

# HI-SCAN™ 6040-2is

DUAL-VIEW X-RAY INSPECTION FOR HAND LUGGAGE

EU EDS Cabin Baggage Standard C1 approved



## Feature Highlights

- Compact footprint and weighs less than 850 kg (1873 lbs)
- Steel penetration of 35 mm (1.38")
- Flexible design for easier installation through door widths of 900 mm (35.5")
- Dual-view technology
- Operator friendly interface
- Available in standard and high resolution

**HI-SCAN 6040-2is HR:**  
Approved as LEDS according to  
EU Standard 2 and 3 Type C

**HI-SCAN 6040-2is HR:**  
Approved according to EU EDS  
Cabin Baggage Standard C1

HI-SCAN 6040-2is is an advanced dual view X-ray inspection system for automatic explosives and liquids detection. It offers high throughput at security checkpoints, where bags and personal belongings are screened, utilising proven Heimann X-ray technology to assist with detection of dangerous and illegal objects, highlighted in excellent, high quality dual-view images.

With its modern, contemporary design the HI-SCAN 6040-2is provides increased flexibility, with its compact footprint and lower weight, less than 850 kg (1873 lbs). It can be used in areas that are restricted in space and will fit through doorways of 900 mm (35.5") for installation.

HI-SCAN 6040-2is comes with outstanding steel penetration of 35 mm (1.38") and an operator friendly interface which makes it easy for the user to identify illegal objects and explosives that pose a threat to society.

Available in standard and also in high resolution, for better wire detectability (AWG 40) in order to comply with EU Standard 3 Type C (LEDS).

Another option is iCMORE Weapons for the automatic detection of pistols, revolvers, gun parts, flick and fixed blade knives. Developed using AI, it is part of the iCMORE family of smart and adaptable object recognition algorithms.

The HI-SCAN 6040-2is is suitable for airports, government buildings, hotels and other critical infrastructure applications where reliable security solutions are required.

**General Specifications**

<b>Tunnel dimensions</b>	620 (W) x 420 (H) [mm] • 24.4" (W) x 16.5" (H)
<b>Max. object size</b>	615 (W) x 410 (H) [mm] • 24.2" (W) x 16.1" (H)
<b>Conveyor height <sup>1)</sup></b>	approx. 800 mm (31.4")
<b>Conveyor speed with 50 Hz / 60 Hz mains frequency</b>	standard: 0.2/0.24 [m/s]
<b>Max. conveyor load even distributed over the whole conveyor <sup>4)</sup></b>	160 kg (352 lbs)
<b>Resolution (wire detectability) <sup>2)</sup></b>	standard resolution (SR): standard: 39 AWG • typical: 40 AWG high resolution (HR): standard: 40 AWG • typical: 41 AWG
<b>Penetration (steel) <sup>2)</sup></b>	standard: 35 mm • typical: 37 mm
<b>External dose rate</b>	<1 µSv/h (0.1 mrem)
<b>Film safety</b>	guaranteed up to ISO 1600 (33 DIN) with a maximum of 5 inspections
<b>Operating cycle</b>	100 %, no warm-up procedure required

**X-ray Generator**

<b>X-ray generators</b>	2
<b>Anode voltage • cooling</b>	160 kV cp • hermetically sealed oil bath
<b>Beam direction</b>	horizontal and vertical

**Image Generating System**

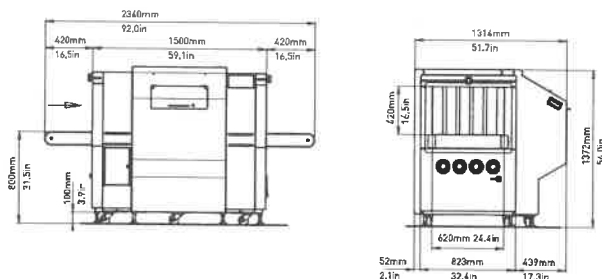
<b>X-ray converter</b>	dual-view detector system with large-scale integrated, monolithic amplifier
<b>Grey levels stored</b>	4096
<b>Image presentation</b>	B/W, color, HI-MAT <sup>Plus</sup>
<b>Digital video memory</b>	1280 x 1024 / 24 bit
<b>Image evaluation functions</b>	VARI-MAT, O <sup>2</sup> , OS, HIGH, LOW, NEG, HI-SPOT, SEN, XPlore, Opti-Zoom, HDA, stepless, electronic Zoom: enlargement: up to 64 times
<b>Monitor</b>	Flat Panel LCD Monitor

**Additional Features**

<b>Functions</b>	fading-in of date/time, luggage counter, user id-number, luggage marking system (acoustic), display of operating mode, REVIEW-feature (to recall previously visible image areas), zoom overview, free programmable keys, USB 2.0 interface, stepless zoom, IMS (Image Store System - stores up to 100,000 images)
<b>Options</b>	HI-TIP, Xport, iCMORE Weapons (HR version only)

