

Concealed installation of two-circuit distribution boxes



Overview

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Key Takeaways

Two-circuit distribution boxes should be embedded in walls with precise alignment, proper wiring, and clear labeling to ensure safety and compliance.

Installation Location and Preparation

For concealed installation, the distribution box should be embedded in the wall. During wall construction, reserve a hole approximately 20mm larger than the box's length and width, with a depth equal to the box thickness plus the plastering layer on the inner wall. Ensure the installation site is dry, accessible, and away from water or corrosive substances to maintain safety and longevity.

Fixing and Alignment

The box must be installed firmly, horizontally, and vertically, with a vertical deviation not exceeding 3mm. There should be no gaps around the box, and the edges of the panel should be flush with the wall. Apply anti-corrosion paint to the contact surfaces between the box and the wall to prevent rust and degradation.

Wiring and Circuit Connections

For a two-circuit distribution box:

- Incoming power lines should be connected to the main terminals, following standard color coding (phase, neutral, and ground) and using appropriate wire gauges .
 - Each circuit should have its own protection device, such as a circuit breaker or fuse, to prevent overloads and short circuits .
 - Spiral or porcelain plug-in fuses should be installed vertically, with the power line connected to the intermediate contact terminal and the load line to the threaded terminal to avoid electric shock during fuse replacement .
 - Busbars for neutral (N) and protective earth (PE) should be installed separately, with clear numbering and no splicing, ensuring proper identification and safety .
- Finishing and Safety Checks

After installation:

- Ensure smooth wire exits with insulating sleeves to prevent abrasion .
- Perform visual inspections and multimeter tests to verify correct connections and insulation resistance .
- Label each circuit clearly for future maintenance and troubleshooting .
- Schedule regular inspections to maintain long-term reliability . By following these steps, a two-circuit distribution box can be safely and efficiently installed in a concealed manner, ensuring compliance with electrical standards and operational safety.

Article Content

Splicing NM Cable in Walls and Other Concealed Spaces

The 2005, 2008, and 2011 editions of the Code give permission for installing a splicing device inside a wall space (concealed) without

Related Video Reference

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