TENDER DOCUMENT

for

Development of Tamil Fonts and Tamil Keyboard driver for 16-bit encodings (Unicode and TACE16)

**Tender Ref.
TVA/SW/TF-TKD/2010-11**

Tamil Virtual Academy

4th Floor, Elnet Software City,
Taramani, Chennai 600 113, Tamil Nadu.

1. INTRODUCTION

Tamil Virtual Academy (TVA) is inviting sealed tenders for development of Tamil fonts and Tamil keyboard drivers for 16-bit encodings (Unicode and TACE16), which are to be made available free to all the government departments and the public.

2. TENDER SCHEDULE

1.	Tender inviting authority, designation and address	The Director, Tamil Virtual Academy, Module 44, 4th Floor, Elnet Software City, Rajiv Gandhi Salai, Taramani, Chennai - 600 113.
2.	A) Name of the work	To develop and supply of Tamil Fonts and Tamil Keyboard Drivers for Unicode and TACE16 encodings.
	B) Tender reference	TVA/SW/TF-TKD/2010-11
3.	Tender documents available place	Tender documents can be freely downloaded from http://www.tamilvu.org/ and http://www.tenders.tn.gov.in/ till closing date and time of the tender.
4.	Tender value	₹ 15,00,000 (Rupees Fifteen Lakhs only)
5.	Earnest Money Deposit	₹ 25,000 (Rupees Twenty Five Thousand only) should be paid by way of Demand Draft only.
6.	Bid qualifying requirement	Previous Track Record
7.	Type of tender system	Open Tender
8.	Pre-bid meeting	3rd November 2010 at 4.30 p.m
9.	Tender submission	Sealed Tenders should be sent to The Director, Tamil Virtual Academy, Module 44, 4th Floor, Elnet Software City, Rajiv Gandhi Salai, Taramani, Chennai - 600 113.
10.	Closing date and time of bids	24th November 2010 at 5.00 p.m.

11.	Date and time of opening	
	a. Technical Bid	25th November 2010 at 3.00 p.m.
	b. Price Bid	29th November 2010 at 3.00 p.m.
	Place	Tamil Virtual Academy, Module 44, 4th Floor, Elnet Software City, Rajiv Gandhi Salai, Taramani, Chennai - 600 113.

3. GENERAL INSTRUCTIONS

3.1 General

The Bidders are requested to study fully the instructions, terms and conditions and specifications given in the Tender. Failure to furnish all required information in every respect will be at the Bidder's risk and may result in the rejection of bid.

3.2. Clarifications in the Tender

A prospective Bidder requiring any clarification in the Tender may notify Tamil Virtual Academy by E-mail only to tender@tamilvu.org.

3.3. Amendments to the Tender

a) Before the closing of the Tender, TVA may amend the Tender document as per requirements or wherever TVA feels that such amendments are absolutely necessary.

b) Amendments also may be given in response to the queries by the prospective Bidders.

c) Such amendments will be notified in the TVA's website www.tamilvu.org.

d) TVA at its discretion may or may not extend the due date and time for the submission of bids on account of amendments.

3.4 Language of the Bid

a) The bid prepared by the Bidder as well as all correspondence and documents relating to the bid shall be written in Tamil / English language only.

4. ELIGIBILITY CRITERIA

The Bidders should have the following Eligibility for participating in the Tender. The Bidders should enclose documentary evidence for fulfilling the Eligibility in the Technical Bid. If a bidder fails to enclose the documentary proof for eligibility, their bid will be summarily rejected.

4.1 Eligibility

- Bidder should have at least 3 years experience in development of fonts and keyboard drivers. Documentary proof is to be submitted for the same.

- The bidder shall be a company registered under the Companies Act, 1956 since last 2 years as on 31.03.2010

5. SPECIFICATION

5.1. Font Specifications

To develop and supply of Ten Tamil Typefaces in different styles as per the specifications given below:

a) The fonts should be created as unsigned OTF for Unicode & TACE16 encodings.

b) The fonts must be supported in Windows XP & later, Mac OS X and Linux operating systems.

c) The following Typefaces & Styles should be developed:

One Even Thickness font (like Arial) - Regular, Italic, Bold and BoldItalic
One Thick & Thin font (like Times) - Regular, Italic, Bold and BoldItalic
One Script font - Regular and Bold
One Fixed Width Font
One Headline font - Regular, Italic

d) The Font Names must be as follows :

	Unicode	**TACE**
Even Thickness	TAU-Barathi	TAC-Barathi
Thick & Thin	TAU-Valluvar	TAC-Valluvar
Script	TAU-Kambar	TAC-Kambar
Fixed	TAU-Kannagi	TAC-Kannagi
Headline	TAU-Kabilar	TAC-Kabilar

The words Regular, Italic, Bold and BoldItalic should be added for the respective Type styles.

e) Tamil Character Code chart for Unicode and TACE16 shall be followed as in **Appendix-A & B1** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu.

f) Tamil Character Glyph name chart for Unicode and TACE16 shall be followed as in **Appendix-B3** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu..

g) General Symbols Code chart & Glyph name chart for Unicode and TACE16 shall be as given in **Annexure - 1.**

h) Tamil Symbols Code chart for Unicode shall be followed as in the Unicode version 5.2.0.

i) Tamil Symbols Code chart for TACE16 shall be followed as in the **Appendix-B2** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu.

j) Tamil Symbols Glyph name chart for Unicode and TACE16 shall be followed as in the **Appendix-B4** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu

k) Font designers shall follow the convention of placing a dotted circle ◌ (U+25CC) in front of invalid / stand alone vowel signs as documented in the **Appendix-A** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu.

l) General
   - All characters and symbols in each Typeface and Style should have a uniform look.
   - Except for Headline typeface and Bold styles, legibility at 8 pts and above is required.
   - The x Height of the characters should be around 12 mm at 72 points.
   - A standard leading of 20% should be provided.

m) All fonts shall be re-distributable with "Installable Embedding Allowed" rights.

5.2. Keyboard Drivers Specification

The Tamil99 and Typewriter keyboard drivers for Windows XP & later, Mac OS X, Linux and On-screen keyboard for IE, Firefox, Safari, Opera and Chrome browsers should be created as per the specifications given below:

a) The keyboard driver must be supported at the Operating System Level / IME for Unicode and TACE16 encodings. It must support all major applications.

b) Tamil Keyboard Layouts for Tamil99 and Typewriter standards as given in the *Annexure – 2 & 3*.

c) The Keyboard Driver Names should be as follows:

	Unicode	**TACE16**
Tamil99	Tamil99_TAU	Tamil99_TAC
Typwriter	Typewriter_TAU	Typewriter_TAC

d) Tamil99 Keyboard Sequence and rules for Unicode and TACE16 shall be followed as in **Appendix-C** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu.

e) Tamil Typewriter Keyboard Sequence for Unicode and TACE16 shall be followed as given in *Annexure – 4*.

f) The keyboard developers shall follow the convention of placing a dotted circle

◌ (U+25CC) in front of invalid / stand alone vowel signs as documented in the **Appendix-A** from the G.O.(Ms) No. 29 dated 23.6.2010 of IT Department, Government of Tamil Nadu.

