Inscript Keyboard User Guide
for Devanagari Script

The Inscript overlay has proved that typing in any Indian script can be as simple as that for English in spite of the sophistication of these scripts. This is because the layout of the overlay makes use of the scientific and phonetic nature of the Indian script alphabet. This allows the Inscript overlay to be learnt more easily than that of the scattered English alphabet.

Since then the Inscript keyboard has been used throughout India, for a wide variety of applications in different languages. The common keyboard for all the scripts, has allowed grass-root missions like "Land Records" to be launched throughout the country. Today, the Inscript keyboard is part of the standards published by Bureau of Indian Standards (BIS). Its usage is mandatory for all the electronic and communication media.

**STRUCTURE OF INSCRIPT KEYBOARD**

| Shift | ~ ओँ ! ऐँ | कॉँ | 3 | 4 | 5 | 6 | व | 7 | 8 | श | 9 | 0 | - | = | ् | ओः | BS |
|-------|------------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tab   | Q ओँ W ऐँ | E आँ | R ईँ T उँ Y बँ | U डँ | घ | घ | घ | O धँ | P घँ | { | छ } | छ | [ | ] | छ |
| capslock | A ओँ | S ईँ | D अँ | F ईँ | G उँ | H फँ | J रँ | K खँ L लँ | : | छ | " | ठ | ENTER |
|       | Z ऐँ | X यँ | C मँ | V नँ | B कँ | N नँ | M M | घँ | < | > | | ? | | / | य | SHIFT |
How to add Devanagari Keyboard in Vista, Windows 7, 8

1) Open Control Panel
2) Click on Region and Language
3) Click on Change keyboards...
4) Click on Add... Button
5) Select INSCRIPT Keyboard
6) Click on OK Button on each window.

On right side of Task bar language option will appears.

You can change Keyboard by Pressing left Alt + Shift keys simultaneously

Original source - Alpp Inscript Manual
Redesigned by - MINASO
In the Inscript overlay the following English overlay characters are available in their usual places:

1 2 3 4 5 6 7 8 9 () - , .

**Devanagari Characters Overview** - The Inscript Keyboard overlay allows the following basic characters in Devanagari to be typed in.

अ आ इ ई उ ऊ ऋ ए ऐ ओ औ

ा ा ि ि आ इ ऐ ओ औ

ँ (Chandrabindu) ः (Anuswar) ं (Visarg)

क ख ग घ ङ च छ ज झ ञ ट ठ ड ढ ण

त थ द ध न प फ ब भ म य र ल छ व

श ष स ह

ः (Halant) ँ (Nukta) . (Viram)

**THE VOWEL / NASAL PAD**

Left half of the keyboard contains the Vowels, Nasal signs and Nasal consonants. In touch typing these characters have to be typed by the left hand.

**The Vowels** - The Home row contains the 5 short vowels in Devanagari.

<table>
<thead>
<tr>
<th>Home Row</th>
<th>सां तृ दृ फृ गृ</th>
<th>Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unshift</td>
<td>ओ ऐ ए उ ऊ ऋ</td>
<td></td>
</tr>
</tbody>
</table>

Notice that a *Matra* is given in the Unshift position, while the corresponding vowel is given in the shift position. This is convenient since the *Matras* are used more often than the vowels.

Original source - Alpp Inscript Manual  - 3 -  Redesigned by - MINASO
अ Vowel has got no corresponding Matra as its sound is inherently present in each consonant. A Halant sign has to be used to remove the inherent अ sound from a consonant. Halant sign is used quite often for combining consonants, and is thus given in the Unshift position.

<table>
<thead>
<tr>
<th>3rd Row</th>
<th>Long Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>ओ</td>
<td>ए</td>
</tr>
<tr>
<td>औ</td>
<td>ए</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Home Row</th>
<th>Short Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>ओ</td>
<td>ए</td>
</tr>
<tr>
<td>औ</td>
<td>ए</td>
</tr>
</tbody>
</table>

There are pairs of short and long vowels in Devanagari. All the short vowels are given in the Home row, and the corresponding long vowels are given in the 3rd row. One needs to remember the positions of the short vowels in the Home row. Position of a long vowel is in the key above the corresponding short vowel.

There are three more vowels in Devanagari which are not often used: ऋ एँ and औ.

These Vowels and the corresponding Matras (ाृ, ऐॅ and ऑौ) are given on different keys in the 4th Row.

<table>
<thead>
<tr>
<th>4th Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>त</td>
</tr>
<tr>
<td>औ</td>
</tr>
</tbody>
</table>

The key containing the औ vowel can have different positions on keyboards from different manufacturers. This does not affect touch typing since औ is used infrequently.

