VISIONARY®

APOLLO NEO™ OPERATING INSTRUCTION MANUAL

⚠ WARNING

This product is being installed into mains electricity which is inherently dangerous. Failure to follow the instructions in this manual or negligence will void the product warranty and can cause injury or even death.

Before using this product, you must:
- Read and understand all instructions for use.
- Use a qualified electrical contractor if legally required and if you do not fully understand how to safely install this product.
- Become acquainted with its capabilities and limitations.
- Understand and accept the risks involved.

IC-F/IC-4 11W RECESSED LED DOWNLIGHT
WITH PHOENIX™ 2 LED DRIVER

VERSION 1.000
REV 0

Introduction

Thank you for choosing Visionary Technologies as your lighting provider. This operating manual provides information on how the product functions and how to safely operate the product and the attached Phoenix Series driver.

Box Contents

1x Lamp
1x Phoenix Series LED Driver
1x Set of low voltage cables (pre-installed)

Installing the product (Existing installation)

Any electrical work must conform with the Electricity Act 1992 including section 79, NZECP 50: 2004, Electricity Act 1992 Section 80 and NZECP 51: 2004.

1) Disable power to the circuit that you are working on. We highly recommend switching electricity off at the main switchboard of the premises for added safety.

2) Remove the previous fitting from the ceiling cavity being careful not to damage the ceiling material. Ensure that there is no remaining driver/transformer connected to the specific lighting mains cable.

3) Take the Phoenix Series driver unit out of the product packaging.

4) Open the red terminal cover. The easiest method of opening the cover is by using your hands, applying a see-saw motion to **both sides** of the driver while pulling towards the open position to disengage the driver's teeth. *Once you have opened one driver you will find it very straightforward to open additional units.*

4) Fully unscrew the three input terminals until the screws are flush with the plastic holder above to prepare cable insertion.

5) Install the three cable colours into the appropriate slot in the driver. Screw down each terminal screw firmly.

Live (Driver input) = Brown or red sheath colour (cable side)
Ground (Driver input) = Green sheath colour (cable side)
Neutral (Driver input) = Blue or black sheath colour (cable side)

NOTE: Some previous installations have had the ground cable cut off so the cable is not exposed. The NZECP requires you ensure proper ground looping even though the LED driver is class 2 SELV and is not essential for its safe operation.

6) Once all cables are installed, press the red terminal cover over the cable until it engages the teeth over the cable securely.
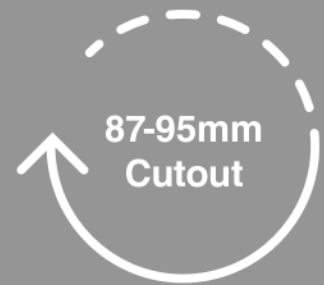
7) Place the driver unit in the ceiling cavity. It is your choice whether you would like to install above or below ceiling insulation.

8) To fit the lamp into the ceiling, push both springs towards the rear of the lamp using one finger on each hand. Insert the springs and the rear of lamp into the ceiling cutout. Once the springs on both sides have been inserted through the ceiling cut-out then you can carefully let them go. This will pull the light fitting to sit firmly in the cavity.

Note: The lamp fitting may be safely covered by ceiling insulation.

TIP: While inserting the lamp fitting it may be easier for you to install one of the spring clips into the ceiling cavity while the lamp is on an angle, then load the second spring and insert the second spring into the ceiling cavity.

QUICK INFO:

87-95mm
Cutout

CUTOUT

99
mm

DIAMETER

SCB
HCB

CLEARANCE

INGRESS PROTECTION
IP65
DUST & MOISTURE

IP PROTECTION

Dimmable Compatibility (Dimmable model only)

The product with supplied Phoenix Series LED driver provides a smooth, linear and flicker-free dimming experience. The product has been tested on a number of popular dimming modules in the New Zealand market. The product has been tested on leading edge, trailing edge, universal and digital dimming systems with a wide range dimming experience on a majority of dimming modules. For a full list of compatible   dimmers, please visit www.visionarytechnologies.co.nz.

