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American Association of Automatic Door Manufacturers

# **AUTOMATIC SECURITY REVOLVING DOOR**

## **OWNER'S MANUAL**

**Distributed by:**



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## CAUTION

- Failure to follow instructions can result in an improperly adjusted door and can, consequently, cause injury and damage to equipment and property.
- Should the door fail to operate as prescribed in the “Daily Safety Check” of this Owner’s Manual or if a potentially hazardous situation is suspected, the door should be taken out of automatic service until a professional inspection is made and the problem is corrected.  
**DO NOT ATTEMPT TO REPAIR OR ADJUST THE DOOR YOURSELF.**

### To Our Customers

It is essential that you know your door system and that you recognize the importance of maintaining the system in compliance with all applicable local and national building codes. Your local Horton Automatics service representative will be familiar these codes and Horton Automatics recommendations for security revolving doors. Maintenance and adjustments performed by this service representative/technician will ensure safe and proper.

### Service Availability

Horton Automatics’ products are manufactured at the plant’s facilities in Corpus Christi, Texas and Telford, England. A worldwide network of authorized independent distributors offers both installation and service. For the Horton Automatics distributor in your area call 1-800-531-3111 or consult the Yellow Pages of your local telephone directory under “Door-Operating Devices.” In Europe, call the plant in Telford, England at 011-44-1952-670169.

### What You Should Know

Your local Horton Automatics distributor should provide you with the following for each door after installation:

- Instructions on the safe operation of the door
- Location of power cut-off switch.
- Necessary warnings not covered in these instructions
- Walk-through example of conducting “Daily Safety Check”
- This M910 Owners Manual with the following items filled in:

\_\_\_\_\_ Phone number to call regarding problems or request for service

\_\_\_\_\_ Date equipment shipped from Horton plant

\_\_\_\_\_ Date equipment placed in service

\_\_\_\_\_ Horton Automatics’ invoice number for Warranty reference and repairs

\_\_\_\_\_ Equipment type (door series) & Activation/Accessories \_\_\_\_\_

\_\_\_\_\_ Control logic version number

**Daily Safety Check** - It is the responsibility of the owner or caretaker of the equipment to perform the following safety checks each day and after any loss of electrical power:

**A. Activation by Card Readers** - To activate revolving door, present access card to card reader located on one or both sides of door. A Horton Automatics supplied LED located on the card reader mounting bracket will change from red to green indicating valid presentation. An audible one-second beep should also be heard simultaneous to the LED color change. *Note: If the card reader response is greater than 2 seconds, traffic through the revolving door will be slowed. Ask card reader's manufacturer for instructions to decrease response time.* A revolving door with wings in standard 'plus' (+) position will allow valid user 8 seconds or 3 attempts to enter door. With wings in (x) position, valid user will be given three quadrant rotations to successfully enter door.

The following should also be adhered to when considering activation by card readers:

1. **Floor Mats:** A revolving door with the wings in the 'plus' (+) position will begin to rotate when the valid user steps on the active mat. When the revolving door wings are in the (x) position, the door begins rotating after a valid card presentation is received. Be conscious of the floor mats as you walk through the door in both directions. Test multiple areas of the mat. Make sure the mats and floor area are clean and free of debris which might become tripping hazards or may improperly activate the mats. All mat trim should be securely anchored with mat edges laying flat and smooth against the floor.
2. **Quarterpoint Switches:** After successfully walking through the revolving door, verify that the LED color has changed back to red. If the (x) position quarterpoint switching is not functioning properly, unauthorized users may be able to enter the secured area. Verify with the installer which logic version you have and it's proper operation. If the door does not stop in the proper position, reverses too far or not far enough, the switches can be adjusted by your installer. Proper spacing between the switch and the indicator should be 1/8"; be sure to check all indicators. The switches will be damaged if they are set too close to the indicators.
3. **Security Violation:** In a security violation the door will stop rotating. A voice annunciation then warns, "Security violation, door will reverse". Verify that this annunciator is working properly by having a helper attempt to enter the revolving door opposite of you on your valid card presentation. Step off the mat and reenter when the violator is clear. A second voice will prompt this action.
4. **Door Wing Rotation Speed:** Doors should be adjusted so as not to exceed speeds below:

Inside Diameter	Horton Recommended Max RPM*
6'-0" (1829mm) to 9'-6" (2743)	5**
10'-0" (3050mm)	4

\*Lower and preferable to maximum RPM allowed by code (NFPA 101, Uniform Bldg Code, Basic Bldg Code, Std Bldg Code)

\*\*Airport doors must **not** be set faster than 5 RPM or security may be compromised.

