

RACO 3441

Hubbell-Raco 3441 45 Degree Liquidtight Connector User Manual

Model: 3441 | Brand: RACO

1. INTRODUCTION

This manual provides instructions for the proper installation, use, and maintenance of the Hubbell-Raco 3441 45 Degree Liquidtight Connector. This connector is designed for use in electrical installations requiring a liquidtight seal for flexible metallic and Type B flexible nonmetallic liquidtight conduits.

The RACO 3441 connector is suitable for use in various hazardous locations, including Class 1, Division 2; Class 2, Division 1 and 2; and Class 3, Division 1 and 2, as approved by the National Electrical Code.



Image 1: The Hubbell-Raco 3441 45 Degree Liquidtight Connector, showing its metallic construction and 45-degree angle.

Key Features:

- **Application:** Designed for flexible metallic liquidtight conduit and Type B flexible nonmetallic liquidtight conduit.
- **Corrosion Protection:** All metallic components are zinc-electroplated.
- **Seal Integrity:** Features an innovative split gland-ring to ensure a perfect seal and prevent pullouts.
- **Secure Connection:** Includes a sealing washer and heavy-duty locknut for positive bonding to a box or enclosure.
- **Reusability:** All components are designed to be reusable.
- **Noninsulated:** This model is noninsulated.

2. SAFETY INFORMATION

WARNING: Electrical installations should only be performed by licensed electricians in compliance with all national and local electrical codes. Failure to follow these instructions and codes can result in electrical shock, fire, serious injury, or death.

- Always disconnect power at the circuit breaker or fuse box before installing or servicing electrical components.
- Ensure all connections are secure and properly torqued to prevent loose connections and potential hazards.
- Verify that the connector size matches the conduit and knockout size for a proper fit and seal.
- Inspect the connector and conduit for any damage before installation. Do not use damaged components.

3. INSTALLATION INSTRUCTIONS

Follow these steps for proper installation of the Hubbell-Raco 3441 Liquidtight Connector:

1. **Prepare Conduit:** Cut the flexible liquidtight conduit to the desired length. Ensure the cut is clean and free of burrs.
2. **Disassemble Connector:** Unscrew the gland nut from the connector body. The split gland-ring and sealing washer should be removed from the connector body if not already separate.
3. **Insert Conduit:** Slide the gland nut, then the split gland-ring, and finally the sealing washer over the end of the conduit in that order.
4. **Secure Conduit to Connector Body:** Insert the conduit end into the connector body. Ensure the conduit is fully seated against the internal stop. Slide the sealing washer and split gland-ring into position against the connector body.
5. **Tighten Gland Nut:** Hand-tighten the gland nut onto the connector body, then use a wrench to tighten it securely. This compresses the split gland-ring and sealing washer, creating a liquidtight seal around the conduit. Do not overtighten.
6. **Insert Connector into Enclosure:** Insert the threaded end of the connector into the appropriate knockout hole of the electrical box or enclosure.
7. **Secure with Locknut:** Place the heavy-duty locknut over the threaded end of the connector inside the enclosure. Hand-tighten the locknut, then use a wrench to tighten it firmly against the enclosure wall. Ensure the locknut teeth bite into the enclosure surface for proper bonding and ground continuity.
8. **Verify Connection:** Double-check all connections for tightness and ensure the liquidtight seal is properly formed.

4. OPERATION

Once properly installed, the Hubbell-Raco 3441 Liquidtight Connector functions passively by maintaining a secure, liquidtight connection between the conduit and the electrical enclosure. Its primary role is to protect wiring from moisture, dust, and other environmental contaminants, while also ensuring electrical continuity and bonding.

5. MAINTENANCE

The Hubbell-Raco 3441 Liquidtight Connector requires minimal maintenance. Regular inspection is recommended to ensure continued performance and safety:

- **Periodic Visual Inspection:** Annually, or more frequently in harsh environments, visually inspect the connector for any signs of physical damage, corrosion, or wear.
- **Check for Tightness:** Ensure the gland nut and locknut remain securely tightened. Loose connections can compromise the liquidtight seal and electrical bonding.
- **Cleanliness:** Keep the connector free from excessive dirt, debris, or chemical buildup that could degrade its material over time.
- **Environmental Factors:** If the connector is exposed to extreme temperatures, vibrations, or corrosive substances, increase the frequency of inspections.

