

Contracture *Management*

Joints for
**Dynamic
Corrective
Orthotic
Systems**



Corrective and Free Motion Joints
with Uprights, T-Bars, & Abduction Bars
for **CUSTOM** Fabricated Orthoses

MultiMotion

Dynamic Corrective System Joint

The MultiMotion Dynamic Corrective System Joint consists of two components – the Corrective Joint and your choice of Free Motion or R.O.M. Joint. All components are available in Small and Regular sizes.

MultiMotion Dynamic Corrective System Joint

Functionality of the MultiMotion Corrective Joint is based on the LLPS principles (Low Load Prolonged Stretch). This process of gradual, precise and evenly applied tension, stimulates the growth of the shortened tissue and increases joint mobility. Treatment of contracture can be done in either flexion or extension, based on patient needs.

- Torque output in flexion or extension by simply flipping the spring
- Range of Motion +120° to -120°
- Adjustable flexion and extension stops: Small in 14° increments, Regular in 12° increments
- Locking and unlocking possible in virtually any position
- Torque Output; from 0 Nm to 3.4 Nm (30 in-lb) for size small, 0 Nm to 10.2 Nm (90 in-lb) for size Regular
- Medial and lateral access to set screw for torque output adjustments



Corrective Joint with Bar Adapter
69100/69200



Corrective Joint with T-Bar, 12mm Offset
69113/69213

Refer to page 6 for an illustrative guide on how you will (1) adjust for flexion or extension based on anatomical joint to be managed, (2) adjust degree of ROM, and (3) adjust amount of force (torque).

Corrective Joint Specifications			1/Pkg.			
Item #	Distal Joint Connection	Size	Max Torque	Joint Weight	Housing Diameter	Bar Width
69200 0000	Bar Adapter	Small	3.4 Nm	100 grams	35 mm	12 mm
69100 0000	Bar Adapter	Regular	10.2 Nm	240 grams	53 mm	16 mm
69213 0000	T-Bar 12 mm Offset	Small	3.4 Nm	123 grams	35 mm	12 mm
69113 0000	T-Bar 12 mm Offset	Regular	10.2 Nm	284 grams	53 mm	16 mm
691220000	Straight Uprights	Small	3.4 Nm	155 grams	35 mm	12 mm
691210000	Straight Uprights	Regular	10.2 Nm	395 grams	53 mm	16 mm
691250000	Straight Upright & T-Bar with 12 mm Offset	Small	3.4 Nm	150 grams	35 mm	12 mm
691230000	Straight Upright & T-Bar with 12 mm Offset	Regular	10.2 Nm	360 grams	53 mm	16 mm

NOTE: 3.4 Nm = 30 in-lb / 10.2 Nm = 90 in-lb



Corrective Joint with Integrated Straight Bar
69121/69122



Corrective Joint with Integrated T-Bar 12mm Offset
69123/69125

MultiMotion Components

MultiMotion Free Motion Joint

The Free Motion Joint is positioned on the opposite side of the Corrective Joint and provides the desired torsional stiffness to the orthosis.

- Free Motion Joint (+135° to -135°)
- Material: aluminum, steel/stainless steel, brass, PC/ABS plastic

Free Motion Joint Specifications			1/Pkg.	
Item #	Distal Joint Connection	Size	Joint Weight	System Bar Width
69505 0000	Bar Adapter	Small	33 grams	12 mm
69500 0000	Bar Adapter	Regular	35 grams	16 mm
69518 0000	T-Bar 12 mm Offset	Small	41 grams	12 mm
69513 0000	T-Bar 12 mm Offset	Regular	50 grams	16 mm
691280000	Straight Uprights	Small	55 grams	12 mm
691270000	Straight Uprights	Regular	85 grams	16 mm
691310000	Straight Upright & T-Bar with 12 mm Offset	Small	50 grams	12 mm
691290000	Straight Upright & T-Bar with 12 mm Offset	Regular	70 grams	16 mm

NOTE: Housing Diameter of all Free Motion Joints = 33mm



MultiMotion R.O.M. Joint

The R.O.M. Joint is positioned on the opposite side of the Corrective Joint and provides the desired torsional stiffness to the orthosis.

