

GENERAL DESCRIPTION

A load transfer between front and rear wheels takes place under conditions of braking or acceleration of a vehicle (a car for example). The problem of load transfer occurs since the accelerating or braking force is not applied to the center of gravity of the vehicle but to the point of contact of the wheels with the road.

The MFF unit has been designed to demonstrate and study this load transfer.

This unit allows carrying out practices and experiments to study the relationship between the forces involved in car braking and acceleration.

The MFF unit also allows the demonstration of the relationship between these forces on front wheel drive, rear wheel drive, and four wheel drive.

This unit is mounted on an anodized aluminum and steel structure. A car model is supported on a beam load cell and has road wheels. A pin can be inserted in different positions to represent the center of gravity of the car.

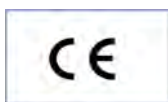
Pulleys, weights and cords are used to apply different horizontal braking or acceleration and inertia forces to the car .

In order to carry out some practices with MMF unit, 2 Sets of weights "A type" and 1 Set of weights "B type" are required. (See "Required Accessories (Not Included)" section).

Manuals: This unit is supplied with the following manuals: Required services, Assembly and Installation, Starting-up, Security, Maintenance and Practices manual.



ISO 9001: Quality Management (for Design, Manufacturing, Commercialization and After-sales service)



European Union Certificate (total safety)



Certificates ISO 14001 and ECO-Management and Audit Scheme (environmental management)



Certificate and Worlddidac Member

EXERCISES AND PRACTICAL POSSIBILITIES

- 1.- Investigation of the relationship between the forces involved in vehicle braking and acceleration.
- 2.- Study of the inertia force.
- 3.- Demonstration of the relationship between these forces on front wheel drive, rear wheel drive, and four wheel drive.
- 4.- Study of the load transfer between front and rear wheels.
- 5.- Study of different conditions varying the position of the center of gravity.
- 6.- Application of the accelerating or braking force on different points of the center of gravity

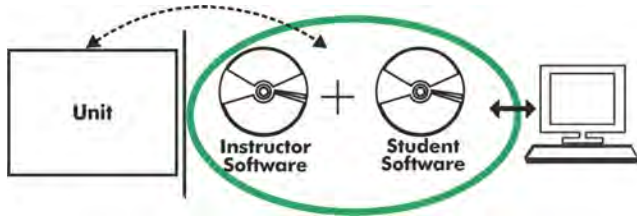
REQUIRED ACCESSORIES (Not Included)

- Set of weights "B type":
 - 6 weights of 200 gr. (0.44 pounds).
 - 6 weights of 100 gr. (0.22 pounds).
 - 2 weights of 50 gr. (0.11 pounds).
 - 2 weights of 20 gr. (0.044 pounds).
 - 2 weights of 10 gr. (0.022 pounds).
 - 1 support hook (hanger) of 100 gr. (0.22 pounds).
- Set of weights "A type": (2 sets required)
 - 9 weights of 50 gr. (0.11 pounds).
 - 2 weights of 10 gr. (0.022 pounds).
 - 1 support hook (hanger) of 50 gr. (0.11 pounds).

DIMENSIONS AND WEIGHTS

- MFF:
- Dimensions: 800 x 600 x 800 mm. approx.
(31.50 x 23.62 x 31.50 inches approx.).
 - Weight: 20 Kg. approx.
(44 pounds approx.).

MFF/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.

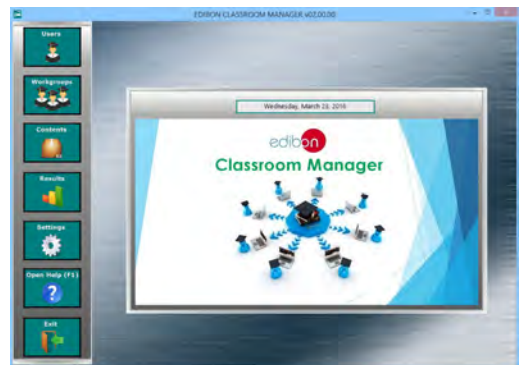
Instructor Software

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

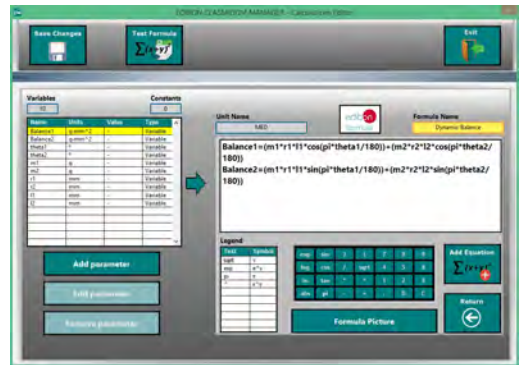
ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual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

Innovative features:

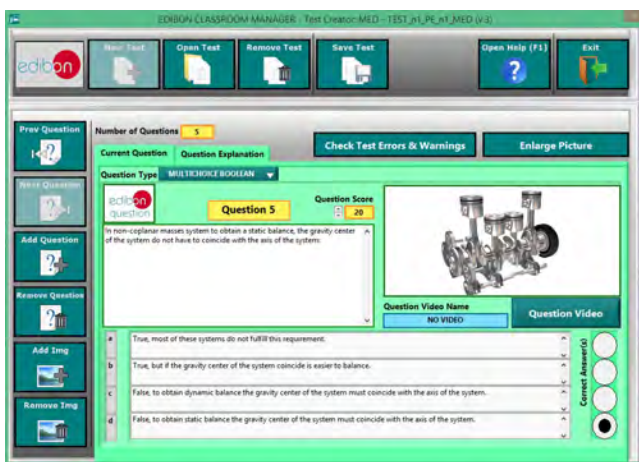
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.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



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



ECAL. EDIBON Calculations Program Package - Formula Editor Screen



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



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

Optional
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:

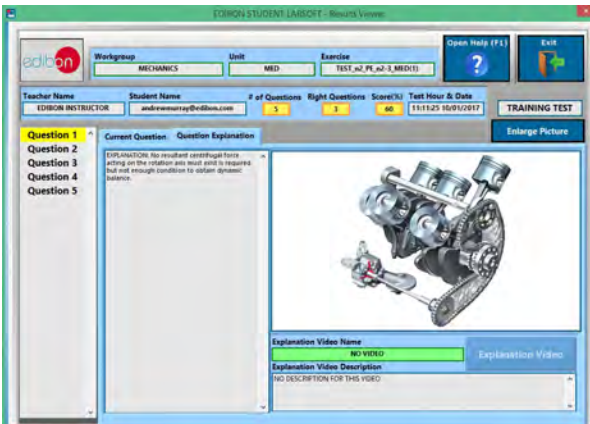
www.edibon.com/en/files/expansion/ICAI/catalog



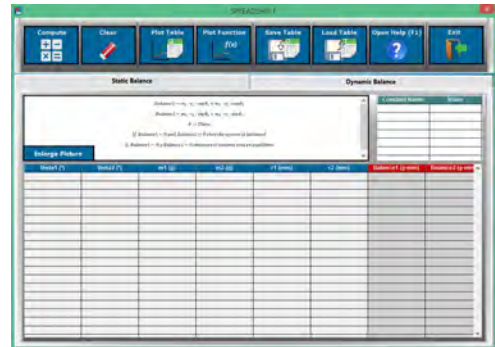
ESL-SOF. EDIBON Student LabSoft (Student Software)
Application Main Screen



EPE. EDIBON Practical Exercise Program Package Main Screen



ERS. EDIBON Results & Statistics Program Package - Question Explanation



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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REPRESENTATIVE:

