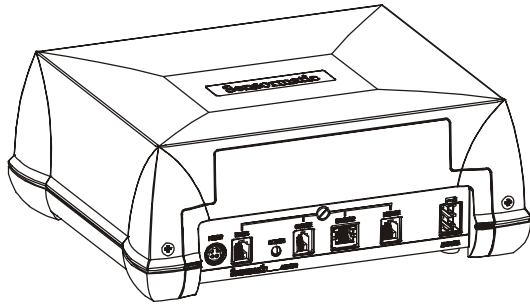
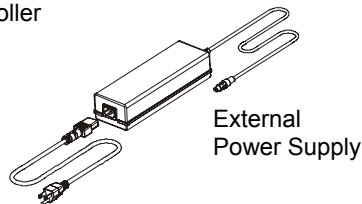


ZBAMB9010 Bi-Planar Antenna Controller

Installation and Service Guide



Controller



External Power Supply

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About this Guide

This guide explains how to install, setup, and troubleshoot the AMB-9010 controller. It does not explain how to mount the controller and its associated antenna into a counter or scanner. Mounting instructions are supplied with the mounting bracket and antenna.

Note: Because customer requirements dictate the location of components at the customer site, your ADT representative will supply this information separately.

If you need assistance...

Customers: 1-800-241-6678
(Sensormatic/ADT Customer Response Center)

**ADT Technicians (North America):
Sensormatic Technical Support**

1-800-543-9740

Direct: 561-939-3290

Hours: 8 a.m. to 6 p.m. EST

Email: easts@sensormatic.com

ADT Technicians (Europe): TFS EMEA

+800 CALLTYCO (+800.22.55.89.26)

UK only: +44 (0) 8701.238.787

France only: +33 (0) 4.72.79.14.83

Spain only: +900.10.19.45

Direct: +31 475.352.722

Fax: +31 475.352.725

Hours: 8 a.m. to 6 p.m. CET

Email: TFSEMEA.Support@tycoint.com

www.tycosafetyproducts-europe.com

For all training inquires:

Email: TFSEMEA.Training@tycoint.com

About the Product

The AMB-9010 controller connects to an AMB-5182 low inductance antenna to detect and deactivate security labels.

Antennas used with the controller:

Note: An EEPROM in the antenna cable automatically adjusts the controller to the antenna's characteristics. If the EEPROM is not programmed, the antenna type settings default to PowerPad Pro.

Low Inductance Antennas

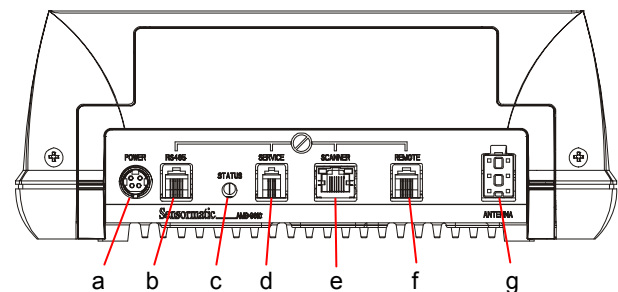
Antenna*	Tx Power	Deactivation Height	
		Full Power	MMS Power
AMB-5182 (ZBAMB5182)	Normal	20–22.5cm (8–9in)	N/A

Internal features:

- External power supply with a universal ac input and 22Vdc output and line sync signal to the controller.
- Automatic antenna type detection, except if using an optional antenna cable extension.
- Auto and re-synchronization
- Adjustments to transmit and deactivation fields to correct for counter thickness
- Remote key switch detection
- Status LED for power on, communication activity, and basic diagnostics.
- Label type (SR/DR) and power level (full or MMS).
- Advanced settings.
- Diagnostics.

