

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ORGANISATION INTERNATIONALE DE NORMALISATION

**ISO/IEC JTC 1/ SC 2/ WG 2**  
**Universal Multiple-Octet Coded Character Set**  
**(U C S)**

**ISO/IEC JTC1/SC2/WG2 N1515**

**Date: 1997-1-23**

|                      |                                                                 |
|----------------------|-----------------------------------------------------------------|
| <b>Title:</b>        | <b>Report of the ad-hoc group on Mongolian encoding</b>         |
| <b>Source:</b>       | <b>Ad-hoc Group on Mongolian Encoding</b>                       |
| <b>Action:</b>       | <b>For review by national member bodies and liaison members</b> |
| <b>Distribution:</b> | <b>ISO/IEC JTC 1 /SC 2 /WG 2 members</b>                        |

This document reports on the results of ad-hoc discussions on the proposal for the encoding of Mongolian script held in Singapore during meeting #32 of WG2 between delegates from UNU/IIST, China and the Unicode Consortium:

- Richard Moore            UNU/IIST
- Myatav Erdenechimeg    UNU/IIST
- Mao Yong Gang            China
- Glenn Adams             Unicode Consortium
- Asmus Freytag            Unicode Consortium

It incorporates versions of the Mongolian encoding tables which have been revised to reflect the resolutions of these discussions. These update and incorporate the essential elements from document N1510, which in turn updates and incorporates material previously presented in documents N1438 and N1475.

The revised tables also reflect the changes suggested in document N1497 on the way control symbols should be used to indicate variants of Mongolian characters.

The specific revisions implementing the resolutions of the meeting of the ad-hoc group on Mongolian encoding are:

1. that the Mongolian space (character #000 in the Mongolian Basic Character Set table in document N1510) has been removed from the Mongolian character set. The members of the Unicode consortium advised that the functionality of the Mongolian space is provided by the non-breaking space (NBSP) which is already defined in ISO standard 10646 as part of the Latin character set (character no:

U+00A0). This non-breaking space should therefore be used in Mongolian script to achieve the same effect as the Mongolian space.

2. that the positions of the remaining punctuation characters of the Mongolian Basic Character set have been changed so as to fill the position vacated by the Mongolian space.
3. that the three control characters (characters number #172, #173 and #174 in the Mongolian Basic Character Set table in document N1510) have been removed.
4. that 10 (ten) control symbols have been defined which are to be used to indicate the individual variants of Mongolian letters, these characters simply referencing the position of the required variant in some ordered list of all variants of any letter. These 10 control symbols are listed in a separate table rather than as part of the Mongolian Basic Character Set because it is intended that they will eventually be included in the general punctuation block in the standard. This will allow other scripts to make use of them. In addition, they are currently named arbitrarily as "MC0" through "MC9". These names will be revised when the characters are inserted in the general punctuation block.
5. that control characters always follow the character to which they are attached.

The text of "The Mongolian Character Encoding Conventions" has been changed to reflect these changes to the tables, and a few editorial corrections have also been made during this process.

Some additional text explaining the elements of the Mongolian Reference Table has been added.

This document is intended to form the basis for future discussions on Mongolian encoding. National member bodies and liaison members are requested to provide feedback to WG2 and the ad-hoc group so that the following open issues can be resolved:

- determination of the order in which the variants of each character should be listed.
- investigation of whether the !? symbol can be unified with the existing symbol INTERROBANG.
- investigation of whether the ?! symbol (character 6 - Mongolian Combinatory Symbol) is needed.
- investigation of whether character 4 (Mongolian Colon) can be unified with an existing punctuation character.

- investigation of whether character 5 (Mongolian Four Dots) can be unified with an existing punctuation character.
- investigation of whether characters 128 and 129 (Mongolian Letter AG Anusvara One /Two) can be unified.
- investigation of whether characters 130 and 131 (Mongolian Letter AG Visarga One /Two) can be unified.

It should also be noted that an implementation of Mongolian would need to provide ligatures and methods for the algorithmic selection of glyphs in addition to the base characters and variants contained in this document.



# Mongolian Character Encoding Conventions

1. The Mongolian script character set is a coding proposal of Mongolian scripts which includes Mongolian letters, Todo letters, Sibe letters, Manchu letters, Ali Gali (letters used for the transcription of Tibetan and Sanskrit), punctuation marks, digits and control characters. The written languages Todo, Sibe and Manchu all share Mongolian letters.

This proposal only encodes canonical characters. Ligatures which are logically larger than one character unit and graphemes which are logically smaller than one character unit are excluded.

2. The encoding is given in the sequence

- punctuation marks
- digits
- letters.

The letters comprise Mongolian letters, Mongolian Todo letters, Mongolian Sibe letters, Mongolian Manchu letters and Ali Gali letters.

Many Mongolian, Todo, Sibe and Manchu characters have different forms according to their position in the word (initial, medial or final). Due to additional variation, there can be more than ten presentation form variants for a given letter.

According to the relevant principles of ISO/IEC 10646, only one of those presentation forms is to be encoded. This form is named "basic character". For the vowels, their isolated forms are adopted. As a rule, only the presentation form appearing before the vowel "A" is adopted for the consonants. All other forms are classified as "presentation forms". Some characters of different scripts have the same shape as the canonical character or the initial form but different shapes when being used in medial or final position. As an exception to the previous rule, in



Letters only used in Mongolian and letters commonly used in the other scripts share the common name prefix MONGOLIAN LETTER. The names of letters exclusively used in Todo are prefixed by MONGOLIAN LETTER TODO. The names of letters exclusively used in Sibe are prefixed by MONGOLIAN LETTER SIBE. The names of letters exclusively used in Manchu are prefixed by MONGOLIAN LETTER MANCHU. The Ali Gali letters of Mongolian, Todo and Manchu are prefixed by MONGOLIAN LETTER AG, MONGOLIAN LETTER TODO AG, and MONGOLIAN LETTER MANCHU AG, respectively.

5. The unified forms of the basic characters of the four scripts and their respective name variants are recorded in the "Mongolian Reference Table".

6. The unified basic characters are arranged in the order of Mongolian, Todo, Sibe, Manchu and Ali Gali characters.

7. In the majority of cases, the presentation forms of all four scripts can be determined by their position and other constraints. However, there is a very small number of cases where the proper form cannot be distinguished by word-internal constraints alone. In order to distinguish these, various control characters are used. Their use is explained in the text accompanying the Mongolian Reference Table.

8. The presentation form set of Mongolian, Todo, Sibe, and Manchu as well as Ali Gali is listed in the separate Mongolian Reference Table.



# Mongolian Basic Character Set

Table 1

|    | 00                                                                                        | 01                                                                                        | 02                                                                                        | 03                                                                                        | 04                                                                                        | 05                                                                                         | 06                                                                                           | 07                                                                                           |
|----|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 00 | <br>0    | <br>16   | <br>32   | <br>48   | <br>64   | <br>80   | <br>96    | <br>112   |
| 01 | <br>1    | <br>17   | <br>33   | <br>49   | <br>65   | <br>81   | <br>97    | <br>113   |
| 02 | <br>2    | <br>18   | <br>34   | <br>50   | <br>66   | <br>82   | <br>98    | <br>114   |
| 03 | <br>3    | <br>19   | <br>35   | <br>51   | <br>67   | <br>83   | <br>99    | <br>115   |
| 04 | <br>4    | <br>20   | <br>36   | <br>52   | <br>68   | <br>84   | <br>100   | <br>116   |
| 05 | <br>5  | <br>21 | <br>37 | <br>53 | <br>69 | <br>85 | <br>101 | <br>117 |
| 06 | <br>6  | <br>22 | <br>38 | <br>54 | <br>70 | <br>86 | <br>102 | <br>118 |
| 07 | <br>7  | <br>23 | <br>39 | <br>55 | <br>71 | <br>87 | <br>103 | <br>119 |
| 08 | <br>8  | <br>24 | <br>40 | <br>56 | <br>72 | <br>88 | <br>104 | <br>120 |
| 09 | <br>9  | <br>25 | <br>41 | <br>57 | <br>73 | <br>89 | <br>105 | <br>121 |
| 0A | <br>10 | <br>26 | <br>42 | <br>58 | <br>74 | <br>90 | <br>106 | <br>122 |
| 0B | <br>11 | <br>27 | <br>43 | <br>59 | <br>75 | <br>91 | <br>107 | <br>123 |
| 0C | <br>12 | <br>28 | <br>44 | <br>60 | <br>76 | <br>92 | <br>108 | <br>124 |
| 0D | <br>13 | <br>29 | <br>45 | <br>61 | <br>77 | <br>93 | <br>109 | <br>125 |
| 0E | <br>14 | <br>30 | <br>46 | <br>62 | <br>78 | <br>94 | <br>110 | <br>126 |
| 0F | <br>15 | <br>31 | <br>47 | <br>63 | <br>79 | <br>95 | <br>111 | <br>127 |

# Mongolian Basic Character Set

Table 1

|    | 08                                                                                      | 09                                                                                      | 0A                                                                                      | 0B  | 0C  | 0D  | 0E  | 0F  |
|----|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|
| 00 |  128   |  144   |  160   | 176 | 192 | 208 | 224 | 240 |
| 01 |  129   |  145   |  161   | 177 | 193 | 209 | 225 | 241 |
| 02 |  130   |  146   |  162   | 178 | 194 | 210 | 226 | 242 |
| 03 |  131   |  147   |  163   | 179 | 195 | 211 | 227 | 243 |
| 04 |  132   |  148   |  164   | 180 | 196 | 212 | 228 | 244 |
| 05 |  133 |  149 |  165 | 181 | 197 | 213 | 229 | 245 |
| 06 |  134 |  150 |  166 | 182 | 198 | 214 | 230 | 246 |
| 07 |  135 |  151 |  167 | 183 | 199 | 215 | 231 | 247 |
| 08 |  136 |  152 |  168 | 184 | 200 | 216 | 232 | 248 |
| 09 |  137 |  153 |  169 | 185 | 201 | 217 | 233 | 249 |
| 0A |  138 |  154 |  170 | 186 | 202 | 218 | 234 | 250 |
| 0B |  139 |  155 |  171 | 187 | 203 | 219 | 235 | 251 |
| 0C |  140 |  156 | 172                                                                                     | 188 | 204 | 220 | 236 | 252 |
| 0D |  141 |  157 | 173                                                                                     | 189 | 205 | 221 | 237 | 253 |
| 0E |  142 |  158 | 174                                                                                     | 190 | 206 | 222 | 238 | 254 |
| 0F |  143 |  159 | 175                                                                                     | 191 | 207 | 223 | 239 | 255 |



