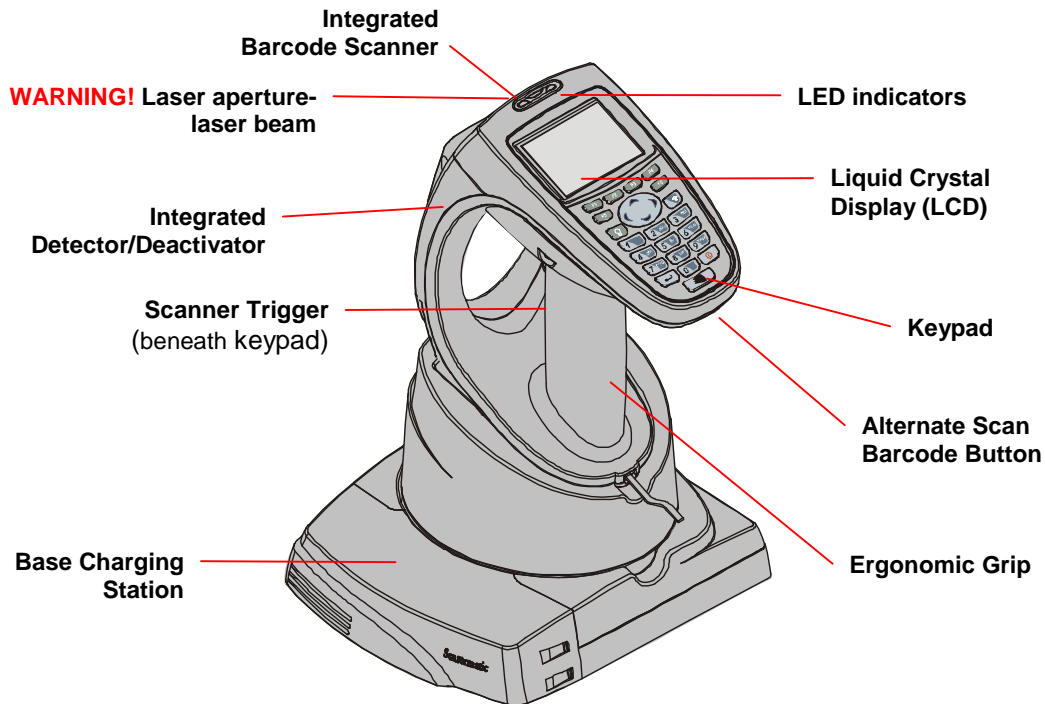


AMB-4020 Hand-Held Scanner/Deactivator

User's Guide

Product Overview



The AMB-4020 hand-held scanner/deactivator is a multi-purpose device used for scanning barcodes, detecting and deactivating EAS labels, alarm logging, and source tagging compliance checking. It includes the following features:

Feature	Function
Base Charging Station with security lock	Secures the hand-held unit when not in use. Keeps unit batteries optimally charged.
Liquid Crystal Display	Displays prompts and messages relating to the task at hand.
Keypad	Used for entering information. See the Keypad Overview for details.
LED indicators	Red and green lights indicate proper unit function.
Integrated Barcode Scanner	Used to scan barcodes on receipts, merchandise, packages and badges.
Ergonomic Grip	Provides comfortable use for a variety of users.

Feature	Function
Integrated EAS Detector / Deactivator	Assists in identifying merchandise that has not been properly deactivated at the point-of-sale. Also allows these items to be deactivated with proof of purchase.
Scanner Trigger	Activates the scanner when needed.
Alternate Scan Barcode button	Activates the barcode scanner when the unit is stored in its base.











WARNING: Before using this device, read this manual carefully! Ensure that all the safety instructions specified within this manual are continuously observed and respected during the installation and/or during the operation of this device.

Keypad Overview



The buttons on the keypad allow you enter information about the activity being performed. Depending upon the software configuration, some keypad features may not be available.

Button	Function
 Power	Switches the scanner/deactivator to standby mode to conserve power.
 Cursor	Moves the cursor around the LCD. Press an arrow corresponding to the direction that you want to move the cursor.
 Enter	Makes selections appearing on the LCD.
 Alternate Scan Barcode	Activates the barcode scanner when the unit is stored in the base.

Button	Function
 Backlighting	Turns on LCD backlighting if the display appears dark.
 Alpha Shift Key	Toggles between entering numbers and alphabetic characters using the numeric keypad.
 Function Keys	Special purpose keys that can be programmed to perform specific functions depending upon the screen displayed.
 Numeric Keypad	Allows numbers to be manually entered. Alphabetic characters can be entered using these buttons and by pressing the Alpha Shift key .

