

Old Cyrillic (Russian) keyboard layout (v0.36)

a) Plain, Shift, and ◌/AltGr state

Ū Ū	! ~	" "	∴ ∴	; ☉	# ☺☺	: ☺☺	? ☺☺	◌ ZWJ	(≡≡≡) ;	— SHY	▲ ◌																			
ŵ ŵ	◌ ◌	◌ ◌	∴ ∴	∴ ∴	∴ ∴	∴ ∴	∴ ∴	◌ ZWJ	◌ [- NB-	◌ ◌																			
Ɑ Ɑ	Ц Ц	У У	Ѹ Ѹ	К К	Ѧ Ѧ	Н Н	Г Г	Ш Ш	Ц Ц	З З	Х Х	Ъ Ъ																		
Ɱ Ɱ	ц ц	у у	ѹ ѹ	к к	ѧ ѧ	н н	г г	ш ш	ц ц	з з	х х	ъ ъ																		
ϕ ϕ	Ы Ы	В В	А А	П П	Р Р	О О	Л Л	Д Д	Ж Ж	Ѡ Ѡ	С С	З З																		
ϕ ϕ	ы ы	в в	а а	п п	р р	о о	л л	д д	ж ж	ѡ ѡ	с с	з з																		
◌ ◌	А А	Ч Ч	С С	М М	И И	Т Т	Ь Ъ	Б Б	Ю Ю	\ ,	, ,																			
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="5" style="text-align: center;">NBSP</td> <td colspan="5" style="text-align: center;">ZWSP</td> </tr> <tr> <td colspan="5" style="text-align: center;">Space</td> <td colspan="5" style="text-align: center;">NNBSP</td> </tr> </table>											NBSP					ZWSP					Space					NNBSP				
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plain	◌/AltGr																													

b) after ◌ deadkey (“extra” characters/variants)

◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	
◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	
Ɑ	Ц	У	Ѹ	К	Ѧ	Н	Г	Ш	Ц	З	Х	Ъ
Ɱ	ц	у	ѹ	к	ѧ	н	г	ш	ц	з	х	ъ
	Ы	В	А	П	Р	О	Л	Д	Ж	Ѡ	С	З
	ы	в	а	п	р	о	л	д	ж	ѡ	с	з
	А	Ч	С	М	И	Т	Ь	Б	Ю	\ ,	, ,	
	А	Ч	С	М	И	Т	Ь	Б	Ю	/ .	. .	

c) after ▲ deadkey (superscripts and combining liturgical symbols)

◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	
◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	◌	
Ɑ	Ц	У	Ѹ	К	Ѧ	Н	Г	Ш	Ц	З	Х	Ъ
Ɱ	ц	у	ѹ	к	ѧ	н	г	ш	ц	з	х	ъ
	Ы	В	А	П	Р	О	Л	Д	Ж	Ѡ	С	З
	ы	в	а	п	р	о	л	д	ж	ѡ	с	з
	А	Ч	С	М	И	Т	Ь	Б	Ю	\ ,	, ,	
	А	Ч	С	М	И	Т	Ь	Б	Ю	/ .	. .	

d) number keypad (liturgical symbols and Arabic numbers)

Num	~ ~	2 2	⊕ ⊕
	^ ^	3 3	- ⊖
7	8 ∞	9 3	+ ⊕
			+ ⊕
4 ☉	5 M̂	6 ☿	
1 ☾	2 ☾	3 ☾	Enter
0 ☾		,	

e) after ◌ deadkey (lexical variants of o)

1 → ◌	Shift + 1 → ◌	(1 = singular)
2 → ◌◌	Shift + 2 → ◌◌	(2 = dual)
Ч → ◌	Shift + Ч → ◌	(очи)
3 → ◌◌◌		(3 = plural)
Б → ◌◌	Shift + Б → ◌◌	(оба)
К → ◌	Shift + К → ◌	(окресть)

Clarifications (of the characters marked in blue)

