

DALI COMMANDS

Type of addresses:	address byte:
Short or group address	YAAAAAAS
Short addresses (64)	0AAAAAAS
Group addresses (16)	100AAAAS
Broadcast	100AAAAS
Special command	101CCCC1
Special command	110CCCC1
S: selector bit:	S = '0' direct arc power level following
	S = '1' command following
	Y = '0' short address
	Y = '1' group address or broadcast
A: significant address bit	
C: significant command bit	

Table 1 contains a complete summary of the DALI command set. Basically there are four types of commands (forward frames):

1. Direct / Indirect arc power control commands – used to set ballast power level.
2. Configuration commands – configures the ballast (for example: add to a group or store level). Command must be repeated within 100 ms, otherwise it's ignored.
3. Query commands – ask slave (ballast) for status information (for example: power level or version number). The slave can send a backward frame.
4. Special commands – used to initialize and setup the ballast, some must be repeated within 100 ms, and some require an answer from the slave. Most commands are only processed within 15 minutes after an "INITIALIZE" command is received.

Table 1. DALI Command Set Summary

Num ber	Command Code	Repeat < 100 ms	Answer Slave	Command Name
-	YAAA AAA0 XXXX XXXX	no	no	DIRECT ARC POWER CONTROL
0	YAAA AAA1 0000 0000	no	no	OFF
1	YAAA AAA1 0000 0001	no	no	UP
2	YAAA AAA1 0000 0010	no	no	DOWN
3	YAAA AAA1 0000 0011	no	no	STEP UP
4	YAAA AAA1 0000 0100	no	no	STEP DOWN
5	YAAA AAA1 0000 0101	no	no	RECALL MAX LEVEL
6	YAAA AAA1 0000 0110	no	no	RECALL MIN LEVEL

7	YAAA AAA1 0000 0111	no	no	STEP DOWN AND OFF
8	YAAA AAA1 0000 1000	no	no	ON AND STEP UP
9-15	YAAA AAA1 0000 1XXX			RESERVED
16 - 31	YAAA AAA1 0001 XXXX	no	no	GO TO SCENE
32	YAAA AAA1 0010 0000	yes	no	RESET
33	YAAA AAA1 0010 0001	yes	no	STORE ACTUAL LEVEL IN THE DTR
34 - 41	YAAA AAA1 0010 XXXX			RESERVED
42	YAAA AAA1 0010 1010	yes	no	STORE THE DTR AS MAX LEVEL
43	YAAA AAA1 0010 1011	yes	no	STORE THE DTR AS MIN LEVEL
44	YAAA AAA1 0010 1100	yes	no	STORE THE DTR AS SYSTEM FAILURE LEVEL
45	YAAA AAA1 0010 1101	yes	no	STORE THE DTR AS POWER ON LEVEL
46	YAAA AAA1 0010 1110	yes	no	STORE THE DTR AS FADE TIME
47	YAAA AAA1 0010 1111	yes	no	STORE THE DTR AS FADE RATE
48 - 63	YAAA AAA1 0011 XXXX			RESERVED
64 - 79	YAAA AAA1 0100 XXXX	yes	no	STORE THE DTR AS SCENE
80 - 95	YAAA AAA1 0101 XXXX	yes	no	REMOVE FROM SCENE
96 - 111	YAAA AAA1 0110 XXXX	yes	no	ADD TO GROUP
112 -127	YAAA AAA1 0111 XXXX	yes	no	REMOVE FROM GROUP
128	YAAA AAA1 1000 0000	yes	no	STORE DTR AS SHORT ADDRESS
129 -143	YAAA AAA1 1000 XXXX			RESERVED
144	YAAA AAA1 1001 0000	no	yes	QUERY STATUS
145	YAAA AAA1 1001 0001	no	yes	QUERY BALLAST
146	YAAA AAA1 1001 0010	no	yes	QUERY LAMP FAILURE
147	YAAA AAA1 1001 0011	no	yes	QUERY LAMP POWER ON
148	YAAA AAA1 1001 0100	no	yes	QUERY LIMIT ERROR

149	YAAA AAA1 1001 0101	no	yes	QUERY RESET STATE
150	YAAA AAA1 1001 0110	no	yes	QUERY MISSING SHORT ADDRESS
151	YAAA AAA1 1001 0111	no	yes	QUERY VERSION NUMBER
152	YAAA AAA1 1001 1000	no	yes	QUERY CONTENT DTR
