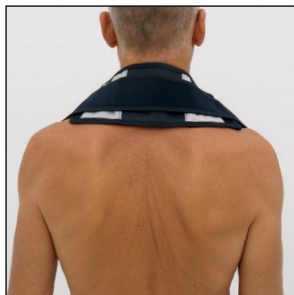


# MAGNETOTHERAPY

## QUICK START GUIDE FOR THE USE OF MAGNUM DEVICES



## ATTENTION

We hereby specify that this guide offers general indications on the functions of **GLOBUS** devices for magnetotherapy and on the positioning of the different types of solenoids on the various anatomical areas. For more detailed information on the specific treatments of each **GLOBUS** Magnum model (list of programs available), refer to the User Manual supplied with your device.

# SUMMARY

<b>MAIN FUNCTIONS OF KEYBOARD</b>	<b>Page 4</b>
<b>QUICK START</b>	<b>Page 5</b>
• <i>Situation 1</i>	<b>Page 5</b>
• <i>Situation 2</i>	<b>Page 6</b>
• <i>Situation 3</i>	<b>Page 8</b>
• <i>Situation 4</i>	<b>Page 9</b>
<b>PRINCIPLES OF APPLICATION OF THE SOLENOIDS</b>	<b>Page 10</b>
• FLEXIBLE SOLENOIDS	<b>Page 10</b>
• SOFT SOLENOIDS	<b>Page 11</b>
• POCKET PRO SOLENOIDS	<b>Page 11</b>
<b>HOW TO APPLY THE SOLENOIDS</b>	<b>Page 12</b>
<b>MAIN POSITIONINGS WITH THE THREE TYPES OF SOLENOIDS</b>	<b>Page 13</b>
• CERVICAL TRACT	<b>Page 13</b>
• SHOULDER	<b>Page. 14</b>
• ELBOW - FOREARM	<b>Page 15</b>
• WRIST	<b>Page 16</b>
• HAND	<b>Page 17</b>
• DORSAL-LUMBAR TRACT	<b>Page 18</b>
• HIP	<b>Page 20</b>
• THIGH - KNEE	<b>Page 21</b>
• TIBIA/FIBULA - ANKLE	<b>Page 22</b>
• FOOT	<b>Page 23</b>
• USE OF THE SOFT 4 MAT	<b>Page 24</b>
<b>INDICATIONS ON THE PROGRAMS</b>	<b>Page 25</b>
• FRACTURES	<b>Page 25</b>
• OSTEONECROSIS	<b>Page 25</b>
• BONE EDEMS	<b>Page 25</b>
• FRACTURE CONSOLIDATION DELAY	<b>Page 25</b>
• PSEUDOARTROSIS	<b>Page 26</b>
• OSTEOPOROSIS	<b>Page 26</b>
• OSTEOARTHRITIS, ARTHROSIS, ARTHRITIS, JOINT PAIN, BACK PAIN	<b>Page 26</b>
• ALGODYSTROPHY/SUDECK'S DISEASE	<b>Page 26</b>
• HIP AND KNEE PROSTHESES	<b>Page 27</b>
• POST SURGERY OF THE KNEE	<b>Page 27</b>
• CARPAL TUNNEL	<b>Page 27</b>
• TENDINITIS, EPICONDYLITIS, HEADSET DISORDERS OF ROTATORS	<b>Page 27</b>

## MAIN FUNCTIONS OF THE KEYBOARD



### INCREASE AND DECREASE KEYS:

press the up arrow to increase a parameter (Gauss, Frequency, Time, D.C%), the down arrow to decrease it



### FN KEY:

press this key, while a treatment is running, to modify the parameters (Gauss, Frequency, Time, D.C%)



### HASH KEY

press this key to view the peak Gausses delivered by the machine



### BACK KEY:

Press this key to return to the previous screen



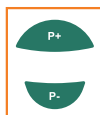
### FORWARD KEY:

press this key for 3" during a running program to go to the next phase and save it in "last 10 run"



### POWER / OK KEY:

- press this button for 3 seconds to turn on/off the device;
- while navigating the menu, use this key to confirm your choice once a treatment has started, press this button to pause it and restart it



**P+ KEY:** press this key to move the selection upwards

**P- KEY:** press this key to move the selection downwards

## QUICK START

**Situation 1:** the doctor indicated the diagnosis and the parameters (Gauss, Frequency and Time) to follow for the treatment of a specific pathology / disorder. Function not present on the Magnum L device.