		+ 1	~	tilde	U+007E	
	Shift	+	+ 1	~	swung dash U+2053	
		+ top right key	◌̆	palatalization	U+0484	
	Shift	+	+ top right key	◌̇	pokrytie U+0487	
	or Shift	+ bottom left key				
		7	◌̈	kamora (inverted breve)	U+0311	
		6	◌̊	breve	U+0306	
		,	+ Б	◌̋	combining kavyka U+A67C	
			+ Б	˘	spacing kavyka U+A67E	
	Shift	+	+ X	,	apostrophe/single quote U+2019	
		,	+ top right key	,	modifier letter apostrophe (to indicate palatalization) U+02BC	
	Shift	+	+ .	,	raised comma U+2E34	
			+ .	.	middle dot U+00B7	
		,	+ .	·	Greek ano teleia U+0387	
		Shift	+ 4	;	semicolon U+003B	
		, Shift	+ 4	;	Greek question mark U+037E	
	Shift	+	+ O (or with preceding or)	◌̄	middle part of conjoining titlo, macron, or tilde U+FE26	
	Shift	+	+ M	◌̅	combining overline U+0305	
			, 1	◌̆	combining macron U+FE24	
		, Shift	+	+ P	◌̇	combining macron, left end U+FE24
		, Shift	+	+ П	◌̈	combining macron, right end U+FE25
		+ bottom left key or 8, 9		◌̉	“iso” = combining lenis + acute (◌̇ + ◌̆) U+0486 U+0301	
	Shift	+	+ bottom left key or 8, 0	◌̊	“apostrof” = combining lenis + grave (◌̇ + ◌̈) U+0486 U+0300	
			+ 7 or 8, 7	◌̋	“velikij apostrof” = combining lenis + kamora (◌̇ + ◌̈) U+0486 U+0311	
	Shift	+	+ Б	‰	(commercial minus sign) U+2052	
			+ 8	ZWJ	zero-width joiner (to form ligatures) U+200D	
	Shift	+	+ -	SHY	soft hyphen (optional hyphenation) U+00AD	
			+ -	NB-	non-breaking hyphen U+2011	
	Shift	+ Space		NBSP	no-break space U+00A0	
		+ Space		NNBSP	narrow no-break space U+202F	
	Shift	+	+ Space	ZWSP	zero-width space (invisible optional line-break) U+200B	

On a PC keyboard, the key can be entered by pushing the key on the *right* side of the space bar *or* by pushing + together. On an Apple keyboard you can push any of the two keys marked with the symbol, which are called “Alt” or “Option” keys.

Notes on the logic of the layout

- **Modern Russian letters and punctuation marks** also used in Old Church Slavonic are found in the same place as on a Russian standard keyboard. (This applies respectively to Modern Bulgarian and Modern Serbian characters in the Bulgarian and Serbian versions of the keyboard layout.) Other keys are re-used, e.g. Я → , Й → + , Ё → , Э → . I and ĭ are placed on combinations of the Belarusian and Ukrainian key.
- All **iotated letters** are entered by pushing with the corresponding non-iotated letter (e.g. + → Ѧ, + → Ѧ, + → Ѧ, etc.).
- **Multiple-dot punctuation** marks are found on the number key corresponding to the number of dots they have (e.g. ∴ on the , ∴ on the , ∴ on the , etc.).
- **Cyrillic number signs** are found on the number key corresponding to the number of zeros they add (i.e. the 1000 sign on the , the 10,000 sign on the , ..., the 1,000,000,000 sign on the).
- **Other mnemonics:** ђ → си, ѓ → си, ѿ → ѿваггеліе (→ , Ѧ → жервь, ѿ → вѿет, Ѧ → ѿ,
ѿ → де, « » → кавыки, < > → угловые кобки, – → ире, = → авно.

