

QE-40 Decoder Specifications

I. Default DMX512 Channel Specifications Upon Factory Delivery

channel	function	DMX numeric value	explain	
1	red	0-255	Red brightness increases; higher values mean brighter	Mode 1 has eight channels Mode 2 has only the first four channels
2	Green	0-255	Green brightness: the higher the value, the brighter it is	
3	Lan	0-255	Blue gradient: the higher the value, the brighter it becomes	
4	white	0-255	White with brightness gradient; higher values mean brighter	
5	Total Dimming	0-255	Total dimming: Higher values mean brighter	
6	stroboflash	0-	0 (Invalid – fluorescence function disabled)	
		1-255	1-255 (Stroboscopic zone; higher values indicate faster speed)	
7	gradual change	1-255	0: Invalid. 1–255: Red, green, or blue gradient; higher values indicate faster speed	
8	breathe	0-9	0–9: Invalid – does not enable color breathing functionality	
		10-39	Red light indicates respiratory function; the higher the value, the faster the rate.	
		40-69	Green light respiratory function: the higher the value, the faster the rate.	
		70-99	Huang Guang's respiratory function: the higher the value, the faster the rate.	
		100-129	Blue light respiratory function: the higher the value, the faster the rate.	
		130-159	Ziguang respiratory function: the higher the value, the faster the rate.	
		160-189	Glucose respiratory function: the higher the value, the faster the rate.	
		190-219	White light respiratory function: the higher the value, the faster the rate.	
		220-249	RGB full white light breathing function; higher values indicate faster speed	

II. Explanation of DMX Signal Indicators

pattern	Indication Light Status
DMX512 Reception Mode	When the DMX512 signal is present, the first digital tube flashes; when the signal is absent, it does not flash.

III. Button Operations and Display Instructions

normal mode	The screen displays "001", where 001 represents the address. For example, if the address is 480, it displays as "480".							
► Set Address	Press the function key until "001" appears and flashes on the display. Then press the plus/minus keys to adjust the address, select "Keep" for 5 seconds to automatically save and freeze the position.							
► Set Channel Mode	Press the function key until the first character on the display is F and flashes; then press the plus/minus keys to select different channel modes.							
	The "F-01" channel is defined as having eight channels: red, green, blue, white, overall dimming, strobe, gradient, and breathing.							
	1	2	3	4	5	6	7	8
	R	G	B	W	Total Dimming	strobe/flash	gradual change	breath e
	The "F-02" channel is defined as comprising four channels: red, green, blue, and white.							
				1	2	3	4	Used to connect the DMX signal console
				R	G	B	W	
				Used to connect a DMX signal controller using the standard 250K protocol.				

► Set automatic operation mode when no DMX512 signal is present (built-in effect)	Press the function key until the display shows "Pxx" and flashes; then press the plus/minus keys to change the selected auto-mode. Select "Auto Save & Stay Still" for 5 seconds.
▷ Set brightness when driving autonomously	When the display shows P01-P08, press the function key once if it flashes, or press twice if it doesn't to enter automatic brightness adjustment. Brightness has 17 levels (L01–L17), with higher levels indicating brighter brightness; the system will automatically return and save the current setting after 5 seconds as the default startup state.
▷ Set the speed for autonomous operation	When the display shows P09-P26, press the function key once if the screen is flashing, or press it twice otherwise to enter automatic speed adjustment. Speed has 10 levels (S01–S10), with lower values indicating faster speeds; the system will automatically return after 5 seconds and save the current mode as the startup setting.
Set the master-slave synchronization mode when no DMX512 signal is present	When there is no DMX signal, set the first decoder's address to 001 and keep subsequent addresses unchanged, then restart the decoder. If Pxx built-in mode is selected on the first decoder, subsequent decoders will replicate its behavior for synchronization.

