RGB Control

Color changing LEDs combine red, green and blue light at different intensities to create dynamic color effects. The color of an AURORA RGB can be either permanently assigned to the fixture during installation or adjusted remotely with the use of an external controller. Any external controller can be used so long as it uses the standardized lighting communication protocol known as DMX.

Operating in a DMX environment gives the user the greatest flexibility when it comes to customizing or creating dramatic effects. Depending on the functionality of the controller, you will be able to control each individual color and each fixture independently.

Selecting Modes

The AURORA RGB operates in Stand Alone Mode or DMX Mode. The mode can be selected with DIP switch #10 (See Figure A). On=DMX Mode Off=Stand Alone Mode. Any adjustments to the DIP switch settings should be made with electricity removed from device.

Stand Alone Mode
In this mode, DIP switches 1-9 are used to select a fixed color for applications where only one color is needed and no controller is present. Enter this mode by placing DIP switch #10 OFF. Multiple DIP switches can be adjusted to blend custom colors. Any adjustments to the DIP switch settings should be made with electricity removed from device. In Stand Alone Mode the device will not respond any DMX signals.

Stand Alone Mode

DIP	POSITION	EFFECT
1	ON/OFF	RED 100%
2	ON/OFF	RED 50%
3	ON/OFF	GREEN 100%
4	ON/OFF	GREEN 50%
5	ON/OFF	BLUE 100%
6	ON/OFF	BLUE 50%
7	OFF	TEST SEQUENCE
8	OFF	TEST SEQUENCE
9	ON/OFF	TEST SEQUENCE
10	OFF	MODE

Example: Shown with red light glowing at 100% intensity.

Aurora RGB
PDS1-A

Figure A
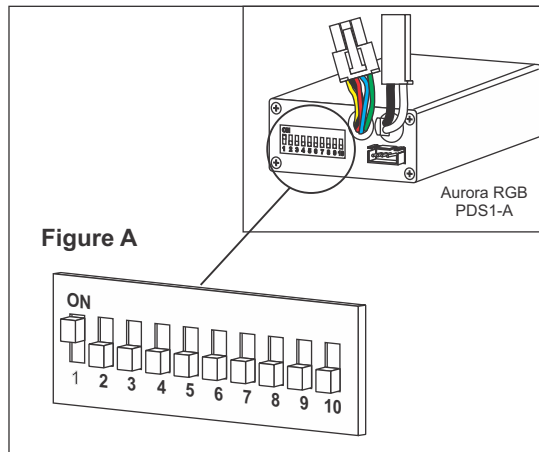
DMX Mode
In this mode, DIP switches 1-9 are used to select the DMX starting address. Any address 1-510 is possible. Enter this mode by placing DIP switch #10 ON. Any adjustments to the DIP switch settings should be made with electricity removed from device. In the event that no DMX signal is present for any period of time greater than 1 second, the AURORA RGB will revert to Signal Loss Mode. In this mode all LEDs will glow at 50% intensity until the DMX signal is resorted.

DMX Addressing

DMX mode enables the use of an external DMX controller. Each fixture requires a "start address" from 1 to 510. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 3 channels of DMX and was addressed to start on DMX channel 001, would read data from channels: 001, 002, and 003, Choose start addresses so that the channels used do not overlap and notate the start address selected for future reference.
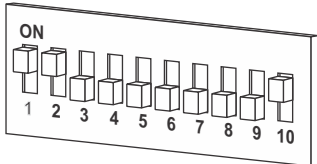
Each Aurora RGB fixture uses three channels of control.

