Posture analysis

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**Podoscopes**

**02991 PODOLUX**
This is a podoscope that is used to analyse the plantar loading, and allows to obtain a real view of the sole and to highlight the points of greatest and least load. It has a top lit by energy efficient LED lights that are high power and long-life. The height of the device off the floor promotes easy access for the aged or people with limited motor capacity. The ample support base for the feet also favours comfortable, free positioning. The device is light weight and can be moved easily. It comes with a transparent, removable protective film. Turning off the device is provided with direct disconnection of the power cord from the power supply. The device operates in low-energy consumption. Safe working load: 170 kg; Dimensions: 53,5 x 40 x 17 h cm; Weight: 9 kg.

**02992 PODOCOLOR**
This podoscope comes with a control that is used to adjust the intensity and colour of the light source, in order to achieve better viewing of the imprint, according to the user’s needs. It allows to obtain a real view of the soles of the feet and to highlight points of greatest and least loads thanks to an energy efficient LED light source that is high power and long-life. The height of the device off the floor promotes easy access for the aged or people with limited motor capacity. The ample support base for the feet also favours comfortable, free positioning. The device is light weight and can be moved easily. It comes with a transparent, removable protective film. Turning off the device is provided with direct disconnection of the power cord from the power supply. The device operates in low-energy consumption. Safe working load: 170 kg; Dimensions: 53,5 x 40 x 17 h cm; Weight: 9 kg.

**ACCESSORIES**

**AC0584 PROTECTIVE FILM**
A protective accessory for the podoscope. It’s made of transparent plastic and is easy to remove. It is ideal for applying to articles 02991 PODOLUX and 02992 PODOCOLOR.

**AC0677 CABLE SWITCH**
It’s possible to integrate the podoscope code 02991 or 02992 with specific switch off to prevent the removal of the cable from the wall outlet.

**02049 HINDFOOT PROTRACTOR**
The hindfoot protractor is a tool designed to measure the alignment of the child’s hindfoot. It consists of a polygonal plexiglas which embodies a protractor scale, a needle and a base that keeps it upright.

The video provides an overview of the possible postural analyses, using various devices as well as acquiring and comparing images at different times. As part of this type of examination, the podoscope is still an essential observation tool since the first stages of the developmental age.
Photographic analysis of the feet

02990 LUX PODOSCOPE
It is a typical device for analysing the foot type (normal / cavus / flat) of the subject being examined. It consists of a lacquered wood frame, a crystal surface and a mirror below. Double side lighting provides a visual image of foot pressure and a representation of load distribution points. “Postural Safe” - code 03006 can be ordered as an accessory to help patient feels safe while standing on the platform. Safe working load: 200 kg; Dimensions: 46 x 55 x 33 h cm; Weight: 15 kg

02997 LUX PODOSCOPE WITH COLORED LIGHT
Podoscope with same features of “Lux Podoscope” - code 02990, but with the possibility of changing the color of the plantar imprint. Safe working load: 200 kg; Dimensions: 46 x 55 x 33 h cm; Weight: 15 kg

02993 FOOT ANALYZER 2.0
The foot analyzer consists of a platform with two webcams and GPS software for acquisition and handling of images for foot pressure and heels. It can be combined only with Lux Podoscope code 02990 and 02997. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS software pre-installed. Dimensions 40 x 33 x 39,5 h cm; Weight: 5 kg

03006 POSTURAL SAFE
This item provides greater safety to the individual when he stands on a podoscope. It consists of a base, aluminum side bars and handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 200 kg; Dimensions: 75 x 100 x 125 h cm; Weight: 40 kg

01799 COMPUTER
Computer is provided with Windows operating system in English version. The end user can change easily the language version. The GPS software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.
# Photographic analysis of the feet

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>02990</td>
<td>Lux Podoscope</td>
<td>It is a typical device for analysing the foot type (normal / cavus / flat) of the subject being examined. It consists of a lacquered wood frame, a crystal surface and a mirror below. Double side lighting provides a visual image of foot pressure and a representation of load distribution points. “Postural Safe” - code 03006 can be ordered as an accessory to help patient feel safe while standing on the platform. Safe working load: 200 kg; Dimensions: cm 46 x 55 x 33 h; Weight: 15 kg</td>
</tr>
<tr>
<td>02993</td>
<td>Foot Analyzer 2.0</td>
<td>The foot analyzer consists of a platform with two webcams and a CD with GPS software for acquisition and handling of images for foot pressure and heels. It can be combined only with Lux Podoscope code 02990 and 02997. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS software pre-installed. Dimensions cm 40 x 33 x 39,5 h; Weight: kg 5</td>
</tr>
<tr>
<td>02999</td>
<td>Desk Top 2.0</td>
<td>Desk for the computer, high (to be used while standing or with a high stool). It is made of transparent plastic material, with two extra shelves for fitting a printer or other accessories. Dimensions: 70 x 60 x 99,5 h. Weight: kg 47,5</td>
</tr>
<tr>
<td>02997</td>
<td>Podoscope Color</td>
<td>Podoscope with same features of “Lux Podoscope” - code 02990, but with the possibility of changing the color of the plantar imprint.</td>
</tr>
<tr>
<td>02997</td>
<td>Foot Analyzer Colors</td>
<td>The foot analyzer consists of a platform with two webcams and a CD with GPS software for acquisition and handling of images for foot pressure and heels. It can be combined only with Lux Podoscope code 02990 and 02997. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS software pre-installed. Dimensions cm 40 x 33 x 39,5 h; Weight: kg 5</td>
</tr>
<tr>
<td>03006</td>
<td>Postural Safe</td>
<td>This item provides greater safety to the individual when he stands on a podoscope. It consists of a base, aluminum side bars and handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 200 kg; Dimensions: cm 75 x 100 x h 125; Weight: 40 kg</td>
</tr>
</tbody>
</table>

**01799 Postural Data Storage**

Computer is provided with Windows operating system in English version. The end user can change easily the language version. The GPS software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.

