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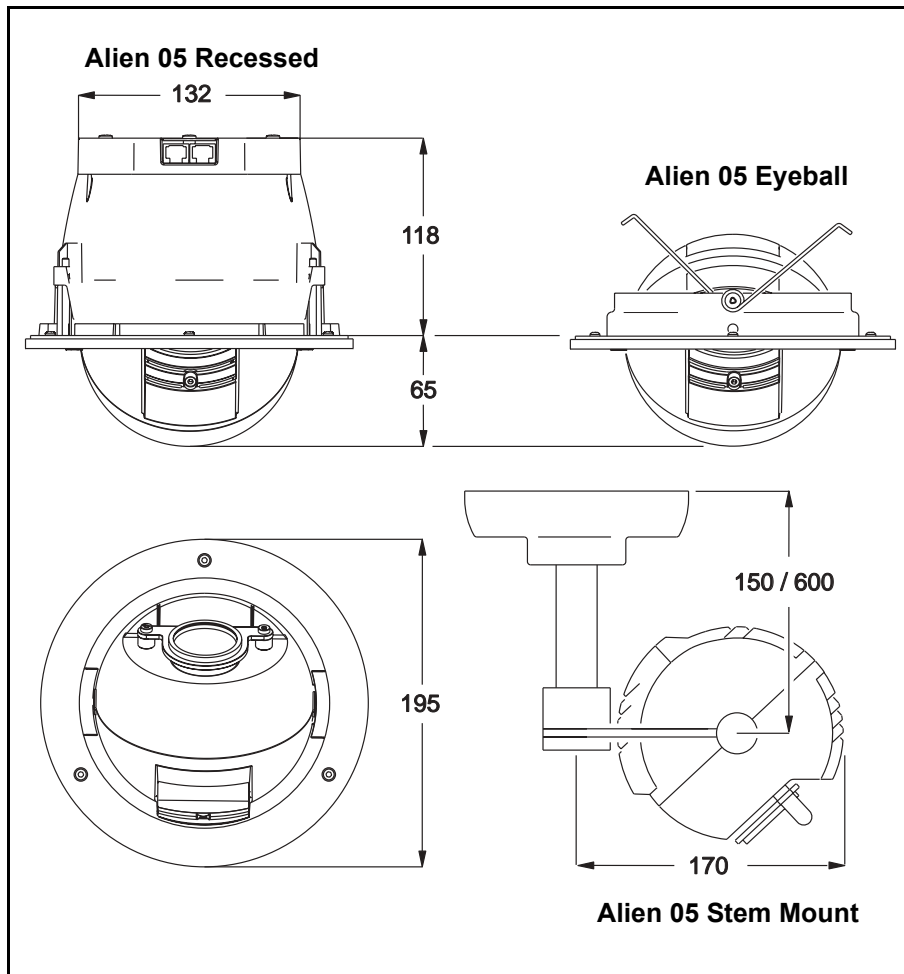


# **Alien 05**

**user manual**



Measurements are in millimeters



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# Introduction

Thank you for selecting the Martin Alien 05. The Alien 05 is a series of color changers with eight interchangeable dichroic color filters (plus open white) and speed change control. The Alien 05's adjustable spherical head can be angled and swiveled.

Alien 05 luminaires have a beam angle is 55-degrees and a long-life 3000 hour lamp is included. Alien 05s are dimmable when an appropriate transformer is used.

## Safety information

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**Warning!** *This product is not for household use.*

This product presents risks of lethal or severe injury due to fire and heat, electric shock, ultraviolet radiation, and falls. **Read this manual** before powering or installing the fixture, follow the safety precautions listed below and observe all warnings in this manual and on the fixture. If you have questions about how to operate the fixture safely, please contact your Martin dealer or call the Martin 24-hour service hotline at +45 70 200 201.

## Safety during installation and maintenance

- Do not install the fixture outdoors.
- When installing the fixture above ground level, verify that the structure can hold the weight of all installed devices.
- Block access below the work area whenever installing or removing the fixture.
- Disconnect the fixture from AC power before removing or installing the lamp, fuses, or any part.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- When replacing the lamp, allow the fixture to cool for at least 15 minutes before opening the fixture.
- Do not modify the fixture or install other than genuine Martin parts.
- Refer all service to a Martin service technician.

## Safety during operation

- Never operate the fixture with missing or damaged lenses and/or covers.
- Do not stare directly into the light. Never look at an exposed lamp while it is lit.
- Replace the lamp if it becomes defective or worn out.
- Do not illuminate surfaces within 0.5 meters (20 inches) of the fixture.
- Never place filters or other materials over the lens.
- The exterior of the sphere becomes very hot, up to 90° C (194° F) during normal operation. Do not locate the fixture in areas where accidental contact is likely.
- Do not operate the fixture if the ambient temperature ( $T_a$ ) exceeds 40° C (104° F).

# Configuring an Alien 05 system

# 2

The Alien 05 Series is made up of the following products:

**05 Driver** Contains the intelligent control functions, and a mains power relay. Every Alien 05 system must have at least one 05 Driver. An 05 Driver can control up to 24 Alien 05 luminaires (of all models).



**Alien 05 Recessed**

Recessed ceiling or wall luminaires for use outside of the United States.



**Alien 05 Eyeball**

Recessed ceiling or wall luminaires for use in the United States. Designed for mounting in a Cooper Lighting, Halo brand, recessed, low-volt, non-IC fixture housing (item # H7LVT).



**Alien 05 Stem Mount**

Arm-mounted luminaires that are designed to be hung from a ceiling. Several arm lengths and bases (with built-in dimmable transformers) are available.

**05 Repeater** A signal amplifier that enables more than 24 Alien 05 luminaires to be controlled from a single 05 Driver.

**Oracle** A dedicated control unit for the Alien 05 series.

Note that in this document we refer to Alien 05 Recessed, Alien 05 Eyeball and Alien 05 Stem Mount models collectively as “Alien 05” luminaires.

The following sections in this chapter describe rules and concepts needed to design and implement an Alien 05 installation - specifically regrading data and power.

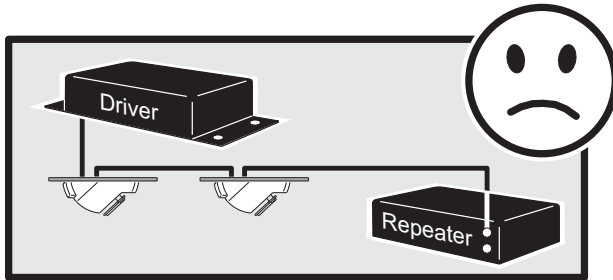
# Control network cabling

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An Alien 05 must be connected to an 05 Driver unit (directly, or indirectly via an 05 Repeater unit) that contains the intelligent control functions. The 05 Driver transmits commands to the Alien 05 luminaires via CAT5 network cables (also available separately).

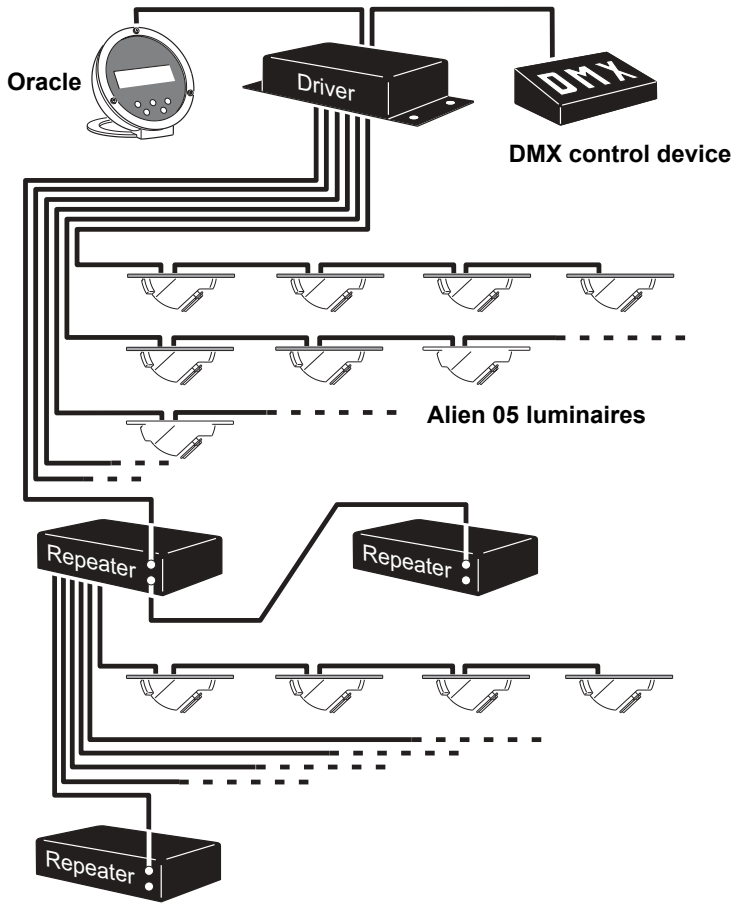
Each 05 Driver unit has six independent control channels, to each of which a single 05 Repeater, or up to four Alien 05s can be connected (in a daisy-chain). Each 05 Driver channel can provide an individual program - with different effects - to the Alien 05s connected to that channel. All the fixtures on one channel will mimic each other in their behavior.

**Warning:** *Do not mix Alien 05 luminaires and 05 Repeaters on the same Output link. Connect only Alien 05 luminaires, or only a Alien 05, to an individual connector. This applies to both the 05 Driver and the 05 Repeater.*



**Note:** *The maximum control network cable run between the 05 Driver or 05 Repeater and the last connected Alien 05 is 40 meters (131*

*ft.) Solid or stranded cable may be used; see page 44 for specifications.*



## Laying control network cables

Lay network cables from as many of the 05 Driver's, or 05 Repeater's, six output channel sockets as is necessary to the Alien 05 mounting positions. Start with the locations closest to the 05 Driver or 05 Repeater.