# Names of Mongolian Basic character set

Table 2

| dec | hex | Name                                           | dec | hex | Name                                  |
|-----|-----|------------------------------------------------|-----|-----|---------------------------------------|
| 000 | 00  | MONGOLIAN BIRGA                                | 064 | 40  | MONGOLIAN LETTER LHA                  |
| 001 | 01  | MONGOLIAN ELLIPSIS                             | 065 | 41  | MONGOLIAN LETTER ZHI                  |
| 002 | 02  | MONGOLIAN COMMA                                | 066 | 42  | MONGOLIAN LETTER CHI                  |
| 003 | 03  | MONGOLIAN PERIOD                               | 067 | 43  | MONGOLIAN LETTER TODO LONG VOWEL SIGN |
| 004 | 04  | MONGOLIAN COLON                                | 068 | 44  | MONGOLIAN LETTER TODO E               |
| 005 | 05  | MONGOLIAN FOUR DOTS                            | 069 | 45  | MONGOLIAN LETTER TODO I               |
| 006 | 06  | MONGOLIAN COMBINATORY SYMBOL                   | 070 | 46  | MONGOLIAN LETTER TODO O               |
| 007 | 07  | MONGOLIAN TODO SOFT HYPHEN                     | 071 | 47  | MONGOLIAN LETTER TODO U               |
| 008 | 08  | MONGOLIAN LETTER SIBE SYLLABLE BOUNDARY MARKER | 072 | 48  | MONGOLIAN LETTER TODO OE              |
| 009 | 09  | MONGOLIAN MANCHU COMMA                         | 073 | 49  | MONGOLIAN LETTER TODO UE              |
| 010 | 0A  | MONGOLIAN MANCHU PERIOD                        | 074 | 4A  | MONGOLIAN LETTER TODO ANG             |
| 011 | 0B  | MONGOLIAN NIRUGU                               | 075 | 4B  | MONGOLIAN LETTER TODO BA              |
| 012 | 0C  | ( THIS POSITION SHALL NOT BE USED )            | 076 | 4C  | MONGOLIAN LETTER TODO PA              |
| 013 | 0D  | ( THIS POSITION SHALL NOT BE USED )            | 077 | 4D  | MONGOLIAN LETTER TODO QA              |
| 014 | 0E  | ( THIS POSITION SHALL NOT BE USED )            | 078 | 4E  | MONGOLIAN LETTER TODO GA              |
| 015 | 0F  | ( THIS POSITION SHALL NOT BE USED )            | 079 | 4F  | MONGOLIAN LETTER TODO MA              |
| 016 | 10  | MONGOLIAN DIGIT ZERO                           | 080 | 50  | MONGOLIAN LETTER TODO TA              |
| 017 | 11  | MONGOLIAN DIGIT ONE                            | 081 | 51  | MONGOLIAN LETTER TODO DA              |
| 018 | 12  | MONGOLIAN DIGIT TWO                            | 082 | 52  | MONGOLIAN LETTER TODO CA              |
| 019 | 13  | MONGOLIAN DIGIT THREE                          | 083 | 53  | MONGOLIAN LETTER TODO JA              |
| 020 | 14  | MONGOLIAN DIGIT FOUR                           | 084 | 54  | MONGOLIAN LETTER TODO TSA             |
| 021 | 15  | MONGOLIAN DIGIT FIVE                           | 085 | 55  | MONGOLIAN LETTER TODO YA              |
| 022 | 16  | MONGOLIAN DIGIT SIX                            | 086 | 56  | MONGOLIAN LETTER TODO WA              |
| 023 | 17  | MONGOLIAN DIGIT SEVEN                          | 087 | 57  | MONGOLIAN LETTER TODO KA              |
| 024 | 18  | MONGOLIAN DIGIT EIGHT                          | 088 | 58  | MONGOLIAN LETTER TODO GAA             |
| 025 | 19  | MONGOLIAN DIGIT NINE                           | 089 | 59  | MONGOLIAN LETTER TODO HAA             |
| 026 | 1A  | ( THIS POSITION SHALL NOT BE USED )            | 090 | 5A  | MONGOLIAN LETTER TODO JIA             |
| 027 | 1B  | ( THIS POSITION SHALL NOT BE USED )            | 091 | 5B  | MONGOLIAN LETTER TODO NIA             |
| 028 | 1C  | ( THIS POSITION SHALL NOT BE USED )            | 092 | 5C  | MONGOLIAN LETTER TODO DZA             |
| 029 | 1D  | ( THIS POSITION SHALL NOT BE USED )            | 093 | 5D  | MONGOLIAN LETTER SIBE E               |
| 030 | 1E  | ( THIS POSITION SHALL NOT BE USED )            | 094 | 5E  | MONGOLIAN LETTER SIBE I               |
| 031 | 1F  | ( THIS POSITION SHALL NOT BE USED )            | 095 | 5F  | MONGOLIAN LETTER SIBE IY              |
| 032 | 20  | MONGOLIAN LETTER A                             | 096 | 60  | MONGOLIAN LETTER SIBE UE              |
| 033 | 21  | MONGOLIAN LETTER E                             | 097 | 61  | MONGOLIAN LETTER SIBE U               |
| 034 | 22  | MONGOLIAN LETTER I                             | 098 | 62  | MONGOLIAN LETTER SIBE ANG             |
| 035 | 23  | MONGOLIAN LETTER O                             | 099 | 63  | MONGOLIAN LETTER SIBE KA              |
| 036 | 24  | MONGOLIAN LETTER U                             | 100 | 64  | MONGOLIAN LETTER SIBE GA              |
| 037 | 25  | MONGOLIAN LETTER OE                            | 101 | 65  | MONGOLIAN LETTER SIBE QA              |
| 038 | 26  | MONGOLIAN LETTER UE                            | 102 | 66  | MONGOLIAN LETTER SIBE PA              |
| 039 | 27  | MONGOLIAN LETTER EE                            | 103 | 67  | MONGOLIAN LETTER SIBE SHA             |
| 040 | 28  | MONGOLIAN LETTER NA                            | 104 | 68  | MONGOLIAN LETTER SIBE TA              |
| 041 | 29  | MONGOLIAN LETTER ANG                           | 105 | 69  | MONGOLIAN LETTER SIBE DA              |
| 042 | 2A  | MONGOLIAN LETTER BA                            | 106 | 6A  | MONGOLIAN LETTER SIBE JA              |
| 043 | 2B  | MONGOLIAN LETTER PA                            | 107 | 6B  | MONGOLIAN LETTER SIBE FA              |
| 044 | 2C  | MONGOLIAN LETTER QA                            | 108 | 6C  | MONGOLIAN LETTER SIBE GAA             |
| 045 | 2D  | MONGOLIAN LETTER GA                            | 109 | 6D  | MONGOLIAN LETTER SIBE HAA             |
| 046 | 2E  | MONGOLIAN LETTER MA                            | 110 | 6E  | MONGOLIAN LETTER SIBE TSA             |
| 047 | 2F  | MONGOLIAN LETTER LA                            | 111 | 6F  | MONGOLIAN LETTER SIBE ZA              |
| 048 | 30  | MONGOLIAN LETTER SA                            | 112 | 70  | MONGOLIAN LETTER SIBE RAA             |
| 049 | 31  | MONGOLIAN LETTER SHA                           | 113 | 71  | MONGOLIAN LETTER SIBE CHA             |
| 050 | 32  | MONGOLIAN LETTER TA                            | 114 | 72  | MONGOLIAN LETTER SIBE ZHA             |
| 051 | 33  | MONGOLIAN LETTER DA                            | 115 | 73  | MONGOLIAN LETTER MANCHU I             |
| 052 | 34  | MONGOLIAN LETTER CHA                           | 116 | 74  | MONGOLIAN LETTER MANCHU KA            |
| 053 | 35  | MONGOLIAN LETTER JA                            | 117 | 75  | MONGOLIAN LETTER MANCHU RA            |
| 054 | 36  | MONGOLIAN LETTER YA                            | 118 | 76  | MONGOLIAN LETTER MANCHU FA            |
| 055 | 37  | MONGOLIAN LETTER RA                            | 119 | 77  | MONGOLIAN LETTER MANCHU ZHA           |
| 056 | 38  | MONGOLIAN LETTER WA                            | 120 | 78  | ( THIS POSITION SHALL NOT BE USED )   |
| 057 | 39  | MONGOLIAN LETTER FA                            | 121 | 79  | ( THIS POSITION SHALL NOT BE USED )   |
| 058 | 3A  | MONGOLIAN LETTER KA                            | 122 | 7A  | ( THIS POSITION SHALL NOT BE USED )   |
| 059 | 3B  | MONGOLIAN LETTER KHA                           | 123 | 7B  | ( THIS POSITION SHALL NOT BE USED )   |
| 060 | 3C  | MONGOLIAN LETTER TSA                           | 124 | 7C  | ( THIS POSITION SHALL NOT BE USED )   |
| 061 | 3D  | MONGOLIAN LETTER ZA                            | 125 | 7D  | ( THIS POSITION SHALL NOT BE USED )   |
| 062 | 3E  | MONGOLIAN LETTER HAA                           | 126 | 7E  | ( THIS POSITION SHALL NOT BE USED )   |
| 063 | 3F  | MONGOLIAN LETTER ZRA                           | 127 | 7F  | ( THIS POSITION SHALL NOT BE USED )   |

