Caution when connecting to carbon spring feet:

The ankle moments which occur with the Lo Rider and Axtion carbon spring feet put a heavy strain on the adjoining prosthetic components. These feet therefore have to be assembled with structural components of the next higher weight category below the knee joint.
Example: an Axtion for a prosthesis wearer weighing 90 kg (198 lbs) must be equipped with an adapter for a body weight of up to 125 kg (275 lbs).

Caution with transtibial prostheses:

- A Ø 34 mm tube adapter and a Ø 34 mm tube clamp adapter are recommended to provide maximum stability of transtibial prostheses, especially when elevated strain is expected due to higher activity levels, longer foot or transtibial lever arms or similar factors.

647H90=1

Tube adapter

The tube adapters are available in 2 different lengths.

Article number	2R37	2R38
Diameter	30 mm	
Material	Titanium	
Min. system height	97 mm	
Max. system height	232 mm	472 mm
Weight	160 g	275 g
Max. body weight	100 kg	

- For higher loads in transtibial prostheses, a tube adapter with Ø 34 mm should be used (e.g. 2R57/2R76).

647H96

Tube adapter

The tube adapters are available in 2 different lengths.

Article number	2R50	2R49
Diameter	30 mm	
Material	Aluminium	
Min. system height	97 mm	
Max. system height	232 mm	432 mm
Weight	155 g	240 g
Max. body weight	100 kg	

- For higher loads, we recommend using titanium components (2R37/2R38).
- For higher loads in transtibial prostheses, a tube adapter with Ø 34 mm should be used (e.g. 2R57/2R76).

Tube adapter

The tube adapters are available in 2 different lengths.

647H90=1

Article number	2R2	2R3
Diameter	30 mm	
Material	Stainless steel	
Min. system height	97 mm	
Max. system height	232 mm	472 mm
Weight	195 g	315 g
Max. body weight	100 kg	

- For higher loads in transtibial prostheses, a tube adapter with Ø 34 mm should be used (e.g. 2R57/2R76).

2R38=10 Tube adapter, angled 10°

647H90=1

Article number	2R38=10
Diameter	30 mm
Material	Titanium
Min. system height	98 mm
Max. system height	474 mm
Weight	275 g
Angling	10°
Max. body weight	100 kg

Single components as replacement parts

Article number	2R2	2R3	2R37	2R38	2R38=10	2R49	2R50
506G3=M8x12-V Grub screw	▲	▲	▲	▲	▲		
506G3=M8x14 Set screw						▲	▲

▲ minimum order quantity required

647H90

Tube clamp adapter

Article number	4R52
Diameter	30 mm
Material	Titanium
System height	33 mm
Weight	75 g
Max. body weight	100 kg

- For higher loads in transtibial prostheses, a tube clamp adapter with Ø 34 mm should be used (e.g. 4R82/4R91).

647H96

4R69 Tube clamp adapter

Article number	4R69
Diameter	30 mm
Material	Aluminium
System height	33 mm
Weight	75 g
Max. body weight	100 kg

- For higher loads, we recommend using titanium components (4R52).
- For higher loads in transtibial prostheses, a tube clamp adapter with Ø 34 mm should be used (e.g. 4R82/4R91).

647H90

Tube clamp adapter

Article number	4R21
Diameter	30 mm
Material	Stainless steel
System height	33 mm
Weight	130 g
Max. body weight	100 kg

- For higher loads in transtibial prostheses, a tube clamp adapter with Ø 34 mm should be used (e.g. 4R82/4R91).

4R103 Tube clamp adapter, movable

The adapter allows additional sliding adjustments between the prosthetic socket and tube adapter, even while the prosthesis is worn. These fine tunings allow a parallel shifting of the distal portion regardless of the adjustment angle set by the pyramid adapters. The prosthetic foot can be shifted medially or laterally in the frontal plane, or dorsally or ventrally in the sagittal plane.

≤ 85 kg

647H129

Article number	4R103
Diameter	30 mm
Material	Titanium
System height	51 mm
Weight	185 g
Displacement	+/- 11 mm
Max. body weight	85 kg

- For higher loads in transtibial prostheses, a tube clamp adapter with Ø 34 mm should be used (e.g. 4R88).

4R98 Tube clamp adapter, movable

The adapter allows additional sliding adjustments between the prosthetic socket and tube adapter, even while the prosthesis is worn. These fine tunings allow a parallel shifting of the distal portion regardless of the adjustment angle set by the pyramid adapters. The prosthetic foot can be shifted medially or laterally in the frontal plane, or dorsally or ventrally in the sagittal plane.

647H66

Article number	4R98
Diameter	30 mm
Material	Aluminium
System height	57 mm
Weight	150 g
Displacement	+/- 9 mm
Max. body weight	75 kg

- For higher loads in transtibial prostheses, a tube clamp adapter with Ø 34 mm should be used (e.g. 4R88).

647H9

4R56 Tube clamp adapter, with 10°, 20° or 30° angle

The adapter is available with 3 different angles.