If you are connecting multiple Alien 05s in daisy chains, run cables from the first positions in the chain to the next ones. In this way you will connect the first Alien 05 luminaire to the second Alien 05 luminaire, the second luminaire to the third, and the third to the fourth. The connection order is not important but keep the cable run from any single 05 Driver or 05 Repeater to the last luminaire in its chain of connected luminaires to less than 40 meters (131 ft.). The cable sockets on the Alien 05s are identical: either one may be used for input.



# AC power

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Each Alien 05 draws 50 watts of power at 4.2 amps from an electronic transformer that supplies 12 volt AC at 50 or 60 hertz (only supplied with bases for the Alien 05 Stem Mount). If you are installing multiple Alien 05s you can use one or more transformers, specified to the number of Alien 05s power is being supplied to.

**Warning:** *The cable length between transformers and the Alien 05 luminaires that they supply power to must not be more than 45 cm (17.7 in.).*

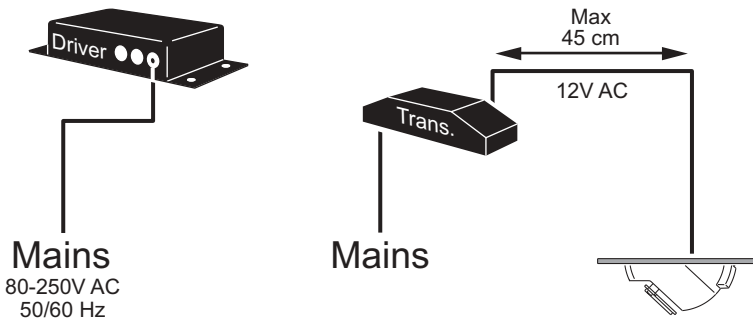
**Note:** *Alien 05 Eyeball models draw their power via the transformer that is built into the Halo Recessed fixture housing in which they will be installed. These transformers can draw power through the 05 Driver's 10 amp mains relay but the transformers cannot be dimmed.*

## Sample configurations

The following sub-sections illustrate three possible configurations.

### Simple power-supply configuration

In the simplest configuration, the 05 Driver is connected directly to the local mains supply, and the Alien 05s are supplied power from a single, or multiple, transformer/s connected to mains supply.

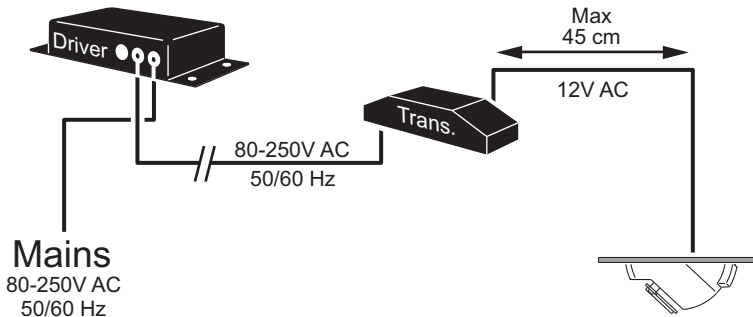


In this configuration the 05 Driver cannot control the supply of power to the Alien 05 luminaires or dim them.

### Remote lamp on/off power-supply configuration

In this configuration a transformer, or transformers, supplying 12V AC power to one or more Alien 05s, is connected to the 10A mains relay on the 05 Driver.

This enables remote control of power on and off of the Alien 05s via either an Oracle controller or DMX control device, that is attached to the 05 Driver (when the intensity channel is set at less than 10% the relay closes and the luminaires switch off).

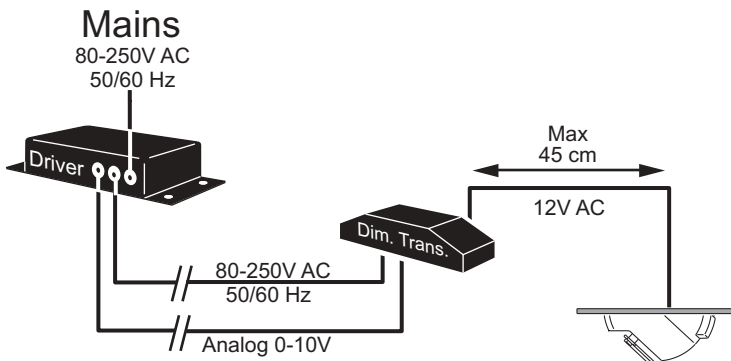


**Warning** Do not draw more than 10 amps through the 05 Driver mains relay. If the mains supply is under 200 volts and the number of connected Alien 05's is over 15, check that the combined current draw of all transformers will not exceed 10 A.

### Remotely dimmable power-supply configuration

**Note:** This configuration does not apply for Alien 05 Eyeball models as they draw their power via the transformer that is built into the Halo Recessed fixture housing. These transformers are not dimmable.

In this configuration, one or more dimmable transformers supply 12V power to one or more Alien 05s, and are connected to the 0-10V analog output on the 05 Driver. The transformer can be powered through the 10A mains relay (if remote power on/off is required), or directly from the mains supply.



Using the Oracle controller, or a DMX control device, it is possible to dim, and power on and off the Alien 05s via the intensity channel.

**Warning**    ***Do not draw more than 10 amps through the 05 Driver mains relay. If the mains supply is under 200 volts and the number of connected Alien 05's is over 15, check that the combined current draw of all transformers will not exceed 10 A.***

## Connecting transformers to a power supply

Supplying power through the 05 Driver to the transformers that power the Alien 05 luminaires is *optional* and transformers may be connected directly to the mains supply if there is no requirement for remote dimming or power/on via the 05 Driver. Refer the documentation supplied with your transformer for guidance.

In the cases that remote:

- Power on/off via the 05 Driver is required, transformers may be wired through the 05 Driver's mains output relay. The relay cuts power to the transformer when the intensity is set to less than 10 percent. It supplies power when the intensity is set to 10 percent or more.
- Dimming is required, a dimmable transformer may be connected through the analog 0 - 10 V output on the 05 Driver. This output controls the dimmer function only and does not provide power to illuminate the luminaires. This function is not available for Alien 05 Eyeball models.

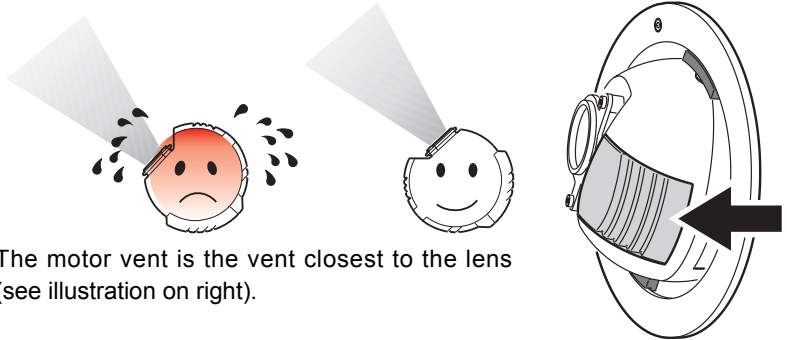
## Connecting transformers to the 05 Driver

To connect transformers to the 05 Driver, perform the following steps:

- 1 If the mains supply is under 200 volts and the number of connected Alien 05's is over 15, verify that the combined current draw of all transformers will not exceed 10 A.
- 2 Verify that the 05 Driver is isolated from AC power.
- 3 If wiring more than 1 transformer, connect the transformer leads to a suitable power distribution strip or junction with a single lead to the 05 Driver. If the transformers are dimmable, similarly gather the control leads to a parallel junction.
- 4 Remove top cover of the 05 Driver. Feed transformer power lead through opening in the front panel labelled "Mains Output Relay". If required, feed the dimmer control lead through the opening labelled "0 - 10V Dimmer Out". Connect as shown on top cover.
- 5 Replace the cover.

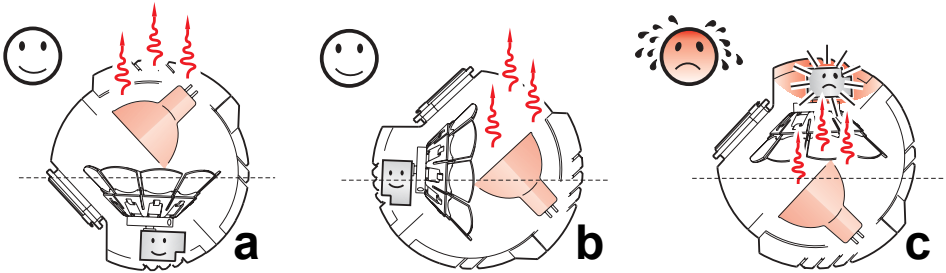
# Orientation in up-light installations

**Important!** If installing the Alien O5 as an up-light, position the sphere so that the motor vent is below the lens.

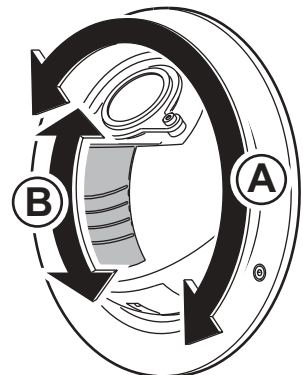


The motor vent is the vent closest to the lens (see illustration on right).

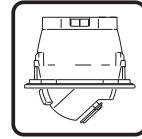
The illustrations below show how to minimize heat stress on the color wheel motor. Down-light installations (a) are straightforward. However, in up-light installations (b and c), ensuring that the motor vent is below the lens, as in (b), will optimize motor cooling.



If an Alien O5 Recessed or Eyeball has been installed as in (c) above, it can be adjusted to optimize motor cooling by rotating the sphere through 180° (A) and tilting (B) to re-aim the beam.



# Installing an Alien 05 Recessed



# 3

This section describes in general terms how to mount the fixture and connect it to data and AC power. These procedures shall be performed by qualified professionals.

We recommend that you perform the installation steps in the following order:

- 1 Install the 05 Driver and 05 Repeaters. See the *05 Driver user manual* and the *05 Repeater user manual*.
- 2 Identify locations for the Alien 05s using the guidelines below.
- 3 Identify and acquire the pre-requisites described in “Prerequisites” on page 14.
- 4 Cut mounting holes (see page 15).
- 5 Lay the network cables between the 05 Driver/05 Repeaters and the Alien 05 mounting holes. See page 7.
- 6 Install the transformers close to the Alien 05 mounting holes and connect them to the 05 Driver or power supply. See page 9.
- 7 Connect the Alien 05 to the network and transformer cables and install it in the mounting hole. See page 15.

