

USER'S GUIDE

PROJECTCALC® PLUS

Model 8525/8526



CALCULATED INDUSTRIES®

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KEY DEFINITIONS

On/C - On/Clear Key

Turns power on. Pressing once clears the display. Pressing twice clears all temporary values.

Conv On/C - Off

Turns all power off, clearing all non-permanent registers.

Rcl - Recall

Recalls stored values.

+ **-** **x** **÷** **=**

Arithmetic operation keys.

0 - **9** and **.**

Digits used for keying in numbers.

Dimensional Unit Keys

Yds - Yards Key

Enters or converts to Yards.

Feet - Feet Key

Enters or converts to Feet as whole or decimal numbers. Also used with the **Inch** and **/** keys for entering Feet-Inch-Fraction values (e.g., **6 Feet 9 Inch 1 / 2**). Repeated presses during conversions toggle between Feet-Inch-Fractions and Decimal Feet.

Inch - Inch Key

Enters or converts to Inches. Entry can be whole or decimal number. Also used with the **1/** key for entering Fractional Inch values (e.g., **9** **Inch** **1** **1/** **2**). Repeated presses during conversions toggle between Fractional and Decimal Inches.

1/ - Fraction Bar Key

Used to enter fractions. Fractions can be entered as proper ($1/2$, $1/8$, $1/16$) or improper ($3/2$, $9/8$).

Met - Meter Key

Enters or converts to Meters.

Convert Key Functions

Conv - Convert Key

Used with the dimensional unit keys to convert between dimensions, the **Project Keys** to calculate material quantities, or with other keys to access special functions.

Conv **X** - Clear All

Clears all stored values and sets calculator back to defaults.

Conv **1/** - Percent (%)

Four-function (+, -, x, ÷) percent.

Conv **±** - **Change Sign (+ / -)**

Toggles displayed value to positive or negative. (Repetitive presses of **Conv** **±** will change sign from positive or negative.)

Conv **√** - **Square Root**

Finds Square Root of value in display.

Conv **x²** - **x²**

Finds Square of value in display.

Conv **Stor** - **Pi (π)**

Constant 3.141593.

Memory

Stor **Met** (**M+**) - Adds or stores a value in the semi-permanent memory (e.g., **1** **5** **0** **Stor** **Met**). Semi-permanent means the value is cleared when the calculator is turned off.

Conv **±** **Stor** **Met** (**M-**) - Subtracts a value from the semi-permanent Memory (e.g., **1** **5** **0** **Conv** **±** **Stor** **Met** subtracts 150 from the memory).

Rcl **Met** (**M-R/C**) - Recalls Memory value (e.g., if 150 has been stored in Memory, pressing **Rcl** **Met** will display 150).

Rcl **Rcl** - Displays and clears Memory value.

Entering Square or Cubic

To label a dimension as "Square" or "Cubic," enter the value, then press the desired dimension key twice for Square and three times for Cubic. For example, to enter 25 Cubic Yards, press **2** **5** **Yds** **Yds** **Yds**.

Fraction Resolution

Your calculator is set to display Fractional values to the nearest 16th of an Inch (default setting). Press **Rcl** **/** to access the fraction resolution setting. Repeated presses of **/** will then revolve through the available settings: 1/16, 1/32, 1/64, 1/2, 1/4 and 1/8. Press **On/C** to exit.

Project Keys

Paint - Paint

Calculates volume of paint, based on an entered area and a stored **Paint Coverage per Gallon** (see below). Finds quantity in Gallons, Quarts or Pints upon repeated presses.

Stor **Paint** - Stores Paint Coverage

Stores Paint Coverage per Gallon. To recall this setting, press **Rcl** **Paint**. Default is 350 sq.ft. per gallon.

Wall Paper - Wallpaper

Calculates number of rolls of wallpaper, based on an entered area and a stored **Wallpaper Roll Coverage Area** (see below).

Stor **Wall Paper** - Stores Wallpaper Roll Coverage Area

Stores Coverage Area (in Square Feet) per Wall-paper Roll. To recall this setting, press **Rcl** **Wall Paper**. Default is 56 Square Feet per roll.

