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## HAMMOND CS663

# Hammond CS663 Steel Junction Box Instruction Manual

Model: CS663

## 1. PRODUCT OVERVIEW

The Hammond CS663 is a robust steel junction box designed for electrical and industrial applications. It provides a protective enclosure for electrical components and wiring, ensuring safety and durability in various environments. Its grey finish and steel construction offer resilience and a professional appearance.



Figure 1: Hammond CS663 Steel Junction Box with its removable lid. This image shows the interior of the box and the separate lid, highlighting its compact design and the pre-drilled mounting holes.

Key features include:

- **Enclosure Type:** Electrical / Industrial Junction Box
- **Material:** Steel construction for durability
- **Color:** Grey finish
- **Dimensions:** External Height: 152.4mm (6 inches), External Width: 152mm (6 inches), External Depth: 76mm (3 inches)
- **IP Rating:** IP20, providing protection against solid objects over 12.5mm (e.g., fingers) but no protection against liquids.
- RoHS Compliant

## 2. SETUP AND INSTALLATION

Proper installation of the Hammond CS663 junction box is crucial for safety and optimal performance. Ensure all local electrical codes and regulations are followed during installation.

## 2.1 Safety Precautions

- Always disconnect power before working with electrical enclosures.
- Wear appropriate personal protective equipment (PPE), such as insulated gloves and safety glasses.
- Ensure the mounting surface is stable and can support the weight of the enclosure and its contents.
- Do not exceed the maximum internal volume or weight capacity of the enclosure.

## 2.2 Mounting Instructions

1. **Select Location:** Choose a dry, stable location suitable for an IP20 rated enclosure, away from direct water exposure.
2. **Mark Mounting Points:** Use the pre-drilled holes on the back of the enclosure as a template to mark drilling points on the mounting surface.
3. **Drill Holes:** Drill pilot holes appropriate for your chosen mounting hardware (screws, anchors, etc.).
4. **Secure Enclosure:** Mount the enclosure securely to the surface using suitable fasteners. Ensure it is level and firmly attached.

## 2.3 Wiring and Component Installation

1. **Prepare Openings:** If necessary, create appropriate knockouts or drill holes for cable entry/exit, ensuring proper cable glands or conduit fittings are used to maintain the enclosure's integrity.
2. **Install Components:** Place electrical components (terminal blocks, relays, etc.) inside the enclosure. Utilize mounting plates or DIN rails if applicable and available within the enclosure.
3. **Route Wiring:** Route all wiring neatly and securely within the enclosure, ensuring no sharp bends or undue stress on cables.
4. **Make Connections:** Make all necessary electrical connections according to your circuit diagram and local electrical codes. Ensure all connections are tight and secure.
5. **Close Enclosure:** Once all components are installed and wired, securely attach the lid using the provided fasteners.

## 3. OPERATING PRINCIPLES

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The Hammond CS663 junction box functions as a protective housing for electrical connections and components. Its primary purpose is to:

- **Protect Components:** Shield internal electrical components from dust, dirt, and accidental contact, as per its IP20 rating.
- **Organize Wiring:** Provide a structured environment for organizing and terminating electrical wiring, reducing clutter and improving safety.
- **Ensure Safety:** Prevent accidental contact with live electrical parts, thereby reducing the risk of electrical shock or short circuits.
- **Facilitate Maintenance:** Allow for easy access to connections for inspection, maintenance, or modification when the lid is removed.

Once installed and closed, the enclosure requires no active "operation" beyond its passive role of protection. Any interaction involves opening the enclosure for maintenance or modification, which should only be done by qualified personnel with power disconnected.

## 4. MAINTENANCE

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Regular maintenance ensures the longevity and continued protective function of your Hammond CS663 junction box.

## 4.1 Cleaning

- **Exterior:** Clean the exterior surface with a soft, damp cloth. Avoid abrasive cleaners or solvents that could damage the paint finish.
- **Interior:** If the enclosure is opened for maintenance, gently wipe away any accumulated dust or debris from the interior using a dry, lint-free cloth or a soft brush. Ensure no foreign objects remain inside.

## 4.2 Inspection

Periodically inspect the enclosure for signs of wear or damage:

- Check for any dents, cracks, or corrosion on the steel body.
- Ensure all mounting fasteners are tight and secure.
- Verify that the lid is securely fastened and that its sealing (if any, though IP20 suggests minimal) is intact.
- Inspect internal wiring and connections for any signs of loosening, discoloration, or damage.

Any damaged components or the enclosure itself should be repaired or replaced immediately by a qualified professional to maintain safety and integrity.

## 5. TROUBLESHOOTING

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While the Hammond CS663 is a passive component, issues can arise from improper installation or external factors. This section addresses common concerns.

Problem	Possible Cause	Solution
Enclosure appears loose on mounting surface.	Loose mounting fasteners or inadequate mounting hardware.	Tighten all mounting fasteners. If necessary, replace with more appropriate hardware (e.g., wall anchors for drywall).
Corrosion or rust spots on exterior.	Exposure to moisture or harsh chemicals; damaged paint finish.	Clean affected area and apply rust-inhibiting paint. Consider relocating the enclosure if environmental conditions are unsuitable for an IP20 rating.
Internal electrical issues (e.g., intermittent power, short circuits).	Loose internal wiring, damaged components, or improper connections.	<b>WARNING: Disconnect all power before opening.</b> Inspect all internal wiring and connections. Tighten loose terminals, replace damaged wires or components. Consult a qualified electrician if unsure.
Lid does not close securely.	Deformed enclosure, damaged lid fasteners, or obstruction.	Check for any obstructions preventing the lid from closing. Inspect lid and enclosure for deformation. Replace damaged fasteners. If the enclosure is deformed, it may need replacement.

For issues not listed here or if troubleshooting steps do not resolve the problem, please contact Hammond customer support or a certified electrician.

## 6. SPECIFICATIONS

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Detailed technical specifications for the Hammond CS663 Steel Junction Box:

**Model Number:** CS663

**Enclosure Type:** Electrical / Industrial Junction Box

**Material:** Steel (Alloy Steel)

**Body Color:** Grey

**Finish Type:** Painted

**External Height:** 152.4 mm (6 inches)

**External Width:** 152 mm (6 inches)

**External Depth:** 76 mm (3 inches)

**Item Weight:** Approximately 3.04 ounces

**IP Rating:** IP20

**Highest NEMA Rating:** 1

**RoHS Compliant:** Yes

**Style:** Compact

**Manufacturer:** Hammond

## 7. WARRANTY AND SUPPORT

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Specific warranty terms and conditions for the Hammond CS663 Steel Junction Box are typically provided by the manufacturer at the time of purchase or can be found on their official website. Please retain your proof of purchase for warranty claims.

For technical support, product inquiries, or warranty service, please contact Hammond directly through their official customer service channels. Refer to the packaging or the manufacturer's website for the most current contact information.

*Note: This manual provides general guidance. Always refer to the latest documentation from Hammond Manufacturing and adhere to all applicable local and national electrical codes.*

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This manual is for informational purposes only. Specifications are subject to change without notice.