FIELD-ADJUSTABLE BOA® INSTALLATION



RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com



IMPORTANT

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

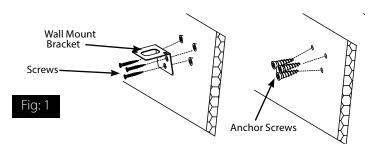
WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside. Risk of fire. Risk of shock.

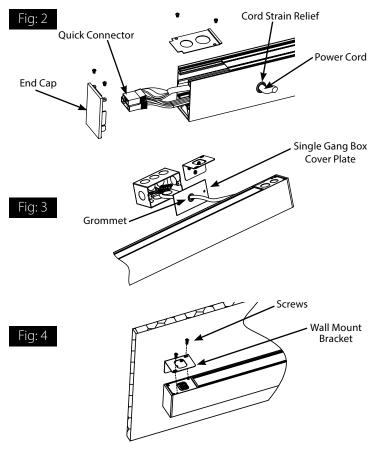
Suitable for damp location. Min 90° Supply Conductors. Indoor use only.

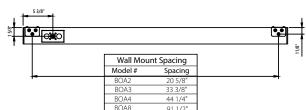
WALL MOUNT

Ceiling/Wall Mount Kit sold separately, CAT# BOA-SM.

- 1. Use appropriate hardware for installing the fixture.
- Secure Wall Mount Brackets to the wall as shown in Fig. 1 using appropriate hardware.
- 3. Recommended **Wall Mounting Bracket** spacing is listed below, Fig. 5.
- 4. Remove End Cap and drill a 1/2" size hole on side of fixture for the Power Cord (Fig. 2) to align with the junction box (Fig. 3). Use provided Cord Strain Relief to protect Power Cord.
- 5. Feed the **Power Cord** (provided) through the installer drilled hole. Insert the wires into the respective **Quick Connector** captive terminal matching colors of existing installed wires as shown in Fig. 2.
- Connect wires as shown in wiring diagram (Fig. 47). Use appropriate UL approved wire connectors as required by code to complete wiring. Be careful not to pinch wires. WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 7. See Fig. 3 if using a **Single Gang Box Cover Plate** with a **Grommet** to protect the **Power Cord**.
- 8. Attach the fixture to the **Wall Mount Brackets** with provided hardware (*Fig. 4*).







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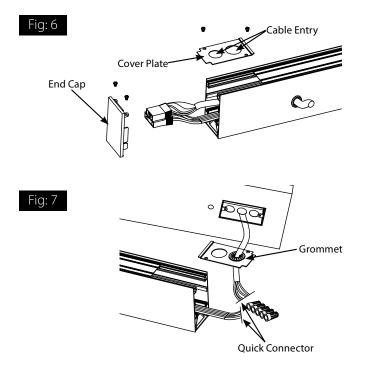
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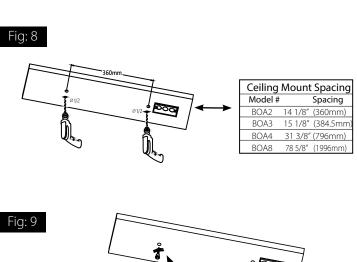
CEILING / SURFACE MOUNT

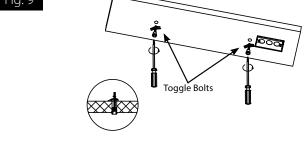
Ceiling/Wall Mount Kit sold separately, CAT# BOA-SM.

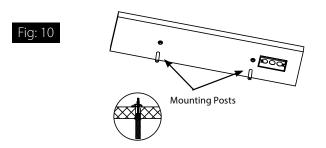
- 1. Use appropriate hardware for installing the fixture.
- 2. Remove **End Cap** and **Cover Plate** as shown in Fig. 6. Knockout the smaller **Cable Entry** hole in the **Cover Plate** and install **Grommet** (*provided*). Re-install **Cover Plate** on fixture.
- 3. Feed the **Power Cord** (provided) through the **Cover Plate** and **Grommet**. Insert the wires into the respective **Quick Connector** terminal matching colors of existing installed wires (Fig. 7). Re-install **End Cap**.
- 4. Mark the mounting surface for mounting hardware location. For recommend ceiling/surface mount spacing see as shown in Fig. 8.
- 5. Drill two 1/2" holes on your surface for the **Toggle Bolts**. Install the **Toggle Bolts** and attach the **Mounting Posts** by threading into **Toggle Bolt** hardware, Fig 9 and 10.
- 6. Knockout 2 **Ceiling Mounting Holes** located on top of fixture, Fig. 11.
- 7. Remove fixture lens, tools are provided, see Fig 12.
- 8. Connect wires as shown in wiring diagram (Fig. 47). Use appropriate UL approved wire connectors as required by code to complete wiring. Optional decorative cover plate is provided (Fig. 13). Be careful not to pinch wires. WARNING:

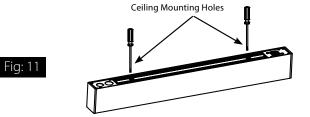
 To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 9. Align the fixture knockout holes to **Mounting Posts** and install using 2 **Phillips Screws** (*provided*) as shown in Fig. 13.
- 10. Re-install fixture lens to complete installation.

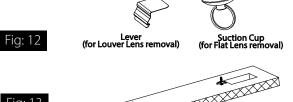


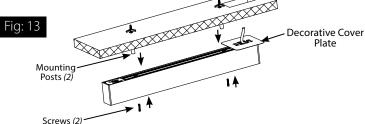












FIELD-ADJUSTABLE BOA® INSTALLATION

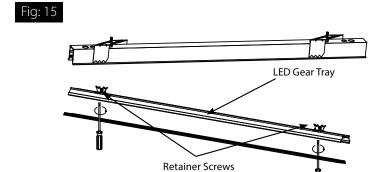


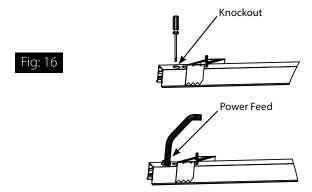
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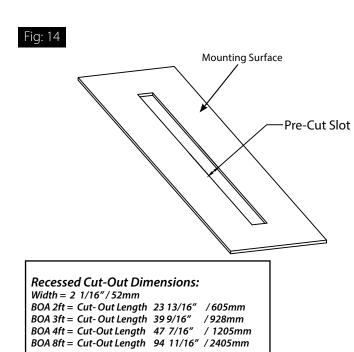
RECESSED MOUNT

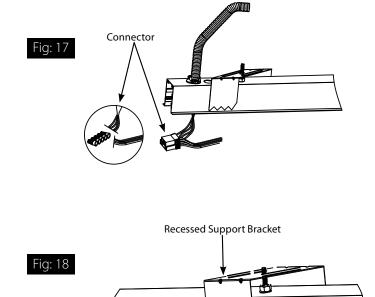
Note: Select Power (W) and/or Color Temperature (CCT) before installing the fixture, see Fig. 41)

- 1. Use appropriate hardware for installing the fixture.
- 2. Prepare the surface by pre-cutting an opening in the mounting surface. See Fig. 14 for recommended cut-out dimensions.
- 3. Remove **End Cap** and gently remove Lens. **Lens Removal Tools** are provided, see Fig 12.
- Rotate LED Gear Tray retainer screws 90° (DO NOT TOUCH THE LEDs) as shown in Fig. 15. Tether Cable will prevent the LED Gear Tray from falling.
- 5. Use the larger **Knockout** on the top of the housing for **Power Feed** as shown in fig. 16.
- 6. Identify the fixture end with female **Connector** to make the power connection (*Fig. 17*) then connect wires as shown in wiring diagram (*Fig. 47*). Use appropriate UL approved wire connectors as required by code to complete wiring. Be careful not to pinch wires. **WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.**
- 7. Replace the **End Cap**. Adjust **Recessed Support Brackets** for proper height to clear the surface material thickness (*Fig. 18*).
- 8. Position the fixture into the surface cut-out and turn the **Phillips Screws** to rotate the **Recess Support Brackets** to clamp on the surface material.
- 9. Re-install the **LED Gear Tray**. Use caution to avoid pinching wires or cables. (*DO NOT TOUCH THE LEDs*)
- 10. Replace lens









