PRO TRI LED MATRIX BLOCK

(Order code: LEDJ230)

USER MANUAL

WARNING

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

CAUTION!

Keep this equipment away from rain, moisture and liquids.

SAFETY INSTRUCTIONS

Every person involved with the installation, operation & maintenance of this equipment should:
- Be competent
- Follow the instructions of this manual

**CAUTION! TAKE CARE USING THIS EQUIPMENT!
HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!!**

Before your initial start-up, please make sure that there is no damage caused during transportation. Should there be any, consult your dealer and do not use the equipment.

To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.

Please note that damages caused by user modifications to this equipment are not subject to warranty.

IMPORTANT:

**The manufacturer will not accept liability for any resulting damages caused
by the non-observance of this manual or any unauthorised modification to the
equipment.**

- Never let the power-cable come into contact with other cables. Handle the power-cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the equipment.
- Do not open the equipment and do not modify the equipment.
- Do not connect this equipment to a dimmer-pack.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available voltage is between 220v/240v.
- Make sure that the power-cable is never crimped or damaged. Check the equipment and the power-cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately. Have a qualified engineer inspect the equipment before operating again.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- If your product fails to function correctly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Prolight dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.
- WARRANTY; One year from date of purchase.

OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual,
the product may suffer damage and the warranty becomes void.

Incorrect operation may lead to danger e.g.: short-circuit, burns, electric shocks,
lamp failure etc.

Do not endanger your own safety and the safety of others!
Incorrect installation or use can cause serious damage to people and property.

Introduction

Features

• DMX channels: 3/5/48 or 51 selectable
• 16 x 30W tri-colour LEDs
• Sound active, auto, master/slave and DMX modes
• Individually addressable LEDs
• 400Hz refresh rate
• Powercon in/out sockets
• 3-Pin XLR in/out sockets
• 5-PIN XLR in/out sockets
• 4 push button menu with LCD display
• 0-100% dimming and variable strobe
• Beam angle: 80 degrees
• Power consumption: 505W
• Power supply: 100-240V~50/60Hz
• Dimensions: 180 x 425 x 400mm
• Weight: 10.7Kgs

Overview
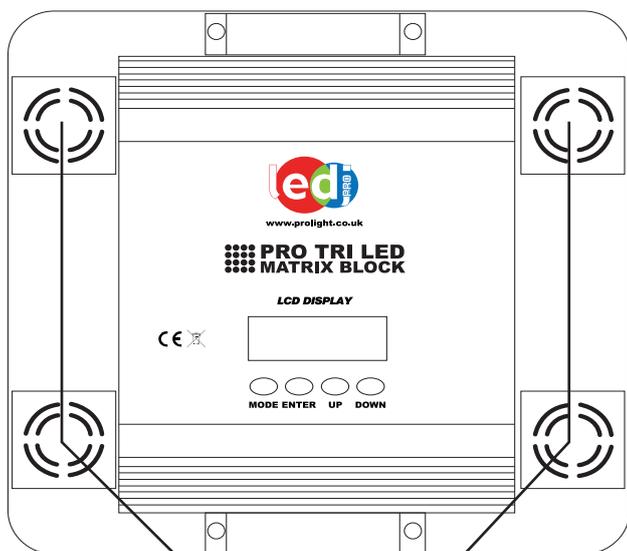
COOLING FANS
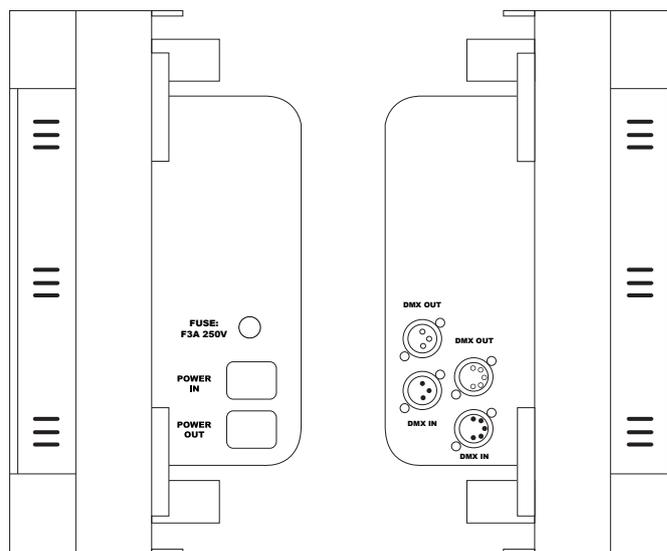
Setup

Operating Instructions

The Pro Tri LED Matrix Block is a DMX-512 controllable unit made up of high efficiency
tri-colour LEDs and will operate in auto, master/slave, sound active or DMX control modes.

