

**KBDID:** 478

**Description:** India - Kannada (Microsoft)

**Status:** Registered

**National Layout:** No

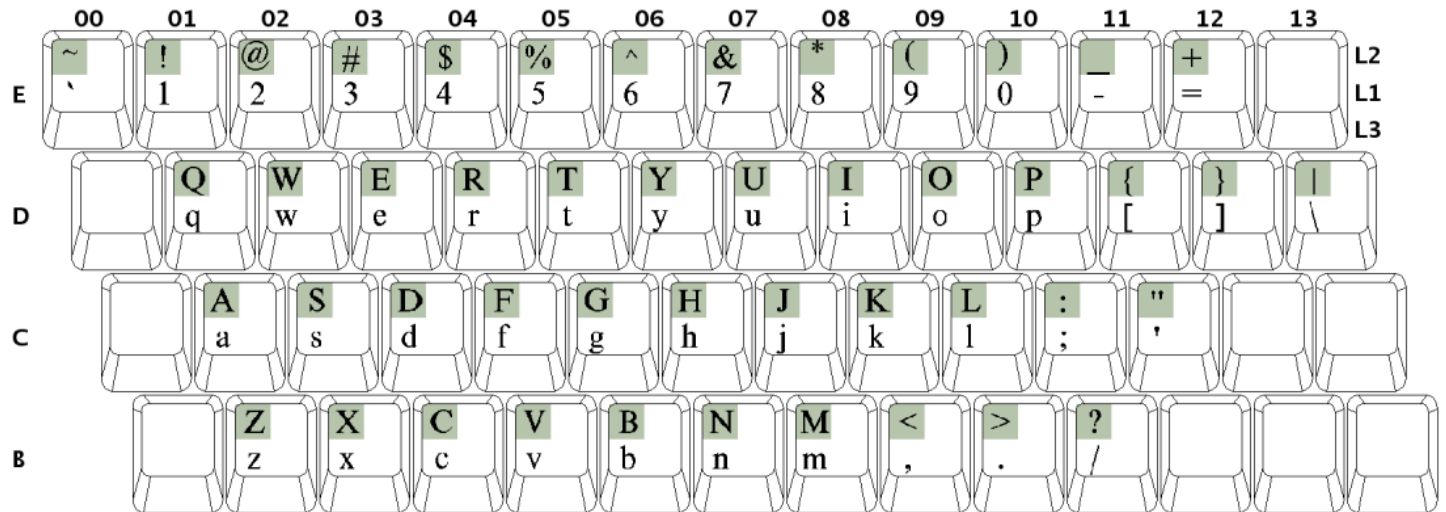
**Regions:** India

**Registration Date:** 2003-07-02

**Notes:**

Required for India.

## 478\_L - India-Kannada (Latin Group)



GLYPH	ROW	COL	LEVEL	IBM ID	DEAD KEY	NOT ENGRAVED	CHARACTER NAME	UNICODE ID
~	E	00	L2	SD19			Tilde Accent	U+007E
`	E	00	L1	SD13			Grave Accent	U+0060
!	E	01	L2	SP02			Exclamation Point	U+0021
1	E	01	L1	ND01			One	U+0031
@	E	02	L2	SM05			At Sign	U+0040
2	E	02	L1	ND02			Two	U+0032
#	E	03	L2	SM01			Number Sign	U+0023
3	E	03	L1	ND03			Three	U+0033
\$	E	04	L2	SC03			Dollar Sign	U+0024
4	E	04	L1	ND04			Four	U+0034
%	E	05	L2	SM02			Percent Sign	U+0025
5	E	05	L1	ND05			Five	U+0035
^	E	06	L2	SD15			Circumflex Accent	U+005E
6	E	06	L1	ND06			Six	U+0036
&	E	07	L2	SM03			Ampersand	U+0026
7	E	07	L1	ND07			Seven	U+0037
*	E	08	L2	SM04			Asterisk	U+002A
8	E	08	L1	ND08			Eight	U+0038
(	E	09	L2	SP06			Left Parenthesis	U+0028
9	E	09	L1	ND09			Nine	U+0039
)	E	10	L2	SP07			Right Parenthesis	U+0029
0	E	10	L1	ND10			Zero	U+0030
_	E	11	L2	SP09			Underline/Continuous Underscore	U+005F
-	E	11	L1	SP10			Hyphen/Minus Sign	U+002D

