

# AXIS

AUTO ALIGNMENT TOOL

AXIS automates 3D projector alignment; small sensors placed in the 3D model allows projector line-up to be done in seconds at the press of a button. Whether a 3D projection mapping installation, touring production or cruise ship, AXIS takes the guess work out of projector alignment ensuring it looks great for years.



## How do you Install AXIS Sensors?

Each AXIS box receives up to (8) fibre-optic light sensors. Each fibre optic cable can be up to 15m long and can either be bare terminated fibre or a pre-built cable supplied by Green Hippo.

Every projector to be aligned must see at least (4) and ideally (6) sensors to line-up.



## How do you control AXIS?

AXIS is controlled by Hippotizer's SHAPE application: configuration and automated line-up sequences are accessed within SHAPE's Hardware Manager window.

AXIS must be placed on the same network as Hippotizer in order to communicate.

## How do you install AXIS boxes?

AXIS can be rack mounted (1U High) or Mounted with an M8 Bolt for suspension from a truss or installation into a set piece.

Axis communicates and is powered from by Power over Ethernet.

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## Does AXIS require darkness to work?

Total darkness is not normally required. In order to align, AXIS must detect the difference between a projected black and white pattern. Ambient light levels may affect the alignment process depending on sensor placement, projector brightness and the projection angle. In practice this means that as long as the projector is brighter than the background light and sensors are correctly placed AXIS will align even in fairly bright indoor lighting conditions.

AXIS is sensitive to infra-red light so outdoor alignments work best after sunset.

## How long does the alignment process take and is it visible?

The alignment process is a series of black and white images projected onto the 3D model; it is visible.

The time to align depends on projector resolution and delay in the signal chain. For HD projectors with normal levels of latency an alignment will take 5-10 seconds per projector.

## Does AXIS need a 3D model to work?

Yes, the object to be projected onto must have an accurate 3D model for AXIS to function.

## Does AXIS handle multiple projectors?

Yes, AXIS can handle multiple projectors: each projector is aligned in turn so sensors can be shared.

### Physical

Product Size (mm)	195 Wide x 45 High x 140 Deep
Mounting (Rack)	1 RU High, 1/2 RU Wide
Mounting (Hung)	M8 x 15mm threaded receptical
Safety Cable	Removable Secondary Safety Loop
Weight	1Kg
Cooling	Passive: < 10 BTU /hr
Ingress Protection	IP51
Power	802.3at POE or 5v Micro USB

### Connections

Network	Gigabit Network on Neutrik EtherCon
Fibre Sensor	8 x Connector-less locking terminals
Aux power	Micro USB (only required if no POE)

### Fibre Sensors

Fibre Cable	1mm internal, 2.2mm Outer Diameter Plastic Fibre
Max Cable Length	Application dependant
Fibre Termination (AXIS End)	90-Degree Square Cut. (Fibre Cutters supplied with each AXIS)
Fibre Termination (Sensor End)	Application dependant

### Software

Control Software	SHAPE: AXIS
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