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Before Using the AMB-4020 Scanner/Deactivator

Keep the following precautions in mind when using the AMB-4020 hand-held scanner/ deactivator.

Safe Operation

IMPORTANT!

This device may be used to locate and deactivate Ultra•Max[®] labels on merchandise to help speed up the checkout process in busy retail environments. Like many similar devices, the AMB-4020 scanner/deactivator emits electromagnetic fields that may affect certain implanted medical devices.

Since it is impossible to tell which customers may have an implanted medical device, it should not be used within 30cm (12in) of a customer's head and torso.

Some employees with implanted medical devices may notice interactions while operating this equipment. These interactions are ordinarily transitory and should not be harmful. However, if the employee feels uncomfortable, a change in assigned duties should be considered.

Laser Device Warnings



WARNING: Do not stare (look) in the beam of the laser: It is a Laser Class 2 and it may produce eye damages.



WARNING: Do not test the device with the aperture directed to your eyes.



WARNING: It is very important to be aware that the duration of the laser radiation emission is longer than the audible beep that results when the push-button (trigger) is activated: **DO NOT ATTEMPT TO TURN THE APERTURE TOWARDS YOUR EYES DURING THE RADIATION EMISSION.** The red beam is an optical indicator that the radiation is present and, as long as it is visible, the scanner shall not be directed towards the operator or towards any other person's eyes.



WARNING: Do not attempt to open the equipment enclosure! There are no serviceable parts within this equipment! Radiation hazard and/or electric shock may occur! If the unit is defective, return it to the distributor.



WARNING: Once the equipment is unpacked, check the integrity of the plastic enclosure of the hand-held unit; the enclosure shall be inspected to ensure that there are no holes, cracks or other paths that give access to laser or collateral radiation. If any of the above are observed, return it to the Manufacture. Do not attempt to use the device.



WARNING: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Avoid Dropping the Scanner/Deactivator

Always use the attached wrist lanyard to prevent dropping the scanner/deactivator. Insert your hand through the loop of the lanyard, and hold the scanner/deactivator by the grip. If the scanner/deactivator should slip from your hand, the wrist

lanyard prevents the device from dropping to the ground.

Figure 1: Using the lanyard.



IMPORTANT! Never use a scanner/deactivator that has been dropped! The scanner/deactivator may have damage that is not visible to the user. Return any scanner/deactivator that has been dropped to Sensormatic for service.

Preparing the Scanner/Deactivator

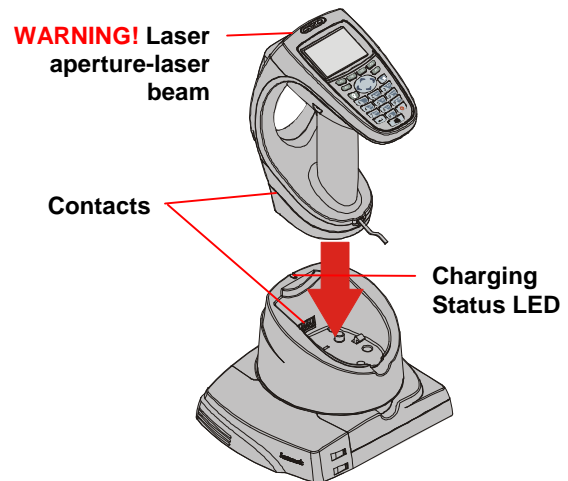
Before using the scanner/deactivator, it must be charged for a minimum of 2 hours in the base charging station. Once fully charged, the scanner/deactivator can operate up to 5 hours in standby mode without recharging.

Charging and Securing the Scanner/Deactivator

Follow the steps below to charge and secure the Scanner/Deactivator. Be sure to charge the unit before using.

1. Align the scanner/deactivator with the base charging station.
2. Insert the scanner/deactivator downward into the base charging station. The contacts on the scanner/deactivator and inside the base charging station should meet.

Figure 2: Inserting the Scanner/Deactivator into the base charging station.



When properly inserted, the scanner/deactivator locks into the base charging station to prevent unauthorized use. The charging status LED glows orange while charging. When fully charged, the LED glows green.

Note: If the charging status LED is flashing green, the scanner/deactivator is not properly inserted in the charging base.

IMPORTANT! To ensure that the scanner/deactivator remains secure and maintains a charge, it should be stored in the base charging station whenever it is not being used.

Removing the Scanner/Deactivator from the Base Charging Station


CAUTION: Do not attempt to use excessive force to remove the scanner/deactivator from the base charging station. Use of force may damage the scanner/deactivator.

