Product information

ARTROMOT®
CPM Continuous Passive Motion Devices
ARTROMOT®
Therapy with motorized CPM equipment

ARTROMOT® CPM devices made by ORMED.DJO get you and your patients going

The products of the ARTROMOT® family are used in post-operative treatment of joints, using CPM (continuous, passive motion) therapy.

ARTROMOT® CPM devices are available for
– the shoulder
– the knee and hip
– the elbow
– the ankle joint

The benefits at a glance

CPM therapy with the devices of the ARTROMOT® family
– prevents motion-limiting adhesion and joint stiffness (arthrofibrosis)
– promotes healing of articular cartilage, tendons, ligaments and soft tissue
– improves hematoma/fluid resorption
– reduces pain
– improves metabolism
– reduces length of hospital stay and therapy duration

Arguments not to dispute

ARTROMOT® CPM products are developed and manufactured by ORMED.DJO, the market leader in motorized CPM devices. Take advantage of the special benefits:
– Product and service provided by the manufacturer
– Over 20 years of experience in designing CPM products
– Made in Germany

Recommended therapy

ARTROMOT® CPM devices are normally employed either directly after surgery or in the first post-operative week. The daily treatment schedule may vary with the injury or disease to be cured:
– 3 to 4 hours (general recommendation)
– up to 24 hours in the case of articular cartilage surgery or injury

Home Care/Rental Service

ARTROMOT® CPM products are used in hospitals as well as in home care for out-patient treatment.

The ARTROMOT® CPM devices may be prescribed by orthopedic surgeons.

In most countries there is also the option for billing patients directly.
Evidence-based therapy

Excerpt from Prof. Kirschner’s recently published meta-analysis*.

“Thanks to the overall benefits conferred, CPM must today be used as an essential treatment modality (...) in an inpatient as well as an outpatient setting because clear treatment advantages have been observed (...).”

Excerpt from an open, prospective, randomized clinical multi-center study involving patients with massive rotator cuff rupture:**

“Statistically significant results were obtained, attesting to the superiority of combination therapy comprising CPM and physiotherapy vs patient treatment based only on physiotherapy.
– In the CPM group 90° abduction was achieved much earlier.
– Patients in the CPM group were able to resume occupational activities more quickly.
– CPM therapy markedly reduced pain.
– There was no evidence of complications or dangers posed by CPM treatment in the domiciliary setting.”

Result: CPM therapy with ARTROMOT®

<table>
<thead>
<tr>
<th></th>
<th>Meta-analysis*</th>
<th>Multi-center study**</th>
</tr>
</thead>
<tbody>
<tr>
<td>– reduces length of hospital stay and overall therapy duration</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>– considerably reduces the rate of mobilization under anesthesia</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>– improves articular cartilage healing</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>– reduces risk of thrombosis</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>– improves hematoma/fluid resorption</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>– reduces pain</td>
<td>*</td>
<td>**</td>
</tr>
<tr>
<td>– improves joint functionality</td>
<td>*</td>
<td>**</td>
</tr>
<tr>
<td>– reduces length of disability</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>


“Effektivität der postoperativen Behandlung mit CPM-Bewegungsschienen in Kombination mit krankengymnastischer Therapie im Vergleich zu ausschließlich krankengymnastischer Therapie bei Patienten mit vollständiger Ruptur der Rotatorenmanschette”
**ARTROMOT®-K1**
for the knee and hip joint

Making good things great!

**ARTROMOT®-K1** combines the best features of the time-tested ARTROMOT® knee machine with state-of-the-art, trend-setting technology.

**ARTROMOT®-K1** was developed for the demanding use in clinics and home care/rental programs.

Using the **ARTROMOT®-K1** is made easy by intuitive operation of the handheld programming unit with self-explanatory symbols.

