

# Robbery Alarm Advanced Application

**Engineering and Technical Teaching Equipment** 

AEL-AD1A



www.edibon.com

PRODUCTS

40.- ELECTRICITY

## INTRODUCTION

Nowadays, alarms are used in a wide range of applications, such as fire detection, reminders or burglar alarms.

Burglar alarms appeared from the necessity to keep a property, like a car or a house, safe. It is a passive security element which only works when the theft is happening, so in a lot of cases, the thief can escape. However, the burglar alarms are also dissuasive elements.

The newest burglar alarms also includes active protection elements such as smoke generators to prevent the view of the thief.









#### **GENERAL DESCRIPTION**

The Robbery Alarm Advanced Application, "AEL-AD1A", is designed with the aim to show different burglar alarms to the students. This application is composed of the next types of sensors: glass break detector and motion sensors. The application also includes alarms that can be activated by the previous sensors. These alarms are: indoor siren with adjustable volume and three pilot lights. All these alarms can be controlled by a central application, allowing the students to simulate different scenes and understand the operation of these devices.

The AEL-AD1A includes the following modules:

- N-ALI02. Domestic Main Power Supply.
- N-ALI03. AC Auxiliary Power Supply.
- N-DET27. Glass Break Detector.
- N-INT32. Intrusion Switch/Detector with Relay 1000 W.
- N-SEL03. 3-Pilots Lights.
- N-SEL21. Indoor Siren
- N-VAR07. Kit: Burglar Alarm Central + Infrared ele. + battery.

Expansion learning software:

In addition, Edibon provides expansion learning software (AEL-AD1A/ICAI) to reinforce knowledge about this field.

This software is formed by:

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).
- ESL-SOF. EDIBON Student Labsoft (Student Software).

The application AEL-AD1A can be mounted on rack (option A) or on rail (option B):

Option A:

This application needs the following racks:

• N-RACK-A.

Optionally the AEL-WBR. Electrical Workbench (Rack) can be supplied to place the rack/s.

Option B:

This application can be mounted on rail.

Optionally the AEL-WBC. Electrical Workbench (Rail) can be supplied to mount the modules.

The application includes the following modules:

## • N-ALI02. Domestic Main Power Supply.

Voltage supply (Single-Phase): 230 VAC, PH+N+G.

ON-OFF removable key.
Output Voltage Connections:
Two Single-Phase: 230 VAC.

Single-Phase supply wire connecting plug.

Differential magnetothermal, 2 poles, 25 A, 30 mA AC 6 KA.

# • N-ALI03. AC Auxiliary Power Supply.

Voltage supply (Single-Phase): 230 VAC PH+N+G.

Output voltage:

Single-Phase 24 VAC/12 VAC.

24 VDC.

0 - 24 VDC through potentiometer.

## • N-DET27. Glass Break Detector.

Voltage supply, 12 VDC.

Maximum current, 21 mA.

Adjustable sensitivity.

Detection range of 2 meters diameter.

Alarm contactor normally closed (NC).

## • N-INT32. Intrusion Detector.

Voltage supply, 12-14 VDC.

Two normally closed (NC) outputs (alarm and tamper).

#### • N-SEL03. 3 Pilot Lights.

Voltage supply, 24 VAC.

Colors: red, yellow and green.

#### • N-SEL21. Indoor Siren.

Volume configuration through voltage 12-24 VDC.

87-112 dB.

12 – 30 mA.

32 tones.

#### • N-VAR07. Kit: Burglar Alarm Central + Infrared ele. + battery.

Two zones control.

Voltage supply, 230 VAC.

12 VDC output to connect the siren.

Default code: 1234.

## • All necessary cables to realize the practical exercises are included.

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.



N-ALI02



N-ALI03



N-DET27



N-INT32



N-SEL03



N-SEL21



N-VAR07

## **EXERCISES AND PRACTICAL POSSIBILITIES**

- 1.- Checking and measuring on the main power supply.
- 2.- Checking the working of the auxiliary power supply.
- 3.- Using the pilot lights as visual alarms.
- 4.- Using the siren as visual and acoustic alarm.
- 5.- Using the glass break detector to activate alarms.
- Using the infrared sensors to motion detection and activation of alarms.
- 7.- Manage the working of the alarms with the central station.
- 8.- Simulate real situations and combine the different types of sensors with the alarms.

## **REQUIRED SERVICES**

- Electrical supply: single phase, 230 V./50 Hz. or 115 V./60 Hz.

# **DIMENSIONS AND WEIGHTS**

## AEL-AD1A:

- Dimensions: 640 x 320 x 920 mm approx.

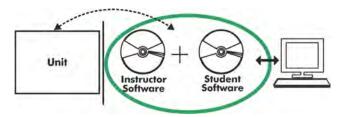
(25.19 x 12.59 x 32.22 inches approx.)

- Weight: 60 Kg approx.

(132 pounds approx.)

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#### AEL-AD1A/ICAI. Interactive Computer Aided Instruction Software System:



With no physical connection between unit and computer (PC), 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.

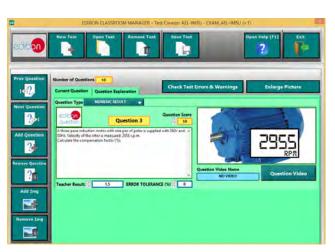
#### **Instructor Software**

- 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

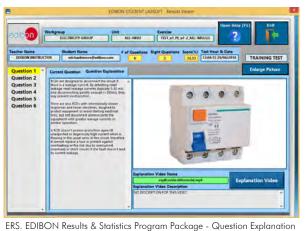
#### - ESL-SOF. EDIBON Student Labsoft (Student Software).

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



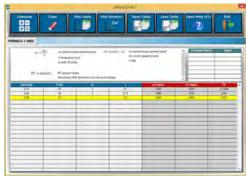
ERS. EDIBON Results & Statistics Program Package - Question Explanation



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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