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› ROATEE Construction Calculator AC0601-U-5D-5001 User Manual

ROATEE AC0601-U-5D-5001

ROATEE Construction Calculator

MODEL: AC0601-U-5D-5001

Introduction

The ROATEE Construction Calculator is a specialized tool designed for professionals in construction, carpentry, and related fields. It integrates over 200 engineering functions to simplify complex calculations involving mixed dimensions, area, volume, and specific construction tasks such as concrete work, roofing, and stair layouts. Its user-friendly design, featuring a large display and responsive keys, aims to enhance efficiency and accuracy in various projects.



Image: ROATEE Construction Calculator being used by a professional on a construction site, demonstrating its practical application.

Setup

Battery Installation

The calculator requires two AG13 or LR44 button batteries for operation. To install or replace batteries:

1. Locate the battery compartment on the back of the calculator.
2. Use a small screwdriver or coin to open the battery cover.
3. Insert the two AG13 or LR44 batteries, ensuring correct polarity (+/-).

4. Replace the battery cover and secure it.

Power On/Off

- To turn on the calculator, press the **On/C** button.
- To turn off the calculator, press the **Off** button.
- The calculator features an automatic shut-off function, powering down after 8-12 minutes of inactivity to conserve energy.

Lightweight and Energy Efficient

***Auto Off After 13 min Idle**



Image: The ROATEE Construction Calculator highlighting its lightweight design (95g) and compact dimensions (6x3x0.3 inches).

Operating Instructions

This calculator is equipped with over 200 functions tailored for construction and engineering tasks. It supports direct input in feet-inches-fractions and various other units.

Key Functions Overview

Uses 2 AG13 or 2 LR44 Button Batteries

12 Digit Display Screen

Pitch, Rise,Run:

Rafter, Roof Layouts;
Slope, Rake-Wall,
Polygon

Comp Miter:

Compound Miter for
exact cut angles;
Spring (Crown)
Angle

Stair:

Risers, Treads,
Stringer, Incline Angle,
Stairwell Opening

U.S./Metric:

Units - Work in
Feet-Inch-Fractions,
Millimeters, Meters

Conv:

Perform Conversions;
Access Secondary
Functions

Hip/V, Jack:

Fast Rafter Dimensions;
Irregular Pitch,
Irregular Jacks

Diag:

Instant Diagonal/
Square-ups

Arc, Circ:

Advanced Circular
Calculations,
including Column
and Cone

Length, Width, Height:

Find Area, Volume,
Square-up,
Perimeter, Wall Area,
Room Area; Blocks,
Footing, Drywall

Stor/Prefs:

Store and Set
Preferences for
Fractions, Riser Height,
Floor Height, Studs
On-center and More!

Backspace Key:

Easily Edit Entries



Image: A detailed diagram of the calculator's display and buttons, explaining the purpose of each key, including Pitch, Rise, Run, Diag, Arc, Circ, Comp Miter, Stair, and various unit conversions.

- **Mixed Dimension Calculations and Conversions:** Easily work with feet, inches, and fractions, as well as metric units.
- **Area & Volume:** Calculate areas and volumes for various shapes and materials.
- **Concrete:** Functions for concrete volume and foundation correction.
- **Boards, Flooring, and Wall Stud:** Estimate material quantities for these applications.
- **Drywall Sheet Count:** Determine the number of drywall sheets needed.
- **Circle Area, Circumference, and Arc Properties:** Essential for circular layouts and designs.
- **Compound Miter:** Calculate precise angles for compound miter cuts.
- **Polygon Tiling:** Assist in laying out polygonal patterns.
- **Roofing Material:** Estimate roofing material requirements.
- **Right Angle and Rafter:** Solve for right-angle solutions and rafter lengths.
- **Roof Pitch and Angle Conversions:** Convert between different roof pitch representations.
- **Common Rafter Length, Common/Hip/Jack Rafter and Spacing:** Specialized functions for roof framing.
- **Stair Layout:** Calculate risers, treads, stringer length, and incline angle for stair construction.
- **Rake Wall Calculations:** Determine dimensions for rake walls.
- **Storage Registers:** Utilize 3 storage registers for frequently used parameters.

Display Features

The calculator features a 3-inch, 12-digit LCD display for clear and easy reading of calculations and results, minimizing errors.

3" Display, Accuracy at a Glance



Image: A close-up view of the calculator's 3-inch display showing a calculation, and an inset image detailing the ultra-responsive key mechanism.

Practical Applications

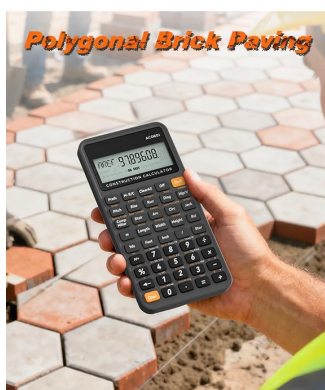


Image: Demonstrations of the calculator's use in stair step design, material cost estimation, and polygonal brick paving.



Image: Demonstrations of the calculator's use in earthwork, concrete pouring, and roof construction.

Official Product Video

Your browser does not support the video tag.

Video: An official product video from ROATEE-US demonstrating the construction calculator's features and applications for carpenters, framers, and remodelers.

Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the calculator's surface. Avoid using abrasive cleaners, solvents, or harsh chemicals, as these can damage the display or casing.
- **Storage:** Store the calculator in a cool, dry place away from direct sunlight and extreme temperatures. If the calculator will not be used for an extended period, it is recommended to remove the batteries to prevent leakage.
- **Handling:** While designed to be durable, avoid dropping the calculator or subjecting it to excessive force, which could damage internal components or the display.

Troubleshooting

- **Blank Display:** If the display is blank or dim, check the batteries. Replace them if necessary, ensuring correct polarity.
- **Incorrect Calculations:** Ensure that the correct units are selected for your calculations (e.g., feet, inches, fractions). Verify your input values and the function selected. If issues persist, try resetting the calculator by pressing the **On/C** button.
- **Unresponsive Keys:** If a key is not responding, gently clean around it to remove any dust or debris. Avoid pressing keys with excessive force.
- **Calculator Freezes:** If the calculator becomes unresponsive, turn it off and then on again. If this does not resolve the issue, remove and reinsert the batteries.

Specifications

Feature	Detail
Brand	ROATEE
Model Number	AC0601-U-5D-5001
Calculator Type	Engineering/Scientific
Power Source	2 x AG13 or LR44 Button Batteries (included)
Screen Size	3 Inches
Display Type	LCD (12 digits)
Enclosure Material	Plastic
Item Dimensions (L x W)	6"L x 3"W (approx. 16cm x 8cm)
Weight	95g
Auto Shut-off	8-12 minutes of inactivity

Warranty and Support

For warranty information, technical support, or any inquiries regarding your ROATEE Construction Calculator, please refer to the documentation included with your purchase or contact ROATEE customer service directly. Contact details can typically be found on the manufacturer's official website or on the product packaging.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question