5.3. Delivery Period

The delivery period is expected to be six months from the date of signing of the agreement/date of release of the work order. However TVA reserves the right to extend or short close the Tender validity period if situation warrants to benefit the Government.

6. BID SUBMISSION PROCEDURE

6.1. Bid Submission

Envelop shall be sealed, superscribed and addressed to **The Director, Tamil Virtual Academy, 4th Floor, Elnet Software City, Taramani, Chennai – 600 113**. No tender given in person shall be entertained after the notified time and date for the receipt of the tender. Tenders received by post after the notified time and date of the receipt of the tender shall be rejected.

Tenderers are requested to note and abide by the following instructions carefully:-

The bidders are requested to submit their bids in envelope on or before the specified closing date and time.

The bids may be made for all fonts for any or all operating systems, and for keyboard drivers for any or all operating systems. The price shall be made for individual components.

The envelop shall contain the following in separate covers:

a) EMD

b) Technical Specifications

c) Sample fonts for each type face and styles with at least the following characters: அ,ஆ,இ,ஒ,ழ,க,ண, .5,?

d) Price Bids

e) Relevant supporting documents.

6.2. Cost of Bidding

The Bidders shall bear all costs associated with the preparation and submission of Bids. TVA will in no way be responsible or liable for these charges/costs incurred regardless of the conduct or outcome of the bidding process.

6.3. Tender Document Fee

The Tender Documents may be freely downloaded from the portals as mentioned in the Tender Schedule.

6.4. Earnest Money Deposit (EMD)

a) An EMD amount as specified in the Tender Schedule shall be paid by way of Demand Draft drawn in favour of "**Tamil Virtual Academy**" payable at Chennai.

b) The EMD of the Unsuccessful Bidders will be returned at the expense of the Bidders within a reasonable time consistent with the rules and regulations in this regard. The above EMD held by TVA till it is returned to the Unsuccessful Bidders will not earn any interest thereof.

c) The EMD of the Successful Bidder will be adjusted towards Security Deposit (SD) and the balance if any will be returned.

7. TENDER OPENING AND EVALUATION

7.1. Tender Opening

The Technical Bid will be opened on the date and time as specified in the Tender schedule in the presence of authorized representatives of the Bidders, who choose to be present.

7.2. Tender Validity

The offer submitted by the Bidders should be valid for a minimum period of 3 months from the date of opening of the Tender.

7.3. Tender Evaluation

7.3.1 Technical Evaluation

a) A Technical Committee will examine the Eligible bids as per the criteria given below:

    i.   Conformance to specification.

    ii.   Quality of sample fonts

    iii.   Prior experience & expertise

b) For those Bidders who have already worked or working with TVA, their previous performance in TVA would also be considered. If any unsatisfactory performances of those Bidders are found, their Bids may be rejected.

7.3.2. Price Evaluation

a) The Price Bids of the Technically Qualified Bidders alone will be opened and evaluated. The Price Bid should cover all expenses including all taxes.

b) All the taxes indicated in the Price Bid will be taken for the Price Bid evaluation as per the Tamil Nadu Transparency in Tender Rules 2000 with latest amendments.

7.4. Negotiations

Negotiations will be conducted with all the Successful Bidders for improvement in the Scope of Work, Specification, further reduction in price and advancement of delivery schedule.

8. EXECUTION OF WORK

8.1. Acceptance of Tender and Withdrawals

The final acceptance of the tender is entirely vested with the Tender Inviting Authority, who reserves the right to accept or reject, any or all of the tenders in full or in parts without assigning any reason whatsoever. The Tender Inviting Authority may also reject all the tenders for reasons such as change in Scope, Specification, lack of anticipated financial resources, court orders, calamities or any other unforeseen

circumstances. After acceptance of the Tender by TVA, the Successful Bidder shall have no right to withdraw their tender or claim higher price.

8.2. Letter of Acceptance

After successful completion of the negotiations, a Letter of Acceptance (LoA) of the tender will be issued to the Successful Bidder by TVA.

8.3. Security Deposit

The successful bidder will be required to remit a Security Deposit (SD) equivalent to Ten percent of the value of the order, inclusive of EMD by way of demand draft payable at Chennai. The SD furnished by the Successful Bidder in respect of the tender will be returned to them after successful fulfillment of work without any interest.

8.4. Agreement

a) The successful bidder should execute an agreement for the fulfillment of the contract in a stamp paper as per the model to be specified by TVA. All incidental expenses towards the execution of the agreement shall be borne by the Successful Bidder.

b) If the successful bidder fails to execute the agreement, the EMD of the successful bidder will be forfeited and their tender will be held as nonresponsive.

c) If the contractor fails to fulfill the terms of the contract the SD will be forfeited.

d) The conditions stipulated in the agreement should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of TVA and TVA also have the right to recover any consequential losses from the Successful Bidder.

8.5. Release of Work Order

After receipt of the SD and execution of the Agreement specified in the Tender, TVA will release the confirmatory work order to the successful Bidder.

8.6. Forfeiture of EMD and SD

a) If the successful Bidder fails to act according to the tender conditions or backs out, after the tender has been accepted, the EMD will be forfeited to TVA.

b) If the Successful Bidder fails to remit the SD, the EMD remitted by him will be forfeited to TVA and the tender will be held void.

c) If the Successful Bidder fails to act up on to the tender conditions or backs out from the contract, the SD mentioned above will also be forfeited to TVA.

8.7. Execution of Work Order

The Successful Bidder should nominate a Software Engineer as a Single Point Contact and intimate TVA his contact details, who should be responsible for effective delivery of work complying with all the terms and conditions. The Successful Bidder should ensure that the Software engineer fully familiarises with the Tender Conditions, Scope of Work and deliverables.

8.8. Assigning of Tender whole or in part

The successful Bidder shall not assign or make over the contract, the benefit or burden thereof to any other person or persons or body corporate. The Bidder should not under-let or sublet to any person(s) or body corporate for the execution of the contract or any part thereof without the written consent of TVA.

8.9. Liquidated Damages (LD)

A penalty will be levied at the rate specified in the Agreement Format for non-fulfilment of delivery schedule subject to the force Majeure conditions. Even If the work is not completed in full beyond this period, such performance may entail termination of contract and black listing of the Bidder from participating in any of the TVA's Tenders. This alone will not relieve the Bidder and the difference in cost of the items purchased through other technically qualified Bidders or any other alternative sources will be recovered from the successful Bidder.

8.10. Penalty for Non-Fulfilment of Tender

A penalty will be levied at the rate specified in the Agreement Format in the event of non-fulfilment or non-observance of any of the conditions stipulated in the Agreement, Terms and Conditions and Work Order.

8.11. Other Conditions

a) The final decision would be based on the technical capacity and pricing of the Bidder. TVA does not bind itself in selecting the bidder offering lowest prices.

b) TVA reserves the right not to accept lowest price, to reject any or all the tenders without assigning any reason, to relax or waive any of the conditions stipulated in the terms and conditions of tender as deemed necessary in the best interest of TVA for good and sufficient reasons.