**Nasal Signs and Nasal Consonants -** Anuswar ं is given in the Unshift position, while Chandrabindu ः which is used less often, is given in the Shift position of the same key.

<table>
<thead>
<tr>
<th>1st Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>ं</td>
</tr>
<tr>
<td>म</td>
</tr>
<tr>
<td>ः</td>
</tr>
</tbody>
</table>

Devanagari has 5 Nasal consonants ङ, ञ, ण, न and म. The Nasal consonants म, न and ण are provided in the left half of the first row. The Nasal consonants ङ and ञ, used infrequently in Devanagari, are provided in the Shift positions of two keys in the right pad.

<table>
<thead>
<tr>
<th>3rd Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>ड</td>
</tr>
<tr>
<td>ण</td>
</tr>
</tbody>
</table>

The Consonant Pad is in the right half of the keyboard. The characters in this pad are to be typed by the right hand during touch-typing.

**Consonant Vargs -** Devanagari has 5 Consonant Vargs, each having consonants. These consonants are accommodated in the right pad of the keyboard.
Each *Varg* contains a pair of Primary consonants, a pair of Secondary consonants and a Nasal consonant. The two pairs of each *Varg* are kept in two vertical keys as shown.

| Varg 1:  | क + ह = ख | ग + ह = घ | ड  |
| Varg 2:  | च + ह = छ | ज + ह = झ | ढ  |
| Varg 3:  | ट + ह = ठ | ड + ह = ढ | ण  |
| Varg 4:  | त + ह = थ | द + ह = ध | न  |
| Varg 5:  | प + ह = फ | ब + ह = भ |

The salient feature of this arrangement is that the consonant in the Shift position of a key is the "Aspirated" counterpart of the consonant in the unshift position. This is possible since the second consonant of each of the Primary or Secondary pair is an Aspirated consonant. An Aspirated consonant has an extra "h" sound in it.

An aspirated consonant is used less frequently than its unaspirated counterpart. So the Unshift position of the keys is quite suitable for them.

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>क + ह = ख</td>
<td>ग + ह = घ</td>
</tr>
<tr>
<td>च + ह = छ</td>
<td>ज + ह = झ</td>
</tr>
<tr>
<td>ट + ह = ठ</td>
<td>ड + ह = ढ</td>
</tr>
<tr>
<td>त + ह = थ</td>
<td>द + ह = ध</td>
</tr>
<tr>
<td>प + ह = फ</td>
<td>ब + ह = भ</td>
</tr>
</tbody>
</table>

The Non-Varg consonants - After the first ५ *Vargs* of Devanagari, come the Non-Varg consonants. These are also accommodated in the consonant pad on the right half of the overlay.

य र र ल ळ व श ष स ह  
र is the most often used consonant amongst these, and is thus provided in the Home row, for ease of typing.
The Marathi ओ ल which is similar to ल, though less frequent, is provided on its Shift position. र which is in the Shift position of र, is used in Marathi and Nepali to obtain the half-Ra र्.

**Nukta** - *Nukta*_ न character is used for deriving a few consonants in Devanagari.

\[ क ख ग ज ड ढ फ \]

1st Row \[ \text{Shift} \]

1st Row \[ \text{Unshift} \]

*Nukta* is also used for deriving rarely used characters like:

\[ ओः ओऍ \]

**Viram** - *Viram*_ व which is used in place of a full-stop is provided on the Shift position of a full-stop. Modern Devanagari is using full-stop in place of *Viram*.

1st Row \[ \text{Shift} \]

1st Row \[ \text{Unshift} \]

**Visarg** - *Visarg*_ विः which is an aspiration sign, is used infrequently in Devanagari. It is provided in the Shift position of a key in the 8th row.

4th Row \[ \text{Shift} \]

4th Row \[ \text{Unshift} \]

**CONJUNCT KEYS**

For convenience of typing, some Conjunct characters are provided in the Shift positions of some keys in the 4th row. The action of these keys is equivalent to typing the two or three characters comprising each of the corresponding conjuncts.
These keys are primarily meant for the occasional users. For touch-typing it would be more convenient to use the basic keys provided in the first 3 rows.

**Typing on Inscript Keyboard**

Everyone can have their own style of writing, but there has to be only one style for typing. Typing is done using limited number of keys on the keyboard. For typing a word we need to know how to break it up into a sequence of separate keystrokes.

For example:
- कई will be typed with 2 keys: कई
- अकल will be typed with 3 keys: अकल

**Consonants** - Following consonants are present in Devanagari. Each can be typed through a single keystroke.

क क ख ग घ ङ च छ ज झ ञ ट ठ ड ढ ण त थ द ध न प फ ब भ म य र ल छ व श ष स ह

Note: that ळ is used in Marathi.

**Vowels** - Devanagari has the following vowels:

अ आ इ ई उ ऊ ऋ ए ऐ ऑ ओ औ एँ ओँ

Each of them, except अ, has an associated *Matra*:

ा ि ऊ ः एँ औ ओँ

एँ and औ vowels are newly introduced into Devanagari for representing English sounds.

Each Vowel is typed separately, even though it may look as if it is a combination of another vowel with a *Matra*.
Example:

आप = आ प and not अ ाप
और = औ र and not अ और
औरत = औ रत and not अ औरत
ऐनक = ऐ न क and not ऐ न क
एंटम = एंट म and not एंट म
ऑटम = ऑट म and not ऑट म

MATRAS - A Matra can attach to the top, bottom, left or right side of a consonant:

क का कि की कु कू कृ के कै कॅ को कौ कौ

It has to be typed immediately after a Consonant. It cannot be typed after a Vowel.

कान will be typed as : कान
मीत will be typed as : मीत
ऋतु will be typed as : ऋतु
भूल will be typed as : भूल
रूप will be typed as : रूप
बॅट will be typed as : बॅट
बॉल will be typed as : बॉल and not as बॉल

Note that the same ं Matra is used in both भूल and रूप. The computer logic is responsible for attaching it correctly.

सेब = सेब
मेल = मेल
फीते = फीते
तौलो = तौलो and not as तालौले
कृपा = कृपा
कि = कि
जाति = जाति

Note that the ि Matra is also typed after a consonant according to its pronunciation. The computer logic will display it properly before the consonant.

ANUSWAR - An Anuswar ं is used to denote a nasal sound.

पंप = पंप and not में = में
अंग = अंग खींच = खींच
Note that an Anuswar has got to be placed after a Matra, Otherwise the Matra will not attach:

हिंदी = हिंदी

Note that if a Matra is present, the Anuswar will always follow it according to the pronunciation order.

बङ्क = बङ्क

Note that this is often written wrongly as:

बङ्क = बङ्क. In Hindi this word is also written as: बङ्क.

**CHANDRAINDU** - Chandrabindu ख is added to indicate nasalization of a vowel. Chandrabindu is not used in modern Devanagari.

आँख = आँख
ऊँट = ऊँट
साँप = साँप and not as साँप = साँप

Note that the Anuswar is often used instead of a Chandrabindu in Hindi.

**VISARG** - A Visarg ः can be used to indicate an aspiration sound:

अतः = अतः
दुःख = दुःख and not दुःख = दुःख

The Visarg is many times confused with an English colon sign "::". The common mistake is to type a colon instead of a Visarg. The Visarg can be distinguished easily from a colon as it has a connecting line at the top.

Note: Only one of Anuswar, Chandrabindu or Visarg can attach.

**HALANT** - Halant ः is typed to indicate a half character. (English small 'd' key)

नमन् = नमन्
पत्तिका = पत्तिका

Note that छ Matra is typed in the pronunciation order and gets displayed before the छ combination.

बुढ़ा = बुढ़ा
बाघमय = बाघमय
अद्भुत = अद्भुत

Original source - Alpp Inscript Manual - 9 - Redesigned by - MINASO
Note that a *Halant* can be attached only on a consonant, and not on a vowel. It will be shown separately if placed in the wrong position:

\[
\text{k\u0939} \quad \text{ki} \quad \text{k\u091b} \quad \text{k\u0915}\]

Furthermore only a consonant can come after a *Halant*, otherwise there would be no combination:

\[
\text{k\u0926} \quad \text{ki} \quad \text{k\u0915}\]

**HALF CONSONANTS** - A *Halant* between two consonants disappears when the first consonant joins with the second one.

\[
\begin{align*}
\text{kya} & = \text{k\u0926ya} \\
\text{doctor} & = \text{do\u0924k\u094d\u0935r} \\
\text{rajy} & = \text{raj\u093e} \\
\text{krisht} & = \text{k\u0926risht} \\
\text{hast} & = \text{hast} \\
\text{jihwa} & = \text{jih\u0932v\u093e} \\
\text{machhar} & = \text{mach\u0926har} \\
\text{vishv} & = \text{vish\u0926v} \\
\text{kshyap} & = \text{k\u0924shyap}
\end{align*}
\]

Note that श joins in different ways with व and य in the above examples.