## Fixture location

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The Alien 05 Recessed can be used as either a ceiling fixture, or be positioned in a wall as an up-light, down-light or sidelight.

Do not locate the Alien 05 recessed in an unventilated space. Install the fixture in a location where it is:

- At least 0.5 meters (20 inches) away from the surface to be illuminated.
- Away from accidental public contact, as the surface of the sphere gets hot - up to 90 ° C (194° F).
- Not more than 45 cm (17.7 inches) cable length away from the transformer.

- Not more than 40 cable metres away from the 05 Driver/05 Repeater.

**Warning** *The Alien 05 Recessed is designed to be installed in a wall or ceiling panel that is less than 20 mm (0.8 in) thick.*

*The standard Alien 05 can be modified for installation in a wall or ceiling panel that is 20-30 mm (1.2 inches) in thickness. To perform this modification order three Hexagon Socket Head Cap Screws (M4x60) from your Martin dealer (P/N 08071205) and change these with the three screws supplied with the product.*

*The product is not designed for installation in other environments.*

Ensure that Alien 05 Recessed models are installed with at least 50 mm (2 in) of clear space around the air vent at the rear of the fixture (total space required including the depth of the fixture is 168 mm (6.6 in)).

## Prerequisites

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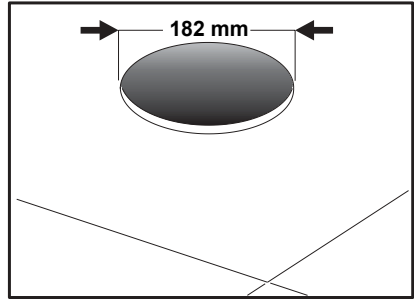
Before installing the Alien 05 Recessed:

- Ensure that you have a 12 V AC halogen lamp transformer (not supplied). Each Alien 05 draws 50 watts of power at 4.2 amps from an electronic transformer that supplies 12 volt AC at 50 or 60 hertz. If you are installing multiple Alien 05s you can use one or more transformers, specified to the number of Alien 05s power is being supplied to, but note that the cable length between transformers and the Alien 05 luminaires that they supply power to must not be more than 45 cm (17.7 inches).
- Ensure that you have a CAT5 network cable (category 5 UTP patch cable, 4 pairs, 24 AWG) that is not longer than 10 metres (33 feet), and that can be run from the Alien 05 to the 05 Driver unit.
- If you are daisy-chaining another Alien 05 then you need an additional CAT5 network cable, that is not longer than 10 metres (33 feet), to connect this luminaire to the next one.

# Mounting hole

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Cut a round hole with a diameter of 182 mm (7.2 in) in the panel in which the Alien 05 is to be installed. A cardboard ceiling cutout template is supplied.



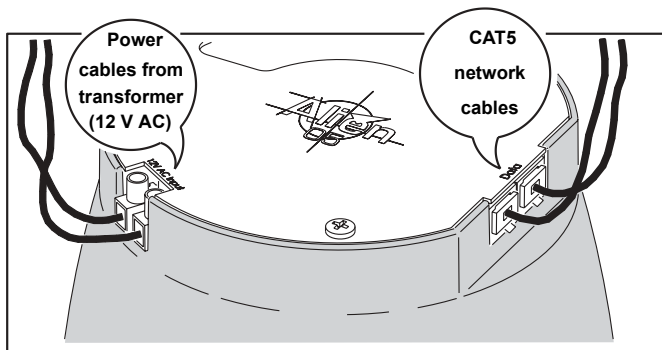
Note that it may be advisable to perform this step for all the Alien 05s that are being installed, and to then lay the power and network cables between each mounting hole, before inserting the luminaires. See the following sections.

# Connection and mounting

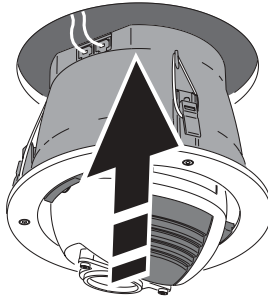
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To install the Alien 05 Recessed:

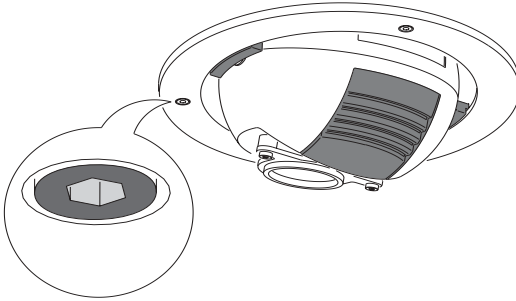
- 1 Connect the power leads from the 12 V AC halogen lamp transformer. Anchor these securely by tightening the screws. Note that the cable length between the transformer and the Alien 05 must not be more than 45 cm (17.7 inches).
- 2 Connect a CAT5 network cable that is directly or indirectly connected to the 05 Driver unit and, if the lamp is to be daisy-chained to a subsequent lamp, connect a CAT5 network cable for the link to the next fixture. Note that it does not matter which network socket is used.



- 3 Once the cables are connected, insert the Alien 05 into the mounting hole.



- 4 Using a 3 mm Allen wrench, tighten the screws to lock the fixture in place. Do not overtighten.



## Removing the Alien 05 Recessed

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Once installed it is not recommended that you remove an Alien 05 Recessed unless absolutely necessary.

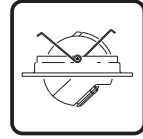
To remove an Alien 05 Recessed:

- 1 Remove the 3 Allen screws in the mounting ring (shown in the previous section) using a 3 mm Allen wrench.
- 2 Remove the fixture from the wall/ceiling panel.

During this process, particularly if the fixture is wall mounted, you might lose one or more of the three clamp nuts (P/N 08074102) and rubber bands (P/N 34420503) that hold the fixture firmly in place when mounted. Should this occur, replacement parts can be ordered from your Martin dealer.



# Installing an Alien 05 Eyeball



# 4

This section describes in general terms how to mount the fixture and connect it to data and AC power. These procedures shall be performed by qualified professionals.

We recommend that you perform the installation steps in the following order:

- 1 Install the 05 Driver and 05 Repeaters. See the *05 Driver user manual* and the *05 Repeater user manual*.
- 2 Identify locations for the your Alien 05 Eyeballs using the guidelines below.
- 3 Perform the pre-requisites described in “Prerequisites” on page 14.
- 4 Connect the recessed fixture housing to the network (see “Install the network” on page 18).
- 5 Install the fixture using the procedure in “Connecting and mounting an Alien 05 Eyeball” on page 19

## Fixture location

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The Alien 05 Eyeball can be used as either a ceiling fixture, or be positioned in a wall as an up-light, down-light or sidelight.

The Alien 05 Eyeball must be installed in a Cooper Lighting, Halo brand, recessed low-volt non-IC fixture housing (item # H7LVT). For more information refer to the Cooper Lighting web site (<http://www.cooperlighting.com/brands/halo/index.asp>).

Do not locate the Alien 05 Eyeball in an unventilated space. Install the fixture in a location where it is:

- At least 0.5 meters (20 inches) away from the surface to be illuminated.
- Away from accidental public contact, as the surface of the sphere gets hot - up to 90 ° C (194 ° F).
- Not more than 40 cable metres away from the 05 Driver/05 Repeater.

# Prerequisites

---

Before installing the Alien 05 Eyeball:

- Install a Cooper Lighting, Halo brand, recessed low-volt non-IC fixture housing (item # H7LVT). Connect the transformer on the fixture housing to power. See the instructions supplied with the Halo fixture housing and “Connecting transformers to a power supply” on page 11 of this user manual.
- Ensure that you have a CAT5 network cable (category 5 UTP patch cable, 4 pairs, 24 AWG) that is not longer than 10 metres (33 feet), and that can be run from the fixture housing to the 05 Driver unit.
- If you are daisy-chaining another Alien 05 then you need an additional CAT5 network cable, that is not longer than 10 metres (33 feet), to connect the fixture housing to the next one.

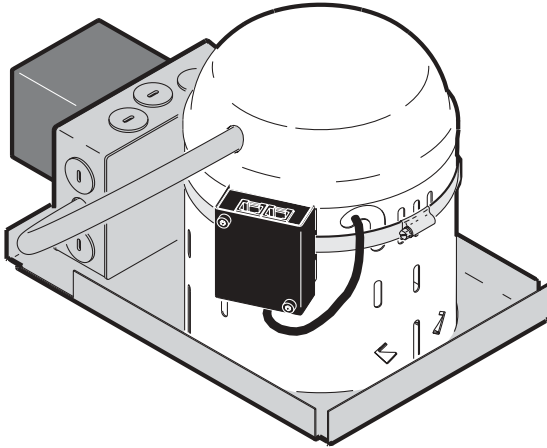
## Install the network

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A network cable junction box and steel mounting strap are supplied with the Alien 05 Eyeball. These are installed on the recessed low-volt fixture housing in the following way:

- 1 Thread the steel strap through the slots on the junction box.
- 2 Wrap the steel strap around the recessed fixture housing and through its buckle. Tighten the buckle locking screw.

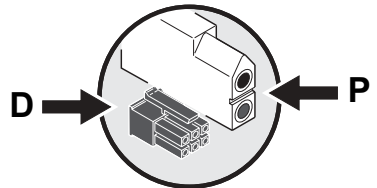
- 3 Pass the cable from the junction box through one of the holes in the recessed fixture housing as shown in the illustration.



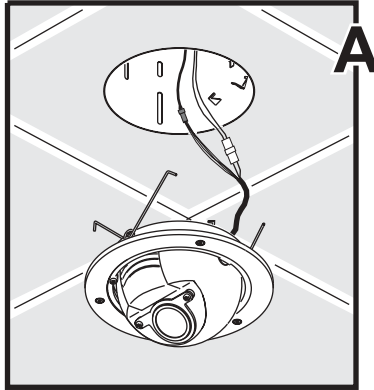
- Lay the network cables between the 05 Driver/05 Repeaters and the junction box on the recessed fixture housing. See “Laying control network cables” on page 8. Use CAT5 network cables and if the lamp is to be daisy-chained to a subsequent lamp, connect a CAT5 network cable for the link to the next fixture. Note that it does not matter which network socket on the junction box is used.