BRAND	MODEL NUMBER TESTED	DIM % (4 Unit Load)	1-2 LAMPS	3+ LAMPS
Kiwi Electronics	K005U (Leading edge mode) K005T (Trailing Edge mode)	0-100% 0-100%	YES NO	YES NO
Home (GERARD)	Eclipse LED Dimmer	0-100%	YES	YES
HPM	Cat 500A (Leading Edge)	0-100%	YES	NO
PDL	624M/624TM (Trailing edge mode) 654PB/654PBM (PB Univeral mode) 654/654M (Universal mode) CAT520 (Incandescent only)	10.8-100% 10.9-100% 14.8-100% 0.2-100%	YES YES YES YES	YES YES YES YES
allsales agencies	ASA 500 (Universal mode)	8.2-100%	YES	YES
Vynco	VT1D450LSWE (Universal + LED)	3.6-100%	YES	NO
AcTeC	D350 (Trailing edge mode)	15-100%	YES	YES
Clipsal	32ELEDM (LED Dimmer) 32E450UDM (Universal mode) 32E450TM (Trailing Edge)	6.4-100% 4.7-100% 9.4-100%	YES YES YES	YES YES YES

NOTE: This list is not exhaustive and indicates common dimming modules that are used in the industry. While this product has industry leading dimming compatibility, not all dimmer modules work effectively with the product, particularly older models. If you would like to check your dimmer module is compatible, please contact Visionary Technologies and we can assist in this matter. An up to date dimmer module list can be found at www.visionarytechnologies.co.nz

Usage areas

This product is designed for indoor use only (including soffits) in residential or light commercial applications. The product is suitable for use in general lighting areas such as bedrooms, hallways, kitchens and living areas, as well as safe use in bathrooms* and under soffits. *This product is not suitable for use in a parallel connection with unsuppressed inductive loads or where there are known power quality issues. Doing so will void the product warranty.

New Installations (requiring new wiring and/or new ceiling cutout)

The product must be installed by a fully licensed electrical contractor. Under New Zealand law, a home owner or anyone that is not qualified to install electrical products cannot install Visionary products that require new wiring. Visionary Technologies can assist you in finding a suitable electrical contractor who is properly trained and experienced in installing Visionary products. Contact us for more information.

Technical Specifications

Visionary® Apollo™ NEO - LED Downlight	
Dimensions	38.9mm (Height) x 99mm (Width) x 87mm (Minimum Cutout)
IC-F/IC-4 Rated Lamp	YES (Abutted & Covered)
IC Rated Driver	YES (Phoenix Series™ Dimmable)
Material Clearance	SCB=0 HCB=0 MCB=0
Ingress Protection	IP65 - Bathroom / Soffit Suitable
Light Colour[2] (CCT)	3000K - Warm White CRI:80+ / 4000K - Pure White CRI:80+
Trim Colour(s)	White
Lamp Power/ Total power (W)	9.25W / 11W (Typical)
Lumen Output[1] (lm)	850lm - Warm White (3000K) - Measured with products lens applied. 860lm - Pure White (4000K) - Measured with products lens applied.
Lamp Efficiency (lm/W)	78lm/W (Typical) - Warm White (3000K)
Cutout Parameters	87-95mm - 92mm Hole Saw Recommended
Warranty	7 Years - Lamp & Driver (5 Years - Commerical use)
Dimmer Specifications	0-100% - Monotonic Dimming Range Capability. Suitable for Leading Edge / Trailing Edge / Digital Dimmers Dimmable Model - Phoenix Series™ 300mA. IC Rated / 31V DC (CC) Microprocessor Regulated with ADAPTIV™ Processor Core. Features - Extra large Input Terminals / Screwless Terminal cover. Long life design. THERMACORE™ thermal regulation technology.
Photometry	3000k Model - 360.71lx@1m (233.6cmW) / 90.17lx@2m (467.14cmW)
AS/NZS 61000.4.5 Surge Class[3]	0.5KV Class C (Luminaires & independant auxilaries)
EMC	EN 55015

Version	Trim Colour	Light Colour	Model Code
Dimmable	White	Warm White (3000K)	A99-DW3K
Dimmable	White	Warm White (3000K)	A99-DW4K

[1]Visionary Technologies reserves a tolerance of +/- 3% on total flux output.
[2]Visionary Technologies reserves a tolerance of +/- 150K CCT either side of CCT measurement.
[3] This product is class classed as a 'less than or equal to' 25W luminaire.

