





# Welcome to TRS!



**TRS** has been helping people rebuild their lives and perform better since we started operations in 1979. An auto accident that caused the forced amputation of my left hand, when I was twentytwo years old, and the lack of satisfactory prosthetic technology in that era, spurred the TRS mission and business formula.

Now more than forty years later, we continue to innovate, develop, manufacture and sell prosthetic components designed to provide you with the best possible performance. We are experts in upper extremity sports and recreational prosthetic products. Additionally, we now are developing and manufacturing exciting products that serve persons with other physical challenges.

We are focused on innovation, constantly experimenting with new and exciting materials and designs that help us get closer to duplicating human biomechanics to achieve improved bimanual, functional performance in a vast arena of activities.

We encourage the input of medical professionals, prosthetic consumers, students, engineers and designers into what we do.

In October 2019, we were acquired by Fillauer Companies, Inc., yet we remain a small, accessible, and responsive company. Beginning in 2023, I will be working as a consultant remotely for Fillauer TRS. However, I continue to be your personal information resource and consultant at no cost to you other than your effort to reach out to us. The TRS staff cares about you the professional and you the individual.

Contact me! Talk to me personally or email me. I'll try to take the time to answer your questions about rehabilitation, limb absence and prosthetic solutions. We can also provide you with references to prosthetic professionals and facilities familiar with TRS technology in your area.

You're good, but we can probably help make you better!

Be better through "Body Power" and TRS's innovative prosthetic solutions.

We'll help you find the way.

Best regards,

' doug

Bob Radocy **Executive Vice President** 

800.279.1865 bradocy@fillauer.com



### WEB SITES/MEDIA SITES

### www.trsprosthetics.com

This site illustrates most all of our products, provides technical information, training information, video clips and valuable tips, as well as literature and research resources.

View additional product videos on our YouTube channel: http://www.youtube.com/user/TRSProsthetics/videos

### Product Images

TRS technology is illustrated and available for "download" directly from our main website. Select high guality images for your personal and professional presentations and download according to your needs. Permission is not required to use these images.

### **PRODUCT EVALUATIONS**

### **Clinical Evaluation Program**

Try our products in a clinical setting arranged by your prosthetist, therapist or doctor. This program allows you to review and evaluate product(s) under the supervision of a health professional for a limited time period. Products must be returned in "New" condition and a small fee is charged to access this program.

### Field Trial Program

TRS can arrange a "field trial" under special circumstances with your prosthetic professional for specific products allowing you to take the product outside of a clinical setting for trial and evaluation. A fee is charged for this program.

### In Services

Health professionals may take advantage of our clinical evaluation program as well as for In-Service presentations, lectures, etc. Call TRS to discuss your needs.

### CUSTOM DESIGNS AND PROJECTS

TRS has developed and constructed a variety of custom prosthetic devices for both professionals and consumers. Each project is unique and some projects actually lead to products that can be manufactured on a limited basis. Contact us to discuss your ideas and needs.



**Cover photo** courtesy of the Sydney Howard family.

### Prosthetics Research Design Manufacturing Consulting

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# Infants & Children







### **Greek Series Infant & Pediatric Hands**

### **Product Code:** ALPHAR ALPHAL, BETAR BETAL, GAMMAR GAMMAL Features:

- Original hand patterns were "handsculpted" by Bob Radocy, so in essence the GREEK SERIES are small, flexible sculptures.
- ALPHA, BETA & GAMMA are all slightly different reflecting the actual developing anatomy of the child's hand.
- Uni-sex styling and the finger nails can be "polished" for the young ladies.

- Very realistic finger and hand features, molded into all surfaces.
- Elastic, flexible holding capability, no cable required.
- Durable, soft polymer material.
- Easily cleaned and daily cleaning recommended.

### Application

Age: ALPHA 4-12 months BETA 10-24 months GAMMA 20-36 months Limb Length: All levels of limb absence

L-Code: L6703

### SPECIFICATIONS

Models:	ALPHA R & L	BETA R & L	GAMMA R & L
Length:	2.2 in. (5 cm)	2.5 in. (6.4 cm)	2.75 in. (7 cm)
Width:	1.6 in. (4 cm)	1.76 in. (4.5 cm)	1.88 in. (4.8 cm)
Grasp-Opening:	~ 1.5 in. (3.8 cm)	~ 1.7 in. (4.3 cm)	~ 1.8 in. (4.6 cm)
Base Diameter:	1.3 in. (3.3 cm)	1.47 in. (3.7 cm)	1.47 in. (3.7 cm)
Weight:	1.8 oz. (52 g)*	2.6 oz. (74.5 g)*	3 oz. (86.9 g)*
Wrist Unit:	TRS Infant Wrist	TRS Child Wrist	TRS Child Wrist
Application:	4–12 months	10–24 months	20–36 months
Colors: Tan (T), m	nedium brown (MB), or c	dark brown (DK)	

\*Weights include the ½ inch diameter, threaded stud, that is removable.



# Infants & Children

### L'il E-Z Infant Hand

### Product Code: EZ INR, EZ INL Features:

- A child's first, functional, anatomically correct, economically priced prosthetic hand.
- L'il E-Zs have unique, self-energizing grasping mechanical components, molded inside a flexible polymer body.
- The thumb opens easily to allow for an object to be inserted and held but resists easy object release.
- Useful for crawling and bilateral control as well as unilateral manipulation.
- Soft, flexible polymer fingers and hand exterior surfaces with life-like, molded anatomical features.
- No glove is required.

### **Application:**

- Age: Infants Six months to twenty-four months old.
- Limb Length: Trans-radial and trans-humeral applications.
- Wrist Units: TRS Infant wrist made specifically for L'il E-Z.

### **Training:**

Λ

TRS recommends that training with the **L'iI E-Z** be conducted or supervised by a registered therapist with experience in upper limb prosthetics.

Ask TRS for the most recent published research or clinical experience information available on this product.

L-Code: L6708

### SPECIFICATIONS



Models:	L'IL E-Z RIGHT	L'IL E-Z LEFT			
Length:	2.6 in. (6.6 cm)	2.6 in. (6.6 cm)			
Width:	1.8 in. (4.6 cm)	1.8 in. (4.6 cm)			
Weight:	3 oz. (85 g)	3 oz. (85 g)			
Opening:	1 – 1.5 in. (2.5 – 3.8 cm)	1 – 1.5 in. (2.5 – 3.8 cm)			
Wrist Diameter:	1.3 in. (3.3 cm)	1.3 in. (3.3 cm)			
Wrist Circumference:	4.1 in. (10.4 cm)	4.1 in. (10.4 cm)			
Color (all models): Tan (T), medium brown (MB), dark brown (DK)					

\*Weights include the 1/2 inch diameter, threaded stud, that is removable.

### Little Feet Wood Core and Syme Models

### **Features:**

- Bolt-on "SACH" type design with unique energy dynamics.
- Wood Core Model: 12–15 cm models have a high strength keel.
   Syme Model: All sizes with high strength keel.
- Proprietary elastomer foot body. Flexible toes.
- Anatomically very realistic.

**SPECIFICATIONS** 

 Special, removable heel plug improves "barefoot" appearance.

- 3 colors: Tan, medium brown and dark brown.
- Ideal for crawling, toddling, walking, etc.

### **Application:**

- **Age:** Infants Six months to approximately 5–6 years old.
- **Limb Length:** Trans-tibial and transfemoral applications.

### L-Code:

Consider **L5976**Note:

Specify **Syme Model** if required.





Models:	10 CM	11 CM	12 CM	13 CM	14 CM	15 CM
	right left					
Product Code:	Little 10R Little 10L	Little 11R Little 11L	Little 12R Little 12L	Little 13R Little 13L	Little 14R Little 14L	Little 15R Little 15L
Length:	3.9 in. (10 cm)	4.3 in. (11 cm)	4.7 in. (12 cm)	5.1 in. (13 cm)	5.43 in. (14 cm)	5.80 in. (15 cm)
Width:	1.9 in. (4.7 cm)	2.1 in. (5.2 cm)	2.2 in. (5.6 cm)	2.3 in. (5.9 cm)	2.44 in. (6.2 cm)	2.5 in. (6.4 cm)
Height:	1.7 in. (4.2 cm)	1.7 in. (4.2 cm)	2 in. (5 cm)	2.1 in. (5.2 cm)	2.2 in. (5.6 cm)	2.2 in. (5.6 cm)
Weight:	3.4 oz. (96 g)	4.1 oz. (117 g)	5.9 oz. (167 g)	7 oz. (199 g)	8.4 oz. (238 g)	9.3 oz. (264 g)
Diameter:						
Major:	1.7 in. (4.4 cm)	1.9 in. (4.9 cm)	2.1 in. (5.3 cm)	2.2 in. (5.6 cm)	2,27 in. (5.8 cm)	2.23 in. (5.7 cm)
Minor:	1.6 in. (4 cm)	1.7 in. (4.3 cm)	1.9 in. (4.8 cm)	1.9 in. (4.8 cm)	1.94 in. (4.9 cm)	1.94 in. (4.9 cm)
Wood Core:	1.25 in. (3.2 cm)	1.5 in. (3.8 cm)	1.5 in. (3.8 cm)	1.5 in. (3.8 cm)	1.5 in. (3.8 cm)	1.5 in. (5.8 cm)
			(5)(0)			

**Color** (all models): Tan (T), medium brown (MB), dark brown (DK) **Mounting hole:** 5/16 inch ( 8 mm) diameter

**Mounting Hardware**: 5/16 x 2 in. bolt, M8 bolt, steel washer, and "T" nut (all models) 2 3/4 in. bolt also included w/ 12-15 cm. models

Prosthetics Research 
Design 
Manufacturing 
Consulting

**Jillauer** 

# **Children & Adults**



Patent# D 402,033

**SPECIFICATIONS** 

# Lite Touch Children's Biomechanical Hands

### **Features:**

- High efficiency voluntary closing (pull to close) mechanics.
- Compliant fingers and surfaces.
- Molded anatomical features.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Accessories include ADEPT Cable Adapter. Sure Lok or Cable Cleat System sold separately
- Spectra® Cable Adapters and Spectra® Cable also applicable (not included; order separately).

Excellence in Design Award, Design News magazine, 3/6/2000.

### **Training:**

NOTE: TRS recommends that training with LiteTouch Hands always be conducted or supervised by a registered therapist experienced in upper-limb prosthetics.

### L-Code: L6714

Models:	MICF	RO	SMA	LL	MED	NUM	LAF	RGE
	right	left	right	left	right	left	right	left
Product Code:	MLTR	MLTL	LT SM R	LT SM L	LT MD R	LT MD L	LT LG R	LT LG L
Specifications:								
Length:	2.6	in. (6.6 cm)	3.3 in.	(8.3 cm)	3.6 in.	(9.2 cm)	4.3 in. (10.	8 cm)
Width:	1.9	in. (4.8 cm)	2.3 in.	. (5.7 cm)	2.4 in.	(6 cm)	2.6 in. (6.6	5 cm)
Weight:	2.	6 oz. (74 g)	3.6 02	z. (101 g)	5.4 oz.	(153 g)	7.3 oz. (20	)7 g)
Wrist Diameter:	1.3	in. (3.3 cm)	1.5 in.	(3.8 cm)	1.8 in.	(4.4 cm)	1.8 in. (4.4	l cm)
Opening:	1.1	in. (2.8 cm)	1.6 ir	n. (4 cm)	1.9 in.	(4.8 cm)	2.2 in. (5.6	6 cm)
Wrist Circumference:	4 i	n. (10.2 cm)	4.7 in	. (12 cm)	5.5 in.	(14 cm)	5.5 in. (14	cm)
Color (all models): Tan (	(T), medium k	orown (MB), darl	k brown (DK)					
Application:								
Age:	2-3 yı	rs.	3-5 yı	ſS.	5-9	yrs	9-young a	idult
Limb Length (all mode	<i>ls):</i> Trans-rad	ial as well as trar	ns-humeral appli	cations.				
Wrist Units:	TRS Inf	fant	TRS CI	nild		TRS® Omega N	/ledium and Lar	qe Oval & R

Fillauer-Hosmer® CAPP® Small Nylon

**CAPP® Medium Nylon** Fillauer-Hosmer® Medium Round Fillauer-Hosmer® Wedgegrip Fillauer-Hosmer® Disconnect Fillauer-Hosmer® Friction Disconnect

arately.

Wrist Units

& Round

adults.

Training

Lite Touch Adult Hand SPECTRA® Cable and cable components also applicable (not included). Order sep-

**NOTE**: Light to medium duty only. Not

due to the flexibility of the fingers. Not

TRS® Omega Medium and Large Oval

**CAPP® Medium Round, Fillauer-**Hosmer® Medium Round, Wedgegrip

**Disconnect and Friction Disconnect.** Age: Teenagers to average stature

Limb Length: Trans-radial and trans-

NOTE: TRS recommends that training with Lite Touch Adult Hands always be conducted or supervised by a registered therapist with experience in upper limb

applicable to manual labor.

designed to support adult hanging weight



Fillaue

# SPECIFICATIONS

<b>Product Code:</b>	LT AD R, LT AD L
Features:	

- Smooth voluntary closing (pull to close) operation.
- Compliant polymer, fingers and surfaces.
- Molded anatomical details.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Accessories include ADEPT Cable Adapter. Sure Lok or Cable Cleat System sold separately

Models:	LITE TOUCH ADULT RIGHT	LITE TOUCH ADULT LEFT
Length:	4.7 in. (12 cm)	4.7 in. (12 cm)
Width:	2.8 in. (7.1 cm)	2.8 in. (7.1 cm)
Weight:	10 oz. (284 g)	10 oz. (284 g)
Opening:	2.7 in. (6.9 cm)	2.7 in. (6.9 cm)
Wrist Diameter:	1.8 in. (4.6 cm)	1.8 in. (4.6 cm)
Wrist Circumference:	5.7 in. (14.4 cm)	5.7 in. (14.4 cm)
Color (all models): Tan (T), me	dium brown (MB), dark brown (l	DK)

prosthetics. L-Code: L6709

humeral applications.

### Prosthetics Research Design Manufacturing Consulting

3090 Sterling Circle, Studio A, Boulder, Colorado USA 80301-2341 Phone: 303.444.4720 Toll Free: 800.279.1865 Fax: 303.444.5372 • www.trsprosthetics.com

# **Children & Adults**



### **ADEPT Prehensors**

### **Features:**

- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Lightweight.
- Voluntary-closing (pull to close) cable operation.
- Active muscle use and sensory feedback.
- Replaceable thumb sleeve.

Accessories include ADEPT Cable Adapter.
 Sure Lok or Cable Cleat System sold separately

Award winning sculptured shape. (Museum of Modern Art collection, June 1988)

### Usage:

Children wearing Adepts are capable of gripping as hard or harder than with their natural hands. This allows them to be more competitive with peers, because they can create as little or as much gripping force as they need for an activity. They can pull themselves up, swing, climb, ride a bike, assemble models, sew, draw, tie sneakers, lace skates, swing a bat, fish, sail and much more!

### **Training:**

**NOTE:** TRS recommends that training with ADEPTs always be conducted or supervised by a registered therapist experienced in upper-limb prosthetics.

### L-Code: L6712

### SPECIFICATIONS

Models: Product Code:	Adept f3 AD F3	Adept e4 AD E4	Adept c2 AD C2	Adept b1 AD BI
Length:	2.7 in. (6.8 cm)	3.2 in. (8 cm)	3.7 in. (8.9 cm)	4.3 in. (10.8 cm)
Width:	1 in. (2.5 cm)	1.1 in. (2.7 cm)	1.1 in. (2.7 cm)	1.2 in. (3 cm)
Weight:	1.7 oz. (49 g)	2.3 oz. (66 g)	3 oz. (83 g)	4 oz. (114 g)
Wrist Diameter:	1.1 in. (2.7 cm)	1.2 in. (3.7 cm)	1.3 in. (3.3 cm)	1.5 in. (3.8 cm)
Opening:	1.3 in. (3.2 cm)	1.6 in. (4 cm)	2 in. (5.1 cm)	2.5 in. (6.3 cm)

Color (all models):Tan (T), medium brown (MB), dark brown (DK) Stealth black also available for e4, c2, and b1.

3 - 5

### **Applications:**

Age:

NOTE: Age recommendations vary with stature and maturity. ADEPT B's have been successfully used by women, who prefer a smaller, lighter duty alternative to our Grip Prehensors.

5-9

Limb Length: Trans-radial as well as trans-humeral applications.

1 - 3

### Materials:

Aircraft grade aluminum or structural polymer support cores. Durable, high strength, stain resistant, molded polyurethane matrix composite body. Long-life, bronze bearing system.

### Wrist Units:

TRS® Infant Wrist

TRS® Infant Wrist TRS® Child Wrist TRS® Child Wrist CAPP® Round Small Fillauer-Hosmer® Wedgegrip Oval Med. Disconnect Oval Med.

TRS® Omega Medium Oval

### TRS® Omega Medium or Large Oval & Round TRS Child Wrist CAPP® Round Small Fillauer-Hosmer® Wedgegrip Round Med. Fillauer-Hosmer® Wedgegrip Oval Med. Disconnect Round Med. Friction Disconnect Round Med. Friction Disconnect Oval Med.

9 - young adult





# **Adults**



**Color Inlays (Self-Adhesive)** 

### **Injection molded Outer Shells**

Directly proportional gripping control and

7075 AL T6 Aircraft Aluminum and Stainless

1/2 inch diameter threaded stud fits all USA

Wrist Unit: TRS® Omega Large Oval & Round

bio-feedback controlled by the user

Steel core construction

made wrist technologies

L-Code: L 6722

### **GRIP 5 Evolution Prehensor**

### **Features:**

- 21st Century Graphics styling and shape.
- Lighter-weight, high performance voluntaryclosing function
- Enhanced opening 3 PLUS INCHES
- Multiple color combinations available (Built custom to customer specifications)

### See website for color options

Sure-Lok recommended and sold separately

### **SPECIFICATIONS**

Model:	GRIP 5
Product Co	de: GP5000
Length:	5.2 in. (13.2 cm)
Width:	1.0 in. (2.5 cm) – 1.6 in. (4.3 cm)
Wrist diamet	er: 1.6 in. (4.3 cm)
Opening:	3.06 in. (7.8 cm)
Weight:	9 oz. (255 g)
Age:	11- Adult

**Jillauer** TRS Inc.



### Prosthetics Research Design Manufacturing Consulting







### **Grip Prehensors**

### **Features:**

- 1/2 in. diameter threaded stud fits any USA made wrist units.
- High strength, reliable construction, low maintenance.
- The highest efficiency of any body powered prosthetic device available.
- Range of gripping force can exceed 100 pounds. Voluntary closing design.
- Accessories include a Binary 316STD. Sure-Lok recommended and sold separately

### **Usage:**

Grip Prehensors are high performance hand replacements and sophisticated tools, capable of a wide range of prehension from delicate manipulations to maximum gripping power. Slice a tomato, peel a banana, hammer, use a wrench, weight lift, shoot a bow and more!

### **Application:**

Limb length: Trans-radial and trans-humeral applications.

### **Partial Hand and Flex Wrist Designs:**

TRS makes special wrist adapters for partial hand and flex wrist prostheses. See photos above

### L-Code: L6722

### **SPECIFICATIONS**

Models:	GRIP 2SS	GRIP 2S	GRIP 3	GRIP 1
	Stainless	Titanium	Tan or Black	Not pictured. Not a standard model.
				Use only in special cases.
Product Code:	GP 2 SSS	GP 2 S00	STG 300	GP 1 000
Length:	5.6 in. (14.1 cm)	5.6 in. (14.1 cm)	5.7 in. (14.5 cm)	6.5 in. (16.5 cm)
Width:	0.6 in. (1.6 cm)	0.6 in. (1.6 cm)	0.6 in. (1.6 cm)	0.5 in. (1.3 cm)
Wrist diameter:	1.6 in. (4.1 cm)	1.6 in. (4.1 cm)	1.6 in. (4.1 cm)	1.8 in. (4.4 cm)
Opening:	3 in. (7.5 cm)	3 in. (7.5 cm)	2.8 in. (7.1 cm)	2.6 in. (6.6 cm)
Weight:	13.7 oz (390 g)	11 oz. (312 g)	9.8 oz (278 g)	16 oz (451 g)
Age:	11 – Adult	11 – Adult	11 – Adult	Adult only

### Materials:

**Features:** 

included.)

- Grip 2 and Grip 1 units are all-metal.
- Grip 2s comes standard with titanium side plates or can be ordered with heat treated stainless steel side plates. (GP 2SSS).
- The stainless model has the best "wear" characteristics but weighs approximately 3 oz. more than the standard model.

A simple, rugged, all stainless steel pin with

be used with modified Grip Prehensors.

through the outer plates with a #11 drill to

accommodate this locking pin. (Instructions

Prehensor must be modified by drilling

ball detent and a 1 in. diameter finger ring to

**Product Code: ALPIN 3** 

- Grip 3 has titanium side plates, surgical grade stainless steel structural thumb members and replaceable, polyurethane gripping surfaces.
- Grip 3 colors: Tan (T), black (BK).
- Grip 1 has stainless steel side plates, wrist adapter and thumb with aircraft aluminum structural core

### Locking Pin

- Locking pin for Grip1, 2, and 3 designs.
- One or more locking positions are possible. Manually operated.

 Applications include weight lifting, archery, etc. Use anywhere positive, manual locking and unlocking of Grip Prehensors is desired. NOTE: TRS does not perform the

modification. Grip modification voids warranty and is non-returnable.

### Prosthetics Research Design Manufacturing Consulting

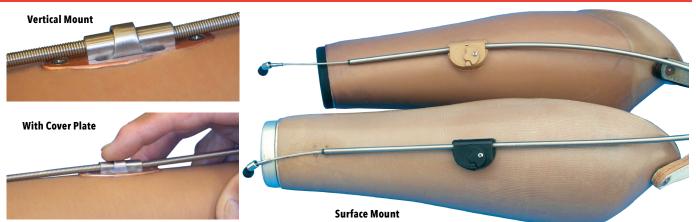
3090 Sterling Circle, Studio A, Boulder, Colorado USA 80301-2341 Phone: 303.444.4720 Toll Free: 800.279.1865 Fax: 303.444.5372 • www.trsprosthetics.com Wrist Units: TRS® Omega Large Oval & Round,

- Fillauer®-Hosmer® Wedgegrip, Disconect, Friction Disconnect, FM; Medium or Large; Round or Oval.
- Avoid economy, rubber friction wrists if possible.





# Adults



### Sure-Lok Cable Lock Control Systems Surface Mount & Vertical Models

### **Products Codes:**

Surface mount VADA Left & VADA Right (Specify R or L)

Vertical Mount VSL 2000B (Black cover)

VSL 2000S (Silver cover) Features:

**SPECIFICATIONS** 

- Applicable for both V/C and V/O operating systems... improves function and versatility
- Eliminates the need to maintain continuous cable tension for control and grasping
- Reliable, MANUAL lever actuation controlling ON /OFF operation. No fail safe release
- Replaces the standard cable, cable housing system and related hardware entirely
- System is complete & includes high performance, PYTHON STANDARD cable
- All instructions and mounting components included

### L-Code:

HCPCS & PDAC recommend L9900 for the Sure-Lok systems, & L6675 or L6676 for harness & L6600or L6665 for Cable.

	SURFACE MOUNT	VERTICAL
Length:	1.4 in. (3.6 cm)	1.2 in. (3.048 cm)
Width:	0.95 in. (2.4 cm)	0.44 in. (1.12 cm)
Height:	0.35 -0.5 in. (0.9-1.3 cm)	0.50 in. (1.27cm)
Color:	Both Tan & Black Covers Included	Silver or Black (Specify) Only Cover Plate Colored
Cover Plate Length:	NA	2.3 in. (5.8 cm)
Cover Plate Width:	NA	0.8 in. (2 cm)
Depth below surface req	uired: NA	0.46 in. (1.17 cm)

### **Application:**

- Surface mount model for long residual limbs.
- Vertical mount uses up to 1/2 in. below prosthesis surface. Limited to short and midlength limb absence.

### Surface mount Sure-Lok Cable Lock and Control System Includes:

- Stainless base system designed to fit various arm radii.
- High strength polymer covers and switch levers in both tan and black.
- 18 in. of heavy duty cable housing, liner and TRS Python Standard Cable.
- 4 TRS Cable Housing Ferrules.
- Hardware.
- Complete instructions and DVD installation.



### Vertical Mount Sure-Lok System Includes:

- Cover plate designed to fit various arm radii.
- 18 in. of heavy duty cable housing, liner and TRS Python Standard Cable.
- 4 TRS Cable Housing Ferrules.
- Hardware.
- Complete instructions.









### Prosthetics Research Design Manufacturing Consulting



**Black Iron Trainer** 

**Black Iron Trainer Pivot** 

### Black Iron Master and Trainer

### Product Code: Master: BIM, Trainer: BIT, Trainer Pivot: BIT PIVOT

### **Features:**

- The Black Iron Master (BIM) was especially designed for high performance, heavy duty and professional level weight lifting and training. The Black Iron Master was used in national competition at the Arnold Classic® in 2004.
- The Black Iron Trainer is for general everyday weight lifting. It is a lighter weight, lighter duty alternative yet still is capable of handling the wide range of grip and apparatus handle diameters that are encountered in modern fitness and exercise facilities.
- The BIM is for serious weight lifters only! The BIM is designed to mechanically grasp and lock onto handles and bars to provide unparalleled security and stability for extreme weight, bench pressing, dumbbell flys, dead lifts, squatting, etc. It is also useful for adapting to a wide variety of other exercise equipment available in modern fitness facilities.

- Swinging gate clamps the bar between curved rubber saddles. The gate is manually secured in place with a large wing nut. The **BIM and BIT** has no quick release or other break away features once clamped in place it stays in place until manually released. Used properly it will not slip or slide on the bar.
- Black Iron Master and Trainer can be used with the following wrist units: TRS® Omega Large Oval, Wedgegrip Large Round or Oval, Disconnect Large Round or Oval, FM Disconnect Large Round
- The Black Iron Trainer Pivot (BIT PIVOT) provides ~32 degrees of friction-adjustable freedom in wrist motion, increasing its versatility, function and comfort. This added range-of-motion enhances the usefulness, safety and control over barbells, dumbbells and other weight training apparatus.