# Names of Mongolian Basic character set

Table 2

| dec | hex | Name                                 |
|-----|-----|--------------------------------------|
| 128 | 80  | MONGOLIAN LETTER AG ANUSVARA ONE     |
| 129 | 81  | MONGOLIAN LETTER AG ANUSVARA TWO     |
| 130 | 82  | MONGOLIAN LETTER AG VISARGA ONE      |
| 131 | 83  | MONGOLIAN LETTER AG VISARGA TWO      |
| 132 | 84  | MONGOLIAN LETTER AG DAMARU           |
| 133 | 85  | MONGOLIAN LETTER AG UBADAMA          |
| 134 | 86  | MONGOLIAN LETTER AG INVERTED UBADAMA |
| 135 | 87  | MONGOLIAN LETTER AG BALUDA           |
| 136 | 88  | MONGOLIAN LETTER AG THREE BALUDA     |
| 137 | 89  | MONGOLIAN LETTER AG A                |
| 138 | 8A  | MONGOLIAN LETTER AG I                |
| 139 | 8B  | MONGOLIAN LETTER AG KA               |
| 140 | 8C  | MONGOLIAN LETTER AG NGA              |
| 141 | 8D  | MONGOLIAN LETTER AG CA               |
| 142 | 8E  | MONGOLIAN LETTER AG TTA              |
| 143 | 8F  | MONGOLIAN LETTER AG TTHA             |
| 144 | 90  | MONGOLIAN LETTER AG DDA              |
| 145 | 91  | MONGOLIAN LETTER AG NNA              |
| 146 | 92  | MONGOLIAN LETTER AG TA               |
| 147 | 93  | MONGOLIAN LETTER AG DA               |
| 148 | 94  | MONGOLIAN LETTER AG PA               |
| 149 | 95  | MONGOLIAN LETTER AG PHA              |
| 150 | 96  | MONGOLIAN LETTER AG SSA              |
| 151 | 97  | MONGOLIAN LETTER AG ZHA              |
| 152 | 98  | MONGOLIAN LETTER AG ZA               |
| 153 | 99  | MONGOLIAN LETTER AG AH               |
| 154 | 9A  | MONGOLIAN LETTER TODO AG TA          |
| 155 | 9B  | MONGOLIAN LETTER TODO AG ZHA         |
| 156 | 9C  | MONGOLIAN LETTER MANCHU AG GHA       |
| 157 | 9D  | MONGOLIAN LETTER MANCHU AG NGA       |
| 158 | 9E  | MONGOLIAN LETTER MANCHU AG CA        |
| 159 | 9F  | MONGOLIAN LETTER MANCHU AG JHA       |
| 160 | A0  | MONGOLIAN LETTER MANCHU AG TTA       |
| 161 | A1  | MONGOLIAN LETTER MANCHU AG DDHA      |
| 162 | A2  | MONGOLIAN LETTER MANCHU AG TA        |
| 163 | A3  | MONGOLIAN LETTER MANCHU AG DHA       |
| 164 | A4  | MONGOLIAN LETTER MANCHU AG SSA       |
| 165 | A5  | MONGOLIAN LETTER MANCHU AG CYA       |
| 166 | A6  | MONGOLIAN LETTER MANCHU AG ZHA       |
| 167 | A7  | MONGOLIAN LETTER MANCHU AG CA        |
| 168 | A8  | MONGOLIAN LETTER MANCHU AG HALF U    |
| 169 | A9  | MONGOLIAN LETTER TODO HALF YA        |
| 170 | AA  | MONGOLIAN LETTER MANCHU AG BHA       |
| 171 | AB  | MONGOLIAN LETTER AG DAGAGULGA        |
| 172 | AC  |                                      |
| 173 | AD  |                                      |
| 174 | AE  |                                      |
| 175 | AF  |                                      |
| 176 | B0  |                                      |
| 177 | B1  |                                      |
| 178 | B2  |                                      |
| 179 | B3  |                                      |
| 180 | B4  |                                      |
| 181 | B5  |                                      |
| 182 | B6  |                                      |
| 183 | B7  |                                      |
| 184 | B8  |                                      |
| 185 | B9  |                                      |
| 186 | BA  |                                      |
| 187 | BB  |                                      |
| 188 | BC  |                                      |
| 189 | BD  |                                      |
| 190 | BE  |                                      |
| 191 | BF  |                                      |



# Mongolian Variant Selector Set

Table 1a

|    | 00       | 01 | 02 | 03 | 04 | 05 | 06  | 07  |
|----|----------|----|----|----|----|----|-----|-----|
| 00 | MC0<br>0 | 16 | 32 | 48 | 64 | 80 | 96  | 112 |
| 01 | MC1<br>1 | 17 | 33 | 49 | 65 | 81 | 97  | 113 |
| 02 | MC2<br>2 | 18 | 34 | 50 | 66 | 82 | 98  | 114 |
| 03 | MC3<br>3 | 19 | 35 | 51 | 67 | 83 | 99  | 115 |
| 04 | MC4<br>4 | 20 | 36 | 52 | 68 | 84 | 100 | 116 |
| 05 | MC5<br>5 | 21 | 37 | 53 | 69 | 85 | 101 | 117 |
| 06 | MC6<br>6 | 22 | 38 | 54 | 70 | 86 | 102 | 118 |
| 07 | MC7<br>7 | 23 | 39 | 55 | 71 | 87 | 103 | 119 |
| 08 | MC8<br>8 | 24 | 40 | 56 | 72 | 88 | 104 | 120 |
| 09 | MC9<br>9 | 25 | 41 | 57 | 73 | 89 | 105 | 121 |
| 0A | 10       | 26 | 42 | 58 | 74 | 90 | 106 | 122 |
| 0B | 11       | 27 | 43 | 59 | 75 | 91 | 107 | 123 |
| 0C | 12       | 28 | 44 | 60 | 76 | 92 | 108 | 124 |
| 0D | 13       | 29 | 45 | 61 | 77 | 93 | 109 | 125 |
| 0E | 14       | 30 | 46 | 62 | 78 | 94 | 110 | 126 |
| 0F | 15       | 31 | 47 | 63 | 79 | 95 | 111 | 127 |



# Names of Mongolian Variant Selector set

Table 2a

| dec | hex | Name                         |
|-----|-----|------------------------------|
| 000 | 00  | MONGOLIAN VARIANT SELECTOR 0 |
| 001 | 01  | MONGOLIAN VARIANT SELECTOR 1 |
| 002 | 02  | MONGOLIAN VARIANT SELECTOR 2 |
| 003 | 03  | MONGOLIAN VARIANT SELECTOR 3 |
| 004 | 04  | MONGOLIAN VARIANT SELECTOR 4 |
| 005 | 05  | MONGOLIAN VARIANT SELECTOR 5 |
| 006 | 06  | MONGOLIAN VARIANT SELECTOR 6 |
| 007 | 07  | MONGOLIAN VARIANT SELECTOR 7 |
| 008 | 08  | MONGOLIAN VARIANT SELECTOR 8 |
| 009 | 09  | MONGOLIAN VARIANT SELECTOR 9 |
| 010 | 0A  |                              |
| 011 | 0B  |                              |
| 012 | 0C  |                              |
| 013 | 0D  |                              |
| 014 | 0E  |                              |
| 015 | 0F  |                              |
| 016 | 10  |                              |
| 017 | 11  |                              |
| 018 | 12  |                              |
| 019 | 13  |                              |
| 020 | 14  |                              |
| 021 | 15  |                              |
| 022 | 16  |                              |
| 023 | 17  |                              |
| 024 | 18  |                              |
| 025 | 19  |                              |
| 026 | 1A  |                              |
| 027 | 1B  |                              |
| 028 | 1C  |                              |
| 029 | 1D  |                              |
| 030 | 1E  |                              |
| 031 | 1F  |                              |
| 032 | 20  |                              |
| 033 | 21  |                              |
| 034 | 22  |                              |
| 035 | 23  |                              |
| 036 | 24  |                              |
| 037 | 25  |                              |
| 038 | 26  |                              |
| 039 | 27  |                              |
| 040 | 28  |                              |
| 041 | 29  |                              |
| 042 | 2A  |                              |
| 043 | 2B  |                              |
| 044 | 2C  |                              |
| 045 | 2D  |                              |
| 046 | 2E  |                              |
| 047 | 2F  |                              |
| 048 | 30  |                              |
| 049 | 31  |                              |
| 050 | 32  |                              |
| 051 | 33  |                              |
| 052 | 34  |                              |
| 053 | 35  |                              |
| 054 | 36  |                              |
| 055 | 37  |                              |
| 056 | 38  |                              |
| 057 | 39  |                              |
| 058 | 3A  |                              |
| 059 | 3B  |                              |
| 060 | 3C  |                              |
| 061 | 3D  |                              |
| 062 | 3E  |                              |
| 063 | 3F  |                              |

# The Mongolian Reference Table

Mongolian script is properly written vertically in columns, these being ordered from left to right. Words are separated by spaces, but individual letters within a word are usually joined together (though in certain cases the ending of a word can be separated from the body by a small space) and the displayed form of each letter may depend both on the preceding letter, with which it can form a ligature, and on its position in the word, specifically on whether it occurs at the beginning (initial form), in the middle (medial form) or at the end (final form) of the word. In some cases there are even several different initial, medial and final forms of the same letter.

The Mongolian Reference Table consists of four parts:

- the basic character set;
- the presentation forms;
- the unification table;
- the presentation.

The first part, the basic characters, includes the same information as the “Mongolian Basic Character Set” table (table 1), that is all the information carrying characters, each with its associated reference number. Only one form of each character appears here, and different characters have different shapes.

The second part of the table, the presentation forms, lists all the possible variant forms of a given member of the basic character set. For each variant form, the appropriate glyph is shown, together with a name which indicates at which position in a word it is used. Each variant form is also assigned a number. If its glyph is the same as one which appears earlier in the table (either as that of one of the basic characters or as that of a variant form) this number is printed in the first of the two columns and is the number identifying the position in the table at which the identical glyph first occurs. In this case, the glyph of the character referred to by the number should be used to display the current variant form.

Variant forms of a given character whose glyphs do not appear earlier in the table are simply numbered sequentially, these numbers being printed in the second of the two columns. The glyphs of these characters are shown on a shaded background, and these constitute the Mongolian presentation character set.

The third part of the table is the unification table. This indicates in which scripts (Mongolian (M), Todo (T), Sibe (S), Manchu (MA)) each character is used and which letter it represents in that script.

In general, it is sufficient to use only the codes of the characters belonging to the basic character set to encode Mongolian text, an algorithm being used to determine an appropriate default variant form for each character depending on the rules of the language

and the position of the character within the word. However, this will not always be sufficient: in some cases, there are several possible variants of a given character at a given position, and in some words of foreign origin variants may be used in abnormal positions (for example initial forms of letters may be used in the middle of a word). To cover these cases, as well as the cases in which a particular variant form is required in isolation (for example in a teaching book), specific characters of the Mongolian presentation character set can be generated using a character of the basic character set in combination with a control character.

For this purpose, we consider the set of all variants of a given character to be ordered. The control characters are then simply used to identify the position of a particular variant within that ordering. The final part of the table, the presentation, shows how this is done. The numbers in the second column in this part of the table simply provide a sequential enumeration of all the characters of the presentation character set.

A total of ten (10) control characters is required for this purpose, because this is the maximum number of variants of any character. At present, these are listed in table 1a as characters "MC0" through "MC9". It is however envisaged that eventually these symbols will be moved to the general punctuation character set, at which time they are likely to be renamed.