## Connecting and mounting an Alien 05 Eyeball

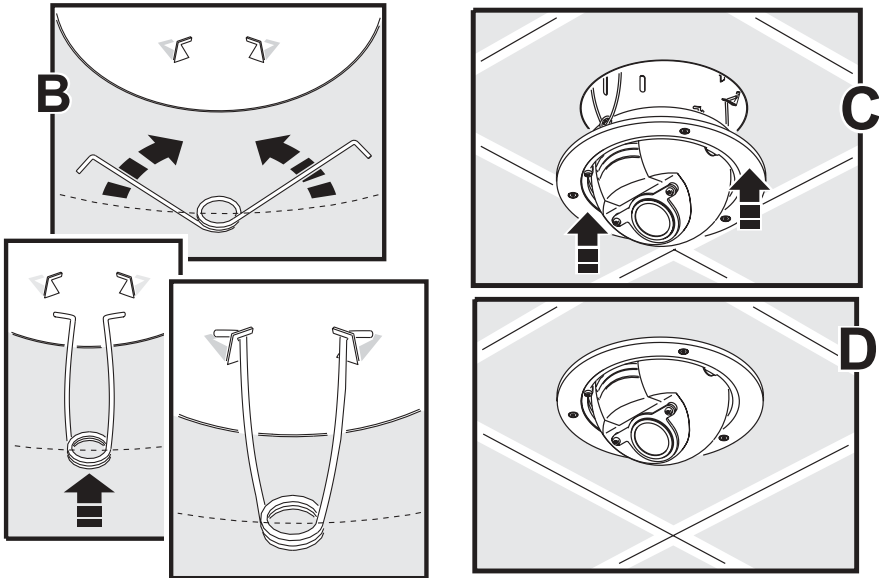
- 1 Connect the data (D) connector on the Alien 05 Eyeball to the corresponding connector on the cable from the network junction box. that is attached to the recessed fixture housing.



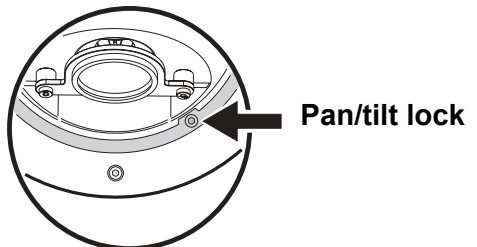
- 2 Connect the power (P) connector on the Alien 05 Eyeball to the corresponding connector on the recessed fixture housing (A).



- 3 Grasp both wire clips (B) simultaneously using both hands and insert the Alien 05 Eyeball into the Halo recessed fixture housing (C and D).

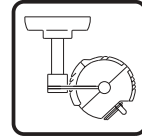


- 4 Rotate and tilt the sphere to the correct position and lock it in place using a 2.5 millimeter Allen wrench.



- 5 Apply power.

# Installing an Alien 05 Stem Mount



# 5

This section describes in general terms how to mount the fixture and connect it to data and AC power. These procedures shall be performed by qualified professionals.

We recommend that you perform the installation steps in the following order:

- 1 Install the 05 Driver and 05 Repeaters. See the *05 Driver user manual* and the *05 Repeater user manual*.
- 2 Identify locations for the Alien 05 Stem Mounts using the guidelines below.
- 3 Perform the pre-requisites described in “Prerequisites” on page 21.
- 4 Install the fixture using the procedure in “Connecting and mounting an Alien 05 Stem Mount” on page 22

## Fixture location

---

Install the fixture in a location where it is:

- At least 0.5 meters (20 inches) away from the surface to be illuminated.
- Away from accidental public contact, as the surface of the sphere gets hot - up to 90 ° C (194° F).
- Not more than 45 cm (17.7 inches) cable length away from the transformer.
- Not more than 40 cable metres away from the 05 Driver/05 Repeater.

## Prerequisites

---

Before installing the Alien 05 Stem Mount:

- Ensure that you have all three components - an Alien 05 Stem Mount, 12V, 50 W, a 600 mm or a 150 mm Arm, and a Base that is appropriate to your local mains supply (two models are available - each with a dimmable transformer included - 90-130V/12V-75W, or 200-250V/12V-75W)

- Ensure that you have a CAT5 network cable (category 5 UTP patch cable, 4 pairs, 24 AWG) that is not longer than 10 metres (33 feet), and that can be run from the Alien 05 to the 05 Driver unit.
- If you are daisy-chaining another Alien 05 then you need an additional CAT5 network cable, that is not longer than 10 metres (33 feet), to connect this luminaire to the next one.
- We recommend that you lay power and data cables out to the mounting positions of the Alien 05 Stem Mounts. Refer to “Laying control network cables” on page 8 and “Connecting transformers to a power supply” on page 11.

## **Connecting and mounting an Alien 05 Stem Mount**

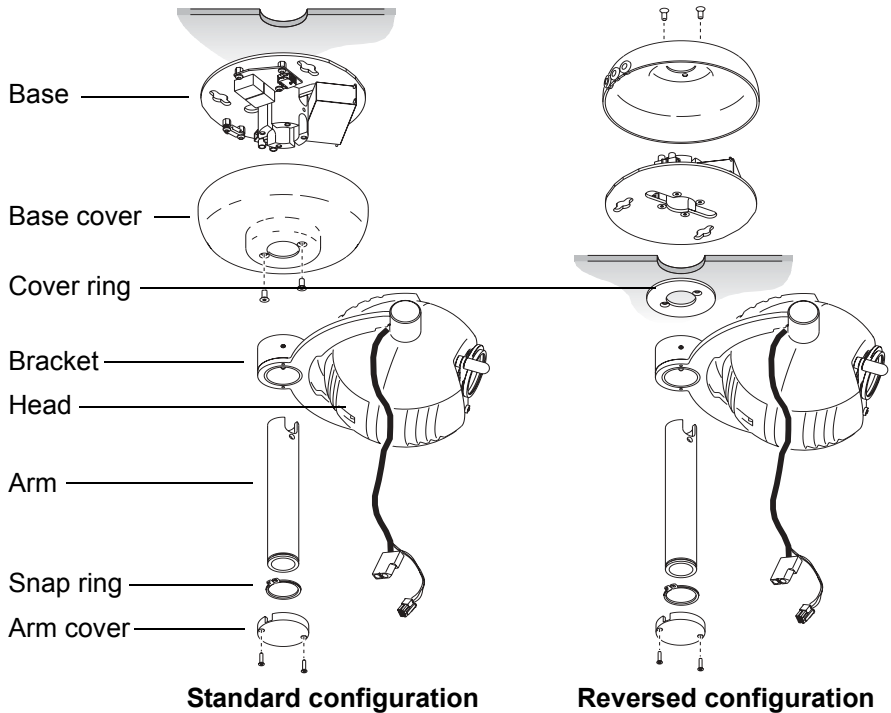
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To connect and mount an Alien 05 Stem Mount you need:

- A pair of retaining ring pliers
- 2.5 mm and 4 mm Allen wrenches
- An electric drill and bits appropriate to the mounting surface
- 3 units of 5 mm mounting hardware
- A small Phillips screwdriver

There are two possible configurations for mounting an Alien 05 Stem mount - standard, or reversed. In the standard configuration the base containing the transformer is affixed to the mounting surface - this can be used for ceiling or wall mounting the fixture. In the reversed configuration the base is positioned on the other side of a ceiling surface. This

configuration is not intended for mounting on a vertical surface such as a wall.



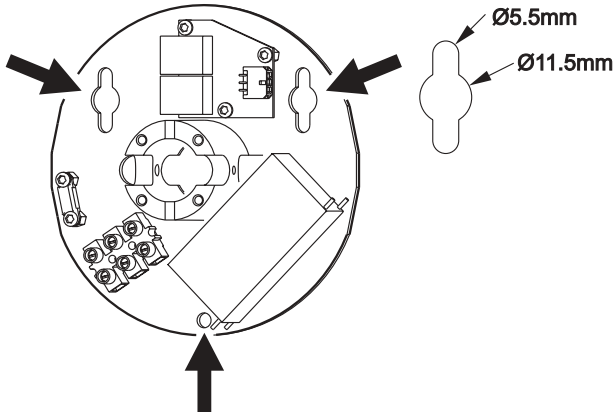
Note that in either configuration that power and data cables can be connected to the base either through the three holes in the side of the Base cover or through the hole in the center of the base.

Before you start, ensure that the components are disassembled as shown in the previous exploded views. Then perform the appropriate installation procedure:

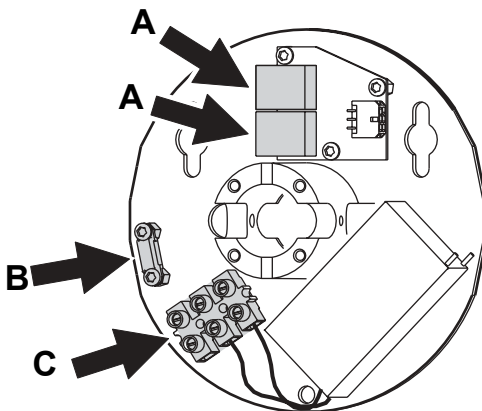
- “Installation using the standard configuration” on page 24, or
- “Installation using the reversed configuration” on page 27

## Installation using the standard configuration

- 1 Fasten the base plate to the mounting surface using 5 mm mounting hardware. We recommend that you use the two keyholes first and then fasten the base plate into place using the third hole.



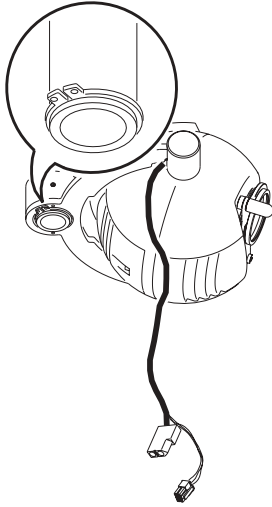
- 2 Lay the network cables between the 05 Driver/05 Repeaters and the data terminal (A) on the Base. See “Laying control network cables” on page 8. Use CAT5 network cables and if the lamp is to be daisy-chained to a subsequent lamp, connect another CAT5 network cable for the link to the next fixture. Note that it does not matter which network socket on the data terminal is used.