**CONJUNCTS** - The *Halant* can cause the adjoining consonants to assume a separate "conjunct" shape.

\[
\begin{align*}
\text{d\u0932r} & = \text{d\u0924v\u0935r} \\
\text{shudd} & = \text{shuddh}
\end{align*}
\]

Note that many of these conjuncts show the first consonant in the full form, with a small form of the second consonant attached below.

Note that due to visual similarity the word शुद्ध is often mis-spelled as :

\[
\text{shudd} = \text{shuddh}\d\]

Some conjuncts can have a shape different from the constituent consonants:

\[
\begin{align*}
\text{panna} & = \text{pan\u093e\u093f\u0935na} \\
\text{raksha} & = \text{rak\u0926sha} \quad \text{and not} \quad \text{rak\u0932sa (raksha)}
\end{align*}
\]

Note: क्ष is distinct and is used in words like -
रिक्षा = रिक्षा
विद्या = विद्या
ञन = जञन and not ग्यान (ग्यान)

Note that ञ is not made of ग्य

भक्त = भक्त
गदा = गद्द

**CONJUNCT KEYS** - Some of the conjuncts can be typed in a single keystroke. These keystroke are equivalent to typing the constituent consonants with the *Halant* in between:

क्ष = क्ष
रक्षा = रक्षा
त्र = त्र
मित्र = मित्र
श = श
विश्राम = विश्राम
ञ = जञ
ञन = जञन

Note that these Conjunct keys are given only for convenience of an occasional user. For touch-typing it might be easier to type in without these Conjunct keys, using the basic keystrokes.

A Half consonant can be present before a conjunct:

शास्त्र = शास्त्र

A Half "conjunct" can be present before a consonant:

कुत्र = कुत्र

**RAKAR** - When त्र is followed by a र, a *Rakar* त्र gets formed. This त्र is also available directly as a Conjunct key, for providing convenience to an occasional user.

द्रम = द्रम
d्रथ = ट्रथ
eक्स्ट्र = एक्स्ट्र

Note that four consonants join in the above example to form a conjunct; this is the maximum for Devanagari.
The Rakar can have a single left-ward stroke along with many consonants.

<table>
<thead>
<tr>
<th>क्रम</th>
<th>क्रम</th>
</tr>
</thead>
<tbody>
<tr>
<td>पत्र</td>
<td>पत्र</td>
</tr>
</tbody>
</table>

Note: it can also be typed directly as पत्र

| मिश्र  | मिश्र  |

Note: it can also be typed directly as मिश्र

| ढौपदी | ढौपदी |

For touch typing it may be easier to type Rakar without the Conjunct key, as two separate keystrokes.

**REPH** - When र is followed by a ा्, a Reph र् gets formed. This Reph is also available directly as a Conjunct key. The Reph has to be typed before the consonant on which it is shown.

If the Reph र् is not followed by a consonant, it changes to its equivalent: र्

<table>
<thead>
<tr>
<th>बर्फ</th>
<th>बर्फ</th>
</tr>
</thead>
<tbody>
<tr>
<td>गर्मी</td>
<td>गर्मी</td>
</tr>
<tr>
<td>चर्चित</td>
<td>चर्चित</td>
</tr>
</tbody>
</table>

Note that र् and ि are entered in the order of their pronunciation although they are displayed in a different order.

*Reph* on a conjunct has to be typed in before the two or more consonants comprising it.

| गवर्नमेंट | गवर्नमेंट |

**NUKTA** - A Nukta ां character can be attached to some consonant, to get a consonant which has a slightly modified sound.

<table>
<thead>
<tr>
<th>बड़ा</th>
<th>बड़ा</th>
</tr>
</thead>
<tbody>
<tr>
<td>गढ़वाल</td>
<td>गढ़वाल</td>
</tr>
<tr>
<td>खयाल</td>
<td>खयाल</td>
</tr>
<tr>
<td>ख्याब</td>
<td>ख्याब</td>
</tr>
</tbody>
</table>

Note that the *nukta* is attached immediately after a consonant, even when *Halant* ां also has to be attached to it.

| क्रेड  | क्रेड  |
As shown in the examples, Nukta can only be shown on the following seven consonants:

क ख ग ज ड ढ फ

**ADDITIONAL CONSONANTS FOR MARATHI**

ञ is used in Marathi as a hard form of ल as in: टिक

There is an additional Half-Ra ऍ which is formed through as additional character ऍ as shown. It is always used in its half form ऍ.

