

C47 Keyboard row 3

Key	Row	Column	Kind	Label	FullName	Extended description	Type	Catalog	Default
C47.31.11	3	1		STO	Store	Store X in global register or variable and create variable if it does not exist ; maximum variable length is : 7 characters (TAM : STO __ TamSto menu (TamStoTVM when menu TVM is open) ; Info : local registers .00-.nn etc. need to be allocated using LocR nn+1 ; TI : Rnn: or '<var>': (or R.nn: or or '<var>':) ; Ref : https://47calc.com/doc/C47/Reference/C47_Variable_naming.pdf)	Command	STO	
C47.31.12	3	1	f	x	Magnitude	Magnitude (absolute value) of Complex number	Function (monadic)	x	
C47.31.13	3	1	g	∠	Argument (angle)	Argument (angle) of Complex number	Function (monadic)	∠	
C47.31.31	3	1	alpha	G	G	Character G (Fontcode : 0047 ₁₆)	Character		
C47.31.32	3	1	alpha f	g	g	Character g (Fontcode : 0067 ₁₆)	Character		
C47.31.33	3	1	alpha g		Bar	Open or close absolute value (Shortcut : alpha g [STO] ; Fontcode : 007C ₁₆)	Character		
C47.31.41	3	1	TAM	{G}	Register G	Easy access to Register G (219) : General purpose register G ; also used to store third to last long integer prime factor for FACTORS (Shortcut : STO/RCL {G} ; TI : G:)	EasyAccess (TAM)		
C47.31.42	3	1	#TAM						

C47.32.11	3	2		RCL	Recall	Recall value from register or variable (TAM : RCL __ TamRcl menu (TamRclTVM when menu TVM is open) ; TI : Rnn: or '<var>': (or R.nn: or or '<var>':) ; Info : local registers .00-.nn etc. need to be allocated using LocR nn+1)	Command	RCL	
C47.32.12	3	2	f	%	Percent	X Percent of Y, keeping Y on stack -- see Formula_PC.png : https://47calc.com/doc/Images/Formula_PC.png	Function (dyadic)	%	
C47.32.13	3	2	g	Δ%	Delta percent	Delta percentage from Y to X, keeping Y on stack -- see Formula_DELTAPC.png : https://47calc.com/doc/Images/Formula_DELTAPC.png (TI : Δ% :)	Function (dyadic)	Δ%	
C47.32.31	3	2	alpha	H	H	Character H (Fontcode : 0048 ₁₆)	Character		
C47.32.32	3	2	alpha f	h	h	Character h (Fontcode : 0068 ₁₆)	Character		
C47.32.33	3	2	alpha g	Δ	DELTA	Character Δ (Shortcut : alpha g [RCL] ; Info : Fontcode : 0394 ₁₆ ; press [▼] for δ at [α...ω.1]F4)	Character		
C47.32.41	3	2	TAM	{H}	Register H	Easy access to Register H (220) : General purpose register H ; also used to store second to last long integer prime factor for FACTORS (Shortcut : STO/RCL {H} ; TI : H:)	EasyAccess (TAM)		
C47.32.42	3	2	#TAM	HEX	Hexadecimal	Convert X to hexadecimal and toggle hexadecimal mode ; if KEY _{A-F} is SET, digits A-F can be entered by pressing row 2 keys (Shortcut : #TAM [RCL] (H) ; Info : values are displayed with subscript ₁₆)	Setting (pgm)	HEX	OFF

C47.33.11	3	3		R↓	Roll down	Roll down stack	Command	R↓	
C47.33.12	3	3	f	π	pi	Enter value of pi on the stack	Command		
C47.33.13	3	3	g	$\sqrt[y]{x}$	xth root	Xth root of Y	Function (dyadic)	$\sqrt[y]{x}$	
C47.33.31	3	3	alpha	I	I	Character I (Fontcode : 0049 ₁₆)	Character		
C47.33.32	3	3	alpha f	i	i	Character i (Fontcode : 0069 ₁₆)	Character		
C47.33.33	3	3	alpha g	π	pi	Greek character π (Shortcut : alpha g [R↓] ; Info : Fontcode : 03C0 ₁₆ ; press [▲] for Π at [A...Ω.1]gF5)	Character		
C47.33.41	3	3	TAM	{I}	Register I	Easy access to Register I (109) : General purpose register I ; also used to store current row of indexed matrix (Shortcut : STO/RCL {I} ; TI : I: or M[I _r J _c]=<name> [row> <col>] (if indexed matrix exists))	EasyAccess (TAM)		
C47.33.42	3	3	#TAM	IP	Integer Part	Integer Part of number (returns Real number) (Shortcut : #TAM [R↓] (I) for closed number)	Function (monadic)	IP	

