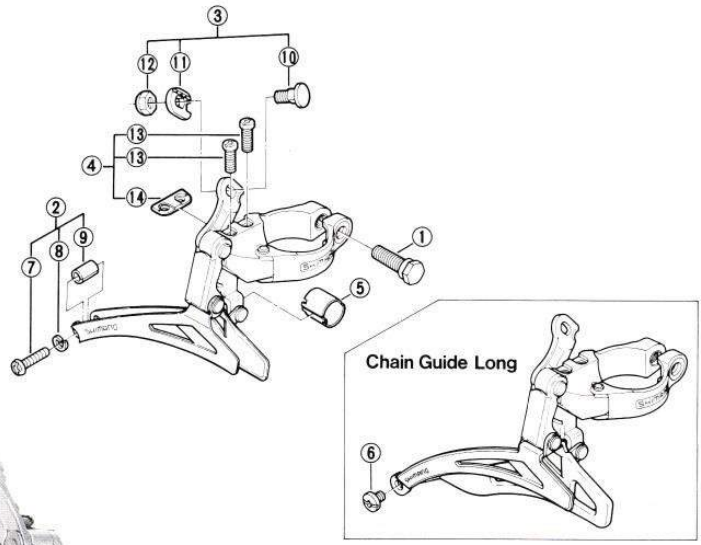
Front Derailleur
FD-Z204 (Short Cage)
FD-Z204-GS (Long Cage)

Front Derailleur
FD-Z202



Front Derailleur
FD-Z204 (Short Cage)
FD-Z204-GS (Long Cage)

- Specifications
- Features ● Spring Cover,
 Trap-Ease Mechanism
- Capacity ● Maximum: 18T. (Short), 27T. (Long)
- Weight ● Short: 4.4 oz. (125g.)
 Long: 4.8 oz. (135g.)
- Material ● Light Alloy (Body)
 ● Heat-Treated Steel (Chainguide)
 ● Steel (Light Link)



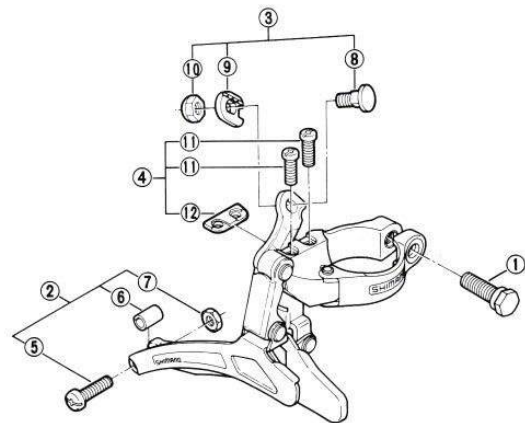
ITEM NO.	PART NO.	DESCRIPTION
1	583 4050	Clamp Bolt
2	3 573 9801	Roller Fixing Screw Unit for Chain Guide Short
3	3 594 9801	Cable Fixing Bolt Unit
4	3 590 9801	Stroke Adjusting Screw (M4 x 13) & Plate
5	577 5200	Spring Cover
6	583 7100	Chain Guide Fixing Screw for Chain Guide Long
7	000 1001	Roller Fixing Screw
8	578 0700	Spring Washer
9	582 1200-2	Roller
10	591 0900	Cable Fixing Bolt
11	598 0100	Cable Fixing Plate
12	541 2100	Cable Fixing Nut
13	590 0900	Stroke Adjusting Screw (M4 x 13)
14	586 4500	Stroke Adjusting Plate

8501-E595C



Front Derailleur
FD-Z202 (Short Cage)

- Specifications
- Feature ● Trap-Ease Mechanism
- Capacity ● Maximum: 14T.
- Weight ● 4.9 oz. (140g.)
- Material ● Light Alloy (Body)
 ● Heat-Treated Steel (Chainguide)
 ● Steel (Link)



ITEM NO.	PART NO.	DESCRIPTION
1	583 4050	Clamp Bolt
2	3 594 9004	Roller fixing Screw Unit
3	3 594 9801	Cable Fixing Bolt Unit
4	3 590 9801	Stroke Adjusting Screw (M4x13) & Plate
5	000 1001	Roller Fixing Screw
6	582 1200-2	Roller
7	581 2000-1	Roller Fixing Nut
8	594 0900	Cable Fixing Bolt
9	598 0400	Cable Fixing Plate
10	541 2400	Cable Fixing Nut
11	590 0900	Stroke Adjusting Screw (M4x13)
12	586 4500	Stroke Adjusting Plate

8501-E580B

Shifting Lever

SL-7401-BCAI (7-speed SIS, Side Band A-Type/M5)

SL-7401-FCAI (7-speed SIS, Side-Brazed-on A-Type/M5)

SL-7401-FCBI (7-speed SIS, Mount-Brazed-on B-Type/M5)

SL-7401-FAI (7-speed SIS, Side Brazed-on A-Type/M4.5)



Shifting Lever

SL-7401-BCAI (7-speed SIS, Side Band A-Type/M5)

SL-7401-FCAI (7-speed SIS, Side-Brazed-on A-Type/M5)

SL-7401-FCBI (7-speed SIS, Mount-Brazed-on B-Type/M5)

SL-7401-FAI (7-speed SIS, Side Brazed-on A-Type/M4.5)

*"C" of model number means Italian type (Fixing bolt is 5mm diameter.)

■ Specifications

Features ● 7-speed SIS (Shimano Index System)

- SIS/Friction Changeover, Sealed Mechanism, Light Action Shifting (Front), Non-loosening Mechanism, Human Engineered Design

Weight ● SL-7401-FCAI: 2.3 oz. (65g.)

Material ● Light Alloy • High Tech Gray Anodized Finish (Lever)

- Steel • Chrome-Plated (Fixing Bolt, Clamp)
- Zinc • Chrome-Plated (Top-mount Housing)

Attachment Position

- Down Tube

Lever Clamp Diameter

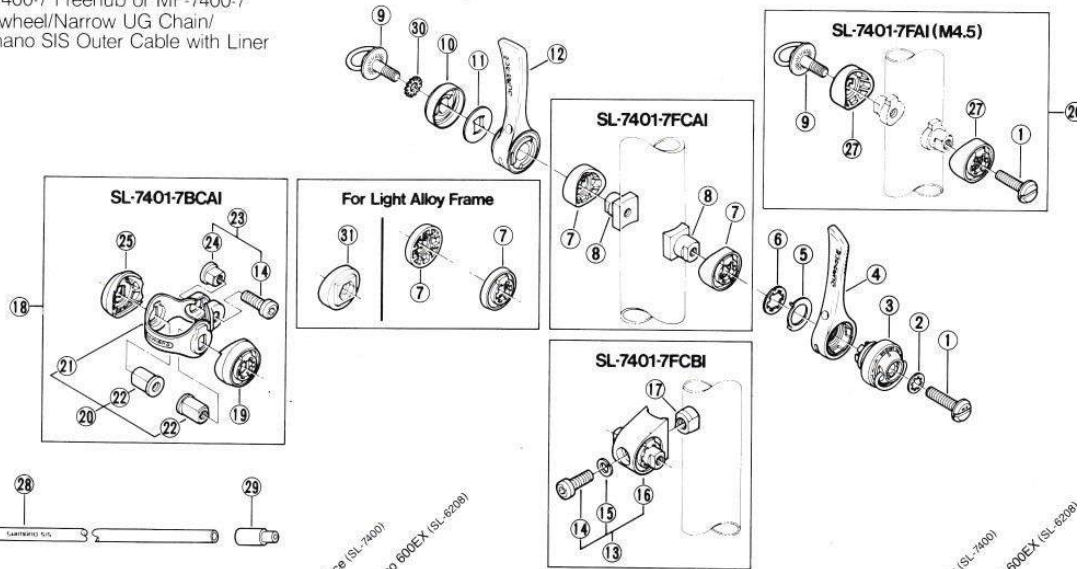
- 1-1/8" (28.6mm.)

Use ● SIS with Dura-Ace RD-7401 Rear Derailleur/

FH-7400-7 Freehub or MF-7400-7

Freewheel/Narrow UG Chain/

Shimano SIS Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	613 3330	Lever Fixing Bolt (M5) for Rear	B
	613 3320	Lever Fixing Bolt (M4.5) for Rear	B
2	613 4410	Teethed Washer for Rear	A
3	680 9851	SIS Unit	
4	680 0110	Rear Lever	B
5	680 3110	Stopper Washer	A A
6	680 0710	Spacer for Rear	B
	643 3810-1	Lever Boss Cover for Brazed-on A-Type (M5)	B A
7	613 4300	Lever Boss Cover for Light Alloy Frame	A A
8	680 0900	Brazed-on Boss for A-Type (M5)	A A
9	3-680 9854	Lever Fixing Bolt (M5) for Front	
	3-680 9855	Lever Fixing Bolt (M4.5) for Front	
10	680 6400	Friction Cap	
11	610 1300	Washer C	A A
12	3-680 9853	Front Lever Unit	
13	3-643 9807	Housing Unit for Brazed on B-Type (M5)	A
14	681 6400	Fixing Bolt (M5 x 17mm)	A A
15	231 0700	Spring Washer	A A
16	613 4200	Housing	A A
17	681 6200	Brazed-on Boss for B-Type	A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
18	3-680 9850	Clamp Band Unit	A
19	613 3850	Lever Boss Cover for Rear/Band Type (M5)	A
20	3-643 9805	Clamp Band & Lever Boss	A A
21	681 3102	Clamp Band	A A
22	643 4000	Lever Boss	A A
23	3-680 9806	Clamp Bolt & Nut	A A
24	681 3800	Clamp Nut	A A
25	643 3860	Lever Boss Cover for Front / Band Type (M5)	A
26	3-680 9858	Conversion Kit for M4.5 Lever Boss	
27	643 3800	Lever Boss Cover for Brazed-on A-Type (M4.5)	A
28	603 7274-8	SIS Outer Casing (270mm / Gray)	A B
29	680 4100	Ferrule (Frame Side)	A A
30	623 7400	Teethed Washer for Front	
31	613 4310	Lever Boss Cover for Rear / Cannondale Frame	

A: Same parts. 8705-E754D
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (SL-7401).

Shifting Lever

SL-7400-BCAI
(6-speed SIS, Side Band A-Type)

SL-7400-FCAI
(6-speed SIS, Side-Brazed-on A-Type)

SL-7400-FCBI
(6-speed SIS, Mount-Brazed-on B-Type)

SL-7400-FCA
(Brazed-on A-Type)

SL-7400-FCB
(Brazed-on B-Type)

SL-7400-BCA
(Band A-Type)

SL-7400-FAI
(6-speed SIS, Side-Brazed-on A Type/M4.5)



Shifting Lever

SL-7400-BCAI* (6-speed SIS, Side Band A-Type)

SL-7400-FCAI (6-speed SIS, Side-Brazed-on A-Type)

SL-7400-FCBI (6-speed SIS, Mount-Brazed-on B-Type)

SL-7400-FCA (Brazed-on A-Type)

SL-7400-FCB (Brazed-on B-Type)

SL-7400-BCA (Band A-Type)

SL-7400-FAI (6-speed SIS, Side-Brazed-on A Type/M4.5)

*"C" of model number means Italian type (Fixing bolt is 5mm diameter.)



■ Specifications

- Features
- 6-speed SIS (Shimano Index System)
 - SIS/Friction Changeover, Sealed Mechanism, Non-loosening Mechanism, Human Engineered Design

Weight • SL-7400-BCAI: 2.5 oz. (72g.)

- Material
- Light Alloy•Buff Finish (Lever)
 - Steel•Chrome-Plated (Fixing Bolt, Clamp)
 - Zinc•Chrome-Plated (Top-mount Housing)

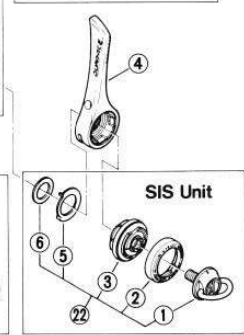
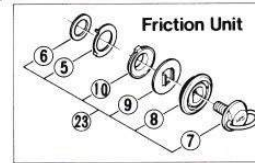
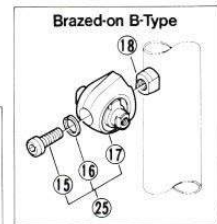
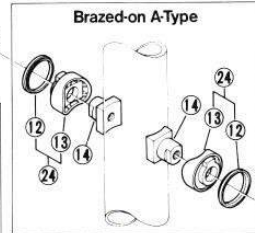
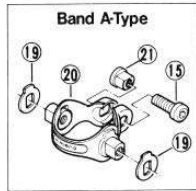
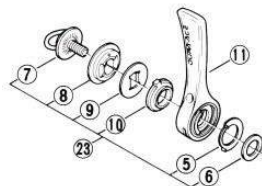
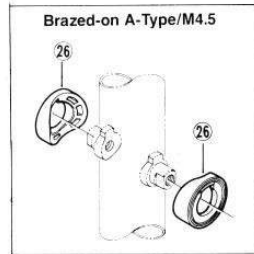
Attachment Position

- Down Tube

Lever Clamp Diameter

- 1-1/8" (28.6mm.)

- Use
- SIS with Dura-Ace Rear Derailleur/ FH-7400-6 Freehub or MF-7400-6 Freewheel/UG Chain/ Shimano SIS Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-680 9811	Lever Fixing Bolt for Rear (SIS)	
	3-680 9821	Lever Fixing Bolt for Rear (SIS) M4.5	
2	680 2200	Cover (SIS)	
3	3-680 9805	Index Unit (SIS)	
4	680 0100	Rear Lever	
5	680 3110	Stopper Washer	
6	680 0700	Spacer	
7	3-680 9801	Lever Fixing Bolt (Friction)	
8	680 0500	Cap (Friction)	
9	640 1300	Washer C (Friction)	
10	680 0600	Friction Bushing (Friction)	
11	680 0200	Front Lever	
12	687 5400	Seal Ring	
13	687 5300	Brazed-on Boss Cover	A
14	680 0900	Brazed-on Boss for A-Type	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
15	681 6400	Fixing Bolt (M5 x 17)	A
16	231 0700	Spring Washer	
17	644 2104	Housing	
18	681 6200	Brazed-on Boss for B-Type	A
19	681 4100	Washer A	A
20	3-680 9824	Clamp Band w/ Lever Boss	B
21	681 3800	Clamp Nut	A
22	3-680 9822	Shifter Parts for SIS Unit	
23	3-680 9812	Shifter Parts for Friction Unit	
24	3-636 9828	Brazed-on Boss Cover & Seal Ring	
25	3-680 9830	Housing Unit	
26	644 2001	Brazed-on Boss Cover	

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (SL-7400).

Shifting Lever

SL-5000-FCAI (7-speed SIS, Side Brazed-on A-Type)
SL-5000-FCBI (7-speed SIS, Mount Brazed-on B-Type)

SL-5000-BCAI (7-speed SIS, Band A-Type)
SL-5000-FAI (7-speed SIS, Side Brazed-on A-Type/M4.5)



Shifting Lever

SL-5000-FCAI* (7-speed SIS, Side Brazed-on A-Type)
SL-5000-FCBI (7-speed SIS, Mount Brazed-on B-Type)
SL-5000-BCAI (7-speed SIS, Band A-Type)
SL-5000-FAI (7-speed SIS, Side Brazed-on A-Type/M4.5)

* "C" of model number means Italian type (Fixing bolt is 5mm diameter).

■ Specifications

Features ● 7-speed SIS (Shimano Index System)

- SIS/Friction Changeover, Sealed Mechanism, Light Action Shifting
- Human Engineered Design, Cable End Cover

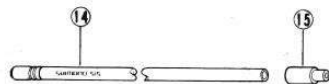
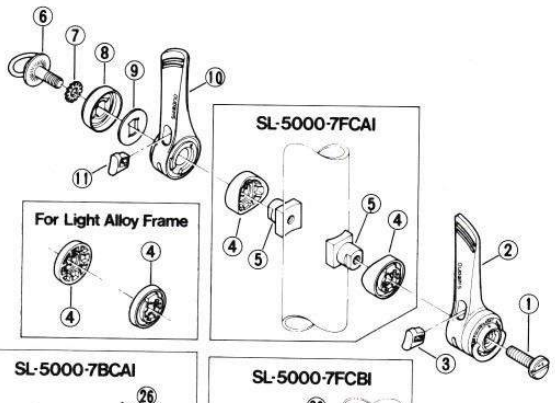
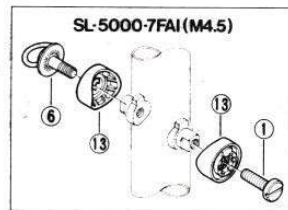
Weight ● SL-5000-FCAI: 2.5 oz. (70g.)

Material ● Light Alloy • Pearl White Paint (Lever)

Attachment Position ● Down Tube

Lever Clamp Diameter ● 1-1/8" (28.6mm.)

- Use ● SIS with RD-5001 Rear Derailleur/FH-5000 Freehub/Narrow UG Chain/Shimano SIS Outer Cable with Liner



Dura-Ace (SL-7401)
 Shimano 60DEX (SL-6208)
 Shimano 105 (SL-1050)

Dura-Ace (SL-7401)
 Shimano 60DEX (SL-6208)
 Shimano 105 (SL-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	65A 1200	Lever Fixing Bolt (M5) for Rear	A
1	65A 1210	Lever Fixing Bolt (M4.5) for Rear	A
2	3 618 9802	SIS Rear Lever Unit	
3	618 5600	Inner Cover for Rear	
4	643 3810 1	Lever Boss Cover for SL-5000-7FCAI (M5)	A A B
	643 4300	Lever Boss Cover for Light Alloy Frame	A A B
5	680 0900	Brazed-on Boss for SL-5000-7FCAI (M5)	A A A
6	3 618 9803	Lever Fixing Bolt (M5) for Front	B
	3 618 9805	Lever Fixing Bolt (M4.5) for Front	B
7	623 7400	Teethed Washer for Front	B
8	618 5800	Friction Cap	B
9	640 1300	Washer C	A A
10	3 618 9801	Front Lever Unit	
11	618 5700	Inner Cover for Front	
12	3 618 9804	Conversion Kit for M4.5 Lever Boss	
13	643 3800	Lever Boss Cover for SL-5000-7FAI (M4.5)	A A B
14	603 7274-8	SIS Outer Casing (270mm / Gray)	A B B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
15	680 4100	Ferrule (Frame Side)	A A A
16	3 613 9807	Housing Unit for SL-5000-7FCBI (M5)	A A
17	681 6400	Housing Fixing Bolt (M5 x 17mm)	A A B
18	231 0700	Spring Washer	A A A
19	613 4200	Housing	A
20	681 6200	Brazed on Boss SL-5000-7FCBI	A A A
21	3 613 9809	Clamp Band Unit	B A B
22	643 3850	Lever Boss Cover for Rear / SL-5000-7BCAI (M5)	A A B
23	3 613 9805	Clamp Band & Lever Boss	A A B
24	681 3102	Clamp Band	A A B
25	643 4000	Lever Boss	A A A
26	3 681 9811	Clamp Screw & Nut	B A A
27	681 1500	Clamp Screw	B A A
28	681 3800	Clamp Nut	A A A
29	613 3860	Lever Boss Cover for Front / SL-5000-7BCAI (M5)	A A B

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (SL-5000).
 8705-E796C

Shifting Lever

SL-6400-BCAI
(SIS, Side Band A-Type)

SL-6400-BCBI
(SIS, Mount Band B-Type)

SL-6400-FCAI
(SIS, Side Brazed-on A-Type)

SL-6400-FCBI
(SIS, Mount Brazed-on B-Type)

SL-6400-FAI
(SIS, Side Brazed-on A-Type M4.5)



Shifting Lever

SL-6400-BCAI (SIS, Side Band A-Type)

SL-6400-BCBI (SIS, Mount Band B-Type)

SL-6400-FCAI (SIS, Side Brazed-on A-Type)

SL-6400-FCBI (SIS, Mount Brazed-on B-Type)

SL-6400-FAI (SIS, Side Brazed-on A-Type M4.5)

*"C" of model number means Italian type (Fixing bolt is 5mm diameter)

■ Specifications

Features • Same Lever for 6- & 7-speed SIS (Shimano Index System)

- SIS/Friction Changeover, Light Action Shifting, Human Engineered Design, Sealed Mechanism

Weight • SL-6400-FCAI 2.1 oz. (60g.)

Material • Light Alloy • Dark Gray Paint

Attachment Position

- Down Tube

Lever Clamp Diameter

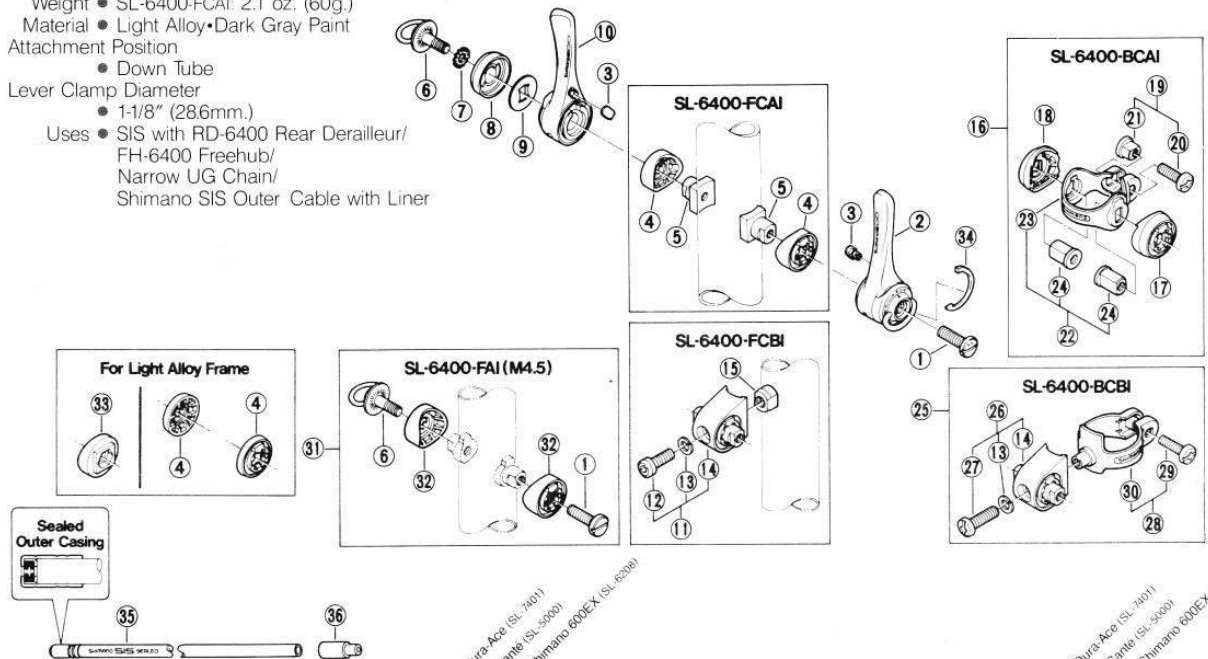
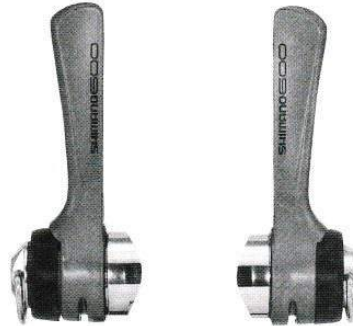
- 1-1/8" (28.6mm.)

Uses • SIS with RD-6400 Rear Derailleur/

FH-6400 Freehub/

Narrow UG Chain/

Shimano SIS Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	66C 1000	Lever Fixing Bolt (M5) for Rear	B
	65A 1210	Lever Fixing Bolt (M4.5) for Rear	B
2	3-66C 9801	SIS Rear Lever Unit	
3	66C 1700	Inner Cover	
	643 3810-1	Lever Boss Cover for SL-6400-FCAI (M5)	A A A
4	643 4300	Lever Boss Cover for Light Alloy Frame	A A A
	680 0900	Brazed-on Boss for SL-6400-FCAI (M5)	A A A
6	3-66C 9802	Lever Fixing Bolt (M5) for Front	A B
	3-66C 9803	Lever Fixing Bolt (M4.5) for Front	A B
7	623 7400	Teethed Washer for Front	A A
8	66C 1600	Friction Cap	B B
9	640 1300	Washer C	A A A
10	3-66C 9804	Front Lever Unit	
11	3-643 9807	Housing Unit for SL-6400-FCBI	A A A
		Housing Fixing Bolt (M5 x 17mm) for SL-6400-FCBI	A A A
12	681 6400		
13	231 0700	Spring Washer	A A A
14	643 4200	Housing	A A A
15	681 6200	Brazed-on Boss for SL-6400-FCBI	A A A
16	3-643 9809	Clamp Band Unit for SL-6400-BCAI	A A A
17	643 3850	Lever Boss Cover for Rear / SL-6400-BCAI (M5)	A A A
18	643 3860	Lever Boss Cover for Front / SL-6400-BCAI (M5)	A A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
19	3-681 9811	Clamp Screw & Nut	A A A
20	681 1500	Clamp Screw (M5 x 16mm) for SL-6400-BCAI	A A A
21	681 3800	Clamp Screw	A A A
22	3-643 9805	Clamp Band & Lever Boss	A A A
23	681 3102	Clamp Band for SL-6400-BCAI	A A A
24	643 4000	Lever Boss	A A A
25	3-643 9821	Clamp Band Unit for SL-6400-BCBI	A
26	3-643 9820	Housing Unit for SL-6400-BCBI	A
27	690 0900	Housing Fixing Screw (M5 x 18mm) for SL-6400-BCBI	A
28	3-690 9810	Clamp Band & Screw for SL-6400-BCBI	A
29	681 1600	Clamp Screw (M5 x 14mm) for SL-6400-BCBI	A
30	690 1000-1	Clamp Band for SL-6400-BCBI	A
31	3-66C 9805	Conversion Kit for M4.5 Lever Boss	B B
32	643 3800	Lever Boss Cover for SL-6400-FAI (M4.5)	A A A
33	643 4310	Lever Boss Cover for Rear / Cannondale Frame	A A A
34	66C 1500	Adapter for 6-Speed	
35		SIS sealed outer casing (27.0mm/Gray)	B B B
36		SIS Sealed Ferrule (Frame Side)	A A A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (SL-6400).

Shifting Lever

SL-1050-BCAI
(SIS, Side Band A-Type)

SL-1050-BCBI
(SIS, Mount Band B-Type)

SL-1050-FCAI
(SIS, Side Brazed-on A-Type)

SL-1050-FCBI
(SIS, Mount Brazed-on B-Type)

SL-1050-FAI
(SIS, Side Brazed-on A-Type M4.5)



Shifting Lever

SL-1050-BCAI* (SIS, Side Band A-Type)

SL-1050-BCBI (SIS, Mount Band B-Type)

SL-1050-FCAI (SIS, Side Brazed-on A-Type)

SL-1050-FCBI (SIS, Mount Brazed-on B-Type)

SL-1050-FAI (SIS, Side Brazed-on A-Type M4.5)

*"C" of model number means Italian type (Fixing bolt is 5mm diameter).

■ Specifications

Features ● 6-speed SIS (Shimano Index System)

- SIS/Friction Changeover, Light Action Shifting, Human Engineered Design, Sealed Mechanism,

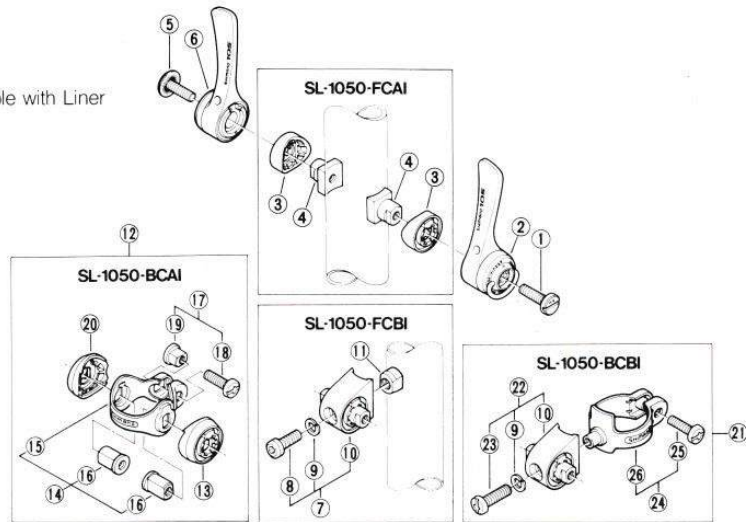
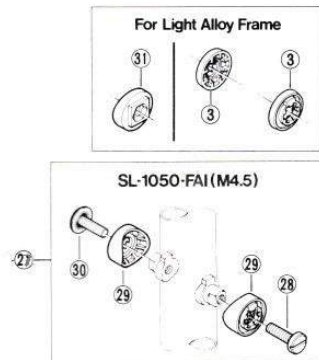
Weight ● SL-1050-FCAI: 2.4 oz. (68g.)

Material ● Light Alloy (Lever)
● Steel-Chrome-Plated (Fixing Bolt, Clamp)
● Zinc-Chrome-Plated (Top-mount Housing)

Attachment Position ● Down Tube

Lever Clamp Diameter ● 1-1/8" (28.6mm.)

- Use ● SIS with RD-1050 Rear Derailleur/
FH-1050 Freehub or MF-Z012 Freewheel/
Shimano UG Chain/Shimano SIS Outer Cable with Liner



Shimano 600EX (SL-6000)

Shimano 600EX (SL-6200)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	65A 1200	Lever Fixing Bolt for Rear (M5)	
2	3-65A 9801	SIS Rear Lever Unit	
3	643 3811-1	Lever Boss Cover for SL-1050-FCAI (M5)	B
	643 4302	Lever Boss Cover for Light Alloy Frame	B
4	680 0900	Brazed-on Boss for SL-1050-FCAI (M5)	A
5	65A 2100	Lever Fixing Bolt for Front (M5)	
6	3-65A 9802	Front Lever Unit	
7	3-643 9812	Housing Unit for SL-1050-FCBI	B
8	681 6400	Housing Fixing Bolt (M5 x 17mm) for SL-1050-FCBI	A
9	231 0700	Spring Washer	A
10	643 4210	Housing	B
11	681 6200	Brazed-on Boss for SL-1050-FCBI	A
12	3-643 9814	Clamp Band Unit for SL-1050-BCAI	B
13	643 3851	Lever Boss Cover for Rear / SL-1050-BCAI (M5)	B
14	3-643 9813	Clamp Band & Lever Boss	B
15	681 3104	Clamp Band for SL-1050-BCAI	B
16	643 4000	Lever Boss	A
17	3-681 9811	Clamp Screw & Nut	A
18	681 1500	Clamp Screw (M5 x 16mm) for SL-1050-BCAI	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
19	681 3800	Clamp Nut	A
20	643 3861	Lever Boss Cover for Front / SL-1050-BCAI (M5)	B
21	3-643 9816	Clamp Band Unit for SL-1050-BCBI	B
22	3-643 9815	Housing Unit for SL-1050-BCBI	B
23	690 0900	Housing Fixing Screw (M5 x 18mm) for SL-1050-BCBI	A
24	3-690 9809	Clamp Band & Screw for SL-1050-BCBI	B
25	681 1600	Clamp Screw (M5 x 14mm) for SL-1050-BCBI	A
26	690 1001-1	Clamp Band for SL-1050-BCBI	B
27	3-65A 9803	Conversion Kit for M4.5 Lever Boss	
28	65A 1210	Lever Fixing Bolt for Rear (M4.5)	
29	643 3801	Lever Boss Cover for SL-1050-FAI (M4.5)	B
30	65A 2410	Lever Fixing Bolt for Front (M4.5)	
31	643 4310	Lever Boss Cover for Rear / Cannondale Frame	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 105 (SL-1050).

8608-E764A

Shifting Lever
SL-M730



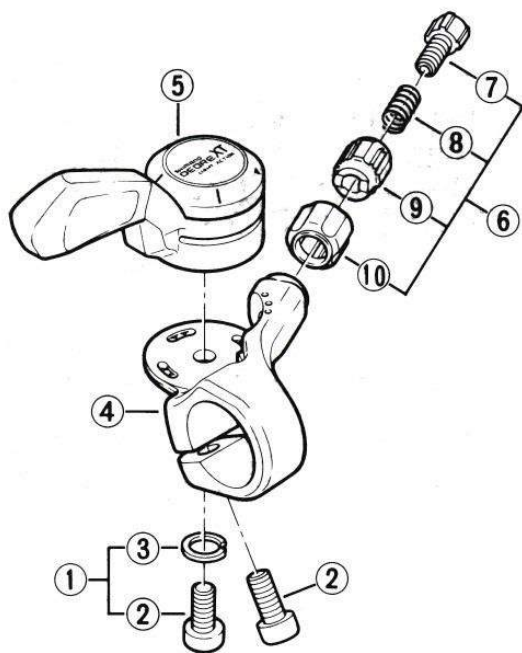
Shifting Lever
SL-M730

■ Specifications

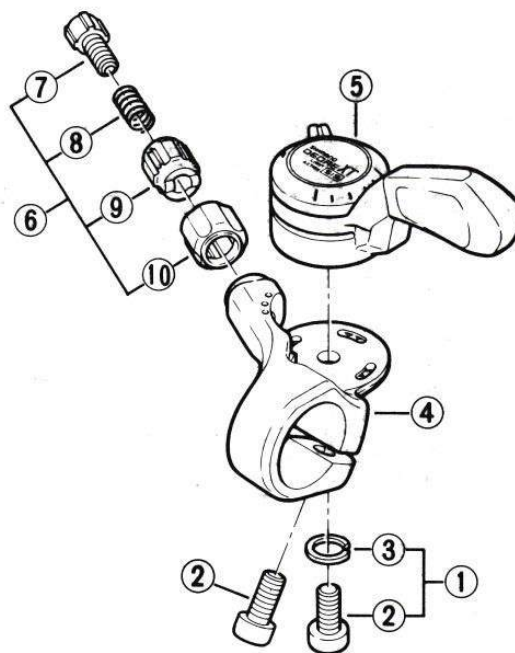
- Features • 6-speed SIS (Shimano Index System)
 • SIS/Friction Changeover,
 Light Action Shifting,
 Low Profile Design, 3-step Lever Adjustment,
 Digital Cable Adjust Mechanism,
 Sealed Mechanism
- Weight • 6.2 oz. (191g.)
- Material • Light Alloy
- Attachment Position
 • Handlebar
- Lever Clamp Diameter
 • 7/8" (22.2mm.)
- Use • SIS with RD-M730 Rear Derailleur/
 FH-M730 Freehub or MF-6208 Freewheel/
 Shimano SIS-SP Outer Cable with Liner



For Front Lever



For Rear Lever



DEORE (SL-M730)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-66A 9803	Fixing Bolt & Spring Washer	B
2	66A 2900	Fixing Bolt	*B
3	231 0700	Spring Washer	A
4	66A 0100	Lever Bracket for Rear	
	66A 0200	Lever Bracket for Front	
5	3-66A 9801	Lever Unit for Rear	B
	3-66A 9802	Lever Unit for Front	B
6	3-66A 9804	Cable Adjusting Barrel Unit	B

DEORE (SL-M730)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
7	66A 3400	Cable Adjusting Barrel	A
8	516 1000	Cable Adjusting Spring	A
9	516 1101	Cable Adjusting Plate	A
10	556 0300	Cable Adjusting Cap	B

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 *B: Fixing bolt for lever bracket only.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE XT (SL-M730).

Shifting Lever SL-MT60



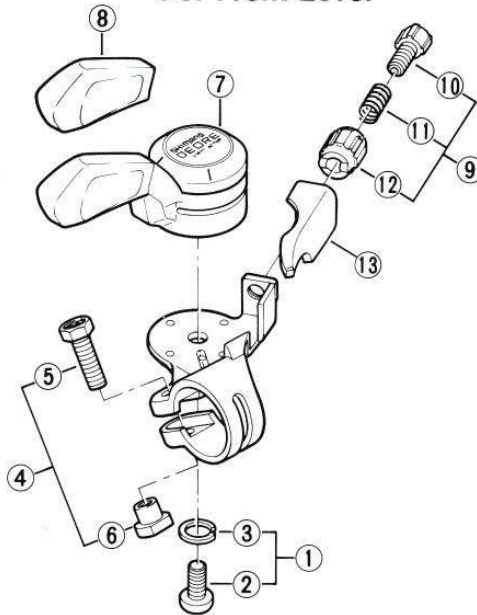
Shifting Lever SL-MT60

■ Specifications

- Features
- 6-speed SIS (Shimano Index System)
 - SIS/Friction Changeover, Light Action Shifting, Digital Cable Adjust Mechanism, Sealed Mechanism
- Weight
- 7.4 oz. (210g.)
- Material
- Light Alloy
- Attachment Position
- Handlebar
- Lever Clamp Diameter
- 7/8" (22.2mm.)
- Use
- SIS with RD-MT60, RD-M730 Rear Derailleur/FH-MT60, FH-M730 Freehub, MF-6208, MF-Z012 Freewheel/ Shimano UG Chain/ Shimano SIS-SP Outer Cable with Liner

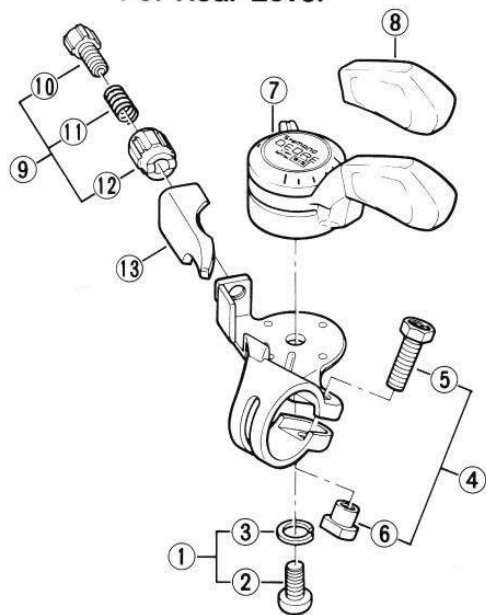


For Front Lever



DEORE XT (SL-M730)

For Rear Lever



DEORE XT (SL-M730)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-66B 9804	Lever Fixing Bolt (M5 x 10) & Spring Washer	B
2	66B 0900	Lever Fixing Bolt (M5 x 10)	B
3	231 0700	Spring Washer	A
4	3-66B 9805	Bracket Fixing Bolt (M5 x 16) & Nut	B
5	66B 0800	Bracket Fixing Bolt (M5 x 16)	B
6	848 0600	Bracket Fixing Nut	B
7	3-66B 9801	Lever Unit for Rear	B
7	3-66B 9802	Lever Unit for Front	B
8	66A 0500	Lever Cap for Rear	A
8	66A 0600	Lever Cap for Front	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
9	3 66B 9803	Cable Adjusting Barrel Unit	B
10	66A 3400	Cable Adjusting Barrel	A
11	516 1000	Cable adjusting Spring	A
12	516 1101	Cable Adjusting Plate	A
13	66B 0300	Cable Adjusting Cover for Rear	B
	66B 0400	Cable Adjusting Cover for Front	B

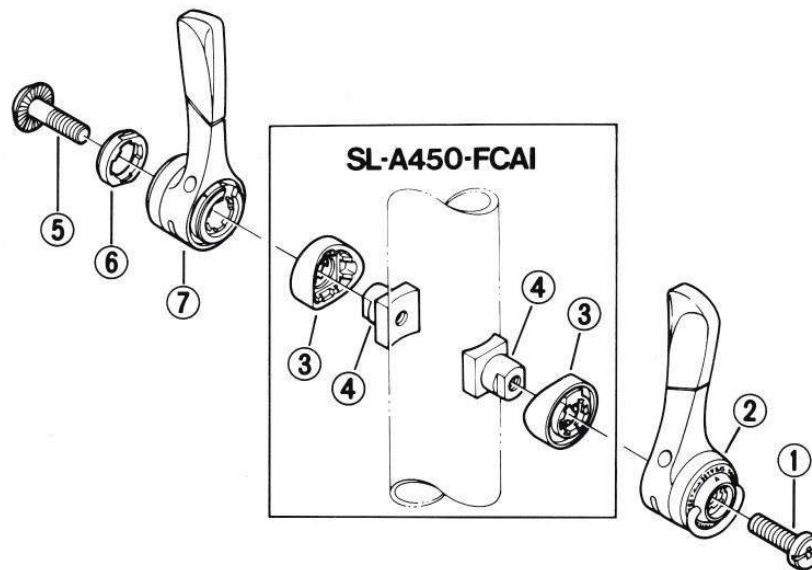
A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE (SL-MT60). 8611-E784A

Shifting Lever
SL-A450-FCAI (SIS, Side Brazed-on A-Type)



Shifting Lever
SL-A450-FCAI (SIS, Side Brazed-on A-Type)
 *"C" of model number means Italian type (Fixing bolt is 5mm diameter)

- Specifications
- Features
- 6-speed SIS (Shimano Index System)
 - Front SIS (Shimano Index System) w/Cable Adjustment Mechanism and Friction Mode
 - SIS/Friction Changeover, Light Action Shifting (Rear), Rubber Lever Cover, Sealed Mechanism
- Weight ● SL-A450-FCAI: 2.5 oz. (70g.)
- Material ● Light Alloy (Lever)
- Attachment Position
- Down Tube
- Lever Clamp Diameter
- 1-1/8" (28.6mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	63D 0300	Lever Fixing Bolt for Rear
2	3 63D 9801	SIS Rear Lever Unit
3	643 3810-1	Lever Boss Cover
4	680 0900	Brazed-on Boss for A-Type
5	63D 1700	Lever Fixing Bolt for Front
6	63D 1200	SIS-Ring for Front
7	3 63D 9802	SIS Front Lever Unit

8711-E869

Shifting Lever SL-M450

EXAGE
mountain

SIS
Compatible

Shifting Lever SL-M450

Specifications

- Features**
- 6-speed SIS (Shimano Index System)
 - Front SIS (Shimano Index System)
 - SIS/Friction Changeover, Digital Cable Adjust Mechanism, Light Action Shifting (Front), Sealed Mechanism

Weight • 6.3 oz. (178g.) Pair w/o BL-M450

- Material**
- Resin•Graphite Gray Metallic (Lever)
 - Steel•Black Finish (Bracket)
 - Rubber•Black (Lever Cover)

Type • Thumbshifter Integrated w/Brake Lever
Attachment Position

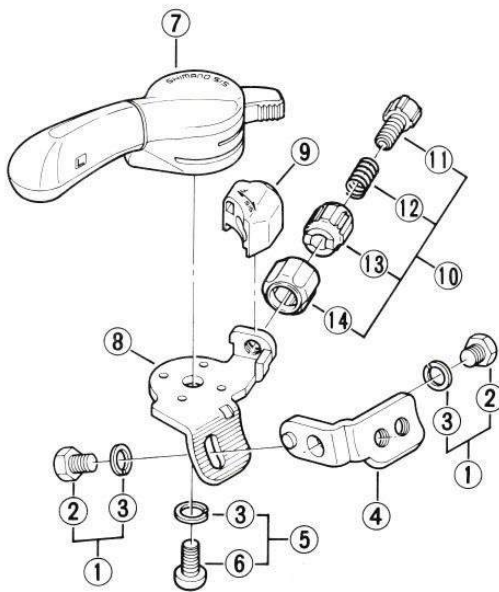
- Handlebar

Lever Clamp Diameter

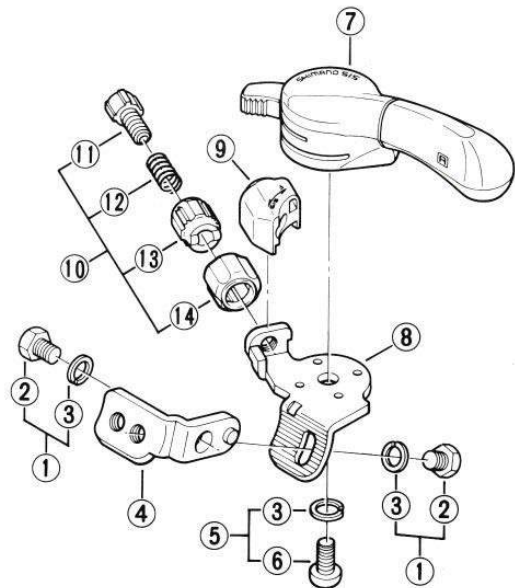
- 7/8" (22.2mm.)



For Front Lever



For Rear Lever



ITEM NO.	PART NO.	DESCRIPTION
1	3-62F 9801	Bracket Fixing Screw (M5 x 6.6) & Spring Washer
2	62F 2100	Bracket Fixing Screw (M5 x 6.6)
3	231 0700	Spring Washer
4	62F 0900	Bracket Adapter for Rear
	62F 1000	Bracket Adapter for Front
5	3-66B 9801	Lever Fixing Bolt (M5 x 10) & Spring Washer
6	66B 0900	Lever Fixing Bolt (M5 x 10)
7	3-62F 9802	SIS Rear lever Unit
	3-62F 9803	SIS Front Lever Unit

ITEM NO.	PART NO.	DESCRIPTION
8	62F 0700	Lever Bracket for Rear
	62F 0800	Lever Bracket for Front
9	62F 1100	Cover for Rear
	62F 1200	Cover for Front
10	3-66A 9804	Cable Adjusting Barrel Unit
11	66A 3400	Cable Adjusting Barrel
12	516 1000	Cable Adjusting Spring
13	516 1101	Cable Adjusting Plate
14	556 0300	Cable Adjusting Cap

8710-E858

Shifting Lever
SL-M350

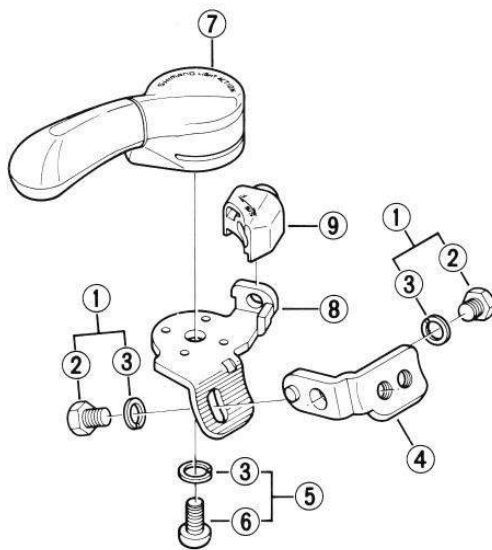


Shifting Lever
SL-M350

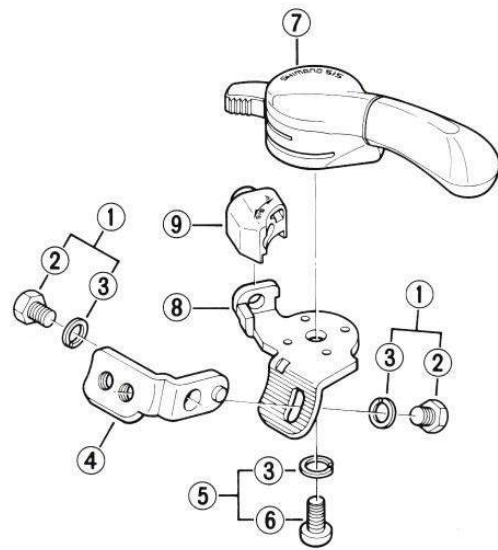
- Specifications
- Features
 - 6-speed SIS (Shimano Index System)
 - SIS/Friction Changeover.
 - Light Action Shifting (Front).
 - Sealed Mechanism
- Weight
 - 5.6 oz. (160g.) Pair w/o BL-M350
- Material
 - Resin • Graphite Black Metallic Finish (Lever)
 - Steel • Black Finish (Bracket)
- Type
 - Thumbshifter Integrated w/Brake Lever
- Attachment Position
 - Handlebar
- Lever Clamp Diameter
 - 7/8" (22.2mm.)



For Front Lever



For Rear Lever



ITEM NO.	PART NO.	DESCRIPTION
1	3 62F 9801	Bracket Fixing Screw (M5 x 6.6) & Spring washer
2	62F 2100	Bracket Fixing Screw (M5 x 6.6)
3	231 0700	Spring Washer
4	62F 0900	Bracket Adapter for Rear
	62F 1000	Bracket Adapter for Front
5	3 66B 9804	Lever Fixing Bolt (M5 x 10) & Spring Washer
6	66B 0900	Lever Fixing Bolt (M5 x 10)

ITEM NO.	PART NO.	DESCRIPTION
7	3-62G 9801	SIS Rear Lever Unit
	3-62G 9802	Front Lever Unit
8	62G 0700	Lever Bracket for Rear
	62G 0800	Lever Bracket for front
	62G 0300	Cover for Rear
9	62G 0400	Cover for Front

8709-E856

Shifting Lever

SL-S434-BCAI (SIS, Side Band A-Type)

SL-S434-BCBI (SIS, Mount Band B-Type)

SL-S434-FCAI (SIS, Side Brazed-on A-Type)

SL-S434-FCBI (SIS, Mount Brazed-on B-Type)



Shifting Lever

SL-S434-BCAI (SIS, Side Band A-Type)

SL-S434-BCBI (SIS, Mount Band B-Type)

SL-S434-FCAI (SIS, Side Brazed-on A-Type)

SL-S434-FCBI (SIS, Mount Brazed-on B-Type)

*"C" of model number means Italian type (Fixing bolt is 5mm diameter)

■ Specifications

Features • 6-speed SIS (Shimano Index System)

- SIS/Friction Chageover, Light Action Shifting, Sealed Mechanism

Weight • 2.5 oz. (72g.)

Material • Light Alloy

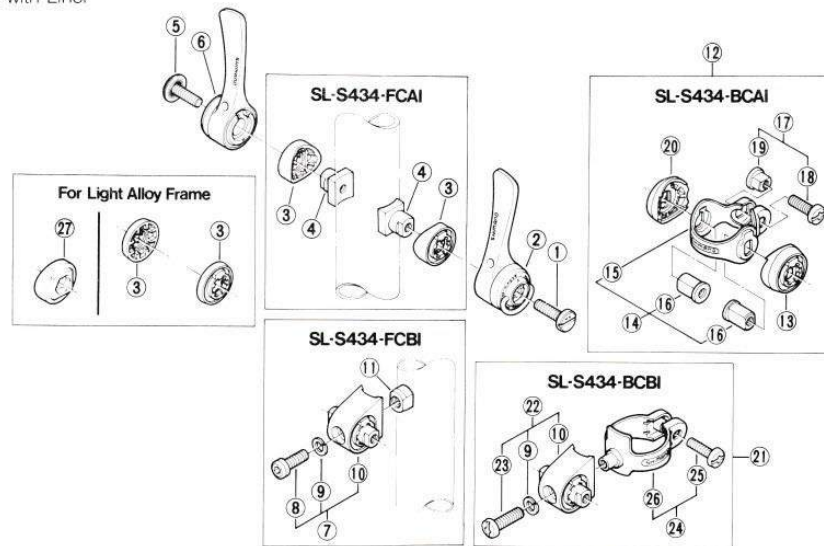
Attachment Position

- Down Tube

Lever Clamp Diameter

- 1-1/8" (28.6mm.)

- Use • SL-S434 lever will provide the SIS shifting function only when used with an SIS-compatible rear derailleur (excluding Dura-Ace), 6-speed SIS-type freewheel or freehub cassette, UG Chain and SIS Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION
1	65A 1200	Lever Fixing Bolt for Rear
2	3 63A 9801	SIS Rear Lever Unit
3	613 3810-1	Lever Boss Cover for SL-S434-FCAI
4	643 4300	Lever Boss Cover for Light Alloy Frame
5	680 0900	Brazed-on Boss for SL-S434-FCAI
6	65A 2400	Lever Fixing Bolt for Front
7	3 63A 9802	Front Lever Unit
8	3 643 9807	Housing Unit for SL-S434-FCBI
9	681 6100	Housing Fixing Bolt (M5 x 17mm) for SL-S434-FCBI
10	231 0700	Spring Washer
11	643 4200	Housing
12	681 6200	brazed on Boss for SL-S434-FCBI
13	3 613 9809	Clamp Band Unit for SL-S434-BCAI
14	643 3850	Lever Boss Cover for Rear / SL-S434-BCAI

ITEM NO.	PART NO.	DESCRIPTION
11	3 643 9805	Clamp Band & Lever Boss
15	681 3102	Clamp Band for SL-S434-BCAI
16	643 4000	Lever Boss
17	3-681 9811	Clamp Screw & Nut
18	681 1500	Clamp Screw (M5 x 10mm) for SL-S434-BCAI
19	681 3800	Clamp Nut
20	643 3860	Lever Boss Cover for Front / SL-S434-BCAI
21	3 643 9821	Clamp Band Unit for SL-S434-BCBI
22	3 643 9820	Housing Unit for SL-S434-BCBI
23	690 0900	Housing Fixing Screw (M5 x 18mm) for SL-S434-BCBI
24	3 690 9810	Clamp Band & Screw for SL-S434-BCBI
25	681 1600	Clamp Screw (M5 x 14mm) for SL-S434-BCBI
26	690 1000-1	Clamp Band for SL-S434-BCBI
27	643 4310	Lever Boss Cover for Rear / Cannondale Frame

8608-E780

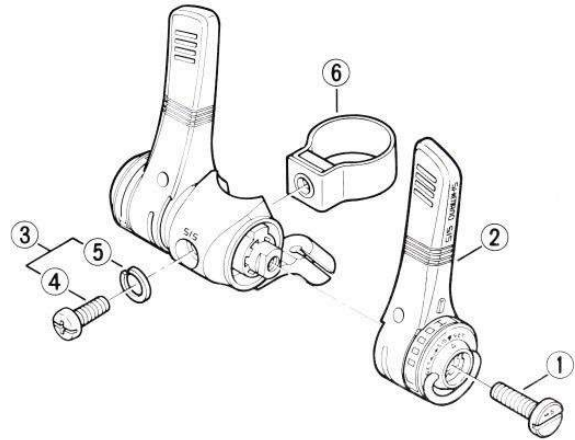
Shifting Lever
SL-S441 (For Stem Tube)

Shifting Lever
SL-MS55

Shifting Lever
SL-S441 (For Stem Tube)



- Specifications
- Features ● 6-speed SIS (Shimano Index System)
● SIS/Friction Changeover, Light Action Shifting
- Weight ● 4.9 oz. (141g.)
- Material ● Light Alloy & Resin
- Attachment Position ● Handle Stem
- Lever Clamp Diameter ● 7/8" (22.2mm.)
- Use ● SL-S441 lever will provide the SIS shifting function only when used with an SIS-compatible rear derailleur (excluding Dura-Ace), 6-speed SIS-type freewheel or freehub cassette, UG Chain and SIS-SP Outer Cable with Liner



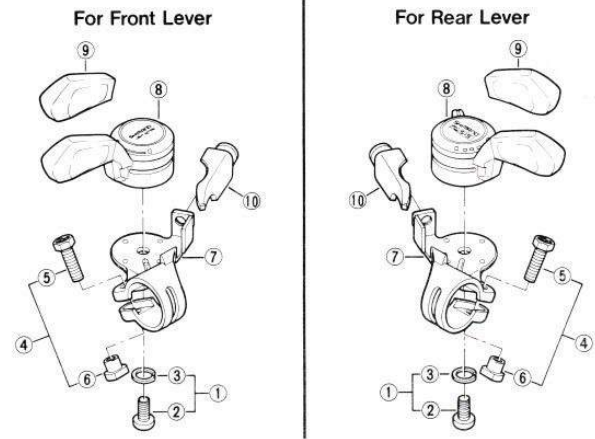
ITEM NO.	PART NO.	DESCRIPTION
1	65A 1200	Lever Fixing Bolt
2	3 63F 9801	SIS Rear Lever Unit
3	630 9830	Clamp Screw & Spring Washer
4	630 1700	Clamp Screw
5	231 0700	Spring Washer
6	3 630 9806	Clamp Band

8708-E847

Shifting Lever
SL-MS55



- Specifications
- Features ● 6-speed SIS (Shimano Index System)
● SIS/Friction Changeover, Light Action Shifting
- Weight ● 7.2 oz. (203g.) Pair
- Material ● Light Alloy & Resin
- Attachment Position ● Handlebar
- Lever Clamp Diameter ● 7/8" (22.2mm.)
- Uses ● SL-MS55 lever will provide the SIS shifting function only when used with an SIS-compatible rear derailleur (excluding Dura-Ace), 6-speed SIS-type freewheel or freehub cassette, UG Chain and SIS-SP Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION
1	3 66B 9804	Lever Fixing Bolt (M5 x 10) & Spring Washer
2	66B 9900	Lever Fixing Bolt (M5 x 10)
3	231 0700	Spring Washer
4	3 66B 9805	Bracket Fixing Bolt (M5 x 16) & Nut
5	66B 0800	Bracket Fixing Bolt (M5 x 16)
6	818 0500	Bracket Fixing Nut
7	62C 0500	Lever Bracket for Rear
	62C 0600	Lever Bracket for Front
8	3 62C 9802	Lever Unit for Rear
	3 62C 9801	Lever Unit for Front
9	66A 0500	Lever Cap for Rear
	66A 0600	Lever Cap for Front
10	62C 0700	Bracket Cover for Rear
	62C 0800	Bracket Cover for Front

8611-E787A

Shifting Lever
SL-MS41
SL-MS40

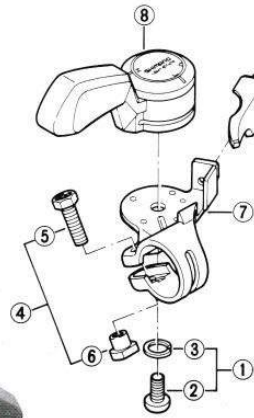
Shifting Lever
SL-MS41



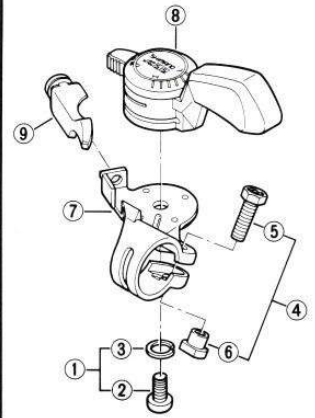
- Specifications
- Features
- 6-speed SIS (Shimano Index System)
 - SIS/Friction Changeover, Light Action Shifting
- Weight
- 6.4 oz. (181g.) Pair
- Material
- Light Alloy & Resin
- Attachment Position
- Handlebar
- Lever Clamp Diameter
- 7/8" (22.2mm.)
- Uses
- SL-MS41 lever will provide the SIS shifting function only when used with an SIS-compatible rear Derailleur (excluding Dura-Ace), 6-speed SIS-type freewheel or freehub cassette, UG Chain and SIS-SP Outer Cable with Liner



For Front Lever



For Rear Lever



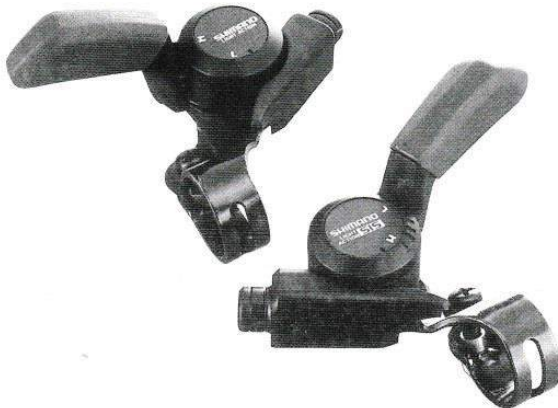
ITEM NO.	PART NO.	DESCRIPTION
1	3 66B 9804	Lever Fixing Bolt (M5 x 10) & Spring Washer
2	66B 0900	Lever Fixing Bolt (M5 x 10)
3	231 0700	Spring Washer
4	3 66B 9805	Bracket Fixing Bolt (M5 x 16) & Nut
5	66B 0800	Bracket Fixing Bolt (M5 x 16)
6	848 0600	Bracket Fixing Nut
7	62H 0400	Lever Bracket for Rear
	62H 0500	Lever Bracket for Front
8	3 62H 9801	SIS Rear Lever Unit
	3 62H 9802	Front Lever Unit
9	62H 0600	Cover for Rear
	62D 0400	Cover for Front

8708-E818

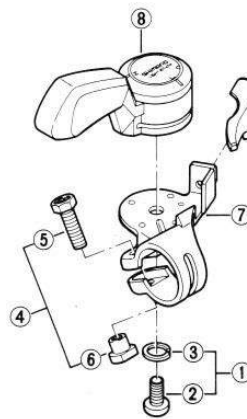
Shifting Lever
SL-MS40



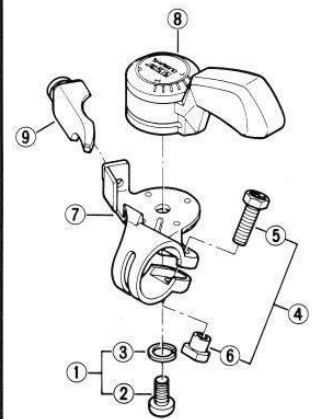
- Specifications
- Features
- 6-speed SIS (Shimano Index System)
 - Light Action Shifting
- Weight
- 6.2 oz. (176g.) Pair
- Material
- Light Alloy & Resin
- Attachment Position
- Handlebar
- Lever Clamp Diameter
- 7/8" (22.2mm.)
- Uses
- SL-MS40 lever will provide the SIS shifting function only when used with an SIS-compatible rear Derailleur (excluding Dura-Ace), 6-speed SIS-type freewheel or freehub cassette, UG Chain and SIS-SP Outer Cable with Liner



For Front Lever



For Rear Lever



ITEM NO.	PART NO.	DESCRIPTION
1	3 66B 9804	Lever Fixing Bolt (M5 x 10) & Spring Washer
2	66B 0900	Lever Fixing Bolt (M5 x 10)
3	231 0700	Spring Washer
4	3 66B 9805	Bracket Fixing Bolt (M5 x 16) & Nut
5	66B 0800	Bracket Fixing Bolt (M5 x 16)
6	848 0600	Bracket Fixing Nut
7	62D 0100	Lever Bracket for Rear
	62D 0200	Lever Bracket for Front
8	3 62D 9802	Lever Unit for Rear
	3 62D 9801	Lever Unit for Front
9	62D 0300	Cover for Rear
	62D 0400	Cover for Front

8611-E786A

Shifting Lever
SL-MT36

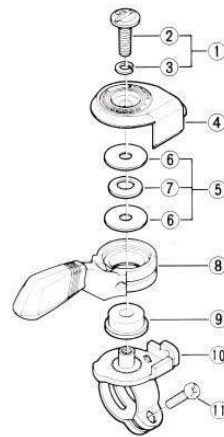
Shifting Lever
SL-MT34

Shifting Lever
SL-MT36

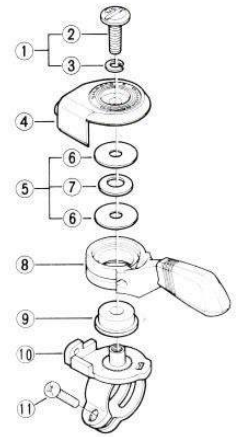
- Specifications
- Weight • 4.4 oz. (124g.) Pair
- Material • Light Alloy & Steel
- Attachment Position
 - Handlebar
- Lever Clamp Diameter
 - 7/8" (22.2mm.)



For Front Lever



For Rear Lever



ITEM NO.	PART NO.	DESCRIPTION
1	3-62A 9803	Lever Fixing Screw & Spring Washer
2	659 1900	Lever Fixing Screw
3	616 1400	Spring Washer
4	3-62B 9803	Cover for Rear
5	3-62B 9804	Cover for Front
6	3-62A 9802	Washer Unit
7	662 0800	Washer B
8	662 1500	Friction Washer
9	3-616 9820	Lever
10	62B 0100	Bushing
11	3-62B 9801	Clamp Band for Rear
	3-62B 9802	Clamp Band for Front
	000 1112	Clamp Screw

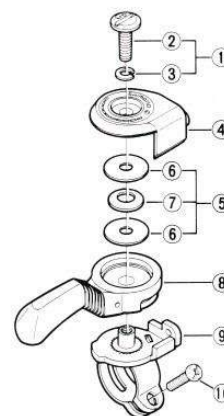
8612-E805

Shifting Lever
SL-MT34

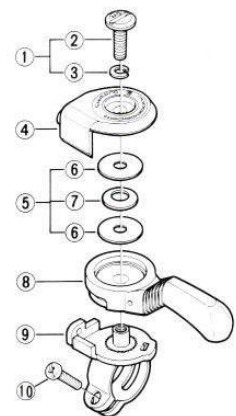
- Specifications
- Weight • 3.7 oz. (106g.) Pair
- Material • Resin & Steel
- Attachment Position
 - Handlebar
- Lever Clamp Diameter
 - 7/8" (22.2mm.)



For Front Lever



For Rear Lever



ITEM NO.	PART NO.	DESCRIPTION
1	3-62A 9803	Lever Fixing Screw & Spring Washer
2	659 1900	Lever Fixing Screw
3	616 1400	Spring Washer
4	3-62A 9805	Cover for Rear
5	3-62A 9806	Cover for Front
6	3-62A 9802	Washer Unit
7	62A 0800	Washer B
8	662 1500	Friction Washer
9	62A 0300	Rear Lever
10	62A 0400	Front Lever
	3-62A 9801	Clamp Band for Rear
	3-62A 9804	Clamp Band for Front
	000 1112	Clamp Screw

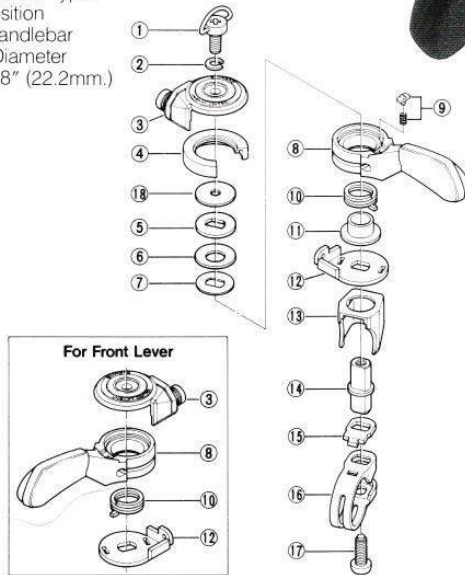
8612-E804

Shifting Lever
SL-AT50

Positron Trigger Lever
SL-3S60

Shifting Lever
SL-AT50

- Specifications
- Weight • 5.0 oz. (143g.) Pair
- Material • Light Alloy
- Type • Friction Type
- Attachment Position
 - Handlebar
- Lever Clamp Diameter
 - 7/8" (22.2mm.)



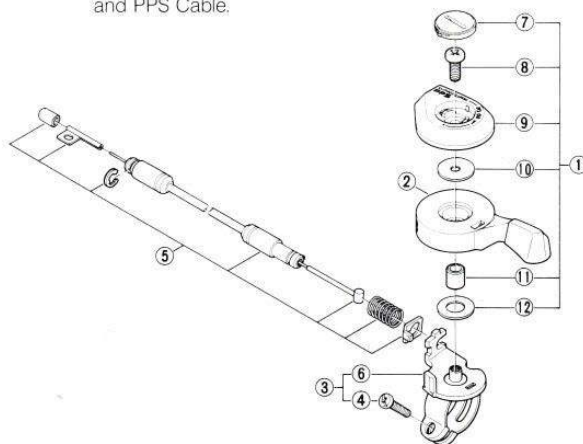
ITEM NO.	PART NO.	DESCRIPTION
1	638 0900	Lever Fixing Screw
2	616 1400	Spring Washer
3	638 0200	Cover for Front
3	638 0100	Cover for Rear
4	638 0300	Seal Ring
5	638 1101	Washer A
6	638 1200	Friction Washer
7	681 3501	Washer B
8	3-638 9801	Front Lever
8	3-638 9811	Rear Lever
9	3-616 9802	Pawl & Spring
10	623 5401	Clutch Spring B for Front
10	623 5400	Clutch Spring A for Rear
11	638 1000	Bushing
12	638 0500	Plate for Front
12	638 0400	Plate for Rear
13	638 0700	Band Cover
14	638 0800	Lever Axle
15	638 1300	Washer C
16	638 0600	Clamp Band
17	000 1111	Clamp Screw
18	638 1500	Washer D

8412-665A



Positron Trigger Lever
SL-3S60

- Specifications
- Features • PPS Cable System
- Weight • 2.3 oz. (65g.)
- Material • Resin & Steel
- Lever Clamp Diameter
 - 7/8" (22.2mm.)
- Attachment Position
 - Handlebar
- Use • With Positron Three Speed Hub with Coaster Brake (Model SG-3C30) and PPS Cable.



