

Intervals™

Assembly Instructions
instructions d'installation

SONNEMAN®
A WAY OF LIGHT

Intervals™ Product Information and Warnings

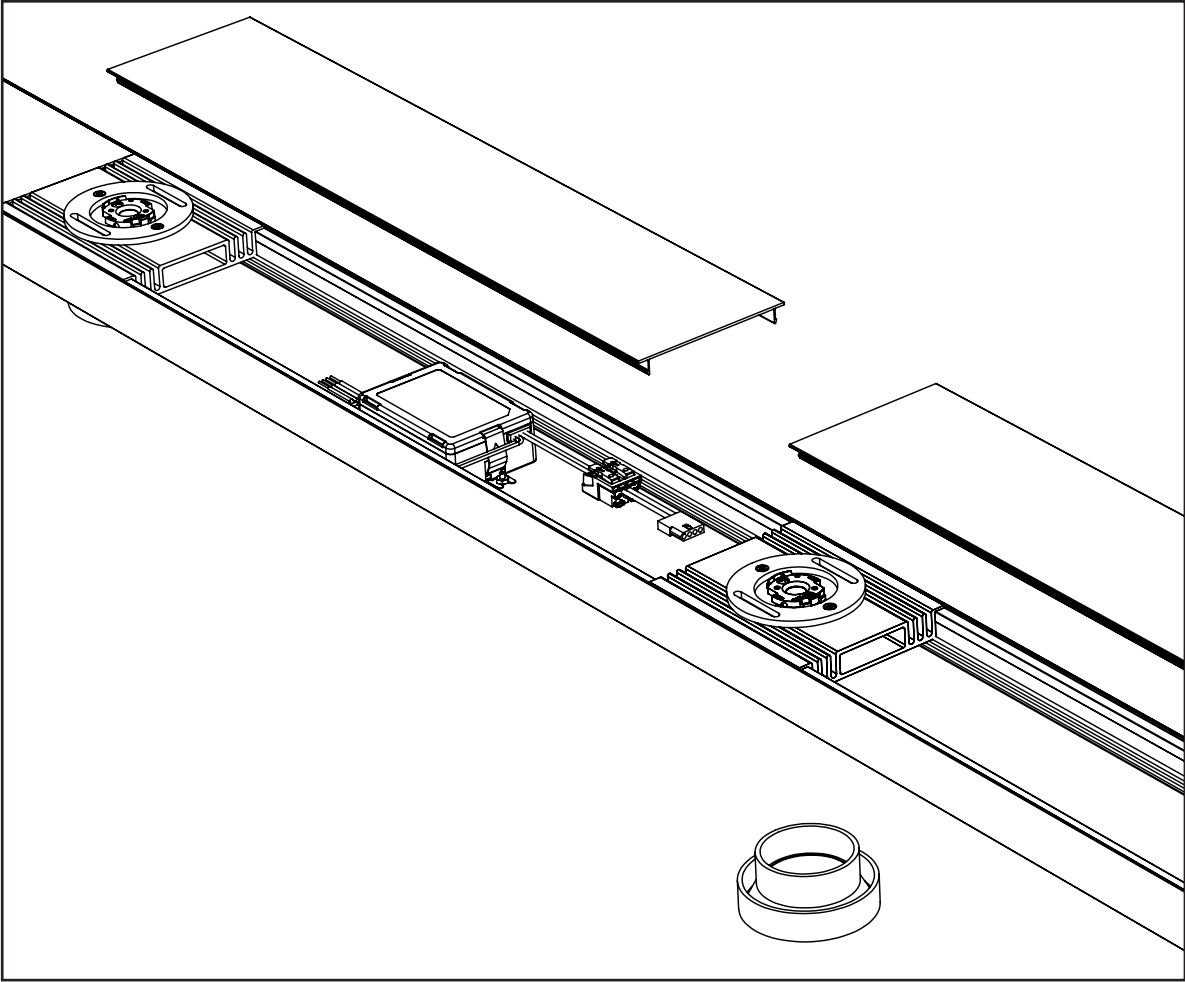
Important

- **Always disconnect the power before installing or replacing Luminaires and before cleaning or other maintenance.**
- **Consult a qualified, licensed electrician to ensure correct branch circuit conductor.**
- Please read all included assembly instructions and warnings carefully before installation. Contact Customer Service if you have any questions or concerns. Before installation, please confirm that the fixture is compatible with your supply voltage and dimming system, if present.
- LEDs are highly sensitive electronic devices, and must be treated with care. Do not open any factory sealed compartments, and avoid touching the LEDs with your hands or any object.
- Although all our fixtures are equipped with protective devices, LED electronic systems are vulnerable to power surges and supply variations. Do not install LED fixtures on the same circuit as any motors, appliances, or HVAC systems.
- Do not remove or bypass any LED Driver that is provided with the fixture, and do not replace or substitute with another power supply.
- All factory-made splices and connections must remain intact. LED circuits are carefully designed and built, and improper connections may damage the fixture.
- Any mounting hardware is provided for your convenience and should be used with discretion. Always use the appropriate hardware for the mounting surface.
- Intervals fixture pass-through and power feed wiring is 18 AWG. Take care not to overload the conductors based on the wattage of your system configuration.
- Intervals hanger connectors form rigid connections between the beams, and so they must be suspended at equal heights in order to balance the load on the suspension points.

Index and Suggested Assembly Order

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Component Assembly

Intervals™ - Cable and Cord Power Feed Assembly

Assembly Instructions

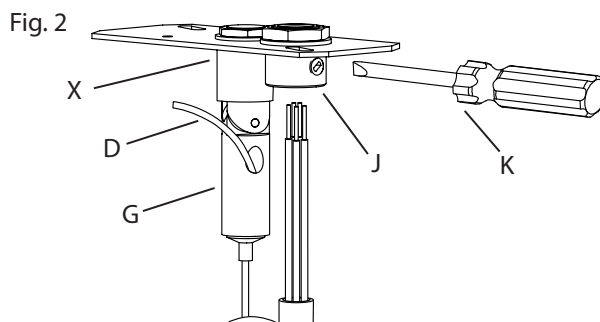
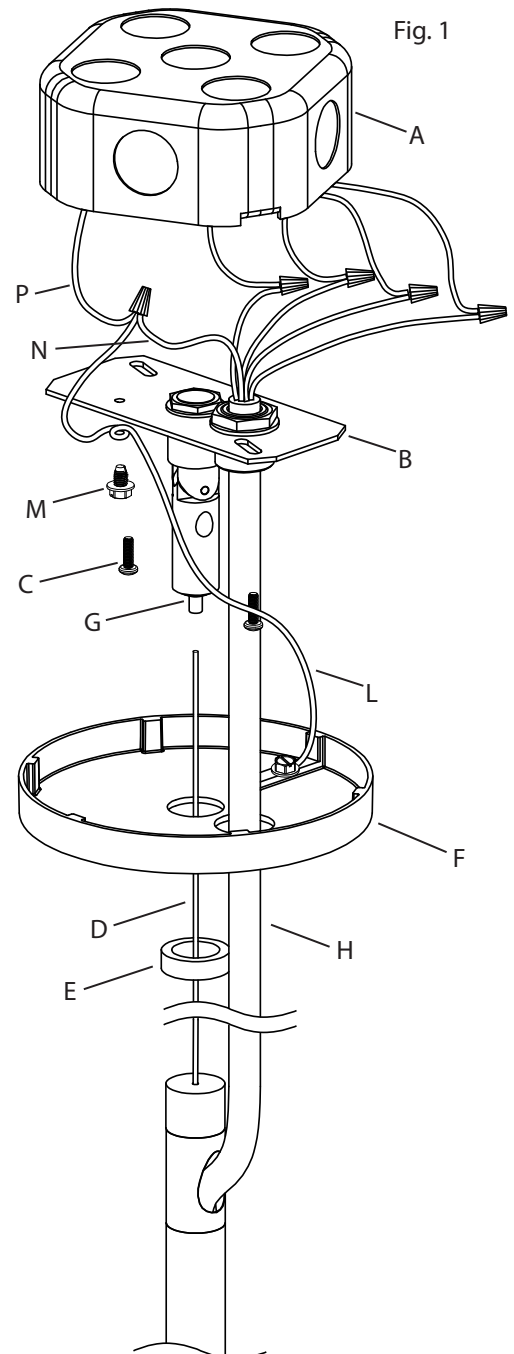
INSTRUCTIONS D'INSTALLATION

Important

- Always disconnect the power before installing or replacing bulbs and before cleaning or other maintenance.
- Consult a qualified, licensed electrician to ensure correct branch circuit conductor.
Consulter un électricien qualifié pour vous assurer que les conducteurs de la dérivation sont adéquats.

How to install and make electrical connection from riser and hanger to outlet box:

1. Shut off power to the outlet box (A) (Fig. 1).
2. Secure crossbar (B) to the outlet box (A) using screws (C) provided.
3. Install the riser stem to the hanger per the instructions on page 8 (Cable Suspension Assembly), and install the power cord per the instructions on page 10 (Installing the Power Cord).
4. Insert cable (D) through canopy nut (E) then through center hole on canopy (F) and secure to cable gripper (G) (Fig.2) by depressing tip while inserting cable.
5. Adjust cable (D) to desired length (Fig. 2):
 - a. To shorten, push the cable up into tip and release to desired length.
 - b. To lengthen, push tip of gripper (G) in and pull down on cable, then release tip to lock cable in position.
6. Pass cord (H) through second hole on canopy (F) and cut to desired length plus 6" and prepare wires for connecting to branch circuit.
7. Pass wires and cord through bushing (J) (Fig. 2) and secure using screwdriver (K) provided.
8. Make appropriate electrical connections using wire nuts:
 - a. Connect the center of the canopy (F) ground wire (bare copper) (L) to the crossbar (B) using the green screw (M), then connect the fixture ground wire (green) (N) to the canopy ground wire and outlet box ground wire (if present) (P).
 - b. Connect the live wire (black) to the live outlet box wire.
 - c. Connect the neutral wire (white) to the neutral outlet box wire.
 For 0-10v Dimming:
 - d. Connect the positive (+) dimmer wire (purple) to the (+) dimmer outlet box wire, otherwise cap off the wire with a wire nut.
 - e. Connect the negative (-) dimmer wire (grey) to the (-) dimmer outlet box wire, otherwise cap off the wire with a wire nut.
 - f. Carefully place connections in outlet box.
9. Cut-off excess cable (D) then secure canopy (F) to cable gripper body (G) (Fig. 2) by screwing on canopy nut (E) (Fig. 1).
10. Once all assembly steps have been completed for your Intervals configuration, install the upright trims per the instructions on page 18-20 then restore power to the outlet box (A).



