

Otto Bock[®]

QUALITY FOR LIFE



The Unilateral Joint System

Featuring the RGO

The Unilateral Joint System

Modular, Unilateral and Multifunctional

For decades, Otto Bock has set the standards for creating modular orthotic devices. The technology, precision and security of these orthotic fittings are distinguished by systems that are user friendly and easy to service.

Due to the growing demand for a high-quality system, we created additional options for you and your patients.

With the new Otto Bock Unilateral Joint System, you can stock fewer parts and deliver unilateral fitting without compromising the proven principles and high quality of Otto Bock system components.

The System

The Unilateral Joint System consists of a knee and ankle joint. A connection channel makes it possible to combine both functional parts with a unilateral system bar. If you want to use it with the 17H100 Otto Bock RGO Hip Joint System, connectors are available for completing the system.



Area of Application and Weight Classification

The Unilateral Joint System including the RGO hip joint system can be used with various types of orthoses such as those for traumatic paraplegia or spina bifida at a lesion height of T5 - S2. These joints are also recommended for patients with neuromuscular diseases such as poliomyelitis / post polio syndrome.

When fitting with a reciprocating gait orthosis, special components make it possible to connect the Unilateral Joint System to the Otto Bock RGO Hip Joint System.

The modular concept makes the entire system, including the RGO components, easy to update as patient needs change.

The components of the joint are uniquely classified according to body weight and lower leg lever arm. The classification system simplifies the selection of the size. Size 1 is intended for patients up to 220 lbs, size 2 up to 165 lbs and size 3 up to 99 lbs.

Classification of the lower leg lever arm is also necessary because of the different degrees of leverage accompanying different body sizes. Size 1 is limited to 55 cm from the medial tibial plateau (MTP) to the floor. Size 2 is limited to 45 cm and size 3 to 35 cm.



17LK1 Unilateral Knee Joint

The unilateral knee joints have been developed modularly. The modular design simplifies the adaptation and maintenance of the joints and makes them more economical. All moveable components can be replaced at any time. The knee joint can be equipped or adapted to meet the requirements of the patient.

It is possible for you to use one joint type for various purposes when treating a patient. The following configurations are possible:

1. Joint with knee lever lock (Figure 1)
2. Joint with cable control lock (Figure 2)
3. Free swing joint (Figure 3)

Option: Temporary Release

The joints are delivered with all equipment options. This allows you to choose, try, and determine the best function with the patient during the fitting session.

The position of the knee joints posterior to the weight bearing line has two significant advantages:

- Application as freely moveable joint
- Quick and easy disengagement of the lock

The functional construction of the knee joint allows the retrofitting or upgrading of individual functions at any time.

The joints feature special plastic bearing bushings and do not require lubrication.

The moveable components are easily accessible and, if required, can be replaced at any time. The knee joint can thereby easily be serviced.

Since the design of the knee joint allows for straight lower leg bars, bars with contoured calf are no longer needed.

Unilateral system bars made of aluminium are available for the connection to the ankle bars as well as to the proximal extension of the construction. The dimensions of the 17LS1=* extension bars are coordinated with the knee and ankle joints.

The delivered system bars are 100 cm long and in available sizes =1, =2 and =3.



Size	Weight	Lower leg length (MTP/floor)
1	up to 220 lbs	up to 55 cm
2	up to 165 lbs	up to 45 cm
3	up to 99 lbs	up to 35 cm

In all three joint sizes the weight bearing line must not be more than 3 cm posterior to the compromised center of rotation according to Nietert (60/40)!



Fig. 1



Fig. 2



Fig. 3

17LA1 Unilateral Ankle Joint

A new kind of ankle joint for unilateral fitting has been constructed in an unusual, though highly functional design.

The special feature of this joint is its slim design, which – for a unilateral ankle joint – is rather unusual.

By offsetting the lower leg bar and the foot stirrup towards each other, we designed ankle joints that are virtually the same size as traditional joints.

