

OPERATIONS AND MAINTENANCE MANUAL AisleCop[®] 5.0 Wireless System (WPAN)



1. Safety

AisleCop[®] systems are designed and manufactured for us in The United States. The are not SCC (Standards Council of Canada) certified. Any required testing or certification is the responsibility of the end user. If certification is required, the end user should contract directly with a authorized inspection and company to schedule testing. Fees for testing and certification, as well as any additional items required for conformity, to be covered by others.

AisleCop[®] gates are designed as a tool to contribute to a safer working environment. They in no way remove the risks associated with pedestrian and vehicle traffic. They serve as a visual warning, to both drivers and pedestrians to be cautious in pedestrian and vehicle traffic ways. They do not provide 100% protection from industrial traffic accidents. AisleCop[®] gates do not stop forklifts or other industrial traffic. Other critical factors, such as system maintenance, driver and pedestrian training and compliance, enforcement of crossing lanes, and assessment of safe crossings are the responsibility of others.

Training is required to safely operate AisleCop[®] gates. Read the operation instructions contained within this manual prior to use.

- **NEVER** operate AisleCop[®] gates in applications for which the gates were not intended
- **NEVER** operate AisleCop[®] gates without proper training
- **NEVER** use accessories or attachments that are not approved by Cisco-Eagle, Inc.
- **NEVER** make modifications to AisleCop[®] gates without prior written approval from Cisco-Eagle, Inc.
- ALWAYS be aware of operation of AisleCop[®] gates and keep hands, feet, and loose clothing clear of moving parts at all times.

2. System Components

Your AisleCop[®] system consists of:

*Depending on System configuration selected

Model No.	System Type	Priority	# of Gates
AC2G2P-V	Dual Pedestrian	Vehicle	2 Pedestrian
AC2G2P-P	Dual Pedestrian	Pedestrian	2 Pedestrian
AC4G2P2V-V	Dual Pedestrian / Dual Vehicle	Vehicle	2 Pedestrian and 2 Vehicle
AC4G2P2V-P	Dual Pedestrian / Dual Vehicle	Pedestrian	2 Pedestrian and 2 Vehicle

3. Scope of Operation

*Depending on System configuration selected

Example 4 Gate System:

SCOPE OF OPERATION (Pedestrian Initiated)

System starts with pedestrian gate arms closed and vehicle gate arms opened.

- System initiated with pushbutton on pedestrian gates.
 - System alerts with arm lights and audible alarms.
 - Vehicle traffic scanned via motion sensors.
- Vehicle gate arms closes vertically when no motion is sensed.
- Pedestrian gate arms open horizontally.
 - Pedestrian traffic scanned via motion sensor.
 - Pedestrian gate arms close horizontally no motion is sensed.
- Vehicle gate arms open vertically.
 - System stops pulsing arm lights and audible alarm.
- System is now in idle mode.

Tips

- If the pedestrian gates remain closed well after a pedestrian push button is depressed, this is normally because the motion detectors continue to detect "traffic" in the vehicle aisle. Note that the movement of vehicles <u>as well</u> <u>as any other moving objects</u> (pedestrians, AGVs, carts, etc.) in the vehicle aisle will be considered traffic by the motion detectors.
- 2. The pedestrian gates, and the accompanying audible alarms work in concert.

System Notes

AisleCop[®] systems are configured for a short delay in order to allow pedestrians to cross the intersection. The pedestrian gate will remain open until all pedestrian traffic has cleared and the short time delay expires. This feature accommodates continuous streams of pedestrians desiring to cross through the crosswalk, such as during breaks or lunch time.

In order to promote safe usage, it is recommended that sufficient guarding or other physical barriers are used in conjunction with and directly adjacent to the AisleCop[®] Pedestrian Gates in order to appropriately funnel pedestrian traffic through these gates.