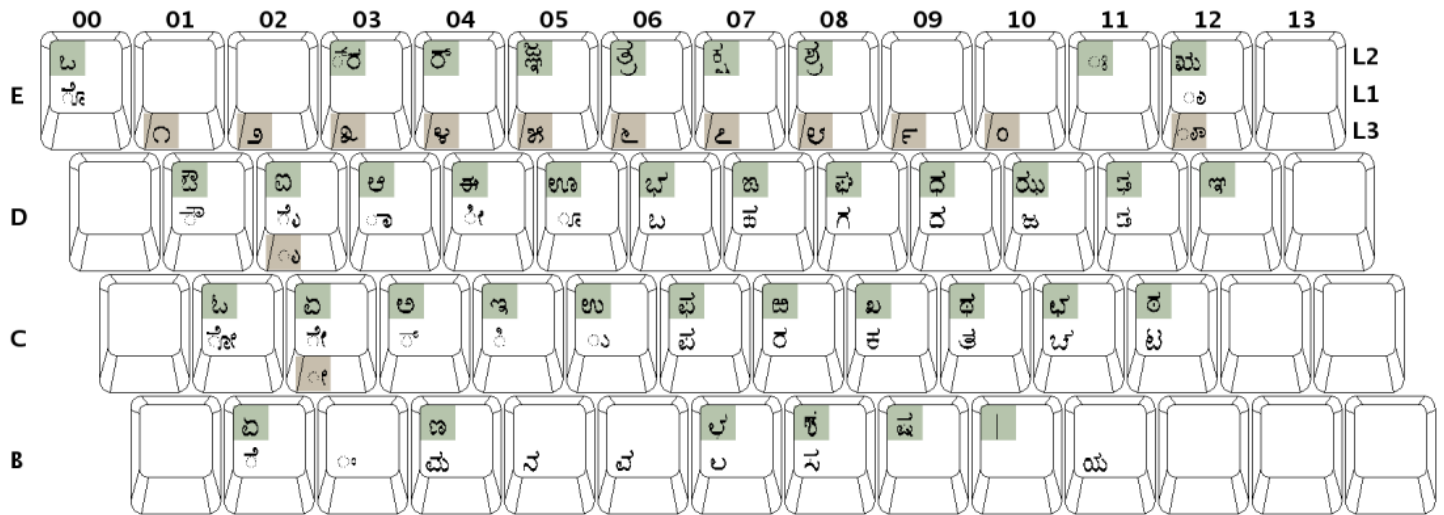
+	E	12	L2	SA01			Plus Sign	U+002B
=	E	12	L1	SA04			Equal Sign	U+003D
Q	D	01	L2	LQ02			Q Capital	U+0051
q	D	01	L1	LQ01			q Small	U+0071
W	D	02	L2	LW02			W Capital	U+0057
w	D	02	L1	LW01			w Small	U+0077
E	D	03	L2	LE02			E Capital	U+0045
e	D	03	L1	LE01			e Small	U+0065
R	D	04	L2	LR02			R Capital	U+0052
r	D	04	L1	LR01			r Small	U+0072
T	D	05	L2	LT02			T Capital	U+0054
t	D	05	L1	LT01			t Small	U+0074
Y	D	06	L2	LY02			Y Capital	U+0059
y	D	06	L1	LY01			y Small	U+0079
U	D	07	L2	LU02			U Capital	U+0055
u	D	07	L1	LU01			u Small	U+0075
I	D	08	L2	LI02			I Capital	U+0049
i	D	08	L1	LI01			i Small	U+0069
O	D	09	L2	LO02			O Capital	U+004F
o	D	09	L1	LO01			o Small	U+006F
P	D	10	L2	LP02			P Capital	U+0050
p	D	10	L1	LP01			p Small	U+0070
{	D	11	L2	SM11			Left Brace	U+007B
[	D	11	L1	SM06			Left Bracket	U+005B
}	D	12	L2	SM14			Right Brace	U+007D
]	D	12	L1	SM08			Right Bracket	U+005D
	D	13	L2	SM13			Vertical Line/Logical OR	U+007C
\	D	13	L1	SM07			Backslash	U+005C
A	C	01	L2	LA02			A Capital	U+0041
a	C	01	L1	LA01			a Small	U+0061
S	C	02	L2	LS02			S Capital	U+0053
s	C	02	L1	LS01			s Small	U+0073
D	C	03	L2	LD02			D Capital	U+0044
d	C	03	L1	LD01			d Small	U+0064
F	C	04	L2	LF02			F Capital	U+0046
f	C	04	L1	LF01			f Small	U+0066
G	C	05	L2	LG02			G Capital	U+0047
g	C	05	L1	LG01			g Small	U+0067
H	C	06	L2	LH02			H Capital	U+0048
h	C	06	L1	LH01			h Small	U+0068
J	C	07	L2	LJ02			J Capital	U+004A
j	C	07	L1	LJ01			j Small	U+006A
K	C	08	L2	LK02			K Capital	U+004B
k	C	08	L1	LK01			k Small	U+006B
L	C	09	L2	LL02			L Capital	U+004C
l	C	09	L1	LL01			l Small	U+006C
:	C	10	L2	SP13			Colon	U+003A
;	C	10	L1	SP14			Semicolon	U+003B

