

## Keycodes Overview

When defining a keymap each key needs a valid key definition. This page documents the symbols that correspond to keycodes that are available to you in QMK.

This is a reference only. Each group of keys links to the page documenting their functionality in more detail.

### Basic Keycodes

Key	Aliases	Description
KC_NO	XXXXXXX	Ignore this key (NOOP)
KC_TRANSPARENT	KC_TRNS, _	Use the next lowest non-transparent key
KC_A		a and A
KC_B		b and B
KC_C		c and C
KC_D		d and D
KC_E		e and E
KC_F		f and F
KC_G		g and G
KC_H		h and H
KC_I		i and I
KC_J		j and J
KC_K		k and K
KC_L		l and L
KC_M		m and M
KC_N		n and N
KC_O		o and O
KC_P		p and P
KC_Q		q and Q
KC_R		r and R
KC_S		s and S
KC_T		t and T
KC_U		u and U
KC_V		v and V
KC_W		w and W
KC_X		x and X
KC_Y		y and Y
KC_Z		z and Z
KC_1		1 and !
KC_2		2 and @
KC_3		3 and #
KC_4		4 and \$
KC_5		5 and %
KC_6		6 and ^

Key	Aliases	Description
KC_7		7 and &
KC_8		8 and *
KC_9		9 and (
KC_0		0 and )
KC_ENTER	KC_ENT	Return (Enter)
KC_ESCAPE	KC_ESC	Escape
KC_BSPACE	KC_BSPC	Delete (Backspace)
KC_TAB		Tab
KC_SPACE	KC_SPC	Spacebar
KC_MINUS	KC_MINS	- and _
KC_EQUAL	KC_EQL	= and +
KC_LBRACKET	KC_LBRC	[ and {
KC_RBRACKET	KC_RBRC	] and }
KC_BSLASH	KC_BSL	\ and
KC_NONUS_HASH	KC_NUHS	Non-US # and ~
KC_SCOLON	KC_SCLN	; and :
KC_QUOTE	KC_QUOT	' and "
KC_GRAVE	KC_GRV, KC_ZKHK	‘ and ~, JIS Zenkaku/Hankaku
KC_COMMA	KC_COMM	, and <
KC_DOT		. and >
KC_SLASH	KC_SLSH	/ and ?
KC_CAPSLOCK	KC_CLCK, KC_CAPS	Caps Lock
KC_F1		F1
KC_F2		F2
KC_F3		F3
KC_F4		F4
KC_F5		F5
KC_F6		F6
KC_F7		F7
KC_F8		F8
KC_F9		F9
KC_F10		F10
KC_F11		F11
KC_F12		F12
KC_PSCREEN	KC_PSCR	Print Screen
KC_SCROLLLOCK	KC_SLCK, KC_BRMD	Scroll Lock, Brightness Down (macOS)
KC_PAUSE	KC_PAUS, KC_BRK, KC_BRMU	Pause, Brightness Up (macOS)
KC_INSERT	KC_INS	Insert
KC_HOME		Home
KC_PGUP		Page Up
KC_DELETE	KC_DEL	Forward Delete
KC_END		End
KC_PGDOWN	KC_PGDN	Page Down
KC_RIGHT	KC_RGHT	Right Arrow