**Installation Data**

<b>X-ray leakage</b>	meets all applicable laws and regulations with respect to X-ray emitting devices
<b>CE labelling/directives</b>	in compliance with directives 2004/108/EC, 2006/42/EC, 2006/95/EC developed in accordance with standards IEC, UN, UL, CSA
<b>Sound pressure</b>	< 65 dB(A)
<b>Operating-/storage temperature</b>	0° - 40°C / -20°C - +60°C
<b>Humidity</b>	10% - 90% (not condensing)
<b>Power supply</b>	standard: 100, 120, 200, 230, 240 VAC +10% / -20% • 50 Hz - 60 Hz ± 3 Hz
<b>Power consumption</b>	max. 1.2 kVA
<b>Protection class system/keyboard</b>	IP 20 / IP 43
<b>Dimensions • weight <sup>3)</sup></b>	2340 (L) x 1314 (W) x 1372 (H) [mm] • approx. 820 kg
<b>Mechanical construction</b>	steel construction with steel panels, mounted on roller castors standard color(s): silver matt / B11-W1 (blue)

<sup>1)</sup> approx. values (adjustable)<sup>2)</sup> proprietary quality management test piece: steel step wedge, CU wires, belt speed 0.2 m/s<sup>3)</sup> without control desk, keyboard, monitor(s) etc.<sup>4)</sup> measured at ambient temperature of 20°C and nominal voltage

For product information, sales or service, please go to [www.smithsdetection.com/locations](http://www.smithsdetection.com/locations)

Smiths Heimann GmbH, Im Herzen 4, 65205 Wiesbaden, Germany  
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# HI-PE Plus

## ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR

- Accurate Detection of all Metallic Threat Items
- High Discrimination and Throughput
- Exceptional Immunity to external interferences
- Compliant with and Certified to the Strictest Security Standards for weapons detection
- Unmatched Reliability
- Rapid Installation
- Panel Design

\* Data available upon request

Certified by  
Governmental  
Laboratories\*



GSA Contract Holder

[www.ceia-usa.com](http://www.ceia-usa.com)

*Threat Detection through Electromagnetics*





**HI-PE PLUS** ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR

The **HI-PE Plus Multi-Zone Metal Detector** provides accurate detection of all metals, high level of discrimination of non-threat items, full compliance with the latest Security Standards and exceptional immunity to external interferences.

**FEATURES**

**VERY HIGH  
SENSITIVITY**

- Capability to detect the full range of metal weapon threats even within body cavities

The **HI-PE Plus** detects firearms and knives of this type, even when they are hidden within body cavities, and accurately indicate the position of the threat, its intensity and its prevalent composition. Inspection personnel thereby acquire thorough knowledge of the metal item and can act, according to procedures, with maximum effectiveness and security.



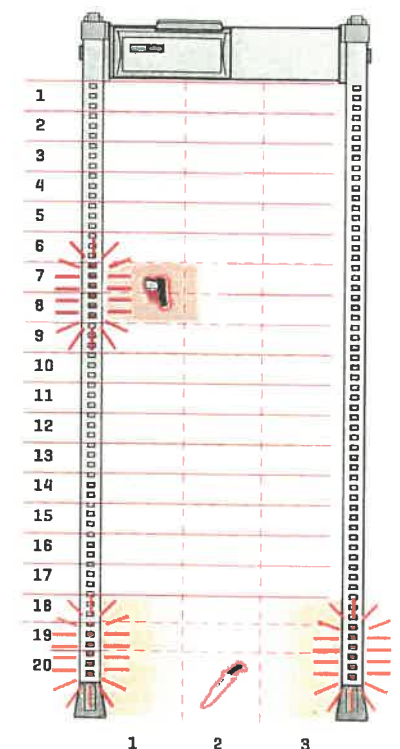
**HIGH  
RESOLUTION  
AND PRECISION**

- 60 localization zones: ▶ 20 vertical ▶ 3 lateral
- Met-Identity technology for Identification of Threat Composition

**MET-IDENTITY TECHNOLOGY**

With Met-Identity technology, the HI-PE Plus allows you to know where, how much and what type of metal is being brought into the secure area.

**Ferr** **noFe**  
▶ FERROUS METAL ▶ NON FERROUS METAL



**60 LOCALIZATION ZONES WITH LEFT, CENTER AND RIGHT INDICATION**

*The HI-PE Plus has a very 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.*

## BENEFITS



VERY HIGH  
THROUGHPUT

- 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 HI-PE Plus has a very 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 security personnel.

## UNIQUE ALARM SIGNALING



PROGRAMMABLE  
DISPLAY BARS

- 4 Multi-Zone Display Bars, each programmable as entry Stop/Go and/or local alarm indication
- High visibility of the control unit and the zone indication independent from the operator position and the installation environment

**The HI-PE Plus provides the user with fully-programmable signaling.** Both entry-points can indicate with a high level of accuracy, even simultaneously, the vertical and lateral areas of transit of the threats detected, and can also be configured as 'traffic lights' to control transits through the detector.



INTENSITY  
LEVELS

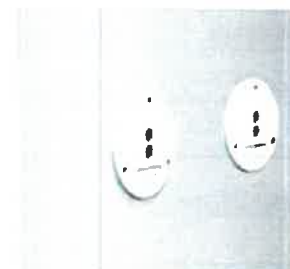
- Flexible Acoustic Alarm Signaling System:
  - 10 Continuous and Pulsed Tones ▸ 34 Special Sounds
- 10 Alarm Volume Levels

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



*The Metal Detector provides an automatic count of the people passing through the access point in both directions and the related nuisance alarm percentage:*

- In-Bound Transits
- Out-Bound Transits
- Alarm Rate
- Automatic Compensation for repeated transits of the same person



## HI-PE PLUS ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR

**Setting the Security Levels could not be easier and more versatile than in the HI-PE 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 program and save it in internal memory for later use.