**02104 Postural Data Evidence**

To print the patient report.

**02105 Postural Data Display**

**AC0768 Cable HDMI**

Cable to connect the projector to your PC.
Proposal of posture analysis laboratory for photographic acquisition of the soles of the feet and hindfoot. The required devices are the LUX PODOSCOPE code 02990 and the FOOT ANALYZER 2.0 code 02993.

**02106 GPS 110 POSTURAL LAB**

1. **02990** LUX PODOSCOPE (or 02997 Lux podoscope with colored light)
2. **02993** FOOT ANALYZER 2.0
3. **02999** DESK TOP 2.0
4. **01799** POSTURAL DATA STORAGE
5. **02105** POSTURAL DATA DISPLAY
6. **02104** POSTURAL DATA EVIDENCE
7. **03006** POSTURAL SAFE
   (not illustrated)
03002 TOTAL POSTURE
It is a device typically used for analysing posture in the frontal, posterior and lateral planes. The person must stand with their feet in the positions indicated on the platform. The device consists of a platform, two aluminum side bars, measuring indicators with plumb line for postural reference (Barré’s vertical evaluation), and an adjustable mirror on top. The image reflected in this upper mirror makes it possible to observe whether there is any rotation of the shoulders, and to what extent. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 200 kg; Dimensions 60 x 66 x 220 h cm; Weight: 19 kg

03003 TOTAL POSTURE WALL
Alternatively to the TOTAL POSTURE - code 03002 when the professional has a limited space it’s possible to buy only the upper mirror with the needed brackets and hardware for application to the wall. Dimensions: 55,5 x 38 x 35 cm; Weight: 7 kg.

"The Barré vertical exam is also to be carried out by analyzing the sagittal plane. In this case, the plumbline is placed on the cluneal-thoracic and occipital prominences and on the practical side, is the best system for analyzing the sagittal plane. In order to make a clinical-practical evaluation, we use these landmarks and can have: a situation in which these points are aligned (cases A and B) with accentuation of the curves; case C in which the most prominent point of the thoracic kyphosis is behind the centre of gravity with respect to the cluneal prominence, or case D in which the thoracic column is ahead of the centre of gravity with respect to the cluneal prominence. Case E are aligned points but a rectification of the curves exists."

ACCESSORY
AC0870 ELASTIC GRID
A set of elastics can be supplied with the needed supports for application to the TOTAL POSTURE - code 03002 as visual references, when not foreseen photographic acquisition by means of the GPS software.

PHOTOS COMPARISON (GPS 5.0 software) — Easy search and fast retrieval of photos from a patient’s database is a remarkable feature. This function of the Chinesport software is called “Grid” because all the photos recorded are arranged in a grid by date and position used for the analysis. Two photos can be selected for comparison by just clicking on them.
GPS 120 Postural lab

Proposal of posture analysis laboratory for postural analysis with photographic acquisition of the different body segments. The required devices are the TOTAL POSTURE code 03002 and the PHYSICAL ANALYZER 2.0 code 02994.

02108 GPS 120 POSTURAL LAB

1. 02994 PHYSICAL ANALYZER 2.0
2. 03002 TOTAL POSTURE
3. 01799 POSTURAL DATA STORAGE
4. 02105 POSTURAL DATA DISPLAY
5. 02104 POSTURAL DATA EVIDENCE
6. 02999 DESKTOP 2.0

Note: The illustrated TOTAL POSTURE - code 03002 in the picture is with the accessory ELASTIC GRID - code AC0870.

02994 PHYSICAL ANALYSER 2.0

It consists of a platform with an aluminum rod along which one webcam slides vertically. It is supplied with the GPS software that allows acquiring and handling the images of the different body segments and of the foot pressure. It can be used in combination with the Total posture – code 03002. The photo covers the entire body of the person examined, and must also include the mirror at the top. Usually the first position is frontal, with the person looking in the operator’s direction. The person is asked to take up a natural position and look straight ahead. Typically four photos are acquired: front, left side, back, and right side. The person follows the outline on the platform to position the feet correctly. Another reference point is the centre of the malleolus bone, which must be at right angles and centred in relation to the straight line on the platform for each of the positions indicated. Correct positioning of the feet on the front / rear and sagittal plane allows photography to be repeated at later stages. Once initial calibration operations have been completed, angular or linear measurements can be taken for various areas of the body, and directly on individual photograph. The measurements taken can be saved along with the photograph itself, in the patient’s electronic folder for the date of the examination. The photo may also show virtual vertical and horizontal lines as a reference for the measurements to be taken. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS software pre-installed. Dimensions cm 40 x 33 x 123 h; Weight: kg 5
Photographic analysis of the posture

**02990 LUX PODOSCOPE**
It is a typical device for analysing the foot type (normal / cavus / flat) of the subject being examined. It consists of a lacquered wood frame, a crystal surface and a mirror below. Double side lighting provides a visual image of foot pressure and a representation of load distribution points. “Postural Safe” - code 03006 can be ordered as an accessory to help patient feel safe while standing on the platform. Working load: 200 kg; Dimensions: cm 46 x 55 x 33 h; Weight: 15 kg

**02997 PODOSCOPE COLOR**
Podoscope with same features of “Lux Podoscope” - code 02990, but with the possibility of changing the color of the plantar imprint.