Intervals™ - Stem Power Feed Assembly

Assembly Instructions

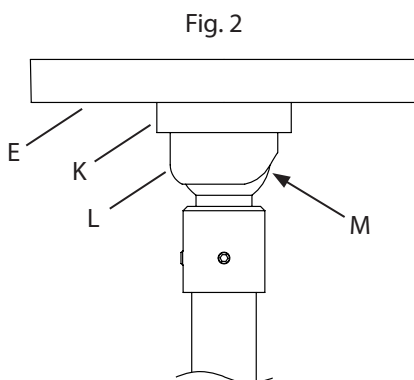
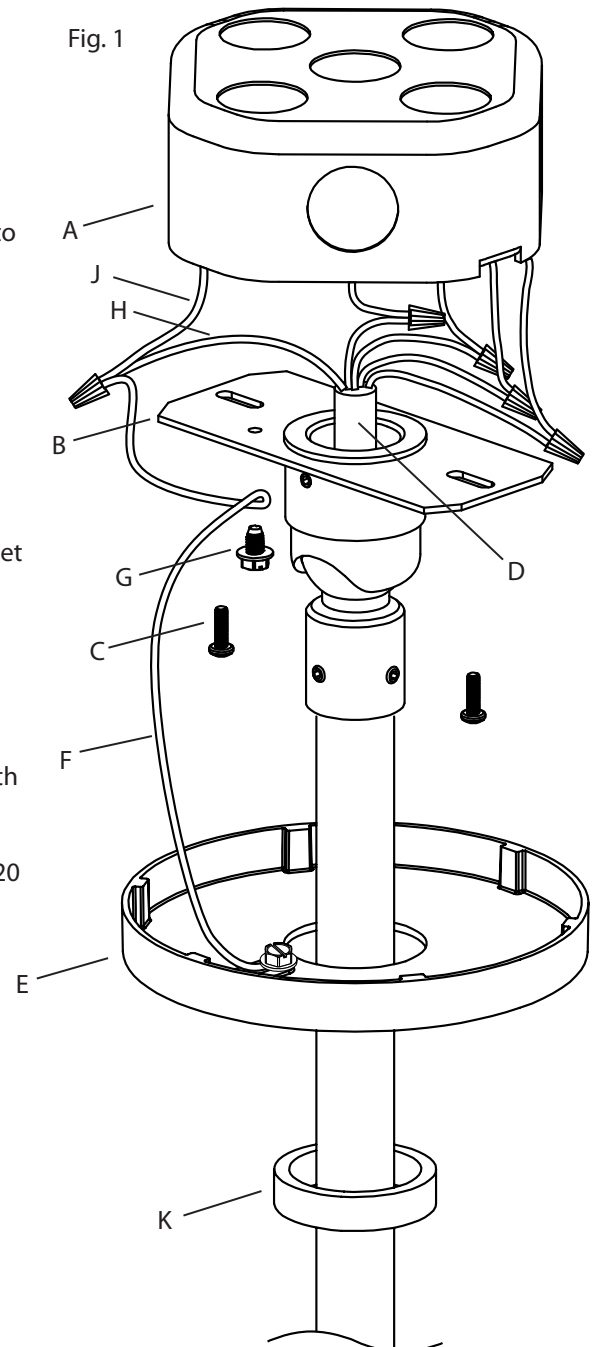
INSTRUCTIONS D'INSTALLATION

Important

- Always disconnect the power before installing or replacing bulbs and before cleaning or other maintenance.
- Consult a qualified, licensed electrician to ensure correct branch circuit conductor.
Consulter un électricien qualifié pour vous assurer que les conducteurs de la dérivation sont adéquats.

How to install and make electrical connections from stem and hanger to outlet box:

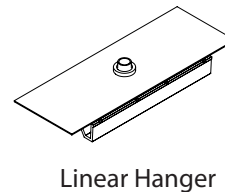
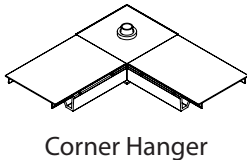
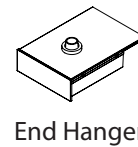
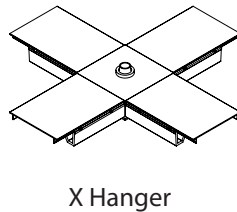
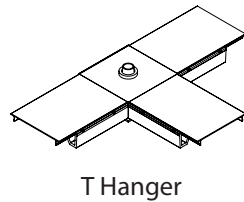
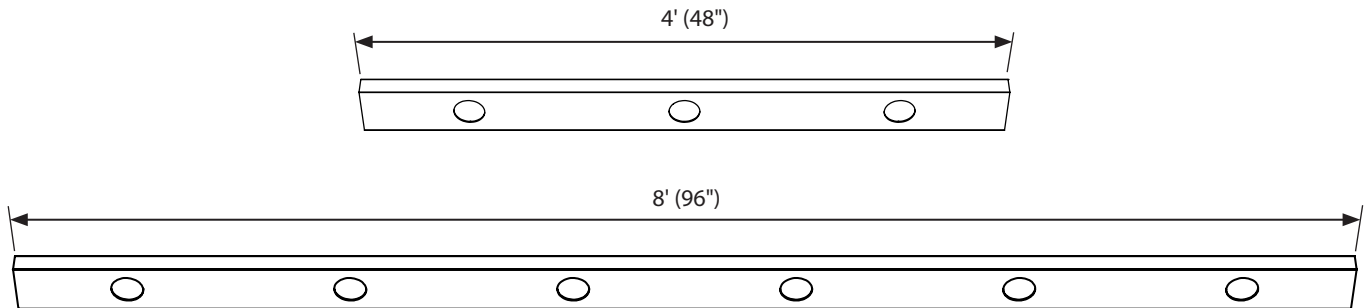
1. Shut off power to the outlet box (A) (Fig. 1).
2. Secure crossbar (B) to the outlet box (A) using screws (C) provided.
3. Per instructions on page 9 (Stem Suspension Assembly), assemble the stem to the hanger and, if necessary, adjust length of stem.
4. Per instructions on page 10 (Installing the Power Cord), install the power cord (D) to the stem power feed.
5. Cut cord (D) to desired length plus 6", and prepare wires for connecting to branch circuit.
6. Make appropriate electrical connections using wire nuts:
 - a. Connect the center of the canopy (E) ground wire (bare copper) (F) to the crossbar (B) using the green screw (G), then connect the fixture ground wire (green) (H) to the canopy ground wire and outlet box ground wire (if present) (J).
 - b. Connect the live wire (black) to the live outlet box wire.
 - c. Connect the neutral wire (white) to the neutral outlet box wire.
- For 0-10v Dimming:
 - d. Connect the positive (+) dimmer wire (purple) to the (+) dimmer outlet box wire, otherwise cap off the wire with a wire nut.
 - e. Connect the negative (-) dimmer wire (grey) to the (-) dimmer outlet box wire, otherwise cap off the wire with a wire nut.
 - f. Carefully place connections into outlet box.
7. Mount canopy (E) by screwing canopy nut (K) onto mounting collar (L) (Fig. 2).
8. If applicable, rotate mounting collar (L) clockwise to align notch (M) with slope of ceiling.
9. Once all assembly steps have been completed for your Intervals configuration, install the upright trims per the instructions on page 18-20 then restore power to the outlet box (A).



Intervals™ - Configuration of Suspension Locations

How to determine spacing for suspension locations:

1. Consult site plan for branch circuit outlet box location.
2. Refer to the chart below for your hanger and beam types to determine distances between suspension drop points.
3. Measure and mark on ceiling, starting at the branch circuit outlet box, the suspension drop points in your Intervals configuration.



Hanger Type Combinations	Suspension Spacing	
	4' Beam	8' Beam
End Hanger + Beam + End Hanger	44"	92"
End Hanger + Beam + Linear Hanger	46"	94"
End + Beam + Corner, T or X Hanger	48"	96"
Linear Hanger + Beam + Linear Hanger	48"	96"
Linear Hanger + Beam + Corner, T or X Hanger	50"	98"
Corner, T or X Hanger + Beam + Corner, T or X Hanger	52"	100"

Intervals™ - Cable Suspension Assembly

How to assemble and install cable suspension, and connect to a hanger:

1. Determine suspension drop locations, disassemble base (A) from cable gripper assembly and secure to mounting surface using appropriate fastener (B) (Fig 1) for ceiling type. **CAUTION: Customer is responsible for ensuring appropriate ceiling construction to support the weight of the fixture.**
2. Reassemble cable gripper (C) by screwing onto base (A) until tightened. **Note:** If applicable, align the swing direction of the cable gripper with the slope of the ceiling by rotating the base clockwise.
3. Secure riser (G) (Fig. 1) or (K) (Fig. 3) to nipple (H) on hanger (J). **Note:** Refer to your Intervals configuration for hanger type.
4. After connecting the hanger (J) to a beam per page 12 (Beam To Hanger Assembly), secure cable (D) to cable gripper (C) by depressing tip while inserting cable. Continue pushing cable into gripper until desired hang height is reached. **NOTE:** To reduce hang height, push-in cable gripper tip and pull down on the cable. Release tip to lock cable in position. Cut-off remaining excess cable (Fig. 2) and discard.