### Technical Data:

#### Models:
- ARTROMOT®-K1 classic
- ARTROMOT®-K1 Standard
- ARTROMOT®-K1 Standard Chip
- ARTROMOT®-K1 comfort
- ARTROMOT®-K1 comfort Chip

#### Range of motion:
- Extension/Flexion “knee” -10° / 0° / 120°
- Extension/Flexion “hip” 0° / 7° / 115°

#### Functions of ARTROMOT®-K1 classic:
- Pauses (extension and flexion) 0 – 59 seconds / 1 – 59 minutes
- Speed 5% - 100%
- Key lock function to prevent accidental changes of the parameter settings

#### Additional functions of ARTROMOT®-K1 Standard:
- Timer 1 – 59 minutes / 1 – 24 hours / continuous operation
- Reverse on load insteps 1 – 25 / patient safety feature
- Warm up protocol gradual progression to the maximum range of motion
- Total therapy time added sum of the therapy sessions
- New patient activates the default settings for new patients
- Transport setting moves the carriage to the transport position

#### Service menu:

#### Additional functions of ARTROMOT®-K1 comfort:
- EROM repeat (extension or flexion) exercises are performed at a higher rate in the end range of motion
- Stretching (extension or flexion) for gradual and smooth increase of the range of motion
- Therapy documentation graphic representation of the overall treatment cycle
- EMS control for an optimal combination of CPM treatment and electrotherapy
- Workout protocol combines various functions of the comfort model in one protocol
- Comfort protocol warm up in the EROM of extension and flexion

#### Additional functions of ARTROMOT®-K1 models with chip card:
- Patient chip card stores patient-specific therapy parameters

#### Physical:
- Weight: 11 kg (24.4 lb)
- Dimensions: 97 x 36 x 23 cm (38.1 x 14.1 x 9.0 in)
- Patient height: approx. 120 – 200 cm (47.2 – 78.8 in)

#### Article numbers:
- ARTROMOT®-K1 classic 80.00.045
- ARTROMOT®-K1 Standard 80.00.040
- ARTROMOT®-K1 Standard with chip card 80.00.041
- ARTROMOT®-K1 comfort 80.00.042
- ARTROMOT®-K1 comfort with chip card 80.00.043
- Transport trolley 80.00.055
- Transport box TK-001
- ARTROMOT® chip card 0.0034.048
- Connection cable “muscle stimulation” 2.0037.024
ARTROMOT®-K1
for the knee and hip joint

Indications

- Arthroscopy and arthroscopy procedures in combination with synovectomy, arthrolysis
- Treatment following mobilization of joints in anesthetized patients
- Surgical treatment of fractures and pseudoarthrosis
- Exercise-stable osteosynthesis
- Operations on soft tissue in the joint area
- Patellotomy
- Corrective osteotomy
- Menisectomy
- Total knee/hip replacement
- ACL/PCL reconstruction
- Complex knee surgery
- Articular cartilage surgery, e.g. autologous chondrocyte transplantation (ACT)
NEW, now also with the graphic display!
The new graphic handheld programming unit is now also available for the ARTROMOT®-K3 and ARTROMOT®-K4, for an easier usability.

**ARTROMOT®-K3 – on that you can rely:**
ARTROMOT®-K3 was developed for the demanding use in clinics and rental programs.
- Robust metal construction
- Frame construction for easy handling
- Easy set-up

**ARTROMOT®-K4 – anatomically precise technology:**
ARTROMOT®-K4 features a true anatomical hip axis, enabling precise adjustment of the device to the patient's hip and knee pivot.

In addition to the functions of ARTROMOT®-K3, the ARTROMOT®-K4 offers:
- A wider range of motion
- Anatomical correct motion

**Technical Data:**

**Range of motion (ROM) – ARTROMOT®-K3:**
- Extension/Flexion “knee”:
  -5° / 0° / 110°
- Extension/Flexion “hip”:
  0° / 8° / 86°

**Range of motion (ROM) – ARTROMOT®-K4:**
- Extension/Flexion “knee”:
  -10° / 0° / 125°
- Extension/Flexion “hip”:
  0° / 10° / 100°

**Functions ARTROMOT®-K3 and ARTROMOT®-K4:**
- Timer: 1 – 300 minutes
- Pauses (Extension and/or Flexion): 0 – 30 s
- Speed: 1 – 100%
- Warm-up protocol: ROM increases slowly until maximum
- Reverse-on-load in steps: 1 – 25 / feature for patient safety
- Total therapy time: added sum of the therapy sessions
- New patient: activates the default setting for new patients
- Transport setting: moves the carriage to the transport position
- Service menu