Note: Exceeding above limits may cause users to make contact with door (security doors have reverse safety mode).

## B. Activation by Optional Push Button Switches and Motion Detectors -

These activating switches may be used on the EXIT side of security revolving doors. Simply press the push button to activate door rotation. For doors equipped with motion detectors, check the activation pattern and function as follows

1. Inspect electronic sensor by walking towards door opening. Door should start revolving smoothly when about 4 to 5 feet (1219 to 1524mm) from door. Sensor pattern should cover the entire throat area.
2. Step out of sensor zone. After brief time delay (2 seconds min.) door should slow and stop at quarter point.
3. Verify detection pattern is at least as wide as entry by walking parallel to entry about 2 1/2 feet (762mm) from door face.
4. Press the red reduced speed button(s). Reduced speed should be approximately 2-3 RPM. Electronic voice annunciator should say "Door in slow speed, do not push."

## C. General Appearance

1. Inspect weatherstripping for repairs or replacements. Make sure weatherstripping does not "hang-off" door wing. This could create tripping or slipping hazard.
2. Check for general cleanliness in and around door. Remove debris that may have accumulated under door wings or around enclosure.
3. Maintain traffic path so that approach is straight on and not from angle or sideways. Remove items that could impede flow or vision of pedestrian traffic through revolver.
4. Inspect door's overall appearance. Safety decals, hardware, and glass in door wings and enclosure should be present and in good condition.

## General Safety

- 1. Torque Limiting** - The control constantly monitors motor current to detect any resistance. If the door wings come in contact with an object during rotation, the control shuts down and stops. After an adjustable time delay, the door attempts to restart in slow speed. Once clear, it resumes normal operation. Torque limiting should be checked once door is running at operating speed. Adjust sensitivity so that force exerted by door is 15 to 25 lbs (66 to 110N)  
*Note: Some doors contain logic that activates the "idle" mode when the safety edge or torque limiting feature is activated. Also, if setting is too light (sensitive) it may cause nuisance tripping (momentary stops and restarts) on door start ups or in cold weather conditions. Check with the installer to confirm how your door is intended to function.*
- 2. Wall Safety Edges** - Apply light pressure to all safety edges. Operator should stop (unintentional bumping with luggage, etc. less than 1/4 of a second will not stop door).  
*Note: Dip switches located in controls allow choice between automatic or manual restart (push) in the event of a torque limiting or safety edge stop.*
- 3. Adjacent Power Operated Swing Doors** - These are recommended for safety reasons in situations where pedestrian is significantly physically impaired and no assistance is readily available; or, when pedestrian is wary of revolving door.
- 4. Decals** - Minimum diameter should be 6" ( 152mm ) and must be visible from both sides. Apply as noted.  
*Note: C1690 Daily Safety Check decal ( not shown ) should be mounted on interior vertical throat post at 60" ( 1524mm ) above finished floor.*




## Limited Warranty

Horton Automatics (Seller) warrants to the Buyer all products they manufacture to be free from defects in material and workmanship, under normal use and service, for twelve months from the date product is placed in operation. The Seller's obligation under this warranty is limited to the repair or replacement at the factory, of any parts which shall be returned to the Seller with transportation charges prepaid and which after examination, prove to be defective. Said warranty shall not apply to such products which shall have been installed, altered, or repaired by any person not expressly authorized in writing for such purpose by the Seller, or subjected to misuse, negligence or accident. The aforesaid warranty is made expressly in lieu of other warranties, expressed or implied and in lieu of any other obligations or liabilities on the part of the Seller and the Seller neither assumes nor authorizes any person to assume for it any other liability or obligations in connection with the sale of such products to the Buyer.

**There is no warranty of merchantability or fitness for any particular purpose, nor is there any warranty, expressed or implied, except as specifically stated above. seller shall not be liable for special or consequential damage, nor for claims of any third party against the buyer.**

Generally, the installing distributor provides a one-year warranty covering the labor and transportation charges for defective parts replacement. If this is the customer's wish, it should be specified.

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