Front panel features:

- Power:** External ac-dc power supply connects here.
- RS-485 (Network) port:** This 6-position modular jack provides RS-485 communication between Sensormatic devices and a POS system. An RS-485 based Remote provides AcoustoLink and FootLink functionality on this port.
- Status LED:** For indication of power on/antenna connected (green), antenna disconnected (off), deactivation disabled (green blinking), deactivation (orange blinking), and non-recoverable fault (red).
- SERVICE port:** This 4-position modular jack provides RS-232 communication to a laptop computer for advanced setup and diagnostics.
- SCANNER port:** This 8-position modular jack allows a POS system, such as a bar code scanner, to control deactivation and also provides RS-232 communication if required. These ports accept various control voltages (see specs on page 13).
- REMOTE port:** This 6-position RJ-11 modular jack supports the legacy Sensormatic remote alarm module. Deactivation can be disabled on this port.
- ANTENNA port:** Receives a cable from the antenna.



Power Cord

Power cord length is 183cm (6ft). The cord attaches the external power supply to an ac outlet. The type of cord used depends on the country of use.

Setup

A software configurator is used to setup the controller. The configurator:

- Installs on a laptop computer that plugs into the SERVICE port.
- Requires Windows® 2000 or XP operating system software on the laptop.

Auto Synchronization

Enabled using the software configurator, auto synchronization:

- Upon power up, automatically synchronizes the controller to the strongest signal picked up by an antenna.
- Enables the controller to sync its transmission to other nearby EAS systems to prevent their interference during tag detection.
- The Universal Sync standard (wired sync) is supported on the NETWORK port as either transmit or receive mode, and is set up in the software configurator.
- If Sensormatic devices using wireless sync are nearby, an RS-485 based Smart Remote that plugs into the NETWORK port on the controller can be used to achieve synchronization.

POS Integration

POS devices such as bar code scanners can control deactivation when connected to the SCANNER port.

- POS devices must be programmed with special software.
- Voltage specifications are on page 13.

Networking

A Sensormatic peripheral device such as an EAS detection system can send data to a store's POS network using the RS-485 and SCANNER ports. The peripheral device must be programmed with special software.

LED Indications

Status LED. **Note:** Orange may appear yellow.

Green on	Unit ready
Orange blinks once	Deactivation attempted
Green blinking	Deactivation disabled
Red on	Non-recoverable fault
Off	Antenna not connected

Remote Alarm Module (if used)

Green on, red off	Unit ready.
Red blinks once	Deactivation attempted
Green blinking	Deactivation disabled in detect only mode or by key switch or configurator.
Green and red blinking (For PowerPad Pro, orange blinking)	Controller is in auto-sync.
Green on, red blinks every 250ms	The high voltage circuit is not working.
One beep	The controller attempted to deactivate a label.
Slow beep until a hard tag is removed from the field.	The controller is in Hard Tag Test mode.
Multiple fast beeps	Label present in Doublecheck or Detect Mode.
Red on	Label present in Detect Mode.

Product Limitations

Device Interaction

Nearby Devices

Deactivation affecting nearby devices. The antenna's deactivation field can affect devices such as credit card and check readers (alone or in keyboards). As a rule, keep these devices at least 30.5cm (12in) from the antenna. If they cannot be moved further away, contact Sensormatic technical support for guidance.

Nearby devices affecting deactivation. Computer monitors, TVs, switching power supplies, laptops, and neon displays can affect deactivation. Keep the antenna as far from these devices as possible.

Checkout Counters

Ferrous metal around the antenna can distort the antenna field and significantly reduce label detection. Always test the performance of the antenna before modifying the counter.

Between Deactivators

Keep antennas at least 15cm (6in) from each other.

Nearby Security Tags

Do not place detached hard tags within 30.5cm (12in) of the antenna.

Deactivator Performance

The controller can deactivate no more than twice a second. Maximum throughput of labeled merchandise is 200cm/sec (80in/sec) unless otherwise limited by the antenna.

Antennas

Maximum distance between an AMB-5182 antenna and the controller is 2m (6.6ft) when using the cable extension.

Installation

The controller can be placed on the countertop, or using a mounting bracket attached to the underside of the countertop or sidewall of the counter.



WARNING! When the controller is mounted to a sidewall of a counter, its cable connectors must face down.

Hardware Setup

Equipment Required

- AMS-9010 controller
- AMB-5182 low inductance antenna
- Hard tag (non-deactivateable Ultra•Max® tag)
- Ultra•Max deactivateable low energy labels.