Key	Aliases	Description
KC_LEFT		Left Arrow
KC_DOWN		Down Arrow
KC_UP		Up Arrow
KC_NUMLOCK	KC_NLCK	Keypad Num Lock and Clear
KC_KP_SLASH	KC_PSLS	Keypad /
KC_KP_ASTERISK	KC_PAST	Keypad *
KC_KP_MINUS	KC_PMNS	Keypad -
KC_KP_PLUS	KC_PPLS	Keypad +
KC_KP_ENTER	KC_PENT	Keypad Enter
KC_KP_1	KC_P1	Keypad 1 and End
KC_KP_2	KC_P2	Keypad 2 and Down Arrow
KC_KP_3	KC_P3	Keypad 3 and Page Down
KC_KP_4	KC_P4	Keypad 4 and Left Arrow
KC_KP_5	KC_P5	Keypad 5
KC_KP_6	KC_P6	Keypad 6 and Right Arrow
KC_KP_7	KC_P7	Keypad 7 and Home
KC_KP_8	KC_P8	Keypad 8 and Up Arrow
KC_KP_9	KC_P9	Keypad 9 and Page Up
KC_KP_0	KC_P0	Keypad 0 and Insert
KC_KP_DOT	KC_PDOT	Keypad . and Delete
KC_NONUS_BSLASH	KC_NUBS	Non-US \ and
KC_APPLICATION	KC_APP	Application (Windows Menu Key)
KC_POWER		System Power (macOS)
KC_KP_EQUAL	KC_PEQL	Keypad =
KC_F13		F13
KC_F14		F14
KC_F15		F15
KC_F16		F16
KC_F17		F17
KC_F18		F18
KC_F19		F19
KC_F20		F20
KC_F21		F21
KC_F22		F22
KC_F23		F23
KC_F24		F24
KC_EXECUTE	KC_EXEC	Execute
KC_HELP		Help
KC_MENU		Menu
KC_SELECT	KC_SLCT	Select
KC_STOP		Stop
KC_AGAIN	KC_AGIN	Again
KC_UNDO		Undo
KC_CUT		Cut

Key	Aliases	Description
KC_COPY		Copy
KC_PASTE	KC_PSTE	Paste
KC_FIND		Find
KC__MUTE		Mute (macOS)
KC__VOLUP		Volume Up (macOS)
KC__VOLDOWN		Volume Down (macOS)
KC_LOCKING_CAPS	KC_LCAP	Locking Caps Lock
KC_LOCKING_NUM	KC_LNUM	Locking Num Lock
KC_LOCKING_SCROLL	KC_LSCR	Locking Scroll Lock
KC_KP_COMMA	KC_PCMM	Keypad ,
KC_KP_EQUAL_AS400		Keypad = on AS/400 keyboards
KC_INT1	KC_RO	JIS \ and _
KC_INT2	KC_KANA	JIS Katakana/Hiragana
KC_INT3	KC_JYEN	JIS ¥ and
KC_INT4	KC_HENK	JIS Henkan
KC_INT5	KC_MHEN	JIS Muhenkan
KC_INT6		JIS Numpad ,
KC_INT7		International 7
KC_INT8		International 8
KC_INT9		International 9
KC_LANG1	KC_HAEN	Hangul/English
KC_LANG2	KC_HANJ	Hanja
KC_LANG3		JIS Katakana
KC_LANG4		JIS Hiragana
KC_LANG5		JIS Zenkaku/Hankaku
KC_LANG6		Language 6
KC_LANG7		Language 7
KC_LANG8		Language 8
KC_LANG9		Language 9
KC_ALT_ERASE	KC_ERAS	Alternate Erase
KC_SYSREQ		SysReq/Attention
KC_CANCEL		Cancel
KC_CLEAR	KC_CLR	Clear
KC_PRIOR		Prior
KC_RETURN		Return
KC_SEPARATOR		Separator
KC_OUT		Out
KC_OPER		Oper
KC_CLEAR_AGAIN		Clear/Again
KC_CRSEL		CrSel/Props
KC_EXSEL		ExSel
KC_LCTRL	KC_LCTL	Left Control
KC_LSHIFT	KC_LSFT	Left Shift
KC_LALT		Left Alt

