

**THE PEPPER FONTS:
COMPLETE MANUAL**
for Version CP5e

(for Microsoft Word 2013 and 2016)

*A Set of Phonetic Symbols for Use in
Windows Documents*

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ABOUT THE CP5e PEPPER FONT

The PEPPER CP5e font consists of a set of phonetic symbols and special characters for use in word processing documents. The CP5e font includes 44 regular and bold symbols for all of the American English consonants, vowels, and diphthongs and 42 diacritic symbols and special characters. The symbols in the PEPPER CP5e font are compatible with the 5th edition of *Clinical Phonetics* (Shriberg, Kent, McAllister, & Preston, 2019) and differ in several ways from the other two PEPPER fonts (PEPPER Proportional, PEPPER sans Diacritics, see below), which include symbols that are compatible with the first 4 editions of *Clinical Phonetics* (Shriberg & Kent, 1982, 1995, 2003, 2013). A separate manual for the [PEPPER Proportional](#) and PEPPER sans Diacritics fonts (referred to as Version 2.0/2.1) is available on the Phonology Project website.

The symbols for the PEPPER Proportional font were subsequently incorporated into a speech analysis package titled PEPPER (Shriberg & Nockerts, 1982); upgrades of PEPPER were transferred to PC (Shriberg, 1986a, 1986b) and VAX (Shriberg & Wilson, 1990) platforms. The PEPPER CP5e font has been developed specifically for use with the 5th edition of *Clinical Phonetics*, and any differences between it and the PEPPER Proportional font have *not* been incorporated into the PEPPER speech analysis package.

HOW THE PEPPER CP5e AND PEPPER PROPORTIONAL FONTS DIFFER

The PEPPER CP5e font differs from the PEPPER Proportional font in the following ways:

- The symbol for the allophonic lingua-alveolar flap (ɾ) has been added.
- The symbol for the vowel /ɒ/ has been removed from the keyboard template (p. 14).
- The diacritic symbols for fronted/advanced and backed/retracted have been changed to $\underset{+}$ and $\underset{-}$, respectively. (Note that the $\underset{-}$ symbol is the "centralized" diacritic in the PEPPER Proportional font; there is no diacritic for "centralized" in the PEPPER CP5e font.)
- The fronted, advanced, backed, and retracted ($\underset{<}$, $\underset{+}$, $\underset{>}$, $\underset{-}$) diacritic symbols in the PEPPER Proportional font are not available in the PEPPER CP5e font.

If you have a problem installing or using the PEPPER fonts, please send an email to shriberg@waisman.wisc.edu. Our web address is: <https://phonology.waisman.wisc.edu>

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LIMITED WARRANTY: The PEPPER font and its installation program are provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

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INSTALLATION

Follow the directions at: <https://phonology.waisman.wisc.edu/pepper-font/installation-instructions/>

GENERAL INFORMATION

Overview

There are three categories of symbols in the PEPPER CP5e font:

- 1) Symbols for consonants, vowels, and diphthongs (*main symbols*)
- 2) Symbols for punctuation and other special needs (*special symbols*)
- 3) Symbols for diacritics (*diacritic symbols*)

Vowel and Diphthong Sounds of English (p. 16) illustrates 21 vowel and diphthong symbols, with 16 vowels arranged within the vowel quadrilateral. Consonant Sounds of English (p. 16) illustrates each of the 26 consonant symbols arranged by place-manner-voicing. (One additional consonant, *ʌ*, and one allophone, *ɹ*, are also available in the PEPPER CP5e font.) PEPPER CP5e Font Diacritic Marks for Phonetic Transcription (p. 17) illustrates the classification, placement, and definition of each of the 39 diacritic symbols and 3 special symbols.

Clinical errors or speech differences are represented by positioning diacritics according to anatomical and linguistic place. For example, diacritics for stress, nasal, and lip modifications are placed above main symbols. (Examples of combinations of main and diacritic symbols are given on pp. 10 - 12).

The PEPPER CP5e Font Keyboard Template (p. 14) shows which keys produce the PEPPER CP5e font characters. Take a few minutes to familiarize yourself with the keyboard template, and with the vowel and diphthong, consonant, and diacritic figures on pages 16 - 17.