Deprecated characters

The following glyphs, though having been assigned separate Unicode values, **should not be used** by anyone under any circumstances in any text that is meant for digital exchange, because these glyphs are not characters (graphemes) in their own right but merely variants (allographs) or combinations of characters already having a different Unicode value. Consequently, font designers ought to make sure that these glyphs, whenever needed, are provided through advanced font technology (e.g. OpenType features) as variants of the characters to which they belong, and users should use these options rather than the deprecated Unicode values.

Nonetheless, these characters can be typed with this keyboard layout for private purposes as a last resort in cases when there is no other solution due to technical restrictions.

Do not use			Replace with		
Key combination	glyph	Unicode	Key combination	character(s)	Unicode
⌘, Shift + Y	Ų	U+0478	Shift + O, Y	Ų + ų	U+041E, U+0443
⌘, Y	ų	U+0479	O, Y	o + y	U+043E, U+0443
⌘, B	Ɔ	U+1C80	B	Ɔ	U+0432
⌘, Shift + ⌥/AltGr + Д	А	U+1C81	Д	А	U+0434
⌘, Shift + ⌥/AltGr + O	о	U+1C82	O	o	U+043E
⌘, C	с	U+1C83	C	с	U+0441
⌘, Shift + T	Т	U+1C84	T	т	U+0442
⌘, T	т	U+1C85	T	т	U+0442
⌘, Ь	Ь	U+1C86	Ь	ь	U+044A
⌘, Shift + Ь	Ь	U+1C87	Ь	ь	U+0463
⌘, ⌥/AltGr + Y	Ų	U+1C88	⌥/AltGr + Y	Ų	U+A64B
⬆, Shift + T	Љ	U+2DF8	⬆, C, ⬆, T	Љ + щ	U+2DED, U+2DEE
⌘, Shift + Ѓ	Ѓ	U+A64C	Shift + Ѓ	Ѓ	U+0460
⌘, Ѓ	ѓ	U+A64D	Ѓ	ѓ	U+0461

Modifications in my first proposal (= version 2) vis-à-vis Sebastian's first proposal (= version 1):

- added the missing diacritics, as well as | and || (as Ralph suggested) and other characters needed for typing Church Slavonic and older stages of other Slavic languages as well as Romanian
- added punctuation marks, using the number keys according to the number of dots they include (just like on Sorin's keyboard)
- swapped ѡ and ѣ as well as ѣ and ѣ because this way the iotated version of a letter can systematically be accessed by combining ◌/AltGr with the non-iotated letter
- moved ѡ to a separate key (the one previously occupied by titlo) to make it possible that ѡ and ѡѣ are also on the same key
- moved і to the ѣ key (because this is where the letter is on the Ukrainian keyboard, and because it is unusual for letters to be secondary functions of non-letter keys)
- taken ѡ, ѡѡ, ѡѡ, and ѡѡ off the main keyboard (they are very rare and should be accessible in the same way as ѡ, ѡ, ѡѡ, ѡѡ, and ѡѡ)
- taken modern ѣ and ѣ off the keyboard (as Ralph suggested) and moved ѣ to the Ѣ key instead
- moved ѡ to the ѡ key (as Ralph suggested)
- taken Ѣ, ѢI and Ѣ off the main keyboard (in those rare cases when they are needed they can be entered via CapsLock)
- moved Ѣ to the Shift + Ѣ key (ѢI can thus also be accessed through CapsLock)
- moved titlo and payerok to the Shift + ѣ and ѣ key, respectively
- moved broad ѡ to ◌/AltGr + ѡ key
- swapped ѡ and ѡ (more mnemonic: ѡ looks similar to ѡ, and ѡ is ѡ with something added just like ѡ is ѡ with something added)
- moved “ and ” to the 2/" key (more mnemonic)
- moved з to the з key (more mnemonic)
- reversed “[” and “]” on the bottom left key (because it is more common to push the simple key first and then the key with shift, just like with the quotation marks) and copied them to a key that is present on all keyboards
- added the zero-width joiner to the keyboard, e.g. for ligatures of ѣи and ѣи with a conjoining bar (as Cynthia suggested; fonts would have to provide these glyphs for ѣ + ZWJ + и etc. of course)
- added ten-thousand sign ○ and brought the power-of-ten signs into their numeric order on the number keys corresponding to their exponent (i.e. the number of zeros they add: ѣ = 10³, ○ = 10⁴, ѡѡѡѡ = 10⁵, ѡѡѡѡѡ = 10⁶, ѡѡѡѡѡѡ = 10⁷, ѡѡѡѡѡѡѡ = 10⁸, ѡѡѡѡѡѡѡѡ = 10⁹)
- added no-break space, narrow no-break space, and zero-width space (the latter especially for providing optional line breaks in scriptio continua) on combinations with the space bar
- added **“extra” deadkey** for additional letter shapes that do not fit on the keyboard in the four main states (Normal, Shift, ◌/AltGr, Shift+◌/AltGr)
- moved koppa (҃), which is only used as a variant of ѣ to indicate ‘90’, to an “extra” combination with ѣ
- also moved е, blended ѡ, ѡ, and з to “extra” combinations with the letters of which they are variants
- also reinstated ѡ (according to Ralph's suggestions), which occurs in old manuscripts as a variant of е, on an “extra” combination
- added combining dot and combining diaeresis (as “extra” combinations of combining spiritus and combining double grave) to be able to put a dot over the і character (as Cynthia suggested)
- added **“superscript” deadkey** for all superscript letters
- moved the pokrytie to the same key that produces superscripts, so that one already has a finger on the correct key when one needs the pokrytie
- added some of the symbols used in liturgical texts given in [Andreev, Shardt & Simmons](#), using the “superscript” deadkey as well (although only a part of these symbols are actually superscripts)