# Mongolian Reference Table

Table 3

| BASIC CHARACTERS |            |                                                   | PRESENTATION FORMS |       |                                        | UNIFICATION TABLE* |     |     |     | PRESENTATION |          |
|------------------|------------|---------------------------------------------------|--------------------|-------|----------------------------------------|--------------------|-----|-----|-----|--------------|----------|
| No               | CHARACTERS | NAME                                              | No                 | GLYPH | NAME                                   | M                  | T   | S   | MA  | RULE         | TOTAL NO |
| 0                | ᠑          | MONGOLIAN BIRGA                                   | -                  |       |                                        | BR                 | BR  |     |     | MC0          |          |
|                  |            |                                                   | 1                  | ᠑     | FIRST FORM                             | BR                 |     |     |     | ᠑ MC1        | 0        |
|                  |            |                                                   | 2                  | ᠑     | SECOND FORM                            | BR                 | BR  |     |     | ᠑ MC2        | 1        |
|                  |            |                                                   | 3                  | ᠑     | THIRD FORM                             | BR                 | BR  |     |     | ᠑ MC3        | 2        |
|                  |            |                                                   | 4                  | ᠑     | FOURTH FORM                            | BR                 | BR  |     |     | ᠑ MC4        | 3        |
| 1                | ᠑          | MONGOLIAN ELLIPSIS                                | -                  |       |                                        | EL                 | EL  | EL  | EL  |              |          |
| 2                | ᠑          | MONGOLIAN COMMA                                   | -                  |       |                                        | CM                 |     |     | CM  |              |          |
| 3                | ᠑          | MONGOLIAN PERIOD                                  | -                  |       |                                        | PE                 |     |     | PE  |              |          |
| 4                | ᠑          | MONGOLIAN COLON                                   | -                  |       |                                        | COL                | COL | COL | COL |              |          |
| 5                | ᠑          | MONGOLIAN FOUR DOTS                               | -                  |       |                                        | FD                 | FD  |     |     |              |          |
| 6                | ᠑          | MONGOLIAN COMBINATORY SYMBOL                      | -                  |       |                                        | CS                 | CS  |     |     | MC0          |          |
|                  |            |                                                   | 1                  | ᠑     | COMBINATORY SYMBOL<br>ALTERNATIVE FORM | CSA                | CSA |     |     | ᠑ MC1        | 4        |
| 7                | ᠑          | MONGOLIAN TODO SOFT HYPHEN                        | -                  |       |                                        |                    | SH  |     |     |              |          |
| 8                | ᠑          | MONGOLIAN LETTER SIBE SYLLABLE<br>BOUNDARY MARKER | -                  |       |                                        |                    |     | SBM |     |              |          |
| 9                | ᠑          | MONGOLIAN MANCHU COMMA                            | -                  |       |                                        |                    |     |     | CO  |              |          |

## Mongolian Reference Table

| 10 | » | MONGOLIAN ANCHU PERIOD | -  |  |  |  |  |       |       |    | PE |     |
|----|---|------------------------|----|--|--|--|--|-------|-------|----|----|-----|
| 11 | ■ | MONGOLIAN NIRUGU       | -  |  |  |  |  | NR    | NR    | NR |    |     |
| 16 | 0 | MONGOLIAN DIGIT ZERO   | -  |  |  |  |  | ZERO  | ZERO  |    |    |     |
| 17 | ᠐ | MONGOLIAN DIGIT ONE    | -  |  |  |  |  | ONE   | ONE   |    |    |     |
| 18 | ᠑ | MONGOLIAN DIGIT TWO    | -  |  |  |  |  | TWO   | TWO   |    |    |     |
| 19 | ᠒ | MONGOLIAN DIGIT THREE  | -  |  |  |  |  | THREE | THREE |    |    |     |
| 20 | ᠓ | MONGOLIAN DIGIT FOUR   | -  |  |  |  |  | FOUR  | FOUR  |    |    |     |
| 21 | ᠐ | MONGOLIAN DIGIT FIVE   | -  |  |  |  |  | FIVE  | FIVE  |    |    |     |
| 22 | ᠖ | MONGOLIAN DIGIT SIX    | -  |  |  |  |  | SIX   | SIX   |    |    |     |
| 23 | ᠑ | MONGOLIAN DIGIT SEVEN  | -  |  |  |  |  | SEVEN | SEVEN |    |    |     |
| 24 | ᠕ | MONGOLIAN DIGIT EIGHT  | -  |  |  |  |  | EIGHT | EIGHT |    |    |     |
| 25 | ᠑ | MONGOLIAN DIGIT NINE   | -  |  |  |  |  | NINE  | NINE  |    |    |     |
| 32 | ᠰ | MONGOLIAN LETTER A     | -  |  |  |  |  | A     | A     | A  | A  | MC0 |
|    |   |                        | 33 |  |  |  |  | A     |       |    |    | MC1 |
|    |   |                        |    |  |  |  |  | A     |       |    |    | MC2 |
|    |   |                        |    |  |  |  |  | A     | A     | A  | A  | MC3 |
|    |   |                        |    |  |  |  |  | A     | A     | A  | A  | MC4 |
|    |   |                        |    |  |  |  |  | A     |       |    |    | 7   |







# Mongolian Reference Table

Table 3

|    |          |                     |      | 3 | ᠣ | FIRST FINAL FORM  | o  | ue | o | o | ᠣ | MC4 | 17 |
|----|----------|---------------------|------|---|---|-------------------|----|----|---|---|---|-----|----|
|    |          |                     |      | 4 | ᠤ | SECOND FINAL FORM | o  | ue |   |   |   | MC5 | 18 |
| 36 | ᠮᠣᠩᠭᠣᠯᠢᠨ | MONGOLIAN LETTER U  | -    |   |   |                   | U  |    |   |   |   | MC0 |    |
|    |          |                     | 35   |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | U  |    |   |   |   | MC1 |    |
|    |          |                     | 35-1 |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | U  |    |   |   |   | MC2 |    |
|    |          |                     | 35-2 |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | U  |    |   |   |   | MC3 |    |
|    |          |                     | 35-3 |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | U  |    |   |   |   | MC4 |    |
| 37 | ᠮᠣᠩᠭᠣᠯᠢᠨ | MONGOLIAN LETTER OE | -    |   |   |                   | OE |    |   | U | U | MC0 |    |
|    |          |                     | 38   |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | OE |    |   | U | U | MC1 |    |
|    |          |                     | 97   |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | OE |    |   | U | U | MC2 |    |
|    |          |                     | 35-1 |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | OE |    |   |   |   | MC3 |    |
|    |          |                     |      | 1 |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | OE |    |   |   |   | MC4 | 19 |
|    |          |                     | 35-3 |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | OE |    |   |   |   | MC5 |    |
|    |          |                     |      | 2 |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | OE |    |   |   |   | MC6 | 20 |
| 38 | ᠮᠣᠩᠭᠣᠯᠢᠨ | MONGOLIAN LETTER UE | -    |   |   |                   | UE |    |   |   |   | MC0 |    |
|    |          |                     | 37   |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | UE |    |   |   |   | MC1 |    |
|    |          |                     | 73   |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | UE |    |   |   |   | MC2 |    |
|    |          |                     | 97   |   |   | ᠮᠣᠩᠭᠣᠯᠢᠨ          | UE |    |   |   |   | MC3 |    |

# Mongolian Reference Table

Table 3

|    |   |  |                      |      |   |                      |     |     |     |     |   |     |    |
|----|---|--|----------------------|------|---|----------------------|-----|-----|-----|-----|---|-----|----|
|    |   |  |                      | 35-1 | ᠠ | SECOND MEDIAL FORM   | UE  |     |     |     | ᠠ | MC4 |    |
|    |   |  |                      | 37-1 | ᠢ | THIRD MEDIAL FORM    | UE  |     |     |     | ᠢ | MC5 |    |
|    |   |  |                      | 35-3 | ᠣ | FIRST FINAL FORM     | UE  |     |     |     | ᠣ | MC6 |    |
|    |   |  |                      | 37-2 | ᠤ | SECOND FINAL FORM    | UE  |     |     |     | ᠤ | MC7 |    |
| 39 | ᠠ |  | MONGOLIAN LETTER EE  | -    |   | ISOLATE FORM         | EE  |     |     |     |   | MC0 |    |
|    |   |  |                      | 1    | ᠠ | INITIAL FORM         | EE  |     |     |     | ᠠ | MC1 | 21 |
|    |   |  |                      | 2    | ᠡ | MEDIAL FORM          | EE  |     |     |     | ᠡ | MC2 | 22 |
|    |   |  |                      | 3    | ᠢ | FINAL FORM           | EE  |     |     |     | ᠢ | MC3 | 23 |
| 40 | ᠡ |  | MONGOLIAN LETTER NA  | -    |   | INITIAL FORM         | NA  | NA  | NA  | NA  |   | MC0 |    |
|    |   |  |                      | 1    | ᠡ | MEDIAL FORM WITH DOT | NA  | NA  | NA  | NA  | ᠡ | MC1 | 24 |
|    |   |  |                      | 32-2 | ᠢ | MEDIAL FORM          | NA  | NA  | NA  | NA  | ᠢ | MC2 |    |
|    |   |  |                      | 2    | ᠢ | FINAL FORM WITH DOT  | NA  | NA  | NA  | NA  | ᠢ | MC3 | 25 |
|    |   |  |                      | 32-5 | ᠢ | FINAL FORM           | NA  | NA  | NA  | NA  | ᠢ | MC4 |    |
| 41 | ᠢ |  | MONGOLIAN LETTER ANG | -    |   | MEDIAL FORM          | ANG | ANG | ANG | ANG |   | MC0 |    |
|    |   |  |                      | 1    | ᠢ | FINAL FORM           | ANG |     |     |     | ᠢ | MC1 | 26 |
| 42 | ᠣ |  | MONGOLIAN LETTER BA  | -    |   | INITIAL FORM         | BA  | BA  | BA  | BA  |   | MC0 |    |
|    |   |  |                      | 42   | ᠣ | MEDIAL FORM          | BA  | BA  | BA  | BA  | ᠣ | MC1 |    |
|    |   |  |                      | 1    | ᠣ | FINAL FORM           | BA  |     |     |     | ᠣ | MC2 | 27 |
|    |   |  |                      | 75   | ᠣ | OLD FINAL FORM       | BA  | BA  | BA  | BA  | ᠣ | MC3 |    |



