

USER'S MANUAL
BEDIENUNGSANLEITUNG
MANUEL D'UTILISATION
MANUAL DE USUARIO
INSTRUKCJA OBSŁUGI
MANUALE D'USO

 **camero**[®]



FLAT PRO INDOOR PAR CAN

7 X 10W LED RGBWA PAR CAN CLPFLATPR07

12 X 10W LED RGBWA PAR CAN CLPFLATPR012

18 X 10W LED RGBWA PAR CAN CLPFLATPR018

INTRODUCTION / EINFÜHRUNG / INTRODUZIONE / INTRODUCCIÓN / WPROWADZENIE / INTRODUZIONE

EN Introduction

Thanks to the extremely compact design of the passive cooling system, the professional PAR projectors of the Cameo FLAT PRO INDOOR series are particularly well suited for applications with limited space, where silent operation is required. With its 10 watt high power LEDs, the projector delivers impressive RGBWA colour mixtures. They range from soft pastels to rich, warm colours, which are provided with an impressive brightness, a beam angle of 30° and are flicker-free thanks to the 3000 Hz refresh rate.

7 x 10 W 5-in-1 LED RGBWA FLAT PAR PROJECTOR

CLPFLATPRO7

CONTROL FUNCTIONS:

- 2-channel, 3-channel 1, 3-channel 2, 5-channel and 8-channel DMX control
- Red, green, blue, white and amber controllable separately

FEATURES:

- 7 X 10 W 5-in-1 LEDs
- RGB colour spectrum + white + amber
- 30° beam angle
- Refresh rate 3000 Hz
- Silent operation thanks to convection cooling
- Power consumption 40 W
- Operating voltage 110 V - 240 V AC
- Neutrik powerCON input and output
- 3-pin and 5-pin DMX connectors
- Lit multifunctional LC display
- Adjustable multi-functional mounting bracket
- Music control via built-in microphone
- Master/slave mode
- Colour change rate and stroboscope effect controllable via control panel and DMX

12 x 10 W 5-in-1 LED RGBWA FLAT PAR PROJECTOR

CLPFLATPRO12

CONTROL FUNCTIONS:

- 2-channel, 3-channel 1, 3-channel 2, 5-channel and 8-channel DMX control
- Red, green, blue, white and amber controllable separately

FEATURES:

- 12 X 10 W 5-in-1 LEDs
- RGB colour spectrum + white + amber
- 30° beam angle
- Refresh rate 3000 Hz
- Silent operation thanks to convection cooling
- Power consumption 95 W
- Operating voltage 110V - 240 V AC
- Neutrik powerCON input and output
- 3-pin and 5-pin DMX connectors
- Lit multifunctional LC display
- Adjustable multi-functional mounting bracket
- Music control via built-in microphone
- Master/slave mode
- Colour change rate and stroboscope effect controllable via control panel and DMX

18 x 10 W 5-in-1 LED RGBWA FLAT PAR PROJECTOR

CLPFLATPRO18

CONTROL FUNCTIONS:

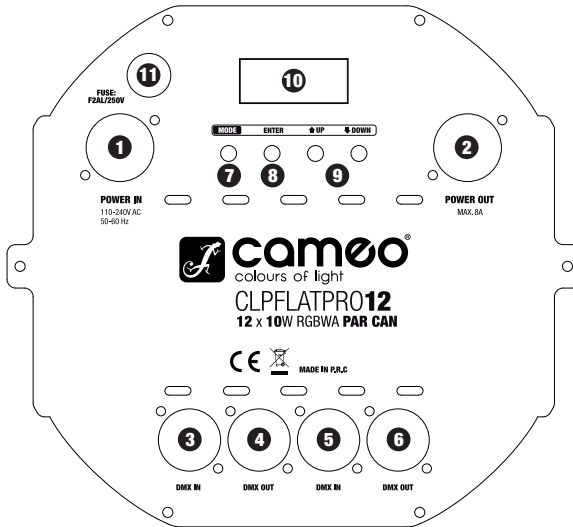
- 2-channel, 3-channel 1, 3-channel 2, 5-channel and 8-channel DMX control
- Red, green, blue, white and amber controllable separately

UTILIZZO

I fari Cameo FLAT PRO, controllati tramite DMX-512, si contraddistinguono per i potenti e luminosissimi LED. Grazie alla possibilità di controllare in modo indipendente la luminosità dei cinque gruppi di LED (rosso, verde, blu, bianco, ambra), la gamma di colori ottenibile è illimitata. I fari a LED Cameo si possono utilizzare come dispositivi standalone, in modalità master/slave, con controllo tramite musica e mediante protocollo DMX-512. La staffa di montaggio e di supporto integrata offre un fissaggio sicuro del faro durante l'utilizzo sia come apparecchio a pavimento sia nell'installazione su traverse.