Manual Conventions

This manual assumes that you know the basics for using Microsoft Windows. This includes using menus, dialog boxes, and a mouse. If you are not familiar with these operations, see your Microsoft Windows documentation.

Menu selections are indicated as follows:

Choose **Main menu item** ► **Submenu item** ► etc.

Special keys and menu items are printed in **bold**. Items to be typed are printed in **Courier bold**.

The cursor movement keys are indicated by arrows: →, ←, ↑, ↓.

Document font refers to the font used for the body of a document.

PEPPER font refers to the font used to print regular and bold phonetic symbols.

MICROSOFT WORD INSTRUCTIONS

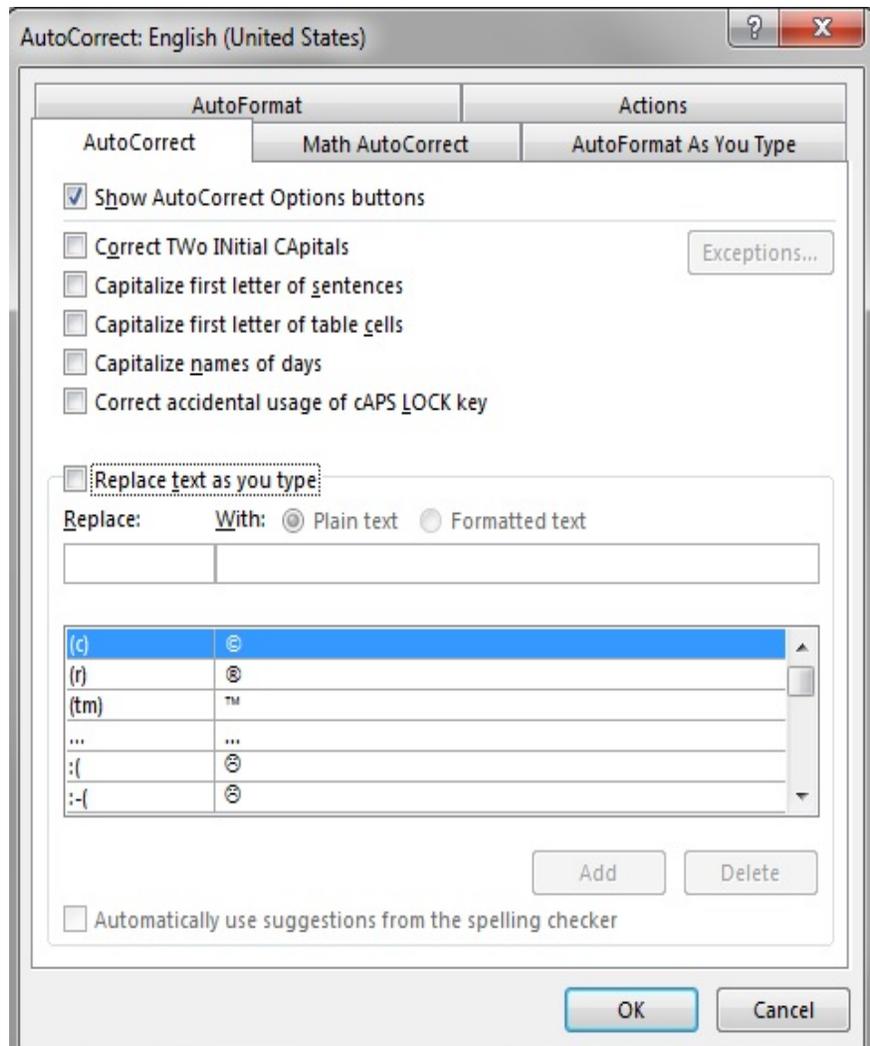
This section gives instructions for using the PEPPER CP5e font in Microsoft Word.

Set AutoCorrect Options

Microsoft Word's AutoCorrect feature is designed to make automatic corrections and changes in your document, such as correcting frequently misspelled words, replacing quotation marks with open and close quote symbols, and automatically capitalizing the first word of a sentence. Although these features are helpful for most documents, they can cause confusion when using the PEPPER CP5e font. For example, automatic capitalization would substitute a diacritic symbol for a main symbol, and replacing quotation marks would result in an undefined character for θ .