8.12. Arbitration and Jurisdiction

(a) In case of any dispute, the matter will be referred to an Arbitrator under "Arbitration and Conciliation Act 1996". The arbitration shall be held in Chennai only.

(b) This Tender is subject to the Jurisdiction of Courts in Chennai only.

9. SCOPE OF WORK

9.1. Schedule of the Project

The project schedule should be specifying with milestones. The contract shall be effective till the time period mentioned for completion of the project work.

9.2. Supply of the Product

a) Delivery: The bidders should deliver ten copies of the developed package with the source code in CD along with documents covering the Product design, Installation and User Manuals free of cost to Tamil Virtual Academy (TVA), both in soft and hard copy, the number of hard copies.

b) The successful bidder shall send status report in the format prescribed in such intervals as may be required by TVA from time to time till the execution of the entire order.

9.3. Maintenance

The successful bidder shall provide necessary technology support for maintaining the software product for a minimum period of five years.

Sd/-
Director
Tamil Virtual Academy,
4th Floor, Elnet Software City,
Taramani, Chennai-113.

General Symbols Code chart & Glyph name chart for Unicode and TACE16

Symbol	Unicode and TACE16	TACE16 Code values	Equivalent UNICODE Code values
	SPACE	U0020	U0020
!	EXCLAMATION MARK	U0021	U0021
"	QUOTATION MARK	U0022	U0022
#	NUMBER SIGN	U0023	U0023
$	DOLLAR SIGN	U0024	U0024
%	PERCENT SIGN	U0025	U0025
&	AMPERSAND	U0026	U0026
'	APOSTROPHE	U0027	U0027
(	LEFT PARENTHESIS	U0028	U0028
)	RIGHT PARENTHESIS	U0029	U0029
*	ASTERISK	U002A	U002A
+	PLUS SIGN	U002B	U002B
,	COMMA	U002C	U002C
–	HYPHEN-MINUS	U002D	U002D
.	FULL STOP	U002E	U002E
/	SOLIDUS	U002F	U002F
0	DIGIT ZERO	U0030	U0030
1	DIGIT ONE	U0031	U0031
2	DIGIT TWO	U0032	U0032
3	DIGIT THREE	U0033	U0033
4	DIGIT FOUR	U0034	U0034
5	DIGIT FIVE	U0035	U0035
6	DIGIT SIX	U0036	U0036
7	DIGIT SEVEN	U0037	U0037
8	DIGIT EIGHT	U0038	U0038
9	DIGIT NINE	U0039	U0039
:	COLON	U003A	U003A
;	SEMICOLON	U003B	U003B

Symbol	Unicode and TACE16	TACE16 Code values	Equivalent UNICODE Code values
<	LESS-THAN SIGN	U003C	U003C
=	EQUAL	U003D	U003D
>	GREATER-THAN SIGN	U003E	U003E
?	QUESTION MARK	U003F	U003F
@	COMMERCIAL AT	U0040	U0040
[	LEFT SQUARE BRACKET	U005B	U005B
\	REVERSE SOLIDUS	U005C	U005C
]	RIGHT SQUARE BRACKET	U005D	U005D
^	CIRCUMFLEX ACCENT	U005E	U005E
_	LOW LINE	U005F	U005F
`	GRAVE ACCENT	U0060	U0060
{	LEFT CURLY BRACKET	U007B	U007B
|	VERTICAL LINE	U007C	U007C
}	RIGHT CURLY BRACKET	U007D	U007D
~	TILDE	U007E	U007E
	NO-BREAK SPACE	U00A0	U00A0
©	COPYRIGHT SIGN	U00A9	U00A9
-	SOFT HYPHEN	U00AD	U00AD
®	REGISTERED SIGN	U00AE	U00AE
°	DEGREE SIGN	U00B0	U00B0
±	PLUS-MINUS SIGN	U00B1	U00B1
¼	VULGAR FRACTION ONE QUARTER	U00BC	U00BC
½	VULGAR FRACTION ONE HALF	U00BD	U00BD
¾	VULGAR FRACTION THREE QUARTER	U00BE	U00BE
×	MULTIPLICATION SIGN	U00D7	U00D7
÷	DIVISION SIGN	U00F7	U00F7
Rs	RUPEE SIGN	U20A8	U20A8
₹	INDIAN RUPEE SIGN	U20B9	U20B9
‘	LEFT SINGLE QUOTE	U2018	U2018
’	RIGHT SINGLE QUOTE	U2019	U2019
“	LEFT DOUBLE QUOTE	U201C	U201C
”	RIGHT DOUBLE QUOTE	U201D	U201D

தமிழ்99 விரிவுப்படுத்தப்பட்ட விசைப்பலகை அமைப்பு
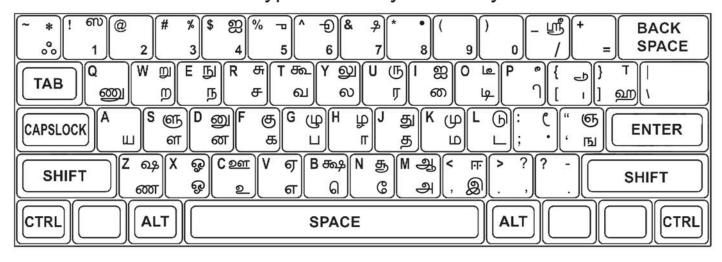## Tamil99 Extended Keyboard Layout

Tamil99 Extended Keyboard Sequence with ^ (shift + 6) Combination
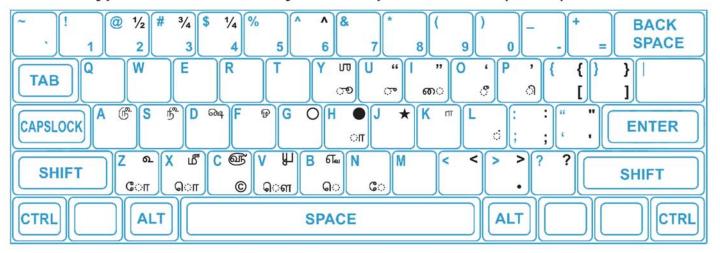