### 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 HI-PE 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 for automatic selection of Security Levels and parameter changes.
- Any security standard can be enhanced with selectable random alarm probability

### CHIP CARD SYSTEM

The system allows the Head of Security to set the Security Level quickly, reliably and without having to program the device in any way.



### RAPID INSTALLATION

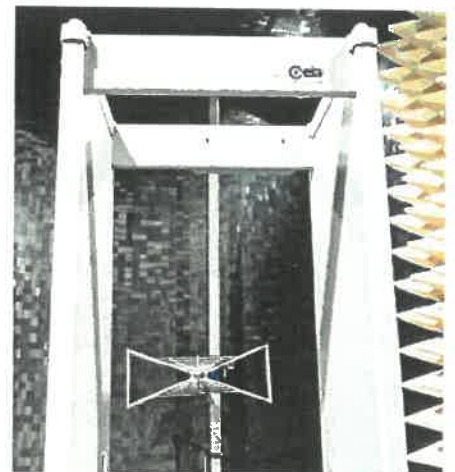


ONE TOUCH  
AUTO-SETTING

- One touch guided automatic installation [OTS]  
Innovative function assisting the installation through an automatic step-by-step procedure.
- Continuous self diagnostics assures monitored performance reliability

### IMMUNITY

Exceptional immunity to environmental interferences makes the Metal Detector easy to use even when electrical noise is encountered.



### COMMUNICATION CAPABILITIES

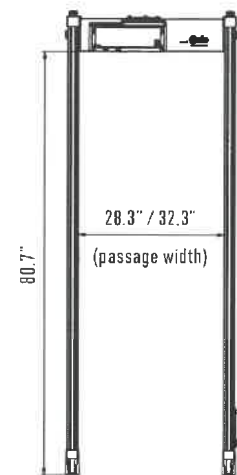
TYPE OF OPERATION	ETHERNET	USB	INFRARED	BLUETOOTH	RS-232
Maintenance	○	○		•	•
Remote Control	○		•	•	•
Remote Data collection	○				
STANDARD • OPTION ○					

## HI-PE Plus/PZ MODEL CONFIGURATION

Compliant with the strictest detection and discrimination standards for EMDs (Enhanced Metal Detectors)	•
4 display bars each programmable as zone indicators and/or pacing lights	•
60 localization zones (20 vertical x 3 lateral) with left, center and right indication	•
High precision transit counter	•
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	○
STANDARD • OPTION ○	

### DIMENSIONS

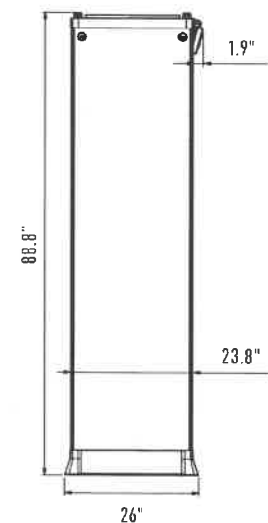
#### FRONT



#### TOP



#### LATERAL





**HI-PE PLUS ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR****OPTIONS / UPGRADE KITS****WEATHER RESISTANT PROTECTION**

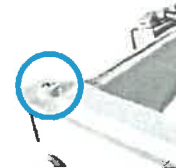
Kit for upgrading the standard version to outdoor applications according to IEC 60950-22; this kit includes shelters, crossbars, protection covers for power supply and IP68 mains power supply adapter.

- 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**

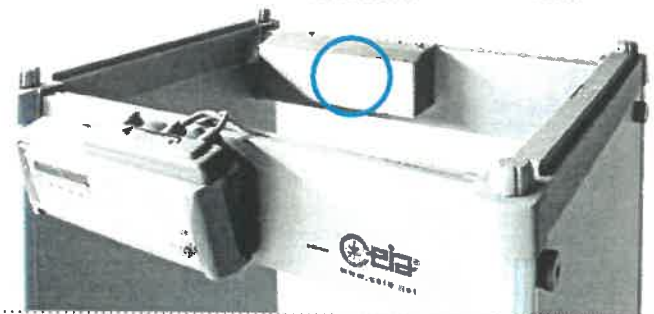
Part # 55635

**LONG LIFE CROSSBAR BATTERY BACK-UP**

Crossbar battery back-up in stainless steel case.

- Up to 13 h of autonomous working time
- 5 hours typical charging 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





## 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).

The connection is performed via bluetooth (standard) or via cable connection (part # 3805).

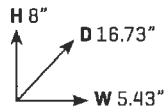


### MBSU-2

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

- 12 hours typical (up to 17 h) continuous operation with HI-PE Plus
- 7 hours typical charging time.

Part # MBSU-2



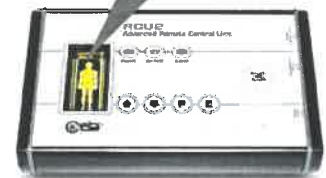
### RCU2

Control unit for full remote access, including alarm signalling and programming of CEIA Metal Detectors (part # RCU2).