Fig. 1

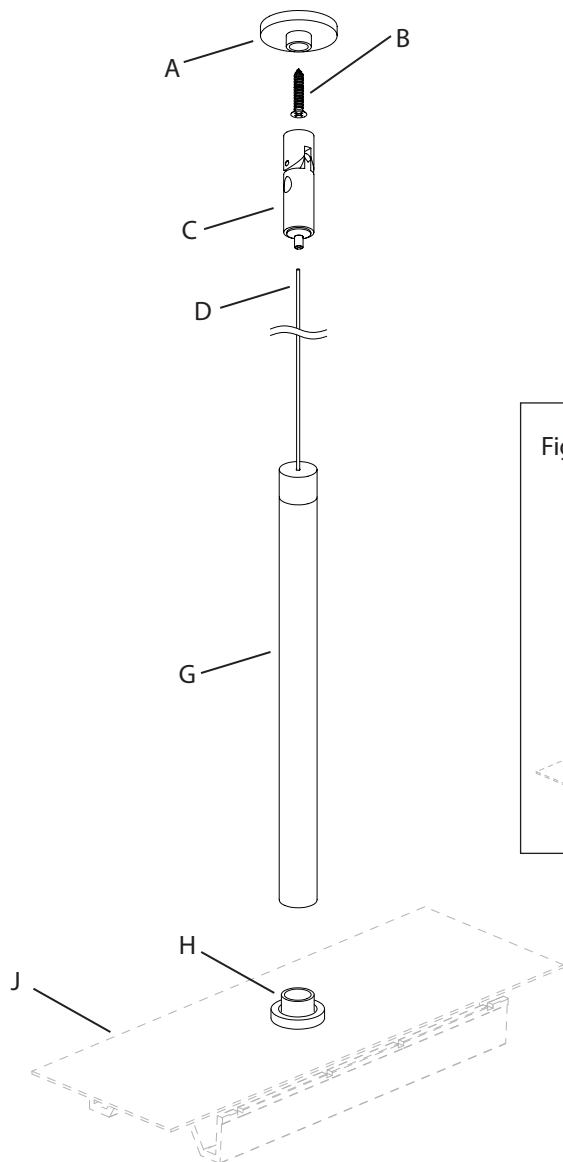


Fig. 2

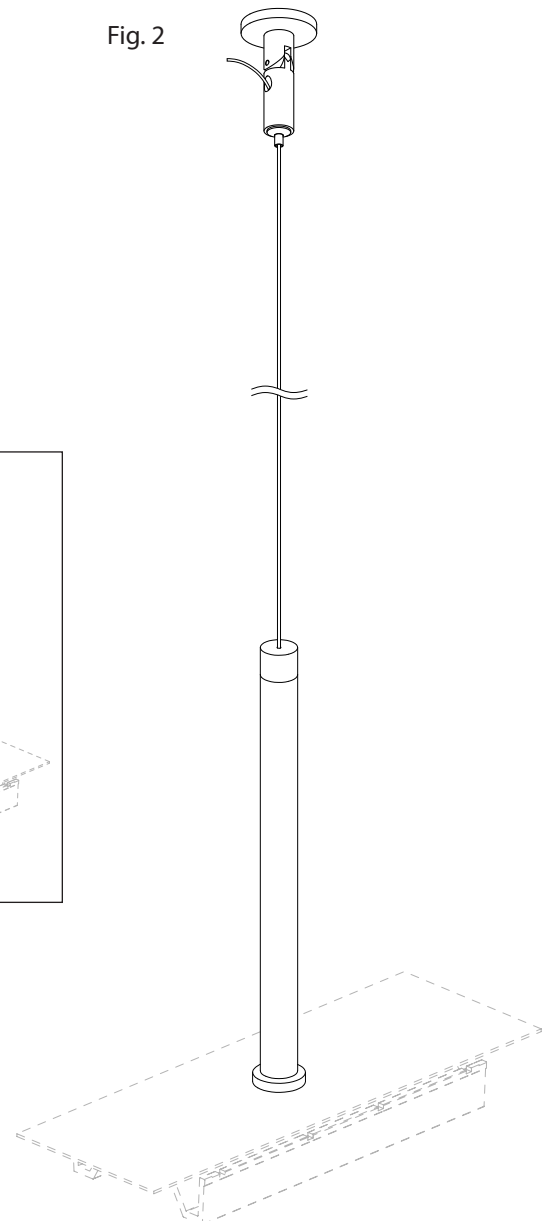
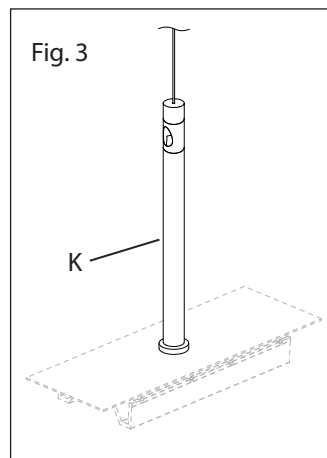


Fig. 3



Intervals™ - Stem Suspension Assembly

How to assemble and install stem suspension, and connect to a hanger:

1. Determine suspension drop locations, disassemble base (A) from swivel assembly and secure to mounting surface using appropriate fastener (B) (Fig 1) for ceiling type. **CAUTION: Customer is responsible for ensuring appropriate ceiling construction to support the weight of the fixture.**
2. For field cutting stem, if necessary, reduce stem (C) length by cutting-off length from the non-threaded **top of stem**:
 - a. Disassemble stem (C) (Fig. 1) from neck of ball mount (D) by loosening two (2) short set screws (E) and one (1) long set screw (F). After reducing stem length, drill hole **3/16" diameter** 1/2" from top of stem (Fig. 1).
 - b. Reassemble stem (C) to ball mount (D) by aligning long set screw with **3/16" diameter set screw lock hole** on stem, then using hex wrench (G) provided, screw-in long set screw (F) until it is through hole in stem (Fig. 3). Tighten remaining 2 short set screws (E).
3. Securely screw bottom of stem (C) onto nipple (H) on hanger (J). **Note:** Refer to your Intervals configuration for hanger type.
4. After connecting the hanger (J) to a beam per page 12 (Beam To Hanger Assembly), securely screw mounting collar (K) onto base (A) and, if applicable, align **notch** in mounting collar with slope of the ceiling by rotating base in clockwise direction.

Fig. 1

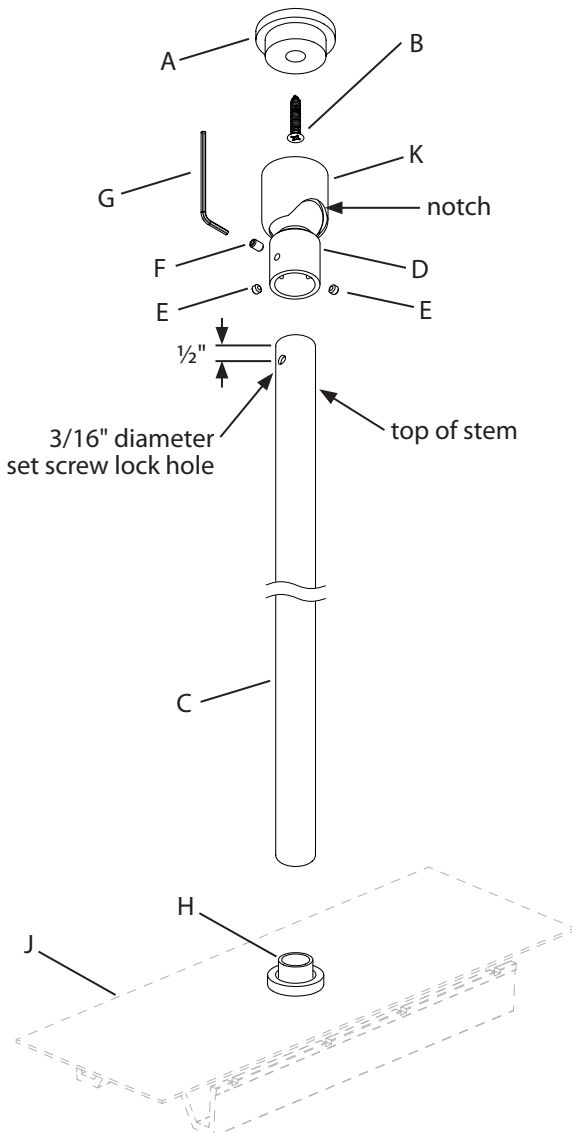


Fig. 2

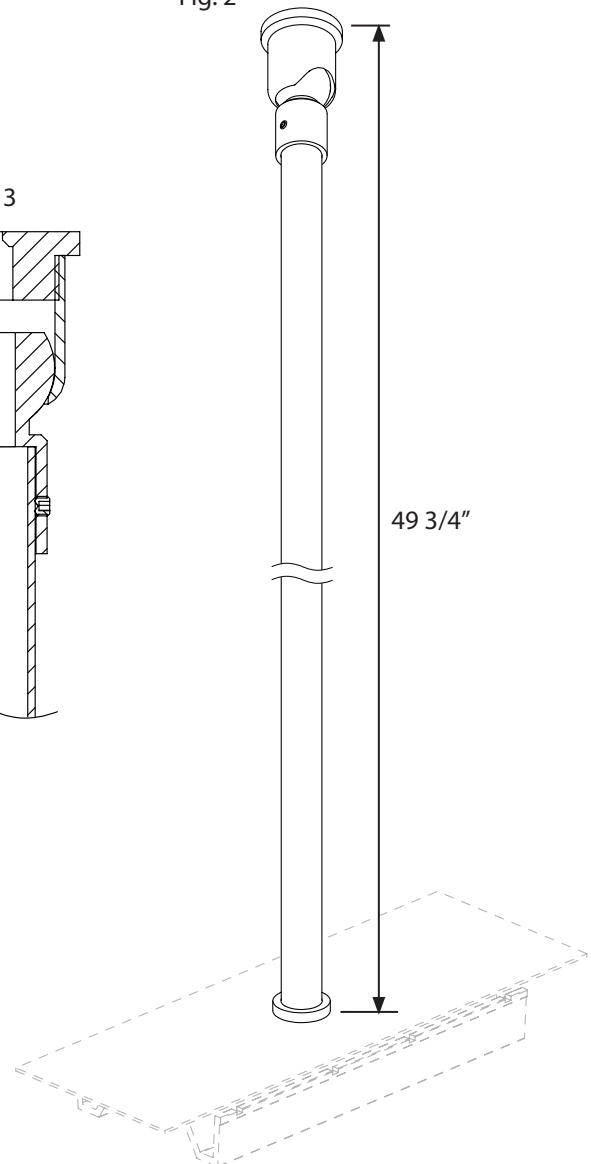
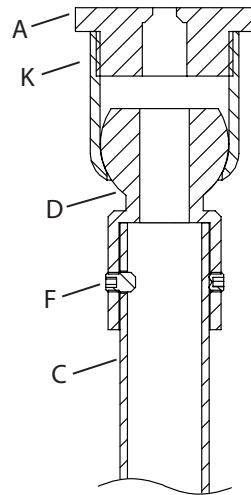


