

# ENRAF-NONIUS



## PASSION FOR MOTION

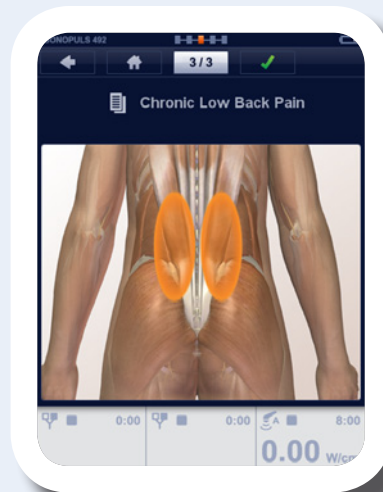


*Partner for Life*

### THE NEW 4 SERIES

Complete, easy-to-use, fast and the responsible choice!

# ENRAF-NONIUS



# THE NEW 4 SERIES

## COMPLETE, EASY-TO-USE, FAST AND THE RESPONSIBLE CHOICE!

Complete, easy-to-use, fast and the responsible choice! This describes the new Enraf-Nonius 4 series. This line of equipment offers everything that you need for effective and proper treatment.

### COMPLETE

The 4 series includes equipment for ultrasound therapy, electrotherapy and combination therapy. Equipment for ultrasound therapy ensures that both superficial and deep treatment are possible. Various surfaces can be treated with ultrasound treatment heads in two sizes. The equipment for electrotherapy includes all modern current types. Regardless of whether it concerns pain control or muscle strengthening, the 4 series has it! The combination equipment goes even further. In addition to the ultrasound therapy and electrotherapy, you can also treat simultaneously with these machines. You can then use the treatment head as an electrode and, therefore, already alleviate the pain at a very early stage while you apply the ultrasound. Moreover the combination is very well suited for electrodiagnosis, like for localising Triggerpoints.

### EASY-TO-USE

Thanks to the intuitive touch screen interface, the 4 series can be operated very easily. A clear and well-organised menu will assist you in making therapeutic choices. All essential information will be displayed. The graphic support with images of the treatment area (for localisation of the ultrasound treatment head and/or the electrodes I) and with anatomic representations ensure that you are always correct!

Thanks to the battery-operated power supply (optional), the equipment can also easily be used for ambulant treatments. There is no need for a fixed mains connection. All therapy types are immediately available at the bed of the patient, wherever you are. It is that easy!

Electrotherapy also becomes very easy by using the Vacotron 460 suction device. Vacuum electrodes can be positioned effortlessly. They simplify good localisation and are not burdening for the patient. Why do things the hard way? Therapy can also be easy.

### FAST

The 4 series is fast, extremely fast. The menu structure ensures that you can quickly set the parameters. The integrated protocols and the various help screens will ensure, you do not lose time unnecessarily during treatment. The therapist can focus completely on the patient and the treatment while the device takes care of the rest!

### THE RESPONSIBLE CHOICE

Thanks to the integrated evidence-based protocols, you will know for sure that you are working safely. Every indication and every parameter has been extensively substantiated scientifically. The therapeutic effect is, therefore, guaranteed to be the best one available.

### THE NEW GENERATION

The Enraf-Nonius 4 series is the new generation of equipment for ultrasound therapy, electrotherapy and combination therapy. Thanks to the latest technological possibilities, the most advanced scientific insights and the many years of experience of Enraf-Nonius as developer of therapeutic equipment, you will be guaranteed of having the best in-house with the Sonopuls 492, the Sonopuls 490 and/or the Endomed 482.





# ENRAF-NONIUS

## SONOPULS 492

The top device of the 4 series is the Sonopuls 492. This complete unit ensures that you can apply ultrasound therapy, electrotherapy and combination therapy. You will have a solution for every disorder at your fingertips with both 1 MHz and 3 MHz ultrasound, with a small and/or a large ultrasound treatment head and with all modern and effective current types that are fully integrated!

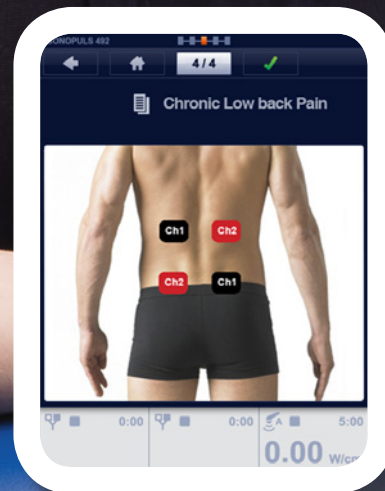
The neatly arranged touch screen operating panel makes operation extremely easy and fast. All information that you may need is displayed in a very well-organised manner. Selecting the correct parameters is also easy. Thanks to the integrated evidence-based protocols, the best recommendations will be made. The graphic help screens that display localisations and anatomic representations guarantee the correct execution of the therapy.