Tamil99 Extended Keyboard Sequence with ^ (shift + 6) # Combination

தமிழ் தட்டச்சு விசைப்பலகை அமைப்பு
Tamil Typewriter Keyboard Layout

Tamil Typewriter Extended Keyboard Sequence with 'A' (shift a) Combination

Tamil Typewriter Extended Keyboard Sequence with # (shift 3) Combination

Typewriter Extended Keyboard Sequence for Unicode and TACE16

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
A. Tamil Letters				
அ	அ	m	0B85	E201
ஆ	ஆ	M (Shift m)	0B86	E202
இ	இ	,	0B87	E203
ஈ	ஈ	< (Shift ,)	0B88	E204
உ	உ	c	0B89	E205
ஊ	ஊ	C (Shift c)	0B8A	E206
எ	எ	v	0B8E	E207
ஏ	ஏ	V (Shift v)	0B8F	E208
ஐ	ஐ	I (Shift + i)	0B90	E209
ஒ	ஒ	x	0B92	E20A
ஓ	ஓ	X (Shift x)	0B93	E20B
ஔ	ஔ	x + s	0B94	E20C
ஃ	ஃ	`	0B83	E20D
க்	௦°+க	;+f	0B95+0BCD	E210
க	க	f	0B95	E211
கா	க+ஆ	f+h	0B95+0BBE	E212
கி	ரி+க	p+f	0B95+0BBF	E213
கீ	ரீ+க	P (Shift p) + f	0B95+0BC0	E214
கு	கு	F (Shift f)	0B95+0BC1	E215
கூ	கூ	T (Shift t)	0B95+0BC2	E216
கெ	௦ெ+க	b+f	0B95+0BC6	E217
கே	௦ே+க	n+f	0B95+0BC7	E218
கை	ைக+க	i+f	0B95+0BC8	E219
கொ	௦ெ+க+ஆ	b+f+h	0B95+0BCA	E21A
கோ	௦ே+க+ஆ	n+f+h	0B95+0BCB	E21B
கௌ	௦ெ+க+ள	b+f+s	0B95+0BCC	E21C
ங்	௦°+ங	;+'	0B99+0BCD	E220
ங	ங	'	0B99	E221
ஙா	ங+ஆ	' +h	0B99+0BBE	E222
ஙி	ரி+ங	p+'	0B99+0BBF	E223
ஙீ	ரீ+ங	P (Shift p)+'	0B99+0BC0	E224
ஙு	�ௗ+ங	|+'	0B99+0BC1	E225
ஙூ	ௗூ+ங	{ (Shift [ )+'	0B99+0BC2	E226
ஙெ	௦ெ+ங	b+'	0B99+0BC6	E227
ஙே	௦ே+ங	n+'	0B99+0BC7	E228
ஙை	ைங+ங	i+'	0B99+0BC8	E229
ஙொ	௦ெ+ங+ஆ	b+'+h	0B99+0BCA	E22A
ஙோ	௦ே+ங+ஆ	n+'+h	0B99+0BCB	E22B
ஙௌ	௦ெ+ங+ள	b+'+s	0B99+0BCC	E22C
ச்	௦°+ச	;+r	0B9A+0BCD	E230
ச	ச	r	0B9A	E231
சா	ச+ஆ	r+h	0B9A+0BBE	E232
சி	ரி+ச	p+r	0B9A+0BBF	E233
சீ	ரீ+ச	P (Shift p)+r	0B9A+0BC0	E234
சு	சு	R (Shift r)	0B9A+0BC1	E235
சூ	சூ	N (Shift n)	0B9A+0BC2	E236
செ	௦ெ+ச	b+r	0B9A+0BC6	E237

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
சே	ே+ச	n+r	0B9A+0BC7	E238
சை	ை+ச	i+r	0B9A+0BC8	E239
சொ	ெ+ச+ா	b+r+h	0B9A+0BCA	E23A
சோ	ே+ச+ா	n+r+h	0B9A+0BCB	E23B
சௌ	ெ+ச+ள	b+r+s	0B9A+0BCC	E23C
ஞ்ṅ	்+ஞ	;+"(Shift ')	0B9E+0BCD	E240
ஞ	ஞ	" (Shift ')	0B9E	E241
ஞா	ஞ+ா	" (Shift ')+h	0B9E+0BBE	E242
ஞி	ி+ஞ	p+" (Shift ')	0B9E+0BBF	E243
ஞீ	ீ+ஞ	P (Shift p)+" (Shift ')	0B9E+0BC0	E244
ஞு	ு+ஞ	[+" (Shift ')	0B9E+0BC1	E245
ஞூ	ூ+ஞ	{ (Shift [) + " (Shift ')	0B9E+0BC2	E246
ஞெ	ெ+ஞ	b+" (Shift ')	0B9E+0BC6	E247
ஞே	ே+ஞ	n+" (Shift ')	0B9E+0BC7	E248
ஞை	ை+ஞ	i+" (Shift ')	0B9E+0BC8	E249
ஞொ	ெ+ஞ+ா	b+" (Shift ')+h	0B9E+0BCA	E24A
ஞோ	ே+ஞ+ா	n+" (Shift ')+h	0B9E+0BCB	E24B
ஞௌ	ெ+ஞ+ள	b+" (Shift ')+s	0B9E+0BCC	E24C
ட்	்+ட	;+l	0B9F+0BCD	E250
ட	ட	l	0B9F	E251
டா	ட+ா	l+h	0B9F+0BBE	E252
டி	ி+ட	p+l (or) o	0B9F+0BBF	E253
டீ	ீ+ட	P(Shift p)+l (or) O(Shift o)	0B9F+0BC0	E254
டு	டு	L (Shift l)	0B9F+0BC1	E255
டூ	ூ+டு	: (Shift ;)+ L(Shift l)	0B9F+0BC2	E256
டெ	ெ+ட	b+l	0B9F+0BC6	E257
டே	ே+ட	n+l	0B9F+0BC7	E258
டை	ை+ட	i+l	0B9F+0BC8	E259
டொ	ெ+ட+ா	b+l+h	0B9F+0BCA	E25A
டோ	ே+ட+ா	n+l+h	0B9F+0BCB	E25B
டௌ	ெ+ட+ள	b+l+s	0B9F+0BCC	E25C
ண்	்+ண	;+z	0BA3+0BCD	E260
ண	ண	z	0BA3	E261
ணா	ண+ா	z+h	0BA3+0BBE	E262
ணி	ி+ண	p+z	0BA3+0BBF	E263
ணீ	ீ+ண	P (Shift p)+z	0BA3+0BC0	E264
ணு	ணு	q	0BA3+0BC1	E265
ணூ	ணு+ூ	q+}(Shift])	0BA3+0BC2	E266
ணெ	ெ+ண	b+z	0BA3+0BC6	E267
ணே	ே+ண	n+z	0BA3+0BC7	E268
ணை	ை+ண	i+z	0BA3+0BC8	E269
ணொ	ெ+ண+ா	b+z+h	0BA3+0BCA	E26A
ணோ	ே+ண+ா	n+z+h	0BA3+0BCB	E26B
ணௌ	ெ+ண+ள	b+z+s	0BA3+0BCC	E26C
த்	்+த	;+j	0BA4+0BCD	E270
த	த	j	0BA4	E271
தா	த+ா	j+h	0BA4+0BBE	E272
தி	ி+த	p+j	0BA4+0BBF	E273
தீ	ீ+த	P (Shift p)+j	0BA4+0BC0	E274
து	து	J (Shift j)	0BA4+0BC1	E275
தூ	து+ூ	J (Shift j)+}(Shift])	0BA4+0BC2	E276
தெ	ெ+த	b+j	0BA4+0BC6	E277