NOTA: Il montaggio sopratesta può essere eseguito unicamente da personale qualificato, che dovrà inoltre provvedere a fissare il faro con una corda di sicurezza adatta per prevenirne la caduta.

CONTROLS AND DISPLAY / ANSCHLÜSSE, BEDIEN- UND ANZEIGELEMENTE / CONNECTEURS, CONTRÔLES ET INDICATEURS / CONEXIONES, CONTROLES E INDICADORES / PRZYŁĄCZA, ELEMENTY OBSŁUGI I WSKAZNIKI / CONNESSIONI, COMANDI E INDICATOR



1 POWER IN

- EN** Neutrik powerCON power input socket. Operating voltage 110 - 240 V AC / 50 - 60 Hz. Connection via the supplied powerCON power cord.
- DE** Neutrik powerCON Netzeingangsbuchse. Betriebsspannung 110 - 240 V AC / 50 - 60 Hz. Anschluss über das mitgelieferte powerCON-Netzkabel.
- FR** Embase secteur Neutrik powerCON 110 - 240 Volts, 50/60 Hz Accueille l'extrémité du cordon secteur powerCON fourni.
- ES** Entrada eléctrica por Neutrik powerCON. Alimentación eléctrica: 110 - 240 VAC, 50/60 Hz. Para enchufar el cable suministrado con conector powerCON.
- PL** Gniazdo sieciowe wejściowe Neutrik PowerCON Napięcie robocze 110–240 V AC, 50–60 Hz. Podłączenie przy użyciu kabla sieciowego PowerCON dostarczanego wraz z głośnikami.
- IT** Presa di ingresso Neutrik powerCON. Tensione di esercizio 110 - 240 V AC / 50 - 60 Hz. Collegamento tramite il cavo di alimentazione powerCON fornito in dotazione.

2 POWER OUT

- EN** Neutrik powerCON power output socket. Used to supply power to additional CAMEO projectors.
- DE** Neutrik powerCON Netzausgangsbuchse. Dient der Netzversorgung weiterer CAMEO Scheinwerfer.
- FR** Embase d'entrée secteur Neutrik powerCON. 100 - 240 Volts, 50/60Hz Accueille l'extrémité du cordon secteur powerCON fourni.
- ES** Salida eléctrica por Neutrik powerCON. Sirve para alimentar otros focos CAMEO.
- PL** Gniazdo sieciowe wyjściowe Neutrik PowerCON Gniazdo służy do zasilania dodatkowych reflektorów CAMEO.
- IT** Presa di entrata Neutrik powerCON. Serve per l'alimentazione elettrica di altri fari CAMEO.

3 DMX IN

- EN** 3-pin XLR socket for connection of a DMX controller (e.g., DMX mixer).
- DE** 3-polige männliche XLR-Buchse zum Anschließen eines DMX-Kontrollgeräts (z.B. DMX-Mischpult).
- FR** Connecteur XLR 3 points, pour branchement d'un contrôleur DMX (par exemple : pupitre DMX).
- ES** XLR macho de 3 pines para conectar un equipo de control DMX (como un controlador DMX).
- PL** 3-stykowe, męskie gniazdo XLR do podłączenia urządzenia kontrolnego DMX (np. pulpitu mikerskiego DMX).
- IT** Presa XLR maschio a 3 poli per collegare un apparecchio di controllo DMX (come un mixer DMX).

COLOUR MACROS

In this mode, one of the 5 basic colours of the projector or one of the 10 different mixed colours can be selected as a preset. Press the MODE button until "MACRO" appears in the upper line of the display. Now press ENTER and then select one of the 15 colour presets using the UP and DOWN buttons. Confirm with ENTER.

