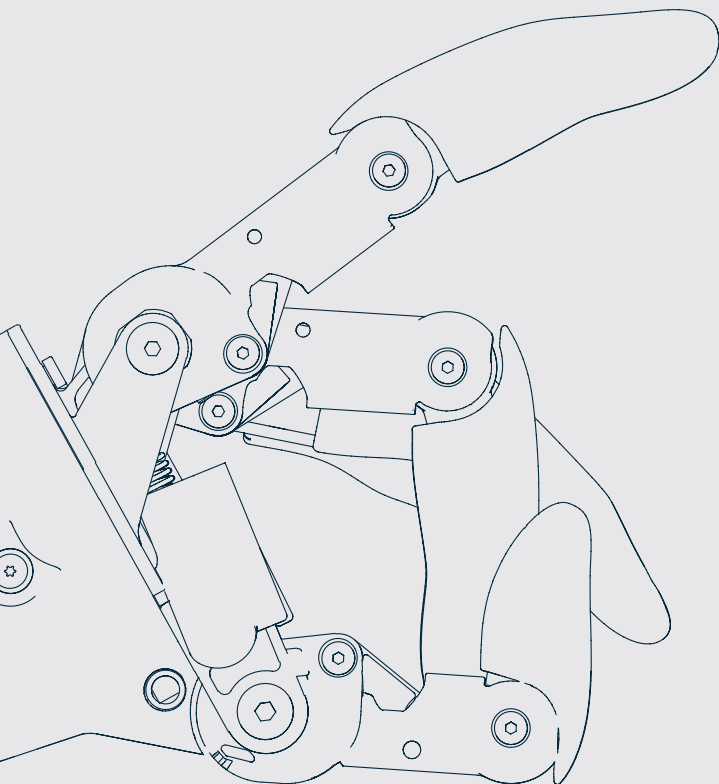


Service manual

MyHand

Revision: 03 — Date: May 2021



user id:		#45
product nr:		
date of manufacture:		

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1. INTRODUCTION

This document provides instructions for the fitting and service of MyHand, and should be read in full prior to fitting. It is highly recommended that the use of this manual is in conjunction with instruction from a clinician experienced in upper limb and myoelectric prosthesis.

Read this document thoroughly before using the MyHand.

It is recommended to also read the MyHand User Manual.

The Hy5 MyHand is intended for any individual adult with an amputation or dysmelia. The size of the prosthetic hand is equal to a male size 7 $\frac{3}{4}$, but can be used by both genders independent of height, weight and age.

A regular service interval of 12 months shall be maintained for the MyHand. This requires the MyHand to be sent to Hy5 or a Hy5 approved workshop. A service reminder shall be sent one month in advance of the due date.

1.1 DIMENSIONS AND SPECIFICATIONS

Principal dimensions

Maximum opening - thumb opposed to index finger	120 mm
Thumb swing through angle (opposed to non-opposed)	70°

Performance specification

Maximum power grip	120 N
Maximum tripod grip	60 N
Minimum time to open/close: pinch grip	1.0 Sec.
Maximum static load: hook grip	40 kg
Maximum load individual finger - hook grip	20 kg
Fingertip extension load	8 kg
Weight	575 g
Size	7 ¾

Battery

Maximum current	5A
Voltage	7.2V
Battery capacity	rechargeable lithium polymer, 2000mah

Environmental conditions

Storage and transport in original packaging	+5°C to +35°C / +41F to +95F
Storage and transport without packaging	+5°C to +35°C / +41F to +95F
Operation	+5°C to +35°C / +41F to +95F

1.2 MYHAND HEALTH-CHECK LIST

The following checks can be made to identify if the hand needs to be returned to Hy5 for maintenance:

1. Check for any visible signs of damage

How: Check all around the hand for any signs of broken or deformed components

2. Check the hand turns on/off reliably.

3. Check hand closing time < 1,0s.

How: Use video camera to film several closing sequences, from fully open to point of first contact

4. Check hand switches to high power mode

How: Use battery pack to perform pinch grip around your open hand. If the pinch force becomes uncomfortable, this is a clear indication that high power mode is functional. Stop gripping before the hand exhibits excessive force

5. Check for any signs of oil leaks

How: Examine closely for oil in the following locations:

- Around oil-filling screws
- Around edge of mounting frame
- Around emergency release switch
- Around edge of quick disconnect
- Around cylinder rods

6. Check fingers move freely

How: Rotate each finger joint individually. Each joint should spring back under spring-force, and there should be no rubbing or grinding in the joint

7. Check emergency valve functions as intended - both open and close

How: Close hand using battery pack. Open emergency release switch - fingers should open. Return emergency switch back to normal position to resume operation.

8. Check quick disconnect connects/disconnects in a reliable manner

How: Use battery pack to check reliable connect/disconnect. Hand should not switch off when rotating.

If the hand fails on any of these points, it should be returned to Hy5 for maintenance.


2. INTEGRATION & THIRD PARTY COMPONENTS

The following third party components should be purchased in addition to the MyHand:

- Female EQD socket
- 7.4V, 2200mAh battery
- 1 or 2 myo sensors

Please refer to the 'product integration guide' provided in the product box for exact component part numbers to ensure product compatibility.