Depending on the procedures implemented at your store, different techniques may be used by authorized users to remove the scanner/deactivator from the base charging station:

- Entering passcodes
- Scanning badges

The scanner/deactivator remains unlocked for 5 seconds. If it is not removed from the base charging station within that time, the scanner/deactivator re-locks.

Unlocking with Passcode

1. Enter the passcode using the keypad.
2.  Press **Enter**. If the passcode is recognized, the scanner/deactivator unlocks from the base charging station.

Unlocking with Barcode Scan


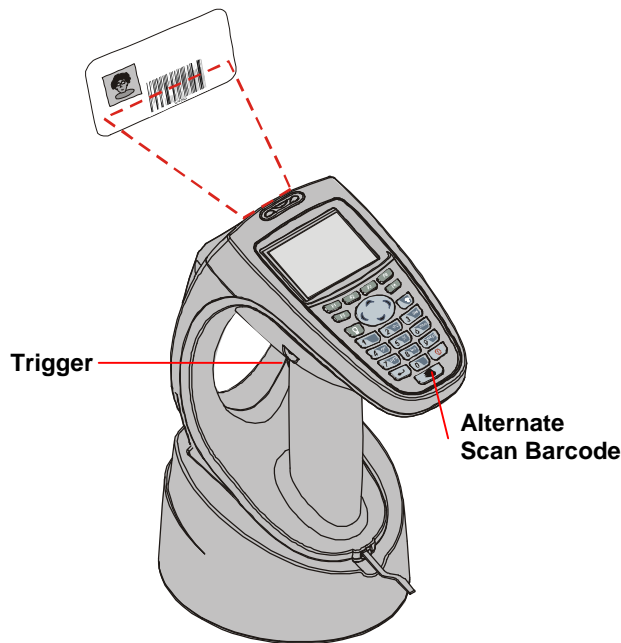
1. Hold the badge with the barcode near the scanner window of the scanner/deactivator. The badge should be approximately 15cm (6in) from the scanner window.
2.  Squeeze the trigger or press **Alternate Scan Barcode**. The scanner emits a red beam of light. If necessary, adjust the position of the badge until the scanner detects the barcode. If the barcode is recognized, the scanner/deactivator unlocks from the base charging station. See Figure 3.

Figure 3: Scanning a badge to remove from base.



Using the Scanner/Deactivator

Once the scanner/deactivator has been removed from the base charging station, the unit can be used to scan product barcodes, detect active EAS tags and labels, and deactivate EAS labels. It can also be used for alarm logging.



CAUTION: Like many similar devices, the AMB-4020 scanner/deactivator emits electromagnetic fields that may affect certain implanted medical devices. Since it is impossible to tell which customers may have an implanted medical device, the scanner should not be used within 30cm (12in) of a customer's head and torso.

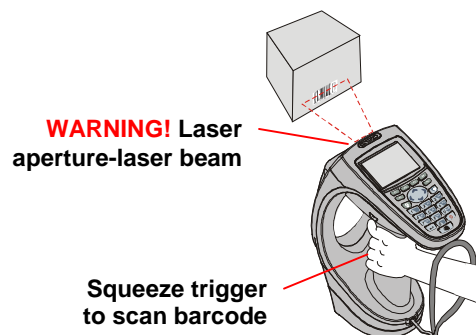
Scanning Barcodes



WARNING: The hand-held scanner/deactivator incorporates a Class 2 laser scanner that uses a low power, visible light diode. As with any very bright light source, such as the sun, avoid staring directly into the light beam or at its reflection. Momentary exposure to a Class 2 laser is not known to be harmful.

1. Locate the barcode on the receipt or merchandise requiring scanning.
2. Orient the item so the barcode faces the scanner window.
3. Hold the scanner/deactivator approximately 20 cm (8 in) from the item. Squeeze the scanner trigger located below the keypad. The scanner emits a red beam of light. If necessary, adjust the position of the scanner/deactivator to read the barcode.