## Mongolian Reference Table

|    |   |                     |      |   |   |                             |    |  |    |  |     |    |
|----|---|---------------------|------|---|---|-----------------------------|----|--|----|--|-----|----|
| 43 | ᠠ | MONGOLIAN LETTER PA | -    |   |   | INITIAL FORM                | PA |  |    |  | MC0 |    |
|    |   |                     | 43   | ᠠ |   | MEDIAL FORM                 | PA |  |    |  | MC1 |    |
|    |   |                     |      | ᠠ | 1 | FINAL FORM                  | PA |  |    |  | MC2 | 28 |
| 44 | ᠡ | MONGOLIAN LETTER QA | -    |   |   | MASCULINE INITIAL FORM      | QA |  | KA |  | MC0 |    |
|    |   |                     | 32-4 | ᠡ |   | MASCULINE MEDIAL FORM       | QA |  | KA |  | MC1 |    |
|    |   |                     |      | ᠡ | 1 | FINAL FORM                  | QA |  |    |  | MC2 | 29 |
|    |   |                     |      | ᠡ | 2 | FEMININE INITIAL FORM       | QA |  | KA |  | MC3 | 30 |
|    |   |                     |      | ᠡ | 3 | MEDIAL FORM WITH DOTS       | QA |  |    |  | MC4 | 31 |
| 45 | ᠢ | MONGOLIAN LETTER GA | -    |   |   | MASCULINE INITIAL FORM      | GA |  |    |  | MC0 |    |
|    |   |                     |      | ᠢ | 1 | MEDIAL FORM WITH DOTS       | GA |  | KA |  | MC1 | 32 |
|    |   |                     | 32-4 | ᠢ |   | MASCULINE MEDIAL FORM       | GA |  |    |  | MC2 |    |
|    |   |                     |      | ᠢ | 2 | FINAL FORM WITH DOTS        | GA |  |    |  | MC3 | 33 |
|    |   |                     | 44-1 | ᠢ |   | MASCULINE FINAL FORM        | GA |  |    |  | MC4 |    |
|    |   |                     | 44-2 | ᠢ |   | FEMININE INITIAL FORM       | GA |  |    |  | MC5 |    |
|    |   |                     | 44-2 | ᠢ |   | FEMININE MEDIAL FORM        | GA |  |    |  | MC6 |    |
|    |   |                     |      | ᠢ | 3 | FEMININE SECOND MEDIAL FORM | GA |  |    |  | MC7 | 34 |
|    |   |                     |      | ᠢ | 4 | FEMININE FINAL FORM         | GA |  | GA |  | MC8 | 35 |
| 46 | ᠣ | MONGOLIAN LETTER MA | -    |   |   | INITIAL FORM                | MA |  | MA |  | MC0 |    |
|    |   |                     |      | ᠣ | 1 | MEDIAL FORM                 | MA |  | MA |  | MC1 | 36 |
|    |   |                     |      | ᠣ | 2 | FINAL FORM                  | MA |  | MA |  | MC2 | 37 |



## Mongolian Reference Table

|    |   |                      |    |   |   |                     |     |     |     |     |     |     |    |
|----|---|----------------------|----|---|---|---------------------|-----|-----|-----|-----|-----|-----|----|
| 47 | ᠠ | MONGOLIAN LETTER LA  | -  |   |   | INITIAL FORM        | LA  | LA  | LA  | LA  | LA  | MC0 | 38 |
|    |   |                      |    | 1 | ᠠ | MEDIAL FORM         | LA  | LA  | LA  | LA  | LA  | MC1 |    |
|    |   |                      |    | 2 | ᠡ | FINAL FORM          | LA  | LA  | LA  | LA  | LA  | MC2 | 39 |
| 48 | ᠡ | MONGOLIAN LETTER SA  | -  |   |   | INITIAL FORM        | SA  | SA  | SA  | SA  | SA  | MC0 |    |
|    |   |                      |    | 1 | ᠢ | MEDIAL FORM         | SA  | SA  | SA  | SA  | SA  | MC1 | 40 |
|    |   |                      |    | 2 | ᠣ | FINAL FORM          | SA  | SA  | SA  | SA  | SA  | MC2 | 41 |
|    |   |                      |    | 3 | ᠤ | OLD FINAL FORM      | SA  |     |     |     |     | MC3 | 42 |
| 49 | ᠢ | MONGOLIAN LETTER SHA | -  |   |   | INITIAL FORM        | SHA | SHA | SHA | SHA | SHA | MC0 |    |
|    |   |                      |    | 1 | ᠢ | MEDIAL FORM         | SHA | SHA | SHA | SHA | SHA | MC1 | 43 |
|    |   |                      |    | 2 | ᠣ | FINAL FORM          | SHA |     |     |     |     | MC2 | 44 |
| 50 | ᠣ | MONGOLIAN LETTER TA  | -  |   |   | INITIAL FORM        | TA  | TA  | TA  | TA  | TA  | MC0 |    |
|    |   |                      | 51 |   | ᠣ | FIRST MEDIAL FORM   | TA  | TA  | TA  | TA  | TA  | MC1 |    |
|    |   |                      |    | 1 | ᠣ | SECOND MEDIAL FORM  | TA  |     |     |     |     | MC2 | 45 |
|    |   |                      |    | 2 | ᠣ | FINAL FORM          | TA  |     |     |     |     | MC3 | 46 |
| 51 | ᠣ | MONGOLIAN LETTER DA  | -  |   |   | FIRST INITIAL FORM  | DA  | DA  | DA  | DA  | DA  | MC0 |    |
|    |   |                      | 50 |   | ᠣ | SECOND INITIAL FORM | DA  |     |     |     |     | MC1 |    |
|    |   |                      | 51 |   | ᠣ | FIRST MEDIAL FORM   | DA  |     |     |     |     | MC2 |    |
|    |   |                      |    | 1 | ᠣ | SECOND MEDIAL FORM  | DA  | TA  | TA  | TA  | TA  | MC3 | 47 |
|    |   |                      |    | 2 | ᠣ | FIRST FINAL FORM    | DA  | TA  | TA  | TA  | TA  | MC4 | 48 |
|    |   |                      |    | 3 | ᠣ | FINAL FORM          | DA  |     |     |     |     | MC5 | 49 |

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Table 3

|    |   |                      |      |   |   |  |                     |     |    |     |       |     |    |
|----|---|----------------------|------|---|---|--|---------------------|-----|----|-----|-------|-----|----|
| 52 | ᠠ | MONGOLIAN LETTER CHA | -    |   |   |  | INITIAL FORM        | CHA | TS | CHA | CHA   | MC0 |    |
|    |   |                      |      | 1 | ᠠ |  | MEDIAL FORM         | CHA | TS | CHA | CHA   | MC1 | 50 |
|    |   |                      |      | 2 | ᠡ |  | FINAL FORM          | CHA |    | CHA | CHA   | MC2 | 51 |
| 53 | ᠢ | MONGOLIAN LETTER JA  | -    |   |   |  | INITIAL FORM        | JA  |    | JA  | JA    | MC0 |    |
|    |   |                      |      | 1 | ᠢ |  | FIRST MEDIAL FORM   | JA  |    |     | JA    | MC1 | 52 |
|    |   |                      | 34-2 |   | ᠣ |  | FIRST FINAL FORM    | JA  |    |     |       | MC2 |    |
|    |   |                      |      | 2 | ᠣ |  | SECOND FINAL FORM   | JA  |    |     |       | MC3 | 53 |
| 54 | ᠣ | MONGOLIAN LETTER YA  | -    |   |   |  | FIRST INITIAL FORM  | YA  |    | YA  | YA    | MC0 |    |
|    |   |                      | 53   |   | ᠣ |  | SECOND INITIAL FORM | YA  |    |     |       | MC1 |    |
|    |   |                      | 54   |   | ᠣ |  | FIRST MEDIAL FORM   | YA  |    | YA  | YA    | MC2 |    |
|    |   |                      | 53   |   | ᠣ |  | SECOND MEDIAL FORM  | YA  |    |     |       | MC3 |    |
|    |   |                      | 34-2 |   | ᠣ |  | FINAL FORM          | YA  |    |     |       | MC4 |    |
| 55 | ᠣ | MONGOLIAN LETTER RA  | -    |   |   |  | INITIAL FORM        | RA  | RA | RA  | RA    | MC0 |    |
|    |   |                      | 55   |   | ᠣ |  | MEDIAL FORM         | RA  | RA | RA  | RA    | MC1 |    |
|    |   |                      |      | 1 | ᠣ |  | FINAL FORM          | RA  | RA | RA  | RA    | MC2 | 54 |
| 56 | ᠣ | MONGOLIAN LETTER WA  | -    |   |   |  | INITIAL FORM        | WA  | FA | WA  | WA,FA | MC0 |    |
|    |   |                      | 56   |   | ᠣ |  | MEDIAL FORM         | WA  | FA | WA  | WA,FA | MC1 |    |
|    |   |                      |      | 1 | ᠣ |  | FIRST FINAL FORM    | WA  |    |     |       | MC2 | 55 |
|    |   |                      | 35-3 |   | ᠣ |  | SECOND FINAL FORM   | WA  |    |     |       | MC3 |    |
| 57 | ᠣ | MONGOLIAN LETTER FA  | -    |   |   |  | INITIAL FORM        | FA  |    |     |       | MC0 |    |



