

MC Standard ETD

Prosthetist Manual



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Introduction

The Motion Control (MC) Standard Electric Terminal Device (ETD) is a high performance electric terminal device for persons with upper extremity limb loss. The MC ETD contains a battery-saver circuit for longer battery life, wide-opening fingers, and a unique safety release.

The MC ETD is manufactured as a robust device for high-use wearers. The fingers are lightweight aluminum, but are also available in titanium for increased strength. The MC ETD is water-resistant to the IPX7 standard, allowing it to be submerged to the quick disconnect wrist.

The MC ETD allows the addition of two different types of Motion Control flexion wrists, the Flexion Wrist or Multi-Flex Wrist, without major increases in length. In cases where the residual forearm length is rather long, choose the Wrist Disarticulation version (which is shorter by 2.4 cm [1.0 in.]) by sacrificing the Q/D and fabricating directly to the forearm.

The MC Standard ETD can only be used when a controller is upstream of the terminal device, such as cases with a ProControl2, Utah Artificial Arm or Utah Hybrid Elbow.

MC Standard ETD
blue coax receptacle



Special Precautions



Risk Management

To minimize the risk of device damage or injury to the user while maximizing the functions of this device, follow the instructions for installation, and use this device as described in this manual.



The MC ETD is water-resistant, not waterproof

While the Motion Control ETD is water-resistant, the quick disconnect wrist is not. Do not submerge the ETD beyond the wrist.



Flammable Gases

Caution should be used when operating the ETD around flammable gases. The ETD utilizes an electric motor that can ignite volatile gases.



Do not bend fingers

While the MC ETD is robust, body weight represents a great deal of force. Do not apply full body weight on the fingers. Additionally, a fall with the force directed to the fingers could cause damage. If the fingers do become bent or out of alignment, return the ETD to Motion Control.



Safety Release

Do not force the ETD fingers opened or closed. This will result in serious damage to the device. The safety release will allow easy opening and closing of the ETD. If the release mechanism does not allow motion, the device requires service by Motion Control.



Repairs or Alterations

Do not attempt to repair or alter any of the mechanical or electronic components of the MC ETD. This will likely cause damage, additional repairs, and void the warranty.



Safety Caution

Use caution when using this device in situations where injury to yourself or others may occur. These include but are not limited to activities such as driving, operating heavy machinery, or any activity where injury may occur. Conditions such as a low or dead battery, loss of electrode contact, or mechanical/electrical malfunction (and others) may cause the device to behave differently than expected.



Serious Incidents

In the unlikely event a serious incident occurs in relation to the use of the device, users should seek immediate medical help and contact their prosthetist at the earliest possible convenience. Clinicians should contact Motion Control immediately in the event of any device failure.

Power Switch

The power switch is located at the base of the ETD, on axis with the opening of the fingers. Pushing on the same side as the safety release turns the ETD ON. Pushing on the opposite side turns the ETD OFF.



Safety Release

Pushing the safety release lever UP disengages the fingers, allowing the ETD to be easily opened.



Quick Disconnect Wrist

The Quick Disconnect wrist is a universal design that allows interchangeability with our other terminal devices, such as the MC Standard Hand, and other manufacturers' devices.

Instructions for Use

Before attaching the MC ETD to the forearm, locate the power switch at the base of the ETD. Ensure it is switched OFF (see diagram, page 4).

Insert the quick disconnect wrist on the ETD into the wrist on the forearm. While pushing it in firmly, rotate the ETD until an audible click is heard. It is advisable to rotate the ETD both directions several clicks, then attempt to pull the ETD off to ensure it has attached firmly.

Now, push the power switch in the opposite direction and the ETD is ON and ready for use.

To disconnect the ETD, first turn it OFF, then rotate it either direction until a slightly more difficult click is felt. Overcoming this click will disconnect the ETD from the forearm. This allows interchangeability with another terminal device, such as the MC Standard Hand.

Single Patient Use

Each amputee is unique. The shape of their residual limb, the control signals each generates and the tasks an amputee performs during the day require specialized design and adjustment of the prosthesis. Motion Control products are manufactured to be fit to one individual.

Disposal/Waste Handling

This device, including any associated electronics and batteries should be disposed of in accordance with applicable local laws and regulations. This includes laws and regulations regarding bacterial or infectious agents, if necessary.

Limited Warranty

Seller warrants to Buyer that the equipment delivered hereunder will be free from defects in materials and manufacturing workmanship, that it will be of the kind and quality described and that it will perform as specified in Seller's written quotation. The limited warranties shall apply only to failures to meet said warranties that appear within the effective period of this Agreement. The effective period shall be one year (12 months) from the date of delivery to the fitting center that has purchased the components. Refer to the shipping receipt for the date of shipment.

For more information regarding the Limited Warranty, see the MC FACT SHEET - Limited Warranty.

Return Policy

Returns are accepted for a full refund (not including any repairs that may be required) for up to 30 days from date of shipment. Returns 31-60 days from date of shipment will be accepted, subject to a 10% restocking fee. Returns 61-90 days from date of shipment will be accepted, subject to a 15% restocking fee. Returns must be in re-saleable condition. Beyond 90 days, returns are not accepted.

Technical Specifications

Operating Temperature: -5° to 60° C (23° to 140° F)

Transport & Storage Temperature: -18° to 71° C (0° to 160° F)

Pinch Force: At 7.2 volts nominal: 11 kg (24 lbs, or ~ 107N)

Operating Voltage Range: 6 to 8.2 Vdc - MC Standard ETD







Load Limit: 22 kg / 50 lbs in all directions (+/- 10%)

Declaration of Conformity

The product herewith complies with Medical Device Regulation 2017/745 and is registered with the United States Food and Drug Administration. (Registration No. 1723997)

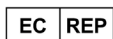


MC ETD Size and Weight Chart

Disarticulation	Standard Length	Flexion Wrist	Multi-Flex Wrist	In-Hand Wrist Rotator	Powered Flexion Wrist
	 Standard Length 6-3/4 in/17.2 cm				
Disarticulation Length: 5 3/4 in/14.6 cm Weight: 13.1 oz/371 gm	Standard Length Length: 6 3/4 in/17.1 cm Weight: 15.2 oz/431 gm	Flexion Wrist Length: 7 5/8 in/19.4 cm Weight: 17.1 oz/485 gm	Multi-Flex Wrist Length: 7 5/8 in/19.4 cm Weight: 17.5 oz/496 gm	In-Hand Wrist Rotator Length: 7 7/8 in/20 cm Weight: 19.2 oz/544 gm	Powered Flexion Wrist Length: 9 1/4 in/23.5 cm Weight: 22 oz/624 gm

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