FIELD-ADJUSTABLE BOA® INSTALLATION



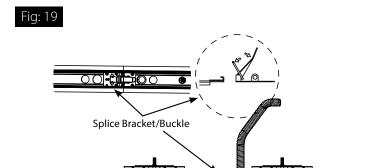
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RECESSED MOUNT MULTIPLE CONNECTIONS (CONTINUOUS RUN)

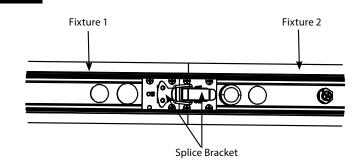
Note: Select Power (W) and/or Color Temperature (CCT) before installing the fixture, see Fig. 44, 45, 46)

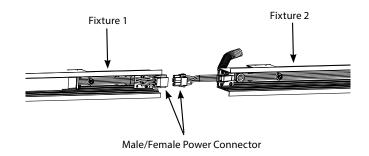
Catalog #	Maximum Number of Linked Fixtures
BOA2	Up to 30 fixtures (do not exceed 600W)
BOA3	Up to 20 fixtures (do not exceed 600W)
BOA4	Up to 15 fixtures (do not exceed 600W)
BOA8	Up to 7 fixtures (do not exceed 600W)

- 1. Use appropriate hardware for installing the fixture.
- 2. Prepare the surface by pre-cutting an opening in the mounting surface. See Fig. 14 for recommended cut-out dimensions.
- 3. Remove End Cap and gently remove Lens. Lens Removal Tools are provided, see Fig. 12.
- 4. Rotate LED Gear Tray Retainer Screws 90° (DO NOT TOUCH THE LEDs) as shown in Fig. 15. Tether Cable will prevent the LED Gear Tray from falling.
- 5. Use the larger **Knockout** on the top of the housing for **Power Feed** as shown in Fig. 16.
- 6. Identify the fixture end with female connectors to make the power connection (Fig. 17) then connect wires as shown in wiring diagram (Fig. 47). Use appropriate UL approved wire connectors as required by code to complete wiring. Be careful not to pinch wires. WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 7. Adjust **Recessed Support Brackets** for proper height to clear the surface material thickness (*Fig. 18*).
- 8. Position the fixture into the surface cut-out and turn the **Phillips Screws** to rotate the **Recess Support Brackets** to clamp on the surface material.
- 9. Open the next fixture per instructions above and install the **Splice Bracket/Buckle** (*provided*) to connect two fixtures together, see Fig. 19 and 20.
- 10. Adjust Recessed Support Brackets for proper height to clear the surface material thickness for additional fixture(s), Fig. 18.
- 11. Position the next fixture into the surface cut-out and turn the **Phillips Screws** to rotate the **Recess Support Brackets** to clamp on the surface material.
- 12. Secure by closing the **Splice Bracket/Buckle** between fixtures.
- 13. Make power connection between fixtures by connecting Male/Female Power Connectors (*Fig. 21*).
- 14. Re-install the **LED Gear Trays**. Use caution to avoid pinching wires or cables. (*DO NOT TOUCH THE LEDs*)
- 15. Replace the Lens on the fixtures.









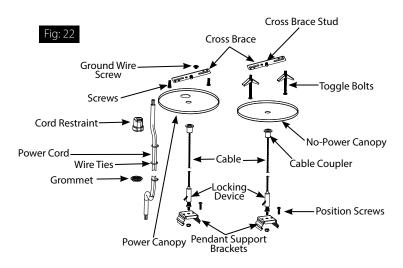
FIELD-ADJUSTABLE BOA® INSTALLATION

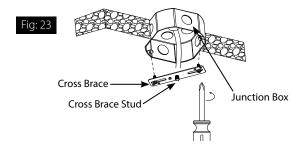


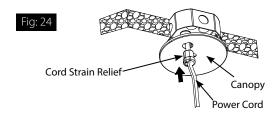
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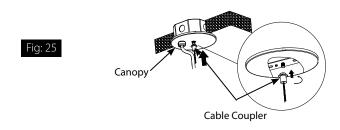
PENDANT MOUNT

