ATOMOS INTERNATIONAL FITTINGS

RECESSED LED DOWNLIGHT FITTINGS

INSTALLATION

Before beginning any DOWNLIGHT installation, disconnect electrical power at main switch or circuit breaker.

A. CAUTION

To reduce the risk of fire, electric shock, and potential damage to recessed housing assembly when electrical power is re-connected, DO NOT ATTEMPT TO CONNECT the following on branch circuit serving recessed downlight assembly:

•Motors •Power tools •Extension cords
•Appliances or similar electronics

Downlight fittings to be mounted in ceiling/ plenum conditions *where ambient temperatures do not exceed 40°C*.

Lucifer Lighting LED downlights must be used with Lucifer Lighting mounting components.

Ensure AC input voltage is protected against surges & load shifts prior to power supply input.

B. SAFETY INSTRUCTIONS

1. Read installation instructions completely before attempting installation.
2. Failure to follow instructions may result in improper installation and void warranty.
3. Contact Lucifer Lighting Company with any questions or concerns before beginning any installation.
4. Ensure qualified electrician will perform all electrical procedures.
5. Disconnect electrical power circuit before attempting to install recessed downlight fitting , or if adding to or changing configuration of downlight fitting assembly.
6. Install / mount recessed downlight fitting assembly on structurally sound surface.
7. Spacing Requirements (diagram on next page):

   Minimum 235mm (9.25") clearance from top of the ceiling plane to allow for driver installation, and servicing if necessary.

   Minimum 168mm (6.63") radius setback from combustible and non-combustible materials from fixture centerline and **19mm (.75")** clearance from top of fitting.

   Minimum 76mm (3") clearance from surfaces of power supply / junction box.

   Minimum 229mm (9") setback from insulation material having max R-Value of 30 from sides of downlight fitting assembly.

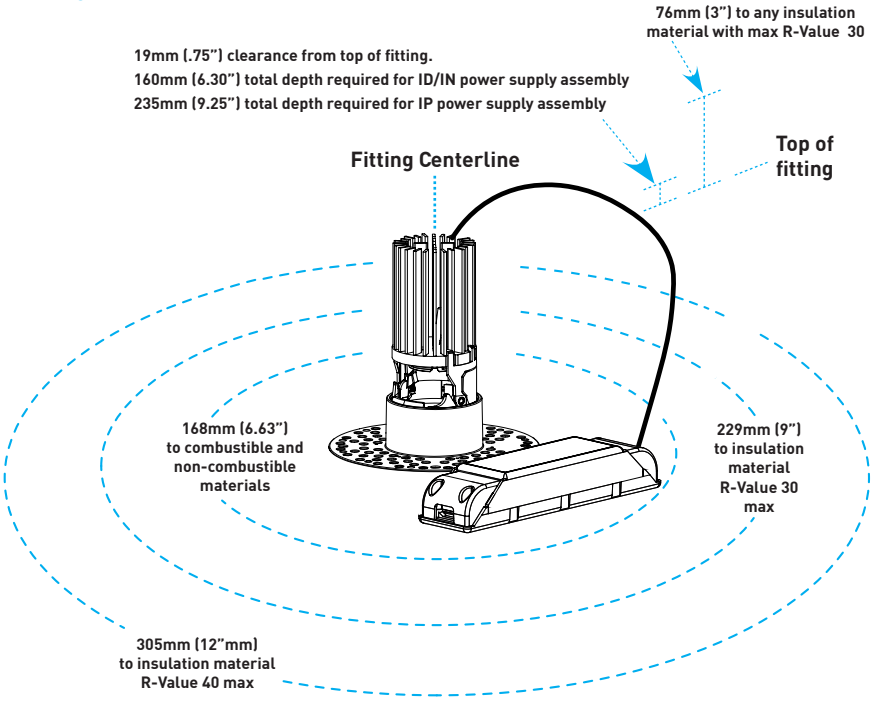
   Minimum 305mm (12") setback from polycell foam insulation materials (any type) having max R-Value of 40 and sides of downlight fitting assembly.

   Consult factory for spacing requirements for any installations exceeding R-Value of 40.

8. Do not attempt this installation if you do not understand these instructions.

LUCIFER LIGHTING COMPANY

Spacing Requirements:



C. WIRING

1. GENERAL WIRING NOTES

Note: Consult Safety Instructions on page 1 prior to commencing wiring or servicing.

The downlight fitting assembly should be installed by a registered electrician and shall comply with national and local codes and ordinances .