The Sonopuls 492 can be used as a mobile device thanks to the battery (optional). In addition to using it with a mains power supply, the equipment can also be used in a clinic, next to the bed of a patient or at home. Thus the multifunctional Sonopuls 492 can also become your assistant wherever you may go.

The Sonopuls 492 can be expanded with the Vacotron 460 suction module. With this Vacotron, that can be integrated beautifully with the Sonopuls 492, you can easily position electrodes. A combination that will make your job even easier and faster to accomplish.

The Sonopuls 492: complete, easy-to-use, fast and the responsible choice for ultrasound therapy, electrotherapy and combination therapy!







# ENRAF-NONIUS

## SONOPULS 490

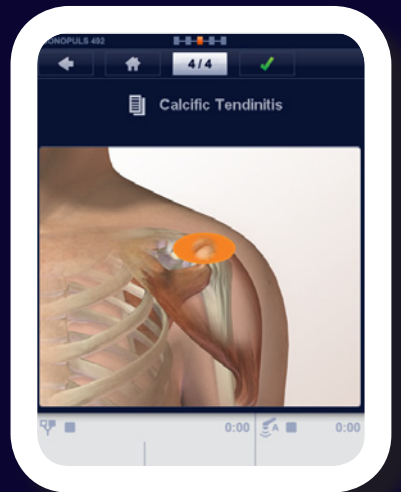
The Sonopuls 490 is the ultrasound therapy device from the Enraf-Nonius 4 series. You will be able to select the correct application for every pathology with both 1 MHz and 3 MHz applications and by selecting a small and/or large treatment head.

As is the case for all 4 series devices, the Sonopuls 490 is characterised by a beautiful design and a very easy-to-use touch screen operation. You will have configured the correct protocol with but a few taps.

The Sonopuls 490 has 25 Evidence-Based protocols for ultrasound therapy; all of which are substantiated applications that guarantee an effective therapy.

The Sonopuls 490 can (optionally) be provided with a battery-operated power supply, which will give you freedom. It is easy to take the Sonopuls 490 with you the device will always be ready to use thanks to the battery-operated power supply. Regardless of whether it is next to the patient's bed, in the patient's home or in the changing room of a sports club, the Sonopuls 490 is your reliable companion where ultrasound therapy is concerned.

The Sonopuls 490: complete, easy-to-use, fast and the responsible choice for ultrasound therapy!



# ENDOMED 482

The Endomed 482 is the electrotherapy device for the demanding therapist.

It has 2 channels and contains all popular low- and medium-frequency currents. Electrotherapy has many possibilities and applications. The use of electrotherapy for pain control and for muscle stimulation has a long history and is well substantiated scientifically. Electrotherapy is not invasive, easy to apply and will not burden the patient. Electrotherapy is, therefore, often an excellent alternative to medication.

The Endomed 482 is characterised by its user friendliness because of its touch screen interface and the extensive Evidence-Based protocol library as is the case with the other devices from the Enraf-Nonius 4 series.

The Endomed 482 can be expanded with the Vacotron 460 suction device. This integrated unit ensures that applying electrotherapy by using vacuum electrodes becomes very easy.

The Endomed 482: complete, easy-to-use, fast and the responsible choice for electrotherapy!



# VACOTRON 460

The Vacotron 460 is a module for the 4 series. You can apply electrotherapy by using vacuum electrodes with this suction module. This is accomplished fast and simple. Positioning electrodes could not be any easier.

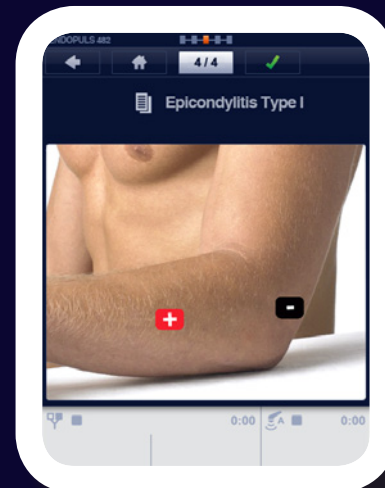
The Vacotron 460 is a valuable addition to the Endomed 482 or Sonopuls 492.