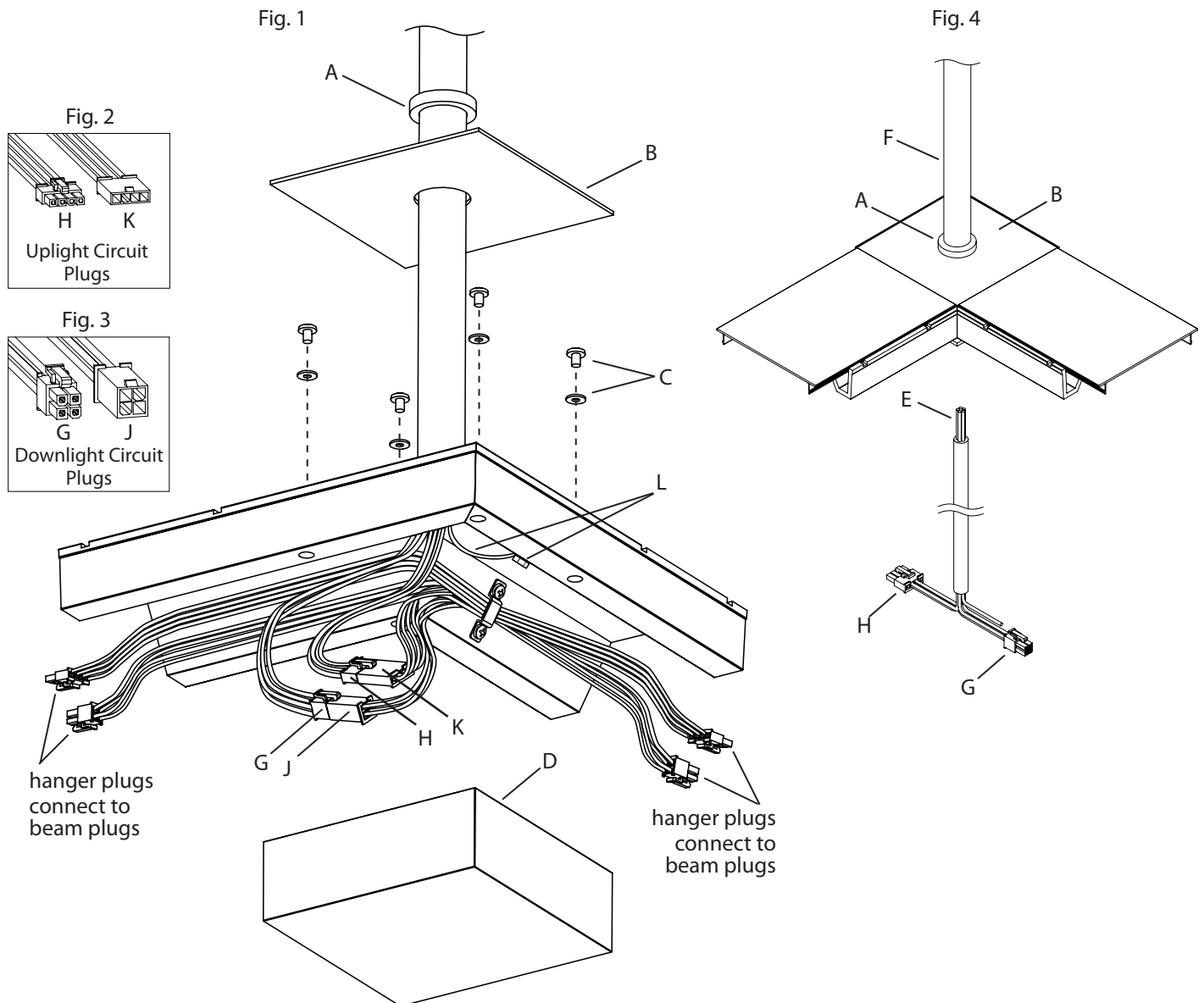
Fig. 3



Intervals™ - Installing the Power Cord

How to install and connect power cord to Corner, T, and X hangers (for Linear and End Hangers skip steps 1 and 4):

1. **For Corner, T and X hangers:** With suspension assembly secured to hanger (refer to pg. 8 or 9), remove bottom cover on hanger to access harness plugs:
 - a. Unscrew riser nut (A) and rotate hanger top plate (B) until four (4) screws and washers (C) inside hanger are exposed.
 - b. Unscrew four (4) screws and washers (C) and remove bottom cover (D). Set screws, washers and cover aside.
2. Pass end of cord (E) (Fig. 4) through hole in hanger bottom and into riser stem (F) until cord plugs (G) (H) can reach hanger harness plugs (J) (K) (Fig. 1).
3. Secure green ground wire to hanger using green screw (L) (Fig. 1). For powering and controlling uplights and downlights on a single circuit: Connect the uplight plugs (H, K), (Fig. 1, 2), and the downlight plugs (G, J), (Fig. 1, 3). For powering and controlling uplights and downlights on two independent circuits: connect either the uplight or downlight plugs, as desired for this circuit; repeat with the other plugs on the second power feed. **For End Hanger Power Feed:** The power cord plugs connect directly to the beam plugs.
4. **For Corner, T and X hangers:** re-attach bottom cover (D) using four (4) screws and washers (C) set aside from step 1, then reposition hanger top plate (B) onto hanger body and secure with riser nut (A).



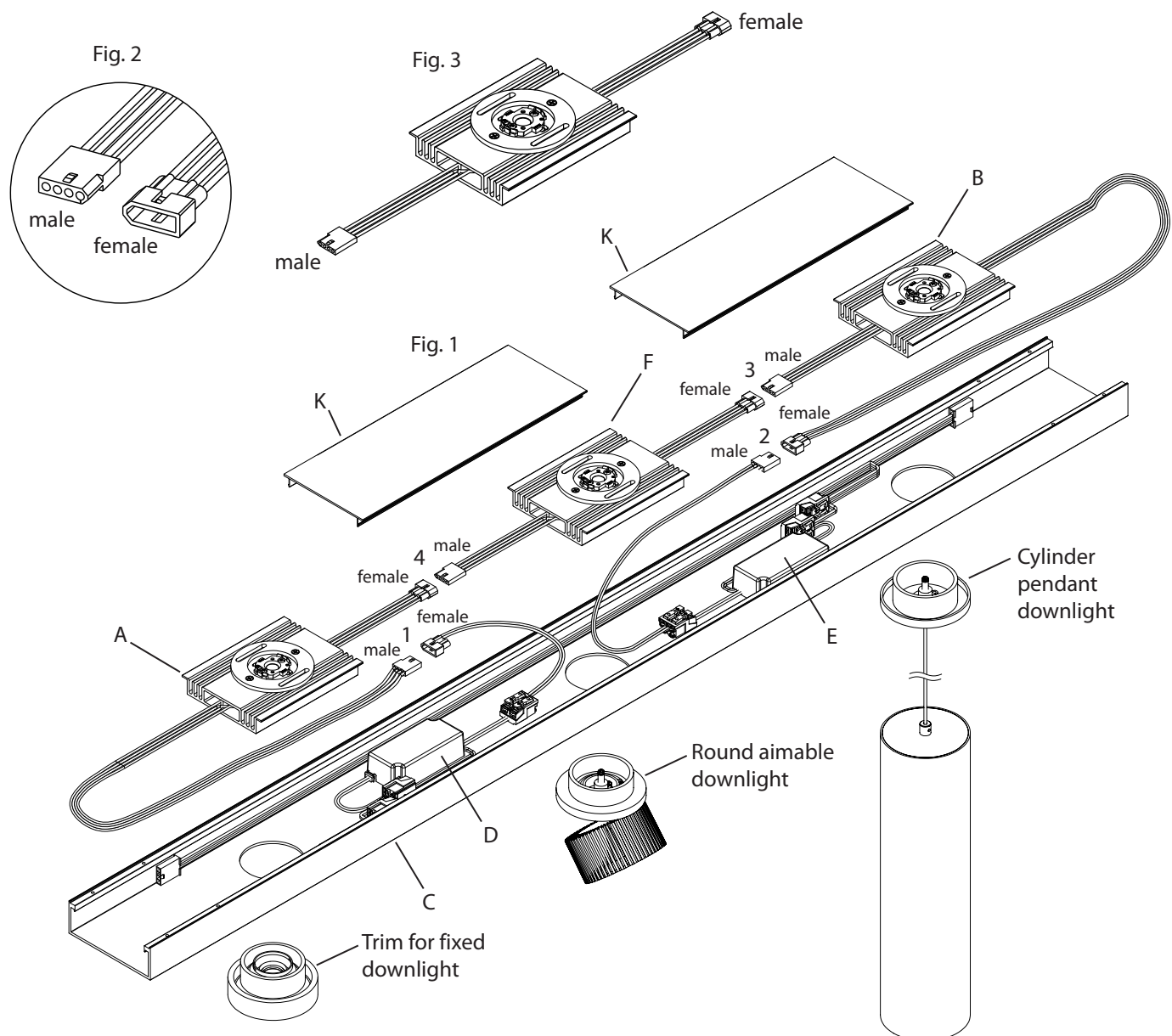
Intervals™ - Light Engine to Beam Assembly

How to mount light engines to beam, connect drivers, and add covers:

- Place light engines (A & B) at each end of beam (C) (Fig. 1) with male and female plugs (1 & 2) aligned for connecting:
 - Connect male/female plugs (1) from light engine (A) to driver (D) if present (Fig. 1).
 - Connect male/female plugs (2) from light engine (B) to driver (E) if present (Fig. 1).
 - Continue adding remaining light engines (F) with male/female plugs (3 & 4) aligned, then connect plugs.
- Secure each light engine according to the assembly instructions for the applicable downlight type: **fixed downlight** (pages 13); **round aimable downlight** (page 16); **cylinder pendant downlight** (page 17).