The installer of the downlight fitting assembly is responsible for furnishing proper electrical equipment and materials for the installation of the downlights as intended by these installation instructions.

Install downlight fitting and supply sufficient length mains voltage wiring to permit access to components and splice connections, which may require future servicing.

Metal conduit shall be used if required by applicable codes. The conductor insulation must feature the appropriate temperature rating as specified on the label for each Lucifer Lighting Company downlight assembly.

Attach protective earth grounds to driver, as apply. No part of the secondary circuit shall be grounded.

For systems that will be dimmed, consult controls manufacturer to verify driver compatibility and proper installation procedures and parameters.

D. CEILING SUBSTRATE AND FINISH OUT

1. GENERAL MOUNTING NOTES

Recessed downlight fitting /power supply assemblies are thermally protected. Cycling fitting may indicate improper installation, inadequate plenum space surrounding fitting or incompatible higher wattage LED for specified driver. Verify insulation spacing complies with required setbacks (see pages 1-2) and LED's wattage is suitable for driver.

Determine specified fitting location, ensuring sufficient space exists to accommodate assembly components (see pages 1-2).

2. CEILING THICKNESS

Fittings accommodate a 13mm (0.50") to 51mm (2.00") ceiling thickness.

3. CEILING CUT-OUTS

Flanged fittings feature minimal flange overlay of ceiling. Factory recommends use of 59mm (2-5/16") hole saw for all round applications. Mark center line and make proper hole cut-out, referencing measurements from adjacent walls to centerline ***(Fig.1) (Fig.2)***.

CUT-OUT

Round: 59mm (2-5/16")
Square: 59mm (2-5/16") x 59mm (2-5/16")
(Applies to backing only for trimless wood)

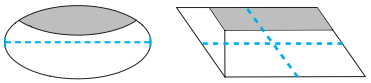


Fig.1

ROUND CUT-OUT

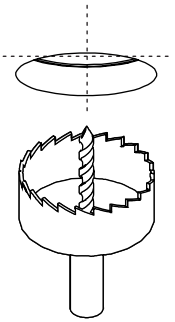


Fig.2

4. PLASTERBOARD

Important: Square fixture installations require final alignment. Utilize string line or laser line to obtain uniform or desired alignment between multiple fixtures or in relation to parallel planes.

Install plasterboard in typical fashion. Oversized hole cut-outs must be filled in with mud or plaster, utilizing appropriate tape in accordance with industry standards, prior to fitting installation.

Note: For mud-in plasterboard installations, see Section E.2.

Important: If mud-in, appliqué must be installed prior to mudding or finishing of ceiling. Failure to follow these instructions will lead to failed expectations and added expense.

Sand, prime, and apply finish coat to ceiling.

5. WOOD CEILING

Install wood in accordance with local and national building codes, employing suitable fire barriers as required. Hole cut-outs should be clean and precise. Sand, stain and apply finish seal coat prior to installing fitting, on flange overlay applications, or baffle, on Trimless Wood applications.

Note: For trimless wood installations, see Section E.3.

6. T-GRID LAY-IN TILE CEILING

Install tiles in accordance with manufacturer's recommendations.

Important: Trimless / zero-sightline installations are not compatible with lay-in tile ceiling applications.

E. FITTING INSTALLATION

Ensure ceiling is finished before beginning fitting installation.

Note: Proceed to Section E.2 for MUD-IN installations.

1. FLANGED

Insert installation tool into fitting ***(Fig.3)*** and secure feet to top of fitting, directly above rentention wheels as shown in ***(Fig.4).***

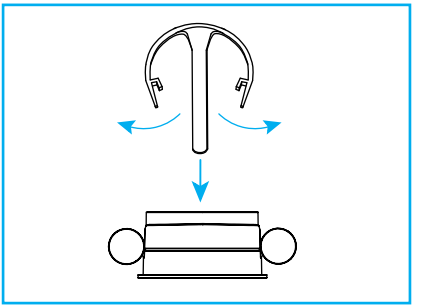


Fig.3

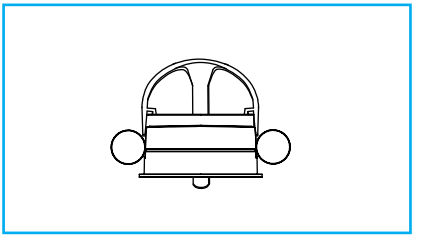


Fig.4

Pull retention rollers up, using the installation tool as a guide, and raise fitting assembly into housing aperture or ceiling cutout ***(Fig.5)***.