# Mongolian Reference Table

Table 3

|    |   |                      | 57 | ᠋ | MEDIAL FORM  | FA  |     |    |  | MC1 |    |
|----|---|----------------------|----|---|--------------|-----|-----|----|--|-----|----|
|    |   |                      |    | ᠋ | FINAL FORM   | FA  |     |    |  | MC2 | 56 |
| 58 | ᠋ | MONGOLIAN LETTER KA  | -  |   | INITIAL FORM | KA  |     | KA |  | MC0 |    |
|    |   |                      | 58 | ᠋ | MEDIAL FORM  | KA  |     | KA |  | MC1 |    |
|    |   |                      |    | ᠋ | FINAL FORM   | KA  |     |    |  | MC2 | 57 |
| 59 | ᠋ | MONGOLIAN LETTER CHA | -  |   | INITIAL FORM | KHA | QA  |    |  | MC0 |    |
|    |   |                      | 58 | ᠋ | MEDIAL FORM  | KHA | QA  |    |  | MC1 |    |
|    |   |                      |    | ᠋ | FINAL FORM   | KHA | QA  |    |  | MC2 | 58 |
| 60 | ᠋ | MONGOLIAN LETTER TSA | -  |   | INITIAL FORM | TSA |     |    |  | MC0 |    |
|    |   |                      |    | ᠋ | MEDIAL FORM  | TSA |     |    |  | MC1 | 59 |
|    |   |                      |    | ᠋ | FINAL FORM   | TSA |     |    |  | MC2 | 60 |
| 61 | ᠋ | MONGOLIAN LETTER ZA  | -  |   | INITIAL FORM | ZA  |     |    |  | MC0 |    |
|    |   |                      |    | ᠋ | MEDIAL FORM  | ZA  |     |    |  | MC1 | 61 |
|    |   |                      |    | ᠋ | FINAL FORM   | ZA  |     |    |  | MC2 | 62 |
| 62 | ᠋ | MONGOLIAN LETTER HAA | -  |   | INITIAL FORM | HAA | HAA |    |  | MC0 |    |
|    |   |                      |    | ᠋ | MEDIAL FORM  | HAA |     |    |  | MC1 | 63 |
|    |   |                      |    | ᠋ | FINAL FORM   |     |     |    |  | MC2 | 64 |
| 63 | ᠋ | MONGOLIAN LETTER ZRA | -  |   | INITIAL FORM | ZRA |     |    |  | MC0 |    |
|    |   |                      | 63 | ᠋ | MEDIAL FORM  | ZRA |     |    |  | MC1 |    |
|    |   |                      |    | ᠋ | FINAL FORM   | ZRA |     |    |  | MC2 | 65 |



# Mongolian Reference Table

Table 3

|    |   |                                       |   |   |   |  |                    |     |     |   |     |    |
|----|---|---------------------------------------|---|---|---|--|--------------------|-----|-----|---|-----|----|
| 64 | ᠵ | MONGOLIAN LETTER LHA                  | - |   |   |  | INITIAL FORM       | LHA | LHA |   | MC0 |    |
|    |   |                                       |   | 1 | ᠵ |  | MEDIAL FORM        | LHA |     | ᠵ | MC1 | 66 |
| 65 | ᠶ | MONGOLIAN LETTER ZHI                  | - |   |   |  | INITIAL FORM       | LHI |     |   |     |    |
| 66 | ᠷ | MONGOLIAN LETTER CHI                  | - |   |   |  | INITIAL FORM       | CHI |     |   |     |    |
| 67 | ᠸ | MONGOLIAN LETTER TODO LONG VOWEL SIGN | - |   |   |  | MEDIAL FORM        |     | LVS |   | MC0 |    |
|    |   |                                       |   | 1 | ᠸ |  | FINAL FORM         |     | LVS | ᠸ | MC1 | 67 |
| 68 | ᠾ | MONGOLIAN LETTER TODO E               | - |   |   |  | INITIAL FORM       |     | E   |   | MC0 |    |
|    |   |                                       |   | 1 | ᠾ |  | NON-FINAL FORM     |     | E   | ᠾ | MC1 | 68 |
|    |   |                                       |   | 2 | ᠾ |  | MEDIAL FORM        |     | E   | ᠾ | MC2 | 69 |
| 69 | ᠿ | MONGOLIAN LETTER TODO I               | - |   |   |  | ISOLATE FORM       |     | I   |   | MC0 |    |
|    |   |                                       |   | 1 | ᠿ |  | INITIAL FORM       |     | I   | ᠿ | MC1 | 70 |
|    |   |                                       |   | 2 | ᠿ |  | FIRST MEDIAL FORM  |     | I   | ᠿ | MC2 | 71 |
|    |   |                                       |   | 3 | ᠿ |  | SECOND MEDIAL FORM |     | I   | ᠿ | MC3 | 72 |
|    |   |                                       |   | 4 | ᠿ |  | FINAL FORM         |     | I   | ᠿ | MC4 | 73 |
| 70 | ᠻ | MONGOLIAN LETTER TODO O               | - |   |   |  | ISOLATE FORM       |     | O   |   | MC0 |    |
|    |   |                                       |   | 1 | ᠻ |  | INITIAL FORM       |     | O   | ᠻ | MC1 | 74 |
|    |   |                                       |   | 2 | ᠻ |  | FIRST MEDIAL FORM  |     | O   | ᠻ | MC2 | 75 |
|    |   |                                       |   | 3 | ᠻ |  | SECOND MEDIAL FORM |     | O   | ᠻ | MC3 | 76 |
|    |   |                                       |   | 4 | ᠻ |  | FINAL FORM         |     | O   | ᠻ | MC4 | 77 |

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|         |         |          |
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|    |   |                           |      |   |   |  |                       |    |     |  |  |     |
|----|---|---------------------------|------|---|---|--|-----------------------|----|-----|--|--|-----|
| 74 | ᠠ | MONGOLIAN LETTER TODO ANG | -    |   |   |  | FINAL FORM            |    | ANG |  |  | MC0 |
|    |   |                           | 41   | ᠠ |   |  | MEDIAL FORM           |    | ANG |  |  | MC1 |
| 75 | ᠡ | MONGOLIAN LETTER TODO BA  | -    |   |   |  | FINAL FORM            | BA | BA  |  |  | MC0 |
|    |   |                           | 42   | ᠡ |   |  | INITIAL FORM          |    | BA  |  |  | MC1 |
|    |   |                           | 42   | ᠡ |   |  | MEDIAL FORM           |    | BA  |  |  | MC2 |
| 76 | ᠢ | MONGOLIAN LETTER TODO PA  | -    |   |   |  | INITIAL FORM          |    | PA  |  |  | MC0 |
|    |   |                           | 76   | ᠢ |   |  | MEDIAL FORM           |    | PA  |  |  | MC1 |
|    |   |                           |      | ᠢ |   |  | FINAL FORM            |    | PA  |  |  | MC2 |
| 77 | ᠣ | MONGOLIAN LETTER TODO QA  | -    |   |   |  | INITIAL FORM          |    | QA  |  |  | MC0 |
|    |   |                           | 45-1 | ᠣ |   |  | FIRST MEDIAL FORM     |    | QA  |  |  | MC1 |
|    |   |                           | 59   | ᠣ |   |  | FEMININE INITIAL FORM |    | QA  |  |  | MC2 |
|    |   |                           | 59   | ᠣ |   |  | FEMININE MEDIAL FORM  |    | QA  |  |  | MC3 |
|    |   |                           | 59-1 | ᠣ |   |  | FINAL FORM            |    | QA  |  |  | MC4 |
| 78 | ᠤ | MONGOLIAN LETTER TODO GA  | -    |   |   |  | INITIAL FORM          |    | GA  |  |  | MC0 |
|    |   |                           |      | ᠤ | 1 |  | FIRST MEDIAL FORM     |    | GA  |  |  | MC1 |
|    |   |                           |      | ᠤ | 2 |  | SECOND MEDIAL FORM    |    | GA  |  |  | MC2 |
|    |   |                           |      | ᠤ | 3 |  | FINAL FORM            |    | GA  |  |  | MC3 |
|    |   |                           | 44-2 | ᠤ |   |  | FEMININE INITIAL FORM |    | GA  |  |  | MC4 |
|    |   |                           | 44-2 | ᠤ |   |  | FEMININE MEDIAL FORM  |    | GA  |  |  | MC5 |
| 79 | ᠤ | MONGOLIAN LETTER TODO MA  | -    |   |   |  | FINAL FORM            |    | MA  |  |  | MC0 |

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|    |   |                           |      |   |              |  |     |  |   |     |    |
|----|---|---------------------------|------|---|--------------|--|-----|--|---|-----|----|
|    |   |                           | 46   | ᠠ | INITIAL FORM |  | MA  |  | ᠠ | MC1 |    |
|    |   |                           | 46-1 | ᠠ | MEDIAL FORM  |  | MA  |  | ᠠ | MC2 |    |
| 80 | ᠠ | MONGOLIAN LETTER TODO TA  | -    |   | INITIAL FORM |  | TA  |  |   | MC0 |    |
|    |   |                           | 80   | ᠠ | MEDIAL FORM  |  | TA  |  | ᠠ | MC1 |    |
|    |   |                           |      | 1 | FINAL FORM   |  | TA  |  | ᠠ | MC2 | 91 |
| 81 | ᠡ | MONGOLIAN LETTER TODO DA  | -    |   |              |  | DA  |  |   |     |    |
| 82 | ᠢ | MONGOLIAN LETTER TODO CA  | -    |   | INITIAL FORM |  | CA  |  |   | MC0 |    |
|    |   |                           |      | 1 | MEDIAL FORM  |  | CA  |  | ᠢ | MC1 | 92 |
|    |   |                           |      | 2 | FINAL FORM   |  | CA  |  | ᠢ | MC2 | 93 |
| 83 | ᠣ | MONGOLIAN LETTER TODO JA  | -    |   | INITIAL FORM |  | JA  |  |   | MC0 |    |
|    |   |                           |      | 1 | MEDIAL FORM  |  | JA  |  | ᠣ | MC1 | 94 |
|    |   |                           |      | 2 | FINAL FORM   |  | JA  |  | ᠣ | MC2 | 95 |
| 84 | ᠤ | MONGOLIAN LETTER TODO TSA | -    |   | INITIAL FORM |  | TSA |  |   | MC0 |    |
|    |   |                           | 53-1 | ᠤ | MEDIAL FORM  |  | TSA |  | ᠤ | MC1 |    |
|    |   |                           | 53-2 | ᠤ | FINAL FORM   |  | TSA |  | ᠤ | MC2 |    |
| 85 | ᠥ | MONGOLIAN LETTER TODO YA  | -    |   | INITIAL FORM |  | YA  |  |   | MC0 |    |
|    |   |                           | 85   | ᠥ | MEDIAL FORM  |  | YA  |  | ᠥ | MC1 |    |
| 86 | ᠦ | MONGOLIAN LETTER TODO WA  | -    |   | INITIAL FORM |  | WA  |  |   | MC0 |    |
|    |   |                           | 86   | ᠦ | MEDIAL FORM  |  | WA  |  | ᠦ | MC1 |    |
|    |   |                           |      | 1 | FINAL FORM   |  | WA  |  | ᠦ | MC2 | 96 |