The connection is performed via bluetooth (standard) or via cable connection (part # 3618).



VISUAL ALARM  
WITH ZONE  
INDICATION



### IRC-1

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

Part # 47180



### WHEEL KIT - LONG RANGE

For heavy duty, longer range movement of the walk-through metal detector.

Part # 70796

### WHEEL KIT - SHORT RANGE

For short range movement of the walk-through metal detectors.

Part # 75459U



### 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

### WATERPROOF MAINS POWER SUPPLY

IP68 power supply for outdoor applications. It is provided with flanges for simple installation.  
Part # 64610

### TEST SAMPLES KIT

Reference Samples for accurate verification of the Security Level. Includes guided procedures and certificate of calibration:

Part # 23870, 64435



### 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)



## HI-PE PLUS ENHANCED WALK-THROUGH MULTI-ZONE METAL DETECTOR



### SPECIFICATIONS

KEY FEATURES	Wide range of threat detection from guns to ½ cutter blade	
	Excellent discrimination of personal metal effects	
	60 localization zones (20 vertical x 3 lateral) with left, center and right indication	
	Met-Identity technology identifies and signals the metal type in real time	
	High precision bidirectional counter with automatic rescreening compensation	
	Random alarm capability programmable from 0% to 100%	
	Exceptional Immunity to external interferences	
	Standard Interfaces: Bluetooth, Infrared. Other available interfaces: Ethernet, USB	
QUALITY	Continuous self diagnostic system	
	Proven reliability	
	No periodic re-calibration and preventive maintenance required	
	No scheduled maintenance	
	Fully digital design	
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 metering 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 6m under lighting of 4000lux
	VISUAL ZONE INDICATION	60 distinct zones (20 vertical x 3 lateral) entry and exit side
PROGRAMMING	Up to 50 built-in Security Programs	
	Remote via 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	High discrimination and transit flow rates five or more times greater than other metal detection systems	
	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 functional verification	
	One-touch key reading of inbound, outbound and Security Level Data	
INSTALLATION DATA	Automatic synchronisation between two or more metal detectors with distance of down to 2" without the use of external cables	
	Automatic Installation function (OTS)	

### APPLICATIONS

- ☒ GOVERNMENT BUILDINGS
- ☒ INDUSTRIES (SECURITY)
- ☒ NUCLEAR FACILITIES (SECURITY)
- ☒ PRISONS (VISITORS)
- ☒ PUBLIC EVENTS
- ☒ AMUSEMENT PARKS
- ☒ COURTS
- ☒ CRUISE SHIPS
- ☒ DATA PROCESSING CENTERS (EDP)
- ☒ HOTELS
- ☒ SCHOOLS SECURITY

### ENVIRONMENTAL DATA

- POWER SUPPLY : 100...277V- ±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

- 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 all Airport Security Standards worldwide
- 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



CEIA USA Ltd - 9155 Dutton Drive, Twinsburg OH - 44087

Phone: 330-405 3190 • Fax: 330-405 3196 • E-mail: security@ceia-usa.com • Call [833] 224-2342 [CEIA]

[www.ceia-usa.com](http://www.ceia-usa.com)

# 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



**GSA** Contract Holder

[www.ceia-usa.com](http://www.ceia-usa.com)

*Threat Detection through Electromagnetics*

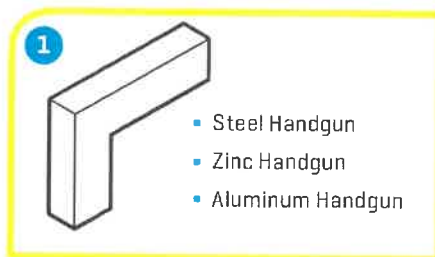
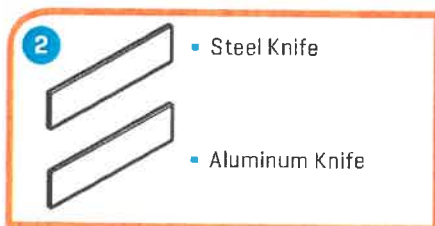
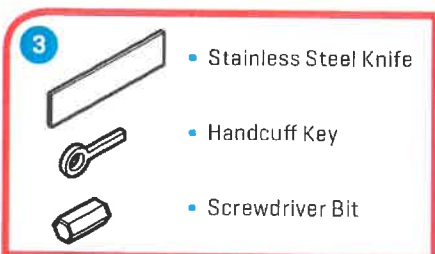
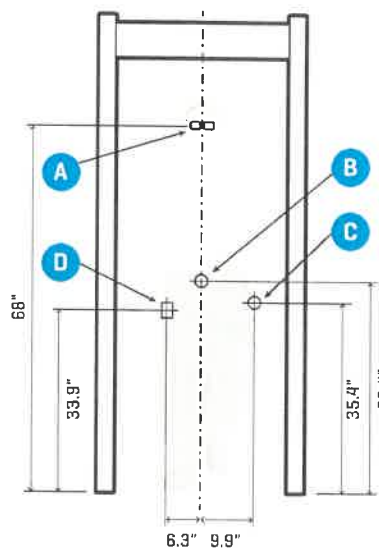