Changes in version 3:

- moved the general-purpose deadkey (ⓧ/▲) to the right end of the top row (like in Sebastian's second version)
- moved ѡ/ѡ/ѡ to the Ё key thus freed
- moved “=” and “+” to ◌/AltGr combinations formerly occupied by ѡ and ѡ
- moved ѣ and і to “extra” + и combinations and used the ѣ key for ѡ
- assembled s, з, and з on the key formerly used for ѡ (Which of the three s variants should be primary, secondary, and tertiary?)
- moved broad ѡ to an “extra” combination
- added a special deadkey for lexicalized о's to receive more mnemonic combinations
- swapped з and з (as Ralph suggested)
- swapped ѡ and ѡ because ѡ is an important variant of ѡ, whereas ѡ has been discouraged
- swapped tilde and swung dash (it is more iconic if the “bigger” character is the one with Shift)
- moved | (and ||) to the II/W key (because this is where it is on most Central European keyboards)
- added α, γ, ε, Σ for texts that use the Greek letterforms instead of the traditional Cyrillic ones
- added all the other liturgical symbols mentioned by [Andreev et al.](#)

Changes in version 3.2:

- corrected several mistakes on level c (superscripts that had failed to follow when their corresponding normal letters were moved around on level a)
- changed some of the liturgical symbols so that Ⲁ can be where one expects it
- added Ⲟ, which had been forgotten
- swapped Ⲛ and ⲛ
- marked all the **deprecated characters** by grey colour (Cyrillic Extended C block, superscript ⲉт, and wide omega; any others?); I suggest that the software should allow to type them, but the documentation should not show them on the keyboard map but only treat them in a special chapter headed “Deprecated characters”
- moved ⲥ from М (where it was placed based on the fact that on the Latin keyboard this is the V key, which would not be valid anymore on Serbian, Bulgarian, or QWERTY-based versions) to В (which corresponds to its sound value in ѿѡаггеліѿ; in the Serbian and QWERTY-based versions this also happens to be the V key)
- moved « » to Ч (кавычки) and < > to С (угловые скобки), so they are next to each other on the keyboard
- moved ⲓ to an ⲗ/AltGr combination (on the М key, cf. взмет) and added combining overline (with combining double overline on “extra”) on the same key
- added combining macrons (single, double, left end, right end, middle) as combinations of titlo and vzmet with the “extra” deadkey
- added combining tildes (single, double, left end, right end, middle) as combinations of titlo and vzmet with the “superscript” deadkey
- swapped combining kavyka and spacing kavyka, so that the combining version is the main variant, just like with payerok and yerik