Key	Aliases	Description
KC_LGUI	KC_LCMD, KC_LWIN	Left GUI (Windows/Command/Meta key)
KC_RCTRL	KC_RCTL	Right Control
KC_RSHIFT	KC_RSFT	Right Shift
KC_RALT	KC_ALGR	Right Alt (AltGr)
KC_RGUI	KC_RCMD, KC_RWIN	Right GUI (Windows/Command/Meta key)
KC_SYSTEM_POWER	KC_PWR	System Power Down
KC_SYSTEM_SLEEP	KC_SLEP	System Sleep
KC_SYSTEM_WAKE	KC_WAKE	System Wake
KC_AUDIO_MUTE	KC_MUTE	Mute
KC_AUDIO_VOL_UP	KC_VOLU	Volume Up
KC_AUDIO_VOL_DOWN	KC_VOLD	Volume Down
KC_MEDIA_NEXT_TRACK	KC_MNXT	Next Track (Windows)
KC_MEDIA_PREV_TRACK	KC_MPRV	Previous Track (Windows)
KC_MEDIA_STOP	KC_MSTP	Stop Track (Windows)
KC_MEDIA_PLAY_PAUSE	KC_MPLY	Play/Pause Track
KC_MEDIA_SELECT	KC_MSEL	Launch Media Player (Windows)
KC_MEDIA_EJECT	KC_EJCT	Eject (macOS)
KC_MAIL		Launch Mail (Windows)
KC_CALCULATOR	KC_CALC	Launch Calculator (Windows)
KC_MY_COMPUTER	KC_MYCM	Launch My Computer (Windows)
KC_WWW_SEARCH	KC_WSCH	Browser Search (Windows)
KC_WWW_HOME	KC_WHOM	Browser Home (Windows)
KC_WWW_BACK	KC_WBAK	Browser Back (Windows)
KC_WWW_FORWARD	KC_WFWD	Browser Forward (Windows)
KC_WWW_STOP	KC_WSTP	Browser Stop (Windows)
KC_WWW_REFRESH	KC_WREF	Browser Refresh (Windows)
KC_WWW_FAVORITES	KC_WFAV	Browser Favorites (Windows)
KC_MEDIA_FAST_FORWARD	KC_MFFD	Next Track (macOS)
KC_MEDIA_REWIND	KC_MRWD	Previous Track (macOS)
KC_BRIGHTNESS_UP	KC_BRIU	Brightness Up
KC_BRIGHTNESS_DOWN	KC_BRID	Brightness Down

## Quantum Keycodes

Key	Aliases	Description
RESET		Put the keyboard into DFU mode for flashing
DEBUG		Toggle debug mode
EEPROM_RESET	EEP_RST	Resets EEPROM state by reinitializing it
KC_GESC	GRAVE_ESC	Escape when tapped, ‘ when pressed with Shift or GUI
KC_LSP0		Left Shift when held, ( when tapped
KC_RSPC		Right Shift when held, ) when tapped
KC_LCP0		Left Control when held, ( when tapped
KC_RCP0		Right Control when held, ) when tapped

Key	Aliases	Description
KC_LAPD		Left Alt when held, ( when tapped
KC_RAPC		Right Alt when held, ) when tapped
KC_SFTENT		Right Shift when held, Enter when tapped
KC_LEAD		The Leader key
KC_LOCK		The Lock key
FUNC(n)	F(n)	Call <code>fn_action(n)</code> (deprecated)
M(n)		Call macro <code>n</code>
MACROTAP(n)		Macro-tap <code>n</code> idk FIXME

## Audio Keys

Key	Aliases	Description
AU_ON		Turns on Audio Feature
AU_OFF		Turns off Audio Feature
AU_TOG		Toggles Audio state
CLICKY_TOGGLE	CK_TOGG	Toggles Audio clicky mode
CLICKY_UP	CK_UP	Increases frequency of the clicks
CLICKY_DOWN	CK_DOWN	Decreases frequency of the clicks
CLICKY_RESET	CK_RST	Resets frequency to default
MU_ON		Turns on Music Mode
MU_OFF		Turns off Music Mode
MU_TOG		Toggles Music Mode
MU_MOD		Cycles through the music modes

## Backlighting

Key	Description
BL_TOGG	Turn the backlight on or off
BL_STEP	Cycle through backlight levels
BL_ON	Set the backlight to max brightness
BL_OFF	Turn the backlight off
BL_INC	Increase the backlight level
BL_DEC	Decrease the backlight level
BL_BRTG	Toggle backlight breathing

## Bootmagic

Key	Aliases	Description
MAGIC_SWAP_CONTROL_CAPSLOCK		Swap Caps Lock and Left Control

