PULSOXIMETRO
PULSE OXIMETER
PULSOXYMÈTRE
PULSOXIMETRO

MANUALE D'USO E MANUTENZIONE
USE AND MAINTENANCE BOOK
INSTRUCTIONS DE FONCIONNEMENT ET ENTRETIEN
MANUAL DE USO Y MANTENIMIENTO

ATTENZIONE: Gli operatori devono leggere e capire completamente questo manuale prima di utilizzare il prodotto.
ATTENTION: *The operators must carefully read and completely understand the present manual before using the product.*
AVIS: Les opérateurs doivent lire et bien comprendre ce manuel avant d'utiliser le produit.
ATENCIÓN: *Los operadores tienen que leer y entender completamente este manual antes de utilizar el producto.*

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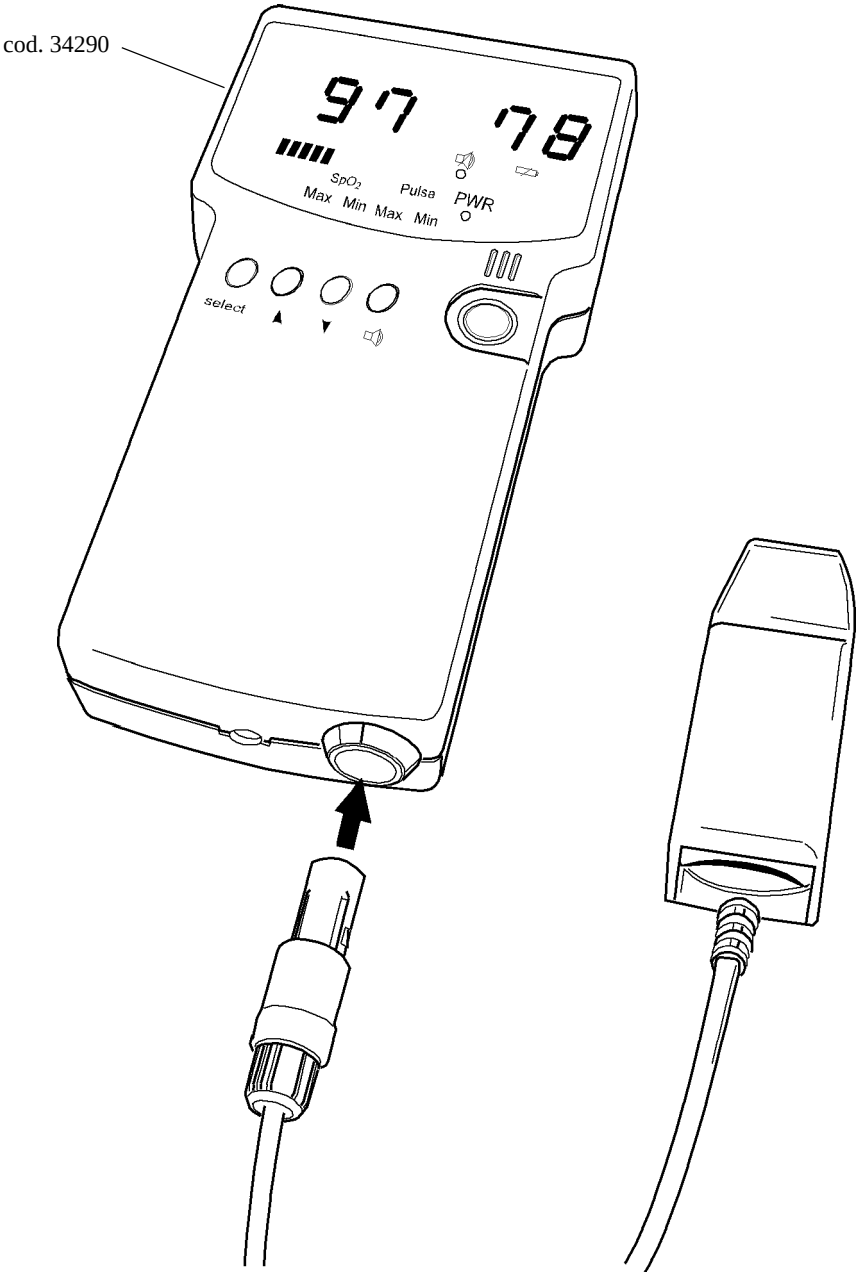
cod. 34290
97
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SpO2
Pulse
Max
Min
Max
Min
PWR
select

FEATURES

Product description

COMDEK MD-600P portable pulse oximeter (cod. 34290) is an instrument with high accuracy and reliable performance.
This hand-held unit is easy to operate with the functions of adjustable alarm settings for oxygen saturation and pulse rate.