**03002 TOTAL POSTURE**
It is a device typically used for analysing posture in the frontal, posterior and lateral planes. The person must stand with their feet in the positions indicated on the platform. The device consists of a platform, two aluminum side bars, measuring indicators with plumb line for postural reference (Barré’s vertical evaluation), and an adjustable mirror on top. The device can be ordered separately. Dimensions: 60 x 66 x 220 h cm. Weight: 20 kg; Capacity 200 kg

**03006 POSTURAL SAFE**
This item provides greater safety to the individual when he stands on a podoscope. It consists of a base, aluminum side bars and handrail. The device can be ordered separately or be part of a postural workstation (see following pages). Working safety load: 200 kg; Dimensions: cm 75 x 100 x h 125; Weight: 40 kg

**02995 BODY ANALYZER 2.0**
The device allows a photographic analysis of the foot, the hindfoot and the whole body sections. The Body Analyzer consist in a base with supports holding three webcams. GPS software CD is bundled with the device. Dimensions: cm 40 x 33 x 123 h; Weight: 5 kg

**02104 POSTURAL DATA EVIDENCE**
To print the patient report.

**02105 POSTURAL DATA DISPLAY**

**AC0768 CABLE HDMI**
Connection cable for the projector to the PC. The cable is included as standard in case of purchasing one of our postural labs.

**01799 POSTURAL DATA STORAGE**
Computer is provided with Windows operating system in English version. The end user can change easily the language version. The GPS software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.

**02999 DESK TOP 2.0**
Desk for the computer, high (to be used while standing or with a high stool). It is made of transparent plastic material, with two extra shelves for fitting a printer or other accessories. Dimensions: 70 x 60 x 99,5 h. Weight: kg 47,5
Proposal of posture analysis laboratory for photographic acquisition of the soles of the feet, hindfoot, and the different body segments. The required devices are the LUX PODOSCOPE code 02990, the TOTAL POSTURE code 03002, and the BODY ANALYZER 2.0 code 02995.

**02107 GPS 130 POSTURAL LAB**

1. 02990 LUX PODOSCOPE (or 02997 Lux podoscope with colored light)
2. 02995 BODY ANALYZER 2.0
3. 03002 TOTAL POSTURE
4. 01799 POSTURAL DATA STORAGE
5. 02105 POSTURAL DATA DISPLAY
6. 02104 POSTURAL DATA EVIDENCE
7. 02999 DESK TOP 2.0
8. 03006 POSTURAL SAFE (not illustrated)

Note: The illustrated TOTAL POSTURE - code 03002 in the picture is with the accessory ELASTIC GRID - code AC0870.
Postural analysis - Introduction to Stabilometry

Stabilometry has introduced measurement in the observation of orthostatic posture control phenomena. Thanks to stabilometry it is possible to learn the distribution of a certain number of parameters that characterize the “normal” orthostatic posture behaviour.

**General information - Posture and barycentre**

Every mass or body is composed of a multitude of small particles attracted downwards by the force of gravity. This attraction to which the particles of the body are subject produces a system of forces that are practically parallel and the result of these forces acting vertically downwards is the weight of the body. It is possible to localise a point in which one can apply a single force that is equivalent, in terms of intensity, to the weight of the body and which acts vertically upwards, so as to confer on the body a state of equilibrium in every position.

This point is called the centre of gravity or barycentre, and can be described as the point in which the entire weight of the body is concentrated. The barycentre is the exact centre of the mass of a subject, i.e. its geometric centre when the subject has an even and symmetrically distributed mass. If the mass, as in the human body, is distributed asymmetrically in relation to the horizontal plane, the barycentre will be located proportionately closer to the larger and heavier area.

Furthermore, the centre of gravity of two segments is always on the line that joins the centre of gravity of these segments, i.e. in a point located in an intermediate position with respect to the centres of gravity of the two segments, but proportionately closer to the centre of gravity of the heavier segment. In an upright posture, if one extends the vertical line, from the centre of gravity to the contact area, it will be in the centre of the contact area (an almost trapezoidal polygon, constituted by the lateral profile of the feet and by the two lines constituting the front and rear part of the feet), ± 3 cm in front of the ankle.

The line of gravity therefore passes along the sagittal plane about halfway between the tibiotalar and metatarsal-phalangeal joints, and along the frontal plane, in the well distributed support between the two feet. Around the line of gravity the body is hypothetically in a position of equilibrium, implying a uniform distribution of body weight and a stable position of each joint.

**The importance of foot**

The foot is fundamental for dynamic and postural functions, and as suggested by the studies of French biomechanics expert Kapandji, we can consider the plantar surface a vault supported by three arches:

A. Towards the 1st metatarsal;  
B. Towards the 5th metatarsal;  
C. Towards the heel.

**Measurement repeatability**

Using the Podata™ diagnostic unit, the software allows measuring by virtually moving the load cells (the elements that “measure” the weight) so as to place them near the heel, the 1st and the 5th metatarsal. This operation has a great advantage: it will no longer be necessary to force a patient to assume certain positions — especially unusual positions — on the platform to ensure the stabilometric examination can be repeated. The patient can stand on the platform in a comfortable upright stance. The professional will move the load cells virtually to the preset points, thus ensuring the repeatability of measurement. Patented invention.
Stabilometric footboard

03001 PODATA™
Stabilometry footboard, bipodalic with incorporated podoscope that can be directly connected to a computer with USB ports. The device is featured by six load cells that can be positioned to detect the distribution of the body weight in the points corresponding to the 1st metatarsal, the 5th metatarsal and heel of each foot. The GPS software makes possible to position the six load cells at the pre-set points under each foot and this operation not only simplifies the preliminary steps before the test, but eliminates completely any predefined positioning of the patient as necessary for similar equipment. This movement of the load cells guarantees repeatability of the measurements, even at a later stage. It is also used for measuring the mid position of the body’s centre of gravity and its small movements around that position. The device has been certified as a class I medical device, with a measuring function. The stabilometric test can be done under various “examination conditions”, in looking for afferents that affect the person’s postural behavior. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS software pre-installed. Working safety load: 200 kg; Dimensions: 43 x 68 x 33 h cm. Weight: 31 kg