STEP

01

Keep the OK button pressed to switch on the device

STEP

02

Connect the solenoids to the device and apply them on the body area to be treated, fixing them with the appropriate band

STEP

03

Select the **"Easy Program"** option

STEP

04

To modify the parameters (Gauss, Frequency, Time) use the first three pairs of keys located under the displ

STEP

05

Start the treatment with OK

STEP

06

Once the treatment is finished, switch off the device and disconnect the solenoids

STEP

07

When the device is switched on again, the parameters will remain the same as those set for the last treatment performed with **"Easy Program"**

**Situation 2:** i have a therapeutic indication for a specific pathology/disorder but I have no indications on the parameters to follow.

STEP

01

Press and hold the OK button to switch on the device

STEP

02

Connect the solenoids to the device and apply them on the body area to be treated, fixing them with the appropriate range

STEP

03

Select **“Program List”**

STEP

04

Select a Treatment Area (eg Arthrosis / Arthritis, Pain, ...)

STEP

05

Select a Program (eg. Cervical arthrosis, hand arthrosis, ...)

STEP

06

Start the program

STEP

07

Once the treatment is finished, turn off the device and disconnect the solenoids

STEP

08

When the device is turned on again, we can find the treatment carried out by selecting **“Advanced/Last 10”** from the main screen

Alternatively, to find immediately the chosen program when the device is switched on again:

STEP

01

Press and hold the OK button to switch on the device

STEP

02

Connect the solenoids to the device and apply them on the body area to be treated, fixing them with the appropriate range

STEP

03

Select **"Program List"**

STEP

04

Select a Treatment Area (eg Arthrosis / Arthritis, Pain, ...)

STEP

05

Select a Program (eg. Cervical arthrosis, hand arthrosis, ...)

STEP

06

Select save in **"Easy Program"**

STEP

07

Return to the main screen and select **"Easy Program"**

STEP

08

Start the treatment

STEP

09

Once the treatment is finished, switch off the device and disconnect the solenoids

STEP

10

When the device is switched on again, the same program will be found on **"Easy Program"** and then it will be enough for me to start the treatment

**Situation 3:** i want to carry out two different programs to treat two areas of the body or two subjects at the same time (only for Magnum 2500, 3000 Pro and 3500 Pro models).

STEP

01

Press and hold the OK button to switch on the device

STEP

02

Connect the solenoids to the device and apply them on the body area to be treated, fixing them with the appropriate band

STEP

03

Select **“Advanced”** and then **“Function 1+1”** or **“2+2”**

STEP

04

To choose Program 1: select a treatment area (eg. Osteoarthritis/ Arthritis, Pain, ...) and then select a Program (eg. Cervical osteoarthritis, Hand osteoarthritis, ...)

STEP

05

To choose Program 2: select a treatment area (eg. Osteoarthritis/ Arthritis, Pain, ...) and then select a Program (eg. Osteoarthritis)

STEP

06

Press OK to start the treatments. On the display we will have Program 1 on the left and Program 2 on the right

STEP

07

Once the treatment is finished, turn off the device and disconnect the solenoids

STEP

08

To modify the power and duration of the single program, use the increase and decrease keys placed in correspondence with that value on the display



**Situation 4:** a professional has already set me a precise number of sessions for a specific program in the “Rental” section, so the device will be able to perform only that treatment for the number of sessions saved.