The product presents the following features:
- high accuracy
- quick assessment of Oxygen saturation and Pulse Rate
- SpO_2 and Pulse Rate display
- adjustable SpO_2 and Pulse alarm settings
- clear numerical LED display
- compact, light weight and easy to operate
- reliable quality and excellent sales service

Specifications

Oxigen Saturation Range: 0% to 100%
Pulse Rate Range: 30 bpm to 250 bpm

Display:
Oxygen saturation, Pulse Rate, Pot, Prb, Pulse search indicator & Low battery indicator

SpO_2 Accuracy: ±2% between 100% to80%
±3% between 79% to 65%
below 65%, not specified

Pulse Accuracy: ±1% of full scale

Default Alarm Settings:
- SpO_2 Upper Limit:: 100%
- SpO_2 Lower Limit : 85%
- Pulse Rate Upper Limit: 150 bpm
- Pulse Rate Lower Limit: 30 bpm

Power Requirements:
- DC 6 Volts by 4 pieces AA size batteries
- AC AC adapter output DC 6 V, 600 mA
- rechargeables AA batteries (optional)

Operating Temperature:
- 0ºC to 55ºC

SpO_2 Sensors:
Finger clip sensor & wrap probe (optional)

Dimensions:
172 mm x 90 mm x 36 mm

Weight:
240g

Field of application

This is a pulse oximeter for the 21st century: reliable, portable and affordable. It is designed to the fields of hospitals, clinical surgery and home care applications.

PRESCRIPTIONS

Accident prevention

The product shall be used by qualified personnel only.

Do not use the equipment in case it is damaged. Apply to your retailer.
Avoid precarious repairs. Repairs shall be carried out with original spare parts only, which shall be installed according to the intended use.

Since the product is made of corrosion-proof materials suitable for the enviromental conditions foreseen for its normal use, does not require special care, however it is necessary to store it in a closed place making sure that is protected from dust and dirt to assure its hygenic conditions. Moreover, it is recommended to store the product in a place which can be reached easily by the personnel in case of necessity.

TRANSPORT

Transport procedures

It is not necessary to follow particular transport procedures. It is however recommended to carefully handle it and avoid shocks. The equipment is delivered in an imitation leather case allowing a comfortable shoulder transport.

Unpacking

Always remember that packing elements (paper, cellophane, stitches, adhesive tape, etc.) can cut and/or hurt if they are not carefully handled.
They shall be removed with adequate means and shall not be left at the mercy of irresponsible persons; the same is valid for tools used to remove packages (scissors, knives, etc.).

After opening the packages, first of all it is necessary to check all pieces and parts composing the product. Check that they are all present and in perfect conditions.

INSTALLATION

Installation and connections

The pulse oximeter is delivered with the following components: a practical imitation leather case, 4 “AA” alkaline batteries, AC adapter with 6 V output, 600 mmA, a finger sensor for heart beat survey. To feed the equipment with 4 “AA” batteries, open the apposite compartment on the back and insert the batteries. Pay attention not to invert the direction of poles (see the picture inside the battery compartment) and then replace the cover.
To feed the equipment with an AC adapter, insert the adapter jack into the corresponding socket on the equipment base and plug in the adapter.

With the exception of rechargeable batteries, remove common or alkaline batteries when using the AC adapter for charging.

Insert the finger sensor connector into the pulse oximeter (when the sensor is not inserted, the display views the following writing: **Prb**). It is sufficient to make the grooves present on the connector and on the socket match.

