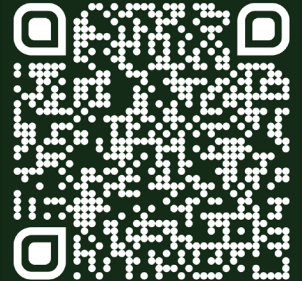


# Salto Orion

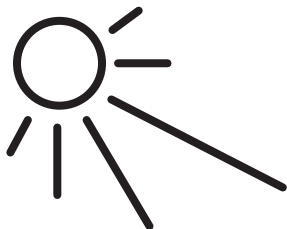


# Considerations



## Passing Pedestrians

Pedestrians passing too close to an Orion Camera may initiate the recognition sequence. There are situations where this may be unavoidable, for example, busy corridors. However, in such cases, it may be advantageous to slightly adjust the dimension at which the sensor is triggered, requiring users to stand slightly closer to the camera. This can help reduce unnecessary load upon the network.



## Lighting Conditions

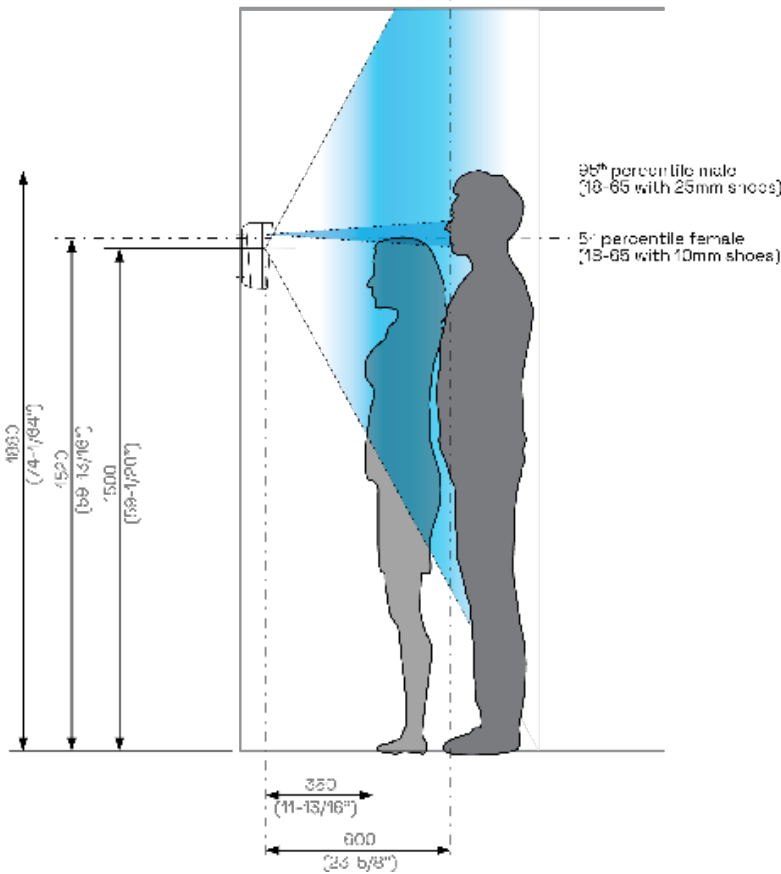
Camera positions must be carefully considered at pre-installation survey prior to fitting Orion Cameras outdoors or in indoor locations that are subject to bright sunlight or very bright artificial lighting. Ensure that cameras are positioned such that users will never have bright or direct light behind them. Consider how lighting conditions may vary through the day and throughout the year; for example, the sun position will change significantly from summer to winter. The Orion Camera requires a minimum lighting level of 100 Lux in the vertical plane, 600mm from the Orion Camera. In low lighting conditions, (e.g. outdoors at night) lighting should evenly illuminate the user's face.



