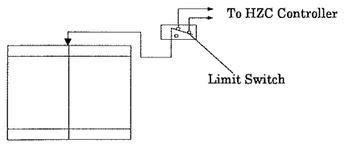
Section 10 Closed Signal

When the door is closed the controller will continue to monitor for 18 sec's. However if a Limit Switch is used then once the Limit Switch comes ON (Door Closed) then the sensor will stop monitoring immediately.

This has applications in areas where security is important.



Section 11 Self Diagnostic Mode

HZC Controller provides Self Diagnostic as the Sensor continuously monitors itself. If there are abnomalities, the door will remain in an Open position. (HZC Relay Output is Open.)

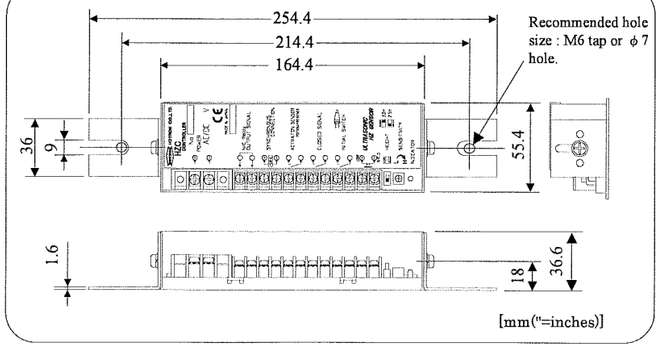
Section 12 Troubleshooting

Problem	Cause	Solution
Door does not operate.	1. A wire is broken 2. Wiring is incorrect	Check the all wiring. (Is Activator N/O Relay Output? Is the Door Controller Input N/C? Check some Negative / Positive wiring, see Sec 5.)
	During the initialization process there was some reflective object(s) in the detection pattern.	Remove the reflective object(s) from the area and re-initialize.
	Sensitivity is too low.	Adjust the sensitivity setting.
	The height switch setting is incorrectly set.	Set the height switch to the correct setting & re-initialize.
Door operates intermittently	Sensitivity is too high/low.	Adjust the sensitivity setting.
	Poor wiring connections.	Check the wiring.
	The height switch setting is incorrectly set.	Set the height switch to the correct setting & re-initialize.
Door operates when no-one is present	The Synchronization Cable wiring is poor.	Check the Negative / Positive wiring.
	Sensitivity is too high.	Adjust the sensitivity setting.
	Height switch setting is incorrectly set.	Set the height switch to the correct setting & re-initialize

Section 13 Technical Data

Model Name	HZC	HZC-CS-BC	HZC-CS-AC
Detection Method	Detection for Door Activation Sensors	Constant Sensing	
Power Supply	AC / DC24V ±10% 50/60Hz		AC / DC12V ±10% 50/60Hz
Consumption	1.8VA - 24V AC, 70mA - 24V DC		1.0VA - 12V AC, 70mA - 12V DC
Output Contact	Power ON&OFF= Closed Detection=Open Self Diagnostic=Open		
	Max. Rating (Resistor) 1A - 24V DC / 24W, 0.5A- 120V AC / 60VA		
LED Indication	Monitoring Normally : ON Detection : OFF		
Sensor Isntallation Height	2 ~ 3 m (1.3 ~6.5ft)		
Detection Area Height	0.4 ~ 2m (1.3 ~6.5ft)		
Temperature Range	−10℃~ +40℃		
Weight	Approximately 460g (1lb.)		
Connections	Power, Output Signal, Synchronous Cable, Activation Sensor, Closed Signal, Initial SW., Ultrasonic Sensor		

Section 14 External Dimensions



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MP-3307-E '05.04

HZC Ultrasonic Presence Controller *Installation Instructions*

Presence Detection by Ultrasonic Reflection.

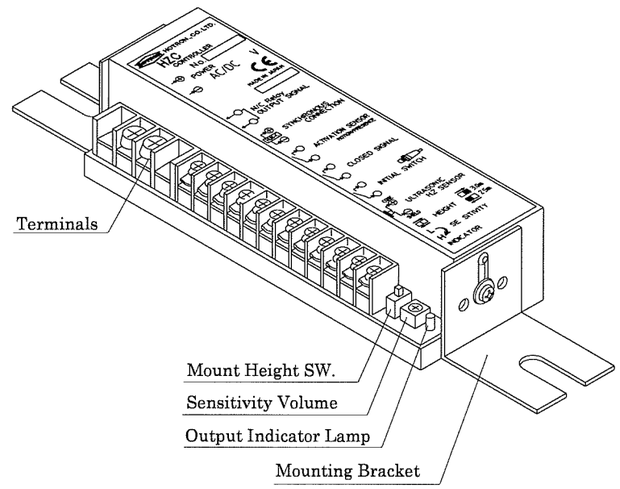
We would like to extend our thanks to you for purchasing this sensor. We at HOTRON Ireland Ltd. are committed to providing you quality products and excellent customer service. Before installing this sensor, please read the following instructions carefully:

Section 1 Features

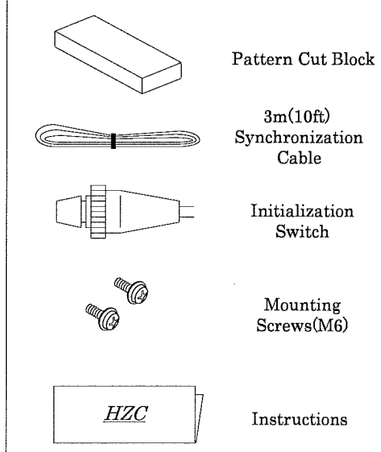
This Ultrasonic Presence controller uses an ultrasonic sensor to provide safety detection close to the automatic door.
It is designed for use with any automatic door made today.