Note: Do not fully tighten until all light engines have been mounted onto beam and covers have been installed.

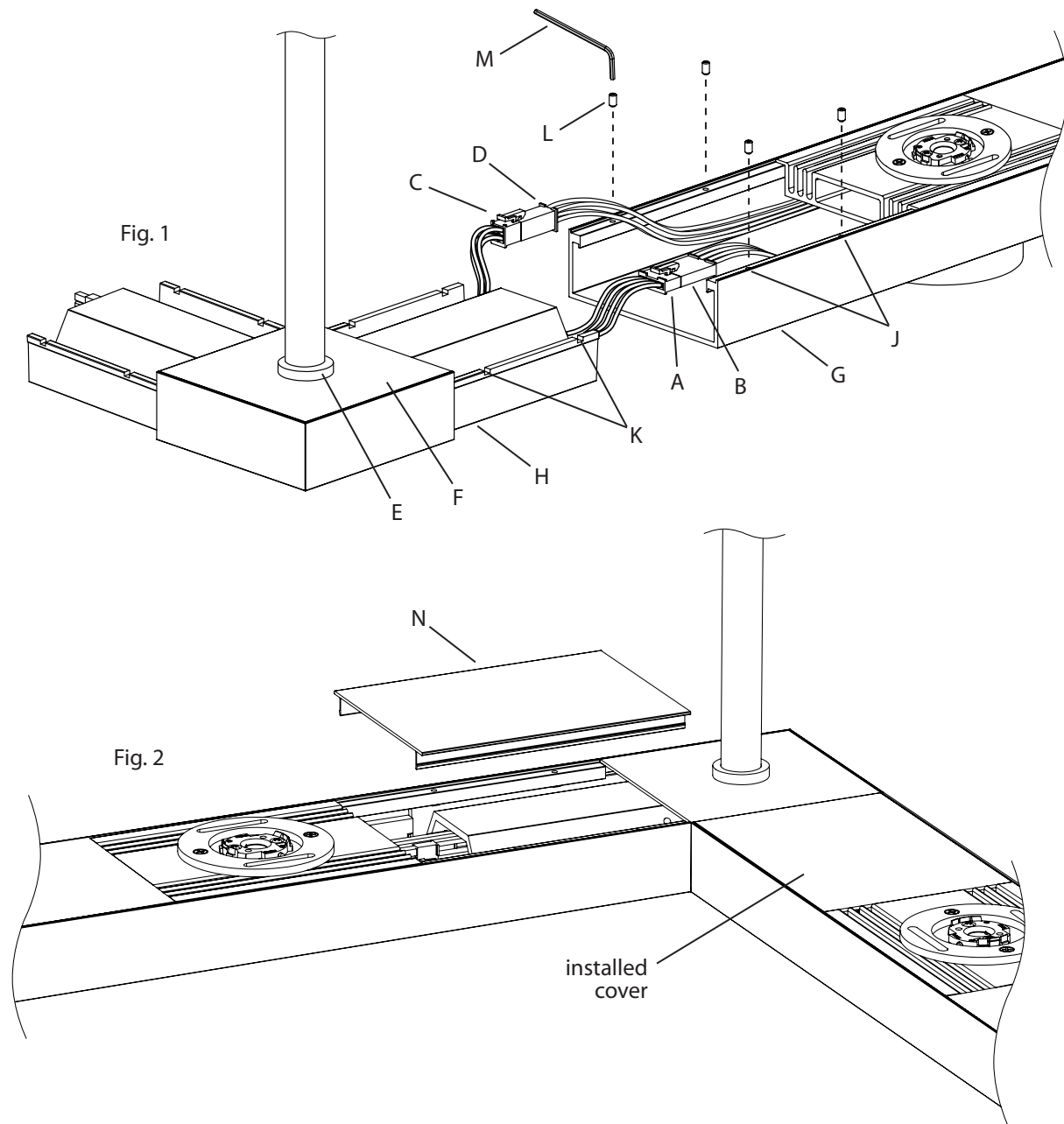
- Attach covers (K) between light engines by placing bottom edges onto beam, then firmly press down until cover snaps into place. **NOTE:** It may be necessary to adjust positions of light engines for covers to fit.
- Finish securing the light engines by hand tightening.



Intervals™ - Beam to Hanger Assembly

How to fasten beam to hanger, connect plugs, and add covers:

1. Connect uplight circuit plug (A) to beam uplight circuit plug (B) (Fig. 1) and connect downlight circuit plug (C) to beam downlight circuit plug (D).
2. For Linear and End hanger types: unscrew riser nut (E) and lift hanger cover (F), before connecting plugs. Slide beam (G) fully onto hanger extension (H), or until threaded holes (J) align with set screw notches (K) on hanger extension (Fig.1).
3. Screw four (4) set screws (L) into threaded holes (J) on beam using provided hex wrench (M) until each set screw is fully recessed into its hole.
4. For C, T, and X hanger types: attach cover (N) between light engines and hanger by placing bottom edges onto beam, then firmly press down until cover snaps into place (Fig. 2). For Linear and End hanger types: reinstall the hanger cover (F) and secure with riser nut (E). **NOTE:** It may be necessary to adjust positions of light engines for covers to fit.



Intervals™ - Installing Round Fixed Downlight Trims

How to attach round fixed downlight trim types to beam (Refer to below list of trim options):

1. Place lens (A) into trim neck (B) (Fig. 1), then screw neck onto light engine mounting nut (C) (Fig. 2).

Applies to the following round downlight trims:

- | | | |
|----------------------------|------------------------------------|--------------------------|
| A Round Bezel | GB Snoot w/Etched Ring | JA Bell Reflector |
| C Etched Cylinder | GC Tall Snoot w/Etched Ring | JB Etched Bell |
| DA Round Snoot | HA Clear Ribbon | KA Cone Reflector |
| DB Round Tall Snoot | HB Etched Ribbon | KB Etched Cone |
| GA Etched Ring | | |

Fig. 1

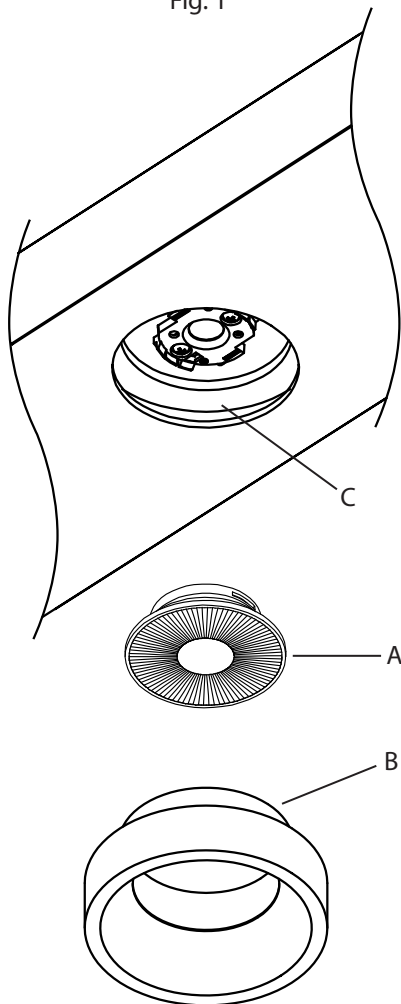


Fig. 2

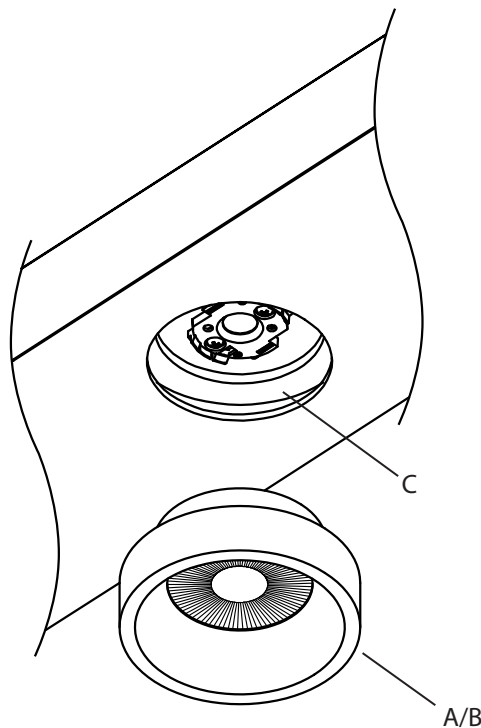
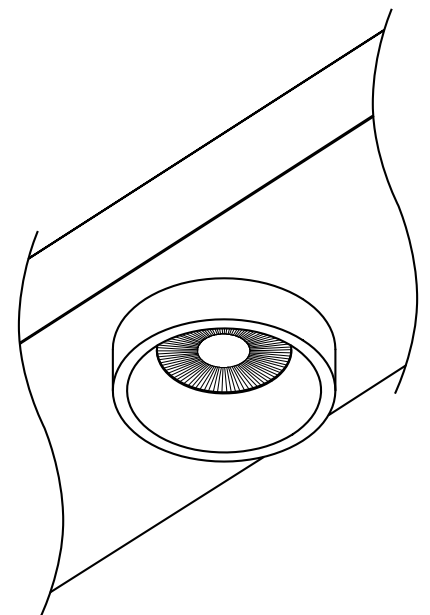


Fig. 3



Intervals™ - Installing Round Wall Washer Trim

How to attach round wall wash trim to beam:

1. Place lens (A) into trim neck (B) (Fig. 1), then screw neck onto light engine mounting nut (C) by the collar (D) (Fig. 2 & 3) until tightened.
2. To aim light, hold the collar (D) and rotate reflector (E) (Fig. 4) until light is reflecting onto desired location.