## Passing Vehicles

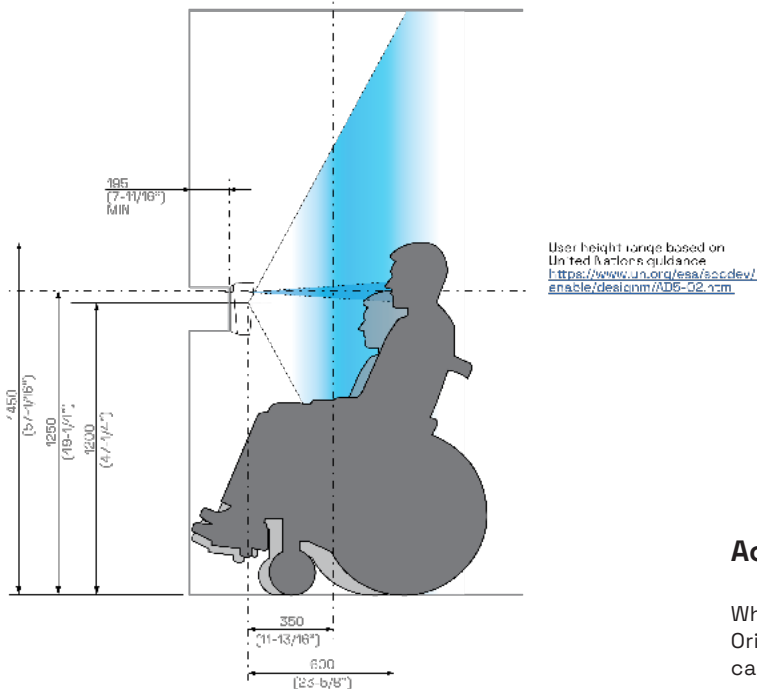
Vehicles passing too close to the Orion camera may initiate the recognition sequence. In a situation such as a busy road this could cause unnecessary load upon the network. Cameras should be positioned such that there is a minimum of 2m between the Orion Camera and any adjacent roadway.

# Considerations



## Positioning

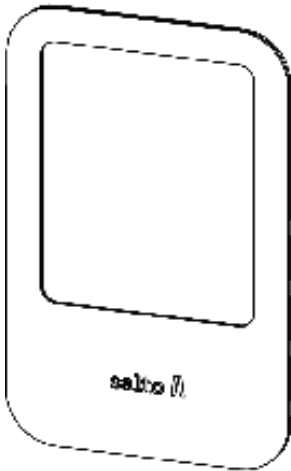
It is important to position the Orion Camera at the specified height. The camera is designed to operate optimally for a user population from 5th %ile adult females, to 95th %ile adult males and at a range from approximately 300mm to approximately 600mm.



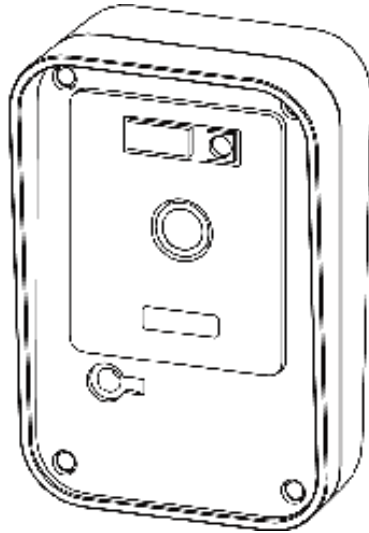
## Accommodating Disabilities

Where an access point is wheelchair accessible, the Orion Camera will need to be set slightly lower, or two cameras should be fitted.

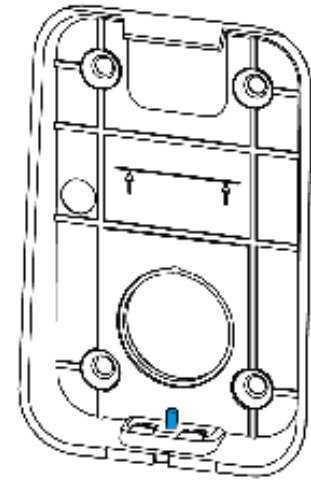
# What's in the box?