STEP

01

Press and hold the OK button to switch on the device

STEP

02

Connect the solenoids to the device and apply them to the area of the body to be treated, fixing them with the appropriate band

STEP

03

The display will show me the number of the session I will perform and the number of sessions remaining

STEP

04

Start the treatment

STEP

05

Once the treatment is finished, turn off the device and disconnect the solenoids

## PRINCIPLES OF APPLICATION OF THE SOLENOIDS

Magnetotherapy is a form of physical therapy that uses electromagnetic energy to stimulate the regeneration of biological tissues.

On a physical level, we have a **device** and **solenoids** available. The solenoids are connected to the device which, once powered, allows the generation of an electromagnetic field with very specific characteristics.

There are four parameters that the operator can vary on the device: **frequency** (Hz), **time** ((hours and minutes), **intensity** or field density (Gauss) and **duty cycle** (DC).

The frequencies used in the Magnum devices go up to 200 Hz. The low frequencies are in fact the most used in the medical field to treat osteoarticular pathologies. Each program present in the device has its own specific frequency, obtained from a constant and scrupulous bibliographic research.

The time (duration) of each session varies greatly depending on the pathology. For example, classic orthopedic pathologies such as pseudarthrosis or osteonecrosis require 6 to 8 hours of treatment per day for cycles of at least one month. Painful pathologies, on the other hand, such as low back pain, require more limited treatment times (for example 30 minutes a day for a 20-day cycle).

The intensity of the field is measured in Gauss and is an important parameter to obtain a good efficacy in the treatment. In the absence of a medical prescription indicating the Gauss to be applied, we recommend that you follow the preset parameters in the devices.

For duty cycle (DC) we mean the pulsed time (as we are talking about pulsed electromagnetic fields). When the duty cycle is 100% we speak of continuous emission, if it is less than 100% we speak of pulsed emission. In our appliances the duty cycle is set at 50% but can also be changed to lower values. For home use, we advise you not to change the preset value.

**SOLENOIDS** transfer the electromagnetic field and go in direct contact with the area to be treated.

**FLEXIBLE SOLENOIDS** are formed by two coils placed in a side which presents the elastic fabric at the center and two Velcro bands on the sides to facilitate placement on the different anatomical districts.



The side with the lettering **S** indicates the South of the solenoid while the side with the lettering **N** indicates North. The flexible solenoids can be fixed above the area to be treated using the special Velcro straps supplied.



The photo show the **FLEXIBLE SOLENOID** applied to the elbow and fixed with the supplied elastic band

**SOFT SOLENOIDS** are a pair of solenoids each formed by a coil inserted in a soft bearing. The bearing has a smooth part (the one that comes into contact with the skin) where the South of the solenoid is (**S** letter).

North instead corresponds to the side of the bearing where the slot is. To fix the solenoid to the body, insert the supplied elastic band under the slot, then close the band on itself in order to hold the solenoid firmly.



North side of the solenoid



South side of the solenoid



Placement

**POCKET PRO SOLENOIDS** are a pair of solenoids formed by two coils for each bearing. Polarity is indicated on each bearing with the letters **N**, for North, and **S**, for South.

These solenoids must also be fixed to the body by inserting an elastic band supplied under the slots (horizontally or vertically) and closing it back on itself.



## HOW TO APPLY THE SOLENOIDS

**TWO OPPOSING SOLENOIDS:** with two opposing solenoids (therefore in contact with the skin one will have the N side and one the S side) and parallel to each other, a deep and uniform electromagnetic field is obtained. This method is indicated for the treatment of joint diseases and fractures.



**TWO SOLENOIDS SIDE BY SIDE:** this method provides for the positioning of the solenoids on the same plane and is mainly used for the treatment of large areas, for example, thigh or back and in any case where it is not possible to oppose.



**ONE SOLENOID:** this method is used in areas of the body where it is difficult to place two diffusers. It can be applied from the N side or from the S side.