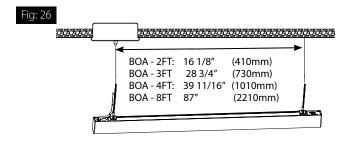
- 1. Use appropriate hardware (provided) for installing the fixture.
- 2. Install **Canopy Mounting Hardware** (*Fig. 22*) for the power supply. Secure the **Cross Brace** to junction box (*Fig. 23*).
- 3. Pass the **Power Cord** though the ceiling **Canopy** and secure with **Cord Strain Relief** as shown in Fig. 24.
- 4. Identify the fixture end with female connectors to make the power connection (Fig. 17) then connect wires as shown in wiring diagram (Fig. 47). Use appropriate UL approved wire connectors as required by code to complete wiring. Be careful not to pinch wires. WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 5. Place the Canopy on the mounting surface. Push Cable Coupler on the threaded Cross Brace Stud and tighten to secure the Canopy (Fig. 25).
- 6. For non-power side use recommended spacing to attach the support **Cross Brace**, **Canopy** and **Cable**, **Toggle Bolts** provided(*Fig. 26, 27, 28*).
- 7. Connect the **Pendant Support Brackets** to the threaded **Cable Locking Device**. Cable length can be adjusted by pressing down on the **Cable Locking Device**, see Fig 29.
- 8. Install **Pendant Mounting Brackets** near both ends of the fixture by pressing into the slots on top of fixture. Secure **Pendant Mounting Brackets** by tightening **Positioning Screws** (*provided*) as shown in Fig. 30.
- 9. Remove **End Cap** and **Cover Plate** as shown in Fig. 31. Knockout the smaller cable entry hole in the **Cover Plate** and install **Grommet** (*provided*).
- 10. Feed the **Power Cord** (*provided*) through the **Grommet**. Insert the wires into the respective **Quick Connect** terminal matching colors of existing installed wires (Fig. 32 and 33).
- 11. Re-install Cover Plate and End Cap.
- 12. Fix the **Power Cord** to the **Support Cable** with **Wire Ties** (*provided*) see Fig. 34.

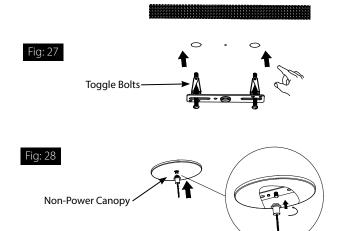












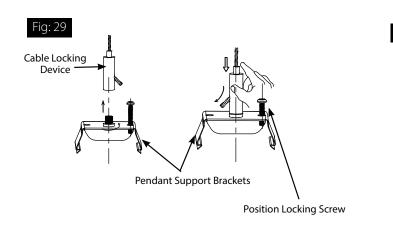
FIELD-ADJUSTABLE BOA® INSTALLATION

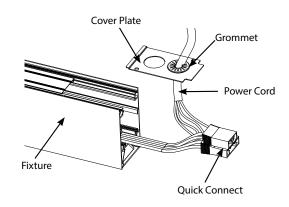


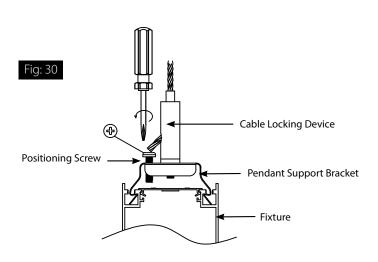
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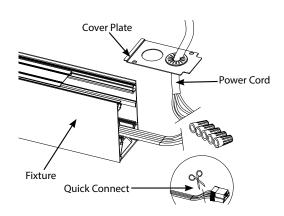
Fig: 32

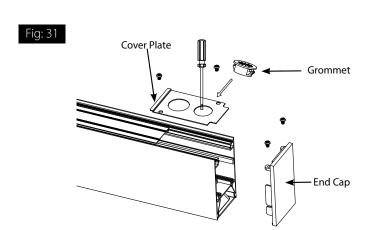
Fig: 33

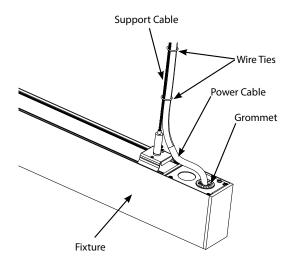












FIELD-ADJUSTABLE BOA® INSTALLATION



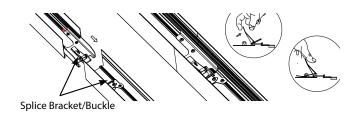
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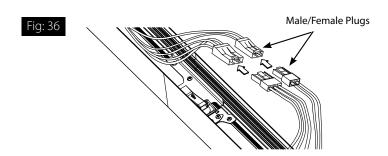
PENDANT MOUNT MULTIPLE CONNECTIONS (CONTINUOUS RUN)

