DMX REFERENCE

WLED RGB Effect Mode

WLED RGB Effect Mode with subfixtures

WLED Project

Manufacturer	WLED Project
GDTF file	WLED_Project_WLED_RGB_Effect_Mode_142265.gdtf
GDTF revision	rev-09 · 2026-05-12
Generated	2026-11-24

Contents

1 About this manual 2
2 Quick reference 2
3 Safety instructions 3
4 Product description 3
5 Installation 4
6 Connections 4
7 Operation 5
8 Functions at a glance 5
9 DMX channels 6
Mode RGB Effect Mode 15ch 6
10 Technical specifications 14
11 Maintenance and cleaning 14
12 Troubleshooting 14
13 Disposal 15

1 About this manual

This document describes the WLED RGB Effect Mode with subfixtures by WLED Project. It was compiled from the GDTF file WLED_Project_WLED_RGB_Effect_Mode_142265.gdtf from the GDTF-Share library.

File revision: “rev-09”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by WLED Project; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

DMX modes

Mode	Channels	Units in one universe	First start addresses
RGB Effect Mode 15ch	15	34	1, 16, 31, 46, ...

No light? Check these channels

- RGB Effect Mode 15ch: CH 1 Dimmer above 0



Read the manual before use



Do not stare into the light



Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

4 Product description

Description in the GDTF file

“Fixture for controlling LED systems using the awesome open source WLED project. Based off v16.”

“-community GDTF, not affiliated with the WLED project-”

“15-channel Effect mode per https://kno.wled.ge/interfaces/e1.31-dmx. Effect names from https://kno.wled.ge/features/effects/ (incl. v16 table). IDs [48, 53, 114, 142, 169, 170, 171] are not listed there and use Unlisted_ID_nnn. Built-in palette labels from https://kno.wled.ge/features/palettes/ (IDs 0-70); DMX channel 5 matches palette ID; DMX 71-255 are grouped as Custom_or_Undefined (custom uploads etc.). Wheel slot names use Annex C Table C1-safe prefixes 2D_ / AUD_ / 2DAUD_ from the Flags column. DMX channel 2 is one effect-ID byte (0-219); one wheel lists all effects in ID order (required so logical channels do not overlap on the same DMX address). Primary RGB on beam Primary; Secondary/Tertiary

RGB on subfixture geometries. Requires WLED 0.14+ effect DMX layout. Not realtime; single universe.”

5 Installation

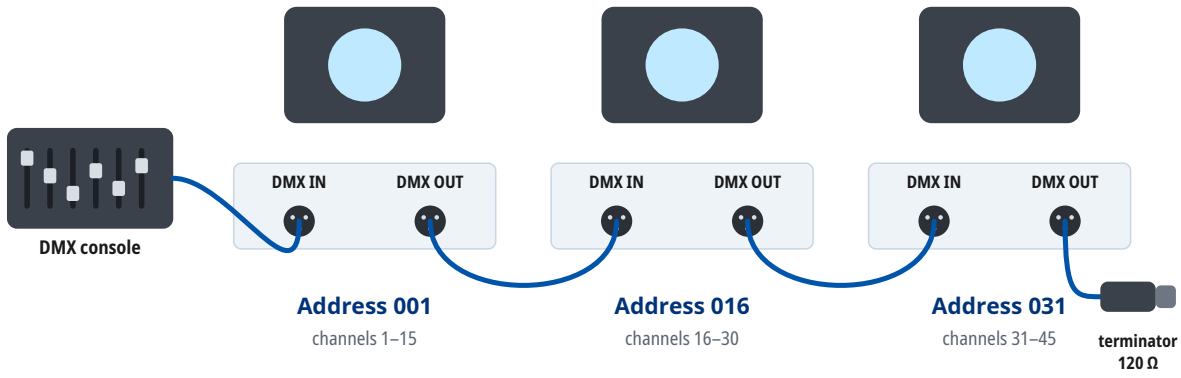
⚠ WARNING

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode RGB Effect Mode 15ch: every unit occupies 15 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

7 Operation

Setting the DMX address

- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “RGB Effect Mode 15ch”: 15.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “RGB Effect Mode 15ch”, you can use, for example, the start addresses 1, 16, 31, 46.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