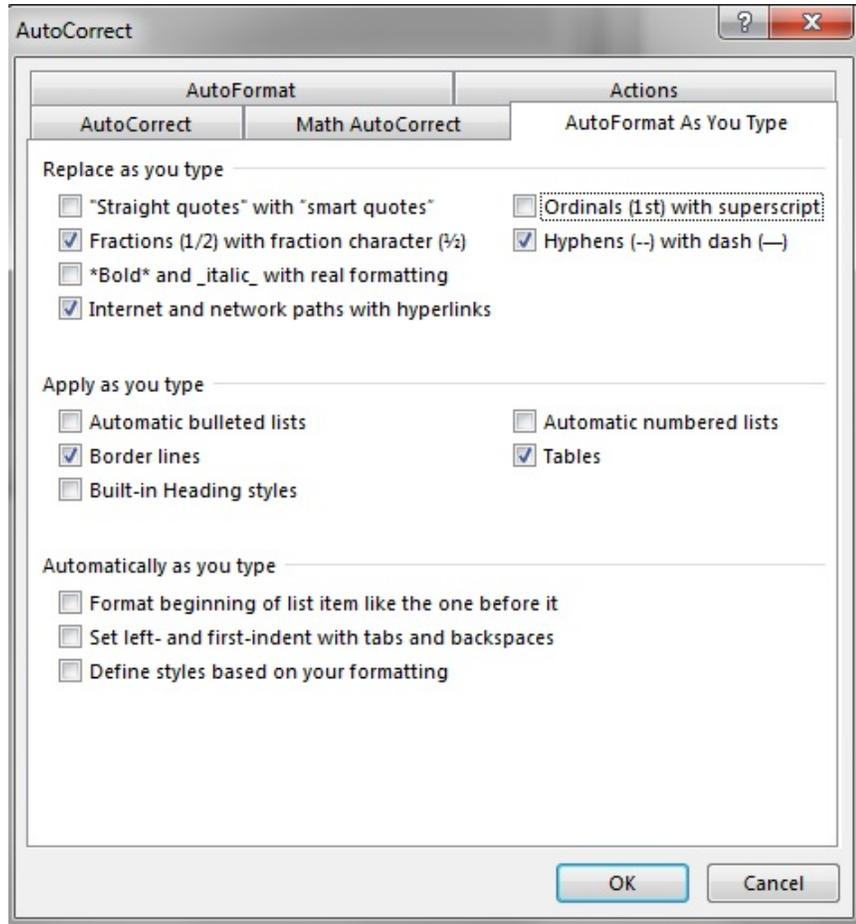
To turn off some of the AutoCorrect options:

1. Choose **File** > **Options** > **Proofing** and click on the **AutoCorrect Options . . .** button. Click the **AutoCorrect** tab.



2. Uncheck the boxes that correct capitalization and the **Replace text as you type** box.

3. Click the **AutoFormat As You Type** tab.



4. Under **Replace as you type**, uncheck the boxes to the left of **"Straight quotes" with "smart quotes"** and **Ordinals (1st) with superscript**.

5. Click **OK** to close the **AutoCorrect** dialog box.

Select the CP5e PEPPER Font

Select the PEPPER CP5e font using the Font drop down list in the HOME toolbar. (HINT: Type **pep** to move to the PEPPER fonts quickly.) *PEPPER CP5e* appears as + +1 200, *PEPPER Proportional* appears as + +1 ronnrtionnl and *PEPPER sans Diacritics* appears as pappar 3ngns diŋfritiŋs.

To type bold phonetic symbols, select **B** in the toolbar.

After you have finished typing characters in the PEPPER CP5e font (see the PEPPER CP5e Font Keyboard Template on p. 14), re-select the document font to type "regular" characters.

HINT: You can change previously typed text to phonetic symbols by selecting the text to be changed, then selecting the PEPPER CP5e font as above. Only the selected text will change to PEPPER symbols.

COMBINATIONS OF PEPPER FONT SYMBOLS

Symbol Positions and Typing Order

Each PEPPER CP5e font diacritic is assigned a position relative to the main symbol. Refer to PEPPER CP5e Font Diacritic Marks for Phonetic Transcription (p. 17). For example, Position ② above the main symbol is for Stress symbols, Nasal symbols, and Lip symbols.

