

Important: Read all instructions prior to installation.

DS-DMX45 and DS-WDMX45

4-Channel DMX/RDM Decoders



DS-DMX45

Safety and Notes

- Product should be installed and serviced in accordance with applicable national, state, and local building and electrical codes.
- To reduce the risk of electric shock, ensure that the main power source and circuit breakers are switched off before performing any installation or wiring procedures.

Check product label for specific electrical specifications related to installation.

Improper installation will void warranty.

System Settings

1. Hold M and ◀ at the same time (DS-DMX45) or SETUP (DS-WDMX45) for 2 seconds. Press M (DS-DMX45) or SETUP (DS-WDMX45) to cycle between settings.
2. To set “decode mode” press ◀ or ▶ button to switch between 1, 2, and 4 channel decode modes (“d-1,” “d-2” or “d-4”). When in 1 channel mode, the decoder uses only 1 DMX address, with all outputs using the same brightness setting.
3. To set “output PWM frequency” press ◀ or ▶ button to switch between 500 Hz (“F-L”) or 2 kHz (“F-H”).
Note: Higher PWM frequency will cause lower output current and higher noise, but is more suitable for cameras (less flicker for video).
4. To set “output brightness curve” press ◀ or ▶ button to switch between linear curve (“C-L”) or logarithmic curve (“C-E”).
5. To set “automatic blank screen” press ◀ or ▶ button to switch between enable (“boN”) or disable (“boF”) automatic blank screen.
6. Hold M (DS-DMX45) or SETUP (DS-WDMX45) for 2 seconds to exit settings. If no input is detected for 10 seconds, the decoder will automatically exit settings.

DMX Mode

- If there is a DMX signal input, decoder will enter DMX mode automatically. To manually enter DMX mode, press MODE (DS-DMX45) or M (DS-WDMX45) button. Display will show 001-999.
- Press ◀ or ▶ button to switch between DMX decode start address (001-999). Hold ◀ or ▶ button to change the address faster.
- Each DMX decoder occupies four DMX addresses. The default start address is 1. See the table below for the corresponding relationships.

DMX Console	DMX Decoder Output
CH1 0–255	CH1 PWM 0–100% (LED R)
CH2 0–255	CH2 PWM 0–100% (LED G)
CH3 0–255	CH3 PWM 0–100% (LED B)
CH4 0–255	CH4 PWM 0–100% (LED W)



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Standalone RGB/RGBW Mode

- To enter standalone RGB/RGBW mode, press MODE (DS-WDMX45) or M (DS-DMX45) button until screen displays a value between P01 and P30.
Note: DMX signal must be disconnected when entering standalone RGB/RGBW mode.
- Press ◀ or ▶ button to change dynamic mode number (P01–P30).
- To adjust speed and brightness, press SETUP (DS-WDMX45) or hold M (DS-DMX45) button.
Press ◀ or ▶ button to change the *speed* (S-1 through S-F), the *RGB brightness* (b-1 through b-F), and *white brightness* (400–4FF, correlating to values 0–255).
- Hold M (DS-DMX45) or SETUP (DS-WDMX45) for 2 seconds to exit settings. If no input is detected for 10 seconds, the decoder will automatically exit settings.

RGB/RGBW Modes

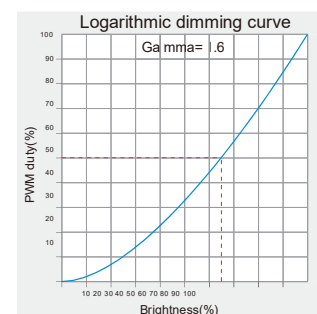
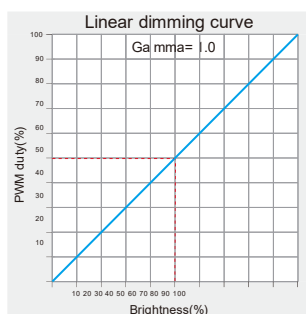
No.	Name	No.	Name	No.	Name
P01	Static Red	P11	Green Strobe	P21	Red/Yellow Smooth
P02	Static Green	P12	Blue Strobe	P22	Green/Cyan Smooth
P03	Static Blue	P13	White Strobe	P23	Blue/Purple Smooth
P04	Static Yellow	P14	RGB Strobe	P24	Blue/White Smooth
P05	Static Cyan	P15	7-color Strobe	P25	RGB + W Smooth
P06	Static Purple	P16	Red Fade In and Out	P26	RGBW Smooth
P07	Static White	P17	Green Fade In and Out	P27	RGBY Smooth
P08	RGB Jump	P18	Blue Fade In and Out	P28	Yellow/Cyan/Purple Smooth
P09	7 Color Jump	P19	White Fade In and Out	P29	RGB Smooth
P10	Red Strobe	P20	RGBW Fade In and Out	P30	6 Color Smooth

