

1. GRINT STATES

A signal group can be in one of the GRINT states below

<i>Id</i>	<i>ASCII char</i>	<i>Short explanation</i>	<i>Detailed explanation</i>	<i>DV8 state</i>
0	0	Red/Amber	-	RED AMBER
1	1	Minimum green	Fixed green time. The minimum green time that is always honored.	MINIMUM GREEN
2	2	(not used)	-	-
3	3	Vehicle actuated minimum green	Extension of the minimum green time up to maximum-minimum-green	MINIMUM GREEN > MINIMUM GREEN
4	4	Passive Green	1. All regular extensions of the signal group green state have expired and there is a demand for a conflicting signal group. The signal group may be in this state because it is being extended in parallel with another signal-group. 2. rest mode green for green in the main directions.	REST GREEN
5	5	Green extension	Extension of the green time up to maximum green.	MAXIMUM GREEN
6	6	Green extension by local co-ordination	Extension of green by means of special fixed-demand mode of operation (SE: Tidstyr). This state replaces states '4' and '5' if this mode of operation is active.	REST GREEN + MAXIMUM GREEN
7	7	Fixed Past-end-green	Fixed amount of extra green when the signal group is being ended.	FIXED PAST END GREEN
8	8	Vehicle actuated past-end-green	Variable amount of extra green when the signal group is being ended.	VARIABLE PAST END GREEN
9	9	Red Synchronization	Signal group is red with a demand to go to green and all clearance times have expired. The signal group realization is being delayed because a delay must be obeyed with respect to the realization of another signal group. This state is entered immediately following the synchronization point with the group for which it is waiting.	ACTIVE RED
10	:	Green blinking	Green blinking state for the signal group	Pedestrian: FIX AMB + VAR AMB Vehicle: n.a.
11	;	Amber flashing	Amber flashing as part of the controller plan.	-
12	<	Fixed Amber	Fixed amber state following green	FIX AMB
13	=	Amber / dark	Controller is in amber flashing or dark due to a malfunction	-

14	>	Vehicle actuated amber	Variable amber after green	VAR AMB
15	?	Vehicle actuated minimum red	Variable red time after expiration of Minimum red	VAR RED
16	@	Red clearance interval	The signal group is in red and there is no request for the realization of this signal group. The minimum red and vehicle actuated minimum red times have expired, but the signal group MUST stay on red due to a clearance interval with respect to a different group which is longer than the defined minimum time.	PASSIVE RED
17	A	Minimum red	Fixed minimum red time after amber	FIX RED
18	B	Passive red	During red when no demand is present for this signal group and all clearance times have expired.	PASSIVE RED
19	C	Red request	Signal group is red and a demand for this signal group is present. This state is entered immediately following a demand for the signal group, but after the minimum red state.	PASSIVE RED → ACTIVE RED
20	D	Red priority	Signal group goes to red due to emergency priority. When this is the case, no other red states defined are used.	“All” RED states
21	E	Red privilege	Signal group is in red state with permission to start. It may be part of the current defined stage. There is no demand for the signal group and a non-conflicting signal group within the same stage is being realized. When the signal group is not allowed to go to green due to a privilege timer configuration, this state will be left (Go to Passive red)	PASSIVE RED
22	F	Red wait	The signal group is red with a demand to go to green and a conflicting group is still in green preventing the realization. The signal group is allowed to go to green in the current stage and will become green when the conflicting signal groups have gone to red and the clearance times have been obeyed.	ACTIVE RED
23	G	Red stop	The signal group is in red with a demand to go to green. A conflicting group is preventing the realization. This state is entered when the last conflicting signal group has entered the amber state. The state persists until all clearance times have expired.	ACTIVE RED

24	H	Inter-green/start-delay	<p>The signal group is red with a demand to go to green and all clearance times have expired.</p> <p>The signal group is being delayed by another signal group with which it has a defined relation. The point which defines the relation has not yet been reached.</p> <p>Commonly the signal group on which it waits is in the red state waiting to go to green.</p> <p>Example: Group is being delayed by a start delay with respect to a pedestrian group</p> <p>Example: Group is being delayed due to a common-start definition with a vehicle group</p> <p>Example: Group is being delayed due to a master group relationship (Filter arrow)</p>	ACTIVE RED
25	I	Fixed amber (start-up)	Fixed amber during start-up sequence	-
26	J	Fixed red (start-up)	Fixed red during start-up sequence	-

