



The Fitaly Keyboard for the Palm Organizer

z	v	c	h	w	k
f	i	t	a	l	y
	n	e			
g	d	o	r	s	b
q	j	u	m	p	x

Reference Manual

Version 2 - January 2000

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The Fitaly Keyboard for the Palm Organizer

This manual explains how to use the Fitaly Keyboard, version 2, for the Palm Organizer and earlier versions of the Palm Pilot.

Working with the Fitaly Keyboard for the Palm

The Fitaly keyboard for the Palm Organizer is an ergonomic replacement for the standard on-screen Qwerty keyboard.

z	v	c	h	w	k
f	i	t	a	l	y
		n	e		
g	d	o	r	s	b
q	j	u	m	p	x

The patented Fitaly key arrangement[†] is optimized for pen or one-finger entry: the letters **ital ne dors** and the space – together representing 73% of the keys used for normal text – are placed in a very tight central area.

Adding the letters **ch** and **um** brings this frequency to 84%. Remaining keys are never more than two keys away from this central area and each key is placed near the keys most likely to follow it in English text. The effect is to minimize pen travel. In addition, the layout practically eliminates hand movement when typing text. This means that you can type with your hand rested on the lower area, moving only the fingers holding the pen.



To activate the Fitaly keyboard, tap on 'abc' in the Graffiti area. Use another tap on 'abc' to close the Fitaly.

Unlike the Qwerty keyboard, the Fitaly floats over the current application.

This means that you can enter all fields of an address without having to close and reopen it for each field. The Fitaly will move to uncover the current field and you can also move it by dragging the move key ↕

The Fitaly keyboard includes a side bar and four panels called the left, letter, punctuation, and right panels:

→	z	v	c	h	w	k	-!	←	x
cap	f	i	t	a	l	y	,?	↩	↵
shf			n	e			.:	shf	⌘
123	g	d	o	r	s	b	'(←←	^
↕	q	j	u	m	p	x	/)	→→	i

The Letter Panel:

z	v	c	h	w	k
f	i	t	a	l	y
		n	e		
g	d	o	r	s	b
q	j	u	m	p	x

The letter panel includes the 26 letters of the alphabet in the patented Fitaly layout - named after the second row. See also the two space bars.

As we will see later, the letter panel and the punctuation panels can be modified in various ways. We will show you how to produce all the 220 characters of the Latin1 character set with these modification – something that no other keyboard allows.

The Left Panel:

→	→
cap	cap
shf	shf
123	abc
↕	↕

The left panel includes the tab, cap, and shift keys, and the 123/abc toggle to alternate between the letter panel and a panel with and numbers.

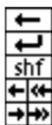
A tap on 123 brings up the numbers, and a tap on abc brings the letters back. It also includes the move key ↕ used to drag the keyboard to a new position.

The Side Bar.

The side bar includes the following keys:

-  The close key, to close the Fitaly.
-  The command key, used for menu commands.
-  The shortcut key, used for Graffiti shortcuts.
-  The accent toggle, to get an accent block on the right panel, or the arrow toggle to get arrows: 
-  The information key.

The Right Panel with Arrows:



The right panel includes the backspace, enter, and shift keys and four arrow keys.

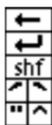
The left and right single arrows are used to cursor one character left or one character right.

The effect of the double arrows depends on where the cursor is:

- for a field, the left double arrow moves to the field before, the right double arrow to the field after.
- for text, the left double arrow moves to the line before, the right double arrow to the line after.

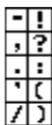
The Right Panel with Accents:

A tap on the arrow/accent toggle switches the right panel between the above configuration with arrows and the configuration with accents shown below:

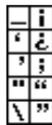


The four accent keys are *sticky* keys. A tap on an accent key modifies certain keys of the letter and punctuation panels. This is a one-time effect that only applies to the next letter.

The Punctuation Panel:



The punctuation panel includes punctuation keys. The exact keys depend on shifting and on accent keys. For example, with shifting, the keys become those shown on the right.



Shifting and Numbers

We now start a review of several possible metamorphoses of the Fitaly. We will need some to produce all 220 characters, so let us start by shifting.