In prosthetic fittings with 7E5, 7E4 or 7E7 Hip Joints, it forms the adjustable connection between the pyramid adapter of the knee joint or the 4R57 Rotation Adapter and the hip joint tube. According to the direction of the tube, it forms an angle of 10°, 20° or 30° with the hip joint offset to the front.

In prosthetic fittings with Helix^{3D} Hip Joint System, the adapter is intended for the adjustable proximal connection of the hip joint to the 2R30 Thigh Tube and for the adjustable distal connection of the 2R30 Thigh Tube to the pyramid adapter of the knee joint or the 4R57 Rotation Adapter.

Article number	4R56	4R56=1	4R56=2
Diameter	30 mm		
Material	Titanium		
System height	34 mm		35 mm
Weight	85 g		100 g
Angling	10°	20°	30°
Max. body weight	100 kg		

- The 4R56=1/=2 Tube Clamp Adapter with a 20°/30° angle is recommended for larger pelvic sockets. When using '=HD' knee joints, please consider the 10° angle of the pyramid adapter.

Single components as replacement parts

Article number	4R21	4R52	4R56	4R69	4R98	4R103
4D4 Single component pack	●	●	●			●
501Z2=M6x25 Cap screw				▲	▲	
501Z2=M6x35 Cap screw					▲	
501Z16 Clamping screw						▲
506G3=M5x8 Set screw						▲
506G3=M8x12-V Grub screw	▲	▲	▲			
506G3=M8x14 Set screw				▲		
506G3=M8x16 Set screw					▲	▲

▲ minimum order quantity required ● Single Component Pack

Tube adapter

The tube adapters are available in 2 different lengths.

≤ 150 kg

647G180=1

Article number	2R57	2R58
Diameter	34 mm	
Material	Titanium	
Min. system height	77 mm	
Max. system height	282 mm	472 mm
Weight	220 g	330 g
Max. body weight	150 kg	

Tube adapter

The tube adapters are available in 2 different lengths.

≤ 150 kg

647G180=1

Article number	2R76	2R77
Diameter	34 mm	
Material	Stainless steel	
Min. system height	77 mm	
Max. system height	282 mm	472 mm
Weight	260 g	370 g
Max. body weight	150 kg	

Single components as replacement parts

Article number	2R57	2R58	2R76	2R77
506G3=M8x14 Set screw	▲	▲		▲

▲ minimum order quantity required

647G180

4R82 Tube clamp adapter

≤ 150 kg

Article number	4R82
Diameter	34 mm
Material	Titanium
System height	33 mm
Weight	95 g
Max. body weight	150 kg

647G180

4R91 Tube clamp adapter

≤ 150 kg

Article number	4R91
Diameter	34 mm
Material	Stainless steel
System height	33 mm
Weight	140 g
Max. body weight	150 kg

647G180

4R82=P Tube clamp adapter

≤ 150 kg

Article number	4R82=P
Diameter	34 mm
Material	Titanium
System height	-12 mm
Weight	90 g
Max. body weight	150 kg

4R88 Tube clamp adapter, movable

The adapter allows additional sliding adjustments between the prosthetic socket and tube adapter, even while the prosthesis is worn. These fine tunings allow a parallel shifting of the distal portion regardless of the adjustment angle set by the pyramid adapters. The prosthetic foot can be shifted medially or laterally in the frontal plane, or dorsally or ventrally in the sagittal plane.

647H48

Article number	4R88
Diameter	34 mm
Material	Titanium
System height	51 mm
Weight	185 g
Displacement	+/- 11
Max. body weight	100 kg

4R156 Tube clamp adapter, with 10°, 20° or 30° angle

The adapter is available with 3 different angles.
Due to its high load-bearing capacity, it is preferable for use in combination with the 7E9 Hip Joint. Here the adapter is intended for the adjustable proximal connection of the hip joint to the 2R36 Thigh Tube and for the adjustable distal connection of the 2R36 Thigh Tube to the pyramid adapter of the knee joint or the 4R57 Rotation Adapter.

647G748

≤ 150 kg

Article number	4R156	4R156=1	4R156=2
Diameter	34 mm		
Material	Titanium		
System height	36 mm	37 mm	38 mm
Weight	140 g	165 g	175 g
Angling	10°	20°	30°
Max. body weight	150 kg		

- The 4R156=1/=2 Tube Clamp Adapter with a 20°/30° angle is recommended for larger pelvic sockets. When using '=HD' knee joints, please consider the 10° angle of the pyramid adapter.

Single components as replacement parts

Article number/Reference number	4R82	4R82=P	4R88	4R91	4R156
4D4 Single component pack	●	●	●	●	
4D28 Single component pack					●
4X28=3 Plastic ring					■
501Z16 Clamping screw			▲		
506G3=M8x12-V Grub screw				▲	▲
506G3=M8x14 Set screw	▲		▲		

▲ minimum order quantity required ● Single Component Pack ■ can be ordered individually

4R72 Double adapter

647H34

≤ 150 kg

Article number	4R72=32	4R72=45	4R72=60	4R72=75
Material	Titanium			
System height	69 mm	82 mm	97 mm	112 mm
Weight	85 g	95 g	110 g	125 g
Max. body weight	150 kg			

- For the use in water and in humid environments the included set screws have to be changed to anti corrosive Titanium set screws 506G5=* (e.g. 506G5=M8X12).
  The Titanium set srews are available in the dimensions M8X12, M8X14 and M8X16.