MACRO 01 = red	MACRO 09 = pink
MACRO 02 = green	MACRO 10 = light green
MACRO 03 = blue	MACRO 11 = magenta
MACRO 04 = white	MACRO 12 = turquoise
MACRO 05 = amber	MACRO 13 = orange
MACRO 06 = yellow	MACRO 14 = cool white
MACRO 07 = cyan	MACRO 15 = warm white
MACRO 08 = lavender	

MACRO
01

COLOUR CHANGE

In the colour change mode (jumping mode), 13 different colours alternate in rapid succession (red, green, blue, white, amber, yellow, cyan, lavender, pink, light green, magenta, turquoise, orange). The speed of the program is adjustable separately and a stroboscope effect can also be activated.

Press the MODE button until „JUMPING“ appears in the upper line of the display. Now, press ENTER until the cursor appears in the lower line of the display, and then select the rate (SPEED) using the UP and DOWN buttons, with the colours alternating from 00 to 99.

Confirm with ENTER. The indicator in the bottom line of the display changes to „FLASH:xx“. The cursor will appear in the bottom line at the same time and you can activate the stroboscope effect using the UP and DOWN buttons and adjust the flash frequency from 00 to 99 (FLASH:00 = strobe deactivated, FLASH: 01 = approx. 1 Hz, FLASH: 99 = approx. 20 Hz). Confirm with ENTER.

COLOUR CHANGE

STROBOSCOPE

Rate SPEED:00 - SPEED:99

Flash frequency FLASH:00 - FLASH:99

JUMPING
SPEED:99

JUMPING
FLASH:00

COLOUR BLENDING

In the colour fade mode (fading mode) different colours are blended into one another in succession. The speed of the program is adjustable separately and a stroboscope effect can also be activated.

Press the MODE button until "FADING" appears in the upper line of the display. Now, press ENTER until the cursor appears in the lower line of the display, and then select the rate (SPEED) using the UP and DOWN buttons, with the colours alternating from 00 to 99.

Confirm with ENTER. The indicator in the bottom line of the display changes to "FLASH:xx". The cursor will appear in the bottom line at the same time and you can activate the stroboscope effect using the UP and DOWN buttons and adjust the flash frequency from 00 to 99 (FLASH:00 = strobe deactivated, FLASH: 01 = approx. 1 Hz, FLASH: 99 = approx. 20 Hz). Confirm with ENTER.

COLOUR BLENDING

STROBOSCOPE

Rate SPEED:00 - SPEED:99

Flash frequency FLASH:00 - FLASH:99

FADING
SPEED:99

FADING
FLASH:00

AUTO MODE

Press the MODE button repeatedly until „AUTO MODE“ appears on the display. In this operating mode, the light switches automatically between colour change and colour blending mode. The colour change and/or colour blending rate is determined by the settings of the respective mode. A stroboscopic effect cannot be activated.

AUTO
MODE

SLAVE MODE

Press the MODE button repeatedly until „SLAVE MODE“ appears on the display. Connect the slave and the master unit (same series) with a DMX cable. Now the slave unit follows the master unit.

```
SLAVE
MODE
```

MUSIC CONTROL

Press the MODE button until „SOUND“ appears in the upper line of the display. Now the projector is controlled by the built-in microphone and follows the beat of the music. To adjust the microphone sensitivity, press ENTER, and the cursor appears in the lower line of the display (SENS:xx) and use the UP and DOWN buttons to set the desired value from 00 to 31 (SENS:00 = minimum sensitivity, SENS:31 = maximum sensitivity). Confirm with ENTER.

```
SOUND
SENS:31
```

SELECTING DMX MODE

Press the MODE button repeatedly until „DMX MODE“ appears in the upper line of the display. Press ENTER, and the cursor appears in the lower line of the display and then use the UP and DOWN buttons to select one of the five DMX modes (02CH, 03CH1, 03CH2, 05CH, 08CH). Confirm with ENTER. You will find tables with the channels of the different DMX modes on the following pages of this manual.

```
DMX MODE
08CH
```

DMX START ADDRESS

Press the MODE button repeatedly until „DMX ADDR“ appears in the upper line of the display. Press ENTER, and the cursor appears in the lower line of the display and then use the UP and DOWN buttons to select the desired DMX start address between 001 and 512. Confirm with ENTER. You will find tables with the channels of the different DMX modes on the following pages of this manual.

```
DMX ADDR
001
```

TEMPERATURE DISPLAY

Press the MODE button until „TEMPT“ appears in upper line of the display. The lower line now shows the temperature of the LED unit in degrees Celsius.

```
TEMPT
40°C
```

OPERATING TIME DISPLAY

Press the MODE button until “System OP. Hours” appears on the display, then press ENTER. You can now select the submenu options “Total” (total operating time), “Show” (operating time in “Show” mode), and “Illumina” (operating time in illumination mode) via UP and DOWN, and display the corresponding information by pressing ENTER.