## MAIN POSITIONINGS WITH THE THREE TYPES OF SOLENOIDS

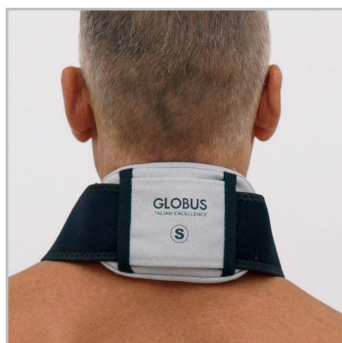
The main positions to be used with the various accessories available with Magnum devices will be indicated below. We recommend using the solenoids on top of light clothing or placing a light cotton cloth (such as a handkerchief) between the skin and the accessory.

### CERVICAL TRACT

Treatment indicated for:

- **cervical arthrosis-arthritis;**
- **cervical joint pain;**
- **cervical muscle tension.**

In case of pain in the cervical area it is recommended to place the solenoids side by side and to lie down on the bed or sofa during the treatment, resting the head on a pillow.



**Pocket Pro Solenoid:** this positioning is recommended if the pain is in the central part of the cervical spine. It does not matter which side of the coil is positioned in contact with the body.



**Pocket Pro Solenoid:** this positioning is recommended when pain involves the central part of the cervical spine and shoulders. It does not matter which side of the coil is positioned in contact with the body.



**Flexible solenoid:** this positioning is recommended if the pain involves the central part of the cervical spine and the shoulders. Place the part with the Velcro outwards.



**Soft solenoids:** it is recommended to use the soft solenoids side by side as shown in the figure. The part with the buttonhole must be placed outwards.

## SHOULDER

Treatment indicated for:

- **tendinopathies and trauma to the rotator cuff;**
- **arthrosis-arthritis-joint pain in the shoulder;**
- **shoulder edema and bruises;**
- **shoulder fractures;**
- **delayed consolidation of fractures;**
- **osteoporosis.**

In all shoulder problems it is preferable to use the opposite positioning.



**Pocket Pro solenoid:** it is advisable to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be positioned in front of the shoulder, the other on the back. The two solenoids are fixed with the supplied elastic band by passing it through the slots and under the armpit of the opposite shoulder.

**Flexible Solenoid:** it is recommended that the flexible solenoid be positioned so that one coil is attached anterior to the shoulder and one posterior. Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band which will pass under the armpit of the opposite shoulder.



**Soft solenoids:** it is recommended to use the opposing soft solenoids as shown in the figure. One of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the slot towards the outside). The two solenoids are fixed with the supplied elastic band which will pass under the armpit of the opposite shoulder.



## ELBOW - FOREARM

Treatment indicated for:

- **fractures of the forearm or elbow;**
- **delays in fracture consolidation;**
- **edema and bruises on the forearm or elbow;**
- **osteoporosis;**
- **tendinopathies.**

At forearm level it is preferable to use the positioning with opposing solenoids. The solenoids can also be placed on plaster casts and braces.



**Pocket Pro solenoid:** it is advisable to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be positioned at the front or side of the elbow, the other at the rear or on the opposite side. The two solenoids are fixed with the supplied elastic band by passing it through the slots.

**Flexible Solenoid:** it is recommended to place the flexible solenoid on the elbow or forearm so that the two coils are opposite each other. Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band.



**Soft solenoids:** it is recommended to use the soft solenoids on the opposite elbow or forearm as shown in the figure. One of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the slot towards the outside). The two solenoids are fixed with the supplied elastic band.

## WRIST

Treatment indicated for:

- **carpal tunnel;**
- **wrist fractures;**
- **delays in fracture consolidation;**
- **edema and bruises on the wrist;**
- **arthrosis-arthritis-joint pain in the wrist;**
- **osteoporosis.**

In all wrist problems it is preferable to use the opposite positioning.



**Pocket Pro solenoid:** it is advisable to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be positioned above the wrist, the other below. The two solenoids are fixed with the supplied elastic band by passing it through the slots.

**Flexible solenoid:** it is recommended that the flexible solenoid be positioned so that one coil is above the joint and the other is below. Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band.