4R104 Double adapter, movable

The adapter connects 2 prosthetic components with pyramid adapter and also allows a translation adjustment medially or laterally in the frontal plane, or dorsally or ventrally in the sagittal plane.

647H137

Article number	4R104=60	4R104=75
Material	Titanium	
System height	97 mm	112 mm
Weight	215 g	225 g
Displacement	+/- 11 mm	
Max. body weight	100 kg	

Double adapter

647G300

≤ 150 kg

Article number	4R76	4R78
Material	Stainless steel	
System height	-32 mm	-30 mm
Weight	95 g	115 g
Max. body weight	150 kg	

647H41

4R84 Double adapter

≤ 150 kg

Article number	4R84
Material	Titanium
System height	36 mm
Weight	115 g
Max. body weight	150 kg

For the use in water and in humid environments the included set screws have to be changed to anti corrosive Titanium set screws 506G5=* (e.g. 506G5=M8X12).
The Titanium set srews are available in the dimensions M8X12, M8X14 and M8X16.

647H436

Connection adapter

≤ 150 kg

Article number	4R84=D	4R84=D-62
Diameter	30 mm	
Material	Titanium	Stainless steel
System height	19 mm	
Min. system height		20 mm
Max. system height		48 mm
Weight	65 g	145 g
Max. body weight	150 kg	

647H436

Connection adapter with pyramid receiver

≤ 150 kg

Article number	4R72=D	4R72=D-62	4R75=D-70
Diameter	30 mm		34 mm
Material	Titanium	Stainless steel	
System height	66 mm		
Min. system height		67 mm	76 mm
Max. system height		96 mm	106 mm
Weight	70 g	150 g	170 g
Max. body weight	150 kg		

Single components as replacement parts

Article number/Reference number	4R72 / 4R104	4R75=D-70	4R84	4R104
501Z16 Clamping screw				▲
506G3=M5x8 Set screw				▲
506G3=M8x12-V Grub screw	▲	▲	▲	
506G3=M8x16 Set screw				▲

▲ minimum order quantity required

647G185

4R50 Pyramid adapter with threaded connector

Used in combination with the 4R44=L Pyramid Receiver with Threaded Connector for individual length compensation and rotation adjustment in transtibial and transfemoral prostheses. This adjustment unit consisting of the 4R50 and 4R44=L Adapter can be used to connect e.g. to the 4R150 Harmony HD system.

≤ 150 kg

Article number	4R50
Material	Titanium
System height	-1 mm
Weight	70 g
Max. body weight	150 kg

647G185

4R44=L Pyramid receiver with threaded connector

Used in combination with the 4R50 Pyramid Adapter with Threaded Connector for individual length compensation as well as rotation adjustment in transtibial and transfemoral prostheses. The adapter can be reduced in length.
The combination of the 4R44=L with the 4R43 or 4R111=N Lamination Anchor creates a length-adjustable socket connector.

≤ 150 kg

Article number	4R44=L
Material	Stainless steel
Min. system height	31 mm
Max. system height	91 mm
Weight	210 g
Max. body weight	150 kg

647H141

4R101 Sliding adapter

The 4R101 Sliding Adapter is installed between the socket attachment block (5R1 or 5R6) and the socket adapter (e.g. 4R51).
Independent repositioning in the frontal and sagittal plane is possible. The displacement can be read on the scale.

Article number	4R101
Material	Aluminium
System height	25 mm
Weight	205 g
Offset in m-l and a-p direction	+/- 11 mm
Max. body weight	100 kg

- In transtibial prostheses, the 4R101 Sliding Adapter is only suited for initial and/or interim use; in transfemoral prostheses, it is also suited for definitive use.

4R118 Adapter plate

The adapter plate is used especially for permanent additional posterior placement of the knee joint (e.g. 3R90 and 3R92) to the prosthetic socket.
It can only be used in combination with an adapter with four-hole connection (e.g. 5R1 and 5R2).

647G319

Article number	4R118
Material	Aluminium
System height	10 mm
Weight	75 g
Displacement	10 to 25 mm
Max. body weight	125 kg

646D666 647G644

4R170 Sliding adapter

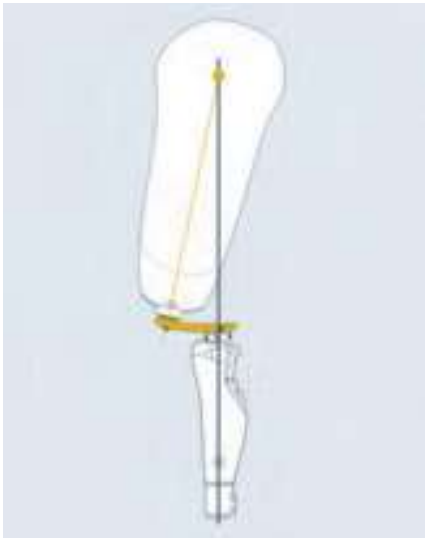
4R170=1 and 4R170=2 Sliding Adapters help you optimise the alignment of your prosthesis so you get a better quality fit. These adapters can be slid along a circular path so you can make fine adjustments to the socket flexion position in transfemoral prostheses.