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
தே	கே+த	n+j	0BA4+0BC7	E278
தை	கை+த	i+j	0BA4+0BC8	E279
தொ	கெ+த+கா	b+j+h	0BA4+0BCA	E27A
தோ	கே+த+கா	n+j+h	0BA4+0BCB	E27B
தௌ	கெ+த+ள	b+j+s	0BA4+0BCC	E27C
ந்	ஂ+ந	;+e	0BA8+0BCD	E280
ந	ந	e	0BA8	E281
நா	ந+கா	e+h	0BA8+0BBE	E282
நி	ி+ந	p+e	0BA8+0BBF	E283
நீ	ீ+ந	P (Shift p)+e	0BA8+0BC0	E284
நு	நு	E (Shift e)	0BA8+0BC1	E285
நூ	நு+ௗ	E (Shift e)+}(Shift])	0BA8+0BC2	E286
நெ	கெ+ந	b+e	0BA8+0BC6	E287
நே	கே+ந	n+e	0BA8+0BC7	E288
நை	கை+ந	i+e	0BA8+0BC8	E289
நொ	கெ+ந+கா	b+e+h	0BA8+0BCA	E28A
நோ	கே+ந+கா	n+e+h	0BA8+0BCB	E28B
நௌ	கெ+ந+ள	b+e+s	0BA8+0BCC	E28C
ப்	ஂ+ப	;+g	0BAA+0BCD	E290
ப	ப	g	0BAA	E291
பா	ப+கா	g+h	0BAA+0BBE	E292
பி	ி+ப	p+g	0BAA+0BBF	E293
பீ	ீ+ப	P (Shift p)+g	0BAA+0BC0	E294
பு	�cu+ப	[+g	0BAA+0BC1	E295
பூ	ௗ+ப	{ (Shift [ )+g	0BAA+0BC2	E296
பெ	கெ+ப	b+g	0BAA+0BC6	E297
பே	கே+ப	n+g	0BAA+0BC7	E298
பை	கை+ப	i+g	0BAA+0BC8	E299
பொ	கெ+ப+கா	b+g+h	0BAA+0BCA	E29A
போ	கே+ப+கா	n+g+h	0BAA+0BCB	E29B
பௌ	கெ+ப+ள	b+g+s	0BAA+0BCC	E29C
ம்	ஂ+ம	;+k	0BAE+0BCD	E2A0
ம	ம	k	0BAE	E2A1
மா	ம+கா	k+h	0BAE+0BBE	E2A2
மி	ி+ம	p+k	0BAE+0BBF	E2A3
மீ	ீ+ம	P (Shift p)+k	0BAE+0BC0	E2A4
மு	மு	K (Shift k)	0BAE+0BC1	E2A5
மூ	ௗ+மு	: (Shift ;)+K(Shift k)	0BAE+0BC2	E2A6
மெ	கெ+ம	b+k	0BAE+0BC6	E2A7
மே	கே+ம	n+k	0BAE+0BC7	E2A8
மை	கை+ம	i+k	0BAE+0BC8	E2A9
மொ	கெ+ம+கா	b+k+h	0BAE+0BCA	E2AA
மோ	கே+ம+கா	n+k+h	0BAE+0BCB	E2AB
மௌ	கெ+ம+ள	b+k+s	0BAE+0BCC	E2AC
ய்	ஂ+ய	;+a	0BAF+0BCD	E2B0
ய	ய	a	0BAF	E2B1
யா	ய+கா	a+h	0BAF+0BBE	E2B2
யி	ி+ய	p+a	0BAF+0BBF	E2B3
யீ	ீ+ய	P (Shift p)+a	0BAF+0BC0	E2B4
யு	ௗ+ய	[+a	0BAF+0BC1	E2B5
யூ	ௗ+ய	{ (Shift [ )+a	0BAF+0BC2	E2B6
யெ	கெ+ய	b+a	0BAF+0BC6	E2B7

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
யே	ே+ய	n+a	0BAF+0BC7	E2B8
யை	ை+ய	i+a	0BAF+0BC8	E2B9
யொ	ெ+ய+ா	b+a+h	0BAF+0BCA	E2BA
யோ	ே+ய+ா	n+a+h	0BAF+0BCB	E2BB
யௌ	ெ+ய+ள	b+a+s	0BAF+0BCC	E2BC
ர்	௦+ர	;+u	0BB0+0BCD	E2C0
ர	ர	u	0BB0	E2C1
ரா	ர+ா	u+h	0BB0+0BBE	E2C2
ரி	ி+ர	p+u	0BB0+0BBF	E2C3
ரீ	ீ+ர	P(Shift p)+u	0BB0+0BC0	E2C4
ரு	ரு	U(Shift u)	0BB0+0BC1	E2C5
ரூ	ௐ+ரு	: (Shift ;) + U(Shift u)	0BB0+0BC2	E2C6
ரெ	ெ+ர	b+u	0BB0+0BC6	E2C7
ரே	ே+ர	n+u	0BB0+0BC7	E2C8
ரை	ை+ர	i+u	0BB0+0BC8	E2C9
ரொ	ெ+ர+ா	b+u+h	0BB0+0BCA	E2CA
ரோ	ே+ர+ா	n+u+h	0BB0+0BCB	E2CB
ரௌ	ெ+ர+ள	b+u+s	0BB0+0BCC	E2CC
ல்	௦+ல	;+y	0BB2+0BCD	E2D0
ல	ல	y	0BB2	E2D1
லா	ல+ா	y+h	0BB2+0BBE	E2D2
லி	ி+ல	p+y	0BB2+0BBF	E2D3
லீ	ீ+ல	P (Shift p)+y	0BB2+0BC0	E2D4
லு	லு	Y (Shift y)	0BB2+0BC1	E2D5
லூ	லு +ௐ	Y(Shift y) + }(Shift])	0BB2+0BC2	E2D6
லெ	ெல	b+y	0BB2+0BC6	E2D7
லே	ேல	n+y	0BB2+0BC7	E2D8
லை	ைல	i+y	0BB2+0BC8	E2D9
லொ	ெ+ல+ா	b+y+h	0BB2+0BCA	E2DA
லோ	ே+ல+ா	n+y+h	0BB2+0BCB	E2DB
லௌ	ெ+ல+ள	b+y+s	0BB2+0BCC	E2DC
வ்	௦+வ	;+t	0BB5+0BCD	E2E0
வ	வ	t	0BB5	E2E1
வா	வ+ா	t+h	0BB5+0BBE	E2E2
வி	ி+வ	p+t	0BB5+0BBF	E2E3
வீ	ீ+வ	P(Shift p)+t	0BB5+0BC0	E2E4
வு	ௗ+வ	[+t	0BB5+0BC1	E2E5
வூ	ௐ+வ	{ (Shift [ ) +t	0BB5+0BC2	E2E6
வெ	ெ+வ	b+t	0BB5+0BC6	E2E7
வே	ே+வ	n+t	0BB5+0BC7	E2E8
வை	ை+வ	i+t	0BB5+0BC8	E2E9
வொ	ெ+வ+ா	b+t+h	0BB5+0BCA	E2EA
வோ	ே+வ+ா	n+t+h	0BB5+0BCB	E2EB
வௌ	ெ+வ+ள	b+t+s	0BB5+0BCC	E2EC
ழ்	௦+ழ	;+H(Shift h)	0BB4+0BCD	E2F0
ழ	ழ	H(Shift h)	0BB4	E2F1
ழா	ழ+ா	H(Shift h)+h	0BB4+0BBE	E2F2
ழி	ி+ழ	p+H(Shift h)	0BB4+0BBF	E2F3
ழீ	ீ+ழ	P(Shift p) + H(Shift h)	0BB4+0BC0	E2F4
ழு	ழு	G(Shift g)	0BB4+0BC1	E2F5
ழூ	ௐ+ழ	{ (Shift [ ) H(Shift h)	0BB4+0BC2	E2F6
ழெ	ெ+ழ	b+H(Shift h)	0BB4+0BC6	E2F7