System OP. Hours	OP. Hours Total	OP. Hours Show	OP. Hours Illumina
	Total 0020h	Show 0015h	Illumina 0005h

SETTING THE OPERATING MODE

Press the MODE button until “Intens Config” appears on the display, then press ENTER. Now you can choose between the two modes “Show” (maximum brightness) and “Illumina” (continually reduced brightness) using the UP and DOWN buttons, and then press ENTER to confirm your selection. Select the illumination mode to avoid brightness variations that can occur in high ambient temperatures and in “Show” mode.

Intens Config	Config Show	Config Illumina
------------------	----------------	--------------------

COLOR CALIBRATION

Press the MODE button until "ADJUST FIXCOLOR" appears in the display, then press ENTER. Select the "RAW" setting using the UP and DOWN buttons in order to operate Red, Green, Blue, White, and Amber at maximum brightness, and confirm by pressing ENTER. The submenu option "Calibrate" offers the possibility to adjust the brightness of R, G, B, W, and A individually with values ranging from 000 to 255, thus creating a distinct cross-mode color calibration, e.g., to adapt the spotlight to the color characteristics of other models. To do this, select "Calibrate" using the UP and DOWN buttons, and confirm with ENTER. Then select Red, Green, Blue, White, or Amber again using UP and DOWN, and press ENTER. Now select the desired value via UP and DOWN and confirm with ENTER.

ADJUST FIXCOLOR	FIXCOLOR RAW	FIXCOLOR Calibrat					
		Calibrat Red	Calibrat Green	Calibrat Blue	Calibrat White	Calibrat Amber	
		Red 000-255	Green 000-255	Blue 000-255	White 000-255	Amber 000-255	

NOTE: The LC display backlighting switches off automatically after approx. 40 seconds of inactivity. Pressing one of the 4 control buttons switches the LC display backlighting on again.

DE HINWEIS

Sobald der Scheinwerfer korrekt am Stromnetz angeschlossen ist, werden während des Startvorgangs nacheinander verschiedene Informationen im Display angezeigt: „Update Wait...“ (nur für Servicezwecke), die Softwareversion „SOFTWARE V1.xx“ und „WELCOME TO cameo“. Nach diesem Vorgang ist der Scheinwerfer betriebsbereit und wechselt in die Betriebsart, die zuvor angewählt war.

STATISCHE FARBE

Diese Betriebsart bietet die Möglichkeit, jede der 5 LED-Gruppen in der Intensität separat einzustellen und damit eine unbegrenzte Anzahl unterschiedliche Farben zu erzeugen (Farbmischung).

Drücken Sie die MODE-Taste so oft, bis in der oberen Zeile des Displays „STATIC“ erscheint. Wählen Sie durch wiederholtes Drücken der ENTER-Taste die LED-Gruppe aus, deren Helligkeit Sie verändern möchten (den Cursor im Display beachten, Rxx = Rot, Gxx = Grün, Bxx = Blau, Wxx = Weiß, Axx = Amber). Nun können Sie mit Hilfe der Tasten UP und DOWN die Intensität des ausgewählten Lichts von 00 bis 99 einstellen (Beispiel: R00 = Rot zu 0%, also aus. R99 = Rot zu 100%, also maximale Helligkeit).

Die Blitzfrequenz des Stroboskop-Effekts verstellen Sie, indem Sie durch wiederholtes Drücken auf ENTER den Cursor auf „Fxx“ bringen. Nun können Sie mit Hilfe der Tasten UP und DOWN den Stroboskop-Effekt aktivieren und die Blitzfrequenz von 00 bis 99 einstellen (F00 = Stroboskop-Effekt deaktiviert, F01 = ca. 1 Hz, F99 = ca. 20 Hz). Bestätigen Sie mit ENTER.