The adjustment is made by loosening the sliding proximal connection (factory-set outer thread for connecting 4R111=N or 4R43 Lamination Anchor, for example) with an Allen wrench, moving it and then re-tightening it. The 4R170=1 Adapter is suitable for fittings with a larger socket flexion setting, whereas the 4R170=2 Adapter is suitable for a smaller setting. The adjustment range for both adapters is 4°. The socket flexion angle can be changed at any time. The settings can be reproduced by attaching the scale as an aid. The proximal connection can be swapped for the 4R173 Pyramid Receiver (Page 139). The 4R50 Pyramid Adapter (the pages 136, 139) can be screwed on to the thread in order to create the connection to a prosthetic component with a pyramid receiver.

≤ 150 kg

Article number	4R170=1	4R170=2
Material	INOX stainless steel	
Distal connection	4-hole	
Proximal connection	Threaded connector	
System height	15 mm	
Weight	550 g	440 g
Displacement	4°	
Max. body weight	150 kg	

- Only suitable for use in transfemoral prostheses.
- Suitable for use in trial prostheses as well as for permanent use.



By positioning Sliding Adapter 300 mm under socket reference point, change in the length of prosthesis as socket flexion angle changes is negligible.

You can find more information about prosthetic alignment in the following documents available for order:
646F219=D Poster, Alignment Recommendations per MOBIS for TF Modular Lower Limb Prostheses
647H534 Instructions for use, PROS.A. Assembly 743A200 alignment device
OK1896 Information for technicians, L.A.S.A.R. Posture

4R173 Pyramid receiver

The 4R173 Pyramid Receiver is available as an accessory. This component allows a connection component with pyramid adapter to be joined to the unit.

≤ 150 kg

647G644

Article number	4R173
Material	Stainless steel
System height	35 mm
Weight	170 g
Adjustment range	4°
Max. body weight	150 kg

Single components as replacement parts

Article number	4R44=L	4R50	4R101	4R118	4R170=1	4R170=2
4Y212 Clamping nut			▲			
501S41=M6x12 Countersunk head screw (allen screw)				▲	▲	▲
501S44=M6x25 Oval flange head screw (allen screw)			▲			
501T61=M6x12 Cap screw				▲		
501T61=M6x25 Cap screw				▲		
501T61=M6x30 Cap screw				▲		
501Z2=M6x20 Cap screw		▲				
506G3=M4x12 Set screw			▲			
506G3=M8x12-V Grub screw	▲					

▲ minimum order quantity required

647H86 (4R100,4R63)
647H10 (4R68)

Lamination anchor with pyramid adapter

The 4R100, 4R68 and 4R63 Lamination Anchors are intended for lamination in the transtibial socket.

4R100/4R68

4R63
≤ 136 kg (300 lbs)

Article number	4R100	4R68	4R63
Material	Titanium	Aluminium	Stainless steel
System height	-8 mm	-7 mm	
Weight	55 g	70 g	95 g
Max. body weight	100 kg		136 kg

- 4R100, 4R63: 4X3 and 4X52 Lamination Dummies have to be used during laminating. They are enclosed with the lamination anchor.
- 4R68: The 4X3 Lamination Dummy have to be used for laminating. It is enclosed with the lamination anchor.

647H247

Lamination anchor with pyramid adapter

Article number	4R42
Material	Stainless steel
System height	-5 mm
Weight	130 g
Max. body weight	150 kg

- The 4X3 Lamination Dummy should be used for laminating. It is enclosed with the lamination anchor.

647H247

4R43 Lamination anchor with threaded connector

The 4R43 Lamination Anchor can be combined e.g. with the 4R44=L Pyramid Receiver with Threaded Connector as a length-adjustable socket connection, or with the 4R57=ST Rotation Adapter. In the latter case, the 4X46=ST Lamination Dummy has to be used for laminating. It must be ordered separately (see accessories Page 156).

Article number	4R43
Material	Stainless steel
System height	8 mm
Weight	95 g
Max. body weight	125 kg

- Use the 4X46 Lamination Dummy when laminating. It must be ordered separately (see accessories Page 156).

4R89 Lamination anchor with pyramid adapter, rotatable

Article number	4R89
Material	Stainless steel
System height	-3 mm
Weight	180 g
Max. body weight	125 kg

- Use the 4X46 Lamination Dummy when laminating. It must be ordered separately (see accessories Page 142).

647H247

4R41 Lamination anchor with pyramid receiver, rotatable

Article number	4R41
Material	Stainless steel
System height	39 mm
Weight	170 g
Max. body weight	125 kg

- Use the 4X46 Lamination Dummy when laminating. It must be ordered separately (see accessories Page 142).

647H247

4R111=N Lamination anchor with threaded connector

The 4R111=N Lamination Anchor can be combined e.g. with the 4R44=L Pyramid Receiver with Threaded Connector as a length-adjustable socket connection, or with the 4R57=ST Rotation Adapter. In the latter case, the 4X46=ST Lamination Dummy has to be used for laminating. It must be ordered separately (see accessories Page 156).

