

## SHOE ANALYZER

- Conforms to the detection requirements of EU Reg. N°1862/2006
- Conforms to the provisions of EU Reg. N°857/2005 for Airport Security
- Automatic Detection of Weapons hidden in shoes and simultaneous discrimination of the metal components of the shoes
- Increase in Passenger Flow Rate
- Up to 10 fold reduction in the number of shoes that must be examined manually



AUTOMATIC STEP-BY-STEP  
GUIDE



- Ease of use and Ergonomic Design

USE OF THE CEIA SAMD SHOE ANALYZER IS SIMPLE AND STRESS-FREE FOR BOTH INSPECTED PEOPLE AND SCREENERS. MINIMAL ANALYSIS TIME

LARGE ANALYSIS VOLUME  
WITH UNIFORM SENSITIVITY

# SAMD SHOE ANALYZER



The dramatic events of 11<sup>th</sup> September 2001 caused the Airport Security Authorities to strengthen checks on passengers and their personal effects.

Notwithstanding the extremely high discrimination capability of last-generation CEIA walk-through Metal Detectors, a certain percentage of shoes containing significant metal masses still cause alarms during transit, and therefore have to be examined by security staff with another inspection system – usually the X-ray scanner – to ensure that there are no metal weapons hidden in them. This obviously causes inconvenience to the passengers in transit.

In the light of this new operational scenario, CEIA has developed the SAMD Shoe Analyzer to check shoes worn by passengers without having to remove them, employing low-frequency electromagnetic fields which are non-ionizing and completely harmless.

The SAMD Shoe Analyzer is an extension of the Walk Through Metal Detector Gate, which complies with the most recent, stringent security requirements and reduces by up to 10 times or more the number of shoes that must be examined manually because of metal alarm.

## SPECIAL FEATURES

### TECHNOLOGY

- Professional high-integration, optimum-reliability electronics
- D.S.P. analysis with numeric filter of the signal received (patented)
- High immunity demodulation of the signals (patented)
- Exceptional discrimination

### SIGNALLING

- Immediately-available display of security level

### PROGRAMMABILITY

- Chip card system for direct selection of the operating mode, according to International Security Standards or customer requirements. The use of the card may be protected by password
- Programmability of all the parameters protected by passwords

### ANALYSIS TIME

- Very fast analysis time for a rapid flow-rate (2 seconds)

### MULTIPLE INSTALLATIONS

- Automatic synchronisation between 2 or more devices with a reciprocal distance of as little as to 1 m without the use of cables

### REMOTE CONTROL

- Capacity for total remote control through an RS-232C serial line

### INSTALLATION AND MAINTENANCE

- Automatic adjustment to environmental parameters and no need for initial or periodic calibrations.
- Proper environmental installation checked by means of a read-out of the general noise "GN" and electromagnetic noise "EN".
- Complete interchangeability of electronics units and antennae thanks to the repeatability of the manufacturing processes
- Functionality tests can be carried out using accessory kit

## CENTRAL ELECTRONICS UNIT

**DEGREE OF PROTECTION:** IP 20 (IEC 529), with standard casing

**DIMENSIONS AND WEIGHT:** IP 20: 380 x 157 x 82 mm; 1,5 kg

## INSTALLATION DATA

**POWER SUPPLY:** 115/230V~ ±15%, 50 ÷ 60 Hz, 30 VA

**SERIAL INTERFACE:** RS-232C type with low impedance for connection to terminal, computer or external modem at a distance of up to 100 m

**WORKING TEMPERATURE:** -20 to +70°C

**STORAGE TEMPERATURE:** -35 to +70°C

**RELATIVE HUMIDITY:** 0 to 95%, without condensation

## PROBE

Designed and built using advanced technological criteria, the probe is extremely robust and stable, yet elegant and fully protected against the effects of weather and wear-and-tear

**TOTAL WEIGHT:** 60 kg

## ALARM MODES

### SIGNALLING

- Detection of metallic masses
- Sabotage or internal self-diagnosis

### TYPE OF SIGNALLING

- **Visual:** fixed or proportionate to the mass in transit - visible from 6m under lighting of 4000lux.
- **Audio:** fixed 90 dB(A) at 1m

## CERTIFICATION AND CONFORMITY

### HARMLESSNESS

- Certified as harmless to wearers of pacemakers, pregnant women and so forth
- Harmless to magnetic media

### STANDARDS

- Conforms to the detection requirements of EU Reg. N°1862/2006
- Conforms to the provisions of EU Reg N°857/2005 for Airport Security
- Conforms to the international standards currently applicable for electrical safety and EMC, and to the applicable EC Regulations.
- Conforms to all Airport Security Standards worldwide

## DESCRIPTION AND OPERATION



SAMD CONTROL UNIT SHOWS THE **PLACE FOOT** MESSAGE

1

THE **OK** MESSAGE MEANS THE SHOE HAS BEEN INSPECTED WITH NO DETECTION OF A METAL THREAT



2



3

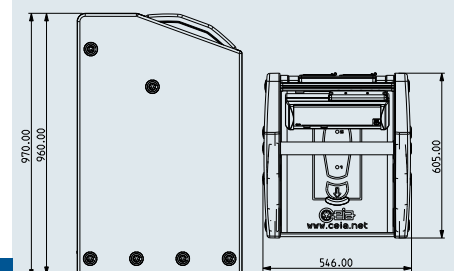
THE **REMOVE** MESSAGE INFORMS THE PASSENGER OF THE COMPLETION OF THE ANALYSIS

IN CASE OF **DETECTION**, SAMD GENERATES AN ACOUSTICAL AND A VISUAL RED ALARM

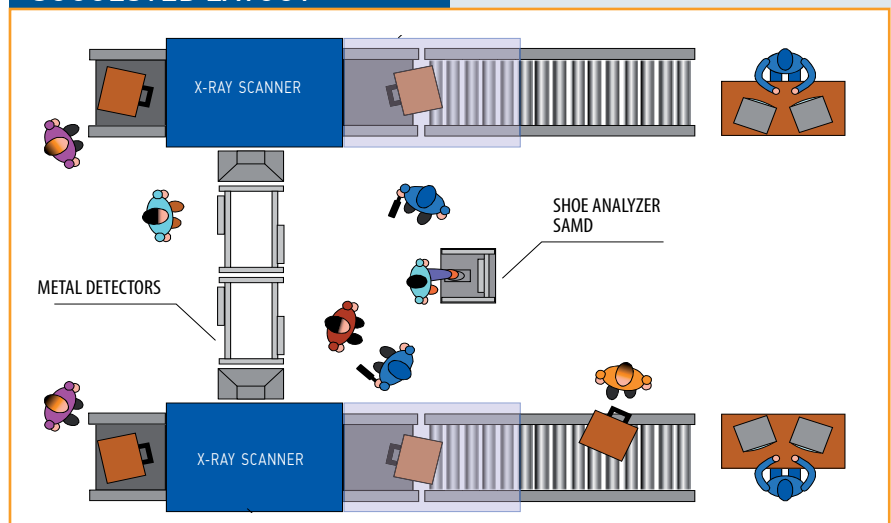


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## DIMENSIONS



## SUGGESTED LAYOUT



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