### Wrist Units:

TRS® Omega Large Oval & Round

### SPECIFICATIONS

HAMMER STRENGTH

	MASTER	TRAINER	<b>TRAINER PIVOT</b>
Length:	3.5 in (9 cm)	2.6 in. (6.6 cm)	3.5 in. (8.9 cm)
Width:	2 in. (5 cm)	2 in. (5.1 cm)	3.5 in. (5.1 cm)
Weight:	25 oz. (709 g)	15.5 oz. (440 g)	18 oz. (511 g)
Load Rating:	1650 lbs. (750 kg)	440 lbs. (200 kg)	440 lbs. (200 kg)
Bar Diameter	<b>s:</b> 0.875 in. (2.2 cm) to 1.5 in. (3.8 cm)	0.875 in. (2.2 cm) to 1.5 in. (3.8 cm)	0.875 in. (2.2 cm) to 1.5 in. (3.8 cm)
Material:	Forged aluminum, steel hardware, polymer rubber pads	Forged aluminum, steel hardware, thick polymer rubber pads	Forged aluminum, aircraft aluminum, stainless steel, thick polymer, rubber pads
Color:	Dark grey-black, hard anodized finish.	Dark grey-black, hard anodized finish.	Dark gray-black, hard anodized finish & stainless steel
Application:	Right or left. Serious, heavy duty, high performance only.	Right or left. All around weight training and lifting.	Right or left. All around weight training and lifting
L-Code:	L6704	L6704	L6704, Add-on code L6620

### Prosthetics Research Design Manufacturing Consulting



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**Black Iron Lite** 



**Black Iron Lite Pivot** 

### **Black Iron Lite**

### **Product Code:** BIL, BILPIVOT

### **Features:**

- The **BLACK IRON LITE** is designed for lightweight aerobic style dumbbell exercise and light weight barbell, dumbbell and cable machine, resistance exercise and training.
- The BLACK IRON LITE is not recommended to be used with weights in excess of ten pounds!
- The BLACK IRON LITE is molded from high strength polymers and is equipped with a ratchet type lock down strap for securely capturing weights and handles.
- The BLACK IRON LITE PIVOT is an advanced, additional, version of the BIL, which is very popular for light-weight aerobic workouts and training with free weights and other exercise apparatus. The PIVOT provides an ~ 32 extra, degrees of friction-adjustable freedom, in wrist movement. This added range of motion enhances the usefulness and performance of the BIL providing better, more comfortable control of exercise equipment. The added wrist function enables an "Add-on" LCODE (L6620) to the primary L6704.

### **Application:**

- Right or Left. Light duty weight training and exercise
- Aerobic/dance style dumbbell exercise
- BLACK IRON LITE units can be used with the following wrist units: TRS® Omega Large Oval, All Wedgegrips, All Disconnects, FM Disconnect

### Wrist Units:

TRS® Omega Large Oval & Round

### **SPECIFICATIONS**

Models: Product Code:	BLACK IRON LITE BIL	BLACK IRON LITE PIVOT BIL PIVOT		
Length:	3.3 in. (8.4 cm)	4.4 in. (11 cm)		
Width:	2.0 in. (5.1 cm)	2.0 in. (5.1 cm)		
Weight:	11.7 oz. (332 g)	13.0 oz. (369 g)		
Load Rating:	Not recommended for weights in excess of 10 pounds (4.5 kg)			
Bar Diameters:	0.875 in. (2.2 cm) to 1.5 in. (3.8 cm)			
Material:	High strength polyurethane and nylon.			
Colors:	Black, Teal (TL), Violet (V)	Black		
L-Code:	L6704	L6704, Add-on code L6620		



### **Super Sports**

### **Features:**

- Flexible, strong, durable polyurethane elastomers. Stainless steel and aluminum support cores.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Passive. Not cable operated.
- The polymer flexes and extends with external pressure and absorbs shock.
- Anatomically proportioned to a "cupped" hand.

### **Usage:**

SuperSports are designed to enable two-handed performance in all types of recreational and athletic activities, especially those in which player contact and collision can occur. Successful application can be expected in basketball, soccer, football, volleyball, skating, jogging, aerobics, dance, martial arts . . . and much more. **SuperSports** have also been used very successfully by parents in handling infants and playing with children.

### **Application:**

Limb Length: Trans-radial and long transhumeral limb lengths.

### L-Code: L6704



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Models: Product Code:	SUPER SPORTS 4	SUPER SPORTS 3	SUPER SPORTS 2	SUPER SPORTS 1
Length:	3.3 in. (8.5 cm)	4.3 in. (10.8 cm)	4.8 in. (12 cm)	5.5 in. (14 cm)
Width:	1.9 in. (4.8 cm)	2.2 in. (5.6 cm)	2.6 in. (6.5 cm)	3 in. (7.7 cm)
Weight:	3 oz. (89 g)	5 oz (139 g)	7 oz (190 g)	12 oz (332 g)
Wrist diameter:	1.2 in. (3 cm)	1.5 in. (3.8 cm)	1.7 in. (4.3 cm)	1.8 in. (4.6 cm)
Age:	2-6	6 – 13	13 – Adult	Adult

Color (all models): Tan (T), medium brown (MB) or dark brown (DK). Black available by special order!

### Wrist Units:

Models 3 and 4: TRS Child, CAPP® Round Small, Fillauer®-Hosmer® Wedgegrip, Disconnect Medium; Round or Oval

Models 1 and 2: TRS® Omega Medium and Large Oval & Round, Fillauer®-Hosmer® Wedgegrip, Disconnect, Friction Disconnect, FM; Friction Disconnect, FM; Medium; Round or Oval. NOTE: Check exact diameter of TD and wrist for best match.



### **SPECIFICATIONS**

Models:	4 RIGHT	4 LEFT	3 RIGHT	3 LEFT	2 RIGHT	2 LEFT	1 RIGHT	1 LEFT
Product Code:	FF 4 R	FF 4 L	FF 3 R	FF 3 L	FF 2 R	FF 2 L	FF 1 R	FF 1 L
Length:	3.2 in.	. (8 cm)	4.2 ir	. (10.7 cm)	4.8 in.	(12 cm)	5.5 in.	(14 cm)
Width:	2.1 in.	(5.3 cm)	2.6 ii	n. (6.6 cm)	2.8 in.	(7 cm)	3.3 in.	(8.4 cm)
Weight:	3 oz.	(80 g)	5 oz. (139 g	) 7 oz. (195 g)	9 oz.	(266 g)		
Wrist Diameter:	1.5 in.	(3.8 cm)	1.5 ii	n. (3.8 cm)	1.7 in.	(4.3 cm)	1.7 in.	(4.3 cm)
Wrist Circumference:	4.7 in.	(12 cm)	4.7 i	n. (12 cm)	5.3 in.	(13.5 cm)	5.3 in. (	13.5 cm)
Color (all models): Tan	(T), medium br	own (MB), or d	ark brown (DK).	Black available by	y special order!			
Age:	2	-6		6 – 13	13 –	Adult	Ac	dult

Limb Length: All models trans-radial, some trans-humeral (mid- to long), patient/consumer dependent.

### Wrist Units:

Models 3 and 4: TRS Child, CAPP® Round Small, Fillauer®-Hosmer® Wedgegrip, Disconnect Medium; Round or Oval

Models 1 and 2: TRS® Omega Medium and Large Oval & Round, Fillauer®-Hosmer® Wedgegrip, Disconnect, Friction Disconnect, FM; Friction Disconnect; Medium; Round or Oval. NOTE: Check exact diameter of TD and wrist for best match.



### Mill's Rebound Pro Basketball Hand

### Product Code: REBOUND

Features

- The **ReBound Basketball Hand** is a unique prosthetic accessory born from the invention and efforts of the Mill's family in Colorado. It is a versatile, flexible, safe, product for amputees wishing to use a prosthesis.
- The **ReBound** is constructed of a compliant polymer which is flexible but very strong. The resilient polymer material and innovative design provide excellent ball handling capability by simulating hand, wrist and finger-like control action.
- Friction discs molded onto the palmer surface of the **ReBound** provide additional traction for control.

- 1/2 in. diameter threaded stud fits any USA made wrist units.
- L-CODE: L6704

### **SPECIFICATIONS**

Length:	7.5 in. (19 cm)		
Width:	7 in. (17 cm)		
Wrist Diameter:	1.6 in. (4.1 cm)		
Wrist Circumferen	<b>ice:</b> 5.1 in. (13. cm)		
Weight:	6.5 oz. (184 g)		
Color: Tan & C	Black standard. Custom add extra charge.		
Age:	10+ up		









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### Product Codes: HP HOOPSTER

The HP HOOPSTER was conceived and designed by elite, bi-lateral, amputee athlete Hector Picard. TRS refined Hector's original model, under his guidance, to make it more versatile to meet the needs of a broader audience.

### **Features:**

- A stiff but flexible dual surface "hoop", which captures the circumference of a basketball perfectly. Dorsal and ventral (palmer) ball control surfaces.
- Provides surfaces to dribble and expertly handle the ball on the court surface then simultaneously flip the ball up for shots.

### **SPECIFICATIONS**



### **HP Hoopster**

- Built in palmer or volar "heel" to help capture and stabilize the ball quickly for greater accuracy
- High performance, polymer construction, with standard, stainless mounting hardware.
- Pre-positionable, lockable, wrist angle mechanism optimizes the terminal device's wrist "extension" angle, to suit the user's specific needs and functional capability.

### **Applications:**

Age: Teenager / Adult

- Limb Length: Trans-radial and transhumeral applications
- L-Code: L6704

Length:	8.75 in. (22.2 cm)
Diameter:	7.625 in. (19.4 cm)
Thickness:	Hoop .75 in. (1.9 cm) Wrist (Heel) 1.75 in. (4.4 cm)
Weight:	6.0 oz. (170 g)
Material:	High performance polyurethane polymer
Color:	Stealth Black & Satin Stainless

### Prosthetics Research Design Manufacturing Consulting

### **Barrage Volley Ball TD**

### **Product Code: BARRAGE**

### **Features:**

- Unique design and surfaces to enhance volleyball specific competition.
- Conforms to anatomy and proportions of a human hand with extended fingers.
- Resilient and flexible to mimic various hand actions and "feel".
- Capable of performing setting, bumping, digging and blocking maneuvers.
- No right or left
- Developed over almost a year for design, prototyping and field testing.

### L-Code: L6704





Left Right

Left

### **SPECIFICATIONS**

Length:	5.1 in. (12.9 cm)
Width:	5.3 in. (13.4 cm)
Thickness:	Varies but .50 in. (1.3 cm)
Material:	Proprietary, high performance,

- flexible polyurethane Black, Teal (TL) Color:
- Weight: 8.5 oz (241 g)



### **Golf Pro Systems**

### Product Code: GOLF PRO R, GOLF PRO L **Application**:

- **Golf Pro** models slip over club shaft and then slide up to jam onto the grip.
- Internal plastic sizing rings can be enlarged to custom fit the user's clubs.
- Uniform club grips are recommended.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- **Golf Pros** provide for a fluid backswing and downswing with excellent control and are easy to use.

### L-Code: L6704

### **SPECIFICATIONS**

Model:	<b>GOLF PRO RIGHT</b>	<b>GOLF PRO LEFT</b>
	Replaces lower hand on club grip.	Replaces upper hand on club grip.
Length:	6.75 in. (17 cm)	5 in. (13 cm)
Weight:	8 oz. (227 g)	7.5 oz (213 g)

### **Eagle Flex Golf TD**

### **Product Code: EAGLE FLEX** Features:

- Utilizes a flexible polymer body that is slotted to receive the club shaft and then is pulled up onto the club's grip. The flexible channel adapts to a wide variety of grip styles, tapers and sizes.
- The **Eagle Flex** sports a replaceable, steel braid reinforced, flexible coupling for ultimate durability.

### **Applications:**

- Right or left hand uni-lateral absence. Replaces upper hand on club grip.
- Requires minimal second hand assistance to engage **Eagle Flex** to club grip.

### L-Code: L6704

### **SPECIFICATIONS**

Overall length:	7.0 in. (18cm)
Grip Channel Length:	4.25 in. (11cm)
Width:	1.5 in. (3.8cm)
Height:	2.5 in. (6.4cm)
Weight:	8.0 oz. (227g)
Color: Stealth Black	

Materials: Polyurethane and stainless steel









### Swinger TD

### Product Code: SWINGER

What kid does not want to climb and swing? Finally a well designed and engineered, reliable hanging and swinging TD for pull up exercise, swinging and high bar and parallel bar gymnastics.

The **SWINGER** was developed over nine months of design and field testing resulting in a versatile gymnastics grade, swing hook capable of 360 degree performance, mounts and dismounts. The TD has an aircraft, aluminum, reinforcing core that provides exceptional strength and it is encased in molded, abrasion resistant polyurethane rubber. Sized for the uneven parallel bars the SWINGER has a design optimized for "Approach, Capture and Release" of the bar. A "Stance Saddle" provides "above the bar" forearm stability and support.

Go to the link below to view a video of the SWINGER in use!

http://www.youtube.com/watch?v=pMQL7HOdivg

### Features:

- Designed for children and adults. Tested to 300 pounds load.
- Nine months in development and field-testing.
- Unique "offset" swing hook center and pivot desian.
- Natural bar "Approach", "Capture" and "Swing control" elements.
- Stance "saddle" for above bar support.
- 360 swing performance capability.
- Optimized "Grasp Aperture" for bar Capture and Release capability.
- High strength, stress analyzed, aircraft aluminum (7075 ALT6) alloy core.
- Molded, abrasion resistant, polyurethane rubber, exterior surface.

L-Code: L6704





### **SPECIFICATIONS**

Length:	3.8 in. (9.6 cm)
Width:	3.3 in. (8.4 cm)
Thickness:	1.4 in. (3.5 cm)
Opening:	1.8 in. (4.6 cm)
Weight:	8 oz. (227 g)
Colors:	Black, Blue (BLU), Teal (TL), Violet (V)
Applications:	Children, youth and adults

# **Shroom Tumblers**

### Product Code: SHROOM and **MINI SHROOM**

### Features:

- Unique mushroom shaped accessory for floor exercise and tumbling.
- Flexible, high strength, synthetic polymer rubber.
- Supports weight up to two hundred pounds.
- Omni-directional flexibility for cart wheels, flips and hand stands.

### **SPECIFICATIONS**

Model: Diameter:	SHROOM TUMBLER 3.5 in. (8.9 cm)	MINI SHROOM TUMBLER 2.7 in. (6.9 cm)
Height:	2 in. (5 cm)	1.6 in. (4.1 cm)
Weight:	5.5 oz. (156 g)	3 oz. (85 g)
Color:	Black, Blue (BLU), Pink (PNK), Purple (PUR), Teal (TL)	Black, Blue (BLU), Pink (PNK), Teal (TL)

Mounting: 1/2 inch diameter, threaded stud.

Wide variability call to discuss application Age:



- Progressively cushions impact and allows for easy "roll-over".
- Proportioned to duplicate the surface area of the palm and fingers.

