



# **58kHz AM Deactivator DB104/F4 Instruction Manual V1.0**



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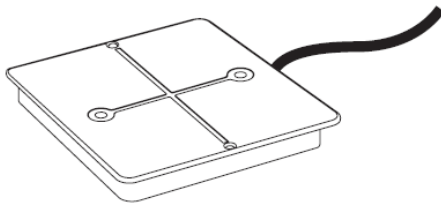
# 1 System Overview

58kHz AM deactivator DB104/F4 is a distance deactivator providing excellent deactivation reliability and high throughput. It can be easily installed and adjusted.

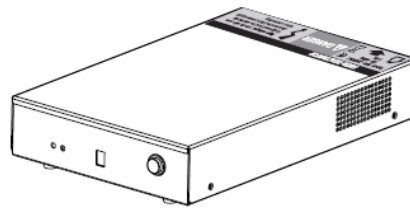
The deactivation system consists of a deactivation pad, control box and 58kHz label. The DB104/F4 can deactivate AM labels up to 10cm above the surface of the pad at a high throughput.



AM Label



Deactivation Pad



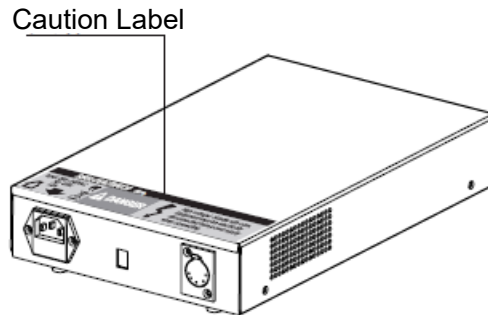
Control Box

## Features:

- Proximity deactivation  
When source tagged and retailer tagged merchandise is brought in proximity to the pad, a prompt deactivation occurs.
- Compact size  
The compact size allows DB104/F4 to be easily integrated into a counter application.
- Integrated audible and visual notification  
When source tagged and retailer tagged merchandise is deactivated, the DB104/F4 pad and control box will flash a LED and emit a beep.
- Automatic synchronization

# 2 Precautions

## 2.1 Input Voltage



### Caution

Before usage, please check the input voltage showed on the label and make sure the actual input voltage is the same; otherwise, the control box will be damaged and danger will occur.

High voltage! Handle with care. Equipment must be electrically disconnected from power supply when connecting.

## **2.2 Safety & Security**

1. Do not operate the deactivator if the power cord or plug is damaged or if the plug cannot be inserted fully.
2. Unplug the deactivator if a fault occurs or if you see or smell anything unusual or the product gets hot.
3. Unplug the deactivator when any liquid comes in contact or the deactivator housing is damaged.

## **2.3 Usage**

1. Disconnect from the power before making or removing any connection.
2. Disconnect the deactivator from the power if it is not used for a long period of time.
3. Ensure it is connected to the correct voltage.
4. Avoid any impact on the deactivator.
5. Do not place large or heavy objects on the deactivator.
6. Avoid putting metals and flammables on the deactivator.
7. Ensure the deactivation pad and housing are mounted in a firm suitable position.
8. It is not to be used in wet or dusty environments and must avoid fumes and steam.
9. Keep the deactivator out of direct heat sources like sunlight.
10. Avoid contact with caustic substances like cleaners and insecticides.
11. Always ensure your hands are dry before working with the deactivator.
12. Do not open the pad or controller as both contain high voltage and there are no serviceable parts inside.
13. Leave at least 10cm under the pad and around the controller to ensure good ventilation.

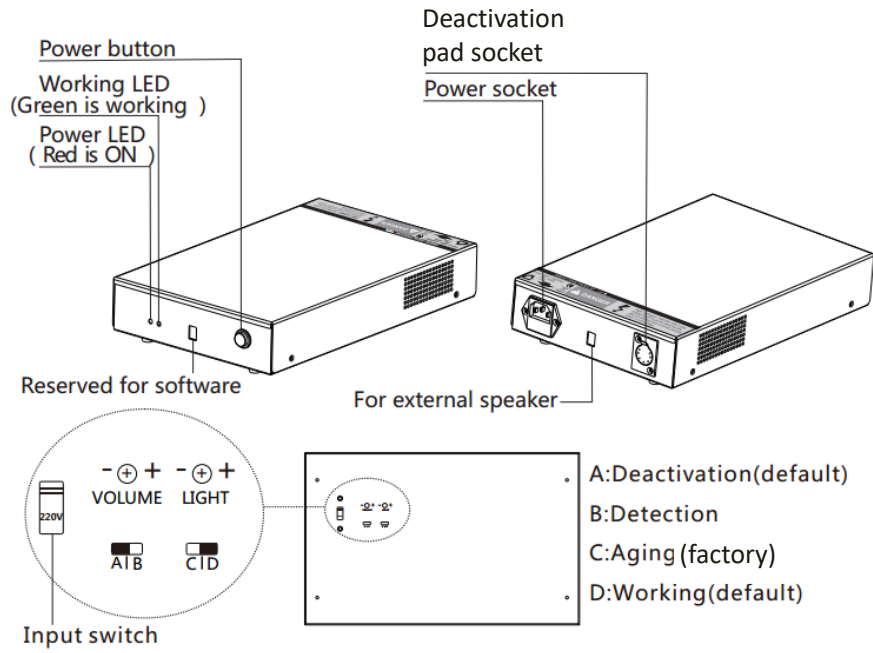
14. Ensure the deactivator is grounded.
15. This device emits electromagnetic waves, so position it well away from equipment or items that may be affected by this.