Also required for advanced setup:

- Laptop with Windows® 2000 or Windows XP operating software
- Universal service configurator 1.0
- RS-232 Ultra•Max programming cable.



WARNING! Plug the output cable of the external power supply into the controller and its power cord into an unswitched ac outlet having less than 0.5Vac between neutral and ground. This system is designed to be operated on a power system that includes a protective earth terminal.



WARNING! Do not plug or unplug ANY controller cables with power on.



**WARNING—
RISK OF ELECTRIC SHOCK!**

Keep the power cord and antenna cable away from cash drawers and other items whose operation may pinch or otherwise damage them. Failure to do so can damage equipment or injure people nearby.



WARNING! Ferrous metal in the counter can affect antenna operation. ALWAYS test the antenna before installing it.

Procedure



CAUTION: If using the antenna cable extension, DO NOT USE THIS PROCEDURE. Instead, perform the advanced setup procedure on page 6.

1. Ensure the controller is powered off.
2. Plug the antenna cable into the ANTENNA port.
3. If used, plug the cable of the remote alarm module into the REMOTE port.
4. If a bar code scanner is to enable deactivation, plug its cable into the SCANNER port.
5. Plug the output cable of the external power supply into the controller and its power cord into an unswitched ac outlet having less than 0.5Vac between neutral and ground.

Note: While the controller auto-synchronizes (if enabled), The Status LED may briefly blink green and red. Auto-sync can take up to ten seconds.

Note: If the Status LED blinks continuously or is solid red, the controller is not repairable. Contact the ADT Customer Response Center for service.



CAUTION: Never unplug the output cable of the external power supply from the controller if its power cord is plugged into an ac outlet.

6. Using the software configurator, set the correct label type (SR or DR).

Software Setup

The software configurator:

- Has the following four screens to setup and diagnose the deactivator: Setup, Config Antenna #1, Config Antenna #2 (not used), and Network. The Engineering screen is not accessible.
- Is downloaded onto a laptop computer that plugs into the SERVICE port on the controller.

Equipment required for advanced setup:

- EAS non-deactivateable tag
- Laptop computer with Windows® 2000 or Windows XP operating software
- Universal service configurator 1.0
- RS-232 Ultra•Max programming cable.



CAUTION: Do not place the laptop on the antenna. Strong fields from the antenna can damage the hard drive. Also, laptops on or near the antenna can generate 58kHz noise in the label detection circuitry.

Settings Available with the Configurator

Using the service configurator, antenna performance can be manually adjusted and monitored (except label type and deactivation power level). The performance features listed below are fully described beginning on page 7.

Transmit power

- Transmit power level
- Detection compensation.

Deactivation performance

- Monitoring of total hours of operation, number of deactivations for each antenna, and summation of deactivations for both antennas
- Thermal count (of deactivation)
- Line sync adjustments
- Auto sync disable and manual restart of auto synchronization (re-sync)
- Doublecheck (mostly used with the optional FootLink device)
- Detect only (deactivation disabled)
- Hard tag check.

System integration

- Remote key switch enable, if used
- Audio enable (for certain antennas and remote alarm module)
- Output on detect
- Scan enable time adjustment.

Diagnostics (these settings turn off once you exit the configurator)

- Transmit disable
- Deactivation disable
- Deactivation on the V or H antenna coil
- V and H coil noise meters.

Networking

- Baud rate selection for SyncLink, MaxCalibur, or future Sensormatic peripheral
- Poll SyncLink (to interrogate a wireless synchronization module when connected to controller).
- Poll MaxCalibur (not used).

Setup Using the Configurator

1. Follow the hardware setup on page 4.
2. Connect the Ultra•Max programming cable to the laptop and to the SERVICE port.
3. On the desktop, click the icon to open the service configurator.
4. On the Setup screen, verify the setting for label type (SR or DR), deactivation power level (Full), and transmit power (Normal).

Note: MMS is not available for the AMB-5182.