**Soft solenoids:** it is recommended to use the opposite soft solenoids as shown in the figure (one above and one below the joint). One of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the slot towards the outside). The two solenoids are fixed with the supplied elastic band.



## HAND

Treatment indicated for:

- **fractures to the carpal-metacarpal bones;**
- **delays in fracture consolidation;**
- **edema and bruises in the hand;**
- **arthrosis-arthritis-joint pain in the hand;**
- **osteoporosis.**



**Pocket Pro solenoid:** it is advisable to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be placed on the back of the hand, the other on the palm. The two solenoids are fixed with the supplied elastic band by passing it through the slots.

**Flexible solenoid:** it is advisable to place the flexible solenoid on the hand so that the two coils are opposite each other (one will be on the back of the hand, the other on the palm). Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band.



**Soft solenoids:** it is recommended to use the soft solenoids on the opposite hand as shown in the figure. One of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the slot towards the outside). The two solenoids are fixed with the supplied elastic band.

## DORSAL-LUMBAR TRACT

Treatment indicated for:

- **osteoarthritis-arthritis-joint pain in the spine;**
- **vertebral fractures;**
- **delays in fracture consolidation;**
- **back pain-low back pain;**
- **osteoporosis.**

In case of pain in the spine, the solenoids should be positioned side by side in the most painful points.

If the area to be treated is very large, it is advisable to use two bands by placing them next to each other (or the band with 4 solenoids, which can be purchased as an accessory). During the treatment we recommend lying on your back on the bed or sofa, in order to keep the solenoids still with your back.



**Pocket Pro solenoid for dorsal tract:** this positioning is recommended if the pain is localized in the back area, between the shoulder blades. It does not matter which side of the coil comes into contact with the body. Place the two solenoids side by side and pass the elastic band under the buttonholes and around the chest.

**Pocket Pro lumbar solenoid:** this positioning is recommended if pain involves the lower back. It does not matter which side of the coil is positioned in contact with the body. Place the two solenoids side by side and pass the elastic band under the slots and around the pelvis.





**Flexible solenoid for dorsal tract:** this positioning is recommended if the pain involves the central part of the back. Place the part with the Velcro outwards and pass the elastic band supplied around the solenoid and chest to keep it fixed.

**Flexible solenoid for lumbar spine:** this positioning is recommended if the pain is localized in the lumbar spine. Place the part with the Velcro outwards and pass the elastic band supplied around the solenoid and the pelvis to keep it fixed.



**Soft solenoids for lumbar spine:** it is recommended to use the soft solenoids side by side as in the figure in correspondence with the painful area. The part with the buttonhole is placed outwards and the elastic band supplied is passed through the slots and around the pelvis.

## HIP

Treatment indicated for:

- **arthritis, osteoarthritis, joint pain in the hip;**
- **femoral neck fractures;**
- **osteoporosis;**
- **edema and contusions in the hip;**
- **post hip replacement.**

In the hip it is very difficult to position the solenoids in opposite mode, so the placement is always with the solenoids side by side.



**Pocket Pro Solenoid:** this positioning is recommended if the pain is localized on the lateral side of the hip. Position the part with the Velcro outwards and pass the elastic band supplied through the slots of the two solenoids and to the pelvis to keep them fixed. Move solenoids more anteriorly or posteriorly depending on the location of pain/injury.

**Flexible solenoid:** this positioning is recommended if the pain is localized on the lateral part of the hip. Place the part with the Velcro outwards and pass the elastic band supplied around the solenoid and the pelvis to keep it fixed. Move the solenoid more anteriorly or posteriorly depending on the location of the pain/injury.



**Soft solenoids:** it is advisable to use the soft solenoids side by side as shown in the figure in correspondence with the painful area. The part with the buttonhole is placed outwards and the elastic band supplied is passed through the slots and around the pelvis. Move solenoids more anteriorly or posteriorly depending on the location of pain/injury.