Fire Alarm

AisleCop[®] systems can be tied into your fire alarm system. Under a fire alarm scenario, when gates are under power and the PLC receives a signal at the appropriate input, all gates will open. The red arm lights and the audible alarms continue to pulse until the fire alarm signal has ceased. The AisleCop[®] system must be properly wired to the facility's fire alarm system for this feature to work.

It is important to note that pedestrian gate arms may partially block the vehicle aisle during a fire alarm scenario. Vehicle operators should move their vehicle from the aisle, exit the vehicle and proceed under customer's standard protocol for the given situation.

Power Failure

Pedestrian gates will not automatically open under power failure but may be physically pushed open with little effort.

Auto-reverse

All gates incorporate an auto-reversing feature. A pedestrian gate arm will auto-reverse in both directions until the arm no longer impacts an obstruction and then continue its cycle. Vehicle gates will auto-reverse when impacts an obstruction when moving in the down direction only.

Powered Override Operation

Each individual gate may be moved open or closed utilizing the Service Mode via each gate's individual controller located under the top cover of each gate.

Audible Alarm

Depending on model, audible alarm's volume can be adjusted by turning the dial on the unit, or by changing DIP switches inside the unit to adjust tone/volume.

4. Pedestrian Gate Specifications

Physical Dimensions

Cabinet depth:	14 1/4"		
Cabinet width:	12 1/4"		
Cabinet height:	37" (with standard boom arm mounted)		
Unit overall width (closed gate):	48" (with standard 40" boom arm)		
Unit overall depth (open gate):	52 1/4" (with standard 40" boom arm)		
Standard Boom Arm swing radius:	65 5/8"		
Recommended Clearances			
Cabinet Access Door:	Sufficient clearance for access to internal components. Must meet all OSHA, NEC, federal, state, or local codes.		
Boom Arm:	2" to 6" from end of arm to adjacent equipment or surfaces through its 90-degree swing radius.		
Other Vertical Faces:	All other vertical faces may abut adjacent equipment or surfaces excepting when doing so may cause transfer of heat, static, moisture or otherwise cause harm to or shorten the life of the AisleCop [®] gate.		
Тор:	2" minimum and must not impact warning lights, audible alarm, use of push button or swing radius of boom arm.		
Technical Data			
Opening/Closing Time:	2 seconds/2 seconds		
Power Consumption:	30 W		
Motor Voltage:	24 VDC/2.5A		
Internal Control Voltage:	24 VDC/1A		
Weight:	121.3 Lbs.		
Operating Temperature Range:	-22 to 131°F (-30 to 55°C)		
Motor Type:	Servo Motor		

5. Vehicle Gate Specifications

Physical Dimensions

Cabinet depth:	12 1/8"		
Cabinet width:	13 5/8"		
Cabinet height:	44" (without barrier arm)		
Unit overall width (closed gate):	85 5/8" (with 6'-0" arm)		
	109 5/8" (with 8'-0" arm)		
	133 5/8" (with 10'-0" arm)		
	157 5/8" (with 12'-0" arm)		
Unit overall height (open gate):	116" (with 6'-0" arm)		
	140" (with 8'-0" arm)		
	164" (with 10'-0" arm)		
	188" (with 12'-0" arm)		
Recommended Clearances			
Cabinet Access Door:	Sufficient clearance for access to internal components.		
	Must meet all OSHA, NEC, federal, state, or local codes.		
Barrier Arm:	6" minimum from end of arm to adjacent equipment or		
	surfaces through its 90-degree swing radius.		
Other Vertical Faces:	All other vertical faces may abut adjacent equipment or		
	surfaces excepting when doing so may cause transfer of		
	heat, static, moisture or otherwise cause harm to or		
	shorten the life of the AisleCop [®] gate.		
Technical Data			
Opening/Closing Time:	2.5 seconds/2.5 seconds		
Power Consumption Max:	25 W		
Motor Voltage/Amps:	24VDC / 3A		

Internal Control Voltage/Amps: Weight without Boom: Operating Temperature Range: Motor Type: 2.5 seconds/2.5 seconds 25 W 24VDC / 3A 24 VDC / 1A 97Lbs. -22 to 131°F (-30 to 55°C) Servo Motor

Wiring Requirements

Vehicle Gate(s) Pedestrian Gate(s)

Motion Sensor

120VAC120VAC3 Wires per Sensor to Primary Pedestrian Gate





6. System Communications

AisleCop[®] gate systems (Gen 5) communicate via wireless technology (WPAN).