ROT
Intensität R00 - R99

BLAU
Intensität B00 - B99

AMBER
Intensität A00 - A99

GRÜN
Intensität G00 - G99

WEISS
Intensität W00 - W99

STROBOSKOP
Geschwindigkeit F00 - F99

STATIC R99 G99

STATIC A99 F00

FARBMAKROS

In dieser Betriebsart können eine der 5 Grundfarben des Scheinwerfers oder eine der 10 verschiedenen Mischfarben als Preset ausgewählt werden. Drücken Sie die MODE-Taste so oft, bis in der oberen Zeile des Displays „MACRO“ erscheint. Betätigen Sie nun die Taste ENTER und wählen dann eines der 15 Farb-Presets mit Hilfe der Tasten UP und DOWN aus. Bestätigen Sie mit ENTER.

MACRO 01 = Rot

MACRO 09 = Pink

MACRO 02 = Grün

MACRO 10 = Hellgrün

MACRO 03 = Blau

MACRO 11 = Magenta

MACRO 04 = Weiß

MACRO 12 = Türkis

MACRO 05 = Amber

MACRO 13 = Orange

MACRO 06 = Gelb

MACRO 14 = Kaltweiß

MACRO 07 = Cyan

MACRO 15 = Warmweiß

MACRO 08 = Lavendel

MACRO 01

TRYB SLAVE

Naciskać przycisk MODE, dopóki na wyświetlaczu nie pojawi się napis „SLAVE MODE”. Połączyć jednostki slave i master (taka sama seria) za pomocą kabla DMX. Jednostka slave jest podrzędna w stosunku do jednostki master.

```
SLAVE
MODE
```

STEROWANIE MUZYKA

Naciskać przycisk MODE, dopóki w górnym wierszu wyświetlacza nie pojawi się napis „SOUND”. Reflektor jest teraz sterowany poprzez wbudowany mikrofon i pulsuje w rytm muzyki (impulsy basowe). Aby ustawić czułość mikrofonu, nacisnąć przycisk ENTER. Kursor pojawi się w dolnym wierszu wyświetlacza (SENS:xx). Za pomocą przycisków UP i DOWN ustawić żądaną wartość w zakresie od 00 do 31 (SENS:00 = minimalna czułość, SENS:31 = maksymalna czułość). Zatwierdzić wprowadzone dane za pomocą przycisku ENTER.

```
SOUND
SENS:31
```

WYBÓR TRYBU DMX

Naciskać przycisk MODE, dopóki w górnym wierszu wyświetlacza nie pojawi się napis „DMX MODE”. Nacisnąć przycisk ENTER (kursor pojawi się w dolnym wierszu wyświetlacza) i za pomocą przycisków UP i DOWN wybrać jeden z pięciu trybów DMX (02CH, 03CH1, 03CH2, 05CH, 08CH). Zatwierdzić wprowadzone dane za pomocą przycisku ENTER. Tabele z przyporządkowaniem kabli dla różnych trybów DMX podano na następnych stronach niniejszej instrukcji.

```
DMX MODE
08CH
```

ADRES STARTOWY DMX

Naciskać przycisk MODE, dopóki w górnym wierszu wyświetlacza nie pojawi się napis „DMX ADDR”. Nacisnąć przycisk ENTER (kursor pojawi się w dolnym wierszu wyświetlacza) i za pomocą przycisków UP i DOWN wybrać żądany adres startowy DMX w zakresie od 001 do 512. Zatwierdzić wprowadzone dane za pomocą przycisku ENTER.

```
DMX ADDR
001
```

INFORMACJA O TEMPERATURZE

Naciskaj przycisk MODE, aż w górnym wierszu wyświetlacza pokaże się opcja „TEMPT”. Temperatura jednostki LED w stopniach Celsjusza jest teraz wyświetlana w dolnym wierszu.

```
TEMPT
40°C
```

WYŚWIETLANIE CZASU PRACY

Naciskaj przycisk MODE, aż na wyświetlaczu pokaże się opcja „System OP. Hours”, następnie naciśnij ENTER. Pozycje podmenu „Total” (całkowity czas działania), „Show” (czas działania w trybie pokazu) i „Illumina” (czas pracy w trybie oświetlenia) można teraz wybrać za pomocą przycisków UP i DOWN, a odpowiednie informacje można wyświetlić, naciskając ENTER.

```
System
OP. Hours
```

```
OP. Hours
Total
```

```
OP. Hours
Show
```

```
OP. Hours
Illumina
```

```
Total
0020h
```

```
Show
0015h
```

```
Illumina
0005h
```

