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EBP-401 LONG RANGE ANNUNCIATOR SYSTEM

Installation Manual and User's Guide

Thank you for purchasing the AMSECO EBP-401 Door Annunciator System. Please read this manual thoroughly before making connections and operating the unit. Following the instructions in this manual is critical in obtaining optimal performance from the system.

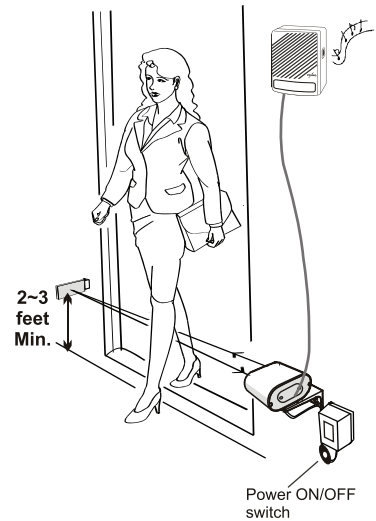
Please retain this manual for future reference.

1.0 DESCRIPTION

EBP-401 is a surface mount, 40 ft, long-range annunciator system using active infrared technology. The invisible single infrared beam triggers a pleasant chime sound when the infrared beam is interrupted. The system can be installed anywhere inside a building where traffic notification is required.

2.0 FEATURES

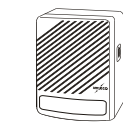
- **40 foot** detection range across doorway
- Digitally generated high quality chime sounds
- Intelligent Microprocessor driven system for precise detection
- **Four (4) different chime sounds** selectable by the user
- Chime Volume control
- Advanced circuit integrated with active-infrared beam technology.
- **Beam Block Warning Mode:** generates continuous chimes when the beam is blocked



3.0 COMPLETE KIT PARTS LIST

Unpack the kit box and check for the following contents.

- [1] Electronic chime
- [1] Infrared sensor
- [1] Reflector
- [1] Power transformer (12V AC 20VA)
- [1] Long plastic bracket
- [1] Metal short bracket
- [1] Short plastic bracket
- [1] 6 ft. power cords with in-line Switch
- [1] 26 ft. 2-conductor wires
- [6] 3/4" sheet metal screws
- [1] 3/8" bolt w/locking washer
- [2] 5/8" machine screws w/washers and nuts
- [1] 1/4" bolt w/locking washer
- [1] Manual



Electronic chime



Infrared sensor



26ft wires



Power transformer (12VAC 20VA)



Reflector



Long plastic mounting bracket



Short plastic and metal mounting bracket



6-foot power cords with in-line on/off switch



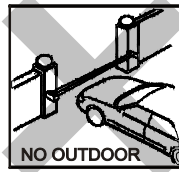
Hardware

4.0 PLANNING THE INSTALLATION

Carefully read the following instructions before beginning the installation, then carefully **PLAN** the installation. While the installation procedures are very simple, there are guidelines to follow to ensure that the system will operate properly. The guidelines are as follows:

Precautions:

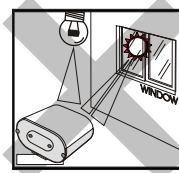
INDOOR USE ONLY



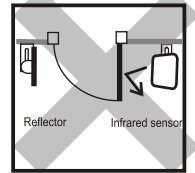
THE REFLECTOR MUST FACE THE SENSOR PRECISELY. THE SYSTEM MAY TRIGGER CONTINUOUS CHIMES WHEN MISALIGNED.



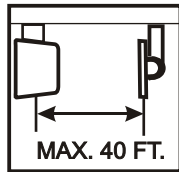
DO NOT MOUNT THE INFRARED SENSOR FACING DIRECTLY INTO THE SUN LIGHT OR BRIGHT LIGHTS. IT MAY REDUCE THE OPERATING DISTANCE.



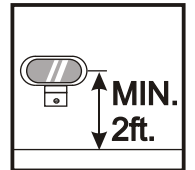
DO NOT INSTALL THE SENSOR AND REFLECTOR SO THAT DOOR FLAPS OR OTHER OBJECTS BLOCK THE INFRARED BEAM.



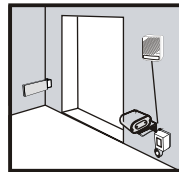
THE INFRARED SENSOR AND REFLECTOR SHOULD NOT BE INSTALLED AT A DISTANCE EXCEEDING THE 40FT. MAXIMUM DETECTION RANGE.



DO NOT INSTALL THE INFRARED SENSOR AND REFLECTOR LOWER THAN 2 FT OFF THE GROUND.