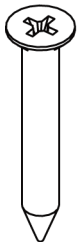
Orion C  
Face Plate



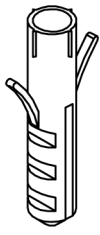
Orion C  
Camera



Orion C  
Wall Mount



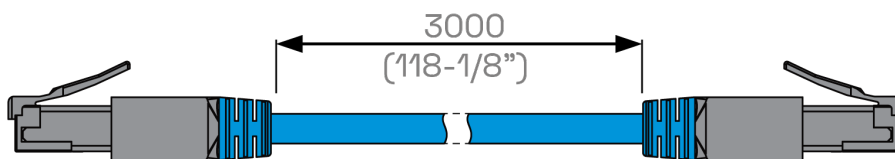
(X4)



(X4)

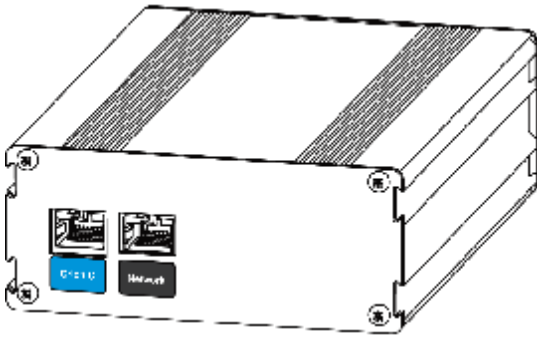


Bung

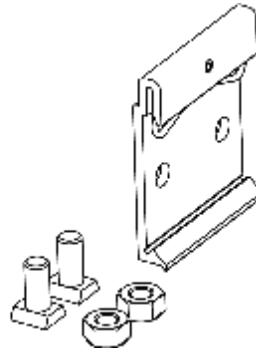


Orion C 3 meter Cat6 shielded cable

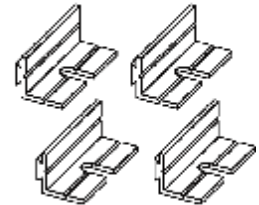
# What's in the box?



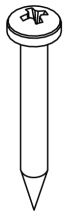
**Orion CU  
(Control Unit)**



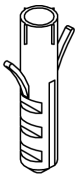
**Orion CU  
(Control Unit)  
DIN mount**



**Orion CU  
(Control Unit)  
Fixing plates**

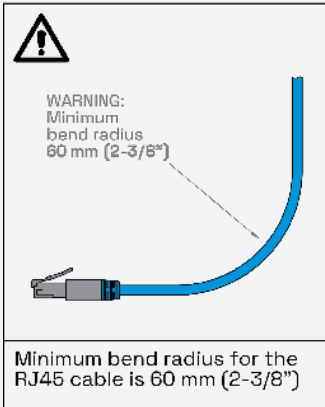


(X4)



(X4)

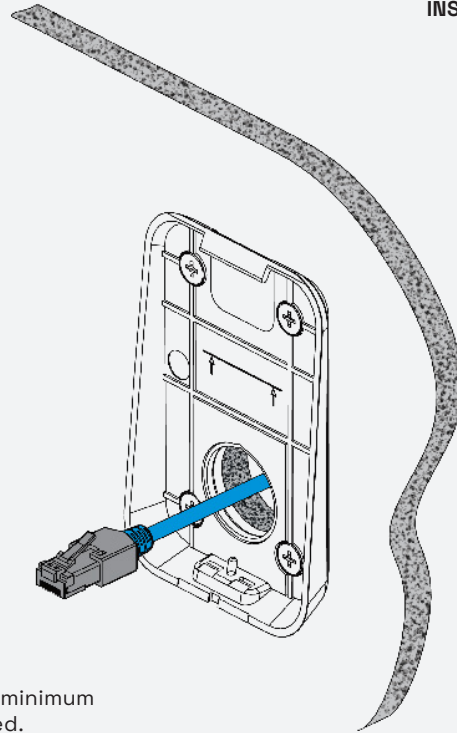
**STOP**



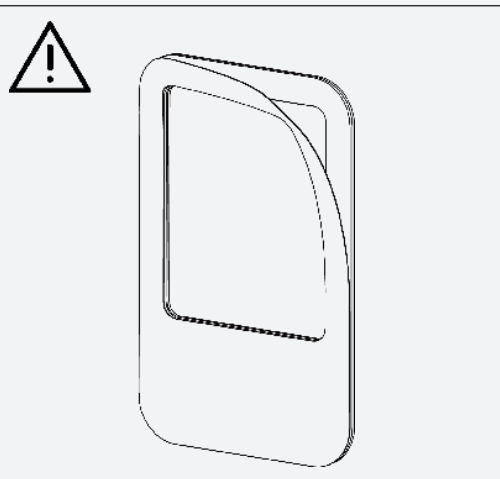
Route the RJ45 Cable to the Camera Wall Mount making sure the minimum bend radius of 60mm is observed. A larger bend radius is preferred.