5. On the Config Antenna 1 screen:
 - If using the antenna cable extension, click EXTENSION USED.
 - Verify Dx HEIGHT default setting for the antenna used (see table on page 1).
 - Adjust the following settings as required:
 - KEY SWITCH (enable, disable) and AUDIO (enable, disable), if a remote alarm module is used.
 - SCAN ENABLE TIME (1–30sec).
 - DETECTION COMPENSATION (V and H) to compensate for things that can affect the detect/deactivation field such as metal countertops.
 - OUTPUT ON DETECT, DOUBLECHECK, and DETECT ONLY.

- Check the noise level meters. See troubleshooting if noise or detection height is interfering with tag detection.

6. Click EXIT to exit the configurator.
7. If RS-232 communication is desired with a POS device, plug its cable into the SCANNER port.
8. If a bar code scanner is to control deactivation, plug its EAS cable into SCANNER port. Then enable OUTPUT ON DETECT.
9. To verify operation, swipe a deactivateable label across the antenna (a gentle thump is heard) and then pass it through the label detector at the exit (it should not alarm).

Performing Diagnostics

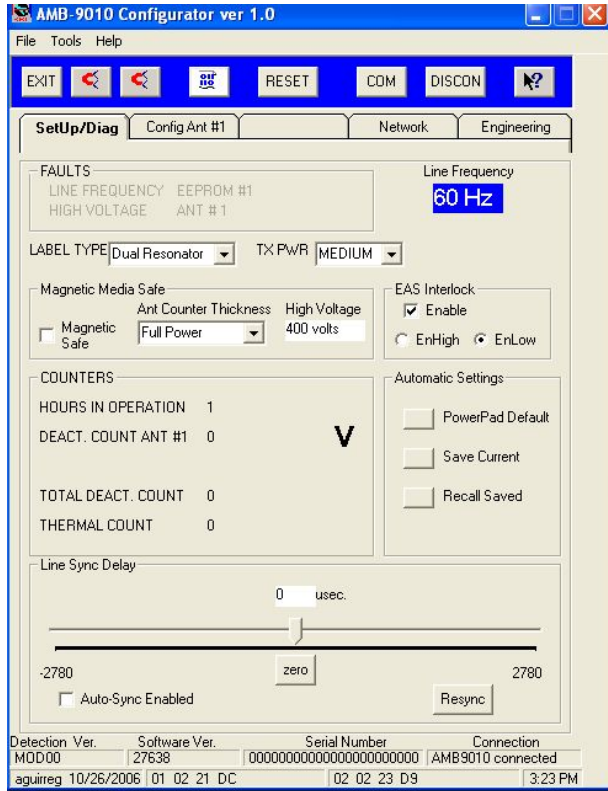
Using the service configurator, the following settings can facilitate diagnostics (these settings return to their default states once you exit the configurator).

- Transmit disable
- Deactivation state disable
- Deactivation on V or H antenna coil
- V-coil and H-coil noise meters.

Service Configurator Control Definitions

Setup Tab

Clicking the Setup tab brings up the Setup screen.



Settings on this screen are as follows:

Note: Default settings are in antenna EEPROM.

- **Faults (indicated by red text).**
 - Line Frequency Fault: Frequency is outside of 47–52Hz or 58–63Hz.
 - High Voltage Fault: Voltage is unable to reach the set point.
 - EEPROM fault: The controller cannot read from or write to the antenna EEPROM.
 - ANT #1 fault: Ant. port not sensing antenna.
- **Line Frequency.** Displays the input frequency.
- **Label Type.** Default is dual resonator. Use the pull down menu to select other label types.