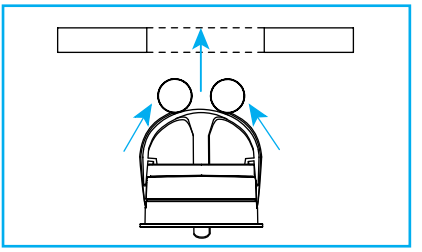


Fig.5

Release retention rollers and push the fitting assembly up until flush with ceiling ***(Fig.6)***. Verify alignment if square.

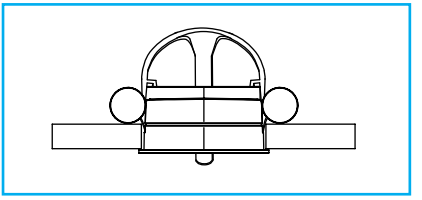


Fig.6

Gently push up on installation tool to disengage feet then remove by pulling down through aperture ***(Fig.7)***.

DO NOT DISCARD INSTALLATION TOOL

Installation tool is resuable for multiple fixtures.

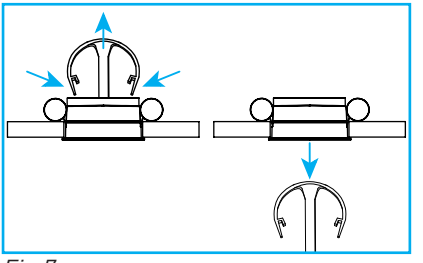


Fig.7

2. MUD-IN

Raise appliqué into the ceiling cutout. Verify alignment if square and secure with screws provided ***(Fig.8)***.

Install foam plug ***(Fig.8)***. Do not remove plug until all plaster and paint work is complete.

Use floating knife to apply first pass of drywall compound from beyond outer edge of appliqué to inner edge of appliqué / plaster stop. Float out as far as necessary to hide perforated appliqué and allow first pass of joint compound to dry ***(Fig.9)***.

Apply second coat of drywall compound level with screed edge, feathering compound as you move away from appliqué to give appearance of a perfectly flat ceiling ***(Fig.10)***. Allow drywall compound to dry and cure.

Gently use block sanding screen to sand surface ***(Fig.11)*** until desired level of smoothness is achieved.

WARNING: *An unsatisfactory installation will occur if drywall compound is not sufficiently sanded and the flange / plaster stop is at all receded into the ceiling plane.*

Once cured, the ceiling may be painted. After paint is dry, remove foam plug. Check for any drywall compound or paint that may have seeped beneath plug and carefully scrape if necessary.

Important: Any foreign material left in or on recessed appliqué surface may prevent proper baffle installation and satisfactory appearance.

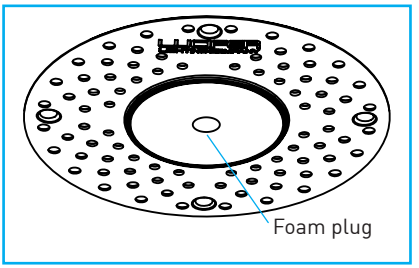


Fig.8

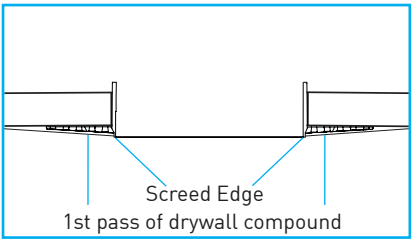


Fig.9

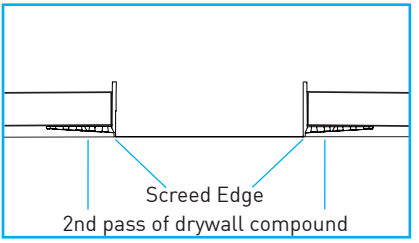


Fig.10

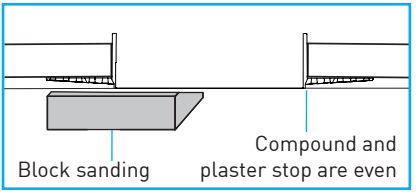


Fig.11

3. TRIMLESS WOOD

Determine the required spacer stack and counterbore depth based upon the finished wood layer thickness ***(Fig.12)***.