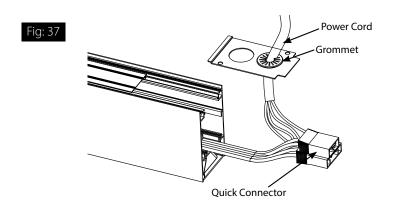
Catalog #	Maximum Number of Linked Fixtures
BOA2	Up to 30 fixtures (do not exceed 600W)
BOA3	Up to 20 fixtures (do not exceed 600W)
BOA4	Up to 15 fixtures (do not exceed 600W)
BOA8	Up to 7 fixtures (do not exceed 600W)

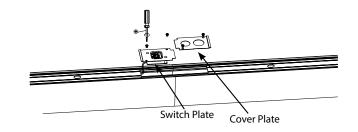
- 1. Use appropriate hardware (provided) for installing the fixture.
- 2. Install **Canopy Mounting Hardware** (*Fig. 22*) for the power supply. Secure the **Cross Brace** to junction box (*Fig. 23*).
- 3. Pass the **Power Cord** though the ceiling **Canopy** and secure with **Cord Strain Relief** as shown in Fig. 24.
- 4. Connect wires as shown in wiring diagram (Fig. 47) in the junction box. Use appropriate UL approved wire connectors as required by code to complete wiring. WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- 5. Place the Canopy on the mounting surface. Push Cable Coupler on the threaded Cross Brace Stud and tighten to secure the Canopy (Fig. 25).
- 6. For non-power side use recommended spacing to attach the support **Cross Brace**, **Canopy** and **Cable** (*Fig. 26*).
- 7. Connect the **Pendant Support Brackets** to the threaded **Locking Device**. Cable length can be adjusted by pressing down on the **Cable Locking Device**, see Fig 26.
- 8. Install **Splice Bracket/Buckle** (2 parts) to Fixture 1 and Fixture 2 as shown in Fig. 35 and lock fixtures in place.
- 9. Connect Male/Female Plugs together (Fig. 36).
- Install Pendant Support Brackets near both ends of each fixture by pressing into the slots on top of fixture. Secure Pendant Support Brackets by tightening Position Screws (provided) as shown in Fig. 30
- 11. Feed the **Power Cord** (provided) through the **Cover Plate** and **Grommet**. Insert the wires into the respective **Quick Connector** matching colors of existing installed wires (Fig. 37).
- 12. Replace Field-Adjustable **Switch Plate** and **Cover Plate** as shown in Fig. 38. Change fixture Power and/or Color Temperature (*CCT*) settings to desired value.
- 13. Install Pendant Support Brackets near both ends of each fixture by pressing into the slots on top of fixtures. Secure Pendant Support Brackets by tightening Position Screws (provided) as shown in Fig. 29 and 30. CAUTION: Raise combined fixtures with adequate support.
- 14. Fix the **Power Cord** to the **Support Cable** with **Wire Ties** (*provided*) see Fig. 34.











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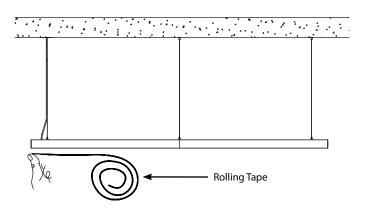
T-GRID INSTALLATION

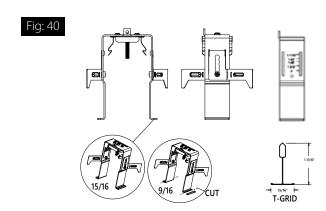
T-GRID Recessed Mount Kit is sold separately, Model # BOA-TG. Note: Grid Bars shown in below illustrations are to be provided and installed by others.

