



# Partial Hand SOLUTIONS, LLC



## *Technical Instructions* Full M-Finger

### **PACKAGE CONTENTS**

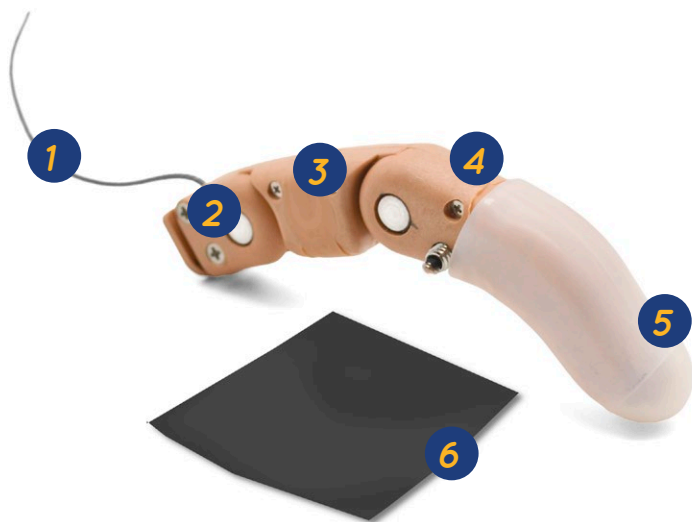
M-Finger Assembly  
(1, 2, 3, 4, or 5 fingers)  
Grip Tip (installed)  
Spectra Cable (installed)  
Rubber Palm Padding  
2mm Allen Wrench  
Mounting Hardware Packet  
Spare Parts

INCLUDED WITH  
4- OR 5-FINGER KITS:  
*(Ordered separately for 1-, 2-,  
and 3-Finger Kits)*  
(1) BOA Cable Connector  
(1) DCM - Direct  
Connection Mechanism  
(1) Gaffney joint

### **RECOMMENDED TOOLS AND SUPPLIES**

Tweezers  
Phillips screwdriver  
Superglue  
Razor blade to cut cable  
Trautman - grinding machine





## ***M-Finger Assembly***

1. Spectra Cable
2. Finger Base Joint
3. Middle Joint
4. Finger Tip
5. Grip Tip
6. Rubber Palm Padding

### *Not Shown:*

(1) 2mm Allen Wrench

Mounting Hardware Packet (see kits for qty):

Finger Mounting Screws, 3-48 x 3/8"

Mounting Plate Screws: Phillips Flat Head Screw, 4-40 x 3/8"

### *Spare Parts:*

(2) Flat Head Solid Rivets, 1/8" x 1/2"

(2) Washers, #5 x 0.025" x 0.04"

(2) Retaining Rings, 1/8" x 21/64"

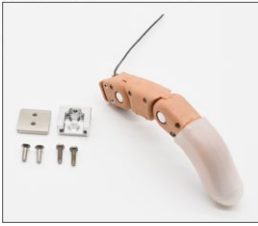
(1) Cup-Point Set Screws, 8-32 x 1/4"

(2) Phillips Flat Head Screws, 0-80 x 1/2"

(2) Spacers, 3/16" x 3/16"

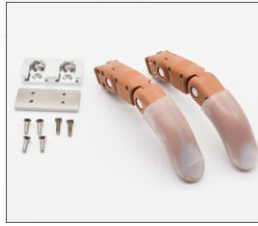
(2) Phillips Flat Head Screws, 2-56 x 9/16"