Key	Aliases	Description
MAGIC_CAPSLOCK_TO_CONTROL		Treat Caps Lock as Control
MAGIC_SWAP_LCTL_LGUI		Swap Left Control and GUI
MAGIC_SWAP_RCTL_RGUI		Swap Right Control and GUI
MAGIC_SWAP_LALT_LGUI		Swap Left Alt and GUI
MAGIC_SWAP_RALT_RGUI		Swap Right Alt and GUI
MAGIC_NO_GUI		Disable the GUI key
MAGIC_SWAP_GRAVE_ESC		Swap ‘ and Escape
MAGIC_SWAP_BACKSLASH_BACKSPACE		Swap \ and Backspace
MAGIC_HOST_NKRO		Force NKRO on
MAGIC_SWAP_ALT_GUI	AG_SWAP	Swap Alt and GUI on both sides
MAGIC_SWAP_CTL_GUI	CG_SWAP	Swap Ctrl and GUI on both sides (for macOS)
MAGIC_UNSWAP_CONTROL_CAPSLOCK		Unswap Caps Lock and Left Control
MAGIC_UNCAPSLOCK_TO_CONTROL		Stop treating Caps Lock as Control
MAGIC_UNSWAP_LCTL_LGUI		Unswap Left Control and GUI
MAGIC_UNSWAP_RCTL_RGUI		Unswap Right Control and GUI
MAGIC_UNSWAP_LALT_LGUI		Unswap Left Alt and GUI
MAGIC_UNSWAP_RALT_RGUI		Unswap Right Alt and GUI
MAGIC_UNNO_GUI		Enable the GUI key
MAGIC_UNSWAP_GRAVE_ESC		Unswap ‘ and Escape
MAGIC_UNSWAP_BACKSLASH_BACKSPACE		Unswap \ and Backspace
MAGIC_UNHOST_NKRO		Force NKRO off
MAGIC_UNSWAP_ALT_GUI	AG_NORM	Unswap Alt and GUI on both sides
MAGIC_UNSWAP_CTL_GUI	CG_NORM	Unswap Ctrl and GUI on both sides
MAGIC_TOGGLE_ALT_GUI	AG_TOGG	Toggle Alt and GUI swap on both sides
MAGIC_TOGGLE_CTL_GUI	CG_TOGG	Toggle Ctrl and GUI swap on both sides
MAGIC_TOGGLE_NKRO		Turn NKRO on or off
MAGIC_EE_HANDS_LEFT		Set “Left Hand” for EE_HANDS handedness
MAGIC_EE_HANDS_RIGHT		Set “Right Hand” for EE_HANDS handedness

## Bluetooth

Key	Description
OUT_AUTO	Automatically switch between USB and Bluetooth
OUT_USB	USB only
OUT_BT	Bluetooth only

## Layer Switching

Key	Description
DF(layer)	Set the base (default) layer

Key	Description
MO(layer)	Momentarily turn on <b>layer</b> when pressed (requires KC_TRNS on destination layer)
OSL(layer)	Momentarily activates <b>layer</b> until a key is pressed. See One Shot Keys for details.
LM(layer, mod)	Momentarily turn on <b>layer</b> (like MO) with <b>mod</b> active as well. Where <b>mod</b> is a mods_bit. Mods can be viewed here. Example Implementation: LM(LAYER_1, MOD_LALT)
LT(layer, kc)	Turn on <b>layer</b> when held, <b>kc</b> when tapped
TG(layer)	Toggle <b>layer</b> on or off
T0(layer)	Turns on <b>layer</b> and turns off all other layers, except the default layer
TT(layer)	Normally acts like MO unless it's tapped multiple times, which toggles <b>layer</b> on

## Mouse Keys

Key	Aliases	Description
KC_MS_UP	KC_MS_U	Mouse Cursor Up
KC_MS_DOWN	KC_MS_D	Mouse Cursor Down
KC_MS_LEFT	KC_MS_L	Mouse Cursor Left
KC_MS_RIGHT	KC_MS_R	Mouse Cursor Right
KC_MS_BTN1	KC_BTN1	Mouse Button 1
KC_MS_BTN2	KC_BTN2	Mouse Button 2
KC_MS_BTN3	KC_BTN3	Mouse Button 3
KC_MS_BTN4	KC_BTN4	Mouse Button 4
KC_MS_BTN5	KC_BTN5	Mouse Button 5
KC_MS_WH_UP	KC_WH_U	Mouse Wheel Up
KC_MS_WH_DOWN	KC_WH_D	Mouse Wheel Down
KC_MS_WH_LEFT	KC_WH_L	Mouse Wheel Left
KC_MS_WH_RIGHT	KC_WH_R	Mouse Wheel Right
KC_MS_ACCELO	KC_ACL0	Set mouse acceleration to 0
KC_MS_ACCEL1	KC_ACL1	Set mouse acceleration to 1
KC_MS_ACCEL2	KC_ACL2	Set mouse acceleration to 2