Figure 4: Scanning Merchandise



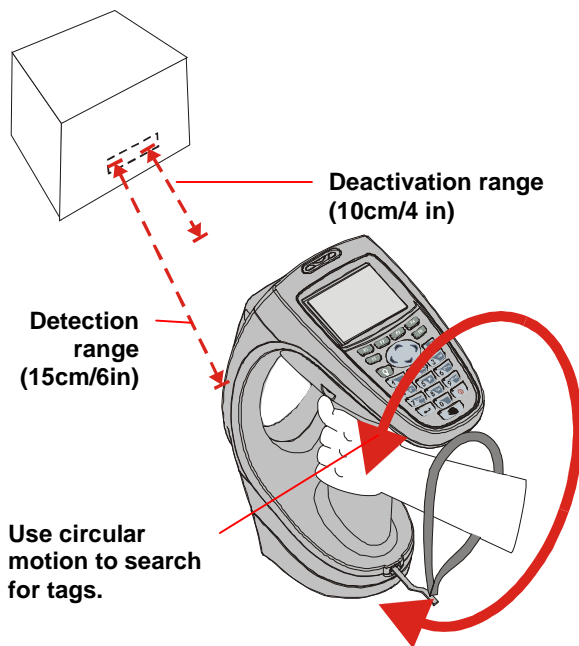
Detecting/Deactivating EAS Tags and Labels

The scanner/deactivator may be used to detect EAS tags (hard tags) and labels on merchandise. The scanner/deactivator is capable of detecting EAS tags and labels up to 15cm (6in) and deactivating labels up to 10cm (4in) from the unit.

1. Orient scanner/deactivator towards merchandise.
2. Use a circular motion to search for active tags and labels.
3. When an active tag or label is detected, the scanner/deactivator emits a steady beeping tone and the green LED illuminates.
4. Continuing with the circular motion, move the scanner deactivator toward the specific item to deactivate.
5. Repeat steps 2 through 4 to detect and deactivate addition items.

Note: If an EAS tag (hard tag) is present on merchandise with a valid receipt, direct the customer to return to the register or customer service for removal if a detacher is not available.

Figure 5: Detecting and deactivating EAS labels.



Logging Alarms

The scanner/deactivator may be used to log information about EAS alarms that occur at the exit. Prompts appear on the scanner/deactivator LCD.

1. Remove the scanner from its base charging station.
2. Scan the receipt barcode.
3. Search for the active label or tag.
4. Verify that item causing alarm appears on the receipt. Scan the product barcode, and deactivate the label.
5. Repeat steps 3 and 4 until all active tags have been detected and deactivated.
6. Return the scanner/deactivator to the base charging station.

Maintenance



WARNING: Use the power button to turn off the scanner/deactivator before cleaning so eye damage from the scanner laser does not occur.

The scanner/deactivator may be cleaned by wiping it with a soft cloth. Do not use water or any solvents for cleaning.

Glossary

Aperture: opening in the protective enclosure through which laser radiation is emitted.

Emission Duration: Duration of a pulse or series of pulses, or continuous operation, expressed in seconds, during which human access to laser radiation is permitted as a result of operation and/or maintenance of a laser product.

Human Access: means capacity to intercept laser radiation by any part of the human body through any opening in the protective enclosure of the product.

Laser: device that can be made to produce or amplify electromagnetic radiation within a specified wavelength by the process of controlled stimulated emission.

Operator (user): any person, other than a service person.

Service person: a person having appropriate technical training and experience necessary to be aware of hazards to which that person may be exposed in performing a task and of measures to minimize the risks to that person or other persons.

Symbols used within the manual: The symbol of an exclamation mark inside a triangle represents important warnings or cautions concerning health and safety issues.

Specifications

Hand-Held Scanner/Deactivator

Physical

(HHS/D, Base Charging Station, and Command Module with Cable Management Enclosure)

Dimensions (L x W x H) 196 x 205 x 188 mm
(7.7 x 8 x 7.4in)
Weight 1.4kg (50oz)

(Hand-Held Scanner/Deactivator only)

Dimensions (L x W x L)..... 142 x 113 x 227mm
(5.6 x 4.4 x 8.9in)
Weight (including battery) 964g (34oz)
Display..... Monochrome FSTN
240 pixels (W) x 160 pixels (L)
(1/8 VGA size)
Touch Panel Yes
Backlight EL backlight
Main Battery Rechargeable Lithium Ion
1600 mAh (max. 8.4V, nominal 7.4V)
Backup Battery None

Performance

Processors.....Intel® Xscale architecture,
Motorola DSP56F807
Operating Platform..... Microsoft® Windows®
CE.NET 4.1
Memory..... 32MB RAM/
16MB FLASH
Communications 3 internal dedicated RS-232
CF Card Slot.....Type II
Cards Supported..... 802.11b CF card,
Compact Flash Type II
Flash Memory card
Audio Transducer piezo
Detection Distance (max) 15.25cm (6in)

Deactivation Distance (max) 10.25cm
(4in)
Operating Time 3 hours with radio
@ 5 scans/minute
Standby Mode up to 5 hours
Keypad..... 25 keys (with cursor),
synthetic elastomer