## **2.4 Cleaning & Maintenance**

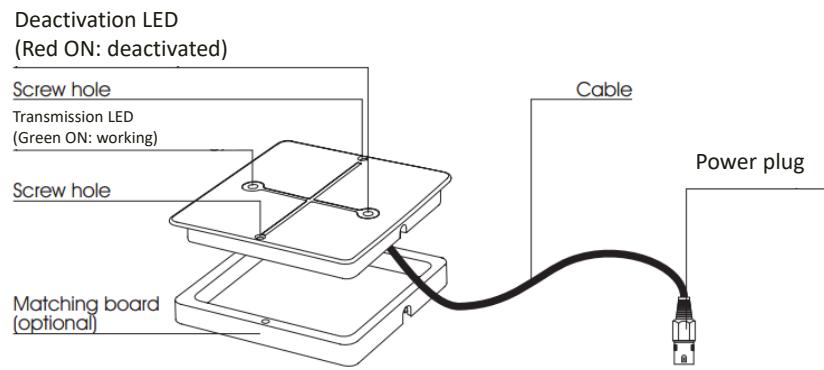
1. Unplug from the power before cleaning.
2. Clean with a soft cloth. You may use a damp cloth with mild detergent such as hand soap and ensure the cloth is damp not wet.
3. Do not use aggressive, volatile or detergents such as thinners as these components will react with the plastic in the pad.
4. Only use pads and connections supplied by your installer. This product is not compatible with other deactivators and damage will occur.
5. Only to be installed by competent trained technicians.
6. If using the installation plates, a 10cm space must be left around the box.

# 3 Components

## 3.1 Control Box



### 3.2 Deactivation Pad



### 3.3 External Power Cord



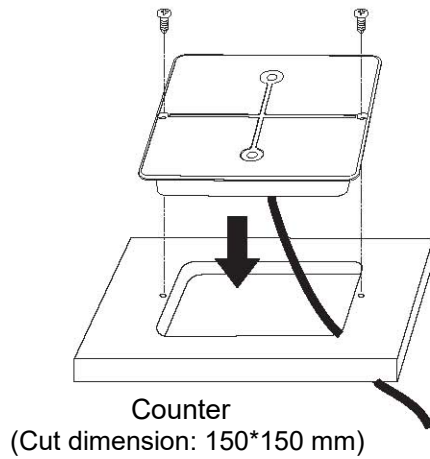


# 4 Installation

## 4.1 Installation of Deactivation Pad

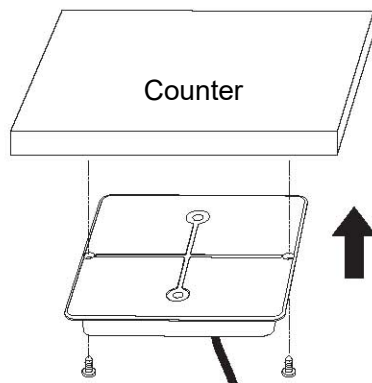
### Flush Mount

Use screw to fix onto counter



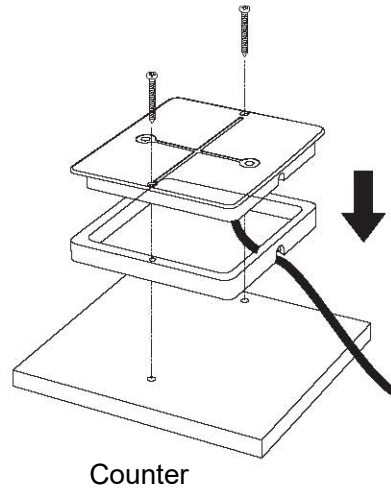
### Under Mount

Use screw to fix beneath counter



### Counter-Top Mount

(You can choose this method if matching board is available; use screw to fix onto counter.)