Fig. 1

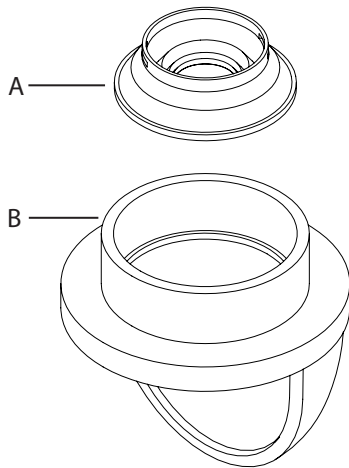


Fig. 2

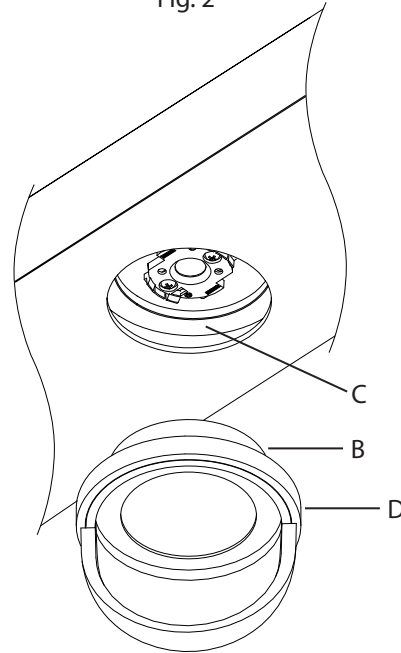


Fig. 3

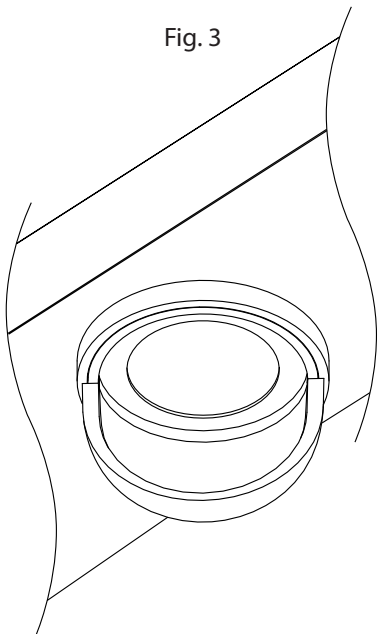
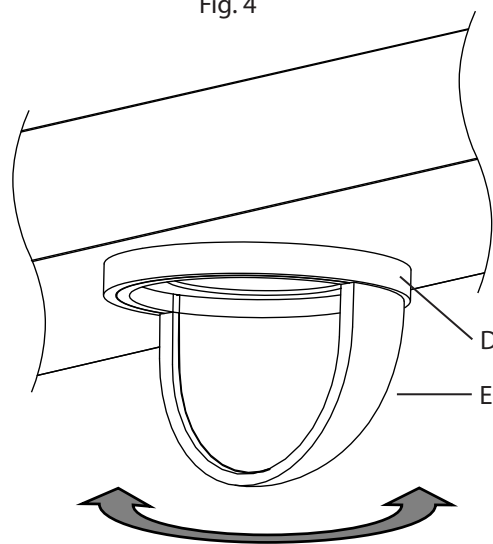


Fig. 4



Intervals™ - Installing Square Downlight Trims

How to attach square downlight trims to beam:

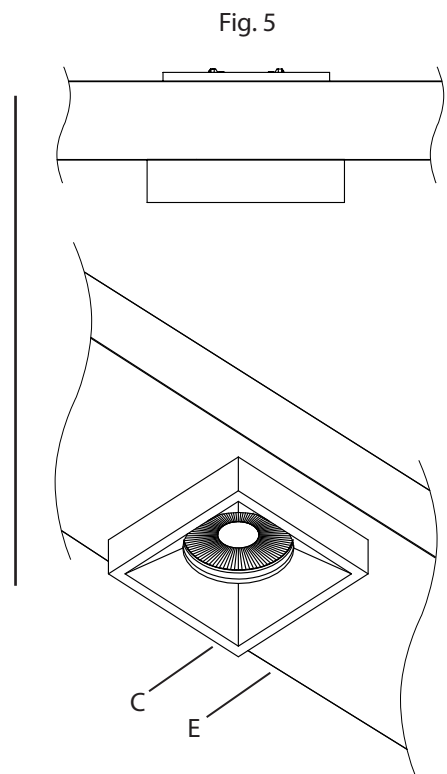
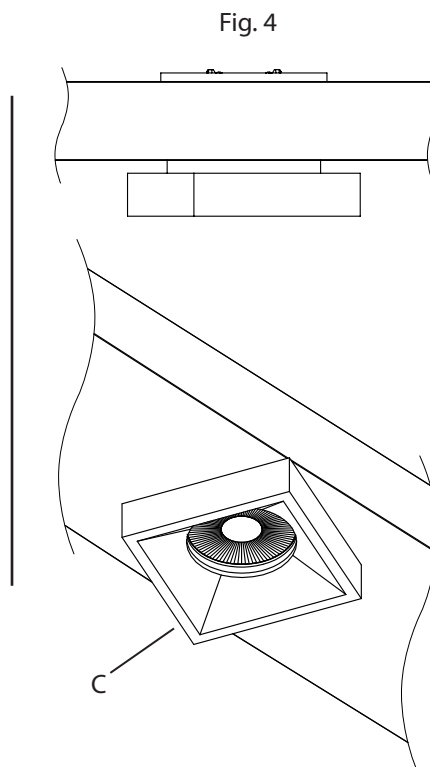
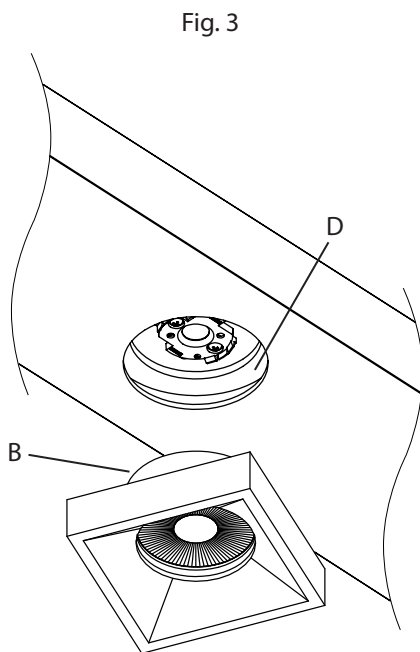
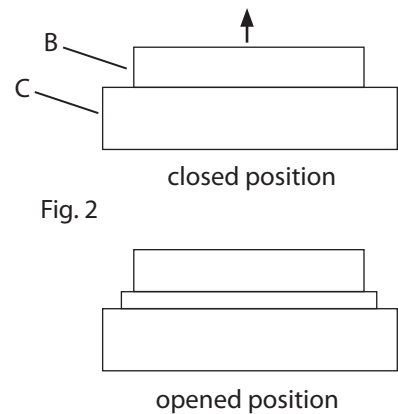
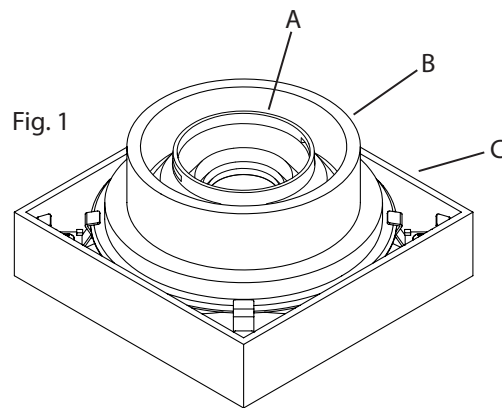
1. Insert lens (A) into trim neck (B) (Fig. 1), then hold trim body (C) and pull neck outward until extend into opened position (Fig. 2).
2. Insert trim neck (B) through hole on beam (Fig. 3) and screw onto mounting nut (D) on light engine until tightened (Fig. 4).
3. Rotate trim body (C) counter-clockwise until aligned with sides of beam (E) (Fig. 4 & 5), then push trim body upward into closed position on beam.