### **Applications:**

Children 7 - 8 years and older, all adults. Primarily trans-radial conditions.

L-Code: L6704



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### Cobra Baseball, Softball, and Cricket Throwing TDs

### Patent US 8,984,736 B2

### Product Code: COBRA, COBRASB11, COBRASB12

### Features:

- Models for baseball (hardball), slow and fast pitch softballs.
- Models for softballs with both 11 inch and 12 inch circumferences.
- Each model design is universal right or left.
- TRS energy capture and release polymer technology.

- Fully adjustable for ball release and throwing angles.
- Optimizes control, trajectory & speed.
- Duplicates instinctive throwing style/skills... throw hard and accurately
- COBRA has achieved 50 + MPH fastballs
- COBRA has achieved accurate throws to 30 yards +.
- COBRAs come with a ball that should stay installed in the unit at all times.
- L-Code: L6704









### SPECIFICATIONS

Models:	COBRA	COBRASB11	COBRASB12
Length:	7.0 in. (18 cm)	7.5 in. (19 cm)	8.0 in. (20.3 cm)
Width:	3.5 in. (9 cm)	4.0 in. (10.2 cm)	4.3 in. ( 11 cm)
Weight:	8 oz. (227 g)	9.5 oz. (270 g)	10.5 oz. (298 g)
Calam	All Madala Staalth Dlaak		

Color: All Models Stealth Black



### Product Code: HFF PSR

### **Features:**

- Flexible mesh pocket allows for catching either forehanded or backhanded, eliminating the need for forearm rotation.
- Hi-fly Fielder pocket will handle both baseballs and softballs.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Rotates with adjustable friction to accommodate varying field situations.
- Padded leading edge.
- Lightweight and strong.

### L-Code: L6704

### SPECIFICATIONS

Models:	HI-FLY FIELDER	
Length:	12.75 in. (32 cm)	
Width (max.):	7.5 in. (19 cm)	
Thickness:	1.8 in. (4.5 cm)	
Weight:	11 oz. (314 g)	
Color:	Black w/black trim	
Age:	Youth/Adult	

Materials: Structural nylon, rubber, stainless steel, braided mesh.





### Prosthetics Research Design Manufacturing Consulting

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### Pinch Hitter Bat Adapters

### Product Codes: PINCHITTER, PINCHITTER HD, PINCHITTER FLEX

- 3 Models: Pinch Hitter, Pinch Hitter Heavy Duty, Pinch Hitter Flex
- The Pinch Hitter was designed for "Little League" age kids or persons with smaller hand proportions, who wish to swing a bat using the function and power of both arms.
- The **Pinch Hitter Heavy Duty** is designed for adults and larger, older kids who need more performance.
- The Pinch Hitter Flex is designed for adults and those who play a lot of baseball and

or softball and want the convenience of a replaceable Flexible Coupling and or who need a longer adapter.

- The **Pinch Hitters** are constructed of high performance, strong, flexible synthetic rubber and they snap on and off aluminum bat handles for safety. They all need to be "over-gripped" with the second hand for security when swinging a bat. They can be used either right or left handed but perform best on the leading hand and arm.
- The Pinch Hitters not only transfer body power and energy but can store and release energy. This feature helps improve and control bat swing, improve swing speed and increase ball hitting distances.
- The Pinch Hitters will screw into standard prosthetic wrists or disconnect style wrist adapters.

### **Application:**

**PINCH HITTER:** Kids and Little Leaguers PINCH HITTER HD: Adults, young adults and older children PINCH HITTER FLEX: Adults planning on a

lot of aggressive use.

### L-Code: L6704

	PINCH HITTER	PINCH HITTER HD	PINCH HITTER FLEX
Length:	4.5 in. ( 11 cm )	5.0 in. ( 13 cm )	6.5 in. (16.5 cm)
Width:	1.5 in. ( 3.8 cm )	1.5 in. ( 3.8 cm )	1.5 in. ( 3.8 cm )
Weight:	4 oz. ( 114 g )	5 oz. (142 g )	8 oz. (227 g )
Color:		All models Matte Black	(

Material: All models TRS proprietary flexible polymer rubber

### Product Code: **GRAND SLAM TD** Features:

- Grand Slam TDs provide for powerful, smooth, two-handed swings. Releases bat easily. Baseball and softball.
- Flexible polyurethane body securely captures bat handles
- Force on and pry off design for standard one-inch diameter bat handles
- "Over-grip" with sound hand is required
- Flexible, replaceable coupling provides for powerful swings
- Replicates the bio-mechanics needed for safe, controlled bat swinging

### Grand Slam TD

1/2 inch diameter threaded stud fits any USA made wrist units

### **Applications:**

Age: Teenagers and adults.

Limb Length: Primarily designed for unilateral, trans-radial hand absence. Certain applications

for long trans-humeral.

Wrist Units: Any wrist which accepts a standard ½ in. diameter threaded fitting.

L-Code: L6704

### **SPECIFICATIONS**

Models:	GRAND SLAM TD
Length:	6.0 in. (15.2 cm)
Height:	5 in. (11.4 cm)
Thickness:	1.5 in. (3.8 cm)
Weight:	8.5 Oz. (241 g)

### Prosthetics Research Design Manufacturing Consulting

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### SPECIFICATIONS







### Downhill Racer Ski TD Pediatric and Adult models

### Product Codes: SKIRACER LEFT/RIGHT Archery Features:

- "Snap-In" and "Pop-Out" pole action for safety and convenience.
- Pre-Flexed pole angle for snow clearance.
- Solid, FLEXIBLE, high performance polyurethane construction.
- Designed to fit 5/8 inch.(~1.6 cm) diameter poles but modifiable for other equipment.
- Applicable to "Alpine" (downhill) and "Nordic" (cross-country) skiing.
- Applicable to mountaineering and hikingclimbing poles/sticks.
- Multiple flexibilities available to meet specific age, weight and performance criteria.
- Rubber "Press-on" pole cap for protection
- We will custom formulate the urethane material to meet the user's needs!
- L-Code: L6704

### SPECIFICATIONS

Length:	3.3 in. (8.4 cm)
Width:	2.5 in. (6.4 cm)
Thicknes	<b>is:</b> 1.3 in. (3.3 cm)
Weight:	4 oz. (114 g)
Color:	Black, Blue (BLU), Teal (TL),
	Violet (V)

The Downhill Racer was developed over three years with the help of Audrey and her family. Audrey is excelling as a world champion skier and para-skier in the slalom and GS.





### **SkiTrek**

### **Product Code: SKITREK** Features:

The SkiTrek was designed for several types of activities that use ski poles or walking / hiking poles. The design accommodates poles for both "Alpine" and "Nordic" skiing, as well as poles for hiking-trekking activities. This terminal device (TD) will easily connect via any USA standard prosthetic wrist (1/2-20 thread).

### SDECIEICATIONS

### **Applications:**

- Nordic (cross-country) and alpine (downhill) techniques.
- Hiking and trekking activities.
- Youth through adult.
- Can be used with or without a prosthetic control cable.
- L-Code: L6704

SPECIFICA		
Length:	3.6 in. (9.1 cm)	
Width:	2.0 in. (5.1 cm)	
Height:	5.5 in. (1.4 cm)	
Weight:	7.5 oz. (213 g)	
Fitting:	1/2-20	
Color:	Black	
Application	Children 11 years and older	through adult

### **Power Play Hockey**

### **Product Code: POWER PLAY**

### **Features:**

- The Power Play is a high performance prosthetic device for playing ice hockey. The Power Play is designed to securely, slide-fit down over the last five inches of the hockey stick for "top of the stick" handling control.
- The safe, all polymer construction is available in two stiffness models.
- **85** standard, most popular. **95** special order, special applications.
- The Power Play provides for quick, agile stick and puck control and powerful shots. The energy storing design performs much like the human forearm and wrist. The Power Play flexes and rebounds for shots and will bend away under load to prevent injury during a fall or while being "checked into" the boards.
- The Power Play can easily be modified to provide the exact level of flexibility and power that the individual player demands making it extremely versatile.

L-Code: L6704





Overall length:	9 in. (23 cm)
Effective length:	4 in. (10 cm) Length it adds to prosthesis before stick attachment
Weight:	11.5 oz. (326 g)
Color:	Black
Applications:	Trans-radial and long trans-humeral
Fitting:	1/2-20







# Fillaver

### Prosthetics Research Design Manufacturing Consulting



# Product Code: HELIX L, HELIX R

### **Features:**

- Amazing! Flexible, "DNA" HELIX Coils for control
- Weave In, "Snap In" and Snap-Out connection system
- Incredible flexible-strength and external, energy capture and return action
- Flexible Helix Coils accept a wide range of diameters and shapes
- Replicates the motion and "feels like" a real human hand and forearm.

### **Application:**

The Helix is a "TRUE" Cross-Over, Vocational-Avocational TD. Perfect for all long handle instrument and tools, rakes, shovels, garden implements, as well as sports activities like Lacrosse, ice and street hockey, field hockey, Cricket.... Innumerable uses!

### L-Code: L6704

### Patent #: D 835,787

### SPECIFICATIONS

	Helix Right	Helix Left
Product Code:	Helix R	Helix L
Length:	4.4 in. (11 cm)	4.4 in. (11 cm)
Width (Flexible OD):	2.2 in. (5.6 cm)	2.2 in. (5.6 cm)
Shaft (Flexible ID):	1.2 in. (3 cm)	1.2 in. (3 cm)
Base Unit Diameter:	1.4 in. (3.6 cm)	1.4 in. (3.6 cm)
Weight:	5.0 oz. (142 g)	5.0 oz. (142 g)
Color:	Stealth Black Alternate Colors:	Extra charge





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### **SPECIFICATIONS**

Length w/o Strap:	2.5 in. (6.4 cm)
Strap Length:	12 in. (30.5 cm)
Width:	1.5 in. (3.8 cm)
Height:	1.75 in. (4.4 cm)
Weight:	4.5 oz. (128 g)
Color:	Satin Black



### **Flexible Thing**

### **Product Code: FLEXTHING**

### **Features:**

- Simple, reliable and waterproof
- Aircraft aluminum and stainless steel machined components
- Strong Flexible, "grippy", strap rated at 1000 pounds tension
- Swivel buckle for securing strap in activities where spontaneous release is not required for safety
- Friction adjustable pivoting wrist
- Replaceable, modifiable strap
- Excellent range of motion

### **Application:**

- Cross-over terminal device for multiple applications/ages
- Water sports like waterskiing and similar activities using a hand held tow rope and handle
- Broad range of long handle tool applications, such as shovels and rakes
- Heavy duty capacity for carrying tool boxes or equipment with handles
- Adults and teenagers. Trans-radial and trans-humeral applications with appropriate sports prosthesis
- L-Code: L6704, Add-on L6620

### Features:

- Strong, quick release, one inch wide, rachet and buckle system.
- Adjustable diameters from 1-1/8 inches to 1-3/4 inches (plus) wide
- High strengh, flexible and resilient body, replicates wrist and forearm biomechanics
- Excellent "rocker" action allows for wide angles of control.
- Kayaking, Rowing, Long handle Tool Control, Shovels, Rakes, Axes, Hatchets, String Trimmers.
- Equipped with standard 1/2 in. diameter threaded prosthetic mounting connector.
- The MULTI-D PIVOT is an advanced, additional version—a TRUE crossover TD. The PIVOT provides ~32 extra degrees of friction adjustable freedom in wrist motion, improving performance and comfort in both vocational and avocational activities.



Multi-D



Multi-D TD

**Multi-D Pivot** 

### **SPECIFICATIONS**

Models: Product Code:	MULTI-D MULTI-D	MULTI-D PIVOT MULTIDPIVOT
Length:	3.8 in. (9.7 cm)	4.55 in. (11.6 cm)
Width:	2.0 in. (5.1 cm)	2.0 in. (5.1 cm)
Weight:	9.6 oz. (272 g)	11.4 oz. (323 g)
Adjustable Diamete	ers: 1.125 in. (2.86 cm)-1.7	50 in. (4.5 cm) (+) "plus"
Colors:	Black, other colors available by re	equest may be additional charge
L-Code:	L6704	L6704, Add-on code L6620



### Prosthetics Research Design Manufacturing Consulting



Hammerhead

**Hammerhead Pivot** 

### Hammerhead

### Product Code: KAYAK, KAYAK PIVOT Features:

- Improved design provides more natural "wrist action."
- Energy storing, wrap around, flexible strap coupling:
- Positively and safely secures paddle handle.
- Releases manually and quickly.
- Duplicates the bio-mechanical wrist action required for performance kayaking.
- Aggressive, non-marring, friction surfaces for high torque paddle control.
- Mounts on any standard prosthesis or accepts any USA Standard disconnect adapter.

- Strong and reliable!
- Synthetic polymer construction with stainless hardware.
- The PIVOT provides ~32 extra, degrees of friction adjustable freedom, in wrist movement, perfect for replicating kayak paddling biomechanics. This added range of motion enhances the usefulness and performance of the Hammerhead providing better, more powerful control over the paddle.
- Other Applications: Canoeing and rowing water sports applications possible with handle modifications.

### SPECIFICATIONS

Models: Product Code:	HAMMERHEAD KAYAK	HAMMERHEAD PIVOT KAYAK PIVOT
Length:	4.3 in. (11 cm)	5 in. (12.7 cm)
Width:	2.7 in. (7 cm)	2.7 in. (7 cm)
Weight:	12 oz. (340 g)	13.5 oz. (383 g)
Colors:	Black	Black & Stainless
L-Code:	L6704	L6704, Add-on code L6620







### **Criterium+ Bicycle Handlebar Adapter**





### **Product Code:** CRITERIUM PLUS

### Features:

- High performance bike prosthetic device capable of engaging in BMX style racing and a variety of other types of bicycle activities including road/off road and mountain biking.
- Captures and holds a variety of handlebar grip diameters for other vehicles like ATVs, push and riding lawn mowers and other types of motorized and non-motorized equipment controlled by levers and or handlebars
- Multiple "cross-over" applications for holding a wide variety of smaller diameter (1.5 inches and less) cylindrical shaped objects, tools, handles and equipment.
- No cable required. Pushes-Snaps "ON" and Pulls-Levers "OFF" cylindrical bars and grips but never locks in place!