When you enter a combination of PEPPER symbols, you need to enter them in a specific sequence that follows their left-to-right appearance. For example, if your symbol combination includes an on-glide (Position ①), it must be the first symbol entered when you are in the PEPPER font mode. Here's the specific typing order to follow:

1. On-glide (Position ①)
2. Main symbol
3. Diphthongs (placed next to the main symbol)
4. Ties (placed next to the main symbol)
5. Diacritics in Position ② (Lip, Nasal, Stress)
6. Diacritics in Position ③ (Tongue, Source, Syllabic)
7. Off-glide
8. Diacritics in Position ④ (Release)
9. Diacritics in Position ⑤ (Timing)
10. Diacritics in Position ⑥ (Juncture)

On-glides and off-glides are created by using the **Superscript** feature in Microsoft Word. Diacritics above and below the main symbol (Positions ② and ③) are aligned by using **kerning** (kerning defines the space between characters in a font). The most commonly used combinations are easy to create—automatic kerning takes care of the correct alignment. Less common combinations of symbols are aligned by using manual kerning.

To avoid a crowded look, you may want to add an empty line above and/or below PEPPER symbols that include diacritics above or below the main symbol, or adjust line spacing to achieve your desired look.

Automatic and Manual Kerning

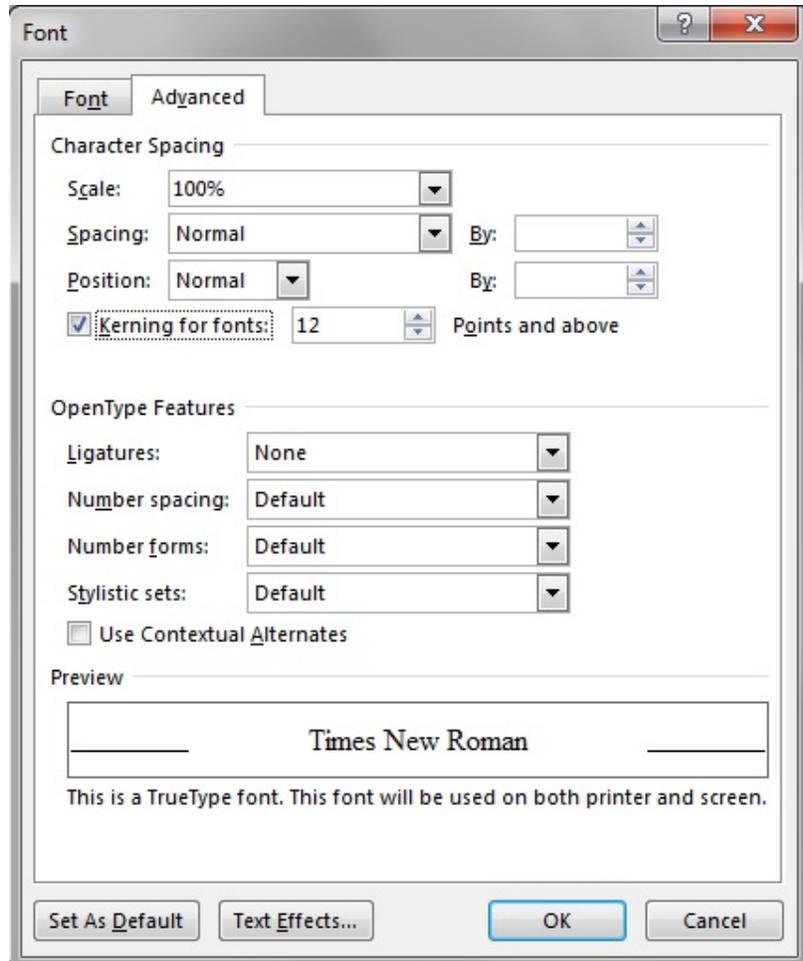
Kerning defines the horizontal space between characters in a font. As described above, the PEPPER CP5e font uses automatic kerning to align the most commonly used combinations of symbols.