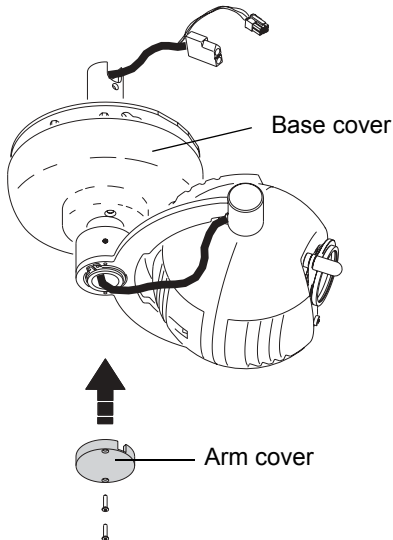
- 3 Connect the transformer on the Base to power at the terminal (C). See “Connecting transformers to a power supply” on page 11 of this user manual. Anchor the power cable using the clamp (B).



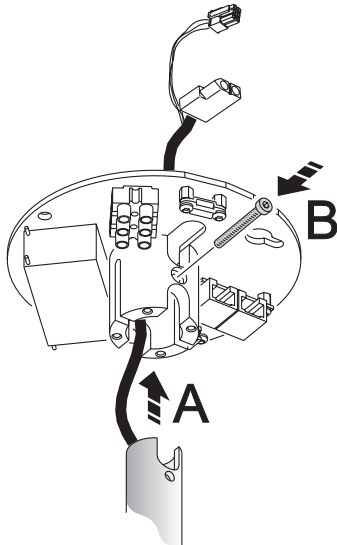
- 4 Remove the snap ring from the end of the Arm using a pair of retaining ring pliers. Slide the Arm through the hole on the bracket of the Alien O5 Stem Mount head and replace the snap ring.



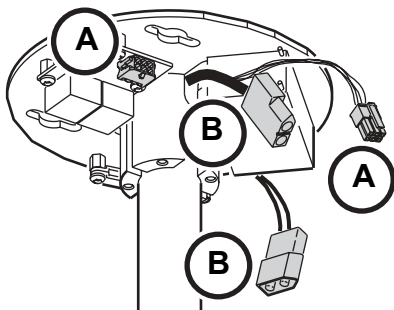
- 5 If you have attached a 600 mm long arm then attached the cable extension that is supplied to the cable on the Alien O5 Stem Mount head.
- 6 Slide the base cover over the arm.
- 7 Thread the power and data cable up through the arm and screw the arm cover into place using a small Phillips screwdriver.



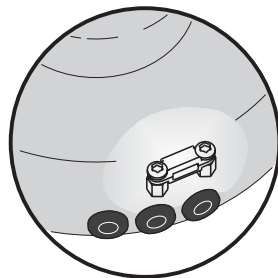
Remove pin (B) and insert the end of the arm (A) into the base. Re-insert and screw the pin into place. The cables are threaded up through the center of the base (as shown) and then through one of the slots in the base.



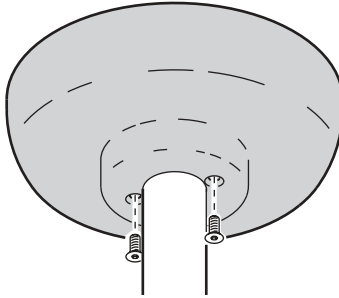
- 8 Connect the data cable (A) to the data terminal (A). Connect the power connectors (B).



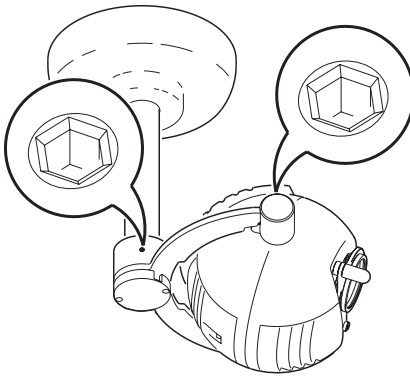
- 9 If the power and data cables are to pass out through the side of the base cover then remove the three rubber grommets that sit in the cover holes, make a cut in each of them, place them over their respective cables, and push them back into place on the cover.



10 Push the base cover up into place and screw it into position using a 2.5 mm Allen wrench.



11 Rotate the mounting bracket and tilt the sphere to the correct position and lock them into position using a 2.5 millimeter Allen wrench.

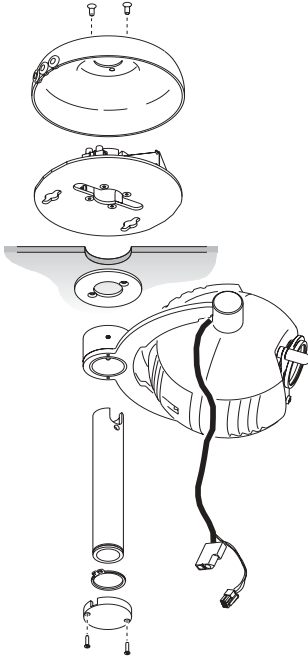


12 Apply power.

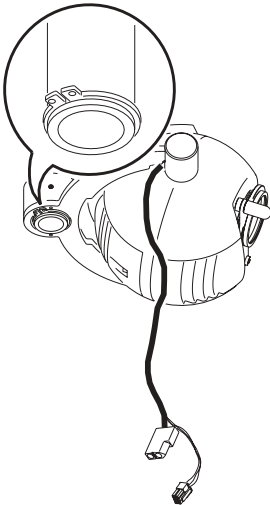
## Installation using the reversed configuration

In the reversed configuration the base is positioned on the other side of a ceiling surface and is held in place by the addition of a cover ring (A). This configuration is not intended for mounting on a vertical surface such as a wall. The cover ring is held in place by two counter-sunk M4 x 16 mm screws. These can be used through a ceiling surface that is up to 5 mm (1/5 inch) thick. If the ceiling is thicker than this you will need to purchase two longer counter-sunk M4 screws.

- 1 Cut or drill a 45 - 50 mm (1.8 - 2 inch) hole in the ceiling surface.

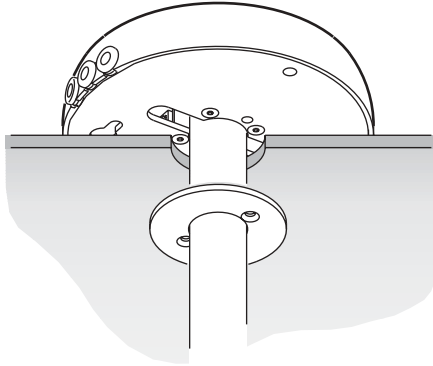


- 2 Remove the snap ring from the end of the Arm using a pair of retaining ring pliers. Slide the Arm through the hole on the bracket of the Alien O5 Stem Mount head and replace the snap ring.

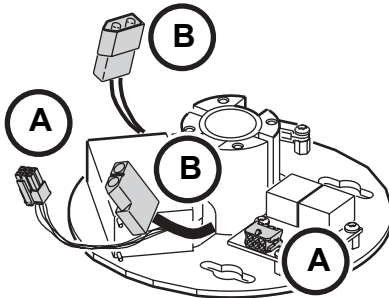


- 3 If you have attached a 600 mm long arm then attached the cable extension that is supplied to the cable on the Alien O5 Stem Mount head.

- 4 Thread the power and data cable up through the arm and screw the arm cover into place using a small Phillips screwdriver.
- 5 Slide the cover ring over the arm.
- 6 Remove the pin the lies across the hole in the center of the base.

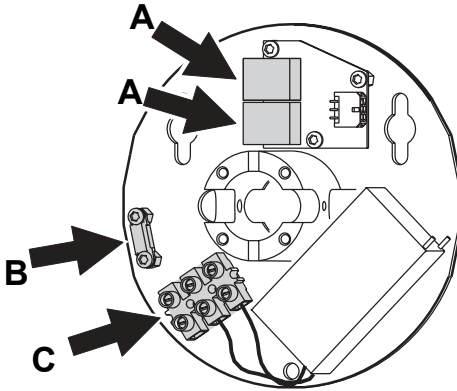


- 7 Insert the end of the arm through the hole in the ceiling into the base. The cables are threaded up through the center of the base and then down through one of the slots.
- 8 Re-insert and screw the pin into place on the base, locking the arm into position.
- 9 Screw the cover ring to the base using two M4 counter-sunk screws. (two 16 mm screws are provided). If the ceiling surface is thicker than 5 mm (1/5th inch) then you will need to purchase some longer screws.
- 10 Connect the data cable (A) to the data terminal (A). Connect the power connectors (B).



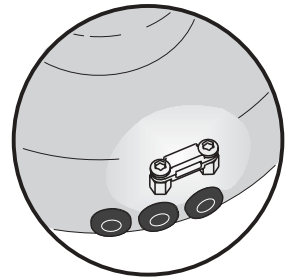
- 11 Lay the network cables between the 05 Driver/05 Repeaters and the data terminal (A) on the base. See "Laying control network cables" on page 8. Use CAT5 network cables and if the lamp is to be daisy-chained to a subsequent lamp, connect another CAT5 network cable for the link to the

next fixture. Note that it does not matter which network socket on the data terminal is used.



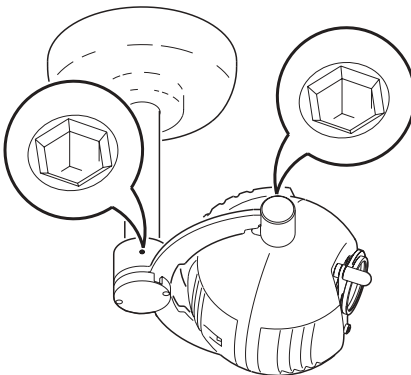
12 Connect the transformer on the base to power at the terminal (C). See “Connecting transformers to a power supply” on page 11 of this user manual. Anchor the power cable using the clamp (B).