Operation modes

Sound Active mode:
To activate the unit in sound active mode, press the **"MODE"** button to show **"SOUND MODE"** on the LCD screen. Now press the **"SET UP"** button to select the desired sensitivity level by using the **"UP"** and **"DOWN"** buttons. Press the **"SET UP"** button again to select the frequency level and adjust by using the **"UP"** and **"DOWN"** buttons.

"SENS" 00 - 31 (00 = low, 31 = high)
"FQN" 01-99 (01 = low, 99 = high)

Auto run mode:
To activate the unit in auto run mode, press the **"MODE"** button to show **"AUTO RUN"** on the LCD screen. Now press the **"SET UP"** button to select the desired frequency level by using the **"UP"** and **"DOWN"** buttons.

"FQN" 01-99 (01 = low, 99 = high)

Note: In this mode, it will run 14 built-in programmes in a continuos loop.

Slave mode:
To activate the unit in slave mode, first you must link multiple units together and press the **"MODE"** button to show **"SLAVE MODE"** on the LCD screen. Now on the master unit press the **"MODE"** button to select the desired mode and the slave units will now run in sequence with the master unit.

Built-in programmes:
To activate the units built-in programmes, press the **"MODE"** button to show **"01.STATIC"** on the LCD screen. Press the **"SET UP"** button to choose between the 15 built-in programmes by using the **"UP"** and **"DOWN"** buttons. Now press the **"SET UP"** button to select the desired speed and adjust by using the **"UP"** and **"DOWN"** buttons. Press the **"SET UP"** button once more to select the desired flash value and adjust by using the **"UP"** and **"DOWN"** buttons.

Speed values: 00 - 99 (00 = slow, 99 = fast)
Flash values: 00 - 99 (00 = slow, 99 = fast)

For the 15 built-in programmes please see page 5.

DMX mode:
To activate the unit in DMX mode, press the **"MODE"** button to show **"DMX MODE"** on the LCD screen. Press the **"SET UP"** button and select the desired DMX address setting by using the **"UP"** and **"DOWN"** buttons. Then to select one of the 4 DMX modes 3, 5, 48 or 51 channel, press the **"SET UP"** button again to choose the desired DMX mode by using the **"UP"** and **"DOWN"** buttons.

For the 3, 5, 48 or 51 channel DMX address information please see pages 6 & 7.

NOTE: Once the desired settings have been selected in each of the above modes, **ALWAYS** confirm the settings by pressing the **"SET UP"** button.

15 Built-in programme chart

STATIC COLOR BLAC-RGB Flash00-99	Blackout, Red-Yellow-Green-Cyan-Blue-Purple-White Flash speed adjustable.
DREAM Speed00-99 Flash00-99	Seven color dreaming Speed & Flash adjustable
METEOR Speed00-99 Flash00-99	Seven color flow Speed & Flash adjustable
FADE Speed00-99 Flash00-99	Seven color fade Speed & Flash adjustable
CHANGE Speed00-99 Flash00-99	Seven color change Speed & Flash adjustable
FLOW 1 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 2 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 3 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 4 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 5 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 6 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 7 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 8 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 9 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable
FLOW 10 Speed00-99 Flash00-99	Seven color chase Speed & Flash adjustable

3 channel mode DMX chart

CH1	CH2	CH3
All Red 0-100%	All Green 0-100%	All Blue 0-100%

5 channel mode DMX chart

Channel	Value	Function
CH1	0-255	Red 0-100%
CH2	0-255	Green 0-100%
CH3	0-255	Blue 0-100%
CH4	0-255	Master dimmer 0-100%
CH5	0	No function
	001-005	Sound active (7 colours)
	006-010	No function
	011-255	Strobe (slow to fast)

48 channel mode DMX chart

CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	•••••	CH16
Red 1	Green 1	Blue 1	Red 2	Green 2	Blue 2	Red 3	Green 3	Blue 3	Red 4	•••••	Red 6

CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24	CH25	CH26	•••••	CH32
Green 6	Blue 6	Red 7	Green 7	Blue 7	Red 8	Green 8	Blue 8	Red 9	Green 9	•••••	Green 11