**Weight/Dimensions ARTROMOT®-K3:**
- Weight: 11 kg (24.4 lb)
- Dimensions: 56 x 47 x 72 cm (22 x 18.5 x 28.3 in)
- Patient height: approx. 135 – 195 cm (53.1 – 76.7 in)

**Weight/Dimensions ARTROMOT®-K4:**
- Weight: 12 kg (26 lb)
- Dimensions: 55 x 39.5 x 115 cm (21.6 x 15.5 x 45.2 in)
- Patient height: approx. 135 – 195 cm (53.1 – 76.7 in)

**Article numbers:**
- ARTROMOT®-K3: 80.00.016
- ARTROMOT®-K4: 80.00.015
- Transport box: TK-001
Indications, e.g.
• Arthroscopy
• Meniscectomy
• Stable osteosyntheses
• ACL-/PCL-reconstructions
• Total knee and hip replacement
• Operatively treated fractures and pseudoarthrosis
• Autologous chondrocyte transplantation (ACT)
NEW, with a graphic display!

The new graphic handheld programming unit offers a wide display with big self-explanatory symbols and an intuitive menu navigation for easier usability.

Combined with its tested features, like the patient chip card, the easy swift conversion, the anatomically correct motion and the possibility for easy cleaning, the ARTROMOT®-S3 is now more ergonomical in use than ever.

Technical Data:

Models:
ARTROMOT®-S3
ARTROMOT®-S3 comfort

Range of motion:

<table>
<thead>
<tr>
<th>Motion</th>
<th>ARTROMOT®-S3</th>
<th>ARTROMOT®-S3 comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adduction/abduction</td>
<td>0° / 30° / 175°</td>
<td>0° / 30° / 175°</td>
</tr>
<tr>
<td>Internal/external rotation</td>
<td>90° / 0° / 90°</td>
<td>90° / 0° / 90°</td>
</tr>
<tr>
<td>Elevation</td>
<td>0° / 30° / 175°</td>
<td>0° / 30° / 175°</td>
</tr>
<tr>
<td>Horizontal adduction/abduction (manual)</td>
<td>0° / 0° / 120°</td>
<td>0° / 0° / 120°</td>
</tr>
</tbody>
</table>

Functions of ARTROMOT®-S3:

<table>
<thead>
<tr>
<th>Function</th>
<th>ARTROMOT®-S3</th>
<th>ARTROMOT®-S3 comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timer</td>
<td>1 – 300 min. / continuous operation</td>
<td></td>
</tr>
<tr>
<td>Pauses</td>
<td>0 – 30 seconds</td>
<td></td>
</tr>
<tr>
<td>Speed (ABD/ADD)</td>
<td>1 % – 100 %</td>
<td></td>
</tr>
<tr>
<td>Reverse on load in Steps (motor A and B separately)</td>
<td>1 – 25 / patient safety feature</td>
<td></td>
</tr>
<tr>
<td>Motor control</td>
<td>ON/OFF</td>
<td></td>
</tr>
<tr>
<td>Synchronized motors</td>
<td>ON/OFF</td>
<td></td>
</tr>
<tr>
<td>Total therapy time</td>
<td>Added sum of the therapy sessions</td>
<td></td>
</tr>
<tr>
<td>New patient</td>
<td>Activates the default settings for new patients</td>
<td></td>
</tr>
<tr>
<td>Transport setting</td>
<td>Moves the motors into the transport position</td>
<td></td>
</tr>
<tr>
<td>Patient chip card</td>
<td>Stores patient-specific therapy parameters</td>
<td></td>
</tr>
<tr>
<td>Key lock function</td>
<td>Prevents accidental changes of the parameter settings</td>
<td></td>
</tr>
<tr>
<td>Service menu</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional functions of the ARTROMOT®-S3 Comfort:

<table>
<thead>
<tr>
<th>Function</th>
<th>ARTROMOT®-S3</th>
<th>ARTROMOT®-S3 comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head rest</td>
<td>For comfortable, optimal patient positioning</td>
<td></td>
</tr>
<tr>
<td>Shoulder positioning</td>
<td>Prevents evading movements</td>
<td></td>
</tr>
<tr>
<td>Oscillation</td>
<td>Higher rate of motion in the EROM</td>
<td></td>
</tr>
<tr>
<td>Stretching (ABD or I-ROT or E-ROT)</td>
<td>Careful and smooth increase of the ROM</td>
<td></td>
</tr>
<tr>
<td>ISO ABD ROT protocol</td>
<td>For separate exercising in both directions</td>
<td></td>
</tr>
<tr>
<td>Warm-up protocol</td>
<td>Gradual progression to the maximum ROM</td>
<td></td>
</tr>
<tr>
<td>Therapy documentation</td>
<td>Graphic presentation of the overall treatment cycle</td>
<td></td>
</tr>
</tbody>
</table>

Physical:

<table>
<thead>
<tr>
<th>Specification</th>
<th>ARTROMOT®-S3</th>
<th>ARTROMOT®-S3 comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>25 kg (55.1 lb)</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>87.5 x 57.5 x 58 cm (34.4 x 22.6 x 22.8 in)</td>
<td></td>
</tr>
<tr>
<td>Transport dimensions</td>
<td>37 x 57.5 x 58 cm (14.5 x 22.6 x 22.8 in)</td>
<td></td>
</tr>
</tbody>
</table>

Article numbers:

<table>
<thead>
<tr>
<th>Article number</th>
<th>ARTROMOT®-S3</th>
<th>ARTROMOT®-S3 comfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTROMOT®-S3</td>
<td>80.00.023</td>
<td>80.00.024</td>
</tr>
<tr>
<td>ARTROMOT®-S3 comfort</td>
<td>80.00.024</td>
<td></td>
</tr>
<tr>
<td>ARTROMOT® chip card</td>
<td>0.0034.048</td>
<td></td>
</tr>
</tbody>
</table>
**ARTROMOT®-S3**
for the shoulder joint

**Indications**
- Arthroscopy and arthroscopy procedures in combination with synovectomy, arthrolysis
- Treatment following mobilization of joints in anesthetized patients
- Surgical treatment of fractures and pseudoarthrosis
- Exercise-stable osteosynthesis
- Endoprosthetic implants
- Impingement syndrome after surgical intervention
- Acromioplasty
- Decompression surgery
- Rotator cuff reconstruction

Patient chip card for storage of therapy data

Adduction/abduction  Elevation  Internal/external rotation  Physiological motion
NEW, with a graphic display!

The new graphic handheld programming unit offers a wide display with big self-explanatory symbols and an intuitive menu navigation for easier usability.

Combined with its tested features, like the patient chip card, the easy swift conversion, the anatomically correct motion (PNF pattern), the forearm placement on a carriage with automatic length adjustment and sandwich straps (to prevent muscle contractions), and the possibility for easy cleaning, the ARTROMOT®-E2 is now more ergonomically in use than ever.

Technical Data:

Models:
ARTROMOT®-E2 (chair model)
ARTROMOT®-E2 compact (pole-mount model)

Range of motion:
Extension/flexion -5° / 0° / 140°
Pronation/supination 90° / 0° / 90°

Functions:
Motor control ON/OFF for isolated motion extension/flexion or pronation/supination
Synchronized motors ON/OFF
Speed 1% – 100%
Timer 1 minute – 24 hours / continuous operation
Pauses 0 – 60 minutes
Reverse on load in steps (motor A and B separately) 1 – 25/patient safety feature
Total therapy time added sum of the therapy sessions
Warm up protocol for gradual progression to the maximum range of motion
Patient chip card for storage of the therapy parameters
New patient activates the default settings for new patients
ISO Motion protocol for separate exercising in both directions
EROM Repeat (EX/PRO – FLEX/SUP) higher rate of motion in the EROM
Stretching (EX – FLEX – PRO – SUP) careful and smooth increase of the range of motion
Therapy documentation Graphic presentation of the overall treatment cycle
Key lock function Prevents accidental changes of the parameter settings
Transport setting Moves the motors into the transport position
Service menu

Physical – ARTROMOT®-E2:
Weight: 28.7 kg (63.2 lb)
Dimensions 87.5 x 57.5 x 58 cm (34.4 x 22.6 x 22.8 in)