This offers decisive advantages in terms of structural height, effectiveness of the dorsiflexion-assist and cosmetics.

In terms of function, it offers many possibilities.

Replaceable stop inserts allow different stop angles to be used for limiting movement. These range from an angle size of 0°-15°.

Another feature is the connection between ankle joint and knee joint.

The lower leg bar with the attachment device for the ankle joint can be directly connected to the knee joint at the proximal end. This significantly reduces the structural height and improves function and appearance of the orthosis.

The dorsiflexion function, which can be used if necessary, ensures effective and soundless dorsiflexion. Using an O-ring made of polyurethane makes it low maintenance and easy to retrofit. If necessary, it is possible to use a second ring for increasing the strength of the dorsiflexion-assist. Thanks to the special bearing technology in the joint, lubrication is unnecessary.

For maintaining the ankle joint, all the moveable parts are easily accessible and can be replaced at any time if required.

Normal shoes can generally be worn thanks to the unilateral guidance and the flat form of the joint. The 17LA1 Ankle Joints are classified the same as the knee joints.

Please notice that the ankle joint is only delivered with joint insert limiting the range of motion, i.e. 0°-0°.

You can reorder the joint inserts as a set or as single parts. We recommend a set as initial equipment.

Joint Insert Set

17LA10=1 for size 1
17LA10=2 for size 2
17LA10=3 for size 3

Individual Joint Inserts:			
Size 1	Size 2	Size 3	Limitation of movement
17LA11	17LA12	17LA13	=0-0
17LA11	17LA12	17LA13	=0-5
17LA11	17LA12	17LA13	=0-10
17LA11	17LA12	17LA13	=0-15
17LA11	17LA12	17LA13	=5-5
17LA11	17LA12	17LA13	=5-10
17LA11	17LA12	17LA13	=5-15
17LA11	17LA12	17LA13	=10-15

Classification of Ankle Joints

Size	Weight	Lower leg length (MTP/floor)
1	up to 220 lbs	up to 55 cm
2	up to 165 lbs	up to 45 cm
3	up to 99 lbs	up to 35 cm



Unilateral ankle joint with foot stirrup



Unilateral ankle joint with split foot stirrup



Upon delivery

17LH100 Connectors

for 17H100 RGO Hip Joint System

The Coordinated Connection of the Unilateral Joint System and the RGO

It is important when fitting a reciprocating gait orthosis, especially on a child, that the components of the orthosis are adjusted to the patient.

The **17H100 RGO Hip Joint System** is designed to be easily adjusted on a growing patient.

The pelvic width of the orthosis can be adapted to the child's growth simply by exchanging the tube connection.

The 17LH100 connectors make it possible to attach the new Unilateral Joint System to the RGO Hip Joint System and are available in 4 different sizes.

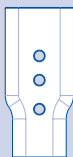
The size of the RGO follows the actual number 17LH100 for the connector. The size of the unilateral system comes after the hyphen.

As a result of similar construction of the RGO 17H100=1 and 17H100=0, these sizes (different cable lengths) are both identified as =1. See the chart below for examples

Ordering example: 17LH100=2-3 Connector suitable for RGO 17H100=2 and 17LK1=3 Unilateral Knee Joint.

Available Connector Sizes

17LH100=2-3
17LH100=2-2
17LH100=1-2
17LH100=1-1



For more information, please contact your Otto Bock Sales Representative at 800.328.4058. You can find information online at www.ottobockus.com