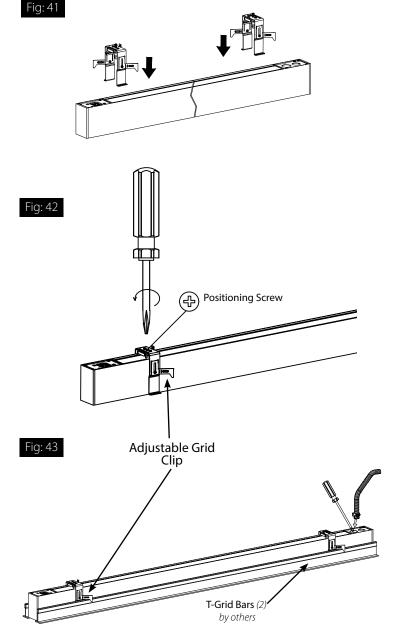
1. LENS INSTALLATION:

Press the **Rolling Tape** (*Fig. 39*) flat lens (*provided*) into the assembled linear fixture, then install it according to the actual length and trim to the required size.

- 2. Assemble and adjust the **Mount Kit Brackets** according to the size of the **T-Grid** (*Fig. 40*). Adjust the **Screw** on the **Recessed Bracket** so that the **Bracket** fits the height of the **T-Grid** (*Fig. 41*).
- 3. Secure the **Mounting Bracket** onto the fixture then press down so that the **Mounting Clip** secures (*snaps*) to the Fixture (*Fig. 41*).
- 4. Tighten the positioning **Screw**(s) on the **Mounting Clip**(s) to prevent the **Clip**(s) from loosening (*Fig. 42*)
- 5. Place the fixture onto the **T-Grid**. Bend the **Adjustable Grid Clips** outward to sit across the **T-Grid Bar** (*Fig.* 43).
- 6. Connect wires as shown in wiring diagram (Fig. 47). Use appropriate UL approved wire connectors and/or conduit as required by code to complete wiring. Be careful not to pinch wires. WARNING: To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.







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FIFI D ADJUSTMENT

Follow instructions below to change the **Fixture Power** and/or **Color Temperature** (*CCT*) position from factory settings:

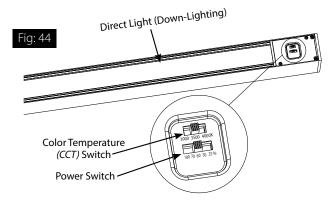
Factory Settings:

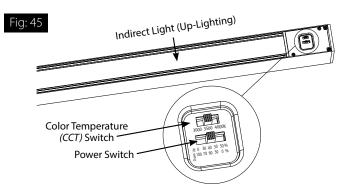
BOA2 - BOA3 - BOA4 - BOA8 Direct Light - 3500K, 100% Power

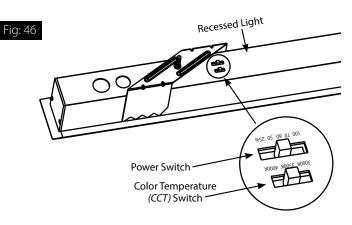
Indirect Light - 3500K, Up/Down 30% / 70% Power

Recessed Light - 3500K / 100% Power

- 1. Locate the **Power Switches** on housing as shown in Fig. 44, 45, 46.
- 2. Select **Power** and/or **Color Temperature** (*CCT*) by sliding the respective switch to the desired value.





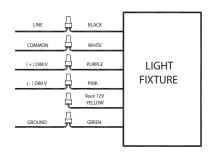


0-10V DIMMABLE WIRING

Universal voltage driver permits operation at 120V through 277V, 50 or 60 Hz. For 0-10V dimming follow the wiring directions as shown below (*Fig. 47*).

- 1. Connect the black fixture lead to the LINE supply lead.
- 2. Connect the white fixture lead to the COMMON supply lead.
- 3. Connect the GROUND wire from fixture to supply ground. Do NOT connect the GROUND of the dimming fixture to the output.
- 4. Connect the purple fixture lead to the (V+) DIM lead.
- 5. Connect the pink fixture lead to the (V-) DIM lead.
- 6. Cap the yellow fixture lead, if present. Do NOT connect.





CLEANING & MAINTENANCE

CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

- 1. Clean lens with non-abrasive glass cleaning solution.
- 2. Do not open the fixture to clean the LED. Do not touch the LED.

TROUBLESHOOTING

- 1. Check that the line voltage at the fixture is correct. Refer to wiring directions.
- 2. Is the fixture grounded properly?

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.