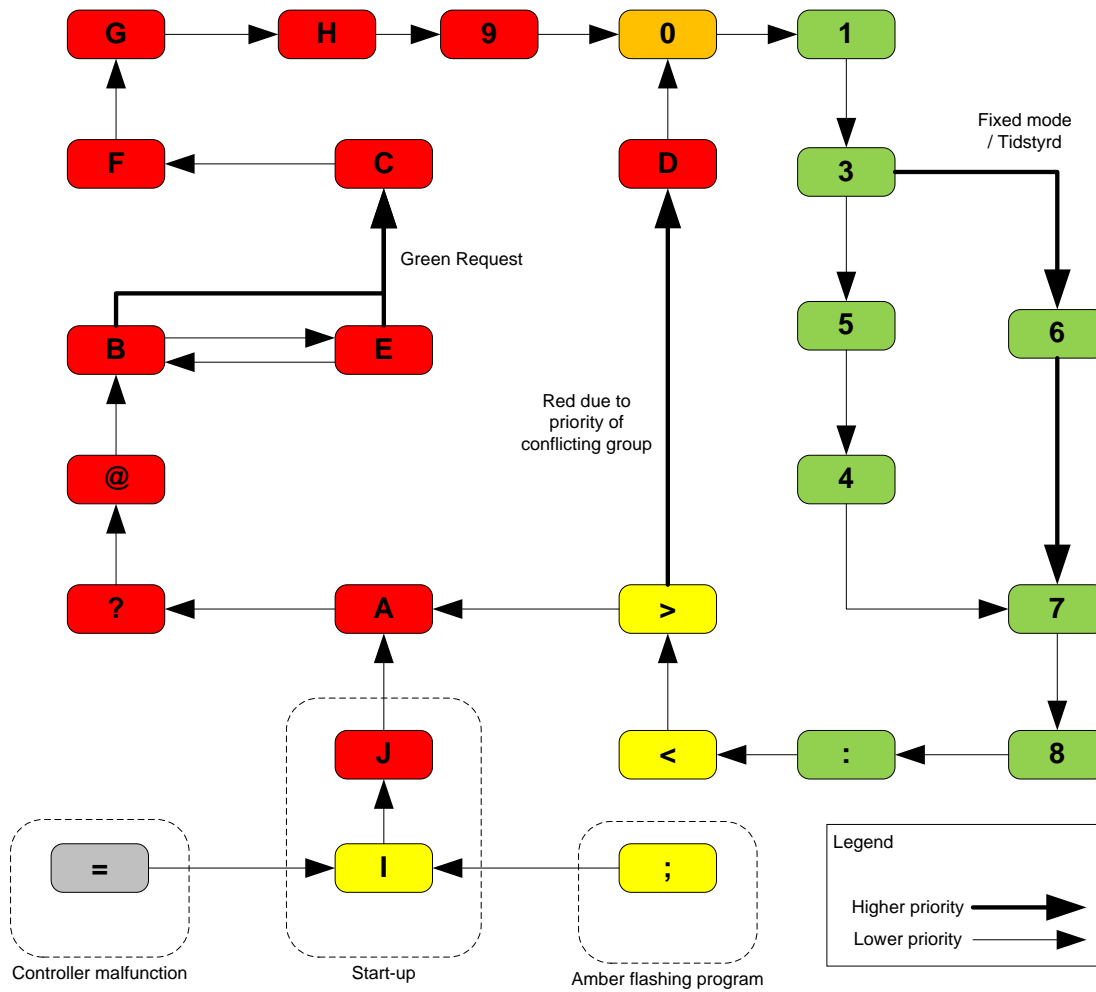


Figure 1 GRINT state diagram

2. DINT STATES

DINT states are characters mapping on the different states of a detector. The table below shows the ASCII characters mapped detector states.

<i>ASCII char</i>	<i>Occupied</i>	<i>Error</i>	<i>Occupied for too long</i>	<i>Unoccupied for too long</i>	<i>Software detector overrule</i>
0	-	-	-	-	-
1	Yes	-	-	-	-
2	-	Yes	-	-	-
3	Yes	Yes	-	-	-
4			Yes	-	-
5	Yes		Yes	-	-
6		Yes	Yes	-	-
7	Yes	Yes	Yes	-	-
8			-	Yes	-
9	Yes		-	Yes	-
A	-	Yes	-	Yes	-
B	Yes	Yes	-	Yes	
G	-	-	-	-	Yes
H	Yes	-	-	-	Yes