Barcode Scanner

Integrated 1D decode Bar Code scanner
(CCD E1022 or Laser SE-923)..... UPC/EAN/JAN,
Code 39, Code 93, Code 128,
Interleaved 2 of 5, Discrete 2 of 5,
NW-7, UCC/EAN-128
LED Display Upper front center
(Green, yellow, red)
Scan Triggers..... Pistol Trigger
Keyboard Scanner Trigger

Environmental

Operating Temperature..... -10° to +40° C
(14° to 104° F)
Storage Temperature-25° to 70° C
(13° to 158° F)
Environmental Sealing IP54 Category II
Humidity5% to 90% RH
(Non-condensing)
Drop Specification: 1.1m (44in.)
drop to concrete
Ambient Light
Indoor450 ft-candles
(4,842 LUX)
Outdoor8,000 ft-candles
(86,112 LUX)
Electrostatic Discharge (ESD)..... +/-15 kVDC (air);
+/- 8 kVDC (contact)

Wireless Data Communications

Wireless Local Area Network (WLAN) IEEE
standards-based internal
Compact Flash WLAN Card
Data Rate 11 Mbps
(direct sequence)
Frequency Range.....Country dependent;
typically 2.4 to 2.5 GHz
Output Power 100 mW US;
100 mW international
Spreading TechniqueDirect Sequence
EAS Synchronization Internal EAS
Sync-Link receiver
with internal antenna
WLAN Antenna Internal

Peripherals and Accessories

Cradles	Single-slot serial charging cradle with security locking features
Communication/Charging	Charging cradle with universal power supply; Ethernet 802.3, RS-232 ports on cradle
Other Accessories	Optional lanyard

Base Charging Station

Performance

Processor	Motorola DSP56F807
Operating Platform.....	Sensormatic O/S
Communications.....	3 RS-232, RS-485, Ethernet 802.3 port
EAS Synchronization.....	Sensormatic Sync Link Transmitter
Contact Closures	2 Output, 1 Input
Audio	Transducer
LED Display.....	One tri-color LED (amber, green and red)

Environmental

Operating Temperature	-10° to +40° C (14° to 104° F)
Storage Temperature.....	-25° to 70° C (13° to 158° F)
Environmental Sealing	IP54 Category II
Humidity.....	5% to 90% RH (Non-condensing)
Ambient Light	
Indoor	450 ft-candles (4,842 LUX)
Outdoor.....	8,000 ft-candles (86,112 LUX)
Electrostatic Discharge (ESD)	+/-15 kVDC (air); +/- 8 kVDC (contact)

Wireless Data Communications

Wireless Synchronization	EAS Sync-Link transmitter
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Peripherals and Accessories

Cradles.....	Single-slot serial charging cradle with Security locking features (Barcode Scan release feature)
Communication/Charging Cables.....	Charging cable with universal power supply; Ethernet 802.3; RS-232 port

Declarations

Regulatory Compliance

Electrical Safety.....UL 60950-1
CAN/CSA C22.2. No. 60950-1
EN60950-1

EMI/RFI 47 CFR, Part 15
ICES-003
RSS 210

Hazardous Locations..... Non-Hazardous
Locations ONLY, Pollution degree 2-as per
EN60950-1/UL60950-1 or equivalent.

FCC COMPLIANCE: This equipment complies with Part 15 of the FCC rules for intentional radiators and Class A digital devices when installed and used in accordance with the instruction manual. Following these rules provides reasonable protection against harmful interference from equipment operated in a commercial area. This equipment should not be installed in a residential area as it can radiate radio frequency energy that could interfere with radio communications, a situation the user would have to fix at their own expense.

EQUIPMENT MODIFICATION CAUTION: Equipment changes or modifications not expressly approved by Sensormatic Electronics Corporation, the party responsible for FCC compliance, could void the user's authority to operate the equipment and could create a hazardous condition.

Other Declarations

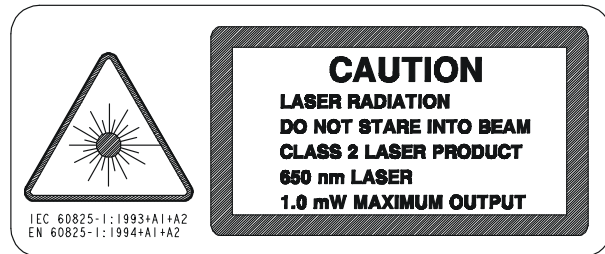
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The explanatory label and the warning label that are affixed on the equipment are as follows:



RLJ 12/2004