# SMD600 Plus

## TWO-IN-ONE *METAL DETECTOR*

NIJ-0601.02 Compliant

Certified by Governmental Laboratories*

### HIGH SENSITIVITY
Fully compliant with the NIJ-0601.02 Law Enforcement Standard

### HIGH DISCRIMINATION
Compliant with and Certified to the strictest Standards for Airport security screening

*The SMD600 Plus is the first Metal Detector in the market fully compliant with the NIJ-0601.02 Standard, as required in very high sensitivity applications, which also allows very high throughput in high security public screening checkpoints.*

*Data available upon request

## FULLY COMPLIANT WITH THE **NIJ-0601.02 STANDARD**

*The Standard establishes the requirements of Sensitivity, Discrimination and Immunity for Law Enforcement and Correctional Facilities.*

**NIJ-0601.02 FULL COMPLIANCE**

The **SMD600 Plus** Metal Detector fully complies with the requirements of the **NIJ0601.02 Standard** for all Security Levels, and can therefore be applied in situations from the inspection of visitors to that of inmates **in top-security checkpoints, even in areas with strong electrical and mechanical interferences**.

### 3 LEVEL OF SECURITY

**1**
- Steel Handgun
- Zinc Handgun
- Aluminum Handgun

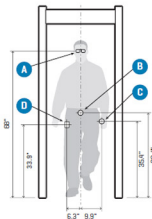**LO LEVEL:** LARGE OBJECT SIZE

**2**
- Steel Knife
- Aluminum Knife

**MO LEVEL:** MEDIUM OBJECT SIZE

**3**
- Stainless Steel Knife
- Handcuff Key
- Screwdriver Bit

**SO LEVEL:** SMALL OBJECT SIZE

### INNOCUOUS ITEMS

**A**
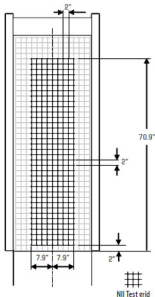**B**
**C**
**D**

68"

33.8"
25.6"
39.4"

6.3"  9.9"

### DISCRIMINATION TEST

Clean tester shall carry the innocuous items specified, performing the specified number of transits, walking at normal speed (0.5...1.5 m/s). Ensure that the Metal Detector will trigger less than the indicated number of alarms.

**LO**  25 transits with A + B + C + D (max 5 alarms)

**MO**  25 transits with A + B (max 5 alarms)

**SO**  8 transits with no items  (no alarms allowed)

**A** Eyeglasses
**B** Belt buckle
**C** Watch
**D** Set of coins

### TEST POSITIONS

2"

70.9"

2"

7.9"  7.9"   2"

NIJ Test grid

### DETECTION TEST OBJECT TRANSITS

Perform, for each Test Object, two passages, one forward and the other backwards, each position and for each orientation, verifying that for every transit an alarm is triggered.

## TWO-IN-ONE *ENHANCED METAL DETECTOR*

*The SMD600 Plus is a very high sensitivity Metal Detector that also offers characteristics of high discrimination and high detection uniformity.*

**VERY HIGH SENSITIVITY**

**VERY HIGH THROUGHPUT**

- Quick, accurate analysis of all parts of the body of people in transit, from the shoe level to the crossbar

- Accurate pinpointing of individual and multiple metal targets

  **A full-height light bar displays the location** of the detected metal masses in transit. This results in **rapid identification of threats** and a reduction or elimination of the need for manual searches.

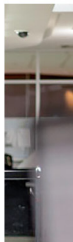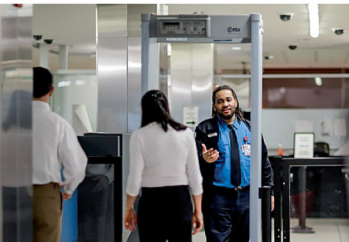- Built-in programs to screen visitors and staff for weapons and contraband

- Cutting-edge discrimination technology allows personal effects to be ignored, creating rapid transit flow

  **The transit volume magnetic scanning system, invented by CEIA** and applied since production of the first zonal Metal Detectors in 1986, allows state-of-the-art detection and discrimination results.