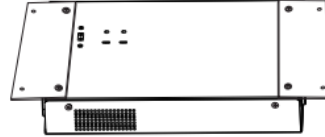
## 4.2 Installation of Control Box

The control box of DB104/F4 can be placed on top of or below the counter, and be mounted underneath or to the side of the checkout using installation plates.

Standard Control Box

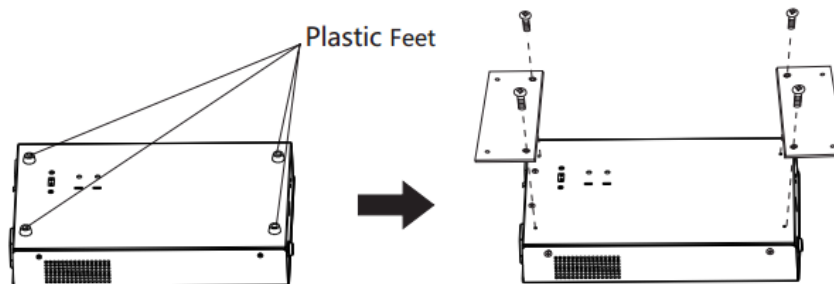


Control Box with Installation Plates



How to install the installation plates:

1. Unscrew the plastic feet on the base.
2. Attach the installation plates as shown below.



## 5 Use Guide

Connect the pad to the control box as shown below. Connect the power lead to the control box and to a suitable power outlet ensuring that the control box voltage is suitable for the outlet.

Press the power button, and a green LED on the pad and control box will light up.



When merchandise with a 58KHz AM label attached is brought within the deactivation range, it will be detected and deactivated. If it does not do this on the first attempt, it will make two further attempts and then automatically turn off the deactivation signal. The lights will flash on the pad and it will emit a sound to indicate that there is either a non-deactivated label or a hard tag present and needs to be removed from the vicinity.



### Caution

Ensure that the voltage and frequency of the power outlet match the deactivator control box. This product is made in 110V & 240V versions.



### Caution

This equipment must be disconnected from the power outlet before connecting or disconnecting the pad from the control box, or there is a risk of electric shock.



**Caution**

Keep deactivator more than 1 meter away from screens of POS and/or computer, to avoid interfering display.



**Caution**

To ensure correct synchronization, make sure all deactivators are on the same phase electrical supply.



**Caution**

Ensure sufficient power is supplied by making sure that the sum of all the deactivators on the supply is not greater than the supply. The deactivator is 1A or 2A.

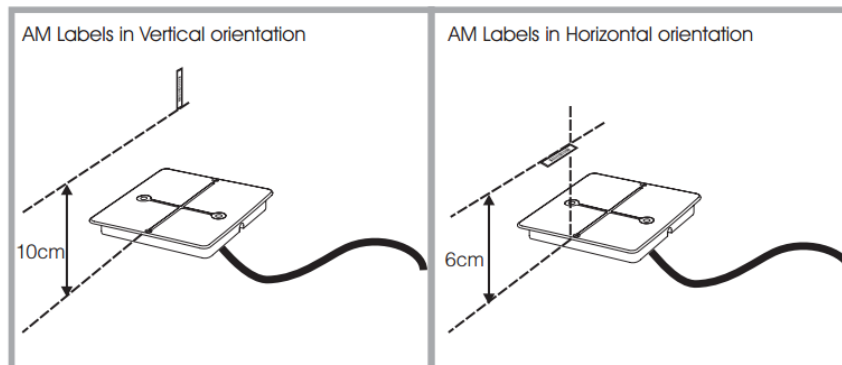


**Caution**

Ensure that the deactivator is grounded or earthed.

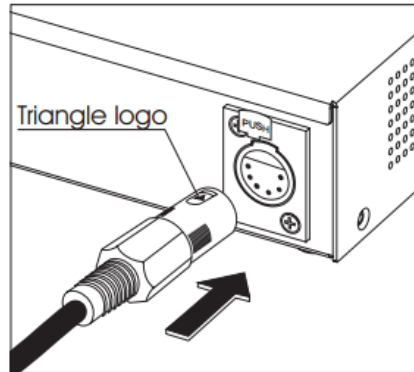
**Notice:** If the LED is green on both the pad and the control box, then the system is ready for operation. When a label is introduced into the system, the LED changes to red on both the pad and the control box and a sound is emitted.