USTAWIENIE TRYBU PRACY

Naciskaj przycisk MODE, aż na wyświetlaczu pokaże się opcja „Intens Config”, a następnie naciśnij ENTER. Teraz można wybrać pomiędzy dwoma trybami „Show” (maksymalna jasność) i „Illumina” (stała zmniejszona jasność) za pomocą klawiszy UP i DOWN i potwierdzić wybór przyciskiem ENTER. Wybierz tryb iluminacji, aby uniknąć wahań jasności, które mogą wystąpić w wysokich temperaturach otoczenia oraz w trybie pokazu (Show).

```
Intens
Config
```

```
Config
Show
```

```
Config
Illumina
```

KALIBRACJA KOLORÓW

DMX CONTROL / DMX STEUERUNG / PILOTAGE DMX / CONTROL DMX / STEROWANIE DMX / CONTROLLO DMX

2-CHANNEL MODE		
CHANNEL	VALUE	FUNCTION
CH1	000 - 255	Master dimmer (0 - 100%)
CH2	000 - 255	Colour Macros:
	000 - 016	Red
	017 - 033	Green
	034 - 050	Blue
	051 - 067	White
	068 - 084	Amber
	085 - 101	Yellow
	102 - 118	Cyan
	119 - 135	Lavender
	136 - 152	Pink
	153 - 169	Light Green
	170 - 186	Magenta
	187 - 203	Turquoise
	204 - 220	Orange
	221 - 237	Cool White
238 - 255	Warm White	

3-CHANNEL MODE 1		
CHANNEL	VALUE	FUNCTION
CH1	000 - 255	Master dimmer (0 - 100%)
CH2	000 - 255	Stroboscope (rate 0 - 100%)
CH3	000 - 080	Colour Macros
	000 - 004	Blackout
	005 - 010	Red
	011 - 015	Green
	016 - 020	Blue
	021 - 025	White
	026 - 030	Amber
	031 - 035	Yellow
	036 - 040	Cyan
	041 - 045	Lavender
	046 - 050	Pink
	051 - 055	Light Green
	056 - 060	Magenta
	061 - 065	Turquoise
	066 - 070	Orange
	071 - 075	Cool White
	076 - 080	Warm White
	081 - 150	Colour Change (rate)
	151 - 220	Colour Blending (rate)
	221 - 255	Music control (microphone sensitivity)

3-CHANNEL MODE 2		
CHANNEL	VALUE	FUNCTION
CH1	000 - 255	Red (0 - 100%)
CH2	000 - 255	Green (0 - 100%)
CH3	000 - 255	Blue (0 - 100%)

5-CHANNEL MODE		
CHANNEL	VALUE	FUNCTION
CH1	000 - 255	Red (0 - 100%)
CH2	000 - 255	Green (0 - 100%)
CH3	000 - 255	Blue (0 - 100%)
CH4	000 - 255	White (0 - 100%)
CH5	000 - 255	Amber (0 - 100%)

8-CHANNEL MODE		
CHANNEL	VALUE	FUNCTION
CH1	000 - 255	Master-Dimmer (0 - 100%)
CH2	000 - 255	Stroboscope (rate 0 - 100%)
CH3	000 - 255	Red (0 - 100%)
CH4	000 - 255	Green (0 - 100%)
CH5	000 - 255	Blue (0 - 100%)
CH6	000 - 255	White (0 - 100%)
CH7	000 - 255	Amber (0 - 100%)
CH8	000 - 080	Colour Macros
	000 - 004	Blackout / Colour Mixing CH3 - CH7
	005 - 010	Red
	011 - 015	Green
	016 - 020	Blue
	021 - 025	White
	026 - 030	Amber
	031 - 035	Yellow
	036 - 040	Cyan
	041 - 045	Lavender
	046 - 050	Pink
	051 - 055	Light Green
	056 - 060	Magenta
	061 - 065	Turquoise
	066 - 070	Orange
	071 - 075	Cool White
	076 - 080	Warm White
081 - 150	Colour Change (rate)	
151 - 220	Colour Blending (rate)	
221 - 255	Music control (microphone sensitivity)	

DMX TECHNOLOGY / DMX-TECHNIK / TECHNIQUE DMX / TECNOLOGÍA DMX / TECHNIKA DMX / TECNOLOGIA DMX

EN DMX-512

DMX (Digital Multiplex) is the designation for a universal transmission protocol for communications between corresponding devices and controllers. A DMX controller sends DMX data to the connected DMX device(s). The DMX data is always transmitted as a serial data stream that is forwarded from one connected device to the next via the "DMX IN" and "DMX OUT" connectors (XLR plug-type connectors) that are found on every DMX-capable device, provided the maximum number of devices does not exceed 32 units. The last device in the chain needs to be equipped with a terminator (terminating resistor).