### **SPECIFICATIONS**

Length:	4.1 in. (10.4 cm)
Distance of wrist face to center of Handlebars:	~2.7 in. (~ 5 cm)
Width:	~ 2.3 in.(~5.8 cm)
Height:	~ 2.4 in. (~6.0 cm)
Color:	Stealth Black and Silver (Other colors may be available in the future. Please inquire!)
Weight:	~ 6.5 oz. (~184 g)
Application	Children 10 years and older through adult (See note in "Features" about single spring for younger age users)

- Powered by two strong (non-adjustable) extension springs providing exceptional grasping force for optimal control and safety. One spring may be removed by prosthetic professional for younger age applications as necessary.
- "Add-on" radial/ulnar, friction adjustable, wrist component that uses a USA, standard, threaded prosthetic mounting system. We recommend using the Criterium PLUS with a "friction, quickdisconnect" wrist like the OMEGA Wrist System, for the best performance.
- Totally waterproof, tough materials including aircraft aluminum and structural grade nylons
- Low maintenance
- L-Code: L6704, Add-on L6620

### Criterium Bicycle Handlebar Adapters Criterium Pivot 📮 Criterium Pivot Short



### **SPECIFICATIONS**

Models:

### Product Codes: PIVOT 70 or 85 PIVOT SHORT 70 or 85

### Features:

- All models available in either of two hardness 70 & 85
- All models snap/pull ON and OFF 1" diameter bicycle handlebars
- Pivot version is two piece allowing for much greater angulation and arm torque with adjustable friction pivot mechanism... higher performance and more difficult to release from the bars.
- Pivot Short can be used for children as young as three years old. Older children and adults use the Firm version. Both are compact in length and have a built-in wrist pivot for greater versatility and control.
- 70 references the hardness or "Durometer" of the material. The 70 model is softer, more flexible and forgiving than the 85 model.

**Pivot Short** 

- Handlebars can be taped with various materials to change the friction and force required to engage and disengage the Criteriums.
- All models fit right or left and equipped with 1/2 inch diameter threaded stainless steel coupler.
- Offset centerline duplicates normal palm grasping position for improved biomechanics.
- 70 Durometer Material Children/adolescents and smaller proportioned adults and less aggressive riders will prefer the 70 models. Release loads approximately 15-20 pounds.\*
- 85 Durometer Material Average to larger adults or more aggressive riders. Requires more effort to engage and disengage from the handlebars. Release loads approximately 40-45 pounds.\*

\*Release loads were measured using the standard Criterium and one inch diameter smooth, bare metal handlebars without any tape covering. The load applied was a straight pulling force. No torgue was applied. Tape, foam or fabric coverings will increase the amount of force and torque required to snap on or off the handlebars.

L-Code: L6704, Add-on L6620

### Prosthetics Research Design Manufacturing Consulting

Length: 4.1 in. (10.4 cm) 2.9 in. (7.4 cm)) Width: 2.5 in. (6.4 cm) 2.4 in. (6.1 cm) Weight: 7.5 oz. (213 g) 6 oz. (170 g) Color: Black/Satin Black/Satin



Pivot



### Mountain Master Mountain Bike TD

### Product Code: MTNMASTER Features:

- Flexible, strong polyurethane body, shock absorbing design.
- Stainless steel ball-pedestal mount with machined aluminum mounting hub.
- Fits all standard 7/8 in. (~22 mm ) diam. bars
- Snap-On and Lift-Off function.
- Rider controlled quick connect and release system (TD is not locked to handlebars).
- Excellent stability and secure control over the handlebars.

- Passive contoured features provide bike frame carrying capability.
- Equipped with a standard, threaded 1/2
- inch diameter mounting connector.

### Code: 20704

### SPECIFICATIONS

Length:	4.2 in. (10.7 cm)
Width:	2.4 in. (6.1 cm)
Height	3.3 in. (8.4 cm)
Weight	9.5 oz. (270 g)
Color:	Black (other colors maybe available custom for a surcharge)



### **Ener-Joint**



### Product Code: ENER-JOINT Elbow Design Module

 Elastomeric progressive resistance energy storing and release elbow with infinite locking positions, endoskeletal design.

### Features

- 4 "flex module" models
- Compact and self-contained designed to be mounted to mimic the center of the anatomical elbow
- Energy absorbing, isolation module, polyurethane core isolates external shock forces under both flexion and extension
- Infinite variety of pre-positionable, lockable angular orientations. Consistant, nonadjustable, fixed flexible resistance.
- Rapid, reliable, bicycle style hub "quick release" locking, lever mechanism.
- Capable of performing activities including rugged mountain biking, snow mobiling, ATV riding, off road motorcycle riding, rowing, kayaking etc.
- Hi Tech "Android" Robotic appearance

### Prosthetics Research Design Manufacturing Consulting

 ENER~JOINT equipped with ½ inch diameter x 20 TPI fittings on both ends. Other custom thread sizes are possible. Please Inquire.

### **Applications:**

 ENER~JOINT is designed for adult grade rugged activities and loads but is applicable to active young adults.

### L Code:

New Technology, TBD \*Recommend Miscellaneous code with language. "Elastomeric progressive resistance energy storing and release elbow with infinite locking positions, endoskeletal design."

### **SPECIFICATIONS**

Models: Soft, Medium Soft, Medium, Firm		
Cylinder Dia	meter	3.0 in. (7.6 cm)
Cylinder Wid	lth	1.5 in. (3.8 cm)
Module Overall Length		3.8 in. (9.7 cm)
Module Overall Width 3		3.9 in. (9.9 cm)
<b>Weight</b> 19 oz. (540 g)		19 oz. (540 g)
Color	Stainless ar	nd black aluminum



### ISHI Archery and Fishing TD

### Product Codes: ISHI, ISHI HD

"Ishi" was the name of the last known Native American Indian, living alone in the wilds of northern California, discovered in the early 1900's.

### **Archery Features:**

- Compliant, strong, polyurethane "yoke" design that conforms to all types of bow handles
- Bow "centers" or "nests" in the non-marring cradle of the ISHI.
- Adjustable ratchet strap and buckle system retains the bow without inducing torque.
- ISHI handles bows with weights to 45 lbs., ISHI HD to 70 lbs. plus.

### **Fishing Features:**

- Compliant design with ratchet system adjusts to fishing rod handles
- Right or left hand reeling
- Flexible, strong polyurethane material " Ulnar flexes-deviates" similar to sound wrist.
- Use ISHI for lighter duty fresh water fishing. ISHI HD for heavier duty fresh water fishing and all salt water fishing.

### **Applications:**

- ISHI operates either Right or Left
- ISHI for Archery; 5 -10 years old, Bows to 40lbs max. For Fishing; lighter freash water fishing gear, for all ages.
- ISHI HD for Archery; Youth and adults, bows from 40 - 70lbs plus. For Fishing; medium to heavier fresh water fishing gear and all salt water fishing.

### L-Code: L6704

### **SPECIFICATIONS** Length: 3.5 in. (9 cm) Width: 3.1 in. (7.9 cm) Thickness: 1.25 in. (3.1 cm) Weight: 6 oz. (170 g) Color: Stealth Black



ISHI Trad **ISHI** Compound



**ISHI Open** 

### **Product Code: LAMPREY Features:**

- Designed to fit most sporting firearms including bolt action, lever action and semi-automatic rifles and carbines, over and under, side by side, pump and semiautomatic style shotguns as well as military M-16's and their variations.
- Flexible polymer "yoke" conforms securely to various stock surfaces without marring the gun. Yoke snaps onto forearm (fore-end) of stock and can be pulled back tightening up for precise control. Yoke does not interfere with aiming or barrel's sight window.
- Lockable ball and socket allows for firing from a variety of positions and a pivoting platform provides for smooth gun rotation.
- Perfect for target and competitive bench shooting, "trap" and sporting clays, small

and big game hunting and upland game pursuits.

ISHI

 Equipped with standard 1/2 in. diameter threaded prosthetic mounting stud.

### L-Code: L6704

### **SPECIFICATIONS**

Materials:	Stainless steel, aluminum and polyurethane polymer con- struction.
Weight:	15.5 oz. (440 g)
Color:	Black



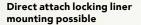
Lamprey Gun Turret







### Prosthetics Research Design Manufacturing Consulting





### **Guitar Pick Adapter**

### Product Code: GUITAR PA GUITAR PA CUSTOM

Features:

- Picks not included.
- Applies to most all upper limb conditions.
- Passive (no cable required).
- TRS has developed a simple, highly adjustable, prosthetic, guitar pick adapter.

### Violin Bow Adapter 2

### Product Code: VIOLIN 2

### **Application:**

Violin bow not included.





Product Code: DRUM SA Application: Drumsticks not included.

 Violin 2 more advanced model. Bow pivots easily duplicating natural wrist action and conrol.

The Guitar Pick Adapter is constructed

of the prosthesis. Can also be mounted

directly to a roll-on locking liner. Call for

The Guitar Pick Adapter will readily accept

any pick. The pick is securely held in place

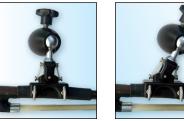
with set screws. The Adapter has a lockable

ball and socket component allowing for the

more info.

so as to be mounted close to the distal end

- Most all upper limb conditions.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Passive, no cable required.



### **Drum Stick Adapter**

- The Drum Stick Adapter provides a unique design, which allows the stick to not only pivot but pivot under an adjustable tension load. This feature enables the drummer to create spontaneous "drum rolls" and other drumming techniques.
- Drumstick and adapter require simple modification. TRS sends complete instructions.
- The drum stick is held firmly in place with a set screw.

# pick to be adjusted to any suitable playing position.

- 1/2 in. diameter threaded stud fits any USA made wrist units.
- L-Code: L6704

### SPECIFICATIONS

Weight:	3 oz. (85 g)
Color:	Black and aluminum.

- The TRS prosthetic Violin Bow Adapter 2 uses a lockable ball and socket component modified to readily screw into any standard prosthesis. The Adapter can be adjusted to any angle to help ensure optimal playing position and technique.
- The bow is held firmly in place with set screws.
- L-Code: L6704

### **SPECIFICATIONS**

Weight: Color: 4.5 oz. (128 g) Black only.

- 1/2 in. diameter threaded stud fits any USA
- made wrist units.

Passive. No cable required.

**NOTE:** This product cannot be returned for credit or reimbursement if modified.

### L-Code: L6704

### SPECIFICATIONS

Weight:	Approximately 5 oz. (142 g)
Color:	White plastic/black aluminum.





### Kahuna TD

### Product Code: KAHUNA Features:

- Surf-Swim TD
- Specially designed for ocean surfing
- Constructed of an unbreakable, high strength, polymer with a concave "palm" to allow for rigorous paddling and rail control but with flexibility for safety.



- Unique "heel" design at its base, that replicates human anatomy, provides a platform for "pushing up and off the board".
- Aggressive texture on all the surfaces enhances board control.
- Standard, stainless steel, threaded stud, mounting system.

Acceptable for competition swimming in

Folding wing design reduces resistance

Rotates on prosthesis to create various

swimming stroke options. Passive, no cable required.

made wrist units.

during stroke recovery but flares open to provide maximum resistance during power

1/2 in. diameter threaded stud fits any USA

The Freestyle Swimming Device can best be used with a custom shortened swimming

prosthesis and a silicone sleeve suspension.

L-Code: L6704

Features:

stroke.

Notes:

high school.

Product Code: FSTSD 2

SPECIF	ICATIONS
Length:	6.25 in. (15.9 cm)
Width:	4.75 in. (12.1 cm)
Depth:	2.5 in. (6.4 cm)
Weight:	8.1 oz. (230 g)
Color:	Black, Sea Blue (SB), Teal (TL)

### **Freestyle Swimming Device**

- Mount the Freestyle Device as proximally as the limb length allows.
- The device is sold in an adult size but can easily be modified to match smaller hand proportions.

### L-Code: L6704

### SPECIFICATIONS

Length:	6 in. (15 cm)
Width:	5.5 in. (14 cm)
Thickness:	0.63 in. (1.6 cm)
Weight:	3.4 oz. (96 g)
Color:	White
	1 1 1 1

Materials: Polypropylene, aluminum and stainless steel hardware.

### Swim Fin Kit

### Product Code: SFK100 Features:

- The Swim Fin Kit provides almost all of the advantages of the Freestyle Swim Device without the need for a prosthesis.
- The kit comes complete with fabrication layouts and directions. Estimated fabrication time is two hours. TRS recommends fabrication by a prosthetic technician.

### **Applications:**

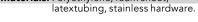
- Trans-radial
- Adolescent to adult.
- L-Code: L6704

Note: Product uses Latex®



### **SPECIFICATIONS**

Length, width and weight will vary depending upon patient. Thickness: 0.7 in. (1.8 cm) Color: White Materials: Polyethylene, foam sheet,







### Prosthetics Research Design Manufacturing Consulting



### **Dragon TD**

### Product Code: DRAGON 60 Features:

- Specifically designed for martial arts, wrestling, sparring, grappling, contact sports and floor exercise type activities.
- A soft to medium hardness shock absorbing, flexible polymer.
- Excels in punching, chopping and grappling.
- Uniquely shaped surfaces duplicate fist-like anatomy and provide high traction.
- Cylindrical, shock absorbing cavity and allpolymer construction.

Incredible punching power and cushioned protection for the arm.

### L-Code: L6704

### **SPECIFICATIONS**

Adolescent to adult.