Finished Layer	Counterbore (X)	Thin Spacer	Thick Spacer	Finish Spacer
25mm	19mm	1	4	1
22mm	16mm	1	3	1
19mm	13mm	1	2	1
16mm	10mm	1	1	1
13mm	7mm	1	0	1

*Consult factory for additional configurations

Fig.12

A plywood or backing is required for trimless wood instillations ***(Fig.13)***. Factory recommends minimum backing width of 150mm.

Attach spacers with customer supplied wood screws, positioning largest diameter spacer at bottom ***(Fig.14)***. The combined thickness of the spacers and flange must be equal to the counterbore depth.

Pull the retention spring rollers up over fitting and raise the fitting assembly into the aperture, release spring rollers and push the fitting assembly up until flush with finish spacer ***(Fig.15)***.

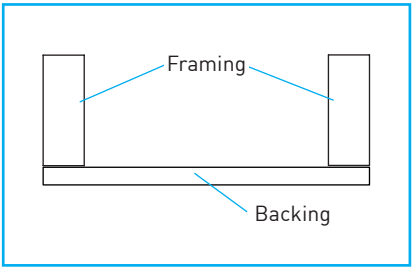


Fig.13

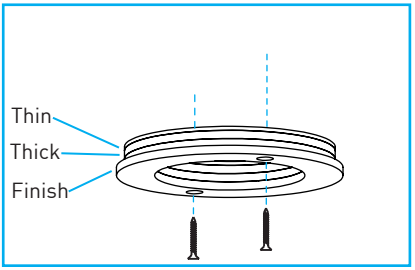


Fig.14

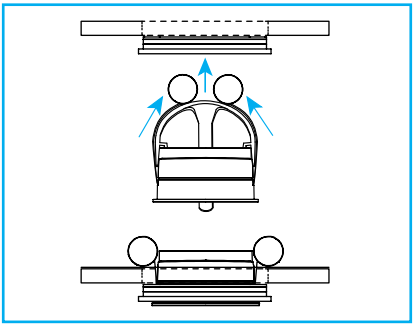


Fig.15

Install the disposable foam plug into the fitting aperture to prevent contamination of the housing ***(Fig.16)***.

WARNING: *Failure to install disposable foam plug may result in fire.*

WARNING: *Do not energize downlight fitting before removing disposable foam plug.*

Note: Requires trim / compact router.

Locate and mark the center-line of the fitting aperture on the finished wood layer. Drill a pilot hole to accommodate router bit (max 25mm diameter) ***(Fig.17)***.

Important: Counterbore depth must be 6mm less than the total thickness to ensure proper baffle fitment.

Using a router and plunge bit, counterbore a centered 76mm diameter space, using the predetermined depth in ***Fig.12(Fig.18)***.

Note: Factory does not recommend counterboring the entire width of wood.

Counterbore must be larger than the fitting footprint to ensure finished wood layer can be installed ***(Fig.19)***.

Install finished substrate, ensuring the centerlines of the fitting and substrate pilot hole are concentric ***(Fig.20)***.

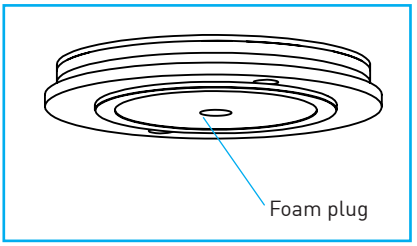


Fig.16

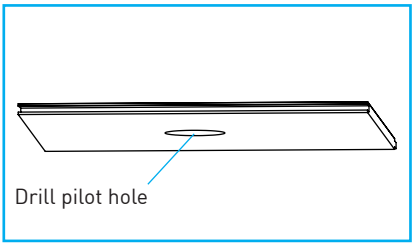


Fig.17

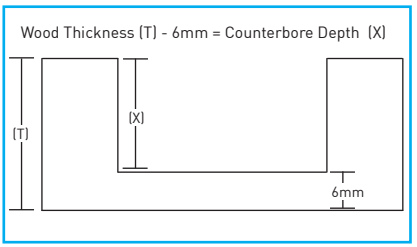


Fig.18

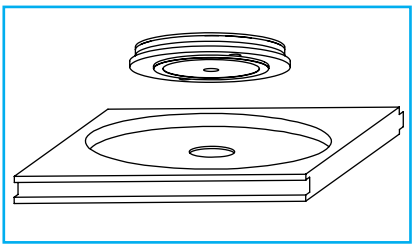


Fig.19

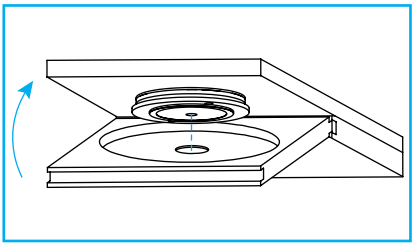


Fig.20

Utilizing a trim / compact router with a 13mm diameter, 25mm length, flush trim bottom bearing router bit, begin router cut in the pilot hole and move outward to inside diameter of fitting edge. Continue and complete cutout using inside of fitting as guide ***(Fig.21)***.