  **The SMD600 Plus has an extremely low nuisance alarm rate** even at the strictest Security Levels requested today, and **therefore allows high transit flow rates** and the minimum need for intervention by inspection personnel.

**ALARM**

**NO ALARM**

## UNIQUE ALARM SIGNALING

**PROGRAMMABLE DISPLAY BARS**

- 4 Multi-Zone Display Bars, each programmable as entry Stop/Go and/or local alarm indication

  **Accurate signaling is essential for best operation and flow management.** The *SMD600 Plus* provides the user with fully-programmable signaling. Both entry-points can indicate with a high level of accuracy, even simultaneously, the areas of transit of the threats detected, and can also be configured as 'traffic lights' to control transits through the detector.

- Flexible  Acoustic Alarm Signaling System:
  - 10 Continuous and Pulsed Tones   - 34 Special Sounds

**INTENSITY LEVELS**

- 10 Alarm Volume Levels

  **A complete acoustic alarm system allows personalization of the alarm tones and volume,** with a wide choice of continuous, pulsed and special tones at different levels of intensity. The wide volume control dynamic allows operation even in very noisy environments.

## MOST POWERFUL AND VERSATILE SECURITY FEATURES

**SECURITY LEVELS**

- Up to 50 built-in Security Programs:
  - Up to 30 International Standards
  - Up to 20 Customizable Levels

  **Setting the Security Levels could not be easier and more versatile than in the *SMD600 Plus*.** Users can choose directly from the known International Standards or request implementation of a Standard personalized to their own requirements. Users can also create their own work program and save it in internal memory provided for the purpose.

**CHIP CARD SYSTEM**

- Chip Card system for fast, simple and secure parameter changes (i.e. alarm volume and tone, counter reading, etc…) and security level selection

- Any security standard can be enhanced with selectable random alarm probability

## COMMUNICATION CAPABILITIES

| TYPE OF OPERATION | ETHERNET | USB | INFRARED | BLUETOOTH | RS-232 |
|---|---|---|---|---|---|
| Maintenance | ○ | ○ | | • | • |
| Remote Control | ○ | | • | • | • |
| Remote Data collection | ○ | | | | |
| STANDARD • OPTION ○ | | | | | |

## SMD600 PLUS/PZ MODEL CONFIGURATION

| Feature | Standard/Option |
| --- | --- |
| Fully compliant with, and exceeding, the NIJ-0601.02 Standard | ● |
| 4 display bars each programmable as zone indicators and/or pacing lights | ● |
| Dual Side 20 x 2 localization zones | ● |
| High precision transit counter (2-beam) | ● |
| Chip Card Reader | ● |
| Bluetooth, infrared and RS-232 communication | ● |
| Programmable Random Alarm capability | ● |
| 3-Level Password and hardware key access protection | ● |
| Met-Identity technology (separate Ferrous and Non-Ferrous alarm signaling) | ● |
| One Touch Automatic Self Installation (OTS) | ● |
| Automatic Operational Functional Verification (OFV) | ● |
| Automatic Vibration Compensation (AVS, EVA) | ● |
| Automatic Channel Search (CS) | ● |
| Automatic Floor Gain Adjustment (FGA) | ● |
| Automatic Technical Functional Verification (TFV) | ● |
| Automatic Environmental Noise Compensation (ENA) | ● |
| Powered by safe low voltage DC | ● |
| Anti-tamper on/off switch | ● |
| Integrated web-server & logger (includes Ethernet and USB interface) | ○ |
| Weather resistant protection | ○ |
| Anti-vandalism, anti-tampering protection (with IP65 control unit) | ○ |
| IP65 protection (IP65 control unit, IP68 power supply adapter, anti-vandalism protections, weatherproof gate structure, compliant with IEC 60950-22) | ○ |
| Embedded battery charger and under-voltage protection | ○ |
| Long life crossbar battery back-up | ○ |
| 32.3" useful passage width | ○ |
| Very High precision transit counter (4-beam) | ○ |

STANDARD ● OPTION ○

FRONT

28.3" / 32.3"
(passage width)

80.7"

TOP

34.5" / 38.5"

LATERAL

1.9"

80.0"

23.8"

26"
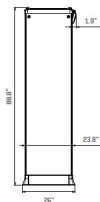
## OPTIONS / UPGRADE KITS

### WEATHER RESISTANT PROTECTION

Kit for upgrading the standard version to outdoor applications according to IEC 60950-22; this kit includes shelters, crossbars, protection covers for power supply and waterproof mains power supply adapter.