Adjustment of the myosensors is case-specific and should be based on an interactive process between the clinician and the user.

 **CAUTION!** — Only Hy5 recommended batteries should be used with MyHand. Use of other battery systems will result in poor performance of MyHand.

3. REPLACEMENT OF FINGER PADS

The partial finger pads for thumb, index -and middle fingers, can easily be replaced. First remove the glove. Then put two fingers around the pad and pull in line with the finger. The pad will slide off smoothly. New pads can be pushed on in a straight direction until they stop. No adhesives are required for this process.

4. MYSKIN PROSTHETIC GLOVE

MyHand shall always be used with a MySkin glove. It is important to ensure that the glove is fitted properly.

Donning

1. Roll the sleeve of the glove back on itself up to the level of the wrist area.
2. Under power, close the fingers of the hand to an approximately half-closed position.
3. Gradually pull the glove down over the hand. When the glove is approximately half-way mounted to the hand, align the fingers and thumb with the corresponding openings in the glove.
4. Pull the glove over the remainings of the MyHand.
5. Inspect the glove ensuring that it is mounted all the way down onto the fingers, and that the finger tips are correctly in place.
6. After donning is complete, check that the MyHand functions as expected and that the fingers correctly form a pinch grip when closed.

5. WRIST CONNECTIONS

There is currently one wrist option for MyHand, the Electric Quick Disconnect (EQD) wrist. This allows the hand to be easily attached, and to be quickly removed with a 360-degree rotating action.

6. DISPOSAL

When disposing of MyHand, please send it back to Hy5pro AS for safe disassembly and disposal.

7. TROUBLESHOOTING

MyHand does not operate

- Ensure that MyHand is switched ON
- Ensure the battery is charged and connected properly
- Ensure that MyHand is fully engaged at the wrist
- Check the electrodes have good contact with the skin
- Check the electrode cable is correctly fitted to the electrode

MyHand stops halfway through an action

- Electrode settings may need adjustments
- Check the electrode cable is not damaged
- Check the battery cable is not damaged
- Check the coaxial plug and bushing are clean

User reports My-Hand is difficult to operate


- Electrode settings may need adjustment
- Ensure the electrodes maintain good contact with the skin
- Check electrode placement and wiring
- Ensure the battery has good charge

MyHand opens when a close signal is given

- Swap input signals or switch the electrode connections on the coaxial plug

If problems continue please contact your local supplier or Hy5Pro AS, www.Hy5.no

8. SAFETY AND CAUTIONS

 **CAUTION!** ——— Failure to comply with the guidelines below will invalidate the warranty.

Hy5 accepts no responsibility for any damage or injury caused by improper use.

- Do not subject MyHand to excessive loads
- Always use with MySkin
- Do not use in water
- Do not use to operate heavy / industrial machinery
- Do not use machinery with moving parts that may cause personal injury or damage.
- Users must comply local regulations on the operation of automobiles, aircraft, sailing vessels of any kind and any other motorized vehicle or device
- Do not use MyHand for extreme activities that may cause injury
- Do not expose to excessive moisture, liquid, dust, vibration or shock
- Do not expose to high temperatures
- Do not expose to flames
- Do not use or expose to explosive atmospheres
- Do not disassemble componentry or modify in any way
- Maintenance, repairs and upgrades may only be performed by qualified Hy5 technicians and technical partners
- Do not use with a damaged glove

9. HY5 APP

The Hy5 App is created together with upper extremity CPO's and patients to make it easy to customize MyHand to the patients desired settings and to train the myoelectrical muscle signals. The App can be used by both patient and CPO.

The App communicates with MyHand through a Bluetooth signal in the prosthesis. You need to pair MyHand to a mobile or tablet, when you have downloaded the App. The Bluetooth in MyHand will be activated by holding the ON/OFF button in for approximately 5-6 seconds.

In the Dashboard module of the App, you can see the battery status, and the service status of MyHand.

In the Diagnostics module, you can check the status of MyHand by running a diagnostic and send the report to the Hy5 team. When you do this, Hy5 will analyze the results and get back to you. You can also do a log report. This function is mainly so we can log the EMG signals and suggest an optimal setting for the patient.

The Training module contains a function where you can see how the myo-signal response is right now, as well as several games which can be used for muscle training to get a better performance with MyHand.

In the Settings module, you can adjust the settings of MyHand and the myo-sensors to your preferences.

On our website you can find a step-by-step tutorial on how to use the App!

10. INCIDENT REPORTING

Complaints or accidents involving Hy5 products should be reported via the 'contact' page on the Hy5 website www.hy5.no





FDA

Hy5 is registered with the United States Food and Drug Administration for the manufacture and supply of prosthetics and orthotics Products

FDA Registration Number: 3014936213



CE mark

Declaration of conformity according to the applicable European directives



Legal manufacturer

Hy5Pro AS, Raufoss Industripark, Bygning 100, 2830 Raufoss, NORWAY



Storage Temperature Limit:

5°C/41F to +35°C/95F