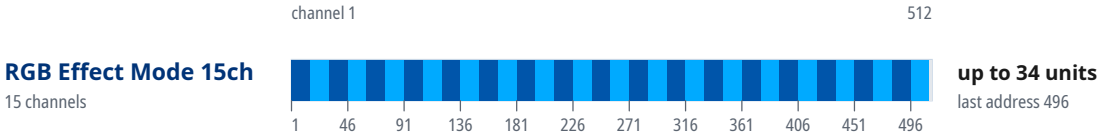
8 Functions at a glance

Functions in each DMX mode

	RGB Effect Mode 15ch 15 channels
Dimmer	1
Color mixing	7–15
Effects / macros	2–6
Pixel control	✓

9 DMX channels

Units in one DMX universe



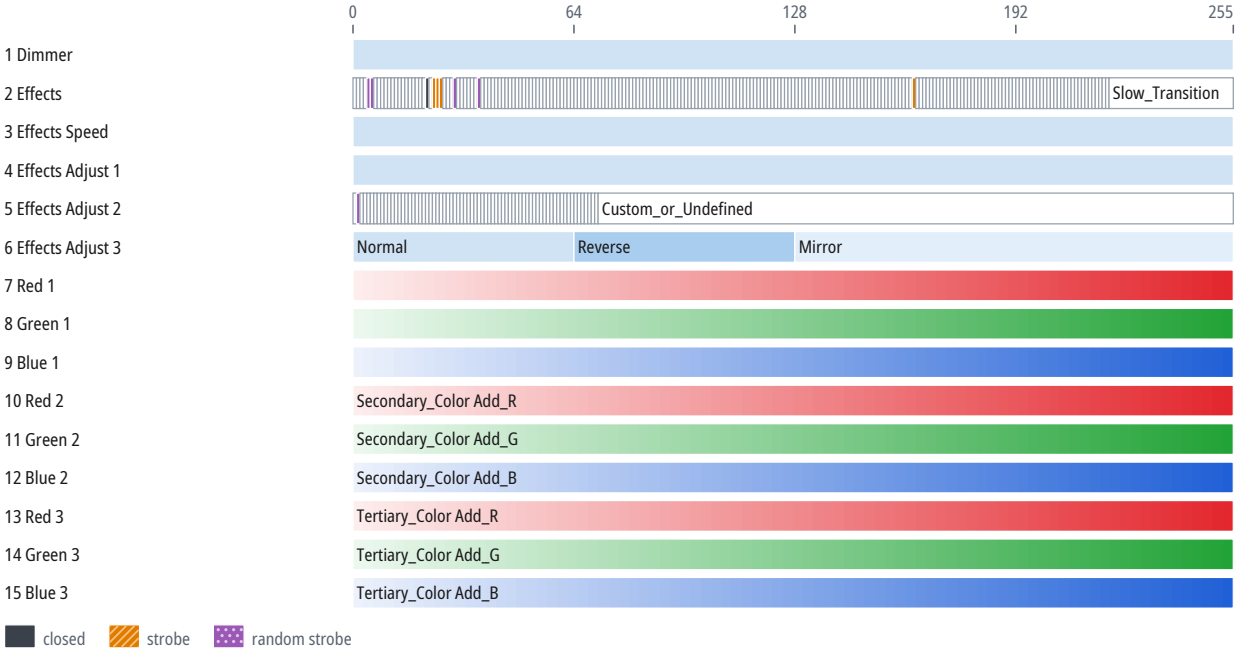
Start addresses of 20 units in the mode “RGB Effect Mode 15ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	76	11	151	16	226
2	16	7	91	12	166	17	241
3	31	8	106	13	181	18	256
4	46	9	121	14	196	19	271
5	61	10	136	15	211	20	286

Mode RGB Effect Mode 15ch

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 7 Red 1 255, CH 8 Green 1 255, CH 9 Blue 1 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0–255	
2	Effects	0	Solid
		1	Blink
		2	Breathe
		3	Wipe