Physical – ARTROMOT®-E2 compact:
Weight: 17 kg (37.4 lb)
Dimensions 87.5 x 57.5 x 29 cm (34.4 x 22.6 x 11.4 in)

Article numbers:
ARTROMOT®-E2 80.00.031
ARTROMOT®-E2 compact 80.00.033
ARTROMOT® chip card 0.0034.048
**Indications**

- Arthrotomy and arthroscopy procedures in combination with synovectomy, arthrolysis
- Surgical treatment of fractures and pseudoarthrosis
- Exercise-stable osteosynthesis
- Endoprosthetic implants
- Treatment following mobilization of joints in anesthetized patients
- Reconstructive surgery of biceps tendons
- Operations on soft tissue in the joint area
The new dimension in ankle CPM therapy!

**ARTROMOT®-SP3** offers anatomically correct motions (PNF pattern).
Using the **ARTROMOT®-SP3** is made easy by intuitive operation of the handheld programming unit with self-explanatory symbols.
**ARTROMOT®-SP3** optimizes ease-of-use and hygiene through easy mechanical settings and easy to disinfect leg support and footrest.

**Technical Data:**

<table>
<thead>
<tr>
<th>Models</th>
<th>ARTROMOT®-SP3 Standard</th>
<th>ARTROMOT®-SP3 Standard Chip</th>
<th>ARTROMOT®-SP3 Comfort</th>
<th>ARTROMOT®-SP3 Comfort Chip</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Range of motion</strong></td>
<td>Plantar flexion / Dorsal extension</td>
<td>50° / 0° / 40°</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inversion / Eversion</td>
<td>40° / 0° / 20°</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Functions of ARTROMOT®-SP3 Standard</strong></td>
<td>Timer 1 – 59 minutes / 1 – 24 hours / continuous operation</td>
<td>Pauses 0 – 59 seconds</td>
<td>Speed 5 % – 100 %</td>
<td>Reverse on load in steps (motor A and B separately) 1 – 25 / patient safety feature</td>
</tr>
<tr>
<td></td>
<td>Motor control</td>
<td>ON/OFF for isolated motion, plantar flexion/dorsal extension or inversion/eversion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synchronized motors</td>
<td>ON/OFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total therapy time</td>
<td>added sum of the therapy sessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New patient</td>
<td>activates the default settings for new patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transport setting</td>
<td>moves the motors into the transport position</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Key lock function</td>
<td>prevents accidental changes of the parameter settings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service menu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additional functions of ARTROMOT®-SP3 Comfort</strong></td>
<td>Stretching modes for gradual and smooth increase of the range of motion</td>
<td>Therapy documentation graphic presentation of the overall treatment cycle</td>
<td>Warm-up protocol gradual progression to the maximum range of motion</td>
<td>ISO protocol for separate exercising in both directions</td>
</tr>
<tr>
<td><strong>Additional functions of ARTROMOT®-SP3 models with Chip card</strong></td>
<td>Patient chip card stores patient-specific therapy parameters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical</strong></td>
<td>Weight</td>
<td>11 Kg (24.4 lb)</td>
<td>Dimensions 78 x 42 x 39.5 cm (30.7 x 16.5 x 15.5 in)</td>
<td>Patient height approx. 120 – 200 cm (47.2 – 78.8 in)</td>
</tr>
<tr>
<td></td>
<td>Dimensions</td>
<td>78 x 42 x 39.5 cm (30.7 x 16.5 x 15.5 in)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article numbers:</td>
<td>ARTROMOT®-SP3 Standard</td>
<td>80.00.035</td>
<td>ARTROMOT®-SP3 Standard Chip 80.00.036</td>
<td>ARTROMOT®-SP3 Comfort 80.00.037</td>
</tr>
<tr>
<td></td>
<td>ARTROMOT®-SP3 Comfort Chip 80.00.038</td>
<td>Transport trolley 80.00.056</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ARTROMOT®-SP3
for the ankle joint

Indications

• Arthrotomy and arthroscopy procedures in combination with synovectomy, arthrolisis
• Surgical treatment of fractures and pseudoarthrosis
• Exercise-stable osteosynthesis
• Operations on soft tissue in the joint area
• Reconstructive ligament and tendon surgery
• Operations on cartilage lesions
• Achilles tendon reconstruction