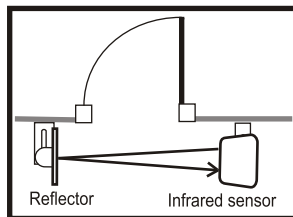


THE ELECTRIC CHIME, INFRARED SENSOR, AND REFLECTOR SHOULD BE MOUNTED ONTO A FLAT, FIRM SURFACE.

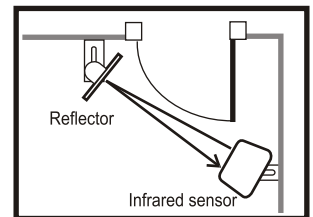


Recommended Installations

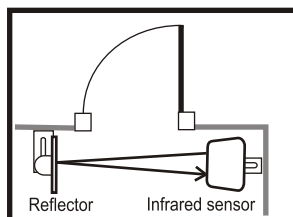
SIDE INSTALLATION



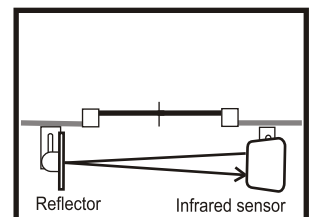
**CORNER INSTALLATION:
with INWARD
DOOR FLAP**



**CORNER
INSTALLATION:
with OUTWARD
DOOR FLAP**



**SLIDING DOOR
INSTALLATION**



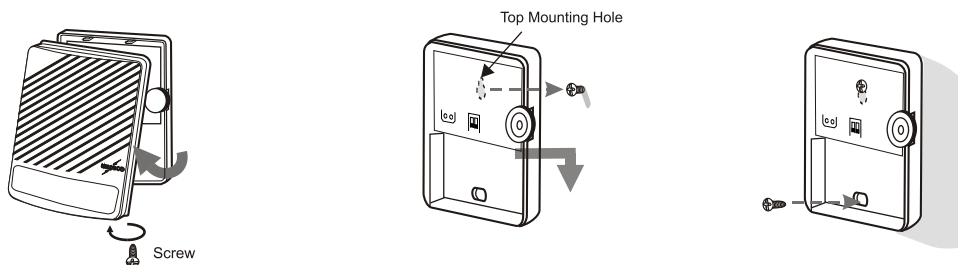
5.0. INSTALLATION OF THE SYSTEM

1) PLAN THE JOB FIRST

Refer to **4.0 PLANNING THE INSTALLATIONS** and Select suitable locations for the chime, and the sensor.

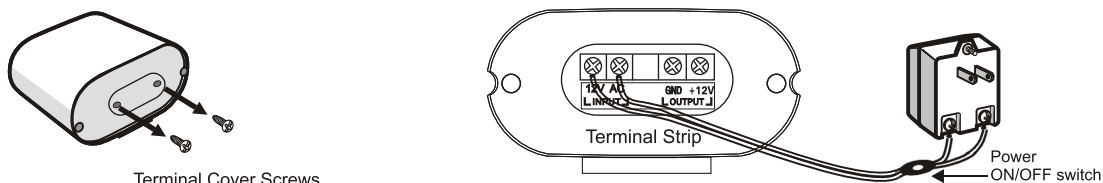
2) INSTALL THE CHIME

- i) Remove the bottom screw from the chime and open the front cover.
- ii) Secure the top mounting screw to the wall leaving some length of the screw out to hang the chime, and hang the chime properly on the wall.
- iii) Secure the bottom screw(3/4") through the bottom mounting hole of the chime unit.

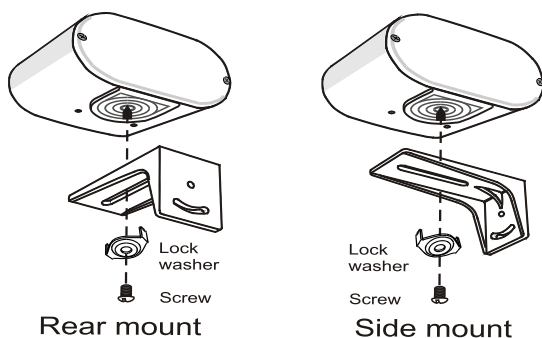


3) INSTALL THE INFRARED SENSOR

- i) Remove two screws from the sensor terminal cover to access to the wiring terminal strip.
- ii) Locate the **AC Input** terminals on the sensor unit, and connect the 6 ft. power cord with in-line ON/OFF switch.



