Field Installation and Usage Instructions
Part No. TMS-1684-03
Actuator Replacement

For All TMM3, TMM4, TMM5, and TMM6 Chairs
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IMPORTANT NOTES ABOUT THIS MANUAL
This Field Installation and Usage Instruction document is designed to assist you with installation of the TransMotion Medical Product. Carefully read this document thoroughly before using the equipment or doing service/maintenance on it. If you are unable to understand the WARNINGS and CAUTIONS and instructions, contact TransMotion Medical customer service before attempting to operate or service the equipment otherwise injury or damage may result.

To assure safe operation of this device, it is essential that methods and procedures be established for educating and training staff on the safe and effective operation of the product.

TransMotion Medical reserves the right to change specifications without notice.

The information contained in this document is subject to change without notice.

Specifications listed are nominal and may vary slightly from unit to unit due to tolerance variations or power supply variations.

Photographs and illustrations contained within this document may not depict exactly the model you have. This document can cover many closely related models.

SPECIAL NOTES - SIGNAL WORDS
Signal words are used in this manual and apply to hazards which could result in injury or property damage. The following is a definition of those signal words as used in this document:

⚠️ DANGER
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠️ WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠️ CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices or potential property damage hazards.

⚠️ NOTICE
Provides important information, makes special instructions clearer, or provides service personnel information to make maintenance easier.
TOOLS REQUIRED

The tools needed to replace the Actuator are as follows:
(2) 17 mm Wrench or socket
Pliers (if replacing the back actuator)
7/8” Open end wrench (if replacing the back actuator)
Flat screwdriver
Marking device (marker)

PARTS INCLUDED IN TMS-1684-03

Verify that you have all the parts listed. If not, contact TMM Service at 1-800-237-3377.

(1) Actuator

PREPARING CHAIR FOR ACTUATOR REPLACEMENT

Use Pendant Control to raise Leg Section to full upright position, Back section to Seated position, and chair to extended height.

⚠️ NOTICE
If Pendant is not functioning, O2 holder located under seat of non-X series chairs may be removed to create additional space for lifting base cover.

⚠️ CAUTION
Two People are required to change the back actuator of the chair. Attempting to change the back actuator with one person could result in serious injury.
Lock casters by positioning them as shown.

**REMOVING THE OLD BACK ACTUATOR**

Using a 7/8” open end wrench, loosen the nut on the back side of the red emergency release handle. Spin nut counterclockwise until nut is completely disengaged from the threads on the handle.
Pull the handle out of the bracket until the cable can be slid through the slot in the mounting bracket.

Using flat head screwdriver, remove the small cover from the actuator on the chair by rotating it counterclockwise.

**CAUTION**

One person must hold the back section of the chair while the other person performs this task to keep the back from falling. Serious injury could result if the back section falls unexpectedly.

Using the screwdriver, push the white lever toward the back of the chair and slide the cable out of the mechanism.
Release the white lever mechanism allowing the cable to hang free.

⚠️ NOTICE
Once the release lever has been deactivated (as shown), the back section will remain in place until the actuator is disconnected.

Unthread the emergency release cable from the actuator by turning it counterclockwise. Set the handle and spacer aside for re-assembly.

Remove the plug retainer by disengaging the clips on the top and bottom of the retainer. Note: this may require a small flat screwdriver. Unplug the actuator cable from the actuator.

⚠️ NOTICE
Keep the plug retainer for re-assembly.
**CAUTION**

One person must hold the back section of the chair while the other person performs this task to keep the back from falling. Serious injury could result if back section falls unexpectedly.

**CAUTION**

Using the Marking device, mark the hole on the back section bracket that the bolt is in before dis-assembly. The new actuator must be re-assembled in the same hole.

Remove the nylon thread cap from the actuator bolt holding the actuator to the back section.

Using (2) 17mm wrenches, remove the nut from the bolt.

Retain the nylon washer for re-assembly

While holding the back section, remove the bolt holding the actuator in place.

Using (2) 17mm wrenches, remove the bolt holding the actuator to the seat section bracket

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Nylon Washer
Retain the (2) plastic bushings in the clevis of the actuator to be used in re-assembly.

INSTALLING THE NEW BACK ACTUATOR

Install the plastic bushings into the clevis of the new actuator.
Plug the actuator cord connector into the actuator and secure with plastic clip.

Using the pendant, extend the back actuator to its fully extended position.

Using existing hardware, assemble the clevis end of the actuator to the seat section weldment. Using (2) 17mm wrenches, assemble the nut to the bolt and tighten securely.
Lower the back section and raise the back actuator until the hole in the actuator shaft aligns with the previously marked holes in the back section bracket.

Insert the bolt through the bracket and actuator with the threads of the bolt toward the outside of the chair. Assemble the Nylon washer to the end of the bolt.

**CAUTION**
Inserting the bolt in the incorrect direction could cause interference between the damper and the bolt.
Assemble the M10 Lock nut to the bolt securely with (2) 17mm wrenches. Replace black vinyl cap on threads of bolt.

Using the flat head screwdriver, remove the plastic cap from the side of the actuator.

Slide the large nut onto the cable and the small white nylon spacer on the threads of the cable.
Thread the cable into the actuator as shown.

**CAUTION**

One person must hold the back section of the chair while the other person performs this task to keep the back from falling. Serious injury could result of back section falls un-expectantly.

Using the screwdriver, push the release lever toward the back of the chair and slide the cable into the slot in the mechanism. Release the mechanism and ensure that the cable is securely attached to the mechanism.