ROM Joint Specifications			1/Pkg.	
Item #	Size	Joint Weight	Housing Diameter	System Bar Width
69555 0000	Small	38 grams	44 mm	12 mm
69550 0000	Regular	40 grams	44 mm	16 mm



- Flexion/Extension stops are adjustable:
Small: in 14° increments,
Regular: in 12° increments
- Material: aluminum, steel/stainless steel, brass, PC/ABS plastic

Selection criteria for appropriate Joint size

The MultiMotion Corrective Joint, the Free Motion Joint and R.O.M. Joint are all available in just two sizes: Small and Regular. With these two joint sizes you can treat wrist, elbow, knee and ankle contractures - both for children and adults. When applied to the wrist, the selection criteria is: small anatomical body joint = small joint system. When applied to the elbow - knee or ankle joint, body weight is decisive.

Joint type:		Corrective		Free Motion	
Anatomy	Weight	Small	Regular	Small	Regular
Wrist	N/A	×		×	
Elbow, Knee, Ankle	<22 kg/50 lbs.	×		×	
Elbow, Knee, Ankle	>22 kg/50 lbs.		×		×

MultiMotion Accessories

MultiMotion Uprights

- All uprights are supplied pre-drilled for optimal attachment to the MultiMotion Joints
- High Rigidity Uprights available in Straight, Offset, & T-Bar styles
- Choice of 12mm or 16mm bar widths
- Material: Aluminum

Upright Specifications 2/Pkg.					
Item #	Style	Size	Length	Width	Thickness
69701 0000	Straight	Small	200 mm	12 mm	3.2 mm
69702 0000	Straight	Regular	200 mm	16 mm	4 mm
69705 0000	Offset	Small	350 mm	12 mm	3.2 mm
69706 0000	Offset	Regular	450 mm	16 mm	4 mm
69722 0000	T-Bar	Small	150 mm	12 mm	3.2 mm
69723 0000	T-Bar	Regular	150 mm	16 mm	3.2 mm



MultiMotion Alignment Tool

The Alignment Tool is used on the positive cast to properly align the joints, and can be used multiple times.

- Package contents: Round T-bar and two hinge adaptor sets with screws and washers for both joints, Small and Regular.

Item No. 69950 0000
Alignment Tool



Quick MultiMotion Joint and Upright Item No. Summary						
MULTIMOTION JOINTS	Standard		W/ T-Bar 12 mm Offset			
	Small	Regular	Small	Regular		
Size:						
CORRECTIVE	69200 0000	69100 0000	69213 0000	69113 0000		
CORRECTIVE W/ UPRIGHTS	69122 0000	69121 0000	69125 0000	69123 0000		
FREE MOTION	69505 0000	69500 0000	69518 0000	69513 0000		
FREE MOTION W/ UPRIGHTS	69128 0000	69127 0000	69131 0000	69129 0000		
ROM	69555 0000	69550 0000	N/A	N/A		
MULTIMOTION UPRIGHTS	Straight		Offset		T-Bar	
Bar Width:	Small	Regular	Small	Regular	Small	Regular
High Rigidity	69701 0000	69702 0000	69705 0000	69706 0000	69722 0000	69723 0000

NOTE: All MultiMotion Corrective, Free Motion, and ROM Joints are for non-weight bearing orthoses.

MultiMotion

Binky - Universal Free Motion Joint

This universal joint is used for the production of orthoses without any flexion or extension stops. It can also be used as a Free Motion joint.

- Free motion
- Single axis
- Pre-drilled M4 threaded holes
- Includes four M4 x 6 torx 15 screws and alignment tool
- Material: stainless steel



Binky - Universal Free Motion Joint				
Item #	Width	Length	Thickness	Package
69688 0011	12 mm	62 mm	2,5 mm	1 pair
69688 0013	18 mm	76 mm	2,5 mm	1 pair

The Dynamic Corrective System Joint

This joint offers fast, efficient and adequate treatment of contractures resulting from neurological and orthopedic conditions. The system joint is fabricated into orthoses – for both children and adults.