Note: Ensure tools used to square and clean cutout are sharp and clean.

On square installations,use a sharp utility knife to square the corners of the cutout toensure proper baffle fitment ***(Fig.22)***.

As required, sand and apply stain and finish coat to ceiling.

Once all woodwork has been completed, clear debris using compressed air and remove foam plug ***(Fig.23)***.

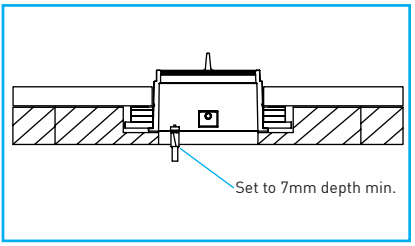


Fig.21

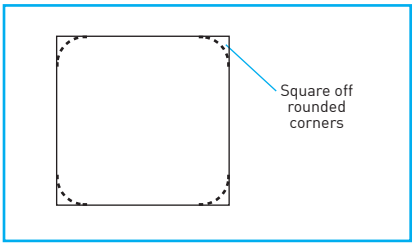


Fig.22

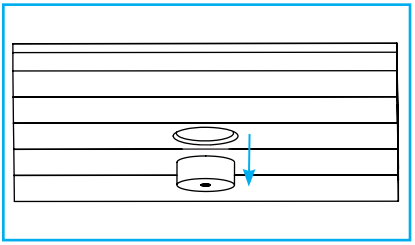


Fig.23

F. POWER SUPPLY INSTALLATION

Note: 160mm (6.30") total depth required for ID/IN power supply assembly, or 235mm (9.25") total depth required for IP power supply assembly from top of the ceiling plane to allow for driver installation, and servicing if necessary.

1. POWER SUPPLY

With fitting or applique installed, access and pull wiring down through fitting aperture.

Driver assembly provides integral wiring terminal ***(Fig.23)*** and typically accepts 3 wires for connecting to the mains voltage: Black (Line / Hot / Switching), White (Common) and Green (Protective Earth Ground).

Use appropriate raceway, connectors, wire and strain reliefs as required.

Note: Improper polarity may cause damage to the unit and can void the warranty.

Consult wiring diagrams in Section L, joining structured building wires to corresponding driver terminals ***(Fig.24)***.

Carefully raise finished power supply up through fitting aperture, and rest atop ceiling. ***(Fig.25)***.

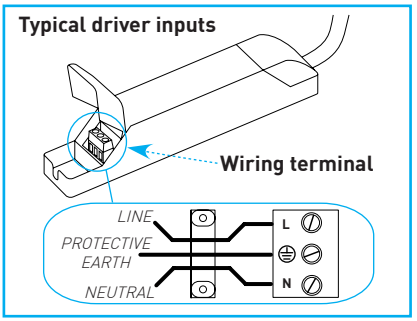


Fig.24

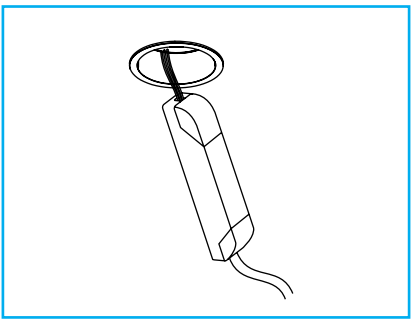


Fig.25

G. DOWNLIGHT FITTING INSTALLATION

1. INSTALL LED ENGINE

Attach LED wiring to the corresponding 2-pin lever-nut connectors ***(Fig.26)***.
Red to Red (+), Black to Black or Blue (-).

Warning: Connections are polarity sensitive.

Raise LED engine into the fitting aperture and push-up until it clicks into place ***(Fig.27)***.