## THIGH - KNEE

Treatment indicated for:

- **arthritis-osteoarthritis and joint pain in the knee;**
- **post knee replacement;**
- **post ACL surgery (anterior cruciate);**
- **post knee cleansing surgery;**
- **trauma-contusions to the thigh.**

In the knee it is preferable to use the positioning with opposing solenoids. If it is not possible to position the band in such a way as to make the solenoids parallel to each other, it is advisable to position them side by side, above the joint or in the most painful area.



**Pocket Pro solenoid:** it is recommended to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be placed on the outside and one on the inside of the knee. The two solenoids are fixed with the supplied elastic band by passing it through the slots. When treating thigh trauma/contusions, place the solenoids opposite each other if possible, otherwise side by side.

**Flexible Solenoid:** it is recommended that the flexible solenoid be positioned so that one coil fits on the inside and one on the outside of the knee. Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band. In the treatment of trauma/contusions to the thigh, position the flexible solenoid over the area to be treated (if the circumference of the thigh allows it, I will position the opposing coils, otherwise side by side).



**Soft solenoids:** it is recommended to use the opposing soft solenoids as shown in the figure. of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the buttonhole outwards). The two solenoids are fixed on the inner side and on the outer side of the knee with elastic band supplied. In the treatment of trauma / contusions to the thigh, positioning the opposing solenoids if possible, otherwise flanked way.

## TIBIA/FIBULA - ANKLE

Treatment indicated for:

- *fractures of the tibia and / or fibula;*
- *delays in consolidation of fractures;*
- *edema and contusions of the tibia or fibula;*
- *osteoporosis;*
- *edema and bruises of the ankle;*
- *sprains and ankle.*

At the level of the tibia and fibula it is preferable to use the positioning with opposing solenoids, especially in case of fractures and consolidation delays.

At the level of the ankle it is preferable to use the positioning with opposing solenoids, one on the internal side and one on the external side of the joint.



**Flexible solenoid:** it is recommended to place the flexible solenoid around the ankle so that the two coils are opposite each other. Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band.

In the treatment of trauma/contusions to the tibia/fibula along the shin, position the coils opposite each other if possible, otherwise side by side.

**Pocket Pro solenoid:** it is recommended to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be placed on the inside and one on the outside of the ankle. The two solenoids are fixed with the supplied elastic band by passing it through the slots. In the treatment of trauma/contusions to the tibia/fibula along the shin, always position the coils in opposite directions.



**Soft solenoids:** it is recommended to use the soft solenoids on opposite ankle or shin as shown in the figure. One of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the slot towards the outside). The two solenoids are fixed with the supplied elastic band, one on the external side of the ankle/shin, the other on the internal side.



## FOOT

Treatment indicated for:

- **ractures to the tarsal or metatarsal bones;**
- **delays in fracture consolidation;**
- **edema and bruises on the foot;**
- **arthrosis-arthritis-joint pain in the foot;**
- **osteoporosis;**
- **tendinopathies/plantar fascia pain.**



**Pocket Pro solenoid:** it is advisable to position the solenoids opposite each other, that is, one solenoid will have the North side in contact with the skin, the other the South side. One solenoid will be positioned on the back of the foot, the other on the sole. The two solenoids are fixed with the supplied elastic band by passing it through the slot.

**Flexible Solenoid:** it is recommended that the flexible solenoid be positioned so that one coil rests on the back of the foot and the other under the sole. Place the part with the Velcro outwards and secure the solenoid with the supplied elastic band.



**Soft solenoids:** it is recommended to use the opposite soft solenoids as shown in the figure (one above and one under the foot). One of the two will have the buttonhole in contact with the skin and the part with the writing "S" outwards. The other solenoid will be positioned upside down (so the writing "S" will be in contact with the skin and the slot towards the outside). The two solenoids are fixed with the supplied elastic band.

## USE OF THE SOFT 4 MAT



**Soft 4 mat for cervical tract:** this positioning is recommended if the pain is localized in the neck (see therapeutic indications for the cervical tract). It does not matter which side of the mat comes into contact with the body. Place the mat on the area to be treated and secure it with the elastic bands supplied by passing it around the shoulders or lying on top of it in bed or on the sofa.