ACCESSORI:
02998 BODY SAFE
This item provides greater safety to the individual when he stands on the PODATA device. It is installed directly to the device and consists of aluminum side bars and handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 200 kg; Dimensions: cm 75 x 43 x 122 h; Weight: 9 kg

AC0868 STEP
This step makes easier to get on the platform of the PODATA device. Working safety load: 200 kg; Dimensions: cm 38 x 40,3 x 14 h; Weight: 5 kg

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>ARTICLE CODE</th>
<th>03001 PODATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMDN-CND</td>
<td>N.D./V9099</td>
</tr>
</tbody>
</table>
| Power supply | Primary double insulation 100÷240Vac-50/60Hz 0,25A  
                Secondary 12Vdc 1,25A |
| Fuses        | internal, not inspectionable |
| Pc connection| USB 2.0     |
| Dimensions (mm) | 680 x 434 x 330 h |
| Platform dimensions (mm) | 330 x 400 |
| Weight (kg)  | 31          |
| Safety working load (kg) | 200         |

WHEN EXAMINING A PATIENT’S STABILITY (GPS software) – the software provides interesting data as to: localization on the ground of a person’s barycentre projection; the dynamic recording of such projection at the time of observation; the localization and dynamics of the barycentre of either foot; The distribution of the load between right and left foot; The distribution of the load between the 1st metatarsal, 5th metatarsal and heel.
**GPS 500 Posture analysis system**

**03001 PODATA™**
Stabilometry footboard, bipodalic with incorporated podscape that can be directly connected to a computer with USB ports. The device has been certified as a class I medical device, with a measuring function. The stabimetric test can be done under various “examination conditions”, in looking for afferents that affect the person’s postural behavior. Working safety load: 200 kg; Dimensions: 43 x 68 x 33 h cm. Weight: 31 kg

**AC0868 STEP**
This step makes easier to get on the platform of the PODATA device. Working safety load: 200 kg; Dimensions: 38 x 40,3 x 14 h cm; Weight: 5 kg

**02998 BODY SAFE**
This item provides greater safety to the individual when he stands on the PODATA device. It is installed directly to the device and is consists of aluminum side bars and handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 200 kg; Dimensions: 75 x 43 x 122 h cm; Weight: 9 kg

**03004 BACK FOOT 2.0**
The foot analyzer consists of a platform with one webcam and a CD with GPS software for acquisition and handling of images for foot pressure and heels. It can be combined only with PODATA code 03001. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS software pre-installed. Dimensions: 40 x 33 x 39,5 h cm; Weight: 5 kg

**02999 DESK TOP 2.0**
Desk for the computer, high (to be used while standing or with a high stool). It is made of transparent plastic material, with two extra shelves for fitting a printer or other accessories. Dimensions: 70 x 60 x 99,5 h cm. Weight: 47,5 kg

**01799 POSTURAL DATA STORAGE**
Computer is provided with Windows operating system in English version. The end user can change easily the language version. The GPS software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.

**02105 POSTURAL DATA DISPLAY**
AC0768 CABLE HDMI
Connection cable for the projector to the PC. The cable is included as standard in case of purchasing one of our postural labs.

**02104 POSTURAL DATA EVIDENCE**
To print the patient report.
Proposal of posture analysis laboratory for photographic acquisition of the soles of the feet, hindfoot, and stabilometric data. The required devices are the PODATA code 03001, and the BACK FOOT 2.0 code 03004.

**03007 GPS 500 POSTURAL LAB**

1. 03001 PODATA™
2. 03004 BACK FOOT
3. AC0868 STEP
4. 02999 DESK TOP 2.0
5. 01799 POSTURAL DATA STORAGE
6. 02105 POSTURAL DATA DISPLAY
7. 02104 POSTURAL DATA EVIDENCE
8. 02998 BODY SAFE

(not illustrated)
GPS 600 Posture analysis system

03001 PODATA™
Stabilometry footboard, bipodalic with incorporated podoscope that can be directly connected to a computer with USB ports. The device has been certified as a class I medical device, with a measuring function. The stabilometric test can be done under various “examination conditions”, in looking for afferents that affect the person’s postural behavior. Working safety load: 200 kg; Dimensions: 43 x 68 x 33 h cm; Weight: 31 kg

03005 BODY FOOT 2.0
The device allows a photographic analysis of the hindfoot and the different body segments. It is recommended to be used with the PODATA device that includes the podoscope function as well. It consists of a base with supports holding two webcams. GPS software is provided with the device. Dimensions: 40 x 33 x 123 h cm; Weight: 5 kg

AC0868 STEP
This step makes it easier to get on the platform of the PODATA device. Working safety load: 200 kg; Dimensions: 38 x 40,3 x 14 h cm; Weight: 5 kg

01799 POSTURAL DATA STORAGE
Computer is provided with Windows operating system in English version. The end user can change easily the language version. The GPS software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.

03002 TOTAL POSTURE
It is a device typically used for analysing posture in the frontal, posterior and lateral planes. The person must stand with their feet in the positions indicated on the platform. The device consists of a platform, two aluminum side bars, measuring indicators with plumb line for postural reference (Barré’s vertical evaluation), and an adjustable mirror on top. The device can be ordered separately. Dimensions: 60 x 66 x 220 h cm. Weight: 20 kg; Capacity 200 kg

AC0870 ELASTIC GRID
A set of elastics can be supplied with the needed supports for application to the TOTAL POSTURE - code 03002 as visual references.