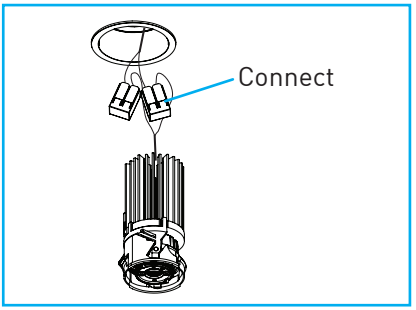


Fig.26

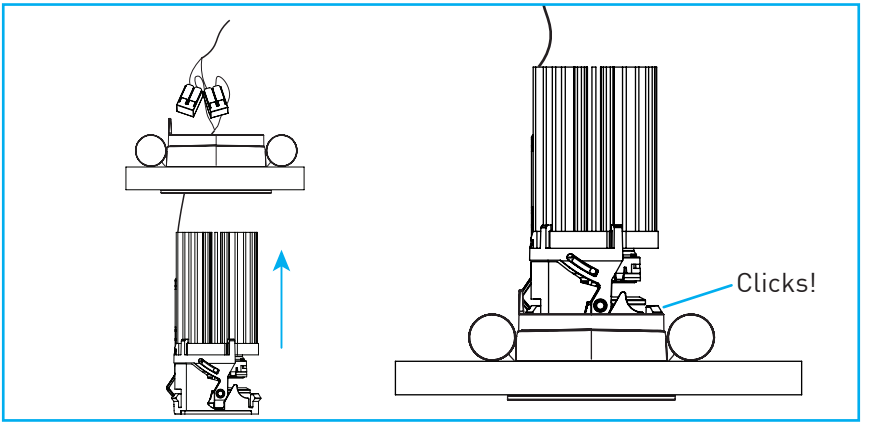


Fig.27

2. INSTALL BAFFLE

Push baffle up until just flush with the flange or the finished ceiling plane on trimless applications ***(Fig.28)***.

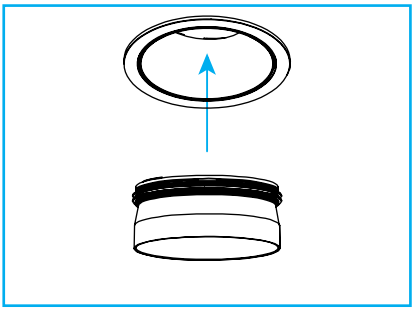


Fig.28

H. ADJUSTABLE FITTINGS

Hot-aim tilt and rotation adjustment is accessed by removing fitting's baffle ***(Fig.29)***.

1. TILT

Adjustments made with supplied 0.50" Allen tool. With baffle removed, locate tilt adjustment screw.

Fully insert hex tool into countersunk jack screw and rotate clockwise to increase tilt angle (up to 30° max), or counter-clockwise to decrease tilt angle ***(Fig.30)***.

Note: When decreasing tilt, stop turning when resistance is detected to prevent damaging fitting.

2. ROTATION

Note: Hold fitting in place while rotating LED engine, fitting should not rotate.

Reach into aperture with fingers and apply outward pressure against LED engine walls. Rotate LED engine clockwise or counter-clockwise to the desired position (up to 362° max) ***(Fig.31)***.

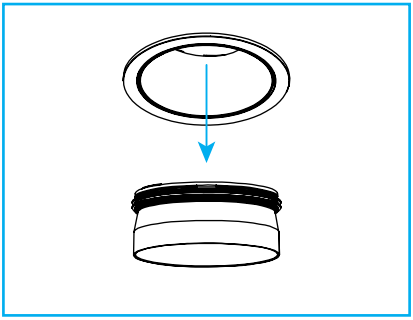


Fig.29

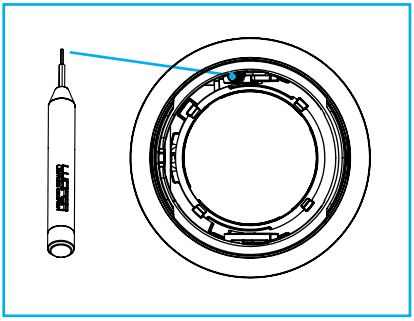


Fig.30

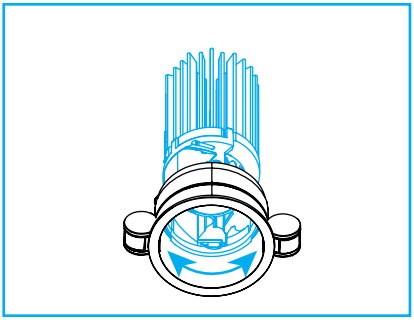


Fig.31

I. WALLWASH FIXTURES

LED engine is accessed by removing fixture's baffle ***(Fig.29)***.