**SPECIFICATIONS** 

L-Code: L6704

Length:

Weight:

Color:

3.7 in. (9.4 cm)	
2.9 in. 7.4 cm)	
4.3 in. (11 cm)	
10.5 oz. (298 g)	
Stealth Black	
	2.9 in. 7.4 cm) 4.3 in. (11 cm) 10.5 oz. (298 g)

Materials: Polyurethane and stainless steel threaded mounting stud.

### Hustler TD

5.25 in. (13 cm)

4.5 oz. (128 g)

Aluminum/black/ white



### Product Code: HUSTLR Features:

- **The Hustler TD** is a versatile, lightweight prosthetic aid for playing pool, billiards, snooker and similar table games.
- 1/2 in. diameter threaded stud fits any USA made wrist units.
- Easily adjusted for all shot angles.
- Rigid, rubber tipped monopod creates a non-slip bridge, while the swivel ring guides the stick almost friction free.

# Amp-U-Pod

### Product Code: DPAUP0

### **Applications:**

- Fits all cameras with standard 1/4"-20 hole fitting.
- Supports the camera on a lockable tripod mount, which facilitates photographing at a variety of angles and aids in changing film without the camera having to leave the security of the prosthesis.

### **Rocky Mountain High Skip Ropes**

### **Product Code:** Skip Rope:

### JUMPROPE Skip Rope adapter: JRADAPTOR

- Enjoy the aerobic and health benefits of rope jumping.
- Rocky Mountain High Skip Ropes are designed especially for use with a prosthesis. These are the same type of light weight, high performance skip ropes used around the USA by rope skipping exhibition teams
- TRS includes a specially designed skip rope adapter that is angled precisely to optimize rope skipping with the prosthesis. The **Skip** Rope handle securely and safely force fits onto the adapter. The adapter will screw into

a standard prosthetic wrist or disconnect style wrist adapter.

The rope length is easily adjustable and can be shortened and customized to each individual's body size and jumping style.

### **Application:**

- Young adults age eight and older through adult.
- Right or left absence.
- Bi-lateral custom sets can be made. (Inquire).

L-Code: L6704

### 1/2 in. diameter threaded stud fits any USA made wrist units.

Materials:Nylon, neoprene, aluminum, steel.

### L-CODE: L6704

	ONS

Length:	6 in. (15 cm)
Weight:	2.5 oz. (71 g)
Color:	Non-glare black/ aluminum.



### **SPECIFICATIONS**

Length:	5.25 in. (13 cm)
Weight:	4.5 oz. (128 g)
Color:	Aluminum/black/ white
Materials:	Nylon, neoprene, aluminum, steel





### Product Code: RAPTOR Features

- A solid titanium plate support body and stainless steel wrist adapter system
- Friction adjustable "rocking" action "Hook" adapts to various approach angles
- 3 replaceable, "recyclable" tips (2 Polyurethane (85 & 95) and one "shapeable" brass)
- Cloaked with easily replaceable, high traction "O" ring sheathing
- Universal handedness

### L Code: L6704

The Raptor Sky Hook is the first commercially available prosthetic terminal device for both indoor and outdoor rock climbing recreations. The Raptor was designed with input and field testing by Jon Sedor, a nationally recognized, one-handed climber. Slim and strong with multiple functional features including:

Extra tips may be ordered separately in quantity. Tips may be recylable. If structural base materials in the tips are not damaged credit may be issued for tips returned, at TRS discretion.

WARNING! Technical rock and gym climbing are very dangerous activities that can result in severe injury or death. Always climb with protection. TRS accepts NO LIABILITY for the use of the RAPTOR SKY HOOK. Using the Raptor may result in severe injury or death!









Malcolm Dalv **Paradox Sports Team** 



# **Raptor Sky Hook Rock and Gym Climbing TD**



### **Eldorado Z-Axis Climbing Foot**

### Product Codes: ELDO-Z Features:

**SPECIFICATIONS** 

3.4 in. (8.6 cm)

3.7 in. (9.4 cm)

.63 In. (1.6 cm)

4.5 in. (11.4 cm)

6 oz. (170 g)

Length:

Width:

Thickness:

Height:\*\*

Wrist Units:

Weight:

- Revolutionary, compact design (no right or left).
- Designed with the invaluable input of Malcolm Daly (pictured left), Paradox Sports<sup>®</sup> and Evolv Sports<sup>®</sup>.
- Superior control, loading, leverage and proprioception.
- High strength keel for stability and control.
- Compliant polymer foot matrix provides "feel" under load.
- Complete with rugged, custom Evolv Sports® TRAX-XT5 sticky, climbing shoe rubber.
- Eldorado Z-Axis comes complete with titanium pyramid adapter and appropriate hardware pre-installed to manufacturer's specifications. Simply attach to any lower extremity, endo-skeletal prosthesis designed to receive a standard pyramid adapter.

### **Construction / Materials:**

Foot: High performance, light-weight core and reinforced keel system encased in matrix of high strength polymers. Titanium pyramid adapter installed with hardware to mfg. specifications. Foot pre-installed in shoe.

Shoe: Tough, high strength, abrasion resistant materials. High traction "sticky rubber" sole, toe and heel, typical of high performance rock climbing footwear.

Application: Unilateral and bilateral transtibial and certain transfemoral climbers. Suggested climber weight: 300 pounds (136 kg) (max.).

### L-Code: TBD

### SPECIFICATIONS

Length:	7.25 in. (18.4 cm)
Width:	2.8 in. (7.1 cm)
Height:*	3.75 in. (9.5 cm)
Height:**	4.5 in. (11.4 cm)
Weight:	25 oz. (709 g)
Foot Color:	TRS tan
Shoe Color:	Black / Neon Yellow
Shoe Style:	Evolv® TRAX-XT5 (Laced), High traction toe, sole and heel.

\* w/o Pyramid Adapter

\*\* w/ Pyramid Adapter

### Prosthetics Research Design Manufacturing Consulting

# Wrists



### **Omega Friction-Disconnect Wrist Technology**

Product Code: OMEGA R OMEGA L, OMEGA RB, OMEGA LB, OMEGA M, OMEGA MB

### **Features**

- Superior body powered wrist technology, designed by prosthetic users for prosthetic users.
- Totally machined from surgical stainless steel and aircraft aluminum
- "Tool -less" adjustable, rotational friction control 12 locking positions
   Lock la Lock Outpad Lock Open disconnect
- Lock-In, Lock-Out and Lock-Open disconnect features
- Easy to insert, precision-fit, OMEGA disconnect insert
- Simple, reliable, OMEGA disconnect, insert capture technology
- Rock solid "fit" and significantly stronger than all other competition
- Standard laminating ring fabrication

### L Code:

L6615 (Wrist)

L6616 (Inserts)

### **SPECIFICATIONS**

	Round L	arge	Oval La	irge	Oval Me	dium
Product Code	OMEGA R	OMEGA RB	OMEGA L	OMEGA LB	OMEGA M	OMEGA MB
Color:	Aluminum Satin	Black	Aluminum Satin	Black	Aluminum Satin	Black
Major OD:	2.04 in. (5.1	8 cm)	2.4 in. (6	cm)	2.0 in. (5 d	cm)
Minor OD:	N/A		1.7 in. (4.5	5 cm)	1.5 in. (3.8	cm)
Total Height with						
Laminating Ring	1.03 in. (2.6	2 cm)	1.0 in. (2.5	ō cm)	1.0 in. (2.5	cm)
Height Face Plate (Only)	.32 in. (.8 d	cm)	.32 in. (.8	cm)	.32 in. (.8 c	cm)
Weight:	3.6 oz, 103	8.1 g	3.9 oz, 11	1.2 g	3.2 oz, 89	.4 g





Black Available (Round & Oval)



OM003 Omega Disconnect Inserts





# Wrists

# TRS Nylon

Nylon CAPP®

Disconnect

Flex Wrists



Friction Disconnect

51052



Disconnect adapters for Fillauer®-HOSMER® Wrists

QDA6H

58153

Wedgegrip



# Wrist Components

### **TRS Nylon Wrists**

RS Nylon Wrists				
MODEL:	STYLE	SIZE	PRODUCT CODE	SPECIFICATIONS
Infant	Round	Very Small	INFANTWRIST	1.25 in. D. (3.2 cm D.)
Child	Round	Small	TRS CHILDWRIST	1.5 in. D. (3.8 cm D.)
- Fillauer®-Hosmer® Nylo	n Capp®			
MODEL:	STYLE	SIZE	<b>PRODUCT CODE</b>	SPECIFICATIONS
CAPP®	Round	Small	55108	1.5 in. D. (3.8 cm D.)
	Round	Medium	55109	1.75 in. D. (4.4 cm D.)
Fillauer®-Hosmer® Wris	ts			
MODEL:	STYLE	SIZE	PRODUCT CODE	SPECIFICATIONS
Wedgegrip	Round	Large	61897	2 in. D. (5 cm D.)
	Round	Medium	62351	1.75 in. D. (4.4 cm D.)
	Oval	Large	61970	2.25 in. x 1.6 in.
		5		(5.7 cm x 4.1 cm)
	Oval	Medium	62354	2 in. x 1.55 in.
				(5.1 cm x 4 cm)
Disconnect	Round	Large	61862	2 in. D. (5 cm D.)
	Round	Medium	62342	1.75 in. D. (4.4 cm D.)
	Oval	Large	61922	2.25 in. x 1.6 in.
				(5.7 cm x 4.1 cm)
	Oval	Medium	62343	2 in. x 1.55 in.
				(5.1 cm x 4 cm)
	TRS Improved Insert		QDA6H	
FM Disconnect	Round	Large	58297	2 in. D. (5 cm D.)
	Insert		51052	
Friction/Disconnect	Round	Large	58152	2 in. D. (5 cm D.)
	Round	Medium	58151	1.75 in. D. (4.4 cm D.)
	Oval	Large	58150	2.25 in. x 1.63 in.
				(5.7 cm x 4.1 cm D.)
	Insert		58153	
Flexion	Round	Large	51100	2 in. D. (5 cm D.)
	Round	Medium	51084	1.75 in. D. (4.4 cm D.)



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### Prosthetics Research Design Manufacturing Consulting

### **ELF-Straps**

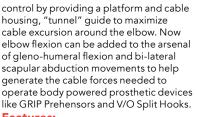


### **EL**bow FLexion Cross Bar and Cable Control Strap **Product Codes:**

**ELFSTRAPTAN / ELFSTRAPBLACK** 

The ELF Cross Bar and Cable Control Strap eliminates forever your need to fabricate cross bar straps.

These straps were developed with over a year of rigorous field testing. The ELF Strap is designed to enhance cable excursion



### **Features:**

- Waterproof polyurethane material retains flexibility and strength for better cable performance and efficiency.
- Cable tunnel guide enhances cable excursion around the elbow dramatically

### SPECIFICATIONS

improving performance and increasing operational efficiency.

- Capable of being used with both Heavy Duty and Standard size cable housing. Special tubing is enclosed as an accessory that is used to increase the O.D. of Standard Size Cross bars so that they fit the ELF system.
- Unbreakable. ELF STRAPS survived over ONE MILLION cycles of "ninety degree flexion/extension testina.
- Extra long to fit prosthesis with lower trim lines.
- Easily modified for length and mounting. Material cuts, drills and finishes professionally.
- Accessory kit includes mounting hardware and complete Installation Instructions.

Length:	6.5 in. (16.5 cm)
Width:	.75 in. (1.9 cm)
Max. Width:	.96 in. (2.4cm)
Thickness:	.125 in. (.32 cm)
Max. Thickness (@ Cross Bar):	.50 in. (1.3 cm)
Colors:	TRS Tan & TRS Stealth Black
Weight:	Under .5 oz. (14g)



### Adult and pediatric models.

### Product Codes: ARM SKINZ/ADULT, ARM SKINZ/PEDIATRIC

TRS ARM SKINZ were developed especially to provide an improved cosmetic covering and surface texture alternative to hard, glossy prostheses for body powered and passive systems.

### \*ARM SKINZ are not designed for manual labor or rough, abrasive hobby environments. They are 100% waterproof.

### Features:

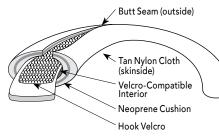
- Silicone material throughout in healthy, complimentary, skin tone, tan color.
- Stain resistant and waterproof. Easily cleaned.
- Custom colors available by special order at extra cost.
- Extra long tapered cones in two models fit a wide variety of prostheses.
- Excellent elasticity.
- Install easily similar to donning regular cosmetic glove technology.

### **SPECIFICATIONS**

### Length: 17 in. (43 cm)

Thickness: Approximately .060 in. (.15 cm)

Elongated, cone configuration in two different tapers/models. See SIZING CHARTS (on website) to determine the best fit. Sized to fit most arm prostheses and smaller diameter (pediatric leg prostheses)



### Product Code: AXL150, AXLBULK

### **Neo-Axilla Loop Padding**

### Features:

- Lightweight, never bulky.
- Washable.
- Soft tan color, nylon outside (skinside).
- Velcro compatible inside surface attaches to hook Velcro stitched to web along axilla area. Wrap around, peel off design.
- Won't chafe. Never sticky. Won't turn yellow.
- The best axilla loop material available.

### Prosthetics Research Design Manufacturing Consulting

### **SPECIFICATIONS**

AXL150	AXLBULK
2-5/16 in wide	21 in wide
12 ft roll	10 ft roll

- AXL150 designed to wrap around 1 in. wide web.
- AXLBULK. Customer can cut and size to meet their specific padding applications for either prosthetics or orthotics.



# **Cutaneous ANCHOR Technology by Single Handed Solutions**

### Product Codes: T-R ANCHOR, T-H ANCHOR

Cutaneous Anchor Technology was invented by Debi Latour, a career Registered Occupational Therapist specializing in pediatric prosthetic rehabilitation. Debi has a congenital transradial deficiency and has worn a prosthesis most all of her life.