**SMD600 PLUS TWO-IN-ONE METAL DETECTOR****FULLY COMPLIANT WITH THE NIJ-0601.02 STANDARD**

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

**NIJ-0601.02 FULL COMPLIANCE**

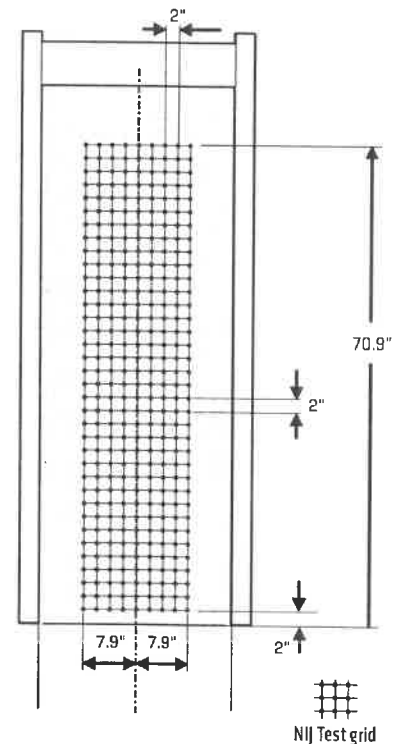
The **SMD600 Plus Metal Detector** fully complies with the requirements of the **NIJ0601.02 Standard** for all Security Levels, and can therefore be applied in situations from the inspection of visitors to that of inmates in **top-security checkpoints, even in areas with strong electrical and mechanical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

**3 LEVEL OF SECURITY****INNOCUOUS ITEMS****TEST POSITIONS****LO LEVEL: LARGE OBJECT SIZE****MO LEVEL: MEDIUM OBJECT SIZE****SO LEVEL: SMALL OBJECT SIZE****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 **C** Watch  
**B** Belt buckle **D** Set of coins

**DETECTION TEST OBJECT TRANSITS**

Perform, for each Test Object, two passages, one forward and the other backwards, for 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

- 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



VERY HIGH THROUGHPUT

- 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



**SMD600 PLUS TWO-IN-ONE METAL DETECTOR****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

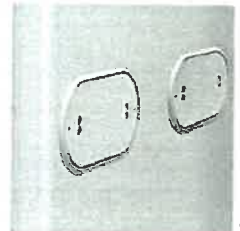
**COMMUNICATION CAPABILITIES**

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

**HIGH PRECISION TRANSIT COUNTER**

*The Metal Detector provides an automatic count of the people passing through the access point in both directions and the related nuisance alarm percentage:*

- In-Bound Transits
- Out-Bound Transits
- Alarm Rate
- Automatic Compensation for repeated transits of the same person

**CHIP CARD SYSTEM**

*Chip Card for automatic selection of Security Levels and parameter changes.*

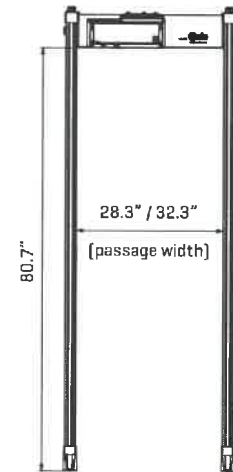


## SMD600 PLUS/PZ MODEL CONFIGURATION

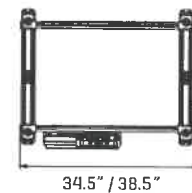
Fully compliant with, and exceeding, the NIJ-0601.02 Standard	•
4 display bars each programmable as zone indicators and/or pacing lights	•
Dual Side 20 x 2 localization zones	•
High precision transit counter [2-beam]	•
Chip Card Reader	•
Bluetooth, infrared and RS-232 communication	•
Programmable Random 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 ○	

### DIMENSIONS

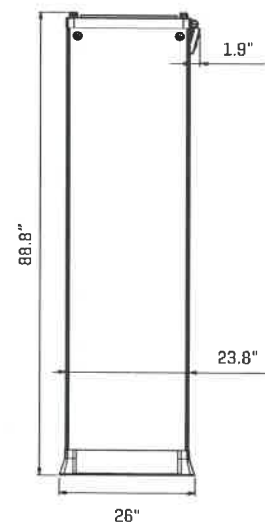
#### FRONT



#### TOP



#### LATERAL



**SMD600 PLUS TWO-IN-ONE METAL DETECTOR****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]

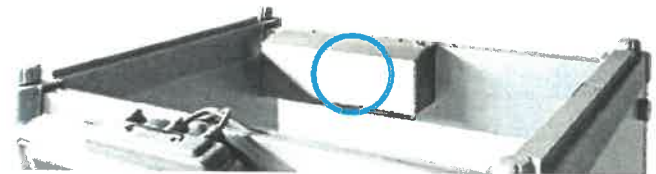
**32.3" USEFUL PASSAGE WIDTH**

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**

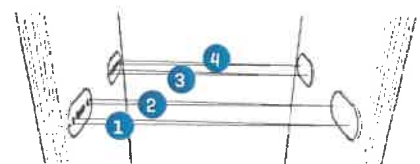
Anti-tamper on/off switch, RS-232, USB, 10/100 baseT Ethernet interface, data logger, real-time clock, integrated web-server, transit statistical data analysis, 20' internal battery back-up with 12 hours mains disconnection diagnostic alarm.

