

SciMath Keyboard

User Manual

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© 2026 J. W. Bruce Shaw

SciMathKeyboard@gmail.com

scimathkeyboard.com

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What Is SciMath?

SciMath is a keyboard for iOS and iPadOS that gives you the symbols science, mathematics, and technical writing actually need — without copying and pasting from character maps, switching apps, or compromising with approximations.

Every symbol on SciMath is a proper Unicode character. It copies, searches, and renders correctly in every app that supports Unicode text — word processors, email clients, notes apps, messaging, and anywhere else you can type.

SciMath is a one-time purchase. There is no subscription, no in-app purchase, and no advertising of any kind. The price you paid is the only transaction.

SciMath does not require Full Access and will never ask for it. It never logs what you type, never makes network requests, and contains no analytics or telemetry of any kind. See Section 20 for details.

Installation

1. Download **SciMath Keyboard** from the App Store.
2. Open **Settings** → **General** → **Keyboard** → **Keyboards** → **Add New Keyboard**.
3. Select **SciMath Keyboard** from the list.

Note

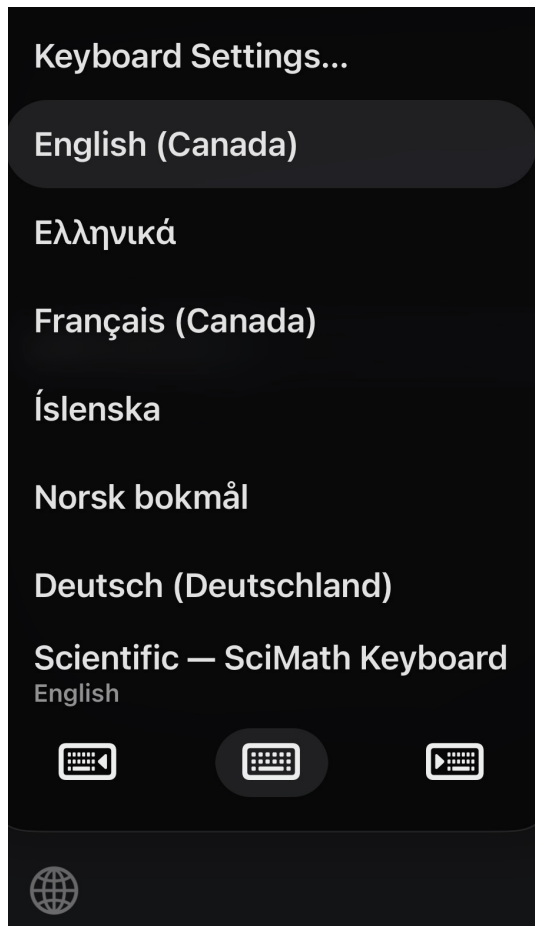
iOS will display a warning that the keyboard “may be able to access everything you type.” This warning is shown for every third-party keyboard regardless of its actual behaviour. SciMath never reads, stores, or transmits what you type. You do not need to enable Full Access. SciMath works completely without it.

Switching To and From SciMath

Switching to SciMath

Tap the globe key on any keyboard to cycle to the next installed keyboard.

Hold the globe key to see a list of all installed keyboards. Tap **Scientific — SciMath Keyboard** to switch directly.



Switching Away from SciMath

Tap the globe key on SciMath to advance to the next installed keyboard.

Hold the globe key to pick any installed keyboard from the list.

The Four Layers

SciMath has four layers. You are always on exactly one of them.

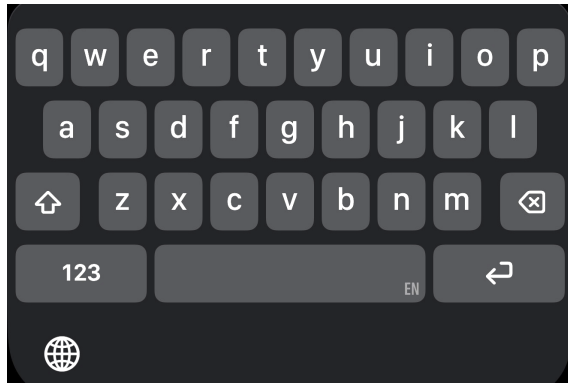
Layer	Contents	How to reach it
ABC	Letters and diacriticals	ABC button from any layer
123	Numbers and punctuation	123 button
#+=	Brackets and operators	#+= button (from 123)
sci	Scientific symbols	sci button (from #+=)

To reach the ABC layer from anywhere: tap the ABC button. It is always available.