CH	Function	DMX	Description
2	Effects (continued)	4	Wipe_Random
		5	Random_Colors
		6	Sweep
		7	Dynamic
		8	Colorloop
		9	Rainbow
		10	Scan
		11	Scan_Dual
		12	Fade
		13	Theater
		14	Theater_Rainbow
		15	Running
		16	Saw
		17	Twinkle
		18	Dissolve
		19	Dissolve_Rnd
		20	Sparkle
		21	Sparkle_Dark
		22	SparklePlus
		23	Strobe
		24	Strobe_Rainbow
		25	Strobe_Mega
		26	Blink_Rainbow
		27	Android
		28	Chase
		29	Chase_Random
		30	Chase_Rainbow
		31	Chase_Flash
		32	Chase_Flash_Rnd
		33	Rainbow_Runner
		34	Colorful
		35	Traffic_Light
		36	Sweep_Random
		37	Chase_2
		38	Aurora
		39	Stream
		40	Scanner
		41	Lighthouse
		42	2D_Fireworks
		43	2D_Rain
		44	Tetrix
		45	Fire_Flicker

CH	Function	DMX	Description
2	Effects (continued)	46	Gradient
		47	Loading
		48	Unlisted_ID_048
		49	Fairy
		50	Two_Dots
		51	Fairytwinkle
		52	Running_Dual
		53	Unlisted_ID_053
		54	Chase_3
		55	Tri_Wipe
		56	Tri_Fade
		57	Lightning
		58	ICU
		59	Multi_Comet
		60	Scanner_Dual
		61	Stream_2
		62	Oscillate
		63	Pride_2015
		64	Juggle
		65	Palette
		66	Fire_2012
		67	Colorwaves
		68	Bpm
		69	Fill_Noise
		70	Noise_1
		71	Noise_2
		72	Noise_3
		73	Noise_4
		74	Colortwinkles
		75	Lake
		76	Meteor
		77	Meteor_Smooth
		78	Railway
		79	2D_Ripple
		80	Twinklefox
		81	Twinklecat
		82	2D_Halloween_Eyes
		83	Solid_Pattern
		84	Solid_Pattern_Tri
		85	Spots
		86	Spots_Fade
		87	Glitter

CH	Function	DMX	Description
2	Effects (continued)	88	Candle
		89	Fireworks_Starburst
		90	2D_Fireworks_1D
		91	Bouncing_Balls
		92	Sinelon
		93	Sinelon_Dual
		94	Sinelon_Rainbow
		95	Popcorn
		96	Drip
		97	Plasma
		98	Percent
		99	2D_Ripple_Rainbow
		100	Heartbeat
		101	Pacifica
		102	Candle_Multi
		103	Solid_Glitter
		104	Sunrise
		105	Phased
		106	Twinkleup
		107	Noise_Pal
		108	Sine
		109	Phased_Noise
		110	Flow
		111	Chunchun
		112	Dancing_Shadows
		113	Washing_Machine
		114	Unlisted_ID_114
		115	Blends
		116	TV_Simulator
		117	Dynamic_Smooth
		118	2D_Spaceships
		119	2D_Crazy_Bees
		120	2D_Ghost_Rider
		121	2D_Blobs
		122	2D_Scrolling_Text
		123	2D_Drift_Rose
		124	2D_Distortion_Waves
		125	2D_Soap
		126	2D_Octopus
		127	2D_Waving_Cell
		128	AUD_Pixels
		129	AUD_Pixelwave

CH	Function	DMX	Description
2	Effects (continued)	130	AUD_Juggles
		131	AUD_Matripix
		132	AUD_Gravimeter
		133	AUD_Plasmoid
		134	AUD_Puddles
		135	AUD_Midnoise
		136	AUD_Noisemeter
		137	AUD_Freqwave
		138	AUD_Freqmatrix
		139	2DAUD_GEQ
		140	AUD_Waterfall
		141	AUD_Freqpixels
		142	Unlisted_ID_142
		143	AUD_Noisefire
		144	AUD_Puddlepeak
		145	AUD_Noisemove
		146	2D_Noise2D
		147	Perlin_Move
		148	AUD_Ripple_Peak
		149	2D_Firenoise
		150	2D_Squared_Swirl
		151	PacMan
		152	2D_DNA
		153	2D_Matrix
		154	2D_Metaballs
		155	AUD_Freqmap
		156	AUD_Gravcenter
		157	AUD_Gravcentric
		158	AUD_Gravfreq
		159	AUD_DJ_Light
		160	2DAUD_Funky_Plank
		161	Shimmer
		162	2D_Pulser
		163	AUD_Blurz
		164	2D_Drift
		165	2DAUD_Waverly
		166	2D_Sun_Radiation
		167	2D_Colored_Bursts
		168	2D_Julia
		169	Unlisted_ID_169
		170	Unlisted_ID_170
		171	Unlisted_ID_171