Intended use: Treatment of correctable contractures

Functional restrictions according to ICF



Product function

- Continuously adjustable dynamic extension or flexion of the joint

Benefits for achieving therapy objectives

- Improvement/rehabilitation of joint mobility
- Safe and step-wise joint mobilization
- Extension/mobilization of spastic musculature
- Strengthening of musculature
- Improvement of the resting posture
- Prevention of cartilage damage and ulcers

MultiMotion

Corrective Joint

Just 3 Simple Adjustments

1 Flexion/Extension

How can one joint be used for either flexion or extension?

- It's simple! Just open the joint housing and flip the spring to change the direction of the forces!
- The spring is color coded, one side red and the other yellow. See the chart below to identify the color required based on anatomical location.



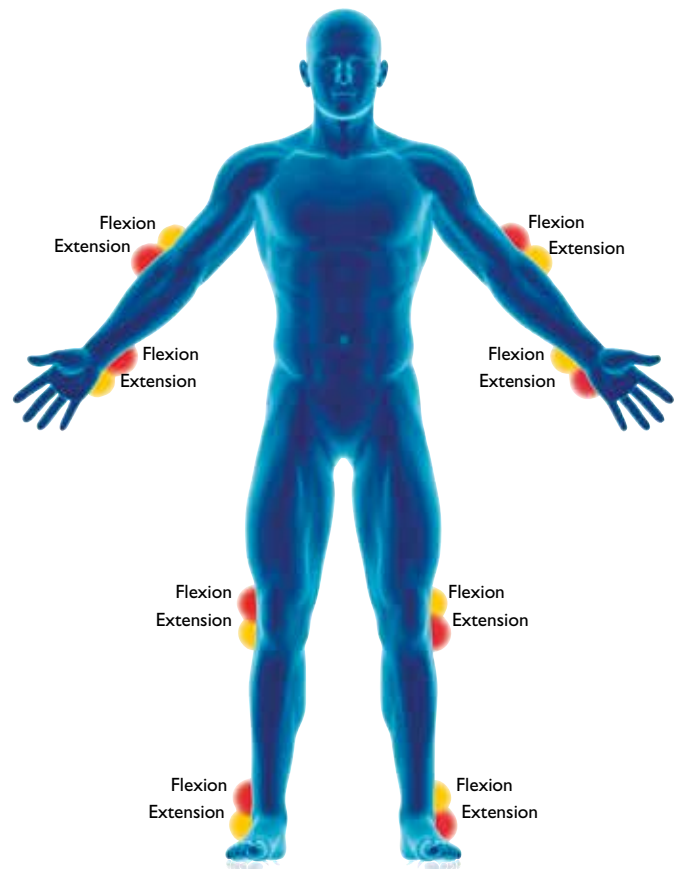
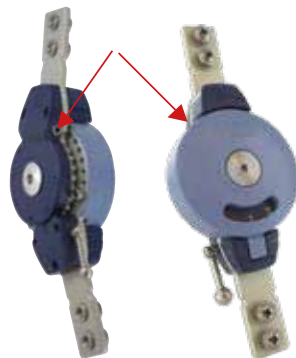
2 ROM

Position screws to desired Range-of-Motion limitation.



3 Force Control (Torque)

Find trigger point and scale back.



MultiMotion

Dynamic Hip Abduction System

For safe treatment of correctable pediatric hip contractures.

- Positions the child's leg in an optimal position and stabilizes the hip joint
- Adductors are stretched by slow elongation
- Can be locked and un-locked in desired position
- Adjustable flexion and extension stops; Small 14° intervals, Regular 12° intervals

Features

- Improved/regained joint movement
- Safe and gradual joint mobilization
- Stretch/mobilization of spastic muscles
- Prevents cartilage damage