(2) M-Finger Springs



## 1 Finger Kit

1. Mounting Bracket
2. Backing Plate
3. Finger Mounting Screws (x2)
4. Mounting Plate Screws (x2)



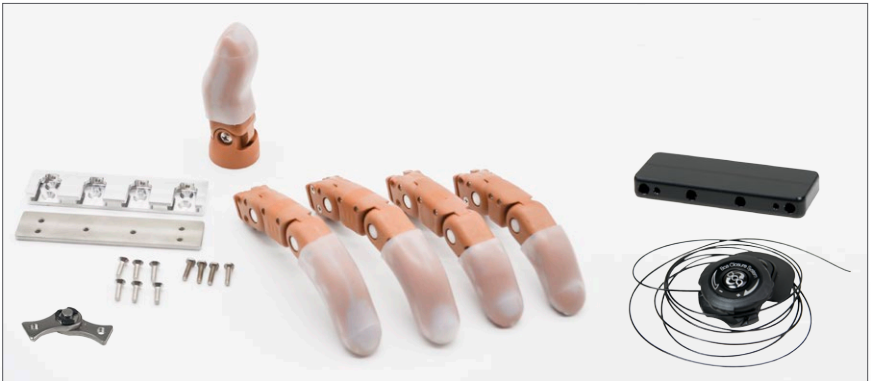
## 2 Finger Kit

1. Mounting Bracket
2. Backing Plate
3. Finger Mounting Screws (x2)
4. Mounting Plate Screws (x4)



## 3-4 Finger Kit

1. Mounting Bracket
2. Backing Plate
3. Finger Mounting Screws (x3)
4. Mounting Plate Screws (x5)



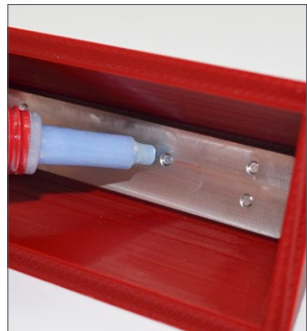
## 5 Finger Kit

1. Mounting Bracket
2. Backing Plate
3. Finger Mounting Screws (x4)
4. Mounting Plate Screws (x6)
5. DCM
6. BOA Cable Connector
7. Gaffney joint
8. M-Thumb

## Mounting Instructions

*Note: M-Fingers should be mounted during the test socket stage to establish the alignment. Then reapplied once the definitive socket is ready to be fit.*

1. Apply Loctite 242 to mounting plate screw threads.
2. Place mounting bracket in desired location on socket. Backing plate should be positioned on the other side of the socket wall.
3. Torque mounting plate screw through bracket and socket, into backing plate.
4. Apply Loctite 242 to finger mounting screw threads.
5. Slide M-Finger into mounting bracket and fasten with finger mounting screws.



## Fabrication

*Note: College Park Industries and Partial Hand Solutions do not provide fabrication services. As fabrication of sockets for thumbs, partial fingers, and fingers is not routine for most facilities, the use of a fabricator, such as SPS National Labs in Cromwell, CT, is recommended.*

The typical fabrication process has the following steps:

- a. A silicone cast is made and provided to the fabricator along with the fabrication form.
- b. The mold is modified by the fabrication center.
- c. The silicone socket and initial carbon frame will be fabricated based on instructions from the fabrication form.
- d. The silicone socket and initial carbon frame will be sent to clinician for fitting and alignment of fingers.
- e. If the socket fits appropriately, the clinician mounts the

- fingers in proper alignment.
- f. Once fingers are aligned, the prosthesis can be sent back to fabrication facility for final fabrication.
- g. If desired, rubber palm padding is cut to size and glued on the socket to create a surface with more grip.

## ***Positioning the Fingers***

- Flex wrist to bend fingers
- Extend wrist to extend fingers

## ***Additional Considerations/Tech Tips***

- New users should start with a wearing schedule and ease in to a full day of use.
- If using a silicone socket, apply a small amount of water or Cal Stat® lubricant to limb to dampen skin. Push limb into prosthesis.
- If a strap is used on the forearm section, secure in place.
- Adjust BOA reel to the ideal cable tension. Flex wrist to bend fingers, extend wrist to extend fingers.
- To remove the prosthesis, remove the strap, loosen the BOA reel tension and remove limb from prosthesis.

## ***Cautions/Warnings***

- Do not expose this product to corrosive or caustic materials, salt water or pH and temperature extremes.

## ***Inspection/Maintenance***

- Users should clean the inside of the prosthesis and silicone liner with fragrant-free, anti-bacterial wipes daily.
- Check attachment screws to ensure they are tight.
- Evaluate cabling to make sure it is not fraying.
- Inspect grip tip for wear and replace as needed
- Visual/Audible signs of wear, cracks, damage, etc.
- Ensure that the joint moves freely without obstruction.