The PEPPER CP5e Font Automatic Kerning Table (p. 15) lists the combinations of PEPPER CP5e font symbols that are aligned by automatic kerning. Notice that some are combinations of main symbols and diacritics, and others are combinations of diacritics. All other combinations are aligned by using manual kerning.

Turn Automatic Kerning On

Kerning is needed only if you are using diacritics. For an existing document, choose **HOME** and then click on **Select** on the far right of the screen. Click **Select All** from the drop down menu. Next, go to the Font toolbar and click on  (or Ctrl+D).

Click the **Advanced** tab.



Click the box to turn on **Kerning for fonts**. If you are using less than a 12 point font size, set **Points and above** to your font size. Click **OK**.

Manual Kerning

To use manual kerning:

1. Select the two PEPPER font symbols you wish to align. (Click before the first symbol. Hold down the shift key and press the right arrow twice. The symbols appear in reverse video.)
2. Choose **HOME** and click on  on the Font toolbar (or Ctrl+D).

The **Font** dialog box will open. Click the **Advanced** tab.

3. Change **Spacing** to **Condensed** and **By** to the amount, in points, by which the characters should be brought together. (The Preview section displays the spacing of the two selected symbols as you change the spacing.)

Spacing: Condensed By: 0.7 pt

4. Click **OK**. (NOTE: 0.7 pt is just an example; your desired

spacing may be different.)

Step-By-Step Instructions

The following table provides step-by-step instructions for creating combinations of PEPPER CP5e font symbols. Notice that each example follows the typing order listed on page 8.

IMPORTANT: The directions for each example assume that you have already **selected the PEPPER CP5e font** and **turned automatic kerning on** as explained on pages 7 and 9.

NOTE: If you cannot see a Position ② diacritic on the screen after you type it, the vertical spacing in your document needs adjustment. To do this,  click on the **Paragraph** toolbar, and on the **Indents and Spacing** tab, increase the “**Before**” Spacing to at least the font size you are using.

Instructions for Creating Combinations of PEPPER CP5e Font Symbols

Symbol Combination	Description	Step-By-Step Directions
p̄f	On-glide (Position ①) and main symbol	<ol style="list-style-type: none"> 1. Type the on-glide symbol (p̄). 2. Type the main symbol (f). 3. Select the p̄. 4. Type Ctrl+D or click  on the Font toolbar. The Font dialog box will open. Click the Font tab. 5. Click the Superscript box. Click OK.
\overline{ou} \overline{oi}	Diphthong with overbar	<ol style="list-style-type: none"> 1. Type the main symbol (e). 2. Type [(for \overline{u}) or] (for \overline{i}).
ou oi	Diphthong without overbar	<ol style="list-style-type: none"> 1. Type the first main symbol (e). 2. Type the second symbol (7 for u; 8 for i). 3. Follow the directions for manual kerning (p. 9).
ts̄	Tie showing synchronic articulation	<ol style="list-style-type: none"> 1. Type the first main symbol (t). 2. Type the tie symbol (+). 3. Type the second main symbol (s).
\tilde{u} \tilde{s}	Position ② or ③ Diacritic (automatically kerned)	<ol style="list-style-type: none"> 1. Type the main symbol (u or s). 2. Type the Position ② or Position ③ diacritic (! or I).
$\overset{m}{p}$ $\overset{m}{s}$	Position ② or ③ Diacritic (manually kerned)	<ol style="list-style-type: none"> 1. Type the main symbol (p or s). 2. Type the Position ② or ③ diacritic (& or X) and position the cursor between the main symbol and diacritic. 3. Follow the directions for manual kerning (p. 9).

**Symbol
Combinat
ion**

Description

Step-By-Step Directions

ä

**Combinations of Position ②
and Position ③ Diacritics**

Some Position ③ diacritics are automatically kerned with Position ② diacritics. (See **Automatic Kerning Table** on p. 15). To create combinations:

1. Type the main symbol (**ä**).
2. Type the Position ② diacritic (**!**).
3. Type the Position ③ diacritic (automatically kerned in this example (**ÿ**)). If the Position ③ diacritic is not automatically kerned with the Position ② diacritic (see p. 15), select the two diacritics (click before the main symbol; press the right arrow key; hold down a shift key and press the right arrow key twice more) and follow the directions for manual kerning (p. 9).