Working out the SKU

The example used for working out the SKU of Apollo NEO is A99-DW3K (Apollo EON / Dimmable / White Trim / 3000K Warm white). The model number always stays the same but the secondary code after the hyphen defines the sub-model.
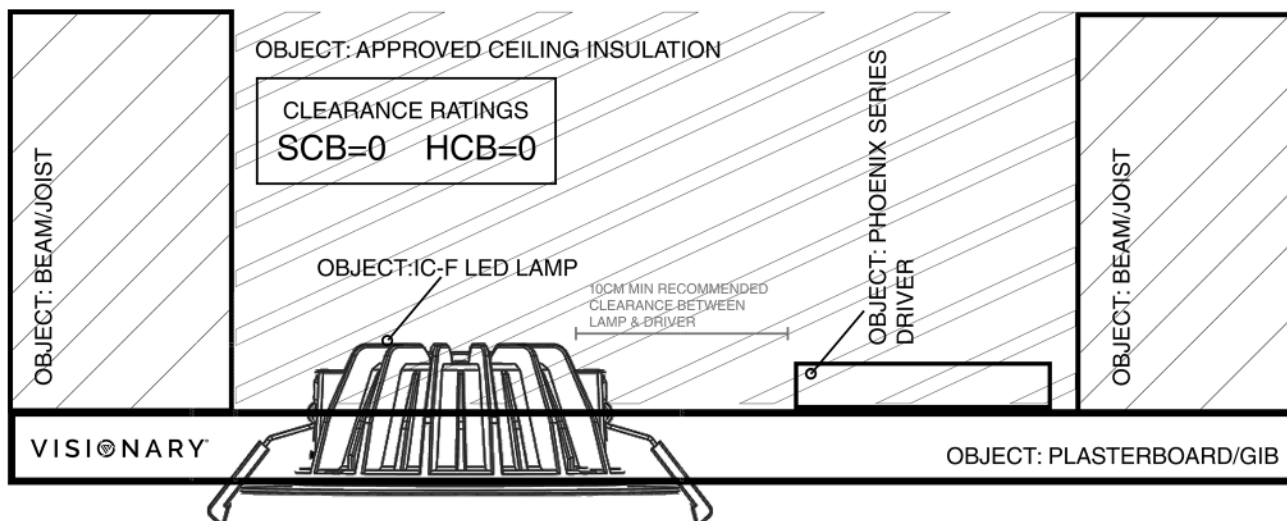
Example : A99-DW3K

Model	Driver Type	Trim Colour	Colour Temp
A99	D = Dimmable	W = White Trim	3K = 3000K Warm 4K = 3000K Warm

Approved Insulation

Most New Zealand compliant insulation (NZS 4246) products may be used with Visionary recessed products and attached control gear, including but not limited to; Pink Batts, knauff insulation (including standard blanket type and Jet Stream Max), Bradford gold, Green stuff and compliant wool based products including Qmulus Loose Fill insulation. All approved insulation products when used with recessed luminaires shall withstand a 30 s needle flame test carried out in accordance with AS/NZS 60695.11.5 with the flame applied to all surfaces of the sample. Insulation must be constructed to maintain its dimensions and structural integrity when exposed to the maximum allowable surface temperature of an IC or IC-F rated luminaire at 90 degrees Celsius.

Notice: Expansion foam or Macerated paper (Insul-fluf) as defined in NZS 4246 is not permitted to abut or cover this luminaire or driver or be used anywhere near any Visionary product. The presence of expansion foam or Macerated paper (Insul-fluf) in the ceiling cavity, in conjunction with the product and its attached LED driver will void the warranty of this product.

OBJECT: APPROVED CEILING INSULATION

CLEARANCE RATINGS
SCB=0   HCB=0

OBJECT: BEAM/JOIST

OBJECT: PHOENIX SERIES DRIVER

OBJECT: BEAM/JOIST

OBJECT:IC-F LED LAMP

10CM MIN RECOMMENDED CLEARANCE BETWEEN LAMP & DRIVER

VISIONARY

OBJECT: PLASTERBOARD/GIB

NOTE: SPACING LAMP A DISTANCE AWAY FROM DRIVER UNIT WILL FURTHER IMPROVE DRIVER LIFESPAN

Compliance

(Note 1) Maximum looped luminaires per circuit: 20 (Note 2) Suitable for indoor use only. (Note 3) The attached LED driver does not rely on the LED luminaire enclosure for protection. (Note 4) The attached driver is Safety-Extra-Low-Voltage (SELV). (Note 5) The attached LED driver is connected to 230v AC 50Hz mains supply. (Note 6) The luminaire is defined as the lamp and driver unit 'the luminaire'. LED drivers for this product are not sold seperately.

For further information please visit www.visionarytechnologies.co.nz

Box Contents

1x Lamp, 1x Electronic Driver ,1x Quick Connect Cable (Pre-wired)

DISCLAIMER

COPYRIGHT NOTICE