

# **Biomedical Magnetotherapy Teaching Unit**

BIMAG



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Products
14.- Biomedical
Engineering

## INTRODUCTION

As technology is improving, new highly advanced treatments and therapies are being developed. It is of great importance to acquire a basic knowledge of them in order to ensure a higher success rate in the healing of patients.

Magnetotherapy uses magnetic fields to change the patient's. It is specially used to enhance muscle relaxation and increase organic defenses.

The Biomedical Magnetotherapy Teaching Unit, "BIMAG", provides a Gauss measuring device, so that students better understand the principles of this rather new therapy.

## **GENERAL DESCRIPTION**

The Biomedical Magnetotherapy Teaching Unit, "BIMAG" allows the students to test magnetotherapy, so as to achieve a better knowledge on its functioning and internal mechanism.

The Biomedical Magnetotherapy Teaching Unit, "BIMAG" includes:

- Real model of the magnetotherapy instrument.
- Gauss meter.









## **SPECIFICATIONS**

## Bench-top unit.

Anodized aluminum frame and panels made of painted steel.

This unit is composed of:

Magnetotherapy instrument:

Application of Magnetotherapy:

Frequency of treatment: 1 - 100 Hz. Maximum induction:  $100G \pm 20\%$ .

Available outputs: 2.

2 buttons to select the frequency and treatment time.

LCD display for control and visualization of the magnetic field provided.

Gauss meter:

Range: 20 - 200  $\pm 0.1 \mu$ T. Bandwidth: 30 - 300  $\pm$  60 Hz.

Mode selector: off, Tesla and Gauss measurements.

Magnetotherapy applicator.

Cables and accessories, for normal operation.

## Manuals:

This unit **is supplied with the following manuals**: Required Services, Assembly and Installation, Starting-up, Safety, Maintenance & Practices Manuals

## **EXERCISES AND PRACTICAL POSSIBILITIES**

2

1.- Basic principles of magnetic fields.

4.- Testing of the magnetotherapy effect to check its effectiveness.

- 2.- Study of magnetotherapy.
- 3.- Magnetotherapy applications.

## **REQUIRED SERVICES**

## **DIMENSIONS AND WEIGHTS**

- Electrical supply: single-phase, 220V/50Hz or 110V/60Hz.

BIMAG:

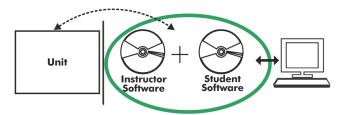
- Dimensions: 500 x 400 x 550 mm approx.

(19.7 x 15.75 x 21.65 inches approx.)

- Weight: 20 Kg approx.

(44 pounds approx.)

## BIMAG/ICAI. Interactive Computer Aided Instruction Software System:



With no physical connection between unit and computer, this complete software package consists of an Instructor Software (EDIBON Classroom Manager -ECM-SOF) totally integrated with the Student Software (EDIBON Student Labsoft -ESL-SOF). Both are interconnected so that the teacher knows at any moment what is the theoretical and practical knowledge of the students.

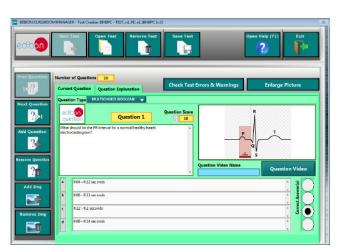
## **Instructor Software**

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).

ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual students, workgroups, units, etc... so the teacher can know in real time the level of understanding of any student in the classroom.

## Innovative features:

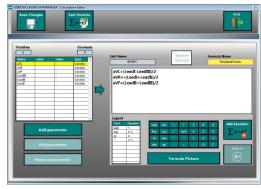
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.
- Updatable Contents.
- Report generation, User Progression Monitoring and Statistics.



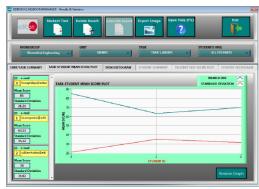
ETTE. EDIBON Training Test & Exam Program Package - Main Screen with Numeric Result Question



ECM-SOF. EDIBON Classroom Manager (Instructor Software)
Application Main Screen



ECAL. EDIBON Calculations Program Package - Formula Editor Screen



ERS. EDIBON Results & Statistics Program Package - Student Scores Histogram

## Student Software

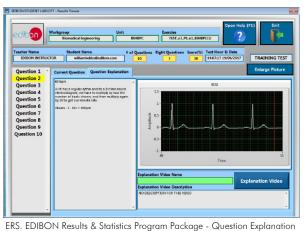
## - ESL-SOF. EDIBON Student Labsoft (Student Software).

ESL-SOF is the application addressed to the Students that helps them to understand theoretical concepts by means of practical exercises and to prove their knowledge and progression by performing tests and calculations in addition to Multimedia Resources. Default planned tasks and an Open workgroup are provided by EDIBON to allow the students start working from the first session. Reports and statistics are available to know their progression at any time, as well as explanations for every exercise to reinforce the theoretically acquired technical knowledge.

#### Innovative features:

- Student Log-In & Self-Registration.
- Existing Tasks checking & Monitoring.
- Default contents & scheduled tasks available to be used from the first session.
- Practical Exercises accomplishment by following the Manual provided by EDIBON.
- Evaluation Methods to prove your knowledge and progression.
- Test self-correction.
- Calculations computing and plotting.
- Equation System Solver Engine.
- User Monitoring Learning & Printable Reports.
- Multimedia-Supported auxiliary resources.

For more information see **ICAI** catalogue. Click on the following link: www.edibon.com/en/files/expansion/ICAI/catalog



EKS. EDIBON Results & Statistics Program Package - Question Explanation



ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



EPE. EDIBON Practical Exercise Program Package Main Screen



ECAL. EDIBON Calculations Program Package Main Screen

\* Specifications subject to change without previous notice, due to the convenience of improvement of the product.



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