13 If the power and data cables are to pass out through the side of the base cover then remove the three rubber grommets that sit in the base cover holes, make a cut in each of them, place them over their respective cables, and then push the grommets back into place on the base cover.



14 Place the base cover over the base and screw it into position using a 2.5 mm Allen wrench.

15 Rotate the mounting bracket and tilt the sphere to the correct position and lock them into position using a 2.5 millimeter Allen wrench.



16 Apply power.

# General operation

The Alien 05 effects (color filter selection and the speed of color changes) are controlled by an 05 Driver unit. Operators can develop programs, or issue control commands to an 05 Driver using the Oracle dedicated control unit, any DMX controller, DMX recorder, or any other USITT DMX512 compliant controlling device. For more information refer to the:

- *05 Driver user manual*, P/N 35000107
- *Oracle user manual*, P/N 35000108
- The user documentation for the relevant DMX control device

In the absence of an Oracle or DMX controlling device, simple stand-alone functions are available via DIP switches on the 05 Driver unit. See the *Martin 05 Driver user manual*.

## Prolonging lamp life

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For optimum lamp life, turn off the power whenever illumination is not required for extended periods of an hour or more.

## Positioning the beam

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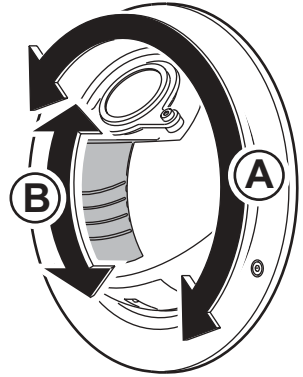
***Warning!*** ***The surface of the Alien 05 sphere gets hot during operation - up to 90° C (194° F). Switch off power and allow the sphere to cool for at least 5 minutes before touching.***

The sphere can be rotated and tilted by hand to face any outwards direction. Note that the Eyeball and Stem Mount models have pan/tilt locks.

## Positioning the Alien 05 Recessed beam

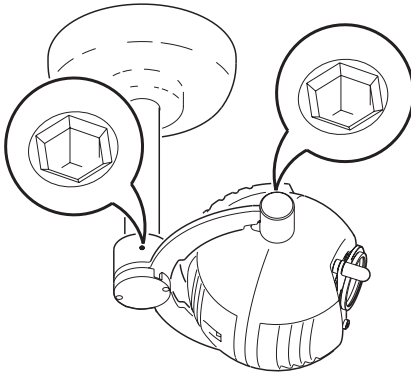
Do not tilt the sphere on an Alien 05 Recessed so that the light points into the fixture as the build-up of heat may damage the fixture. Forcing the sphere into this position might also strain the cables within the fixture.

If installing as an up-light, rotate the sphere through 180° (A) and adjust the upward angle (B) if necessary, so that the motor vent is below the lamp as described in “Orientation in up-light installations” on page 12.



## Positioning the Alien 05 Stem Mount beam

Rotate the mounting bracket and tilt the sphere to the correct position and lock them into position using a 2.5 millimeter Allen wrench.



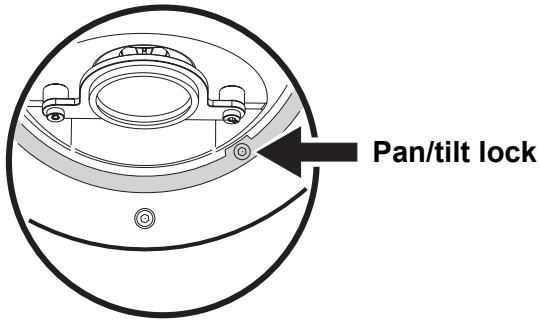
## Positioning the Alien 05 Eyeball beam

Alien 05 Eyeball models have a:

- Tilt stop to prevent over-rotation of the sphere



- Pan/tilt lock that can be applied using a 2.5 millimeter Allen wrench.



If installing as an up-light, adjust the orientation of the sphere, if necessary, so that the motor vent is below the lamp as described in “Orientation in up-light installations” on page 12.

## Diffuser lens

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The Alien 05 is supplied with a diffuser filter installed. This ensures a soft illumination when illuminating close objects. When illuminating objects at greater distances, it is recommended that you remove the diffuser filter. See “Removing the diffuser filter” on page 38.

## Color filters

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The Alien 05 is supplied with eight color filters and an open position. The filters sit in a motorized wheel that is controlled by the 05 Driver unit. The positions and respective filters are as follows:

Position	Filter
1	No filter - open position (a filter can be installed if required)
2	Color temperature correction (CTC) 5500-3400 K (warmer light)
3	Yellow 604
4	Red 305
5	Pink 312
6	CTC 3200-5600 K (colder light)
7	Blue 106
8	Blue 103
9	Green 201

The numbers next to each color are OCLI (Optical Coating Laboratory, Inc.) reference numbers.

Additional color filters can be ordered from your Martin dealer. A list of available filters can be found in “Specifications” on page 44, or on the Martin web site (<http://www.martin.dk>).

In the absence of an 05 Driver unit it is possible to open the fixture and change the currently selected filter manually. Refer to “Replacing color filters” on page 39 for information on how to access the color filter wheel.

## **Control**

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Refer to the *05 Driver user manual*.

This section describes service procedures that can be performed by the user:

- “Replacing the lamp”
- “Removing the diffuser filter” on page 38
- “Replacing color filters” on page 39

Refer all service not described here to a qualified Martin technician.

**Warning!** *Disconnect the fixture from power before removing any cover.*

## Replacing the lamp

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The Alien 05 uses the Osram ENL 50W 12V lamp (P/N 97000005). This lamp has been designed specifically for the Alien 05. *Installing any other lamp is likely to result in a lower light output.*

**Warning!** *Disconnect power and allow the fixture sphere to cool for 15 minutes before starting this procedure.*

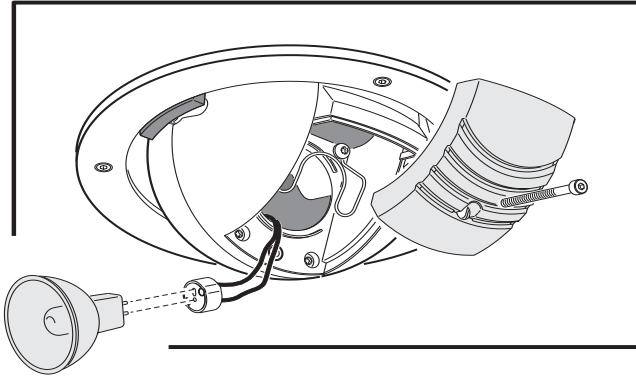
The procedure for changing the lamp is slightly different for each of the three Alien 05 models. See the appropriate section:

- “Alien 05 Recessed lamp replacement” on page 36, or
- “Alien 05 Eyeball lamp replacement” on page 36, or
- “Alien 05 Stem Mount lamp replacement” on page 38

## Alien 05 Recessed lamp replacement

Lamp replacement requires a 3 mm Allen wrench. To replace the lamp:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Rotate the sphere to the position shown in the following illustration

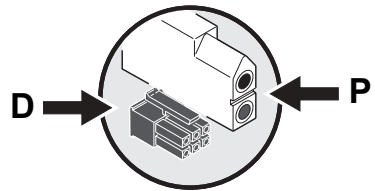


- 3 Remove the lamp cover using a 3 mm Allen wrench.
- 4 Gently remove the old lamp from its housing and remove it from the socket.
- 5 Holding the new lamp by its glass base - insert it firmly and squarely into the lamp socket.
- 6 Gently insert the lamp into its housing.
- 7 Replace the cover, being careful not to overtighten.
- 8 Rotate the sphere back to its normal operating position and reapply power.

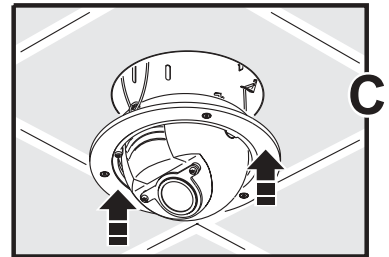
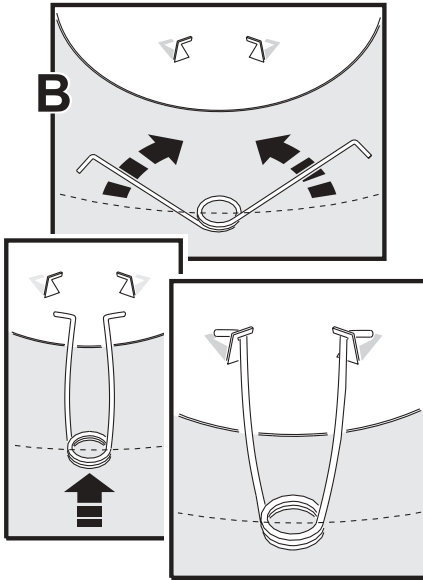
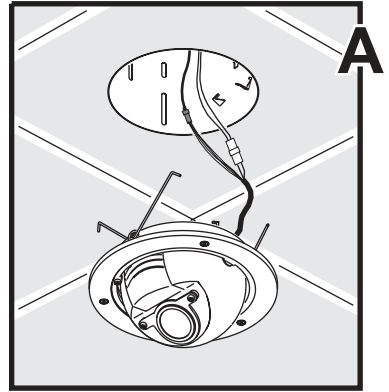
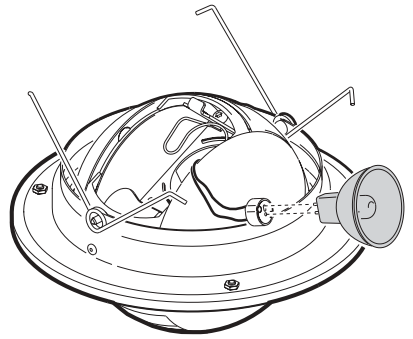
## Alien 05 Eyeball lamp replacement

To replace the lamp:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Remove the Alien 05 from the Halo recessed fixture housing.
- 3 Disconnect the data (D) and power (P) connectors.