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
ழே	ே+ழ	n+H(Shift h)	0BB4+0BC7	E2F8
ழை	ை+ழ	i+H(Shift h)	0BB4+0BC8	E2F9
ழொ	ொ+ழ+ா	b+H(Shift h)+h	0BB4+0BCA	E2FA
ழோ	ோ+ழ+ா	n+H(Shift h)+h	0BB4+0BCB	E2FB
ழௌ	ொ+ழ+ள	b+H(Shift h)+s	0BB4+0BCC	E2FC
ள்	்+ள	;+s	0BB3+0BCD	E300
ள	ள	s	0BB3	E301
ளா	ள+ா	s+h	0BB3+0BBE	E302
ளி	ி+ள	p+s	0BB3+0BBF	E303
ளீ	ீ+ள	P(Shift p)+s	0BB3+0BC0	E304
ளு	ளு	S(Shift s)	0BB3+0BC1	E305
ளூ	�ூ+ளு	: (Shift ;) + S(Shift s)	0BB3+0BC2	E306
ளெ	ெ+ள	b+s	0BB3+0BC6	E307
ளே	ே+ள	n+s	0BB3+0BC7	E308
ளை	ை+ள	i+s	0BB3+0BC8	E309
ளொ	ெ+ள+ா	b+s+h	0BB3+0BCA	E30A
ளோ	ே+ள+ா	n+s+h	0BB3+0BCB	E30B
ளௌ	ெ+ள+ள	b+s+s	0BB3+0BCC	E30C
ற்	்+ற	;+w	0BB1+0BCD	E310
ற	ற	w	0BB1	E311
றா	ற+ா	w+h	0BB1+0BBE	E312
றி	ி+ற	p+w	0BB1+0BBF	E313
றீ	ீ+ற	P (Shift p)+ w	0BB1+0BC0	E314
று	று	W (Shift w)	0BB1+0BC1	E315
றூ	று+ூ	W(Shift w)+}(Shift])]	0BB1+0BC2	E316
றெ	ெ+ற	b+w	0BB1+0BC6	E317
றே	ே+ற	n+w	0BB1+0BC7	E318
றை	ை+ற	i+w	0BB1+0BC8	E319
றொ	ெ+ற+ா	b+w+h	0BB1+0BCA	E31A
றோ	ே+ற+ா	n+w+h	0BB1+0BCB	E31B
றௌ	ெ+ற+ள	b+w+s	0BB1+0BCC	E31C
ன்	்+ன	;+d	0BA9+0BCD	E320
ன	ன	d	0BA9	E321
னா	ன+ா	d+h	0BA9+0BBE	E322
னி	ி+ன	p+d	0BA9+0BBF	E323
னீ	ீ+ன	P (Shift p)+d	0BA9+0BC0	E324
னு	னு	D (Shift d)	0BA9+0BC1	E325
னூ	னு+ூ	D (Shift d) + }(Shift])	0BA9+0BC2	E326
னெ	ெ+ன	b+d	0BA9+0BC6	E327
னே	ே+ன	n+d	0BA9+0BC7	E328
னை	ை+ன	i+d	0BA9+0BC8	E329
னொ	ெ+ன+ா	b+d+h	0BA9+0BCA	E32A
னோ	ே+ன+ா	n+d+h	0BA9+0BCB	E32B
னௌ	ெ+ன+ள	b+d+s	0BA9+0BCC	E32C
ஜ்	்+ஜ	;+S(Shift 4)	0B9C+0BCD	E330
ஜ	ஜ	S(Shift 4)	0B9C	E331
ஜா	ஜ+ா	S(Shift 4)+h	0B9C+0BBE	E332
ஜி	ி+ஜ	p+S(Shift 4)	0B9C+0BBF	E333
ஜீ	ீ+ஜ	P(Shift p)+S(Shift 4)	0B9C+0BC0	E334
ஜு	ஜ + ு	S(Shift 4)+%(Shift 5)	0B9C+0BC1	E335
ஜூ	ஜ + ூ	S(Shift 4)+^(Shift 6)	0B9C+0BC2	E336
ஜெ	ெ+ஜ	b+S(Shift 4)	0B9C+0BC6	E337

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
ஜே	ே+ஜ	n+$(Shift 4)	0B9C+0BC7	E338
ஜை	ை+ஜ	i+$(Shift 4)	0B9C+0BC8	E339
ஜொ	ெ+ஜ+ா	b+$(Shift 4)+h	0B9C+0BCA	E33A
ஜோ	ே+ஜ+ா	n+$(Shift 4)+h	0B9C+0BCB	E33B
ஜௌ	ெ+ஜ+ள	b+$(Shift 4)+s	0B9C+0BCC	E33C
ஶ்	்+ஶ	;+A(Shift a)+Y (Shift y)	0BB6+0BCD	E340
ஶ	ஶ	A(Shift a)+Y (Shift y)	0BB6	E341
ஶா	ஶ+ா	A(Shift a)+Y (Shift y)+h	0BB6+0BBE	E342
ஶி	ி+ஶ	p+A(Shift a)+Y (Shift y)	0BB6+0BBF	E343
ஶீ	ீ+ஶ	P(Shift p)+A(Shift a)+Y(Shift y)	0BB6+0BC0	E344
ஶு	ஶ+ு	A(Shift a)+Y (Shift y)+%(Shift 5)	0BB6+0BC1	E345
ஶூ	ஶ+ூ	A(Shift a)+Y (Shift y)+^(Shift 6)	0BB6+0BC2	E346
ஶெ	ெ+ஶ	b+A(Shift a)+Y (Shift y)	0BB6+0BC6	E347
ஶே	ே+ஶ	n+A(Shift a)+Y (Shift y)	0BB6+0BC7	E348
ஶை	ை+ஶ	i+A(Shift a)+Y (Shift y)	0BB6+0BC8	E349
ஶொ	ெ+ஶ+ா	b+A(Shift a)+Y (Shift y)+h	0BB6+0BCA	E34A
ஶோ	ே+ஶ+ா	n+A(Shift a)+Y (Shift y)+h	0BB6+0BCB	E34B
ஶௌ	ெ+ஶ+ள	b+A(Shift a)+Y (Shift y)+s	0BB6+0BCC	E34C
ஷ்	்+ஷ	;+Z (Shift z)	0BB7+0BCD	E350
ஷ	ஷ	Z (Shift z)	0BB7	E351
ஷா	ஷ+ா	Z (Shift z)+h	0BB7+0BBE	E352
ஷி	ி+ஷ	p+Z (Shift z)	0BB7+0BBF	E353
ஷீ	ீ+ஷ	P(Shift p)+Z (Shift z)	0BB7+0BC0	E354
ஷு	ஷ + ு	Z (Shift z)+%(Shift 5)	0BB7+0BC1	E355
ஷூ	ஷ + ூ	Z (Shift z)+^(Shift 6)	0BB7+0BC2	E356
ஷெ	ெ+ஷ	b+Z (Shift z)	0BB7+0BC6	E357
ஷே	ே+ஷ	n+Z (Shift z)	0BB7+0BC7	E358
ஷை	ை+ஷ	i+Z (Shift z)	0BB7+0BC8	E359
ஷொ	ெ+ஷ+ா	b+Z (Shift z)+h	0BB7+0BCA	E35A
ஷோ	ே+ஷ+ா	n+Z (Shift z)+h	0BB7+0BCB	E35B
ஷௌ	ெ+ஷ+ள	b+Z (Shift z)+s	0BB7+0BCC	E35C
ஸ்	்+ஸ	;+! (Shift 1)	0BB8+0BCD	E360
ஸ	ஸ	! (Shift 1)	0BB8	E361
ஸா	ஸ+ா	! (Shift 1)+h	0BB8+0BBE	E362
ஸி	ி+ஸ	p+! (Shift 1)	0BB8+0BBF	E363
ஸீ	ீ+ஸ	P (Shift p)+! (Shift 1)	0BB8+0BC0	E364
ஸு	ஸ + ு	! (Shift 1)+%(Shift 5)	0BB8+0BC1	E365
ஸூ	ஸ + ூ	! (Shift 1)+^(Shift 6)	0BB8+0BC2	E366
ஸெ	ெ+ஸ	b+! (Shift 1)	0BB8+0BC6	E367
ஸே	ே+ஸ	n+! (Shift 1)	0BB8+0BC7	E368
ஸை	ை+ஸ	i+! (Shift 1)	0BB8+0BC8	E369
ஸொ	ெ+ஸ+ா	b+! (Shift 1)+h	0BB8+0BCA	E36A
ஸோ	ே+ஸ+ா	n+! (Shift 1)+h	0BB8+0BCB	E36B
ஸௌ	ெ+ஸ+ள	b+! (Shift 1)+s	0BB8+0BCC	E36C
ஹ்	்+ஹ	;+]	0BB9+0BCD	E370
ஹ	ஹ	]	0BB9	E371
ஹா	ஹ+ா	]+h	0BB9+0BBE	E372
ஹி	ி+ஹ	p+]	0BB9+0BBF	E373
ஹீ	ீ+ஹ	P (Shift p)+]	0BB9+0BC0	E374
ஹு	ஹ + ு	]+%(Shift 5)	0BB9+0BC1	E375
ஹூ	ஹ + ூ	]+^(Shift 6)	0BB9+0BC2	E376
ஹெ	ெ+ஹ	b+]	0BB9+0BC6	E377