"	C	11	L2	SP04			Quotation Marks	U+0022
'	C	11	L1	SP05			Apostrophe	U+0027
Z	B	01	L2	LZ02			Z Capital	U+005A
z	B	01	L1	LZ01			z Small	U+007A
X	B	02	L2	LX02			X Capital	U+0058
x	B	02	L1	LX01			x Small	U+0078
C	B	03	L2	LC02			C Capital	U+0043
c	B	03	L1	LC01			c Small	U+0063
V	B	04	L2	LV02			V Capital	U+0056
v	B	04	L1	LV01			v Small	U+0076
B	B	05	L2	LB02			B Capital	U+0042
b	B	05	L1	LB01			b Small	U+0062
N	B	06	L2	LN02			N Capital	U+004E
n	B	06	L1	LN01			n Small	U+006E
M	B	07	L2	LM02			M Capital	U+004D
m	B	07	L1	LM01			m Small	U+006D
<	B	08	L2	SA03			Less Than Sign/Greater Than Sign (Arabic)	U+003C
,	B	08	L1	SP08			Comma	U+002C
>	B	09	L2	SA05			Greater Than Sign/Less Than Sign (Arabic)	U+003E
.	B	09	L1	SP11			Period/Full Stop	U+002E
?	B	10	L2	SP15			Question Mark	U+003F
/	B	10	L1	SP12			Slash	U+002F

**Notes:**

The Latin group is identical to that specified in the Indian Standard ISCII-91.

# 478\_K - India-Kannada (MS for Win-XP)



GLYPH	ROW	COL	LEVEL	IBM ID	DEAD KEY	NOT ENGRAVED	CHARACTER NAME	UNICODE ID
ಓ	E	00	L2	U0000C92			KANNADA LETTER O	U+0C92
ಒ	E	00	L1	U0000CCA			KANNADA VOWEL SIGN O	U+0CCA
೧	E	01	L3	U0000CE7			KANNADA DIGIT ONE	U+0CE7
೨	E	02	L3	U0000CE8			KANNADA DIGIT TWO	U+0CE8
೩	E	03	L2	U0FC0046			Kannada Composite Virama (0CCD) + RA (0CB0) - Microsoft specs	
೪	E	03	L3	U0000CE9			KANNADA DIGIT THREE	U+0CE9
ಉ	E	04	L2	U0FC0047			Kannada Composite RA (0CB0) + VIRAMA (0CCD) - Microsoft specs	
ಊ	E	04	L3	U0000CEA			KANNADA DIGIT FOUR	U+0CEA
ಋ	E	05	L2	U0FC0042			KANNADA Composite JA (0C9C) + VIRAMA (0CCD) + NYA (0C9E)	
೫	E	05	L3	U0000CEB			KANNADA DIGIT FIVE	U+0CEB
ಌ	E	06	L2	U0FC0043			KANNADA Composite TA (0CA4) + VIRAMA (0CCD) + RA (0CB0)	
಍	E	06	L3	U0000CEC			KANNADA DIGIT SIX	U+0CEC
ಎ	E	07	L2	U0FC0044			KANNADA Composite KA (0C95) + VIRAMA (0CCD) + SSA (0CB7)	
ಏ	E	07	L3	U0000CED			KANNADA DIGIT SEVEN	U+0CED
ಐ	E	08	L2	U0FC0045			KANNADA Composite SHA (0CB6) + VIRAMA (0CCD) + RA (0CB0)	
ಒ	E	08	L3	U0000CEE			KANNADA DIGIT EIGHT	U+0CEE
೯	E	09	L3	U0000CEF			KANNADA DIGIT NINE	U+0CEF
೦	E	10	L3	U0000CE6			KANNADA DIGIT ZERO	U+0CE6
ಃ	E	11	L2	U0000C83			KANNADA SIGN VISARGA	U+0C83
ಋ	E	12	L2	U0000C8B			KANNADA LETTER VOCALIC R	U+0C8B
ೠ	E	12	L1	U0000CC3			KANNADA VOWEL SIGN VOCALIC R	U+0CC3
ಠ	E	12	L3	U0000CC4			KANNADA VOWEL SIGN VOCALIC RR	U+0CC4
ಡ	D	01	L2	U0000C94			KANNADA LETTER AU	U+0C94
ಢ	D	01	L1	U0000CCC			KANNADA VOWEL SIGN AU	U+0CCC
ಣ	D	02	L2	U0000C90			KANNADA LETTER AI	U+0C90
ಌ	D	02	L1	U0000CC8			KANNADA VOWEL SIGN AI	U+0CC8
಍	D	02	L3	U0000CD6			KANNADA AI LENGTH MARK	U+0CD6
ಆ	D	03	L2	U0000C86			KANNADA LETTER AA	U+0C86
ಊ	D	03	L1	U0000CBE			KANNADA VOWEL SIGN AA	U+0CBE
ಋ	D	04	L2	U0000C88			KANNADA LETTER II	U+0C88
ಠ	D	04	L1	U0000CC0			KANNADA VOWEL SIGN II	U+0CC0

