

## MultiMotion



*Joints for*  
**Dynamic  
Corrective  
Orthotic  
Systems**



### **Our Newest Additions**

- Corrective and Free Motion Joints with integrated T-bars
- Free Motion Joints with ROM adjustment
- Choice of low or high rigidity uprights

# MultiMotion Components

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 correction 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 with  
Bar Adapter

Corrective with T-Bar  
Choice of 12mm  
or 22mm Offset

Refer to back of this page for 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
69214 0000	T-Bar 22 mm Offset	Small	3.4 Nm	125 grams	35 mm	12 mm
69114 0000	T-Bar 22 mm Offset	Regular	10.2 Nm	288 grams	53 mm	16 mm

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

# 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 (+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	Housing Diameter	System Bar Width
69505 0000	Bar Adapter	Small	33 grams	33 mm	12 mm
69500 0000	Bar Adapter	Regular	35 grams	33 mm	16 mm
69518 0000	T-Bar 12 mm Offset	Small	41 grams	33 mm	12 mm
69513 0000	T-Bar 12 mm Offset	Regular	50 grams	33 mm	16 mm
69519 0000	T-Bar 22 mm Offset	Small	43 grams	33 mm	12 mm
69514 0000	T-Bar 22 mm Offset	Regular	52 grams	33 mm	16 mm



## 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.

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

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	



## Selection criteria for appropriate joint size

The MultiMotion correction joint, the Free Motion joint and ROM 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	x		x	
Elbow, Knee, Ankle	<22 kg/50 lbs.	x		x	
Elbow, Knee, Ankle	>22 kg/50 lbs.		x		x

# MultiMotion Accessories

## MultiMotion Uprights

- All uprights are supplied pre-drilled for optimal attachment to the MultiMotion joints
- The uprights are available in two versions - with low and high rigidity - in different sizes and models.
- Choice of 12mm or 16mm bar widths
- Material: Aluminum

Upright Specifications 2/Pkg.						
Item # Low Rigidity	Item # High Rigidity	Style	Size	Length	Width	Thickness
69725 0000	69701 0000	Straight	Small	200 mm	12 mm	3.2 mm
69726 0000	69702 0000	Straight	Regular	200 mm	16 mm	4 mm
69727 0000	69705 0000	Offset	Small	350 mm	12 mm	3.2 mm
69728 0000	69706 0000	Offset	Regular	450 mm	16 mm	4 mm
69729 0000	69722 0000	T-Bar	Small	150 mm	12 mm	3.2 mm
69724 0000	69723 0000	T-Bar	Regular	150 mm	16 mm	3.2 mm



## MultiMotion Alignment Tool

The alignment tool is used for the correct alignment of the MultiMotion Dynamic Corrective System Joints on the positive cast 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 Number Summary						
MultiMotion Joints	Standard		With T-Bar 12mm Offset		With T-Bar 22mm Offset	
Size:	Small	Regular	Small	Regular	Small	Regular
Corrective	69200 0000	69100 0000	69213 0000	69113 0000	69214 0000	69114 0000
Free Motion	69505 0000	69500 0000	69518 0000	69513 0000	69519 0000	69514 0000
ROM	69555 0000	69550 0000	N/A	N/A	N/A	N/A
MultiMotion Uprights	Straight		Offset		T-Bar	
Bar Width:	12 mm	16 mm	12 mm	16 mm	12 mm	16 mm
Low Rigidity	69725 0000	69726 0000	69727 0000	69728 0000	69729 0000	69724 0000
High Rigidity	69701 0000	69702 0000	69705 0000	69706 0000	69722 0000	69723 0000

# MultiMotion

## Dynamic Corrective System Joint

The dynamic corrective system 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

Joint mobility

Joint stability

Muscle strength

Muscle tone

Movement pattern while walking



### 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?*

- Its 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.