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

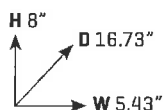


### MBSU-2

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



### 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

### WATERPROOF MAINS POWER SUPPLY

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

Part # 64610



### 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 MD and SD classes detection capability verification
- Part # EMD-SK-GDML: reference samples for accurate verification of the disassembled guns Security Level



NIJ-0601.02-SKN



63744

EMD-SK-GDML



**SMD600 PLUS TWO-IN-ONE METAL DETECTOR****SPECIFICATIONS**

<b>KEY FEATURES</b>	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	
<b>QUALITY</b>	Continuous self diagnostic system	
	Proven reliability	
	No periodic re-calibration and preventive maintenance required	
	No scheduled maintenance	
<b>WALK-THROUGH GATE STRUCTURE</b>	State-of-the-art, robust and washable panels	
	Protected against aging, weather and wear	
<b>CENTRAL CONTROL UNIT</b>	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	
<b>ALARM SIGNALING</b>	VISUAL SIGNALS	Multi-zone display bar for "height on person" localization
		4 light bars with selectable entry/exit and pacing indication
		Green and red metering signals proportional to the mass of the detected target
	AUDIO SIGNALS	10 selectable continuous and pulsed tone plus 34 special tones
<b>TYPE OF SIGNALING</b>	10 selectable sound intensities ranging from 0 to 90 dbA at 1m	
	VISUAL	
<b>PROGRAMMING</b>	Fixed or proportional to the mass in transit - visible from 6m under lighting of 4000lux	
	VISUAL ZONE INDICATION 20 x4 distinct zones (20x2 entry side and 20x2 exit side)	
	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
<b>OPERATIONAL FEATURES</b>	Local by Control Unit alphanumeric display and keyboard	
	Programming and chip-card access protected by user and super-user passwords	
	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	
<b>INSTALLATION DATA</b>	One-touch key reading of inbound, outbound and Security Level Data	
	Automatic synchronisation between two or more metal detectors with distance as close as 12" without the use of external cables	
	Built-in floor sensitivity adjustment function	
	Automatic Installation function (OTS)	

**APPLICATIONS**

- ☒ AIRPORTS
- ☒ GOVERNMENT BUILDINGS
- ☒ INDUSTRIES {SECURITY}
- ☒ NUCLEAR FACILITIES {SECURITY}
- ☒ PUBLIC EVENTS
- ☒ COURTS

**ENVIRONMENTAL DATA**

- POWER SUPPLY: 100...277V~ -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



CEIA USA Ltd - 9155 Dutton Drive, Twinsburg OH - 44087

Phone: 330-405 3190 • Fax: 330-405 3196 • E-mail: security@ceia-usa.com • Call [833] 224-2342 [CEIA]

www.ceia-usa.com



# PD240CB

## LONG-RANGE HAND-HELD METAL DETECTION SET

- Long detection range for standoff inspection
- Exceeds the NIJ Standard - 0602.02 detection requirements
- Search operations allowed even in close proximity of metal reinforced floors
- Large search area
- Uniform detection of magnetic and non-magnetic targets
- Full Digital Design: consistent performance and calibration-free Operations
- Elegant, robust and ergonomic
- Indoor and outdoor operations



**NEW**

**DUAL-TONE AND  
DUAL-COLOR  
DISPLAY FOR  
HIGH PRECISION  
PINPOINTING**

**EXCEPTIONAL  
IMMUNITY TO  
ENVIRONMENTAL  
INTERFERENCE**

**GSA** Contract Holder



[www.ceia-usa.com](http://www.ceia-usa.com)

*Threat Detection through Electromagnetics*





**PD240CB LONG-RANGE HAND-HELD METAL DETECTION SET**

*The PD240CB is a Hand Held Metal Detector that combines high reliability and ergonomics with advanced detection and operator signaling features.*

*Long detection range for weapons and minimum metal targets, effective sensitivity to all alloys, exceeds the latest Security Standards and has high immunity to external metal masses.*

**ADVANTAGES & BENEFITS**

- Programmable Sensitivity
- Long Detection Range
- Extended Continuous Operation Time
- Automatic Low Power Mode during Screening Pauses
- Embedded Long Life Rechargeable Batteries are renewable energy and eliminate the Operation Cost of Alkaline Batteries
- Embedded Fast and Reliable Battery Charger: no need for removal of batteries
- Dedicated Docking Station acts as Table Stand and Mains connection for Battery Charge
- Operator Functions can be standard or customized by the user through PC GUI and USB connection

**ELEGANT, ROBUST AND ERGONOMIC**

The PD240CB features a special ergonomic design consisting of an offset hand grip which ensures that the operator's hand does not interfere with the sensitive detection area. Special care has gone into the mechanical design of the detector.

Absence of sharp edges or corners allows the detector to be passed smoothly over the inspected area without getting caught in buttons, buckles, folds or other parts of clothing.