**Soft 4 mat for dorsal tract:** this positioning is recommended if the pain is localized in the back area, between the base of the neck and the lumbar area (see therapeutic indications dorsal-lumbar tract). It does not matter which side of the mat comes into contact with the body. Place the mat on the area to be treated and secure it with the supplied elastic bands by passing it around the chest or lying on top of it in bed or on the sofa.



**Soft 4 mat for lumbar spine:** this positioning is recommended if the pain is localized in the lumbar and sacral area (see therapeutic indications back-lumbar). It does not matter which side of the mat comes into contact with the body. Place the mat on the area to be treated and secure it with the supplied elastic bands by passing it around the stomach or lying on top of it in bed or on the sofa. Alternatively, place it inside a girdle or stretch pants.



**Soft 4 mat for hip:** this positioning is recommended if the pain involves the hip joint (see hip therapeutic indications). It does not matter which side of the mat comes into contact with the body. Place the mat on the area to be treated and secure it with the supplied elastic bands by passing it around the pelvis or lying on the side above it in bed or on the sofa. Alternatively, place it inside stretch pants.



## INDICATIONS ON THE PROGRAMS

**Foreword:** below you will find some general indications on the programs present in the various Magnum devices. It is recommended to use it at home with a precise medical indication.

**Attention:** being a general list that covers all the models of the Magnum line, it is not certain that the programs listed here fall within the device in your possession. To learn about the programs of your device, refer to the "Program list" chapter of this manual.

**FRACTURES:** fracture programs can be used from the first few days after the traumatic event. The treatment can also be carried out on plaster casts and braces. In this case we recommend increasing the recommended power by 50-60% as the thickness of the plaster increases the distance between the solenoids and the bone.

We remind you the importance of positioning the solenoids in opposite mode (if the area to be treated allows it) and in correspondence with the fracture. If you have two applicators, you can position them both to have a more enveloping and intense magnetic flux. This is particularly useful when the area to be treated has a large diameter, for example a femur or over a tibia cast.

**Recommended protocol:** 8 hours per day for 30 days

**OSTEONECROSIS:** this program can be used in cases of lack of or insufficient blood supply to a portion of bone diagnosed with X-ray or MRI. (This condition can occur as a result of trauma or, in others, it may be non-traumatic and in these cases will be affected by chronic corticosteroid use or excessive alcohol consumption.) For a personalized protocol, please refer to the instructions of the attending physician.

**Recommended protocol:** 8h/days for 5 months

**BONE EDEMS:** the program is indicated in case of trauma to the bones that involve the abnormal accumulation of fluids inside them. The main cause of this condition is in fact strong blunt trauma. Osteoarthritis is the second leading cause of bone edema. For a personalized protocol, please refer to the instructions of the attending physician.

**Recommended protocol:** 8 hours a day for 30 days

**FRACTURE CONSOLIDATION DELAY:** questo this program can be used in cases where a fracture is not healing within the terms deemed appropriate. Often these situations occur in people with osteoporosis or with vascular/metabolic alterations. Whenever possible, the solenoids should be positioned in opposing mode. The daily treatment time can vary from a few hours up to 10-12 hours.

**NB For a more precise and personalized protocol, we refer you to the instructions of your doctor.**

**Recommended protocol:** 3 to 8 hours per day for 30 days

**PSEUDOARTROSIS:** the program is indicated when the delay in consolidation of a fracture has lasted beyond nine months. Often in these cases the patient has already undergone surgery and/or is in the presence of means of synthesis, plates, screws or external fixators that can complicate the fixing of the solenoids. For this reason, consultation with the treating physician is essential, who can give more specific and targeted indications to the patient's situation.

**Recommended protocol:** 8 hours per night for 5 months

**OSTEOPOROSIS:** the program is indicated in cases where there is a progressive weakening of the bone structure due to this pathology. Bone tissue is vital and its remodeling mechanism is continuous throughout our life. In the presence of osteoporosis this mechanism is altered and produces the progressive weakening of the bone.