Systems are preprogrammed and tested before they are shipped. No need to adjust the wireless components. Wireless range 50ft unobstructed.



7. Ethernet Capability

Your AisleCop[®] Gate Systems include Ethernet capable PLCs, included with each of the systems. By fully utilizing the PLCs Ethernet connectivity, we are able to remotely troubleshoot the system and make small changes that would otherwise require a site visit and leave the system not working at optimum levels or disabled for days at a time. When included, this Ethernet capability is provided to you free of charge but must be set up in order to be utilized.

Prior to installation of the system, we highly recommend that your IT department setup and provide to us IP Address, Subnet Mask, and Gateway information for each of the AisleCop® systems. Also, please provide the following VPN information (if applicable): server addresses, username(s) and password(s).

Note that we have nothing but the strictest respect for our customers' security. However, if company protocol dictates, or your IT department is simply more comfortable with it, the Ethernet cable may be left physically unplugged until such time that we are requested to dial in and troubleshoot and/or make changes.

8. Maintenance

AisleCop[®] gates are designed for a long lifetime with only a minimum of maintenance required. To guarantee the greatest available equipment uptime and maximize the lifetime of AisleCop[®] gates, please follow the prescribed maintenance schedules. Use the "Maintenance Service Record" table to keep track of your maintenance activities.

Cleaning from the outside

Clean the barrier housing and barrier arm at regular intervals.

Cleaning from the Inside

DANGER! Mortal danger by electric voltage!

Prior to carrying out cleaning work, switch off power supply and secure against restarting.

- Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit
- Never clean the barrier housing and barrier arm with mist or pressure-jet cleaners.
- Remove contamination from the outside of the barrier housing properly using water with mild soap and a clean cloth. Do not bring control units and electrical components into contact with moisture.
- Remove dust inside the housing unit with a vacuum cleaner.
- After cleaning work, check that all previously opened covers are closed again, and that all safety equipment functions correctly.

Maintenance Schedule

The following describes the maintenance work that is necessary for optimal, trouble-free operation. Maintenance intervals must be observed. If increased wear of individual components or functional groups is revealed during regular inspections, the operator must reduce the required maintenance intervals based on actual signs of wear. In case of questions, contact Cisco-Eagle at 1-888-480-1025.

Interval	Maintenance work	To be carried out by
Monthly	Visual inspection of the housing, inside and out, for damage and corrosion. Clean the housing and repair paint damage as necessary. Remove corrosion damage.	Specialist
	Visual inspection of foundation anchors, attachment profiles and mounting material for corrosion. Remove corrosion damage.	Specialist
	Visual inspection of the barrier arm for damage and corrosion. Clean the barrier arm and repair paint damage as necessary. Remove corrosion damage.	Specialist
	Visual inspection of additional parts, such as the pendulum support, for damage and corrosion. Clean additional parts and repair paint damage. Remove corrosion damage.	Specialist
	Where they exist, inspect lenses and mirrors of the light barriers.	Specialist
Every 6 months	Perform all monthly maintenance work.	Specialist
	Check function of the residual current operated device	Electrical specialist
	Check the barrier housing fastening screws for tight fit. If required, tighten the screws.	Specialist
	Check the barrier arm and flange fastening screws for tight fit. If required, tighten the screws.	Specialist
	Check the screws of the system parts, such as pendulum support, for tight fit. If required, tighten the screws.	Specialist

