SPECTRA PAR 7T3 (IP 66)

Order code: LEDJ257

USER MANUAL

WARNING

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

CAUTION!

INPUT VOLTAGE OF 100~240V

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.
- Do not expose to flammable sources 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 100V-240V.
- Make sure that the power-cable is never crimped or damaged. Check the equipment and the power-cable periodically.
- Avoid direct eye exposure to the light source while the product is on.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately. Have a qualified engineer inspect the equipment before operating again.
- 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,
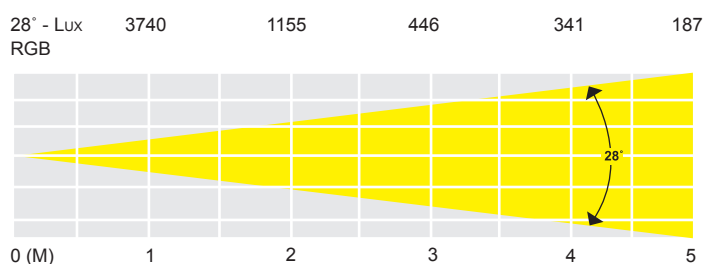LED failure etc.

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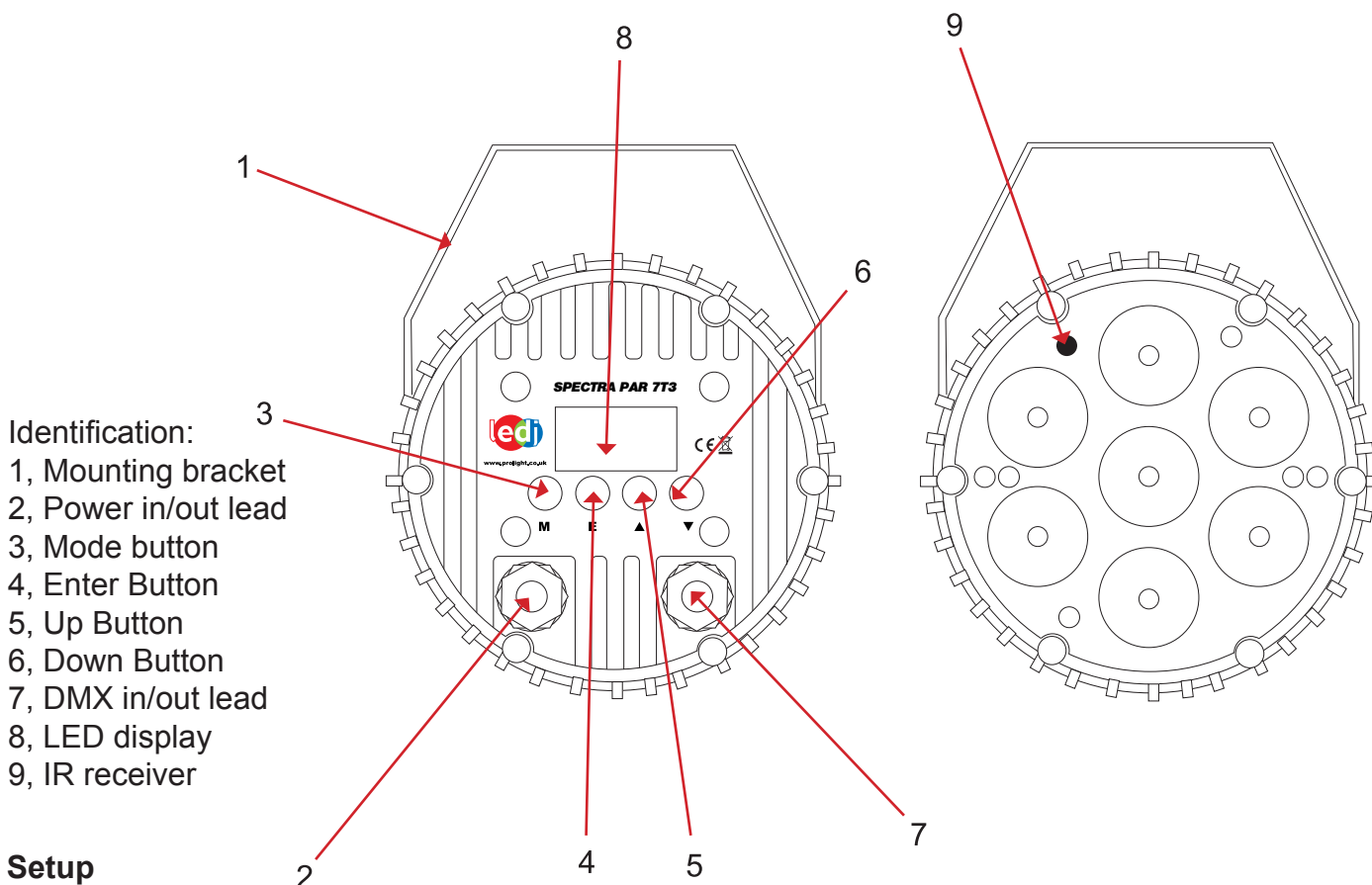
Introduction