To cycle through symbol layers: tap 123 → #+= → sci → 123. Each tap advances one step.

To jump to sci quickly: tap 123, then #+=, then sci. Three taps from letters.

The ABC Layer



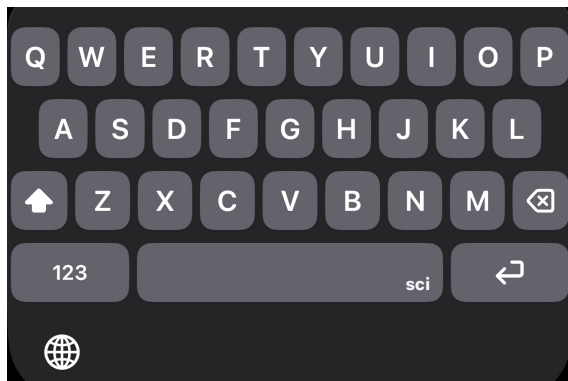
Lowercase and Uppercase

The ABC layer opens in lowercase.

To type one uppercase letter: tap Shift once. The shift key highlights. Type the letter. The keyboard returns to lowercase automatically.

To lock uppercase (Caps Lock): tap Shift twice in quick succession. The shift key remains highlighted. Every letter you type is uppercase until you tap Shift again to unlock.

To return to lowercase from Caps Lock: tap Shift once.



Note

Shift state applies only to letter keys. Tapping a number, symbol, or sci key does not cancel shift. Shift cancels when you type a letter (in non-Caps-Lock mode) or tap Shift again.

The Letter Keys

The letter keys produce the standard QWERTY layout. Tap any key to insert that letter. In shift mode, the uppercase form is inserted. Most letter keys have diacritical alternates on long-press. See Section 6.

The Spacebar



Tap the spacebar to insert a space.

Hold the spacebar to enter Trackpad Mode. See Section 10.

The Return Key



Tap Return to insert a line break. The return key appearance may change depending on the app — some apps show a search icon, a go arrow, or a done checkmark. SciMath follows whatever the app requests.

Backspace



Tap Backspace to delete one character to the left of the cursor.

Hold Backspace to delete continuously. Deletion accelerates if you hold for an extended period.

Diacritical Marks

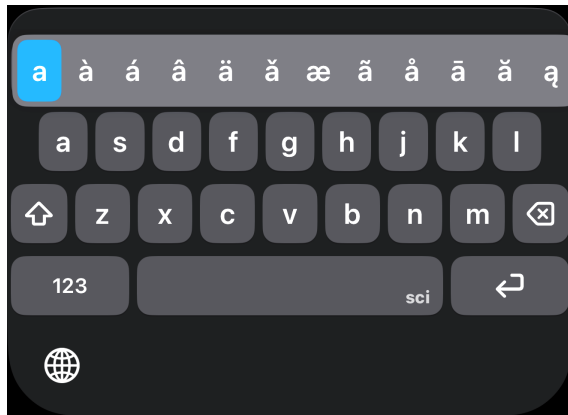
A diacritical mark is a symbol added to a base letter to indicate a change in pronunciation or meaning. Hold any letter key to see its available diacritical alternates.

SciMath provides a larger set of diacritical alternates than the stock iOS English keyboard, covering French, German, Scandinavian, Spanish, Eastern European, and scholarly Latin forms.

Procedure: Key Not on the Top Row

Keys on rows 2 and 3 of the ABC layer (a s d f g h j k l and z x c v b n m) produce a popup that rises **above** the key.