OPERATION

Instrument description and symbols

Select Pushbutton for the selection of SpO 2 Max and Min values and PULSE/min.

Pushbutton to increase SpO 2 Max and Min values and PULSE/min.

Pushbutton to decrease SpO 2 Max and Min values and PULSE/min.

Turn on/off audio signals

Indicator for disabled audio signals.

Run-down battery indicator. When the battery charge is low, the battery indicator lights up and gives out two beeps. In this case it is necessary to replace the batteries. At this point the run-down battery indicator turns off.

Prb Sensor not connected with the equipment

Pot No patient connected

Lo Low signal

Operating instructions

To turn the equipment on, press the green ON/OFF pushbutton. To confirm power-up, an acoustic signal is released and **PWR** pilot light turned on. The right display views the following writing: **Pot** (no patient connected).
Insert the finger of the patient into the examination sensor. It is possible to use any finger, however it is advisable to select the finger suitable to the sensor dimensions. (The PULSE OXIMETER can be fitted with different sensors, follow the instructions).

In order to perform an accurate detection of the value, the patient shall keep still.

Wait 6 seconds and the sensor starts up measuring. The left display shows the value of blood oxygen saturation rate (SpO 2 %) and the right display shows the heart rate (Pulse/min).
COMDEK PULSE OXIMETER is provided with a sound signal warning that the values detected by the sensor are higher or lower than the ones stored in the equipment.

Default alarm settings are:

SpO 2	Max	100%
SpO 2	Min	50%
Heart rate	Max	250 bpm
Heart rate	Min	30 bpm

To change these values, proceed as follow:

• SpO 2 alarm max. value
Press **Select** once, the red led (SpO 2 Min) lights up and a value blinks on the left display. This value represents the **maximum** value for oxygen saturation (SpO 2).
To change this value, press key ▲ to increase it and key ▼ to reduce it.

• SpO 2 alarm min. value
Press **Select** two times, the red led (SpO 2 Min) lights up and a value blinks on the right display. This value represents the **minimum** value for oxygen saturation (SpO 2).
To change this value, press key ▲ to increase it and key ▼ to reduce it.

• Heart rate alarm max. value
Press **Selec**t three times, the red led (Pulse Max) lights up and a value blinks on the left display. This value represents the **maximum** value for heart rate (Pulse/min). To change this value, press key ▲ to increase it and key ▼ to reduce it.

• Heart rate alarm min. value
Press **Selec**t four times, the red led (Pulse Max) lights up and a value blinks on the right display. This value represents the **minimum** value for heart rate (Pulse/min). To change this value, press key ▲ to increase it and key ▼ to reduce it.

When it stops blinking, the equipment returns to the original conditions.

The new alarm settings will be automatically saved.
When the batteries run down or when the equipment is disconnected from power supply, the original alarm settings are restored.

During measurement, the pulse oximeter display shows an intermittent scale of 10 leds indicating the search for beating. As seconds go by, the scale grows longer and becomes stable. When the signal is good, the search bar should show at least 4 leds.
If the loud speaker is on, the equipment gives out intermittent audio signals. Press pushbutton to stop the sound and the red led on the display lights up. Press the pushbutton again and the sound starts up again.
The alarm keeps on sounding for a minute and then it stops.

Switching off
After the measurement has been taken, turn the equipment off by means of ON/OFF pushbutton. A beep is given out and then the equipment stops.

MAINTENANCE

General maintenance instructions
The product has been conceived to last forever; it is resistant to most part of chemicals except for methyl ethyl ketones (M.E.K.), diluents and nail polish removers.

To clean the instrument, make use of a cloth dampened with disinfectant.

GUARANTEE

General guarantee conditions

Thank you for having acquired our product.
This product meets the most stringent requirements regarding the selection of quality manufacturing materials and also the final control. The product has a 12-month warranty, valid from the date it is delivered by GIMA.
During the guarantee period free repair and/or replacement of any defective parts due to faulty manufacture will be given, labour, postal, transport and packaging charges etc. are not included. The guarantee therefore excludes components subject to wear and tear such as parts in rubber or PVC, doppler probes, SpO_2 sensors, lamps, batteries, electrodes, handpieces, washers and packings, resistances, etc.
No compensation will be given for loss of use of the product.
Furthermore replacement or repairs effected during the guarantee period do not lengthen the duration of the guarantee.