ಊ	D	05	L2	U0000C8A			KANNADA LETTER UU	U+0C8A
ಊ	D	05	L1	U0000CC2			KANNADA VOWEL SIGN UU	U+0CC2
ಋ	D	06	L2	U0000CAD			KANNADA LETTER BHA	U+0CAD
ಋ	D	06	L1	U0000CAC			KANNADA LETTER BA	U+0CAC
ಋ	D	07	L2	U0000C99			KANNADA LETTER NGA	U+0C99
ಋ	D	07	L1	U0000CB9			KANNADA LETTER HA	U+0CB9
ಋ	D	08	L2	U0000C98			KANNADA LETTER GHA	U+0C98
ಋ	D	08	L1	U0000C97			KANNADA LETTER GA	U+0C97
ಋ	D	09	L2	U0000CA7			KANNADA LETTER DHA	U+0CA7
ಋ	D	09	L1	U0000CA6			KANNADA LETTER DA	U+0CA6
ಋ	D	10	L2	U0000C9D			KANNADA LETTER JHA	U+0C9D
ಋ	D	10	L1	U0000C9C			KANNADA LETTER JA	U+0C9C
ಋ	D	11	L2	U0000CA2			KANNADA LETTER DDHA	U+0CA2
ಋ	D	11	L1	U0000CA1			KANNADA LETTER DDA	U+0CA1
ಋ	D	12	L2	U0000C9E			KANNADA LETTER NYA	U+0C9E
ಋ	C	01	L2	U0000C93			KANNADA LETTER OO	U+0C93
ಋ	C	01	L1	U0000CCB			KANNADA VOWEL SIGN OO	U+0CCB
ಋ	C	02	L2	U0000C8F			KANNADA LETTER EE	U+0C8F
ಋ	C	02	L1	U0000CC7			KANNADA VOWEL SIGN EE	U+0CC7
ಋ	C	02	L3	U0000CD5			KANNADA LENGTH MARK	U+0CD5
ಋ	C	03	L2	U0000C85			KANNADA LETTER A	U+0C85
ಋ	C	03	L1	U0000CCD			KANNADA SIGN VIRAMA	U+0CCD
ಋ	C	04	L2	U0000C87			KANNADA LETTER I	U+0C87
ಋ	C	04	L1	U0000CBF			KANNADA VOWEL SIGN I	U+0CBF
ಋ	C	05	L2	U0000C89			KANNADA LETTER U	U+0C89
ಋ	C	05	L1	U0000CC1			KANNADA VOWEL SIGN U	U+0CC1
ಋ	C	06	L2	U0000CAB			KANNADA LETTER PHA	U+0CAB
ಋ	C	06	L1	U0000CAA			KANNADA LETTER PA	U+0CAA
ಋ	C	07	L2	U0000CB1			KANNADA LETTER RRA	U+0CB1
ಋ	C	07	L1	U0000CB0			KANNADA LETTER RA	U+0CB0
ಋ	C	08	L2	U0000C96			KANNADA LETTER KHA	U+0C96
ಋ	C	08	L1	U0000C95			KANNADA LETTER KA	U+0C95
ಋ	C	09	L2	U0000CA5			KANNADA LETTER THA	U+0CA5
ಋ	C	09	L1	U0000CA4			KANNADA LETTER TA	U+0CA4
ಋ	C	10	L2	U0000C9B			KANNADA LETTER CHA	U+0C9B
ಋ	C	10	L1	U0000C9A			KANNADA LETTER CA	U+0C9A
ಋ	C	11	L2	U0000CA0			KANNADA LETTER TTHA	U+0CA0
ಋ	C	11	L1	U0000C9F			KANNADA LETTER TTA	U+0C9F
ಋ	B	01	L2	U0000C8F			KANNADA LETTER EE	U+0C8F
ಋ	B	01	L1	U0000CC6			KANNADA VOWEL SIGN E	U+0CC6
ಋ	B	02	L1	U0000C82			KANNADA SIGN ANUSVARA	U+0C82
ಋ	B	03	L2	U0000CA3			KANNADA LETTER NNA	U+0CA3
ಋ	B	03	L1	U0000CAE			KANNADA LETTER MA	U+0CAE
ಋ	B	04	L1	U0000CA8			KANNADA LETTER NA	U+0CA8
ಋ	B	05	L1	U0000CB5			KANNADA LETTER VA	U+0CB5
ಋ	B	06	L2	U0000CB3			KANNADA LETTER LLA	U+0CB3
ಋ	B	06	L1	U0000CB2			KANNADA LETTER LA	U+0CB2
ಋ	B	07	L2	U0000CB6			KANNADA LETTER SHA	U+0CB6