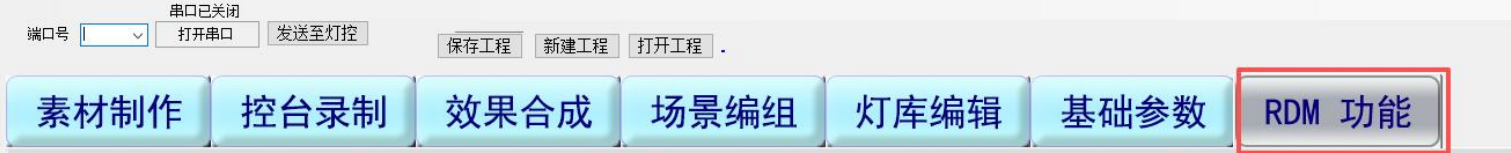
IV. The built-in mode list is as follows:

Mode Selection (+/-Switch)	function declaration	By Function Key
P01	Static Red	Adjustable Brightness Range L01-L17
P02	Static Green	
P03	Static Yellow	
P04	Static Blue	
P05	Static Purple	
P06	Static Blue	Return automatically in 5 seconds and save the current mode as startup state
P07	Fully White RGB	
P08	Static Single White W	
P09	Red stroboscopic light	
P10	Green Stroboscopic Light	The maximum brightness uses the brightness value from static mode. and adjustable speed range S01–S10 (01 fastest)
P11	Yellow stroboscopic effect	
P12	Blue stroboscopic light	
P13	Purple stroboscopic light	
P14	Blue strobe	
P15	Full White RGB Stroboscopic Light	Return automatically in 5 seconds and save the current mode as startup state
P16	Single White W Stroboscopic Light	
P17	Seven-color transition (white: W)	Brightness cannot be adjusted Adjustable speed range S01–S10 (01 fastest) Return automatically in 5 seconds and save the current mode as startup state
P18	Six-color gradient	
P19	Red breathing	
P20	Green Breathing	
P21	Yellow breathing	
P22	Blue Breathing	
P23	Purple Breathing	
P24	Blue breathing	
P25	Fully white RGB breathing effect	
P26	Single white W-shaped breathing pattern	

5. RDM function declaration

The decoder can remotely modify addresses, channel modes, and testing functions using debugging software.

Follow these steps: 1. Successfully connect to the smart control system – Select the RDM function



2. Select the output port (the smart controller currently offers two outputs: A and B) – click Start Search – the decoder number will be displayed
Take modifying the channel mode as an example:



You can also modify the address and obtain channel information, as shown in the figure.