≤ 150 kg

Article number	4R111=N
Material	Stainless steel
System height	13 mm
Weight	80 g
Max. body weight	150 kg

- Use the 4X46 Lamination Dummy when laminating. It must be ordered separately (see accessories Page 142).

647G123

647G123

4R116 Lamination anchor with pyramid adapter, rotatable

≤ 150 kg

Article number	4R116
Material	Stainless steel
System height	2 mm
Weight	165 g
Max. body weight	150 kg

- Use the 4X46 Lamination Dummy when laminating. It must be ordered separately (see accessories Page 142).

647G123

4R111 Lamination anchor with pyramid receiver, rotatable

≤ 150 kg

Article number	4R111
Material	Stainless steel
System height	44 mm
Weight	155 g
Max. body weight	150 kg

- Use the 4X46 Lamination Dummy when laminating. It must be ordered separately (see accessories Page 142).

4X46 Lamination dummy

for 4R41, 4R89, 4R111, 4R116, 4R119, 4R43, 4R111=N as well as 4WR95=1 and 4WR95=2 Lamination Anchor

Article number	4X46

4R119 Lamination anchor with pyramid receiver and angled arm, rotatable

The 4R119 Lamination Anchor features an angled anchor arm, which is to be positioned posteriorly. This allows the adapter to be positioned easily for optimised prosthesis alignment (note the socket position and/or the flexion angle).

≤ 150 kg

647G476

Article number	4R119
Material	Stainless steel
System height	44 mm
Weight	165 g
Max. body weight	150 kg

- Only suitable for use in transfemoral prostheses.

Use the 4X46 Lamination Dummy when laminating. It must be ordered separately. See Page 142

4R87 is available as an individual component of the 4R59 and 4R116

4R87 Pyramid adapter with threaded connector

Article number	4R87
Material	Stainless steel
System height	-11 mm
Weight	85 g

4R44=N is available as an individual component of the 4R41, 4R111 and 4R119

4R44=N Pyramid receiver with threaded connector

Article number	4R44=N
Material	Stainless steel
System height	31 mm
Weight	75 g

Single components as replacement parts

Article number	4R41	4R43	4R89	4R111	4R111=N	4R116	4R119
4R43 Lamination anchor with threaded connector	■		■				
4R44=N Pyramid receiver with threaded connector	■			■			■
4R87 Pyramid adapter with threaded connector			■			■	
4R111=N Lamination anchor with threaded connector				■		■	
501Z2=M5x22 Cap screw							▲
501Z2=M5x30 Cap screw	▲	▲	▲				
501Z2=M6x22 Cap screw				▲	▲	▲	
506G3=M8x12-V Grub screw	▲			▲		▲	▲
507U16=5,2-Niro Rounded washer				▲	▲	▲	▲

▲ minimum order quantity required ■ can be ordered individually

Socket adapter with pyramid adapter

647H31

Article number	4R54	4R74	4R23
Material	Titanium	Aluminium	Stainless steel
System height	-11 mm	-7 mm	-11 mm
Weight	50 g	55 g	85 g
Max. body weight	150 kg	100 kg	125 kg

4R77 Socket adapter with pyramid adapter, rotatable

The pyramid adapter of the 4R77 Socket Adapter has a 9.5 mm bore hole. With corresponding positioning of the adapter, the bore hole permits a combination with the 5R2 Lamination Disc and the 6A30=10 or 6A30=20 Shuttle Lock.

≤ 150 kg

647H31

Article number	4R77
Material	Titanium
System height	-9 mm
Weight	70 g
Max. body weight	150 kg

4R73 Socket adapter with pyramid adapter, eccentric

Thanks to the eccentric arrangement of the pyramid adapter, the 4R73=A and 4R73=D Adapters permit sliding adjustment of the prosthetic socket in various planes.
The 4R73=A permits sliding adjustment in the sagittal and frontal plane. The arrangement of its pyramid adapter is axial-eccentric.
The 4R73=D permits a 45° combination in the sagittal and frontal plane. The arrangement of its pyramid adapter is diagonal-eccentric.

≤ 150 kg

647H31

4R73=D

4R73=A

Article number	4R73=A	4R73=D
Material	Titanium	
System height	-11 mm	
Weight	60 g	
Pyramid adapter alignment	Axially offset by 7 mm	Diagonally offset by 5 mm
Max. body weight	150 kg	

647G382

Socket adapter with pyramid receiver

4R55
≤ 150 kg (330 lbs)

4R95

4R22

Article number	4R55	4R95	4R22
Material	Titanium	Aluminium	Stainless steel
System height	33 mm		
Weight	50 g		85 g
Max. body weight	150 kg	100 kg	125 kg

647G382

Socket adapter with pyramid receiver, rotatable

4R51
≤ 150 kg (330 lbs)

4R37

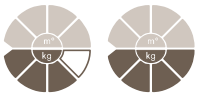
Article number	4R51	4R37
Material	Titanium	Stainless steel
System height	36 mm	
Weight	80 g	140 g
Max. body weight	150 kg	125 kg