1. **Hold** the key. After a brief moment a row of alternates rises above the key. The base letter is highlighted at the left end.
2. **Slide** your finger across the popup without lifting. Each character highlights as your finger passes over it.
3. **Lift** your finger over the character you want. That character is inserted.
4. To insert the base letter instead, lift over the highlighted base letter at the left of the popup, or simply tap rather than hold.



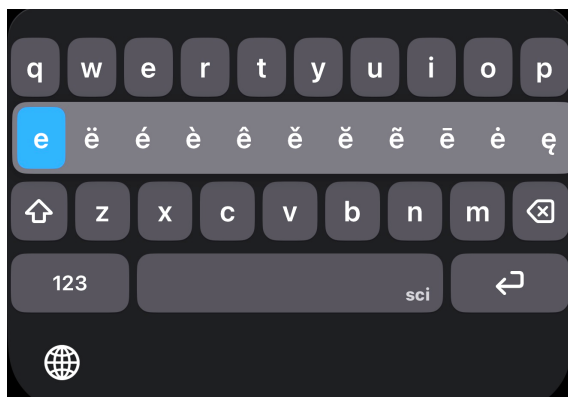
Note

You do not need to keep your finger directly above the key. Once the popup appears, you can slide anywhere along it. If your finger leaves the popup area entirely, the last highlighted character remains selected; lift to insert it.

Procedure: Key on the Top Row

Keys on the top row of any layer — q w e r t y u i o p on ABC; the digit keys on 123; and the first row of #+= and sci — produce a popup that drops **below** the key. There is no space above a top-row key within the keyboard boundary.

1. **Hold** the key. After a brief moment a row of alternates drops below the key. The base character is highlighted at the left end.
2. **Slide** your finger downward and across the popup without lifting.
3. **Lift** your finger over the character you want.



Note

The direction of the popup — up or down — is determined entirely by row position. If the popup appears above the key, slide up. If it appears below, slide down. The gesture is otherwise identical in both cases.

Selecting a Character by Sliding

In both procedures, the slide gesture works the same way:

- Slide slowly. Each character highlights as you enter its zone.
- You can slide back and forth to change your selection before lifting.
- Lift anywhere over a highlighted character to insert it.
- If you lift on the base character (leftmost), the base character is inserted.
- If you lift outside the popup entirely, the most recently highlighted character is inserted.

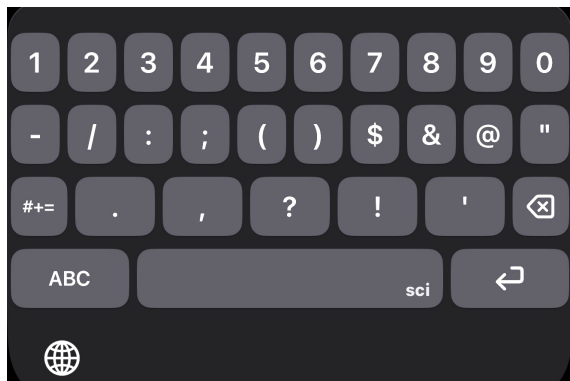
Diacritical Mark Reference

Mark	Name	Example
Grave accent	Low-pitch or open vowel (French, Italian)	à è ì ò ù
Acute accent	High-pitch or stressed vowel (French, Spanish)	á é í ó ú
Circumflex	Historically long vowel (French)	â ê î ô û
Umlaut / Diaeresis	Modified vowel quality (German, French)	ä ë ï ö ü
Tilde	Nasalized vowel or palatal n (Spanish)	ã ñ ã
Ring above	Scandinavian (Swedish, Norwegian, Danish)	å
Stroke	Scandinavian (Norwegian, Danish)	ø
Ligature	Merged vowel sounds	æ œ
Macron	Long vowel (scholarly Latin, Latvian)	ā ē ī ō ū
Breve	Short vowel (Romanian, Turkish)	ă ă
Caron / Háček	Softened consonant or vowel (Czech, Slovak)	č ě š ž
Dot above	Lithuanian, Polish, historical English	ė ž
Ogonek	Nasalized vowel (Polish, Lithuanian)	ą ę
Cedilla	Softened c (French, Portuguese, Turkish)	ç
Double acute	Hungarian long modified vowel	ő ú

Shift and Diacriticals

If Shift is active when you open a long-press popup, every alternate in the popup appears in its uppercase form. Slide and lift as normal to insert the uppercase diacritical character.