- Provides presence detection in areas where activation sensors do not.
- Uses Ultrasonic Reflection method to detect presence in critical areas.
- HZC Controller provides Self Diagnostic as the Sensor continuously monitors itself.

Section 2 Parts Identification

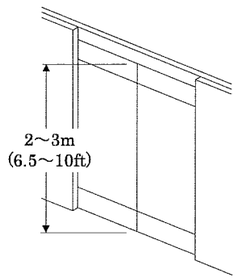


Accessories

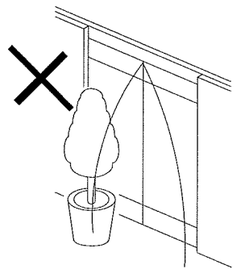


Section 3 Mounting Information

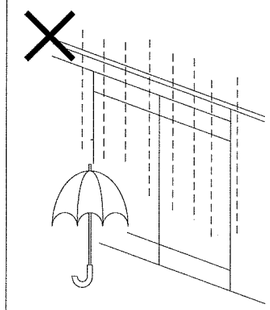
Mounting Height 2~3m (6.5 ~ 10ft.).For mounting heights outside this range please contact your supplier for advice.



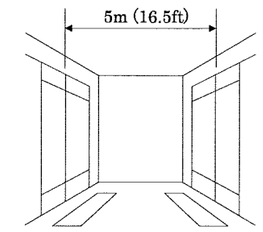
Do not leave any objects which may move in the detection pattern of the ultrasonic sensor. (i.e. plants)



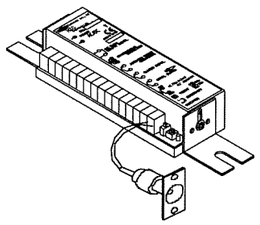
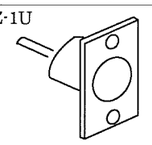
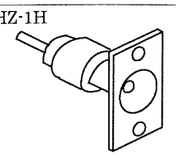
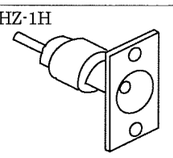
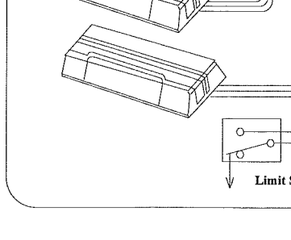
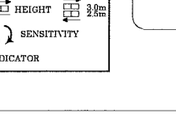
Do not mount where rain or snow can fall directly on to the ultrasonic sensor.



If there is another ultrasonic sensor within 5m (16.5ft) then please use the synchronization cable provided.



Section 4 Sensor Selection & Settings

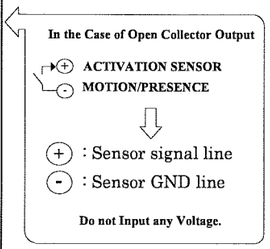
When using One One Sensor per controller. 	Mount Height	2 ~ 2.5m (6.5~8.3ft)		2.5 ~3m(8.3~10ft)
	Mount Height Switch	2.5m (8.3ft) ■		■ 3m (10ft)
	Sensor	Double Sliding Door	Single Sliding Door	Double/Single Sliding Door
		HZ-1U 	HZ-1H 	HZ-1H 
	Detection area 1m(3.3ft)above the floor	ϕ1.5m(5ft) @ mount height 2.2m(7.3ft)	ϕ0.6m(2ft) @ mount height 2.2m(7.3ft)	ϕ1.3m(4.3ft) @ mount height 3m(10ft)
When using Two Two Sensors per controller. 	Mount Height	2 ~ 2.5m(6.5~8.3ft)		◆ When using 2 sensors this SW must be set to 3m (10ft). ◆ When using 2 sensors, if mounting height is over 2.5m(8.3ft)contact your supplier for advice.
	Mount Height Switch	■ 3m (10ft)		
	Sensor	HZ-1U	HZ-1H	
				
Mount Height SW	Set the mount height SW. according to the guidelines above. The default setting is 2.5m (8.3ft).		HEIGHT 3.0m 2.5m	
Sensitivity Volume	Adjust the sensitivity volume (clockwise/anti-clockwise) until the correct detection pattern size is achieved.		L H SENSITIVITY	

Section 5 Wiring the Controller

Connect all ancillary devices to the controller as shown below. Ensure that all power to the controller is OFF before making connections. Ensure all wiring is carried out correctly.