Interval	Maintenance work	To be carried out by	
Every 12 months	Perform all monthly and semi-annual maintenance work.	Electrician / specialist	
	Check the barrier's mechanics.	MHTM MicroDrive service specialist	
	Check the spring setting of the lever system.		
	Check barrier arm position.		
	Visual inspection of the induction loops and the carriageway in the area of the loops for damage.		
	Check the induction loops' function. \rightarrow See separate document "Description of control units MGC and MGC Pro for MHTM TM MicroDrive barriers", chapter "Detector 1 (A-B)".		
	Check the induction loops. Measure the contact resistance, insulation resistance, and inductivity of the induction loops. \rightarrow See page 58.		
	Where they exist, check the function of additional safety equipment, such as light barriers.		
	Check the barrier's function.		
	Check the barrier's locking in the position "Closed".		
	Check the advanced warning on barriers with the active function "Traffic lights lead".		
	Check electric cables for damages.		
	Check if all electrical connections are firm.		
	Check signs and labels for completeness and legibility.		

9. Mechanical Installation

Locating and Positioning of Gates

AisleCop[®] systems are provided with drawings to determine the location and position of each vehicle and pedestrian gate. Reference these drawings and go through the following checklist prior to anchoring each gate.

- Location of gate matches provided drawing.
- Desition of gate matches provided drawing.
- Arm swings down in the desired direction (vehicle gate only). Note: Arm should swing down toward the side of the vehicle gate with the shorter of the two access panels.
- Arm clears obstructions through its complete swing radius
- Pedestal has 24 inches (pedestrian gate) minimum clearance on at least one of the two panel door sides for easy access to internal components

Note: In any instance where OSHA, NEC, federal, state or local codes conflict with location, position or clearance of these gates, those standards shall take precedence over the guidelines herein.

Anchoring Gates

We recommend 3/8" anchor bolts, which have been included with your system(s). Please refer to the anchor bolt manufacturer's installation instructions for specific requirements. To mount AisleCop[®] vehicle gates to a concrete surface follow the instructions below:

- 1. Unpack gate.
- 2. Setup gate housing vertically.
- 3. Set aside barrier arm.
- 4. Unpack and layout accessories.
- 5. Remove top lid and the barrier doors. Set aside.
- 6. Place the gate on the desired position.
- 7. Lay mounting channels across inside of base, approximately 7" (180mm) on centers.
- 8. Using a permanent marker, mark the holes in the mounting channels. Holes should be approximately 7" (180mm) apart.
- 9. Move gate clear of mounting area.
- 10. Drill and install four anchor studs. Studs should penetrate approximately 3 1/4" (80mm)
- 11. Move gate back into place with studs on inside of base.
- 12. Using mounting channels, fender washers, and anchor nuts provided, secure the gate to the concrete floor.



Figure 1. – Gate Install Detail

Arm Mounting – Vehicle Gates

Caution – Danger of Injury!

There is a danger of injury when mounting the barrier arm.

- It is recommended that all barrier arms be installed utilizing two persons.

Notice

Improper lubrication of components, in particular the counter bearing or flange shaft, may lead to damage of the equipment!

- Do not grease the counter bearing and flange shaft

Switch off power supply

- 1. Secure barrier danger area e.g. with barrier tape.
- 2. Remove the barrier housing hood.
- 3. Remove the barrier housing door(s).

Warning – Danger of crushing between barrier arm and barrier housing!



Personal protective equipment

The following must be worn during all assembly and installation work:

- Work Clothes
- Protective Gloves
- Safety Shoes
- 4. Switch off power supply. Ensure the system is powered down. Secure against reactivation. The balancing springs in the lever system are relaxed.

Assemble the flange at the barrier arm

5. Remove the end cap from the barrier arm.



Figure 2. – Remove end cap

- 6. Slide the shorter slot nut and the additional flat bracket into the bottom groove.
- 7. Place longer slot nut into the top groove.