Single components as replacement parts

Article number	4R22	4R37	4R51	4R55	4R77	4R95
4Y19 Pressure plate		▲	▲		▲	
506G3=M8x12-V Grub screw	▲	▲	▲	▲		
506G3=M8x14 Set screw						▲

▲ minimum order quantity required

5R1 Socket attachment block for lamination technique



5R1=1
5R1=2
5R1=6

5R1=6-H
≤ 150 kg (330 lbs)

647G92
647G183 (5R1=6-H)

Article number	5R1=1	5R1=2	5R1=6	5R1=6-H
Wood connection diameter	147 mm	120 mm		
Material	Wood			
System height			30 mm	33 mm
Min. system height	46 mm			
Max. system height	64 mm			
Weight	445 g	355 g	155 g	240 g
Max. body weight	125 kg			150 kg

- The 4X6 Lamination Dummy has to be used for laminating. It is included with the socket attachment blocks.

5R2 Lamination disc

The 5R2 Lamination Disc can be combined with various Ottobock socket adapters as well as the 6A30=20 Shuttle Lock system.

≤ 150 kg

647G179

Article number	5R2
Material	Aluminium
System height	9 mm
Weight	70 g
Max. body weight	150 kg

- The 4X86 Lamination Dummy has to be used for laminating. It is enclosed with the lamination disc.

5R2=C Socket attachment

The 5R2=C Socket Attachment is made of carbon and therefore particularly well suited for use in innovative carbon sockets. Since the carbon socket material and the carbon socket attachment have the same expansion properties, an excellent form and material fit between the socket and the socket attachment is achieved when the socket is fabricated.

≤ 150 kg

Article number	5R2=C
Material	Carbon
System height	10 mm
Weight	50 g
Max. body weight	150 kg

- 616B10=5 Carbon Fibre Woven Prepreg is particularly well suited for the fabrication of a thin-walled, high-strength and lightweight socket. See the catalogues 646K1 "Materials" and 646K10 "Consulting, Planning and Equipping"
- Information on the SiOXC TF socket system from Ottobock Service Fabrication, which is also made of carbon, is available in the catalogue 646K71 "Service Fabrication" and the 646D437 Technical Information.

647H4

5R6 Socket attachment for thermoplastic socket

The 5R6 Socket Attachment is available for three residual limb circumferences. It serves to provide a detachable connection for thermoplastic sockets with the modular system.

6B3 Halmstad Interim Transtibial Prosthesis Kit:
the 5R6 Socket Attachment Block and the distal modular component have to be ordered separately for finishing the prosthesis.

Article number	5R6=1	5R6=2	5R6=3
Material	Aluminium		
for	6B3=1	6B3=2	
Residual limb end circumference	~400 mm	~320 mm	~250 mm
System height	4 mm		
Weight	160 g	135 g	115 g
Max. body weight	100 kg		

- The 5Y14 Tool is required to create the proper distal shape. It must be ordered separately (see accessories Page 149).

Accessories for 5R6

5Y14 Tool

This tool facilitates creating the proper distal shape.

Article number	5Y14=1	5Y14=2	5Y14=3
for	5R6=1	5R6=2	5R6=3

647H4

4R108 / 4R109 Socket attachment with tube connection/pyramid adapter

The 4R108/4R109 Socket Attachments serve to create an adjustable connection between the transtibial socket and distal portion of the prosthesis. Adjustment is performed during trial fitting. Finally the adapter is fixed against twisting to secure it. After loosening the central countersunk head screw, the lower part of the adapter can be shifted in relation to the lamination or vacuum forming shell integrated in the socket by 8 mm medially and laterally in the frontal plane and by 6 mm dorsally and ventrally in the sagittal plane.

647H230

Article number	4R108=3L	4R108=3T	4R109=3L	4R109=3T
Diameter	30 mm		-	
Material	Aluminium			
System height	16 mm	17 mm	1 mm	2 mm
Weight	280 g	255 g	280 g	265 g
Displacement in frontal plane	+/- 8 mm			
Displacement in the sagittal plane	+/- 6 mm			
To be used for	Laminated socket	Thermoplastic socket	Laminated socket	Thermoplastic socket
Max. body weight	100 kg			

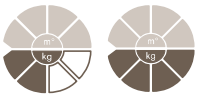
- The 4X100 Lamination Dummy has to be used for laminating or vacuum forming. It is included with the socket attachments.
  For the fabrication of the thermoplastic socket, the lamination dummy must be mounted on the vacuum forming shell. The lamination dummy will be removed after vacuum forming.