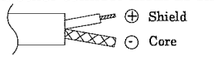
Check the Negative / Positive Pole below.

- If you input DC Power Supply.
- If you use the sensor with Open Collector Output to Activation.
- If you connect Synchronization Cable.
- HZC Sensor wiring.

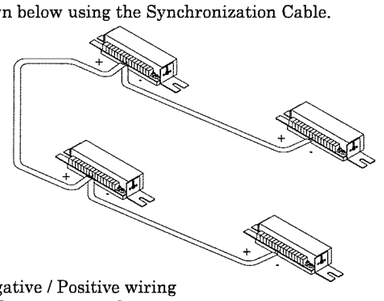


Section 6 Synchronized Mode Operation

When using 2 or more HZC controllers to control sensors within 2~5m (6.5~16.5ft) of each other connect them as shown below using the Synchronization Cable.

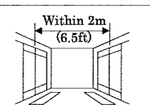
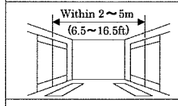
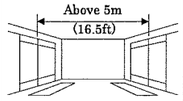


Synchronization Cable



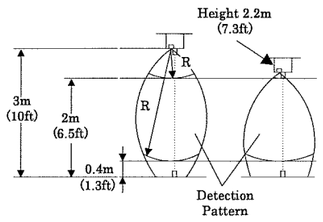
- For the controller to operate properly ensure that the Synchronization Cable is in good condition.
- Apply power to each HZC and carry out setting adjustments for each HZC controller individually.

Note: If you wrong the Negative / Positive wiring then HZC does not Operate correctly.

Sensor Distance	Synchronized Connections
	Contact your supplier for advice.
	Use the Synchronization Cable as shown.
	It is not necessary to use the Synchronization Cable.

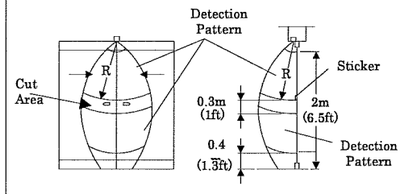
Section 7 Detection Pattern

1. The mounting height & detection pattern.



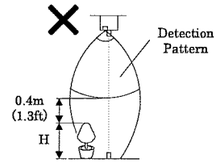
No matter what height the sensor is installed at, the detection pattern is always between 0.4~2m (1.3~6.5ft).

2. When a door has handle(s) and/or sticker(s).



An area corresponding to the position of the door handle/sticker can be cut from the detection pattern as shown above. (see Note 1)

3. When there is a plant or object in the detection pattern.



During initialization the top of the plant / object will be mistaken for the floor. The detection pattern will begin 0.4m(1.3ft) above the plant.

NOTE 1. To cut an area from the detection pattern use the pattern cut block provided. Fix the pattern cut block to the door above the highest handle/sticker. It is not necessary for the pattern cut block to completely cover the handle/sticker. For double doors also only 1 pattern cut block is required, as the pattern cut from one door will automatically be cut from the other door. Now set up as normal. About Width Area, see Section 4.

Section 8 Power & Initialization

Power ON

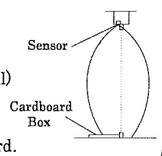
1. Check the doorway for any objects which may obstruct the detection pattern. Set the door OFF Timer to 2 sec's or more.
2. If the Door has a handle and/or sticker refer to Section 7 above.
3. Turn on the POWER. There will be a sound. (1.5 sec's)

Initialization Procedure

1. Push the reset switch for 3 sec's.
   The following occurs.
   - ◆ A buzzer (5 sec's) indicates the start of set-up.
   - ◆ After that an intermittent buzzer (22 sec's) indicates initialization is taking place. During this the door opens and closes once. (There is a short break in the sound to indicate Open/Close.)
   - ◆ A (3 sec's) buzzer indicates initialization is complete.
2. Its now possible to use the door.
   Take away the pattern cut block.
3. The initialization settings are saved in the controller even during power OFF.

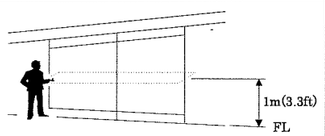
Note

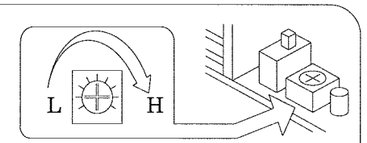
In a very small number of cases, such as when the floor is covered with an exceptionally thick carpet or bristly type mat for cleaning shoes in golf clubs etc., it is necessary to cover the floor with cardboard (or any other reflective material) during initialization.
Take care not to block the door closing cycle.
Then set up as normal and remove thecardboard.



Section 9 Verification

1. When initialization is completed, use your hand at about 1m high to check that the sensor is operating correctly and the detection pattern is at the correct height and diameter.To adjust the detection pattern turn the sensitivity volume.





2. When initialization & sensitivity adjustments are completed, there will be a sound when a person enters the detection area. For normal operation this can be silenced by quickly pressing and releasing the RED reset switch. The initialization and power-On sounds cannot be silenced.