## Repairs/Replacements

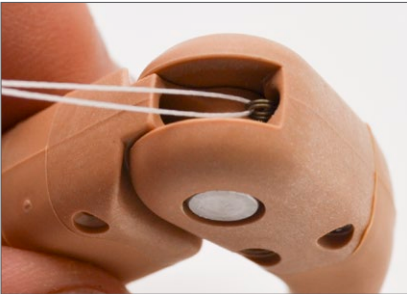
*Spring Assembly - If needed, the fingers can be disassembled to replace springs.*



Install spring into tip as shown.



Align spring loop with screw hole and insert screw through spring loop and screw in place using a Phillips screwdriver. Do not over tighten this screw.



Insert thread through exposed spring loop and pull through with tweezers.



Insert the two ends of the thread through the center joint and pull through the other end.



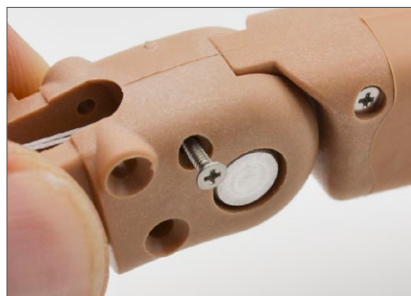
Apply tension to pull spring loop back to screw hole. Once you see the spring loop through the screw hole insert Long 0-80 screw to lock spring in place. Tighten screw with Phillips screwdriver and remove thread



Install base spring. Align spring loop with screw hole, insert 0-80 screw and tighten with Phillips screwdriver to lock spring in place.



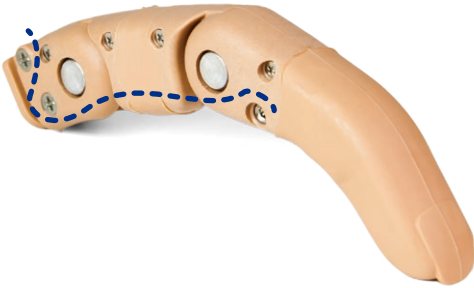
Insert thread through exposed spring loop and pull through with tweezers.



Apply tension to pull spring loop back to screw hole. Once you see the spring loop through the screw hole insert 0-80 screw to lock spring in place. Tighten screw with Phillips screwdriver and remove thread.



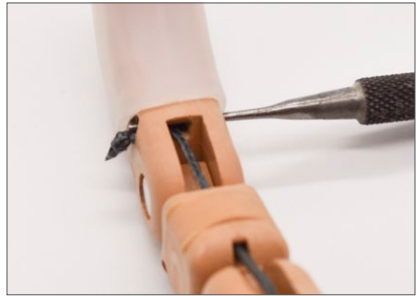
*Cable Assembly - If needed, the fingers can be disassembled to replace the cable in the cable assembly.*



If replacing cable due to wear, remove existing cable and re-route as shown.



Remove cable set screw with the Allen wrench.



Push out knot from 1/16" hole on opposite side with supplied 1/16" rod.



Cut off knot with razor blade.



Adjust cable length to proper length and mark with marker.

*Note: This varies depending on the length of the cable: If replacing cables from a 4-finger system, match the length match with the other fingers. If replacing all cables, then determine where you want the DCM to sit and set the cable length on all fingers based on the DCM location.*



Tie new knot and apply super glue to back side of knot. Cut cable 1/8" past knot.



Pull knot into hole.



Re-install knot set screw with the Allen wrench.



M-Fingers are distributed by:  
 **college park**  
800-728-7950 | 586-294-7950  
27955 College Park Drive, Warren, MI 48088

**TECHNICAL ASSISTANCE/ EMERGENCY SERVICE 24-7-365**  
College Park's regular office hours are Monday thru Friday, 8:30 am - 5:30 pm (EST). After hours, an emergency Technical Service number is available to contact a College Park representative.



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