Single components as replacement parts

Article number/Reference number	4R108 / 4R109 / 5R1 / 5R6	4R109	5R1	5R2	5R6
501S41=M6x12 Countersunk head screw (allen screw)				▲	
501S41=M6x16 Countersunk head screw (allen screw)				▲	
501S41=M6x25 Countersunk head screw (allen screw)			▲		
501S41=M6x30 Countersunk head screw (allen screw)					▲
501S41=M10x20 Countersunk head screw (allen screw)	▲				
501S74=3,5x9,5 Sheet metal screw				▲	
501Z2=M6x22 Cap screw	▲				
501Z10 Oval countersunk head screw		▲			
506S1=5x16 Clamping sleeve	▲	▲			

▲ minimum order quantity required

Modular transtibial sets



≤ 150 kg

Article number	2R120	2R121	2R102
Diameter	30 mm		34 mm
Material	Titanium		
Consisting of	4R52 Tube clamp adapter, 2R37 Tube adapter	4R100 Lamination anchor with pyramid adapter, 4R52 Tube clamp adapter, 2R37 Tube adapter	4R82 Tube clamp adapter, 2R57 Tube adapter
Max. body weight	100 kg		150 kg

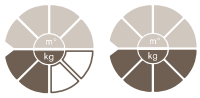
Technical data and information for the individual components of the set are found under the respective components.

Modular transtibial and transfemoral sets

Article number	2R105	2R122	4R201
Diameter	30 mm		
Material	Aluminium		Aluminium, Stainless steel
Consisting of	4R69 Tube clamp adapter, 2R50 Tube adapter	4R68 Lamination anchor with pyramid adapter, 4R69 Tube clamp adapter, 2R50 Tube adapter	4R37 Socket adapter with pyramid receiver, rotatable, 3R40 Modular lightweight single axis knee joint with lock, 2R49 Tube adapter
Max. body weight	125 kg	100 kg	

Technical data and information for the individual components of the set are found under the respective components.

Modular transtibial sets



≤ 150 kg

Article number	2R123	2R124	2R125=M8	2R125=M10	2R103
Diameter	30 mm				34 mm
Material	Stainless steel				
Consisting of	4R21 Tube clamp adapter, 2R2 Tube adapter	4R63 Lamination anchor with pyramid adapter, 4R21 Tube clamp adapter, 2R2 Tube adapter	4R63 Lamination anchor with pyramid adapter, 4R21 Tube clamp adapter, 2R2 Tube adapter, 2R8=M8 SACH foot adapter with screw connection	4R63 Lamination anchor with pyramid adapter, 4R21 Tube clamp adapter, 2R2 Tube adapter, 2R8=M10 SACH* foot adapter with screw connection	4R91 Tube clamp adapter, 2R76 Tube adapter
Max. body weight	100 kg				150 kg

Technical data and information for the individual components of the set are found under the respective components.

Rotation adapter

Through incorporation of the rotation adapter above the knee joint, the lower leg may be rotated medially or laterally relative to the socket with the knee flexed.
For the amputee, this mainly translates into enhanced safety. The prosthesis can be swung to the side while driving. This minimises the risk of the prosthetic foot becoming stuck in the area of the pedals. The pedals can be operated using the other leg with no restrictions. In addition, this function allows the amputee to sit in a more comfortable and relaxed position behind the wheel, improving the focus on driving.
Furthermore, the rotation adapter means enhanced comfort for the amputee. It makes everyday activities such as putting on shoes and changing socks easier and allows the amputee to sit comfortably. The sitting position can be varied up to sitting cross-legged. The rotating mechanism is activated through pressing of the release button and is locked automatically.

647G258

There are two available versions which have the same function, but differ in terms of the proximal connection:

- Rotation adapter with pyramid adapter and pyramid receiver: the 4R57 Rotation Adapter is equipped with a proximal pyramid adapter.
- Rotation adapter with threaded connector and pyramid receiver: the 4R57=ST Rotation Adapter is equipped with a proximal thread. This allows for particularly space-saving integration of the adapter which can be screwed into the 4R111=N Lamination Anchor or the 4R43 Lamination Anchor.

≤ 150 kg

Article number	4R57	4R57=ST
Material	Stainless steel	
Distal connection	Pyramid Receiver	
Proximal connection	Pyramid Adapter	Thread
System height	22 mm	42 mm
Weight	170 g	185 g
Rotation	max. 360° (without foam cover)	
Max. body weight	150 kg	

- In order for the 4R57=ST Rotation Adapter to be able to be screwed properly into the lamination anchor, the 4X46=ST Lamination Dummy must be used for laminating. It must be ordered separately (see accessories Page 156).
- The 4R57 cannot be combined with the 2R49, 2R50 or 4R95.

Accessories

4X46=ST Lamination dummy

Article number	4X46=ST
for	4R57=ST Rotation Adapter

Single components as replacement parts

Article number	4R57	4R57=ST
4X69=1 Release button cover, grey	■	■
4X69=7 Release button cover, black	■	■
506G3=M8x12 Grub screw	▲	▲

▲ minimum order quantity required ■ can be ordered individually

Torsion adapter

Torsion adapters offer significant advantages for amputees, regardless of the amputation level. The socket holds the residual limb in place and therefore prevents rotation and torsion movements. Ottobock torsion adapters can compensate for this lack of mobility. This pays off during activities in confined spaces at work or home (e.g. the kitchen), where more mobility translates into enhanced safety for the amputee while performing his/her activities. For leisure activities, the torsion adapters also provide a solid basis for more mobility and comfort, for example while playing golf or tennis. Torsion adapters also help minimise shear forces in the area of the residual limb, which can otherwise result in painful shifting of soft tissues under stress. The torsion adapters serve to harmonise the gait pattern and improve wearer comfort, thereby reducing compensating movements and helping to prevent subsequent problems.