Using the flat head screwdriver, replace the cover on the side of the actuator.
| **Route the cable as shown and insert the cable into the slot in the** |
| **bracket. Slide the threaded portion of the cable through the hole in** |
| **the bracket aligning the flat in the bracket with the flat on the handle.** |

| **Thread the large nut onto the back of the handle and tighten to the** |
| **bracket.** |

**NOTICE**

Do not over tighten nut, over tightening could result in damage to the plastic threads on the handle.

| **Using the pendant, test the actuator to ensure that it is working** |
| **properly.** |

| **Pull the release handle to ensure the back section falls when the** |
| **handle is pulled.** |
REMOVING THE OLD LEG ACTUATOR

Using (2) 17 mm wrenches, remove the bolt holding the actuator to the leg section of the chair.

**CAUTION**
The leg section could fall once the bolt is removed. Use caution to ensure that the leg section does not fall causing injury.

**NOTICE**
This section only applies to TMM4 Series Chairs. The TMM6 uses a different leg actuator.

Using (2) 17 mm wrenches, remove the bolt holding the actuator to the seat section.

Remove the plug retainer by disengaging the clips on the top and bottom of the retainer. Note: this may require a small flat screwdriver. Unplug the actuator cable from the actuator.

**NOTICE**
Keep the plug retainer for re-assembly.
### INSTALLING THE NEW LEG ACTUATOR

| **Plug the actuator cord connector into** | ![Actuator Cord Connector](image1) |
| the actuator and secure with plastic clip. |

| **Using (2) 17 mm wrenches,** | ![Assembly](image2) |
| assemble the shaft end of the new actuator to the seat section bracket. |
| **Tighten Nut on bolt securely.** |

| **Swing the motor end of the** | ![Swing Motor End](image3) |
| actuator up and the leg section out** | **until the holes in the actuator align with the holes in the seat section bracket.** |
| Secure the actuator to the leg section using (2) 17mm wrenches and the existing hardware. |

**NOTICE**

Ensure the (2) plastic bushing are installed in the clevis of the actuator

![Plastic Bushings](image4)
Using the pendant, test the actuator to ensure that it is working properly.

**CLEANING INSTRUCTIONS**

*CAUTION* STEAM AND/OR PRESSURE CLEANING CHAIR WILL VOID WARRANTY

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>FREQUENCY</th>
<th>PROCEDURE</th>
<th>CLEANING AGENT *</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Rails and Painted Metal</td>
<td>As required/in accordance with facility policies</td>
<td>Wipe with damp cloth and allow to air dry</td>
<td>Facility approved detergents, disinfectants &amp; water</td>
<td>Check for chipped paint/chrome</td>
</tr>
<tr>
<td>Base Cover</td>
<td>As required/in accordance with facility policies</td>
<td>Wipe with damp cloth and allow to air dry</td>
<td>Facility approved detergents, disinfectants &amp; water</td>
<td>Check for peeling or missing labels</td>
</tr>
<tr>
<td>Actuators and Battery Pack</td>
<td>As required/in accordance with facility policies</td>
<td>Wipe with damp cloth and allow to air dry</td>
<td>Facility approved detergents, disinfectants &amp; water</td>
<td>Clean exterior surfaces only with minimal water</td>
</tr>
<tr>
<td>Pendants</td>
<td>As required/in accordance with facility policies</td>
<td>Wipe with damp cloth and allow to air dry</td>
<td>Facility approved detergents, disinfectants &amp; water</td>
<td>Clean exterior surfaces only with minimal water</td>
</tr>
<tr>
<td>All Other Surfaces</td>
<td>As required/in accordance with facility policies</td>
<td>Wipe with damp cloth and allow to air dry</td>
<td>Facility approved detergents, disinfectants &amp; water</td>
<td>Check for damage</td>
</tr>
<tr>
<td>TransMotion Medical Accessories</td>
<td>As required/in accordance with facility policies</td>
<td>Wipe with damp cloth and allow to air dry</td>
<td>Facility approved detergents, disinfectants &amp; water</td>
<td>Check for damage</td>
</tr>
<tr>
<td>3rd Party Accessories</td>
<td>As required/in accordance with facility policies</td>
<td>Consult manual provided by accessory manufacturer</td>
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* Use of Facility approved detergents and disinfectants must comply with the instructions provided by the manufacturer(s) of those products.
Upholstery Care & Cleaning Instructions

Proper care is essential in ensuring the durability and reliability of TransMotion Medical upholstery. In general, all products should be:

1. Cleaned
2. Disinfected (in accordance with facility policy)
3. Rinsed
4. Allowed to air dry

It is important to note that the terms “disinfecting” and “cleaning” should not be used interchangeably. Disinfectants alone will not provide adequate cleaning since they do not have the appropriate properties to cut grease or oil and remove grime, hair or skin oils. The appearance, feel and performance of your upholstery may diminish if not cleaned properly.

Cleaning:

Remove hair, grime and body oils. Your upholstery should be cleaned on a regular basis with a damp cloth soaked in a mild soap and water solution. Avoid harsh detergents or chemicals that could damage the finish of your product. If disinfecting with manufacturer approved chemicals or bleach, the upholstery MUST be wiped off using clean water on a damp cloth and allowed to air-dry as a final step. Failure to rinse upholstery with clean water can result in a build-up of residues that, over time, may lead to drying, cracking or other undesirable changes to appearance, feel and performance.

Retain all instructional tags for future use.

Contact the manufacturer of the fabric used in your upholstery for a current list of approved disinfectants. TransMotion Medical Customer Care can assist with identifying which upholstery was used with your Stretcher-Chair.

For customer supplied and non-standard materials, please refer to the individual manufacturer’s cleaning instructions.