**Deactivation Range**



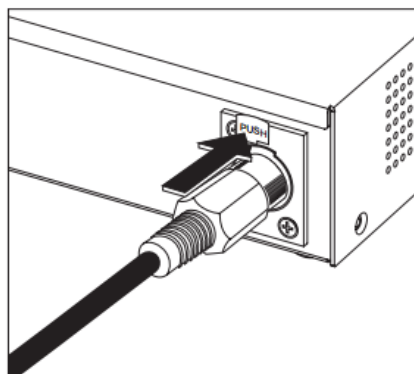
### How to insert:

1. Disconnect from the power supply.
2. Insert the plug to the control box with the logo of the plug uppermost.



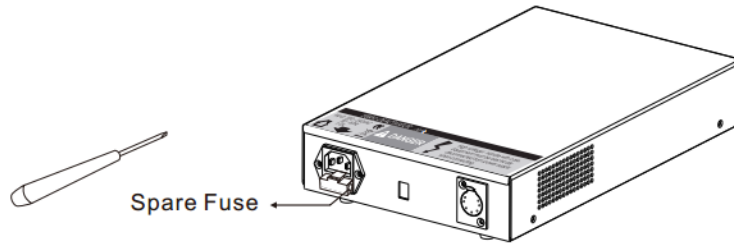
### How to remove:

1. Disconnect from the power supply.
2. Push the tab marked "push" in and remove the plug.



## Fuse Replacement

Disconnect from the power supply. Pull out the fuse block and replace with a fuse of the same size and rating.



Dimension of fuse: 50\*20mm

Rated current: 1A for 220VAC, 2A for 110VAC

**Note:** One backup fuse is enclosed in the fuse block.

# 6 Specification

## Electrical

Input: 100-120VAC, 50-60Hz

200-240VAC, 50-60Hz

Input power: <20W (deactivating state)

<4W (static state)

Output power: <20W

Transmitter current: <0.3A

Operating frequency: 57-59.5 KHz

## Environmental

Operating temperature: 0~49°C

Relative humidity: 0~85%

## Mechanical

Parts	Product Code	Dimension	Weight
Deactivation Pad	DB104/F4-01	172*172*25mm	0.5kg
Control Box	DB104/F4-02-110 V DB104/F4-02-220 V	305*190*58mm	1.9kg
Power Cord	DB104/F4-03-GP (EP, BP, AP, BP3)	1.5m	0.4kg

# 7 Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
No green LED lights on control box.	1. The control box voltage is unsuitable for the power supply.	Ensure that the control box voltage is suitable for the power supply.
	2. The control box is not connected to power.	Connect the control box to the power.
	3. The power isn't turned on.	Press down power button.
	4. Fuse blown.	Replace with a fuse of same size and rating.
Green LED light on control box but not on deactivation pad.	1. The pad and control box are not connected properly.	Ensure correct connection of pad and control box.
	2. The pad and control box are not of the same specification.	Use the pad and control box with the same specification.
	3. Fault in deactivator.	Contact the supplier / installation technician.
Green LED light on control box, red LED flashing on pad.	Fault in deactivator.	Contact the supplier / installation technician.
No Red LED flash and audible deactivation "click" when merchandise with 58KHz label is introduced to the deactivation zone.	1. No 58KHz label present.	Use qualified label.
	2. Label is damaged or deactivated.	
	3. Poor contact caused by bent pin or damaged deactivation pad plug.	Replace the pad or contact with technician.
	4. Fault in deactivator.	Contact the supplier / installation technician.
Red LED flashes but no audible deactivation "click" when	1. Poor contact caused by bent pin or damaged deactivation pad plug.	Replace the pad or contact with technician.



merchandise with 58KHz label is introduced to the deactivation zone.	2. Fault in deactivator.	Contact the supplier / installation technician.
When merchandise with 58KHz label is passed over the pad, it makes the "click" and red LED flashes but the label still activates the antenna.	1. Label attached on merchandise cannot be deactivated.	Remove label by hand.
	2. Label is out of the range of deactivation.	Take label closer to the deactivator.
	3. The control box cannot deactivate the label.	Contact with technician to adjust.
Deactivator alarms abnormally.	1. 58KHz hard tag is in the vicinity.	Take 58KHz hard tag farther from the deactivator.
	2. Interference caused by other 58KHz products (such as 58KHz antenna) in the vicinity.	Contact technician to phase deactivator with other 58kHz equipment.
	3. Fault in deactivator.	Contact with technician to adjust.

## 8.FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### IMPORTANT NOTE:

#### FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20mm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help