- 4 Slide the lamp out of its sprung holder in the sphere.
- 5 Gently remove the old lamp from the socket.
- 6 Holding the new lamp by its glass base, insert it firmly and squarely into the lamp socket.
- 7 Gently insert the lamp under the sprung holder inside the sphere.
- 8 Reconnect the data (D) and power (P) connectors (A).
- 9 Grasp the wire clips (B) and insert the Alien 05 back into the Halo recessed fixture housing (C).

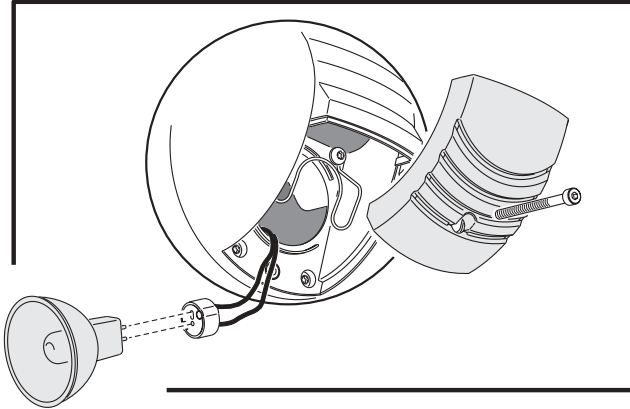


10 Reapply power.

## Alien O5 Stem Mount lamp replacement

Lamp replacement requires a 3 mm Allen wrench. To replace the lamp:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Remove the lamp cover using a 3 mm Allen wrench.
- 3 Gently remove the old lamp from its housing and remove it from the socket.



- 4 Holding the new lamp by its glass base - insert it firmly and squarely into the lamp socket.
- 5 Gently insert the lamp into its housing.
- 6 Replace the cover, being careful not to overtighten.
- 7 Reapply power.

## Removing the diffuser filter

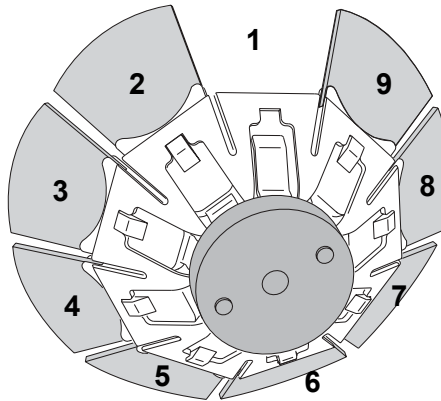
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The diffuser filter sits in a metal holder on the outside of the sphere in front of the lens. It is held in place with a spring catch and is simple to remove with the aid of a small screwdriver. The metal holder can be removed with a 2.5 mm Allen wrench.

**Warning!** *The fixture sphere gets hot during operation. Disconnect power and allow the fixture sphere to cool for 15 minutes before removing the diffuser filter.*

# Replacing color filters

The positions on the color wheel are as follows:



The filters that are supplied as standard are:

Position	Filter
1	No filter - open position (a filter can be installed if required)
2	Color temperature correction (CTC) 5500-3400 K (warmer light)
3	Yellow 604
4	Red 305
5	Pink 312
6	CTC 3200-5600 K (colder light)
7	Blue 106
8	Blue 103
9	Green 201

The procedure for changing the filters is slightly different for each of the three Alien 05 models. See the appropriate section:

- “Alien 05 Recessed color filter replacement” on page 40, or
- “Alien 05 Eyeball color filter replacement” on page 40, or
- “Alien 05 Stem Mount color filter replacement” on page 42

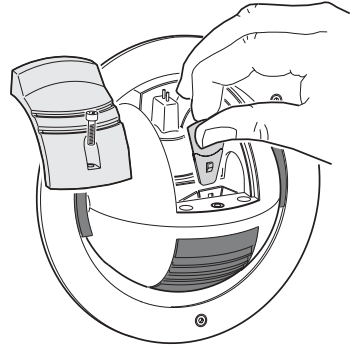
## Alien 05 Recessed color filter replacement

Color filter replacement requires a 3 mm Allen wrench.

**Warning!** *Allow the fixture sphere to cool for 15 minutes before removing the color filter cover.*

To replace color filters:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Rotate the sphere to the position shown here.
- 3 Remove the color-filter access-cover using a 3 mm Allen wrench. The filters clip into holders on the wheel. Being careful not to place finger prints on the filters, rotate the wheel, and replace the appropriate filters.
- 4 Replace the cover, being careful not to overtighten.
- 5 Rotate the sphere back to its normal operating position and reapply power.

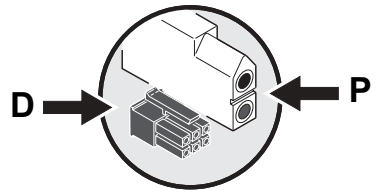


## Alien 05 Eyeball color filter replacement

**Warning!** *Allow the fixture to cool for 15 minutes before removing.*

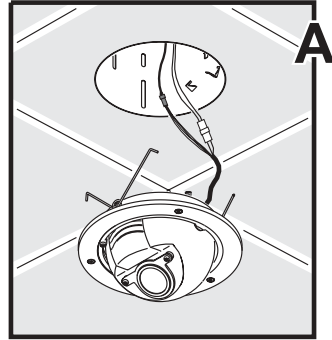
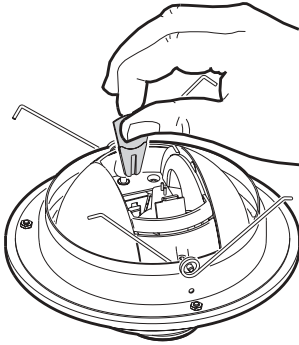
To replace color filters:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Remove the Alien 05 from the Halo recessed fixture housing.
- 3 Disconnect the data (D) and power (P) connectors.
- 4 The color filter wheel is accessible from hole in the sphere at the rear of the fixture.



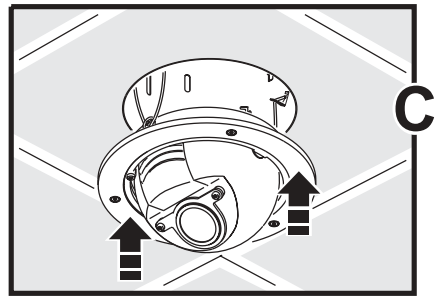
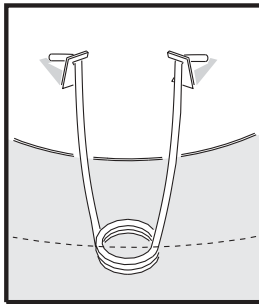
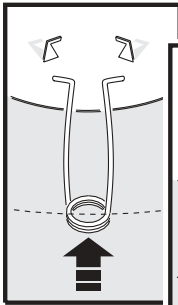
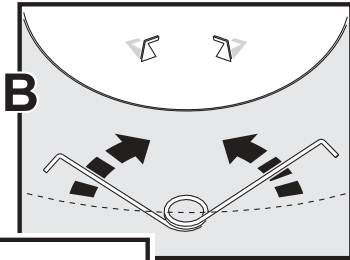


- 5 The filters clip into holders on the wheel. Being careful not to place finger prints on the filters, rotate the wheel, and replace the appropriate filters.



- 6 Reconnect the data (D) and power (P) connectors (A).

- 7 Grasp the wire clips (B) and insert the Alien 05 back into the Halo recessed fixture housing (C).



- 8 Reapply power.

## Alien O5 Stem Mount color filter replacement

Color filter replacement requires a 3 mm Allen wrench.

**Warning!** *Allow the fixture sphere to cool for 15 minutes before removing the color filter cover.*

To replace color filters:

- 1 Disconnect the fixture from power and allow it to cool.
- 2 Remove the access-cover using a 3 mm Allen wrench.
- 3 The filters clip into holders on the wheel. Being careful not to place finger prints on the filters, rotate the wheel, and replace the appropriate filters.
- 4 Replace the cover, being careful not to overtighten.
- 5 Rotate the sphere back to its normal operating position and reapply power.

# Troubleshooting

# 8

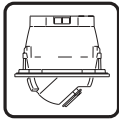
<b>Problem</b>	<b>Probable cause(s)</b>	<b>Remedy</b>
No response from fixture when power is applied.	No power to fixture.	Check power cables.
Fixture does not respond correctly to 05 Driver unit	05 Driver unit not connected.	Connect 05 Driver unit.
	Bad data link connection.	Inspect cables and correct poor connections and/or broken cables.
No light, lamp cuts out intermittently.	Lamp missing or blown.	Turn the power off and replace the lamp.
	Fixture or lamp is too hot.	Allow fixture to cool. If problem persists, contact service technician.
	Cables to the transformer not fastened securely or loose.	Check power cables.

**Table 1**

# SPECIFICATIONS

# A

# Alien O5 Recessed Specifications



## Physical

Diameter of fixture at widest point	195 mm (7.7 in)
Depth of recessed base	118 mm (4.7 in)
Maximum protrusion of fixture from mounting surface	.65 mm (2.6 in)
Weight	1.2 kg (2.6 lbs)

## Source

Lamp	MR16, 50 W, 12 V, glass reflector
Approved models	Osram ENL 50W 12V custom reflector
Lamp base	GX 5.32.2 lbs)

## Dynamic effects

- 8 color filters plus open
- Speed control
- Lamp ON/OFF
- Intensity (when using a dimmable transformer)

## Control & Programming

Control options (via O5 Driver unit)	DMX-512
Control options (via O5 Driver unit)	stand-alone using DIP switches
Control options (via O5 Driver unit)	dedicated operator panel - Oracle
Data input	CAT5 network cable (not supplied) - maximum length 10 m (33 ft)
Data output	CAT5 network cable (not supplied) - maximum length 10 m (33 ft)

## Installation

Minimum distance to illuminated objects	0.5 m (16.7 in)
Minimum clearance around air vent	50 mm (8 in)
Maximum cable distance to transformer	45 cm (17.7 in.)
Indoor orientation	Any (ceiling panel or wall recommended)
Maximum thickness of ceiling/wall panel	20 mm (0.8 in)
Diameter of mounting hole	182 mm (7.2 in)

## Design standards

EU safety	EN 60598-2-2
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## Thermal

Maximum ambient temperature (Ta)	40° C (104° F)
Maximum surface temperature, steady state, Ta=40° C	90° C (194° F)
Cooling	Convection cooling system