ï

Multiple Position ② Diacritics

1. Type the main symbol (**ï**).
2. Follow directions above for the lower Position ② diacritic (manually kerned in this example (**ÿ**)).
3. Type Ctrl+D or click the  on the Font toolbar. The **Font** dialog box will open. Click the **Font** tab. Click the **Superscript** box. Increase the font size by 50%. Click **OK**.
4. Hold down a shift key and type the upper Position ② diacritic (**!**).
5. If the two diacritics are not aligned, select the two diacritics (click before the main symbol; press the right arrow key; hold down a shift key and press the right arrow key twice more) and follow the directions for manual kerning (p. 9).

ķ

Multiple Position ③ Diacritics

1. Type the main symbol (**ķ**).
2. Follow directions for the upper Position ③ diacritic (automatically kerned in this example (**Ł**)).
3. Type Ctrl+D or click the  on the Font toolbar. The **Font** dialog box will open. Click the **Font** tab.
4. Click the **Subscript** box. Increase the font size by at least 50%. Click **OK**.
5. Hold down a shift key and type the lower Position ③ diacritic (**ˆ**). The second diacritic is selected.
6. If the two diacritics are not aligned, select the two diacritics (click before the main symbol; press the right arrow key; hold down a shift key and press the right arrow key twice more) and follow the directions for manual kerning (p. 9).

äz

**Position ② or Position ③
Diacritics above or below tied
symbols**

1. Type the first main symbol (**ä**).
2. Type the tie symbol (**+**).
3. Type the second main symbol (**z**).
4. Type the Position ② or ③ diacritic (**ˆ**).
5. Select the second main symbol and the diacritic (click

Symbol Combination	Description	Step-By-Step Directions
m ^p	Off-glides (Position ④) are similar to on-glides	<p>before the first main symbol; press the right arrow key twice; hold down a shift key and press the right arrow key twice more) and follow the directions for manual kerning (p. 9).</p> <ol style="list-style-type: none"> 1. Type the main symbol (m). 2. Type the off-glide symbol (p). 3. Select the p. 4. Type Ctrl + D or click  on the Font toolbar. The Font dialog box will open. Click the Font tab. 5. Click the Superscript box. Click OK.
t ^ˈ	Single Position ④ or Position ⑤ Diacritic	<ol style="list-style-type: none"> 1. Type the main symbol (t). 2. Type diacritic symbol in Position ④ or ⑤ (ˈ). <p>NOTE: You may use either a stop release symbol or off-glide in Position ④, but not both.</p>
t ^{sˈ}	Off-glide and Position ⑤ Diacritic	<ol style="list-style-type: none"> 1. Type the main symbol (t). 2. Type the off-glide symbol (s). 3. Type the Position ⑤ diacritic (ˈ). 4. Select the s. 5. Follow directions for creating the off-glide (p. 11). 6. Select the two diacritics. 7. Follow the directions for manual kerning (p. 9).
t ^{ˈˈ}	Position ④ and Position ⑤ Diacritics	<ol style="list-style-type: none"> 1. Type the main symbol (t). 2. Type the Position ④ diacritic (ˈ). 3. Type the Position ⑤ diacritic (ˈ). 4. Select the two diacritics. 5. Follow the directions for manual kerning (p. 9).
aː ^{ˈˈ}	Position ⑤ and Position ⑥ Diacritics	<ol style="list-style-type: none"> 1. Type the main symbol (a). 2. Type the diacritic symbol in Position ⑤ (ˈ). 3. Type the diacritic symbol in Position ⑥ (ˈ).

ADDITIONAL EXAMPLES OF THE PEPPER CP5e FONT

Phonetic Transcription

Here are some examples of word transcriptions using the PEPPER CP5e font. All examples in this section are from studies of children with speech disorders.
NOTE: The [] symbols are not included in the PEPPER fonts—use the document font.