Features

• 7 x 3W tri-colour LEDs
• Beam angle: 28 degrees
• 0-100% dimming and variable strobe
• DMX channels: 1, 3, 4, 5 or 6 selectable
• Static colour, colour fade, colour change, colour mix, auto, master/slave and DMX modes
• Optional I.R remote (LEDJ90A)
• 4 push button menu with LED display
• IP rated power in/out sockets
• IP rated 3-pin DMX in/out sockets
• Power consumption: 35W
• Power supply: 100-240V~50/60Hz
• IP rating: IP-66
• Dimensions: 125 x 156 x 180mm
• Weight: 1.6Kgs

Lux chart:

28° - Lux RGB	3740	1155	446	341	187

| 0 (M) | 1 | 2 | 3 | 4 | 5 |

Overview

Identification:
1, Mounting bracket
2, Power in/out lead
3, Mode button
4, Enter Button
5, Up Button
6, Down Button
7, DMX in/out lead
8, LED display
9, IR receiver

SPECTRA PAR 7T3

Setup

Operating Instructions

The Spectra Par 7T3 Exterior is a DMX-512 controllable unit made up of high efficiency RGB LEDs and will operate in stand alone, master/slave or DMX control modes.

Operation modes

Colour mix mode:
To activate the units colour mix mode, press the **"M"** button to show **"COLr"** on the LED screen. Now press the **"E"** button to scroll through the three separate colours, red green and blue. To adjust the brightness of each individual colour use the **"UP"** and **"DOWN"** buttons.

The **"r"** represents Red, **"9."** = Green and B = Blue
The 3 digits after it are the brightness 000 to 255. **Note: 000 = Off, 255 = Full on.**

Examples:

If you set r, 9. and b to 000, the Spectra Par 7T3 will have no LEDs on (blackout).
If you set r to 255 and 9. and b to 000, the Spectra Par 7T3 will be 100% Red.

Built-in programmes:
To activate the units built-in programmes, press the **"M"** button to show **"Pr01"** on the LED screen. Now use the **"UP"** and **"DOWN"** buttons to scroll through the built-in programmes from Pr01 to Pr07. Now tap the **"E"** button to select the desired speed and adjust by using the **"UP"** and **"DOWN"** buttons. Press the **"E"** button once more to select the desired flash value and adjust by using the **"UP"** and **"DOWN"** buttons.

Speed values: SP00 - SP99 (00 = slow, 99 = fast),
Flash values: FS00 - FS99 (00 = slow, 99 = fast)

In **"Pr01"** you can set a specific static colour. When in P.01, Press the **"E"** button and use the **"UP"** and **"DOWN"** buttons to scroll through the list of built-in static colours.