ITEM NO.	PART NO.	DESCRIPTION
1	3-618 9801	Cover Unit
2	691 3200	Rear Lever
3	3-691 9834	Clamp Band & Screw
4	000 1112	Clamp Screw
5	3-692 9103	Rear Cable Assembly (1450 x 1520mm) Black
5	3-692 9104	Rear Cable Assembly (1550 x 1620mm) Black
5	3-692 9140	Rear Cable Assembly (1650 x 1720mm) Black
6	3-691 9833	Clamp Band
7	669 2900	Cap
8	000 1118	Lever Fixing Screw
9	618 0100	Cover
10	615 0600-1	Washer B
11	617 0400	Lever Axle Collar
	615 1201-1	Spacer 0.1mm
12	615 1200-1	Spacer 0.2mm
	615 1203-1	Spacer 0.3mm

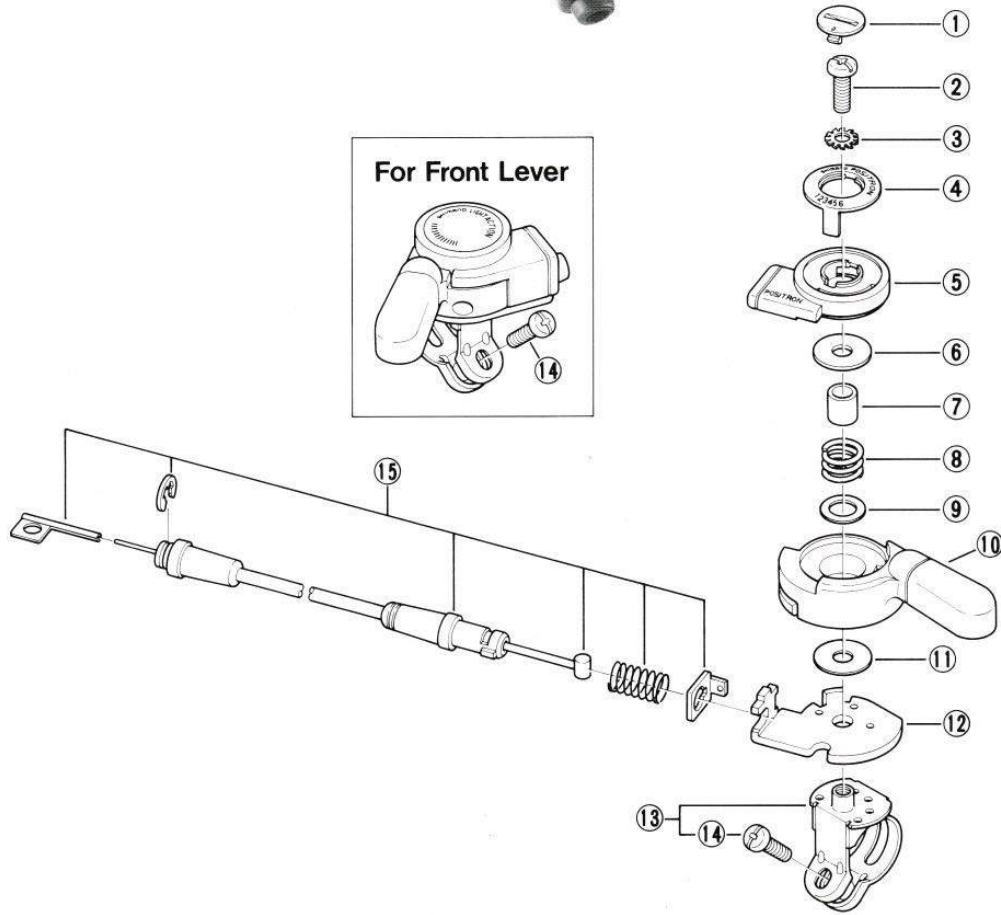
8403-E670

Shifting Lever SL-P500



Shifting Lever SL-P500

- Specifications
- Features • PPS Cable System
- Weight • 56 oz. (158g.)
- Material • Resin & Steel
- Lever Clamp Diameter
 - 7/8" (22.2mm)
- Attachment Position
 - Handlebar
- Use • With RD-P500 & PPS Cable



ITEM NO.	PART NO.	DESCRIPTION
1	62A 1600	Cap
2	333 0900	Lever Fixing Screw
3	62E 7400	Teethed Washer
4	62E 1500	Indicator
5	62E 0800	Cover
6	62E 1400	Spacer (t = 1mm)
7	62E 1300	Lever Axle Sleeve
8	62E 1200	Spring
9	62E 1100	Washer B (t = 0.5mm)

ITEM NO.	PART NO.	DESCRIPTION
10	3-62E 9801	Rear Lever Body
11	62E 1000	Washer A (t = 0.5mm)
12	62E 0200	Plate
13	3-62E 9802	Clamp Band & Screw
14	000 1112	Clamp Screw
15	3-62E 9510	Rear Cable Assemble (1700 x 1740mm) Black
	3-62E 9511	Rear Cable Assemble (1700 x 1740mm) White
	3-62E 9520	Rear Cable Assemble (1800 x 1840mm) Black
	3-62E 9521	Rear Cable Assemble (1800 x 1840mm) White

8709-E850

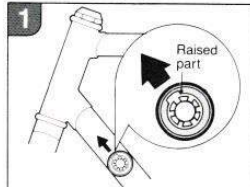
Shifting System Assembly Note

Shifting Lever Assembly

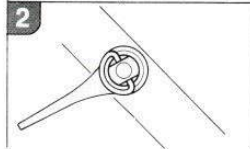
Installation

● Shimano 600 ULTEGRA (SL-6400)

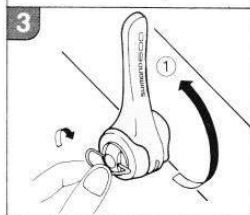
For The Front



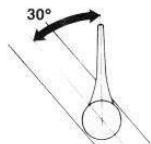
Set so the raised part of the lever shift cover is facing forward.



Set the lever.

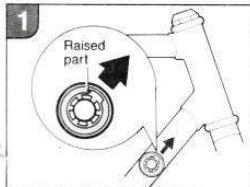


Turn the lever in the direction of arrow ①, and then tighten the lever fixing bolt until the lever body will not be returned by the force of the spring.
Note: Be sure to turn the lever in the direction of arrow ①. **Damage will result if it is turned in the opposite direction.**

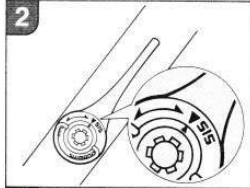


■ Unlike the former lever, there is a 30° rise from the frame when the setting is made to the low position.

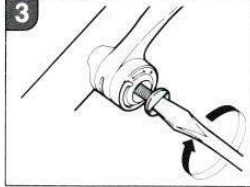
For The Rear



Set so the raised part of the lever shift cover is facing forward.



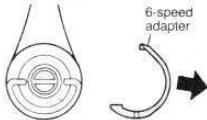
Install so the ▼ SIS mark and the red arrow ▲ are aligned.



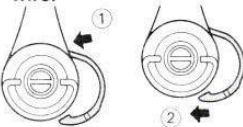
Tighten the lever fixing bolt.

Tightening torque:
25—30 kgfcm

For 7-speed use, remove the adapter and connect the wire.

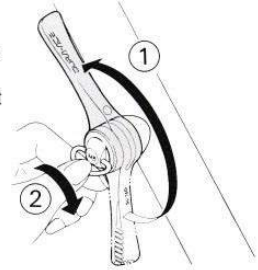


For use 6-speed, set the adapter and connect the wire.



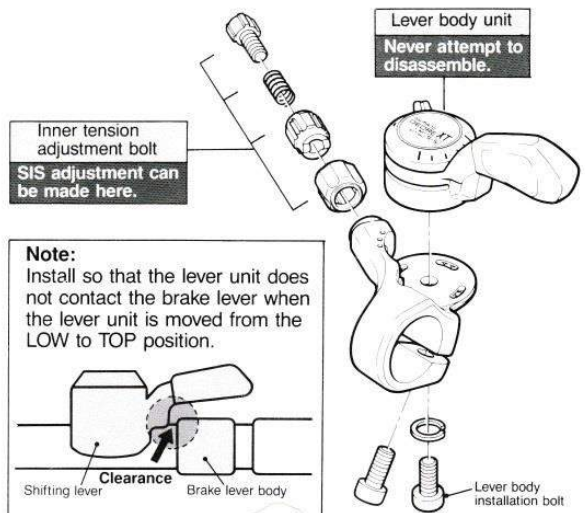
● DURA-ACE (SL-7401), Santé (SL-5000) Lever for The Front

When tightening the lever fixing bolt, turn the lever in the direction of the head tube ① and tighten the lever fixing bolt ② until the lever is not returned by the spring pressure.



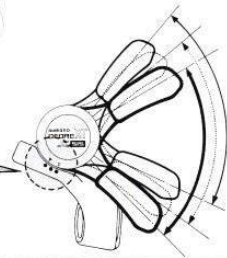
● DEORE XT (SL-M730), DEORE (SL-MT60)

Refer to the illustration of the disassembled parts below when installing. The figure below shows the lever for the rear, but the lever for the front is installed in the same way.



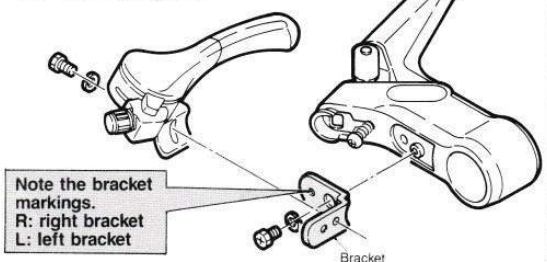
■ Adjustment of the finger reach

The finger reach position can be adjusted to any of three steps. Loosen the lever body installation bolt, and then align the mark on the lever body unit with one of the marks. Install at the position where operation is easiest.



● EXAGE mountain (SL-M450), EXAGE trail (SL-M350)

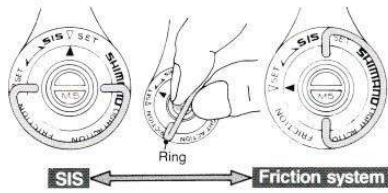
Use the bracket to connect the brake lever and shifting lever.



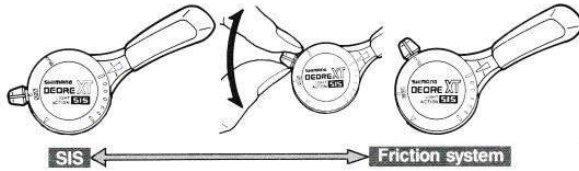
■ Shifting Mode Change

Turn the ring to change to SIS or friction.

Turn the ring all the way to the ▲ SET position.

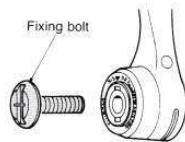


Move the knob to select SIS or friction.

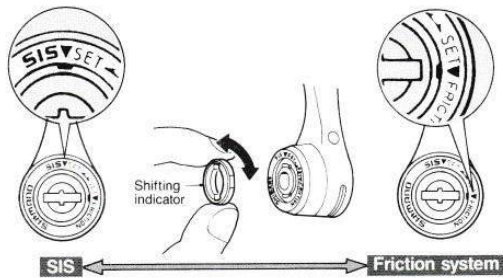


● EXAGE sport (SL-A450), Lever for The Front

1. Take off the fixing bolt.

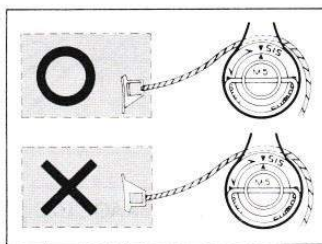


2. Turn the shifting indicator 90° to change the mode.

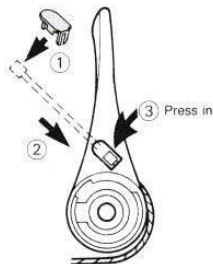


■ Inner Cable Cap Installation

● Santé (SL-5000)



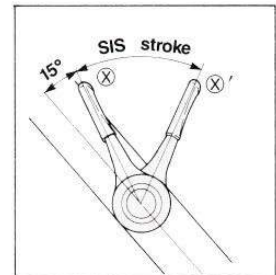
● Shimano 600 ULTEGRA



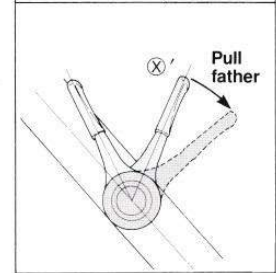
■ Cable-adjustment Mechanism

● EXAGE sport (SL-A450)

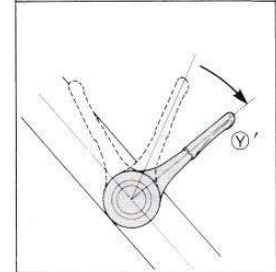
1. The range of movement of the lever when the shifting lever is installed to the frame is from lever position X to X'.



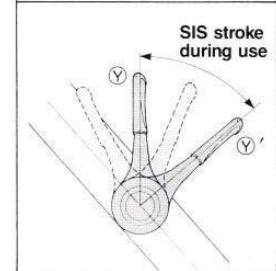
2. Any slackness of the inner cable can be corrected by pulling the lever beyond the X' positions.



3. Pull the lever until its resistance becomes sharply greater. That position, Y', is the new top position, at which the slackness of the inner cable is eliminated.



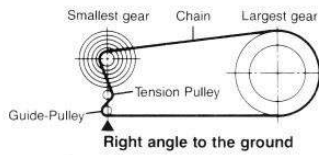
4. The range (SIS stroke) of movement of the lever moves by the amount by which the slackness of the inner cable has been corrected, and the range from lever position Y to Y' becomes the SIS stroke during use.



Chain Assembly

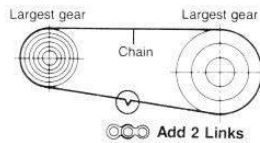
In the case of a freewheel with 28 teeth or less:

Put the chain on the smallest sprocket of the freewheel and on the largest sprocket of the front chainwheel. Adjust the length of the chain by checking that the center line connecting the rear derailleur guide pulley and the tension pulley is at right angles to the ground.



In the case of a freewheel with 29 teeth or more:

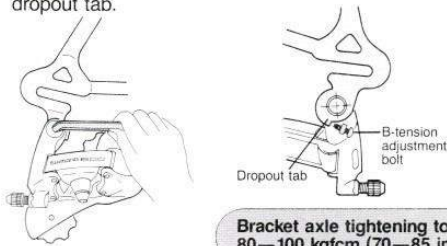
Put the chain on the largest front chainwheel and the largest rear sprocket of the freewheel. Stretch the chain to the limit of the derailleur and add 2 chain links.



Rear Derailleur Assembly

Installation

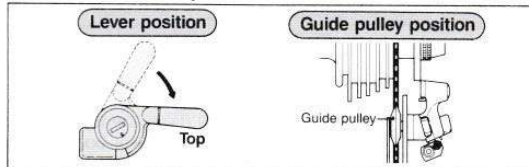
Secure the bracket axle to the rear dropout with an allen key.
Note: When installing, be careful that the B-tension adjustment bolt is not deformed by coming into contact with the dropout tab.



Bracket axle tightening torque
80—100 kgfcm (70—85 in.lbs.)

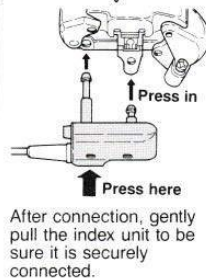
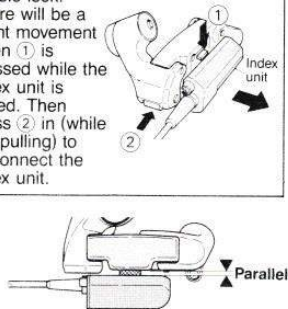
●POSITRON (RD-P500)

Index Unit Assembly



■ Disconnection of Index Unit

Disconnect by unlocking the double lock. There will be a slight movement when ① is pressed while the index unit is pulled. Then press ② in (while still pulling) to disconnect the index unit.

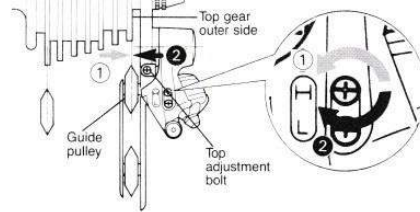


After connection, gently pull the index unit to be sure it is securely connected.

Stroke Adjustment

Top adjustment

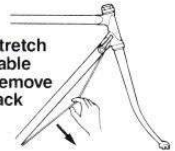
Turn the top adjustment bolt to adjust so that, looking from the rear, the guide pulley is below the outer line of the top gear.



Inner cable connection

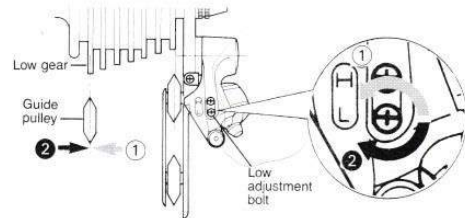
Connect the inner cable to the rear derailleur and, after the pre-stretch as shown in the figure, reset the cable to eliminate cable slack.

Pre-stretch the cable and remove its slack



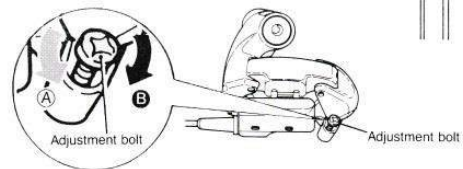
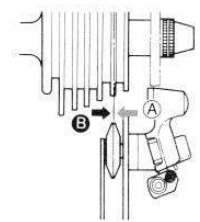
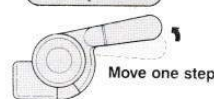
Low adjustment

Turn the low adjustment bolt to adjust so that the guide pulley moves to a position directly below the low gear.



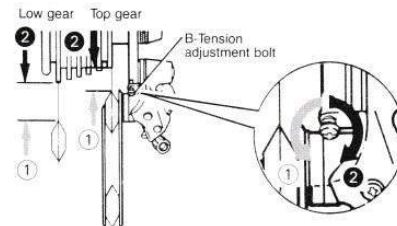
●POSITRON (RD-P500)

Lever position



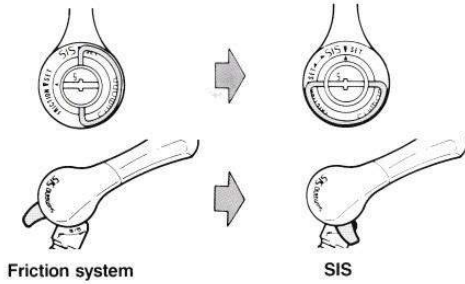
How to Use B-Tension Adjustment Bolt

Mount the chain on the smallest chainwheel gear and the largest freewheel gear, and turn the crank backwards. Turn the B tension adjustment bolt to adjust the guide pulley as close to the gear as possible but not so close that it touches. Next, set the freewheel to the smallest gear and repeat the above to make sure the pulley does not touch.

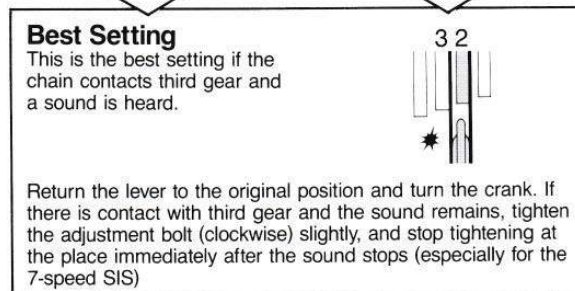
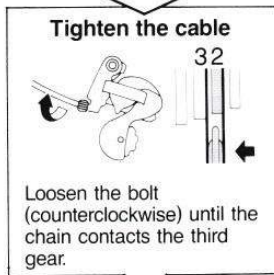
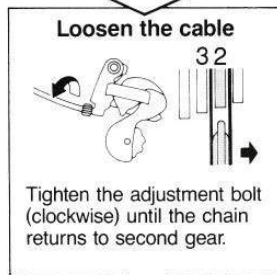
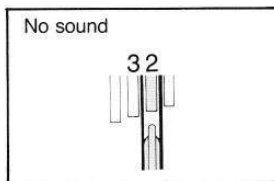
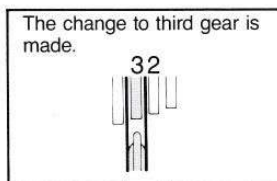
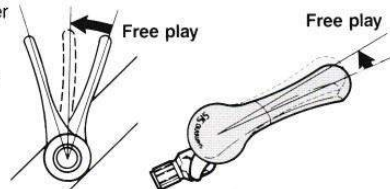


■ SIS Adjustment

1. Set the lever to the SIS position.



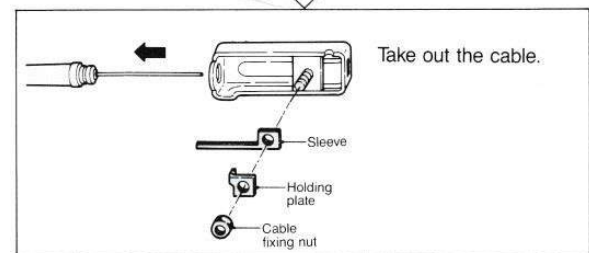
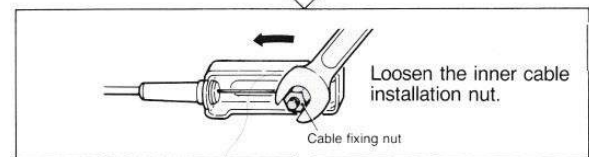
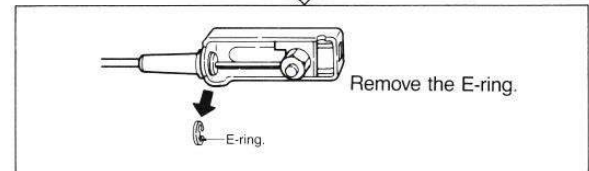
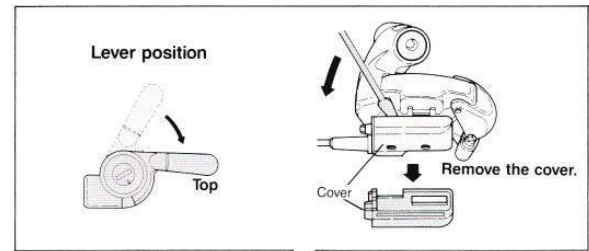
2. Set the shifting lever to second, pull by the amount of the "play", and turn the crank.



Be sure to perform oil maintenance at each part of the transfer mechanism. The optimum oil is dry molybdenum oil or the equivalent.

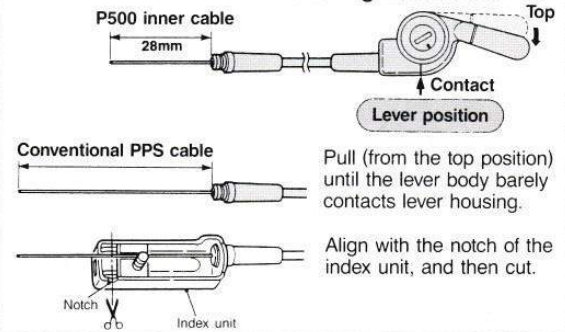
■ Replacement of the PPS Cable

● POSITRON (RD-P500)



Assembly is in the reverse order of disassembly.

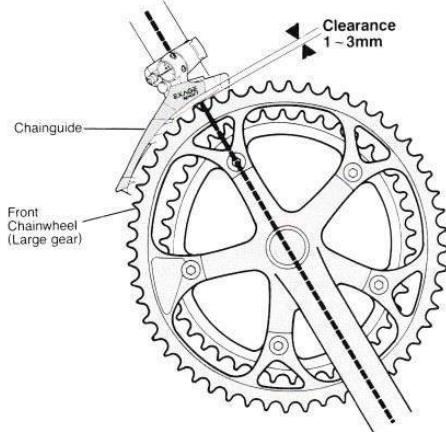
■ A conventional PPS cable can also be used if the inner cable is cut off as following illustration.



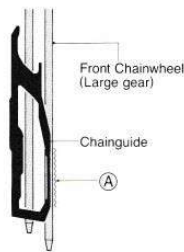
Front Derailleur Assembly

Installation

If using Biopace gears, set the front derailleur while the crank arm is in a direct line with the seat tube.



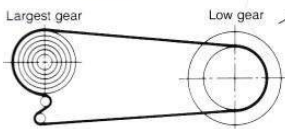
The outside surface (A) of the chain guide should be directly above and parallel to the large gear.



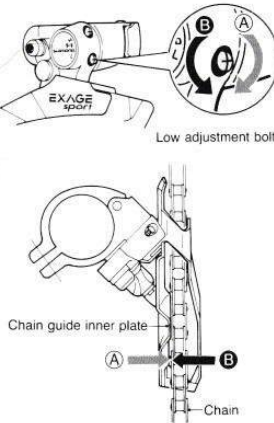
Stroke Adjustment

Low adjustment

Chain position

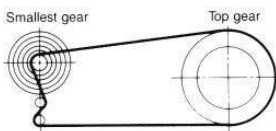


Set the chain guide inner plate to the smallest gap possible at which the chain guide does not contact the chain.

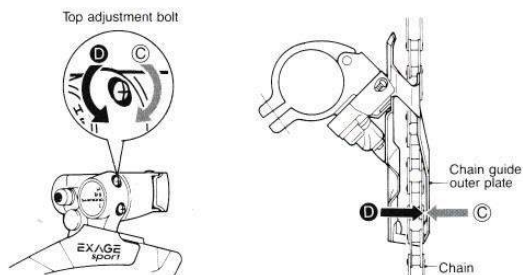


Top adjustment

Chain position



Set the chain guide outer plate to the smallest gap at which the chain guide does not contact the chain.



Front SIS Adjustment

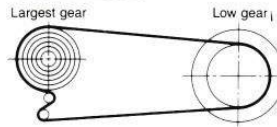
EXAGE sport (FD-A450)

Note

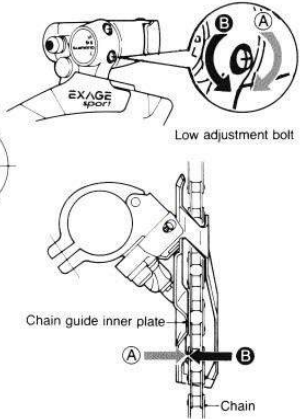
- The following products should be used together for the Shimano Index System (SIS) function.
 - Shifting LeverSL-A450
 - Front DerailleurFD-A450
 - Front ChainwheelFC-A450
 - ChainShimano UG chain (narrow chains cannot be used)
 - Outer CableShimano SIS cable
Shimano SIS sealed cable
- Because the high cable resistance of a frame with internal cable guides would impair the SIS function, this type of frame should not be used.

1. Low adjustment

Chain position



Set the chain guide inner plate to the smallest gap possible at which the chain guide does not contact the chain.



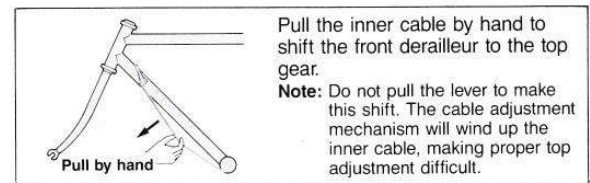
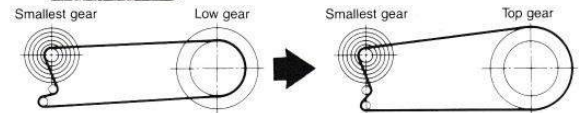
2. Securing the inner cable

Pull the inner cable by hand and secure it to the arm.

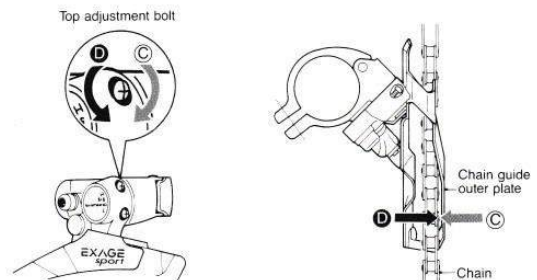
Note: Holding and pulling the inner cable with pliers may stretch the cable and cause subsequent problems. Refer to 4. Cable adjustment mechanism, regarding removal of inner cable slack after adjustment is completed.

3. Top adjustment

Chain position

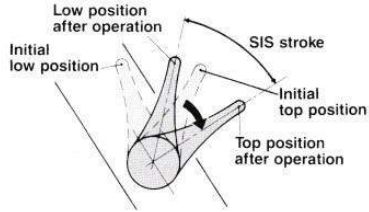


Set the chain guide outer plate to the smallest gap at which the chain guide does not contact the chain.



4. Cable adjustment mechanism

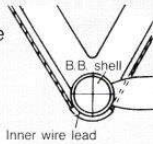
Pull the lever from the initial top position to remove any slack in the inner cable. Pull the lever until it suddenly becomes stiff. This is the top position after the lever mechanism operates. The SIS stroke has shifted to compensate for the slack removed in the inner cable.



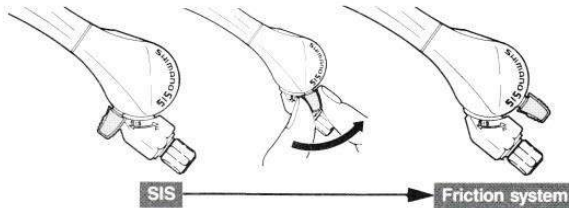
● EXAGE mountain (FD-M450)

■ Note

- The following products should be used together for the Shimano Index System (SIS) function.
 - Shifting Lever SL-M450
 - Front Derailleur FD-M450
 - Front Chainwheel FC-M450
 - Chain Shimano UG chain (narrow chains cannot be used)
 - Outer Cable Shimano SIS-SP outer cable
Shimano SIS-SP sealed cable
- Because the high cable resistance of a frame with internal cable guides would impair the SIS function, this type of frame should not be used.
- The only type of frame that can be used is the type in which the inner wire lead passes through the lower part of the B.B. shell.

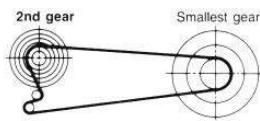


Adjust with the lever at the friction position.

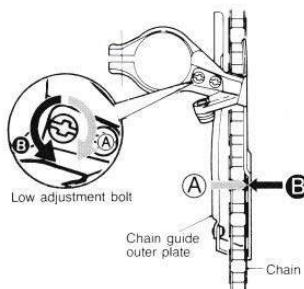


1. Low adjustment

Chain position



Set the chain guide outer plate to the smallest gap at which the chain guide does not contact the chain.



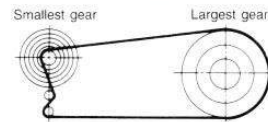
2. Cable assembly

Pull the inner cable and secure it. After the initial stretch is gone, secure it once again.

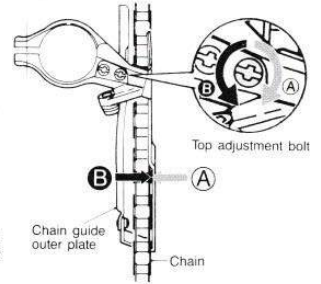
Tightening torque: 50 kgfcm (43 in.lbs.)

3. Top adjustment

Chain position

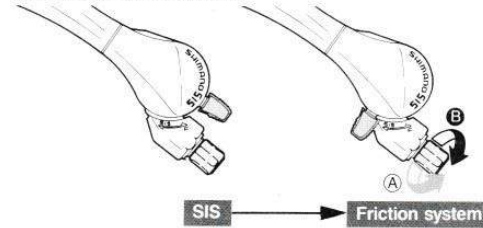


Set the chain guide outer plate to the smallest gap at which the chain guide does not contact the chain.

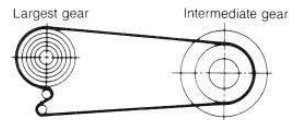


4. Intermediate adjustment

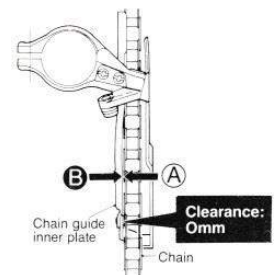
Adjust with the lever at the SIS position. Set to the intermediate gear position.



Chain position



Adjust the cable-adjustment bolt. Set to the position at which the chain and the plate within the chain guide barely contact (clearance 0mm).



FC-7600

BB-7600 (B.B. Parts)



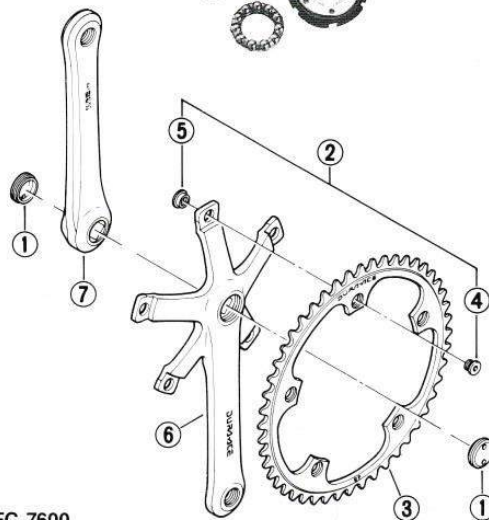
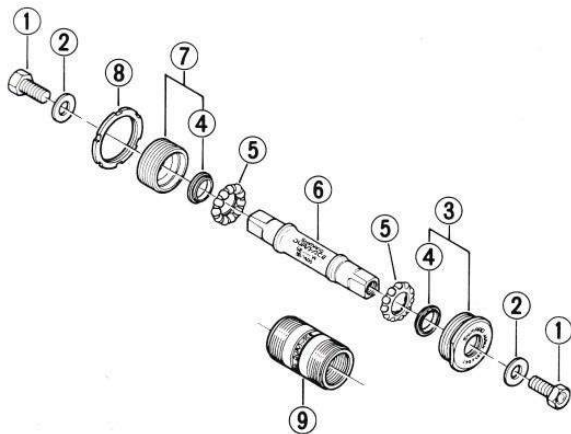
Front Chainwheel & Bottom Bracket Assembly

FC-7600

BB-7600 (B.B. Parts)

■ Specifications

- Features ● Exclusively Designed for the Track, Computer Aided Design (Crank), Sealed Mechanism (B.B.)
- Weight ● 21.3 oz. (605g.) (48T., 170mm.),
10.8 oz. (305g.) (B.B. Set)
- Material ● Forged Light Alloy • Anodized Finish (Crank)
● Steel • Chrome-Plated (Fixing Bolt & Nut)
● Nickel Cr-Mo (Axle)
● Light Alloy • High Tech Gray Anodized Finish (Chaining)
- Teeth ● 46T. ~ 52T. (Option; 42T. ~ 45T., 53 • 54T.)
1/8" and 3/32" available
- Crank Length ● 165mm., 167.5mm., 170mm., 172.5mm., 175mm.
- Crank Thread ● English BC 9/16 x 20 T.P.I., French M14 x 1.25
- Cup Thread ● English BC 1.37 x 24 T.P.I., French M35 x 1.0,
Italian M36 x 24 T.P.I.
- B.B. Size ● 68-S-109mm., 70-S-109mm.



■ BB-7600

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	134 0300	Crank Arm Fixing Bolt	A
2	134 0400	Crank Arm Fixing Washer	A
3	180 9801	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Ring	
3	180 9802	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring	
3	180 9803	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring	
4	180 2500	Seal Ring	
5	3 180 9821	Ball Retainer (1/4")	B B
	180 2150	BB-7600 Spindle 109mm for Shell Width 68mm	
6	180 2160	BB-7600 Spindle 109mm for Shell Width 70mm	
3	180 9811	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Ring	
7	3 180 9812	Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring	
3	180 9813	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring	
	180 2400	Lock Ring (1.37"x24T) English Thread	
8	180 2410	Lock Ring (35xP1) French Thread	
	180 2420	Lock Ring (36x24T) Italian Thread	
9	3 180 9822	Dust Seal	B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE TRACK (BB-7600).
• Use with BB-7400.

8509-E729

■ FC-7600

ITEM NO.	PART NO.	DESCRIPTION
1	161 1000	Crank Arm Cap
2	3 161 9801	Chaining Fixing Bolt & Nut (5sets)
	161 4500	Chaining 45T (1/2"x1/8")
	161 4600	Chaining 46T (1/2"x1/8")
	161 4700	Chaining 47T (1/2"x1/8")
	161 4800	Chaining 48T (1/2"x1/8")
	161 4900	Chaining 49T (1/2"x1/8")
	161 5000	Chaining 50T (1/2"x1/8")
	161 5100	Chaining 51T (1/2"x1/8")
	161 5200	Chaining 52T (1/2"x1/8")
	161 5300	Chaining 53T (1/2"x1/8")
	161 5400	Chaining 54T (1/2"x1/8")
	161 4501	Chaining 45T (1/2"x1/8") High Tech Gray
	161 4601	Chaining 46T (1/2"x1/8") High Tech Gray
	161 4701	Chaining 47T (1/2"x1/8") High Tech Gray
	161 4801	Chaining 48T (1/2"x1/8") High Tech Gray
3	161 4901	Chaining 49T (1/2"x1/8") High Tech Gray
	161 5001	Chaining 50T (1/2"x1/8") High Tech Gray
	161 5101	Chaining 51T (1/2"x1/8") High Tech Gray
	161 5201	Chaining 52T (1/2"x1/8") High Tech Gray
	161 5301	Chaining 53T (1/2"x1/8") High Tech Gray
	161 5401	Chaining 54T (1/2"x1/8") High Tech Gray
	161 4551	Chaining 45T (1/2"x3/32") High Tech Gray
	161 4651	Chaining 46T (1/2"x3/32") High Tech Gray
	161 4751	Chaining 47T (1/2"x3/32") High Tech Gray
	161 4851	Chaining 48T (1/2"x3/32") High Tech Gray
	161 4951	Chaining 49T (1/2"x3/32") High Tech Gray
	161 5051	Chaining 50T (1/2"x3/32") High Tech Gray
	161 5151	Chaining 51T (1/2"x3/32") High Tech Gray
	161 5251	Chaining 52T (1/2"x3/32") High Tech Gray
	161 5351	Chaining 53T (1/2"x3/32") High Tech Gray
	161 5451	Chaining 54T (1/2"x3/32") High Tech Gray
4	161 1100	Chaining Fixing Bolt
5	161 1200	Chaining Fixing Nut

• Bolt circle diameter: 144mm.
• Use with BB-7600.

8509-E681C

Front Chainwheel & Bottom Bracket Assembly

FC-7400 (Double)

BB-7400 (B.B. Parts)

DURA-ACE

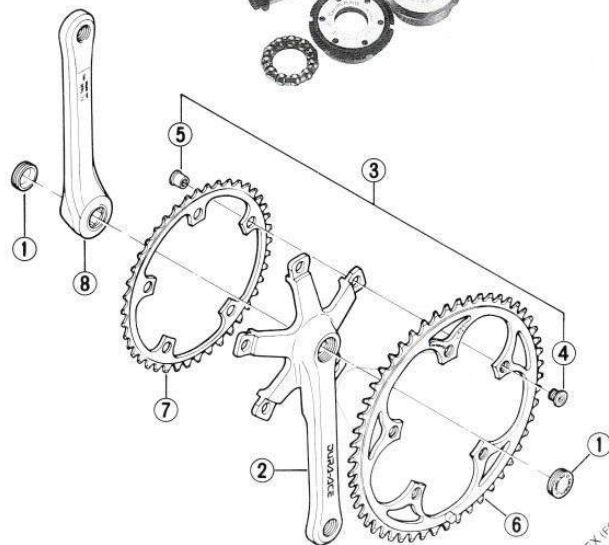
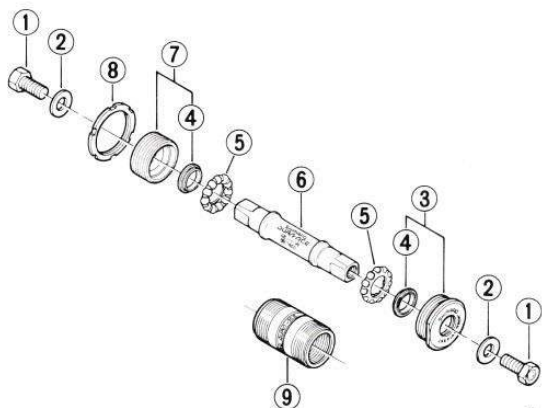
Front Chainwheel & Bottom Bracket Assembly

FC-7400 (Double)

BB-7400 (B.B. Parts)

■ Specifications

- Features**
- Computer Aided Design (Crank), Sealed Mechanism (B.B.)
- Weight**
- 22.5 oz. (637g.) 42T., 52T., 170mm., 11.1 oz. (314g.) (B.B. Parts)
- Material**
- Forged Light Alloy•Anodized Finish (Crank)
 - Light Alloy•Etching Anodized Finish (Crank Arm Cap)
 - Light Alloy•Anodized Finish (Chainring)
 - Steel•Chrome-Plated (Fixing Bolt & Nut)
 - Nickel Cr-Mo (Axle)
- Chain**
- 1/2" × 3/32"
- Teeth**
- Inner: 39T. ~ 46T., Outer: 48T. ~ 54T.
- Crank Length**
- 165mm., 167.5mm., 170mm., 172.5mm., 175mm.
- Crank Thread**
- BC 9/16 × 20 T.P.I., French M14 × 1.25
- Cup Thread**
- English BC 1.37 × 24 T.P.I., French M35 × 1.0, Italian M36 × 24 T.P.I.
- B.B. Size**
- 68-W-112, 70-W-113
- Bolt Circle Diameter**
- 130mm. (LD Type)



■ BB-7400

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	134 0300	Crank Arm Fixing Bolt	A
2	134 0400	Crank Arm Fixing Washer	A
3	3-180 9801	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Ring	
	3-180 9802	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring	
3	3-180 9803	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring	
	180 2500	Seal Ring	
5	3-180 9821	Ball Retainer (1/4")	B B
6	180 2100	BB-7400 Spindle 112mm for Shell Width 68mm	
	180 2110	BB-7400 Spindle 113mm for Shell Width 70mm	
7	3-180 9811	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Ring	
	3-180 9812	Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring	
7	3-180 9813	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring	
	180 2400	Lock Ring (1.37"x24T) English Thread	
8	180 2410	Lock Ring (35xP1) French Thread	
	180 2420	Lock Ring (36x24T) Italian Thread	
9	3-180 9822	Dust Seal	B

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (BB-7400).

8509-E729

■ FC-7400

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	189 2100	Crank Arm Cap	B
	189 0100	Right Crank Arm 165mm	
	189 0300	Right Crank Arm 170mm	
2	189 0500	Right Crank Arm 175mm	
	189 0110	Right Crank Arm 165mm French Thread	
	189 0310	Right Crank Arm 170mm French Thread	
	189 0510	Right Crank Arm 175mm French Thread	
3	3-189 9801	Chainring Fixing Bolt & Nut (5sets)	B B
	4	132 0510	Chainring Fixing Bolt
5	132 0600	Chainring Fixing Nut	A A
	189 4800	Chainring 48T	B B
6	189 4900	Chainring 49T	B B
	189 5000	Chainring 50T	B B
	189 5100	Chainring 51T	B B
	189 5200	Chainring 52T	B B
	189 5300	Chainring 53T	B B
	189 5400	Chainring 54T	B B
7	189 3900	Chainring 39T	B B
	189 4000	Chainring 40T	B B
	189 4100	Chainring 41T	B B
	189 4200	Chainring 42T	B B
	189 4300	Chainring 43T	B B
	189 4400	Chainring 44T	B B
	189 4500	Chainring 45T	B B
	190 0100	Left crank Arm 165mm	
	190 0300	Left crank Arm 170mm	
	190 0500	Left crank Arm 175mm	
8	190 0110	Left crank Arm 165mm French Thread	
	190 0310	Left crank Arm 170mm French Thread	
	190 0510	Left crank Arm 175mm French Thread	

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (FC-7400).
 *Use with BB-7400

8509-E681C

Front Chainwheel & Bottom Bracket Assembly

FC-5000 (Biopace Double, LD Type)

BB-5000 (B.B. Parts)



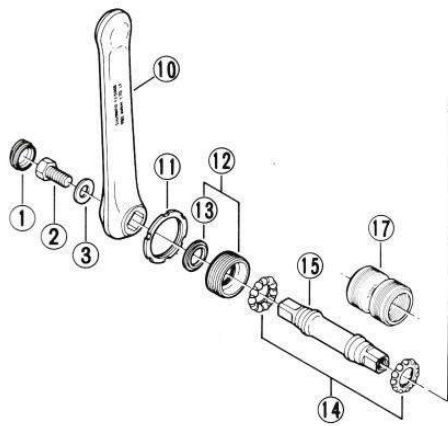
Front Chainwheel & Bottom Bracket Assembly

FC-5000 (Biopace Double, LD Type)

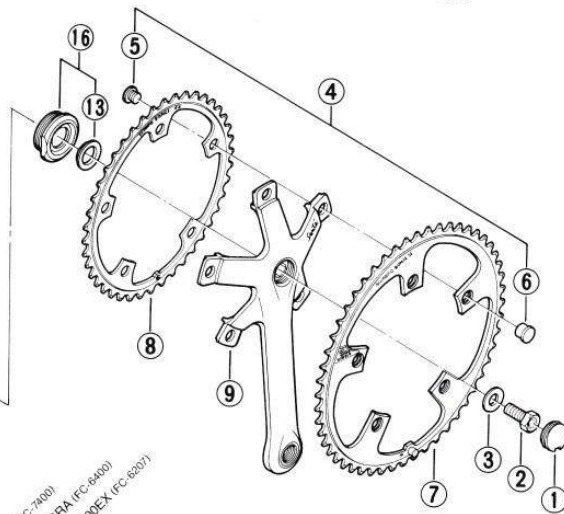
BB-5000 (B.B. Parts)

■ Specifications

- Features ● Chainwheel: Low Profile Design, Flush Surface Design, Biopace Chaining, Available in 160mm. Crank Length
 B.B. Parts: Compact Design, Sealed Mechanism, Reduced Friction
- Weight ● 24.3 oz. (689g.) 42T., 52T., 170mm.
 10.4 oz. (295g.) B.B. Parts
- Material ● Forged Light Alloy • Pearl White Paint (Crank),
 ● Light Alloy • Silver Brown Anodized Finish • Pattern Etching (Chainrings),
 ● Resin • Chrome-Plated (Crank Cap),
 ● Nickel Cr-Mo Steel • Black Anodized Finish (B.B. Axle)
- Chain Teeth ● 1/2" x 3/32"
- Crank Length ● 160mm., 162.5mm., 165mm., 167.5mm., 170mm., 172.5mm.
- Crank Thread ● English BC 9/16 x 20 T.P.I., French M14 x 1.25
- Cup Thread ● English BC 1.37 x 24 T.P.I., French M35 x 10, Italian M36 x 24 T.P.I.
- B.B. Size ● 68-W-108, 70-W-108
- Bolt Circle Diameter ● 130mm. (LD Type)



Dura-Ace (FC-7000)
 600 ULTEGRA (FC-6400)
 Shimano 600EX (FC-6207)



Dura-Ace (FC-7000)
 600 ULTEGRA (FC-6400)
 Shimano 600EX (FC-6207)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3 16E 9801	Crank Arm Cap W/Seal Ring	B A B
2	134 0300	Crank Arm Fixing Bolt	A A A
3	134 0400	Crank Arm Fixing Washer	A A A
4	3 16C 9801	Chaining Fixing Bolt & Nut (5sets)	B B B
5	16C 0300	Chaining Fixing Bolt	
6	16C 0400	Chaining Fixing Nut	
7	16C 5210	Chaining 52T / BIOPACE	
7	16C 5310	Chaining 53T / BIOPACE	
8	16C 4220	Chaining 42T / BIOPACE	B B B
9	16C 0140	Right Crank Arm (170mm / B.C. 9/16" x 20T)	
10	16C 0240	Left Crank Arm (170mm / B.C. 9/16" x 20T)	
	137 0501	Lock Ring (1.37" x 24T) English Thread	B A A
	137 0511	Lock Ring (35xP1) French Thread	B A A
	137 0522	Lock Ring (36x24T) Italian Thread	B A A
12	3 19C 9801	Left Hand Adjustable Cup (1.37" x 24T) English Thread & Seal Ring	
	3 19C 9802	Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
12	3 19C 9803	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring	
13	19C 0400	Seal Ring	
14	3 189 9810	Ball Retainer (1/4") 2pcs.	B A A
	19C 0100	Spindle (D-3K) 108mm for Shell Width 68mm	
	19C 0110	Spindle (D-5K) 108mm for Shell Width 70mm	
	3 19C 9804	Right Hand Fixed Cup (1.37" x 24T) English Thread & Seal Ring	
16	3 19C 9805	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring	
	3 19C 9806	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring	
17	179 2100	Dust Seal	A A

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (FC-5000).
 • Bolt circle Diameter: 130mm.

Front Chainwheel & Bottom Bracket Assembly

FC-6400 (Double, LD Type)

FC-6400-BP (Biopace Double, LD Type)

BB-6400 (B.B. Parts)



Front Chainwheel & Bottom Bracket Assembly

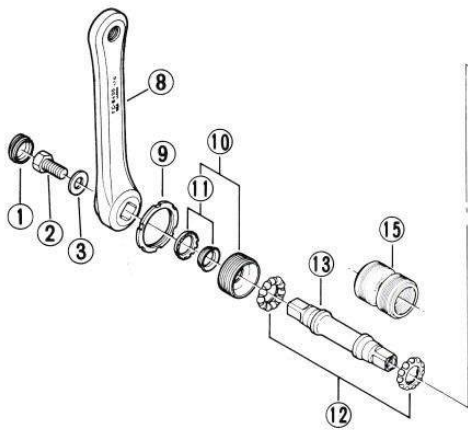
FC-6400 (Double, LD Type)

FC-6400-BP (Biopace Double, LD Type)

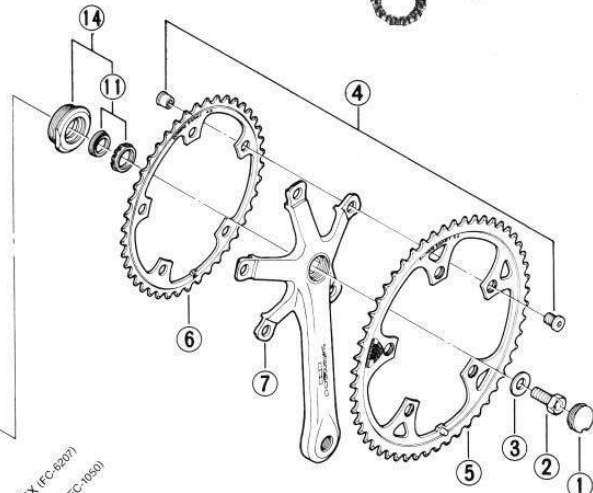
BB-6400 (B.B. Parts)

■ Specifications

- Features • Low Profile Design, Sealed Mechanism, Aerodynamic profile., Biopace Chainring (FC-6400-BP)
- Weight • 22.9 oz. (650g.) 42T., 52T., 170mm., 10.9 oz. (308g.) BB Parts
- Material • Forged Light Alloy • Anodized Finish (Crank) Light Alloy • Anodized Finish (Chainring)
- Chain • 1/2" x 3/32"
- Teeth • Inner: 39T., ~45T., 42T. (Biopace) Outer: 48T., ~53T., 52T., 53T. (Biopace)
- Crank Length • 165mm., 167.5mm, 170mm., 172.5mm., 175mm.
- Crank Thread • English BC 9/16 x 20 T.P.I., French M14 x 1.25
- Cup Thread • English 1.37 x 24 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I.
- B.B. Size • 68-W-113, 70-W-115
- Bolt Circle Diameter • 130mm. (LD Type)



Shimano 600EX (FC-6207)
Shimano 105 (FC-1050)



Shimano 600EX (FC-6207)
Shimano 1050 (FC-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-16E 9801	Crank Arm Cap W/Seal-Ring	B
2	134 0300	Crank Arm Fixing Bolt	A A
3	134 0400	Crank Arm Fixing Washer	A A
4	3-132 9801	Chainring Fixing Bolt & Nut (5sets)	A A
5	132 0502	Chainring Fixing Bolt	A A
6	132 0600	Chainring Fixing Nut	A B
	117 0520	Chainring 52T / BIOPACE	A B
	117 0521	Chainring 53T / BIOPACE (GMC-Color)	A B
	147 0530	Chainring 53T / BIOPACE	A B
	147 0531	Chainring 53T / BIOPACE (GMC-Color)	A B
	147 0420	Chainring 42T / BIOPACE	A B
	147 0421	Chainring 42T / BIOPACE (GMC-Color)	A B
9	16E 0400	Right Crank Arm (170mm / B.C. 9/16"x20T)	
	16E 0410	Right Crank Arm (170mm / M14x1.25)	
10	16F 0400	Left Crank Arm (170mm / B.C. 9/16"x20T)	
	16F 0410	Left Crank Arm (170mm / M14x1.25)	
	137 0501	Lock Ring (1.37"x24T) English Thread	A B
	137 0511	Lock Ring (35xP1) French Thread	A B
	137 0522	Lock Ring (36x24T) Italian Thread	A B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
	3-19D 9801	Left Hand Adjustable Cup Unit (1.37"x24T) English Thread	B B
12	3-19D 9802	Left Hand Adjustable Cup Unit (35xP1) French Thread	B B
	3-19D 9803	Left Hand Adjustable Cup Unit (36x24T) Italian Thread	B B
13	3-19D 9804	Seal Cap & Seal Ring	
14	3-189 9810	Ball Retainer (1/4") 2pcs.	A
	19D 0100	Spindle (D-3H) 113mm for Shell Width 68mm	B
	19D 0110	Spindle (D-5H) 115mm for Shell Width 70mm	B
	3-19D 9805	Right Hand Fixed Cup Unit (1.37"x24T) English Thread	B B
16	3-19D 9806	Right Hand Fixed Cup Unit (35xP1) French Thread	B B
	3-19D 9807	Right Hand Fixed Cup Unit (36x24T) Italian Thread	B B
17	17D 2100	Dust Seal	A

A: Same parts
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (FC-6400)
• Bolt circle Diameter: 130mm. (5-1/8")

Front Chainwheel & Bottom Bracket Assembly

FC-1050 (Biopace Double, LD Type)

BB-1050 (B.B. Parts)



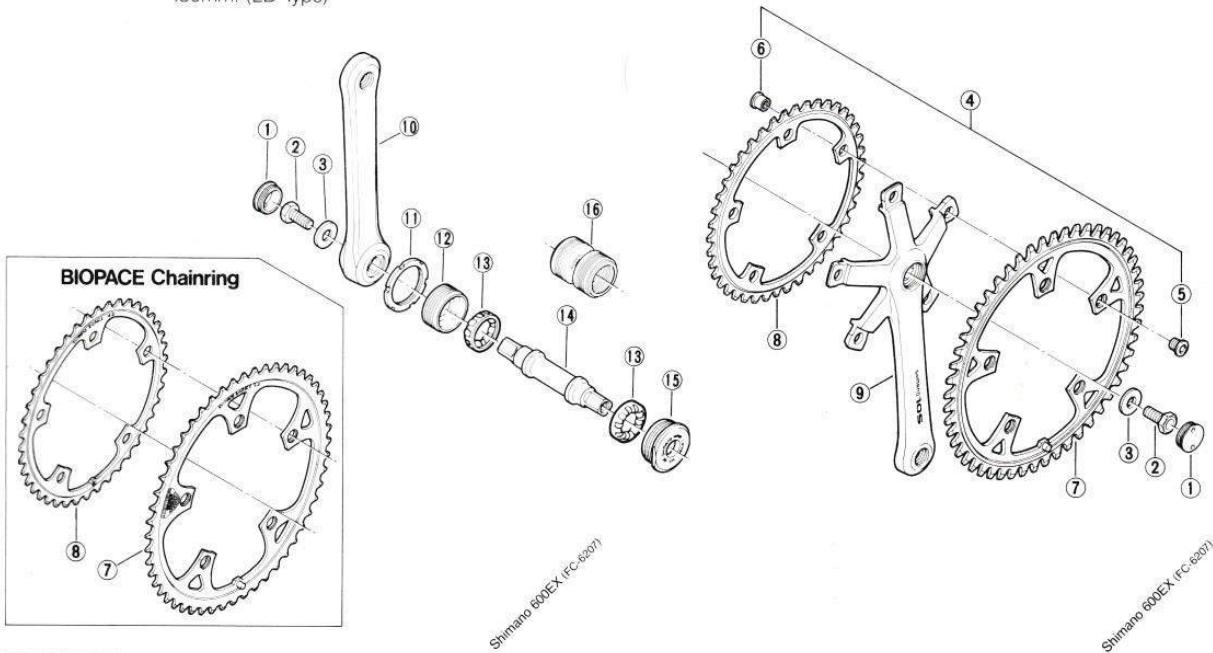
Front Chainwheel & Bottom Bracket Assembly

FC-1050 (Biopace Double, LD Type)

BB-1050 (B.B. Parts)

■ Specifications

- Features • Low Profile & Aerodynamic Design, Biopace Chaining
- Weight • 23.4 oz. (664g.) 42T, 52T., 170mm., 11.5 oz. (327g.) (B.B. Parts)
- Material • Light Alloy (Crank & Chaining) • Steel-Chrome-Plated (Fixing Bolt & Nut) • Nickel Cr-Mo (Axle)
- Chain • 1/2" x 3/32"
- Teeth • Inner: 42T., Biopace • Outer: 52T, Biopace
- Crank Length • 162.5mm., 165mm., 167.5mm., 170mm., 172.5mm., 175mm.
- Crank Thread • English BC 9/16 x 20 T.P.I., French M14 x 1.25
- Cup Thread • English 1.37 x 24 T.P.I., French 35 x 1.0, Italian 36 x 24 T.P.I.
- B.B. Size • 68-W-113, 70-W-115
- Bolt Circle Diameter • 130mm. (LD Type)



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	14E 0200	Crank Arm cap	B
2	134 0300	Crank Arm Fixing Bolt	A
3	134 0400	Crank Arm Fixing Washer	A
4	3 132 9801	Chaining Fixing Bolt & Nut (5sets)	A
5	132 0502	Chaining Fixing Bolt	A
6	132 0600	Chaining Fixing Nut	A
7	14E 5210	Chaining 52T	B
	14E 0520	Chaining 52T / BIOPACE	B
	14E 0521	Chaining 52T / BIOPACE (GMG-Color)	B
	14E 5310	Chaining 53T	B
	14E 0530	Chaining 53T / BIOPACE	B
8	14E 0531	Chaining 53T / BIOPACE (GMG-Color)	B
	14E 4220	Chaining 42T	B
	14E 0120	Chaining 42T / BIOPACE	B
	14E 0121	Chaining 42T / BIOPACE (GMG-Color)	B
	14E 4320	Chaining 43T	B
9	14E 0120	Right Crank Arm 165mm	B
	14E 0140	Right Crank Arm 170mm	B
	14E 0160	Right Crank Arm 175mm	B
10	14F 0120	Left Crank Arm 165mm	B
	14F 0140	Left Crank Arm 170mm	B
	14F 0160	Left Crank Arm 175mm	B
11	178 0530	Lock Ring (1.37"x24T)English Thread	B
	178 0520	Lock Ring (35xP1) French Thread	B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
11	178 0510	Lock Ring (36x24T) Italian Thread	B
	178 0307	Left Hand Adjustable Cup (1.37"x24T) English Thread	B
12	178 0306	Left Hand Adjustable Cup (35xP1) French Thread	B
	178 0305	Left Hand Adjustable Cup (36x24T) Italian Thread	B
13	3-188 9001	Ball Retainer (1/4")	B
	148 0109-1	Spindle (D-3H) 113mm for Shell Width 68mm	B
14	148 0115-1	Spindle (D-5H) 115mm for Shell Width 70mm	B
	178 0108	Right Hand Fixed Cup (1.37"x24T) English Thread	B
15	178 0107	Right Hand Fixed Cup (35xP1) French Thread	B
	178 0106	Right Hand Fixed Cup (36x24T) Italian Thread	B
16	179 2100	Dust Seal (Option)	A

A: Same parts. 8610-E7578
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 105 (FC-1050).
 • Bolt circle Diameter: 130mm.

Front Chainwheel & Bottom Bracket Assembly

FC-M730

(Biopace Triple, MD Type)

BB-M730

(B.B. Parts)



Front Chainwheel & Bottom Bracket Assembly

FC-M730

(Biopace Triple, MD Type)

BB-M730

(B.B. Parts)

■ Specifications

Features ● Biopace Chaining, Low Profile Design, Computer Aided Design (CAD), Sealed Mechanism (B.B. Parts)

Weight ● 25.0 oz. (707g.) 26T., 36T., 46T., 170mm., 11.0 oz. (310g.) B.B. Parts

Material ● Forged Light Alloy • Anodized Finish (Crank)
● Light Alloy • Anodized Finish (Chaining)

Chain ● 1/2" x 3/32"

Teeth ● Inner: 26T., 28T. Middle: 36T., 38T., 44T.
Outer: 46T., 48T., 50T.

Crank Length ● 165mm., 170mm., 175mm., 180mm.

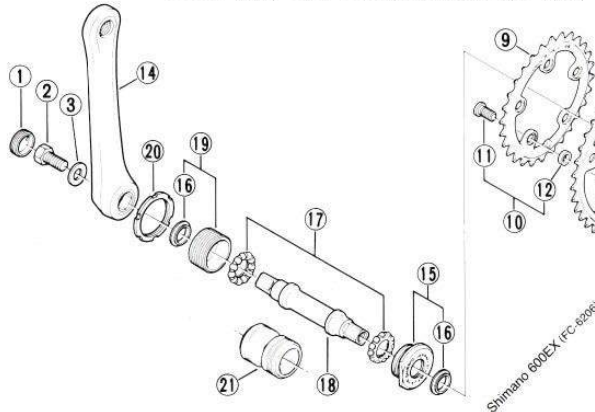
Crank Thread ● English BC 9/16 x 20 T.P.I.

Cup Thread ● English 1.37 x 24 T.P.I., French 35 x 1.0. Italian 36 x 24 T.P.I.

B.B. Size ● 68-T-122.5 (D-3NL), 68-T-117.5 (D-3A), 70-T-117.5 (D-5A)

Bolt Circle Diameter

● Inner: 74mm, Outer & Middle: 110mm (MD Type)



Shimano 60DEX (FC-6206)

Shimano 60DEX (FC-6206)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	16A 0200	Crank Arm Cap	B
2	134 0300	Crank Arm Fixing Bolt	A
3	134 0400	Crank Arm Fixing Washer	A
4	3-132 9801	Chaining Fixing Bolt & Nut (5sets)	A
5	132 0502	Chaining Fixing Bolt	A
6	132 0600	Chaining Fixing Nut	A
	147 4600	Chaining 46T./BIOPACE II	
	147 4601	Chaining 46T./BIOPACE II (GMC-Color)	
	147 4602	Chaining 46T./BIOPACE II (Black)	
7	147 4800	Chaining 48T./BIOPACE	A
	117 4801	Chaining 48T./BIOPACE (GMC-Color)	
	147 4802	Chaining 48T./BIOPACE (Black)	
	147 5000	Chaining 50T./BIOPACE	A
	147 5001	Chaining 50T./BIOPACE (GMC-Color)	
	147 3600	Chaining 36T./BIOPACE II	
	117 3601	Chaining 36T./BIOPACE II (GMC-Color)	
	147 3602	Chaining 36T./BIOPACE II (Black)	
8	147 3800	Chaining 38T./BIOPACE	A
	147 3801	Chaining 38T./BIOPACE (GMC-Color)	
	147 3802	Chaining 38T./BIOPACE (Black)	
	147 4400	Chaining 44T./BIOPACE	A
	147 4401	Chaining 44T./BIOPACE (GMC-Color)	
	117 2600	Chaining 26T./BIOPACE II	
	117 2601	Chaining 26T./BIOPACE II (GMC-Color)	
	117 2602	Chaining 26T./BIOPACE II (Black)	
9	117 2800	Chaining 28T./BIOPACE	A
	147 2801	Chaining 28T./BIOPACE (GMC-Color)	
	147 2802	Chaining 28T./BIOPACE (Black)	
10	3-143 9801	Triple Gear Fixing Bolt & Spacer (5sets)	A
11	132 0503	Triple Gear Fixing Bolt	A
12	144 7000	Spacer for Triple Gear	A
	16A 0110	Right Crank Arm 165mm	
	16A 0111	Right Crank Arm 165mm (Black)	
	16A 0130	Right Crank Arm 170mm	
13	16A 0131	Right Crank Arm 170mm (Black)	
	16A 0150	Right Crank Arm 175mm	
	16A 0151	Right Crank Arm 175mm (Black)	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
13	16A 0170	Right Crank Arm 180mm	
	16A 0171	Right Crank Arm 180mm (Black)	
	16B 0110	Left Crank Arm 165mm	
	16B 0111	Left Crank Arm 165mm (Black)	
	16B 0130	Left Crank Arm 170mm	
	16B 0131	Left Crank Arm 170mm (Black)	
	16B 0150	Left Crank Arm 175mm	
	16B 0151	Left Crank Arm 175mm (Black)	
	16B 0170	Left Crank Arm 180mm	
	16B 0171	Left Crank Arm 180mm (Black)	
	3-179 9801	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Cap	B
15	3-179 9802	Right Hand Fixed Cup (35xP1) French Thread & Seal Cap	B
	3-179 9803	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Cap	B
16	179 0100	Seal Cap	A
17	3-189 9810	Ball Retainer (1/4") 2pcs.	A
	148 0180	Spindle (D-3NL) 122.5mm for Shell Width 68mm	
18	148 0161	Spindle (D-3A) 117.5mm for Shell Width 68mm	
	148 0170	Spindle (D-5A) 117.5mm for Shell Width 70mm	
	3-179 9811	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Cap	B
19	3-179 9812	Left Hand Adjustable Cup (35xP1) French Thread & Seal Cap	B
	3-179 9813	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Cap	B
	137 0500	Lock Ring (1.37"x24T) English Thread	A
	137 0510	Lock Ring (35xP1) French Thread	A
	137 0520	Lock Ring (36x24T) Italian Thread	A
21	179 2100	Dust Seal	A

A: Same parts. 8701-E781C

B: Parts usable, but differ in materials, appearance, finish, size, etc.

Absence of mark indicates non-interchangeability.

The table indicates the adaptability of conventional parts to DEORE XT (FC-M730).

● Bolt circle Diameter: 110mm.....(For Large Gear & Middle Gear), 74mm.....(For Small Gear).