## Modifiers

Key	Aliases	Description
LCTL(kc)	C(kc)	Hold Left Control and press <b>kc</b>
LSFT(kc)	S(kc)	Hold Left Shift and press <b>kc</b>
LALT(kc)	A(kc)	Hold Left Alt and press <b>kc</b>



Key	Aliases	Description
LGUI(kc)	G(kc), LCMD(kc), LWIN(kc)	Hold Left GUI and press kc
RCTL(kc)		Hold Right Control and press kc
RSFT(kc)		Hold Right Shift and press kc
RALT(kc)	ALGR(kc)	Hold Right Alt and press kc
RGUI(kc)	RCMD(kc), LWIN(kc)	Hold Right GUI and press kc
SGUI(kc)	SCMD(kc), SWIN(kc)	Hold Left Shift and GUI and press kc
LCA(kc)		Hold Left Control and Alt and press kc
LCAG(kc)		Hold Left Control, Alt and GUI and press kc
MEH(kc)		Hold Left Control, Shift and Alt and press kc
HYPR(kc)		Hold Left Control, Shift, Alt and GUI and press kc
KC_MEH		Left Control, Shift and Alt
KC_HYPR		Left Control, Shift, Alt and GUI

## Mod-Tap Keys

Key	Aliases	Description
MT(mod, kc)		mod when held, kc when tapped
LCTL_T(kc)	CTL_T(kc)	Left Control when held, kc when tapped
LSFT_T(kc)	SFT_T(kc)	Left Shift when held, kc when tapped
LALT_T(kc)	ALT_T(kc)	Left Alt when held, kc when tapped
LGUI_T(kc)	LCMD_T(kc), LWIN_T(kc), GUI_T(kc), CMD_T(kc), WIN_T(kc)	Left GUI when held, kc when tapped
RCTL_T(kc)		Right Control when held, kc when tapped
RSFT_T(kc)		Right Shift when held, kc when tapped
RALT_T(kc)	ALGR_T(kc)	Right Alt when held, kc when tapped
RGUI_T(kc)	RCMD_T(kc), RWIN_T(kc)	Right GUI when held, kc when tapped
SGUI_T(kc)	SCMD_T(kc), SWIN_T(kc)	Left Shift and GUI when held, kc when tapped
LCA_T(kc)		Left Control and Alt when held, kc when tapped
LCAG_T(kc)		Left Control, Alt and GUI when held, kc when tapped
RCAG_T(kc)		Right Control, Alt and GUI when held, kc when tapped

Key	Aliases	Description
C_S_T(kc)		Left Control and Shift when held, kc when tapped
MEH_T(kc)		Left Control, Shift and Alt when held, kc when tapped
HYPR_T(kc)	ALL_T(kc)	Left Control, Shift, Alt and GUI when held, kc when tapped - more info here

## RGB Lighting

Key	Aliases	Description
RGB_TOG		Toggle RGB lighting on or off
RGB_MODE_FORWARD	RGB_MOD	Cycle through modes, reverse direction when Shift is held
RGB_MODE_REVERSE	RGB_RMOD	Cycle through modes in reverse, forward direction when Shift is held
RGB_HUI		Increase hue
RGB_HUD		Decrease hue
RGB_SAI		Increase saturation
RGB_SAD		Decrease saturation
RGB_VAI		Increase value (brightness)
RGB_VAD		Decrease value (brightness)
RGB_MODE_PLAIN	RGB_M_P	Static (no animation) mode
RGB_MODE_BREATHE	RGB_M_B	Breathing animation mode
RGB_MODE_RAINBOW	RGB_M_R	Rainbow animation mode
RGB_MODE_SWIRL	RGB_M_SW	Swirl animation mode
RGB_MODE_SNAKE	RGB_M_SN	Snake animation mode
RGB_MODE_KNIGHT	RGB_M_K	“Knight Rider” animation mode
RGB_MODE_XMAS	RGB_M_X	Christmas animation mode
RGB_MODE_GRADIENT	RGB_M_G	Static gradient animation mode
RGB_MODE_RGBTEST	RGB_M_T	Red,Green,Blue test animation mode