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
ஹே	ே+ஹ	n+|	0BB9+0BC7	E378
ஹை	ை+ஹ	i+|	0BB9+0BC8	E379
ஹொ	ொ+ஹ+ா	b+|+h	0BB9+0BCA	E37A
ஹோ	ோ+ஹ+ா	n+|+h	0BB9+0BCB	E37B
ஹௌ	ொ+ஹ+ள	b+|+s	0BB9+0BCC	E37C
க்ஷ்	ஂ+க்ஷ	;+B (Shift b)	0B95+0BCD+0BB7+0BCD	E380
க்ஷ	க்ஷ	B (Shift b)	0B95+0BCD+0BB7	E381
க்ஷா	க்ஷ+ா	B (Shift b)+h	0B95+0BCD+0BB7+0BBE	E382
க்ஷி	ி+க்ஷ	p+B (Shift b)	0B95+0BCD+0BB7+0BBF	E383
க்ஷீ	ீ+க்ஷ	P (Shift p)+B (Shift b)	0B95+0BCD+0BB7+0BC0	E384
க்ஷு	க்ஷ + ு	B (Shift b)+%(Shift 5)	0B95+0BCD+0BB7+0BC1	E385
க்ஷூ	க்ஷ + ூ	B (Shift b)+^(Shift 6)	0B95+0BCD+0BB7+0BC2	E386
க்ஷெ	ெ+க்ஷ	b+B (Shift b)	0B95+0BCD+0BB7+0BC6	E387
க்ஷே	ே+க்ஷ	n+B (Shift b)	0B95+0BCD+0BB7+0BC7	E388
க்ஷை	ை+க்ஷ	i+B (Shift b)	0B95+0BCD+0BB7+0BC8	E389
க்ஷொ	ொ+க்ஷ+ா	b+B (Shift b)+h	0B95+0BCD+0BB7+0BCA	E38A
க்ஷோ	ோ+க்ஷ+ா	n+B (Shift b)+h	0B95+0BCD+0BB7+0BCB	E38B
க்ஷௌ	ொ+க்ஷ+ள	b+B (Shift b)+s	0B95+0BCD+0BB7+0BCC	E38C
ஸ்ரீ	ஸ்ரீ	_ (Shift -)	0BB6+0BCD+0BB0+0BC0	E38D

	Disjointed Ksha character combinations with ZWNJ character			
க்ஷ்	ஂ+க+ஂ+ஷ	;+f+;+Z (Shift z)	0B95+0BCD+200C+0BB7+0BCD	E210+E350
க்ஷ	ஂ+க+ஷ	;+f+Z (Shift z)	0B95+0BCD+200C+0BB7	E210+E351
க்ஷா	ஂ+க+ஷ+ா	;+f+Z (Shift z)+h	0B95+0BCD+200C+0BB7+0BBE	E210+E352
க்ஷி	ஂ+க+ி+ஷ	;+f+p+Z (Shift z)	0B95+0BCD+200C+0BB7+0BBF	E210+E353
க்ஷீ	ஂ+க+ீ+ஷ	;+f+P(Shift p)+Z (Shift z)	0B95+0BCD+200C+0BB7+0BC0	E210+E354
க்ஷு	ஂ+க+ஷ + ு	;+f+Z (Shift z)+%(Shift 5)	0B95+0BCD+200C+0BB7+0BC1	E210+E355
க்ஷூ	ஂ+க+ஷ + ூ	;+f+Z (Shift z)+^(Shift 6)	0B95+0BCD+200C+0BB7+0BC2	E210+E356
க்ஷெ	ஂ+க+ெ+ஷ	;+f+b+Z (Shift z)	0B95+0BCD+200C+0BB7+0BC6	E210+E357
க்ஷே	ஂ+க+ே+ஷ	;+f+n+Z (Shift z)	0B95+0BCD+200C+0BB7+0BC7	E210+E358
க்ஷை	ஂ+க+ை+ஷ	;+f+i+Z (Shift z)	0B95+0BCD+200C+0BB7+0BC8	E210+E359
க்ஷொ	ஂ+க+ொ+ஷ+ா	;+f+b+Z (Shift z)+h	0B95+0BCD+200C+0BB7+0BCA	E210+E35A
க்ஷோ	ஂ+க+ோ+ஷ+ா	;+f+n+Z (Shift z)+h	0B95+0BCD+200C+0BB7+0BCB	E210+E35B
க்ஷௌ	ஂ+க+ொ+ஷ+ள	;+f+b+Z (Shift z)+s	0B95+0BCD+200C+0BB7+0BCC	E210+E35C