वार्या = वार्या

Note: this word cannot be written as:

वार्या = वार्या
हस्व = र्हस्व
कर्मचार्यांना = कर्मचार्यांना

**ADDITIONAL CHARACTERS IN SANSKRIT**

There are some characters which are infrequently used in Sanskrit text. These are thus not directly provided on the keyboard, but are generated instead by attaching a Nukta:

ऋ = ऋ़ कृ = कृ़ लृ = लृ
ई = ई़ औ = औ

**ALTERNATIVE COMPOSITION OF WORDS**

Some special ways of typing are provided to achieve variations in display of a word. These special ways should be used only in exceptional cases, as they change the basic spelling of a word.

**Soft Halant (Or Halant-Nukta)** There is a more elegant way of preventing formation of conjuncts by adding a Nukta औ sign after the appropriate Halant sign. All the Matras would now attach properly.
Explicit Halant (Or Double Halant)  Apart from preventing formation of a conjunct, sometimes it may be desirable to show an explicit *Halant*, rather than the Half form of a consonant. This can be achieved by just typing the *Halant* twice:

- द्वितीय = दावितीय
- द्वितीय = दावितीय

Note that the *Matra* is displayed after the Explicit *Halant*.

| स्वभाव | = विश्वभाव |
| पहितां | = पत्तितां |
| द्वितीय | = द्वितीय |
| द्वितीय | = द्वितीय |

CONJUNCT LIST

Following conjuncts are automatically formed

- क = क्ष
- ज = ज्ञ
- श = श्र

र् combines with all the consonants to form a *Reph*.

Example: म = र् म.

ANUSWAR AND THE NASAL CONSONANTS

*Anuswar* can many times denote a half-nasal consonant. This provides two ways of writing the same word:

- हिंदी with Anuswar and हिंदी with न्
- चंपा with Anuswar and चंपा with म्
- अण्डा with Anuswar and अण्डा with ण्

In general the spelling with *Anuswar* is to be preferred, since it is more compact.

In Devanagari the Nasal consonants ङ and ङ्ङ occur mostly in their half form—allowing them to be always represented with an *Anuswar*.

- गंगा instead of गङ्गा
- पंजा instead of पङ्जा
When a Half Nasal consonant comes before the same Nasal consonant, it can’t be substituted with an *Anuswar*:

सममेलन and not समेलन पन्ना and not पन्ना अणणा and not अणा  

In general a Half Nasal consonant can be converted to an *Anuswar* only if it comes before a Non-nasal consonant belonging to the same Varg.

Varg 1: अंक = अङक पंख = पङख गंगा = गङगा संघ = सङ्घ  
Varg 2: मंच = मङच पंछी = पङ्छी पंजा = पङ्जा सांझ = सङ्झ  
Varg 3: घंटा = गङ्टा कंठ = कङ्ठ झंडा = झङ्डा ढूंढ = ढङ्ढ  
Varg 4: सेंत = सन्त पंथ = पङ्थ बंद = बङ्द गंध = गङ्ध  
Varg 5: कंप = कङ्प गुंफ = गङ्फ खंबा = खङ्बा स्तंभ = सङ्ख्म  

The *Anuswar* can’t be changed to a Nasal consonant in the following words, as it is followed by a Non-Varg consonant:

संयम संरकण संवाद वंश हंस संहार  

Similarly the following half Nasal consonants can’t be changed to an *Anuswar*:

अनय सामय वाङमय पेनट  

Finally, an *Anuswar* can’t be followed by a half Nasal consonant, so the following words are wrong:

कंममयूटर संनधी  

**Chandrabindu confusion** - *Anuswar* is used instead of *Chandrabindu* अँ in Hindi, whenever the *Chandrabindu* comes along with a *Matra* which is also attached on the top of the character. In this case, due to the lack of space, the *Chandrabindu* is substituted with the more compact *Anuswar*:

हँ instead of हैँ  
में instead of मे  
कहँ instead of कहेँ  

In general in Devanagari when there is no risk of any confusion, *Anuswar* is used instead of *Chandrabindu*, even when there is no clash with a *Matra*.

आंख instead of आँख हुमायूं instead of हुमायूँ  

*Chandrabindu* should however be used where the word can assume a different meaning with an *Anuswar*.

Example: हंस and हँस अंगना and अँगना
There are additional characters available with pressing **Alt** and **Ctrl** Keys simultaneously

and more characters available with pressing **Alt + Ctrl + Shift** Keys simultaneously

You can add any Special Characters from **Character Map**

To open **Character Map** you have to go through
Start Menu > All Programs > Accessories > System Tools > Character Map

Select the Character **Copy** and **Paste** in your Document.