INTELLIGENT TRANSPORT SYSTEMS

TRAFFIC SYSTEMS

Document No. TSI-TG-011

FRAME AND MESSAGE NUMBERING FOR ISLUS AND RELATED SIGNAGE

Issue: 1.0
Dated: 05/02/2021

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RECORD OF AMENDMENTS

Issue	Summary	Date	Approved by
1.0	Original	05/02/2021	Director ITS Engineering

C O N T E N T S

1 SCOPE

This Guidance describes the usage of frame numbers and message numbers by TfNSW (Transport for New South Wales) in their host control systems.

This TfNSW information was present in AS5156:2010, but it is absent in AS5156:2020. Issue of this document preserves this information for TfNSW use. Content has been clarified and some minor changes are included. However as the primary intent of this first version is information transfer, it does not change the fundamentals of the original numbering system.

2 FRAME NUMBERING FOR SPEED DISPLAYS

For speed limit displays, frames shall be defined as FRAME 'abc' where 'ab' times ten (i.e.: 'ab' x 10) specifies the actual speed (in km/h), and 'c' specifies the display attribute (such as the annulus). See table below.

Value of "c"	Display Attribute	Example Frame No.	Description
0	Fixed Annulus	080	80 km/h, fixed annulus
		100	100 km/h, fixed annulus
1	Flashing Annulus	081	80 km/h, flashing annulus
		101	100 km/h, flashing Annulus
2	No Annulus, Flashers Up/Down	082	80 km/h, no annulus, but with flashers
		102	100 km/h, no annulus, but with flashers
3	Fixed Annulus, Flashers Up/Down	083	80 km/h, fixed annulus, with flashers
		103	100 km/h, fixed annulus, with flashers
4	Flashing Annulus, Flashers Up/Down	084	80 km/h, flashing annulus, with flashers
		104	100 km/h, flashing annulus, with flashers
5 to 9	Reserved for future use, except for frames 25 to 29	025	25 km/h, fixed annulus
		026	25 km/h, flashing annulus
		027	25 km/h, no annulus, with flashers
		028	25 km/h, fixed annulus, with flashers
		029	25 km/h, flashing annulus, with flashers

3 MESSAGE NUMBERING FOR SPEED DISPLAYS

For speed limit displays, messages shall be defined as MESSAGE ‘abc’ where ‘ab’ times ten (i.e.: ‘ab’ x 10) specifies the actual speed (in km/h), and ‘c’ specifies the display attribute (such as the flashers). See table below:

Value of “c”	Display Attribute	Example Message No.	Description
0	Reserved for future use	-	-
1	Speed change without flashers Frame “ab1” 15 seconds Frame “ab0” indefinitely	101	Speed change to 100 km/h without flashers Frame “101” for 15 seconds Frame “100” indefinitely
2 to 3	Reserved for future use	-	-
4	Speed Change with flashers Frame “ab4” 15 seconds Frame “ab3” indefinitely	084	Speed change to 80 km/h with flashers Frame “084” for 15 seconds Frame “083” indefinitely
5 to 9	Reserved for future use	-	-

4 FRAME NUMBERING FOR OTHER DISPLAYS

Frame No.	Base Description	Annulus	Flashing
180	Upward arrow	No	No
181	Downward arrow	No	No
182	Up-left arrow	No	No
183	Up-right arrow	No	No
184	Down-left arrow	No	No
185	Down-right arrow	No	No
186	‘NO’	No	No
187	‘EXIT’	No	No
188	‘ONLY’	No	No
189	Red Cross “X”	No	No
190	Upward arrow	No	Yes
191	Downward arrow	No	Yes
192	Up-left arrow	No	Yes
193	Up-right arrow	No	Yes
194	Down-left arrow	No	Yes
195	Down-right arrow	No	Yes
196	‘NO’	No	Yes
197	‘EXIT’	No	Yes
198	‘ONLY’	No	Yes
199	Red Cross “X”	No	Yes
200	‘SLOW’	No	No
201	‘SLOW’	No	Yes
202	‘DOWN’	No	No
203	‘DOWN’	No	Yes
204	‘FOG’	No	No
205	‘FOG’	No	Yes

Frame No.	Base Description	Annulus	Flashing
207	'STOP'	No	Yes
210	'24 HOURS'	No	No
212	'NOT IN OPERATION'	No	No
220	3 Lanes Closed / Closed / Closed	No	No
221	3 Lanes Closed / Closed / Open	No	No
222	3 Lanes Closed / Open / Closed	No	No
223	3 Lanes Closed / Open / Open	No	No
224	3 Lanes Open / Closed / Closed	No	No
225	3 Lanes Open / Closed / Open	No	No
226	3 Lanes Open / Open / Closed	No	No
227	3 Lanes Open / Open / Open	No	No
230	3 Lanes Closed / Closed / Closed	No	Yes
231	3 Lanes Closed / Closed / Open	No	Yes
232	3 Lanes Closed / Open / Closed	No	Yes
233	3 Lanes Closed / Open / Open	No	Yes
234	3 Lanes Open / Closed / Closed	No	Yes
235	3 Lanes Open / Closed / Open	No	Yes
236	3 Lanes Open / Open / Closed	No	Yes
237	3 Lanes Open / Open / Open	No	Yes
240	2 Lanes Closed / Closed	No	No
241	2 Lanes Closed / Open	No	No
242	2 Lanes Open / Closed	No	No
243	2 Lanes Open / Open	No	No
245	2 Lanes Closed / Closed	No	Yes
246	2 Lanes Closed / Open	No	Yes
247	2 Lanes Open / Closed	No	Yes
248	2 Lanes Open / Open	No	Yes
250	Matrix Test – all main display pixels lit	No	No
251	Matrix Test – all main display pixels lit	Yes	No
252	Matrix Test – all main display pixels lit	Yes	Yes
000	Blank display	No	No

NOTE: The "Flashing' column in this table by default refers to an up-down flashing of conspicuity devices located in corners of a display. An alternative conspicuity treatment may be assigned if defined in the dedicated specification for the device.