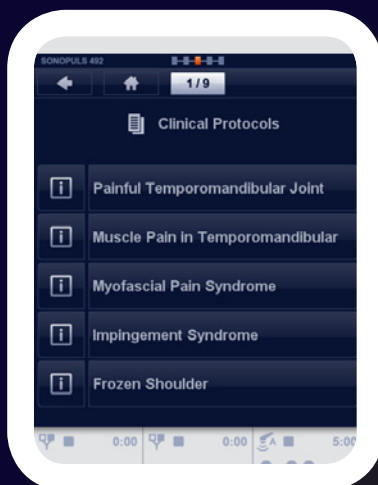
Endomed 482 + Vacotron 460



Sonopuls 492 + Vacotron 460



# ENRAF-NONIUS



## EVIDENCE-BASED PROTOCOLS

- 25 Evidence-Based treatment protocols for ultrasound,
- 42 Evidence-Based protocols for electrotherapy,
- 2 Evidence-Based protocols for combination therapy

Complete including the display of the anatomic localisations and the treatment instructions

## REMOTE CONTROL (OPTIONAL)

The patient can be involved in his or her own treatment by using the optional "remote control". Especially when using electrotherapy, the patient will have the possibility to control the therapy

## ERGONOMIC DESIGN

The treatment head is made to fit your hand comfortably. A design completely based on functionality and user friendliness.

## BATTERY-OPERATED (OPTIONAL) AND, THEREFORE, MOBILE

In addition to being able to use the 4-series unit connected to a mains power supply, the device can also be used with a battery-operated power supply. This will ensure that you can go everywhere with your unit, regardless of whether this is at the patient's home or at his or her hospital bed.

## CRYSTAL CLEAR TFT COLOUR SCREEN

A crystal clear, full colour and scratch resistant screen that allows full visibility on all parameters from all viewing angles.



## MADE BY ENRAF-NONIUS

Made by Enraf-Nonius and, therefore, safe, reliable and durable. A device made by Enraf-Nonius, THE supplier for the physiotherapist worldwide. Where quality, reliability and durability come as standard.



### TOUCH SCREEN USER INTERFACE

Easy to use by means of a clear menu via a touch screen interface.  
Extremely intuitive and as easy as a state-of-the-art smart phone.

### 2 TREATMENT HEADS POSSIBLE

You can connect both the small 0,8 cm<sup>2</sup> as well as the large 5 cm<sup>2</sup> ultrasound treatment head in order to quickly change heads.

### PROGRAMMED FOR SPEED

The menu structure is optimized to speed. In most cases you can start a pathology-specific treatment in just 3 steps! Easy, quick and simple.

### CONTACT CONTROL

A 360 degrees light ring for contact control. A clear indication of the effective transfer of energy that enables you to conduct the therapy as efficient as possible.

### TREATMENT HEAD WITH ADDED VALUE

An intelligent and ergonomic treatment head, packed with electronics and covered with a special coating making it smooth and comfortable to use.

### COMPACT AND STYLISH

An extremely compact device, small and light-weight for easy transportation. At the same time stylish and beautiful, a device that is worth-while showing!

### PROGRAMMABLE

In addition to the standard treatment protocols, you can also save your personal protocols (including sequential applications) based on your own guidelines.



# ENRAF-NONIUS

## ORDERING DATA

### SONOPULS 492 (COMBINATION THERAPY)

- 1498911 Sonopuls 492 with multi-frequency treatment head, large (5 cm<sup>2</sup>)
- 1498912 Sonopuls 492 with multi-frequency treatment head, small (0,8 cm<sup>2</sup>)
- 1498913 Sonopuls 492 with 2 multi-frequency treatment heads (5 cm<sup>2</sup> en 0,8 cm<sup>2</sup>)

### SONOPULS 490 (ULTRASOUND THERAPY)

- 1498901 Sonopuls 490 with multi-frequency treatment head, large (5 cm<sup>2</sup>)
- 1498902 Sonopuls 490 with multi-frequency treatment head, small (0,8 cm<sup>2</sup>)
- 1498903 Sonopuls 490 with 2 multi-frequency treatment heads (5 cm<sup>2</sup> en 0,8 cm<sup>2</sup>)