02104 POSTURAL DATA EVIDENCE
To print the patient report.

02999 DESK TOP 2.0
Desk for the computer, high (to be used while standing or with a high stool). It is made of transparent plastic material, with two extra shelves for fitting a printer or other accessories. Dimensions: 70 x 60 x 99,5 h cm. Weight: 47,5 kg

02998 BODY SAFE
This item provides greater safety to the individual when he stands on the PODATA device. It is installed directly to the device and is consists of aluminum side bars and handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 200 kg; Dimensions: 75 x 43 x 122 h cm; Weight: 9 kg

02105 POSTURAL DATA DISPLAY
AC0768 CABLE HDMI
Connection cable for the projector to the PC. The cable is included as standard in case of purchasing one of our postural labs.
Proposal of posture analysis laboratory for photographic acquisition of the soles of the feet, hindfoot, different body segments and stabilometric data. The required devices are the PODATA code 03001, the TOTAL POSTURE code 03002, and the BODY FOOT 2.0 code 03005.

**03008 GPS 600 POSTURAL LAB**

1. **03001** PODATA™
2. **03005** BODY FOOT
3. **03002** TOTAL POSTURE
4. **02998** BODY SAFE
5. **02999** DESK TOP 2.0
6. **01799** POSTURAL DATA STORAGE
7. **02105** POSTURAL DATA DISPLAY
8. **02104** POSTURAL DATA EVIDENCE
9. **AC0868** STEP
Collecting data and processing imaging

The software is modular, i.e. functions are activated depending on the chosen analysis systems. The software can be upgraded with more functions at a later stage, adding more or different diagnostic units to the posture analysis system in use. The software is set to be operated in a multilingual environment. The user can add a new language if the desired language is not available, by entering a translation from English. The software also has an online help feature.

“ANAMNESIS” AND EXAMINATION DATA

A postural examination starts with an interview in which the doctor gathers all useful information on a patient’s life and previous experiences; such information can play an important part in identifying causes of pain and improper postural habits. It is therefore essential to record these data: the software allows creating a patient file to save personal data and the initial “anamnesis”, to which data recorded in the next examinations will be added at the scheduled times. Medical advisors have been consulted to develop the anamnesis function based on everyday professional experience. For this reason, it also includes a series of closed-end questions to make it easier to fill in data (e.g. medications, eating habits, etc.)

The medical record, with any examination data, can be printed and handed in to a patient who may wish to consult other professionals, according to a multidisciplinary approach.

PHOTOS OF THE PATIENT UNDER EXAMINATION

Digital image acquisition for each body segment of the patient under examination (feet, knees, torso, cervical region, full body, mouth, etc.) is an essential feature of our posture analysis systems and is the first stage in the procedure. Professionals can request more webcams in addition to the ones supplied, to acquire any other types of photos they may be interested in. Professionals can choose from a range of “test conditions”, that is a series of test situations, while investigating what afferent pathways have a negative effect on patient posture during examination (e.g. eyes open / closed, teeth open / clenched, face to the right / left, etc.). Such test conditions can also be customised. Finally, all the photos can be stored inside a folder named after the patient and by date of examination. One more remarkable feature is that all the information concerning the examination, from photos to quantitative data, can be exported to be used in future clinical investigations and statistical applications.

System requirements: Processor: Intel i3 or AMD; RAM memory: 4 Gb; At least 4 USB 2.0 ports; Resolution: suggested 1920x1200; Operating system: Windows 7 or newer.
The central nervous system, through its extero- and proprioceptive receptors, is able to identify the best postural strategies, moment by moment, adapting them to the contingent situation. As regards the upright stance, this efficiency is manifested with the distribution of body weight over both feet. More specifically, when examining a patient’s stability, the software provides interesting data as to:

- localisation on the ground of a person’s barycentre projection
- the dynamic recording of such projection at the time of observation
- the localisation and dynamics of the barycentre of either foot;
- The distribution of the load between right and left foot;
- The distribution of the load between the 1st metatarsal, 5th metatarsal and heel.

These data are valuable for posture analysis in investigating the causes of improper posture habits and possible dysfunctions, as well as in identifying the best prevention measures and / or therapy solutions. It is important to remember that deviating to the right or left is not directly connected to being right- or left-handed. Please note that a multidisciplinary treatment is always advisable and the software allows all of the patient’s quantitative data and photos to be exported for clinical examinations and statistical applications.

Professionals can choose from a range of “test conditions”, that is a series of test situations, while investigating what postural afferents have a negative effect on patient posture upon examination (e.g. eyes open / closed, teeth open / clenched, face to the right / left, etc.). Such test conditions can also be customised.

FOURIER ANALYSIS allows identifying which body parts are performing movements and their frequency as well. The whole body is represented in the fundamental frequency analysis while other body parts are represented in the harmonics displayed in the graphs. The analysis is carried out in the 3 axes in space, analysing lateral and longitudinal movements and the movements in the Z axis (vertical), that is the analysis of the variation in weight of a patient in his/her natural swinging motion.

01936.DVD POSTURE ANALYSIS – A THEORETICAL AND PRACTICAL COURSE
This video-course aims at giving an outline of the afferents in posture and their overall implications on posture. The resulting posture analysis is conducted on a practical level, describing the tests and examinations that can be carried out on an individual, as well as the equipment available for evaluating the development of improper posture over time. It consists of 3 DVDs. Duration: over 3 hours; Speaker: Dr. Andrea Pelosi; Available languages: Italian, English, German.