Shifting

As expected, shifting produces the capital letters together with the shifted punctuation panel:

→	Z	V	C	H	W	K	_	i	←	↘
cap	F	I	T	A	L	Y	'	;	↵	/
shf			N	E			'	;	shf	↵
123	G	D	O	R	S	B	"	"	←←	^
↕	Q	J	U	M	P	X	\	"	→→	i

What is shown here are the letters obtained with the shift key; the cap key does not affect the punctuation panel. If you are worried by visual flicker, you can choose not to show shifted letters..

Numbers

A tap on the 123 key produces the numbers and the keys most often used in conjunction with numbers: currency symbols, as \$ ¢ £ ¥ €, the degree ° and mathematical symbols operators, and the degree symbol. The punctuation panel on the right of numbers conveniently shows symbols such as - () which are often used to enter phone numbers.

→	<	>	=	x	÷	+	-	!	→	↘
cap	xx	°	@	1	2	3	,	?	cap	/
shf			&	4	5	6	.	:	shf	↵
abc	¥	¢	%	7	8	9	'	(←←	^
↕	€	£	\$	*	0	#	/)	→→	i

Numbers are shown here configured as on a phone pad but if you prefer them as on a calculator, you can set the proper option.

Shifting the numbers displays other more rarely used symbols such as ½, ‰, superscripts ^{1 2 3}, the non-breaking space (n.b.) and the ellipsis... as shown below:

→	†	/	ª	¬	±	±	_	i	→	↘
cap	‡	↵	∅	¹	²	³	´	¸	cap	/
shf	n.b.	∅	¼	½	¾	³	;	:	shf	↵
abc	ã	õ	‰	ˆ	˙	ˆ	"	"	←←	^
↕	Ä	Ö	ƒ	ˆ	-	...	\	"	→→	i

You may not use these symbols every day, but if you need them, they are on the Fitaly. Actually, the Fitaly is only way to enter some of these characters on a Palm Organizer.

International Variations

Now we can conjugate the letter and punctuation panels with the four possible accent keys. So we start with the normal keyboard with the left panel showing accents:

→	z	v	c	h	w	k	-!	←	x
GBP	f	i	t	a	l	y	,?	↩	/
shf			n	e			.:	shf	↩
123	g	d	o	r	s	b	'(↩	↩
↑	q	j	u	m	p	x	/)	"^	ı

A tap on any of the four accent key modifies the letters and produces accented keys and other keys of the Latin1 character set. For example, tapping the accent ^ followed by e produces ê. This means that each accented key can be produced with only two taps.

We now review the four accent variations, along with their effect on the punctuation panel.

Acute Accent:

The acute accent changes the vowels as expected. It also changes the letter c into ç and C into Ç (in shifted form).

z	v	ç	h	w	k	€	©
f	i	t	á	l	ý	ƒ	®
↩	n	é	°			\$™	
g	d	ó	r	s	b	¥	¶
q	j	ú	m	p	x	€	§

Z	V	Ç	H	W	K	€	©
F	I	T	Á	L	Ý	ƒ	®
↩	N	É	°			\$™	
G	D	Ó	R	S	B	¥	¶
Q	J	Ú	M	P	X	€	§

The punctuation panel shows all currency and legal symbols .

Grave Accent:

The grave accent changes the vowels a e i o u to accented form. It also changes the letters d t into the Icelandic ð and þ. Similarly, D P are changed into Ð Þ.

z	v	c	h	w	k	â	Ä
f	i	þ	à	l	y	æ	Æ
↩	n	è	˘			ø	Ø
g	ð	ó	r	s	b	œ	Œ
q	j	ú	m	p	x	-	-

Z	V	C	H	W	K	Â	Ä
F	I	Þ	À	L	Y	Æ	Æ
↩	N	È	˘			Ø	Ø
G	Ð	Ó	R	S	B	œ	Œ
Q	J	Ú	M	P	X	-	-

The Punctuation Panel includes the Danish å æ and ø, the French œ, and the n-dash – and m-dash —

Circumflex Accent:

The circumflex accent changes the vowels as expected. But see also how it changes the letter s and S into š and Š.

z	v	c	h	w	k	<	>
f	î	t	â	l	y	<	>
^	n	ê	^			<<	>>
g	d	ô	r	š	b	{	}
q	j	û	m	p	x	[]

Z	V	C	H	W	K	<	>
F	Î	T	Â	L	Y	<	>
^	N	Ê	^			<<	>>
G	D	Ô	R	Š	B	{	}
Q	J	Û	M	P	X	[]

The punctuation panel offers two-tap access to any of the brackets.