೨	B	07	L1	U0000CB8			KANNADA LETTER SA	U+0CB8
೩	B	08	L2	U0000CB7			KANNADA LETTER SSA	U+0CB7
	B	09	L2	SM13			Vertical Line/Logical OR	U+007C
೪	B	10	L1	U0000CAF			KANNADA LETTER YA	U+0CAF

**Notes:**

1) KBD478 is based on the Microsoft Kannada keyboard layout for Windows-XP as documented in the Microsoft Global Development and Computing portal (<http://www.microsoft.com/globaldev/reference/keyboards.aspx>) as of June 2003.

2) The following characters in Row E, Cols 3-8, Level 1 are precomposed of 2 to 3 other characters:

U0FC0046 = Sign Virama (U+0CCD) + Letter RA (U+0CB0); note that the glyph used here is different from that used in Inscript

U0FC0047 = no specs provided by Microsoft - assumption here is that it is the same as in Inscript = RA (0CB0) + VIRAMA

(0CCD); note that the glyph used here is different from that used in Inscript

U0FC0042 = Letter JA (U+0C9C) + Virama (U+0CCD) + NYA (U+0C9E)

U0FC0043 = Letter TA (U+0CA4) + Virama (U+0CCD) + RA (U+0CB0)

U0FC0044 = Letter KA (U+0C95) + Virama (U+0CCD) + SSA (U+0CB7)

U0FC0045 = Letter SHA (U+0CB6) + Virama (U+0CCD) + RA (U+0CB0)

3) Row E, Cols 1-10, L3 - Kannada digits 1-9 and 0 are assigned by MS; there are no characters assigned in these positions in Inscript.

4) Row E, Col 12, L3 - Kannada Vowel Sign Vocalic RR (U+0CC4) is assigned by there is no character assigned in this position in Inscript.

5) Row D, Col 2, L3 - Kannada AI Length Mark (U+0CD6) is assigned by MS; there is no character assigned in this position in Inscript.

6) Row D, Col 12, L1 - no character is assigned by MS; Kannada Sign Nukta (U+0CBC) is assigned in this position in Inscript.