Unilateral Joint System

Order Form

USA 800.328.4058

Fax 800.962.2549

Effective 6/1/2007

Date _____

Account Name _____

Bill to Address _____

City/State/Zip _____

Fax No. _____

Purchase Order No. _____

Account No. _____

Ship to Address _____

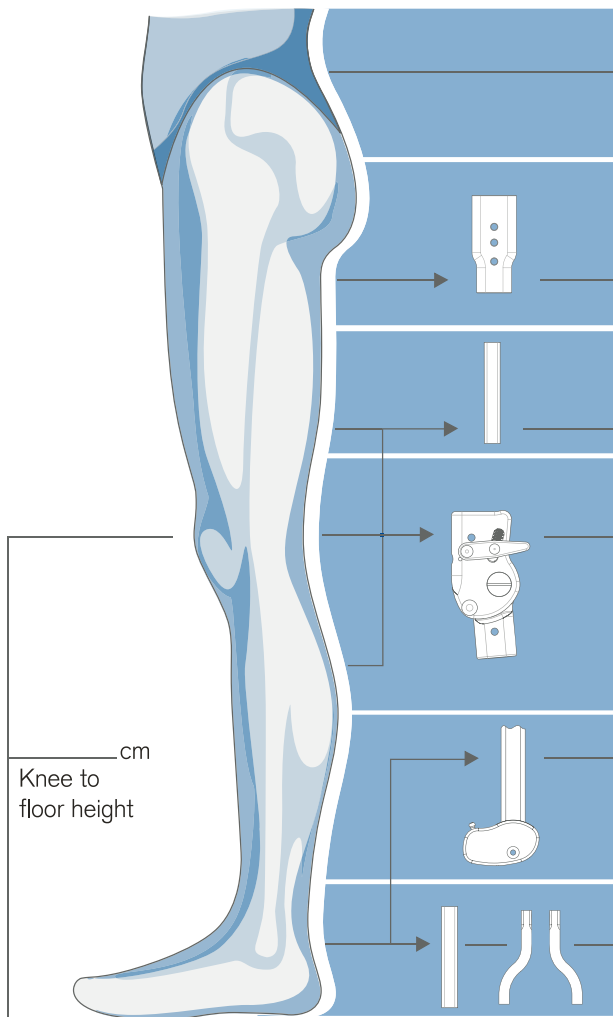
City/State/Zip _____

Phone No. _____

Email Address _____

Authorized Signature _____

Patient Weight _____ Pounds



RGO 17H100

For a copy of the RGO order form go to www.ottobockus.com or contact customer service at 800.328.4058.

Connectors from RGO to knee joint 17LK1=*

- | | |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> 17LH100=2-3 | <input type="checkbox"/> 17LH100=1-2 |
| <input type="checkbox"/> 17LH100=2-2 | <input type="checkbox"/> 17LH100=1-1 |

System bars
17LS1=*

- 3
- 2
- 1

100 cm
Long

Unilateral Knee Joint

- | | | |
|--------------|----------------------------|----------------------------|
| 17LK1=L/R3-5 | <input type="checkbox"/> L | <input type="checkbox"/> R |
| 17LK1=L/R2-5 | <input type="checkbox"/> L | <input type="checkbox"/> R |
| 17LK1=L/R1-5 | <input type="checkbox"/> L | <input type="checkbox"/> R |

Unilateral Ankle Joint

- | | |
|---------|--------------------------|
| 17LA1=3 | <input type="checkbox"/> |
| 17LA1=2 | <input type="checkbox"/> |
| 17LA1=1 | <input type="checkbox"/> |

Joint ROM Stops
(range of motion)

- | | |
|----------|--------------------------|
| 17LA10=3 | <input type="checkbox"/> |
| 17LA10=2 | <input type="checkbox"/> |
| 17LA10=1 | <input type="checkbox"/> |

Foot Stirrup

- | | |
|---------|--------------------------|
| 17LF1=3 | <input type="checkbox"/> |
| 17LF1=2 | <input type="checkbox"/> |
| 17LF1=1 | <input type="checkbox"/> |

Split Foot Stirrup

- | | | |
|---------|----------------------------|----------------------------|
| 17LF2=3 | <input type="checkbox"/> L | <input type="checkbox"/> R |
| 17LF2=2 | <input type="checkbox"/> L | <input type="checkbox"/> R |
| 17LF2=1 | <input type="checkbox"/> L | <input type="checkbox"/> R |

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