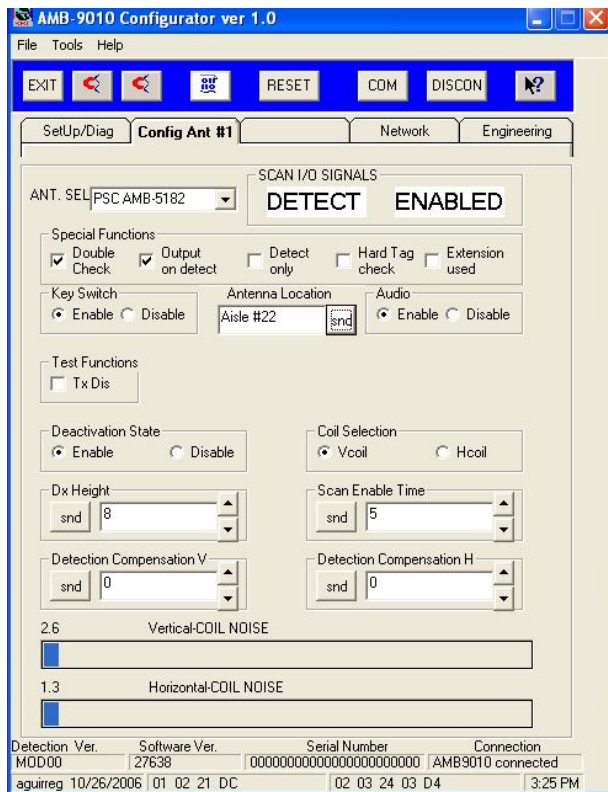
- **Tx Power (Low, Medium, High).** Use “Normal”. Use “Low” only for special applications.
- **Magnetic Media Safe (MMS).**
 - *Magnetic Safe (on, off).* Use with MMS capable antenna to set the controller for low power deactivation to protect magnetic media.
 - *Antenna/Counter Thickness/High Voltage.* Using the pull down menu, select the counter thickness encountered and the related high voltage set point.
- **Counters (for display only—not resettable).**
 - *Hours of Operation:* Total hours of operation.
 - *Deactivation Count Ant. 1:* Total antenna deactivations.
 - *Total Deactivation Count:* Total counts for Antenna 1 plus Antenna 2.
 - *Thermal count.* The deactivation rate is monitored to prevent heat build-up in the controller. Six minutes of no deactivations must occur for the count to drop below 120.

When the Count Is:	The Unit Can Do:
Below 120.	3 deactivations every second (maximum of 50 in 20 seconds).
Greater than 120 but less than 400.	1 deactivation every 1.5 seconds for 2 minutes.
Greater than 400.	1 deactivation every 3 seconds indefinitely.

- **Automatic Settings**
- **Line Sync Delay.** Use the following when transmit fields from other systems interfere with tag/label detection:
 - *Auto Sync Enabled (on, off).* Enable so upon power up, the controller automatically synchronizes to transmit fields of other EAS systems so they do not interfere with tag detection; otherwise, disable.
 - *Line Sync Delay (60Hz: –2780 to +2780 usec, 50Hz: –3333 to +3333usec).* Use the slider to manually adjust (in real time) tag detection away from the interference (overrides auto sync function). Use the zero button to return exactly to the ac line phase.
 - *Resync.* If high noise levels are still affecting tag detection after auto sync completes, use this button to resync the controller.

Config Antenna Tab

Clicking on the Config Ant #1 tab brings up the Config Antenna screen.

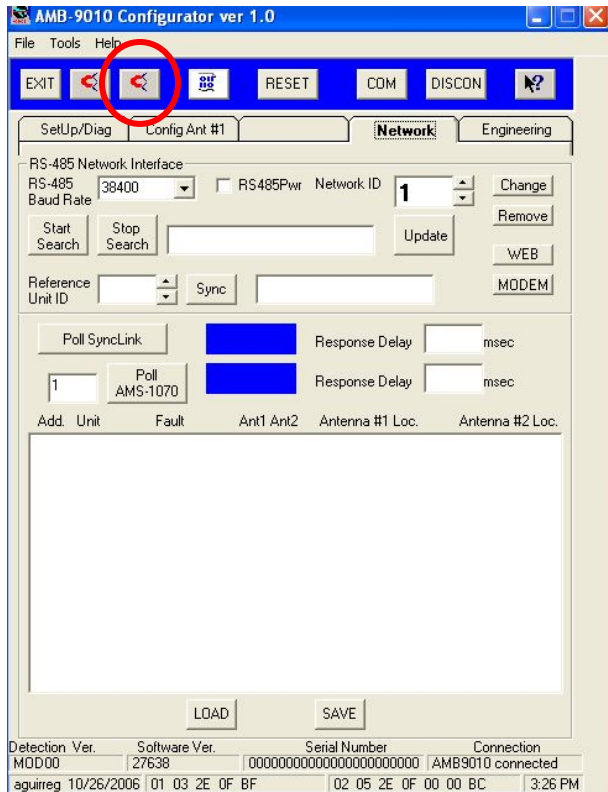


Settings on this screen are as follows:

- **Antenna Select.** Select the antenna to be operated from the Antenna port.
- **Scan I/O Signals**
- **Special Functions.**
 - *Doublecheck.* Check to have the remote alarm module emit a tone upon tag/label detection. (This feature is mostly used with a FootLink device. Disable Hard Tag Check when using this feature.)
 - *Output On Detect.* Check to enable the detection output signal of the SCAN I/O port. If checked, “Detect” and “Enabled” are displayed on the screen.
 - *Detect Only.* Check to have the controller only detect labels (deactivation disabled).
- *Hard Tag Check.* Check to prevent deactivation when a hard tag is in the detection field. If using a remote alarm module, one beep per second occurs from the module until the tag is removed.
- *Extension Used.* Check when an antenna cable extension is used.
- **Key Switch (enable, disable).** Enables or disables detection by the controller of the remote alarm module, when used.
- **Audio (enable, disable).** Enables or disables audio in certain antennas or in the remote alarm module, when used.
- **Test Functions.**
 - *Transmit Disable (on, off).* Enables or disables the transmitter.
 - *Deactivation State (enable, disable).* Enables or disables deactivation. Deactivation is enabled once the configurator is exited.
 - *Coil Selection (V Coil, H Coil).* This selection enables manual deactivation on the vertical or horizontal antenna coil using manual deactivation buttons 1 or 2 at the top of the screen.
- **Dx Height (in inches).** Adjusts deactivation height depending on the type of antenna used (overrides deactivation height set by the antenna cable EEPROM). Click SEND (snd) to actuate this setting.
- **Scan Enable Time (1-30 sec.).** Selects how long the deactivator is enabled when controlled by an external device such as an AcoustoLink. Click SEND (snd) to actuate this setting.
- **Detection Compensation (V, H coils).** The detection threshold can be adjusted to account for special mounting, counter configurations, or noise interference. Click SEND (snd) to actuate this setting.
- **X and Y Coil Noise Meters.** Show in-band noise levels picked up by X and Y antenna coils.

Network Tab

Clicking on the Network tab brings up the Network screen.



- **Poll SyncLink (Wireless Sync) Button.** Click to interrogate a SyncLink wireless sync device, if connected. The response is either “active” or “inactive (blank)”. If active, the response delay is shown.
- **Poll AMS-1070 Button.** Click to interrogate an AMS-1070 label detector, if connected. The response is either “active” or “inactive (blank)”. If active, the response delay is shown.
- **Screen below. xxx.**

Settings on this screen are as follows:

- **RS-485 Network Interface**
 - *RS-485 Baud Rate.* Selects the baud rate for the external device connected to the RS485 port on the controller: 19200 (SyncLink) or 38400 (MaxCalibur).
 - *RS-485 Power.* When checked, provides +5V power on the Network Port (J2, pin 6). Default is unchecked (+5V off).
 - *Network ID.* Selects
 - *Start/Stop Search.*
 - *Update.*
 - *Reference Unit ID.*
 - *Sync.*
 - *Change, Remove, Web, Modem*

Engineering Tab

Not accessible! This tab is password protected for engineering use only!

Pull-Down Menus (from left to right)

- **File**
Exit. Click to exit the program.
- **Tools**
Flash Download. Click to download new firmware from the laptop to the controller.
- **Help**
Click to bring up on-line help and “About” information. “About” displays the program version, date, and copyright information.

Button Commands (from left to right)

Exit. Click to exit the service configurator and return to the computer desktop.

Manual deactivation 1. Click to have the deactivator fire one pulse through Antenna 1. Works with Coil Selection on Config Ant #1 screen.

Manual deactivation 2. Click to have the deactivator fire one pulse through Antenna 2. Works with Coil Selection on Config Ant #2 screen.

Flash Download. Click to download new firmware from the laptop to the controller.

Reset. Click to reset the microprocessor if the controller functions improperly.