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|    |   |                           |      |   |  |                    |   |     |   |   |     |     |
|----|---|---------------------------|------|---|--|--------------------|---|-----|---|---|-----|-----|
| 87 | ᠠ | MONGOLIAN LETTER TODO KA  | -    |   |  | INITIAL FORM       |   | KA  |   |   | MC0 |     |
|    |   |                           | -    |   |  | MEDIAL FORM        | ᠠ | KA  |   |   | MC1 |     |
|    |   |                           |      | 1 |  | FINAL FORM         | ᠡ | KA  |   |   | MC2 | 97  |
| 88 | ᠡ | MONGOLIAN LETTER TODO GAA | -    |   |  |                    |   | GAA |   |   |     |     |
| 89 | ᠢ | MONGOLIAN LETTER TODO HAA | -    |   |  | FINAL FORM         |   |     |   |   | MC0 |     |
|    |   |                           | 62   |   |  | INITIAL FORM       | ᠢ | HAA |   |   | MC1 |     |
|    |   |                           |      | 1 |  | MEDIAL FORM        | ᠣ | HAA |   |   | MC2 | 98  |
| 90 | ᠣ | MONGOLIAN LETTER TODO JIA | -    |   |  |                    |   | JIA |   |   |     |     |
| 91 | ᠤ | MONGOLIAN LETTER TODO NIA | -    |   |  |                    |   | NIA |   |   |     |     |
| 92 | ᠤ | MONGOLIAN LETTER TODO DZA | -    |   |  | INITIAL FORM       |   | DZA |   |   | MC0 |     |
|    |   |                           |      | 1 |  | MEDIAL FORM        | ᠤ | DZA |   |   | MC1 | 99  |
| 93 | ᠥ | MONGOLIAN LETTER SIBE E   | -    |   |  | FIRST FINAL FORM   |   |     | E | E | MC0 |     |
|    |   |                           | 33   |   |  | ISOLATE FORM       | ᠥ |     | E |   | MC1 |     |
|    |   |                           | 32-3 |   |  | INITIAL FORM       | ᠥ |     | E |   | MC2 |     |
|    |   |                           |      | 1 |  | FIRST MEDIAL FORM  | ᠥ |     | E | E | MC3 | 100 |
|    |   |                           | 32-2 |   |  | SECOND MEDIAL FORM | ᠥ |     | E |   | MC4 |     |
|    |   |                           | 32-5 |   |  | SECOND FINAL FORM  | ᠥ |     | E |   | MC5 |     |
| 94 | ᠦ | MONGOLIAN LETTER SIBE I   | -    |   |  | SECOND MEDIAL FORM |   |     | I |   | MC0 |     |
|    |   |                           | 34   |   |  | ISOLATE FORM       | ᠦ |     | I |   | MC1 |     |

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|    |   |                           |      |   |                    |  |  |     |    |     |     |
|----|---|---------------------------|------|---|--------------------|--|--|-----|----|-----|-----|
|    |   |                           | 34-1 | ᠠ | INITIAL FORM       |  |  |     | ᠠ  | MC2 |     |
|    |   |                           | 53   | ᠠ | FIRST MEDIAL FORM  |  |  | ᠠ   | ᠠ  | MC3 |     |
|    |   |                           | 34-2 | ᠡ | FIRST FINAL FORM   |  |  | ᠠ   | ᠠ  | MC4 |     |
|    |   |                           | 1    | ᠠ | SECOND FINAL FORM  |  |  | ᠠ   | ᠠ  | MC5 | 101 |
| 95 | ᠠ | MONGOLIAN LETTER SIBE IY  | -    |   | MEDIAL FORM        |  |  | ᠠ   |    | MC0 |     |
|    |   |                           | 1    | ᠠ | FINAL FORM         |  |  | ᠠ   | ᠠ  | MC1 | 102 |
| 96 | ᠡ | MONGOLIAN LETTER SIBE UE  | -    |   | ISOLATE FORM       |  |  | UE  | UE | MC0 |     |
|    |   |                           | 1    | ᠡ | INITIAL FORM       |  |  | UE  | ᠡ  | MC1 | 103 |
|    |   |                           | 2    | ᠡ | FIRST MEDIAL FORM  |  |  | UE  | ᠡ  | MC2 | 104 |
|    |   |                           | 35-1 | ᠡ | SECOND MEDIAL FORM |  |  | UE  | ᠡ  | MC3 |     |
|    |   |                           | 3    | ᠡ | FIRST FINAL FORM   |  |  | UE  | ᠡ  | MC4 | 105 |
|    |   |                           | 35-3 | ᠡ | SECOND FINAL FORM  |  |  | UE  | ᠡ  | MC5 |     |
| 97 | ᠢ | MONGOLIAN LETTER SIBE U   | -    |   | MEDIAL FORM        |  |  | U   | U  | MC0 |     |
|    |   |                           | 37   | ᠢ | ISOLATE FORM       |  |  |     | U  | MC1 |     |
|    |   |                           | 38   | ᠢ | INITIAL FORM       |  |  |     | U  | MC2 |     |
|    |   |                           | 37-2 | ᠢ | FINAL FORM         |  |  | U   | ᠢ  | MC3 |     |
| 98 | ᠣ | MONGOLIAN LETTER SIBE ANG | -    |   | FINAL FORM         |  |  | ANG |    | MC0 |     |
|    |   |                           | 41   | ᠣ | MEDIAL FORM        |  |  | ANG | ᠣ  | MC1 |     |



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|     |  |                           |       |  |   |  |  |  |     |     |  |     |
|-----|--|---------------------------|-------|--|---|--|--|--|-----|-----|--|-----|
| 99  |  | MONGOLIAN LETTER SIBE KA  | -     |  |   |  |  |  | KA  |     |  | MC0 |
|     |  |                           | 44    |  |   |  |  |  | KA  |     |  | MC1 |
|     |  |                           | 32-4  |  |   |  |  |  | KA  |     |  | MC2 |
|     |  |                           |       |  | 1 |  |  |  | KA  |     |  | MC3 |
|     |  |                           | 44-2  |  |   |  |  |  | KA  |     |  | MC4 |
|     |  |                           | 44-2  |  |   |  |  |  | KA  |     |  | MC5 |
| 100 |  | MONGOLIAN LETTER SIBE GA  | -     |  |   |  |  |  | GA  | GA  |  | MC0 |
|     |  |                           |       |  | 1 |  |  |  | GA  | GA  |  | MC1 |
|     |  |                           |       |  | 2 |  |  |  | GA  | GA  |  | MC2 |
|     |  |                           | 100-2 |  |   |  |  |  | GA  | GA  |  | MC3 |
| 101 |  | MONGOLIAN LETTER SIBE QA  | -     |  |   |  |  |  | HA  | HA  |  | MC0 |
|     |  |                           |       |  | 1 |  |  |  | HA  | HA  |  | MC1 |
|     |  |                           |       |  | 2 |  |  |  | HA  | HA  |  | MC2 |
|     |  |                           | 101-2 |  |   |  |  |  | HA  | HA  |  | MC3 |
| 102 |  | MONGOLIAN LETTER SIBE PA  | -     |  |   |  |  |  | PA  | PA  |  |     |
| 103 |  | MONGOLIAN LETTER SIBE SHA | -     |  |   |  |  |  | SHA | SHA |  | MC0 |
|     |  |                           |       |  | 1 |  |  |  | SHA | SHA |  | MC1 |
|     |  |                           |       |  | 2 |  |  |  | SHA | SHA |  | MC2 |
| 104 |  | MONGOLIAN LETTER SIBE TA  | -     |  |   |  |  |  | TA  | TA  |  | MC0 |
|     |  |                           | 50    |  |   |  |  |  | TA  | TA  |  | MC1 |

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|     |   |                           |     |   |                             |  |  |     |   |     |     |
|-----|---|---------------------------|-----|---|-----------------------------|--|--|-----|---|-----|-----|
|     |   |                           | 51  | ᠠ | FIRST MEDIAL FORM           |  |  | TA  | ᠠ | MC2 |     |
|     |   |                           | 1   | ᠠ | SECOND MEDIAL FORM          |  |  | TA  | ᠠ | MC3 | 113 |
|     |   | 51-1                      |     | ᠡ | THIRD MEDIAL FORM           |  |  | TA  | ᠡ | MC4 |     |
|     |   | 51-2                      |     | ᠢ | FINAL FORM                  |  |  | TA  | ᠢ | MC5 |     |
| 105 | ᠠ | MONGOLIAN LETTER SIBE DA  | -   |   | FIRST INITIAL FORM          |  |  | DA  | ᠠ | MC0 |     |
|     |   |                           | 1   | ᠠ | SECOND INITIAL FORM         |  |  | DA  | ᠠ | MC1 | 114 |
|     |   |                           | 2   | ᠡ | FIRST MEDIAL FORM           |  |  | TA  | ᠡ | MC2 | 115 |
|     |   |                           | 3   | ᠢ | SECOND MEDIAL FORM          |  |  | DA  | ᠢ | MC3 | 116 |
| 106 | ᠡ | MONGOLIAN LETTER SIBE JA  | -   |   | MEDIAL FORM                 |  |  | JA  |   | MC0 |     |
|     |   |                           | 53  | ᠡ | INITIAL FORM                |  |  | JA  | ᠡ | MC1 |     |
| 107 | ᠢ | MONGOLIAN LETTER SIBE FA  | -   |   | INITIAL FORM                |  |  | FA  | ᠢ | MC0 |     |
|     |   |                           | 118 | ᠢ | MEDIAL FORM                 |  |  | FA  | ᠢ | MC1 |     |
| 108 | ᠣ | MONGOLIAN LETTER SIBE GAA | -   |   | INITIAL, MEDIAL, FINAL FORM |  |  | GAA |   |     |     |
| 109 | ᠣ | MONGOLIAN LETTER SIBE HAA | -   |   | INITIAL, MEDIAL, FINAL FORM |  |  | HAA |   |     |     |
| 110 | ᠤ | MONGOLIAN LETTER SIBE TSA | -   |   | INITIAL FORM                |  |  | TSA |   | MC0 |     |
|     |   |                           | 1   | ᠤ | MEDIAL FORM                 |  |  | TSA | ᠤ | MC1 | 117 |
| 111 | ᠤ | MONGOLIAN LETTER SIBE ZA  | -   |   | FIRST INITIAL FORM          |  |  | ZA  | ᠤ | MC0 |     |
|     |   |                           | 1   | ᠤ | FIRST MEDIAL FORM           |  |  | ZA  | ᠤ | MC1 | 118 |
|     |   |                           | 2   | ᠥ | SECOND INITIAL FORM         |  |  | ZA  | ᠥ | MC2 | 119 |
|     |   |                           | 3   | ᠦ | SECOND MEDIAL FORM          |  |  | ZA  | ᠦ | MC3 | 120 |