## RGB Matrix Lighting

Key	Aliases	Description
RGB_TOG		Toggle RGB lighting on or off
RGB_MODE_FORWARD	RGB_MOD	Cycle through modes, reverse direction when Shift is held
RGB_MODE_REVERSE	RGB_RMOD	Cycle through modes in reverse, forward direction when Shift is held
RGB_HUI		Increase hue

Key	Aliases	Description
RGB_HUD		Decrease hue
RGB_SAI		Increase saturation
RGB_SAD		Decrease saturation
RGB_VAI		Increase value (brightness)
RGB_VAD		Decrease value (brightness)
RGB_SPI		Increase effect speed (does no support eeprom yet)
RGB_SPD		Decrease effect speed (does no support eeprom yet)

## Thermal Printer

Key	Description
PRINT_ON	Start printing everything the user types
PRINT_OFF	Stop printing everything the user types

## US ANSI Shifted Symbols

Key	Aliases	Description
KC_TILDE	KC_TILD	~
KC_EXCLAIM	KC_EXLM	!
KC_AT		@
KC_HASH		#
KC_DOLLAR	KC_DLR	\$
KC_PERCENT	KC_PERC	%
KC_CIRCUMFLEX	KC_CIRC	^
KC_AMPERSAND	KC_AMPR	&
KC_ASTERISK	KC_ASTR	*
KC_LEFT_PAREN	KC_LPRN	(
KC_RIGHT_PAREN	KC_RPRN	)
KC_UNDERSCORE	KC_UNDS	_
KC_PLUS		+
KC_LEFT_CURLY_BRACE	KC_LCBR	{
KC_RIGHT_CURLY_BRACE	KC_RCBR	}
KC_PIPE		
KC_COLON	KC_COLN	:
KC_DOUBLE_QUOTE	KC_DQUO, KC_DQT	"
KC_LEFT_ANGLE_BRACKET	KC_LABK, KC_LT	<
KC_RIGHT_ANGLE_BRACKET	KC_RABK, KC_GT	>
KC_QUESTION	KC_QUES	?

## One Shot Keys

Key	Description
OSM(mod)	Hold <b>mod</b> for one keypress
OSL(layer)	Switch to <b>layer</b> for one keypress

## Swap Hands

Key	Description
SH_T(key)	Sends <b>key</b> with a tap; momentary swap when held.
SW_ON	Turns on swapping and leaves it on.
SW_OFF	Turn off swapping and leaves it off. Good for returning to a known state.
SH_MON	Swaps hands when pressed, returns to normal when released (momentary).
SH_MOFF	Momentarily turns off swap.
SH_TG	Toggles swap on and off with every key press.
SH_TT	Toggles with a tap; momentary when held.

## Unicode Support

Key	Aliases	Description
UC(c)		Send Unicode code point <b>c</b>
X(i)		Send Unicode code point at index <b>i</b> in <b>unicode_map</b>
XP(i, j)		Send Unicode code point at index <b>i</b> , or <b>j</b> if Shift/Caps is on
UNICODE_MODE_FORWARD	UC_MOD	Cycle through selected input modes
UNICODE_MODE_REVERSE	UC_RMOD	Cycle through selected input modes in reverse
UNICODE_MODE_OSX	UC_M_OS	Switch to macOS input
UNICODE_MODE_LNX	UC_M_LN	Switch to Linux input
UNICODE_MODE_WIN	UC_M_WI	Switch to Windows input
UNICODE_MODE_BSD	UC_M_BS	Switch to BSD input (not implemented)
UNICODE_MODE_WINC	UC_M_WC	Switch to Windows input using WinCompose