CH	Function	DMX	Description
2	Effects (continued)	172	2D_Game_Of_Life
		173	2D_Tartan
		174	2D_Polar_Lights
		175	2DAUD_Swirl
		176	2D_Lissajous
		177	2D_Frizzles
		178	2D_Plasma_Ball
		179	Flow_Stripe
		180	2D_Hiphotic
		181	2D_Sindots
		182	2D_DNA_Spiral
		183	2D_Black_Hole
		184	Wavesins
		185	AUD_Rocktaves
		186	2DAUD_Akemi
		187	2D_PS_Volcano
		188	2D_PS_Fire
		189	2D_PS_Fireworks
		190	2D_PS_Vortex
		191	2D_PS_Fuzzy_Noise
		192	2D_PS_Ballpit
		193	2D_PS_Box
		194	2DAUD_PS_Attractor
		195	2D_PS_Impact
		196	2D_PS_Waterfall
		197	2DAUD_PS_Spray
		198	2DAUD_PS_GEQ_2D
		199	2DAUD_PS_GEQ_Nova
		200	2D_PS_Ghost_Rider
		201	2DAUD_PS_Blobs
		202	PS_DripDrop
		203	PS_Pinball
		204	PS_Dancing_Shadows
		205	PS_Fireworks_1D
		206	PS_Sparkler
		207	PS_Hourglass
		208	PS_Spray_1D
		209	PS_1D_Balance
		210	PS_Chase
		211	PS_Starburst
		212	AUD_PS_GEQ_1D
		213	PS_Fire_1D

CH	Function	DMX	Description
2	Effects (continued)	214	AUD_PS_Sonic_Stream
		215	AUD_PS_Sonic_Boom
		216	PS_Springy
		217	2D_PS_Galaxy
		218	Color_Clouds
		219–255	Slow_Transition
3	Effects Speed	0–255	
4	Effects Adjust 1	0–255	
5	Effects Adjust 2	0	Default
		1	Random_Cycle
		2	Color_1
		3	Colors_1_and_2
		4	Color_Gradient
		5	Colors_Only
		6	Party
		7	Cloud
		8	Lava
		9	Ocean
		10	Forest
		11	Rainbow
		12	Rainbow_Bands
		13	Sunset
		14	Rivendell
		15	Breeze
		16	Red_and_Blue
		17	Yellowout
		18	Analogous
		19	Splash
		20	Pastel
		21	Sunset_2
		22	Beach
		23	Vintage
		24	Departure
		25	Landscape
		26	Beech
		27	Sherbet
		28	Hult
		29	Hult_64
		30	Drywet
		31	Jul
		32	Grintage
		33	Rewhi

CH	Function	DMX	Description
5	Effects Adjust 2 (continued)	34	Tertiary
		35	Fire
		36	Icefire
		37	Cyane
		38	Light_Pink
		39	Autumn
		40	Magenta
		41	Magred
		42	Yelmag
		43	Yelblu
		44	Orange_and_Teal
		45	Tiamat
		46	April_Night
		47	Orangery
		48	C9
		49	Sakura
		50	Aurora
		51	Atlantica
		52	C9_2
		53	C9_New
		54	Temperature
		55	Aurora_2
		56	Retro_Clown
		57	Candy
		58	Toxy_Reaf
		59	Fairy_Reaf
		60	Semi_Blue
		61	Pink_Candy
		62	Red_Reaf
		63	Aqua_Flash
		64	Yelblu_Hot
		65	Lite_Light
		66	Red_Flash
		67	Blink_Red
		68	Red_Shift
		69	Red_Tide
		70	Candy2
		71–255	Custom_or_Undefined
6	Effects Adjust 3	0–63	Normal
		64–127	Reverse
		128–255	Mirror
7	Red 1	0–255	

CH	Function	DMX	Description
8	Green 1	0–255	
9	Blue 1	0–255	
10	Red 2	0–255	Secondary_Color Add_R
11	Green 2	0–255	Secondary_Color Add_G
12	Blue 2	0–255	Secondary_Color Add_B
13	Red 3	0–255	Tertiary_Color Add_R
14	Green 3	0–255	Tertiary_Color Add_G
15	Blue 3	0–255	Tertiary_Color Add_B

10 Technical specifications

Parameter	Value
Light source	LED
Operating temperature	0 to 40 °C

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.