The 123 Layer

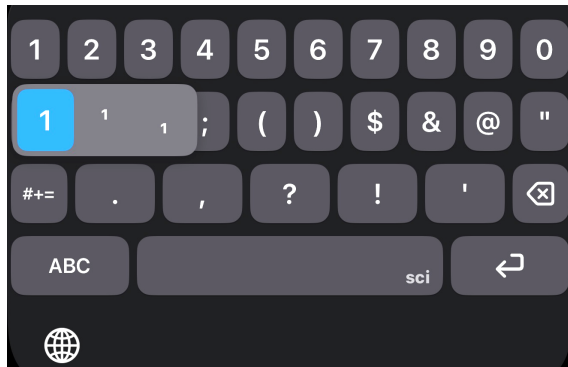


Number Keys

The top row contains the digits 0 through 9. Tap any digit to insert it.

Superscripts and Subscripts

Hold any digit key to open a popup containing the Unicode superscript and subscript forms of that digit. These are proper Unicode characters, not formatted text. The digit keys are on the top row; their popups drop **below** the key.



Key	Superscript	Subscript
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

Tip

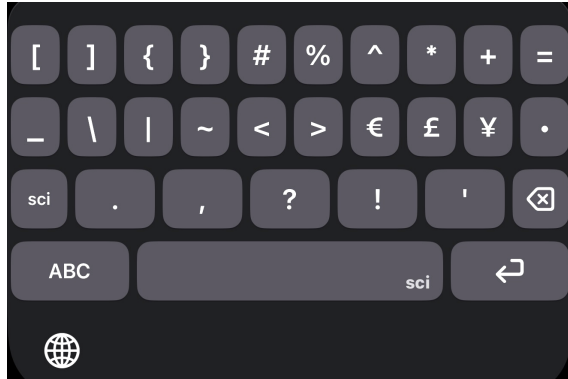
Staying in the 123 layer after inserting a superscript or subscript lets you chain multiple script characters without switching layers.

Punctuation Long-Press Alternates

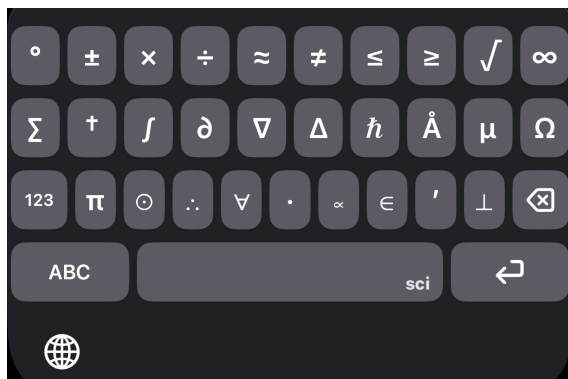
Key	Alternates
?	¿ (percontation point) ¿ (inverted, Spanish) ? (interrobang)
!	¡ (inverted, Spanish)
-	– (en dash) — (em dash) • (bullet)
\$	€ ¢ ¥ £ ₣ ₩ (currency)
;	… (ellipsis)
,	‘ ’ ’
"	« » „ ” ”

Note

The percontation point ? is a historical punctuation mark used to indicate that a question is rhetorical — that no answer is expected or intended.

The #+= Layer**Key Long-press alternates**

=	≡ (identical to)	⇒ (implies)	↔ (if and only if)	≠ (not equal)
<	< (left angle bracket)	≪ (much less than)		
>	> (right angle bracket)	≫ (much greater than)		
/	\ (backslash)			
&	§ (section mark)			

The sci Layer

The sci layer does not auto-return to ABC after an insertion. You can type an entire expression — such as $\nabla \times \mathbf{E} = -\partial \mathbf{B} / \partial t$ — without leaving the layer.