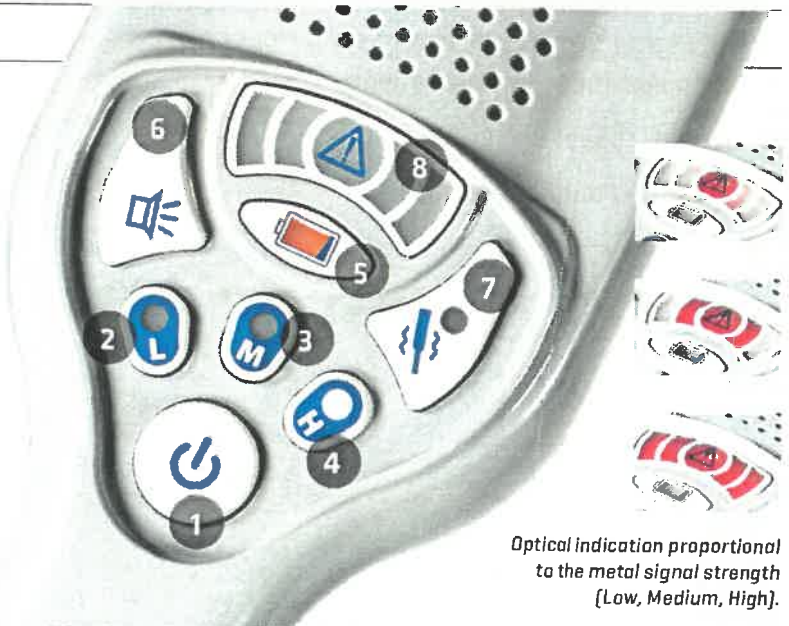
**ADVANCED CONTROL PANEL**

The control panel with buttons and warning lights is made from high-thickness silicon guaranteeing a high degree of protection to make the PD240CB suitable for indoor and outdoor use.

**FULLY PROGRAMMABLE SIGNALING**

- Proportional/Fixed, High Loudness **Acoustic Alarm**
- Proportional/Fixed, High Brightness **Optical Alarm**
- **Vibration Alarm** for Discrete Screening

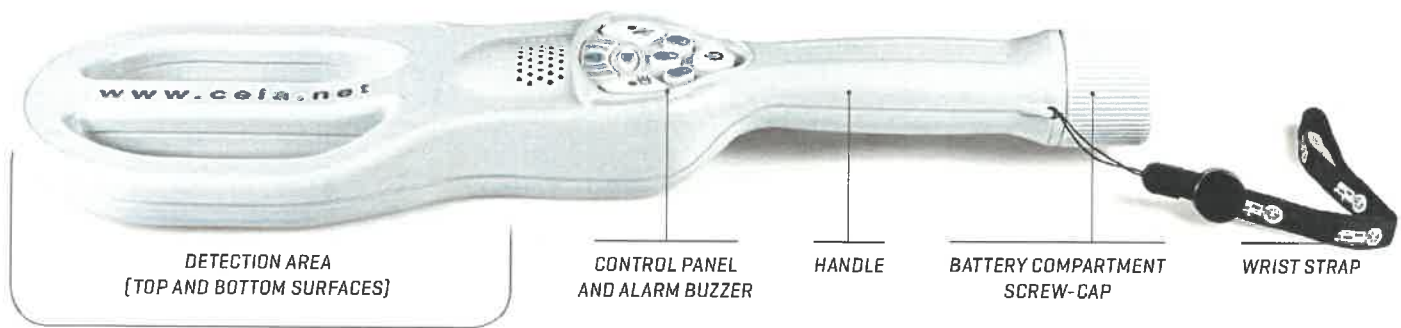
- 1 Power push button
- 2 L low sensitivity
- 3 M medium sensitivity
- 4 H high sensitivity
- 5 Battery charge indicator
- 6 Acoustic alarm
- 7 Vibration Alarm
- 8 Visual alarm indicator



Optical indication proportional to the metal signal strength [Low, Medium, High].



## PD240CB LONG-RANGE HAND-HELD METAL DETECTION SET



## NIJ STANDARD 0602.02 COMPLIANT

The technical features of the detector **comply with the NIJ standard 0602.02 and the new NIJ draft standard 0602.03**. The PD240CB has uniform sensitivity to magnetic and non-magnetic targets including those made of stainless steel. At the same time the detector offers excellent body-effect compensation and has high immunity to external disturbance from electromagnetic and mechanical sources.

## FULL DIGITAL DESIGN

The PD240CB is fully digital. Electronic functions include an inspection field transmitter-receiver based on Digital Signal Processing (DSP) technology, a digital operator interface and external communications over the incorporated USB port.

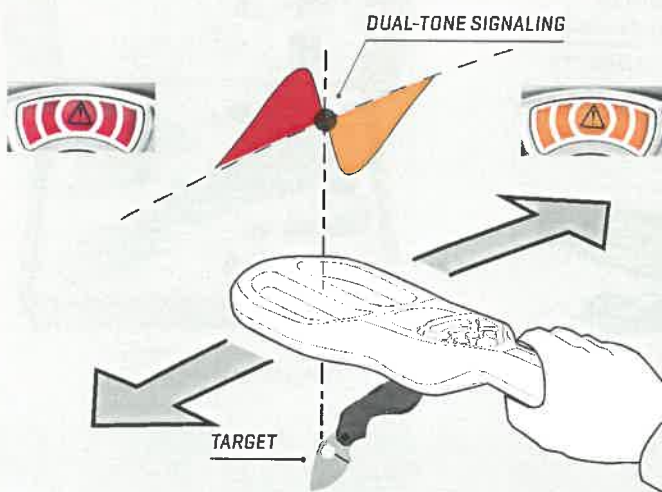
## EXTENDED CONTINUOUS OPERATION TIME

The PD240CB is powered by two AA-size NiMH batteries with a **battery life of over 50 hours**. A Low Power Mode is automatically activated during periods of inactivity, extending the battery life up to 100 hours. An internal circuit optimizes battery recharging which takes less than five hours.