Standalone Dimmer Mode

- Press MODE (DS-WDMX45) or M (DS-DMX45) button until screen displays a value between L-1 and L-8.
Note: DMX signal must be disconnected when entering standalone dimmer mode.
- Press ◀ or ▶ button to change dimmer mode value (L-1 through L-8)
- Hold M (DS-DMX45) or SETUP (DS-WDMX45) for 2 seconds to exit settings. If no input is detected for 10 seconds, the decoder will automatically exit settings.

Dimming Curve Setting

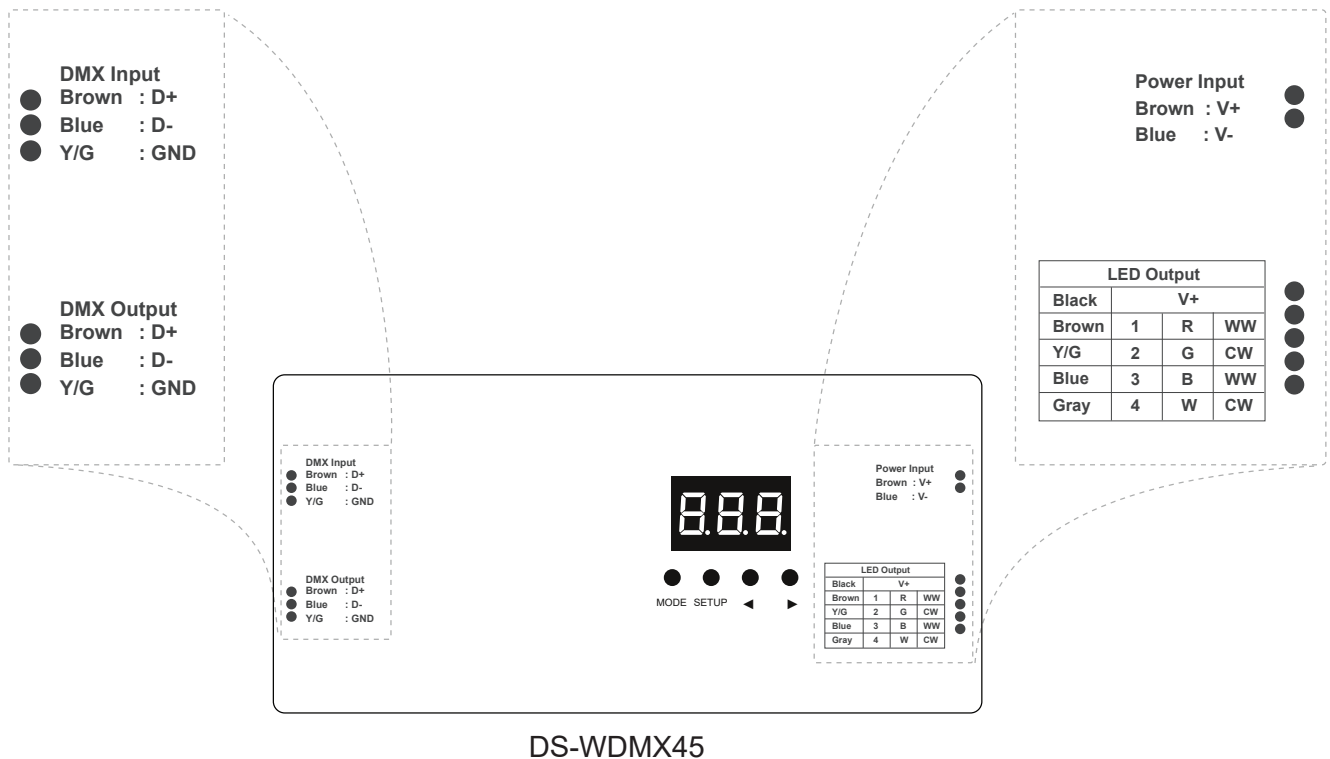
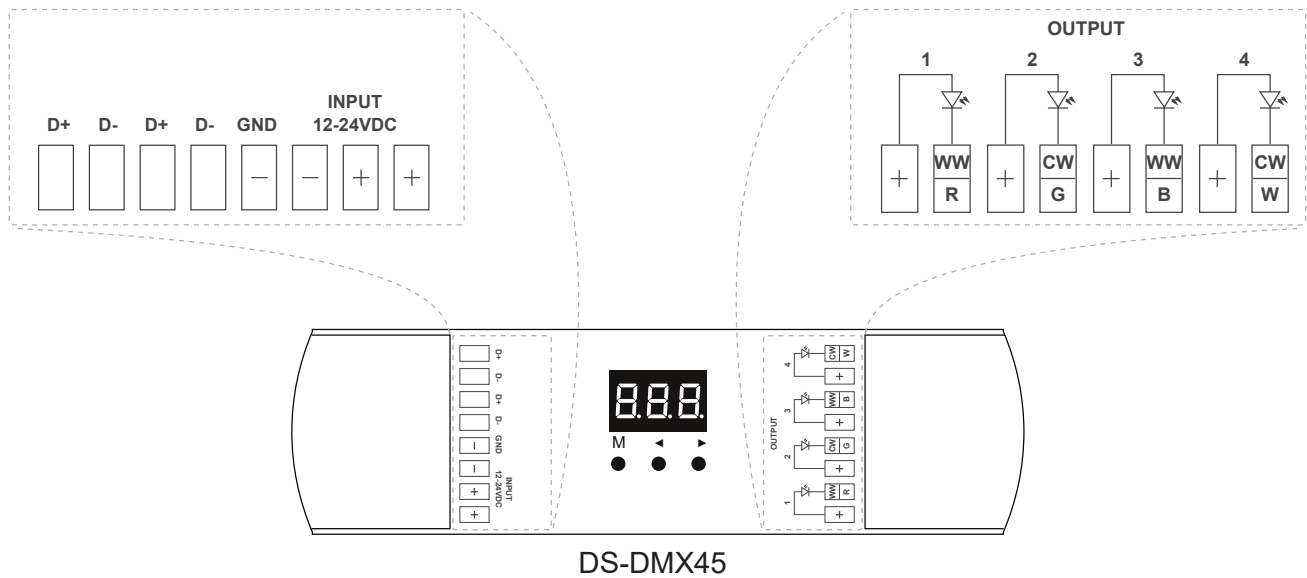
- When in standalone dimmer mode, press SETUP (DS-WDMX45) or hold M (DS-DMX45) button to enter dimmer settings.
- Press SETUP (DS-WDMX45) or M (DS-DMX45) to cycle between channels.
- Press ◀ or ▶ button to adjust values (100–1FF, 200–2FF, 300–3FF, 400–4FF).
- Hold M (DS-DMX45) or SETUP (DS-WDMX45) for 2 seconds to exit settings. If no input is detected for 10 seconds, the decoder will automatically exit settings.



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4-Channel DMX/RDM Decoders

DMX Wiring Diagrams



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Troubleshooting

Malfunctions	Causes	Troubleshooting
No light	<ol style="list-style-type: none"> 1. No power 2. Incorrect or loose connection 	<ol style="list-style-type: none"> 1. Check power 2. Check the connection
Wrong color	<ol style="list-style-type: none"> 1. Incorrect wiring 2. DMX decode address error 	<ol style="list-style-type: none"> 1. Check wiring 2. Set correct decode address
Uneven intensity between front and rear, with voltage drop	<ol style="list-style-type: none"> 1. Output cable is too long 2. Wire diameter is too small 3. Overload beyond power supply capability 	<ol style="list-style-type: none"> 1. Reduce cable length 2. Change to higher gauge wire 3. Replace with a higher wattage power supply

Restore Factory Default Parameter

- Hold ◀ and ▶ button simultaneously for 2 seconds to display “RES”.