Row 1 — Operators and Comparisons

Symbol	Name	Common use
°	Degree	Temperature (°C, °F), angles

Symbol	Name	Common use
\pm	Plus-minus	Uncertainty ranges, tolerances
\times	Multiplication	Scalar and vector products
\div	Division	Inline division
\approx	Approximately	Approximations, estimates
\neq	Not equal	Inequalities
\leq	Less or equal	Bounds, constraints
\geq	Greater or equal	Bounds, constraints
$\sqrt{\quad}$	Square root	Radical sign
∞	Infinity	Limits, series, topology

Row 2 — Calculus, Constants, and Footnote Symbols

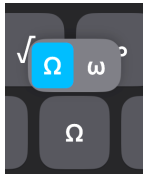
Symbol	Name	Common use
\sum	Summation	Series, sums over index sets
\dagger	Dagger	First footnote symbol in academic sequence; Hermitian conjugate in physics
\int	Integral	Definite and indefinite integrals
∂	Partial derivative	Partial differentiation
∇	Nabla / del	Gradient, divergence, curl
Δ	Delta (capital)	Change in a quantity; Laplacian in some notations
\hbar	h-bar	Reduced Planck constant $\hbar = h/2\pi$
\AA	Ångström	Atomic-scale length (10^{-10} m)
μ	Micro	SI prefix 10^{-6} ; micron
Ω	Ohm (omega)	Electrical resistance; long-press for ω

Row 3 — Logic, Set Theory, and Additional Math

Symbol	Name	Common use
π	Pi	Circle constant 3.14159...; long-press for \prod
\odot	Circled dot	Direct product, sun symbol; long-press for $\oplus \otimes$
\therefore	Therefore	Logic, proofs; long-press for \because
\forall	For all	Universal quantifier; long-press for \exists (there exists)
\cdot	Middle dot	Scalar product, multiplication
\propto	Proportional to	Proportionality relationships
\in	Element of	Set membership; long-press for $\notin \exists \subset \supset \cup \cap \emptyset$
$'$	Prime	Derivative notation; long-press for $''$
\perp	Perpendicular	Geometric perpendicularity; long-press for \parallel

Long-Press Alternates Summary

Hold	To get
π	\prod (product operator)
Ω	ω (omega lowercase)
\in	$\notin \exists \subset \supset \cup \cap \emptyset$
\odot	\oplus (direct sum) \otimes (tensor product)
\therefore	\therefore (because)
\forall	\exists (there exists)
\dagger	$\ddagger \S \parallel \P \times$
$'$	$''$ (double prime)
\perp	\parallel (parallel)