Ensure there is no strain on the cable connection.

**INSTALLATION**

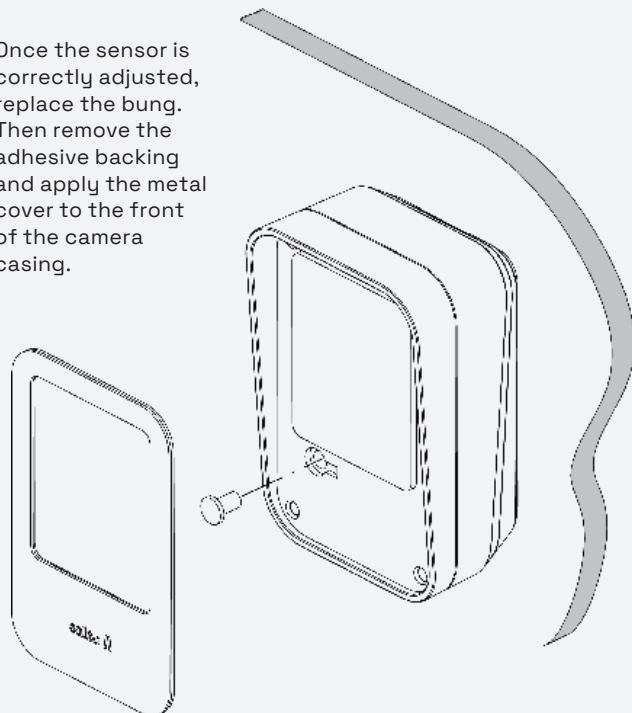


**STOP**



**WARNING:** After attaching to the camera casing the distance sensitivity cannot be adjusted. A final layer of protection and integrity is provided by this cover. Therefore, take special care to ensure that the cover is stuck correctly to the full surface of the camera casing.

Once the sensor is correctly adjusted, replace the bung. Then remove the adhesive backing and apply the metal cover to the front of the camera casing.



**COMMISSION**

# Specifications and Requirements

## POWER

	MAX	TYP
Input Voltage (Camera)		5V
Input Voltage (Control Unit)		12V
Current Consumption (System)	415mA@12V	12V

## CABLE REQUIREMENTS

	TYPE	MAX LENGTH
External Power Supply	2 core	3m
Control Unit to Camera	Orion	3m
Control Unit to Server / Network Switch	Cat 5e	100m

## OPERATING CONDITIONS

	MIN	MAX
Temperature	0°C	60°C
Humidity	0%	80% non-condensing

## NETWORK CONFIGURATION

ITEM	REQUIREMENT
VLAN	An isolated (V)LAN is required for all Cameras and Locks.
Physical Characteristics	Cat 5e or Cat 6 network with Gigabit switches.
IP Subnet	Must be large enough to allocate addresses to all locks, camera units and servers/controllers Must not be in the range: 172.31.255.0/24
Outbound Ports	Restrict to: 123 - NTP 443 - HTTPS/TLS 8883 - MQTT / mTLS  Should also only permit Orion servers to access outbound ports. Orion devices do not require access outside of the VLAN.
DHCP	DHCP is required to provide IP addresses to Orion devices. The Orion server must have a reserved IP address that cannot change once Orion devices have been commissioned.
DNS	Orion Server will require access to DNS.
Cameras per server	100 cameras per server. This ensures a sub 2 second response time for all users when requests are made from all 100 cameras concurrently (i.e. within a 10 second window).
CPUs / Memory	Min. 3.6 GHz 16vCPU 32 GB Memory This will provide a sub 2 second response time for all users when requests are made from all 100 cameras concurrently (i.e. within a 10 second window).
Storage	Mirrored SSD - 480GB Strongly recommend that physical storage is encrypted.
Architecture	Intel/AMD x64
Operating System	Ubuntu Minimal Install 22.04 LTS The install process will harden the server installing and configuring a firewall and OS updates.
Access Control System	For Integration with SPACE (Space minimum version 6.9 with SPACE) OPT-0018 (SHIP interface).