- 28.3" passage width (part # 55630)
- 32.3" passage width (part # 55633)

### ANTI-VANDALISM, ANTI-TAMPERING PROTECTION

This option includes stainless steel control unit, IP68 mains power supply adapter, protection covers for power supply and antenna connection compartments, equipped with screws requiring tools for removal.

Part # 55629

### IP65 PROTECTION

This option comprises the Weather Resistant and the Anti-vandalism kits.

- 28.3" passage width (part # 55631)
- 32.3" passage width (part # 55632)

### 32.3" USEFUL PASSAGE WIDTH

Part # 55635

### LONG LIFE CROSSBAR BATTERY BACK-UP

Crossbar battery back-up in stainless steel case. Provides up to 9 hours of autonomous working time.

Part # 76866

### EMBEDDED BATTERY CHARGER AND UNDER-VOLTAGE PROTECTION

Advanced power supply module with anti-tamper on/off switch, RS-232 interface, internal battery back-up and 12 hours mains disconnection diagnostic alarm.

Part # APSM2Plus/P

### INTEGRATED WEB-SERVER & LOGGER, BATTERY BACK-UP AND CHARGER

Anti-tamper on/off switch, RS-232, USB, 10/100 baseT Ethernet interface, data logger, real-time clock, integrated web-server, transit statistical data analysis, 20' internal battery back-up with 12 hours mains disconnection diagnostic alarm.
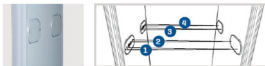
Part # APSiM2Plus/P

### VERY HIGH PRECISION TRANSIT COUNTER

Four photocells fitted into the archway allow counting of transits, alarms and percentage of alarms. The 4-beam version further increases accuracy in counting and determination of transit direction, even in intense transit conditions.

Part # 46112

## ACCESSORIES

### CHIP CARDS

Chip cards for simple and secure selection of Security Levels and parameter setting.

List of chip-cards available on request.

### MD-SCOPE

Powerful, PC based installation and service Software. Includes oscilloscope and terminal functionality.

Part # MD-SCOPE2

### MBSU-2

Independent, compact size, long life power supply in weatherproof stainless steel case, with embedded fast charger:

- 13 hours typical (8 hours minimum) continuous operation with SMD600 Plus
- 5.5 hours typical charging time.

Part # MBSU-2

H 8"
D 16.73"
W 5.43"

### RCU2

Control unit for full remote access, including alarm signalling and programming of CEIA Metal Detectors.

Part # RCU2

VISUAL ALARM WITH ZONE INDICATION

### IRC-1

Infrared Remote Controller for wireless remote programming of the control unit.

Part # 47180

### METAL DETECTOR DIVESTING TABLE

In combination with CEIA Walk-Through Metal Detectors, it is a temporary location of personal metal effects for people to be screened.

- Standard length: 24" (Part # 18074)
- Extended length: 47" (Part # 39491)
- Outdoor version: 51" (Part # 67021U)

### UPPER CONNECTION MODULE

This extension cable allows the connection of power supply and serial communication to personal computers or CEIA accessories, such as RCU-2.

Part # 46650

### RRU

Remote relay unit (RRU) to repeat the detection alarms of the gate through a relay contact. The RRU module can be used for integration of the Metal Detector in interlocked door systems.

Part # RRU-0003

### REFERENCE TEST SAMPLES

CEIA provides certified Test Samples reproducing for shape, material and signal on WTMDs the same effect of the reference targets

- Part # NIJ-0601.02-SKN: complete test samples kit for NIJ-0601.02 detection and discrimination compliance verification
- Part # 63744: test samples kit for NIJ-0601.02 MO and SO classes detection capability verification
- Part # EMD-SK-GDML: reference samples for accurate verification of the disassembled guns Security Level

### WATERPROOF MAINS POWER SUPPLY

IP68 power supply for outdoor applications. It is provided with flanges for simple installation.