Tile - Tile

Finds the number of tiles, based on an entered area and a user-stored **Grout Width** (see below). Repeated presses will scroll between numbers of tiles for various "standard" tile sizes (18", 16", 13", 12", 10", 8", 6", 4", 2", 1" and 24").

***Note:** Tile sizes shown in Inches, not Square Inches (as used in custom tile size calculations). In other words, a 6" tile is really 6" x 6", or a 36 Square-Inch tile, but it is labeled as a 6" size.*

Stor **Tile** - Stores Grout Width

Stores Grout Width in Inches; used in calculating the number of tiles (see above). To recall this setting, press **Rcl** **Tile**. Default is 0 (no grout width).

Deck - **Deck**

Finds the number of boards for a deck, based on an entered area and a stored **Board Width** or **Board On-Center** (see below). Repeated presses will scroll between numbers of boards for various "standard" board lengths (12', 10', 8', 20', 18', 16' and 14').

Stor Deck - **Stores Board Width/O.C.**

Stores Board Width or Board On-center for deck or fence calculations. To recall this setting, press **Rcl Deck**. Also used to store the board On-center for Fence Spacing. Default is 5-11/16 Inches.

Fence - **Fence**

Multi-function key that finds the number of fence boards, number of posts and number of rails based on an entered distance, **Board Width/O.C.** and post spacing.

Stor Fence - **Stores Post Spacing**

Stores Post Spacing On-center for fence in Feet-Inches. To recall this setting, press **Rcl Fence**. Default is 8 Feet.

Conv **7** - **Board Feet**

Calculates number of board Feet based on entered volume. One board foot equals 144 Cubic Inches.

Conv 8 - Studs

Calculates number of studs, based on an entered linear distance and a stored **On-Center Spacing** (see below).

Note: Automatically adds one stud to the calculated answer to account for one on the end.

Stor 8 - Stores On-Center for Studs

Stores On-center spacing for studs in inches. To recall this setting, press **Rcl 8**. Default is 16".

Conv 9 - Roof Bundles

Calculates number of bundles of roof shingles, based on an entered roof area and a stored **Area per Roof Bundle** (see below).

Stor 9 - Stores Area per Roof Bundle

Stores the Coverage Area per Roof Bundle. To recall this setting, press **Rcl 9**. Default is 33.33 sq.ft.

Conv 4 - 4x8 Sheet

Calculates number of 4' x 8' sheets (for drywall, paneling), based on entered linear distance or area.

Conv 5 - Carpet

Calculates carpet length required (of either 12', 13' or 15'-wide carpet rolls), based on entered area. Repeated presses of **5** will scroll between values for 12', 13', and 15' rolls.

Conv **6** - **Custom Tile**

Calculates number of tiles based on an entered area and a stored **Custom Tile Size** (see below). This is used separately from the regular Tile Key (**Tile**).

Note: Calculation does not account for grout width for custom tiles, so you will need to adjust for this.

Stor **6** - **Stores Custom Tile Size**

Stores Custom Tile Size in Square Inches. To recall this setting, press **Rcl** **6**. Default is 24 Square Inches.

Conv **1** - **Concrete**

Calculates the number of bags of concrete required, based on an entered volume (e.g., cubic feet or cubic yards) and a stored **Volume per Bag** (see below).

Stor **1** - **Stores Concrete Volume per Bag**

Stores the Volume per Bag of concrete. To recall this setting, press **Rcl** **1**. Default is 0.67 Cubic Feet per bag (80 lbs.).

Conv **2** - **Brick**

Calculates the number of standard eight Inch-size U.S. bricks (with 3/8" mortar) based on entered linear distance (or area, volume) for both "face" (21-Square Inch) and "paver" (32-Square Inch) brick applications.

Conv **3** - **Block**

Calculates the number of standard 128-Square Inch blocks (with 1/2" mortar), based on an entered linear distance or area and a stored **Block Area** (see below).

Stor **3** - **Stores Block Area**

Stores Block Area in Square Inches. To recall this setting, press **Rcl** **3**. Default is 128 Square Inches (includes 1/2" mortar).

Note: When calculating the number of blocks for an entered length, calculator uses a 16-Inch block length, as the majority of blocks are 16" long.

Conv **0** - **Gravel**

Calculates tons of gravel required, based on an entered volume and a stored **Weight per Volume** (see below).