01897 FUNCTIONAL ASSESSMENTS FOR POSTURAL PATHOLOGIES
Excerpt from the book “Oral interferences in postural and cervical-mandibular-cranial syndromes” chapter 3 and 4. The volume is the result of 20 years of constant research carried out by the author on posturology and, at the same time, broadmindedness and curiosity towards new relationships with disciplines deeply related such as speech therapy, otorhinolaryngology, not to mention osteopathy and chiropractic. English Edition; Author: Dr. Andrea Pelosi. Format 17 x 24; Pages: 60
SOFTWARE GPS - Photographic analysis

MEASUREMENTS AND SKELETON SIMULATION

A photo of a patient, of a body segment or in the position required for the analysis may be measured by professionals. Measurements can be taken after specific calibration; there are many types of measurements (linear, angular, angular between two segments, etc.). Virtual plumb-lines can also be drawn on the photo for further reference during postural analysis and to detect forms of dysmetria. Another function professionals may find interesting is the chance to produce a virtual representation of the entire skeleton - and of the vertebral column in particular - if adhesive markers are first attached to the suitable “anatomical landmarks” on the patient.
THE GRID AND DATA COMPARISON AT DIFFERENT TIMES

At the beginning of the examination it is advisable to record patient entry data (general and clinical data). Then the photo acquisition process can be started (webcam configuration is required prior to this). A photo recorded during examination can be immediately compared with a similar photo collected in previous sessions, to assess whether there have been any improvements in posture after a treatment. Another specific function, which can detect the slightest changes in posture, allows two photos, taken at different times, to be overlapped showing their outline and creating an animation. The patient can then be given a printed report showing this evidence. Easy search and fast retrieval of photos from a patient’s database is another remarkable feature. This function is called “Grid” because all the photos recorded are arranged in a grid by date and position used for the analysis. Two photos can be selected for comparison by just clicking on them.
01618 CERVICAL TEST
Rotation, flexo-extension and the left or right lateral flexion of the head are functionally very important parameters to check the symmetry and the normal excursion of the head that can be performed by the patient. Various means have been suggested to check these parameters, ranging from clinical observation to the use of goniometers and inclinometers. The “Cervical Test” is an electronic digital helmet for posture analysis and checks these movements within the space of the patient’s skull. The system has three Wheatstone bridges with magnetic space sensors that record the magnetic field incidence in a given sensible direction. The sensors are assembled orthogonally, allowing reading the earth’s magnetic field incident along the three space axes. In addition to this, the equipment uses a two-axis accelerometer, allowing the reading of its inclinations towards the gravity vector. This diagnostic unit can be integrated with all our posture analysis laboratories. The computer is not included.

This unit allows collecting data on the head movements of the subject through space: right/left flexion, flexion and extension, and rotation. It is possible to test the patient’s symmetry and normal range of movement.

01303 DELTA LEG
The Delta Leg is a non-invasive manual instrument for evaluating the heterometry of lower limbs without any load bearing. It consists of a bar with two orthogonal platforms: one is stationary, while the second moves along the longitudinal axis of the bar and is equipped with a pointer indicating the positive or negative numeric value of the heterometry on a millimetric scale on the upper surface of the bar. The “zero” value is set with reference to the stationary platform. The precise structure of the instrument, the mobile platform’s accurate sliding system and the millimetric scale allow fast and reliable measurement of the differences in length of the lower limbs with a margin of error of just a few millimetres. The instrument comes with a manual (code 01462). Dimensions: cm 45 x 28,5 x 22,5 h - kg 2

01462 DELTA LEG MANUAL
Guide to “Delta Leg”, a non-invasive manual instrument for evaluating the heterometry of lower limbs without any load bearing. Author: Dr. Flavio D’Osualdo (Director of Pediatric Rehabilitation Center in Udine - Italy); Available languages: Italian/English
06855 D’OSUALDO INCLINOMETER

The D’Osualdo Inclinometer is an instrument for measuring the Cobb and gibbus angles. The inclinometer is made of an almost-rectangular plexiglas element with a goniometric scale; a small rod (free to rotate) with a bubble is positioned at the centre of the scale. The free end of the rod has the reading index for the goniometric scale. The longest side of the rectangle has a recess in order to make its application on the patient easier (in the event that the spinous processes of the vertebrae are protruding). The inclinometer is a manual instrument, normally used in two clinical situations:
1. when measuring the rotation angle of the torso during the forward-directed flexion test;
2. when measuring the Cobb’s angle on X-rays (both in AP and LL projection), therefore both for scoliosis as well as kyphosis/lordosis. It comes with a manual (code 01304).

01304 D’OSUALDO INCLINOMETER MANUAL

Guide to the inclinometer, a non-invasive instrument for measuring the Cobb and gibbus angles. Author: Dr. Flavio D’Osualdo (Director of Pediatric Rehabilitation Center in Udine - Italy); Available languages: Italian/English/German/Spanish/French

01706 D’OSUALDO ARCOMETER

The arcometer is a manual device made up of a ruled bar bearing three perpendicular arms: the first one is fixed at one end, the central one is mobile on two axes and the third one mobile on one axis only. The ends of the three arms identify three points through which a single circumference can be drawn. Using the arcometer we can measure the chord and the rise. These two values allow us to calculate the radius of the curve and the Cobb’s angle by using a two entry table. The instrument comes with a table to calculate the Cobb’s angle (current use to integrate the clinical examination). The instrument comes with a manual (code 01769).

01769 D’OSUALDO ARCOMETER MANUAL

Guide to the Arcometer, a non-invasive instrument for measurement of kyphosis and lordosis. Author: Dr. Flavio D’Osualdo (Director of Pediatric Rehabilitation Center in Udine - Italy); Available languages: Italian/English

02049 HINDFOOT PROTRACTOR

The hindfoot protractor, or Pedi Protractor, is a small, simple and intuitive tool, designed to measure the alignment of the child’s hindfoot. It consists of a polygonal plexiglas which embodies a protractor scale, a needle and a base that keeps it upright. The tool is placed adjacent to the hindfoot, with the subject to be examined, remaining still. The needle is moved parallel to the hindfoot axis and the value of the valgus or the varus, is immediately shown in degrees. Due to variances in age and weight distribution (e.g.: on a single foot or both) of the child, determining the limits of normality cannot be expressed in absolute terms. However, regarding valgus, it is possible to pay closer attention with a span of more than 10° C. As for varus, any degree should be considered with care. In uncertain cases it is not so much the absolute value, as the course of time that will lead towards a physiological situation or not.
**Tools for posture analysis**

**06800 Goniometer**

**06810 Plumbline**

**06830 Analyzer**

This device allows analysing the difference in level of the iliac crests. For use in assessing dysmetry in the lower limbs.