Front Chainwheel & Bottom Bracket Assembly

FC-MT60

(Biopace Triple, MD Type)

BB-MT60

(B.B. Parts)



Front Chainwheel & Bottom Bracket Assembly

FC-MT60

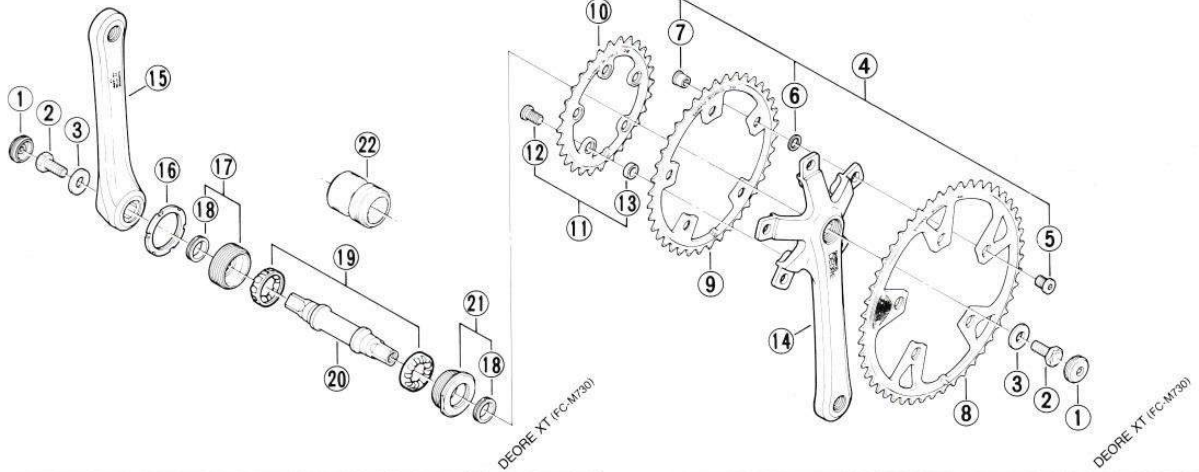
(Biopace Triple, MD Type)

BB-MT60

(B.B. Parts)

■ Specifications

- Features ● Biopace Chaining, Low Profile Design, Computer Aided Design, Sealed Mechanism (B.B. Parts)
- Weight ● 26.6 oz. (752g.) 28T., 38T., 48T. 170mm., 11.3 oz. (320g.) B.B. Parts
- Material ● Light Alloy•Anodized Finish (Crank & Chaining)
● Cr-Mo Steel•Black Finish (Axle)
- Chain ● 1/2" x 3/32"
- Teeth ● Inner: 28T., Middle: 38T., 44T., Outer: 48T., 50T.
- Crank Length ● 170mm., 175mm.
- Crank Thread ● English BC 9/16 x 20 T.P.I.
Cup Thread ● English BC 1.37 x 24 T.P.I.,
French M35 x 1.0, Italian M36 x 24 T.P.I.
- B.B. Size ● 68-T-117.5 (D-3A), 68-T-122.5 (D-3NL), 70-T-117.5 (D-5A)
- Bolt Circle Diameter ● Inner: 74mm., Outer & Middle: 110mm. (MD Type)



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	172 2000	Crank Arm Cap	B
2	134 0300	Crank Arm Fixing Bolt	A
3	134 0400	Crank Arm Fixing Washer	A
4	3-172 9801	Chaining Fixing Bolt Unit (5sets)	B
5	132 0502	Chaining Fixing Bolt	
6	172 2110	Spacer for Middle Gear	
7	132 0600	Chaining Fixing Nut	
8	147 4600	Chaining 46T/BIOPACE II	
	147 4601	Chaining 46T/BIOPACE II (GMC Color)	
	147 4602	Chaining 46T/BIOPACE II (Black)	
	147 4800	Chaining 48T/BIOPACE	
	147 4801	Chaining 48T/BIOPACE (GMC Color)	
	147 4802	Chaining 48T/BIOPACE (Black)	
	147 5000	Chaining 50T/BIOPACE	
	147 5001	Chaining 50T/BIOPACE (Black)	
	147 3600	Chaining 36T/BIOPACE II	
	147 3601	Chaining 36T/BIOPACE II (GMC Color)	
	147 3602	Chaining 36T/BIOPACE II (Black)	
9	147 3800	Chaining 38T/BIOPACE	
	147 3801	Chaining 38T/BIOPACE (GMC Color)	
	147 3802	Chaining 38T/BIOPACE (Black)	
	147 4400	Chaining 44T/BIOPACE	
	147 4401	Chaining 44T/BIOPACE (GMC Color)	
	147 2600	Chaining 26T/BIOPACE II	
	147 2601	Chaining 26T/BIOPACE II (GMC Color)	
	147 2602	Chaining 26T/BIOPACE II (Black)	
10	147 2800	Chaining 28T/BIOPACE	
	147 2801	Chaining 28T/BIOPACE (GMC Color)	
	147 2802	Chaining 28T/BIOPACE (Black)	
11	3-172 9802	Triple Gear Fixing Bolt & Spacer (5sets)	
12	132-0503	Triple Gear Fixing Bolt	
13	172 2200	Spacer for Triple Gear	
	17A 0200	Right Crank Arm 170mm	
14	17A 0300	Right Crank Arm 175mm	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
15	17B 0200	Left Crank Arm 170mm	
	17B 0300	Left Crank Arm 175mm	
	178 0530	Lock Ring (1.37 x24T) English Thread	A
	178 0520	Lock Ring (35xP1) French Thread	A
	178 0510	Lock Ring (36x24T) Italian Thread	A
	3-19B 9801	Left Hand Adjustable Cup (1.37 x24T) English Thread & Seal Ring	B
	3-19B 9802	Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring	B
	3-19B 9803	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring	B
18	19B 0500	Seal Ring	
19	3-188 9802	Ball Retainer (1/4") 2pcs.	B
	148 0162	Spindle (D-3A) 117.5mm for Shell Width 68mm	B
	148 0172	Spindle (D-5A) 117.5mm for Shell Width 70mm	B
20	148 0182	Spindle (D-3NL) 122.5mm for Shell Width 68mm	B
	148 0192	Spindle (D-5NL) 122.5mm for Shell Width 70mm	B
	3-19B 9804	Right Hand Fixed Cup (1.37 x24T) English Thread & Seal Ring	B
	3-19B 9805	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring	B
	3-19B 9806	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring	B
22	179 2100	Dust Seal (Option)	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE (FC-MT60).
● Bolt circle Diameter: 110mm. (For Large Gear & Middle Gear), 74mm. (For Small Gear).

8710-E861

Front Chainwheel & Bottom Bracket Assembly

FC-A450 (Biopace Double, LD Type)

BB-A450 (B.B. Parts)



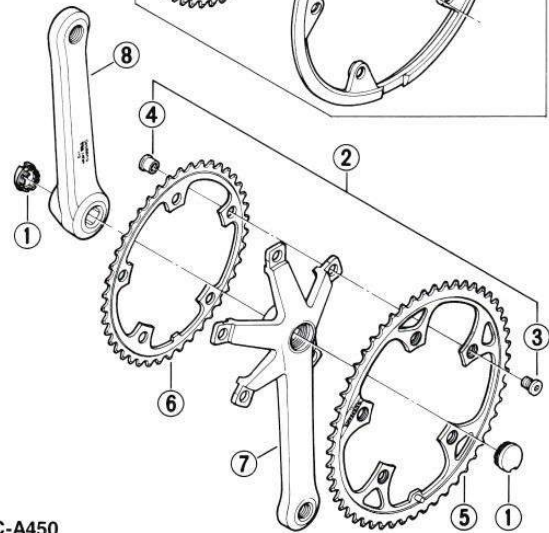
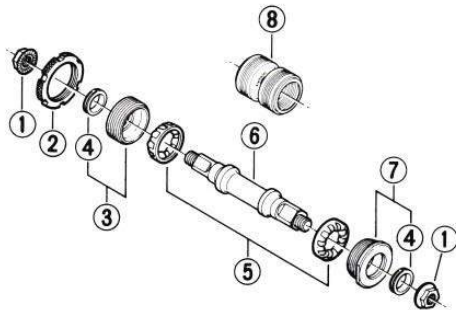
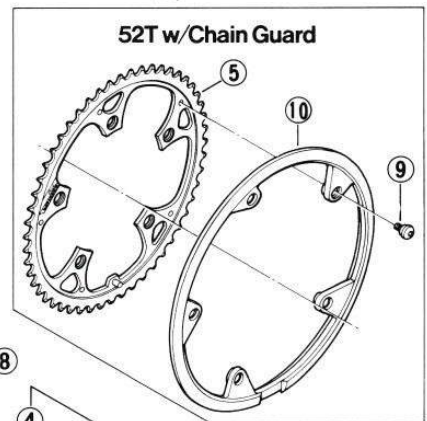
Front Chainwheel & Bottom Bracket Assembly

FC-A450 (Biopace Double, LD Type)

BB-A450 (B.B. Parts)

■ Specifications

- Features**
- Front SIS Compatible
 - Biopace Chaining, Offset Crank Arm, CAD Shape, Sealed Mechanism (B.B. Parts)
- Weight**
- 32.6 oz. (924g.) 42., 52T, 170mm, 11.8 oz. (333g.) B.B. Parts
- Material**
- Light Alloy (Crank Arm)
 - Steel-Titanium Gray Finish (Chaining)
 - Steel (B.B. Parts)
- Chain**
- 1/2" x 3/32"
- Teeth**
- Inner: 42T. (Biopace), Outer: 52T. (Biopace)
- Crank Length**
- 165mm., 170mm
- Crank Thread**
- English BC 9/16 x 20 T.P.I., French M35 x 1.0, Italian M36 x 24 T.P.I.
- B.B. Size**
- 68-W-113
- Bolt Circle Diameter**
- 130mm. (LD Type)



■ BB-A450

ITEM NO.	PART NO.	DESCRIPTION
1	148 0800	Crank Arm Fixing Nut
2	178 0101	Lock Ring (1.37"x24T) English Thread
	178 0402	Lock Ring (35xP1) French Thread
	178 0405-1	Lock Ring (36x24T) Italian Thread
3-19B	9807	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Ring
	9808	Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring
3-19B	9809	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring
1	19B 0500	Seal Ring
5	3-188 0802	Ball Retainer (1/4") 2pcs.
	19B 0100	Spindle (3H) 113mm for Shell Width 68mm
6	19B 0110	Spindle (5H) 115mm for shell Width 70mm
3-19B	9810	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Ring
	9811	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring
3-19B	9812	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring
8	179 2100	Dust Seal (Option)

■ FC-A450

ITEM NO.	PART NO.	DESCRIPTION
1	13G 1200	Crank Arm Cap
2	3-13E 9801	Chaining Fixing Bolt & Nut (5sets)
3	132 0502	Chaining Fixing Bolt
4	132 0602	Chaining Fixing Nut
5	13E 5200	Chaining 52T / BIOPACE
5	13E 5210	Chaining 52T for Chain Guard / BIOPACE
6	13E 4200	Chaining 42T / BIOPACE
7	13E 0100	Right Crank Arm 165mm
7	13E 0200	Right Crank Arm 170mm
8	13F 0100	Left Crank Arm 165mm
8	13F 0200	Left Crank Arm 170mm
9	3-13E 9802	Chain Guard Fixing Bolt (5pcs.)
10	13E 1000	Chain Guard

8711-E877

• Bolt circle diameter: 130mm.

8711-E877

Front Chainwheel & Bottom Bracket Assembly

FC-M450

(Biopace Triple, MD Type)

BB-M450

(B.B. Parts)



Front Chainwheel & Bottom Bracket Assembly

FC-M450

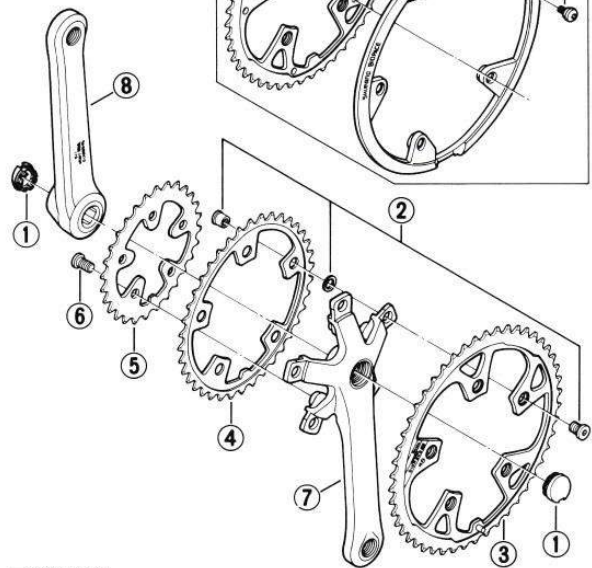
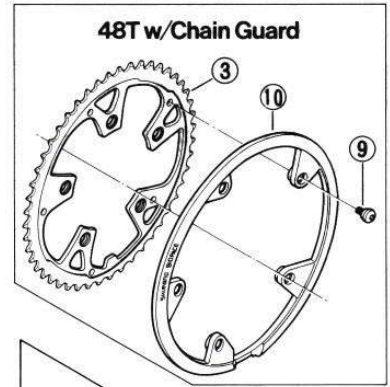
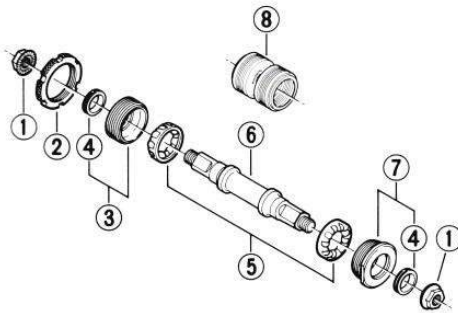
(Biopace Triple, MD Type)

BB-M450

(B.B. Parts)

■ Specifications

- Features**
- Front SIS Compatible
 - Biopace Chaining, Offset Crank Arm, CAD Shape, Chain Protection Guards (Inner) Sealed Mechanism (B.B. Parts)
- Weight**
- 35.8 oz. (1015g.) 28, 38, 48T., 170mm., 11.9 oz. (339g.) B.B. Parts
- Material**
- Light Alloy (Crank)
 - Steel•Titanium Gray Finish (Chainrings)
 - Steel•Chrome Plated (Fixing Bolts)
 - Resin•Gray Finish (Cap)
 - Steel (B.B. Parts)
- Chain**
- 1/2" x 3/32"
- Teeth**
- Inner: 28T. (Biopace)
 - Middle: 38T. (Biopace)
 - Outer: 48T. (Biopace)
- Crank Length**
- 170mm., 175mm
- Crank Thread**
- English BC 9/16 x 24 T.P.I.
- Cup Thread**
- English 1.37 x 24 T.P.I.
 - French M35 x 1.0.
 - Italian M36 x 24 T.P.I.
- B.B. Size**
- 68-T-1175
- Bolt Circle Diameter**
- Inner: 74mm.,
 - Outer & Middle: 110mm. (MD Type)



■ BB-M450

ITEM NO.	PART NO.	DESCRIPTION
1	148 0800	Crank Arm Fixing Nut
	178 0101	Lock Ring (1.37"x24T) English Thread
	178 0102	Lock Ring (35xP1) French Thread
2	178 0405-1	Lock Ring (36x24T) Italian Thread
	3 19B 9807	Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Ring
3	3-19B 9808	Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring
	3 19B 9809	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring
4	19B 0500	Seal Ring
5	3-188 9802	Ball Retainer (1/4") 2pcs.
	19B 0120	Spindle (3A) 117.5mm for Shell Width 68mm
6	19B 0130	Spindle (5A) 117.5mm for shell Width 70mm
	3-19B 9810	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Ring
7	3-19B 9811	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring
	3-19B 9812	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring
8	179 2100	Dust Seal (Option)

8711-E879

■ FC-M450

ITEM NO.	PART NO.	DESCRIPTION
1	13G 1200	Crank Arm Cap
2	3 132 9803	Chainring Fixing Bolt Unit (5sets)
	3 13G 4800	Chainring 48T / BIOPACE
3	13G 4810	Chainring 48T for Chain Guard / BIOPACE
4	13G 3800	Chainring 38T / BIOPACE
5	13G 2800	Chainring 28T / BIOPACE
6	3 132 9804	Triple Gear Fixing Bolt (5pcs.)
7	13G 0200	Right Crank Arm 170mm
	13G 0300	Right Crank Arm 175mm
8	13F 0200	Left Crank Arm 170mm
	13F 0300	Left Crank Arm 175mm
9	3 13E 9802	Chain Guard Fixing Bolt (5pcs.)
10	13G 1100	Chain Guard

• Bolt circle diameter: 110mm.... (For Large Gear & Middle Gear), 74mm.... (For Small Gear).

8711-E879

Front Chainwheel & Bottom Bracket Assembly

FC-M350

(Biopace Triple, MD Type)

BB-M450

(B.B. Parts)



Front Chainwheel & Bottom Bracket Assembly

FC-M350

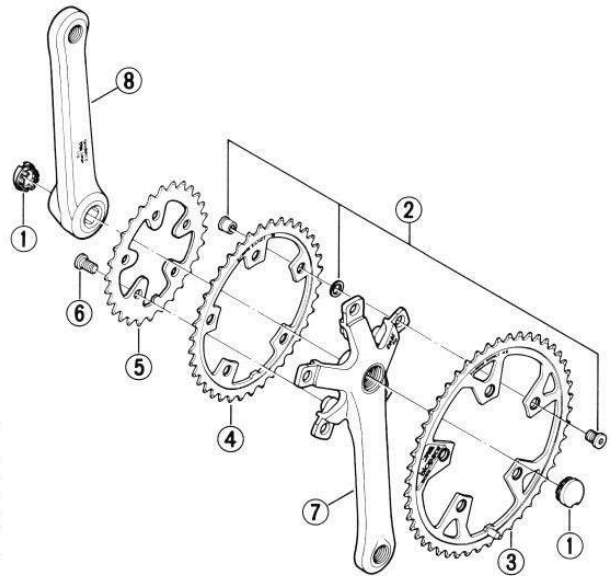
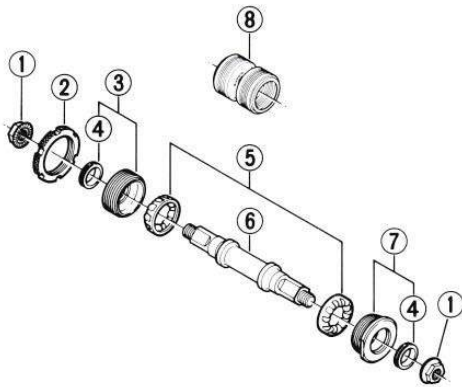
(Biopace Triple, MD Type)

BB-M450

(B.B. Parts)

■ Specifications

- Features**
- Biopace Chaining, Chain Protection Guards (Inner), Offset Crank Arm, CAD Shape
- Weight**
- 370 oz. (1050g.) 28, 38, 48T. 170mm.
- Material**
- Light Alloy (Crank)
 - Steel•Satin Finish (Chaining), Resin•Graphite Black Metallic Finish (Cap)
 - Steel (B.B. Parts)
- Chain**
- 1/2" x 3/32"
- Teeth**
- Inner: 28T. (Biopace)
 - Middle: 38T. (Biopace)
 - Outer: 48T. (Biopace)
- Crank Length**
- 170mm., 175mm.
- Crank Thread**
- English BC 9/16 x 20 T.P.I.
- Cup Thread**
- English 1.37 x 24 T.P.I.
 - French M35 x 1.0,
 - Italian M36 x 24 T.P.I.
- B.B. Size**
- 68-T-1175
- Bolt Circle Diameter**
- Inner: 74mm.,
 - Outer & Middle: 130mm. (MD Type)



■ BB-M450

ITEM NO.	PART NO.	DESCRIPTION
1	148 0800	Crank Arm Fixing Nut
	178 0401	Lock Ring (1.37"x24T) English Thread
	178 0402	Lock Ring (35xP1) French Thread
	178 0405-1	Lock Ring (36x24T) Italian Thread
3-19B 9807		Left Hand Adjustable Cup (1.37"x24T) English Thread & Seal Ring
		Left Hand Adjustable Cup (35xP1) French Thread & Seal Ring
3	3-19B 9808	French Thread & Seal Ring
	3-19B 9809	Left Hand Adjustable Cup (36x24T) Italian Thread & Seal Ring
4	19B 0500	Seal Ring
5	3-18B 9802	Ball Retainer (1/4") 2pcs.
	19B 0120	Spindle (3A) 117.5mm for Shell Width 68mm
6	19B 0130	Spindle (5A) 117.5mm for shell Width 70mm
	3-19B 9810	Right Hand Fixed Cup (1.37"x24T) English Thread & Seal Ring
7	3-19B 9811	Right Hand Fixed Cup (35xP1) French Thread & Seal Ring
	3-19B 9812	Right Hand Fixed Cup (36x24T) Italian Thread & Seal Ring
8	179-2100	Dust Seal (Option)

■ FC-M350

ITEM NO.	PART NO.	DESCRIPTION
1	13G 1200	Crank Arm Cap
2	3-132 9803	Chaining Fixing Bolt Unit (5sets)
3	13G 4800	Chaining 48T / BIOPACE
4	13G 3800	Chaining 38T / BIOPACE
5	13G 2800	Chaining 28T / BIOPACE
6	3-132 9804	Triple Gear Fixing Bolt (5pcs.)
7	13G 0210	Right Crank Arm 170mm
	13G 0310	Right Crank Arm 175mm
8	13F 0210	Left Crank Arm 170mm
	13F 0310	Left Crank Arm 175mm

8712-E880A

*Bolt circle diameter: 110mm....(For Large Gear & Middle Gear), 74mm....(For Small Gear).

8712-E880A

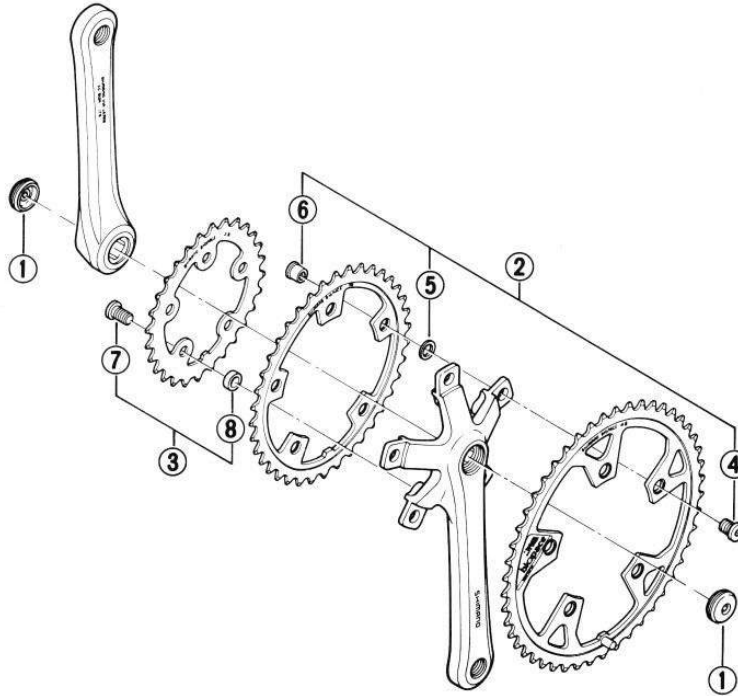
Front Chainwheel
FC-B124 (Biopace Triple, MD Type)



Front Chainwheel
FC-B124 (Biopace Triple, MD Type)

■ Specifications

- Features • Computer Aided Design (CAD),
 Biopace Chaining
- Weight • 266 oz. (752g.) 28T., 38T., 48T., 170mm.
- Material • Light Alloy (Crank & Chaining)
- Chain • 1/2" x 3/32"
- Teeth • 28T., 38T., 48T., or 28T., 44T., 50T.
- Crank Length • 170mm., 175mm.
- Crank Thread • English 9/16 x 20 T.P.I.,
 French M14 x 1.25
- Bolt Circle Diameter
- Inner: 74mm.
 - Outer & Middle: 110mm. (MD Type)



Shimano 600EX (FC-6200)

Shimano 600EX (FC-6200)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	172 2000	Crank Arm Cap	B
2	3-172 9801	Chaining Fixing Bolt Unit (5sets)	A
3	3-172 9802	Triple Gear Fixing Bolt & spacer (5sets)	A
4	132 0502	Chaining Fixing Bolt	A
5	172 2110	Spacer	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
6	132 0600	Chaining Fixing Nut	A
7	132 0503	Triple Gear Fixing Bolt	
8	172 2200	Spacer for Triple Gear	

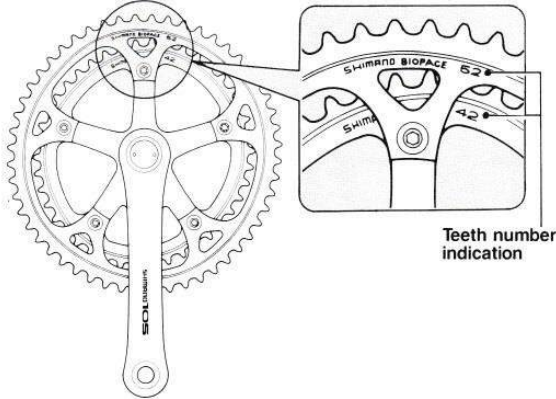
A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to FC-B124.
 • Bolt circle Diameter: 110mm... (For Large Gear & Middle Gear), 74mm... (For Small Gear).
 • Use the following bottom bracket spindle 68mm... (3SS/D-3SS), 70mm... (5SS/5S-B).

Front Chainwheel Assembly Note

Biopace Chaining Installation

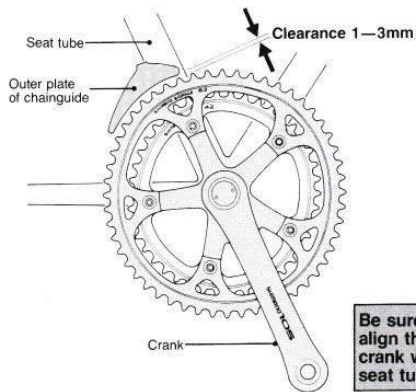
Note: If the chainrings are attached in the wrong positions, greatly reduced efficiency will result, with poor gear-changing performance. Be sure that they are installed correctly.

Install the chaining with the teeth number indication to the outside and to the top as shown below.



Note: When using the biopace chaining, be sure to check the capacity of the front derailleur and the setting position.

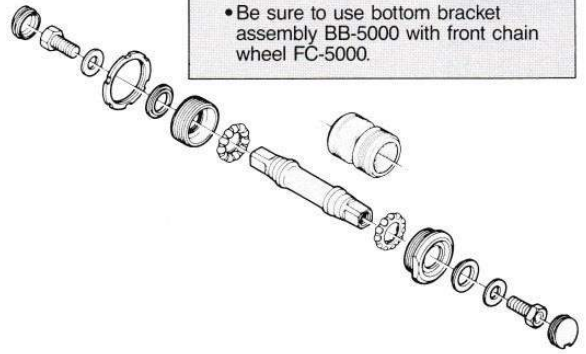
- Use the front derailleur with a capacity (teeth number difference between the large gear and small gear) plus 4 teeth or more.
- Adjust the installation position of the front derailleur so that the clearance between the outer plate of the chainguide and the large gear is 1 to 3mm while the crank is in a direct line with the seat tube.



Bottom Bracket Assembly

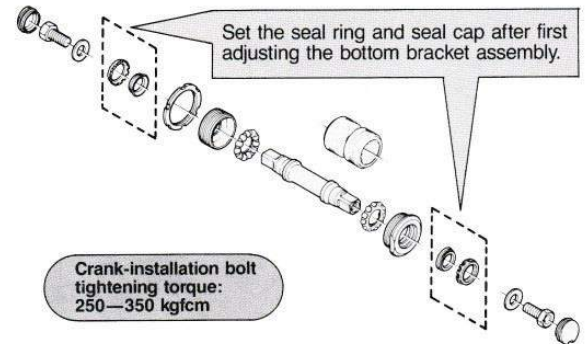
• Santé (BB-5000)

- Be sure to use bottom bracket assembly BB-5000 with front chain wheel FC-5000.



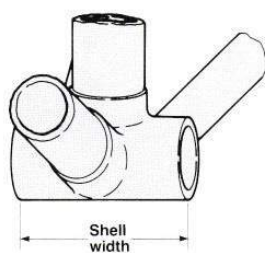
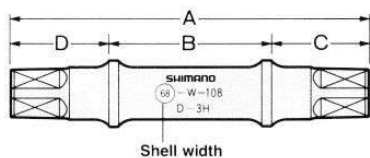
• Shimano 600 ULTEGRA (BB-6400)

Set the seal ring and seal cap after first adjusting the bottom bracket assembly.



Bottom Bracket Spindle Width

	BB-7400		BB-5000		BB-6400		BB-1050		BB-M730/MT60				BB-A450		BB-M450	
Shell width	68	70	68	70	68	70	68	70	68	68	70	70	68	70	68	70
A	112	113	108	108	113	115	113	115	117.5	122.5	117.5	122.5	113	115	117.5	117.5
B	50	52	52	54	52	54	52	54	52	52	54	54	51.1	53.1	51.1	53.1
C	32.5	31.5	28	27	30.5	30.5	30.5	30.5	33.5	36	32.5	35	30.95	30.95	32.45	31.45
D	29.5	29.5	28	27	30.5	30.5	30.5	30.5	32	34.5	31	33.5	30.95	30.95	33.95	32.95



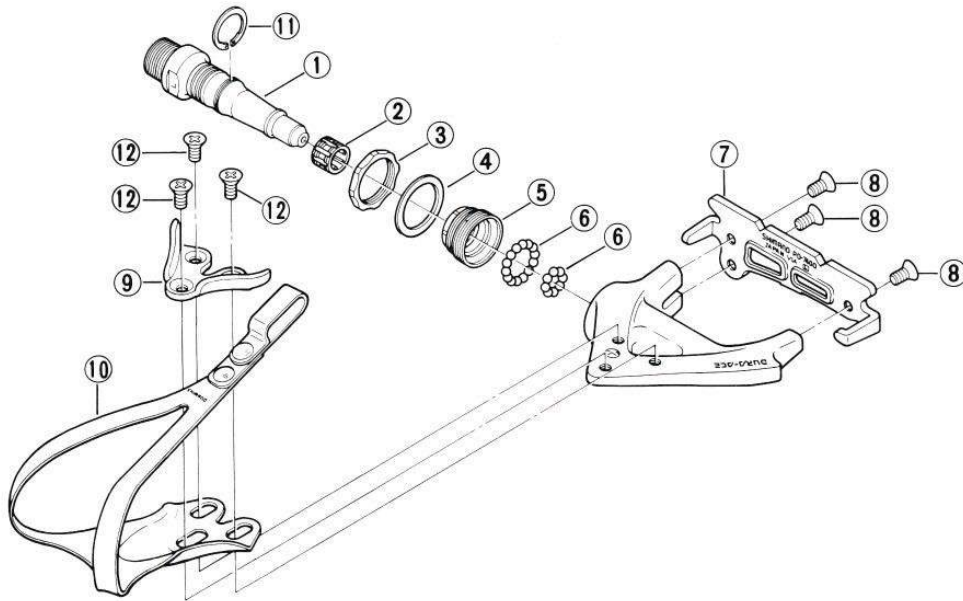
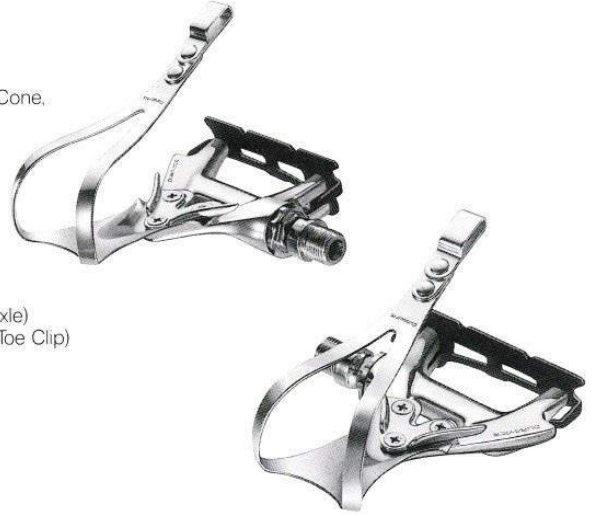
Pedal
PD-7400

DURA-ACE

Pedal
PD-7400

■ Specifications

- Features ● Compound Structure of Needle Bearing and Cup & Cone, Aerodynamic Design, 34° Road Clearance, Sealed Mechanism
- Weight ● Light Alloy: 13.1 oz. (372g.) Pair, (Including Toe Clip, L-size)
- Material ● Light Alloy•Buff Finish (Body)
 ● Light Alloy•Anodized Finish (Front Plate)
 ● Light Alloy•Black Solid Anodized Finish or Steel•Chrome-Plated (Rear Plate)
 ● Nickel Cr-Mo Steel•Chrome-Plated/Polished Finish (Axle)
 ● Steel•Chrome-Plated or Light Alloy•Anodized Finish (Toe Clip)
- Toe-Clip Size ● M, L, LL
 Crank Thread ● English BC 9/16 × 20 T.P.I., French M14 × 1.25



Shimano 600EX (PD-6207)

Shimano 600EX (PD-6207)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	440 0300	Pedal Axle (Right)	
	440 0310	Pedal Axle (Right) French Thread	
	440 0400	Pedal Axle (Left)	
	440 0410	Pedal Axle (Left) French Thread	
2	440 1000	Needle Bearing	
3	440 0900	Lock Nut	
4	440 0800	Seal Ring	
5	440 0700	Cup	
6	000 0117	Steel Ball (1/8" x 22)	
7	440 1210	Right Side Rear Plate (Light Alloy)	B
	440 1310	Left Side Rear Plate (Light Alloy)	B
	440 1200	Right Side Rear Plate (Steel)	B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
7	440 1300	Left Side Rear Plate (Steel)	B
8	440 1410	Plate Fixing Screw for Rear Plate	B
9	440 1110	Front Plate (Light Alloy)	B
	440 1100	Front Plate (Steel)	B
10	3-440 9010	Toe-Clip M-Size	B
	3-440 9011	Toe-Clip L-Size	B
	3-440 9012	Toe-Clip LL-Size	B
11	440 1800	Stop Ring	
12	440 1400	Plate Fixing screw for Front Plate	B

B: Parts usable, but differ in materials, appearance, finish, size, etc. 8709-B676E
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (PD-7400).

Pedal
PD-7401

Pedal
PD-7401

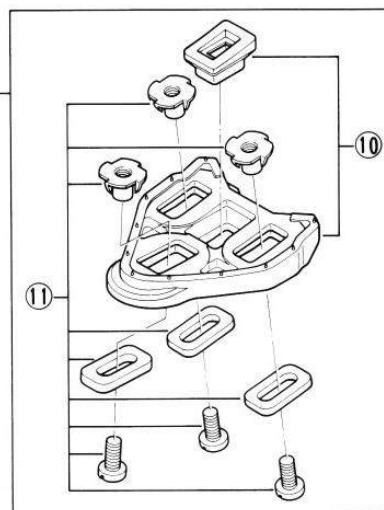
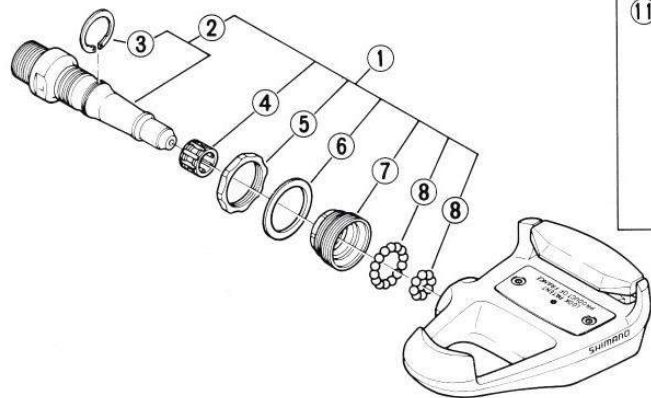
■ Specifications

- Features ● Precision Manufactured,
 Compound Structure of Needle Bearing and Cup & Cone,
 34° Road Clearance,
 Aerodynamic Dustcap-less Design,
 Efficient Sealed Mechanism,
 Adjustable Cleat Grip Tension,
 Compatible with Look® Cleats

- Weight ● Pedal (Pair) 14.5 oz. (410g.)/
 Cleat & Hardware 3.0 oz. (85g.)

- Material ● Light Alloy (Body)
 ● Nickel Cr-Mo Chrome-Plated Axle with
 Precision Ground and Polished Races

- Crank Thread ● English BC 9/16 × 20 T.P.I., French M14 × 1.25



Dura-Ace (PD-7400)

Dura-Ace (PD-7400)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-410-9805	Pedal Axle Assembly (Right)	A
	3-410-9806	Pedal Axle Assembly (Right / French Thread)	A
	3-410-9807	Pedal Axle Assembly (Left)	A
	3-410-9808	Pedal Axle Assembly (Left / French Thread)	A
2	3-410-9801	Pedal Axle (Right) & Stop Ring	A
	3-410-9802	Pedal Axle (Right / French Thread) & Stop Ring	A
	3-410-9803	Pedal Axle (Left) & Stop Ring	A
3	3-410-9804	Pedal Axle (Left / French Thread) & Stop Ring	A
	3-410-1800	Stop Ring	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	410-1000	Needle Bearing	A
5	410-0900	Lock Nut	A
6	410-0800	Seal Ring	A
7	410-0700	Cup	A
8	000-0117	Steel Ball (1/8") 22pcs.	A
9	3-418-0801	Cleat Assembly (Pair)	
10	3-418-0802	Cleat & Rubber (Pair)	
11	3-418-0803	Cleat Fixing Screw Unit (Pair)	

A: Same parts
 Absence of mark indicates non-interchangeability
 The table indicates the adaptability of conventional parts to DURA-ACE (PD-7400). 8709-E821B

Pedal
PD-6400



Pedal
PD-6400

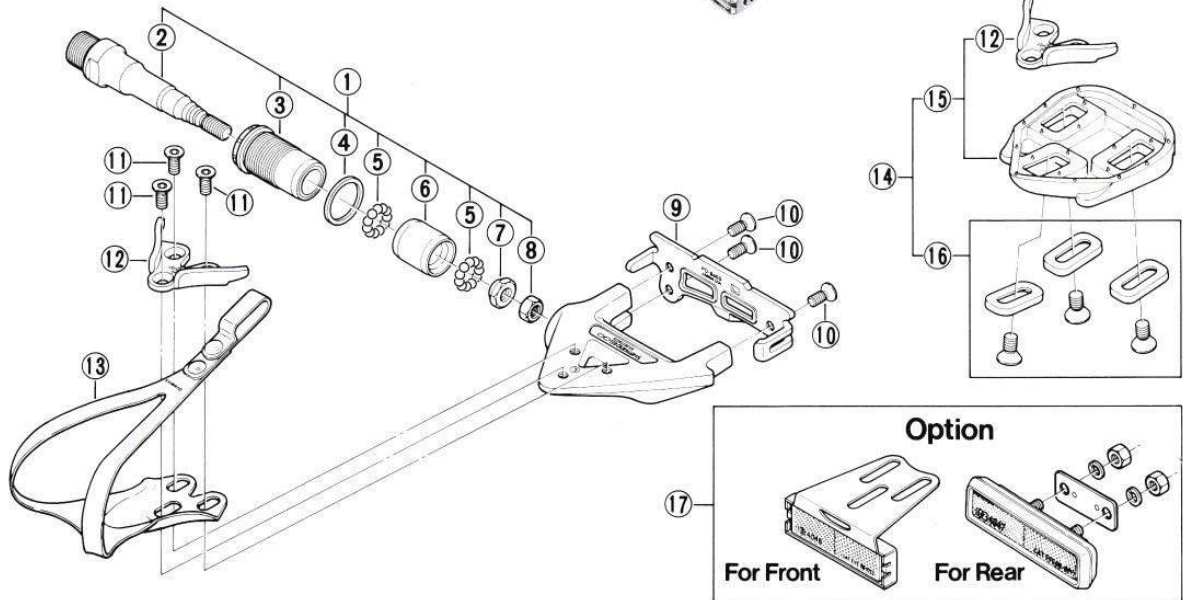
■ Specifications

Features ● Aerodynamic Design, 34° Road Clearance, Sealed Mechanism, Cartridge-Type Axle Unit, Positive-Grip Shoe Cleat, Compound Structure of Resin Bushing and Cup & Cone Bearings

Weight ● 14.5 oz. (410g.) Pair, Toe Clip L Size

Material ● Light Alloy (Body), Cr-Mo Steel (Axle)

Toe Clip Size ● M, L, LL
 Crank Thread ● English BC 9/16 × 20 T.P.I., French M14 × 1.25



Dura-Ace (PD-7800)
 Shimano 600EX (PD-6307)

Dura-Ace (PD-7800)
 Shimano 600EX (PD-6307)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-419 9801	Pedal Axle Assemble (Right/B. C. 9/16" x 20T. P. I.)	
	3-419 9802	Pedal Axle Assemble (Right/M14x1.25)	
	3-419 9803	Pedal Axle Assemble (Left/B. C. 9/16" x 20T. P. I.)	
2	3-419 9804	Pedal Axle Assemble (Left/M14x1.25)	
	419 0300	Pedal Axle (Right/B. C. 9/16" x 20T. P. I.)	
	419 0310	Pedal Axle (Right/M14x1.25)	
	419 0400	Pedal Axle (Left/B. C. 9/16" x 20T. P. I.)	
	419 0410	Pedal Axle (Left/M14x1.25)	
3	3-419 9805	Lock Bolt (Right)	
	3-419 9815	Lock Bolt (Left)	
4	419 1700	Seal Ring	
5	000 0112	Steel Ball (1/8")	B
6	419 0800	BALL RACE	
7	419 0900	Cone	
8	416 1600	Lock Nut	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
9	419 0600	Right Side Rear Plate	
	419 0700	Left Side Rear Plate	
10	419 1300	Plate Fixing Screw for Rear Plate	B B
11	419 1200	Plate Fixing Screw for Front Plate	B B
12	419 0500	Front Plate	
13	3-461 9811	Toe-Clip M-Size (Pair)	B B
	3-461 9812	Toe-Clip L-Size (Pair)	B B
	3-461 9813	Toe-Clip LL-Size (Pair)	B B
14	3-419 9806	Cleat Assembly (Pair)	B
15	3-419 9807	Cleat & Front Plate (Pair)	
16	3-419 9808	Cleat Fixing Plate & Screw (Pair)	
17	3-419 9809	Front & Rear Reflector Unit (Pair)	
		Option	

B: Parts usable, but differ in materials, appearance, finish, size, etc. 8710-E823C
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (PD-6400).

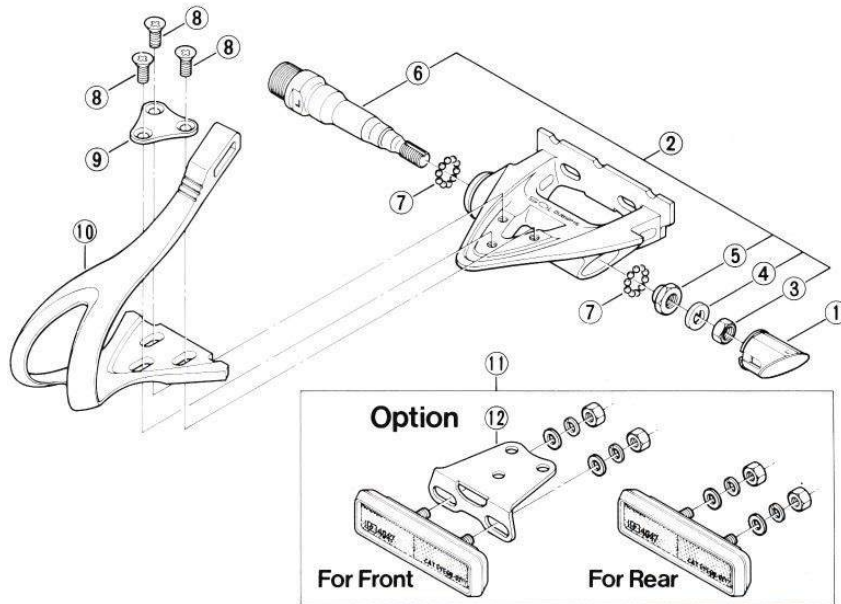
Pedal
PD-1050



Pedal
PD-1050

■ Specifications

- Features ● Aerodynamic Design,
 34° Road Clearance,
 Compound Structure of Resin Bushing
 and Cup & Cone Bearings
- Weight ● Body: 9.9 oz. (280g.) Pair,
 Toe Clip: 16 oz. (46g.) Pair L size
- Material ● Light Alloy (Body)
 ● Cr-Mo Steel (Axle)
 ● Resin-Dark Gray Metallic Finish (Toe Clip)
- Toe-Clip Size ● M, L, LL
- Crank Thread ● English BC 9/16 x 20 T.P.I., French M14 x 1.25



Dura-Ace (PD-7400)
 Shimano 600EX (PD-6207)

Dura-Ace (PD-7400)
 Shimano 600EX (PD-6207)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	415 0600	Cap	
2	3-415 9801	Pedal Axle Unit (Right / B.C. 9/16" x 20T.P. I.)	
	3-415 9803	Pedal Axle Unit (Right / M14x1.25)	
	3-415 9802	Pedal Axle Unit (Left / B.C. 9/16" x 20T.P. I.)	
3	3-415 9804	Pedal Axle Unit (Left / M14x1.25)	
	116 1600	Lock Nut	
	416 0800	IKey Washer	
5	416 1500	Cone	
	415 0300	Pedal Axle (Right / B.C. 9/16" x 20T.P. I.)	
	415 0310	Pedal Axle (Right / M14x1.25)	
	415 0400	Pedal Axle (Left / B.C. 9/16" x 20T.P. I.)	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
6	415 0410	Pedal Axle (Left / M14x1.25)	
7	000 0112	Steel Ball (1/8")	
8	415 1110	Plate Fixing Screw (M4x12mm)	
9	415 0800	Plate	
	415 0710	Toe Clip (M-Size)	*B *B
	415 0700	Toe Clip (L-Size)	*B *B
10	415 0720	Toe Clip (LL-Size)	*B *B
	3-415 9805	Front & Rear Reflector Unit (Pair)	
	415 0900	Option	
12	415 0900	Adapter for Front Reflector	

*B: Use with plate (No. 415 0800).
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 105 (PD-1050).

8702-E7608

Pedal
PD-M730
PD-M731 (Comp Type)



Pedal
PD-M730
PD-M731 (Comp Type)

■ Specifications

- Features ● Low Profile Design, Parallelogram Shape (PD-M730) Contact Type Sealed Mechanism, Stainless Steel Grip Pins, Toe-Clip/Reflector Attachable

- Weight ● PD-M730: 14.5 oz. (412g.) Pair
 PD-M731: 12.8 oz. (363g.) Pair

- Material ● Light Alloy (Body)
 ● Cr-Mo Steel (Axle)

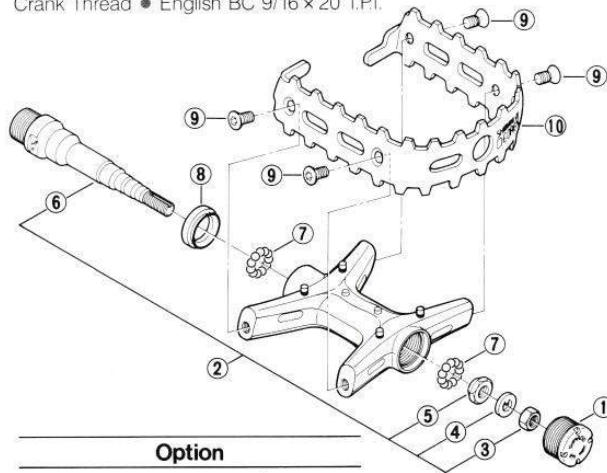
- Crank Thread ● English BC 9/16 x 20 T.P.I.



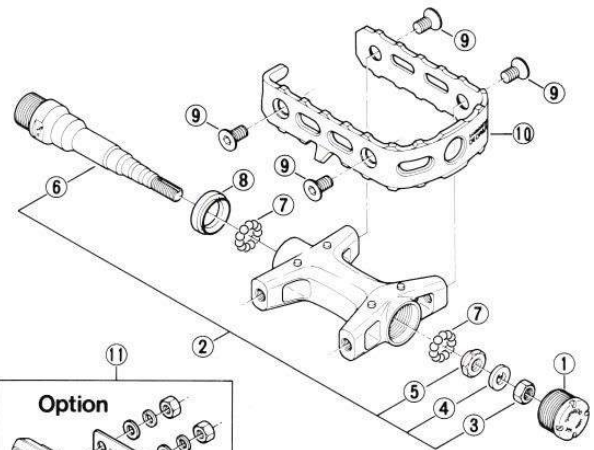
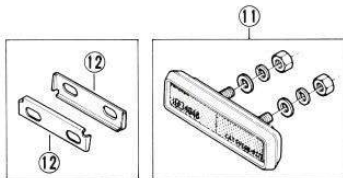
PD-M730



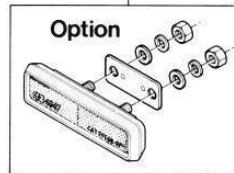
PD-M731



Option



Option



■ PD-M730

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	416 0900	Cap	A
3	416 9801	Pedal Axle Unit (Right / B.C. 9/16" x 20T. P. 1)	A
	416 9802	Pedal Axle Unit (Right / UNF1/2" x 20T. P. 1)	A
2	416 9803	Pedal Axle Unit (Left / B.C. 9/16" x 20T. P. 1)	A
	416 9804	Pedal Axle Unit (Left / UNF1/2" x 20T. P. 1)	A
3	416 1600	Lock Nut	A
4	416 0800	Key Washer	A
5	419 0900	Cone	A
6	416 0500-1	Pedal Axle (Right / B.C. 9/16" x 20T. P. 1)	A
	416 0510-1	Pedal axle (Right / UNF1/2" x 20T. P. 1)	A
	416 0600-1	Pedal Axle (Left / B.C. 9/16" x 20T. P. 1)	A
	416 0610-1	Pedal axle (Left / UNF1/2" x 20T. P. 1)	A
7	000 0112	Steel Ball (1/8")	A
8	416 1200	Seal	A
9	416 1300	Plate Fixing Screw	A
	416 0300	Right Side Plate	A
10	416 0400	Left Side Plate	A
	3-439 9901	Reflector Unit (4pcs.) Option	B
12	3-416 9810	Toe Clip Adapter (4pcs.) Option	B

8709-E777B

■ PD-M731

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	416 0900	Cap	A
3	416 9801	Pedal Axle Unit (Right / B.C. 9/16" x 20T. P. 1)	A
	416 9802	Pedal Axle Unit (Right / UNF1/2" x 20T. P. 1)	A
2	416 9803	Pedal Axle Unit (Left / B.C. 9/16" x 20T. P. 1)	A
	416 9804	Pedal Axle Unit (Left / UNF1/2" x 20T. P. 1)	A
3	416 1600	Lock Nut	A
4	416 0800	Key Washer	A
5	419 0900	Cone	A
6	416 0500-1	Pedal Axle (Right / B.C. 9/16" x 20T. P. 1)	A
	416 0510-1	Pedal axle (Right / UNF1/2" x 20T. P. 1)	A
	416 0600-1	Pedal Axle (Left / B.C. 9/16" x 20T. P. 1)	A
	416 0610-1	Pedal axle (Left / UNF1/2" x 20T. P. 1)	A
7	000 0112	Steel Ball (1/8")	A
8	416 1200	Seal	A
9	417 0400	Plate Fixing Screw	A
	417 0200	Right Side Plate	A
10	417 0300	Left Side Plate	A
	3-439 9902	Reflector Unit (4pcs.) Option	B

8709-ER09B

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE XT (PD-M730).

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE XT (PD-M731).

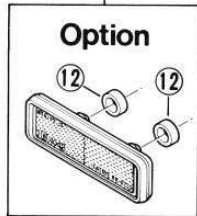
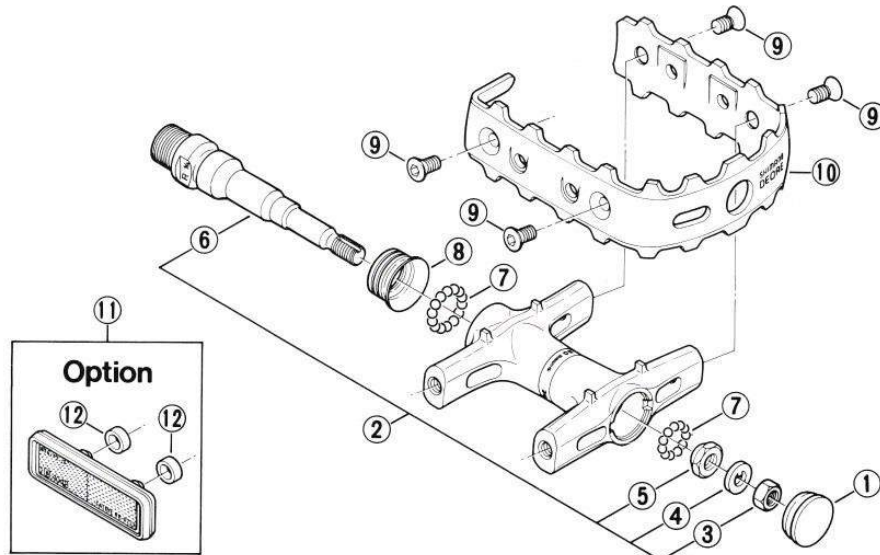
Pedal
PD-MT60



Pedal
PD-MT60

■ Specifications

- Features • Low Profile Design, Parallelogram Shape, Contact Type Sealed Mechanism, Toe-Clip/Reflector Attachable
- Weight • 1.75 oz. (495g.) Pair
- Material • Light Alloy (Body)
 • Steel•Black Finish (Cage)
 • Cr-Mo Steel•Black Finish (Axle)
- Crank Thread • English BC 9/16 x 20 T.P.I.



DEORE XT (PD-M730)

DEORE XT (PD-M730)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	409 0900	Cap	
1	3-414 9801	Pedal Axle Unit (Right / B.C. 9/16"x20T. P. 1)	
	3-414 9802	Pedal Axle Unit (Right / UNF1/2"x20T. P. 1)	
2	3-414 9803	Pedal Axle Unit (Left / B.C. 9/16"x20T. P. 1)	
	3-414 9804	Pedal Axle Unit (Left / UNF1/2"x20T. P. 1)	
3	416 1600	Lock Nut	A
4	416 0800	Key Washer	A
5	419 0900	Cone	A
6	416 0500-1	Pedal Axle (Right / B.C. 9/16"x20T. P. 1)	A
	416 0510-1	Pedal Axle (Right / UNF1/2"x20T. P. 1)	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
6	416 0600-1	Pedal Axle (Left / B.C. 9/16"x20T. P. 1)	A
	416 0610-1	Pedal Axle (Left / UNF1/2"x20T. P. 1)	A
7	000 0112	Steel Ball (1/8") 25pcs.	A
8	414 0900	Seal	
9	416 1300	Plate Fixing Screw	A
10	414 0500	Right Side Plate	
	414 0600	Left Side Plate	
11	3-414 9810	Reflector Unit (4pcs.) Option	
12	409 1200	Adapter for Toe-Clip or Reflector	

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE (PD-MT60).

8705-E828

Pedal
PD-A450



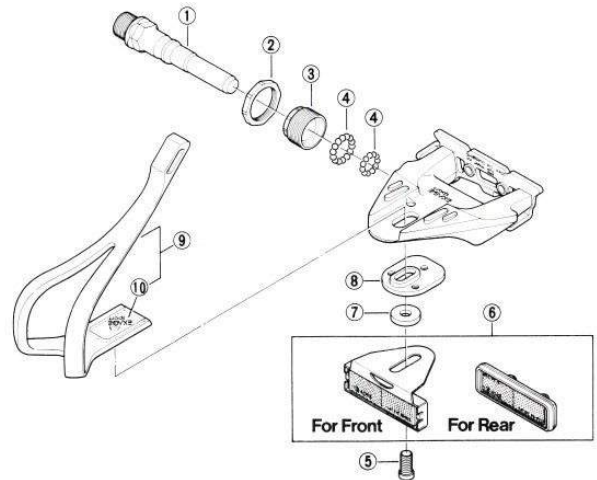
Pedal
PD-A450

■ Specifications

- Features ● Compact Aero Design,
 34° Road Clearance,
 Adjustable Resin Toe Clip
- Weight ● 16.2 oz. (460g.) Pair, Toe Clip Size L
- Material ● Resin•Bule Gray Metallic Finish (Body),
 ● Cr-Mo Steel (Axle)
 ● Steel•Black Finish (Rear Plate)
- Toe Clip Size ● M, L, LL
- Crank Thread ● English BC 9/16 x 20 T.P.I.
- * PD-1050, PD-6400, PD-7400 toe clips can be used.



Pedal
PD-M450
PD-M350



ITEM NO.	PART NO.	DESCRIPTION
1	408 0300	Pedal Axle (Right / B.C. 9/16" x 20T.P.I.)
	408 0310	Pedal Axle (Right / M14x1.25)
	408 0400	Pedal Axle (Left / B.C. 9/16" x 20T.P.I.)
	408 0410	Pedal Axle (Left / M14x1.25)
2	408 0700	Lock Nut
3	408 0600	Cup
4	000 0111	Steel Ball (1/8") 25pcs.
5	408 2300	Toe Clip Fixing Bolt
6	3-408 9801	Front & Rear Reflector Unit (Pair)
7	408 2100	Washer
8	408 2200	Toe Clip Fixing Plate
9	3-408 9803	Toe Clip (M Size) Pair
	3-408 9804	Toe Clip (L Size) Pair
10	3-408 9805	Toe Clip (LL-Size) Pair
	408 2100	Toe Clip Fixing Nut (1pc.)

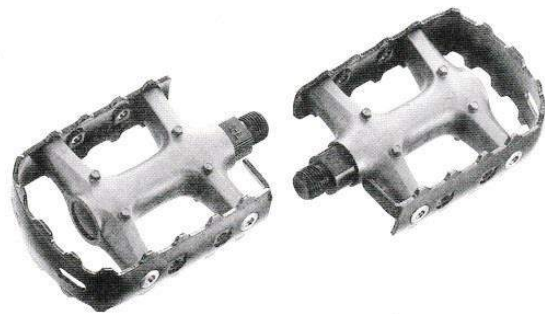
8710-ER33A



Pedal
PD-M450

■ Specifications

- Features ● Low Profile Design,
 Parallelogram Shape,
 Toe Clip/Reflector Attachable
- Weight ● 17.1 oz. (486g.) Pair w/o Reflector
- Material ● Resin•Graphite Gray Metallic Finish (Body)
 ● Steel•Black Finish (Cage)
 ● Cr-Mo Steel•Black Finish (Axle)
- Crank Thread ● English BC 9/16 x 20 T.P.I.
- Toe Clip ● Standard (Special Spacer needed)



Pedal
PD-M350

■ Specifications

- Features ● Compact Design,
 Steel Outer Cage Teeth,
 Built-in Reflectors
- Weight ● 16.0 oz. (445g.) Pair w/Reflectors
- Material ● Resin•Black Finish (Body)
 ● Steel•Black Finish (Cage)
 ● Cr-Mo Steel•Black Finish (Axle)
- Crank Thread ● English BC 9/16 x 20 T.P.I.

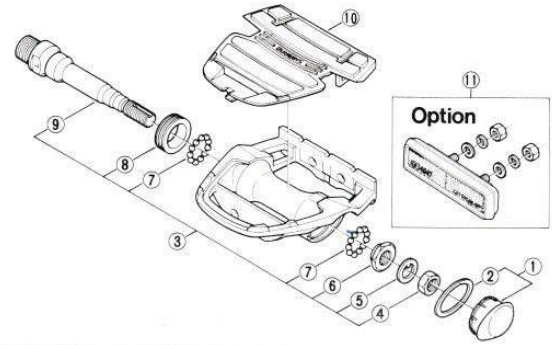
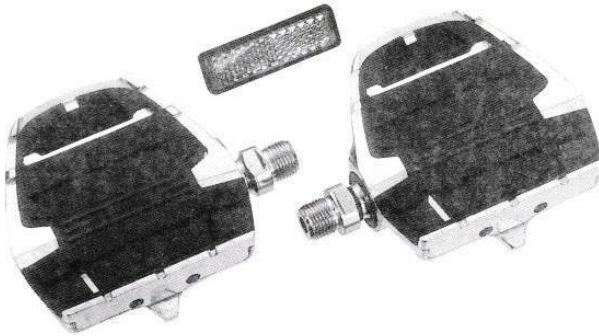


Pedal
PD-T100
PD-MX20

Pedal
PD-E100

Pedal
PD-T100

- Specifications
- Features
 - Sealed Mechanism, Removable Platform Support, High Cornering Clearance, Accepts Any Standard Toe Clips
- Weight
 - 146 oz. (414g.) Pair w/Reflector, 123 oz. (362g.) Pair w/o Reflector
- Material
 - Light Alloy (Body)
 - Cr-Mo Steel (Axle)
 - Resin (Cap, Reflector & Dust Seal)
- Crank Thread
 - English BC 9/16 × 20 T.P.I., French M14 × 1.25

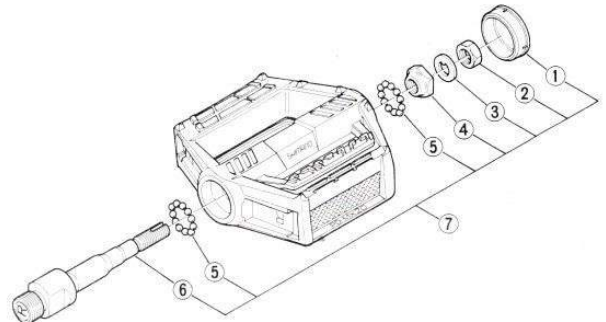
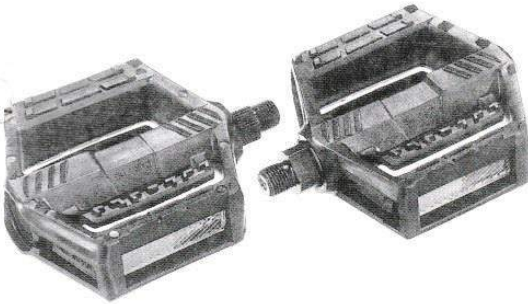


ITEM NO.	PART NO.	DESCRIPTION
1	3-460-9823	Cap & Out Side Seal Ring
2	460-2100	Out Side Seal Ring
3	3-439-9801	Pedal Axle Assembly (Right)
3	3-439-9802	Pedal Axle Assembly (Left)
4	468-0900	Lock Nut
5	468-0800	Key Washer
6	468-0700	Cone
7	000-0151	Steel Ball (5/32")
8	460-1800	Dust Seal
9	460-1300	Pedal Axle (Right)
9	460-1400	Pedal Axle (Left)
10	439-0500	Upper Plate
11	3-439-9001	Reflector Unit (4pcs.) Option

8603-E751A

Pedal
PD-MX20

- Specifications
- Weight
 - 83 oz. (197g.) Pair
- Material
 - Resin (Body)
- Crank Thread
 - English BC 9/16 × 20 T.P.I., UNC 1/2 × 20 T.P.I.
- Color
 - Black & Silver



ITEM NO.	PART NO.	DESCRIPTION
1	458-9303	Cap
2	468-0900	Lock Nut
3	468-0800	Key Washer
4	468-0700	Cone
5	000-0151	Steel Ball (5/32")
6	468-0300	Pedal Axle (Right)
6	468-0400	Pedal Axle (Left)
7	3-454-9801	Pedal Axle Assembly (Right)
7	3-454-9811	Pedal Axle Assembly (Left)

8310-E649

Pedal
PD-E100

- Specifications
- Feature
 - Pedal for Exerciser
- Weight
 - 33.4 oz. (946g.) Pair
- Material
 - Resin (Body)
- Crank Thread
 - English BC 9/16 × 20 T.P.I., French M14 × 1.25, UNC 1/2 × 20 T.P.I.
- Color
 - Black, White

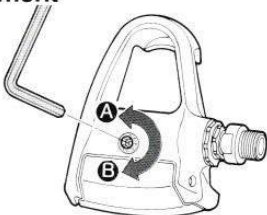


Pedal Assembly Note

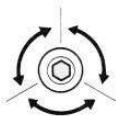
PD-7401

■Cleat retention adjustment

The shoe locking force can be adjusted by the bolt at the rear side of the pedal (4-mm Allen Key). The force can be increased by turning clockwise (A), and can be lessened by turning counterclockwise (B).



The cleat-lock force changes one step for each 120° turn and "click" of the bolt. There are about 25 possible force settings; adjust to the setting that best suits you. The bolt cannot be turned beyond the maximum lock force setting; at the minimum setting, no "click" will be heard. Do not try to turn beyond either the maximum or minimum setting.

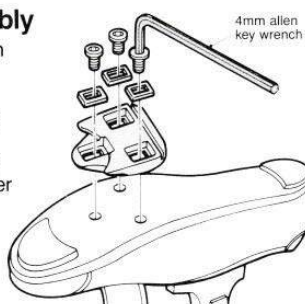


Shimano 600 ULTEGRA (PD-6400)

■Shoe cleat assembly

Use 4mm allen key to attach adjustable shoe cleat to LOOK® compatible shoe.

Note) This cleat is designed for use with 600 ULTEGRA pedal only. Must use special front and rear plate for proper function.



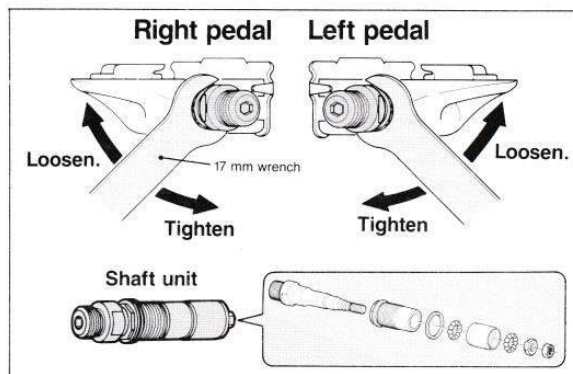
■Cleat retention adjustment

Proper adjustment of front plate is necessary to insure maximum performance.

Too loose	Too tight
Too easy to release.	Too difficult to release.
Adjustable front plate	Adjustable front plate
Move special adjustable front plate to rear.	Move special adjustable front plate to front.
Adjustable front plate	Adjustable front plate
Practice releasing and entering each pedal (left and right) a few times with other foot on the ground to check for proper front plate adjustment.	

■Shaft removal

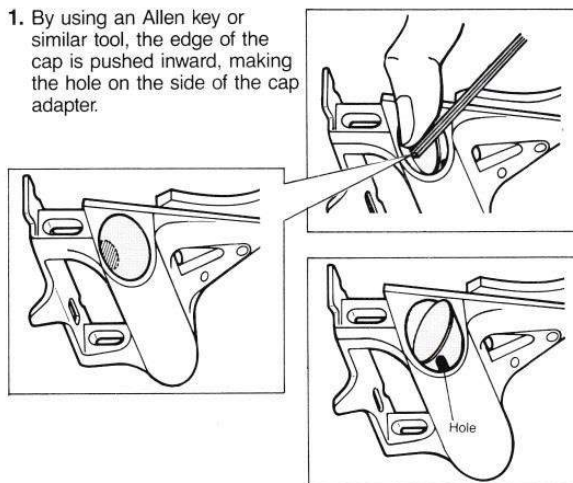
To remove and replace the shaft unit. A left-hand thread screw is used on the right pedal, and a right-hand thread is used on the left pedal.



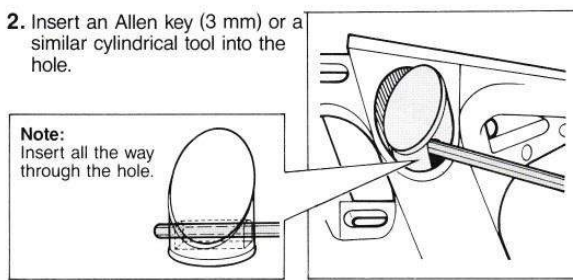
Shimano 105 (PD-1050)

■Cap removal

1. By using an Allen key or similar tool, the edge of the cap is pushed inward, making the hole on the side of the cap adapter.