Figure 3. - install slot nuts and flat brackets

8. Install the flange at the barrier arm with the 4 Torx screws. The shorter protrusion of the flange must point towards the barrier arm end. Tighten screws twice in sequence to ensure that all the screws are tightened correctly.



Figure 4. – Install flange

- Torque wrench with Torx T40
- Tightening torque: 11.8016 lbf ft (16 Nm)



Figure 5. – Tighten bolts

9. Install end cap to the barrier arm



Figure 6. – Install end cap

Assemble the gate barrier arm

- 10. Push the barrier arm with pre-assembled flange onto the shaft.
- 11. Align barrier arm vertically
- 12. Install the flange onto the flange shaft using the 4 hexagon socket screws. Tighten the screws evenly.
 - Torque wrench with hexagon socket: 10 AF
 - Tightening torque: 55.318 lbf ft (75 Nm)



Figure 7. – Install flange and arm

Align barrier arm, switch on power supply

- 13. Push the barrier into the top-most position. The clamping level must be at the stop for the position "opening". If required, push straight through the upper tool bore with a tool to press the lever arm from the dead point.
- 14. If required, check the vertical alignment of the barrier arm and correct with the hexagon socket screws at the flange if necessary.
- 15. Switch on the power supply.
- 16. Switch the "Service" switch on the control unit. The LED lights should light red and the display backlighting should flash.
- 17. Close the unit with the middle right button at the control unit.
- 18. Check the horizontal alignment of the barrier arm with a level and correct with the hexagon socket screws at the flange if necessary.
- 19. Tighten screws and threaded bores with the included gray plastic covers.
- 20. Switch the "Service" switch on the control unit. The LED should light green.
- 21. Attached and lock the barrier housing hood.

Arm Mounting – Pedestrian Gates

Warning – Danger by inappropriate installation!

Inappropriate installation can cause severe injuries!

- Only specialist personnel or electrical specialists must perform any assembly and installation tasks.
- Prior to work, ensure that there is sufficient assembly space.
- Pay attention to tidiness and cleanness at the assembly site! Components and tools can be trip hazards and may cause accidents if left lying in work area.
- Ensure correct arrangements and fit of all assemblies of components.
- Install the indicated fastening elements correctly.

Warning – Risk of injury by the horizontally moving barrier arm!

The barrier arm moves horizontally. A closing or opening barrier arm can cause severe injuries or property damage!

- Observe the swivel range of the barrier arm.
- Ensure freedom of movement. Remove obstacles from swivel range.

Warning – Danger of injury from end stop!

The end stop for the barrier arm is set to a swivel angle 90 degrees. The barrier arm is locked at ends at 90 degrees only. At smaller swivel angles, the barrier arm maybe be pushed out e.g. by wind, or no longer be kept in position at a power failure. A moving barrier can cause sever injuries or property damage!

- Never move the end stop.
- If a smaller swivel angle than 90 degrees is required, contact service.

Personal protective equipment

The following must be worn during all assembly and installation work:

- Work Clothes
- Protective Gloves
- Safety Shoes

Check swivel range, set close direction and mount flange

- 1. Secure the barrier danger area e.g. with caution tape.
- 2. Remove rear cover of the barrier housing.
- 3. Remove rear door of the barrier housing.
- 4. Switch on power supply.
- 5. Switch on barrier if required.

Switch on Mode "Service"

6. Switch the "Service" switch on the control unit. The LED lights should light red and the display backlighting should flash.

Check the swivel range of the barrier arm

- 7. Opening and closing the barrier arm manually; Check the swivel range via the shaft.
 - Middle left button manually open the barrier.
 - Middle right button manually close the barrier.

Setting the close direction

8. If the close direction is incorrect, change the close direction via the parameter "Close direction. Reference separate document for MGC and MGC Pro controllers.

