What level of electrical distribution box should be installed on each floor

Overview

What is the Ideal Installation Height for a Distribution BoxInstall a distribution box at 4.5 to 5.5 feet high for safety, accessibility, and compliance. T.

Key Takeaways

Each floor should have a subpanel or distribution box installed at a height of 4.5 to 5.5 feet (1.4–1.7 meters) for accessibility, with proper clearance and compliance with NEC standards.Recommended Level and Type

For multi-floor buildings, the main service panel is typically located on the ground or basement level, while subpanels (distribution boxes) are installed on each floor to distribute power locally. These subpanels should:

• Be rated for the expected load of that floor, considering lighting, outlets, HVAC, and appliances .

• Include circuit breakers or fuses for each branch circuit .

• Be UL or CE certified and comply with local electrical codes .
Installation Height
• Indoor wall-mounted boxes: 4.5 to 5.5 feet (1.4–1.7 meters) from the floor, making them easily accessible without bending or stretching .

• Outdoor boxes: At least 3 feet above ground to prevent water damage .

• Minimum height: 36 inches (0.9 meters) for low-voltage panels; maximum height: 6 feet 7 inches (2 meters) for the operating handle of the highest breaker .

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved

• Ensure the panel door can open 90° and maintain a clear working space of at least 30 inches wide and 36 inches deep in front of the panel .
Placement and Safety Considerations
• Install in dry, accessible areas away from bathrooms, closets, or high-traffic zones .

• Maintain good ventilation to prevent overheating .

• Avoid placing panels near plumbing, water sources, or flammable materials .

• Ensure proper grounding and neat wiring for safety and maintenance .

• Label all circuits clearly and consider modular designs for future upgrades .
Summary

Each floor should have a subpanel sized for the floor's electrical load, mounted at 4.5–5.5 feet high indoors, with proper clearance and adherence to NEC 2023 standards. This ensures safety, accessibility, and efficient distribution of electricity throughout the building .

Article Content

NEC Working Clearance Requirements: A Visual Guide (110.26)

This is a zone reserved exclusively for the electrical installation. For indoor installations, this space extends from the floor to a height

Contact Us

Continue your research online:

Website: https://alfa-pro.co.za
Technical inquiry: https://alfa-pro.co.za/contact.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 ALFA PRO COMMUNICATION SYSTEMS (Pty) Ltd - All rights reserved