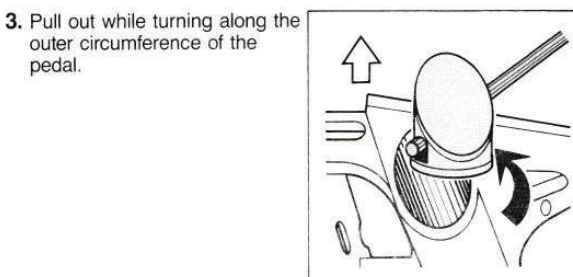


2. Insert an Allen key (3 mm) or a similar cylindrical tool into the hole.



Note: Insert all the way through the hole.

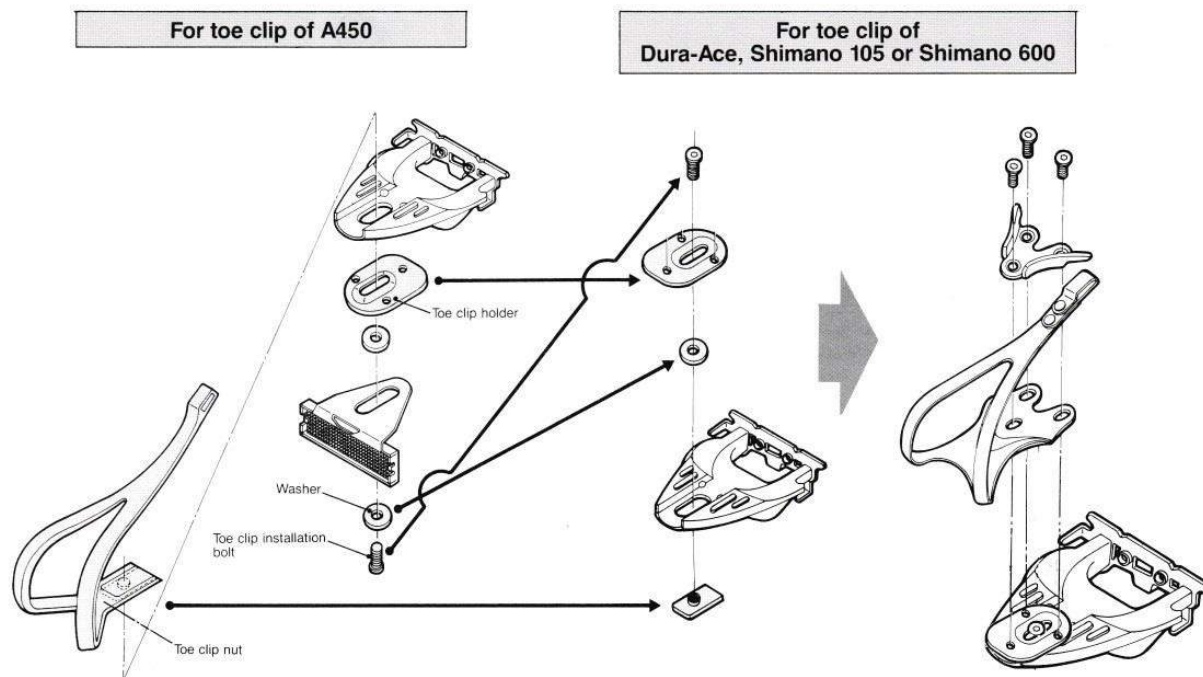
3. Pull out while turning along the outer circumference of the pedal.



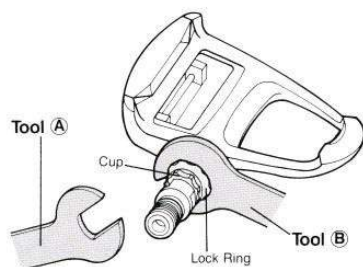
EXAGE sport (PD-A450)

■ Installation of the toe clip

If a toe clip for the Dura-Ace, Shimano 105 or Shimano 600 is used, change the component positions as shown in the figure and then install.



Cone Adjustment



	Tool A	Tool B
PD-7400	15mm wrench	TL-PD30
PD-7401	15mm wrench	TL-PD30
PD-A450	17mm wrench	TL-PD20

Hub

HB-7600-R (Rear Hub)

HB-7600-F (Front Hub)



Hub

HB-7600-R (Rear Hub)

HB-7600-F (Front Hub)

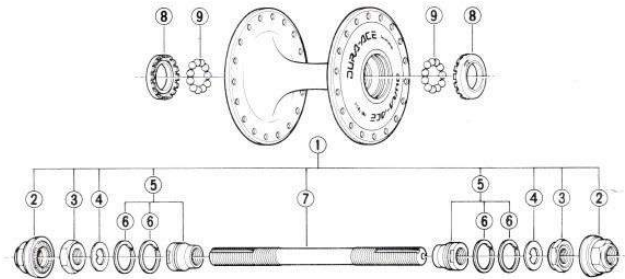
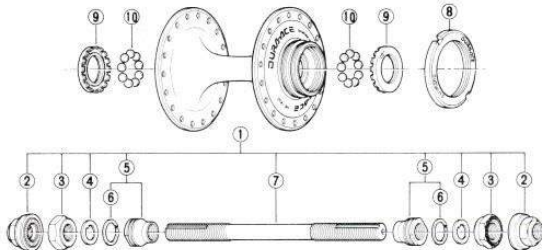
■ Specifications

- Features
 - Precision Ground Cones, Diamond-Polished Mirror Finish (Cup & Cone), Sealed Mechanism, Composite-Type Design
- Weight
 - Rear w/Lock Ring/Large: 11.0 oz. (313g.)
 - Front/Large: 8.5 oz. (241g.)
- Material
 - Forged Light Alloy • Anodized Finish (Hub Body)
 - Poly-carbonate Resin (Composite Hub Flange)
- Type
 - Track type
- Over Lock Nut Dimensions
 - Front: 3.94" (100mm.), Rear: 4.72" (120mm.)
- Sprocket Thread
 - English BC 1.37 x 24 T.P.I.
(One-Side or Both-Side Threaded Type/Large)
(One-Side Threaded Type/Small)
- Lock Ring Thread
 - English BC 1.29 x 24 T.P.I. (Left)
- Spoke Holes
 - 28H, 32H, 36H (Option 24H)
- Spoke Hole Diameter
 - 2.4mm.
- Fork Eng Slot Width
 - Front: 9mm. (Hollow Axle).
 - Rear: 10mm. (Hollow Axle)

Large Type



Small Type



■ Rear Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3-278 9805	Complete Hub Axle 164mm
2	3-278 9810	Hub Nut
3	247 0601	Lock Nut (M10x7, 5mm)
4	243 1600	Key Washer
5	3-278 9812	Cone (M10x15mm) & Seal Ring
6	360 0900	Seal Ring
7	247 0312	Hub Axle 164mm
8	278 1900	Lock Ring
9	278 1100	Dust cap
10	000 0135	Steel Ball (1/4")

Over Lock Nut Dimension: 120mm.

8508-E728

■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3-268 9801	Complete Hub Axle 142mm
2	3-268 9810	Hub Nut
3	237 0600	Lock Nut (M9x5, 5mm)
4	233 1600	Key Washer
5	3-268 9812	Cone (M9x15mm) & Seal Ring
6	216 0400	Seal Ring
7	237 0302	Hub Axle 142mm
8	268 1000	Dust Cap
9	000 0125	Steel Ball (3/16")

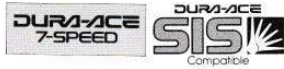
Over Lock Nut Dimension: 100mm.

8508-E727

Freehub

FH-7400-6/7 (Rear, 6-speed/7-speed)

HB-7400-F (Front Hub)



Freehub

FH-7400-6/7 (Rear, 6-speed/7-speed)

HB-7400-F (Front Hub)

■ Specifications

- Features**
- 6- and 7-speed SIS Compatible
 - Sealed Mechanism, Uniglide Gears, Bolt-Secured Cassette Freewheel, Uni-Balance System, Lubricating Ports with Open/Close Switch
- Weight**
- Rear 7-speed: 15.4 oz. (439g.) 126mm. (w/o sprocket), Front: 8.0 oz. (228g.), Sprockets (12 ~ 21T) & Spacers: 78 oz. (221g.)
- Material**
- Forged Light Alloy • Anodized Finish (Hub Shell)
 - Resin • Black Finish (Dust Cap)
 - Steel • Chrome-Plated (Quick Release Housing & Nut)
 - Steel • Champagne Gold Finish (Sprockets)
- Teeth**
- Threaded Sprocket (Top): 12T. ~ 16T., Spline Sprocket: 13T. ~ 26T., 28T.

Over Lock Nut Dimensions

- Front: 100mm., Rear: 126mm., 130mm.

Spoke Holes

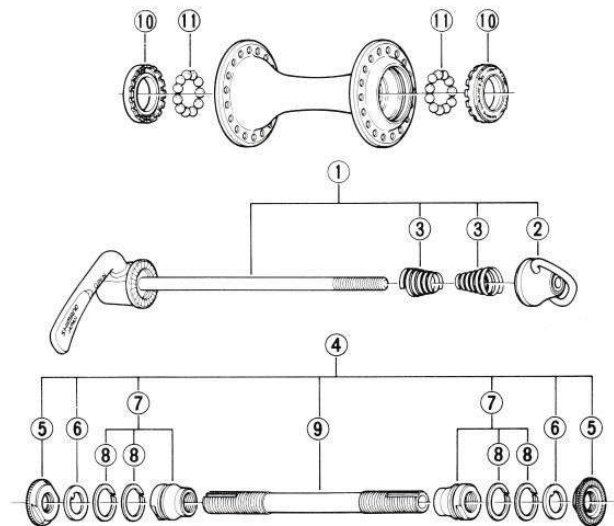
- 28H, 32H, 36H

Chain

- 1/2" x 3/32" (Narrow Type for 7-speed)

Standard Sprocket Combinations:

7-speed	12, 13, 14, 15, 16, 17, 19T
	12, 13, 14, 15, 17, 19, 21T
	13, 14, 15, 16, 17, 19, 21T
	13, 14, 15, 17, 19, 21, 24T
	13, 15, 17, 19, 21, 23, 26T
6-speed	12, 13, 14, 15, 16, 17T
	13, 14, 15, 16, 17, 18T
	13, 14, 15, 17, 19, 21T
	13, 15, 17, 19, 21, 23T
	13, 15, 17, 20, 23, 26T



■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-216 9821	Complete Quick Release 129mm	B
2	3-216 9835	Nut for Skewer	B
3	233 2100	Volute spring	A
4	3-216 9801	Complete Hub Axle 108mm	B1
5	216 0600	Lock Nut 4mm	B
6	233 1600	Key Washer 1.2mm	A
7	3-216 9811	Cone (W9x15mm) & Seal Ring	B1
8	216 0400	Seal Ring	A
9	233 1800	Hub Axle 108mm	A
10	3-216 9815	Dust Cap	B1
11	000 0125	Steel Ball (3/16")	A

A: Same parts.

B: Parts usable, but differ in materials, appearance, finish, size, etc.

B1: There is the problem regarding waterproof protection.

Absence of mark indicates non-interchangeability.

The table indicates the adaptability of conventional parts to DURA-ACE (HB-7400-F).

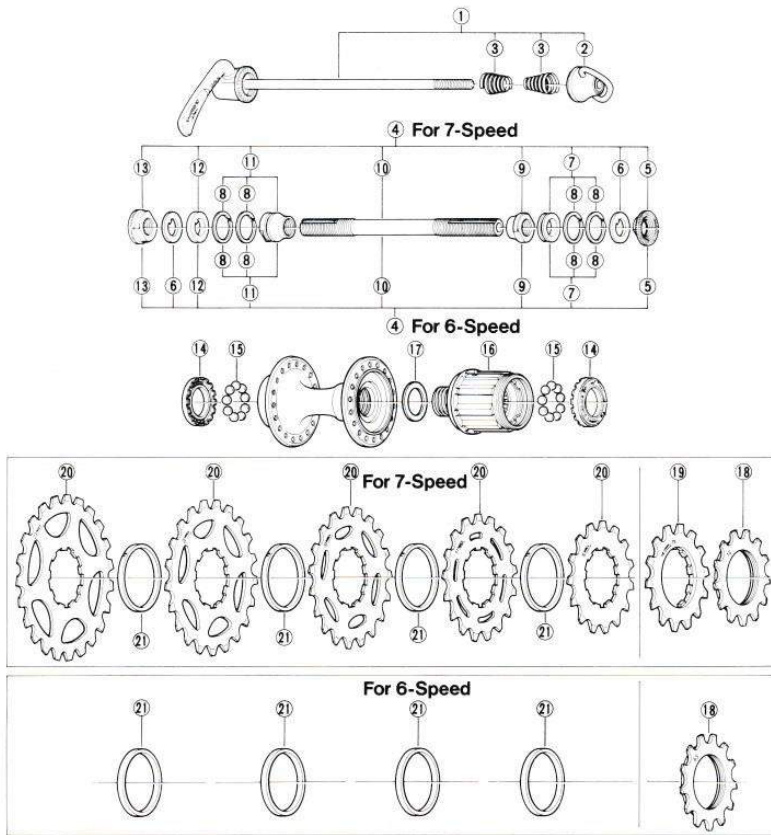
• Over Lock Nut Dimension: 100mm.

8740-E678A

Freehub

FH-7400-6/7 (Rear, 6-speed/7-speed)

HB-7400-F (Front Hub)



Freehub

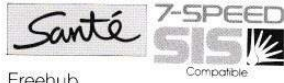
ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-240 9821	Complete Quick Release 157mm	B
2	3-216 9835	Nut for Skewer	B
3	233 2100	Volute Spring	A
4	3-360 9801-1	Complete Hub Axle 137mm for 7-Speed	B 1
	3-360 9801-2	Complete Hub Axle 137mm for 6-Speed	
5	356 5901	Right Hand Lock Nut 4mm	B
6	356 6100	Key Washer 1.6mm	B
7	3-360 9811	Right Hand Axle Spacer 4mm & Seal Ring	
8	360 0900	Seal Ring	
9	360 1000	Right Hand Cone (M10x10mm)	B 1
10	243 2001	Hub Axle 137mm	A
11	3-240 9811	Left Hand Cone (M10x15mm) & Seal Ring	B 1
12	360 1700	Key Washer 2.9mm	B
13	243 1701	Left Hand Lock Nut 7.5mm	B
14	3-240 9815	Dust Cap	
15	000 0136	Steel Ball (1/4")	A
16	3-360 9820	Complete Freewheel Body	B 2
17	356 5800	Stopper	A
18	106 1210	Sprocket Wheel 12T (B, C, 32) for 7-Speed	
	106 1310	Sprocket Wheel 13T (B, C, 32) for 7-Speed	
	106 1410	Sprocket Wheel 14T (B, C, 32) for 7-Speed	
	106 1510	Sprocket Wheel 15T (B, C, 32) for 7-Speed	
	106 1610	Sprocket Wheel 16T (B, C, 32) for 7-Speed	
	106 1710	Sprocket Wheel 17T (B, C, 32) for 7-Speed	
	106 1810	Sprocket Wheel 18T (B, C, 32) for 7-Speed	
	103 1210	Sprocket Wheel 12T (B, C, 32) for 6-Speed	B
	103 1310	Sprocket Wheel 13T (B, C, 32) for 6-Speed	B
	103 1410	Sprocket Wheel 14T (B, C, 32) for 6-Speed	B
103 1510	Sprocket Wheel 15T (B, C, 32) for 6-Speed	B	
103 1610	Sprocket Wheel 16T (B, C, 32) for 6-Speed	B	
103 1710	Sprocket Wheel 17T (B, C, 32) for 6-Speed	B	
103 1810	Sprocket Wheel 18T (B, C, 32) for 6-Speed	B	
19	106-1320	Sprocket Wheel 13T (Built in Spacer Type) for 7-Speed Only	
	106 1420	Sprocket Wheel 14T (Built in Spacer Type) for 7-Speed Only	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
19	106 1520	Sprocket Wheel 15T (Built in Spacer Type) for 7-Speed Only	
	106 1620	Sprocket Wheel 16T (Built in Spacer Type) for 7-Speed Only	
	106 1720	Sprocket Wheel 17T (Built in Spacer Type) for 7-Speed Only	
	106 1820	Sprocket Wheel 18T (Built in Spacer Type) for 7-Speed Only	
	106 1920	Sprocket Wheel 19T (Built in Spacer Type) for 7-Speed Only	
	103 1320	Sprocket Wheel 13T (Built in Spacer Type) for 6-Speed Only	B 3
	103 1420	Sprocket Wheel 14T	B 3
	103 1520	Sprocket Wheel 15T	B 3
	103 1620	Sprocket Wheel 16T	B 3
	103 1720	Sprocket Wheel 17T	B 3
20	103 1820	Sprocket Wheel 18T	B 3
	103 1920	Sprocket Wheel 19T	B 3
	103 2020	Sprocket Wheel 20T	B 3
	103 2120	Sprocket Wheel 21T	B 3
	103 2220	Sprocket Wheel 22T	B 3
	103 2320	Sprocket Wheel 23T	B 3
	103 2420	Sprocket Wheel 24T	B 3
	103 2520	Sprocket Wheel 25T	B 3
	103 2620	Sprocket Wheel 26T	B 3
	103 2820	Sprocket Wheel 28T	
21	106 4100	Sprocket Spacer (3, 1mm) for 7-Speed	
	103 4100	Sprocket Spacer (3, 65mm) for 6-Speed	

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 B1: There is the problem regarding waterproof protection.
 B2: There is interchangeability if the Dura-Ace sprocket spacers is also used at the same time. SIS can not be used however.
 B3: SIS can not be used.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (FH-7400)
 •Over Lock Nut Dimension: 126.5mm.

8709-E750D

Freehub
FH-5000 (Rear/7-speed)
HB-5000 (Front Hub)

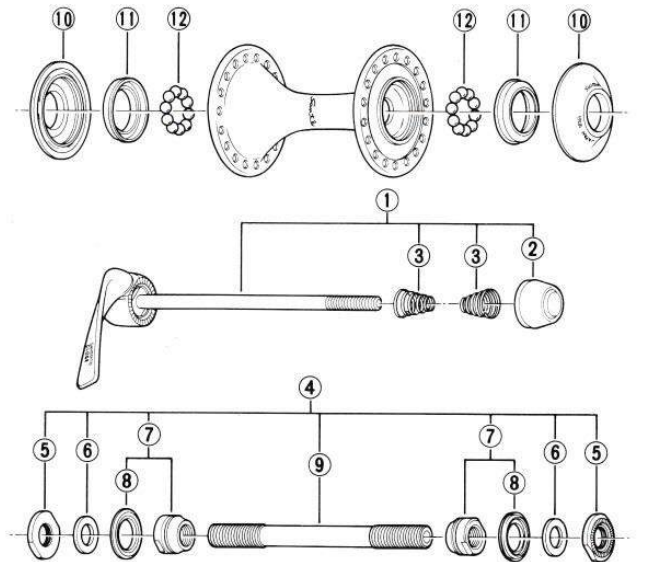


Freehub
FH-5000 (Rear/7-speed)
HB-5000 (Front Hub)

■ Specifications

- Features**
- 7-speed SIS Compatible.
 - Flush Surface Design.
 - Human-Engineered QR Lever.
 - Wider Bearing Placement.
 - Bolt-Secured Cassette Freewheel.
 - Sealed Mechanism.
 - Gum Covered QR Nut.
 - Uniglide Gears
- Weight**
- Front: 8.2 oz. (232g.)
 - Rear (w/o Sprockets): 15.2 oz. (430g.)
 - Sprockets (12, 13, 14, 15, 16, 19, 21T. & Spacers): 7.9 oz. (233g.)
- Material**
- Forged Light Alloy • Pearl Silver Anodized Finish (Hub Shell)
 - Steel • Chrome-Plated (Sprockets).
- Teeth**
- Threaded Sprocket (Top): 12T. ~ 14T.
 - Spline Sprocket: 13T. ~ 28T.
- Over Lock Nut Dimensions**
- Front: 100mm., Rear: 126mm.
- Spoke Holes**
- 28H, 32H, 36H
- Spoke Hole Diameter**
- 2.6mm.
- Chain**
- 1/2" x 3/32" (Narrow Type)
- Standard Sprocket Combinations:**

7-speed	12, 13, 14, 15, 16, 17, 18T.
	12, 13, 14, 15, 16, 19, 21T.
	13, 14, 15, 17, 19, 20, 23T.



■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-378-9801	Complete Quick Release 125mm	B B
2	3-378-9802	Nut for Skewer	B B
3	231-1100	Volute Spring	A A
4	3-207-9801	Complete Hub Axle 108mm	B B
5	207-0400	Lock Nut 3mm	B B
6	301-0700	Washer 1.5mm	A
7	3-214-9802	Cone (M9x10.5mm) & Seal Ring	A
8	214-0600	Seal Ring	A
9	338-0400	Hub Axle M9x108mm	B A
10	207-0300	Dust cover	B
11	214-0110	Drst Cap	B
12	000-0121	Steel Ball (3/16")	B A

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (HB-5000-F).
 • Over Lock Nut Dimension: 100mm.

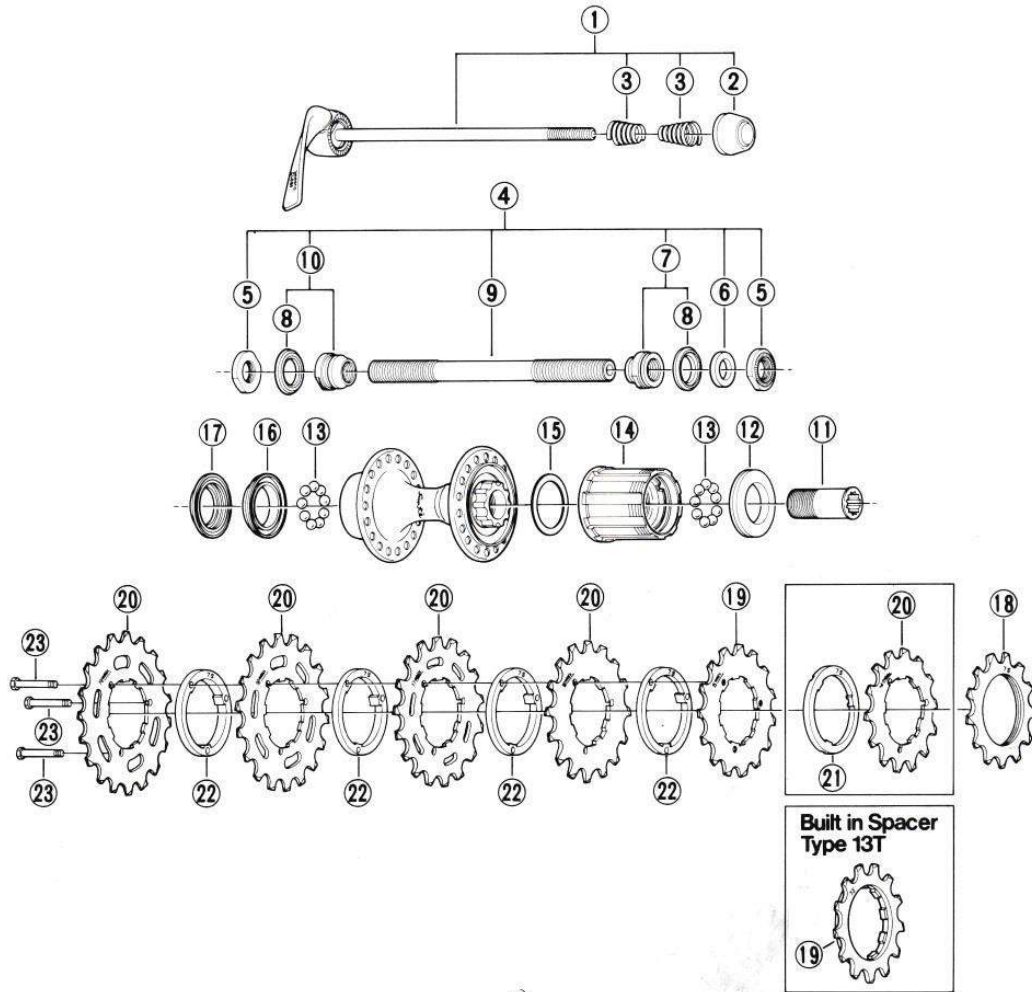
Dura-Ace (HB-7400-F)
 800 ULTEGRA (HB-8400-F)

8710-E835A

Freehub

FH-5000 (Rear/7-speed)

HB-5000 (Front Hub)



Freehub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	3-378 9803	Complete Quick Release 153mm	B	B
2	3-378 9802	Nut for Skewer	B	B
3	231 1100	Volute Spring	A	A
4	3-378 9804	Complete Hub Axle 137mm	B	B
5	378 1301	Lock Nut 3.5mm	B	B
6	301 0610	Right Hand Washer 2.3mm	A	A
7	3-377 9806	Right Hand Cone (M10x12mm) & Seal Ring	A	A
8	377 1000	Seal Ring	B	A
9	360 1900-9	Hub Axle 137mm	B	A
10	3-378 9805	Left Hand Cone (M10x13.1mm) & Seal Ring	A	A
11	359 0400	Freewheel Body Fixing Bolt	A	A
12	377 0710	Right Hand Dust Cap	B	B
13	090 0131	Steel Ball(1/4")	B	A
14	3-377 9808	Complete Freewheel Body	A	A
15	375 0100	Freewheel Body Dust Cap	A	A
16	378 0400	Left Hand Dust Cap	B	B
17	378 0500	Left Hand Dust Cover		
	107 1210	Sprocket Wheel 12T (B.C.34.6)	B	B
18	107 1310	Sprocket Wheel 13T (B.C.34.6)	B	B
	107 1410	Sprocket Wheel 14T (B.C.34.6)	B	B
	107 1320	Sprocket Wheel 13T (Built in Spacer Type)	B	B
19	107 1420	Sprocket Wheel 14T	B	B
	107 1520	Sprocket Wheel 15T	B	B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
	107 1620	Sprocket Wheel 16T	B	B
	107 1720	Sprocket Wheel 17T	B	B
10	107 1820	Sprocket Wheel 18T	B	B
	107 1530	Sprocket Wheel 15T	B	B
	107 1630	Sprocket Wheel 16T	B	B
	107 1730	Sprocket Wheel 17T	B	B
	107 1830	Sprocket Wheel 18T	B	B
	107 1930	Sprocket Wheel 19T	B	B
	107 2030	Sprocket Wheel 20T	B	B
20	107 2130	Sprocket Wheel 21T	B	B
	107 2230	Sprocket Wheel 22T	B	B
	107 2330	Sprocket Wheel 23T	B	B
	107 2430	Sprocket Wheel 24T	B	B
	107 2530	Sprocket Wheel 25T	B	B
	107 2630	Sprocket Wheel 26T	B	B
	107 2830	Sprocket Wheel 28T	B	B
21	357 5810	Sprocket Spacer A	B	A
22	357 5910	Sprocket Spacer B	B	A
23	357 6002	Sprocket Fixing Bolt		A

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (FH-5000).
 *Over Lock Nut Dimension: 126mm.

8710-E846A

Freehub

FH-6400-6/7 (Rear, 6-speed/7-speed)

HB-6400-F (Front Hub)



Freehub

FH-6400-6/7 (Rear, 6-speed/7-speed)

HB-6400-F (Front Hub)

Specifications

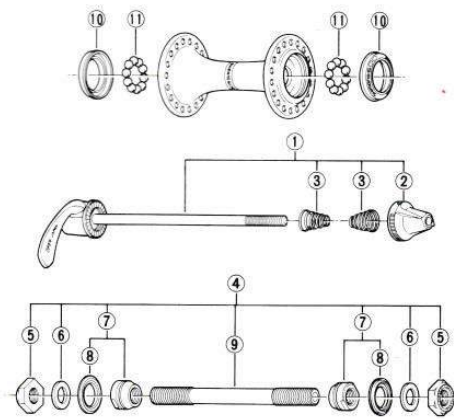
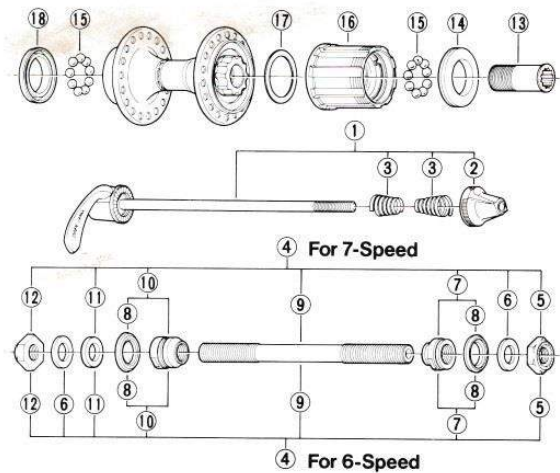
- Features**
- 6- & 7-speed SIS Compatible
 - Compatible with 6- & 7-speed clusters, Bolt-Secured Cassette Freewheel, Sealed Mechanism, Burnished Bearing Reces, Uniglide Gears, Unibalace System
- Weight**
- Rear (w/o Sprocket): 149 oz. (423g.)
 - Front: 75 oz. (212g.)
- Cassette Sprockets**
- (12, 13, 14, 15, 16, 19, 21T. & Spacers): 79 oz. (233g.)
- Material**
- Light Alloy • Anodized Finish (Hub Shell)
 - Resin • Dark Gray Metallic Finish (Dust Cap)
 - Steel • Platinum Finish (Sprockets)
- Over Lock Nut Dimensions**
- Front: 100mm., Rear: 126mm.
- Spoke Holes**
- Front: 28H, 32H, 36H
 - Rear: 32H, 36H
- Chain**
- 1/2" x 3/32" (Narrow Type for 7-speed)
- Teeth**
-



Standard Sprocket Combinations:

6-speed	7-speed
13, 14, 15, 16, 17, 18T	12, 13, 14, 15, 16, 17, 18T
13, 14, 15, 17, 19, 21T	12, 13, 14, 15, 17, 19, 21T
13, 14, 17, 19, 21, 32T	13, 14, 15, 17, 19, 21, 23T
13, 15, 17, 19, 21, 24T	
13, 15, 17, 20, 23, 26T	
13, 15, 17, 20, 24, 28T	

	6-speed	7-speed
Threaded Sprockets (Top)	12—16T.	12—16T. (7S mark)
2nd Sprocket (Spline type) w/spacer.	13T. (6S mark)	13T. (7S mark)
Splined Sprockets	14—26T. 18T./30T./32T./34T.	
Spacer Width	3.7mm (Light Gray)	2nd-3.3mm (except 13T) 3rd to low—3.15mm (Dark Gray) (7S mark)



Front Hub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-377 9801	Complete Quick Release 129mm	B B
2	3-377 9802	Nut for Skewer	B B
3	231 1100	Volute Spring	A A
4	3-214 9801	Complete Hub Axle 108mm	B
5	210 0820-1	Lock Nut 3mm	B B
6	301 0700	Washer 1.5mm	A A
7	3-214 9802	Cone (M10x10.5mm) & Seal Ring	A
8	214 0600	Seal Ring	A
9	338 0400	Hub Axle M10x108mm	A A
10	214 0400	Dust Cap	B
11	000 0121	Steel Ball (3/16")	A A

A: Same parts. 8706-ER31A
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (HB-6400-F).
 •Over Lock Nut Dimension: 100mm.

Freehub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-377 9803	Complete Quick Release 157mm	B B
2	3-377 9802	Nut for skewer	B B
3	231 1100	Volute Spring	A A
4	3-377 9804	Complete Hub Axle 137mm for 7-Speed	B
5	3-377 9805	Complete Hub Axle 137mm for 6-Speed	B
6	220 0502-1	Right Hand Lock Nut 3.5mm	B A
7	301 0810	Washer 1.2mm	A B
8	3-377 9806	Right Hand Cone (M10x12mm) & Seal Ring	A
9	377 1000	Seal Ring	A
10	360 1900-9	Hub Axle 137mm	A B
11	3-377 9807	Left Hand Cone (M10x15.5mm) & Seal Ring	B
12	301 0610	Left Hand Washer 2.3mm	B B
13	220 0501-1	Left Hand Lock Nut 4.5mm	B B
14	359 0400	Freewheel Body Fixing Bolt	A A
15	377 0700	Right Hand Dust Cap	B
16	000 0131	steel Ball (1/4")	A A
17	3-377 9808	Complete Freewheel Body	A B
18	375 0400	Freewheel Body Dust Cap	A
19	377 0800	Left Hand Dust Cap	B

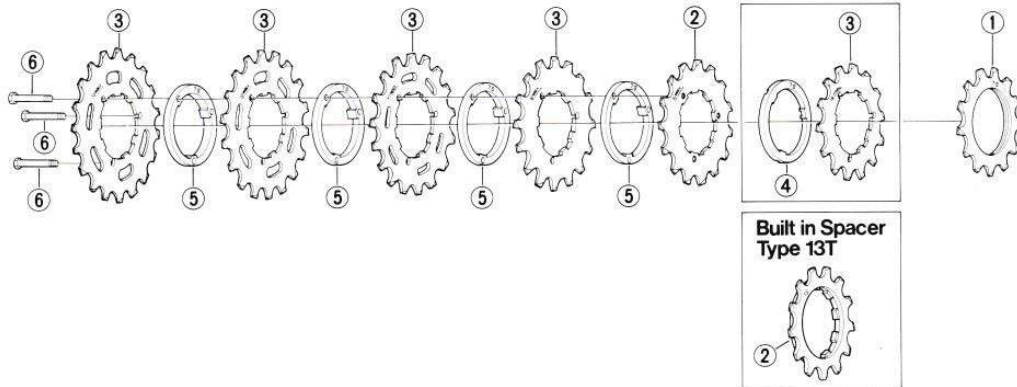
A: Same parts. 8710-ER38A
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (FH-6400).
 •Over Lock Nut Dimension: 125mm.
 •Use with CS-6400-7 or CS-6400-6.

Freehub

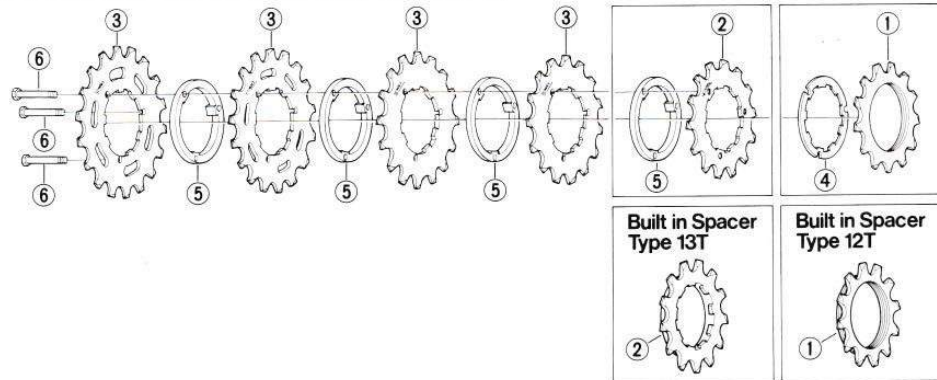
FH-6400-6/7 (Rear, 6-speed/7-speed)

HB-6400-F (Front Hub)

CS-6400-7



CS-6400-6



■ Cassette Sprockets

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	108 1210	Sprocket Wheel 12T (B. C. 34, 6) for 7-Speed	B
	108 1310	Sprocket Wheel 13T (B. C. 34, 6) for 7-Speed	B
	108 1410	Sprocket Wheel 14T (B. C. 34, 6) for 7-Speed	B
	104 1212	Sprocket Wheel 12T (B. C. 34, 6) for 6-Speed	B
	104 1312-1	Sprocket Wheel 13T (B. C. 34, 6) for 6-Speed	B
	104 1412-1	Sprocket Wheel 14T (B. C. 34, 6) for 6-Speed	B
	104 1512-1	Sprocket Wheel 15T (B. C. 34, 6) for 6-Speed	B
	104 1612-1	Sprocket Wheel 16T (B. C. 34, 6) for 6-Speed	B
	104 1712	Sprocket Wheel 17T (B. C. 34, 6) for 6-Speed	B
	104 1812	Sprocket Wheel 18T (B. C. 34, 6) for 6-Speed	B
	108 1320	Sprocket Wheel 13T (Built in Spacer Type) for 7-Speed	B
	104 1322	Sprocket Wheel 13T (Built in Spacer Type) for 6-Speed	B
2	104 1422	Sprocket Wheel 14T	B B
	104 1522	Sprocket Wheel 15T	B B
	104 1622	Sprocket Wheel 16T	B B
	104 1722	Sprocket Wheel 17T	B B
	104 1822	Sprocket Wheel 18T	B B

Same (CS-5000)
Shimano 105 (FH-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
3	104 1532	Sprocket Wheel 15T	B B
	104 1632	Sprocket Wheel 16T	B B
	104 1732	Sprocket Wheel 17T	B B
	104 1832	Sprocket Wheel 18T	B B
	104 1932	Sprocket Wheel 19T	B B
	104 2032	Sprocket Wheel 20T	B B
	104 2132	Sprocket Wheel 21T	B B
	104 2242	Sprocket Wheel 22T	B B
	104 2342	Sprocket Wheel 23T	B B
	104 2442	Sprocket Wheel 24T	B B
	104 2542	Sprocket Wheel 25T	B B
	104 2642	Sprocket Wheel 26T	B B
	104 2842	Sprocket Wheel 28T	B B
	357 5810	Sprocket Spacer A for 7-Speed	A
4	357 5800	Sprocket Spacer A for 6-Speed	B
	357 5910	Sprocket Spacer B for 7-Speed	A
5	104 4100	Sprocket Spacer B for 6-Speed	B
	357 6002	Sprocket fixing Bolt for 7-Speed	A
6	357 6001	Sprocket fixing Bolt for 6-Speed	A

Same (CS-5000)
Shimano 105 (FH-1050)

A: Same parts
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (CS-6400).

8710-E837A

Freehub

FH-1050-6 (Rear/6-speed)

HB-1050-F (Front Hub)



Freehub

FH-1050-6 (Rear/6-speed)

HB-1050-F (Front Hub)

■ Specifications

- Features
- 6-speed SIS Compatible.
 - Sealed Mechanism, Uniglide Gears, Bolt-Secured Cassette Freewheel, Unibalance System
- Weight
- Rear w/o Sprocket: 14.6 oz. (415g.), Front: 7.7 oz. (218g.)
 - Sprockets 13T. ~ 24T. & Spacers: 7.8 oz. (221g.)
- Material
- Light Alloy (Hub Shell)
 - Resin•Dark Gray Metallic Finish (Dust Cap)
 - Steel•Black Finish (Sprocket)
- Teeth
- Threaded Sprocket (Top): 13T. ~ 15T.
 - Spline Sprocket: 14T. ~ 26T., 28T., 30T., 32T., 34T.

Over Lock Nut Dimensions

- Front: 100mm., Rear: 126mm.

Spoke Holes

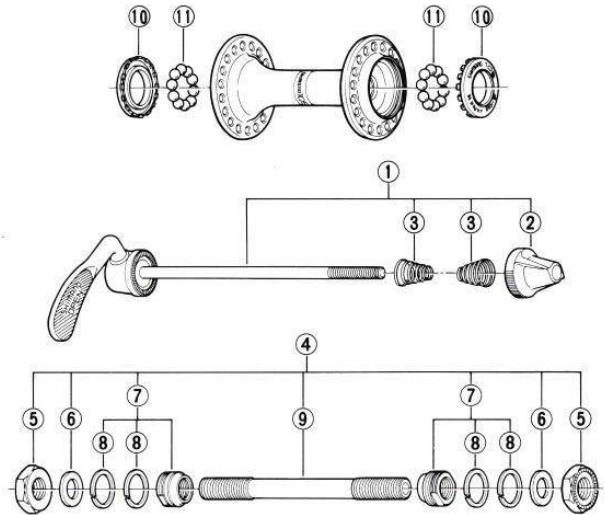
- 32H, 36H

Chain

- 1/2" x 3/32" Chain

Standard Sprocket Combinations:

6-speed	13, 14, 15, 17, 19, 21T.
	13, 15, 17, 19, 21, 24T.
	13, 15, 17, 20, 24, 28T.



Shimano 800EX (HB-8007-F)
Old Shimano 105 (HB-F105)

■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	3-301 9802	Complete Quick Release 120mm	B	B
2	3-338 9051	Nut for Skewer	B	B
3	231 1100	Volute Spring	A	A
4	3-301 9801	Complete Hub Axle 108mm	B	B
5	210 0821-1	Lock Nut 3.5mm	B	B
6	301 0700	Washer 1.5mm		
7	3-338 9070	Cone (M9x10.5mm) & Seal Ring	A	
8	236 0300	Seal Ring	A	
9	338 0400	Hub Axle 108mm	B	B
10	338 0300	Dust Cap	B	
11	000 0121	Steel Ball (3/6") 22pcs.	A	A

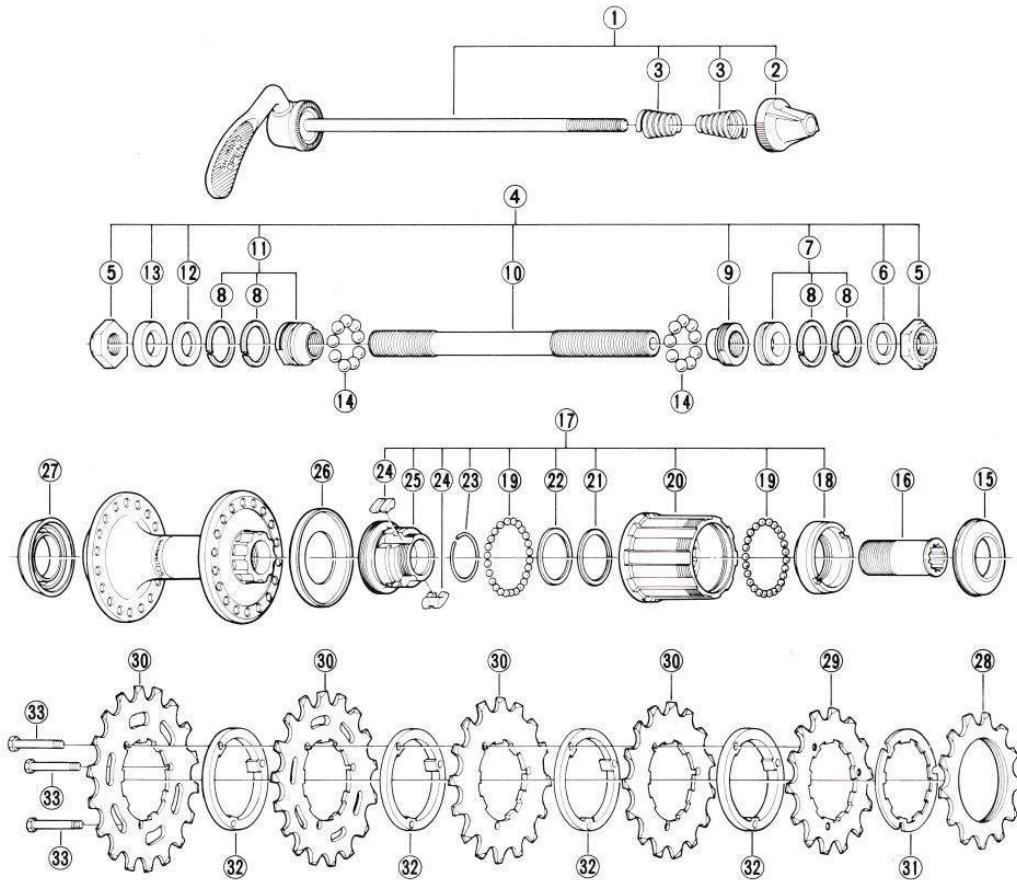
A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
* B: No sealed mechanism.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 105 (HB-1050-F).
• Over Lock Nut Dimension: 100mm.

8607-E766

Freehub

FH-1050-6 (Rear/6-speed)

HB-1050-F (Front Hub)



Shimano 600EX (FH-6208)
Old Shimano 105 (FH-R105)

Shimano 600EX (FH-6208)
Old Shimano 105 (FH-R105)

Freehub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-301 9811	Complete Quick Release 159mm	B B
2	3-338 9051	Nut for Skewer	B B
3	231 1190	Volute Spring	A A
4	3-369 9801	Complete Hub Axle 137mm	B B
5	220 0502 1	Lock Nut 3.5mm	A *B
6	220 0430	Right Hand Washer 0.5mm	A A
7	3-359 9838	Right Hand Axle spacer 5.5mm & Seal Ring	A
8	299 0500	Seal Ring	A
9	369 0400	Right Hand Cone M10x9mm	A B
10	301 0500	Hub Axle 137mm	B B
11	3-301 9070	Left Hand Cone M10x13.1mm & Seal Ring	A
12	301 0710	Left Hand Washer 1.5mm	A
13	241 1100	Left Hand Axle Spacer 5.5mm	A A
14	000 0131	Steel Ball (1/4")	A A
15	369 0300	Right Hand Drst Cap	B
16	359 0400	Freewheel Body Fixing Bolt	A
17	3-369 9802	Complete Freewheel Body	B *B
18	357 5311	Body Fixing Race	B B
19	000 0111	Steel Bal (1/8")	A A
20	357 5206	Outer Body	B
21	357 5500	Adjusting Washer 0.05mm	A A
	357 5501	Adjusting Washer 0.10mm	A A
	357 5502	Adjusting Washer 0.17mm	A A
	357 5503	Adjusting Washer 0.30mm	A A
22	357 5400	Spacer 1mm	A A
23	357 5600 1	Pawl Spring	B B
24	256 0700	Pawl	A A
25	369 0200	Inner Body	B B
26	359 0500	Freewheel Body Dust Cap	A
27	301 0401	Left Hand Dust Cap	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
28	357 1312 1	Sprocket Wheel 13T (B. C. 34, 6)	B A
	357 1412 1	Sprocket Wheel 14T (B. C. 34, 6)	B A
29	357 1512 1	Sprocket Wheel 15T (B. C. 34, 6)	B A
	357 1422	Sprocket Wheel 14T	B A
	357 1522 1	Sprocket Wheel 15T	B A
	357 1622 1	Sprocket Wheel 16T	B A
	357 1532 1	Sprocket Wheel 15T	B A
	357 1632 1	Sprocket Wheel 16T	B A
	357 1732 1	Sprocket Wheel 17T	B A
	357 1832 1	Sprocket Wheel 18T	B A
	357 1932 1	Sprocket Wheel 19T	B A
	357 2032 1	Sprocket Wheel 20T	B A
	357 2132 1	Sprocket Wheel 21T	B A
	357 2213 1	Sprocket Wheel 22T	B A
	357 2313 1	Sprocket Wheel 23T	B A
	357 2413 1	Sprocket Wheel 24T	B A
30	357 2613 1	Sprocket Wheel 26T	B A
	357 2813 1	Sprocket Wheel 28T	B A
	357 3032 1	Sprocket Wheel 30T	B A
	357 3232 1	Sprocket Wheel 32T	B A
	357 3432 1	Sprocket Wheel 34T	B A
	31	357 5800	Sprocket Spacer A
32	104 4100	Sprocket Spacer B	A A
33	357 6001	Sprocket Fixing Bolt	A A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
* B: No sealed mechanism.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 105 (FH-1050).
*Over Lock Nut Dimension: 126mm.

8703-E768A

Freehub

FH-M730-QR (6-speed/Quick Release Type)

FH-M730-NT (6-speed/Nut Type)



Freehub

FH-M730-QR (6-speed/Quick Release Type)

FH-M730-NT (6-speed/Nut Type)

■ Specifications

Features ● 6-speed SIS Compatible

- Uniglide Gears, Bolt-Secured Cassette Freewheel, Contact Type Sealed Mechanism, Superior Hub Axle Support, High Strength Freewheel Body, Lubricating Port with Open/Close

Weight ● Front: 7.3 oz. (206g.) Nut Type, 8.1 oz. (231g.) Quick Release Type, Rear (w/o Sprocket): 14.9 oz. (422g.) Nut Type, 16.0 oz. (451g.) Quick Release Type
Cassette Sprockets: 9.5 oz. (270g.) (12, 14, 17, 20, 24, 28T. & Spacers)

Material ● Light Alloy•Buff Finish (Hub Shell)
● Cr-Mo Steel•Black Finish (Axle),
● Steel•Platinum Finish (Sprocket)

Over Lock Nut Dimensions

- Front: 100mm., Rear: 126mm., 130mm.

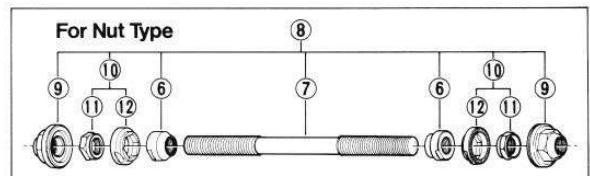
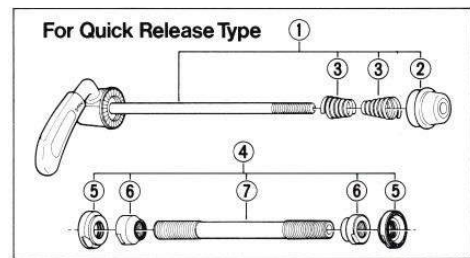
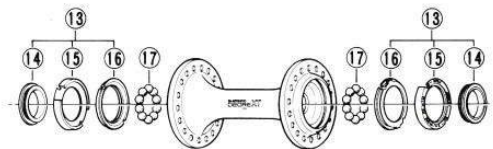
Spoke Holes

- 36H
- Teeth ● Threaded Sprocket (Top): 12T.~16T., Spline Sprocket: 13T.~26T., 28T., 30T., 32T., 34T.

Chain ● 1/2" x 3/32"

Standard Sprocket Combinations:

	12, 14, 17, 20, 24, 28T.
6-speed	13, 15, 17, 21, 24, 28T.
	12, 14, 17, 20, 25, 30T.
	13, 15, 18, 22, 26, 32T.



■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-336 9801	Complete Quick Release 129mm	B
2	3-375 9061	Nut for Skewer	B
3	231 1100	Volute Spring	A
4	3-336 9802	Complete Hub Axle 108mm for Quick Release Type	
5	336 0700	Lock Nut	B
6	336 0600	Cone M9x9.6mm	
	216 0700 9	Hub Axle 108mm for Quick Release Type	B
7	337 0100	Hub Axle 142mm for Nut Type	
8	3-337 9801	Complete Hub Axle 142mm for Nut Type	
9	3-337 9010	Hub Nut	
10	3-337 9802	Sleeve Lock Nut & Spacer	
11	337 0300	Sleeve Lock Nut	
12	337 0200	Spacer for Sleeve Lock Nut	
13	3-336 9803	Dust Cap Unit	
14	336 0500	Seal Ring	
15	336 0400	Dust Cap 2	
16	336 0300	Dust Cap 1	
17	000 0121	Steel Ball (3/16")	A

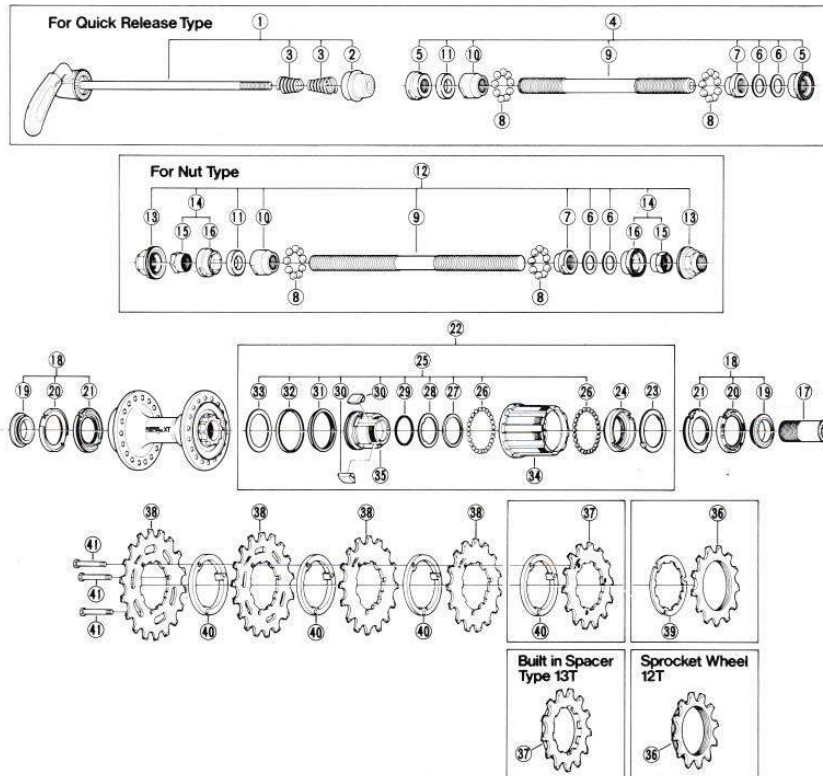
A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE XT (HB-M730-F).
● Over Lock Nut Dimensions: Quick Release Type/Nut Type...:100mm.

Shimano 600EX (Hra-6207-1)

Freehub

FH-M730-QR (6-speed/Quick Release Type)

FH-M730-NT (6-speed/Nut Type)



Shimano 600EX (FH-6200)

Shimano 600EX (FH-6200)

Freehub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-375 9803	Complete Quick Release 161mm	
2	3-375 9061	Nut for Skewer	B
3	231 1100	Volute Spring	A
4	3-375 9802	Complete Hub Axle 141mm for Quick Release Type	
5	375 1700	Lock Nut	B
6	220 0431	Washer 0.5mm	A
7	375 1600	Right Hand Cone M10x9mm	
8	000 0131	Steel Ball (1/4")	A
9	360 1910-9	Hub Axle 141mm for Quick Release Type	
	299 0210	Hub Axle 171mm for Nut Type	
10	375 1800	Left Hand Cone M10x13.5mm	
11	375 1900	Axle Spacer 4mm	
12	3-376 9801	Complete Hub Axle 171mm for Nut Type	
13	3-247 9002	Hub Nut	
14	3-376 9802	Sleeve Lock Nut & Spacer	
15	376 0200	Sleeve Lock Nut	
16	376 0100	Spacer for Sleeve Lock Nut	
17	359 0400	Freewheel Body Fixing Bolt	A
18	3-375 9804	Dust Cap Unit	
19	375 1500	Seal Ring	
20	375 1400	Dust Cap 2	
21	375 1300	Dust Cap 1	
22	3-375 9801	Complete Freewheel Body	
23	375 0900	Body Fixing Race Cover	
24	375 5310	Body Fixing Race	A
25	3-375 9805	Freewheel Small Parts	
26	000 0111	Steel Ball (1/8")	A
	357 5500	Adjusting Washer 0.05mm	A
	357 5501	Adjusting Washer 0.10mm	A
	357 5502	Adjusting Washer 0.17mm	A
	357 5503	Adjusting Washer 0.30mm	A
28	375 1200	Spacer	
29	375 1100	Pawl Spring	
30	375 1000	Pawl	
31	375 0600	Inner Dust Cap	
32	375 0700	Inner Seal Ring	
33	375 0100	Freewheel Body Dust Cap	
34	375 0800	Outer Body	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
35	375 0500	Inner Body	
	104 1212	Sprocket Wheel 12T (B.C. 34.6)	A
	104 1312 I	Sprocket Wheel 13T (B.C. 34.6)	A
	104 1412 I	Sprocket Wheel 14T (B.C. 34.6)	A
	104 1512 I	Sprocket Wheel 15T (B.C. 34.6)	A
	104 1612 I	Sprocket Wheel 16T (B.C. 34.6)	A
	104 1712	Sprocket Wheel 17T (B.C. 34.6)	A
	104 1812	Sprocket Wheel 18T (B.C. 34.6)	A
	104 1322	Sprocket Wheel 13T (Built in Spacer Type)	
	104 1422	Sprocket Wheel 14T	A
	104 1522	Sprocket Wheel 15T	A
	104 1622	Sprocket Wheel 16T	A
	104 1722	Sprocket Wheel 17T	A
	104 1822	Sprocket Wheel 18T	A
	104 1532	Sprocket Wheel 15T	A
	104 1632	Sprocket Wheel 16T	A
	104 1732	Sprocket Wheel 17T	A
	104 1832	Sprocket Wheel 18T	A
	104 1932	Sprocket Wheel 19T	A
	104 2032	Sprocket Wheel 20T	A
	104 2132	Sprocket Wheel 21T	A
	104 2242	Sprocket Wheel 22T	A
	104 2342	Sprocket Wheel 23T	A
	104 2442	Sprocket Wheel 24T	A
	104 2542	Sprocket Wheel 25T	A
	104 2642	Sprocket Wheel 26T	A
	104 2842	Sprocket Wheel 28T	A
	104 3032	Sprocket Wheel 30T	A
	104 3232	Sprocket Wheel 32T	A
	104 3432	Sprocket Wheel 34T	A
39	357 5800	Sprocket Spacer A	A
40	104 4100	Sprocket Spacer B	A
41	357 6001	Sprocket Fixing Bolt	A

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE XT (FH-M730).
 *Over Lock Nut Dimensions: Quick Release Type/Nut Type.....130mm.

8703-E789A

Freehub

FH-MT60-QR (6-speed/Quick Release Type)
FH-MT60-NT (6-speed/Nut Type)

HB-MT60-F (Front Hub)



Freehub

FH-MT60-QR (6-speed/Quick Release Type)
FH-MT60-NT (6-speed/Nut Type)
HB-MT60-F (Front Hub)

■ Specifications

- Features ● 6-speed SIS Compatible
 ● Uniglide Gears
 Bolt-Secured Cassette Freewheel,
 Contact Type Sealed Mechanism,
 High Strength Freewheel Body
- Weight ● Front: 73 oz. (206g.) Nut Type,
 81 oz. (231g.) Quick Release Type,
 Rear (w/o Sprocket): 14.9 oz. (422g.) Nut Type,
 16.0 oz. (451g.) Quick Release Type
- Cassette Sprockets: 9.5 oz. (270g.) 13T.~30T. & Spacers
- Material ● Light Alloy (Hub Shell)
 ● Cr-Mo Steel•Black Finish (Axle)
 ● Steel•Silver Finish (Sprocket)
- Teeth ● Threaded Sprocket (Top): 13T.~16T.,
 Spline Sprocket: 14T.~26T., 28T., 30T., 32T., 34T.

Over Lock Nut Dimensions

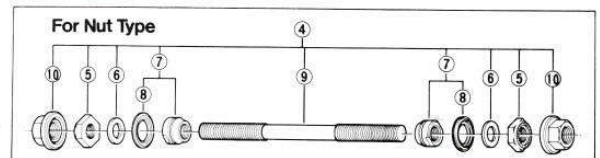
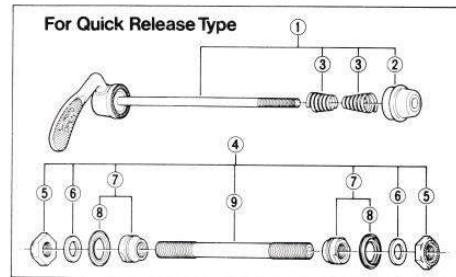
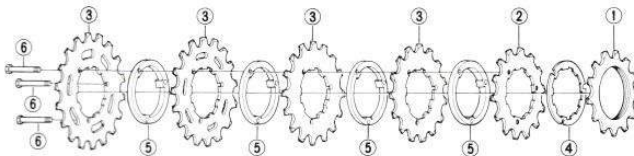
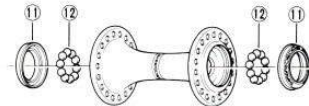
- Front: 100mm., Rear: 126mm., 130mm.

Spoke Holes ● 36H

- Chain ● 1/2" x 3/32"

Standard Sprocket Combinations:

6-speed	12, 14, 17, 20, 24, 28T.
	13, 15, 17, 21, 24, 28T.
	12, 14, 17, 20, 25, 30T.
	13, 15, 18, 22, 26, 32T.



■ Cassette Sprockets (CS-1000)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY	
1	357 1311-2	Sprocket Wheel 13T (B.C. 34.6)	B	
	357 1411-2	Sprocket Wheel 14T (B.C. 34.6)	B	
	357 1511-2	Sprocket Wheel 15T (B.C. 34.6)	B	
	357 1611-2	Sprocket Wheel 16T (B.C. 34.6)	B	
	2	357 1421-2	Sprocket Wheel 14T	B
		357 1521-2	Sprocket Wheel 15T	B
		357 1621-2	Sprocket Wheel 16T	B
		357 1721-2	Sprocket Wheel 17T	B
		357 1821-2	Sprocket Wheel 18T	B
		357 1631-2	Sprocket Wheel 16T	B
	3	357 1731-2	Sprocket Wheel 17T	B
		357 1841-2	Sprocket Wheel 18T	B
357 1941-2		Sprocket Wheel 19T	B	
357 2041-2		Sprocket Wheel 20T	B	
357 2141-2		Sprocket Wheel 21T	B	
357 2241-2		Sprocket Wheel 22T	B	
357 2341-2		Sprocket Wheel 23T	B	
357 2441-2		Sprocket Wheel 24T	B	
357 2641-2		Sprocket Wheel 26T	B	
357 2841-2		Sprocket Wheel 28T	B	
357 3031-2		Sprocket Wheel 30T	B	
357 3231-2		Sprocket Wheel 32T	B	
4	357 3431-2	Sprocket Wheel 34T	B	
	357 5800	Sprocket Spacer A	A	
	104 4101	Sprocket Spacer B	B	
5	357 6001	Sprocket Fixing Bolt	A	

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to parts to CS-1000.
 • Over Lock Nut Dimensions: Quick Release Type/Nut Type.....100mm.

8711-E885

■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3 205 9040	Complete Quick Release 129mm	B B
2	3 205 9050	Nut for Skewer	B B
3	231 1100	Volute Spring	A A
4	3 214 9801	Complete Hub Axle 108mm for Quick Release Type	A
	3 206 9801	Complete Hub Axle 142mm for Nut Type	A
5	210 0820-1	Lock Nut 3mm	A B
6	301 0700	Washer 1.5mm	A A
7	3 214 9802	Cone (M9x10.5mm) & Seal Ring	A A
8	214 0600	Seal Ring	A A
9	338 0100	Hub Axle 108mm for Quick Release Type	A A
10	337 0100	Hub Axle 142mm for Nut Type	A A
11	206 0100	Hub Nut	B
12	205 0100	Bust Cap	B
	000 0121	Steel Ball (3/16")	A A

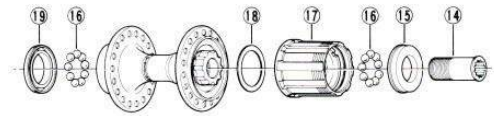
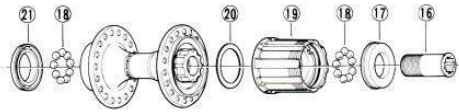
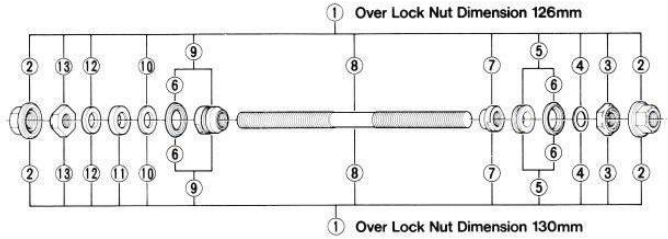
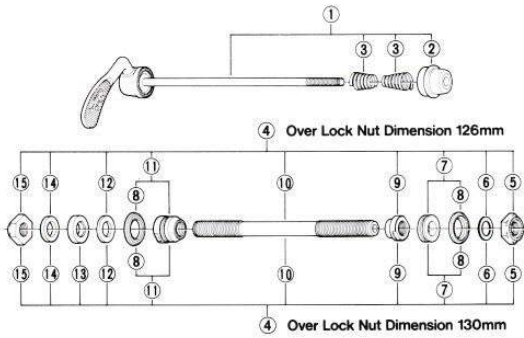
A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE (HB-MT60-F).
 • Over Lock Nut Dimensions: Quick Release Type/Nut Type.....100mm.

8711-E883

Freehub

FH-MT60-QR (6-speed/Quick Release Type)
FH-MT60-NT (6-speed/Nut Type)

HB-MT60-F (Front Hub)



■ Freehub (Quick Release Type)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY	
1	3-379 9060	Complete Quick Release 159mm for O.L. 126mm	B	B
	3-379 9061	Complete Quick Release 161mm for O.L. 130mm		
2	3-205 9050	Nut for Skewer	B	B
3	231 1100	Volute Spring	A	A
4	3-379 9802	Complete Hub Axle 137mm for O.L. 126mm		
	3-379 9801	Complete Hub Axle 141mm for O.L. 130mm		
5	220 0502-1	Right Hand Lock Nut 3.5mm	A	A
6	220 0431	Right Hand Washer 0.5mm		B
7	3-380 9020	Right Hand Axle Spacer (5.5mm) & Seal Ring		
8	377 1000	Seal Ring	A	
9	375 1600	Right Hand Cone M10x9mm		B
10	360 1900-9	Hub Axle 137mm for O.L. 126mm	A	B
	360 1910-9	Hub Axle 141mm for O.L. 130mm		
11	3-377 9807	Left Hand Cone (M10x15.5mm) & Seal Ring	A	
12	301 0710	Left Hand Washer 1.5mm	B	A
13	220 0460	Left Hand Axle Spacer 4mm for O.L. 130mm		
14	301 0610	Left Hand Washer 2.3mm	A	B
15	220 0501-1	Left Hand Lock Nut 4.5mm	A	B
16	359 0400	Freewheel Body Fixing Bolt	A	A
17	379 0500	Right Hand Dust Cap		
18	000 0131	Steel Ball (1/4")	A	A
19	3-379 9040	Complete Freewheel Body		B
20	375 0400	Freewheel Body Dust Cap	A	
21	379 0600	Left Hand Dust Cap	B	

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE (FH-MT60-QR).
 •O.L.: Over Lock Nut Dimension.

8711-E884

■ Freehub (Nut Type)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY	
1	3-380 9802	Complete Hub Axle 174mm for O.L. 126mm		
2	3-380 9801	Complete Hub Axle 174mm for O.L. 130mm		
2	380 0100	Hub Nut		
3	220 0502-1	Right Hand Lock Nut 3.5mm	A	A
4	220 0431	Right Hand Washer 0.5mm		B
5	3-380 9020	Right Hand Axle Spacer (5.5mm) & Seal Ring		
6	377 1000	Seal Ring		A
7	375 1600	Right Hand Cone M10x9mm		B
8	299 0210	Hub Axle 174mm		
9	3-377 9807	Left Hand Cone (M10x15.5mm) & Seal Ring	A	
10	301 0710	Left Hand Washer 1.5mm	B	A
11	220 0460	Left Hand Axle Spacer 4mm for O.L. 130mm		
12	301 0610	Left Hand Washer 2.3mm	A	B
13	220 0501-1	Left Hand Lock Nut 4.5mm	A	B
14	359 0400	Freewheel Body Fixing Bolt	A	A
15	379 0500	Right Hand Dust Cap		
16	000 0131	Steel Ball (1/4")	A	A
17	3-379 9040	Complete Freewheel Body		B
18	375 0400	Freewheel Body Dust Cap	A	
19	379 0600	Left Hand Dust Cap	B	

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE (FH-MT60-NT).
 •O.L.: Over Lock Nut Dimension.