The innovative ANCHOR system uses a special adhesive tape and re-useable mounting plate anchors to control a body powered cable and TD. The system eliminates the contra-lateral harness entirely for improved comfort and improved appearance.

The **ANCHOR** provides an excellent alternative to traditional harness systems. Users enjoy the additionally flexibility and the absence of web harnesses that can interfere with clothing including sleeves, bra suspension straps, etc. Lower cut and sleeveless clothing can now be more of an option for the user.

Patient's typically resisting harnesses can be more accepting of this prosthetic actuation system. The ANCHOR is wearable and functional for multiple days at a time without removal. The technology is also useful to anchor linear transducers or in tandem hybrid

### Anchor Companion Strap

### **Product Code:**

C-STRAP B (for black webbing)

C-STRAP W (for white webbing)

### **Features:**

- 1 inch wide Dacron webbing, approximately 20 inches long
- Includes TRS Rapid Adjust Buckle (black)
- Interfaces with Anchor using Fillauer nylon suspension clip
- White or Black webbing (only black buckle)

### PRO-Poly Web (Tape) Harness Material

### Product Code: AWEB (Specify Color) **Features:**

Pro-Poly Web Harness material is softer, smoother in texture and more comfortable to wear than standard dacron web tape.





technology (external power-coupled with body-powered).

### **Features:**

- Trans-Radial (T-R) and Trans-Humeral (T-H) Kit systems Harness-less operation of body-powered
- prostheses
- Multiple day wearing performance
- Ipsi-Lateral cable/TD control
- Skin friendly, high traction, adhesive mounting technology
- Complete instructions and guidance
- Special technical support and product application guidance\*

### L Codes: L6655, L6675, L6676, L7499

\*Contact Debi Latour at: LatourAnchor@gmail.com

T-R



Pro-Poly Web is also slightly

Rapid Adjust Buckles.

is applicable.

Length: 50 ft. roll.

black.

yds. Inquire as to availability

thicker than conventional Dacron

Conventional harness construction

Pro-Poly Web can be laundered

regularly without damage.

**SPECIFICATIONS** 

1 in. or 3/4 in. widths available.

Colors: 1 in.: White, tan, royal blue,

Additional colors, minimum order 50

3/4 in.: White and black.

web, so it functions better with TRS









### **Rapid Adjust Buckles**

### **Product Code:** ARAB 1K, ARAB 34K **Features:**

- Low profile, strong.
- Buckle uses clamp action for securing web.
- Locks positively into place anywhere on web.
- One hand operation.
- Replaces any three or four bar buckles and most "belt" or "latch" type buckles used in orthotic braces.
- Excellent for upper extremity prosthetic harnesses to rapidly adjust cable excursion.

Models: 1" blk, 3/4" blk

### Prosthetics Research Design Manufacturing Consulting

### **BAHA & BAHA 9 Bio-mechanically Aligned Harness Anchor**

### **BAHA Adult**



### Product Code: BAHA, BAHA BLACK, BAHA PEDI, BAHA 9

### Features:

- The BAHA and BAHA Pediatric harness anchors improve the biomechanics by optimizing the harness axilla angle and creating a more efficient cable control pathway. This technology replaces the Figure #8 stainless steel ring(s).
- The BAHA 9 replaces the stainless, NorthWestern Ring used on a Figure #9 harness. Additionally, it incorporates a 4-bar buckle style, web harness connection directly into the technology, eliminating another metallic component.
- The BAHA, BAHA Pediatric and BAHA 9 are advancements in body powered harness design and technology..... 21st Century Body Power!
- High Strength and Lightweight.
- Flexible and comfortable... conforms to the spine.
- Modifiable to accommodate most axilla harness angles.
- All models function either Right or Left

### **SPECIFICATIONS**

### **Applications:**

- **BAHA Pediatric** Children and young adults
- BAHA and BAHA 9 Teenagers Adults
- **BAHA and BAHA** Pediatric Figure#8 harness technology
- BAHA 9 Figure #9 harness technology

### L-Code:

- Sub-component, L6675 Single control harness, L6676 Dual control harness.
- The BAHA, BAHA Pediatric and BAHA 9 were conceived and designed by Bob Radocy and Randy Riley. The BAHA is an evolution of the VADR (Vertically Arrayed Dual Ring Harness) as described by Randy Alley, CP., FAAOP

MODELS:	ADULT	PEDIATRIAC	BAHA 9
Length:	3.9 in. (9.9 cm)	2.9 in. (7.4 cm)	2.9 in. (7.3 cm)
Width:	2.7 in. (6.9 cm)	2.0 in. (5.0 cm)	2.4 in. (6.0 cm)
Thickness:	0.125 in. (0.3 cm)	0.125 in. (0.3 cm)	0.125 in. (0.3 cm)
Weight:	1/2 oz. (14 g)	1/3 oz. (9.5 g)	1/2 oz. (14 g)
Color:	TRS Tan or Black	TRS Tan	Black



### Binary Swivels

### **Product Codes:**

BINARY316STD BINARY932STD

BINARY316HD BINARY932HD

# 3/16 STANDARD 3/16 HEAVY DUTY

9/32 STANDARD 9/32 HEAVY DUTY

### Features:

Models:

- **TRS BINARY SWIVELS** have tested 50% stronger than conventional Triple Swivels. They incorporate stronger stainless steel materials with a simplified, stronger design that will outlast conventional systems.
- BINARY SWIVELS have an extra long ferrule for receiving prosthetic cable allowing "Double Swage" capability for greater longevity and less cable failure at the swage.
- BINARY SWIVELS are available with both 3/16 inch diameter terminal balls and 9/32 inch diameter terminal balls for both STANDARD 1/16 inch diameter cable and 3/32 inch diameter HEAVY DUTY cable.
- TRS highly recommends that TRS PYTHON Standard and TRS PYTHON Heavy Duty cable be used in all prosthetic systems to ensure the best performance and greatest longevity.

### **Cable Housing Ferrules**

### Product Code: CH FERRULE Features:

- Press fit into heavy duty housing traps teflon liner inside housing eliminates need to "flare" liner.
- Lubricant impregnated plastic. Friction free, quiet operation.





# PYTHON, High Performance, Custom, Stainless Aircraft Cable

Stronger with superior abrasion resistance. The new prosthetic standard! (Python Cables fits all standard and heavy duty cable hardware.)

### Product code: PYTHONSTD, PYTHONHVY Features: PYTHON STANDARD

- 1/16 in. diameter (rotary swaged)
- Superior 1 x 19 cable construction
- 4 x more resistant to abrasion breakage
- Low coefficient of friction, longer life, less fraying and breakage
- Fits all conventional hardware
- 25 ft. long coils and competitively priced

### **Features: PYTHON HEAVY DUTY**

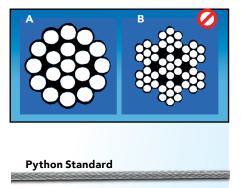
- 3/32 in. diameter (rotary swaged)
- Superior 1 x 19 cable construction
- 4 x more resistant to abrasion breakage Low coefficient of friction, longer life,
- less fraying and breakage
- Fits all conventional hardware
- 25 ft. long coils and competitively priced

### A NEW PYTHON:

High performance, stainless aircraft cable. 1x19 construction. 19 high strength wires.

### **B OLD CONVENTIONAL CABLE:**

7x7 construction, 49 thin wires.



### Python Heavy Duty

### **Heavy Duty Cable Housing**

# Product Code: ACCHT25

- Features:
- Heavy duty stainless steel cable housing.
- Accepts TRS Python Heavy Duty Cable (3/32 in. dia.) or equivalent. Accepts standard diameter prosthetic cable (1/16 in. dia.) with a TRS Teflon Liner. Accepts new Cable Housing Ferrules.
- Heavy Duty Housing is constructed to be used with any manufacturer's standard heavy duty fittings; cable housing retainers, cross bars, etc.
- Available in 25 ft. coils.

### **Superior Grade Teflon Cable Housing Liner**

### Product Code: ACCHLC Features:

- TRS custom formulation teflon liner, slightly stiffer, longer lasting.
- Provides low friction, highly efficient lining for standard diameter stainless steel prosthetic cable.
- Sized to fit perfectly into Heavy Duty Cable Housing.
- Special material composition eases and enhances flaring the ends of the liner. See new TRS CH Ferrules.
- Available in 25 ft. coils.

# In-Line Hook To Grip Adapter

### Product Code: H-GADAP

- Connects 9/32 in. diameter ball triple swivels (Fillauer®-Hosmer®) to TRS Grip Prehensors, easily and reliably.
- Adapter is stainless steel, 1 in. long.
- Supplied with a grommet.





# **Fillauer**

# Adept Cable Adapters

### Product Code: PTA010T

### SPECIFICATIONS

- One piece, stainless steel, in-line cable fittings with 3/16 in. diameter ball, which accept standard 1/16 in. dia. cable only.
- Designed exclusively for use with all ADEPT Prehensors and LiteTouch Hands.

### Spectra<sup>®</sup> Prosthetic Cable and Fittings

Spectra® is a registered trademark of Allied-Signal, Inc.

### Spectra<sup>®</sup> Prosthetic Cable

Redesigned in 2007. Stronger and tighter weave.

These are custom "tie-on" fittings designed to ensure easy, positive attachment of **Spectra®** cable. **Spectra®** fittings are re-useable. Instructions are included.

### Product Code: SPECTRA 400 ULTRA

### **Features:**

- Spectra® cable is a high performance, synthetic, braided cable material with a very low coefficient of friction. Composed of ultra high molecular weight polyethylene fibers, Spectra® is quiet and strong.
- 400 ULTRA Spectra® is coated. 30% more abrasion resistant.
- **Spectra**® is an excellent alternative to other "fiber" cables such as dacron and stainless steel cable in situations where stainless has not performed well.
- Spectra<sup>®</sup> must be installed with a teflon or co-polymer plastic cable housing liner.
- **Spectra**<sup>®</sup> requires custom tie-on fittings and cannot be swaged.

### **APPLICATIONS:**

- Trans-radial and trans-humeral limb absence.
- Children, adolescents and adults.

### **SPECIFICATIONS**

**Tensile strength:** Spectra 400 ULTRA: Approximately 400 lbs.

Color: 400 ULTRA:

Black

### Spectra<sup>®</sup> Cable Hanger

### **SPECIFICATIONS**

F	Product Code:	ASPCH1M	ASPCH2	
	Web width	¾ or 1 in.	½ in.	
	Thickness:	0.06 in. thick stainless	s steel	
	Width:	1.125 in. wide	0.75 in. wide	
<ul> <li>ASPCH1M is tight on some dacron webbing.</li> <li>TRS suggests PolyPro webbing.</li> </ul>				
			$\sim$	



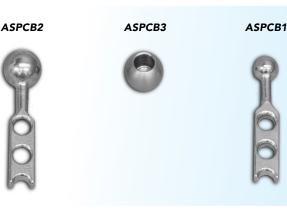
### Spectra Ball Fittings

### **SPECIFICATIONS**

Stainless steel, 1 in. long.

<b>Product Code</b>	ASPCB2	ASPCB3	ASPCB1
Models:	9/32" D. BALL	9/32" D. SOLO BALL	3/16" D. BALL
(Fillau	uer®- Hosmer®	Dorrance® products)	(TRS product

Application)



### Spectra<sup>®</sup> Cable Adapter and Hanger Fitting Instructions



### SPECTRA® INSTALLATION AND ATTACHMENT HINTS

Spectra® is a super tough, ultra high molecular weight polyethylene fiber. It is very slippery and does not cut easily. Use a razor blade. Apply "Super Glue" to a small area of the **Spectra®** then stretch it. Allow the glue to "set/dry" then cut it. This will provide a cleaner cut. Angle cutting the **Spectra®** will provide a better leading edge.

Spectra® Must be used in a teflon or platic liner.

Pull the **Spectra®** into and through a teflon or plastic liner using a vacuum pump's suction or by using a thin piece of piano wire looped over and glued to **Spectra®**. The vacuum pump technique works the best however.

Weave Spectra® and tie onto the special Spectra® fittings according to the diagrams illustrated above. Spectra® will take approximately a 1/2 inch knot set, i.e., it will provide you with a 1/2 inch more cable lenght as you set or tighten the knot. Take this into consideration if the lenght is critical. add a drop of super glue to the knot once it is tightened as this technique will help prevent the knot from getting loose trim off excess.

