

DL.1 Protocol Tables

DL.1 fixtures offer two protocol levels —Standard and Enhanced. Standard Protocol controls fixture movement and output features. Running Enhanced protocol provides an additional nine channels for controlling Digital Eye Technology and increases the fixture footprint on the DMX link from 11 to 20.

Standard DL.1 Protocol

Chan #	Function	Description	Value dec.	Value %	Default dec.			
1 2	Pan Position	Moves projector head from 0°–400°	0-65535	0-100	32768			
3 4	Tilt Position	Moves projector head from 0°–270°	0-65535	0-100	32768			
5	Dimming Iris	Adjusts the mechanical iris located in front of the projector output lens from closed to open	0-255	0-100	0			
6	Focus	Adjusts focus from near to far	0-255	0-100	128			
7	Zoom	Adjusts zoom from narrow to wide	0-255	0-100	128			
8	MSpeed	See Appendix B for conversion tables	0-255	0-100	0			
9	Macro	Reserved for future use	n/a	N/A	0			
10	Control Function	Safe	0-9	0-4	0			
		Pan and Tilt MSpeed off	10-13	5-7				
		Display Off	(These Control options require Channel 5 = 0)	20-28		8-11		
		Display Dim		30-38		12-15		
		Display Bright		40-48		16-19		
		Home All		60-68		24-27		
		Lamp ON		80-88		32-35		
		Lamp OFF		90-98		36-39		
		Shutdown		120-130		47-51		
		Reserved		131-149		52-58		
		Camera Reset		150-155		59-61		
		Home Pan/Tilt		160-168		62-66		
		Home Focus/Zoom/Dimming Iris		170-178		67-70		
		Using the Projector's Menu System—see page 4-4						
		Projector Menu		(These active commands do not require Channel 5 = 0)		180-184	NA	
		Projector Up				185-188		
		Projector Down	189-192					
		Projector Left	193-196					
		Projector Right	197-200					
		Projector Select	201-204					
Projector Floor Orientation	205-208							
Projector Ceiling Orientation	209-212							
Projector Front Projection	213-216							
Projector Rear Projection	217-220							
Reserved	221-255	87-100						
11	Input Source Select (See page 4-5)	Safe	0-31	0-12	32-47			
		RGBHV (Default)	32-47	12-18				
		S-Video Input 3	48-63	19-25				
		Internal Source Input 1	64-79	25-31				
		Reserved for future use	80-255	31-100				



Enhanced DL.1 Protocol

Fixtures with Digital Eye Technology accessory require these additional nine channels.

Chan #	Function	Description	Value dec.	Value %	Default dec.
12 13	Camera Zoom (16 bit adjustment)	Auto Zoom position	0-65535	0-100	32768
14 15	Camera Focus (16 bit adjustment)	Auto Focus position	0-511	0-1	0
		Focus In (Far End) to Out (Near End)	512-65535	2-100	
16	Infrared Illuminator	Camera's IR sensing OFF, illuminator OFF	0-63	0-24	0
		Camera's IR Auto sensing ON, Illuminator OFF	64-127	25-49	
		Camera's IR Manual sensing ON, Illuminator scaled across the range from FULL to OFF	128-255	50-100	
17	Shutter	Auto Exposure=Full Auto	0-63	0-25	0
		Auto Exposure=Shutter Priority, Shutter Speed = 30	64-95	26-38	
		Auto Exposure =Shutter Priority, Shutter Speed = 15	96-126	39-49	
		Auto Exposure=Shutter Priority, Shutter Speed = 8	127-157	50-62	
		Auto Exposure=Shutter Priority, Shutter Speed = 4	158-188	63-74	
		Auto Exposure=Shutter Priority, Shutter Speed = 2	189-219	75-86	
		Auto Exposure=Shutter Priority, Shutter Speed = 1	220-255	87-100	
18	White Balance Mode	Auto Focus	0-63	0-25	0
		Indoor	64-95	26-38	
		Outdoor	96-127	39-50	
		Reserved - no change from previous state	128-255	51-100	
19	Orientation	Flip OFF, Mirror OFF	0-63	0-25	0
		Flip OFF, Mirror ON	64-127	26-50	
		Flip ON, Mirror OFF	128-191	51-75	
		Flip ON, Mirror ON	192-255	76-100	
20	Camera Effects	Freeze Frame OFF, Negative Art OFF, B&W OFF	0-63	0-25	0
		Freeze Frame ON, Negative Art OFF, B&W OFF	64-127	26-49	
		Freeze Frame OFF, Negative Art ON, B&W OFF	128-159	50-62	
		Freeze Frame ON, Negative Art ON, B&W OFF	160-191	63-75	
		Freeze Frame OFF, Negative Art OFF, B&W ON	192-223	76-88	
		Freeze Frame ON, Negative Art OFF, B&W ON	224-255	89-100	