8711-E885

Freehub

FH-A450-6 (Rear/6-speed)

CS-6400 (Cassette Sprockets)

HB-A450-F (Front Hub)



Freehub

FH-A450-6 (Rear/6-speed)

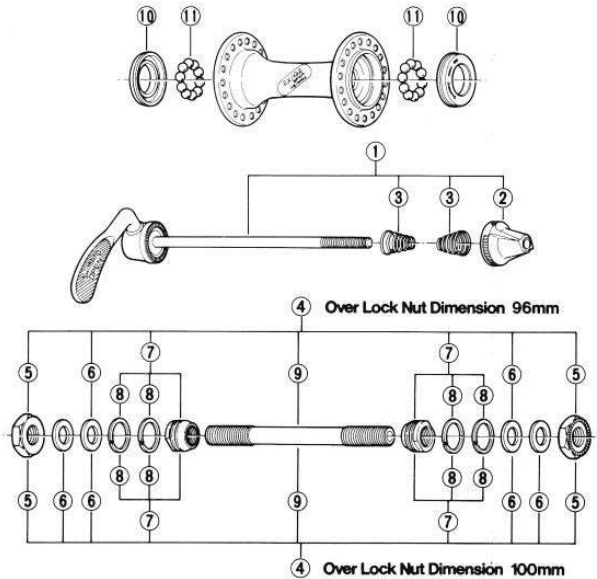
HB-A450-F (Front Hub)

CS-6400 (Cassette Sprockets)

■ Specifications

- Features ● 6-speed SIS Compatible
 ● Uniglide Gears,
 Bolt-Secured Cassette Freewheel,
 Sealed Mechanism
- Weight ● Front: 7.1 oz. (202g.)
 Rear (w/o Sprocket): 14.5 oz. (410g.)
 Cassette Sprockets 13T. ~ 23T. & Spacers: 78 oz. (223g.)
- Material ● Light Alloy • Blue Anodized Finish (Hub Shell)
 ● Resin • Blue Gray Finish (QR Adjustment Nut)
 ● Steel • Platinum Finish (Sprockets)
- Teeth ● Threaded Sprocket (Top): 13T. ~ 16T.
 Spline Sprocket: 14T. ~ 28T., 30T., 32T., 34T.
- Over Lock Nut Dimensions
 ● Front: 100mm., Rear: 126mm.
- Spoke Holes ● 32H, 36H
- Spoke Hole Diameter
 ● 2.6mm.
- Chain ● 1/2" x 3/32"
- Standard Sprocket Combinations:

6-speed	13 14 15 17 19 21T.
	13 15 17 19 21 24T.
	13 15 17 20 24 28T.



■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3-202 9801	Complete Quick Release 125mm for O.L. 96mm
	3-202 9802	Complete Quick Release 129mm for O.L. 100mm
2	3-381 9801	Nut for Skewer
3	231 1100	Volute Spring
	3-202 9803	Complete Hub Axle 104mm for O.L. 96mm
4	3-202 9804	Complete Hub Axle 108mm for O.L. 100mm
	210 0820-1	Lock Nut 3mm for O.L. 96mm
5	210 0821-1	Lock Nut 3.5mm for O.L. 100mm
6	301 0700	Washer 1.5mm
7	3-202 9805	Cone (M9x10.5mm) & Seal Ring
8	236 0300	Seal Ring
	338 0410	Hub Axle 104mm for O.L. 96mm
9	338 0400	Hub Axle 108mm for O.L. 100mm
10	202 0200	Dust Cap
11	000 0121	Steel Ball (3/16")

O.L.: Over Lock Nut Dimension.

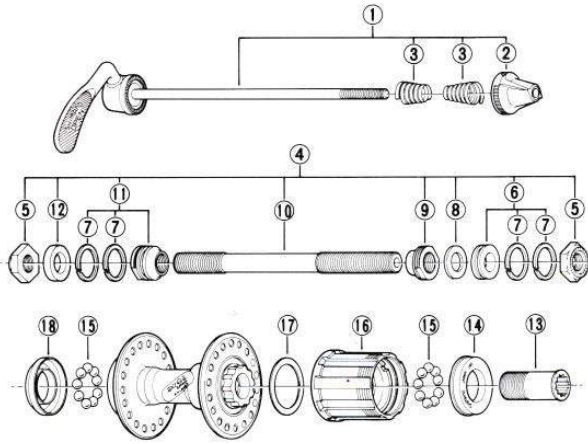
8711-E870

Freehub

FH-A450-6 (Rear/6-speed)

CS-6400 (Cassette Sprockets)

HB-A450-F (Front Hub)

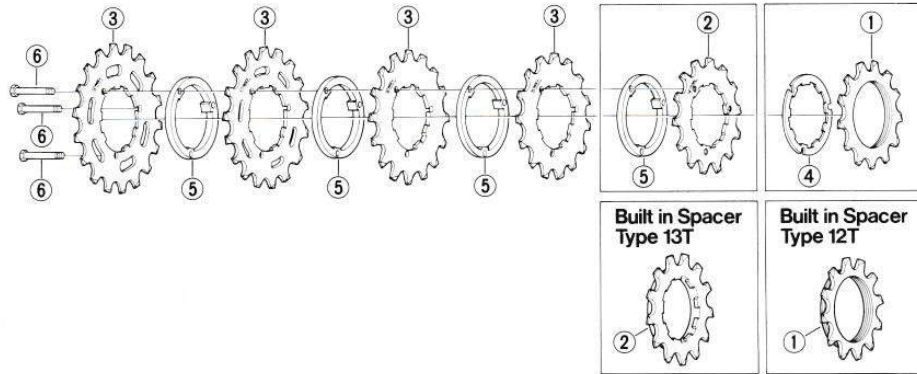


Freehub

ITEM NO.	PART NO.	DESCRIPTION
1	3-248 9801	Complete Quick Release 159mm
2	3-381 9801	Nut for Skewer
3	231 1100	Volute Spring
4	3-381 9802	Complete Hub Axle 137mm
5	220 0502-1	Lock Nut 3.5mm
6	3-359 9838	Right Hand Axle Space 5.5mm & Seal Ring
7	299 0500	Seal Ring
8	220 0431	Right Hand Washer 0.5mm
9	381 0600	Right Hand Cone M10x9mm
10	301 0500	Hub Axle 137mm
11	3-248 9803	Left Hand Cone M10x15.1mm & Seal Ring
12	224 0601	Left Hand Axle Spacer
13	359 0400	Freewheel Body Fixing Bolt
14	381 0400	Right Hand Dust Cap
15	000 0131	Steel Ball (1/4")
16	3-379 9040	Complete Freewheel Body
17	375 0400	Freewheel Body Dust Cap
18	381 0500	Left Hand Dust Cap

Over Lock Nut Dimension: 126mm.

8711-E872



Cassette Sprockets (CS-6400)

ITEM NO.	PART NO.	DESCRIPTION
1	104 1212	Sprocket Wheel 12T (B. C. 34.6)
	101 1312-1	Sprocket Wheel 13T (B. C. 34.6)
	101 1412-1	Sprocket Wheel 14T (B. C. 34.6)
	104 1512-1	Sprocket Wheel 15T (B. C. 34.6)
	101 1612-1	Sprocket Wheel 16T (B. C. 34.6)
	104 1712	Sprocket Wheel 17T (B. C. 34.6)
	104 1812	Sprocket Wheel 18T (B. C. 34.6)
	104 1322	Sprocket Wheel 13T (Built in Spacer Type)
	104 1422	Sprocket Wheel 14T
	104 1522	Sprocket Wheel 15T
2	101 1622	Sprocket Wheel 16T
	104 1722	Sprocket Wheel 17T
	104 1822	Sprocket Wheel 18T

ITEM NO.	PART NO.	DESCRIPTION
3	104 1532	Sprocket Wheel 15T
	104 1632	Sprocket Wheel 16T
	104 1732	Sprocket Wheel 17T
	104 1832	Sprocket Wheel 18T
	104 1932	Sprocket Wheel 19T
	104 2032	Sprocket Wheel 20T
	101 2132	Sprocket Wheel 21T
	101 2242	Sprocket Wheel 22T
	104 2342	Sprocket Wheel 23T
	104 2442	Sprocket Wheel 24T
	104 2542	Sprocket Wheel 25T
	104 2642	Sprocket Wheel 26T
	104 2842	Sprocket Wheel 28T
4	357 5800	Sprocket Spacer A
5	104 4100	Sprocket Spacer B
6	357 6001	Sprocket Fixing Bolt

8710-E837A

Freehub

FH-M450-QR (6-speed/Quick Release Type)
FH-M450-NT (6-speed/Nut Type)

HB-M450-F (Front Hub)
CS-6400 (Cassette Sprockets)



Freehub

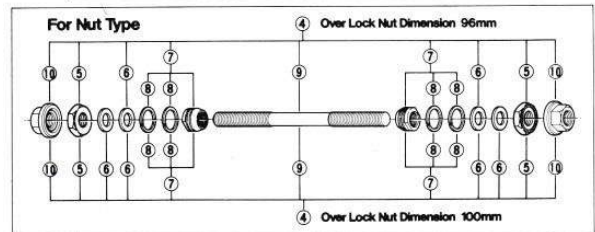
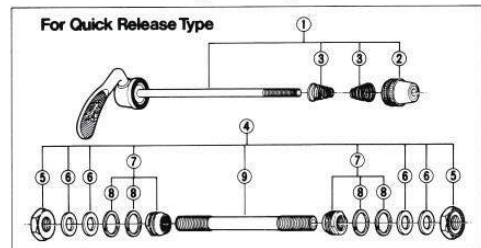
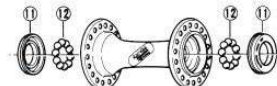
FH-M450-QR (6-speed/Quick Release Type)
FH-M450-NT (6-speed/Nut Type)
HB-M450-F (Front Hub)
CS-6400 (Cassette Sprockets)

■ Specifications

- Features ● 6-speed SIS Compatible
 ● Uniglide Gears,
 Bolt-Secured Cassette Freewheel,
 Sealed Mechanism
- Weight ● Front QR-Type: 7.4 oz. (210g.)
 Rear (w/o Sprocket): 15.0 oz. (425g.) QR-Type
 Cassette Sprockets 13T. ~32T. & Spacers: 12.5 oz. (355g.)
- Material ● Steel•Black Finish (Axle (10mm.), Left Dust Cover)
 ● Resin•Black Finish (Right Dust Cover)
 ● Light Alloy•Gray Anodized Finish (Hub Shell)
 ● Steel•Chrome-Plated. (QR Adjust Nut)
- Teeth ● Threaded Sprocket (Top): 13T. ~16T.
 Spline Sprocket: 14T. ~26T., 28T., 30T., 32T.
- Over Lock Nut Dimensions
 ● Front: 96, 100mm., Rear: 126, 130mm.
- Spoke Holes ● 36H
- Spoke Hole Diameter
 ● 2.6mm.
- Type ● Quick-Release/Nut Type (Small Flange)
- Chain ● 1/2" x 3/32"

Standard Sprocket Combinations:

6-speed	13, 14, 17, 20, 24, 28T	13, 15, 17, 21, 24, 28T	13, 14, 17, 20, 25, 30T	13, 15, 18, 22, 26, 32T
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■ Front Hub

ITEM NO.	PART NO.	DESCRIPTION
1	3 203 9801	Complete Quick Release 129mm
2	3 231 9008	Nut for Skewer
3	231 1100	Volute Spring
4	3 202 9804	Complete Hub Axle 108mm for Quick Release Type / O.L. 100mm
	3 204 9801	Complete Hub Axle 136mm for Nut Type / O.L. 96mm
	3 204 9802	Complete Hub Axle 140mm for Nut Type / O.L. 100mm
5	219 0821-1	Lock Nut 3.5mm for O.L. 100mm
	210 0820-1	Lock Nut 3mm for O.L. 96mm
6	301 0700	Washer 1.5mm
7	3 202 9805	Cone (M9x10.5mm) & Seal Ring
8	236 0300	Seal Ring
9	338 0400	Hub Axle 108mm for Quick Release Type
	204 0110	Hub Axle 136mm for Nut Type / O.L. 96mm
	204 0120	Hub Axle 140mm for Nut Type / O.L. 100mm
10	206 0100	Hub Nut
11	202 0200	Dust Cap
12	000 0121	Steel Ball(3/16")

O.L.: Over Lock Nut Dimension.

8711-E881

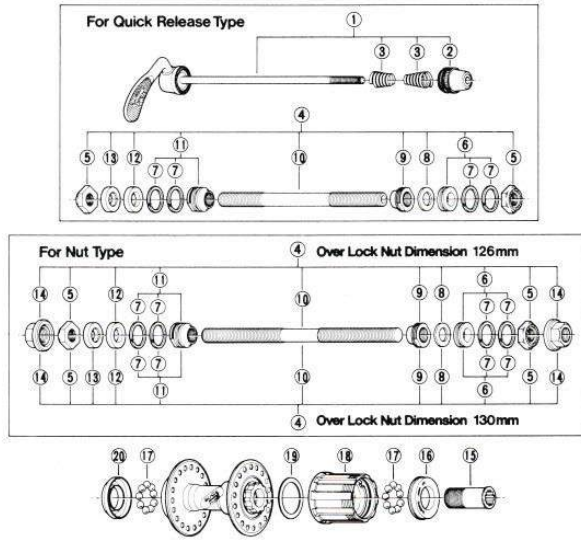
Freehub

FH-M450-QR (6-speed/Quick Release Type)

FH-M450-NT (6-speed/Nut Type)

HB-M450-F (Front Hub)

CS-6400 (Cassette Sprockets)

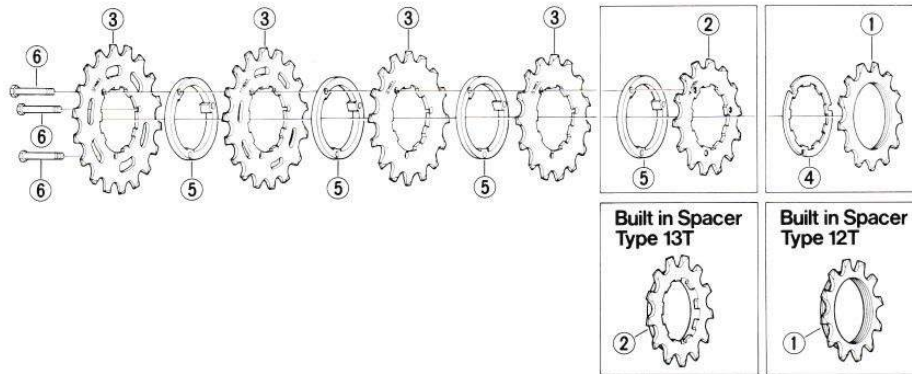


Freehub

ITEM NO.	PART NO.	DESCRIPTION
1	3-382 9801	Complete Quick Release 161mm
2	3-231 9008	Nut for Skewer
3	231 1100	Volute Spring
	3-382 9802	Complete Hub Axle 141mm for Quick Release Type / O.L. 130mm
4	3-383 9801	Complete Hub Axle 171mm for Nut Type / O.L. 130mm
	3-383 9802	Complete Hub Axle 171mm for Nut Type / O.L. 130mm
5	220 0502 1	Lock Nut 3.5mm
6	3-359 9838	Right Hand Axle Spacer 5.5mm & Seal Ring
7	299 0500	Seal Ring
8	220 0431	Right Hand Washer 0.5mm
9	381 0600	Right Hand Cone M10x9mm
10	301 0510	Hub Axle 141mm for Quick Release Type
	383 0100	Hub Axle 174mm for Nut Type
11	3-248 9803	Left Hand Cone M10x15.1mm & Seal Ring
12	224 0601	Left Hand Axle Spacer 5.5mm
13	220 0460	Left Hand Axle Spacer 4mm for O.L. 130mm
14	380 0100	Hub Nut
15	359 0400	Freewheel Body Fixing Bolt
16	381 0400	Right Hand Dust Cap
17	000 0131	Steel Ball (1/4")
18	3-379 9040	Complete Freewheel Body
19	375 0400	Freewheel Body Dust Cap
20	381 0500	Left Hand Dust Cap

O.L.: Over Lock Nut Dimension.

8711-E882



Cassette Sprockets (CS-6400)

ITEM NO.	PART NO.	DESCRIPTION
1	104 1212	Sprocket Wheel 12T (B.C. 34.6)
	104 1312-1	Sprocket Wheel 13T (B.C. 34.6)
	104 1412-1	Sprocket Wheel 14T (B.C. 34.6)
	104 1512-1	Sprocket Wheel 15T (B.C. 34.6)
	104 1612-1	Sprocket Wheel 16T (B.C. 34.6)
	104 1712	Sprocket Wheel 17T (B.C. 34.6)
	104 1812	Sprocket Wheel 18T (B.C. 34.6)
	104 1322	Sprocket Wheel 13T (Built in Spacer Type)
2	104 1422	Sprocket Wheel 14T
	104 1522	Sprocket Wheel 15T
	104 1622	Sprocket Wheel 16T
	104 1722	Sprocket Wheel 17T
	104 1822	Sprocket Wheel 18T

ITEM NO.	PART NO.	DESCRIPTION
3	104 1532	Sprocket Wheel 15T
	104 1632	Sprocket Wheel 16T
	104 1732	Sprocket Wheel 17T
	104 1832	Sprocket Wheel 18T
	104 1932	Sprocket Wheel 19T
	104 2032	Sprocket Wheel 20T
	104 2132	Sprocket Wheel 21T
	104 2242	Sprocket Wheel 22T
	104 2342	Sprocket Wheel 23T
	104 2442	Sprocket Wheel 24T
	104 2542	Sprocket Wheel 25T
	104 2642	Sprocket Wheel 26T
	104 2842	Sprocket Wheel 28T
	4	357 5800
5	104 4100	Sprocket Spacer B
6	357 6001	Sprocket Fixing Bolt

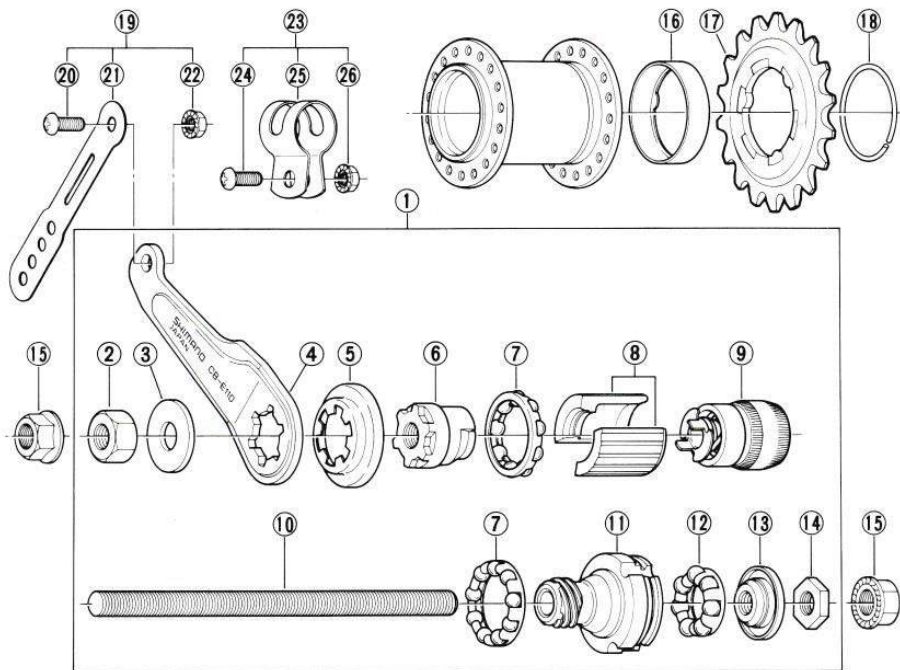
8710-E837A

CB-E110

Coaster Brake E-Type CB-E110

■ Specifications

- Weight ● 284 oz. (805g.) 28H, 158mm, 16T.
- Material ● Steel
- Teeth ● 14T., 15T., 16T., 17T., 18T., 19T., 20T.
- Over Lock Nut Dimension ● 4.29" (109mm.)
- Chain Size ● 1/2" x 1/8" Chain
- Spoke Holes ● 20H, 28H, 36H.



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-286 9802	Internal Kit (158mm)	
	0-286 9801	Internal Kit (165mm)	
2	283 0900-1	Arm Nut	A
3	283 1600-1	Arm Washer	A
4	286 1400	Brake Arm	
5	286 1100	Left Hand Dust Cap	
6	286 0800	Brake Cone	
7	3-282 9005	Ball Retainer C (7/32")	A
8	3-286 0806	Brake Shoe (2pcs)	
9	3-286 9805	Clutch Cone Unit	
	286 0120	Hub Axle (3/8"x158mm)	B
10	286 0130	Hub Axle (3/8"x165mm)	B
11	286 0400	Driver	
12	3-321 9022	Ball Retainer A (1/4")	A
13	3-286 9807	Cone W/Dust Cap	B
14	281 2100	Lock Nut (4mm)	A
15	286 1500	Flange Nut	B
16	286 1000	Right Hand Dust Cap	
17	321 0300	Sprocket Wheel 14T	A
	321 0311	Sprocket Wheel 15T (Flat Gear)	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
	321 0320	Sprocket Wheel 16T	A
	321 0330	Sprocket Wheel 17T	A
17	322 0340	Sprocket Wheel 18T	A
	322 0350	Sprocket Wheel 19T	A
	322 0360	Sprocket Wheel 20T	A
18	321 2000	Snap Ring	A
19	3-283 9007-1	Brake Arm Clip Unit (Flat Type)	A
20	333 0900-1	Clip Screw (M5x14mm)	A
21	282 2804-3	Brake Arm Clip (Flat Type)	A
22	282 2901	Clip Nut (M5)	A
	3-283 9036	Brake Arm Clip Unit (Band Type) 16mm	A
23	3-283 9009	Brake Arm Clip Unit (Band Type) 19mm	A
24	333 0700-1	Clip Screw (M6x14mm)	A
	282 2810	Brake Arm Clip (Band Type) 16mm	A
	282 2807	Brake Arm Clip (Band Type) 19mm	A
26	282 2900	Clip Nut (M6)	A

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to CB-E110.

8703-E814

SG-3C30

Three Speed Hub with Coaster Brake

SG-3C30

■ Specifications

- Features ● Three Speed Hub,
Roller Brake System,
Sealed Mechanism,
PPS Cable System,
Unit Replacement System

Weight ● 50.8 oz. (1440g.)

Material ● Steel

Teeth ● 16T. ~ 21T.

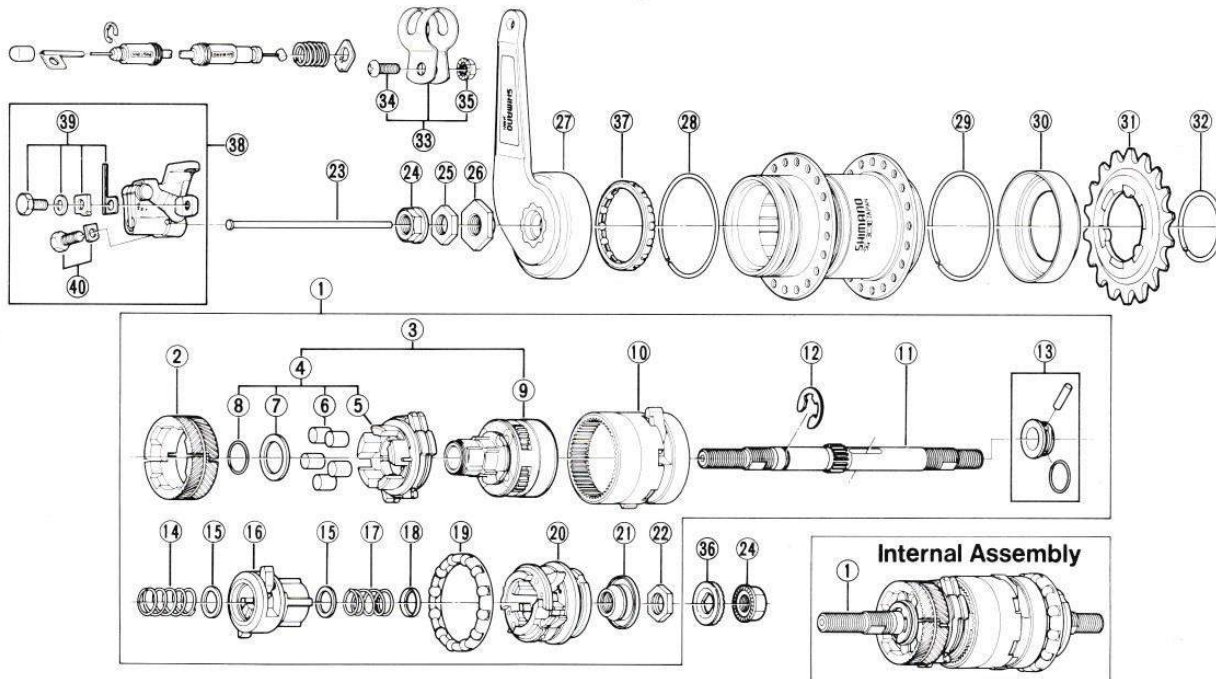
Over Lock Nut Dimension

● 121.6mm.

Spoke Holes ● 28H, 36H

Gear Ratios ● (High) 1:1.31/(Normal) 1:1/(Low) 1:0.76

Use ● With Shifting Lever Model SL-3S60



ITEM NO.	PART NO.	DESCRIPTION
1	3-335 9801	Internal Assembly for Axle Length 168.5mm(6-5/8")
2	3-335 9803	Brake Shoe Unit
3	3-335 9804	Roller and Carrier Unit
4	3-335 9805	Roller Unit
5	3-335 9806	Roller Case Unit
6	335 3800	Roller
7	335 3900	Roller Stop Ring
8	335 4000	Stop Ring C
9	3-335 9807	Carrier Unit
10	3-335 9808	Ring Gear Unit
11	335 0100	Hub Axle 168.5mm(6-5/8")
12	312 2200	Stop Ring
13	3-335 9809	Sliding Cam Unit
14	335 2700	Return Spring A
15	335 2900	Clutch Washer
16	3-335 9810	Clutch Unit
17	335 2800	Return Spring B
18	335 3000	Cap for Return Spring B
19	3-335 9811	Ball Retainer D (7/32")
20	3-335 9812	Driver Unit
21	3-335 9814	Right Hand Cone
22	321 3900	Lock Nut B
23	335 5000	Push Rod 98.8mm(3-27/32")

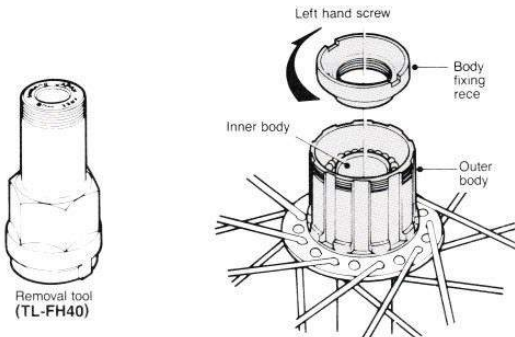
ITEM NO.	PART NO.	DESCRIPTION
24	220 1501-1	Flange Nut
25	335 4900	Lock Nut (1 = 3.5)
26	335 4800	Stop Nut
27	3-335 9802	Brake Arm Assembly
28	335 1600	Seal Spring L
29	335 0700	Seal Spring R
30	335 0600	Right Hand Seal Cap
	321 0320	Sprocket Wheel 16T
	322 0340	Sprocket Wheel 18T
	322 0350	Sprocket Wheel 19T
	322 0360	Sprocket Wheel 20T
	322 0370	Sprocket Wheel 21T
32	321 2000	Sanp Ring
	3-283 9036	Brake Arm Clip Unit (Band Type) 16mm(5/8")
	3-283 9009	Brake Arm Clip Unit (Band Type) 19mm(3/4")
41	333 0700-1	Clip Screw M6x14mm(9/16")
35	282 2900	Clip Nut (M6)
36	335 5300	Lock Washer
37	3-321 9023	Ball Retainer B (3/16")
38	3-331 9810	Bell Crank Assembly
39	3-331 9801	Cable Fixing Bolt Unit
40	3-331 9802	Bell Crank Fixing Bolt & Washer

8409-657C

Freehub Assembly Note

Disassembly and Assembly of Freewheel Body

When disassembling the freewheel, insert the inner body into the hub shell, set the removal tool (TL-FH40) at the notch of the body fixing race and turn clockwise to disassemble. When assembling, reverse the sequence of disassembling.

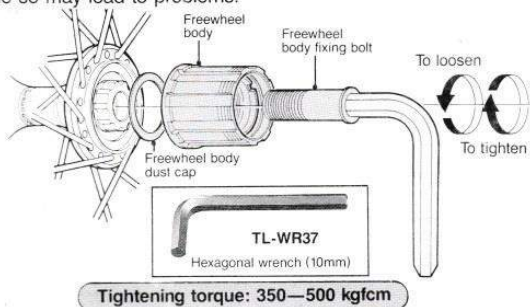


Tightening torque: 350 - 450 kgfcm (300 - 390 in.lbs.)

Replacement of the Freewheel Body

After removing the hub axle, remove the freewheel body fixing bolt (in the freewheel body), and then replace the freewheel body.

Note: Do not attempt to disassemble the freewheel body, because to do so may lead to problems.

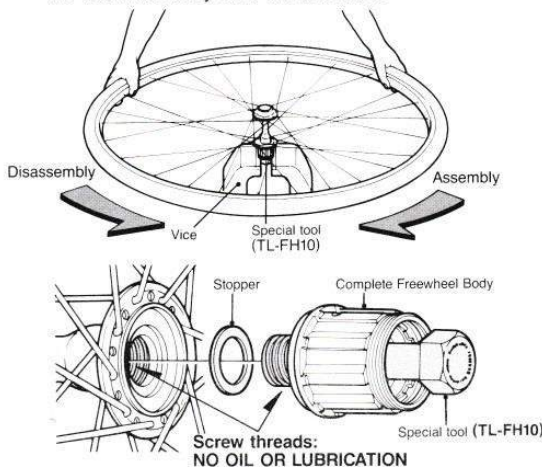


Tightening torque: 350-500 kgfcm

■ DURA-ACE (FH-7400)

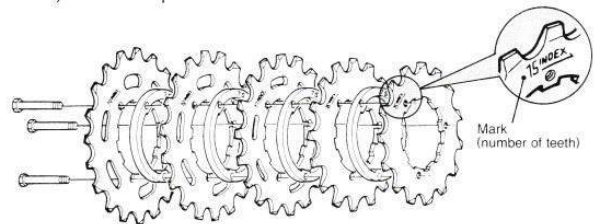
Remove the hub axle, set the freewheel body in special to TL-FH10 which is secured in a vice, and replace the freewheel body.

Note: Be very careful no grease or oil touches the threads of the freewheel body or of the hub shell.



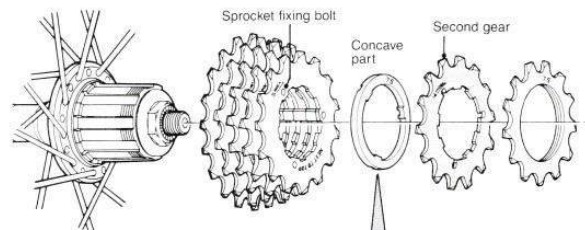
Assembling the Gears

Install each gear so that the mark (indicating the number of teeth) is at the top.



■ For the 7-speed type

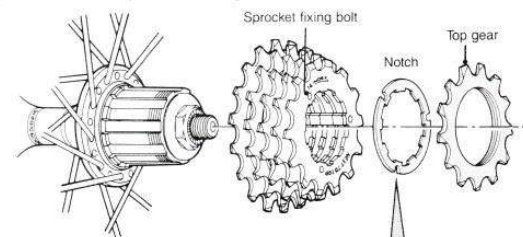
Align the concave part (* mark) with the position of the sprocket fixing bolt, and then install.



Note: Sprocket spacer A is unnecessary if a second gear with 13-teeth is used.

■ For the 6-speed type

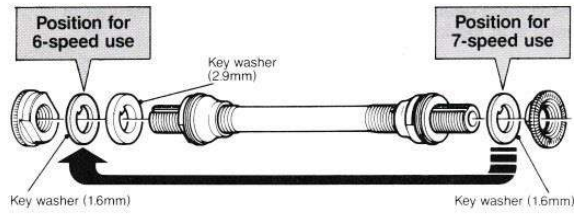
Align the three notches (* mark) of sprocket spacer A with the position of the sprocket fixing bolt, and then install.



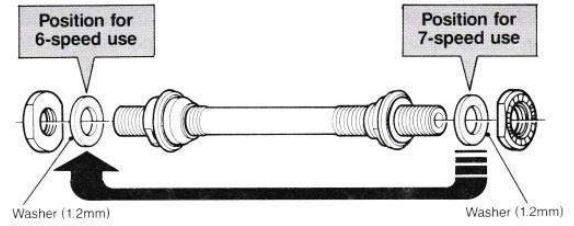
Note: Sprocket spacer A is unnecessary if a top gear with 12-teeth is used.

7-Speed to 6-Speed Changeover

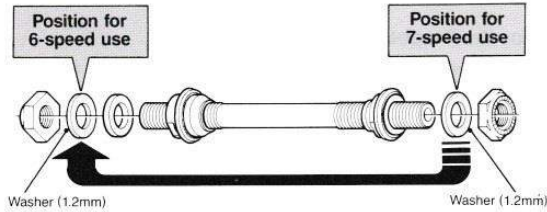
■ DURA-ACE (FH-7400)



■ Santé (FH-5000)




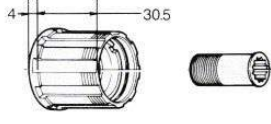
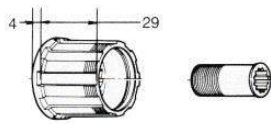
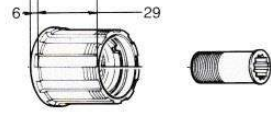
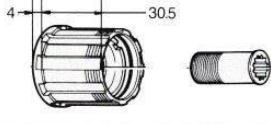
■ Shimano 600 ULTEGRA (FH-6400)



Identification of Gear and Sprocket Spacer

	DURA-ACE		Santé / ULTEGRA	
	For 7-speed	For 6-speed	For 7-speed	For 6-speed
Top gear	12T. ~ 18T.	12T. ~ 18T.	12T. ~ 14T.	12T. ~ 18T.
Second gear (built in spacer type)	For 7-speed 13T. ~ 19T.	For 6-speed 13T.	13T.	13T.
Other spline gears	14T. ~ 26T., 28T.		14T. ~ 26T., 28T.	
Sprocket spacer A	No Need	No Need	(Plastic; dark gray) 3.3mm → 7S For second gear • Sprocket spacer A is unnecessary if a 13-teeth sprocket is used.	(Steel) For top gear • Sprocket spacer A is unnecessary if a 12-teeth sprocket is used.
Sprocket spacer B	Silver 3.1mm →	Gray 3.65mm →	(Plastic; dark gray) 3.15mm → 7S For third gear-low gear	(Plastic; dark gray) 3.7mm → For second gear-low gear • Sprocket spacer B is unnecessary if a 13-teeth sprocket is used.

Freewheel Body Interchangeability Chart

Series	Model	Freewheel Body	Speed	Over Lock Nut Dimension (m/m)
DURA-ACE	FH-7400		6 & 7	126/130
Santé	FH-5000		7	126
SHIMANO 600 ULTEGRA	FH-6400		6 & 7	126
EXAGE sport	FH-A450		6	126
SHIMANO 105	FH-1050		6	126
DEORE XT	FH-M730		6	126/130
DEORE	FH-MT60		6	126/130
EXAGE mountain	FH-M450		6	126/130

Interchangeability of Freewheel Body

Hub Body	Freewheel Body
FH-7400	FH-7400
FH-5000	FH-6400
FH-6400	
FH-1050	FH-MT60
FH-A450	
FH-MT60	
FH-M450	
FH-M730	FH-M730

Single Sprocket
SS-7600 (Hub Sprocket for Track Model)

Multiple Freewheel
MF-7400-6 (6-speed)



Single Sprocket
SS-7600 (Hub Sprocket for Track Model)

- Specifications
 Material • Cr-Mo Steel
 Thread • English BC 1.37 x 24 T.P.I.
 Standard Sprocket
 • 1/2" x 1/8", 1/2" x 3/32"
 Teeth • 13T., 14T., 15T., 16.
 Weight • 1/2" x 1/8" Sprocket:

13T.	1.1 oz. (31g.)
14T.	1.3 oz. (38g.)
15T.	1.6 oz. (44g.)
16T.	1.9 oz. (53g.)



ITEM NO.	PART NO.	DESCRIPTION
1	279 1310	Sprocket Wheel 13T (1/2"x1/8")
2	279 1410	Sprocket Wheel 14T (1/2"x1/8")
3	279 1510	Sprocket Wheel 15T (1/2"x1/8")
4	279 1610	Sprocket Wheel 16T (1/2"x1/8")
5	279 1300	Sprocket Wheel 13T (1/2"x3/32")
6	279 1400	Sprocket Wheel 14T (1/2"x3/32")
7	279 1500	Sprocket Wheel 15T (1/2"x3/32")
8	279 1600	Sprocket Wheel 16T (1/2"x3/32")

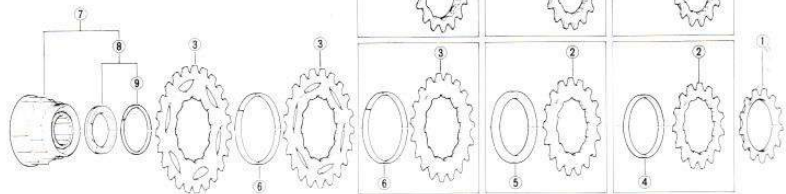
8508-E728



Multiple Freewheel
MF-7400-6 (6-speed)

- Specifications
 Features • 6-speed SIS Compatible
 • Uniglide Gears, Sealed Mechanism, Lubricating Port on Freewheel Body
 Weight • 12.7 oz. (360g.) (13, 14, 15, 17, 19, 21T.)
 Sprocket • Steel•Champagne Gold Finish
 Chain Size • 1/2" x 3/32" Chain
 Standard Sprocket Combinations:

6-speed	13, 14, 15, 16, 17, 18T.
	13, 14, 15, 17, 19, 21T. 13, 15, 17, 19, 21, 23T.



Shimano 60DEX (MF-6200)

Shimano 60DEX (MF-6200)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	129 1310	Sprocket Wheel 13T (B, C, 40)	
	129 1410	Sprocket Wheel 14T (B, C, 40)	
	129 1510	Sprocket Wheel 15T (B, C, 40)	
	129 1610	Sprocket Wheel 16T (B, C, 40)	
	129 1710	Sprocket Wheel 17T (B, C, 40)	
	129 1810	Sprocket Wheel 18T (B, C, 40)	
	129 1420	Sprocket Wheel 14T (Small Serration / Built in Spacer Type)	
	129 1520	Sprocket Wheel 15T (Small Serration / Built in Spacer Type)	
2	129 1620	Sprocket Wheel 16T (Small Serration)	B
	129 1720	Sprocket Wheel 17T (Small Serration)	B
	129 1820	Sprocket Wheel 18T (Small Serration)	B
	129 1920	Sprocket Wheel 19T (Small Serration)	B
	129 2020	Sprocket Wheel 20T (Small Serration)	B
	129 2120	Sprocket Wheel 21T (Small Serration)	B
	129 2220	Sprocket Wheel 22T (Small Serration)	B
	129 1630	Sprocket Wheel 16T (Large Serration / Built in Spacer Type)	
129 1730	Sprocket Wheel 17T (Large Serration)	B	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY	
3	129 1830	Sprocket Wheel 18T (Large Serration)	B	
	129 1930	Sprocket Wheel 19T (Large Serration)	B	
	129 2030	Sprocket Wheel 20T (Large Serration)	B	
	129 2130	Sprocket Wheel 21T (Large Serration)	B	
	129 2230	Sprocket Wheel 22T (Large Serration)	B	
	129 2330	Sprocket Wheel 23T (Large Serration)	B	
	129 2430	Sprocket Wheel 24T (Large Serration)	B	
	129 2530	Sprocket Wheel 25T (Large Serration)	B	
	129 2630	Sprocket Wheel 26T (Large Serration)	B	
	129 2830	Sprocket Wheel 28T (Large Serration)	B	
	4	129 4820	Spacer C	B
	5	129 4810	Spacer B	B
6	129 4800	Spacer A	B	
7	3-129 9811-1	Freewheel Body	B	
8	3-129 9821-1	Cover (B, C, 26) & Seal Ring B		
8	129 4600	Seal Ring		

B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (MF-7400-6).

8609-E674E

Multiple Freewheel
MF-7400-7 (7-speed)

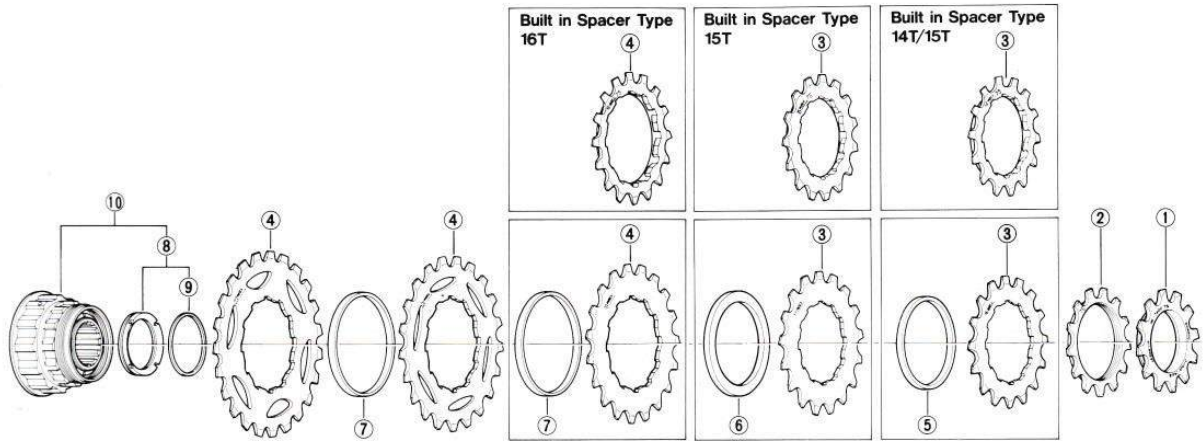


Multiple Freewheel
MF-7400-7 (7-speed)

■ Specifications

- Features ● 7-speed SIS Compatible
 ● Uniglide Gears, Sealed Mechanism,
 Lubricating Port on Freewheel Body
- Weight ● 12.9 oz. (367g.) (12, 13, 14, 15, 17, 19, 21T)
- Sprocket ● Steel•Champagne Gold Finish
- Chain Size ● 1/2" x 3/32" Chain
- Standard Sprocket Combinations:

	12, 13, 14, 15, 16, 17, 19T
	12, 13, 14, 15, 17, 19, 21T
7-speed	13, 14, 15, 16, 17, 19, 21T
	13, 14, 15, 17, 19, 21, 24T
	13, 15, 17, 19, 21, 23, 26T



Dura-Ace (MF-7400-7)
 Shimano 600EX (MF-6200)

Dura-Ace (MF-7400-7)
 Shimano 600EX (MF-6200)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	129 1211	Sprocket Wheel 12T (B.C. 36)	
	129 1311	Sprocket Wheel 13T (B.C. 36)	
	129 1411	Sprocket Wheel 14T (B.C. 36)	
2	129 1340	Sprocket Wheel 13T (B.C. 36)	
	129 1440	Sprocket Wheel 14T (B.C. 36)	
	129 1540	Sprocket Wheel 15T (B.C. 40)	
	129 1640	Sprocket Wheel 16T (B.C. 40)	
	129 1421	Sprocket Wheel 14T (Small Serration / Built in Spacer Type)	
	129 1521	Sprocket Wheel 15T (Small Serration / Built in Spacer Type)	
3	129 1620	Sprocket Wheel 16T (Small Serration)	A B
	129 1720	Sprocket Wheel 17T (Small Serration)	A B
	129 1820	Sprocket Wheel 18T (Small Serration)	A B
	129 1920	Sprocket Wheel 19T (Small Serration)	A B
	129 2020	Sprocket Wheel 20T (Small Serration)	A B
	129 2120	Sprocket Wheel 21T (Small Serration)	A B
4	129 2220	Sprocket Wheel 22T (Small Serration)	A B
	129 1631	Sprocket Wheel 16T (Large Serration / Built in Spacer Type)	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	129 1730	Sprocket Wheel 17T (Large Serration)	A B
	129 1830	Sprocket Wheel 18T (Large Serration)	A B
	129 1930	Sprocket Wheel 19T (Large Serration)	A B
	129 2030	Sprocket Wheel 20T (Large Serration)	A B
	129 2130	Sprocket Wheel 21T (Large Serration)	A B
	129 2230	Sprocket Wheel 22T (Large Serration)	A B
	129 2330	Sprocket Wheel 23T (Large Serration)	A B
	129 2430	Sprocket Wheel 24T (Large Serration)	A B
	129 2530	Sprocket Wheel 25T (Large Serration)	A B
	129 2630	Sprocket Wheel 26T (Large Serration)	A B
5	129 2830	Sprocket Wheel 28T (Large Serration)	A B
	129 4811	Spacer 7B	
6	129 4801	Spacer 7A	
7	3-129 9822	Cover (B.C. 26) & Seal Ring 7B	
8	129 4610	Seal Ring 7B	
9	3-129 9812-1	Freewheel Body	

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (MF-7400-7).

8702 E741D

Multiple Freewheel

MF-6208-5 (5-speed)

MF-6208-6 (6-speed)



Multiple Freewheel

MF-6208-5 (5-speed)

MF-6208-6 (6-speed)

■ Specifications

- Features ● 6-speed SIS Compatible
● Uniglide Gears.
● Sealed Mechanism

Weight ● 13.6 oz. (386g.) (13—23T, 6-speed)

Material ● Steel • Platinum Finish (Sprocket)

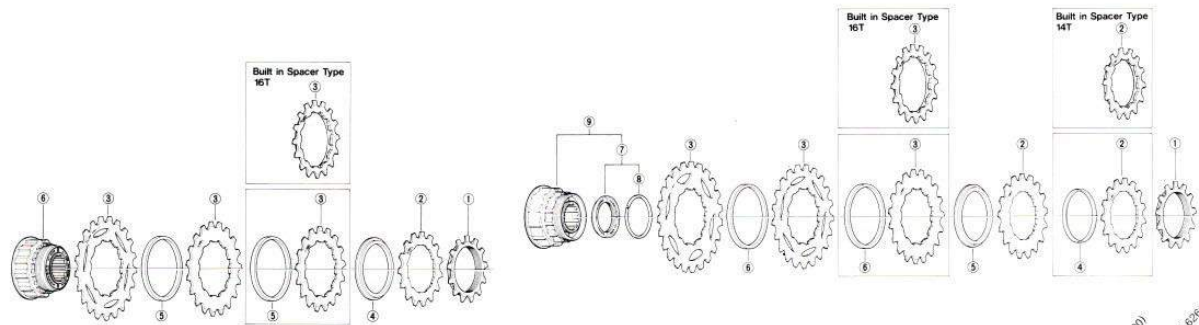
Chain Size ● 1/2" × 3/32" Chain

Standard Sprocket Combinations:

6-speed	13, 14, 15, 16, 17, 18T
	13, 14, 15, 17, 19, 21T
	13, 15, 17, 19, 21, 23T
	13, 15, 17, 19, 21, 24T
	13, 15, 17, 20, 23, 26T
	13, 15, 17, 20, 24, 28T



6-speed



■ 5-speed

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	120 3131	Sprocket Wheel 13T (B, C, 40)	B B B
	120 3141	Sprocket Wheel 14T (B, C, 40)	B B B
	120 3151	Sprocket Wheel 15T (B, C, 40)	B B B
	120 3161	Sprocket Wheel 16T (B, C, 40)	B B B
	120 3171	Sprocket Wheel 17T (B, C, 40)	B B B
	120 3181	Sprocket Wheel 18T (B, C, 40)	B B B
	120 3152	Sprocket Wheel 15T (Small Serration)	B
	120 3162	Sprocket Wheel 16T (Small Serration)	B
	120 3172	Sprocket Wheel 17T (Small Serration)	B
	120 3182	Sprocket Wheel 18T (Small Serration)	B
	120 3192	Sprocket Wheel 19T (Small Serration)	B
	120 3202	Sprocket Wheel 20T (Small Serration)	B
2	120 3163	Sprocket Wheel 16T (Large Serration / Built in Spacer Type)	B
	120 3173	Sprocket Wheel 17T (Large Serration)	B
	120 3183	Sprocket Wheel 18T (Large Serration)	B
	120 3193	Sprocket Wheel 19T (Large Serration)	B
	120 3203	Sprocket Wheel 20T (Large Serration)	B
	120 3213	Sprocket Wheel 21T (Large Serration)	B
	120 3223	Sprocket Wheel 22T (Large Serration)	B
	120 3233	Sprocket Wheel 23T (Large Serration)	B
	120 3243	Sprocket Wheel 24T (Large Serration)	B
	120 3253	Sprocket Wheel 25T (Large Serration)	B
	120 3263	Sprocket Wheel 26T (Large Serration)	B
	120 3283	Sprocket Wheel 28T (Large Serration)	B
3	120 3304	Sprocket Wheel 30T (3 Notched Gear)	B
	120 3324	Sprocket Wheel 32T (3 Notched Gear)	B
	120 3344	Sprocket Wheel 34T (3 Notched Gear)	B
	122 4800	Spacer B	A
	122 4700	Spacer A	A
	3-120 9840	Cover & Seal Ring B	B
	129 4600	Seal Ring B	A
	3-120 9413	Freewheel Body	B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600EX (MF-6208-5).

8601-E703F

■ 6-speed

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	120 3131	Sprocket Wheel 13T (B, C, 40)	B B B
	120 3141	Sprocket Wheel 14T (B, C, 40)	B B B
	120 3151	Sprocket Wheel 15T (B, C, 40)	B B B
	120 3161	Sprocket Wheel 16T (B, C, 40)	B B B
	120 3171	Sprocket Wheel 17T (B, C, 40)	B B B
	120 3181	Sprocket Wheel 18T (B, C, 40)	B B B
	120 3142	Sprocket Wheel 14T (Small Serration / Built in Spacer Type)	B B B B
	120 3152	Sprocket Wheel 15T (Small Serration)	B B
2	120 3162	Sprocket Wheel 16T (Small Serration)	B B
	120 3172	Sprocket Wheel 17T (Small Serration)	B B
	120 3182	Sprocket Wheel 18T (Small Serration)	B B
	120 3192	Sprocket Wheel 19T (Small Serration)	B B
	120 3202	Sprocket Wheel 20T (Small Serration)	B B
	120 3163	Sprocket Wheel 16T (Large Serration / Built in Spacer Type)	B B
	120 3173	Sprocket Wheel 17T (Large Serration)	B B
	120 3183	Sprocket Wheel 18T (Large Serration)	B B
3	120 3193	Sprocket Wheel 19T (Large Serration)	B B
	120 3203	Sprocket Wheel 20T (Large Serration)	B B
	120 3213	Sprocket Wheel 21T (Large Serration)	B B
	120 3223	Sprocket Wheel 22T (Large Serration)	B B
	120 3233	Sprocket Wheel 23T (Large Serration)	B B
	120 3243	Sprocket Wheel 24T (Large Serration)	B B
	120 3253	Sprocket Wheel 25T (Large Serration)	B B
	120 3263	Sprocket Wheel 26T (Large Serration)	B B
	120 3287	Sprocket Wheel 28T (Large Serration)	B B
	120 3304	Sprocket Wheel 30T (3 Notched Gear)	B B
	120 3324	Sprocket Wheel 32T (3 Notched Gear)	B B
	120 3344	Sprocket Wheel 34T (3 Notched Gear)	B B
1	122 4900 I	Spacer C	B A
5	122 4800	Spacer B	B A
6	122 4700	Spacer A	B A
7	3-120 9841-1	Cover (B, C, 26) & Seal Ring B	B
8	129 4600	Seal Ring B	A
9	3-120 9843	Freewheel Body	B B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600EX (MF-6208-6).

8703-E704G

Multiple Freewheel

MF-Z012-5 (5-speed)

MF-Z012-6 (6-speed)



Multiple Freewheel

MF-Z012-5 (5-speed)

MF-Z012-6 (6-speed)

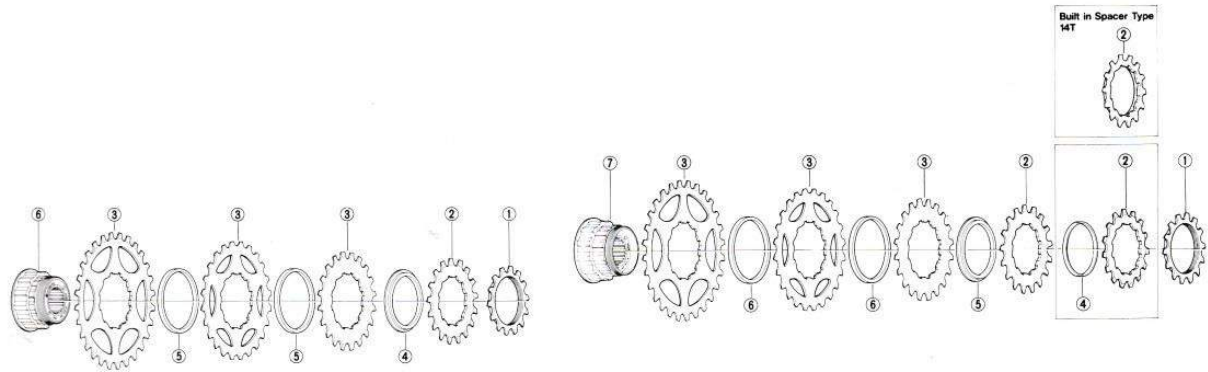
■ Specifications

- Features ● 6-speed SIS Compatible.
- Uniglide Gears
- Weight ● 15.9 oz. (451g.)/14, 15, 17, 20, 24, 28T.
- Sprocket ● Brown or Silver Finish
- Chain Size ● 1/2" × 3/32" Chain
- Thread ● BC 1.37 × 24 T.P.I. (English)
- Sprocket ●

1st Position (Threaded, BC 40T)	13, 14, 15, 16T.
2nd-3rd Position (12 Serration Spline)	15, 16, 17, 18, 19, 20T.
4th-6th Position (12 Serration Spline)	16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30, 32, 34T.



6-speed



■ 5-speed

ITEM NO.	PART NO.	DESCRIPTION	
1	122 1304	Sprocket Wheel 13T (B. C. 40)	
	122 1404	Sprocket Wheel 14T (B. C. 40)	
	122 1504	Sprocket Wheel 15T (B. C. 40)	
	122 1604	Sprocket Wheel 16T (B. C. 40)	
	122 1514	Sprocket Wheel 15T (Small Serration)	
2	122 1614	Sprocket Wheel 16T (Small Serration)	
	122 1714	Sprocket Wheel 17T (Small Serration)	
	122 1814	Sprocket Wheel 18T (Small Serration)	
	122 1914	Sprocket Wheel 19T (Small Serration)	
	122 2014	Sprocket Wheel 20T (Small Serration)	
	122 1724	Sprocket Wheel 17T (Large Serration)	
	122 1824	Sprocket Wheel 18T (Large Serration)	
	122 1924	Sprocket Wheel 19T (Large Serration)	
	122 2024	Sprocket Wheel 20T (Large Serration)	
	122 2124	Sprocket Wheel 21T (Large Serration)	
3	122 2234	Sprocket Wheel 22T (Large Serration)	
	122 2334	Sprocket Wheel 23T (Large Serration)	
	122 2434	Sprocket Wheel 24T (Large Serration)	
	122 2634	Sprocket Wheel 26T (Large Serration)	
	122 2834	Sprocket Wheel 28T (Large Serration)	
	123 3024	Sprocket Wheel 30T (3-Notched Gear)	
	123 3224	Sprocket Wheel 32T (3-Notched Gear)	
	123 3424	Sprocket Wheel 34T (3-Notched Gear)	
	4	122 4800	Spacer B
	5	122 4700	Spacer A
6	3-122 9802-1	Freewheel Body	

8703-E715F

■ 6-speed

ITEM NO.	PART NO.	DESCRIPTION
1	122 1304	Sprocket Wheel 13T (B. C. 40)
	122 1404	Sprocket Wheel 14T (B. C. 40)
	122 1504	Sprocket Wheel 15T (B. C. 40)
	122 1604	Sprocket Wheel 16T (B. C. 40)
2	122 1414	Sprocket Wheel 14T (Small Serration / Built in Spacer Type)
	122 1514	Sprocket Wheel 15T (Small Serration)
	122 1614	Sprocket Wheel 16T (Small Serration)
	122 1714	Sprocket Wheel 17T (Small Serration)
	122 1814	Sprocket Wheel 18T (Small Serration)
	122 1914	Sprocket Wheel 19T (Small Serration)
	122 2014	Sprocket Wheel 20T (Small Serration)
	122 1724	Sprocket Wheel 17T (Large Serration)
	122 1824	Sprocket Wheel 18T (Large Serration)
	122 1924	Sprocket Wheel 19T (Large Serration)
	122 2024	Sprocket Wheel 20T (Large Serration)
	122 2124	Sprocket Wheel 21T (Large Serration)
	122 2234	Sprocket Wheel 22T (Large Serration)
	122 2334	Sprocket Wheel 23T (Large Serration)
	122 2434	Sprocket Wheel 24T (Large Serration)
122 2634	Sprocket Wheel 26T (Large Serration)	
122 2834	Sprocket Wheel 28T (Large Serration)	
122 3024	Sprocket Wheel 30T (3-Notched Gear)	
122 3224	Sprocket Wheel 32T (3-Notched Gear)	
122 3424	Sprocket Wheel 34T (3-Notched Gear)	
4	122 4900-1	Spacer C
5	122 4800	Spacer B
6	122 4700	Spacer A
7	3-122 9801-1	Freewheel Body

8703-E661J

Brake
BR-7400-49 (Short 49-Type)

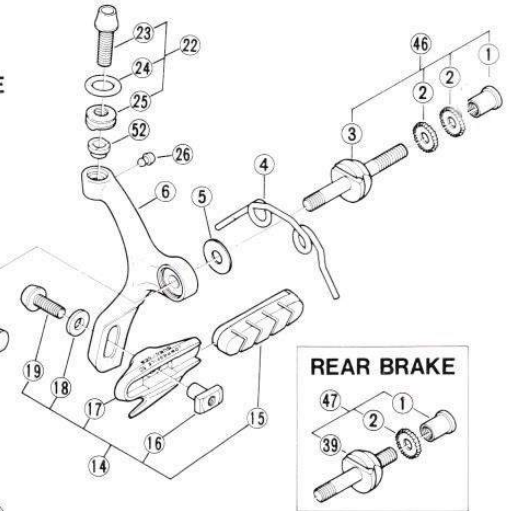
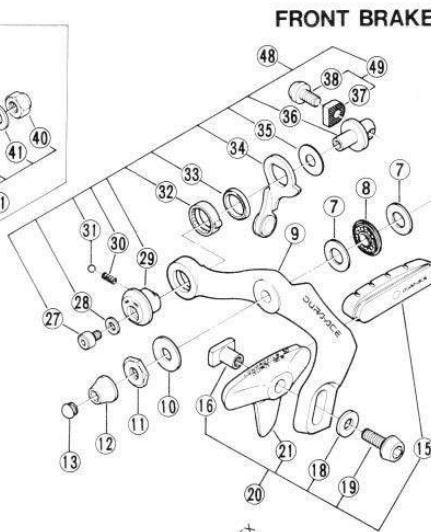
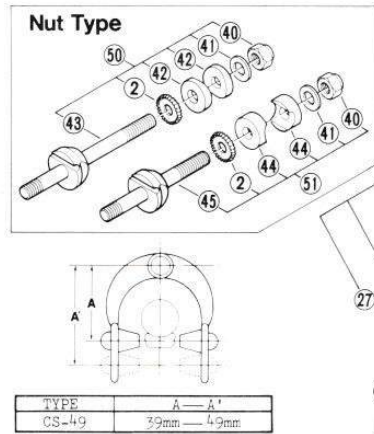
DURA-ACE

Brake
BR-7400-49 (Short 49-Type)

■ Specifications

- Features
- Low Profile Brake Shoe.
 - Thrust Bearing & Coated Pivot Washer.
 - Spring Sleeve.
 - Eccentric Type Quick Release.
 - Computer Aided Design (CAD)
- Weight
- 13.5 oz. (382g.) Front & Rear, 49-Type
- Material
- Forged Light Alloy • Anodized Finish (Arch)
 - Steel • Chrome-Plated (Pivot Bolt, Quick Release)
 - Light Alloy • Color Anodized Finish (Shoe Hoder with Tire Guide)

*SHIMANO recommends using the Dura-Ace brake cable, Model BC-7400, for best braking performance.



Shimano 600EX (BR-6200)

Shimano 600EX (BR-6200)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	855 7500	Pivot Nut	A
2	870 0800	Washer	
3	870 0300	Pivot Bolt for Front	
4	870 1500	Arm Return Spring	
5	870 1100	Arm Spacer 0.5mm	
6	3 870 9801-1	Brake Arm "Y" Shape	
7	870 1400	Pivot Washer	
8	3 870 9811	Pivot Bushing	
9	3 870 9811	Brake Arm "C" Shape	
10	870 1000	Arm Washer 1mm	
11	870 0500	Lock Nut	
12	870 0600	Lock Nut w/Hexagonal Hole	
13	870 0700	Nut Cap	A
14	3 870 9821-1	Brake Shoe Assembly A (Right Side for Front Brake or Rear Brake)	B
15	870 3010	Brake Shoe	
16	870 3310	Shoe Holder Fixing Nut	
17	870 3110	Shoe Holder A (Right side for Front Brake or Rear Brake)	
18	855 6900	Brake Shoe Fixing Washer	
19	870 3410	Brake Shoe Fixing Bolt	
20	3 870 9831-1	Brake Shoe Assembly B (Left Side for Front Brake or Rear Brake)	B
21	3 870 9903	Brake Shoe Assembly (4pcs.)	B
22	870 3210	Shoe Holder B (Left Side for Front Brake or Rear Brake)	
23	3 870 9842	Cable Adjusting Bolt Unit	B
24	3 870 9843	Cable Adjusting Bolt	B
25	870 2000	O-Shape Ring	
26	870 1900	Cable Adjusting Nut	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
26	847 3800	Frame Protector	A
27	870 2500	Bolt for cable Fixing Axle	
28	870 0900	Cam Washer	A
29	870 2600	Cam	B
30	639 1500	Ball Spring	
31	870 2800	Ball (φ3)	
32	870 2700	Quick Ring	
33	870 3500	Quick Ring Cover	
34	3 870 9844	Quick Lever	B
35	870 2900	Quick lever Washer	
36	870 2200	Cable Fixing Axle	
37	870 2300	Cable Fixing Plate	
38	870 2400	Cable Fixing Bolt	B
39	870 0400	Pivot Bolt for Rear	
40	863 2700	Lock Nut for Nut Type	B
41	855 1000	Washer for Nut Type	B
42	855 2700	Radius Bushing for Nut Type/Front	A
43	870 0310	Pivot Bolt for Nut Type/Front	
44	855 2800	Radius Bushing for Nut Type/Rear	A
45	870 0410	Pivot Bolt for Nut Type/Rear	
46	3 870 9852	Pivot Bolt Unit for Front	
47	3 870 9853	Pivot Bolt Unit for Rear	
48	3 870 9815	Cable Fixing Bolt Assembly w/Quick Release	B
49	3 870 9818	Cable Fixing Bolt & Plate	
50	3 870 9852-1	Pivot Bolt for Nut Type/Front	
51	3 870 9853-1	Pivot Bolt for Nut Type/Rear	
52	870 2100	Adjusting Bolt Bushing	

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (BR-7400).
 * "Right" and "Left" as seen from the riding position.

8610-E682E

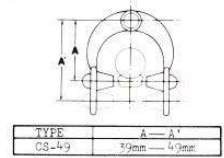
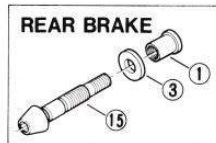
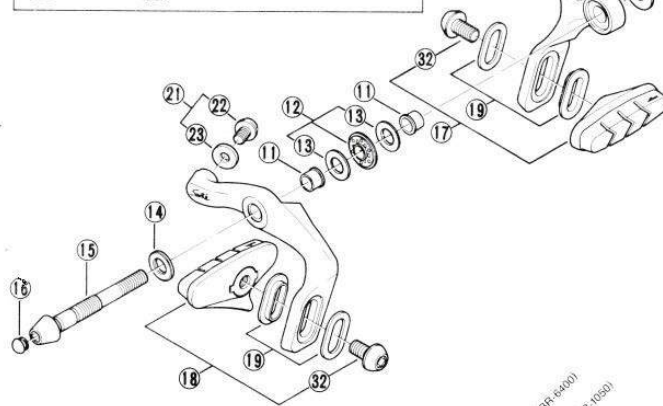
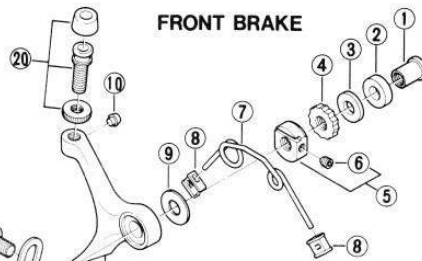
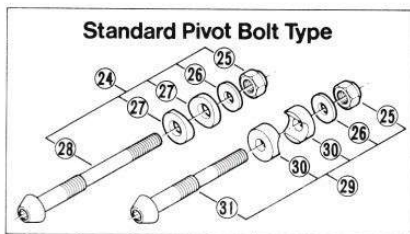
Brake
BR-5000-49 (Short 49-Type)



Brake
BR-5000-49 (Short 49-Type)

■ Specifications

- Features
- SLR (Shimano Linear Response) System
 - CAD Developed,
 - Low Profile Brack Shoe
 - Thrust Bearing & Coated Pivot Washer,
 - Spring Sleeve,
 - Aerodynamic Form,
- Weight
- 109 oz. (310g.) Front & Rear Sunken Pivot Bolt Type
- Material
- Forged Light Alloy • Silver & White Paint (Caliper Arms)
- Use
- SLR System use SLR-Type Brake Lever and Shimano Outer Cable with Liner



600 ULTEGRA (BR-8000)
 Shimano 105 (BR-1050)

600 ULTEGRA (BR-8000)
 Shimano 105 (BR-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	855 7511	Sunken Pivot Nut	A	B
2	858 5000	Washer for Front (t = 4mm)	A	B
3	858 5010	Washer (t = 2mm)	A	B
4	3-857 9812	Lock Nut	A	B
5	3-83E 9810	Pivot Nut & Stopper Bolt	A	B
6	884 1400	Stopper Bolt (M4)	A	B
7	83F 0700	Arm Return Spring	A	B
8	83E 0900	Sleeve	A	A
9	858 3101	Arm Spacer (t = 0.5mm)	A	B
10	83E 1100	Frame Protector for Front Brake Only	A	B
11	83E 2700	Arm Bushing	A	B
12	3-83E 9809	Pivot Bushing & washer	A	B
13	82A 0700	Pivot Washer (t = 0.8mm)	A	B
14	858 3301	Arm Spacer (t = 1mm)	A	A
15	83E 0400	Sunken Pivot Bolt for Front	B	B
15	83E 0500	Sunken Pivot Bolt for Rear	B	B
16	870 0700	Cap	A	B
17	—	Brake Shoe Assembly A (Right Side for front brake or rear brake)	B	B
18	—	Brake Shoe Assembly B (Left Side for front brake or rear brake)	B	B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
17/18	3-83E 9801	Brake Shoe Assembly (1pc.)	B	B
19	3-83E 9820	Shoe Fixing Washer & collar	A	A
20	3-83F 9802	Cable Adjusting Bolt Unit	A	B
21	3-83F 9803	Cable Fixing Bolt & Washer	A	B
22	83F 1200	Cable Fixing Bolt	A	B
23	83F 1100	Cable Fixing Washer	A	B
24	3-83F 9804	Standard Pivot Bolt Unit for Front	B	B
25	863 2701	Lock Nut for Standard Pivot Bolt Type	A	A
26	855 1000	Washer for Standard Pivot Bolt Type	A	B
27	855 2700	Radius bushing for Front / Standard Pivot Bolt Type	A	B
28	83F 0410	Standard Pivot Bolt for Front	B	B
29	3-83F 9805	Standard Pivot Bolt Unit for Rear	A	B
30	855 2600	Radius Bushing for Rear / Standard Pivot Bolt Type	A	B
31	83F 0510	Standard Pivot Bolt for Rear	B	B
32	83E 2400	Shoe Fixing Bolt	A	B

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (BR-5000).
 • "Right" and "Left" as seen from the riding position.

