

OPERATION AND MAINTENANCE SCHEDULE

Hot & Cold Aisle Containment

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Introduction

Elevate Hot and Cold Aisle containment is designed to be low maintenance with minimal requirements for scheduled work. The products are manufactured from powder coated steel, with toughened glass doors, glass skylights in cold aisle and Polycarbonate panels in Hot Aisle. All structures are permanently installed and do not feature any removable panels, however Cold Aisle Skylights can be “triggered” to an open position.

Hot Aisle solutions use the same end of aisle doors as cold aisle, but a difference aisle ceiling with aluminium frame and polycarbonate panels instead of steel and glass constructed skylights.

Recommended General Maintenance of Roof Panels

The Skylights should be kept clean at all times, general purpose glass cleaners can be used to clean the skylight window area's and structures should also be kept clean and wiped down on a regular basis, certainly annually.

Mechanics of the skylight will not require and specific maintenance, but those fitted with an automatic reset motor will periodic checks to ensure the motor rod mechanism and connecting rods are always kept clear of foreign object and there are no issue with cables or other items they may have dislodged adjacent to them.

The operation of the skylights should also be periodically checked using the “emergency stop” button followed by a manual closure, and where fitted with the automatic reset motor, the closure checked using the reset button.

LED Lights installed into Skylights are triggered by localised sensors and should activate individually based on proximity of personnel in the aisle. Hot Aisle lighting is triggered as a set of lights for the entire aisle. Should any individual LED strip light cease to function, these would be available as a spares item.

Recommended General Maintenance of Doors

All Doors are Manufactured from 12mm Toughened Glass and care should be taken during installation of equipment into containment area's of rack, not to accidentally knock or catch these glass doors. Adjustments can be made by the installer to increase the time they are open for, and reduce the response time when opening on the infra red door sensors.

All Doors should be kept clean using general purpose glass cleaner, and the movement of the doors should always be smooth and quiet without any foreign objects impeding their movement, and with proper clearances to the structure they sit in.

It is recommended to have the doors and their systems inspected on an annual basis to ensure safe working operation of them and support the life expectancy of the product.

Electronic Doors also feature electronic systems linked to access control, and emergency alarms, once these are setup they can be operated as per instructions provided for the installation of the cold aisle, and the same maintenance considerations will apply to these as to Manual Doors.

General Operational Checks

Items to Check

Emergency Stop Button	<input type="checkbox"/>
Access Control	<input type="checkbox"/>
Door Exit Button	<input type="checkbox"/>
Movement of Electronic Doors	<input type="checkbox"/>
Infra Red Sensors	<input type="checkbox"/>
Temperature Humidity Sensors	<input type="checkbox"/>
Water Rope Sensors	<input type="checkbox"/>

Detailed checks to be made for each item:

Emergency Stop - This should be stowed in the open position, and pressed down hard to activate, upon doing so, the Skylights should be released, the doors open and an alarm will sound. To re-set, twist the button anti-clockwise. Following this you will also need to close the skylights.

Access Control - Use the RFID card or keycode to unlock the electronic doors and these should then open automatically, closing again after a period of 5 seconds or so, timing can be adjusted. Biometric Access Control will need a user adding and a finger print saved against each user to test this method of control.

Door Exit Button - With the doors closed and the system in normal condition, pressing the Door Exist Button should open the electronic doors in the same way as using the access control.

Movement of Electronic Doors - The doors should open smoothly and easily with no obstructions or rubbing against frame work or closing panels.

Infra Red Sensors - With the doors in the open position, if blocking the closure of the doors by standing in the way, the doors should not close, if they start to close they should stop and revert back to fully open. The sensitivity and time delay can be adjusted on the beam sensor box.

Temperature Humidity Sensor - These should be showing on the Monitoring system as live data under the "Environment" section. Hold one of the Temperature sensors in the closed palm of your hand and look for an increase or change in temperature after a few minutes.

Water Rope Sensors - Use a small cloth that is damp to moist with water, squeeze the cloth over the rope to allow drops of water onto it, (ensuring there is nothing below that would be damaged by water), and this should trigger the system alarm and notifications. Wipe dry and the alarm should cease.

If any of the above points are not correct, refer back to the relevant section in the installation instructions, cross checking against the wiring diagrams in the appendix. Further support can be obtained from emailing TechnicalS@mayflex.com.

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