## AC Supply

Alien O5 power supply	12 V AC halogen lamp transformer (not supplied)
O5 Driver unit power supply	Auto-ranging

## Maximum power and current

Alien 05: 12 V 50/60 Hz..... 50 W, 4.2 A

## Construction

Housing..... Die cast aluminum and polyamide PA 6 (30% glass)  
Color..... Aluminum and gray

## Ordering information

Alien 05 Recessed, 12V, 50 W ..... P/N 90340000  
05 Driver ..... P/N 90722010  
05 Repeater ..... P/N 90722020  
Oracle controller ..... P/N 90722000

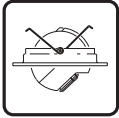
## Included items

User manual  
Osram ENL 50W 12V  
CTC 5500-3400 color filter (position 2)  
Yellow 604 color filter (position 3)  
Red 305 color filter (position 4)  
Pink 312 color filter (position 5)  
CTC 3200-5600 color filter (position 6)  
Blue 106 color filter (position 7)  
Blue 103 color filter (position 8)  
Green 201 color filter (position 9)  
Diffuser filter (installed)

## Accessories

Hexagon Socket Head Cab Screws (M4x60) ..... P/N 08071205  
Dimmable transformer - 230 V @ 50/60 Hz/35-105 W @ 12 V ..... P/N 91611054  
CAT5 network cables - 2 m (6.5 ft) x 50 pieces: ..... P/N 91611044  
CAT5 network cables - 5 m (16.4 ft) x 30 pieces: ..... P/N 91611045  
CAT5 network cables - 10 m (32.8 ft) x 15 pieces: ..... P/N 91611046  
Osram ENL 50W 12V: ..... P/N 97000005  
Fresnel lens (34 degrees field angle)..... P/N 91610025  
Blue 101 color filter ..... P/N 62327058  
Blue 104 color filter ..... P/N 62327052  
Blue 108 color filter ..... P/N 62327055  
Green 202 color filter ..... P/N 62327060  
Green 206 color filter ..... P/N 62327054  
Magenta 507 color filter ..... P/N 62327057  
Orange 306 color filter ..... P/N 62327059  
Purple 502 color filter ..... P/N 62327061  
Red 301 color filter ..... P/N 62327056  
Yellow 603 color filter ..... P/N 62327051

# Alien O5 Eyeball



## Physical

Diameter of fixture at widest point	195 mm (7.7 in)
Maximum protrusion of fixture from mounting surface	65 mm (2.6 in)
Weight	1 kg (2.2 lbs)

## Source

Lamp	MR16, 50 W, 12 V, glass reflector
Approved models	Osram ENL 50W 12V custom reflector
Lamp base	GX 5.32.2 lbs)

## Dynamic effects

- 8 color filters plus open
- Speed control
- Lamp ON/OFF

## Control & Programming

Control options (via O5 Driver unit)	DMX-512
Control options (via O5 Driver unit)	stand-alone using DIP switches
Control options (via O5 Driver unit)	dedicated operator panel - Oracle
Data input	CAT5 network cable (not supplied) - maximum length 10 m (33 ft)
Data output	CAT5 network cable (not supplied) - maximum length 10 m (33 ft)

## Installation

Required housing	Cooper Lighting, Halo brand, recessed low-volt non-IC
Minimum distance to illuminated objects	0.5 m (16.7 in)
Maximum cable distance to transformer	45 cm (17.7 in.)
Indoor orientation	Any (ceiling panel or wall recommended)

## Design standards

EU safety	EN 60598-2-2
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## Thermal

Maximum ambient temperature (Ta)	40° C (104° F)
Maximum surface temperature, steady state, Ta=40° C	90° C (194° F)
Cooling	Convection cooling system

## AC Supply

Alien O5 power supply	12 V AC halogen lamp transformer (not supplied, but is part of the required fixture housing)
O5 Driver unit power supply	Auto-ranging

## Maximum power and current

Alien O5: 12 V 50/60 Hz	50 W, 4.2 A
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## Construction

Housing . . . . . Die cast aluminum and polyamide PA 6 (30% glass)  
Color . . . . . Aluminum and gray

## Ordering information

Alien 05 Eyeball, 12V, 50 W . . . . . P/N 90340100  
05 Driver . . . . . P/N 90722010  
05 Repeater . . . . . P/N 90722020  
Oracle controller . . . . . P/N 90722000  
Halo brand, recessed low-volt non-IC fixture housing . . . . . Cooper Lighting item number  
H7LVT

## Included items

User manual  
Osram ENL 50W 12V  
CTC 5500-3400 color filter (position 2)  
Yellow 604 color filter (position 3)  
Red 305 color filter (position 4)  
Pink 312 color filter (position 5)  
CTC 3200-5600 color filter (position 6)  
Blue 106 color filter (position 7)  
Blue 103 color filter (position 8)  
Green 201 color filter (position 9)  
Diffuser filter (installed)  
Steel strap and network junction box

## Accessories

CAT5 network cables - 2 m (6.5 ft) x 50 pieces . . . . . P/N 91611044  
CAT5 network cables - 5 m (16.4 ft) x 30 pieces . . . . . P/N 91611045  
CAT5 network cables - 10 m (32.8 ft) x 15 pieces . . . . . P/N 91611046  
Osram ENL 50W 12V. . . . . P/N 97000005  
Fresnel lens (34 degrees field angle). . . . . P/N 91610025  
Blue 101 color filter . . . . . P/N 62327058  
Blue 104 color filter . . . . . P/N 62327052  
Blue 108 color filter . . . . . P/N 62327055  
Green 202 color filter . . . . . P/N 62327060  
Green 206 color filter . . . . . P/N 62327054  
Magenta 507 color filter . . . . . P/N 62327057  
Orange 306 color filter . . . . . P/N 62327059  
Purple 502 color filter . . . . . P/N 62327061  
Red 301 color filter . . . . . P/N 62327056  
Yellow 603 color filter . . . . . P/N 62327051



# Alien O5 Stem Mount specifications



## Physical

Pan radius	170 mm (6.7 inches)
Protrusion from mounting surface (with 150 mm (6 inch) arm)	215 mm (8.5 inches)
Protrusion from mounting surface (with 600 mm (24 inch) arm)	665 mm (26 inches)
Weight (with 150 mm (6 inch) arm)	1.3 (2.9 lbs)
Weight (with 600 mm (24 inch) arm)	1.6 (3.5 lbs)

## Source

Lamp:	MR16, 50 W, 12 V, glass reflector
Approved models:	Osram ENL 50W 12V custom reflector
Base:	GX 5.32.2 (lbs)

## Dynamic effects

- 8 color filters plus open
- Speed control
- Lamp on and off
- Intensity

## Control & Programming

Control options (via O5 Driver unit):	DMX-512
Control options (via O5 Driver unit):	stand-alone using DIP switches
Control options (via O5 Driver unit):	dedicated operator panel - Oracle
Data input:	CAT5 network cable (not supplied) - maximum length 10 m (33 ft)
Data output:	CAT5 network cable (not supplied) - maximum length 10 m (33 ft)

## Installation

Minimum distance to illuminated objects	0.5 m (16.7 in)
Maximum cable distance to transformer	45 cm (17.7 in.)
Indoor orientation	Ceiling mount recommended

## Design standards

EU safety	EN 60598-2-2
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## Thermal

Maximum ambient temperature (Ta)	40° C (104° F)
Maximum surface temperature, steady state, Ta=40° C	90° C (194° F)
Cooling	Convection cooling system

## Power supply - Base (230V/12V-75W)

12 V AC halogen lamp transformer	Lightech LET-75-12/230V R installed in base
Dimmable	Yes
Operating range	200-250V/12V-75W
Conformity	VDE & VDE-EMV approved, CE
Maximum power and current	230 V @ 50/60 Hz = 75 W, 6.25 A
Power factor minimum	0.95

## Power supply - Base (120V/12V-75W)

12 V AC halogen lamp transformer .....Lightech LET 75 installed in base  
Dimmable ..... Yes  
Operating range ..... 90-130V/12V-75W  
Conformity ..... UL & C-UL recognized, UL file # 164062  
Maximum power and current ..... 120 V @ 60 Hz = 75 W, 6.35 A  
Power factor minimum ..... 0.95

## Construction

Housing ..... Die cast aluminum and polyamide PA 6 (30% glass)  
Color ..... Aluminum and gray

## Ordering information

Alien 05 Stem Mount, 12V, 50 W ..... P/N 90340200  
600 mm Arm ..... P/N 91611068  
150 mm Arm ..... P/N 91611067  
Base (230V/12V-75W) ..... P/N 90722030  
Base (120V/12V-75W) ..... P/N 90722040  
05 Driver ..... P/N 90722010  
05 Repeater ..... P/N 90722020  
Oracle controller ..... P/N 90722000

## Included items

User manual  
Osram ENL 50W 12V  
CTC 5500-3400 color filter (position 2)  
Yellow 604 color filter (position 3)  
Red 305 color filter (position 4)  
Pink 312 color filter (position 5)  
CTC 3200-5600 color filter (position 6)  
Blue 106 color filter (position 7)  
Blue 103 color filter (position 8)  
Green 201 color filter (position 9)  
Diffuser filter (installed)

## Accessories

CAT5 network cables - 2 m (6.5 ft) x 50 pieces . . . . .	P/N 91611044
CAT5 network cables - 5 m (16.4 ft) x 30 pieces . . . . .	P/N 91611045
CAT5 network cables - 10 m (32.8 ft) x 15 pieces . . . . .	P/N 91611046
Osram ENL 50W 12V. . . . .	P/N 97000005
Fresnel lens (34 degrees field angle). . . . .	P/N 91610025
Blue 101 color filter . . . . .	P/N 62327058
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Green 202 color filter . . . . .	P/N 62327060
Green 206 color filter . . . . .	P/N 62327054
Magenta 507 color filter . . . . .	P/N 62327057
Orange 306 color filter . . . . .	P/N 62327059
Purple 502 color filter . . . . .	P/N 62327061
Red 301 color filter . . . . .	P/N 62327056
Yellow 603 color filter . . . . .	P/N 62327051



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