Intended use

Neurological

- Spastic diplegia
- Spastic tetraplegia
- Spastic triplegia

Orthopedic

- Congenital subluxation of the hip joint

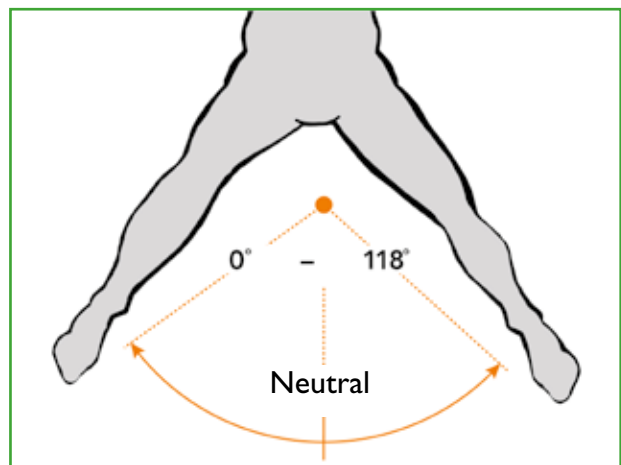
The Hip Abduction System consists of two components: The MultiMotion Corrective Joint and the Abduction Bars. These two components are mounted to a custom fabricated orthosis.

Abduction Bars, Aluminium

Item No.	Size	Measure
69721 0000	Small, Set of 2	<105 cm (41 inches)
69720 0000	Regular, Set of 2	>105 cm (41 inches)

MultiMotion Corrective Joint

Item No.	Size	Max. Rotation Torque	Joint Housing Diameter	Joint Weight	Age
69200 0000	Small	3.4 Nm	35 mm	77 g	< 4 yrs
69100 0000	Regular	10.2 Nm	53 mm	180 g	> 4 yrs



NOTE! This product must be fitted by a medical professional. Patient and caregiver must be instructed how to don and doff, and about how the system works. Please inform the patient and caregiver that settings must not be changed. This MultiMotion Hip Abduction System is only intended as a hip orthosis and is not weight bearing.

MultiSTATIC

TREATMENT OF CORRECTABLE CONTRACTURES

The MultiStatic Joint enables fast, efficient, and effective static treatment of contractures due primarily to orthopedic injuries or diseases, utilizing the HLBS (High Load Brief Stretch) principles. The angle of the joint is set by an eccentric axis. The joint is used in orthoses for both children and adults.

Benefits in achieving therapy objectives

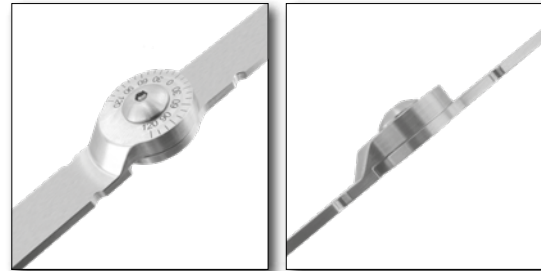
- Improvement/rehabilitation of joint mobility
- Improvement of the resting posture

Product function

- Continuously adjustable static Extension or Flexion of the joint

Features

- Easy angle adjustment due to optimally positioned joint axis
- Can be used in flexion and extension
- Continuous angle adjustment of +120° to -120°
- Integrated bars
- Can be used left and right
- Stainless steel



Item No.	Length	Width	Height	Thickness	Weight	Diameter
69689 0000	100 mm	9 mm	6.5 mm	2 mm	14 gram	11 mm
69690 0000	400 mm	12 mm	8.5 mm	2 mm	83 grams	19 mm
69691 0000	400 mm	16 mm	9.5 mm	2 mm	122 grams	24 mm
69692 0000	400 mm	19 mm	10 mm	2 mm	153 grams	30 mm



MultiStatic Free Motion Joint (single axis)

The MultiStatic Free Motion Joint may be positioned on opposite side of the corrective joint if no movement limitation (ROM) is necessary on that side.

Features

- Free motion
- Single axis
- Stainless steel



Item No.	Length	Width	Height	Thickness	Weight	Diameter
69695 0000	400 mm	12 mm	11 mm	2 mm	105 grams	18 mm
69696 0000	400 mm	16 mm	11 mm	2 mm	140 grams	22 mm

The MultiStatic joints are to be used exclusively in non-weight bearing upper or lower extremity orthoses.