6. TROUBLESHOOTING

Should issues arise with your Hubbell-Raco 3441 Liquidtight Connector, consider the following common problems and solutions:

Problem	Possible Cause	Solution
Water or moisture ingress	Gland nut not tightened sufficiently; damaged sealing washer or gland-ring; incorrect conduit size.	Ensure gland nut is securely tightened. Inspect and replace sealing washer or gland-ring if damaged. Verify conduit matches connector size.
Conduit pullout	Gland nut not tightened sufficiently; split gland-ring not properly seated.	Re-tighten gland nut securely. Ensure split gland-ring is correctly positioned and engaged with the conduit.
Poor electrical bonding/grounding	Locknut not tightened securely; locknut teeth not biting into enclosure; corrosion on contact surfaces.	Ensure locknut is firmly tightened with its teeth making good contact. Clean any corrosion from contact surfaces.
Connector corrosion	Exposure to harsh chemicals or extreme environments beyond product rating.	Regularly inspect and clean. If severe, replacement may be necessary. Consider alternative materials if environment is highly corrosive.

7. SPECIFICATIONS

Attribute	Detail
Manufacturer	Hubbell (RACO)
Part Number	3441
Item Model Number	3441
Trade Size	3/8 Inch
Angle	45 Degree
Material	Malleable Iron (Zinc-electroplated)
Insulation	Noninsulated
Item Weight	5.1 pounds (for 25-pack)
Package Dimensions	7.5 x 4.7 x 3.9 inches (for 25-pack)
Compliance	UL Listed, CSA Certified (where applicable), NEC approved for hazardous locations.

8. WARRANTY AND SUPPORT





For specific warranty information regarding your Hubbell-Raco 3441 Liquidtight Connector, please refer to the documentation provided at the time of purchase or visit the official RACO website. RACO products are engineered in accordance with the standards established by Underwriter's Laboratories (UL) and certified by the Canadian Standards Association (CSA).


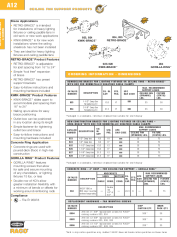
For technical support, product inquiries, or assistance with installation, please contact RACO customer service. You can find contact information on the official RACO website or through your authorized distributor.

Visit the [RACO Store on Amazon](#) for more products and information.

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Related Documents - 3441

	<p>RACO Steel Boxes, Covers, and Accessories Catalog</p> <p>Comprehensive catalog detailing RACO's extensive range of steel electrical boxes, covers, and accessories. Features product specifications, applications, and compliance information, referencing National Electrical Code (NEC) standards. Includes details on TKO® knockouts, various box types, and installation accessories.</p>
	<p>RACO 6239ACBK Floor Box Kit for Structural Wood Floors - Power & USB Charging</p> <p>RACO 6239ACBK is a floor box kit designed for structural wood floors, featuring a concealed receptacle with power and USB charging capabilities. Includes a 15A, 125V, 2 Pole, 3 Wire USB charger receptacle with high power 3.1 Amp USB output (Type A and Type-C). Complies with NEC Article 406.11.</p>
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	<p>RACO 6260 Round Non-Metallic Floor Box Cover Assembly Kit - Ivory</p> <p>Detailed specifications for the RACO 6260 Round Non-Metallic Floor Box Cover Assembly Kit, featuring an ivory duplex cover and carpet flange. Includes product features, measurements, and packaging details for electrical installations.</p>
	<p>RACO Ceiling Fan Support Products: Braces, Rings, and Hardware</p> <p>RACO offers a comprehensive range of ceiling fan support products, including RETRO-BRACE™, KWIK-BRACE™, and GORILLA-RING™ systems. These products are designed for secure and reliable installation of lighting fixtures and ceiling fans, featuring adjustable spacing, easy installation, and robust support loads. The document details product features, applications, and ordering specifications.</p>