Pulsed electromagnetic fields are able to activate the anabolic functions on bone tissue, improving the balance between osteoblasts (cells responsible for producing new bone) and osteoclasts (cells responsible for bone erosion).

For treatment on large areas of the body, it may be useful to use it with the Mat 100 rug or the B-Mat (*paid accessories; for more information you can visit our website [www.globuscorporation.com](http://www.globuscorporation.com)*).

**Recommended protocol:** 8-10 hours per day for 12 weeks

**OSTEOARTHRITIS, ARTHROSIS, ARTHRITIS, JOINT PAIN, BACK PAIN:** in our devices there are various programs to treat these pathologies which, although very different in the cause that provoke them, are all characterized by joint pain accompanied by stiffness. In these situations, magnetotherapy contributes by producing a local anti-inflammatory effect with analgesic action. Each program is set with the parameters recommended in the bibliography, while at the end of this manual you will find indications for the correct positioning of the solenoids in the various joints.

#### **OSTEOARTHRITIS, ARTHROSIS, ARTHRITIS**

**Recommended protocol:** 30 min. per day for 6 weeks

#### **JOINT PAIN**

**Recommended protocol:** from 15 to 40 min. per day for 3 weeks

#### **BACK PAIN**

**Recommended protocol:** from 20 to 45 min. per day for 3 weeks

**ALGODYSTROPHY/SUDECK'S DISEASES:** this program can be used in case of diagnosis of algodystrophic syndrome following the immobilization of a limb with a plaster repairing a fracture or in cases of repeated microtrauma, especially in the foot, in the instep, in the wrist and hand. The affected limb usually presents in a first phase edema, redness, heat and intense pain, especially under load.

**Recommended protocol:** 4-6 hours a day for 4-8 weeks

**HIP AND KNEE PROSTHESES:** these specific programs are suitable for recovery after an implant. In fact, pulsed electromagnetic fields favor the implantation of the prosthesis and any bone grafts. As for the application times, the scientific literature suggests treatments of at least 3-4 hours a day, but also in this case the treating doctor may prescribe different application times.

***Recommended protocol:*** 3-4 hours a days for 60 days

**POST SURGERY OF THE KNEE:** these are specific programs to be used after reconstruction of the anterior cruciate ligament (ACL) or after a cleansing of the cartilage. In these cases, the use of pulsed magnetic fields, from the first days after surgery, reduces pain, edema and inflammation allowing a faster recovery.

***Recommended protocol:*** 4-6 hours a days for at least 60 days

**CARPAL TUNNEL:** the program is indicated from the first manifestations of the disorder. It is at this stage, therefore, that clearer improvements can be perceived. Carpal tunnel syndrome, in fact, is a pathology due to the compression of the median nerve, which from the forearm descends to the hand passing through a channel called the carpal tunnel. The magnetic fields will contribute to the reduction of pain, will have an anti-inflammatory effect and will allow an improvement in the mobility of the hand and fingers.

***Recommended protocol:*** a cycle of 30' per day for at least 15 days.  
If necessary repeat another cycle

**TENDINITIS, EPICONDYLITIS, HEADSET DISORDERS OF ROTATORS:** these programs have been inserted to treat inflammatory processes localized in the tendons and insertional disorders. The solenoids should be positioned over the painful area and, when possible, opposed positioning is preferred. Treatment with electromagnetic fields can be carried out both during the acute phase, perhaps in combination with other physical therapies or drugs prescribed by your doctor, and during the subacute phase as a conservative treatment.

#### **TENDINITES, EPICONDYLITIS**

***Recommended protocol:*** 30 min. per day 5 times a week for at least 3 weeks

#### **ROTATOR CUFF TENDON DISORDERS**

***Recommended protocol:*** 3-8 hours per day for 4 weeks

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DOMINO S.R.L. - Via Vittorio Veneto, 52 - 31013 Codognè (TV) - Tel. (+39) 0438.7933

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