Brake

BR-6400-49 (Short 49-Type)

BR-6400-54 (Long 57-Type)



Brake

BR-6400-49 (Short 49-Type)

BR-6400-57 (Long 57-Type)

■ Specifications:

- Features ● SLR (Shimano Linear Response) System
 ● Thrust Bearing & Coated Pivot Washer, Spring Sleeve,
 Low-Profile Brake Shoe

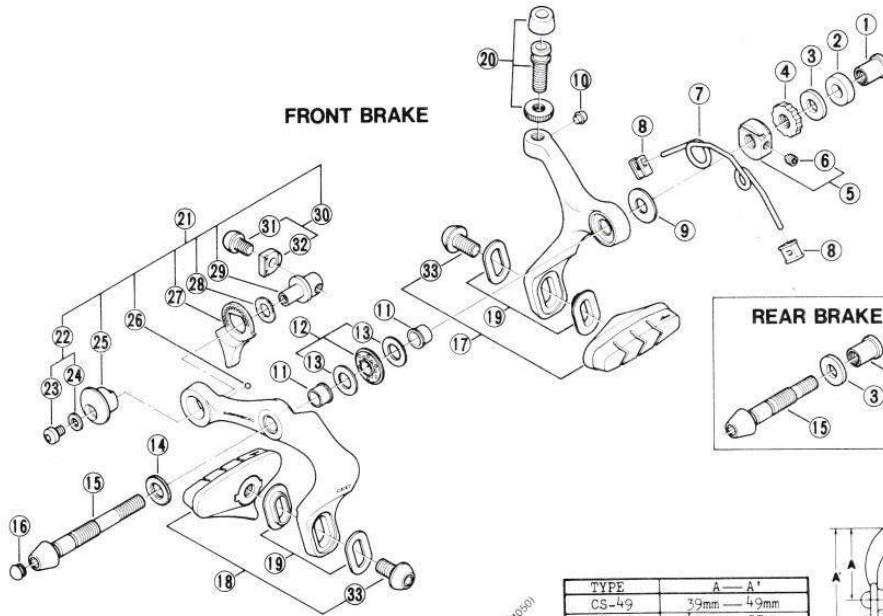
Weight ● 12.7 oz. (360g.) Front & Rear Type

Material ● Light Alloy • Dark Gray Paint (Caliper Arms)

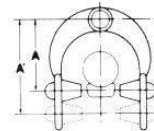
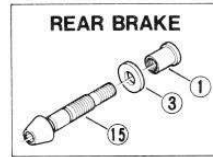
Use ● SLR System use SLR-Type Brake Lever and Shimano Outer Cable with Liner



FRONT BRAKE



REAR BRAKE



TYPE	A	A'
CS-49	39mm	49mm
CS-57	47mm	57mm

Same (BR-5000)
 Shimano 105 (BR-1050)

Same (BR-5000)
 Shimano 105 (BR-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	855 7511	Sunken Pivot Nut	A B
2	858 5000	Washer for Front (t = 4mm)	A
3	858 5010	Washer (t = 2mm)	A
4	3 857 9812	Lock Nut	A B
5	3 83E 9810	Pivot Nut & Stopper Bolt (49-Type)	A B
5	3 83E 9813	Pivot Nut & Stopper Bolt (57-Type)	A B
6	881 1400	Stopper Bolt (M4)	A
7	83E 0800	Arm Return Spring (49-Type)	A
7	83E 0810	Arm Return Spring (57-Type)	A
8	83E 0900	Sleeve	A A
9	858 3101	Arm spacer (t = 0.5mm)	A A
10	83E 1100	Frame Protector for Front Brake Only	A
11	83E 2700	Arm Bushing	A
12	3 83E 9809	Pivot Bushing & Washer	A
13	82A 0700	Pivot washer (t = 0.8mm)	A A
11	858 3001	Arm Spacer (t = 1mm)	A A
15	83E 0400	Sunken Pivot Bolt for Front	B B
15	83E 0500	Sunken Pivot Bolt for Rear	B B
16	870 0700	Cap	A
17	—	Brake Shoe Assembly A (Right side for front brake or rear brake)	B B
18	—	Brake Shoe Assembly B (Left side for front brake or rear brake)	B B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
17	3 83E 9801	Brake Shoe Assembly (4pcs.)	B B
10	3 83E 9820	Shoe Fixing Washer & Collar	A
20	3 83E 9802	Cable Adjusting Bolt Unit	A B
21	3 83E 9803	Cable Fixing Bolt Assembly w/Quick Release	
22	3 83E 9807	Quick Lever Fixing Bolt & Washer (M4)	
23	83E 1700	Quick Lever Fixing Bolt (M4)	
21	870 0900	Washer (M4)	
25	83E 1200	Flanged Bush	
26	870 1300	Ball (φ2mm)	
27	3 83E 9812	Quick Lever	
28	861 6300	Wave Washer	
29	83E 1500	Cable Fixing Axle	
30	3 83E 9806	Cable Fixing Bolt & Plate	B
31	82A 1800	Cable Fixing Bolt	B
32	83E 1600	Cable Fixing Plate	B
33	83E 2100	Shoe Fixing Bolt	A B

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (BR-6400).
 • "Right" and "Left" as seen from the riding position.

Caliper Brake

BR-1050-49 (Short 49-Type)

BR-1050-57 (Long 57-Type)



Caliper Brake

BR-1050-49 (Short 49-Type)

BR-1050-57 (Long 57-Type)

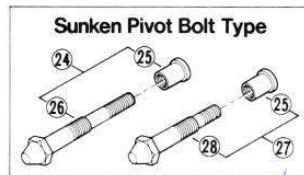
■ Specifications

- Features
- SLR (Shimano Linear Response) System
 - Thrust Bearing & Coated Pivot Washer, Spring Sleeve, One-Piece & Low Profile Brake Shoe

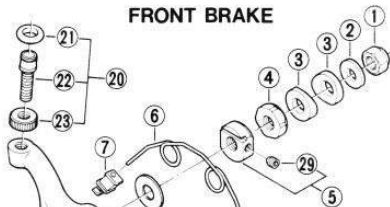
Weight • 11.8 oz. (335g.) Front & Rear, 49-Type

Material • Light Alloy

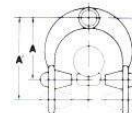
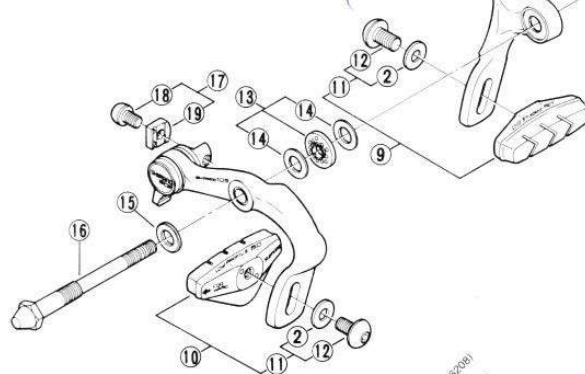
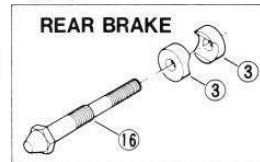
Use • SLR System use SLR-Type Brake Lever & Shimano Outer Cable with Liner



FRONT BRAKE



REAR BRAKE



TYPE	A	A*
CS-49	29mm	49mm
CS-57	47mm	57mm

Shimano 600EX (BR-6238)
Shimano Z (BR-2570)

Shimano 600EX (BR-6238)
Shimano Z (BR-2570)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	863 2701	Lock Nut (M6) for Pivot Bolt	A B
2	859 2500	Washer (M6/t=1.0mm)	A B
3	811 6030	Radius Bushing for Front	B A
3	811 6040	Radius Bushing for Rear	B A
4	3 854 9841	Lock Nut	B B
5	3 83E 9810	Pivot Nut & stopper Bolt (49-Type)	
5	3 83E 9813	Pivot Nut & stopper Bolt (57-Type)	
6	82A 0800	Arm Return Spring for 49-Type	
6	82A 0810	Arm Return Spring for 57-Type	
7	82A 2300	Sleeve	
8	858 3101	Arm Spacer (t=0.5mm)	B B
9		Brake Shoe Assembly A (Right side for front brake or rear brake)	B B
10		Brake Shoe Assembly B (Left side for front brake or rear brake)	B B
9&10	3-82A 9901	Brake Shoe Assembly (5pair on card)	B B
11	3 82A 9804	Shoe Fixing Bolt & Washer	
12	82A 2200	Shoe Fixing Bolt	
13	3 82A 9806	Pivot Bushing & washer	
14	82A 0700	Pivot Washer (t=0.8mm)	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
15	858 3001	Arm Washer (t=1.0mm)	A B
16	82A 0300	Pivot Bolt for Front	
16	82A 0400	Pivot Bolt for Rear	
17	3-82A 9808	Cable Fixing Bolt & Plate	B
18	82A 1800	Cable Fixing Bolt	B
19	82A 1700	Cable Fixing Plate	B
20	3-82A 9807	Cable Adjusting Bolt Unit	B
21	82A 1000	Cable Adjusting Bolt Cap	
22	82A 0900	Cable Adjusting Bolt	B
23	82A 1100	Cable Adjusting Nut	B
24	3-82A 9811	Sunken Pivot Bolt & Nut for Front (Option)	
25	855 7502	Sunken Pivot Nut (Option)	B B
26	82A 0310	Sunken Pivot Bolt for Front (Option)	
27	3-82A 9812	Sunken Pivot Bolt & Nut for Rear (Option)	
28	82A 0410	Sunken Pivot Bolt for Rear (Option)	
29	884 1400	Stopper Bolt	

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 105 (BR-1050).
* "Right" and "Left" as seen from the riding position.

8710-E765E

Cantilever Brake
BR-M730

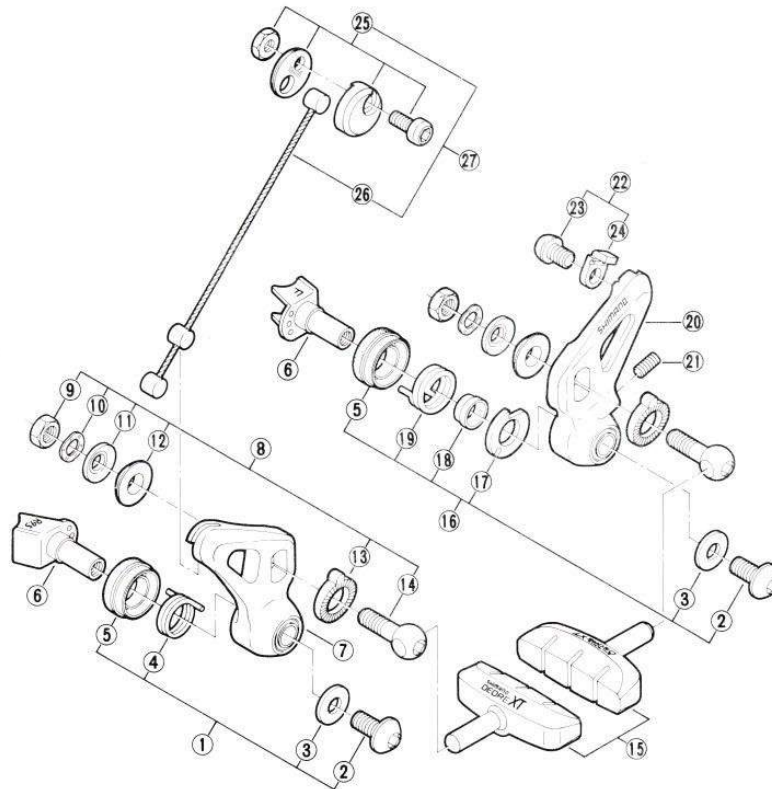
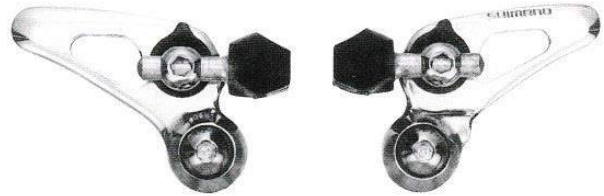


Cantilever Brake
BR-M730

■ Specifications

- Features
- Rigid Computer Designed Shape, Sealed Internal Spring Design, Brake Shoe Centering Adjuster, One-Piece & Low-Profile Brake Shoe, Adjustable Brake Shoe Position

- Weight • 6.7 oz. (190g.) Pair
 Material • Light Alloy•Buff Finish



Old DEORE XT (BR-M700)
 DEORE (BR-M160)
 BR-A150

Old DEORE XT (BR-M700)
 DEORE (BR-M160)
 BR-A150

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-83A 9801	Hooking Link Fixing Bolt Unit	B B B
2	83A 1700	Link Fixing Bolt	B B B
3	83A 1800	Link Fixing Washer	B B B
4	861 5400	Return Spring for Hooking Link	A A A
5	861 5500	Spring Cover	A A A
	3-868 9030-1	Front Mounting Boss for MTB (Radius 9.5mm)	A A A
	3-868 9040-1	Rear Mounting Boss for MTB (Radius 7.5mm)	A A A
	3-861 9001-1	Front Mounting Boss (Radius 8.5mm)	A A A
	3-861 9005-1	Rear Mounting Boss (Radius 5.5mm)	A A A
7	3-83A 9050	Hooking Link	B
8	3-83A 9802	Brake Shoe Fixing Bolt Unit	B B B
9	83A 2300	Brake Shoe Fixing Nut	A A A
10	861 6300	Wave Washer	A A A
11	868 0510	Spherical Washer A	B B
12	83A 0500	Spherical Washer B	A
13	83A 0400	Adjusting Washer	A B

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
14	83A 0600	Brake Shoe Fixing Bolt	B B B
15	3-83A 9806	Brake Shoe (2pcs.)	B B B
16	3-83A 9803	Anchor Link Fixing Bolt Unit	B
17	83A 2000	Adjusting Plate	A
18	861 5600	Spring Bush	A A
19	83A 0300	Return Spring for Anchor Link	A
20	3-83A 9040	Anchor Link	B
21	83A 1900	Adjusting Screw for Spring	B
22	3-83A 9804	Wire Fixing Bolt & Plate	B
23	83A 1000	Wire Fixing Bolt	B
24	83A 1100	Wire Fixing Plate	A
25	3-83A 9805-1	Cable Carrier Unit	
26	83A 1600	Link Wire	
27	3-83A 0807	Link Wire #/Cable Carrier Unit	

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE XT (BR-M730).

8709 E771D

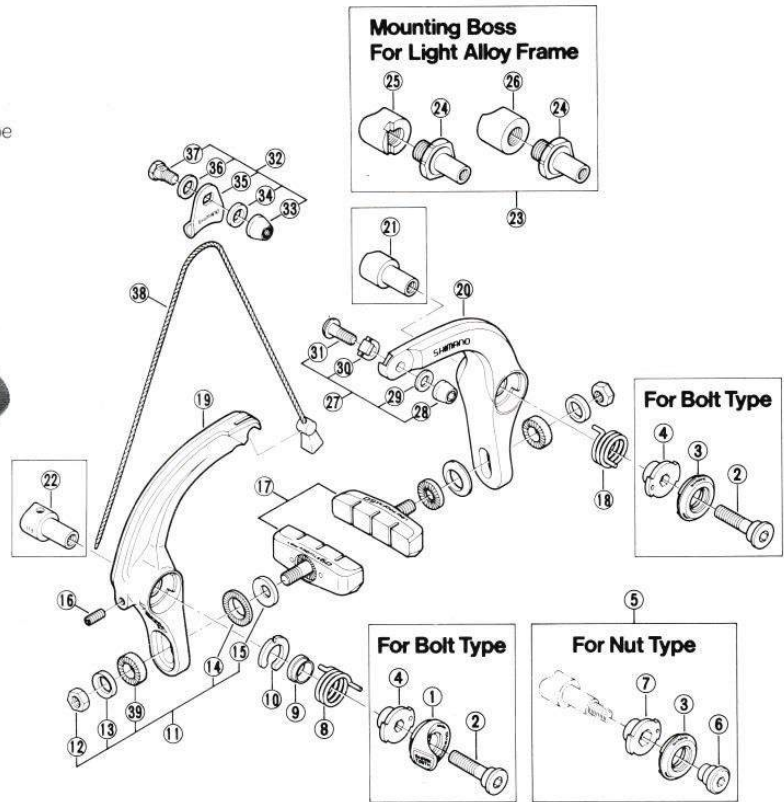
U-Brake BR-M731

SHIMANO DEORE XT U-Brake

U-Brake BR-M731

Specifications

- Features • Rigid Computer Designed Shape.
Chainstay Mounting Position.
Brake Shoe Centering Adjuster.
Sealed Internal Spring Design.
One-Piece & Low-Profile Brake Shoe
- Weight • 10.0 oz. (286g.) 1 pcs.
- Material • Light Alloy • Black Finish



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	83C 9901	Shark Tooth (10pcs. on card)	A
2	83C 0600	Arm Fixing Bolt	B
3	83C 0500	Boss Cap	A
4	83C 0400	Spring Holder for Bolt Type	A
5	3-83D 9807	Arm Fixing Nut Unit	A
6	83C 3100	Arm Fixing Nut	A
7	83C 3000	Spring Holder for Nut Type	A
8	83C 0800	Return Spring for Hooking Arm	A
9	83C 0900	Spring Bush	A
10	83C 1000	Spring Adjusting Spacer	A
11	3-81C 9801	Shoe Fixing Nut Unit	A
12	858 7000	Shoe Fixing Nut	A
13	83C 1700	Spherical Washer A	A
14	81C 1100	Spherical Washer B	A
15	83C 1800	Spherical Washer C	A
16	83A 1900	Adjusting Screw for Spring	B
17	3-83C 9813	Brake Shoe (2pcs.)	A
18	83C 0700	Return Spring for Anchor Arm	A
19	3-83C 9811	Hooking Arm	B
20	3-83C 9815	Anchor Arm	B
21	83C 2570	Mounting Boss (No. 054)	A
	83C 2580	Mounting Boss (No. 061)	A
	83C 2510	Mounting Boss (No. 082)	A
	83C 2520	Mounting Boss (No. 113)	A
	83C 2560	Mounting Boss (No. 114)	A
	83C 2530	Mounting Boss (No. 122)	A
	83C 2540	Mounting Boss (No. 124)	A
	83C 2550	Mounting Boss (No. 145)	A
	83C 2660	Mounting Boss (No. 054) W/Hole	A
	83C 2680	Mounting Boss (No. 061) W/Hole	A
22	83C 2610	Mounting Boss (No. 082) W/Hole	A
	83C 2610	Mounting Boss (No. 113) W/Hole	A
	83C 2610	Mounting Boss (No. 113) W/Hole	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
23	83C 2650	Mounting Boss (No. 114) W/Hole	A
	83C 2620	Mounting Boss (No. 122) W/Hole	A
	83C 2630	Mounting Boss (No. 124) W/Hole	A
24	3-83C 9807	Mounting Boss Unit (Light Alloy/No. 090)	A
	3-83C 9808	Mounting Boss Unit (Light Alloy/No. 091)	A
25	83C 2700	Mounting Boss Axle	A
	83C 2820	Mounting Boss (Light Alloy/No. 090) for Cable Guide	A
26	83C 2800	Mounting Boss (Light Alloy/No. 091) for Cable Guide	A
	83C 2830	Mounting Boss (Light Alloy/No. 090)	A
27	83C 2810	Mounting Boss (Light Alloy/No. 091)	A
	3-83C 9816	Wire Fixing Bolt Unit	B
28	83C 2100	Wire Fixing Nut	B
29	831 6802	Wire Fixing Washer (M5)	A
30	83C 1200	Wire Fixing Plate	A
31	83C 1100	Wire Fixing Bolt	A
32	3-83C 9817	Cable Carrier Unit	B
33	83C 2000	Cable Fixing Nut	B
34	831 5411	Cable Fixing Washer (1.8mm)	A
35	831 5200	Cable Carrier	A
36	831 5401	Cable Fixing Washer (1.2mm)	A
37	831 5300	Cable Fixing Bolt	A
38	83C 1900	Center Wire (φ2.0mm/380mm)	B
39	81C 1000	Adjusting Washer	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE XT (BR-M731).

8711-E783D

Cantilever Brake BR-MT60



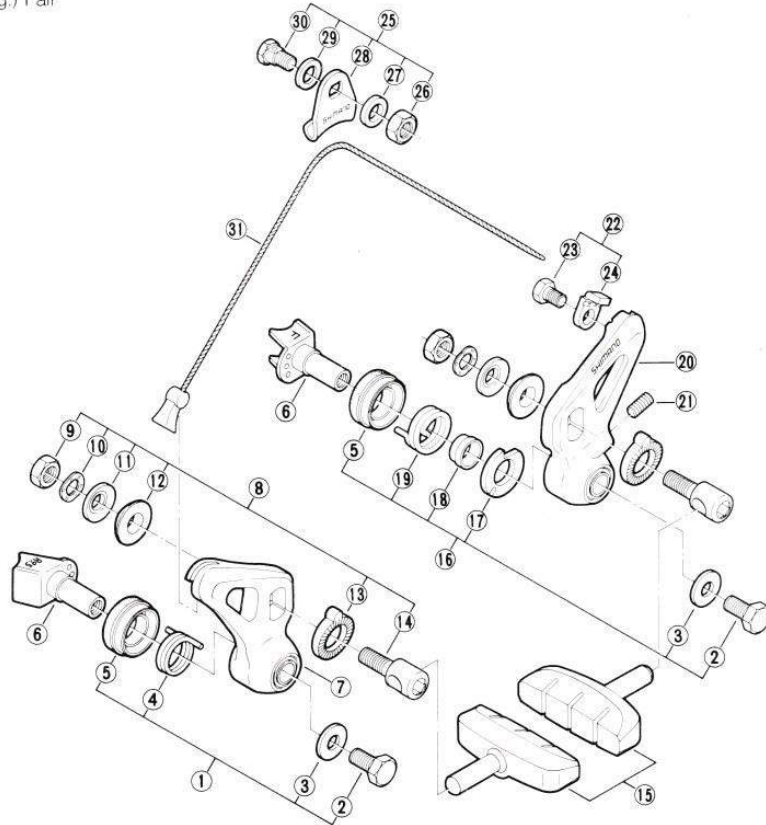
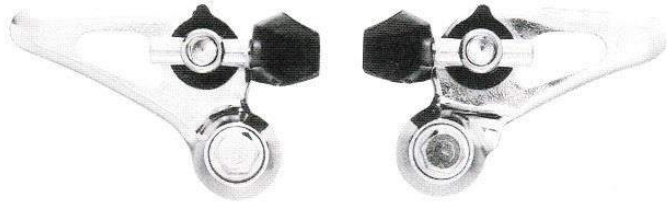
Cantilever Brake BR-MT60

Specifications

Features • Rigid Computer Designed Shape, Sealed Internal Spring Design, Brake Shoe Centering Adjuster, One-Piece & Low-Profile Brake Shoe, Adjustable Brake Shoe Position

Weight • 59 oz. (166g.) Pair

Material • Light Alloy



DEORE XT (BR-M730)
Old DEORE XT (BR-M700)
BR-M350

DEORE XT (BR-M730)
Old DEORE XT (BR-M700)
BR-M350

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-83B 9805	Hooking Link Fixing Bolt Unit	B B A
2	868 0800	Link Fixing Bolt	B B A
3	868 0900	Link Fixing Washer	B A A
4	861 5400	Return Spring for Hooking Link	A A A
5	861 5500	Spring Cover	A A A
6	3-868 9030-1	Front Mounting Boss for MTB (Radius 9.5mm)	A A A
	3-868 9040-1	Rear Mounting Boss for MTB (Radius 7.5mm)	A A A
	3-861 9004-1	Front Mounting Boss for MTB (Radius 8.5mm)	A A A
	3-861 9005-1	Rear Mounting Boss for MTB (Radius 5.5mm)	A A A
7	3-83B 9802	Hooking Link	B
8	3-83B 9807	Brake Shoe Fixing Bolt Unit	B B B
9	83A 2300	Brake Shoe Fixing Nut	A B B
10	861 6300	Wave Washer	A A A
11	868 0500	Spherical Washer A	B A
12	83A 0500	Spherical Washer B	A
13	83A 0401	Adjusting Washer	A B
14	861 6100	Brake Shoe Fixing Bolt	B A A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
15	3-83B 9808	Brake Shoe (2pcs.)	B B B
16	3-83B 9804	Anchor Link Fixing Bolt Unit	B
17	83A 2000	Adjusting Plate	A
18	861 5600	Spring Bush	A A
19	83A 0300	Return Spring for Anchor Link	A
20	3-83B 9801	Anchor Link	B
21	83A 1910	Adjusting Screw for Spring	B
22	3-83B 9806	Wire Fixing Bolt & Plate	B
23	83B 0100	Wire Fixing Bolt	B
24	83A 1100	Wire Fixing Plate	A
25	3-831 9010	Cable Carrier Unit	A A
26	831 0700	Cable Fixing Nut	A A
27	831 5410	Cable Fixing Washer (1.8mm)	A A
28	831 5200	Cable Carrier	A A
29	831 5400	Cable Fixing Washer (1.2mm)	A A
30	831 5300	Cable Fixing Bolt	A A
31	83B 0200	Center Wire (380mm)	B B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE (BR-MT60).

8709-E790B

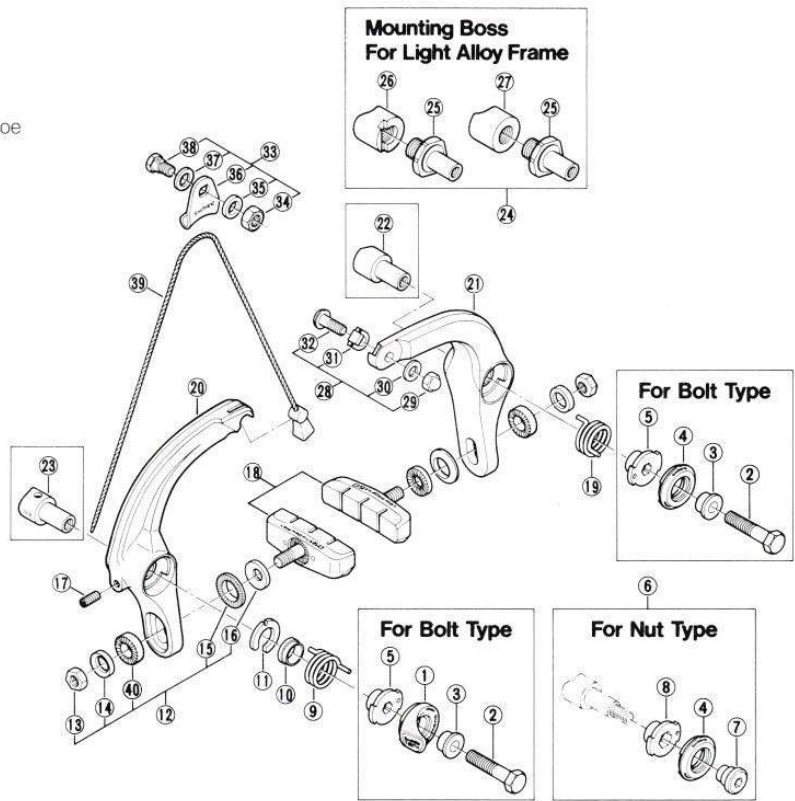
U-Brake
BR-MT61

SHIMANO DEORE U-Brake

U-Brake
BR-MT61

■ Specifications

- Features ● Rigid Computer Designed Shape,
Chainstay Mounting Position,
Brake Shoe Centering Adjuster,
Sealed Internal Spring Design,
One-Piece & Low-Profile Brake Shoe
- Weight ● 100 oz. (286g.) 1 pcs.
- Material ● Light Alloy



DEORE XT (BR-M731)

DEORE XT (BR-M731)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-83C 9901	Shark Tooth (10pcs. on card)	A
2	83D 0100	Arm Fixing Bolt	B
3	83D 0200	Spacer	B
4	83C 0500	Boss Cap	A
5	83C 0400	Spring Holder for Bolt Type	A
6	3-83D 9807	Arm Fixing Nut Unit	A
7	83C 3100	Arm Fixing Nut	A
8	83C 3000	Spring Holder for Nut Type	A
9	83C 0800	Return Spring for Hooking Arm	A
10	83C 0900	Spring Bush	A
11	83C 1000	Spring Adjusting Spacer	A
12	3-81C 9801	Shoe Fixing Nut Unit	A
13	858 7000	Shoe Fixing Nut	A
14	83C 1700	Spherical Washer A	A
15	81C 1100	Spherical Washer B	A
16	83C 1800	Spherical Washer C	A
17	83A 1910	Adjusting Screw for Spring	A
18	3-83C 9813	Brake Shoe (2pcs.)	A
19	83C 0700	Return Spring for Anchor Arm	A
20	3-83D 9801	Hooking Arm	B
21	3-83D 9802	Anchor Arm	B
	83C 2570	Mounting Boss (No. 054)	A
	83C 2580	Mounting Boss (No. 061)	A
	83C 2510	Mounting Boss (No. 082)	A
22	83C 2520	Mounting Boss (No. 113)	A
	83C 2560	Mounting Boss (No. 114)	A
	83C 2530	Mounting Boss (No. 122)	A
	83C 2540	Mounting Boss (No. 124)	A
	83C 2550	Mounting Boss (No. 145)	A
	83C 2060	Mounting Boss (No. 051) W/Hole	A
23	83C 2680	Mounting Boss (No. 061) W/Hole	A
	83C 2640	Mounting Boss (No. 082) W/Hole	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
23	83C 2610	Mounting Boss (No. 113) W/Hole	A
	83C 2650	Mounting Boss (No. 114) W/Hole	A
	83C 2620	Mounting Boss (No. 122) W/Hole	A
	83C 2630	Mounting Boss (No. 124) W/Hole	A
24	3-83C 9807	Mounting Boss Unit (Light Alloy/No. 090)	A
	3-83C 9808	Mounting Boss Unit (Light Alloy/No. 091)	A
25	83C 2700	Mounting Boss Axle	A
	83C 2820	Mounting Boss (Light Alloy/No. 090) for Cable Guide	A
26	83C 2800	Mounting Boss (Light Alloy/No. 091) for Cable Guide	A
27	83C 2830	Mounting Boss (Light Alloy/No. 090)	A
	83C 2810	Mounting Boss (Light Alloy/No. 091)	A
28	3-83D 9804	Wire Fixing Bolt Unit	B
29	851 5203	Wire Fixing Nut	B
30	811 6802	Wire Fixing Washer (M5)	A
31	83C 1200	Wire Fixing Plate	A
32	83C 1100	Wire Fixing Bolt	A
33	3-831 9010	Cable Carrier Unit	B
34	831 0700	Cable Fixing Nut	B
35	831 5410	Cable Fixing Washer (1.8mm)	A
36	831 5200	Cable Carrier	A
37	831 5100	Cable Fixing Washer (1.2mm)	A
38	831 5300	Cable Fixing Bolt	A
39	83B 0200	Center Wire (380mm)	B
40	81C 1000	Adjusting Washer	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE (BR-MT61).

8711-E791C

Brake

BR-A450-49 (Short 49-Type)

BR-A450-57 (Long 57-Type)

EXAGE
sport

SLR
SHIMANO LINEAR RESPONSE

Brake

BR-A450-49 (Short 49-Type)

BR-A450-57 (Long 57-Type)

■ Specifications

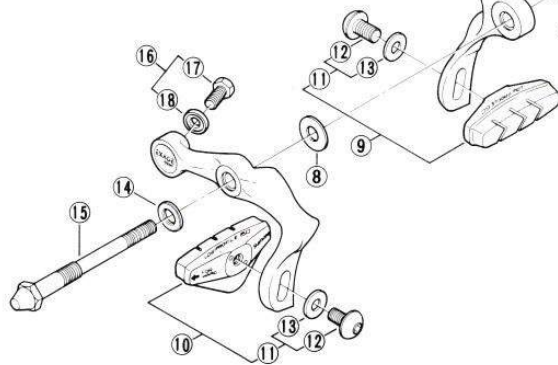
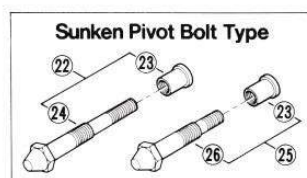
Features • SLR (Shimano Linear Response) System

- Easy Centering,
- One-Piece & Low Profile Brake Shoe w/Tire Guide,
- CAD Shape

Weight • 10.5 oz. (299g.) Front & Rear 49 Type

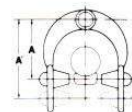
Material • Light Alloy • Anodized Finish (Arm)

Use • SLR System use SLR-Type Brake Lever and Shimano Outer Cable with Liner



FRONT BRAKE

REAR BRAKE



TYPE	A	A'
CS-49	39mm	49mm
CS-57	47mm	57mm

ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	831 0660	Washer (M6)
3	811 6030	Radius Bushing for Front
3	811 6040	Radius Bushing for Rear
4	3 853 9810	Lock Nut
5	82A 0501	Pivot Nut for 49-Type
5	82A 0512	Pivot Nut for 57-Type
6	81B 0300	Arm Return Spring for 49-Type
6	81B 0310	Arm Return Spring for 57-Type
7	83E 0900	Sleeve
8	858 3101	Arm Spacer (t = 0.5mm)
9		Brake Shoe Assembly A (Right side for front brake or rear brake)
10		Brake Shoe Assembly B (Left side for front brake or rear brake)
9&10	3-82A 9901	Brake shoe Assembly (Spair on card)
11	3-82A 9804	Shoe Fixing Bolt & Washer

ITEM NO.	PART NO.	DESCRIPTION
12	82A 2200	Shoe Fixing Bolt
13	859 2500	Shoe Fixing Washer
14	853 3420	Arm Washer (t = 1.0mm)
15	82A 0301	Pivot Bolt for Front
15	82A 0401	Pivot Bolt for Rear
16	3 81B 9801	Cable Fixing Bolt & Plate
17	81B 0400	Cable Fixing Bolt
18	83F 1110	Cable Fixing Plate
19	3 81A 9830	Cable Adjusting Barrel & Nut
20	81A 0110	Cable Adjusting Barrel
21	82A 1100	Cable Adjusting Nut
22	3-82A 9830	Sunken Pivot Bolt & Nut for Front
23	855 7511	Sunken Pivot Nut
24	82A 0311	Sunken Pivot Bolt for Front
25	3 82A 9831	Sunken Pivot Bolt & Nut for Rear
26	82A 0411	Sunken Pivot Bolt for Rear

* "Right" and "Left" as seen from the riding position.

8710-ER59

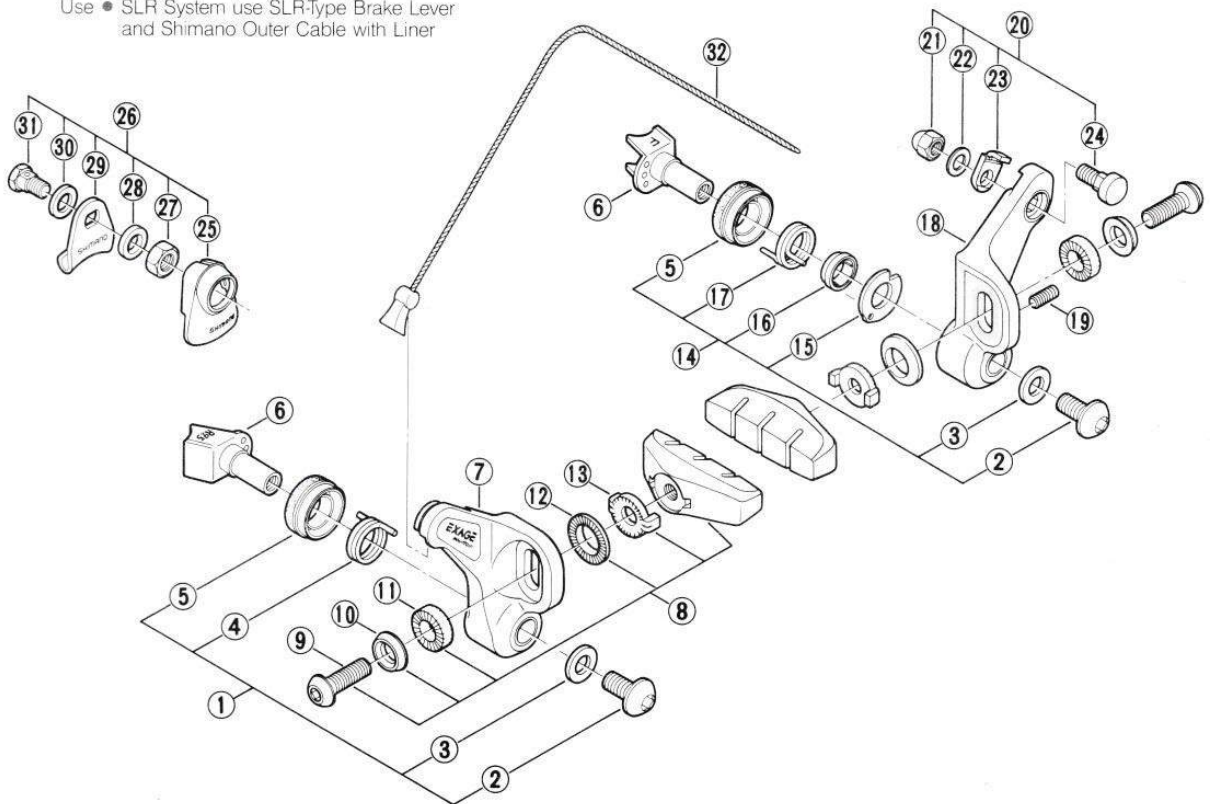
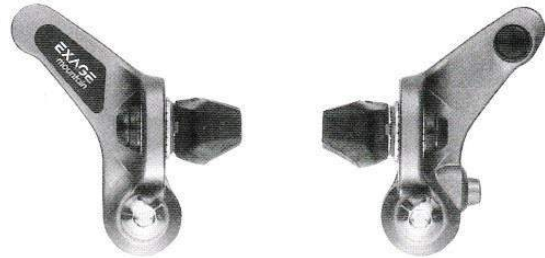
Cantilever Brake BR-M450



Cantilever Brake BR-M450

Specifications

- Features**
- SLR (Shimano Linear Response) System
 - Adjustable Brake Shoe Position, Allen Key Fixing Bolts, One-Piece & Low Profile Brake Shoe, Brake Shoe Centering Adjuster
 - Compact Design, Smooth Designed Cable Carrier Cover
- Weight**
- 150 oz. (426g.) Pair
- Material**
- Steel and Resin • Graphite Gray Metallic Finish (Brake Arm)
 - Steel w/Graphite Gray Metallic Resin Cover (Cable Carrier)
- Use**
- SLR System use SLR-Type Brake Lever and Shimano Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION
1	3 83A 9810	Hooking Link Fixing Bolt Unit
2	83A 1720	Link Fixing Bolt
3	868 0901	Link Fixing Washer
4	861 5400	Return Spring for Hooking Link
5	861 5500	Spring Cover
6	3 868 9030-1	Front Mounting Boss for MTB (Radius 9.5mm)
	3 868 9040-1	Rear Mounting Boss for MTB (Radius 7.5mm)
	3 861 9004-1	Front Mounting Boss (Radius 8.5mm)
	3 861 9005-1	Rear Mounting Boss (Radius 5.5mm)
7	3 81C 9807	Hooking Link
8	3 81C 9802	Brake Shoe Assembly (5pair on card)
9	81C 0800	Shoe Fixing Bolt
10	81C 0900	Spherical Washer C
11	81C 1000	Adjusting Washer
12	81C 1100	Spherical Washer A
13	81C 1200	Spherical Washer B
14	3 81C 9803	Anchor Link Fixing Bolt Unit
15	81C 1700	Adjusting Plate

ITEM NO.	PART NO.	DESCRIPTION
16	81C 0700	Spring Bush
17	861 5300	Return Spring for Anchor Link
18	3 81C 9804	Anchor Link
19	83A 1910	Adjusting Screw
20	3 81C 9805	Wire Fixing Bolt Unit
21	851 5200	Wire Fixing Nut (M5)
22	831 6800	Wire Fixing Washer (M5)
23	81C 1600	Wire Fixing Plate
24	81C 1500	Wire Fixing Bolt
25	81C 1800	Carrier Cover
26	3 831 9801	Cable Carrier Unit
27	831 0700	Cable Fixing Nut
28	831 5410	Cable Fixing Washer (1.8mm)
29	831 5210	Cable Carrier
30	831 5400	Cable Fixing Washer (1.2mm)
31	831 5300	Cable Fixing Bolt
32	83B 0200	Center Wire (.380mm)

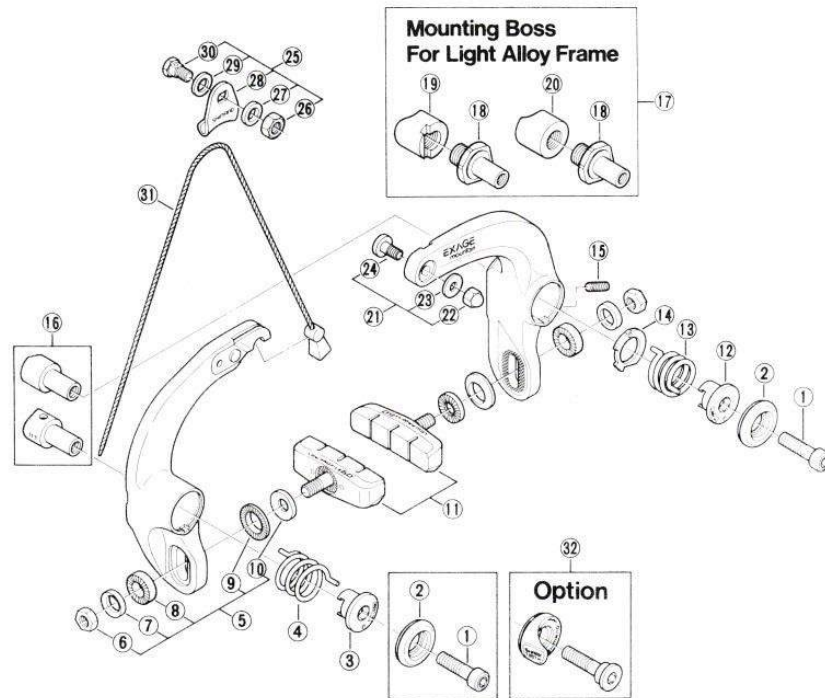
8711-E853A

U-Brake
BR-M451



U-Brake
BR-M451

- Specifications
- Features
- SLR (Shimano Linear Response) System
 - Brake Shoe Centering Adjuster, One-Piece & Low Profile Brake Shoe, Allen Key Type Fixing Bolt
- Weight
- 12.7 oz. (360g.) 1 pcs.
- Material
- Steel and Resin • Graphite Gray Metallic Finish (Brake Arm)
 - Steel (Fixing Bolt)
- Center Wire Diameter
- 1.6mm
- Use
- SLR System use SLR-Type Brake Lever and Shimano Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION
1	87C 1101	Arm Fixing Bolt
2	81E 1500	Boss Cap
3	81E 9803	Spring holder for Hooking Arm
4	81E 0900	Return Spring for Hooking Arm
5	81C 9801	Shoe Fixing Nut Unit
6	858 7000	Shoe Fixing Nut
7	83C 1700	Spherical Washer A
8	81C 1000	Adjusting Washer
9	81C 1100	Spherical Washer B
10	83C 1800	Spherical Washer C
11	3-83C 9813	Brake Shoe (2pcs.)
12	3-81E 9804	Spring Holder for Anchor Arm
13	81E 0800	Return Spring for Anchor Arm
14	81E 1000	Spring Adjusting Spacer
15	81E 1100	Adjusting Screw for Spring
16	3-83C 9809	Mounting Boss Unit (No.054)
	3-83C 9810	Mounting Boss Unit (No.061)
	3-83C 9801	Mounting Boss Unit (No.082)
	3-83C 9802	Mounting Boss Unit (No.113)
	3-83C 9806	Mounting Boss Unit (No.114)
	3-83C 9803	Mounting Boss Unit (No.122)

ITEM NO.	PART NO.	DESCRIPTION
16	3-83C 9804	Mounting Boss Unit (No.124)
	3-83C 9805	Mounting Boss Unit (No.145)
17	3-83C 9807	Mounting Boss Unit (Light Alloy/No.090)
	3-83C 9808	Mounting Boss Unit (Light Alloy/No.091)
18	83C 2700	Mounting Boss Axle
19	83C 2820	Mounting Boss (Light Alloy/No.090) for Cable Guide
	83C 2800	Mounting Boss (Light Alloy/No.091) for Cable Guide
20	83C 2830	Mounting Boss (Light Alloy/No.090)
	83C 2810	Mounting Boss (Light Alloy/No.091)
21	3-851 9803	Wire Fixing Bolt Unit
22	851 5200	Wire Fixing Nut
23	831 6800	Wire Fixing Washer (M5)
24	851 5100	Wire Fixing Bolt
25	3-831 9010	Cable Carrier Unit
26	831 0700	Cable Fixing Nut
27	831 5110	Cable Fixing Washer (1.8mm)
28	831 5200	Cable Carrier
29	831 5100	Cable Fixing Washer (1.2mm)
30	831 5300	Cable Fixing bolt
31	83B 0200	Center Wire (380mm)
32	3-81E 9901	Shark Tooth & Arm Fixing Bolt (5sets)

8711-E839A

Cantilever Brake BR-M350



Cantilever Brake BR-M350

Specifications

Features

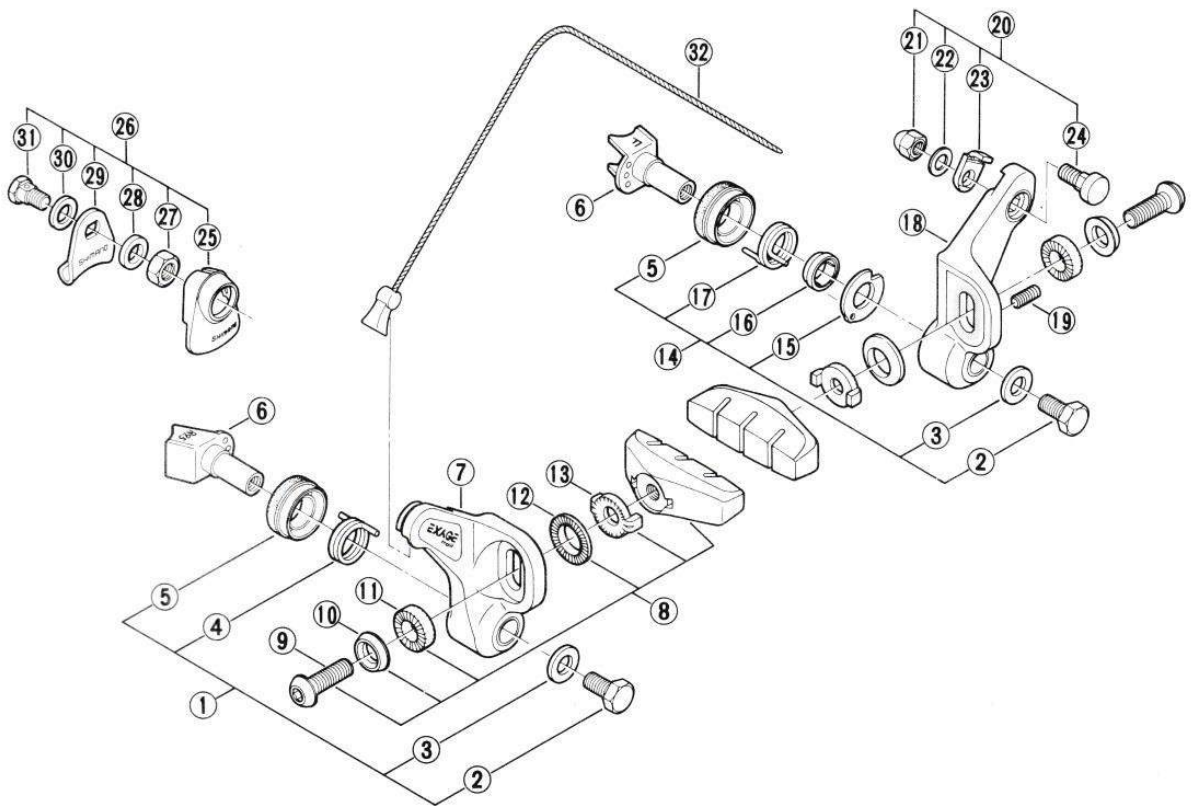
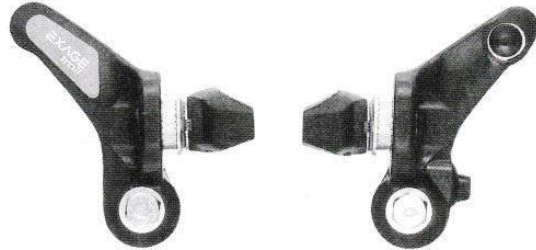
- Rigid Computer Designed Shape, Sealed Internal Spring Design, Brake Shoe Centering Adjuster, One-Piece & Low-Profile Brake Shoe, Adjustable Brake Shoe Position

Weight • 7.0 oz. (200g.) Pair

Material

- Steel and Resin • Graphite Black
- Metallic Finish (Brake Arm)
- Steel w/Graphite Black
- Metallic Resin Cover (Cable Carrier)

Use • SLR System use SLR-type Brake Lever and Shimano Outer Cable with Liner



ITEM NO.	PART NO.	DESCRIPTION
1	3-868 9810	Hooking Link Fixing Bolt Unit
2	868 0800	Link Fixing Bolt
3	868 0900	Link Fixing Washer
4	861 5400	Return Spring for Hooking Link
5	861 5500	Spring Cover
6	3-868 9030-1	Front Mounting Boss for MTB (Radius 9.5mm)
	3-868 9040-1	Rear Mounting Boss for MTB (Radius 7.5mm)
	3-861 9004-1	Front Mounting Boss for MTB (Radius 8.5mm)
	3-861 9005-1	Rear Mounting Boss for MTB (Radius 5.5mm)
7	3-81C 9810	Hooking Link
8	3-81C 9802	Brake Shoe Assembly (5pair on card)
9	81C 0800	Shoe Fixing Bolt
10	81C 0900	Spherical Washer C
11	81C 1000	Adjusting Washer
12	81C 1100	Spherical Washer A
13	81C 1200	Spherical Washer B
14	3-81C 9811	Anchor Link Fixing Bolt Unit
15	81C 1700	Adjusting Plate

ITEM NO.	PART NO.	DESCRIPTION
16	81C 0700	Spring Bush
17	861 5300	Return Spring for Anchor Link
18	3-81C 9812	Anchor Link
19	83A 1910	Adjusting Screw
20	3-81C 9813	Wire Fixing Bolt Unit
21	851 5200	Wire Fixing Nut (M5)
22	831 6800	Wire Fixing Washer (M5)
23	81C 1610	Wire Fixing Plate
24	81C 1500	Wire Fixing Bolt
25	81C 1800	Carrier Cover
26	3-831 9801	Cable Carrier Unit
27	831 0700	Cable Fixing Nut
28	831 5410	Cable Fixing Washer (1.8mm)
29	831 5210	Cable Carrier
30	831 5400	Cable Fixing Washer (1.2mm)
31	831 5300	Cable Fixing Bolt
32	83B 0200	Center Wire (380mm)

8711-BR54A

Caliper Brake

BR-L490 (Short 49-Type)

BR-L570 (Long 57-Type)



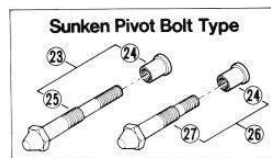
Caliper Brake

BR-L490 (Short 49-Type)

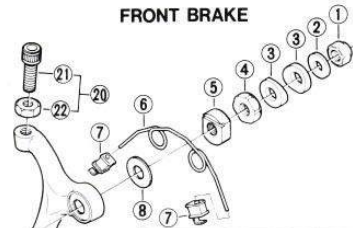
BR-L570 (Long 57-Type)

■ Specifications

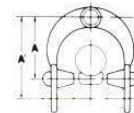
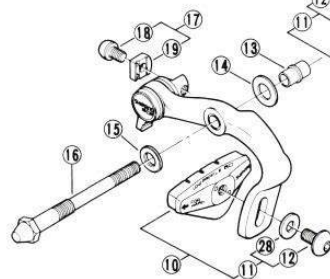
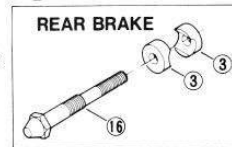
- Features ● SLR (Shimano Linear Response) System
 ● Coated Pivot Washer, Spring Sleeve, One-Piece & Low Profile Brake Shoe
- Weight ● 14.2 oz. (355g.) (Front & Rear)
- Material ● Light Alloy
- Use ● SLR System Use SLR-Type Brake Lever & Shimano Outer Cable with Liner



FRONT BRAKE



REAR BRAKE



TYPE	A	A'
CS-49	39mm	49mm
CS-57	47mm	57mm

ITEM NO.	PART NO.	DESCRIPTION
1	863 2702	Lock Nut (M6) for Pivot Bolt
2	831 0600	Washer (M6)
3	811 6030	Radius Bushing for Front
	811 6010	Radius Bushing for Rear
4	3-853 9810	Lock Nut
	82A 0501	Pivot Nut for 49-Type
	82A 0512	Pivot Nut for 57-Type
	82A 0801	Arm Return Spring for 49-Type
	82A 0811	Arm Return Spring for 57-Type
7	82A 2300	Sleeve
8	858 3101	Arm Spacer (t = 0.5mm)
9		Brake Shoe Assembly A (Right side for front brake or rear brake)
10		Brake Shoe Assembly B (Left side for front brake or rear brake)
9&10	3-82A 9901	Brake Shoe Assembly (Spair on card)
11	3-82A 9804	Shoe Fixing Bolt & Washer
12	82A 2200	Shoe Fixing Bolt

ITEM NO.	PART NO.	DESCRIPTION
13	853 3100	Arm Bushing
14	81A 0300	Arm Spacer (t = 1.0mm)
15	858 3001	Arm Washer (t = 1.0mm)
16	82A 0301	Pivot Bolt for Front
	82A 0401	Pivot Bolt for Rear
17	3-82A 9808	Cable Fixing Bolt & Plate
18	82A 1800	Cable Fixing Bolt
19	82A 1700	Cable Fixing Plate
20	3-81A 9804	Cable Adjusting Barrel & Nut
21	81A 0100	Cable Adjusting Barrel
22	831 6703	Cable Adjusting Nut
23	3-81A 9806	Sunken Pivot Bolt & Nut for Front (Option)
24	855 7502	Sunken Pivot Nut (Option)
25	82A 0311	Sunken Pivot Bolt for Front (Option)
26	3-81A 9807	Sunken Pivot Bolt for Rear (Option)
27	82A 0411	Sunken Pivot Bolt for Rear (Option)
28	859 2500	Shoe Fixing Washer

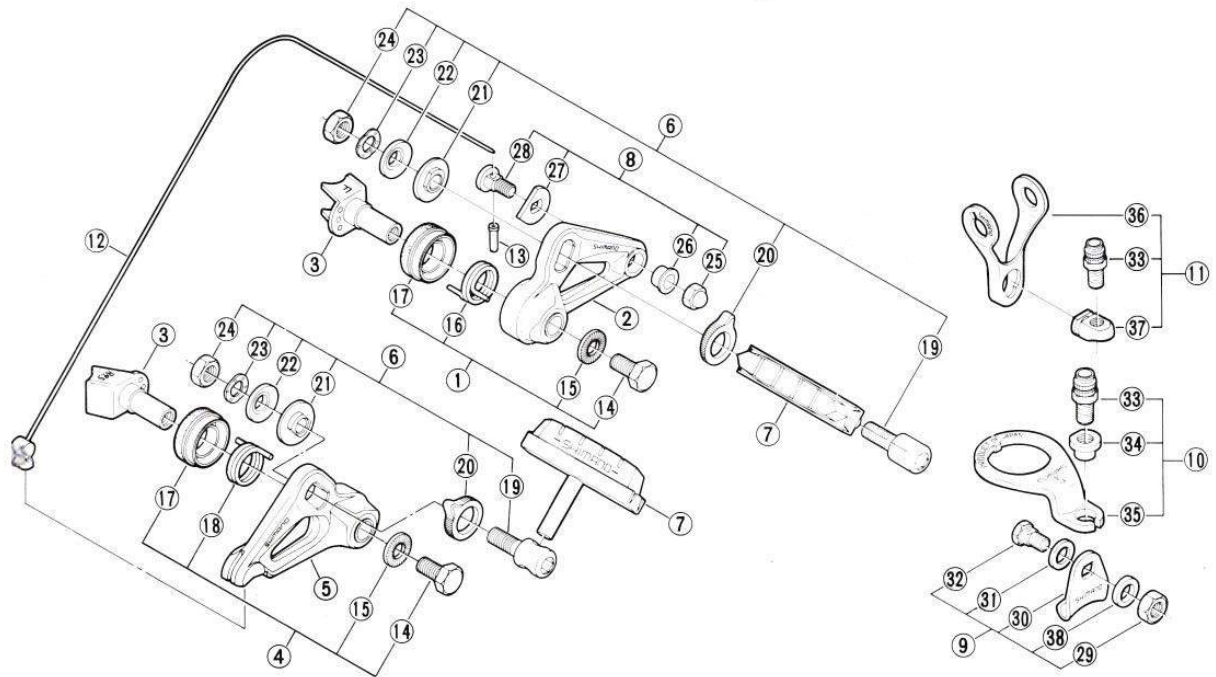
8710-EB00C

Brake
BR-AT50

Brake
BR-AT50

■ Specifications

- Feature ● Adjustable Brake Shoe Position
- Weight ● 11.9 oz. (336g.) Front & Rear
- Material ● Light Alloy
- Type ● Cantilever Brake
- Option ● 6mm Hexagon Fixing Bolt



ITEM NO.	PART NO.	DESCRIPTION
1	3 868 9801	Anchor Link Fixing Bolt Unit
2	3 868 9802	Anchor Link W/Bush
3	3 868 9030-1	Front Mounting Shaft for MTB (Radius 9.5mm)
3	3 868 9040-1	Rear Mounting Shaft for MTB (Radius 7.5mm)
3	3 861 9004-1	Front Mounting Shaft for MTB (Radius 8.5mm)
3	3 861 9005-1	Rear Mounting Shaft for MTB (Radius 5.5mm)
4	3 868 9803	Hooking Link Fixing Bolt Unit
5	3 868 9804	Hooking Link W/Bush
6	3 868 9805	Brake Shoe Fixing Bolt Unit
7	3 861 9806	Brake Shoe
8	3 868 9806	Wire Fixing Bolt Unit
9	3 831 9010	Cable Carrier Assembly
10	3 831 9078	Front Cable Hanger Assembly
11	3 831 9079	Rear Cable Hanger Assembly
12	862 1401	Center Wire
13	620 2011	Wire End Cap
14	868 0800	Link Fixing Bolt
15	868 0900	Link Fixing Washer
16	861 5300	Return Spring for Anchor Link
17	861 5500	Spring Cover
18	861 5400	Return Spring for Hooking Link

ITEM NO.	PART NO.	DESCRIPTION
19	861 6100	Brake Shoe Fixing Bolt
20	868 0300	Adjusting Washer
21	868 0400	Spherical Spacer
22	868 0500	Spherical Washer
23	861 6300	Wave Washer
24	83A 2300	Brake Shoe Fixing Nut (M6)
25	851 5201	Wire Fixing Nut (M5)
26	868 0700	Spacer
27	868 0600	Wire Fixing Plate
28	851 5100	Wire Fixing Bolt
29	831 0700	Cable Fixing Nut (M6)
30	831 5200	Cable Carrier
31	831 5400	Cable Fixing Washer 1.2mm
32	831 5300	Cable Fixing Bolt
33	3 831 9077	Cable Adjusting Barrel & Nut
34	831 8500	Barrel Supporter (Front)
35	831 6121	Front Cable Hanger
36	831 6521	Rear Cable Hanger
37	831 6403	Barrel Supporter (Rear)
38	831 5410	Cable Fixing Washer 1.8mm

8709-E663F

Brake Lever

BL-7400 (Standard Type)

BL-7401 (Aero Type)

DURA-ACE

Brake Lever

BL-7400 (Standard Type)

BL-7401 (Aero Type)

■ Specifications

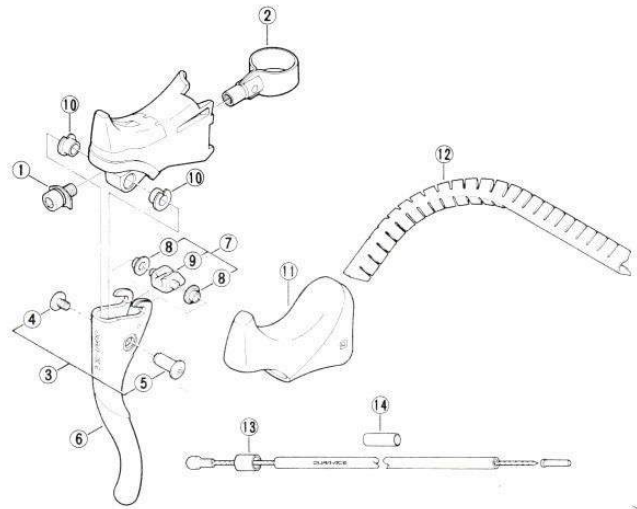
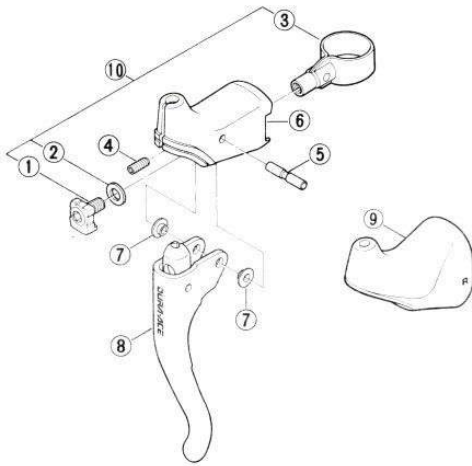
- Features ● Human Engineered Design, Aerodynamic Design (BL-7401), One-Step Cable Attachment (BL-7401) Outer Cable Guide/Join (BL-7401)
- Weight ● 77 oz. (216g.) BL-7400 Pair (Including Rubber Cover)
90 oz. (254g.) BL-7401 Pair (Including Rubber Cover)
- Material ● Light Alloy•Anodized Finish (BL-7400 Lever, Bracket)
● Stainless Steel (Lever Axle)
● Light Alloy High Tech Gray Anodized Finish (BL-7401 Lever)

Lever Clamp Diameter

- 23.8mm or 24.2mm

Bracket Cover ●

- Black, Brown, White (BL-7401)



■ BL-7400

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-884 9810	Clamp Bolt	B
2	884 1200	Clamp Washer	
3	3-843 9102	Clamp Band (φ23.8mm)	
3	3-843 9104	Clamp Band (φ24.2mm)	
4	884 0900	Lever Axle Fixing Bolt	
5	884 0500	Lever Axle	
6	884 0100	Lever Bracket	
7	884 0600	Bushing	
8	3-884 9801	Lever Assembly	
	884 0300	Bracket Cover (Right) Black	
	884 0400	Bracket Cover (Left) Black	
9	884 0310	Bracket Cover (Right) Brown	B
	884 0410	Bracket Cover (Left) Brown	B
10	3-884 9820	Clamp Band Unit (φ23.8mm)	
	3-884 9821	Clamp Band Unit (φ24.2mm)	

B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (BL-7400).

Old Dura-Ace (BL-7200)

■ BL-7401

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-877 9804	Clamp Bolt	B
2	3-843 9102	Clamp Band (φ23.8mm)	A
3	3-843 9104	Clamp Band (φ24.2mm)	A
3	3-878 9801	Lever Axle & Fixing Bolt	A
4	878 1000	Lever Axle Fixing Bolt	A
5	878 0800	Lever Axle	A
6	877 0500	Lever (Right)	B
6	877 0600	Lever (Left)	B
7	3-878 9802	Wire Hook & Bushing	A A
8	878 1200	Wire Hook Bushing	A A
9	878 1100	Wire Hook	A
10	877 0700	Lever Axle Bushing	B
	3-877 9801	Right & Left Bracket covers (Black)	B
11	3-877 9802	Right & Left Bracket Covers (White)	B
	3-877 9803	Right & Left Bracket Covers (Brown)	B
12	868 2200	Outer Cable Guide	B B
13	878 2100	Outer Cap	A
14	877 1100	Outer Cable Joint	A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (BL-7401).

Dura-Ace (BL-7400)
Shimano 60DEY (BL-6200)
Shimano 105 (BL-1051)

Brake Lever

BL-5001 (Aero Type)

BL-5002 (Aero Type, Short Reach)



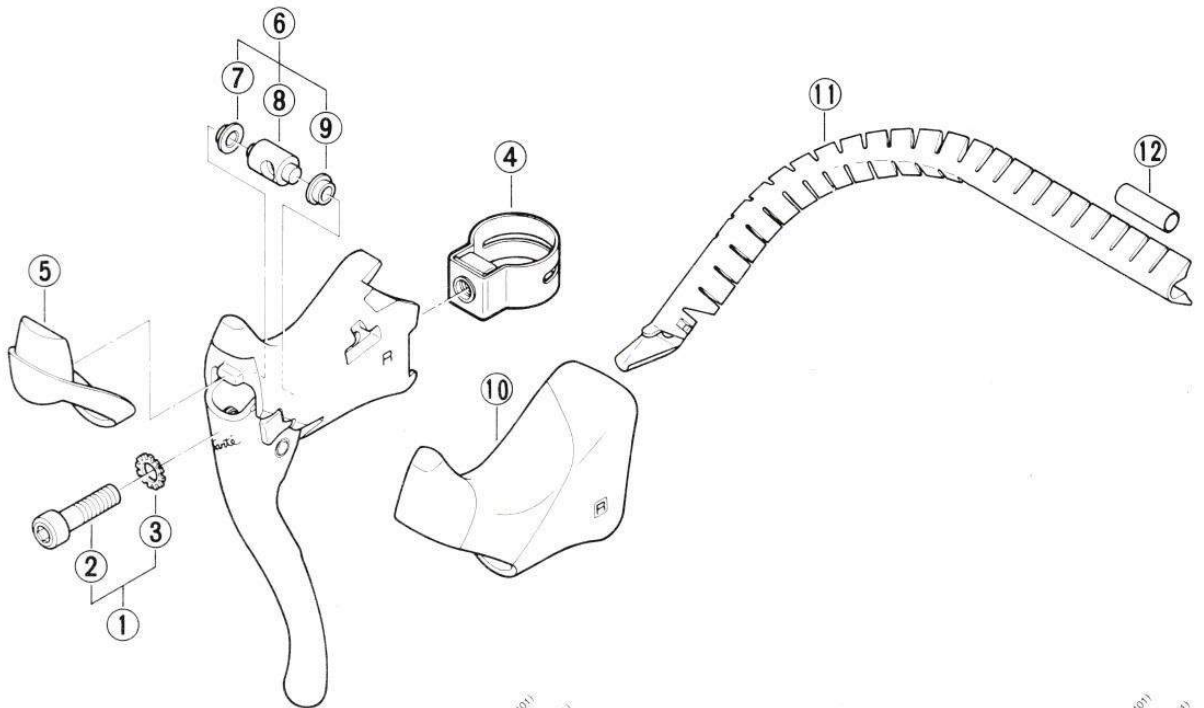
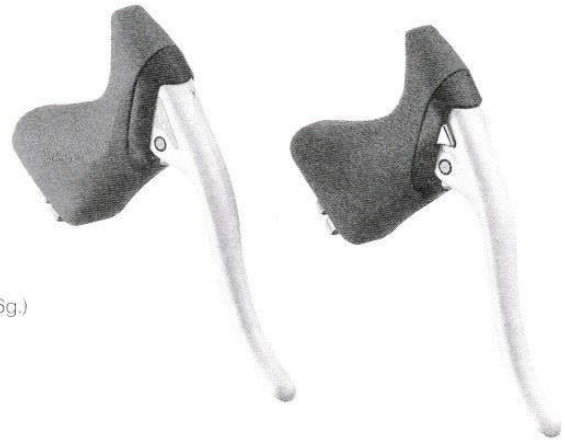
Brake Lever

BL-5001 (Aero Type)

BL-5002 (Aero Type, Short Reach)

■ Specifications

- Features ● SLR (Shimano Linear Response) System
 ● One-Touch Quick Release,
 Smooth Contours,
 Human Engineered Design,
 Outer Cable Guide/Join
- Weight ● BL-5001 Pair Including Rubber Cover: 9.4 oz. (266g.)
- Material ● Light Alloy • Pearl White Paint (Lever),
 Light Alloy (Body)
- Lever Reach ● BL-5001: 97.5mm.,
 BL-5002: 87.5mm.
- Bracket Cover ● White & Gray
- Lever Clamp Diameter
 ● 23.8mm ~ 24.2mm



800 UTECPRA (BL-6401)
 Shimano 105 (BL-1051)

800 UTECPRA (BL-6401)
 Shimano 105 (BL-1051)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-87C 9810	Clamp Bolt & Washer	A
2	87C 1100	Clamp Bolt	A
3	811 6100	Teethed Washer	A A
4	3-883 9092	Clamp Band (φ23.8mm~φ24.2mm)	A A
5	87D 0300	Right Bracket Cap	
	87D 0400	Left Bracket Cap	
6	3-87E 9801	Wire Hook Unit	A
7	87E 1200	Wire Hook Bushing A	A
8	87E 0800	Wire Hook	A
9	87E 0900	Wire Hook Bushing B	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
10	3-87D 9810	Right & Left Bracket Covers (pair / White)	B
	3-87D 9811	Right & Left Bracket Covers (pair / Gray)	B
11	3-86B 9001	Outer Cable Guide	A A
12	877 1100	Outer Cable Joint (Option)	A A

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (BL-5001/BL-5002).

Brake Lever

BL-6400 (Standard Type)

BL-6402 (Aero Type, Short Reach)

BL-6401 (Aero Type)



Brake Lever

BL-6400 (Standard Type)

BL-6401 (Aero Type)

BL-6402 (Aero Type, Short Reach)

■ Specifications

Features ● SLR (Shimano Linear Response) System

- Human Engineered Design,
- Outer Cable Guide/Joint (Aero)

Weight ● BL-6401 Pair Including Rubber Cover: 9.2 oz. (260g.)

Material ● Light Alloy ● Dark Gray Paint (Lever)

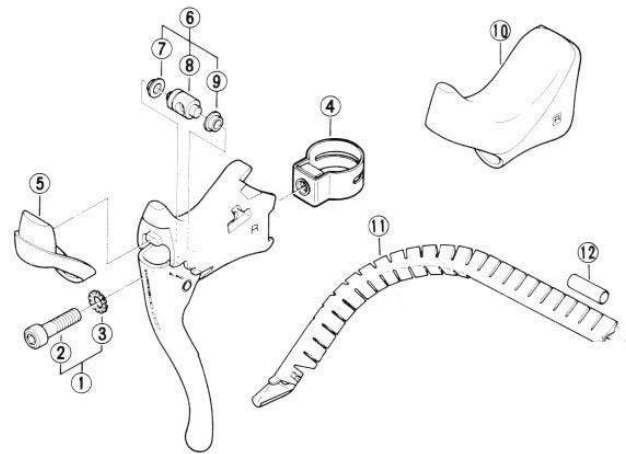
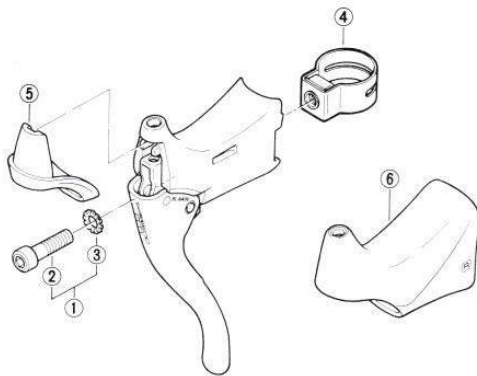
Bracket Cover ● Black or White

Lever Clamp Diameter

- 23.8mm. ~ 24.2mm.



BL-6401



■ BL-6400

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-87C 9810	Clamp Bolt & Washer	A
2	87C 1100	Clamp Bolt	A
3	811 6100	Teethed Washer	A A
4	3-883 9002	Clamp Band (φ23.8mm~φ24.2mm)	A A
5	87C 0200	Bracket Cap	
6	3-87C 9801	Right & Left Bracket Covers (Pair / Black)	

A: Same parts. 8707-E815A
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (BL-6400).

Santa (BL-5001)
Shimano 105 (BL-1050)

■ BL-6401/6402

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-87C 9810	Clamp Bolt & Washer	A
2	87C 1100	Clamp Bolt	A
3	811 6100	Teethed Washer	A A
4	3-883 9002	Clamp Band (φ23.8mm~φ24.2mm)	A A
5	87E 0300	Bracket Cap	B
6	3-87E 9801	Wire Hook Unit	A
7	878 1200	Wire Hook Bushing A	A A
8	87E 0800	Wire Hook	A
9	87E 0900	Wire Hook Bushing B	A
	3-87E 9810	Right & Left Bracket Covers (Pair / Black)	B
10	3-87E 9811	Right & Left Bracket Covers (Pair / White)	B
11	3-86B 9001	Outer Cable Guide	A
12	877 1100	Outer Cable Joint (Option)	A

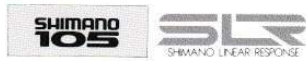
A: Same parts. 8709-E816A
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (BL-6401/BL-6402).

Santa (BL-5001)
Shimano 105 (BL-1051)



Brake Lever

BL-1050 (Standard Type) **BL-1052** (Aero Type, Short Reach)
BL-1051 (Aero Type)

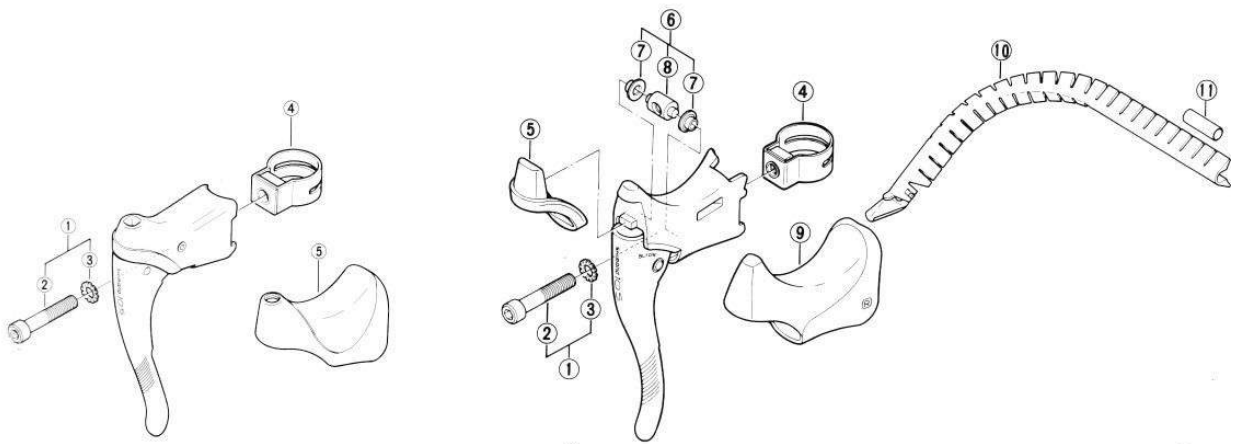


Brake Lever

BL-1050 (Standard Type)
BL-1051 (Aero Type)
BL-1052 (Aero Type, Short Reach)

■ Specifications

- Features ● SLR (Shimano Linear Response) System
 ● Human Engineered Design, Outer Cable Guide/Joint (Aero)
- Weight ● 7.1 oz. (202g.) BL-1050 Pair (Including Rubber Cover),
 8.9 oz. (252g.) BL-1051 Pair (Including Rubber Cover)
- Material ● Light Alloy
- Bracket Cover ● Black, Brown, White, Gray, Yellow
- Lever Clamp Diameter ● 23.8mm. ~ 24.2mm.



■ BL-1050

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	3-847 9901	Clamp Bolt & Teethed Washer	A	A
2	883 0100-1	Clamp Bolt	A	A
3	811 6100	Teethed Washer	A	A
4	3-883 9002	Clamp Band (φ23.8mm~φ24.2mm)	A	B
3-86A 9801		Right and Left Bracket Covers (Ipair / Black)	A	
3-86A 9803		Right and Left Bracket Covers (Ipair / White)	A	
5	3-86A 9801	Right and Left Bracket Covers (Ipair / Brown)	A	
3-86A 9805		Right and Left Bracket Covers (Ipair / Gray)	A	
3-86A 9806		Right and Left Bracket Covers (Ipair / Yellow)	A	

A: Same parts. 8607-E758A
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.

The table indicates the adaptability of conventional parts to Shimano 105 (BL-1050).

■ BL-1051/1052

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	3-847 9901	Clamp Bolt & Teethed Washer	A	A
2	883 0100-1	Clamp Bolt	A	A
3	811 6100	Teethed Washer	A	A
4	3-883 9002	Clamp Band (φ23.8mm~φ24.2mm)	A	B
5	86B 0300	Bracket Cap	B	
6	3-86B 9801	Wire Hook & Bushing	A	
7	878 1200	Wire Hook Bushing	A	
8	86B 1000	Wire Hook	A	
3-86B 9802		Right and Left Bracket Covers (Ipair / Black)	A	
3-86B 9803		Right and Left Bracket Covers (Ipair / White)	A	
3-86B 9804		Right and Left Bracket Covers (Ipair / Brown)	A	
3-86B 9805		Right and Left Bracket Covers (Ipair / Gray)	A	
3-86B 9806		Right and Left Bracket Covers (Ipair / Yellow)	A	
10	3-86B 9001	Outer Cable Guide (210mm)	B	A
11	877 1100	Cable Joint (Option)	A	

A: Same parts. 8709-E762C
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.

The table indicates the adaptability of conventional parts to Shimano 105 (BL-1051/BL-1052).

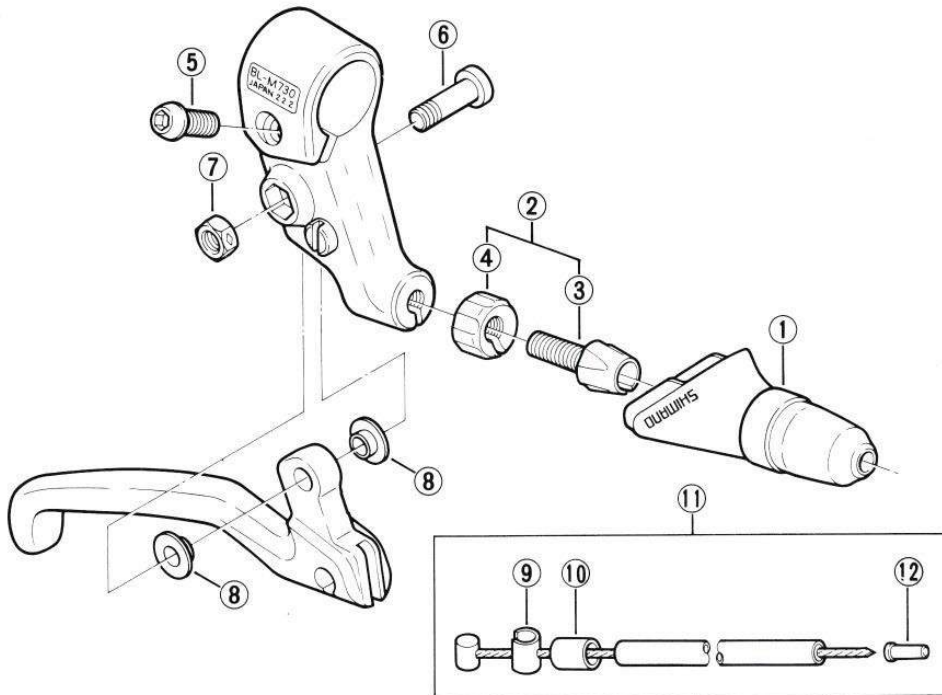
Brake Lever
BL-M730



Brake Lever
BL-M730

■ Specifications

- Features • Full-Fit Design, Safety Clamp Design,
Digital Lever Reach Adjustment (4 Positions),
2mm. Diameter Inner Cable and 6mm. Diameter
Outer Cable Compatibility
- Weight • 11.0 oz. (317g.) Pair
- Material • Light Alloy
- Lever Clamp Diameter
• 7/8" (22.2mm.)



Old DEORE XT (BL-M700)
DEORE (BL-M760)
BL-M750

Old DEORE XT (BL-M700)
DEORE (BL-M760)
BL-M750

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3 87A 9803	Cover / 1pair	
2	3 87A 9802	Cable Adjusting Bolt & Nut	B
3	87A 0700	Cable Adjusting Bolt	B
4	87A 0800	Cable Adjusting Nut	B B B
5	87A 0600	Clamp Bolt	A
6	87A 0500	Lever Axle Bolt	B
7	87A 1400	Lever Axle Nut	B
8	831 0501	Bushing	A A
9	87A 2100	Wire End Adapter	B
10	87A 2000	Outer Cap	

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
11	3 80A 9801	Cable Assembly / Outer Casing : Black (800mm x 900mm, 1400mm x 1500mm)	B
12	620 2013	Inner End Cap (φ2.0mm)	A A A

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
8702-E779A

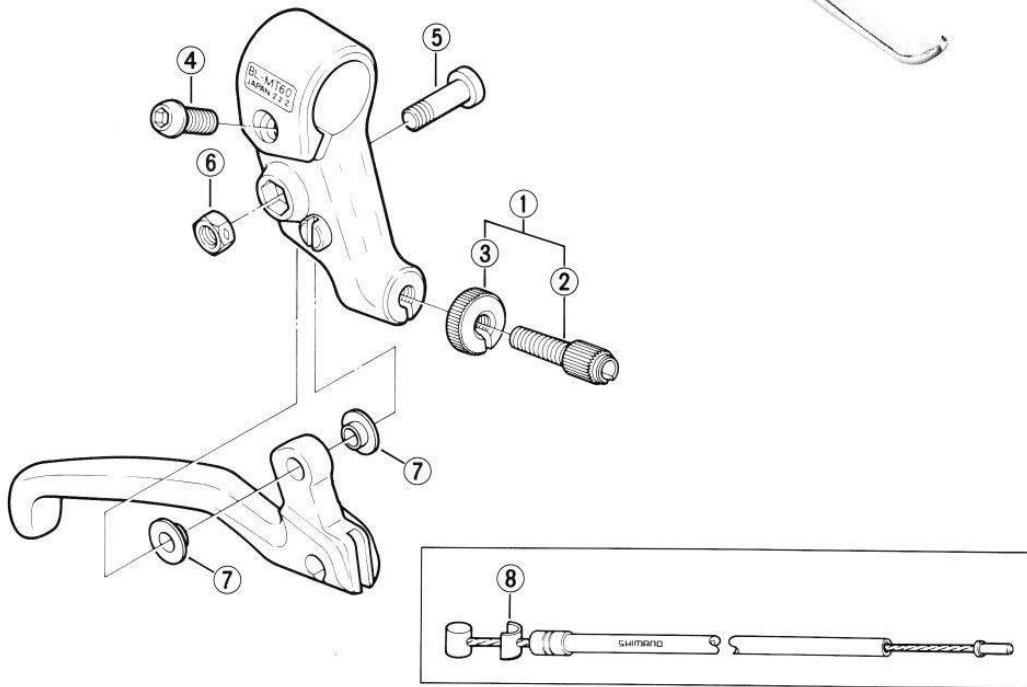
The table indicates the adaptability of conventional parts to DEORE XT (BL-M730).

Brake Lever
BL-MT60



Brake Lever
BL-MT60

- Specifications
- Features • Full-Fit Design, Safety Clamp Design,
 Digital Lever Reach Adjustment (4 Positions),
 2mm. Diameter Inner Cable and 6mm. Diameter
 Outer Cable Compatibility
- Weight • 11.0 oz. (310g.) Pair
- Material • Light Alloy
- Lever Clamp Diameter
 • 7/8" (22.2mm.)



DEORE XT (Bl. M7200)
 Old DEORE XT (Bl. M7000)
 BL-MT60

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-87A 9831	Cable Adjusting Bolt & Nut	B B A
2	889 1800	Cable Adjusting Bolt	B B A
3	889 1901	Cable Adjusting Nut	B B A
4	87A 0600	Clamp Bolt	A
5	87A 0510	Lever Axle Bolt	B B
6	87A 1410	Lever Axle Nut	B B
7	831 0501	Bushing	A A
8	893 0900	Wire End Adapter	A

A: Same parts
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DEORE (BL-MT60).

8702-E792A

Brake Lever

BL-A450 (Standard Type)
BL-A451 (Aero Type)

BL-A452 (Aero Type, Short Reach)
BL-A453 (Flat Handle Type)



Brake Lever

BL-A450 (Standard Type)
BL-A451 (Aero Type)
BL-A452 (Aero Type, Short Reach)
BL-A453 (Flat Handle Type)

■ Specifications

Features ● SLR (Shimano Linear Response) System

- Human Engineered Design, One-Touch QR Mechanism, Soft-Touch Lever Grip, Hooded Lever with Rubber Cover

Weight ● BL-A450: 93 oz. (264g.) Pair (Including Rubber Cover)

Material ● Light Alloy (Bracket Body & Lever)
 ● Steel (Clamp Band)

Lever Clamp Diameter

- 23.8mm ~ 24.2mm (BL-A450/A451/A452)
- 22.2mm (BL-A453)

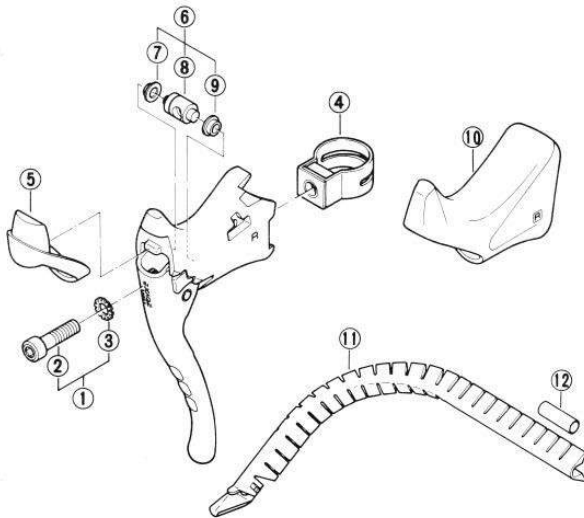
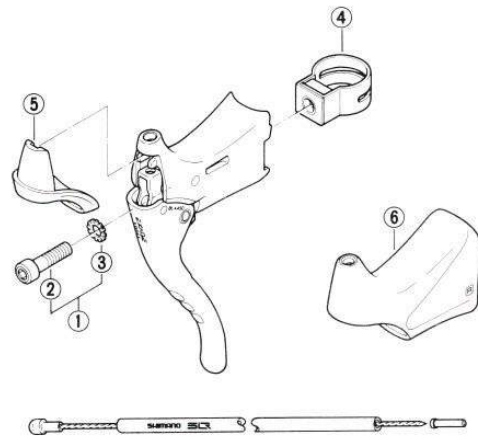
Bracket Cover

- White, Blue-Gray Metallic

Options ● Outer Cable Guide/Joint (for BL-A451)



BL-A451



■ BL-A451/A452

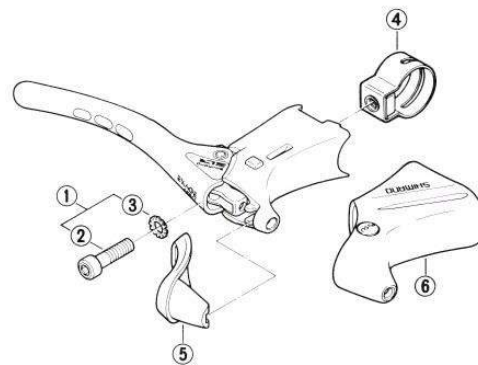
ITEM NO.	PART NO.	DESCRIPTION
1	3-87C 9810	Clamp Bolt & Teethed Washer
2	87C 1100	Clamp Bolt
3	811 6100	Teethed Washer
4	3-849 9110-1	Clamp Band (φ23.8mm~φ24.2mm)
5	87D 0310	Right Bracket Cap
6	87D 0410	Left Bracket Cap
7	3-87E 9801	Wire Hook Unit
8	87E 1200	Wire Hook Bushing A
9	87E 0800	Wire Hook
10	87E 0900	Wire Hook Bushing B
11	3-85F 9801	Right & Left Bracket Covers (Pair / White)
12	3-85F 9803	Right & Left Bracket Covers (Pair / Blue)
13	3-86B 9001	Outer Cable Guide (Option)
14	877 1100	Outer Cable Joint (Option)

8711-E825B

■ BL-A450

ITEM NO.	PART NO.	DESCRIPTION
1	3-87C 9810	Clamp Bolt & Teethed Washer
2	87C 1100	Clamp Bolt
3	811 6100	Teethed Washer
4	3-849 9110-1	Clamp Band (φ23.8mm~φ24.2mm)
5	87C 0210	Bracket Cap
6	3-85G 9801	Right & Left Bracket Covers (Pair)

8709-E824A



■ BL-A453

ITEM NO.	PART NO.	DESCRIPTION
1	3-87C 9810	Clamp Bolt & Teethed Washer
2	87C 1100	Clamp Bolt
3	811 6100	Teethed Washer
4	3-849 9100-1	Clamp Band (φ22.2mm)
5	87C 0210	Bracket Cap
6	3-85G 9801	Right & Left Bracket Covers (Pair)

8709-E826A

Brake Lever

BL-M450 BL-M350



Brake Lever BL-M450

■ Specifications

Features • SLR (Shimano Linear Response) System

- Quick Response,
- Rubber Dust Cover,
- Lever Reach Adjustment Screw,
- Hidden Clamp Band,
- Compact Design,
- Soft Touch Lever

Weight • 10.6 oz. (300g.) Pair w/o SL-M450

Material • Steel and Resin • Black Finish (Lever)

- Steel and Resin • Graphite Gray
- Metallic Finish (Body)

Lever Clamp Diameter

- 7/8" (22.2mm.)



Brake Lever BL-M350

■ Specifications

Features • SLR (Shimano Linear Response) System

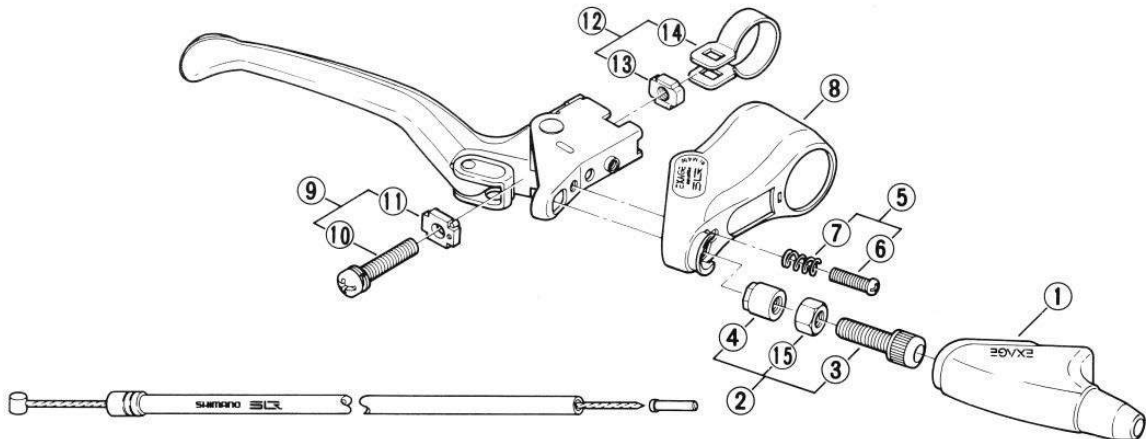
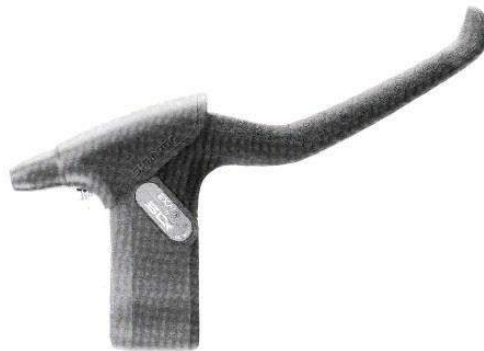
Weight • 10.3 oz. (294g.) Pair w/o SL-M350

Material • Resin • Black Finish (Lever)

- Steel & Resin • Graphite Black
- Metallic Finish (Body)

Lever Clamp Diameter

- 7/8" (22.2mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	3 85J 9801	Lever Covers (2pcs.)
2	3 85J 9802	Cable Adjusting Bolt Unit for BL-M450 (Black)
3	85J 9803	Cable Adjusting Bolt Unit for BL-M350 (Silver)
3	85J 0900	Cable Adjusting Bolt for BL-M450 (Black)
3	85J 0910	Cable Adjusting Bolt for BL-M350 (Silver)
4	85J 1000	Cable Adjusting Nut
5	3 886 9820	Grip Adjusting Screw & Spring
6	541 1800	Grip Adjusting Screw
7	886 0340	Grip Adjusting Spring
8	3 85J 9804	Right & Left Bracket covers (Pair) for BL-M450 (Brown)

ITEM NO.	PART NO.	DESCRIPTION
8	3 85J 9805	Right & Left Bracket Covers (Pair) for BL-M350 (Black)
9	3 880 9821	Clamp Screw & Plate
10	85J 0500	Clamp Screw
11	880 0700	Plate
12	3 880 9820	Clamp Band & Nut
13	880 0600	Clamp Nut
11	880 0301	Clamp Band (φ22.2mm)
15	875 2000	Lock Nut (M6)

8711-E851A

Brake Lever

BL-L330 (Standard Type)

BL-L331 (Aero Type)



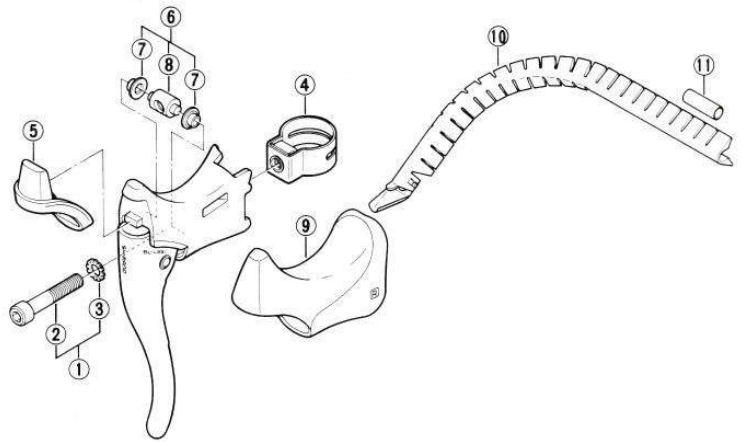
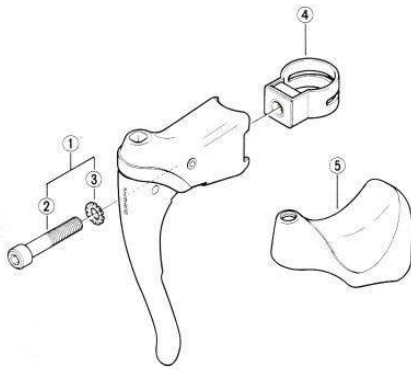
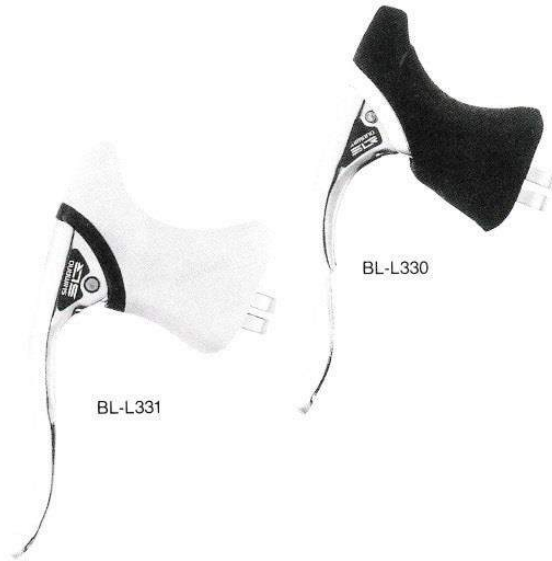
Brake Lever

BL-L330 (Standard Type)

BL-L331 (Aero Type)

■ Specifications

- Features ● SLR (Shimano Linear Response) System
 ● Human Engineered Design, Outer Cable Guide/Joint (Aero)
- Weight ● 7.1 oz. (202g.) BL-L330 Pair (Including Rubber Cover),
 9.0 oz. (254g.) BL-L331 Pair (Including Rubber Cover)
- Material ● Light Alloy
- Bracket Cover ● Black, White
- Lever Clamp Diameter ● 23.8mm. ~ 24.2mm.



■ BL-L330

ITEM NO.	PART NO.	DESCRIPTION
1	3-847 9901	Clamp Bolt & Teethed Washer
2	883 0100-1	Clamp Bolt
3	811 6100	Teethed Washer
4	3-849 9110-1	Clamp Band (φ23.8mm~φ24.2mm)
5	3-86A 9802	Right and Left Bracket Covers (1pair)

8607-E770

■ BL-L331

ITEM NO.	PART NO.	DESCRIPTION
1	3-847 9901	Clamp Bolt & Teethed Washer
2	883 0100-1	Clamp Bolt
3	811 6100	Teethed Washer
4	3-849 9110-1	Clamp Band (φ23.8mm~φ24.2mm)
5	808 0300	Bracket Cap
6	3-808 9801	Wire Hook & Bushing
7	878 1200	Wire Hook Bushing
8	808 1000	Wire Hook
9	3-86B 9802	Right and Left Bracket Covers (1pair / Black)
	3-86B 9803	Right and Left Bracket Covers (1pair / White)
10	3-86B 9001	Outer Cable Guide (Option)
11	877 1100	Outer Cable Joint (Option)

8704-E769A

Brake Lever

BL-Z325-AQ (w/o Bracket Cover, w/Quick Release)
 BL-Z325-A (w/o Bracket Cover)

BL-Z325-BQ (w/Bracket Cover, w/Quick Release)
 BL-Z325-B (w/Bracket Cover)

BL-Z326-A (w/o Bracket Cover)
 BL-Z326-B (w/Bracket Cover)



Brake Lever

BL-Z325-AQ (w/o Bracket Cover, w/Quick Release)
 BL-Z325-A (w/o Bracket Cover)
 BL-Z325-BQ (w/Bracket Cover, w/Quick Release)
 BL-Z325-B (w/Bracket Cover)
 BL-Z326-A (w/o Bracket Cover)
 BL-Z326-B (w/Bracket Cover)

- Specifications
 Features ● Easy-grip Human Engineered 3-dimensional Designed Bracket
 Weight ● 70 oz. (198g.) (Including Bracket Cover) Pair
 Material ● Light Alloy
 Lever Clamp Diameter
 ● 22.2mm., 238mm. ~ 24.2mm.
 Option: Dual Extension Lever (BL-Z32) 79 oz. (224g.)



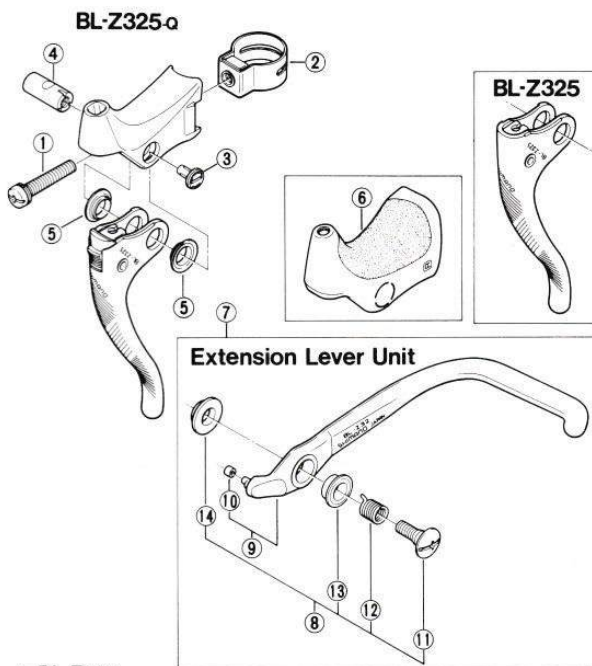
BL-Z325-B

BL-Z325-BQ



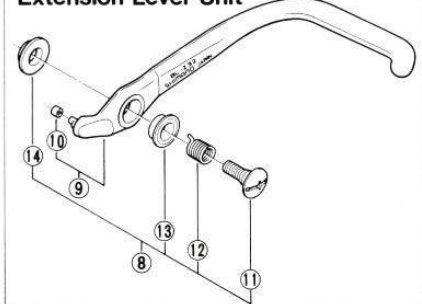
BL-Z326-B

BL-Z32 (Extension lever)



BL-Z325

Extension Lever Unit



■ BL-Z325

ITEM NO.	PART NO.	DESCRIPTION
1	894 1200	Clamp Screw
2	3-849 9110-1	Clamp Band (φ23.8mm~φ24.2mm)
3	895 0100	LD-Cap
4	894 0610	Pull-Up Stud
5	879 0300	Bushing A
6	3-898 9910	Right & Left Bracket Covers (Brown)
	3-898 9911	Right & Left Bracket Covers (Black)
7	3-894 9831	Right Extension Lever Unit
	3-894 9832	Left Extension Lever Unit
	3-894 9902	Right & Left Extension Lever Unit
8	3-894 9833	Extension Lever Small Parts
	3-894 9834	Right Extension Lever & Shim
	3-894 9835	Left Extension Lever & Shim
10	894 3300	Shim
11	894 0900	Extension Lever Fixing Screw
12	894 1000	Coil Spring
13	894 0800	Bushing B
14	894 3400	Spacer



BL-Z326-B

■ BL-Z326

ITEM NO.	PART NO.	DESCRIPTION
1	894 1200	Clamp Screw
2	3-849 9110-1	Clamp Band (φ23.8mm~φ24.2mm)
3	895 0100	LD-Cap for BL-Z326-A
4	894 0610	Pull-Up Stud
5	879 0300	Bushing A
6	3-898 9912	Right & Left Bracket Covers (Brown)
	3-898 9913	Right & Left Bracket Covers (Black)

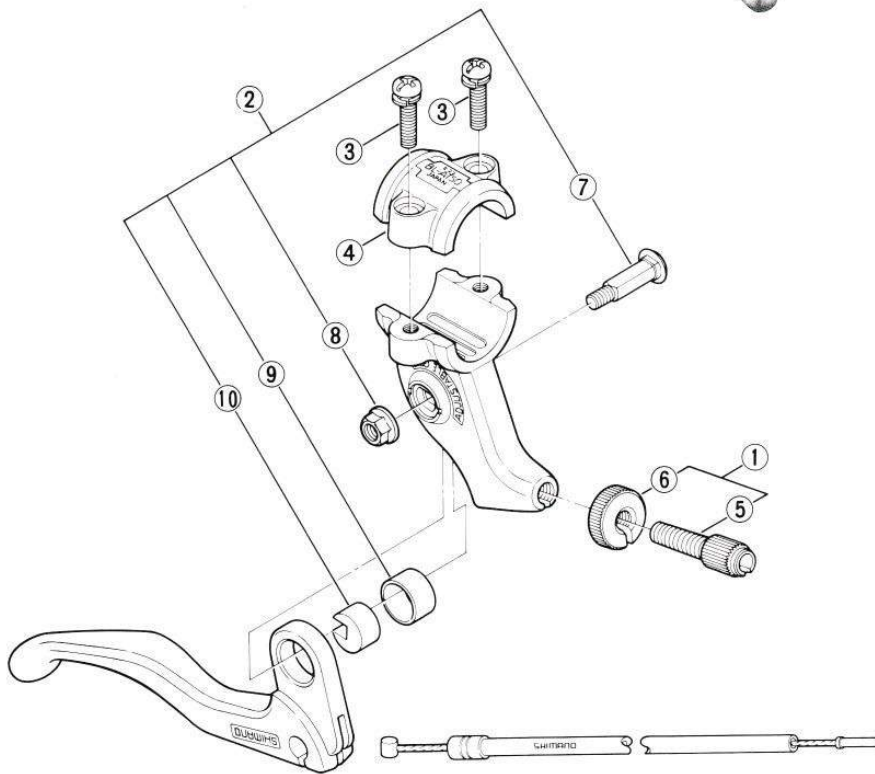
8602-E748A

8602-E739A

Brake Lever
BL-AT50

Brake Lever
BL-AT50

- Specifications
 Features ● Two Step Adjustable Lever Reach
 Weight ● 9.2 oz. (262g.) Pair
 Material ● Light Alloy
 Lever Clamp Diameter
 ● 7/8" (22.2mm.)



ITEM NO.	PART NO.	DESCRIPTION
1	880 9801	Cable Adjusting Bolt & Nut
2	880 9802	Lever Axle Bolt Unit
3	000 1504	Clamp Bolt
4	880 1400	Clamp Band
5	880 1800	Cable Adjusting Bolt
6	880 1900	Cable Adjusting Nut
7	880 1500	Lever Axle Bolt
8	880 2000	Lever Axle Nut
9	880 1600	Lever Axle Bushing
10	880 1700	Eccentric Bushing

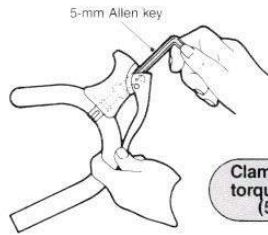
8508-E602A

Brake Set Assembly Note

How to Install The Brake Lever

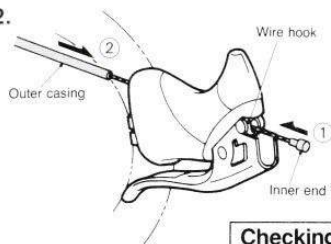
■ Aero Type

1.



Clamp bolt tightening torque: 60 – 80 kgfcm (50 – 70 in.lbs.)

2.

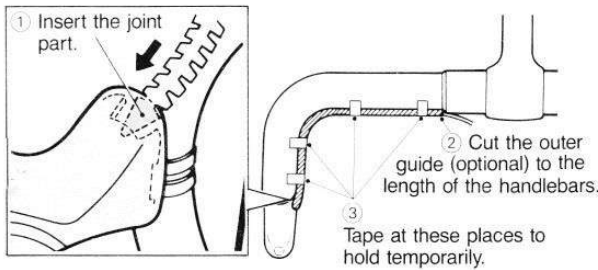


Checking the outer casing

Check to be sure that the outer casing is securely fitted.

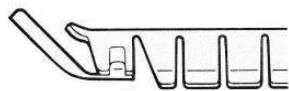


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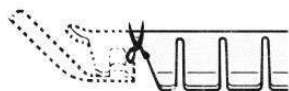


Finally, wrap bar tape around the handlebars

■ Outer guide



SLR Brake Levers

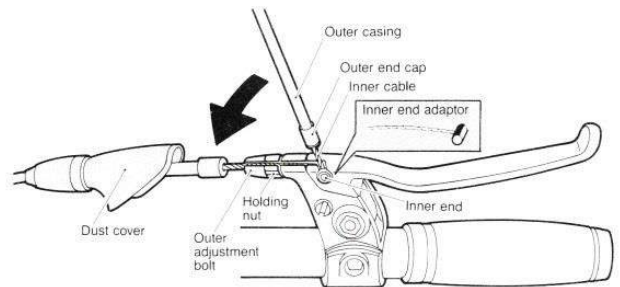


BL-6209

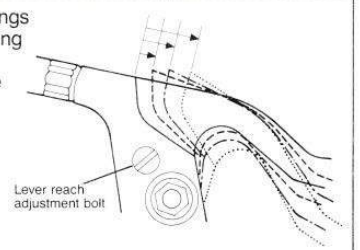
BL-7401

■ DEORE XT (BL-M730)/DEORE (BL-MT60)

Pass the inner cable through the outer end cap and the outer casing; then align the lever's slit and the slit of the holding nut and the outer adjustment bolt, and install the brake cable.



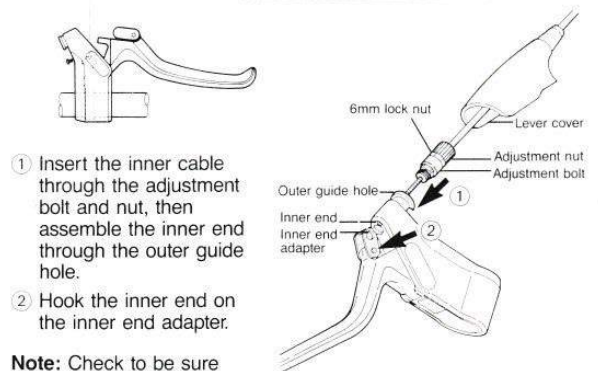
■ Four lever reach settings can be made by turning the lever reach adjustment bolt at the rear of the lever.



■ EXAGE (BL-M450/M350)



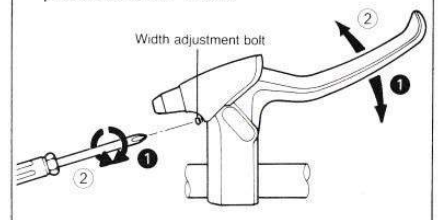
Clamp bolt tightening torque: 30 kgfcm



Note: Check to be sure that the adjustment nut is securely seated in the outer guide hole.

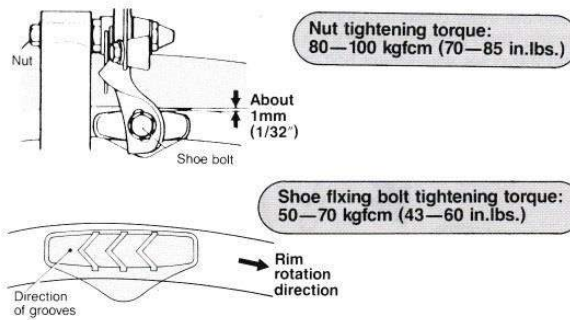
■ The use of 1.6-mm inner cable and 5-mm outer casing is standard.

■ Turn the width adjustment bolt to the preferred brake width.

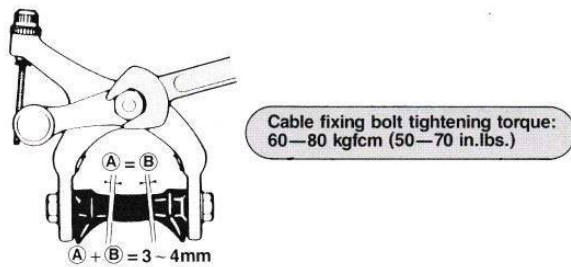


Caliper Brake Assembly

1. Brake shoe adjustment



2. Cable attachment



■ SLR Brake Note



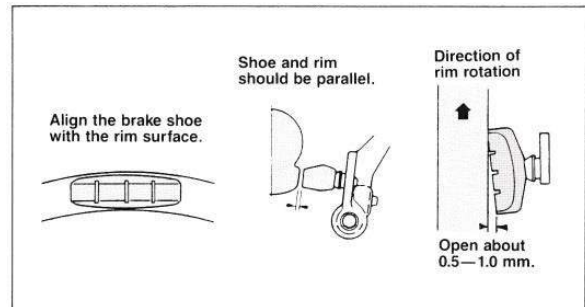
If used on the type of frame which has an internally routed cable, or with some other brake lever and outer cable, increase the return spring force as shown below.



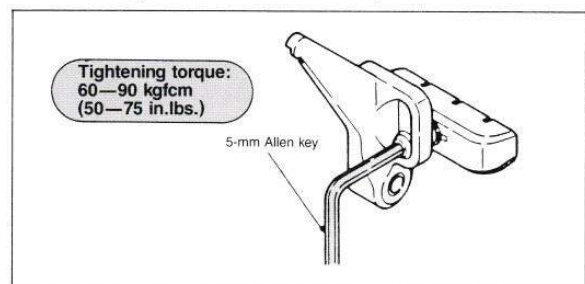
Cantilever Brake Assembly

■ Adjustment and securing of the brake shoes

1. Align the brake shoes to the rim. Then adjust so that the shoe surface and the rim surface are as shown in the figure.

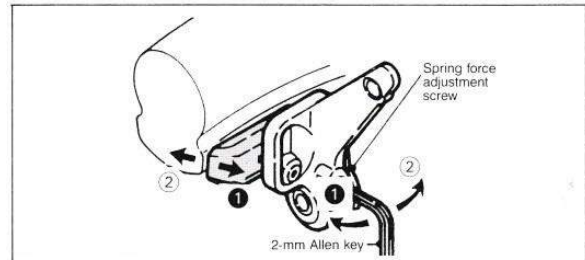


2. When the adjustment is completed, tighten and secure the shoe-holding bolt with a 5-mm Allen key.



■ Fine adjustment of centering

The fine adjustment of centering (after frame installation) can be made by the spring-force adjustment screw of the brake arm.

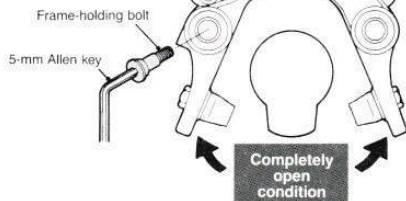


U-Brake Assembly

■ Installation to the frame

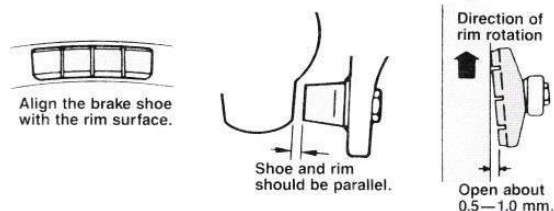
With the arm completely opened, tighten by using the frame-holding bolts.

Tightening torque:
60—80 kgfcm
(50—70 in.lbs.)



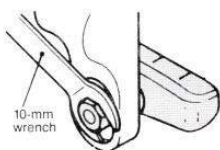
■ Adjustment and securing of the brake shoes

1. With the frame holding bolt loosely tightened (so that the arm can move freely), adjust the brake shoe.
2. Align the brake shoes to the rim. Then adjust so that the shoe surface and the rim surface are as shown in the figure.



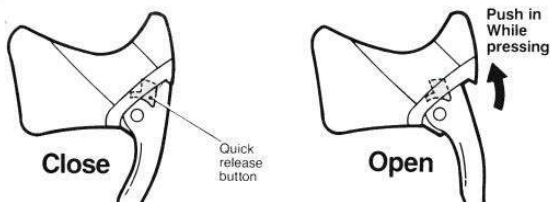
3. When the adjustment is completed, tighten and secure the shoe-holding nut by using a 10-mm spanner.

Tightening torque:
60—90 kgfcm
(50—75 in.lbs.)



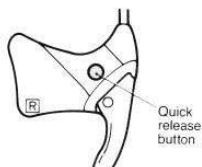
How to Use the Quick Release Button

■ Santé (BL-5001)

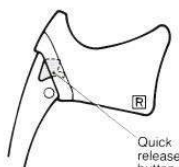


■ EXAGE

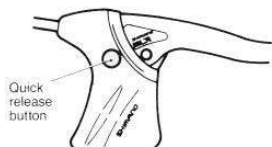
BL-A450



BL-A451/A452

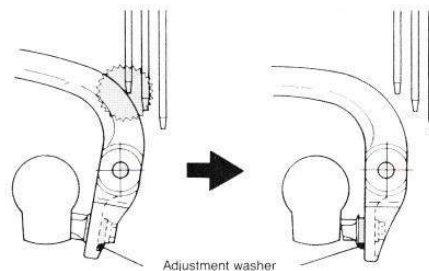


BL-A453



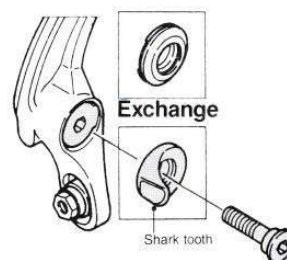
■ How to Use Adjustment Washer (BR-M451)

As the brake shoes wear down, the brake may contact the chain wheel. If the shoes wear down, move the adjustment washer to the inside to prevent the brake from contacting the chain wheel.

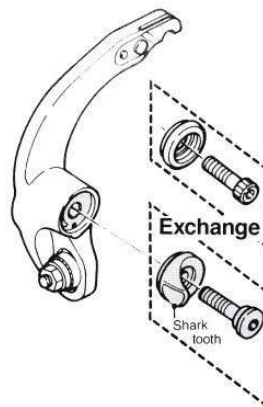


■ How to Use Shark Tooth

● DEORE XT (BR-M731)



● EXAGE mountain (BR-M451)



Head Parts
HP-7600

Head Parts
HP-7400



Head Parts
HP-7600

■ Specifications

- Features ● Composite Structure, Sealed Mechanism, Super Light Weight
- Weight ● 3.2 oz. (90g.)
- Material ● Light Alloy • Anodized Finish (Lock Nut/Upper Cone Nut)
- High Impact Resin (Upper Cone/Lower Cup Covers)
- Bearing Steel (Upper & Lower Cup)
- Die Steel • Titanium Plated (Upper & Lower Cone)
- Variations ●

Type	Thread	Press Race Diameter	
		Upper & Lower Cup	Lower Cone
English/Italian	BC1 x 24T	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.

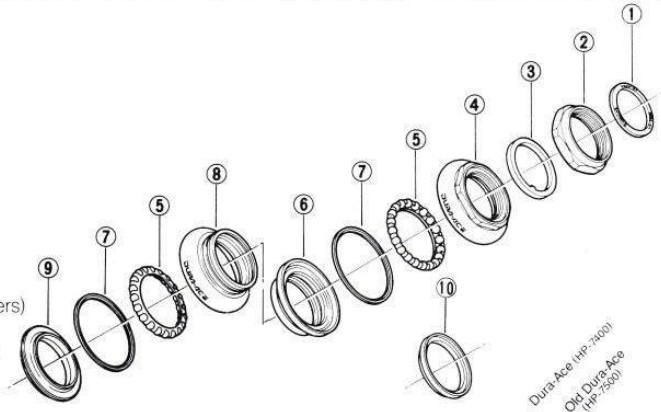


Head Parts
HP-7400

■ Specifications

- Features ● Sealed Mechanism
- Weight ● 4.0 oz. (113g.)
- Material ● Light Alloy • Anodized Finish (Nut, Cup)
- Light Alloy • Anodized Finish (Cone, Bearing Steel Insertion)
- Titanium-Plated (Lower Cone)
- Type ● Road Type
- Variations ●

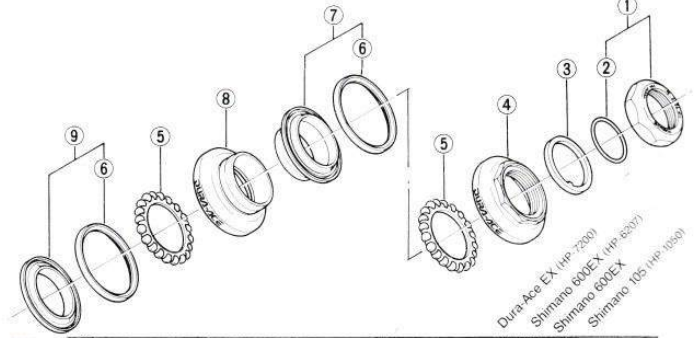
Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24T	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	719 1100	Stem Seal		
	719 0100	Lock Nut B.C. 1x24T, P.1 (English & JIS Thread)	B	B
2	719 0110	Lock Nut M25xP1.0 (French Thread)	B	B
	727 0200	Lock Washer (English & JIS)	A	
	727 0210	Lock Washer (French)	A	
	3-719 9801	Upper Head Cup B.C. 1x24T, F.1 (English Thread)		
	3-719 9802	Upper Head Cup M25xP1.0 (French Thread)		
5	3-719 9805	Ball Retainer (5/32")		B
	719 0110	Upper Head Cone 30.0mm (JIS)		
6	719 0100	Upper Head Cone 30.2mm		
7	719 1000	Dust Seal		
	3-719 9807	Lower Head Cup 30.0mm (JIS)		
8	3-719 9806	Lower Head Cup 30.2mm		
	719 0610	Lower Head Cone 27mm (JIS)		
9	719 0600	Lower Head Cone 26.4mm		
10	719 1200	Spacer		

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE TRACK (HP-7600).

8510-E721B

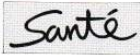


ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
	3-727 9821	Lock Nut B.C. 1 x 24 T.P.1. (English & JIS Thread) with O-Ring	B	B B B
1	3-727 9822	Lock Nut M25 x P1.0 (French Thread) with O-Ring	B	B B B
2	727 1200	O-Ring		
	727 0200	Lock Washer (English & JIS)		
	727 0210	Lock Washer (French)		
	3-727 9801	Upper Head Cup B.C. 1 x 24T, P.1. (English Thread)	B1	B1
	3-727 9802	Upper Head Cup M25 x P1.0 (French Thread)	B1	B1
5	3-727 9009	Ball Retainer (3/16")	A	A A
6	727 1100	O-Ring		
	3-727 9810	Upper Head Cone 30.0mm (JIS) w / Dust Seal	B2	B2
	3-727 9811	Upper Head Cone 30.2mm w / Dust Seal	B2	B2
	3-727 9814	Lower Head Cup 30.0mm (JIS)	B1	B1
	3-727 9815	Lower Head Cup 30.2mm	B1	B1
	3-727 9818	Lower Head Cup 27mm (JIS) w / Dust Seal	B2	B2
9	3-727 9819	Lower Head Cup 26.4mm w / Dust Seal	B2	B2

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
B1: Dust seal cannot be used.
B2: Sealed mechanism becomes no longer effective.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (HP-7400).
● JIS: Japanese Industrial Standards.

8409-E672A

Head Parts
HP-5000

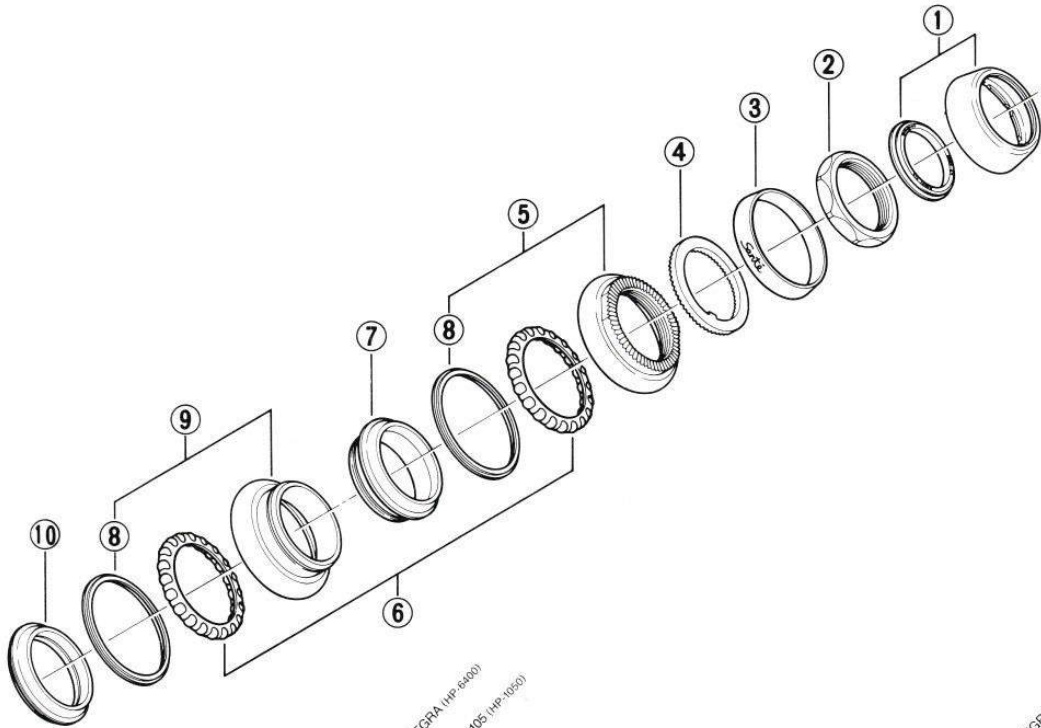
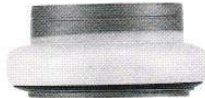


Head Parts
HP-5000

■ Specifications

- Features ● Sealed Mechanism,
 Compact Design,
 Composite Materials,
 Non-Loosening Mechanism
- Weight ● 3.5 oz. (100g.)
- Material ● Light Alloy • Anodized Finish (Nut),
 Stainless Steel • Pearl White Paint
 (Upper & Lower Cups),
 Stainless Steel (Upper & Lower Cones)
- Type ● Road Type
- Variations ●

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/ Italian	BC1 × 24TPI	30.2mm.	26.4mm.
French	M25 × P1.0	30.2mm.	26.4mm.



600 ULTEGRA (HP-8400)
 Shimano 105 (HP-1050)

600 ULTEGRA (HP-8400)
 Shimano 105 (HP-1050)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	3-717-9803	Cap & Stem Seal		
2	717-0200	Lock Nut B.C. 1x24T.P.I. (English & JIS Thread)		
	717-0210	Lock Nut M25xP1.0 (French Thread)		
3	717-0400	Cover		
	717-0300	Lock Washer (English & JIS)		
4	717-0310	Lock Washer (French)		
	3-717-9801	Upper Head Cup B.C. 1x24T.P.I. (English Thread) W/Dust Seal		
5	3-717-9802	Upper Head Cup M25xP1.0 (French Thread) W/Dust Seal		
	3-718-9806	Ball Retainer (5/32") 2pcs.	A	A

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
7	717-0610	Upper Head Cone 30.0mm (JIS)		
	717-0600	Upper Head Cone 30.2mm		
8	717-0800	Dust Seal		
9	3-717-9804	Lower Head Cup 30.0mm (JIS) W/Dust Seal		
	3-717-9805	Lower Head Cup 30.2mm W/Dust Seal		
10	716-0710	Lower Head Cone 27.0mm (JIS)		
	716-0700	Lower Head Cone 26.4mm		

A: Same parts.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Santé (HP-5000).
 ●JIS: Japanese Industrial Standards.

8710-E820D

Head Parts
HP-6400

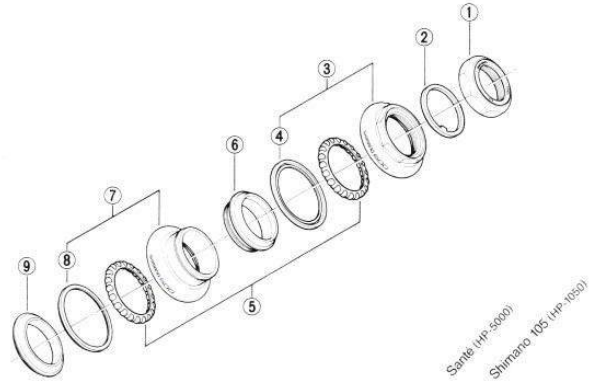
Head Parts
HP-1050



Head Parts
HP-6400

- Specifications
- Features ● New Improved Sealed Mechanism, Compact & Lightweight, Burnished & Polished Finish
- Weight ● 3.5 oz. (100g.)
- Material ● Light Alloy (Upper & Lower Cups), Cr-Mo Steel (Races), Stainless Steel (Lower Cone)
- Type ● Road Type
- Variations ●

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24T.	30.2mm	26.4mm
French	M25 x P1.0	30.2mm	26.4mm



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY	
1	3 716 9811	Lock Nut B. C. 1x24T. P. I. (English & JIS Thread)	B	
	3 716 9812	Lock Nut M25xP1.0 (French Thread)	B	
2	713 0300	Lock Washer (English & JIS)	B	
	713 0310	Lock Washer (French)	B	
3	3 716 9803	Upper Head Cup B. C. 1x24T. P. I. (English Thread) W/Dust Seal A		
	3 716 9804	Upper Head Cup M25xP1.0 (French Thread) W/Dust Seal A		
4	716 0800	Dust Seal A		
5	3 718 9806	Ball Retainer (5/32") 2pcs.	A	A
	716 0510	Upper Head Cone 30.0mm (JIS)	B	
6	716 0500	Upper Head Cone 30.2mm	B	
	3 716 9807	Lower Head Cup 30.0mm (JIS) W/Dust Seal R	B	
7	3 716 9808	Lower Head Cup 30.2mm W/Dust Seal B	B	
	718 0600	Dust Seal B	A	
8	716 0711	Lower Head Cone 27.0mm (JIS)	B	
	716 0701	Lower Head Cone 26.4mm	B	

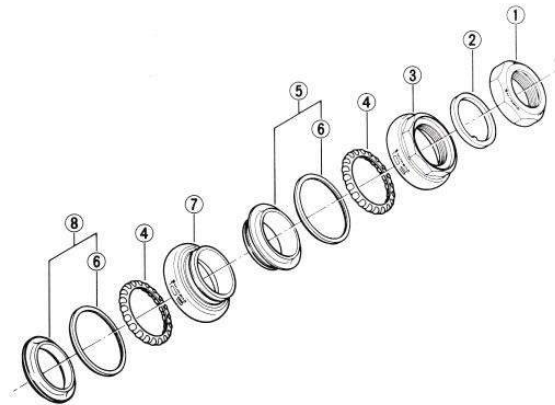
A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (HP-6400).
●JIS: Japanese Industrial Standards.



Head Parts
HP-1050

- Specifications
- Features ● Composite Structure, Sealed Mechanism
- Weight ● 4.6 oz. (129g.)
- Material ● High Impact Resin•Dark Gray Metallic Finish (Upper & Lower Cup Covers) ● Steel (Nut/Upper & Lower Cup/Upper & Lower Cone) ● Resin (Seal Ring)
- Type ● Road Type
- Variations ●

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24T.	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.



ITEM NO.	PART NO.	DESCRIPTION
1	718 0100	Lock Nut B. C. 1x24T. P. I. (English & JIS Thread)
	718 0110	Lock Nut M25xP1.0 (French Thread)
2	719 1300	Lock Washer (English & JIS)
	719 1310	Lock Washer (French)
3	718 0200	Upper Head Cup B. C. 1x24T. P. I. (English Thread)
	718 0210	Upper Head cup M25xP1.0 (French Thread)
4	3 718 9801	Ball Retainer (5/32")
5	3 718 9802	Upper Head Cone 30.0mm (JIS) w/Dust Seal
	3 718 9803	Upper Head Cone 30.2mm w/Dust Seal
6	718 0600	Dust Seal
7	718 0110	Lower Head Cup 30.0mm (JIS)
	718 0100	Lower Head Cup 30.2mm
8	3 718 9801	Lower Head Cone 27.0mm (JIS) w/Dust Seal
	3 718 9805	Lower Head Cone 26.4mm w/Dust Seal

●JIS: Japanese Industrial Standards. 8606-E759

Head Parts
HP-M730



Head Parts
HP-M730

■ Specifications

- Features ● Sealed Mechanism, Inside Vapor Corrosion Inhibitor Seal Tape for Head Tube, Stainless Steel Lower Cup & Cone
- Weight ● 3.9 oz. (110g.)
- Material ● Light Alloy•Black Anodized Finish (Lock Nut)
● Steel & Rubber•Black Finish (Upper Cup)
● Stainless•Black Finish (Lower Cup)
● Stainless Steel (Lower Cone)
- Type ● Off-Road Type
- Variations ●

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24T.	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.



Head Parts
HP-MT60

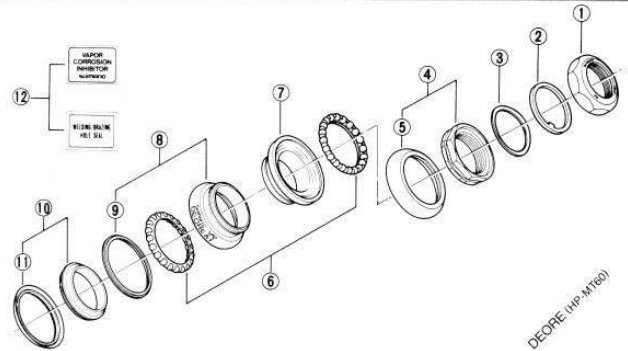
■ Specifications

- Features ● Sealed Mechanism, Inside Vapor Corrosion Inhibitor Seal Tape for Head Tube, Stainless Steel Lower Cone
- Weight ● 4.3 oz. (121g.)
- Material ● Steel (Lock Nut)
● Steel & Rubber•Black Finish (Upper Cup)
● Steel•Black Finish (Lower Cup)
● Stainless Steel (Lower Cone)
- Type ● Off-Road Type
- Variations ●

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/Italian	BC1 x 24T.	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.

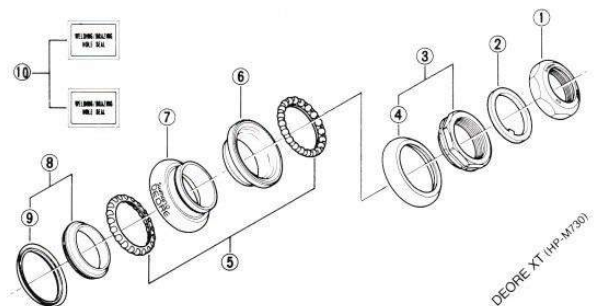


Head Parts
HP-MT60



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-713 9801	Lock Nut Unit B.C. 1x24T. P. I. (English & JIS Thread)	B
	3-713 9802	Lock Nut Unit M25xP1.0 (French Thread)	B
2	713 0300	Lock Washer (English & JIS)	
	713 0310	Lock Washer (French)	
3	713 0400	Wave Washer	
4	3-713 9803	Upper Head Cone B.C. 1x24T. P. I. (English Thread) w/Cover	B
	3-713 9804	Upper Head Cone M25xP1.0 (French Thread) w/Cover	B
5	713 0600	Cover	A
6	3-718 9806	Ball Retainer (5/32") 2pcs.	A
	713 0810	Upper Head Cup 30.0mm (JIS)	B
7	713 0800	Upper Head Cup 30.2mm	B
	3-713 9805	Lower Head Cup 30.0mm (JIS) w/Seal Ring	B
8	3-713 9806	Lower Head Cup 30.2mm w/Seal Ring	B
	717 0800	Seal Ring	
10	3-713 9807	Lower Head Cone 27.0mm (JIS) w/Dust Seal	A
	3-713 9808	Lower Head Cone 26.4mm w/Dust Seal	A
11	713 1100	Dust Seal	A
12	3-713 9809	Dust Seal for Head Tube (Pair)	B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE XT (HP-M730).
*JIS: Japanese Industrial Standards.



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-715 9811	Lock Nut Unit B.C. 1x24T. P. I. (English & JIS Thread)	B
	3-715 9812	Lock Nut Unit M25xP1.0 (French Thread)	B
2	715 0200	Lock Washer (English & JIS)	
	715 0210	Lock Washer (French)	
3	3-714 9801	Upper Head Cone B.C. 1x24T. P. I. (English Thread) w/Cover	B
	3-714 9802	Upper Head Cone M25xP1.0 (French Thread) w/Cover	B
4	713 0600	Cover	A
5	3-718 9806	Ball Retainer (5/32") 2pcs.	A
	714 0210	Upper Head Cup 30.0mm (JIS)	B
6	714 0200	Upper Head Cup 30.2mm	B
	714 0310	Lower Head Cup 30.0mm (JIS)	B
7	714 0300	Lower Head Cup 30.2mm	B
	3-713 9807	Lower Head Cone 27.0mm (JIS) w/Dust Seal	A
8	3-713 9808	Lower Head Cone 26.4mm w/Dust Seal	A
	713 1100	Dust Seal	A
10	3-714 9803	Dust Seal for Head Tube (2pcs.)	B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DEORE (HP-MT60).
*JIS: Japanese Industrial Standards.