647G23

4R85 Torsion adapter

Torsion adapter with pyramid receiver and Ø 30 mm tube connection.

Article number	4R85
Mobility grade	1 - 4
Diameter	30 mm
Material	Stainless steel
System height	68 mm
Weight	350 g
Rotation angle limitation by stops	+/- 20°
Stop strength	~ 100 Nm
Torsion moment of spring elasticity	7 Nm to max. 19 Nm
Max. body weight	100 kg

- When the 4R85 is used with the 3R15 and 3R49 Knee Joint with Friction Brake, the longer extension assist pulley included with the torsion adapter must be used.

4R86 Torsion adapter

Torsion adapter with pyramid receiver and Ø 34 mm tube connection.

≤ 110 kg

647G23

Article number	4R86
Mobility grade	1 - 4
Diameter	34 mm
Material	Titanium
System height	68 mm
Weight	340 g
Rotation angle limitation by stops	+/- 20°
Stop strength	~ 100 Nm
Torsion moment of spring elasticity	7 Nm to max. 19 Nm
Max. body weight	110 kg

4R40 Torsion adapter

The adapter has a proximal screw plate and distal pyramid receiver.

647G23

Article number	4R40
Mobility grade	1 - 4
Material	Stainless steel
System height	58 mm
Weight	340 g
Rotation angle limitation by stops	+/- 20°
Stop strength	~ 100 Nm
Torsion moment of spring elasticity	7 Nm to max. 19 Nm
Max. body weight	125 kg

4R39 Torsion adapter

Torsion adapter with Ø 30 mm tube and pyramid receiver.

647G23

Article number	4R39
Mobility grade	1 - 4
Diameter	30 mm
Material	Stainless steel
Min. system height	113 mm
Max. system height	476 mm
Weight	500 g
Rotation angle limitation by stops	+/- 20°
Stop strength	~ 100 Nm
Torsion moment of spring elasticity	7 Nm to max. 19 Nm
Max. body weight	125 kg

Single components as replacement parts

Article number	4R39	4R40	4R85	4R86
4D4 Single component pack			●	●
506G3=M8x12 Grub screw	▲	▲	▲	▲

▲ minimum order quantity required ● Single Component Pack

646A196=D 647H441

DeltaTwist

With the loss of the foot and part of the leg, the amputee has lost important proprioceptors and muscle groups which, through their interplay, ensure a harmonious gait pattern under physiological conditions. The DeltaTwist shock absorber, which also features a torsion function, is able to compensate for this loss to a certain degree. Its shock absorbing function and torsion function provide more safety, mobility and comfort. With its integration into the prosthesis, a more symmetrical gait pattern can be achieved. Instabilities can be eliminated and compensating movements are reduced. It relieves the locomotor system and residual limb.

Both shock absorption and the torsion function can be adjusted individually and independently by means of various elastomer components of different durometers. This allows the specific movement pattern of every amputee as well as biomechanical insights to be taken into account.

When needed, interior or exterior torsion can also be suppressed using the rotation locking segment (see accessories).

The DeltaTwist can be used for transfemoral as well as transtibial prostheses.

4R121=30
4R120

4R121=34

Article number	4R120	4R121=30	4R121=34
Mobility grade	2 - 4		
Outside Ø	47 mm		
Material	Aluminium		
Distal connection	Pyramid Receiver		
Proximal connection	Tube clamp Ø 30 mm	Tube Ø 30 mm	Tube Ø 34 mm
System height	117 mm		
Min. system height		117 mm	174 mm
Max. system height		553 mm	578 mm
Weight	~ 340 g	~ 530* g	~ 585* g
max. torsion inner/outer	± 20°		
max. dampening	~ 8 mm		
Max. body weight	100 kg		125 kg

* After maximum shortening, the weight of the 4R121=30 is 325 g and the 4R121=34 is 355 g.

Indications:

- Unnatural, asymmetrical gait pattern in terms of the rotation in transversal plane (around the body's longitudinal axis)
- Overloading of the residual limb and locomotor system due to impact load and shear forces
- Significant sensibility against impact loads such as formation of oedema on the residual limb
- Pronounced dynamic gait patterns
- Frequent torsion stress (rotational movements) at work and during leisure activities

Socket wrench consisting of:

Article number	4R121=30	4R121=34
709H7 Socket nut 1/2" hexagon SW11	■	■
709H8 Socket nut extension 1/ 2", length 575 mm	■	■
709H9 T-handle 1/2"	■	■

■ can be ordered individually

Single components as replacement parts

Article number	4R120	4R121=30	4R121=34
633F30 Special grease (tube)	■	■	■
709H4 Combination wrench	■	■	■
709H5=1 Elastomer plate, hardness: soft	■	■	■
709H5=2 Elastomer plate, hardness: medium	■	■	■
709H5=3 Elastomer plate, hardness: hard	■	■	■
709H6=1 Elastomer bar, hardness: soft	■	■	■
709H6=2 Elastomer bar, hardness: medium	■	■	■
709H6=3 Elastomer bar, hardness: hard	■	■	■

■ can be ordered individually