Umlaut Key:

The umlaut key changes all vowels to vowels with umlauts. In addition, the letters m n s become μ ñ ß and N becomes Ñ.

z	v	c	h	w	k	=	#
f	î	t	â	l	ÿ	*	@
~	n	ë	"			•	&
g	d	ô	r	ß	b	+	%
q	j	û	µ	p	x		

Z	V	C	H	W	K	=	#
F	Î	T	Â	L	ÿ	*	@
~	N	Ë	"			•	&
G	D	Ô	R	ß	B	+	%
Q	J	Û	µ	P	X		

The punctuation panel offers two-tap access to useful keys such as @ and the bullet •. In addition it can be configured to include the card suits as shown on the right.

The Command and Shortcut Keys

The Command Key

The command key is used for menu command equivalents: a tap of the command key followed by a letter activates the corresponding menu command. For example:

<input checked="" type="checkbox"/>	U	Undo
<input checked="" type="checkbox"/>	X	Cut
<input checked="" type="checkbox"/>	C	Copy
<input checked="" type="checkbox"/>	P	Paste
<input checked="" type="checkbox"/>	S	Select All

Case does not matter: For undo, you can use either U or u

The Shortcut Key

The shortcut key is used for Graffiti shortcuts. To type any of the shortcuts, tap this key either before or after those of the shortcut. For example, tap either ds or ds for the Date stamp entry.

Type Even Faster with Sliding

The sole purpose of Fitaly is to allow fast typing on a palm device and most characters can be entered with one or two taps. But in situations in which upper case letters are frequent, as in addresses, repeated shifting can be cumbersome. Similarly, when letters and digits are intermixed, toggling the abc/123 key repeatedly can become inconvenient.

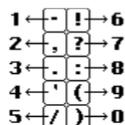
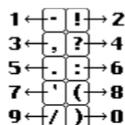
This is why Fitaly 2 offers sliding: Sliding happens when you tap on a key and then move the pen sufficiently far before releasing it. When you tap a letter, you see it appear at key down. If you slide, a backspace is emitted followed by the revised letter at key up.

Sliding to Get Capitals:

Sliding any letter capitalizes it, regardless of the direction of the slide (up, down, left or right, or diagonal). Most likely, you will want to slide **down** from the top rows or **up** from the bottom rows. If All Caps is on, sliding gives a lower case letter.

Sliding for Occasional Digits:

Sliding any of the punctuation keys produces a digit. The direction of the slide does not matter. The effect is as shown below and depends on whether you select a row arrangement 12-34-56-78-90 or a column arrangement 12345-67890:



Sliding Space to Backspace

Sometimes you want to correct the last letter you just entered and the backspace key may feel a bit far. Then slide any of the space keys and this backspaces.

Sliding to Delete

When you enter text, you tend to use backspaces for corrections. But when you edit text, you would often prefer to have a delete key. You can get the effect of delete by sliding the backspace key.

Dodging or Scrolling

As mentioned in the introduction, Fitaly floats over the current application, unlike the Qwerty keyboard. This means that you can enter all fields of an address without having to close and reopen it for each field. You can actually move the Fitaly by dragging the move key ⇄

If you use the Dodging option, Fitaly will move automatically to dodge the cursor so that you can always see what you type.

The other option is to use Scrolling, in which case, Fitaly will not move but scroll the application as needed.



Essentially, when you are in Scrolling mode, Fitaly repositions the application to take **all** the remaining screen space and the application is scrolled as needed.

The relocation affects the whole application so that even its title is relocated.

The effect is as if you were lifting a slide projector and the image projected were lifted, the upper part being off-screen

Note that the Move key is marked differently to indicate this scrolling mode. You can still use it to move the Fitaly and you can also position it at the top or anywhere in-between.



Toggle between dodging and scrolling is done by a menu option or by a double-tap on the move key. Dodging works very well with applications that have many fields, for example, Datebook. On the other hand, scrolling is the preferred mode for MemoPad and for heavy text entry.

The Information Menu

A tap on the information key  opens the information menu:

About Fitaly 2.0... Help...
Increase size Show shifting Use dodging Start by abc tap
Set left side bar Set calculator pad Set 12345-67890 Set card suits
User: John Doe

About Fitaly 2.0... Help...
Decrease size Don't show shifting Use scrolling Start by 123 tap
Set right side bar Set phone pad Set 12-34-56-78-90 Set symbols
User: John Doe

Increase size - Decrease size.