Warning – Danger of crushing between barrier arm and barrier housing!



9. Switch off power supply. Ensure that the system is powered down. Secure against reactivation.

Assembling Flange and Barrier Arm

Assemble flange at barrier arm

- 10. Loosen screws at the flange.
- 11. Push the flange onto the flange shaft and align it. Observe motion direction and freedom of movements.
- 12. Clamp the flange to the flange shaft using the screws.
 - Torque wrench 8 AF
 - Tightening torque: 51.6 lbf ft (70 Nm)



Figure 8. – Assembling flange

Check the swivel range of the barrier arm

- 13. Switch on the power supply.
- 14. Switch the "Service" switch on the control unit. The LED lights should light red and the display backlighting should flash.
- 15. Opening and closing the barrier arm manually; Check the swivel range again via the flange.
 - Middle left button manually open the barrier.
 - Middle right button manually close the barrier
- 16. If required, check the alignment of the flange.
- 17. Switch the "Service" switch on the control unit. The LED must light green.
- 18. Install the rear door of the barrier housing.
- 19. Install the rear cover of the barrier housing.
- 20. Lock the lock at the rear door.

Mount the Barrier Arm

NOTE! – Depending on equipment of the barrier arm and its weight, we recommend installing the barrier arm with two people.

Prerequisites

- The danger area is secured with caution tape.
- The flange is installed.
- The swivel range of the barrier is known.



WARNING!

Danger of crushing between barrier arm and barrier housing!

1. Switch off power supply. Ensure that the system is powered down. Secure against reactivation. Mount barrier arm

- 2. Push the barrier arm onto the flange.
- 3. Mount the barrier arm on the flange via the screws.
 - Torque wrench 8 AF
 - Tightening torque: 51.6 lbf ft (70 Nm)



Figure 9. – Mounting the barrier arm

4. Check alignment with level

Switch on the barrier

5. Switch on power supply

*See Separate Work Instructions for Cutting Down AisleCop Gate Arms

Motion Detectors

Most AisleCop[®] systems utilize a series of digital radar motion detectors. These sensors act as the "eyes" of the system and work in concert with the system's PLC to determine if and when to open gates. As such, these motion detectors are vital in ensuring the system operates correctly. Verify all of the following conditions are met when mounting motion detectors for your AisleCop[®] system:

- The device is mounted so that it is vibration free
- There are no moving objects in the field of the sensor, such as adjacent machinery, robots, personnel, etc. that would falsely trigger the motion detector
- Fluorescent light tubes are not in the direct line of sight of the motion detector
- The motion detector is not installed behind an object(s) that significantly impedes its field
- Temperature must be maintained in the range of -4°F to 131°F; Humidity must not exceed 95%

Basic configuration of motion detectors has been done in the factory prior to shipping. If an installation option has been included with this system, Cisco-Eagle Inc. will provide additional onsite configuration. Otherwise, this configuration will be the responsibility of the end user.

It is important to determine the location, direction, range, and area of each motion detector's field prior to installation. Drawings may be provided to determine these attributes. Standardly, each standard AisleCop® system is provided with three motion detectors: one for detecting motion in the pedestrian aisle(s) and two for detecting motion in the vehicle aisle(s) with additional sensors provided as needed. To ensure a good line of sight, and to avoid background noise and false triggers, it is typically recommended that all sensors are mounted high (10Ft or 3M) and pitch at a downward facing angle (-15° to -30°). See the following photos for mounting positions and charts motion detector ranges. A motion detector is typically mounted surface with its included retainer bracket. The angle of each motion detector should be adjusted and fixed by tightening the two screws on either side of the bracket and motion detector. Refer to the motion detector manual included with the motion detector or online for additional information.