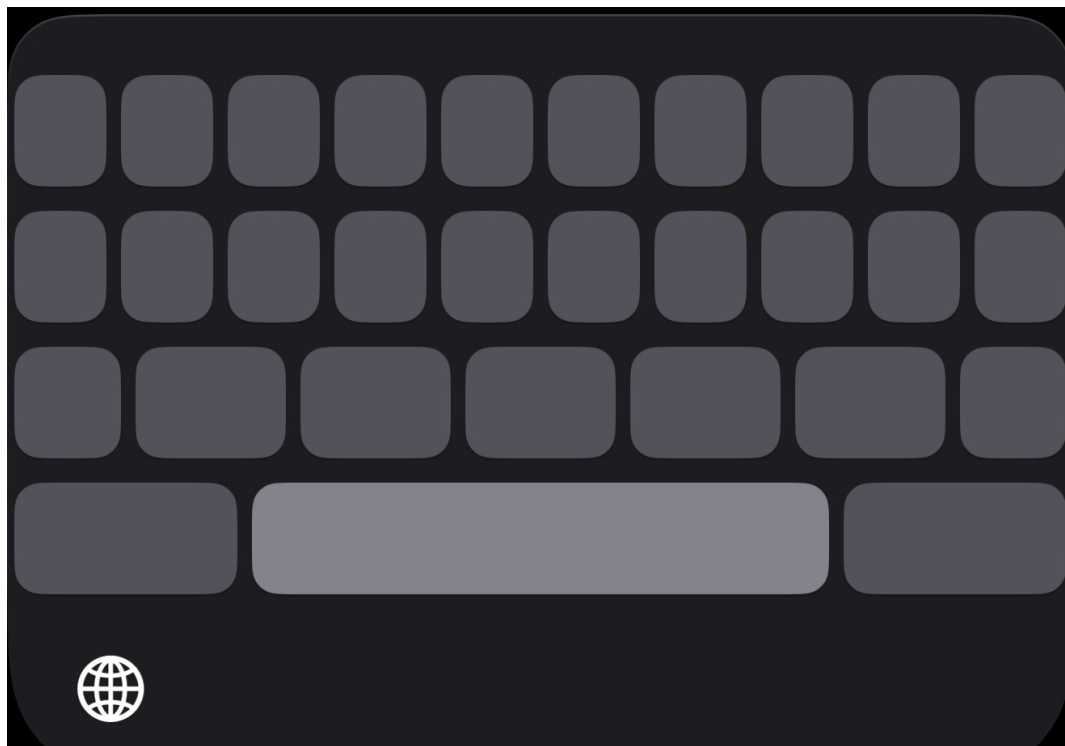


Note

The dagger long-press sequence — * † ‡ § || ¶ × — is the traditional Western footnote symbol sequence. Superscript numerals are not used for footnotes in mathematical or legal writing because they would be confused with exponents or citation indices.

Trackpad Mode

1. **Hold** the spacebar. After a moment the key labels fade.
2. **Drag** left or right to move the cursor. Drag slowly for fine positioning, faster for coarser movement.
3. **Lift** your finger. Key labels reappear and normal typing resumes.

**Note**

Trackpad mode works in any app that supports a standard text cursor.

The SciMath App

The SciMath app is a composition workspace. Use it to build expressions at your own pace, then copy the result to any other app. It also provides a clean background for screenshotting expressions.

Opening the Keyboard in the App

Tap the input field at the bottom of the screen. The SciMath keyboard appears. The field expands vertically as you type, up to five lines.

Submitting an Expression



Tap the **arrow button** to submit. The expression appears in the list above. The input field clears and is ready for a new expression.

Draft Autosave

Your current draft is saved automatically. If you close the app or switch away before submitting, the expression will be waiting when you return.

Copying an Expression



1. Tap **Copy** beside the entry.
2. The button briefly shows a checkmark to confirm.
3. Switch to your target app and paste.

Copying Part of an Expression

1. **Press and hold** the entry text. iOS text selection handles appear.
2. **Drag** the handles to select the portion you want.
3. Tap **Copy** from the iOS context menu.

Editing Entries



1. Tap **Edit** in the toolbar.
2. A delete control appears beside each entry. Tap the control beside the entry you want to remove, then tap **Delete** to confirm.
3. Tap **Done** to exit edit mode.

Clearing All Entries



Tap **Clear All** to remove every entry from the list at once.

Note

Clear All cannot be undone. Every entry is permanently removed.

Taking a Screenshot



1. Set the background using the appearance button (see Section 12.2).
2. Take an iOS screenshot using the side button + volume up, or via AssistiveTouch.
3. Open the screenshot in Photos and crop to the entry.

Settings

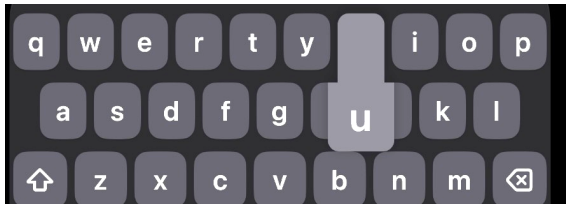
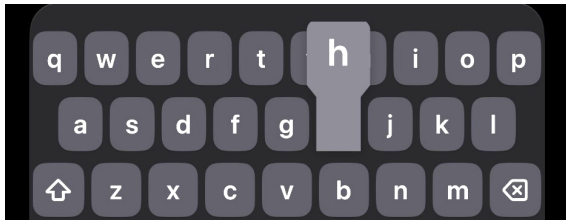
Both settings are in the app toolbar. They persist across sessions and apply to the keyboard immediately.