Typewriter Extended Keyboard Sequence With 'A' (shift + a) Combination

Tamil and English symbols

௳	நாள்	A (Shift) a+Z (Shift) z	0BF3	E100
௴	மாதம்	A (Shift) a+X (Shift) x	0BF4	E101
௵	வருடம்	A (Shift a) + C (Shift c)	0BF5	E102
௶	பற்று	A (Shift a) + V (Shift v)	0BF6	E103
௷	வரவு	A (Shift a) + B (Shift b)	0BF7	E104
௸	மேற்படி	A (Shift a) + D (Shift d)	0BF8	E105
௹	ரூபாய்	A (Shift a) + A (Shift a)	0BF9	E106
௺	நம்பர்	A (Shift a) + S (Shift s)	0BFA	E107
○	பௌர்ணமி	A (Shift a) + G (Shift g)		E108
●	அமாவாசை	A (Shift a) + H (Shift h)		E109
★	கார்த்திகை	A (Shift a) + J (Shift j)		E10A
�ா	ராஜ	A (Shift a) + K (Shift k)		E10B
ௐ	ஓம்	A (Shift a) + F (Shift f)	0BD0	E10C

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
[	[	A (Shift a) + [	005B	005B
]	]	A (Shift a) +]	005D	005D
{	{	A (Shift a) + { (Shift [ )	007B	007B
}	}	A (Shift a) + } (Shift])	007D	007D
"	"	A (Shift a) + " (Shift ')	0022	0022
:	:	A (Shift a) + : (Shift ;)	003A	003A
;	;	A (Shift a) + ;	003B	003B
'	'	A (Shift a) + '	0027	0027
‹	‹	A (Shift a) + < (Shift ,)	003C	003C
›	›	A (Shift a) + > (Shift .)	003E	003E
?	?	A (Shift a) + ? (Shift /)	003F	003F
½	Tamil Symbol ½ (அரை)	A (Shift a) + 2	00BD	00BD
¾	Tamil Symbol 3/4 (முக்கால்)	A (Shift a) + 3	00BE	00BE
¼	Tamil Symbol ¼ (கால்)	A (Shift a) + 4	00BC	00BA
'	Left Single Quote	A (Shift a) + O (Shift o)	2018	2018
'	Right Single Quote	A (Shift a) + P (Shift p)	2019	2019
"	Left Double Quote	A (Shift a) + U (Shift u)	201C	201C
"	Right Double Quote	A (Shift a) + I (Shift i)	201D	201D
	Non Breaking Space	A (Shift a) + S (Shift s)	00AD	00AD
•	Symbol Bullet	A (Shift a) + .	2022	2022
©	Symbol Copyright	A (Shift a) + c	00A9	00A9
^	Caret Sign	^ (Shift 6)	005E	005E
்	Tamil Vowel Sign Pulli	A(Shift a)+l	0BCD	E1F0
ா	Tamil Vowel Sign AA	A(Shift a)+h	0BBE	E1F2
ி	Tamil Vowel Sign I	A(Shift a)+p	0BBF	E1F3
ீ	Tamil Vowel Sign II	A(Shift a)+o	0BC0	E1F4
ு	Tamil Vowel Sign U	A(Shift a)+u	0BC1	E1F5
ூ	Tamil Vowel Sign UU	A(Shift a)+y	0BC2	E1F6
ெ	Tamil Vowel Sign E	A(shift a)+b	0BC6	E1F7
ே	Tamil Vowel Sign EE	A(shift a)+n	0BC7	E1F8
ை	Tamil Vowel Sign AI	A(shift a)+i	0BC8	E1F9
ொ	Tamil Vowel Sign O	A(shift a)+x	0BCA	E1FA
ோ	Tamil Vowel Sign OO	A(shift a)+z	0BCB	E1FB
ௌ	Tamil Vowel Sign AU	A(shift a)+v	0BCC	E1FC

Typewriter Extended Keyboard Sequence With #(Shift 3) Combination

௦	Tamil Number 0 (சுழி)	#(Shift 3)+0	0BE6	E180
க	Tamil Number 1 (ஒன்று)	#(Shift 3)+1	0BE7	E181
உ	Tamil Number 2 (இரண்டு)	#(Shift 3)+2	0BE8	E182
ந	Tamil Number 3 (மூன்று)	#(Shift 3)+3	0BE9	E183
சு	Tamil Number 4 (நான்கு)	#(Shift 3)+4	0BEA	E184
ரு	Tamil Number 5 (ஐந்து)	#(Shift 3)+5	0BEB	E185
சூ	Tamil Number 6 (ஆறு)	#(Shift 3)+6	0BEC	E186
எ	Tamil Number 7 (ஏழு)	#(Shift 3)+7	0BED	E187
அ	Tamil Number 8 (எட்டு)	#(Shift 3)+8	0BEE	E188

Tamil letter	Tamil Keyboard Sequence	English Keyboard	Unicode Code Values	TACE16 Code values
கூ	Tamil Number 9 (ஒன்பது)	#(Shift 3)+9	0BEF	E189
ய	Tamil Number 10 (பத்து)	#(Shift 3)+1+0	0BF0	E18A
௱	Tamil Number 100 (நூறு)	#(Shift 3)+1+0+0	0BF1	E18B
௲	Tamil Number 1000 (ஆயிரம்)	#(Shift 3)+1+0+0+0	0BF2	E18C
௮	Tamil Fraction 1/8 (அரைக்கால்)	#(Shift 3)+1+8		E1A0
வ	Tamil Fraction 1/4 (கால்)	#(Shift 3)+1+4		E1A1
௲	Tamil Fraction 1/2 (அரை)	#(Shift 3)+1+2		E1A2
த	Tamil Fraction 3/4 (முக்கால்)	#(Shift 3)+3+4		E1A3
சு	Tamil Fraction 1/32 (அரைவீசம்)	#(Shift 3)+1+3+2		E1A4
பஅ	Tamil Fraction 1/16 (வீசம்)	#(Shift 3)+1+1+6		E1A5
�	Tamil Fraction 3/16 (மூவீசம்)	#(Shift 3)+3+1+6		E1A6
சஅ	Tamil Fraction 1/40 (அரைமா)	#(Shift 3)+1+4+0		E1A7
ப	Tamil Fraction 1/20 (ஒருமா)	#(Shift 3)+1+2+0		E1A8
உ	Tamil Fraction 1/10 (இரண்டுமா)	#(Shift 3)+1+1+0		E1A9
௴	Tamil Fraction 3/20 (மும்மா)	#(Shift 3)+3+2+0		E1AA
௫	Tamil Fraction 1/5 (நாலுமா)	#(Shift 3)+1+5		E1AB
௲த	Tamil Fraction 1/320 (முந்திரி)	#(Shift 3)+1+3+2+0		E1AC
௫	Tamil Fraction 1/160(அரைக்காணி)	#(Shift 3)+1+1+6+0		E1AD
௮	Tamil Fraction 1/80 (காணி)	#(Shift 3)+1+8+0		E1AE
சூ	Tamil Fraction 3/80(முக்காணி)	#(Shift 3)+3+8+0		E1AF