**06135 Twin Mirror**

Twin-mirror is a device for viewing the patient’s global posture onto mirrors. Hinged, painted steel frame. Fixed to wall with the mirror orientation wheels that fold away. Dimensions 100 x 2 x 200 h cm

**06730 Set of Shims “G”**

1 shim, 0.5 cm
6 shims, 1 cm

**06061 Poster**

Foot morphology. Plasticized poster, non-glare, matte finish surface. Dimensions 66.5 x 48 h cm Italian Edition.

**M30 Normal Foot**

13 x 24 x 9 h cm - 0.4 kg

**M31 Flat Foot**

12 x 24 x 10 h cm - 0.4 kg

**M32 Cavus Foot**

13 x 23 x 10 h cm - 0.4 kg
Learning objectives:

Participants shall learn how myofascial structures adapt to poor postures in order to economize on movements and avoid pain in the joint movement range. A global postural analysis through GPS enables therapists to identify which groups are requiring treatment in order to regain appropriate posture and movement.

This course shall demonstrate how Sinthesi treatment tables have become an integral part of postural training and treatment for many therapists. With 8 independently mobile sections and uninterrupted, noiseless functions of movement control, therapists can offer a new and unique range of myofascial treatments that provide an efficient and effective treatment for many disorders.

Our Sinthesi tables allow therapists to effortlessly place patients in countless myofascial stretching postures that can be easily maintained for longer periods of time and without strain. In this relaxed position, various techniques can be applied to facilitate recovery in myofascial elongation, increase joint movement range and achieve an antalgic posture as a relief from acute pain. Also, Sinthesi tables provide the ideal starting position for exercises to stimulate central activation and for isometric muscular work.

The myofascial release techniques course is now available worldwide from Chinesport. It is the ideal starting point for trainee practitioners striving to improve their skills. Participants will learn how to use the unique MITO - Sinthesi therapy table within a global approach towards myofascial therapy, with the aim to restore the natural myofascial length and improve posture and movement.
• The website www.globalposturalsystem.com offers a free space to give visibility to all professionals using our posture analysis systems in Italy and abroad. The aim is to promote an interdisciplinary scientific community sharing hands-on experiences and involved in on-going research on posture and its possible alterations. This themed website will be promoted by web marketing campaigns. You can sign up for free.

• You can also view an outline of the training courses in the various posture-related subjects and scheduled both in Italy and abroad. The courses have been approved by the Ministry of Health and the lecturers are doctors and specialists.

• Technical support is available to help you if you have any queries or need more details about the software operation and capabilities. We also accept improvement suggestions. Specialised technicians monitor any submissions assigning priority and the appropriate response.

• The latest software releases can be downloaded for free by users in the download area. We also publish detailed scientific literature, such as degree theses, clinical research, books, editorials and testimonials.

Something about GPS Community

Chinesport Spa is involved in research and development of posture analysis systems and offers you the possibility of free subscription in a medical/scientific community called GPS Community.

Common denominator of the club is acknowledgment of importance of the posture, and the use of GPS software. Chinesport Spa offers to this community the support of experts.

GPS Community’s mission is to become the preferred place of relationships among all the professional end users for the following reasons:

• CONNECTION: users can share anonymous statistic elaboration and refers.

• RESEARCH: data base creation for the research and improvement of posture normalization standards.

• TRAINING: possibility for the members to participate at dedicated meetings, also introducing themselves like speakers with theirs works and case studies.

• UPDATE: possibility to download free software updates and articles correlated.

• PROMOTION: possibility of being visible like “Centre of studies in posture analysis” with indication for interested people how to find you for a possible visit.

• DEVELOPMENT: with all the ideas growing in the community we can improve implementation of GPS software; all suggestions will be registered and will be subject of priority.

Are you looking for a qualified professional to make a postural analysis complete and careful?
“HEALTHY POSTURE FOR HEALTHY MOVEMENT“
Chinesport Global Posture System Training Program

Chinesport also organises training events and detailed input on the question of posture by request, covering use of its analysis systems and proposed corrective therapies. It relies on the collaboration of leading doctors and other professionals with international experience.

An example is provided below that shows an initial training module that can be requested by those purchasing a GPS station. The course is not included in the purchase of the postural station.

Course Learning Objectives:

- Define posture
- Learn what affects posture and how posture affects human movement
- Explore all components of GPS
- Learn how to conduct tests
- Learn what measurements can be made and how they can be interpreted
- Explore how results can be communicated to patients

Healthy static posture is a prerequisite for healthy motion.
Body made from oven-baked epoxy powder coated aluminium profiles with built-in X-ray film clips. The various sections are held together with nylon corner joints. Lamp fitting gives off cold light with an acrylic opalescent white plate.