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|     |   |  |                                      | 2   | 3 | FEMININE FINAL FORM<br>FEMININE FINAL FORM WITH<br>DOTS |  |     |     | KA  | MC8 | 124 |
|-----|---|--|--------------------------------------|-----|---|---------------------------------------------------------|--|-----|-----|-----|-----|-----|
|     |   |  |                                      |     |   |                                                         |  |     |     | KA  | MC9 | 125 |
| 117 | ᠠ |  | MONGOLIAN LETTER MANCHU RA           | -   |   |                                                         |  |     |     | RA  | MC0 |     |
|     |   |  |                                      | 55  |   | ᠠ                                                       |  |     |     | RA  | MC1 |     |
|     |   |  |                                      | 55  |   | ᠠ                                                       |  |     |     | RA  | MC2 |     |
| 118 | ᠡ |  | MONGOLIAN LETTER MANCHU FA           | -   |   |                                                         |  |     |     | FA  | MC0 |     |
|     |   |  |                                      | 107 |   | ᠡ                                                       |  |     |     | FA  | MC1 |     |
|     |   |  |                                      | 56  |   | ᠡ                                                       |  |     |     | FA  | MC2 |     |
|     |   |  |                                      | 56  |   | ᠡ                                                       |  |     |     | FA  | MC3 |     |
| 119 | ᠢ |  | MONGOLIAN LETTER MANCHU ZHA          | -   |   |                                                         |  |     |     | ZHA | MC0 |     |
|     |   |  |                                      |     | 1 | ᠢ                                                       |  |     |     | ZHA | MC1 | 126 |
| 128 | ᠣ |  | MONGOLIAN LETTER AG ANUSVARA ONE     | -   |   |                                                         |  | AN  |     | AN  |     |     |
| 129 | ᠤ |  | MONGOLIAN LETTER AG ANUSVARA TWO     | -   |   |                                                         |  | AN  |     |     |     |     |
| 130 | ᠤ |  | MONGOLIAN LETTER AG VISARGA ONE      | -   |   |                                                         |  | VI  | VI  | VI  |     |     |
| 131 | ᠤ |  | MONGOLIAN LETTER AG VISARGA TWO      | -   |   |                                                         |  | VO  |     |     |     |     |
| 132 | ᠤ |  | MONGOLIAN LETTER AG DAMARU           | -   |   |                                                         |  | DAM | DAM | DAM |     |     |
| 133 | ᠤ |  | MONGOLIAN LETTER AG UBADAMA          | -   |   |                                                         |  | UB  | UB  | UB  |     |     |
| 134 | ᠤ |  | MONGOLIAN LETTER AG INVERTED UBADAMA | -   |   |                                                         |  | IU  | IU  | IU  |     |     |
| 135 | ᠤ |  | MONGOLIAN LETTER AG BALUDA           | -   |   |                                                         |  | BAL | BAL | BAL |     |     |
| 136 | ᠤ |  | MONGOLIAN LETTER AG THREE BALUDA     | -   |   |                                                         |  | TB  | TB  | TB  |     |     |



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|     |   |                          |       |   |   |                      |   |      |      |   |   |     |     |
|-----|---|--------------------------|-------|---|---|----------------------|---|------|------|---|---|-----|-----|
| 137 | ᠠ | MONGOLIAN LETTER AG A    | -     | 1 | ᠠ | ISOLATE FORM         |   |      |      | A |   | MC0 | 127 |
|     |   |                          |       | 2 | ᠡ | FINAL SHORT FORM     | A |      |      |   | ᠠ | MC1 | 128 |
|     |   |                          |       | 3 | ᠢ | FINAL FORWARD FORM   | A | A    |      |   | ᠠ | MC2 | 129 |
|     |   |                          |       | 4 | ᠣ | FINAL FORM WITH SIDU | A | A    |      |   | ᠠ | MC3 | 130 |
|     |   |                          |       | 5 | ᠤ | FINAL SEPARATE FORM  | A |      |      |   | ᠠ | MC4 | 131 |
| 138 | ᠡ | MONGOLIAN LETTER AG I    | -     |   |   | ISOLATE FORM         |   | I    |      |   |   | MC0 |     |
|     |   |                          |       | 1 | ᠢ | FIRST FINAL FORM     | I |      |      |   | ᠢ | MC1 | 131 |
|     |   |                          | 115-1 |   | ᠣ | SECOND FINAL FORM    |   |      |      | I | ᠢ | MC2 | 132 |
| 139 | ᠢ | MONGOLIAN LETTER AG KA   | -     |   |   | INITIAL FORM         |   | KA   | GA   |   |   |     |     |
| 140 | ᠪ | MONGOLIAN LETTER AG NGA  | -     |   |   | INITIAL FORM         |   | NGA  | NGA  |   |   | MC0 |     |
|     |   |                          |       | 1 | ᠪ | INITIAL SHORT FORM   |   | NGA  | NGA  |   | ᠪ | MC1 | 133 |
|     |   |                          |       | 2 | ᠨ | MEDIAL FORM          |   | NGA  | NGA  |   | ᠨ | MC2 | 134 |
|     |   |                          |       | 3 | ᠭ | MEDIAL SHORT FORM    |   | NGA  | NGA  |   | ᠨ | MC3 | 135 |
| 141 | ᠣ | MONGOLIAN LETTER AG CA   | -     |   |   | INITIAL FORM         |   | CA   | CA   |   |   | MC0 |     |
|     |   |                          |       | 1 | ᠣ | MEDIAL FORM          |   | CA   | CA   |   | ᠣ | MC1 | 136 |
| 142 | ᠤ | MONGOLIAN LETTER AG TTA  | -     |   |   |                      |   | TTA  | TTA  |   |   |     |     |
| 143 | ᠮ | MONGOLIAN LETTER AG TTHA | -     |   |   |                      |   | TTHA | TTHA |   |   |     |     |
| 144 | ᠤ | MONGOLIAN LETTER AG DDA  | -     |   |   |                      |   | DDA  | DDA  |   |   |     |     |

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|     |   |                                |   |   |   |  |     |  |     |     |
|-----|---|--------------------------------|---|---|---|--|-----|--|-----|-----|
| 145 | ᠠ | MONGOLIAN LETTER AG NNA        | - |   |   |  | NNA |  |     |     |
| 146 | ᠲ | MONGOLIAN LETTER AG TA         | - |   |   |  | TA  |  |     |     |
| 147 | ᠳ | MONGOLIAN LETTER AG DA         | - |   |   |  | DA  |  |     |     |
| 148 | ᠠ | MONGOLIAN LETTER AG PA         | - |   |   |  | PA  |  |     |     |
| 149 | ᠠ | MONGOLIAN LETTER AG PHA        | - |   |   |  |     |  | PHA |     |
| 150 | ᠰ | MONGOLIAN LETTER AG SSA        | - |   |   |  | SSA |  |     | MC0 |
|     |   |                                |   | ᠰ | 1 |  | SSA |  | SSA | MC1 |
| 151 | ᠵ | MONGOLIAN LETTER AG ZHA        | - |   |   |  | ZHA |  |     |     |
| 152 | ᠵ | MONGOLIAN LETTER AG ZA         | - |   |   |  | ZA  |  | ZA  | MC0 |
|     |   |                                |   | ᠵ | 1 |  | ZA  |  | ZA  | MC1 |
| 153 | ᠠ | MONGOLIAN LETTER AG AH         | - |   |   |  | AH  |  | AH  |     |
| 154 | ᠲ | MONGOLIAN LETTER TODO AG TA    | - |   |   |  |     |  | TA  |     |
| 155 | ᠳ | MONGOLIAN LETTER TODO AG ZHA   | - |   |   |  |     |  | ZHA |     |
| 156 | ᠰ | MONGOLIAN LETTER MANCHU AG GHA | - |   |   |  |     |  |     | MC0 |
|     |   |                                |   | ᠰ | 1 |  |     |  | ᠰ   | MC1 |
| 157 | ᠠ | MONGOLIAN LETTER MANCHU AG NGA | - |   |   |  |     |  |     | MC0 |
|     |   |                                |   | ᠠ | 1 |  |     |  | ᠠ   | MC1 |
| 158 | ᠴ | MONGOLIAN LETTER MANCHU AG CA  | - |   |   |  |     |  |     | MC0 |
|     |   |                                |   | ᠴ | 1 |  |     |  | ᠴ   | MC1 |
| 159 | ᠵ | MONGOLIAN LETTER MANCHU AG JHA | - |   |   |  |     |  |     | MC0 |



# Mongolian Reference Table

Table 3

|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | JHA  | MC1 | 142 |
|-----|----|-----------------------------------|-------|--|--|---|----|--------------|--|----|------|-----|-----|
| 160 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG TTA    | -     |  |  |   |    | INITIAL FORM |  |    | TTA  | MC0 |     |
|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | TTA  | MC1 | 143 |
| 161 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG DDHA   | -     |  |  |   |    | INITIAL FORM |  |    | DDHA | MC0 |     |
|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | DDHA | MC1 | 144 |
| 162 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG TA     | -     |  |  |   |    |              |  |    | TA   |     |     |
| 163 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG DHA    | -     |  |  |   |    | INITIAL FORM |  |    | DHA  | MC0 |     |
|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | DHA  | MC1 | 145 |
| 164 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG SSA    | -     |  |  |   |    | INITIAL FORM |  |    | SSA  | MC0 |     |
|     |    |                                   | 150-1 |  |  |   | ᠠᠨ | MEDIAL FORM  |  |    | SSA  | MC1 |     |
| 165 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG CYA    | -     |  |  |   |    | INITIAL FORM |  |    | CYA  | MC0 |     |
|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | CYA  | MC1 | 146 |
| 166 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG ZHA    | -     |  |  |   |    | INITIAL FORM |  |    | ZHA  | MC0 |     |
|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | ZHA  | MC1 | 147 |
| 167 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG CA     | -     |  |  |   |    | INITIAL FORM |  |    | CA   | MC0 |     |
|     |    |                                   |       |  |  | 1 | ᠠᠨ | MEDIAL FORM  |  |    | CA   | MC1 | 148 |
| 168 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG HALF U | -     |  |  |   |    |              |  | HU |      |     |     |
| 169 | ᠠᠨ | MONGOLIAN LETTER TODO HALF YA     | -     |  |  |   |    |              |  | HY |      |     |     |
| 170 | ᠠᠨ | MONGOLIAN LETTER MANCHU AG BHA    | -     |  |  |   |    |              |  |    | BHA  |     |     |