This guarantee is void in the event of: repairs effected by unauthorised persons or with spare parts not approved by GIMA, damage or defects caused by negligence, blows, abnormal use of the appliance or faulty installation.

The guarantee will be invalidated if the registration number has been removed, cancelled or altered.
Faulty appliances must be returned only to the retailer where the item was bought. Any item dispatched directly to us will be refused.

Smaltimento: Il prodotto non deve essere smaltito assieme agli altri rifiuti domestici. Gli utenti devono provvedere allo smaltimento delle apparecchiature da rottamare portandole al luogo di raccolta indicato per il riciclaggio delle apparecchiature elettriche ed elettroniche.
Per ulteriori informazioni sui luoghi di raccolta, contattare il proprio comune di residenza, il servizio di smaltimento dei rifiuti locale o il negozio presso il quale è stato acquistato il prodotto. In caso di smaltimento errato potrebbero venire applicate delle penali, in base alle leggi nazionali.

Disposal: The product must not be disposed of along with other domestic waste. The users must dispose of this equipment by bringing it to a specific recycling point for electric and electronic equipment.
For further information on recycling points contact the local authorities, the local recycling center or the shop where the product was purchased. If the equipment is not disposed of correctly, fines or penalties may be applied in accordance with the national legislation and regulations.

Élimination des déchets d'EEE: Ce produit ne doit pas être jeté avec les ordures ménagères. Les utilisateurs doivent remettre leurs appareils usagés à un point de collecte approprié pour le traitement, la valorisation, le recyclage des déchets d'EEE. Pour obtenir plus d'informations sur les points de collecte des équipements à recycler, contactez votre mairie, le service local de collecte et de traitement des déchets ou le point de vente du produit. Toute personne contrevenant aux lois nationales en matière d'élimination des déchets est passible de sanctions administratives.

Entsorgung: Das Produkt darf nicht mit dem anderen Hausmüll entsorgt werden. Der Benutzer muss sich um die Entsorgung der zu vernichtenden Geräte kümmern, indem er sie zu einem gekennzeichneten Recyclinghof von elektrischen und elektronischen Geräten bring.
Für weitere Informationen bezüglich der Sammelpunkte, bitten wir Sie, Ihre zuständige Gemeinde, oder den lokalen Müllentsorgungsservice oder das Fachgeschäft, bei dem Sie das Gerät erworben haben zu kontaktieren. Bei falscher Entsorgung könnten Strafen, in Bezug auf die gültigen Landesgesetze erhoben werden.

Eliminación: El producto no ha de ser eliminado junto a otros residuos domésticos. Los usuarios tienen que ocuparse de la eliminación de los aparatos por desguazar llevándolas al lugar de recogida indicado por el reciclaje de los equipos eléctricos y electrónicos.
Para más información sobre los lugares de recogida, contactar el propio ayuntamiento de residencia, el servicio de eliminación de residuos local o la tienda en la que se compró el producto. En caso de eliminación equivocada podrían ser aplicadas multas, en base a las leyes nacionales.

ΧΩΝΕΥΣΗ: *Το προιόν δεν πρέπει να πεταχτεί μαζύ με άλλα απορρύματα του σπιτιού. Οι χρήστες πρέπει να φροντίσουν για την χώνευση των συσκευών μεταφέροντάς τες σε ειδικούς τόπους διαχωρισμού για την ανακύκλωση ηλεκτρικών και ηλεκτρονικών συσκευών. Για περισότερες πληροφορείες στούς χώρους συγκέντρωσης, επικοινωνήστε με την υπηρεσία του δήμου παραμονής σας, το τμήμα χώνευσης τοπικών απορυμμάτων ή το κατάστημα απο το οποίο αγοράσατε το προιόν. Σε περίπτωση λανθασμένης χώνευσης υπάρχει κίνδυνος εφαρμογής κυρώσεων βάσει των κρατικών νόμων.*