Com. Click to select the com port the laptop computer will be using. This button is not required for computers having one com port.

Disc. xxx.

Help. Click to bring up on-line help and “About” information. “About” displays the program version, date, and copyright information.

Bottom of Screens

- **Detection Ver.** Displays the detection version currently used.
- **Software Ver.** Displays the software version currently used.
- **Serial Number.** Not available.
- **Connection.** Indicates communication status with the controller.

Troubleshooting

Troubleshooting consists of basic troubleshooting where no tools are required, or advanced troubleshooting where a service configurator is required. Always complete basic troubleshooting before performing advanced troubleshooting.

Note: If the Status LED is solid red, the controller is not repairable. Call the Customer Response Center for service.

Note: If the controller is to be exchanged for a new one, no set-up is required; the new controller will adapt the settings of the old one. Simply plug in all cables and turn the controller on.

Basic Troubleshooting

Use this procedure when:

- Deactivator is not deactivating labels
- Deactivation is continuous
- Deactivation height is low

No Deactivation Occurs

Possible causes: No power, remote alarm module removed or damaged, or tag on the fringe of the deactivation area.

1. Ensure all cables are plugged into the controller. Do not hot plug the antenna cable or the power cable from the external power supply.
2. Is the external power supply LED solid green?
 - *No.* Check external supply connections. If OK, check the store's breaker panel.
 - *Yes.* Continue.
3. Check the color of the Status LEDs.
 - Solid green—go to next step.
 - Blinking green—Deactivation is disabled. This can occur if the key on the remote alarm module was turned to OFF. To enable deactivation and to bypass any scan-enable function, turn the key switch to ON. If LED still blinks, see "Advanced Troubleshooting".
4. Check if a tag is on the fringe of the Dx area.
 - *If a remote alarm module is used:* A slow 'beep' indicates a tag is present.
 - *If the remote alarm module is not used:* Cycle power by briefly unplugging the external power supply power cord. If the

Status LED is solid green and 2 to 3 deactivations occur immediately and stop, a non-deactivateable label is present.

If no tag/label is found, call the Customer Response Center for service.

Deactivation is Continuous

Possible causes: Non-deactivateable tag/label within the deactivation area, or the antenna picked up interference from nearby POS equipment.

- Locate and remove the offending tag/label.
- Try repositioning devices that may cause interference such as card readers and displays. Typically, these devices should be 30.5cm (12in) from the antenna.

Tip: If these devices cannot be repositioned and the antenna is placed on the countertop, try this: Remove the antenna and rotate it horizontally and vertically until deactivation stops. If the antenna's new position is acceptable, troubleshooting is complete.

If deactivation continues, see "Advanced Troubleshooting".

Deactivation Height is Low

Possible causes: MMS on in the Universal service configurator, noise, or certain materials in the checkout counter. Actual deactivation height can be below the Dx HEIGHT (see table on page 1) caused by noise detected by the controller or certain checkout counter materials. See "Advanced Troubleshooting".

Advanced Troubleshooting

Use this procedure only when basic troubleshooting did not solve the problem and:

- No deactivation occurs with a label over the antenna
- Deactivation is continuous
- Labels outside the deactivation area trigger deactivation.

Equipment required:

- Non-deactivateable hard tag
- Laptop computer with Windows® 95, Windows 98, Windows 2000, or Windows XP operating software
- Universal service configurator (downloaded to the laptop)
- RS232 programming cable.

Before You Begin...

Turn on the controller and connect the laptop computer to the SERVICE port using the RS-232 cable. Start the service configurator by clicking on the desktop icon. The Setup Screen appears.

No Deactivation Occurs

If green LED on controller is not blinking. See if a non-deactivateable hard tag or label is within 30.5cm (12in) of the antenna. If one is found, remove it. If a tag/label cannot be found, call the Customer Response Center for service.

If green LED on controller is blinking. On the Config Ant screen for the antenna tested, ensure HARD TAG CHECK and DETECT ONLY are disabled. If not, disable them. If the LED still blinks, call the Customer Response Center for service.

Deactivation is Continuous

The controller may be receiving in-band signals from nearby POS equipment.