Toggles between the two sizes:

66 pixel height

→	z	v	c	h	w	k	-!	←	x
cap	f	i	t	a	l	y	,?	↩	↗
shf			n	e			.:	shf	↕
123	g	d	o	r	s	b	'(↖	↔
↕	q	j	u	m	p	x	/)	"^	ⓘ

56 pixel height

→	z	v	c	h	w	k	-!	←	x
cap	f	i	t	a	l	y	,?	↩	↗
shf			n	e			.:	shf	↕
123	g	d	o	r	s	b	'(↖	↔
↕	q	j	u	m	p	x	/)	"^	ⓘ

Show shifting – Don't show shifting.

Showing shifting

→	Z	V	C	H	W	K			
cap	F	I	T	A	L	Y			
shf			N	E					
123	G	D	O	R	S	B			
↕	Q	J	U	M	P	X			

Not showing shifting

→	z	v	c	h	w	k			
cap	f	i	t	a	l	y			
shf			n	e					
123	g	d	o	r	s	b			
↕	q	j	u	m	p	x			

Use dodging – Use scrolling.

Decides whether Fitaly does the cursor or scrolls the application.

Start by abc tap – Start by 123 tap.

Decides whether to start Fitaly by a tap on abc in the Graffiti area or by a tap on 123.

Set left side bar – Set right side bar.

Toggles between a side bar on the left and one on the right:



The arrow/accent block is always on the side of the side bar, close to the arrow/accent toggle. The abc/123 toggle and the move button are on the opposite side.

Set calculator pad - Set phone pad.

Changes the number layout of the Letter Panel:

Calculator Pad



Phone Pad



Set 12345-67890 - Set 12-34-56-78-90.

Set 12345-67890 sets the layout of digits obtained by sliding to be column-wise. Set 12-34-56-78-90 sets it to a row-wise layout.

Set card suits - Set symbols.

Sets the layout of the umlaut punctuation panel:

Card Suits



Symbols



Starting and Closing the Fitaly

To start the Fitaly keyboard, tap on abc (or 123) in the Graffiti area. Another tap on abc closes the Fitaly keyboard. The Fitaly keyboard closes automatically when you switch to another application. You may also close the Fitaly with a tap on the **x** of the side bar.

Starting on Pilot 1000 and 5000 models:

To start the Fitaly on Pilot 1000 and 5000 models, do the standard keyboard stroke, from the Graffiti area to the top of the screen.

Reference

Fitaly Application and Fitaly Hack:

The Fitaly keyboard is supplied both as a stand-alone application and as a system hack managed by HackMaster. If you are using other system hacks, you should use the latter version.

Installing/Uninstalling

After installing the Fitaly, enable it either from the Fitaly Application icon or from HackMaster.

To uninstall Fitaly, two steps are required. First, it must be disabled, either from the Fitaly application icon or from Hackmaster. Then, it can be deleted like any other application.

Note that the first step is essential since Fitaly is a system extension. Deleting without first disabling can leave the Palm Organizer in an unstable state.

Overall Size and Placement:

The pixel size of the Fitaly keyboard is 160x56. The height of the larger version is 66 pixels. Note that the height of 56 pixels is slightly more than a third of the height of the PalmPilot Screen (160 pixels). The Fitaly therefore leaves 104 pixels visible for the client application.

Limitation for grayscale applications:

The Fitaly keyboard version 2.0 will not appear over any application running in grayscale.

Character Code Reference – Letter Panel

The Ansi character codes are shown on the right:

Normal:

z	v	c	h	w	k
f	i	t	a	l	y
		n	e		
g	d	o	r	s	b
q	j	u	m	p	x

122	118	99	104	119	107
102	105	116	97	108	121
	32		110	101	
103	100	111	114	115	98
113	106	117	109	112	120

Acute:

z	v	ç	h	w	k
f	i	t	á	l	ý
´		n	é		°
g	d	ó	r	s	b
q	j	ú	m	p	x

122	118	231	104	119	107
102	237	116	225	108	253
	44		110	233	
103	100	243	114	115	98
113	106	250	109	112	120