Applies to the following square downlight trims:

FA Square Bezel

FD Square Snoot

FE Square Wall Washer

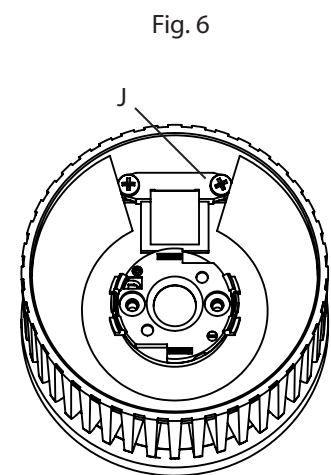
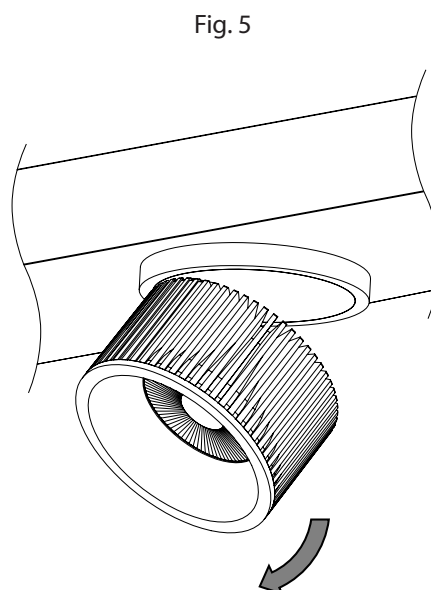
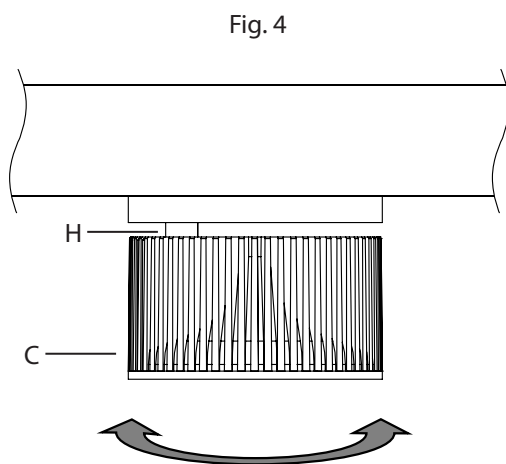
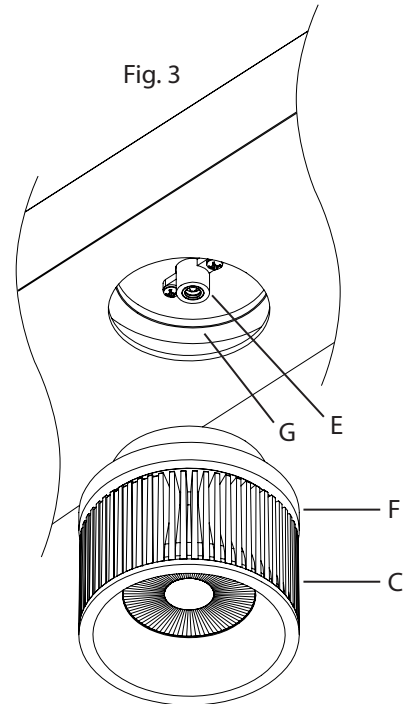
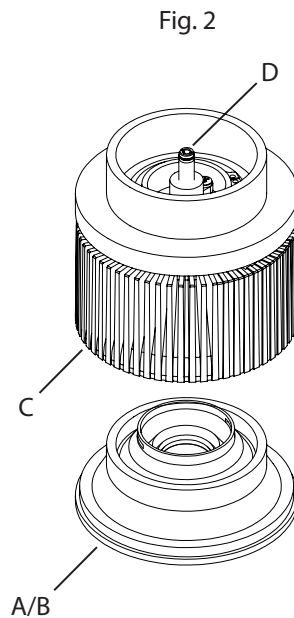
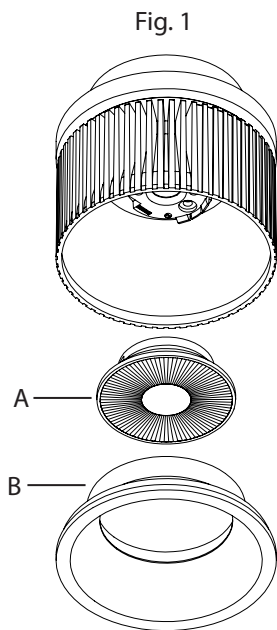


Intervals™ - Installing Round Aimable Downlight

How to attach aimable downlight trim to beam:

1. Place lens (A) into trim neck (B) (Fig. 1), then screw trim onto lower body (C) (Fig. 2).
2. Align jack receptacle (D) (Fig. 2) with jack plug (E) (Fig. 3) on light engine, then by holding upper body (F) screw onto mounting nut (G) on light engine until tightened.
3. To aim light, hold the upper body (F) while rotating the lower body (C) until hinge (H) is pointing in the desired light direction (Fig. 4), then swing down lower body to desired angle (Fig. 5).

Note: If hinge (H) becomes loose, remove the trim (B) and tighten the two hinge screws (J) using a philips screw driver (Fig. 6), then reinstall the trim.



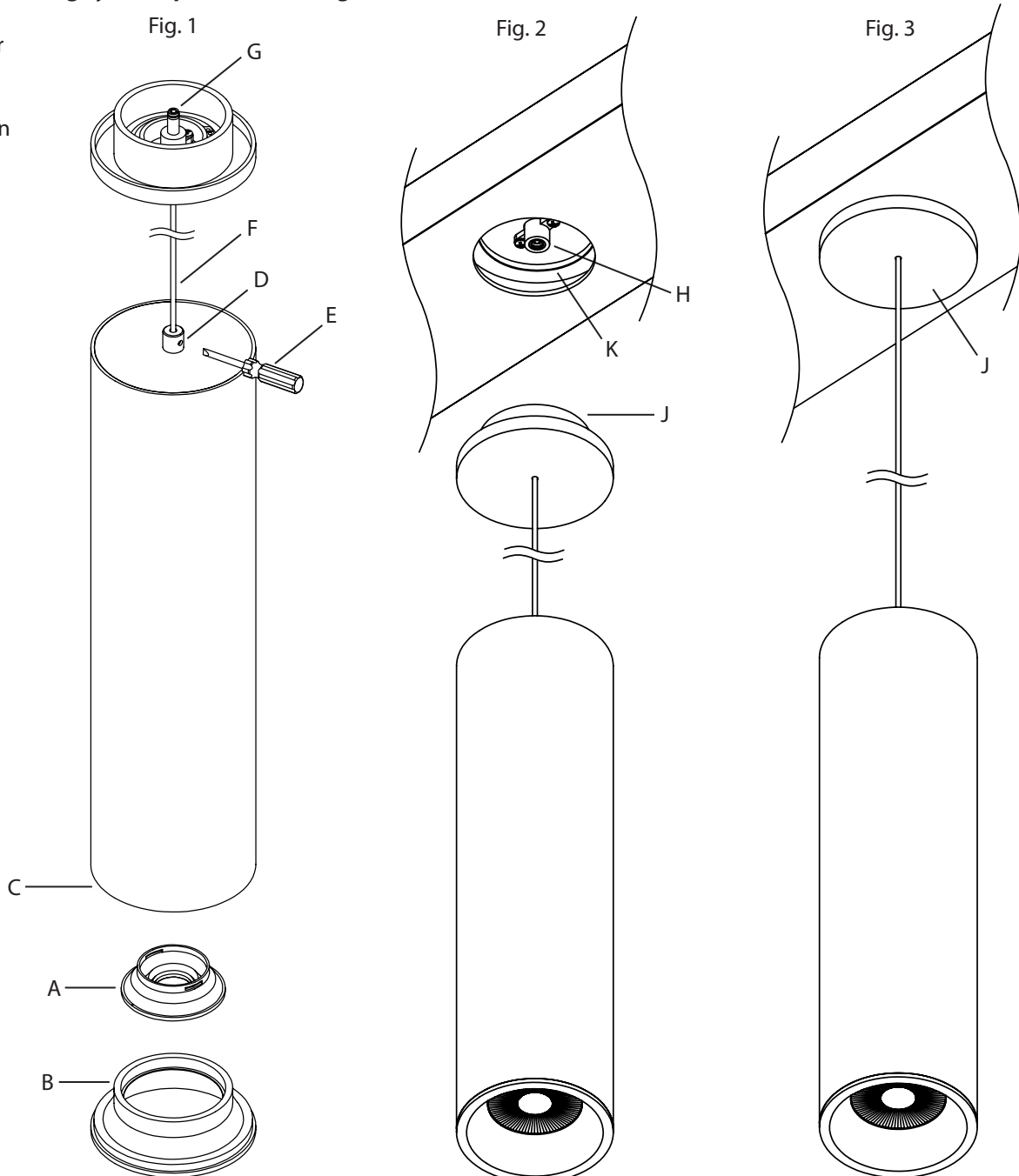
Intervals™ - Installing Cylinder Pendant Downlight

How to attach downlight pendant to beam:

1. Place lens (A) into trim neck (B), then screw trim onto bottom of pendant lower body (C) (Fig. 1).
2. If necessary, adjust hang height of pendant:
 - a. Loosen set screw in bushing (D) (Fig. 1) using screwdriver (E) supplied until cord (F) is loose.
 - b. Push cord (F) into bushing until desired cord length is reached, then tighten bushing set screw (D).
3. Align jack receptacle (G) (Fig. 1) with jack plug (H) (Fig. 2) on light engine, then by holding upper body (J), screw onto mounting nut (K) on light engine until tightened (Fig. 3).