DMX CONNECTION

DMX is the common "language" via which a very wide range of types and models of equipment from various manufacturers can be connected with one another and controlled via a central controller, provided that all of the devices and the controller are DMX compatible. For optimum data transmission, it is necessary to keep the connecting cables between the individual devices as short as possible. The order in which the devices are integrated in the DMX network has no influence on the addresses. Thus the device with the DMX address 1 can be located at any position in the (serial) DMX chain: at the beginning, at the end or somewhere in the middle. If the DMX address 1 is assigned to a device, the controller "knows" that it should send all data allocated to address 1 to this device regardless of its position in the DMX network.

SERIAL CONNECTION OF MULTIPLE LIGHTS

1. Connect the male XLR connector (3-pin or 5-pin) of the DMX cable to the DMX output (female XLR socket) of the first DMX device (e.g. DMX-Controller).
2. Connect the female 3-pin XLR connector of the DMX cable connected to the first projector to the DMX input (male 3-pin socket) of the next DMX device. In the same way, connect the DMX output of this device to the DMX input of the next device and repeat until all devices have been connected. Please note that as a rule, DMX devices are connected in series and connections cannot be shared without active splitters. The maximum number of DMX devices in a DMX chain should not exceed 32 units.

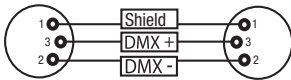
The Adam Hall 3 STAR, 4 STAR, and 5 STAR product ranges include an extensive selection of suitable cables.

DMX CABLES

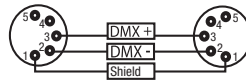
When fabricating your own cables, always observe the illustrations on this page. Never connect the shielding of the cable to the ground contact of the plug, and always make certain that the shielding does not come into contact with the housing of the XLR plug. If the shielding is connected to the ground, this can lead to short-circuiting and system malfunctions.

Pin Assignment

DMX cable with 3-pin XLR connectors:



DMX cable with 5-pin XLR connectors (pin 4 and 5 are not used):



DMX TERMINATORS (TERMINATING RESISTORS)

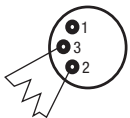
To prevent system errors, the last device in a DMX chain needs to be equipped with a terminating resistor (120 ohm, 1/4 Watt).

3-pin XLR connector with a terminating resistor: K3DMXT3

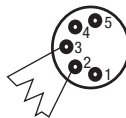
5-pin XLR connector with a terminating resistor: K3DMXT5

Pin Assignment

3-pin XLR connector:



5-pin XLR connector:



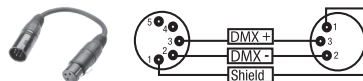
DMX ADAPTER

The combination of DMX devices with 3-pin connectors and DMX devices with 5-pin connectors in a DMX chain is possible with suitable adapters.

Pin Assignment

DMX Adapter 5-pin XLR male to 3-pin XLR female: K3DGF0020

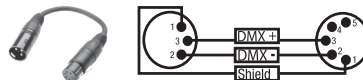
Pins 4 and 5 are not used.



Pin Assignment

DMX Adapter 3-pin XLR male to 5-pin XLR female: K3DHM0020

Pins 4 and 5 are not used.



DE DMX-512

DMX (Digital Multiplex) ist die Bezeichnung für ein universelles Übertragungsprotokoll für die Kommunikation zwischen entsprechenden Geräten und Controllern. Ein DMX-Controller sendet DMX-Daten an das/die angeschlossene(n) DMX-Gerät(e). Die DMX-Datenübertragung erfolgt stets als serieller Datenstrom, der über die an jedem DMX-fähigen Gerät vorhandenen DMX IN- und DMX OUT-Anschlüsse (XLR-Steckverbinder) von einem angeschlossenen Gerät an das nächste weitergeleitet wird, wobei die maximale Anzahl der Geräte 32 nicht überschreiten darf. Das letzte Gerät der Kette ist mit einem Abschlussstecker (Terminator) zu bestücken.