Power supply 220 V - 50 Hz
Colour temperature 4000 K

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**06225**
X-RAY VIEWER B
Square
43 x 12 x 43 h cm
3 fluorescent lamps 15 W
(50 W total)

**06215**
X-RAY VIEWER A
Horizontal
90 x 12 x 43 h cm
3 fluorescent lamps 33 W
(100 W total)

**06245**
X-RAY VIEWER C
Horizontal
127 x 12 x 43 h cm
3 fluorescent lamps 40 W
(120 W total)

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**XBF001**
H-V X-RAY VIEWERS
X-ray viewer with a pressed steel casing, epoxy powder coated, film holder and rolls. Original extruded opal diffuser, light source that provides evenly distributed cold light. Horizontal / vertical model. 220 V - 50/60 Hz;
Dimensions: (cm) 90 x 43 h

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**XUL002**
LED EXAMINATION LAMP
Provides 15,000 lux at a distance of 50 cm. Power 10W.
Colour rendering > 80% Colour temperature 3000 K. Operates at low voltage. Power supply 230V 50-60Hz Fitted with clamp for table mounting. Stand can be ordered separately.

**XUL003**
HALOGEN EXAMINATION LAMP
Halogen examination lamp. Provides 50,000 lux at a distance of 50 cm. Power 35W Colour rendering 95% Colour temperature 4000 K. Operates at low voltage. Power supply 230V 50-60Hz. Fitted with clamp for table mounting. Stand can be ordered separately.

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**XUL004**
LAMP STAND
Stand with 5 wheels for XUL 001-02-03 models.
Weight 8.8 kg.

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**ACCESSORY**
XUL002
LED EXAMINATION LAMP
Provides 15,000 lux at a distance of 50 cm. Power 10W.
Colour rendering > 80% Colour temperature 3000 K. Operates at low voltage. Power supply 230V 50-60Hz Fitted with clamp for table mounting. Stand can be ordered separately.

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**LAMPS**

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Horizontal and vertical flat X-ray viewer with LED technology. Thickness only 2.6 cm. Aluminium frame. Colour temperature 6500K and light level 2500 cd/cm2. Average lifespan of LEDs 50,000 hours. Power supply 110/220 V – 50/60 Hz.
Scales for medical-hospital use

In conformity with EEC, directive 90/384 class III and IIII calibration

01969
DIGITAL SCALE
Wide and extra-wide platform with non-slip dimpled mat, step-off function, automatic switching off. Graduation: 100 g, weight: 2.6 kg, battery supply. 43.3 x 37.3 x 5 h cm

01074
MECHANICAL FLOOR SCALE
Well suited for home use, dial, graduation: 1 kg, weight: 4 kg, 31.5 x 46.8 x 11 h cm

06525
PEAR-SHAPED SCALE
Mechanical painted steel scale. Dial, graduation: 1 kg, weight 4 kg, calibration: class IIII. 30 x 46 x 10 h cm

06600
WALL MOUNTED STADIOMETER
Folding, portable mechanical stadiometer, made of ABS plastic. Graduated scale 0.65-210 cm. Divisions 1 mm. Weight 2 kg

06500
COLUMN SCALE WITH STADIOMETER
Divisions 500 g, Capacity 150 kg
Dimensions 31 x 23 x 200 h cm

06500
COLUMN SCALE WITHOUT STADIOMETER
Dimensions 31 x 23 x 90 h cm

XWU005
PORTABLE STADIOMETER
Folding, portable mechanical stadiometer, made of ABS plastic. Graduated scale 0.65-210 cm. Divisions 1 mm. Weight 2 kg

01044
COLUMN SCALE WITH STADIOMETER
Dimensions 31 x 23 x 90 h cm

XWU004
DIGITAL COLUMN SCALE
Digital column scale with the following functions: weight, tare, BMI, hold, mother/infant weight, zeroing, programmable auto switch-off. Electrical power supply with rechargeable batteries. Data viewer with two LCD displays. RS232 port. Adjustable feet. Divisions 50-100 g. Capacity 200 kg. Dimensions 36 x 57 x 111 h cm
Scales for medical-hospital use

In conformity with EEC, directive 90/384 class III and IIII calibration

XWU002
SPECIAL SCALE
Wide platform electronic person scale, with non-slip surface, designed especially for obese people. Easy to transport thanks to the wheels provided. Electrical power supply with rechargeable batteries. Double LCD display for viewing data. RS232 port. Adjustable feet. Division 100 g. Precision class III. Capacity 300 kg. Weight 14 kg. Dimensions: (cm) 55x55x9.

ACCESSORY
XWU007 DISPLAY STAND
An external floor stand for LCD display. The user can decide to connect the cable inside or outside column.

Thanks to the new multifunction display with double LCD, the weight, the height and the BMI can be displayed at the same time for a faster and more practical use of time.

XWU003
PLATFORM SCALE
Electronic professional scale with multitask platform and body mass index BMI, for medical and hospital use. The display has a 5 memory feature to store the weight of the wheelchair in order to calculate the patient net weight. The display can be fixed to a wall through metal brackets. An external display stand is available as optional accessory - code XWU007. The platform can be moved thanks to two lateral wheels. Power supply: rechargeable battery (40-hour life) with external charger. RS232 interface. Division precision: 100 g. Capacity 300 kg. Dimensions: (cm) 88x115x7 h

XWU001
CHAIR SCALE
Electronic person scale designed to offer greatest comfort. Chair accessible from three sides, facilitated by means of foot rests and swing away armrests, fitted with wheels, two of which have brakes. Electrical power supply with rechargeable batteries. Double LCD display for viewing data. RS232 port. Division 100 g. Precision class III. Capacity 300 kg. Weight 25 kg. Dimensions: (cm) 84x62x100.

XWU006
BABY WEIGHING SCALE
Paediatric scale for babies weighing 3 to 6 kg, with 56x25 cm weighing tray. Functions available: weight, tare, hold function, printing, zeroing, and automatic switch-off. Viewer with 25 cm LCD display. RS232 port Adjustable feet. Division 1/2 g. Precision class III. Dimensions: (cm) 56x38x14 h. By request this model can be supplied with a greater capacity.