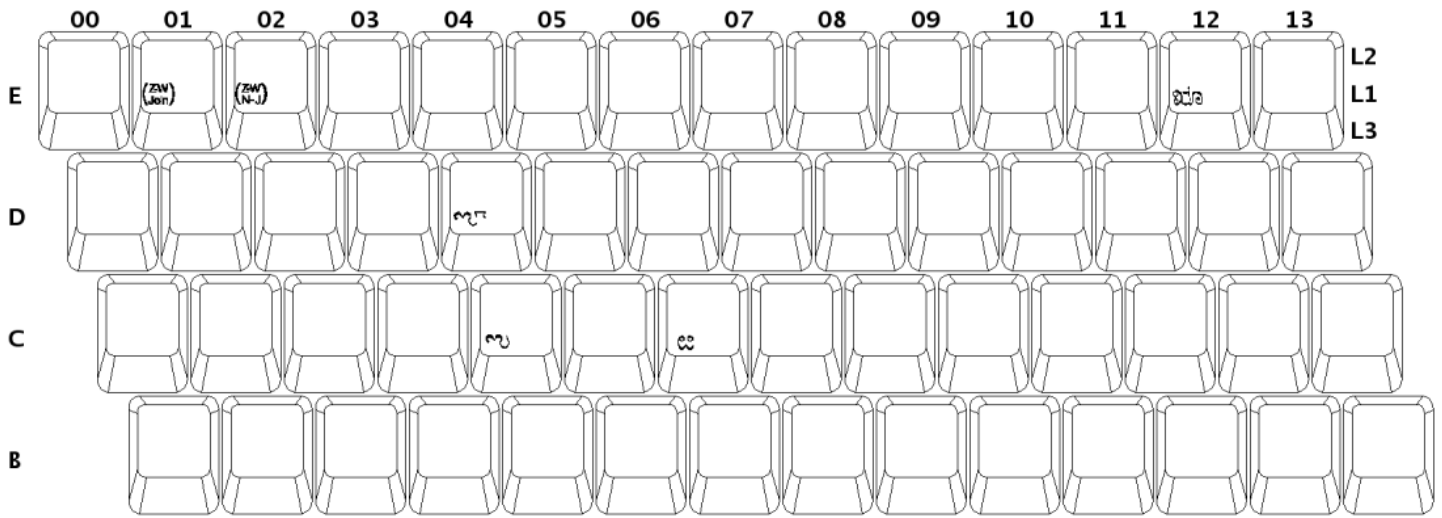
7) Row C, Col 2, L3 - Kannada Length Mark (U+0CD5) is assigned by MS; there is no character assigned in this position in Inscript.

8) Row C, Col 7, L2 - Kannada Letter RRA (U+0CB1) is assigned by MS; there is no character assigned in this position in Inscript.

9) Row B, Col 1, L2 - Kannada Letter EE (U+0C8F) is assigned by MS; Kannada Kannada Letter E (U+0C8E) is assigned in this position in Inscript.

10) Row B, Col 9, L2 - SM13: Vertical Line (U+007C) is assigned by MS; the Devanagari Danda (U+0964) is assigned in this position in Inscript.

## 478\_O - India-Kannada (MS Overlay)



GLYPH	ROW	COL	LEVEL	IBM ID	DEAD KEY	NOT ENGRAVED	CHARACTER NAME	UNICODE ID
(ZWJ)	E	01	L1	U000200D			ZERO WIDTH JOINER	
(ZWNJ)	E	02	L1	U000200C			ZERO WIDTH NON-JOINER	
ಠರೀ	E	12	L1	U0000CE0			KANNADA LETTER VOCALIC RR	U+0CE0
ಠಲ್	D	04	L1	U0000CE1			KANNADA LETTER VOCALIC LL	U+0CE1
ಠ	C	04	L1	U0000C8C			KANNADA LETTER VOCALIC L	U+0C8C
ಃ	C	06	L1	U0000CDE			KANNADA LETTER FA	U+0CDE

### Notes:

1) This is reserved for characters defined in two additional keyboard layers that are present in the Microsoft Kannada keyboard layout for Windows-XP. The 2 layers are the Shift-AltGr state and Shift-Ctrl state.

2) Additional Kannada characters in the Shift-AltGr state are:

Row E, Col 12 - Kannada Letter Vocalic RR (U+0CE0)

Row D, Col 04 - Kannada Letter Vocalic LL (U+0CE1)

Row C, Col 04 - Kannada Letter Vocalic L (U+0C8C)

Row C, Col 06 - Kannada Letter FA (U+0CDE)

These characters are not present in the Inscript keyboard layout.

3) General punctuation characters in the Shift-Ctrl state are:

Row E, Col 01 - Zero Width Joiner (U+200D)

Row E, Col 02 - Zero Width Non-joiner (U+200C)

These characters are not present in the Inscript keyboard layout.