Words with no diacritics:

fish toothbrush play jump

[fɪʃ] [tuθbrʌʃ] [plēī] [dʒʌmp]

Words with diacritics:

sand outside(s) shoe home

[s^tænd] [a^utsaⁱdz̄] [ʃu] [hōū[~]m]

Special Symbols

The PEPPER CP5e font includes three special symbols and punctuation marks useful in transcription and phonological analyses:

— An underbar marks a deleted sound. For example:

Gloss: The dog ran away

Transcription: ðə dɔ_ ræn əweī

* Indicates an unintelligible word or syllable. For example:

Gloss: * * other go on top

Transcription: * * ʌðə gōū an t^hɑp^ɾ

Ⓢ Encloses questionable segments. For example:

Gloss: And and they're letting <may> my hair grow more

Transcription: æn æn ðer letɪn mēⓈ māī heɪ gwōū mɔɹ

To use:

Type the symbol to be circled.

Type | or Shift + \ (the circle symbol).

Select the main symbol and the circle symbol.

Follow the directions for manual kerning (p. 9).

/ and , The virgule (/) and comma (,) are included as punctuation.

Example: ...this occurred on /r/, /ɜ/, and /ɜ/

Entering Diacritic Symbols Alone

To use diacritic symbols without main symbols, simply type a space followed by the diacritic symbol. For example [_].

The PEPPER CP5e Font Keyboard Template

~	э	!	~	@	~	#	~	\$	°	%	°	^	°	&	°	*	°	(o ^h)	o ⁼	_	o ⁷	+	(
`	f	1	ə	2	ε	3	e	4	ʌ	5	ə	6	ʒ	7	u	8	ɪ	9	o	0	a	-	_	=	?
		Q	o:	W	o>	E	o+	R	o	T	o*	Y	o†	U	o→	I	o ₁	O	o ₂	P	o ₃	{	o ₄	}	o ₅
		q	æ	w	w	e	a	r	r	t	t	y	j	u	u	i	i	o	o	p	p	[ū]	ī
		A	o	S	o ₋	D	o ₊	F	o	G	o _*	H	o	J	o	K	o ₁	L	o ₂	:	o ₃	"	o ₄		□
		a	ŋ	s	s	d	d	f	f	g	g	h	h	j	ɕ	k	k	l	l	;	ð	'	θ	\	*
		Z	o ₁	X	o _x	C	o _h	V	o _v	B	o ₁	N	o ₂	M	o ₃	<	<	>	>	?	o ₄				
		z	z	x	z	c	j	v	v	b	b	n	n	m	m	,	,	.	tʃ	/	/				

Each key is divided into two areas. The characters in the gray shaded areas are the labels on your keyboard (the upper character is the shifted key). The characters in the white corresponding areas are the CP5e PEPPER font symbols. NOTE: The o character in the white upper area is used as a placeholder to show the location of each of the diacritic symbols. When you type a diacritic, the o does not appear. The A, H, and J shifted keys have no diacritic symbols.

Your keyboard may be laid out slightly differently than the keyboard shown above. However, regardless of a character's location on your keyboard, the PEPPER CP5e font symbol prints when you type the corresponding character shown in gray. Some keyboard variations are as follows:

- the left-most key in the first row (~) appears to the right of the third row

- the right-most key in the third row (| \) appears to the right of the first or second row or to the left or right of the fourth row

Typing order:

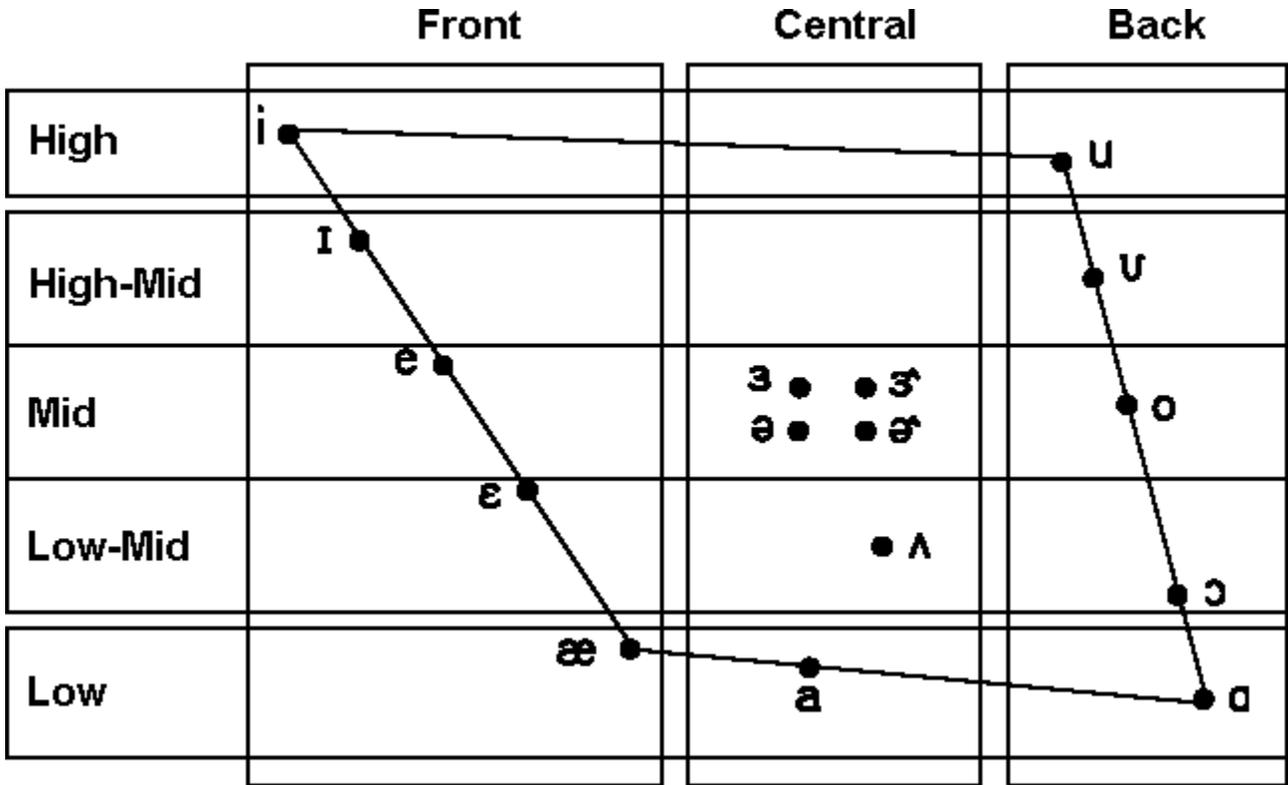
1. On-glide (Position ①)
2. Main symbol
3. Diphthongs (placed next to the main symbol)
4. Ties (placed next to the main symbol)
5. Diacritics in Position ② (Lip, Nasal, Stress)
6. Diacritics in Position ③ (Tongue, Source, Syllabic)
7. Off-glide
8. Diacritics in Position ④ (Release)
9. Diacritics in Position ⑤ (Timing)
10. Diacritics in Position ⑥ (Juncture)

Three less frequently used symbols are available. To create:

<u>Keystrokes</u>	<u>Symbol</u>
~	ʒ
<none>	ɱ
<none>	ɔ̥

To get the ɱ or ɔ̥ symbol, select **Insert ► Symbol...**, change the font to a PEPPER font, scroll down to the end, click on the ɱ or ɔ̥, and click Insert.

Vowel Sounds of English



Consonant Sounds of English

		MANNER	VOICING	PLACE					
				Bilabial	Labio-dental	Lingua-Dental ^a	Lingua-Alveolar ^a	Lingua-Palatal ^a	Velar
OBSTRUENTS	Stop	Voiceless	p			t		k	ʔ
		Voiced	b			d ɾ ^c		g	
	Fricative	Voiceless		f	θ	s	ʃ		h
		Voiced		v	ð	z	ʒ		
	Affricate	Voiceless					tʃ		
		Voiced					dʒ		
SONORANTS	Nasal	Voiced	m			n		ŋ	
	LIQUID	Lateral	Voiced			l			
		Rhotic	Voiced					r	
	Glide	Voiced	w				j	(w) ^b	

^a These terms are contracted to Dental, Alveolar, and Palatal.

^b This sound has constrictions in both the bilabial and velar places, as does its voiceless cognate /w/.

^c The ɾ is technically an allophone.

PEPPER CP5e Font Diacritic Marks for Phonetic Transcription