DMX-VERBINDUNG:

DMX ist die gemeinsame "Sprache", über die sich die unterschiedlichsten Gerätetypen und Modelle verschiedener Hersteller miteinander verkoppeln und über einen zentralen Controller steuern lassen, sofern sämtliche Geräte und der Controller DMX-kompatibel sind. Für eine optimale Datenübertragung ist es erforderlich, die Verbindungskabel zwischen den einzelnen Geräten so kurz wie möglich zu halten. Die Reihenfolge, in der die Geräte in das DMX-Netzwerk eingebunden sind, hat keinen Einfluss auf die Adressierung. So kann sich das Gerät mit der DMX-Adresse 1 an einer beliebigen Position in der (seriellen) DMX-Kette befinden, am Anfang, am Ende oder irgendwo in der Mitte. Wird einem Gerät die DMX-Adresse 1 zugewiesen, "weiß" der Controller, dass er alle der Adresse 1 zugeordneten Daten an dieses Gerät senden soll, ungeachtet seiner Position im DMX-Verbund.

SERIELLE VERKOPPLUNG MEHRERER SCHEINWERFER

1. Verbinden Sie den männlichen XLR-Stecker (3-Pol oder 5-Pol) des DMX-Kabels mit dem DMX-Ausgang (weibliche XLR-Buchse) des ersten DMX-Geräts (z.B. DMX-Controller).
2. Verbinden Sie den weibliche XLR-Stecker des an den ersten Scheinwerfer angeschlossenen DMX-Kabels mit dem DMX-Eingang (männliche XLR-Buchse) des nächsten DMX-Geräts. Verbinden Sie den DMX-Ausgang dieses Geräts in der gleichen Weise mit dem DMX-Eingang des nächsten Geräts und so weiter. Bitte beachten Sie, dass DMX-Geräte grundsätzlich seriell verschaltet werden und die Verbindungen nicht ohne aktiven Splitter geteilt werden können. Die maximale Anzahl der DMX-Geräte einer DMX-Kette darf 32 nicht überschreiten.

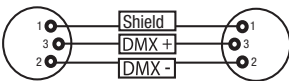
Eine umfangreiche Auswahl geeigneter DMX-Kabel finden Sie in den Adam Hall Produktlinien 3 STAR, 4 STAR und 5 STAR.

DMX-KABEL:

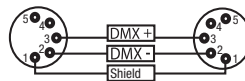
Beachten Sie bei der Anfertigung eigener Kabel unbedingt die Abbildungen auf dieser Seite. Verbinden Sie auf keinen Fall die Abschirmung des Kabels mit dem Massekontakt des Steckers, und achten Sie darauf, dass die Abschirmung nicht mit dem XLR-Steckergehäuse in Kontakt kommt. Hat die Abschirmung Massekontakt, kann dies zu Systemfehlern führen.

Steckerbelegung:

DMX-Kabel mit 3-Pol XLR-Steckern:



DMX-Kabel mit 5-Pol XLR-Steckern (Pin 4 und 5 sind nicht belegt.):



DMX-ABSCHLUSSSTECKER (TERMINATOR):

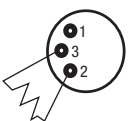
Um Systemfehler zu vermeiden, ist das letzte Gerät einer DMX-Kette mit einem Abschlusswiderstand zu bestücken (120 Ohm, 1/4 Watt).

3-Pol XLR-Stecker mit Abschlusswiderstand: K3DMXT3

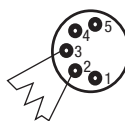
5-Pol XLR-Stecker mit Abschlusswiderstand: K3DMXT5

Steckerbelegung:

3-Pol XLR-Stecker:



5-Pol XLR-Stecker:

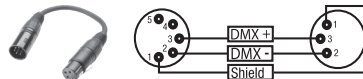


DMX-ADAPTER:

Die Kombination von DMX-Geräten mit 3-Pol Anschlüssen und DMX-Geräten mit 5-Pol Anschlüssen in einer DMX-Kette ist mit Hilfe von Adaptern ebenso möglich.

Steckerbelegung

DMX-Adapter 5-Pol XLR male auf 3-Pol XLR female: K3DGF0020
Pin 4 und 5 sind nicht belegt.



Steckerbelegung

DMX-Adapter 3-Pol XLR male auf 5-Pol XLR female: K3DHM0020
Pin 4 und 5 sind nicht belegt.