Stor **0** - **Stores Gravel Weight per Volume**

Stores the number of Tons per Cubic Yard of gravel. To recall this setting, press **Rcl** **0**. Default is 1.5 tons per Cubic Yard.

Conv **•** - **Cost**

"Cost" function that allows you to calculate total material cost.

Conv **=** - **Mulch**

Calculates the number of bags of mulch you'll need, based on an entered volume and a stored **Volume per Bag** (see below).

Stor **=** - **Stores Volume per Bag of Mulch**

Stores the Volume per Bag of mulch. To recall this setting, press **Rcl** **=**. Default is 2 Cubic Feet per bag.

BASIC DIMENSIONAL MATH**Linear Conversions**

Convert 15 Feet 9-1/16 Inches to other units of measure.

KEYSTROKE	DISPLAY
On/C	0.
1 5 Feet 9 Inch 1 / 1 6	15 FEET 9-1/16 INCH
Conv Feet	15.75521 FEET
Conv Inch	189.0625 INCH
Conv Yds	5.251736 YD
Conv Met	4.802187 M

Convert Decimal Inches to Fractional Inches.

KEYSTROKE	DISPLAY
On/C	0.
1 4 . 7 9 3 Inch	14.793 INCH

Conv **Inch**

14-13/16 INCH

Square and Cubic Conversions

Convert 25 Square Feet to other Square dimensions.

KEYSTROKE

DISPLAY

On/C

0.

2 **5** **Feet** **Feet**

25. SQ FEET

Conv **Yds**

2.777778 SQ YD

Conv **Met**

2.322576 SQ M

Convert 25 Cubic Feet to Cubic Yards.

KEYSTROKE

DISPLAY

On/C

0.

2 **5** **Feet** **Feet** **Feet**

25. CU FEET

Conv **Yds**

0.925926 CU YD

Basic Dimensional Math

KEYSTROKE

DISPLAY

On/C

0.

Adding Dimensions:

1 **0** **Inch** **+** **2** **Feet** **5** **Inch** **=**

3 FEET 3 INCH

Subtracting Dimensions:

5 **Feet** **-** **1** **Inch** **3** **/** **4** **=**

4 FEET 10-1/4 INCH

Dividing Dimensions:

1 **0** **Feet** **÷** **1** **Inch** **1** **/** **4** **=** 96.*(Cont'd)*

(Cont'd)

Multiplying Dimensions/Waste Factor Allowance:

1 5 0 Feet Feet + 1 0 Conv / (%)
165. SQ FEET

Finding Area/Square Feet:

2 Feet X 1 Feet 2 Inch =
2.333333 SQ FEET

Finding Volume/Cubic Feet:

5 Feet X 1 • 5 Feet X 2 Inch =
1.25 CU FEET

“Square-up”/Diagonal

“Square-up” (find the diagonal to ensure a right angle) a concrete pad that has a length of 10 Feet and a width of 20 Feet.

KEYSTROKE

DISPLAY

On/C	0.
1 0 Feet Conv + (X ²) +	100. SQ FEET
2 0 Feet Conv + (X ²)	400. SQ FEET
= Conv ÷ (√x)	22 FEET 4-5/16 INCH

PROJECT EXAMPLES - USING DEFAULT VALUES

Paint: Gallons, Quarts or Pints of

How many quarts of paint will you need to cover a wall measuring 12' x 8'? How many pints? How many gallons?

KEYSTROKE	DISPLAY
On/C	0.
1 2 Feet X 8 Feet =	96. SQ FEET
Paint	1.10 QT
Paint	2.19 Pt
Paint	0.27 GL

You can store a custom paint coverage per Gallon by entering the new value then pressing **Stor Paint** (e.g., **2 5 0 Feet Feet Stor Paint**).

Wallpaper: Rolls of

Find the number of wallpaper rolls needed for a wall measuring 8' x 12'.

KEYSTROKE	DISPLAY
On/C	0.
8 Feet X 1 2 Feet =	96. SQ FEET
Wall Paper	1.71 ROLL

You can store a custom wallpaper coverage area by entering the new value then pressing **Stor Wall Paper** (e.g., **6 0 Feet Feet Stor Wall Paper**).