Applies to the following cylinder pendant downlight trims:

- A Round Bezel
- C Etched Cylinder
- DA Round Snoot
- HA Clear Ribbon
- HB Etched Ribbon



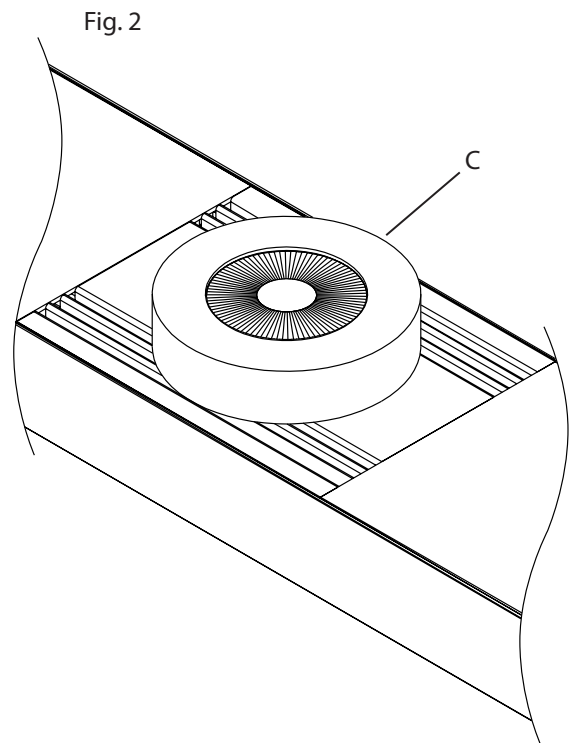
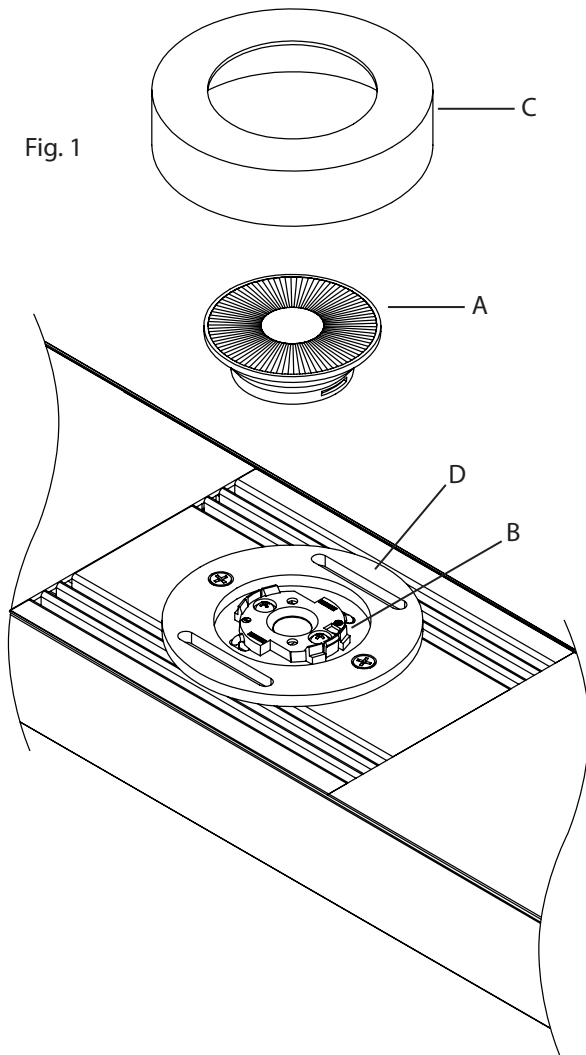
Intervals™ - Installing Round Uplight Trims

How to attach round uplight trims to light engine:

1. Press lens (A) into position on lens holder (B) (Fig. 1) by aligning slots on lens with snaps on lens holder.
2. Screw trim (C) to mounting nut (D) (Fig. 1) on light engine until tightened (Fig. 2).

Applies to the following round uplight trims:

- A Round Bezel
- B Clear with Cone
- C Etched Cylinder
- HA Clear ribbon
- HB Etched Ribbon
- JB Etched Bell
- KB Etched Cone
- LA Wave Top Cylinder



Intervals™ - Installing Pear Glass Upright Trim

How to attach round upright trims to light engine:

1. Insert stem diffuser (A) through hole on trim bottom plate (B) then screw-on until tightened (Fig. 1).
2. Screw trim bezel (C) onto mounting nut (D) on light engine until tightened (Fig. 2 & 3).

Fig. 1

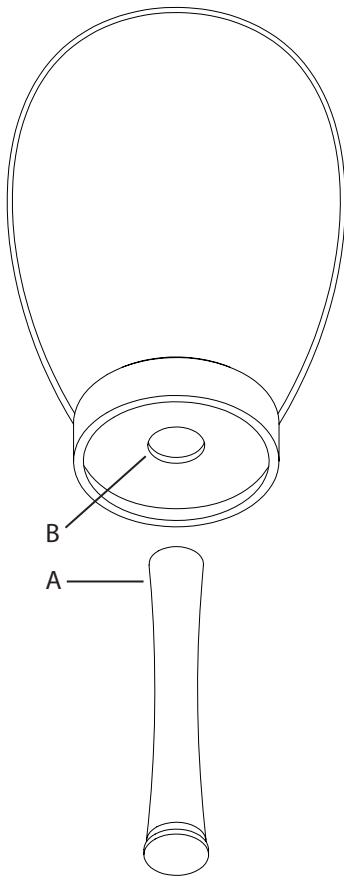


Fig. 2

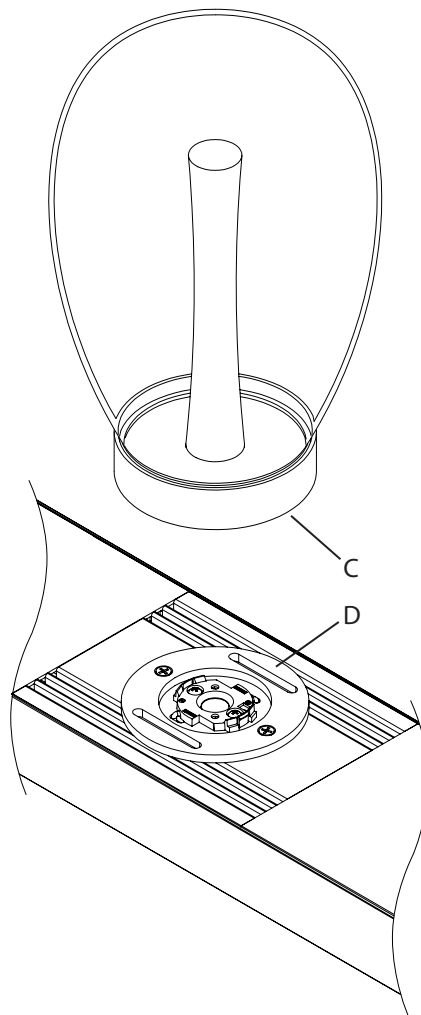
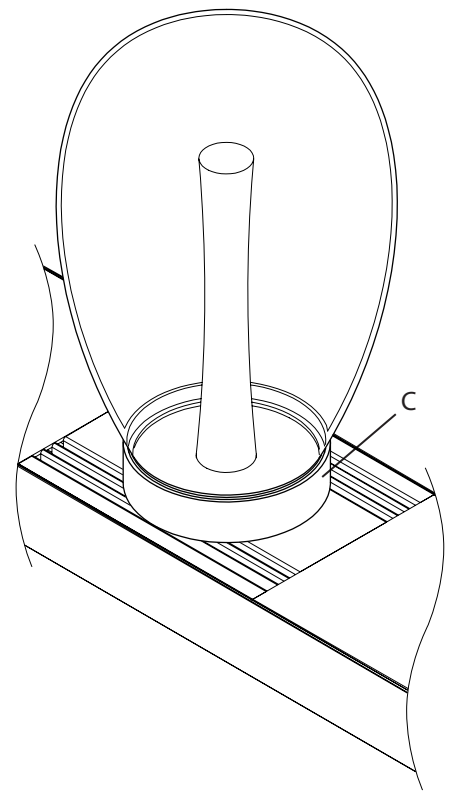


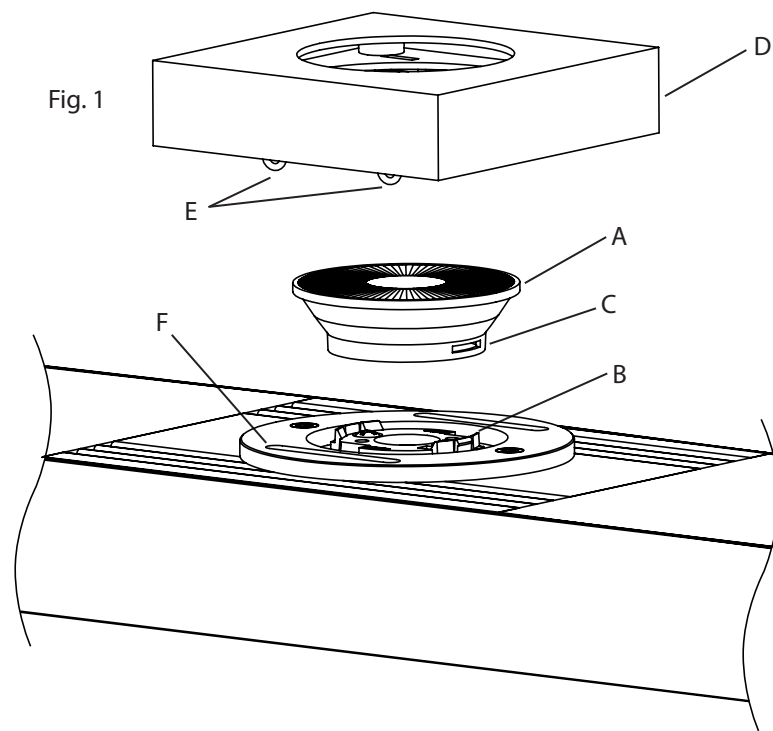
Fig. 3



Intervals™ - Installing Square Uplight Trims

How to install square uplight trims to beam:

1. Press lens (A) into position on lens holder (B) (Fig. 1) by aligning slots on lens (C) with snaps on lens holder.
2. Secure trim (D) (Fig. 1) over lens by aligning ends of four wire springs (E) with two slots (F) on mounting nut, then press firmly until trim snaps onto beam (Fig. 2).



Applies to the following square uplight trims:

- FA Square Bezel
- FB Clear with Cube
- FC Etched Cube