Key Flash

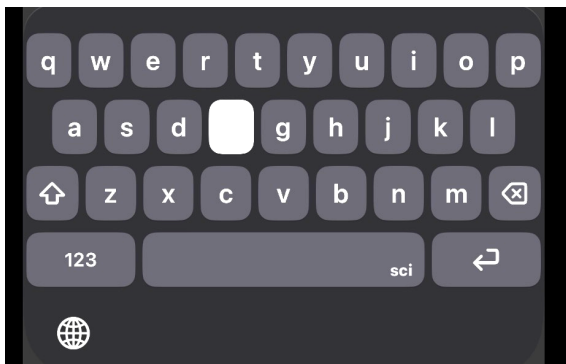
The lightbulb button toggles key flash.

Icon	Effect
	Keys brighten briefly on each tap
	No visual feedback on tap

When flash is **off**, on iPhone the standard iOS balloon preview appears above or below the key while your finger is down. Balloons on non-top-row keys rise above; balloons on top-row keys drop below.



When flash is **on**, each key brightens immediately on contact instead. The flash fires on first touch with no delay.






Tip

Key flash is visible in bright sunlight and high-ambient light conditions where balloon previews may be hard to see. If you use your device outdoors, flash on is recommended.

Appearance

The appearance button controls the SciMath app background.

Icon	Mode
	Follow iOS system setting
	Force light mode (white background)
	Force dark mode (dark background)

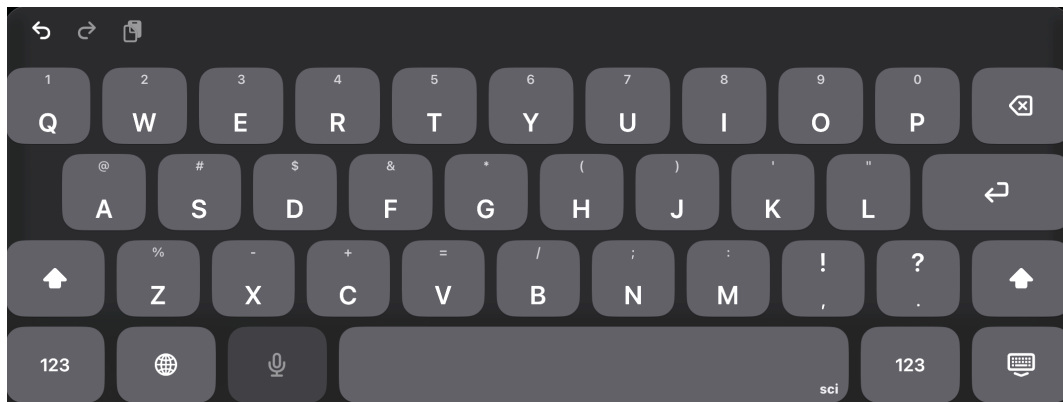
Tap the button to cycle through the three states.

iPad Features

Pull-Down Characters

On iPad, every key on the ABC and 123 layers shows a small secondary character above its main label.

1. Place your finger on the key.
2. **Swipe downward** in one motion.
3. Lift. The secondary character is inserted.

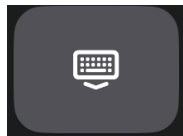


Note

Pull-down is a swipe, not a hold. A hold opens the long-press alternate popup instead.