CH33	CH34	CH35	CH36	CH37	CH38	CH39	CH40	CH41	CH42	•••••	CH48
Blue 11	Red 12	Green 12	Blue 12	Red 13	Green 13	Blue 13	Red 14	Green 14	Blue 14	•••••	Blue 16

51 channel mode DMX chart

CH1	CH2	CH3	CH4	CH5	CH6	•••••	CH51
0-15	Master Dimmer 0-100%		Red 1	Green 1	Blue	•••••	Blue 16
16-23 Red	Dimmer 0-255	Flash 0-255					
24-31 Green							
32-39 Blue							
40-47 RG							
48-55 GB							
56-63 RB							
64-71 RGB							
72-79 Colour 1							
80-87 Colour 2							
88-95 Colour 3							
96-103 Colour 4							
104-111 Colour 5							
112-119 Colour 6							
120-127 Colour 7							
128-135 Colour 8							
136-143 Dream	Speed 0-255						
144-151 Meteor							
152-159 Fade							
160-167 Change							
168-175 Flow 1							
176-183 Flow 2							
184-191 Flow 3							
192-199 Flow 4							
200-207 Flow 5							
208-215 Flow 6							
216-223 Flow 7							
224-231 Flow 8							
232-239 Flow 9							
240-247 Flow 10							
248-255 Sound control	Sensitivity 0-255						

DMX-512:
• DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions form the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a data "out" terminal).

DMX Linking:
• DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

DATA Cable (DMX cable) requirements (for DMX operation):
• The Pro Tri LED Matrix Block can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit and your DMX controller require a standard 3-pin XLR connector for data input/output (figure 1).

Figure 1

Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight dealers.
Please quote:
         CABL10 – 2M
         CABL11 – 5M
         CABL12 – 10M

Also remember that DMX cable must be daisy chained and cannot be split.

Notice:
• Be sure to follow figures 2 & 3 when making your own cables. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behaviour.
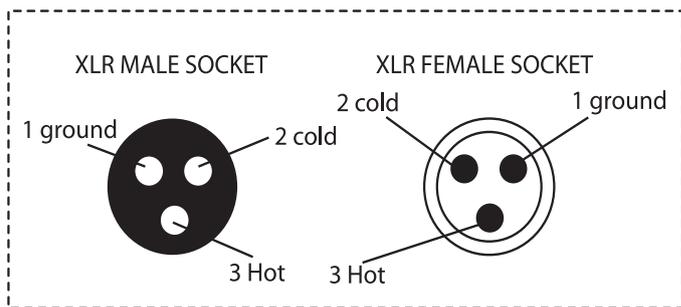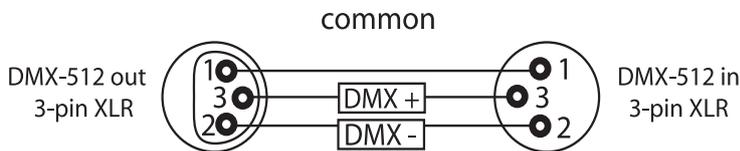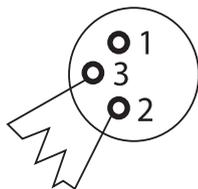
common

DMX-512 out
3-pin XLR

DMX +
DMX -

DMX-512 in
3-pin XLR

XLR MALE SOCKET

1 ground

2 cold

3 Hot

XLR FEMALE SOCKET

2 cold

3 Hot

1 ground

XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Negative
Pin 3 = Postive

FIGURE 3   FIGURE 2

Special Note: Line termination:
  • When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.
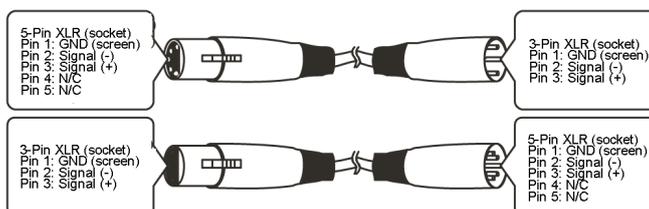
Termination reduces signal transmission problems and interferance. it is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4 W) between pin 2 (DMX-) and pin 3 (DMX+) of the last fixture.

Using a cable terminator (part number CABL90) will decrease the possibilities of erratic behaviour.

5-Pin XLR DMX Connectors:
  • Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-Pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The chart below details the correct cable conversion.

5-Pin XLR (socket)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

3-Pin XLR (socket)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)

3-Pin XLR (socket)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)

5-Pin XLR (socket)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

9.