

# CMANA00052 WMS Door Sensor Install Guide

### WMS Kit:

- WMS
- WMS Bracket
- 2, 8-32 by 5/16 Tamper Proof Screws
- 6, 3/16 DIA Stainless Steel Rivets
- 1, Activation Magnet
- 1, Strike Plate with VHB
- 4, Strike Plate Screws
- 3M Primer 94 Ampoule

### **Tools Required:**

- Power Drill
- 3/16 Inch Drill Bit
- 1/8 Inch Drill Bit
- Heavy Duty Blind Rivet Tool
- T-15 "Pin in Torx" Tamper Resist Screw Driver
- #2 Phillips Screwdriver
- 50/50 Isopropyl Alcohol/Water Solution
- Clean Rags

## **WMS Door Sensor Installation Overview**

This guide is for the installation of the SkyBitz WMS Door Sensor on Dry Vans or Containers with swing doors. The WMS will be mounted high on the door frame of the asset and will sense the ferrous steel of the door when it is closed. The WMS will be mounted on the frame of the primary door if the asset has double doors. If the door is nonferrous, a ferrous strike plate is included in the kit and will be mounted on the door. Once installed, the WMS must be activated and calibrated to ensure the sensor is functioning properly after installation. Please contact SkyBitz at <u>CustomerCare@SkyBitz.com</u> for help with any issues you may encounter with the installation of the SkyBitz WMS product.



## Install the WMS Mounting Bracket

With the door fully closed and latched, position the WMS Bracket as shown with the bracket pushed against the door. Mark the upper and lower center hole locations. Remove the bracket and use a 3/16 inch drill bit to drill the top hole.





With the bracket oriented as shown, install the bracket to the door frame using one 3/16 stainless steel rivet in the top center hole. Push the bottom of the bracket against the door and use a 3/16 inch drill bit to match drill the lower center hole.

rivet to install the bracket to the frame Push the bracket against the door and match drill the

> second mounting hole

Use a 3/16 inch

Install a 3/16 inch stainless steel rivet in the lower center hole. Match drill the remaining four WMS bracket mounting holes.





Open the door and install the remaining four rivets to complete the bracket installation.



### Install the WMS to the Mounting Bracket

Orient the WMS on the bracket as shown and fasten with two 8-32 tamper resistant screws with thread locker.



### Activate the WMS

The WMS is shipped in inventory mode to prohibit RF transmission and save battery power. The WMS must be activated to make it operational. Place the magnet as shown for 3 seconds and confirm both LEDs are blinking together. This confirms the WMS is still in inventory mode and functioning properly.



Once the LEDs turn off after 10 seconds, hold the magnet in the location shown again for at least 15 seconds. The LED on the left will begin to blink RED to confirm the WMS has been activated.





### Calibrate the WMS

With the door wide open, hold the magnet in place until the LED on the right turn's solid blue. Continue holding the magnet in place for at least 15 seconds until both LEDs begin an alternating blink pattern then remove the magnet. The LEDs will continue alternating for about 10 seconds indicating a "Door Open" calibration reading is about to take place.



The LEDs will begin blinking together rapidly to signify they are taking a "Door Open" calibration measurement. After about 10 seconds the LEDs will return to the alternating blink pattern for 30 seconds.







Close and latch the door before the 30 second alternating pattern has finished.

Both LEDs will begin blinking together rapidly for 10 seconds during the Door Closed reading



After about 10 seconds the LED on the left will begin to blink Green to confirm a successful calibration. If the LED on the left begins to blink Red then the calibration has failed. Carefully repeat the calibration procedure ensuring all the steps are followed correctly. If the WMS still fails calibration you will need to install a strike plate on the door and repeat the calibration.

. The left LED will flash green after a successful calibration VUSTACH 1838211

### **Install Ferrous Strike Plate**

If the initial calibration has failed you will need to install the ferrous strike plate on the door. Fully close and latch the door. Place the edge of the strike plate against the WMS and center it along the side of the WMS as shown then mark the location of the strike plate on the door. Clean the mounting location with the 3M Primer 94 and allow it to dry for at least 3 minutes. Remove the film liner from the VHB tape on the back of the strike plate and mount the strike plate to the door in the marked location. Press firmly on the strike plate to activate the VHB tape then pull up on the strike to ensure a good bond has been achieved. Repeat the calibration procedure ensuring all the steps are followed correctly.



#### 1) FCC Interference Statement (Part 15.105 (b))

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 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.

#### 2) FCC Part 15 Clause 15.21

"Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment"



#### 3) FCC Part 15.19(a)

"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, and (2) this device must accept any interference received, including interference that may cause undesired operation."

#### 4) ISED RSS-Gen Notice:

"This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device."

"Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1) l'appareil ne doit pas produire de brouillage;

2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

#### 5) ISED Canada ICES-003 Compliance Label:

"CAN ICES-3 (B)/NMB-3(B)"

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to provide a separation distance of at least 20 cm from all persons.

Cet équipement est conforme aux limites d'exposition aux radiations de la FCC définies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé de manière à assurer une distance de séparation d'au moins 20 cm de toutes les personnes.