Part # 64610

63744

EMD-SK-GDML

NIJ-0601.02-SKN

## SPECIFICATIONS

| KEY FEATURES | Very High Sensitivity |
| --- | --- |
| | Excellent discrimination of personal metal effects |
| | Fully compliant with, and exceeding  the NIJ-0601.02 Standard |
| | Very high throughput in high security public screening checkpoints |
| | Met-Identity technology identifies and signals the metal type in real time |
| | Exceptional Immunity to external interferences |
| | High precision bidirectional counter with automatic rescreening compensation |
| | Random alarm capability programmable from 0% to 100% |
| | Chip Card capability for fast, simple, and secure programming |
| | Standard Interfaces: RS-232, Bluetooth, Infrared. Other available interfaces: Wi-Fi, Ethernet, USB |
| QUALITY | Continuous self diagnostic system |
| | Proven reliability |
| | No periodic re-calibration and preventive maintenance required |
| | No scheduled maintenance |
| | Fully digital design |
| WALK-THROUGH GATE STRUCTURE | State-of-the-art, robust and washable panels |
| | Protected against aging, weather and wear |
| CENTRAL CONTROL UNIT | Ergonomic and robust design |
| | High visibility alphanumeric display and programming keyboard |
| | Made of advanced plastics or stainless steel and anti-vandalism construction (option) |
| | Access to the front panel protected by hardware key and 3 levels of passwords |
| ALARM SIGNALING | VISUAL SIGNALS | Multi-zone display bar for "height on person" localization |
| | | 4 light bars with selectable entry/exit and pacing indication |
| | | Green and red warning signals proportional to the mass of the detected target |
| | AUDIO SIGNALS | 10 selectable continuous and pulsed tone plus 34 special tones |
| | | 10 selectable sound intensities ranging from 0 to 90 dbA at 1m |
| TYPE OF SIGNALING | VISUAL | Fixed or proportional to the mass in transit - visible from 5m under lighting of 4000lux |
| | VISUAL ZONE INDICATION | 20 x4 distinct zones (20x2 entry side and 20x2 exit side) |
| PROGRAMMING | Up to 50 built-in security programs  (up to 30 International Standards, up to 20 Customizable Levels) |
| | Remote via RS-232, Infrared Remote Control Unit, Bluetooth™ or Ethernet 10/100 base T (option) interface |
| | SECURITY LEVEL | International Standard (IS) command |
| | | Chip card |
| | Local by Control Unit alphanumeric display and keyboard |
| | Programming and chip-card access protected by user and super-user passwords |
| OPERATIONAL FEATURES | Quick reset time as short as 0.2 seconds for high throughput rate |
| | Very high detection speed (up to 50 ft/sec.) |
| | Built-in operational and technical functional verification |
| | One-touch way reading of inbound, outbound and Security Level Data |
| INSTALLATION DATA | Automatic synchronization between two or more metal detectors with distance as close as 12" without the use of external cables |
| | Built-in flow sensitivity  adjustment function |
| | Automatic Installation function (OTS) |

**ENVIRONMENTAL DATA**

- **POWER SUPPLY:** 100...270V~ -10%, 47...63Hz. 40 VA typical consumption
- **OPERATING TEMPERATURE:** -4°F  to 149°F (-34°F to 158°F upon request)
- **STORAGE TEMPERATURE:** -34°F  to 158°F
- **RELATIVE HUMIDITY:** 0 to 95% (without condensation)

**CERTIFICATION AND COMPLIANCE**

- Complies with the applicable Standards for Law Enforcement and Correctional Facilities
- Fully compliant with the NIJ-0601.02 Standard requirements
- Compliant with and certified to the applicable Standards for Enhanced Metal Detectors (EMD)
- Compliant with the applicable electromagnetic Standards on Human Exposure and Pacemaker Safety
- Compliant with applicable International Standards for electrical safety and EMC
- Harmless to magnetic media (CD, tapes, etc.)

**COMPREHENSIVE SUPPORT**

- CEIA USA provides full operational and technical training support by certified personnel either at CEIA USA facility or at customer location

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