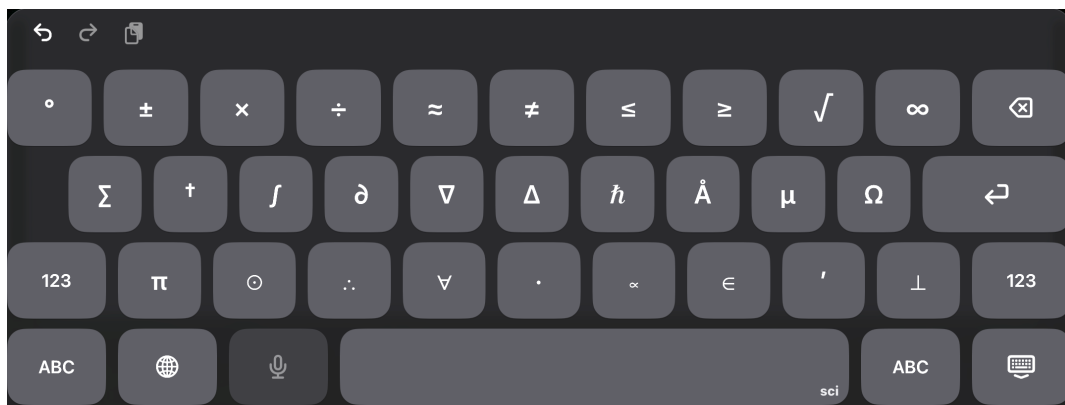
Hide Keyboard

Tap the **hide keyboard button** (chevron-down icon, bottom right of the toolbar) to dismiss the keyboard without switching apps.



iPad Keyboard Layout

The iPad ABC and 123 layers match the stock iPadOS keyboard layout. The sci layer on iPad has three full rows with more keys per row than the iPhone sci layer.



Keyboard Clicks

SciMath supports iOS keyboard click sounds. Clicks follow the system setting at **Settings** → **Sounds & Haptics** → **Keyboard Clicks**. SciMath has no separate click setting.

Accessibility

SciMath is compatible with iOS accessibility features including Speak Characters and Speak Screen. No configuration is required. Enable these at **Settings** → **Accessibility** → **Spoken Content**.

Dictation

SciMath does not support dictation. Dictation routes audio through Apple's servers, which requires Full Access. SciMath does not request Full Access.

To dictate text alongside SciMath content:

1. Hold the globe key on SciMath and switch to a stock system keyboard.
2. Dictate your text.
3. Hold the globe key and switch back to SciMath.

On iPad, a microphone button is visible in the SciMath toolbar. It does nothing when tapped. It is present to preserve the spatial layout of the toolbar so other buttons remain where your hands expect them.

Autocorrect and Predictive Text

Autocorrect and predictive text are not available in SciMath. iOS passes text context to its correction engine through a mechanism that requires Full Access. SciMath does not request Full Access. This is a platform constraint with no workaround.

To use autocorrect for prose: switch to a stock system keyboard for prose passages and return to SciMath for symbol entry.

Translation

iOS keyboard translation requires Full Access. SciMath does not support it.

What SciMath Does Not Cover

Greek Letters

SciMath does not include the full Greek alphabet. The symbols π , μ , Ω , and ω are present because of their established roles as mathematical constants and units. Other Greek letters (ψ , ϕ , λ , α , β , γ , θ , and so on) are not currently available. For text requiring extensive Greek input, switch to a Greek system keyboard for those passages and return to SciMath for symbol entry.

Emoji

SciMath has no emoji key. The keyboard is for technical symbol entry.

To insert emoji alongside SciMath content:

1. Hold the globe key and switch to a stock system keyboard.
2. Tap the emoji key on the stock keyboard.
3. Select your emoji.
4. Hold the globe key and switch back to SciMath.

Slide-to-Type

Slide-to-type (swipe typing) is not currently supported. The gesture architecture used for key preview balloons conflicts with the gesture recognition required for slide-to-type. This is a known limitation under consideration for a future version.

Privacy

SciMath is a one-time purchase. There is no subscription, no in-app purchase, and no advertising of any kind.

SciMath does not request Full Access and will never ask for it.

SciMath never reads, logs, stores, or transmits what you type. There is no analytics, no crash reporting, no telemetry, and no third-party code of any kind in the keyboard extension. Every action SciMath takes happens entirely on your device. Nothing leaves it.

The only data SciMath stores is your key flash preference, so the keyboard and the app stay in sync. This preference never leaves your device.

The entries you type in the SciMath app are stored in standard iOS app storage, on your device only, and are deleted permanently when you use Clear All or delete the app.

Contact and Support

SciMathKeyboard@gmail.com

scimathkeyboard.com