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BATTERY BACKUP MODELS

WIRING

CAUTION: FOR BATTERY BACKUP FIXTURE. Voltage can be present in **BATTERY.** To prevent high voltage from being present on output leads, Inverter connector must be open. Do not join **BATTERY** connector until installation is complete.

NOTE: Make sure that the necessary branch circuit wiring is available. An **UNSWITCHED AC** source of power is required. The emergency driver must be fed from the same branch circuit as the LED driver. Reference Fig. 48 for wiring diagram.

CAUTION: Do not use any supply voltage other than 120-277V, 50/60 Hz.

- 1. Connect UNSWITCHED HOT fixture lead to HOT AC supply line.
- 2. If using an UNSWITCHED circuit, connect UNSWITCHED and SWITCHED lines together.
- 3. If using a **SWITCHED** circuit, connect **SWITCHED** HOT lead to the switch.
- 4. For 0-10V dimming, connect **DIM** (+) purple and **DIM** (-) pink leads to 0-10V dimming connection.
- 5. All unused leads must be capped and insulated.
- When power is on, the fixture should be on and the CHARGING INDICATOR LIGHT should illuminate to indicate the battery is charging.
- 7. Once the **BATTERY** has charged for at least one hour, a short duration test may be performed by pressing the **Test Button** as shown in Fig. 49.
- 8. After the battery has charged for 24 hours, a long duration test can be performed by disconnecting power to the fixture.

Purple/DIM+ Pink/DIMBlack/Switched Line Red/Unswitched Line White/Neutral Green/Ground WIRING DIAGRAM Purple/DIM+ Pink/DIM-

OPERATION

- 1. When AC power is applied the charging indicator light is illuminated indicating that the **BATTERY** is being charged.
- 2. When power fails the standby power automatically switches to emergency power (*internal battery*) operating at reduced illumination.
- 3. When AC power is restored the emergency driver automatically returns to charging mode.

MAINTENANCE

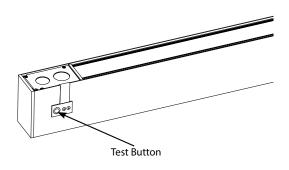
Although no routine maintenance is required to keep the emergency driver functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

- 1. Visually inspect the charging indicator light monthly. It should be illuminated
- 2. Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds.
- 3. Conduct a 90-minute discharge test once a year. Fixture would operate at reduced illumination for a minimum of 90 minutes.

TROUBLESHOOTING

- 1. Be sure the fixture is grounded properly.
- 2. If the charging indicator light does not illuminate after pressing and releasing the **Test Button** (*Fig. 49*), check power and check if battery is connected properly.

Fig: 49





Easy Answers

INSTRUCTIONS FIELD-ADJUSTABLE BOA® INSTALLATION



RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com

FIELD-ADJUSTABLE BOA® INSTALLATION



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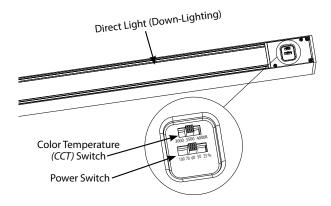
FIELD ADJUSTMENT

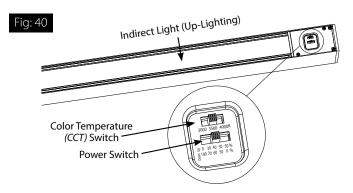
Follow instructions below to change the **Fixture Power** and/or **Color Temperature** (*CCT*) position from factory settings:

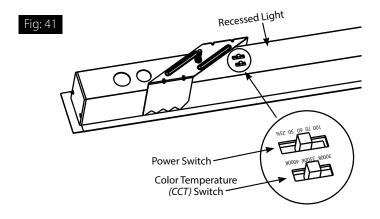
Factory Settings:

BOA2 - BOA3 - BOA4 - BOA8 Direct Light - 3500K, 100% Power Indirect Light - 3500K, Up/Down 30% / 70% Power Recessed Light - 3500K / 100% Power

- 1. Locate the **Power Switches** on housing as shown in Fig. 39, 40 and 41.
- 2. Select **Power** and/or **Color Temperature** (*CCT*) by sliding the respective switch to the desired value.







INSTRUCTIONS FIELD-ADJUSTABLE BOA® INSTALLATION



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