### ENDOMED 482 (ELECTROTHERAPY)

- 1498920 Endomed 482

### VACOTRON 460

- 1498950 Vacotron 460 module

### STANDARD ACCESSORIES

- 1498757 4-Series Operating Instructions (cd rom)
- 1498756 4-Series Information Booklet
- 3444290 Mains cable 230V-EUR
- 1498010 Device base (inclination support) (not for Vacotron 460)

### STANDARD ACCESSORIES ULTRASOUND THERAPY (SONOPULS 492 AND 490)

- xxxxxxx Ultrasound multi-frequency treatment head(s) (model dependent)
- xxxxxxx Holder treatment head (model dependent)
- 3442929<sup>(1)</sup> Contact-gel, bottle 250 ml, 1x

### STANDARD ACCESSORIES ELECTROTHERAPY (SONOPULS 492 AND ENDOMED 482)

- 3444021 Strap 250x3 cm
- 3444020 Strap 100x3 cm
- 2x 3444129 Rubber electrodes 6x8 cm, 2 mm female, set of 2 pcs.
- 1460266 Moist pads for rubber electrodes 6x8 cm, set of 4 pcs.
- 2x 3444211 Patient cable 2-core & 2 mm male plugs - black, with coloured clips

### STANDARD ACCESSORIES VACOTRON 460

- 2x 3444503 Vacuum electrodes Ø 60 mm, 2 pcs.
- 3444505 Sponges Ø 65 mm, set of 4 pcs. (for vacuum electrodes Ø 60 mm)
- 2x 3444507 Vacuum lead hose, red
- 2x 3444508 Vacuum lead hose, black

### OPTIONAL ACCESSORIES<sup>(2)</sup>

- 1498800 Remote control
- 2501016 Battery 12.0V 1.8Ah
- 3444675 Carrier bag
- 1468960 EN-Car U3
- 3444509 Vacuum electrodes Ø 30 mm, set of 2 pcs.
- 3444516 Sponges Ø 30 mm, set of 4 pcs. (for vacuum electrodes Ø 30 mm)

SONOPULS 492



SONOPULS 490



ENDOMED 482



VACOTRON 460



CARRIER BAG



(1) = 1 bottle of contact gel is supplied with a Sonopuls as standard.  
The article number 3442929 represents a case with 12 bottles.

(2) = For all other optional accessories please refer to our online product catalogues by visiting [WWW.ENRAF-NONIUS.COM/ELECTROTHERAPY](http://WWW.ENRAF-NONIUS.COM/ELECTROTHERAPY)

# TECHNICAL SPECIFICATIONS

Power supply	100 – 240 V $\pm$ 10% / 50 / 60 Hz
Dimensions (WxDxH)	
Device	24 x 32 x 12 cm
Device with base	24 x 30.5 x 18.2 cm
Device with Vacotron	24 x 30.5 x 21.6 cm
Weight	2 kg
Weight, including the optional battery	3 kg

## ULTRASOUND (SONOPULS 492 AND SONOPULS 490)

Ultrasound frequencies	1 en 3 MHz
Ultrasound	continuous and pulsed
Duty cycles	5, 10, 20, 33, 50, 80%
Pulse frequency	16 Hz, 48 Hz en 100 Hz
Intensity	0-2 W/cm <sup>2</sup> continuous , 0-3 W/cm <sup>2</sup> pulsed <sup>(1)</sup>
Number of US connections	2
ERA US applicator big	5 cm <sup>2</sup>
ERA US applicator small	0,8 cm <sup>2</sup>
Pre-programmed treatment suggestions	25 - Evidence Based
Programmable positions	1000+

## ELECTROTHERAPY (SONOPULS 492 AND ENDOMED 482)

Current channels	2 (100% independent)
Current types	36 (per channel)
Pre-programmed treatment suggestions	42 - Evidence Based
Programmable positions	1000+

## COMBINATION THERAPY (SONOPULS 492)

Pre-programmed treatment suggestions	2 - Evidence Based
Programmable positions	1000+

## VACOTRON 460 (ONLY IN COMBINATION WITH SONOPULS 492 OR ENDOMED 482)

Dimensions (WxDxH)	24 x 28.6 x 9.3 cm
Weight	2 kg
Vacuum	continuous and pulsed

<sup>(1)</sup> = Except 80%, which has a maximum of 2,5 W/cm<sup>2</sup>





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