## SOPHISTICATED COMMUNICATION CAPABILITIES

The digital design of the new metal detector also enables the **maximum flexibility in selecting how detection alarms are signalled**. Users can keep the factory settings or connect the detector over its USB to a PC and then **personalize the settings with a dedicated graphic interface**.

## DUAL-TONE AND DUAL-COLOR DISPLAY



Dual-Tone Pinpointing for high precision metal objects localization.

## HIGH IMMUNITY TO ENVIRONMENTAL INTERFERENCES

The PD240CB incorporates innovative technical solutions which make it possible to operate much closer to floors with steel reinforcement bars than was previously possible with conventional hand-held detectors.

All this without any reduction in sensitivity.



**PD240CB LONG-RANGE HAND-HELD METAL DETECTION SET****SPECIFICATIONS**

<b>POWER SUPPLY</b>	2x AA size NiMH, rechargeable batteries
<b>FULLY CUSTOMIZABLE CONTROL PANEL</b>	Optical, acoustic and vibration alarm modes 3-level sensitivity selection buttons
<b>DETECTION AND OPERATIONAL FUNCTIONS</b>	Customizable via HHMD Configuration tool
<b>BATTERY</b>	Battery life 50 + hours continuous service (AA NiMH batteries 2500 mAh); up to 100 hours with automatic sleep mode  Low battery indicator  Built-in fast battery charger in combination with the HHDS Docking station
<b>OPERATING TEMPERATURE</b>	-35°F to 158°F
<b>STORAGE TEMPERATURE</b>	-35°F to 176°F
<b>RELATIVE HUMIDITY</b>	0 to 98% (without condensation)
<b>DIMENSIONS</b>	PD240CB: 16" x 4.7" x 1.6" HHDS Docking station: 6.9" x 4.5" x 3.4" Carry Bag: 17" x 13.4" x 4.1"
<b>WEIGHT</b>	PD240CB (with battery): 1.05 lbs HHDS Docking station (with power adapter): 1.6 lbs Carry Bag: 2.9 lbs
<b>COLOR</b>	PD240CB: light grey RAL 7040 - Carry Bag: Green RAL 7013
<b>MANUFACTURED IN GREY SHOCK-RESISTANT TECHNICAL POLYMERS</b>	
<b>COMPLIANCE</b>	Conforms to the NIJ 0602.02 and the new NIJ 0602.03 Standards for metal detection  Conforms to the international standards currently applicable for safety, EMC and to the applicable CE regulations
<b>ACCESSORIES</b>	Carry Bag: part # 64082  NIJ 0602.02 Test Pieces Kit: part # NIJ-HHMD-0602.02 (includes 11 test objects for LO, MO, SO, VSO security levels)  HHMD Configuration tool: part # 63537 (includes special USB adapter with cable, GUI application software)



CARRY BAG [# 64082]



HHMD CONFIGURATION TOOL [# 63537]

**ORDERING CODE**

PD240CB-SET

**SHIPPING INFORMATION**

Dimensions: 17.7" x 12.8" x 4.5"

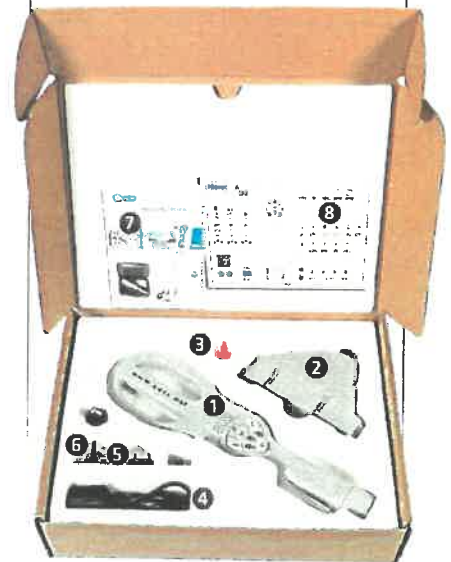
Weight: 5.1 lbs

Packages for 20 ft container: 960

Packages for 40 ft container: 2016

**PD240CB-SET: PART LIST**

- 1 PD240CB Hand Held Metal Detector [batteries included]
- 2 HHDS Docking station
- 3 NIJ compliant Calibration Test Piece
- 4 Universal AC adapter [100-240 Vac, 50-60Hz, 6W]
- 5 US, EU, UK, JP plugs adapter
- 6 Wrist strap
- 7 Instruction manual
- 8 Quick Reference Guide



PD240CB [# PD240CB-SET]



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www.ceia-usa.com