1. ALIGNMENT

Note: Hold trim in place while rotating LED engine, trim should not rotate.

Reach into aperture with fingers and apply outward pressure against LED engine walls. Rotate LED engine clockwise or counter-clockwise until the keyway is aligned with the intended wallwash surface (up to 362° max) ***(Fig.31)*** ***(Fig.32)***.

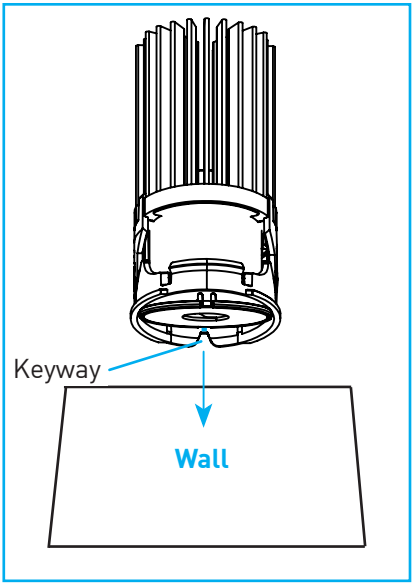


Fig.32

J. ZOOMABLE OPTIC

Optic adjustment is accessed by removing fitting's baffle ***(Fig.29)***.

1. ADJUSTMENT

Reach into aperture with fingers and rotate optic using the tabs highlighted in ***Fig.33*** to the desired beam spread; optic clicks at each increment.

Full counter-clockwise
Position 1 - 24˚
Position 2 - 30˚
Position 3 - 36˚
Position 4 - 42˚
Position 5 - 48˚
Full clockwise

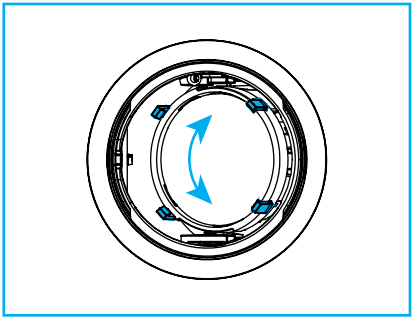


Fig.33

K. SERVICING FITTING

Important: Before servicing or maintaining fitting or driver, disconnect electrical power at main switch or circuit breaker. Additionally, heed all WARNINGS and CAUTIONS, review the Safety Instructions, and refer to figures in main installation instructions where necessary.

1. EXCHANGING EFFECTS DEVICES

Note: Wet location and Pinhole baffle lenses are sealed in place. Consult factory for optional replacement baffle assemblies with alternate lens configurations.

A. Grasp baffle using soft gloves or with clean soft cloth and remove by pulling down *(Fig.29)*.

B. To change lens, carefully push the lens up out of the baffle. Insert preferred lens in proper orientation, and carefully press it into place *(Fig.34)*.

C. To install honeycomb louver, raise it up and clip it into the holder *(Fig.35)*. The holder is not installed on the optic unless fitting is originally specified with the adjustable zoom optic or honeycomb louver. Holder ships with replacement honeycomb louvers and is installed by carefully pushing the holder up and clipping it onto the optic *(Fig.36)*.

D. Push baffle up until just flush with the fitting flange or the finished ceiling plane on trimless applications.

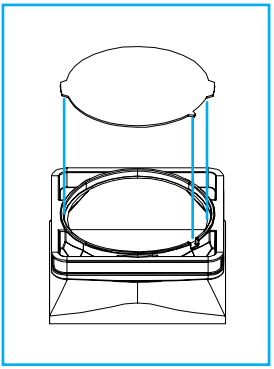


Fig.34

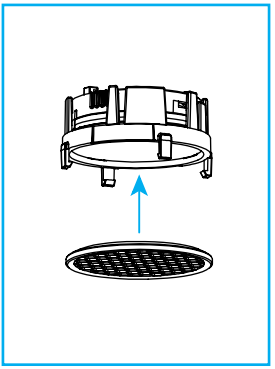


Fig.35

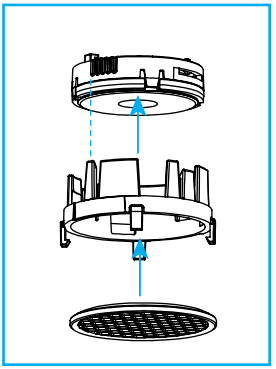


Fig.36

2. EXCHANGING OPTIC

A. Grasp baffle using soft gloves or with clean soft cloth and remove by pulling down *(Fig.29)*.

B. To change optic, carefully grab and twist counter-clockwise to remove and clockwise to secure. Ensure that both feet of optic properly engage LED base.