Channel	Value	Percent	Function
1	0-255	0-100%	Red Intensity 0-100%
2	0-255	0-100%	Green Intensity 0-100%
3	0-255	0-100%	Blue Intensity 0-100%
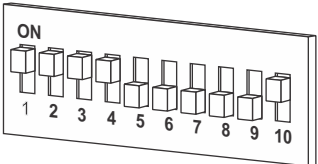
DMX Dipswitch Quick Reference Chart

0=OFF 1=ON

#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1

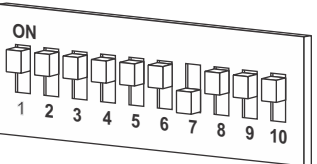| #1	#2	#3	#4	#5																
0	0	0	0	0	001	033	065	097	129	161	193	225	257	289	321	353	385	417	449	481
1	0	0	0	0	002	034	066	098	130	162	194	226	258	290	322	354	386	418	450	482
0	1	0	0	0	003	035	067	099	131	163	195	227	259	291	323	355	387	419	451	483
1	1	0	0	0	004	036	068	100	132	164	196	228	260	292	324	356	388	420	452	484
0	0	1	0	0	005	037	069	101	133	165	197	229	261	293	325	357	389	421	453	485
1	0	1	0	0	006	038	070	102	134	166	198	230	262	294	326	358	390	422	454	486
0	1	1	0	0	007	039	071	103	135	167	199	231	263	295	327	359	391	423	455	487
1	1	1	0	0	008	040	072	104	136	168	200	232	264	296	328	360	392	424	456	488
0	0	0	1	0	009	041	073	105	137	169	201	233	265	297	329	361	393	425	457	489
1	0	0	1	0	010	042	074	106	138	170	202	234	266	298	330	362	394	426	458	490
0	1	0	1	0	011	043	075	107	139	171	203	235	267	299	331	363	395	427	459	491
1	1	0	1	0	012	044	076	108	140	172	204	236	268	300	332	364	396	428	460	492
0	0	1	1	0	013	045	077	109	141	173	205	237	269	301	333	365	397	429	461	493
1	0	1	1	0	014	046	078	110	142	174	206	238	270	302	334	366	398	430	462	494
0	1	1	1	0	015	047	079	111	143	175	207	239	271	303	335	367	399	431	463	495
1	1	1	1	0	016	048	080	112	144	176	208	240	272	304	336	368	400	432	464	496
0	0	0	0	1	017	049	081	113	145	177	209	241	273	305	337	369	401	433	465	497
1	0	0	0	1	018	050	082	114	146	178	210	242	274	306	338	370	402	434	466	498
0	1	0	0	1	019	051	083	115	147	179	211	243	275	307	339	371	403	435	467	499
1	1	0	0	1	020	052	084	116	148	180	212	244	276	308	340	372	404	436	468	500
0	0	1	0	1	021	053	085	117	149	181	213	245	277	309	341	373	405	437	469	501
1	0	1	0	1	022	054	086	118	150	182	214	246	278	310	342	374	406	438	470	502
0	1	1	0	1	023	055	087	119	151	183	215	247	279	311	343	375	407	439	471	503
1	1	1	0	1	024	056	088	120	152	184	216	248	280	312	344	376	408	440	472	504
0	0	0	1	1	025	057	089	121	153	185	217	249	281	313	345	377	409	441	473	505
1	0	0	1	1	026	058	090	122	154	186	218	250	282	314	346	378	410	442	474	506
0	1	0	1	1	027	059	091	123	155	187	219	251	283	315	347	379	411	443	475	507
1	1	0	1	1	028	060	092	124	156	188	220	252	284	316	348	380	412	444	476	508
0	0	1	1	1	029	061	093	125	157	189	221	253	285	317	349	381	413	445	477	509
1	0	1	1	1	030	062	094	126	158	190	222	254	286	318	350	382	414	446	478	510
0	1	1	1	1	031	063	095	127	159	191	223	255	287	319	351	383	415	447	479	
1	1	1	1	1	032	064	096	128	160	192	224	256	288	320	352	384	416	448	480	

Example:

DMX STARTING ADDRESS #004

DMX STARTING ADDRESS #016

DMX STARTING ADDRESS #480