Horizontal Mounting Position Vertical Mounting Position Figure 10. – Motion Detector Mounting Positions





Notes: The area within the red lines represents the area in which motion may be detected when the sensor is set to its highest sensitivity (sensitivity/sensor field may be adjusted to accommodate a smaller area). The ranges are linear perpendicular distances from the transceiver face of the motion detector. The motion detector does not reliably detect movement past the range depicted below for each respective mounting position. Reference photos for mounting positions.

10. Electrical Installation

Wiring Terminations and Field Wiring Pulls

AisleCop[®] systems are provided with electrical drawings that include electrical schematics and field wiring pulls. Refer to these electrical drawings when wiring power to gates and signal voltage to system components.

120VAC must be supplied to each gate, wired directly into terminal blocks inside each pedestal, indicated on the electrical drawings on the 120V power terminal block. Instructions on wiring power and devices in the field are covered later in this section.

When referring to electrical drawings, specifically pay attention to wiring indicated by phantom (--- - - ---) lines. These are terminations that will need to be done in the field. Wiring noted with solid lines has already been completed prior to shipping and should not require additional work.

When reviewing the drawings, note that terminal block numbers correspond to terminal block numbers in gates and on devices. +24V, Common, Inputs and Outputs will all need to be wired, as indicated on the drawing, at the end user's location.

Wiring pull drawing(s) should be reviewed prior to the installation of the gates so as to establish the number of wires required for each device, the wiring of gates to one another, and peripheral devices such as motion detectors and warning lights. Power drop locations, appropriate EMT and/or flex conduit sizes, routing of conduit, obstructions near the path of the conduits, and interfaces with fire alarms and other customer provided devices should all be considered.

For additional information and specifications regarding the PLC, warning lights, motion detectors, or other peripheral devices, refer to manufacturers' manuals.

Making Terminations Using Screwless Terminal Blocks

Most of the electrical terminations inside AisleCop[®] gates are made using screwless terminal blocks which utilize an internal spring to hold the wires in place. Please follow these steps to when wiring field terminations.

- 1. Verify the correct gage of wire is being used based on the previous chart.
- 2. Strip the insulation off of the wire approximately ¼" from the end of the wire.
- 3. Insert a small, flathead screwdriver into the <u>square</u> hole on the top of the appropriate terminal, lever the screwdriver away from you and hold it in place.
- 4. Insert the wire into the <u>round</u> hole of the appropriate terminal and allow the screwdriver to lever back, clamping the wire in place. Take care to make sure that wire is not clamped on the insulation.
- 5. Pull the wire outward from the terminal block to ensure it is secure. If the wire pulls loose, repeat steps 3-5.



Steps 2 and 3



Steps 4 and 5

Fire Alarm Scenario – Wiring Requirements

AisleCop[®] gate systems come preprogrammed with a set of fire alarm scenario operations. In order for this scenario to work properly, 24VDC normally open input and an output signal are required to be wired to the appropriate terminal blocks inside the primary gate of each system. When the AisleCop[®] system's PLC receives a closed contact signal, the program will stop the current cycle and immediately enter the Fire Alarm Mode sequence. During this Fire Alarm Mode sequence, unless specified otherwise, all gates will immediately open, all applicable system red lights will flash their red lights, and all audible alarms will sound until such time the PLC no longer receives the closed contact signal. When the closed contact signal is no longer received, the system will return to its normal operation.

11. Warranty

Cisco-Eagle, Inc. warrants that all AisleCop[®] safety gates will be free from defects in material and workmanship for one (1) year or 2 million cycles, whichever occurs first, under normal operating conditions when installed in accordance with Cisco-Eagle's installation instructions, normal wear and tear excepted. The warranty period shall start from the date of shipment of the product by Cisco-Eagle, Inc. During the warranty period, Cisco-Eagle will repair or replace at its option, any of its products which have been found to be defective. A Return Material Authorization number (RMA) must be obtained before products are returned, and products must be shipped freight prepaid to:

Cisco-Eagle, Inc. 2120 Valley View Lane Dallas, TX 75234 Attn: AisleCop[®] RMA