C. Push baffle up until just flush with the fitting flange or the finished ceiling plane on trimless applications.

3. LED ENGINE REPLACEMENT

A. Grasp baffle using soft gloves or with clean soft cloth and remove by pulling down *(Fig.29)*.

B. Carefully grab the optic and remove it from LED base by twisting counter-clockwise.

C. Carefully pull the LED engine down to release and guide it through fitting aperture.

D. Disconnect the LED engine wiring from the 2-pin lever-nut connectors.

E. Replace with new OEM LED engine assembly sourced through Lucifer Lighting. Attach LED wiring to the corresponding 2-pin lever-nut connectors, Red to Red (+), Black to Black or Blue (-). Raise LED engine into the fitting aperture and push up until it clicks into place.

F. Install optic to LED base by twisting clockwise to secure. Ensure that both feet of optic properly engage LED base.

G. Push baffle up until just flush with the fitting flange or the finished ceiling plane on trimless applications.

4. POWER SUPPLY REPLACEMENT

Caution: Take care to not damage or mar ceiling.

A. Remove LED engine.

B. On flanged installations remove the fitting assembly using the supplied tool *(Fig.37),* reference section E.1.

C. Power supply is accessed through ceiling cutout, pull on sleeved wires.

D. Rotate power supply as required to facilitate guiding down and through ceiling cutout.

E. Disconnect structured building wiring from power supply.

F. Replace with OEM power supply sourced through Lucifer Lighting. Connect structured building wiring to power supply terminals.

G. Guide power supply back through ceiling cutout and place atop ceiling.

H. Install trim assembly if removed using the supplied tool *(Fig.37),* reference section E.1.

I. Attach LED wiring to the corresponding 2-pin lever-nut connectors, Red (+), Black or Blue (-). Raise LED engine into the fitting aperture and pushup until it clicks into place.

J. Push baffle up until just flush with the fitting flange or the finished ceiling plane on trimless applications.

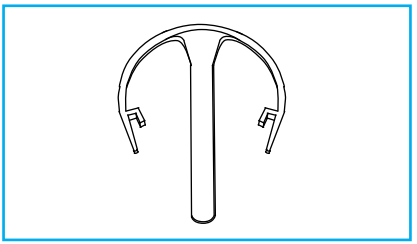


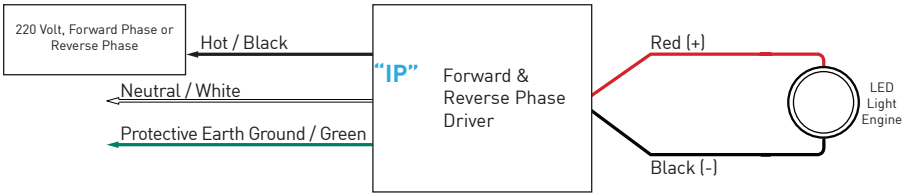
Fig.37

L. DRIVER WIRING DETAIL

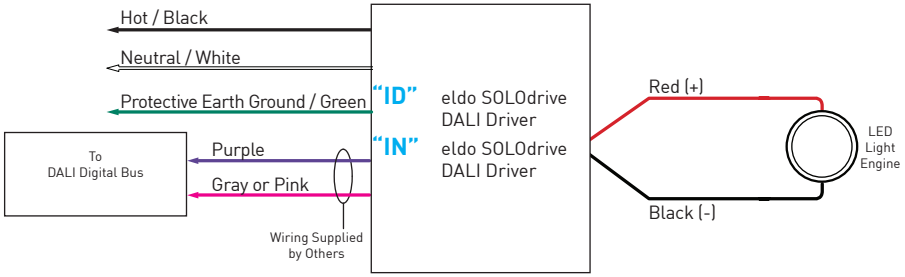
GENERAL WIRING NOTES

1. Consult approved dimmer list to ensure compatibility.
2. Install in accordance with manufacturer's dimmer installation guidelines.
3. Secondary connections are polarity sensitive.

WIRING DIAGRAM FOR LINE DIMMING



WIRING DIAGRAM FOR DIGITAL CONTROL



Please consult website for full warranty terms and conditions:
www.luciferlighting.com/warranty

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