Tiles: Number of

How many tiles do you need to cover a floor measuring 10' x 15'? You want a grout width of 1/8", but you're not sure of the tile size you're going to use. So, find the number of tiles in various sizes. Also, add a 10% waste allowance, in case you need extra tile.

(Cont'd)

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Note: After converting to Tile, press the **Tile** key until you reach the desired tile size. (The **ProjectCalc Plus** lists 11 of the most popular tile sizes.)

KEYSTROKE	DISPLAY
On/C	0.
1 / 8 Stor Tile (Grout Width)	
	STOR 0-1/8 INCH GROUT
1 0 Feet X 1 5 Feet =	150. SQ FEET
+ 1 0 Conv / (%)	165. SQ FEET
Tile	72.33 TILE (18 in)
Tile	91.38 TILE (16 in)

Continuous presses of **Tile** display the number of Tiles for the following additional sizes: 13", 12", 10", 8", 6", 4", 2", 1", 24".

Custom Tiles: Number of - Using Other Than Default Custom Size

How many tiles do you need if you're using a custom tile size of 4-1/4" x 4-1/4" to cover a floor that is 10' x 15'?

KEYSTROKE	DISPLAY
On/C	0.
4 Inch 1 / 4 X 4 Inch	
1 / 4 = Stor 6 (Custom Tile)	
	STOR TILE 18.06 SQ INCH
1 0 Feet X 1 5 Feet =	150. SQ FEET
Conv 6 (Custom Tile)	1195.85 TILE

Deck: Number of Boards

Find the number of boards needed to build a deck, if the deck area measures 7' x 16'.

KEYSTROKE

DISPLAY

On/C	0.
7 Feet X 1 6 Feet =	112. SQ FEET
Deck	20. BDS (12 Ft)
Deck	24. BDS (10 Ft)
Deck	30. BDS (8 Ft)
Deck	12. BDS (20 Ft)
Deck	14. BDS (18 Ft)
Deck	15. BDS (16 Ft)
Deck	17. BDS (14 Ft)
Deck *	STOR 5-11/16 INCH BD W

**Last press displays stored board width.*

You can store a custom board On-center by entering the new value then pressing **Stor** **Deck** (e.g., **4** **Inch** **Stor** **Deck**).

Fence: Number of Fence Boards, Posts and Rails

Find the number of fence boards, posts and rails required to build a fence, if the distance for the fence is 40' 6".

Note: The last two presses in the following example will display stored post On-center and board width.

(Cont'd)

(Cont'd)

KEYSTROKE	DISPLAY
On/C	0.
4 0 Feet 6 Inch	40 FEET 6 INCH
Fence	86. BDS
Fence	7. POST
Fence	12. RL
Fence	STOR 8 FEET 0 INCH POST OC
Fence	STOR 5-11/16 INCH BD W

You can store a custom post On-center by entering the new value then pressing **Stor Fence** (e.g., **6 Feet Stor Fence**).

Board Feet: Lumber Estimation

Find the total board Feet for three 2" x 4" x 14' boards.

KEYSTROKE	DISPLAY
On/C	0.
2 Inch X 4 Inch X 1 4 Feet =	1344. CU INCH
Conv 7 (Bd Feet)	9.33 BD FEET
X 3 =	28.

Studs: Number of

How many 16" on-center studs are required for a 15'6" wall?

KEYSTROKE	DISPLAY
On/C	0.
1 5 Feet 6 Inch	15 FEET 6 INCH
Conv 8 (Studs)	13. ST*

**Automatically includes one stud for the end.*

You can store a custom stud On-center by entering the new value then pressing **Stor** **8** (e.g., **2** **4** **Inch** **Stor** **8**).

Roofing: Bundles of Roof Shingles

How many bundles of roof shingles will you need to cover a 14' x 11' section of roof?

KEYSTROKE	DISPLAY
On/C	0.
1 4 Feet X 1 1 Feet =	154. SQ FEET
Conv 9 (<i>Roof Bundle</i>)	4.62 rF bn

You can store a custom roof bundle coverage area by entering the new value then pressing **Stor** **9** (e.g., **5** **0** **Feet** **Feet** **Stor** **9**).

Drywall: Number of 4'x 8' Sheets

How many 4' x 8' drywall sheets do you need for a wall measuring 16' x 8'?

KEYSTROKE	DISPLAY
On/C	0.
1 6 Feet X 8 Feet =	128. SQ FEET
Conv 4 (<i>4x8 Sheet</i>)	4.00 sh

Carpet: Length of

Find the quantity of carpet needed to cover a floor that measures 12' 6" x 10' in area.

(Cont'd)

(Cont'd)

KEYSTROKE	DISPLAY
On/C	0.
1 2 Feet 6 Inch X 1 0 Feet =	125. SQ FEET
Conv 5 (Carpet)	13.89 SQ YD
5	10.42 FEET (12 Ft ROLL)
5	9.62 FEET (13 Ft ROLL)
5	8.33 FEET (15 Ft ROLL)

Concrete: Bags of

Find the number of bags of concrete for a patio measuring 9' x 15' x 4".

KEYSTROKE	DISPLAY
On/C	0.
9 Feet X 1 5 Feet X 4 Inch =	45. CU FEET
Conv 1 (Concrete)	67.50 BAG

You can store a custom concrete bag volume by entering the new value then pressing **Stor 1** (e.g., **5 Feet Feet Feet Stor 1**).

Bricks/Blocks: Number of, for a Wall

Find the number of bricks, both face and paver, and concrete blocks needed to build a 14' x 8' wall.

KEYSTROKE	DISPLAY
On/C	0.
1 4 Feet X 8 Feet =	112. SQ FEET
Conv 2 (Brick)	768.00 F br (face bricks)

(Cont'd)

KEYSTROKE	DISPLAY
On/C	0.
2 Feet 6 Inch X 1 2 Feet X 3 Inch =	7.5 CU FEET
Conv = (Mulch)	3.75 BAG

You can store a custom mulch bag volume by entering the new value, then pressing

Stor **=** (e.g., **3** **Feet** **Feet** **Feet** **Stor** **=**).

FINDING THE COST OF MATERIALS

Cost of Concrete

How much will 216 Cubic Feet of concrete cost, if the Cost Per Cubic Yard is quoted at \$50?

KEYSTROKE	DISPLAY
On/C	0.
2 1 6 Feet Feet Feet	216. CU FEET
Conv Yds	8. CU YD
X 5 0 Conv • (Cost)	400. ⁰⁰
	<i>(It'll cost approx. \$400)</i>

AUTO SHUT-OFF AND BATTERIES

Reset

If your calculator should ever "lock up," press Reset - a small hole located above the **Fence** key/upper right - using the end of a paper clip.

Auto Shut-Off and Batteries

Auto Shut-Off: After 8-12 minutes of non-use.

Batteries Included: Two LR-43 batteries.

Battery-Life: 575 hours of actual use.

To replace the batteries, use a small Phillip's head screwdriver and unscrew the single screw in the center of the battery door, located on the back of the calculator

Carefully remove the battery door, remove the old batteries from the clips and replace them with two new LR-43 batteries. Make sure the positive sides (+) are facing up. Replace the battery door and re-attach the screw.

For complete Warranty, Repair and Return information, go to www.calculated.com

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Designed in the U.S.A.

U.S. Patent 6,721,623

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Quick Reference Guide

Basic Examples

Unit keys: **Yds** **Feet** **Inch** **Met**

Press **On/C** after each example.

For length, press unit key once:

6 **Feet** **3** **Inch** **5** **/** **8** 6 FEET 3-5/8 INCH

For area, press unit key twice:

7 **Feet** **Feet** 7. SQ FEET

For volume, press unit key three times:

2 **5** **Feet** **Feet** **Feet** 25. CU FEET

Key Definitions

Conv converts displayed value into selected material and accesses secondary functions.

Conv **X** returns stored values to defaults.

Stor use to store these material values:
Paint Coverage, Roll Size, Grout Width,
Board o.c., Post o.c., Studs, Roof Bundle,
Custom Tile, Concrete, Block, Gravel, Mulch.

Stor **Met** stores values into Memory.

Rcl recalls stored or default values.

Deck uses value stored in Board o.c. (actual board width plus space between boards) to calculate deck materials.

Fence uses stored values in Board o.c. and Post o.c. to calculate fence materials.