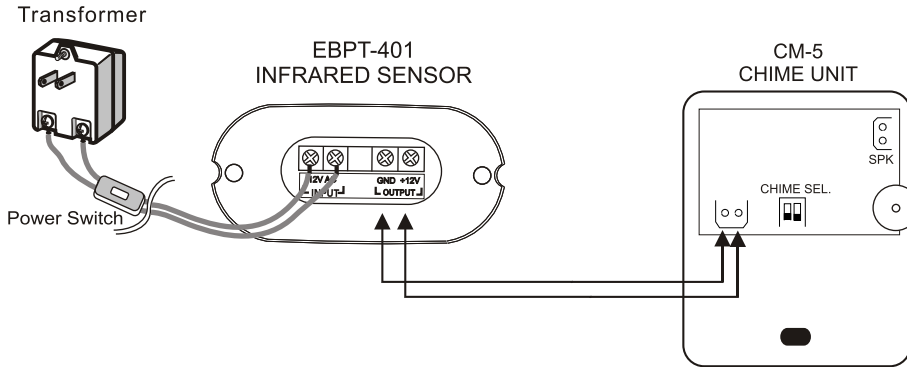
- iii) Secure the sensor and bracket on the wall with the lock washer and screw.



DO NOT PLUG IN THE POWER TRANSFORMER, OR TURN THE POWER SWITCH ON AT THIS STAGE.

4) CONNECT THE CHIME AND THE INFRARED SENSOR

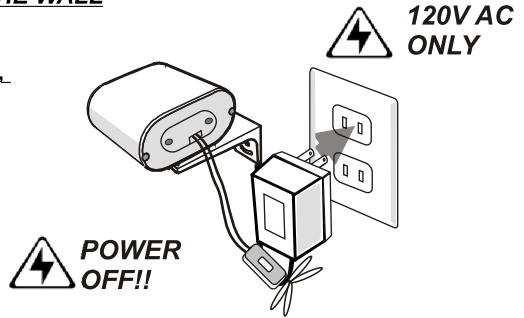
Use the 26ft. Wires provided together, and connect +12V DC, GND connector on chime board. Mark sure all wiring as per the following figure.




Close the covers of the INFRARED SENSOR TERMINAL and THE CHIME once the connections are complete.

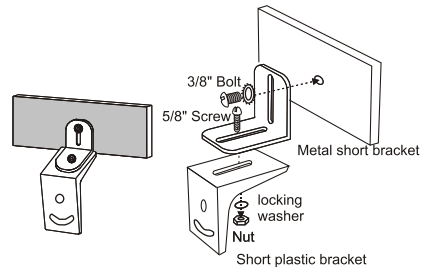
5) CALIBRATE THE REFLECTOR AND SECURE IT ON THE WALL

i) **MAKE SURE THAT THE POWER SWITCH IS "OFF", then plug the AC transformer into the 120 V AC wall outlet.** If necessary use cable ties to keep excess wire safely out of the way so that no one will trip over the wires.



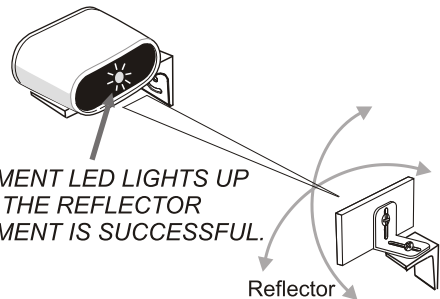
ii) Assemble the reflector with its brackets.

 USE 1/4" BOLT PROVIDED TOGETHER ONLY TO SECURE THE REFLECTOR AND THE BRACKET. USE OF IMPROPER BOLTS MAY DAMAGE THE REFLECTOR.



iii) **TURN "ON" THE SWITCH.** Go to the opposite side of the sensor and hold the reflector aiming toward the sensor.

iv) Move the reflector up, down, right, or left until the RED alignment LED lights up in the front window of the INFRARED SENSOR.



v) Secure the reflector and bracket in place so that the alignment LED stays ON. Use provided 3M adhesive tape if necessary to secure the reflector.

vi) **TURN THE POWER SWITCH "OFF" AGAIN WHEN COMPLETED.**



MAKE SURE TO TURN THE SWITCH OFF WHENEVER THE ALIGNMENT IS MADE, OTHERWISE THE SYSTEM MAY NOT WORK PROPERLY. THE SYSTEM MUST BE RESTARTED IF THE ALIGNMENT IS MADE OR CHANGED TO SAVE THE INSTALLATION ENVIRONMENT INTO THE MEMORY.

6) PERFORM THE WALK-THROUGH TESTS TO MAKE SURE THE INSTALLATIONS.

Turn the power switch "ON". Activate the Infrared sensor by walking across the beam several times. Adjust the alignment if necessary. If the system is working properly as Intended, turn the power switch "OFF" and "ON" again to put the alignment values into the system memory.