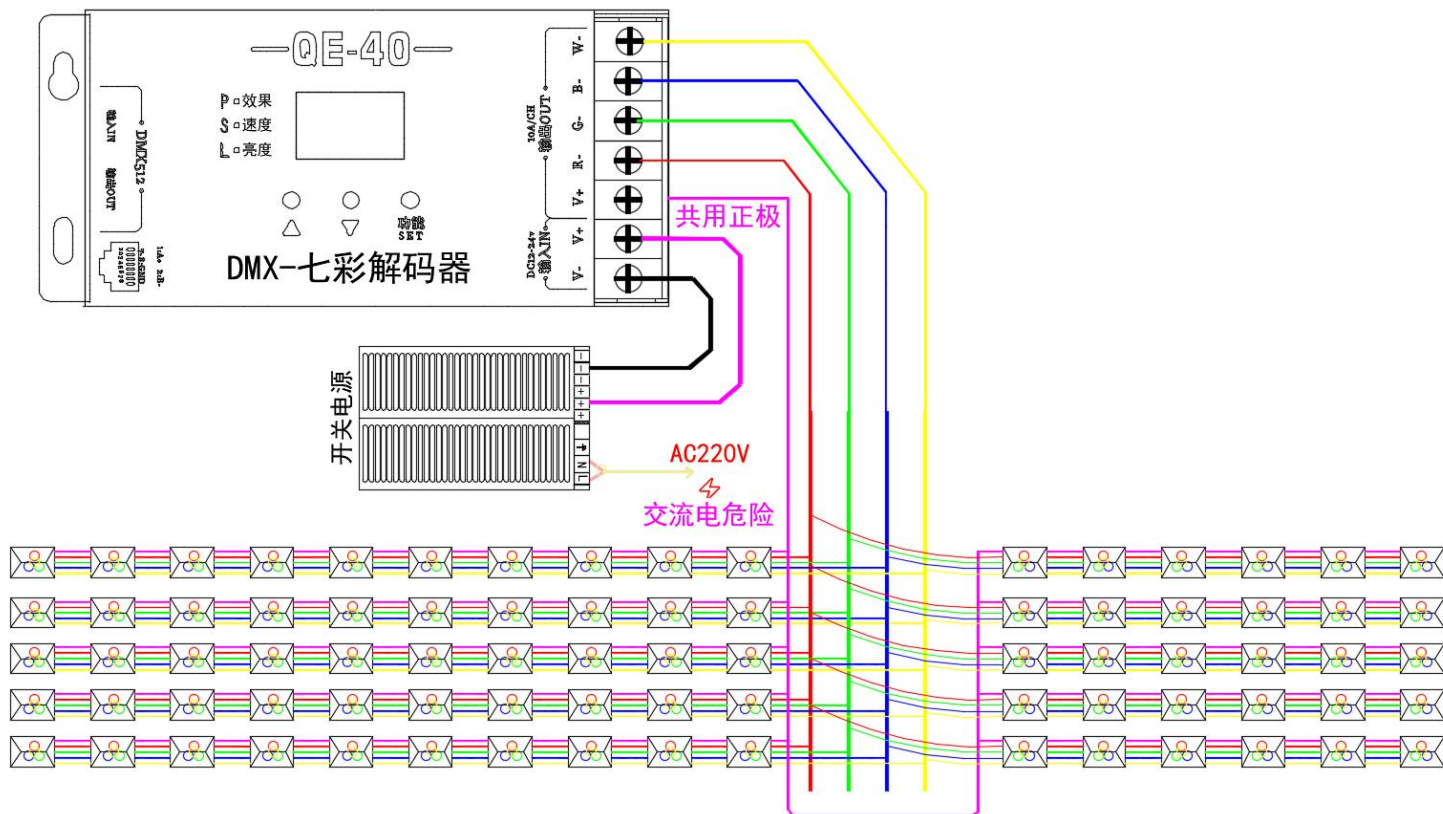
VI. Precautions Before Use

- 1. Operating voltage: DC 12 V–24 V; Operating mode
- 2. Before installation, you can pre-set the DMX512 address code using a 12V power adapter.
- 3. When using, select the appropriate channel configuration. The factory default is F–01: R, G, B, W, Total Dimming, Stroboscopic, Gradient, Breathing (eight channels).
- 4. Power specifications for the light strip: Using a standard 12V 5050 model as an example, each meter contains 60 LEDs and can support up to 1,200 LEDs, equivalent to a 30-meter length.
- 5. The built-in effect mode automatically switches to DMX reception mode upon connecting to a DMX512 signal; it remains in this mode even when the signal is disconnected.

VII. Technical Parameters:

Use ambient temperature	0°C---40°C	ambient temperature :	0%——75%
Storage ambient temperature:	-10°C----60°C	Connection Method	Co-amyloid
Input/Working Voltage:	DC12V----24V	Overall power consumption:	≤0.5W
Overall dimensions:	L146*W63*H25(mm)	outgoing channel :	3/4CH
maximum load :	Single-load current <10 A; Total load current <35 A.		

8. Wiring Diagram:



pour :

1、 The wiring for an RGBW four-channel luminaire is shown in the figure above. For RGB models, remove the W-wiring (yellow wire) from the diagram.

2、 For monochromatic lamps, use the R, G, B, and W colors from the diagram as individual negative electrodes and share a common positive electrode, as shown below:

