

Distribution box live wire and switch



Article Overview

In a distribution box, the live wire is connected to the main switch and then distributed to individual circuit switches to safely control electricity in each room.

Understanding the Live Wire in a Distribution Box

The live wire carries the current from the main electrical supply into the distribution box. It is connected first to the main switch or main breaker, which controls the entire electrical supply to the building. From there, the live wire is routed to individual circuit breakers or switches for each room or appliance, allowing independent control and protection of each circuit .

Wiring to Switches

When connecting switches in a distribution box:

- The live wire from the main switch is connected to the input terminal of each room's switch or circuit breaker.
- The neutral wire is typically shared across circuits and connected to a neutral busbar.
- Proper identification is crucial: live wires must not be confused with neutral wires, as incorrect connections can prevent power supply or create safety hazards .
- Residual current devices (RCDs) or leakage switches monitor the live and neutral lines. If a fault occurs, the RCD disconnects the live wire to prevent electric shock .

Safety Considerations...

Article Content

Dec 04, 2025

Wiring diagram of electrical distribution box

You can see the wiring diagram of single phase distribution box from main meter to DB and other sub-circuit in the

Mar 26, 2026

Distribution Box and Selection Guide: Internal Structure, Components ...

Learn how to choose a distribution box and understand its internal structure, including MCBs, busbars, neutral bars,

May 07, 2026

How to Wire a Junction Box for Socket and Light Circuits

Learn how to wire a junction box to provide power to additional sockets, lights and switches easily and safely

Jan 28, 2026

Distribution Box Guide: Types, Components & Solutions

Understand distribution boxes (DB boxes) in 5 minutes. Learn about types, components, functions, and uses. Find

Mar 10, 2026

The Ultimate Guide to Circuit Breaker Wiring

Master the safest and most efficient circuit breaker wiring configurations. Learn about single-phase vs.

Dec 17, 2025

What is the difference between a distribution box and a switch box ...

What is a distribution box? A distribution box is an important part of an electrical system that is used to distribute

Feb 15, 2026

Electrical Wiring, House Wiring or Home Wiring Complete Guide

These live and Neutral wires come from the distribution transformer to the energy meter and then directly connected to

Mar 09, 2026

Chapter 1: Overview of The Power Distribution System

This was a quick run through of the Power Distribution Systems, an overview of the Electrical Panels in the system, their purposes

Sep 15, 2025

Distribution Box and Selection Guide: Internal Structure, Components ...

Below is a simplified internal structure diagram for a typical single-phase AC distribution box using an incoming main

May 08, 2026

Step-by-Step Guide to Wiring a 3 Phase DB Box

Learn about the wiring process for a 3 phase distribution board (DB) box, including the necessary steps and safety precautions.

Jun 25, 2026

How to Wire a Home Distribution Box

In this video, we'll walk you through the process of wiring a home distribution box with a detailed connection diagram. Whether you're

Sep 22, 2025

How to Wire a Home Distribution Box

Distribution board is a safe system designed for house or building that included protective devices, isolator switches, circuit breaker

Jul 28, 2026

A Step-by-Step Guide to Wiring an Electrical Panel Box

Find out how to properly wire an electrical panel box with a comprehensive diagram and step-by-step instructions.

Jul 10, 2026

Distribution board

During servicing of the distribution board, when the cover has been removed and the cables are visible, American panelboards

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How to Wire Single-Phase Consumer Unit with RCD? IEC, UK & EU

In this tutorial, we will be showing how to wire a single phase consumer unit for 230V with and without RCD's according to IEC. We

Nov 07, 2025

DIY Wiring a Consumer Unit and Installation

Here we are considering a Distribution Board with MCBs [Miniature Circuit Breakers] for power distribution.

Feb 02, 2026

How To Wire A Distribution Board (DB Board): A Step-By-Step Guide

A distribution board (DB board), also known as a fuse box or breaker panel, is essential for managing electrical circuits

Nov 07, 2025

Amazon : Power Distribution Box

Browse power distribution boxes with circuit breaker protection and multiple outlet configurations. Shop durable solutions for

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Wiring of the Distribution Board with RCD (Single Phase

Distribution board is a safe system designed for house or building that included protective devices, isolator

Contact Us

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