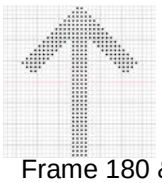
5 MESSAGE NUMBERING FOR OTHER DISPLAYS

For other displays, messages shall be defined as follows:

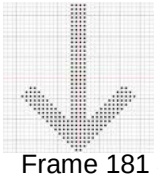
Message No.	Description
201	'SLOW DOWN' Alternating Frame "200" for 1.0 second followed by Frame "202" for 1.0 second. Transition of 0.5 seconds
204	'SLOW DOWN' with Up/Down Flashers Alternating Frame "201" for 1.0 second followed by Frame "203" for 1.0 second. Transition of 0.5 seconds
207	Flashing 'STOP' with Up/Down Flashers Frame "207" for 1.0 second Transition of 0.5 seconds

6 DISPLAY EXAMPLES

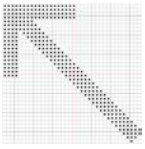
6.1 LUS displays



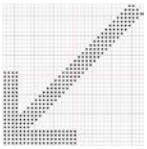
Frame 180 & 190



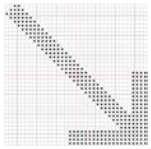
Frame 181 & 191



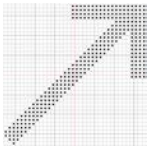
Frame 182 & 192



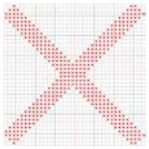
Frame 183 & 193



Frame 184 & 194

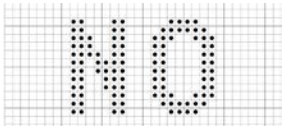


Frame 185 & 195

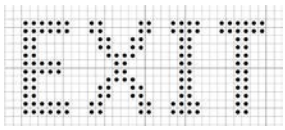


Frame 189 & 199

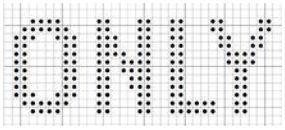
6.2 Short Text Displays



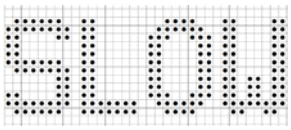
Frame 186 & 196



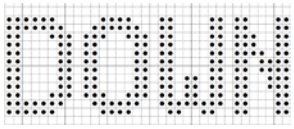
Frame 187 & 197



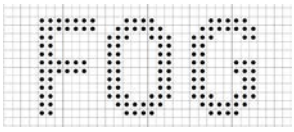
Frame 188 & 198



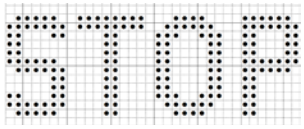
Frame 200 & 201



Frame 202 & 203

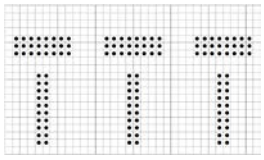


Frame 204 & 205

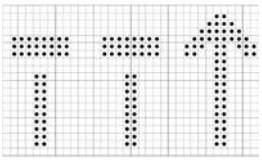


Frame 207

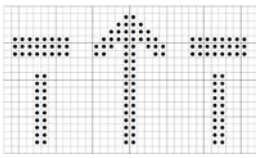
6.3 Multi-Lane displays



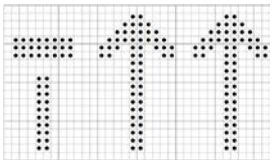
Frame 220 & 230



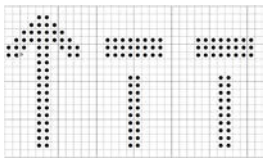
Frame 221 & 231



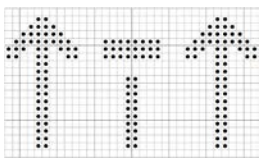
Frame 222 & 232



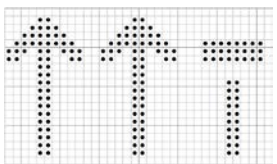
Frame 223 & 233



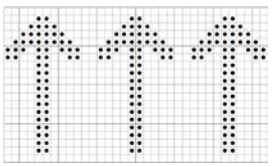
Frame 240 & 245



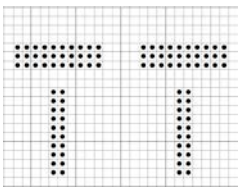
Frame 241 & 246



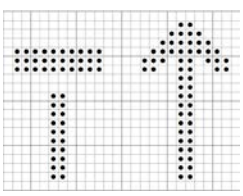
Frame 242 & 247



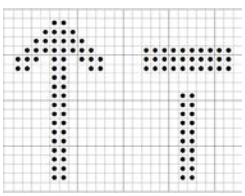
Frame 243 & 248



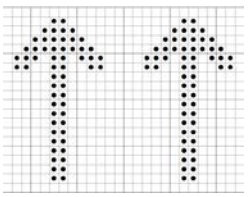
Frame 224 & 234



Frame 225 & 235



Frame 226 & 236



Frame 227 & 237