C47.34.11	3	4		SIN	Sine	Sine	Function (monadic)	SIN	
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Key	Row	Column	Kind	Label	FullName	Extended description	Type	Catalog	Default
C47.34.12	3	4	f	ASIN	Arc sine	Inverse sine (Info : Returns the principal value of the inverse sine of X ; if flag CPXRES is SET, the domain is extended beyond [-1, +1] and complex results may be returned)	Function (monadic)	ARCSIN	
C47.34.13	3	4	g	i	Complex number (rectangular notation)	Enter complex number (rectangular notation) whether RECT is set or not ; e.g. a i b ENTER results in a + b i (Info : In NIM, works like CC with RECT set ; displayed according to flag CPX i when in RECT mode)	Command	op_ i	
C47.34.31	3	4	alpha	J	J	Character J (Fontcode : 004A ₁₆)	Character		
C47.34.32	3	4	alpha f	j	j	Character j (Fontcode : 006A ₁₆)	Character		
C47.34.33	3	4	alpha g	SIN	Sine (string)	Sine (Shortcut : alpha g[SIN] ("SIN"))	Character		
C47.34.41	3	4	TAM	{J}	Register J	Easy access to Register J (110) : General purpose register J ; also used to store current column of indexed matrix (Shortcut : STO/RCL {J} ; TI : J: or M[I _r J _c]=<name> [<row> <col>] (if indexed matrix exists))	EasyAccess (TAM)		
C47.34.42	3	4	#TAM						

C47.35.11	3	5		COS	Cosine	Cosine	Function (monadic)	COS	
C47.35.12	3	5	f	ACOS	Arc cosine	Inverse cosine (Info : Returns the principal value of the inverse cosine of X ; if flag CPXRES is SET, the domain is extended beyond [-1, +1] and complex results may be returned)	Function (monadic)	ARCCOS	
C47.35.13	3	5	g	$\rightarrow R$	To rectangular	Transform polar to rectangular coordinates (dyadic, stack conventions according to flag RPH _{HP} SET or CLEAR) ; transform Complex number or 2D/3D vector to rectangular notation (monadic) and set RECT tag (TI : x : Re = ; y : Im = (RECT) ; Info : in Program Entry Mode, flag RPH _{HP} determines whether $\rightarrow RECT_{HP}$ or $\rightarrow RECT_{CX}$ is stored ; vector display depends on flag 3Dxyz, for 2D rectangular vector : [ij] [v ₁ v ₂] ; 3D rectangular vector : [ijk] [v ₁ v ₂ v ₃])	Function (monadic, dyadic)	$\rightarrow RECT$	
C47.35.31	3	5	alpha	K	K	Character K (Fontcode : 004B ₁₆)	Character		
C47.35.32	3	5	alpha f	k	k	Character k (Fontcode : 006B ₁₆)	Character		
C47.35.33	3	5	alpha g	COS	Cosine (string)	Cosine (Shortcut : alpha g[COS] ("COS"))	Character		
C47.35.41	3	5	TAM	{K}	Register K	Easy access to Register K (111) : General purpose register K ; also used in VarMNU to store variable name when MVAR-defined button (<var...>) is pressed without NIM input ; also used to store last long integer prime factor for FACTORS or the remaining number to be factorised ; also used as the default alpha register for commands compatible with the HP-42S/DM42(n) calculator (Shortcut : STO/RCL {K} ; TI : K:)	EasyAccess (TAM)		
C47.35.42	3	5	#TAM						

C47.36.11	3	6		TAN	Tangent	Tangent	Function (monadic)	TAN	
C47.36.12	3	6	f	ATAN	Arc tangent	Inverse tangent (Info : Returns the principal value of the inverse tangent of X ; if flag SPCRES is SET, infinity input is allowed and the range is extended to [-90°, 90°] (inclusive))	Function (monadic)	ARCTAN	
C47.36.13	3	6	g	$\rightarrow P$	To polar	Transform rectangular to polar coordinates (dyadic, stack conventions according to flag RPH _{HP} SET or CLEAR) ; transform Complex number or 2D/3D vector to polar notation (monadic) and set POLAR tag (TI : r = ; θ = (POLAR) ; Info : in Program Entry Mode, flag RPH _{HP} determines whether $\rightarrow POL_{HP}$ or $\rightarrow POL_{CX}$ is stored ; for a 3D vector in X, function $\rightarrow POLAR$ ($\rightarrow P$) cycles through $\rightarrow SPH$, then $\rightarrow CYL$; vector display depends on flag 3Dxyz, for 2D polar vector : [r θ i] [v ₁ v ₂] ^P ; 3D spherical vector : [r θ i; ϕ k] _M [v ₁ v ₂ v ₃] ^S ; 3D cylindrical vector : [r θ i;k] [v ₁ v ₂ v ₃] ^C)	Function (monadic, dyadic)	$\rightarrow POLAR$	
C47.36.31	3	6	alpha	L	L	Character L (Fontcode : 004C ₁₆)	Character		
C47.36.32	3	6	alpha f	l	l	Character l (Fontcode : 006C ₁₆)	Character		
C47.36.33	3	6	alpha g	TAN	Tangent (string)	Tangent (Shortcut : alpha g[TAN] ("TAN"))	Character		
C47.36.41	3	6	TAM	{L}	Register L	Easy access to Register L (108) : Last X (Shortcut : STO/RCL {L} ; TI : L:)	EasyAccess (TAM)		
C47.36.42	3	6	#TAM						

Key	Row	Column	Kind	Label	FullName	Extended description	Type	Catalog	Default
					Next row	https://47calc.com/doc/C47/Keyboard/Rows/4.pdf			
					Previous row	https://47calc.com/doc/C47/Keyboard/Rows/2.pdf			