Head Parts

HP-A450 HP-M450



Head Parts HP-A450

■ Specifications

- Features ● Compact Design, Sealed Mechanism
- Weight ● 4.4 oz. (125g.)
- Material ● Steel•Chrome-Plated (Lock Nut)
● Steel & Resin•Chrome-Plated & Blue Gray Metallic Finish (Upper Cone)
● Steel•Zinc Plated (Upper & Lower Cone)
● Steel & Resin•Blue Gray Finish (Lower Cup)

Head Parts

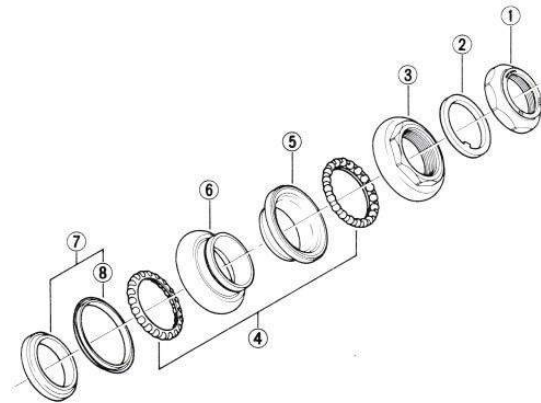
HP-M350



Head Parts HP-M450

■ Specifications

- Features ● Compact Design, Sealed Mechanism
- Weight ● 4.4 oz. (125g.)
- Material ● Steel•Chrome-Plated (Lock Nut)
● Steel & Resin•Chrome-Plated & Graphite Gray Metallic Finish (Upper Cone)
● Steel•Zinc Plated (Upper Cup & Lower Cone)
● Steel & Resin•Black Gray Finish (Lower Cup)



Head Parts HP-M350

■ Specifications

- Features ● Compact Design, Sealed Mechanism
- Weight ● 4.4 oz. (125g.)
- Material ● Steel•Chrome-Plated (Lock Nut)
● Steel & Resin•Chrome-Plated & Graphite Black Metallic Finish (Upper Cone)
● Steel•Zinc Plated (Upper Cup/Lower Cup & Cone)

■ Variations

Type	Thread	Press Race Diameter	
		Upper Cone & Lower Cup	Lower Cone
English/ Italian	BC1 x 24T.P.I.	30.2mm.	26.4mm.
French	M25 x P1.0	30.2mm.	26.4mm.

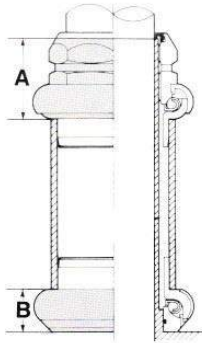
ITEM NO.	PART NO.	DESCRIPTION
1	3-715 9809	Lock Nut B.C. 1x24T.P.I. (English & JIS Thread)thread
	3-715 9810	Lock Nut M25xP1.0 (French Thread)
2	715 0200	Lock Washer (English & JIS)
	715 0210	Lock Washer (French)
3	3-715 9801	Upper Head Cone B.C. 1x24T.P.I. (English Thread) for HP-A450 (Blue)
	3-715 9802	Upper Head Cone B.C. 1x24T.P.I. (English Thread) for HP-M450 (Gray)
	3-715 9803	Upper Head Cone B.C. 1x24T.P.I. (English Thread) for HP-M350 (Black)
	3-715 9804	Upper Head Cone M25xP1.0 (French Thread) for HP-A450 (Blue)
	3-715 9805	Upper Head Cone M25xP1.0 (French Thread) for HP-M450 (Gray)
	3-715 9806	Upper Head Cone M25xP1.0 (French Thread) for HP-M350 (Black)
4	3-718 9806	Ball Retainer (5/32") 2pcs.
	715 0710	Upper Head Cup 30.0mm (JIS)
5	715 0700	Upper Head Cup 30.2mm
	715 0810	Lower Head Cup 30.0mm (JIS) for HP-A450 (Blue)
	715 0910	Lower Head Cup 30.0mm (JIS) for HP-M450 (Gray)
	715 1010	Lower Head Cup 30.0mm (JIS) for HP-M350 (Black)
	715 0800	Lower Head Cup 30.2mm for HP-A450 (Blue)
	715 0900	Lower Head Cup 30.2mm for HP-M450 (Gray)
6	715 1000	Lower Head Cup 30.2mm for HP-M350 (Black)
	3-715 9807	Lower Head Cone 27.0mm (JIS) w/ Dust Seal
7	3-715 9808	Lower Head Cone 26.4mm w/ Dust Seal
	715 1100	Dust Seal
8	715 1100	Dust Seal

•JIS: Japanese Industrial Standards

8710-E829B

Head Parts Assembly Note

■Dimensions



	A	B
HP-7600 DURA-ACE TRACK	18,5mm	11,5mm
HP-7400 DURA-ACE	22,8mm	13,5mm
HP-5000 Santé	22,5mm	10,0mm
HP-6400 SHIMANO 600 ULTEGRA	21,5mm	11,5mm
HP-1050 SHIMANO 105	21,2mm	11,5mm
HP-M730 DEORE XT	21,5mm	11,5mm
HP-MT60 DEORE	22,0mm	11,5mm
HP-A450 EXAGE sport	22,0mm	11,5mm
HP-M450 EXAGE mountain	22,0mm	11,5mm
HP-M350 EXAGE trail	22,0mm	11,5mm

Seat Pillar

SP-7400-A (Round Tube) A-Type
SP-7400-B (Semi Oval Tube) B-Type

DURA-ACE

Seat Pillar

SP-7400-A (Round Tube) A-Type
SP-7400-B (Semi Oval Tube) B-Type

■ Specifications

Features ● Aerodynamic Design,
Hexagon Release

Weight ● A-Type (268mm.): 79 oz. (224g.)
 B-Type (268mm.): 86 oz. (244g.)

Material ● Light Alloy • Anodized Finish

Outside Diameter

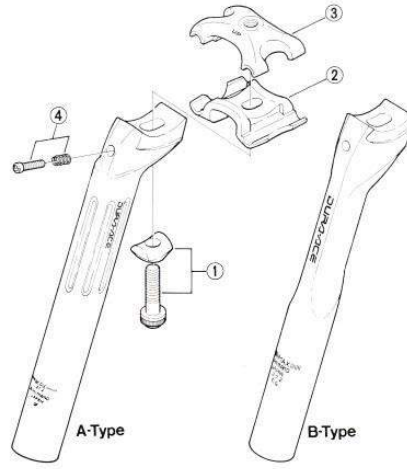
- 25.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 27.0mm., 27.2mm., 27.4mm.



B-Type

Seat Pillar

SP-6400-A (Round Tube) A-Type
SP-6400-B (Semi Oval Tube) B-Type



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-482 9801	Fixing Bolt & Washer	A
2	482 0100	Lower Plate	A
3	482 0200	Upper Plate	A
4	3-482 9001	Adjusting Bolt (M4) & Spring	A

A: Same parts.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to DURA-ACE (SP-7400).

8510-E747

SHIMANO 600 ULTEGRA

Seat Pillar

SP-6400-A (Round Tube) A-Type
SP-6400-B (Semi Oval Tube) B-Type

■ Specifications

Features ● Aerodynamic Design,
Hexagon Release

Weight ● A-Type (268mm.): 9.5 oz. (268g.)

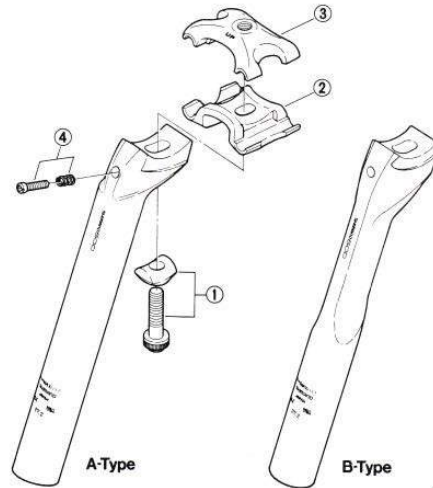
Material ● Light Alloy • Anodized Finish

Outside Diameter

- 25.4mm., 26.0mm., 26.2mm., 26.4mm., 26.6mm., 26.8mm., 26.8mm., 27.0mm., 27.2mm.



B-Type



ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGE-ABILITY
1	3-482 9801	Fixing Bolt & Washer	A A
2	483 0300	Lower Plate	B A
3	483 0400	Upper Plate	B A
4	3-482 9001	Adjusting Bolt (M4) & Spring	A A

A: Same parts.
 B: Parts usable, but differ in materials, appearance, finish, size, etc.
 Absence of mark indicates non-interchangeability.
 The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (SP-6400).

8708-E812

Handle Stem
HS-7400

Handle Stem
HS-6400



Handle Stem
HS-7400

■ Specifications

Features ● Aerodynamic Design,
Hexagon Release

Weight ● 110mm.: 8.9 oz. (252g.)
120mm.: 9.2 oz. (260g.)

Material ● Light Alloy • Anodized Finish

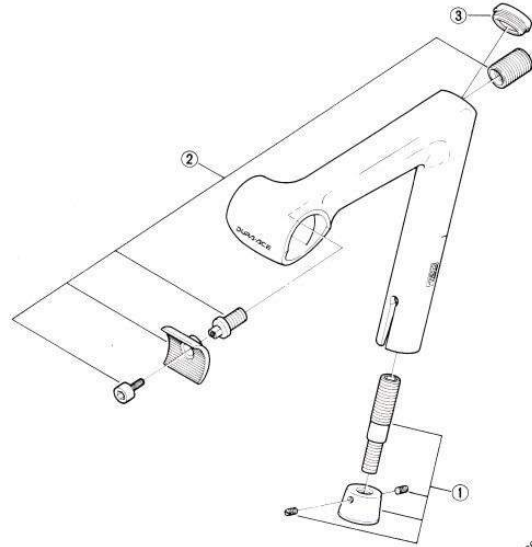
Extension ● 70mm., 80mm., 90mm., 100mm.,
110mm., 120mm., 130mm.

Handle Stem Diameter

● 22.2mm.

Handlebar Clamp Diameter

● 26.0mm.



Dura-Ace AX (HS-7400)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-451 9802	Expander Cone Assembly	A
2	3-451 9800	Push-Plate Assembly (25.4mm)	A
3	3-451 9801	Push-Plate Assembly (26.0mm)	A
3	451 0101	Cap	A

A: Same parts
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to DURA-ACE (HS-7400). 8510-E745



Handle Stem
HS-6400

■ Specifications

Features ● Aerodynamic Design,
Hexagon Release

Weight ● 100mm.: 10.0 oz. (286g.)

Material ● Light Alloy • Anodized Finish

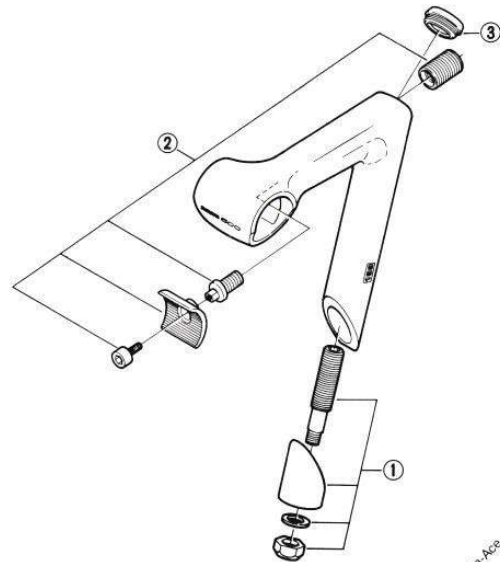
Extension ● 70mm., 80mm., 90mm., 100mm.,
110mm., 120mm., 130mm.

Handle Stem Diameter

● 22.2mm.

Handlebar Clamp Diameter

● 25.4mm., 26.0mm.



Dura-Ace (HS-7400)
Shimano 600EX (HS-6200)

ITEM NO.	PART NO.	DESCRIPTION	INTERCHANGEABILITY
1	3-452 9802	Expander Cone Assembly	A
2	3-451 9800	Push-Plate Assembly (25.4mm)	A A
3	3-451 9801	Push-Plate Assembly (26.0mm)	A A
3	451 0101	Cap	A B

A: Same parts.
B: Parts usable, but differ in materials, appearance, finish, size, etc.
Absence of mark indicates non-interchangeability.
The table indicates the adaptability of conventional parts to Shimano 600 ULTEGRA (HS-6400). 8706-E811A

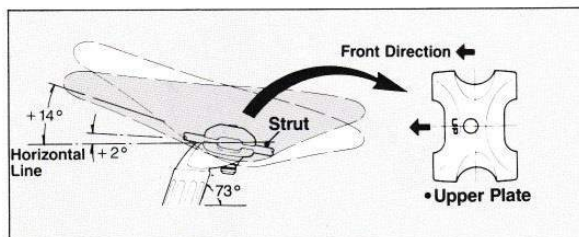
Seat Pillar Assembly Note.

How to use Upper Plate

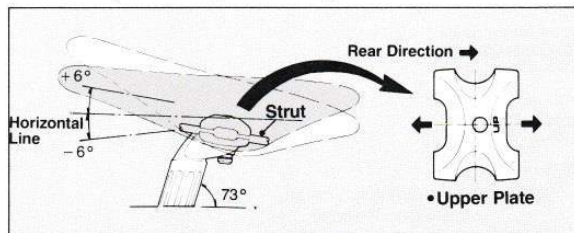
Shimano's Dura-Ace and ULTEGRA Seat Pillar upper plate is designed on the eccentric principle. This means a wide degree of angle adjustment is possible by simply changing the direction of the upper plate.

* Adjustment angle, regarding struts' angle, is calculated with seat pillar at an angle of 73°.

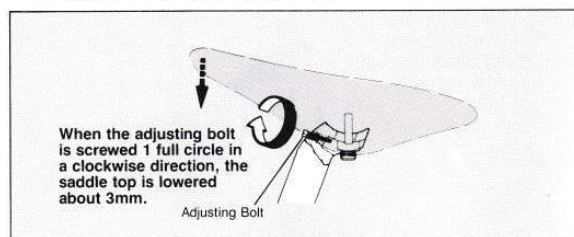
- (1) Front upward direction (when the UP sign is facing the front). The saddle can be adjusted +2 ~ +14 degrees against a horizontal line. For normal use set the UP sign to the front.



- (2) Front downward direction (when the UP sign is facing the rear). Adjustment angle is ± 6 degrees.



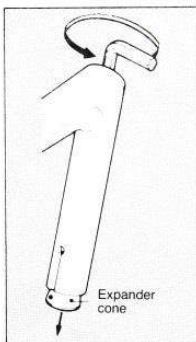
- (3) Adjust the saddle-angle and then tighten the fixing bolt temporarily in this position. Next, screw the adjusting bolt in a clockwise direction for fine-precision saddle angle adjustment.



Handle Stem Assembly Note.

Assembly to Frame

- (1) Turn the expander bolt in an anti-clockwise direction by means of the hexagon spanner in order to move the expander cone so that the stem can be assembled to the head tube.
- (2) Insert the stem into the head tube. At this time the "MAX" sign on the stem should be completely covered by the head tube before fixing securely. Next, insert the hexagon spanner into the expander bolt and then attach the supporting tool. Tightening torque should be 200—300 kgfcm.

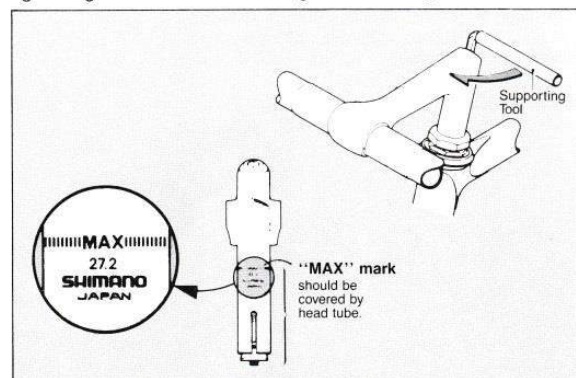


Cap Assembly

On completion of assembling the handle bar and the stem to the head tube, screw the cap to the handle stem by means of the hexagon spanner and lightly secure. Tightening torque should be 10—20 kgfcm.

Note:

The cap is made of resin so care should be exercised when tightening in order to avoid damage to the hexagon head.



Seat Post Quick-Release
SQ-M730

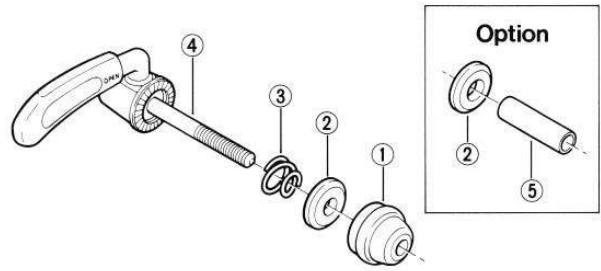


Seat Post Quick-Release
SQ-M730

- Specifications
- Features • Easy Operation, Position-Set Spring
- Weight • 2.6 oz. (73g.)
- Shaft Adjustment Length
 - 36 ~ 43mm., 26 ~ 33mm.
- Shaft Diameter
 - Ø6mm. or Ø8mm.



Chain Deflector
DF-M730



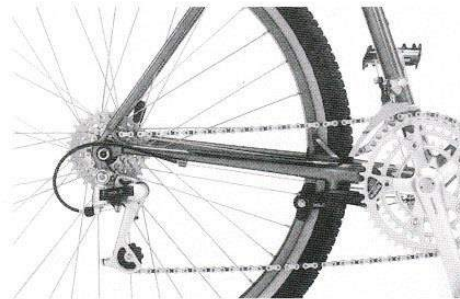
ITEM NO.	PART NO.	DESCRIPTION
1	3-480 9802	Nut for Skewer
2	480 0200	Washer for Dia. 6mm
2	480 0210	Washer for Dia. 8mm (Option)
3	480 0500	Volute Spring
4	3-480 9801	Cam Lever Assembly (49mm)
5	480 0310	Pipe (Dia. 8mmx30mm) Option

8608-E776



Chain Deflector
DF-M730

- Specifications
- Features • Keeps the chain from jamming between the tire and chainstay
- Weight • 0.3 oz. (9g.)
- Material • Resin • Black Finish



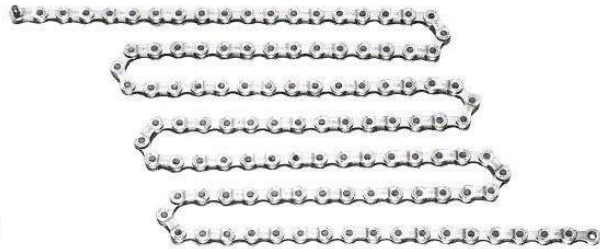
UG Chain
CN-7400
CN-6208 (Silver)

UG Chain
CN-UG20

DURA-ACE

UG Chain
CN-7400

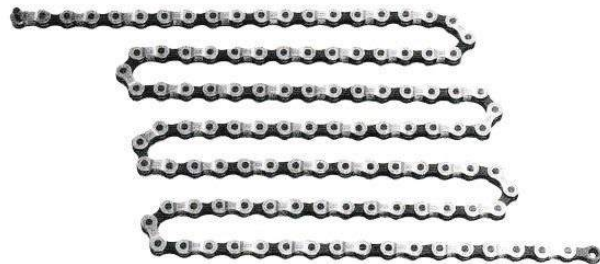
- Specifications
- Features • Narrow Type Uniglide Chain,
Bushingless Design,
Boron Finished Link Pins
- Size • 1/2" x 3/32"
- Material • Steel
- Surface Treatment
- Nickel Finish (Roller Link Plate, Pin Link Plate)



SHIMANO
EX

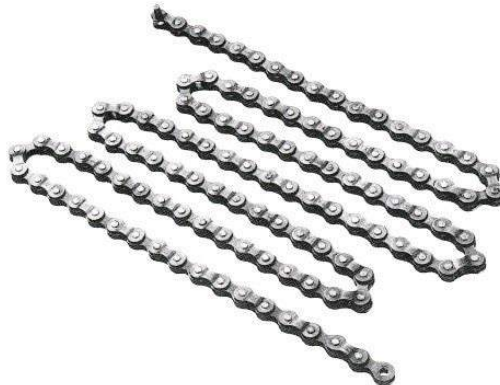
UG Chain
CN-6208 (Silver)

- Specifications
- Features • Narrow Type Uniglide Chain,
Bushingless Design
- Size • 1/2" x 3/32"
- Material • Steel
- Surface Treatment
- Black Finish (Roller Link)
 - Silver Finish (Pin Link Plate)



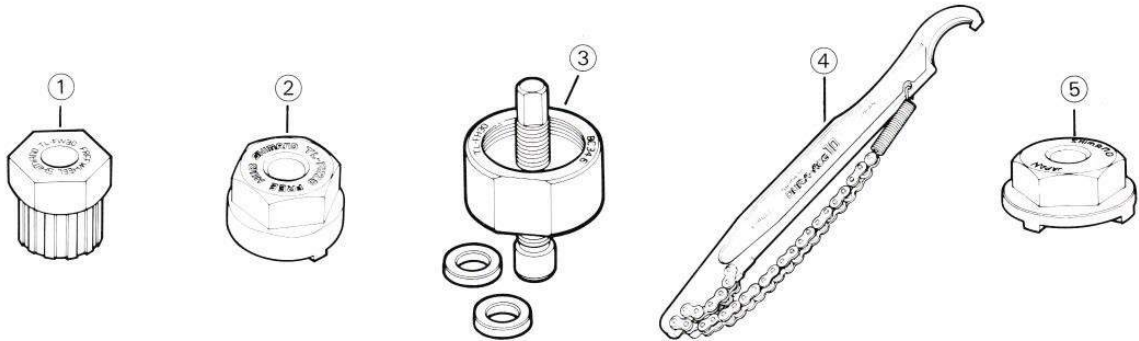
Uniglide-II (UG-II)
CN-UG20

- Specifications
- Material • Steel
- Type • Roller Chain
- Surface Treatment
- Black Finish (Roller Link Plate)
 - Brown Finish (Pin Link Plate)



SPECIAL TOOL

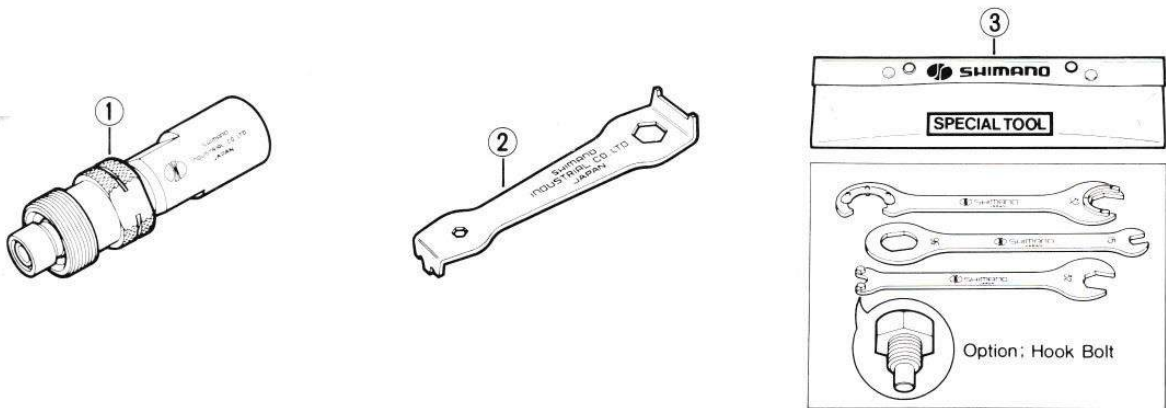
Freewheel Tool



ITEM NO.	PART NO.	MODEL NO.	DESCRIPTION
1	4-120 0905	TL-FW30	Multiple Freewheel Removal Tool for MF-7400/ MF-6208/ MF-Z012/ MF-1600
2	4-120 0906	TL-FH20	Freehub Removal Tool (Except DURA-ACE Freehubs)
3	3-120 9003	TL-FH30	Freehub Body Removal Tool
4	4-130 0915	TL-SR20	Sprocket (1/2" Pitch) Removal Tool
5	4-120 0915	TL-FW45	VMX Freewheel Removal Tool

8506-514E

Front Chainwheel Tool

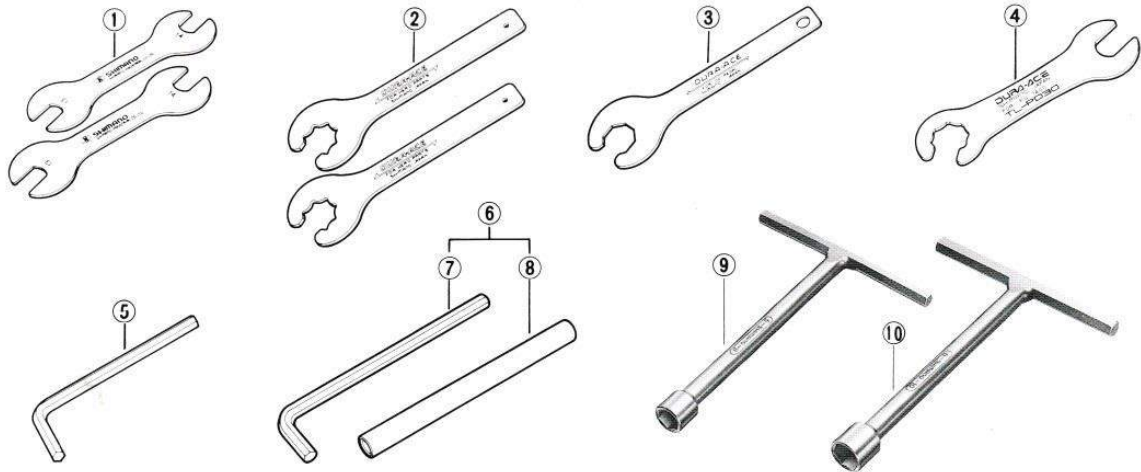


ITEM NO.	PART NO.	MODEL NO.	DESCRIPTION
1	4-130 0901	TL-FC10	Cotterless Crank Extractor
2	4-130 0913	TL-FC20	Peg Spanner
3	3-130 9001 3-130 0910	TL-FC30	Three Spanners for Front Chainwheel/Head Parts/Pedal Hook bolt (Option)

8506-514E

SPECIAL TOOL

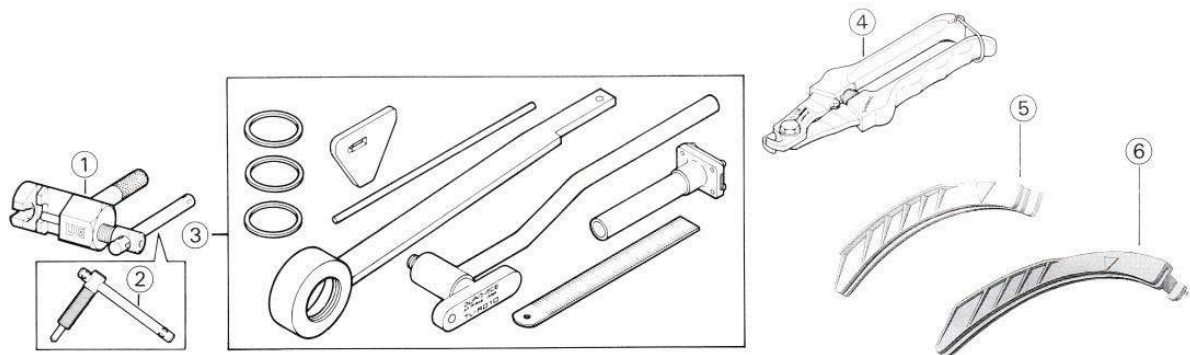
Spanners & Wrenches



ITEM NO.	PART NO.	MODEL NO.	DESCRIPTION
1	3-230 9001	TL-HS10	13mm & 14mm Spanners (2pcs.)
2	3-720 9001	TL-HP10	Hasd Parts Tool (2pcs.)
3	4-460 0901	TL-PD10	DD Pedal Spanner 30mm
4	4-460 0903	TL-PD30	Pedal Spanner for PD-7400
5	4-520 0904	TL-WR33	3mm Hexagon Wrench key
	4-520 0902	TL-WR35	5mm Hexagon Wrench key
	4-520 0901	TL-WR36	6mm Hexagon Wrench key
	4-520 0905	TL-WR37	10mm Hexagon Wrench key
6	4-520 9801		6mmx130mm Hexagon Wrench key w/Adapter Pipe
7	4-520 0903	TL-WR40	6mmx130mm Hexagon Wrench key
8	4-520 0912		Adapter Pipe
9	4-520 0802	TL-WR10	T-Phape Wrench 5x8
10	4-520 0801	TL-WR20	T-Phape Wrench 6x10

8604-515J

Others



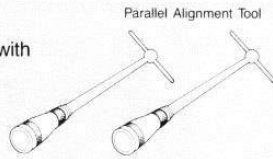
ITEM NO.	PART NO.	MODEL NO.	DESCRIPTION
1	3-130 9002		Chain Cutter
2	4-130 0911	TL-CN20	Spare Arrow (Option)
3	3-710 9801	TL-RD10	Resr Dropout Alignment Tool
4	4-098 0001	TL-CT10	Cable Cutter
5	2-5209 1200	TL-FD20	Frout Derailleur Alignment Tool
6	2-5209 1300	TL-FD21	Frout Derailleur Alignment Tool

8604-515J

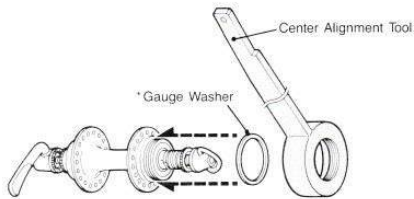
How to Use TL-RD10

Mounting of center alignment tool

Note:
Please note that rear dropout alignment must be done first with Parallel alignment tool.



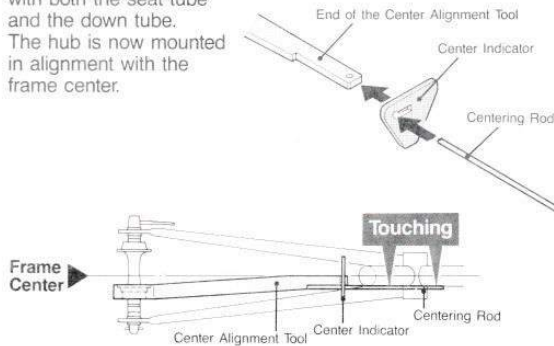
- Put the gauge washers onto the hub. The number of washers needed will vary according to the hub type. Refer to the table. These washers are needed to set the edge of the tool to the center of the frame. Next, screw the center alignment tool onto the hub.



*The specific number of gauge washers used will vary according to the hub type.

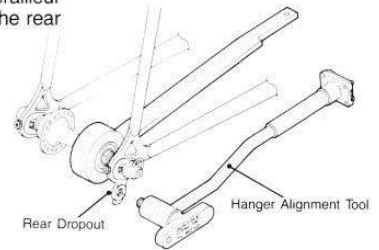
Hub Type	Number of Gauge Washers
SHIMANO DURA-ACE Hub	1 pc
SHIMANO 600 Hub	2 pcs
Campagnolo Hub	0

- Mount the center indicator onto the end of the center alignment tool and insert the centering rod. Next, mount the hub so that the centering rod is in contact with both the seat tube and the down tube. The hub is now mounted in alignment with the frame center.

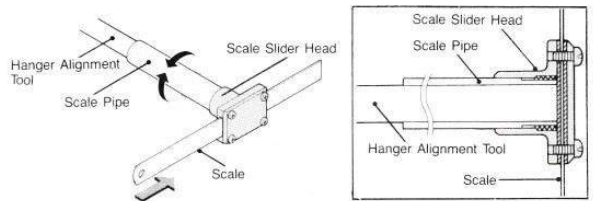


Mounting of hanger alignment tool

- Screw the hanger alignment tool onto the rear derailleur mounting screw of the rear dropout.

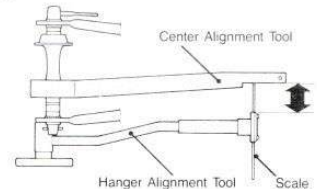


- Set the scale pipe on the end of the hanger alignment tool. Insert the scale into the scale slider head. Adjust the movement of the scale according to how far the scale pipe is screwed into the scale slider.



Derailleur hanger alignment

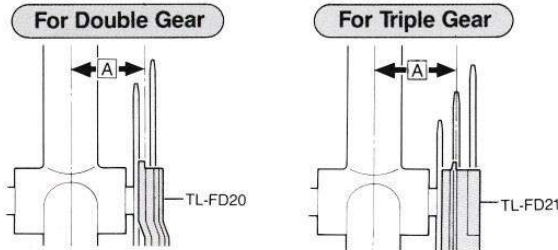
- Adjust the center alignment tool and hanger alignment tool so they are roughly parallel and then set the scale against the center alignment tool. With the scale against the center alignment tool, rotate both center and Hanger alignment tools 180 degrees and then stop them where the gap between the tools is narrowest.
- At the narrowest point, apply pressure in the direction in which the center alignment tool and hanger alignment tool will open and adjust the bias of the rear dropout while referring to the scale.
- When the alignment has been made, rotate both tools 180 degrees again to check that the rear dropout has been set correctly.



How to Use TL-FD20/TL-FD21

- These tools are for correct alignment of the front derailleur's chain guide.
- Be sure to use this tool for front derailleurs with the SIS mechanism.
- After use, be sure to store the tool safely in a place where it won't be lost to insure proper front derailleur alignment in the future.

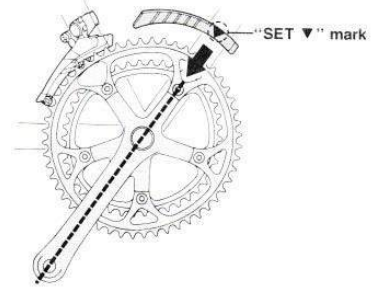
The chain line (dimension **A**) should be confirmed.



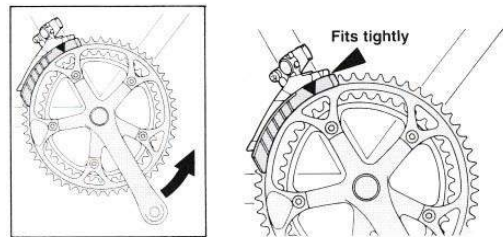
Type	Chain line (dimension A)	Applicability to large	Applicable front derailleur
TL-FD20 For Double Gear	42 ~ 45mm	52-teeth Biopace gear	FD-A450
TL-FD21 For Triple Gear	45 ~ 47mm	48-teeth Biopace gear	FD-M450

How to use

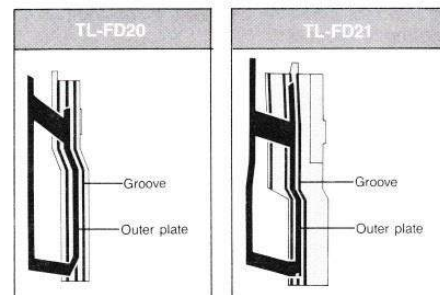
- 1 Align the "SET ▼" mark on the tool with an imaginary straight line through the crank, and then fit to the large gear.



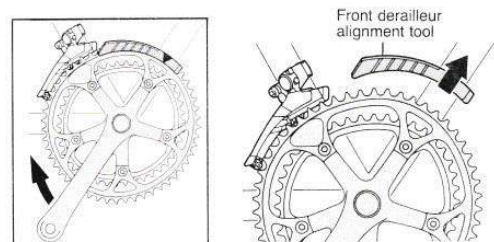
- 2 Rotate the alignment tool back ward till it fits tightly under front derailleur.



- 3 Make sure the outer plate of the chain guide is parallel with the groove on the tool.

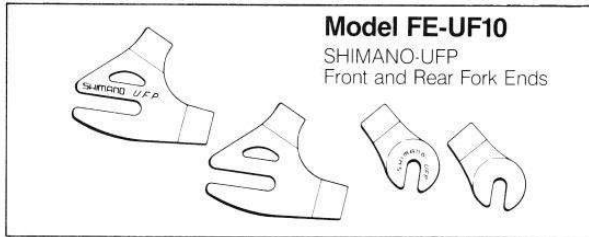


- 4 Turn the crank clockwise for 1/4 turn, and then remove the tool.

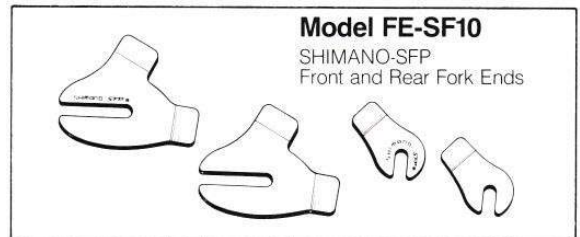


FORK ENDS

■ For Track

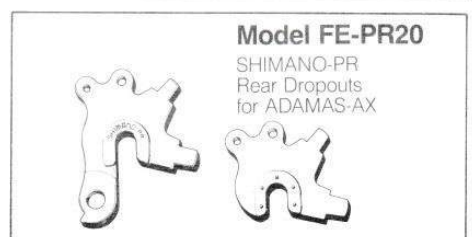
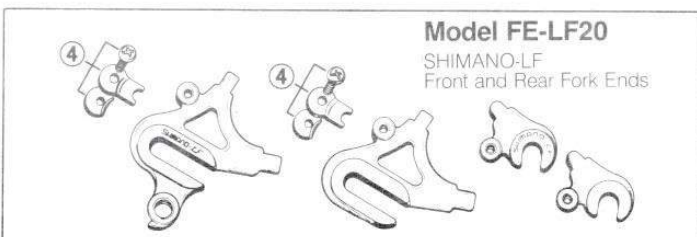
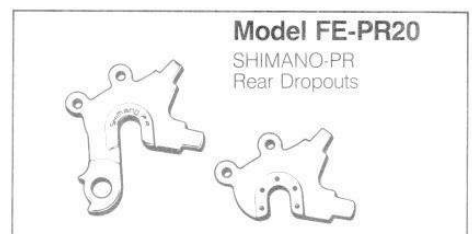
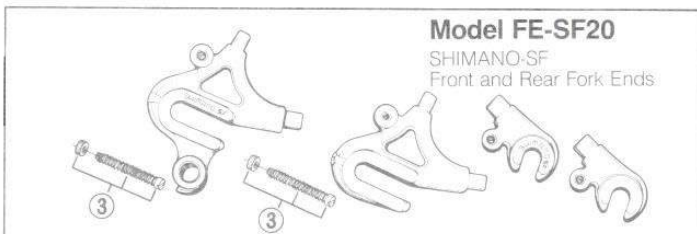
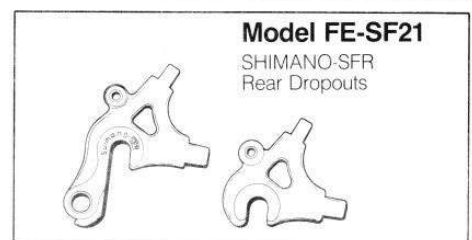
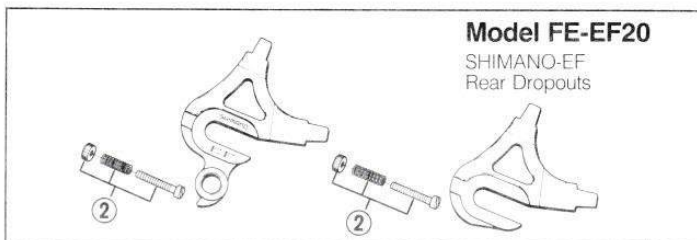
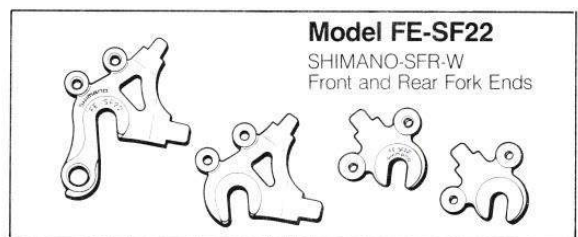
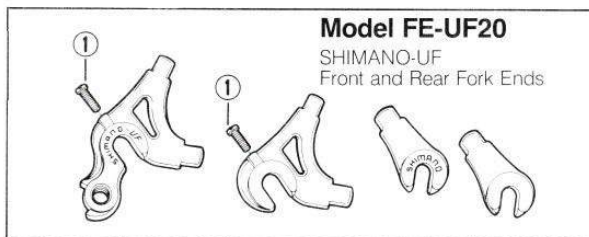


Slot Width: Front...8mm, 9mm
Rear...8mm, 10mm



Slot Width: Front...8mm, 9mm
Rear...8mm, 10mm

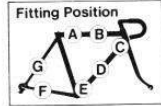
■ For Road



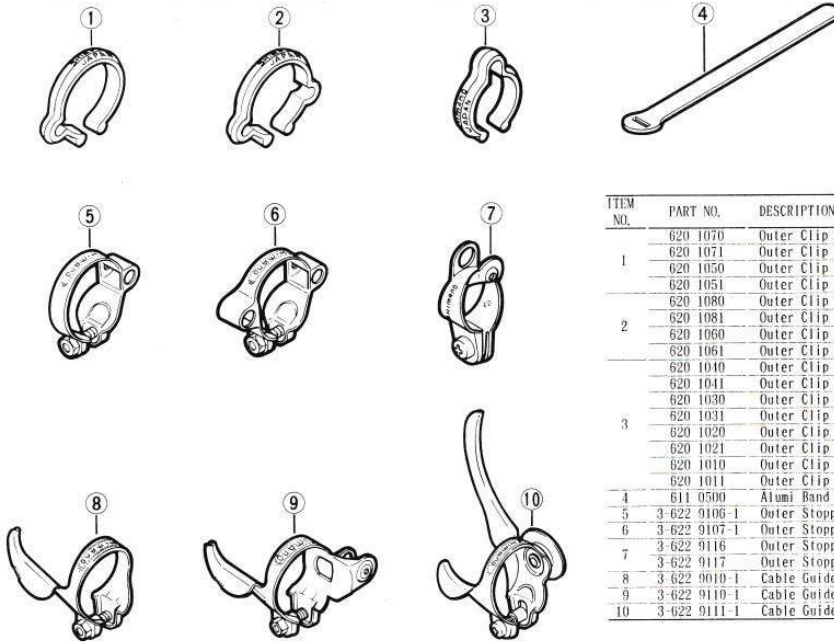
ITEM NO.	PART NO.	DESCRIPTION
1	710 3300	Adjusting Screw
2	3-710 9008	Adjusting Screw Unit (-)
	3-710 9008-1	Adjusting Screw Unit (+)
3	3-710 9001	Adjusting Screw Unit (-)
	3-710 9001-1	Adjusting Screw Unit (+)
4	3-710 9004	Adjusting Stopper Unit (Option)

8412-E701

CABLE GUIDE



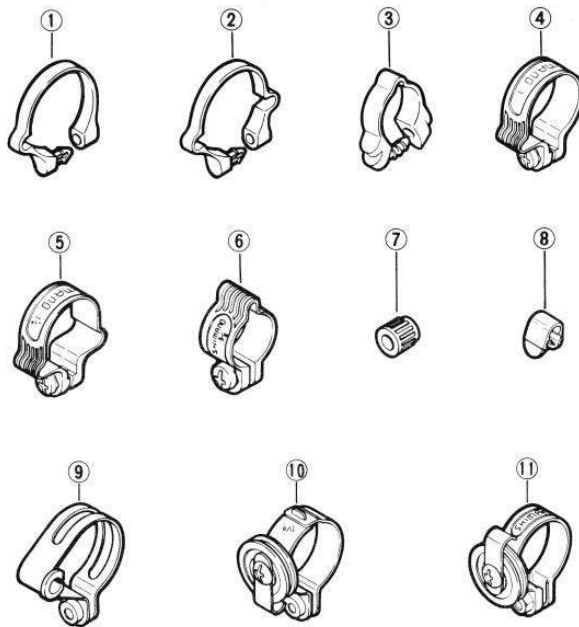
For Shifting Lever



ITEM NO.	PART NO.	DESCRIPTION	FITTING POSITION
1	620 1070	Outer Clip (White) 1-1/8" (Single)	
	620 1071	Outer Clip (Black) 1-1/8" (Single)	
	620 1050	Outer Clip (White) 1" (Single)	
2	620 1051	Outer Clip (Black) 1" (Single)	B • D
	620 1080	Outer Clip (White) 1-1/8" (Double)	
	620 1081	Outer Clip (Black) 1-1/8" (Double)	
3	620 1060	Outer Clip (White) 1" (Double)	
	620 1061	Outer Clip (Black) 1" (Double)	
	620 1040	Outer Clip (White) 7/8" (Single)	
	620 1041	Outer Clip (Black) 7/8" (Single)	
	620 1030	Outer Clip (White) 3/4" (Single)	
	620 1031	Outer Clip (Black) 3/4" (Single)	
	620 1020	Outer Clip (White) 5/8" (Single)	F • G
	620 1021	Outer Clip (Black) 5/8" (Single)	
	620 1010	Outer Clip (White) 1/2" (Single)	
	620 1011	Outer Clip (Black) 1/2" (Single)	
4	611 0500	Alumi Band 4.52"	
5	3-622 9106-1	Outer Stopper 1-1/8" (Single)	E
6	3-622 9107-1	Outer Stopper 1-1/8" (Double)	
7	3-622 9116	Outer Stopper 5/8" (Single)	F • G
	3-622 9117	Outer Stopper for DURA ACE 5/8" (Single)	
8	3-622 9010-1	Cable Guide 1-1/8" (Single)	
9	3-622 9110-1	Cable Guide 1-1/8" (Double)	E
10	3-622 9111-1	Cable Guide for DURA ACE 1-1/8" (Double)	

8506-525E

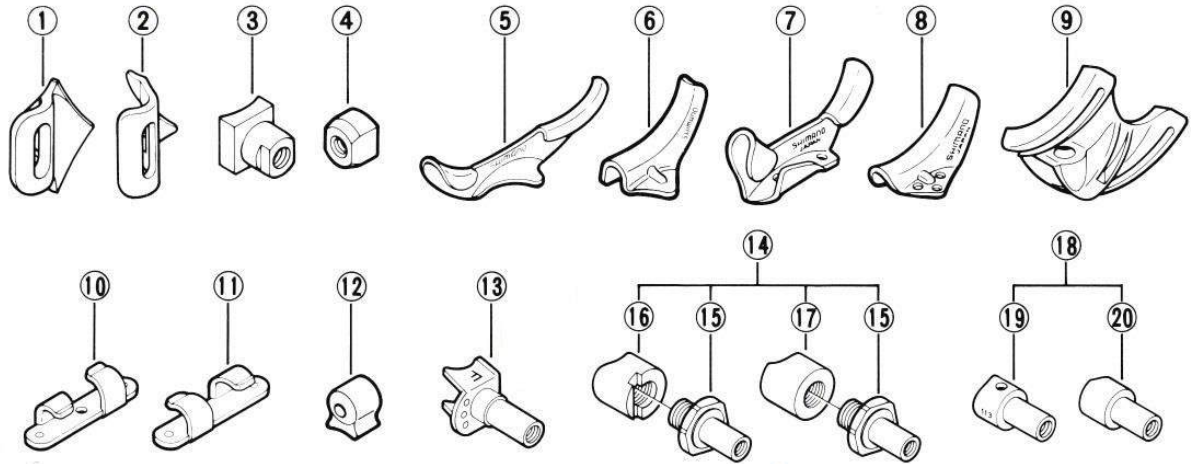
For PPS-System/Three Speed Hub



ITEM NO.	PART NO.	DESCRIPTION	FITTING POSITION
1	692 1400	Outer Band (White) 1-1/8" (Single)	
	692 1402	Outer Band (Black) 1-1/8" (Single)	
	692 1500	Outer Band (White) 1" (Single)	
2	692 1502	Outer Band (Black) 1" (Single)	B • D
	692 1401	Outer Band (White) 1-1/8" (Double)	
	692 1403	Outer Band (Black) 1-1/8" (Double)	
3	692 1501	Outer Band (White) 1" (Double)	
	692 1503	Outer Band (Black) 1" (Double)	
	692 1700	Outer Band (White) 3/4"	
	692 1701	Outer Band (Black) 3/4"	
	692 1600	Outer Band (White) 5/8"	
	692 1601	Outer Band (Black) 5/8"	
	692 1800	Outer Band (White) 1/2"	F • G
	692 1801	Outer Band (Black) 1/2"	
	692 3900	Outer Band (White) 11/16"	
	692 3901	Outer Band (Black) 11/16"	
4	3-692 9034	Hose Band (White) 1-1/8" (Single)	
	3-692 9033	Hose Band (Black) 1-1/8" (Single)	
	3-692 9022	Hose Band (Black) 1" (Single)	B • D
5	3-692 9020	Hose Band (White) 1-1/8" (Double)	
	3-692 9021	Hose Band (Black) 1-1/8" (Double)	
	3-692 9029	Hose Band (Black) 1" (Double)	
6	3-692 9028	Hose Band (White) 3/4"	
	3-692 9027	Hose Band (Black) 3/4"	
	3-692 9032	Hose Band (White) 5/8"	F • G
7	3-692 9026	Hose Band (Black) 5/8"	
	3-692 9025	Hose Band (Black) 1/2"	
8	692 2801	Bolt Cap (White)	
	692 2800	Bolt Cap (Black)	
9	692 2901	Cable Hook (White)	
	692 2900	Cable Hook (Black)	
10	3-611 9005-2	Stopper Band for Three Speed Hub 1-1/8"	
	3-611 9006-2	Stopper Band for Three Speed Hub 1"	
	3-611 9010-1	Stopper Band for Three Speed Hub 3/4"	
	3-611 9011-1	Stopper Band for Three Speed Hub 11/16"	F • G
11	3-643 9044-1	Stopper Band for Three Speed Hub 5/8"	
	3-643 9045-1	Stopper Band for Three Speed Hub 1/2"	
10	3-611 9001-1	Guide Roller for Three Speed Hub 1-1/8"	E
	3-611 9002-2	Guide Roller for Three Speed Hub 1"	A

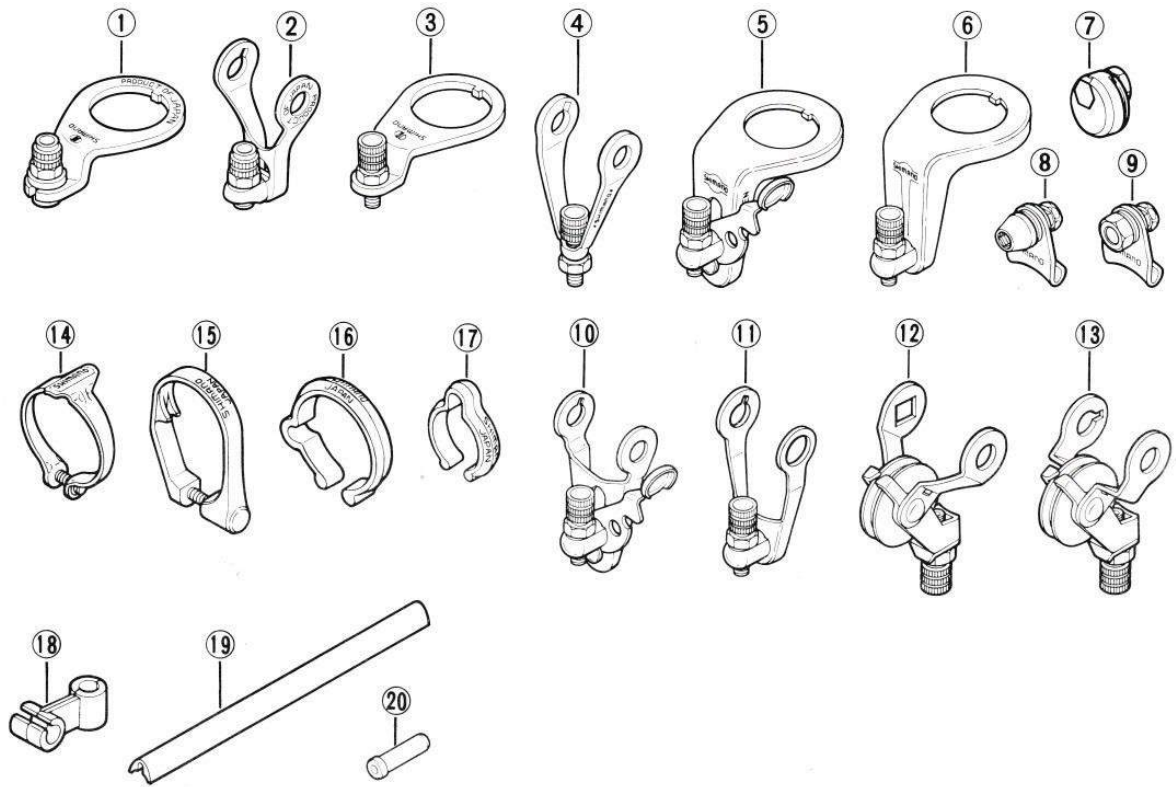
8506-709B

BRAZED-ON PARTS



ITEM NO.	PART NO.	DESCRIPTION
1	580 3210	Bracket (SM-FD74-LW) Investment Cast for Front Derailleur
2	580 3200	Bracket (SM-FD74) for Front Derailleur
3	680 0900	Lever Boss for Brazed-on A-Type Lever (M5)
4	681 6200	Lever Boss for Brazed-on B-Type Lever (M5)
5	620 4010	Front Cable Guide for Brazed-on A-Type Lever
6	620 4020-1	Rear Cable Guide for Brazed-on A-Type Lever
7	620 4031	Front Cable Guide for B-Type Lever (Spot Welding Type)
	620 4032	Front Cable Guide for B-Type Lever (Brazed-on Type)
8	620 4041	Rear Cable Guide for B-Type Lever (Spot Welding Type)
	620 4040	Rear Cable Guide for B-Type Lever (Brazed-on Type)
9	620 4100	Cable Guide for B. B. Diameter 40mm
	620 4110	Cable Guide for B. B. Diameter 42mm
10	692 7010	Outer Tunnel A for PPS Cable (Spot Welding Type)
	692 7011	Outer Tunnel A for PPS Cable (Brazed-on Type)
11	692 7020	Outer Tunnel B for PPS Cable (Spot Welding Type)
	692 7021	Outer Tunnel B for PPS Cable (Brazed-on Type)
12	620 5010-1	Outer Stopper
	3-861 9004-1	Front Mounting Boss (Radius 8.5mm)
	3-861 9005-1	Rear Mounting Boss (Radius 5.5mm)
13	3-868 9030-1	Front Mounting Boss for MTB (Radius 9.5mm)
	3-868 9040-1	Rear Mounting Boss for MTB (Radius 7.5mm)
	3-83C 9807	Mounting Boss Unit (No. 090 / Light Alloy) for U-Brake
14	3-83C 9808	Mounting Boss Unit (No. 091 / Light Alloy) for U-Brake
15	83C 2700	Mounting Boss Axle for U-Brake
	83C 2820	Mounting Boss (No. 090 / Light Alloy / Cable Guide) for U-Brake
16	83C 2800	Mounting Boss (No. 091 / Light Alloy / Cable Guide) for U-Brake
	83C 2830	Mounting Boss (No. 090 / Light Alloy) for U-Brake
17	83C 2810	Mounting Boss (No. 091 / Light Alloy) for U-Brake
	3-83C 9809	Mounting Boss Unit (No. 054) for U-Brake
	3-83C 9810	Mounting Boss Unit (No. 061) for U-Brake
	3-83C 9801	Mounting Boss Unit (No. 082) for U-Brake
18	3-83C 9802	Mounting Boss Unit (No. 113) for U-Brake
	3-83C 9806	Mounting Boss Unit (No. 114) for U-Brake
	3-83C 9803	Mounting Boss Unit (No. 122) for U-Brake
	3-83C 9804	Mounting Boss Unit (No. 124) for U-Brake
	3-83C 9805	Mounting Boss Unit (No. 145) for U-Brake
	83C 2660	Mounting Boss Unit (No. 054 / w / Hole) for U-Brake
	83C 2680	Mounting Boss Unit (No. 061 / w / Hole) for U-Brake
	83C 2640	Mounting Boss Unit (No. 082 / w / Hole) for U-Brake
19	83C 2610	Mounting Boss Unit (No. 113 / w / Hole) for U-Brake
	83C 2650	Mounting Boss Unit (No. 114 / w / Hole) for U-Brake
	83C 2620	Mounting Boss Unit (No. 122 / w / Hole) for U-Brake
	83C 2630	Mounting Boss Unit (No. 124 / w / Hole) for U-Brake
	83C 2570	Mounting Boss (No. 054) for U-Brake
	83C 2580	Mounting Boss (No. 061) for U-Brake
	83C 2510	Mounting Boss (No. 082) for U-Brake
20	83C 2520	Mounting Boss (No. 113) for U-Brake
	83C 2560	Mounting Boss (No. 114) for U-Brake
	83C 2530	Mounting Boss (No. 122) for U-Brake
	83C 2540	Mounting Boss (No. 124) for U-Brake
	83C 2550	Mounting Boss (No. 145) for U-Brake

SMALL PARTS (for Brake System)



ITEM NO.	PART NO.	DESCRIPTION
1	3-831 9078	Front Cable Hanger Assembly for Cantilever Brake
2	3-831 9079	Rear Cable Hanger Assembly for Cantilever Brake
3	3-831 9092	Front Cable Hanger Assembly for CC-Link
4	3-831 9093	Rear Cable Hanger Assembly 30mm (1-3/16") for CC-Link
5	3-831 9004-1	Front Cable Hanger Assembly w / Quick Release
6	3-831 9005	Front Cable Hanger Assembly
7	3-83A 9805	Cable Carrier Assembly for BR-M730
8	3-83C 9817	Cable Carrier Assembly for BR-M731
9	3-831 9010-6	Cable Carrier Assembly for BR-6102
	3-831 9010-3	Cable Carrier Assembly for BR-MC70
	3-831 9010	Cable Carrier Assembly
10	3-831 9007-1	Rear Cable Hanger Assembly 27mm (1-1/16") w / Quick Release
	3-831 9018-1	Rear Cable Hanger Assembly 30mm (1-3/16") w / Quick Release
11	3-831 9008	Rear Cable Hanger Assembly 27mm (1-1/16")
12	3-816 9801-1	Rear Cable Hanger Assembly (Square Hole) 34mm (1-11/16") for Lady's
13	3-816 9803-1	Rear Cable Hanger Assembly (Key Hole) 25mm (1") for Lady's
14	3-831 9100	Outer Band (1" / Single)
15	3-831 9032	Outer Band (1" / Single / White) Resin
	3-831 9034	Outer Band (1" / Single / Black) Resin
16	620 1070	Outer Clip (1-1/8" / Single / White)
	620 1071	Outer Clip (1-1/8" / Single / Brack)
	620 1050	Outer Clip (1" / Single / White)
	620 1051	Outer Clip (1" / Single / Brack)
17	620 1010	Outer Clip (1/2" / Single / White)
	620 1011	Outer Clip (1/2" / Single / Brack)
18	831 8000	Outer Cross (Brack)
	882 1402	Cable Pad 200mm (7-7/8")
	882 1401	Cable Pad 270mm (10-5/8")
19	882 1400	Cable Pad 300mm (11-13/16")
	620 2011	Inner End Cap (φ1.0mm)
20	620 2011	Inner End Cap (φ1.0mm)
	620 2013	Inner End Cap (φ2.0mm)

CABLES

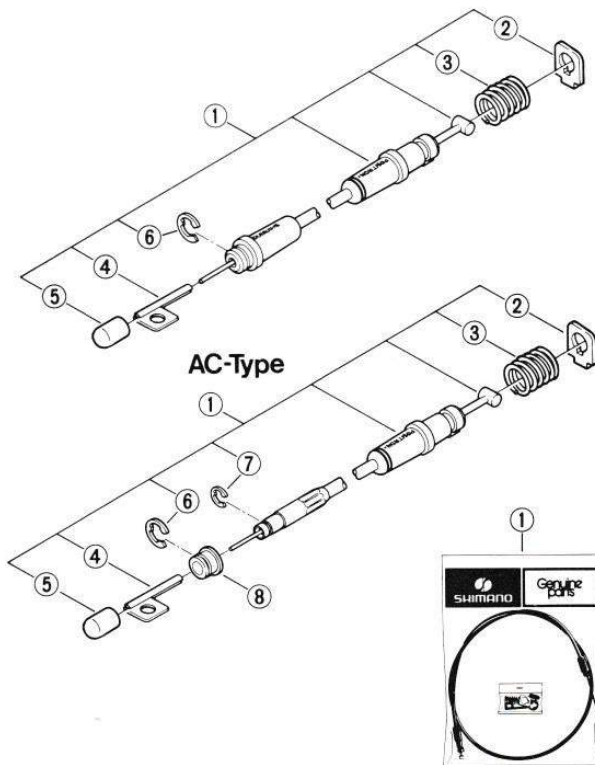
SIS-SP CABLE HOUSING



Precise cable movement is essential for optimum SIS performance, especially on all terrain bikes having longer shift cable lengths. For this reason, always use the Shimano SIS-SP outer cable housing.

PART NO.	DESCRIPTION	Color
3-60B 97604		Purple
3-60B 97620	25 feet (7620mm) Outer	Red
3-60B 97650	Casing with "Liner"	Black
3-60B 97680	(Including ϕ 6mm Ferrule 30 PCS.)	Yellow
3-60B 97690		Gray

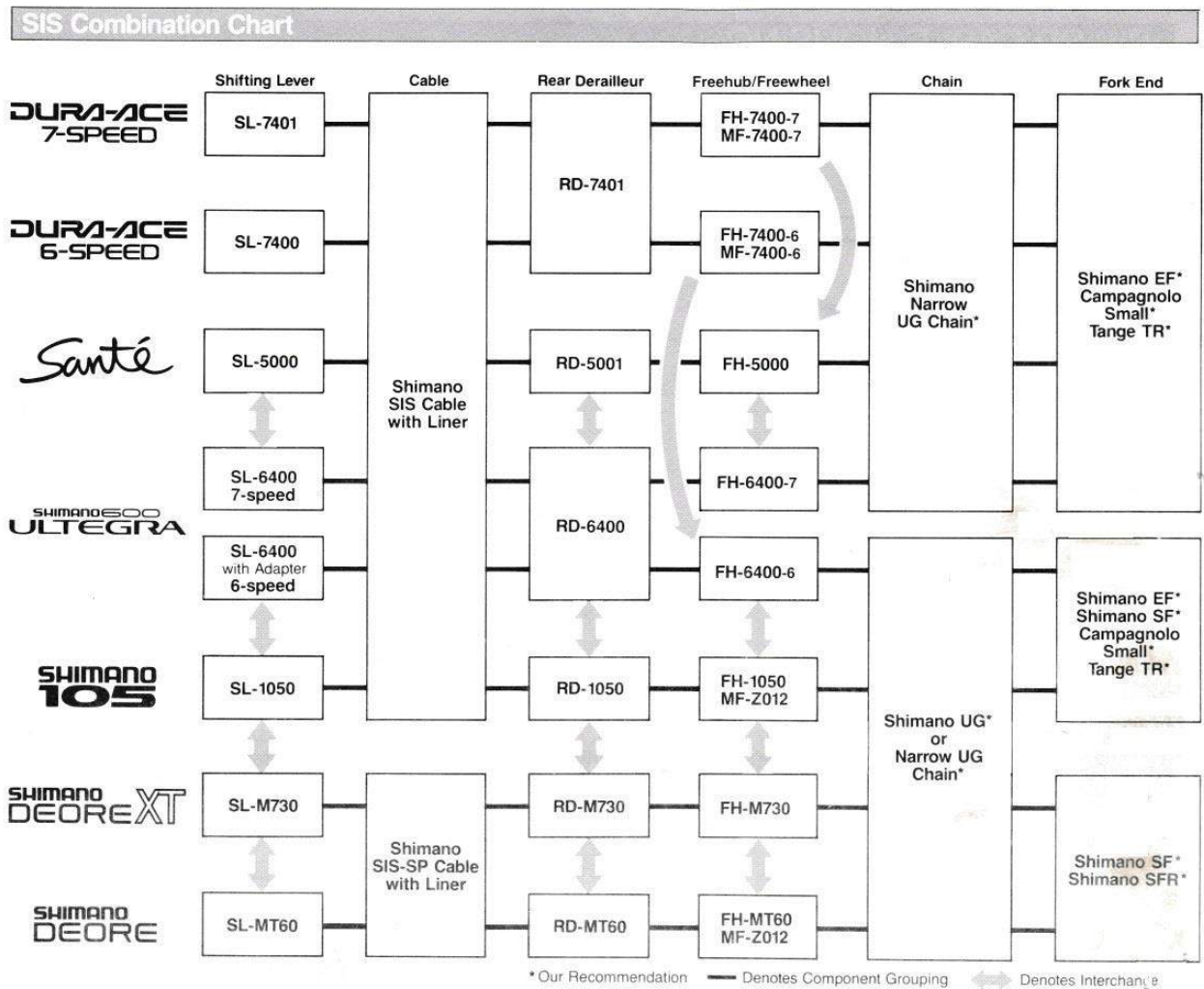
PPS SYSTEM (Push-Pull Cable Assembly)



ITEM NO.	PART NO.	DESCRIPTION	
1	3-692 9137	800mmx 870mm (Black)	
	3-692 9133	900mmx 970mm (Black)	
	3-692 9101-1	950mmx1020mm (Black)	
	3-692 9102-1	1050mmx1120mm (Black)	
	3-692 9110	1100mmx1170mm (Black)	
	3-692 9143	1100mmx1170mm (White)	
	3-692 9131	1200mmx1270mm (Black)	
	3-692 9107	1350mmx1420mm (Black)	
	3-692 9103	1450mmx1520mm (Black)	
	3-692 9139	1450mmx1520mm (White)	
	3-692 9104	1550mmx1620mm (Black)	
	3-692 9134	1550mmx1620mm (White)	
	3-692 9144	1600mmx1670mm (White)	
	3-692 9140	1650mmx1720mm (Black)	
	3-692 9145	1650mmx1720mm (White)	
	3-692 9135	1700mmx1770mm (Black)	
	3-692 9105	1700mmx1770mm (White)	
	3-692 9136	1800mmx1870mm (Black)	
	3-692 9106	1800mmx1870mm (White)	
	3-692 9114	1900mmx1970mm (White)	
1	3-692 9146	1550mmx1620mm (Black)	
	3-692 9154	1550mmx1620mm (White)	
	3-692 9151	1800mmx1870mm (Black)	
	3-692 9148	1800mmx1870mm (White)	
	3-692 9114-2	1900mmx1970mm (Black)	
	3-692 9114-1	1900mmx1970mm (White)	
	2	692 0900-2	Casing Plate
	3	692 1001	Casing Spring
4	533 1200-1	Inner Sleeve	
5	620 2030-1	Inner End Cap	
6	521 3001	Stop Ring (ϕ 6mm)	
7	533 3000	Stop Ring (ϕ 4.2mm) for AC-Type	
8	533 3100	Casing Adapter for AC-Type	

8607-518B

SIS Combination Chart



Notes on SIS Interchangeability:

- Because of the differences in the shift lever stroke, SIS components of the Shimano 600 ULTEGRA, Shimano 105, and Santé groups are not interchangeable with Dura-Ace SIS components.
- SIS rear derailleurs from Shimano 600 ULTEGRA, Shimano 105, or Santé can be used with Dura-Ace levers (or vice versa), but the SIS function will be lost.

- All 6-speed SIS freewheels and freehubs have the same sprocket spacing. However, slight differences in sprocket design may affect shifting performance if components are mixed. For this reason we recommend using the designated freewheel or freehub for the group.

- The Deore XT rear derailleur will provide SIS shifting with all downtube type SIS shift levers excluding Dura-Ace and Santé.
- SIS components can be freely mixed if operation is planned only for normal friction shifting.

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