Grave:

z	v	c	h	w	k
f	i	þ	à	l	y
`		n	è		`
g	d	ò	r	s	b
q	j	ù	m	p	x

122	118	99	104	119	107
102	236	254	224	108	121
	96		110	232	
103	240	242	114	115	98
113	106	249	109	112	120

Circumflex:

ž	v	c	h	w	k
f	i	t	â	l	y
^		n	ê		^
g	d	ô	r	š	b
q	j	û	m	p	x

158	118	99	104	119	107
102	238	116	226	108	121
	94		110	234	
103	100	244	114	154	98
113	106	251	109	112	120

Umlaut

z	v	c	h	w	k
f	i	t	ä	l	ÿ
~		ñ	ë		"
g	d	ö	r	ß	b
q	j	ü	µ	p	x

122	118	99	104	119	107
102	239	116	228	108	255
	126		241	235	
103	100	246	114	223	98
113	106	252	181	112	120

Normal Shifted:

Z	V	C	H	W	K
F	I	T	A	L	Y
		N	E		
G	D	O	R	S	B
Q	J	U	M	P	X

90	86	67	72	87	75
70	73	84	65	76	89
	32		78	69	
71	68	79	82	83	66
81	74	85	77	80	88

**Acute
Shifted:**

Z	V	Ç	H	W	K
F	Í	Á	Ĺ	Ÿ	
	˘	ˆ	˙		
G	D	Ö	R	S	B
Q	J	Ü	M	P	X

90	86	199	72	87	75
70	205	84	193	76	221
	180		201	184	
71	68	211	82	83	66
81	74	218	77	80	88

**Grave
Shifted:**

Z	V	Ç	H	W	K
F	Ì	À	Ļ	Ÿ	
	˘	ˆ	˙		
G	Ð	Ö	R	S	B
Q	J	Ü	M	P	X

90	86	67	72	87	75
70	204	222	192	76	89
	96		200	96	
71	208	210	82	83	66
81	74	217	77	80	88

**Circumflex
Shifted:**

Ž	V	Ç	H	W	K
F	Î	Â	Ľ	Ÿ	
	ˆ	ˆ	˙	ˆ	
G	D	Ö	R	Š	B
Q	J	Ü	M	P	X

142	86	199	72	87	75
70	206	84	194	76	89
	136		202	136	
71	68	212	82	138	66
81	74	219	77	80	88

**Umlaut
Shifted:**

Z	V	Ç	H	W	K
F	Ï	Ä	Ï	Ÿ	
	˘	ˆ	˙	˘	
G	D	Ö	R	ß	B
Q	J	Ü	M	P	X

90	86	67	72	87	75
70	207	84	196	76	159
	152	209	203	168	
71	68	214	82	223	66
81	74	220	77	80	88

Numbers:

<	>	=	×	÷	+
⊗	°	@	1	2	3
		&	4	5	6
¥	¢	%	7	8	9
€	£	\$	*	0	#

60	62	61	215	247	43
164	176	64	49	50	51
	32	38	52	53	54
165	162	37	55	56	57
128	163	36	42	48	35

**Numbers
Shifted:**

†	/	ª	¬	®	±
‡	∕	∅	1	2	3
n.b.	∅	¼	½	¾	
ˆ	ˆ	ˆ	ˆ	ˆ	ˆ
ˆ	ˆ	f	ˆ	ˆ	ˆ

134	157	170	172	186	177
135	158	129	185	178	179
	160	127	188	189	190
227	245	137	130	175	183
195	213	131	132	173	133

Character Code Reference – Punctuation Panel

Normal:

- !	45	33
, ?	44	63
. :	46	58
' (39	40
/)	47	41

Shifted:

_	95	161
' ¨	145	191
' ;	146	59
" "	34	147
\ "	92	148

Acute:

© ®	162	169
£ ®	163	174
\$ ™	36	153
¥ ¶	165	182
€ §	128	167

Grave:

â Ä	229	197
æ Æ	230	198
ø Ø	248	216
œ Œ	156	140
- -	150	151

Circumflex:

< >	139	155
< >	60	62
<< >>	171	187
{ }	123	125
[]	91	93

Umlaut with symbols:

= #	61	35
* @	42	64
• &	149	38
+ %	43	37
	124	166

Umlaut with card suits:

= #	61	35
* @	42	64
• &	149	38
◇ ♠	141	144
♥ ♣	143	142

Contact information

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† US Patent 5,487,616