7) YOUR EBP-401 DOOR ANNOUNCER IS NOW READY. ENJOY!



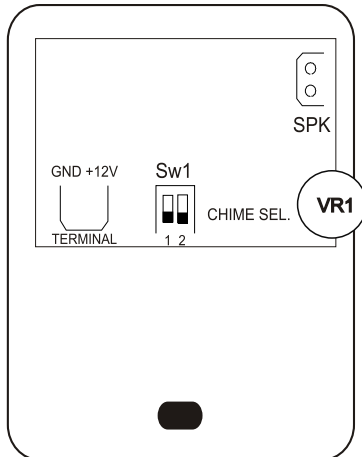
DEPENDING ON THE SETTING THE SYSTEM GENERATES CONTINUOUS CHIMES OR DOESN'T TRIGGER THE CHIME AT ALL IF THE ALIGNMENT IS NOT SUCCESSFUL. CHECK THE ALIGNMENT IF IT OCCURS.

6.0 CHIME OPERATIONS (CM-5)

You can change the chime settings from inside the chime unit. Adjust the setting if necessary.



MAKE SURE TO TURN THE POWER OFF WHEN ACCESSING INSIDE THE SYSTEM, AND PREVENT POSSIBLE DAMAGE CAUSED BY STATIC ELECTRICITY.



1) CHIME SOUND SELECTOR:

Sw1 is used to change the chime sounds.



Door Chime



Tubular Bell (factory setting)



Church Bell



Vibraphone

2) VR1 is used to change the chime sound level



COUNTER CLOCK WISE: Volume Up



CLOCKWISE: Volume Down

3) TERMINAL:

+12V: +12V DC Input (Connection with EBPT-401)

GND: Ground Input (Connection with EBPT-401)

7.0 INFRARED SENSOR OPERATIONS

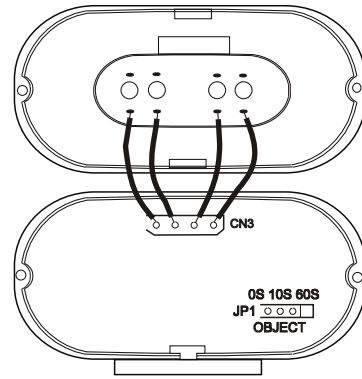
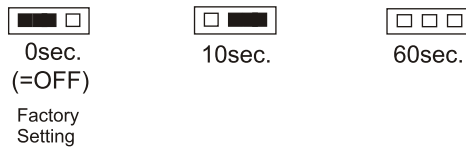
From inside the Infrared Sensor you can change the **Beam Block Warning Mode** setting. Open the rear cover for settings.

JP1: Infrared Beam Block Warning Mode Setting

When the infrared beam is blocked or the alignment is changed by accident, the system reports it by generating continuous chime sounds if the feature is ON.

The jumper can set the continuous chime to "OFF" or adjust the chime delay time to "10" or "60" seconds.

Refer to jumper settings below for adjustment.



View from Component side

8.0 TROUBLESHOOTING

<u>Problem</u>	<u>Probable Cause</u>	<u>Solutions</u>
The chime does not sound when the infrared beam is interrupted.	The power may be off.	Turn the receiver power switch ON.
	The volume control is turned down.	Turn the volume control up.
The chime sounds continuously	The infrared beam is blocked. Alignment may be swerved.	Clear the infrared beam pathway. Re-check alignment, and turn the system OFF/ON.
	The Infrared Sensor may be directly facing the sun ray or strong illuminations.	Change the locations of Infrared Sensor and the Reflector.

9.0 SPECIFICATIONS :

Description	EBP-401 Long Range Wired Annunciator System & Chime
Detection Method	Active Infrared
Detection Range	40ft.
Max. Wiring Distance	1000ft. AWG#22 2P WIRE
Power Source	Sensor : 12V AC/DC, 20VA Chime : 12V DC, 10VA
Power Consumption : Stand by : In alarm	50mA 500mA
Volume Level	0db ~ 90db
Chime Sounds selection	Selectable among 4 sounds by a dip SW
Response Time	4m Sec.
Light Source	Infrared pulse beam 950nm
Installation location	Indoor
Infrared Beam Block Warning	Sensor : JP1 selectable OFF / 10 sec / 60 secretary
Power switch	Yes
Temperature	14°F ~ 122°F (-10°C ~ 50°C)
Weight	Sensor : 0.276 lb Chime : 0.362 lb
Dimension : (WxHxD)	Sensor : 2-1/2"x1-7/8"x3-7/16" Chime : 4-7/8"x3-1/2"x1-3/8"
Total Weight(w/box)	5.512 lb