Changes in the alternative version:

- moved capital Ъ, ЬІ, and Ь to their positions on a Russian standard keyboard
- moved titlo to “1”; payerok and yerik to ⲗ/AltGr + Р combinations (cf. паерок, ерик); and ѿ to an “extra” deadkey combination with ЬІ

Changes in version 3.3:

- adopted the changes from the alternative version (according to Sebastian’s and Ralph’s suggestions)
- copied the “superscript” (▲) deadkey (together with the pokrytie) to the bottom left key (as in Sebastian’s proposal) to make it also accessible without Shift (for those on whose keyboard this key exists)
- restored payerok and yerik on the Ь key
- moved the conjoining titlo parts to Р О Л
- moved n-dash and m-dash to Т (“тире”)
- displayed all the letters in Bukyvede instead of Roman Cyrillic, to make their Old Cyrillic shape clearer
- swapped acute and grave accent to have the two accents most frequently occurring in combination with a spiritus (acute and kamora) right next to the spiritus key
- added lenis+acute and lenis+kamora on the bottom left key (according to Ralph’s suggestion)

Changes in version 3.4:

- copied ⲓ to the superscript position of і десятиричное (according to Ralph’s suggestion)
- marked precomposed oy as deprecated so it should not be shown on the layout map for users, and deleted the corresponding line from the clarifications
- moved the power-of-ten number signs to Shift + ⲗ/AltGr combinations to provide easier access to the punctuation marks on those keys
- moved the “velikij apostrof” (lenis + kamora, ⲓ) to ⲗ/AltGr + 7, the key that also creates the kamora, and added the “apostrof” (lenis + grave, ⲓ) to the bottom left key already containing the “iso” (lenis + acute, ⲓ)
- moved ⲗ (“ѿ/ЫИ”) to the И key to make space for ѿ on ⲗ/AltGr + Ь (which is redundantly also left on the “extra” deadkey because due to technical restrictions this is needed for the Bulgarian version of the keyboard)
- rearranged Ⲟ, ⲟ, *, +, and =
- added Greek question mark and ano teleia as “extra” deadkey combinations of semicolon and middle dot
- added Яя and \ to the keyboard (who knows what they might be useful for)
- added a chapter “Deprecated characters” and taken these characters off the layout map (but leaving a reservation mark as a reminder for us so that we do not assign another character to the same key combination by mistake)
- added some additional explanations for the future “user manual”
- added little numbers to the layout maps for better orientation
- reversed payerok, yerik and kavyka to adjust their behaviour to the logic of superscript letters: now the spacing versions are on the plain keys and the combining versions are accessed using the “superscript” deadkey
- added dot-above-right (ⲓ), which was already present as a liturgical symbol, as an “extra” variant of payerok

Changes in version 3.5 (version 0.35 of the driver):

- added ☒, which I had forgotten
- moved most liturgical symbols to the **Number keypad** because the non-BMP symbols cannot be accessed through deadkey combinations in Windows
- rearranged the *combining* liturgical symbols
- swapped 3 and 7 because having 3 only as secondary key contradicts the principle that the modern letters needed for Church Slavonic should be on their standard keys

Changes in version 3.6 (version 0.36 of the driver):

- The Cyrillic Extended-C characters, which had been forgotten when implementing the driver, have been added now.
- moved ͡ to the 8, so that its similarity with ∞ can serve as a mnemonic
- small օ, ֆ, ֆ corrected so that they can be accessed by pushing the “1”, “2”, and “3” key on the regular keyboard, not only on the number pad