### **Binary Cable Hanger System**

### **Product Codes:**

Total System Std. Cable	BCH1000	
Total System Hvy Dty.	Cable:	BCH2000
Binary Hanger:		BCH01
<b>Binary Cable Connecto</b>	rs:	
Standard Cable:	ВСН02	
Hvy. Duty Cable:	ВСН03	
Lock Assembly:	ВСН04	

### **Feature:**

- Unique two piece system with "Re-Useable" Binary Hanger
- Double swage capable Binary Cable Connector for both Std & Hvy Duty cables
- Stronger, more versatile and more economical than any other cable "hanger" system available



### **SPECIFICATIONS**

	System	Binary Hanger	Binary Cable Connector
Length:	1.8 in. (4.6 cm)	.86 in. (2.2 cm)	1.2 in. (3 cm)
Width:	1.4 in. (3.6 cm)	1.4 in. (3.6 cm)	.188 in. (.48 cm)
Thickness (Max.) :	.22 in. (.56 cm)	.22 in. (.56 cm)	.188 in. (.48 cm)
Weight:	9.4 g	7.7 g	1.7 g

### **Prosthosis & Procuff Terminal Device Adapters**

### **Product Codes:**

Prosthosis TD Adapter Large
Long Disconnect Insert
Prosthosis TD Adapter Small
Short Disconnect Insert

PDTA1000 PDTA101 PDTA2000 PDTA201

### **Feature:**

- High strength, aircraft aluminum TD Adapters and stainless steel insert (included)
- Rapid disconnect system using dual set screws to retain insert and adjust frictional rotation
- "On Board" magnetic-stored, Allen wrench for convenience
- Adaptable to Texas Assistive Device® (TAD) "Fittings"
- Order EXTRA inserts for multiple TDs



### **SPECIFICATIONS**

Long

Insert

	Length	Width	~Arm Diameter
Prosthosis TD Adapter Large	1.5 in. (3.8 cm)	1.9 in. (4.8 cm)	3.0 in. (7.6 cm)
Prosthosis TD Adapter Small	1.4 in. (3.6 cm)	1.6 in. (4 cm)	2.0 in. (5 cm)
Long Disconnect Adapter	1.13 in. (2.9 cm)	.63 in. (1.6 cm)	N/A
Short Disconnect Adapter	.94 in. (2.4 cm)	.63 in. (1.6 cm)	N/A



Fillaver

# **Prosthosis Distal Disconnect Wrist System**

Product Codes: System: Long Disconnect Insert: Feature: • High Strength, .125 inch thio T6 Frame (Ready to drill and prosthosis) SPECIFICATIONS	inch thick, 7075 drill and mount to		ows for more proximal TD mounting egral, compact, TD disconnect wrist tem ates "In-Line" TD mounting design for re natural control of activity specific essories inless and anodized aluminum materials
Length:	5.56 in. (14.1 cm)		
Width (Tapered design):	~2.5 in. (6.4 cm) D	Distal end	~3.0 in. (7.6 cm) Proximal end
Circumference:	~ 7.85 in. (20 cm)	Distal end	~ 9.42 in. (24 cm) Proximal end
Thickness (diameter of wrist)	1.4 in. (2.9 cm) Dis	stal end	

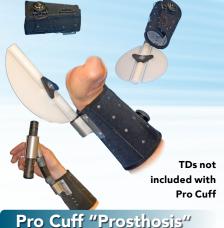
### Prosthetics Research Design Manufacturing Consulting

3090 Sterling Circle, Studio A, Boulder, Colorado USA 80301-2341 Phone: 303.444.4720 Toll Free: 800.279.1865 Fax: 303.444.5372 • www.trsprosthetics.com

Short

Insert

# **Pro Cuff**





- Partial Hand
- Wrist Disarticulate
- Weak or Injured Hands

**SPECIFICATIONS** 

Paralyzed Hands

Product Codes: PRO CUFF RIGHT, PRO CUFF LEFT



### **Feature:**

 Great for activities like Golf, Kayaking, Swimming, Light weight conditioning, etc.

- Allows for the TD to be positioned in an anatomically correct location adding little if any length to the arm.
- Constructed of low temperature (130-150°), easily formable PLASTIC FOAM LAMINATES.
- Provides a basic "platform" for the prosthetist to reinforce and build upon to meet users' needs.
- Thermo-moldable carbon sheet material included.

Length:	5.0 in. (12.7 cm)
Weight with Stainless Bracket:	6.6 oz. (187 g)
Weight without Bracket:	3.6 oz. (102 g)
DISTAL END Internal Circumference (Adjustable range):	~5.75 in ~8.0 in. (~14.6 cm ~20.3 cm)
PROXIMAL END Internal Circumference (Adjustable Range):	~8.0 in ~10.in. (~20.3 cm ~25.4 cm)



- BOA® high performance cable lacing tension and closure technology is "Built-In".
- One-size fits most users... very adjustable... enlarges easily for entry and exit.
- Stainless steel TD disconnect, bracket system with multiple mounting options\*.
- Utilizes most TRS TDs with minimal modification.
- Easily modified to be compatible with Texas Assistive Devices® TDs.

### **Applications:**

The **PRO CUFF** is a perfect "Activity Specific" solution for persons with temporary or permanent hand injury, paralysis, partial hand absence or wrist disarticulation absence. Lack of gripping dexterity, capability or force can be augmented by using the **PRO CUFF** equipped with the appropriate prosthetic terminal device.

### L-Code: Research L3906.

\*Heavy duty applications will require the addition of internal reinforcing to secure brack.

# **Procuff Distal Mount**

### Product Codes:

### PRO CUFF DM

- Designed for wrist disarticulate and specific partial hand absences
- Includes adjustable position-length Prosthosis Distal Disconnect Wrist System (PDD1000)
- Includes Long Disconnect Insert (PDTA101)

### Feature:

- Professionally constructed prosthosis ready to fit and finish
- Distal "In-Line" terminal device mounting system for improved TD control and balance
- Distal Disconnect Wrist System has in excess of two inches of length positioning adjustment to accommodate various partial hand and wrist disarticulate configurations. Prosthetist simply drills and rivets the bracket system into its final configuration based upon user's limb morphology. Four

Chicago style threaded rivets included for securing bracket onto prosthosis.

- Constructed of re-formable, low temperature plastic-foam laminates
- "AFO" "lift off" tongue, limb capture and retention type design. Cuff completely opens up for easy donning and doffing, using dual, velcro closure systems.
- "Built in" BOA cable closure and tension technology

### L-Code: Research L3906.

# SPECIFICATIONSLength of basic PRO<br/>CUFF :5.0 in. (12.7 cm)Bracket length<br/>adjustability:~2.0 in (~5 cm)Overall weight:7.5 oz. (213 g)









# **Pro Cuff / Simulators**

### Pediatric (Small) Pro Cuff "Prosthosis" Left/Right









### **Product Codes:** PROCUFF PEDI L/R

- Complete with BOA® closure technology installed
- Provides a basic "platform" for the prosthetist to reinforce and build upon to meet users' needs.
- Thermo-moldable carbon sheet material included.
- Professionally cosmetically finished for positive patient-consumer acceptance
- Wide range of circumferential adjustability, enlarges for easy entry and exit

### **Prosthetic Simulators**



Debra Latour, M.Ed. Advanced Practice of Occupational Therapy; OTR/L (MA, NY, FL)

"As a Clinician, this technology offers my clients:

- The opportunity to trial the devices giving them a real-life experience and realistic expectations of the prosthesis and Preprosthetic training opportunities.
- Empathic experience to patient's family members.'



"I see this being helpful for not only OTs in practice looking for a better understanding of how Body Power prostheses work, , OT school faculty, OT students, but also amputee family members who want to experience this opportunity as well.. A terrific teaching tool for them !

The V/C & V/O SIMULATOR accomplishes all of this helping to contribute to more successful outcomes."



### **Product Codes:** SIML (Left) and SIMR (Right)

### Features:

- 1st ever "standardized" prosthetic simulator technology available in "right" or "left" models
- Adjusts to a wide variety of arm sizes and torsos using BOA® cable closure technology
- Constructed of low temperature, thermoformable EXOS® laminates
- Positions terminal device in "optimal" position for performing tasks and training
- Complete with interchangeable Hosmer 5XA V/O Split Hook & TRS V/C GRIP3 Prehensor
- Accepts any USA Standard Terminal Device for comparisons and evaluation-testing
- Easily adjustable Northwestern Figure #9 control harness and cable system
- Sure-Lok cable locking and control technoloav
- Light-weight at only 1-1/8 pounds (511) grams without the TD



**Harness System** 

- Constructed of re-formable low temperature plastic-foam laminates
- Aircraft aluminum TD "disconnect" bracket with stainless disconnect adapter
- Accepts most TDs with minimal bracket or TD modification
- Easily modified to accept Texas Assistive Device® TDs

### **Applications:**

- A variety of sized and aged children can wear the Pediatric (small) version as well as smaller framed adults. Perfect for activity specific activities when equipped with the appropriate TRS TD.
- L-Code: Research L3906.

### SPECIFICATIONS

Length:	4.1 in. (10.4 cm)	
Weight:	2.0 oz. (57g) w/o Bracket 3.5 oz. (99g) with Bracket but without TD	
DISTAL End Internal circumference range:	5.25 in. (13.3 cm) – 7.25 in. (18.4 cm)	
PROXIMAL End Internal circumference range:	6.63 in. (16.8 cm) – 8.5 in. (21.6 cm)	





**BOA®** cable closure technology

### Prosthetics Research Design Manufacturing Consulting

# Crossover

These crossover items represent TRS products that have been identified and used by consumers for other purposes. In some cases these uses are vocationally oriented. TRS is identifying these products for information and educational purposes only. \*

educational purposes only.	-		
Device	Action	TRS Primary Design Use	Crossover Use
Criterium Series	Grasps handles with small to medium diameterPivot allows steering, improved control	Biking (Road & Flat Land)	Pushing/pulling Sweeping/raking Steering
Dragon	Can secure manage poled style handles through the 'donut hole' Loosely interfaces with objects Allows freedom of movement	Martial Arts	Home management tasks Property management Climbing Steering
Helix	Molded, high performance, polyurethane, "DNA" helical shape replicates holding action of the hand in the control of short or long cylindrical handles grips. Unique strength and flexibility "feels" like the hand and forearm with "reflexive", energy capture, storage and release action.	prosthetic device. Espec task that uses long hand hockey (Ice, street and fi	ourpose Vocational-Avocational ially useful in any activity specific les or "sticks" like lacrosse, eld), raking, shoveling, garden ırden tools, water hose control. s".
ISHI	Compact, flexible mandible design with ratchet strap for grasping and holding smaller diameter cylindrical handles and tools	Archery, bow, and fishing pole holding terminal device	Rake, shovel and other implement and garden working tool handles, hose and wire cable handling and control
Multi-D Witi-D Pivot	Large, flexible mandible design with heavy duty ratchet strap for securing and holding larger diameter cylindrical handles and tools	Heavy duty tool for controlling shovels and other short and long handle tools like rakes, picks, etc. Carrying heavy loaded buckets and pails and controlling the handles of tools like drills, saws, etc.	Useful for kayaking, rowing, crew and holding heavy-duty, salt water fishing rods and similar equipment with cylindrical handle shapes
swinger	Loosely interfaces with objects Allows freedom of movement	Gymnastics	Carrying Climbing Steering Fishing
Raptor	High strength, "large "#7" shaped titanium lifting and supporting terminal device with replaceable, protective tip for cushion and non-marring applications and greater friction control over surfaces. Unique pivot action increases versatility in lifting, supporting, climbing, etc.	Indoor and outdoor rock and gym climbing.	Heavy duty lifting and transport and loading tasks. Handling Lifting veneer woods, panels or similar

### Prosthetics Research Design Manufacturing Consulting



# JAWS







# **JAWS Voluntary Opening Prehensors**

### **Product Codes:**

### JAWSTD / JAWSXFS / JAWSM

### **Feature:**

- Heavy Duty, VO, terminal device. Universal L & R.
- Shift lever for easy force adjustment by user
- JAWS / JAWS XFS: 4 levels of (gripping force) adjustment JAWS M: 3 levels of adjustment
- Cable operated or manually operated
- Snap On-Off feature, Never locks onto objects
- Radial-Ulnar, friction-adjustable wrist pivot
- Waterproof
- Replaceable polyurethane gripping surface components

### **Usage:**

JAWS is a truly versatile, cross-over terminal device technology capable of controlling tools, handles, and equipment, as well as very functional for vehicle control of work and recreational vehicles such as fork lifts, tractors, ATVs, snowmobiles, motorbikes and cycles, and jet ski type watercraft.

Jaws is also available with a heavy-duty spring option, JAWS XFS (Xtra Force Spring). The JAWS XFS comes with a Main Spring which has nearly 40% more force than the stock spring. Standard JAWS TDs can be retrofitted with the XFS Spring option. Please contact us for details.

JAWS Medium is a slightly smaller version of the original JAWS designed for younger and or smaller framed individuals. It comes with a single spring option closely equivalent to JAWS in force. We designed it to



JAWS in Low-Power Mode

JAWS in High-Power Mode

be narrower and lighter with three levels of gripping force adjustment. JAWS Medium uses the same high quality materials that exist in the original JAWS model

NOTE: JAWS XFS is only intended for users who need extremely strong gripping forces. JAWS XFS should be used with extra caution, especially in the highest force position, because "releasing the grip" has an extremely high threshold. Additionally, if operating the JAWS XFS with a traditional cable system it may cause premature wear and possible failure of the cable system due to the extra force required to operate the TD.

L-Code: L6721, Add-On L6620



Models:	JAWS / JAWS XFS	JAWS Medium	
Length:	5.0 in. (12.7 cm)	4.8 in. (12.2 cm)	
Width (max):	2.1 in. (5.3 cm)	1.6 in. (4.0 cm)	
Height (max):	3.9 in. (9.9 cm)	3.7 in. (9.4 cm)	
Weight:	15.5 oz. (440 g)	11.7 oz. (332 g)	
Materials:	Aircraft Aluminum, stainless steel, polyurethane. Jaws is constructed of aircraft grade aluminum alloys and surgical grade stainless steel and utilizes proprietary TRS polymers.		
Color:	Aluminum & Black		
Applications:	Teenagers and Adults capable of handling a high performance terminal device. Trans-radial, trans-humeral and bi-lateral applications.		
Wrist Units:	TRS OMEGA Friction-Disconnect wrists are totally compatible with JAWS. Hosmer Friction and Disconnect wrists are also compatible. Avoid Economy wrist unit technology.		





### Prosthetics Research Design Manufacturing Consulting



# **JAWS Spring Installation Tool**

### **Product Codes:**

JASIT

### **Features / Function:**

The Jaws Spring Installation Tool (JASIT) was especially designed to provide a simple and safe means of replacing and changing out the hightension springs used in JAWS TDs, inside the clinic-shop environment, using just a solid, machine vice for stability.

Constructed of aircraft grade aluminum and steel components the JASIT is a fixture that is captured in a shop vice. The structural base is approximately twelve inches long by two inches in width and equipped with rubber pads for extra friction and protection in the vice.

Complete instructions and a video are available illustrating the procedure involved to complete the spring change process.

JAWS springs should never be replaced without using the JASIT or injury could occur along with damage to the JAWS TD itself.



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Design 
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