On the Setup screen, do the following:

1. Verify AUTO SYNC is enabled and click RE-SYNC. If unexplained deactivation stops, you are done. If not, continue.
2. Reduce Dx HEIGHT one level at a time until unexplained deactivations stop. Write this level down.
3. Set Dx HEIGHT one step higher.

Labels Outside Deactivation Area Trigger Deactivation

The metal counter or mounting bracket may be affecting the detection field causing it to be higher than the deactivation field.

While holding a non-deactivateable tag above the center of antenna, on the Ant Config screen for the antenna, adjust DETECTION COMPENSATION positive or negative until deactivation occurs *only* when tag is at or below the Dx HEIGHT.

If deactivation stops and the deactivation height is OK, troubleshooting is complete. If the deactivation height is not OK, continue.

1. Ensure a label is not within the deactivation range.
2. Cycle power by briefly unplugging the external power supply from the ac outlet.
3. Once the status LED turns solid green, wait five seconds and check the detection and deactivation heights. If OK, troubleshooting is complete. If not, call the Customer Response Center for service.

Specifications

Electrical

Voltage input to power supply	100–240Vac, 50/60Hz (±5%)
Voltage input from power supply	22Vdc
AC line current	2.5Arms max.
Scan I/O port:	
Maximum input voltage	+25Vdc (±5%)
Input 1+ and Input 2+:	
Input voltage	±5–20Vdc, or greater than +20–25Vdc only
Current	10mA source minimum
Minimum pulse duration	100ms
Detect out	Open-collector side of an opto-isolator
Maximum pull-up voltage	+25Vdc
	This output remains in the open state until a deactivation occurs. It then shorts to the Detect Common for a minimum of 50ms based on label vicinity to the antenna verses deactivation time.
Detect common	Emitter side of the Detect Out opto-isolator normally should be tied to a ground return. Maximum current limit: 60mA

Environmental

Operating temperature	0 to 40°C (32° to 104°F)
Non-operating temperature	–40° to 70°C (–40° to 158°F)
Relative humidity	0 to 90% non-condensing

Mechanical

Height	10.1cm (4in)
Width	26.2cm (10.3in)
Depth	22.1cm (8.7in)
Weight	2.5kg (5.5 lbs)

Connector Inputs/Outputs

RS485 (RJ11 modular jack)

Pin 1:	D Ground
Pin 2:	Line Sync OUT (120 ohms, +3.3V)
Pin 3:	Line Sync IN (10k ohms)
Pin 4:	RS485 HI
Pin 5:	RS485 LO
Pin 6:	+5V (200mA max.)

Scan I/O Ports (RJ45 modular jack)

See specs opposite.

Pin 1:	+12Vdc (75mA max.)
Pin 2:	Input 1+ (±5–20Vdc, or > +20–25Vdc only)
Pin 3:	Input 1–
Pin 4:	Input 2+ (±5–20Vdc, or > +20–25Vdc only)
Pin 5:	Input 2–
Pin 6:	Detect Open Collector (0.15–4V @ 2mA)
Pin 7:	Detect Common
Pin 8:	P Ground

POS Serial Ports (4/4 Modular Jack)

Note: POS 1 is the only port that should be used for the service configurator.

Pin 1:	Rx
Pin 2:	Tx
Pin 3:	D Ground
Pin 4:	Not Connected

Remote Ports (RJ11 Modular Jack)

Pin 1:	+22V (75mA max.)
Pin 2:	Red LED
Pin 3:	Green LED
Pin 4:	Audio
Pin 5:	Key Switch
Pin 6:	P Ground

Antenna Out Ports

Pin 1:	X
Pin 2:	Y
Pin 3:	X Ret
Pin 4:	Y Ret
Pin 5:	Chassis Ground
Pin 6:	EEPROM Signal

Declarations

Regulatory Compliance

Antenna	Regulatory ID
ZBAMB9010	AMB-9010
ZBAMB5182A	AMB-5182

EMC..... 47 CFR, Part 15
RSS 210
EN 300 330
EN 301 489

Safety UL 60950-1
CSA C22.2 No 6095-1
EN 60950-1

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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