0 = White (RGB)   1 = Red   2 = Orange   3 = Light Yellow   4 = Green   5 = Cyan
6 = Blue   7 = Purple   8 = Pink   9 = Yellow   10, Cool white   11, Warm white

To add strobe Press the **"E"** button again and use the **"UP"** and **"DOWN"** buttons to set strobe from FS00 to FS99. To confirm your setting press the **"ENTER"** button.
Note: FS00 = slow, FS99 = fast.

Auto run mode
To activate the units auto run mode, press the **"M"** button to show **"AUTO"** on the LED screen. The unit will now run through its built-in programmes.

DMX Mode
To activate the units DMX mode, press the **"M"** button to show **"d001"** on the LED screen and use the **"UP"** and **"DOWN"** buttons to set the first digit in the DMX address from 0 to 512.

To choose one of the 5 DMX channels, press the **"E"** button and use the **"UP"** and **"DOWN"** buttons to scroll through the 1, 3, 4, 5 and 6 channel options.

To confirm your choice, press the **"E"** button.
For DMX functions, please see the DMX charts below.

4.

Master/salve mode:

To set the unit as the master, simply use any of the above modes on the unit.

To set the unit as a slave unit(s), press the **"MODE"** button to show **"SLAV"** on the LED display. The unit will follow in sequence with the master unit.

Restore factory settings:

To restore the unit back to its factory settings, press the **"M"** and **"E"** button at the same time.

1 channel mode DMX chart

Channel	Value	Function
	0	No function
	1-22	Red
	23-45	Green
	46-68	Blue
	69-91	Cyan
	92-114	Yellow
1	115-137	Orange
	138-160	Pink
	161-183	Purple
	184-206	Dark Blue
	207-229	Pale Green
	230-252	White
	253-255	Warm White

3 channel mode DMX chart

Channel	Value	Function
1	0-255	Red 0-100%
2	0-255	Green 0-100%
3	0-255	Blue 0-100%

4 channel mode DMX chart

Channel	Value	Function
1	0-255	Red 0-100%
2	0-255	Green 0-100%
3	0-255	Blue 0-100%
4	0-255	Master dimmer 0-100%

5 channel mode DMX chart

Channel	Value	Function
1	0-255	Red 0-100%
2	0-255	Green 0-100%
3	0-255	Blue 0-100%
4	0-255	Master dimmer 0-100%
5	0-255	Strobe (slow to fast)

6 channel mode DMX chart

Channel	Value	Function	
1	0-255	Master dimmer 0-100%	
	0-255	Red 0-100% (only when CH6 is set to 0)	
	0-8	Red	
	9-17	Orange	
	18-26	Yellow	
	27-35	Spring yellow	
	36-44	Lime	
	45-53	Light yellow	
	54-62	Light green	
	63-71	Green	To use the static colours set CH6 to value 1-25
	72-80	Pastel green	
	81-89	Light cyan	
	90-98	Cyan	
2	99-107	Light Blue	When CH6 is set to 26-255 use this channel for the programme speed 0-255 (slow to fast)
	108-116	Medium blue	
	117-125	Blue	
	126-134	Violet	
	135-143	Purple	
	144-152	Magenta	
	153-161	Pink	
	162-170	Light pink	
	171-179	Pastel blue	

6 channel mode DMX chart continued....

Channel	Value	Function	
2	180-188	Pastel Green	To use the static colours set CH6 to value 1-25
	189-197	Pastel yellow	
	198-206	Pastel purple	
	207-215	Pastel Cyan	
	216-224	Turquoise	When CH6 is set to 26-255 use this channel for the programme speed 0-255 (slow to fast)
	225-233	Pastel pink	
	234-242	Neutral white	
	243-251	Warm white	
	252-255	Cool white	
3	0-255	Green 0-100%	
4	0-255	Blue 0-100%	
5	0-9	No function	
	10-255	Strobe (slow to fast)	
6	0-25	Static colours (use CH2 for colour selection)	
	26-51	Seven colour fade in and out	
	52-77	Three colour fade in and out	
	78-103	Seven colour change	
	104-129	Three colour change	
	130-155	Seven colour fade	Use CH2 for programme speed 0-255 (slow to fast)
	156-181	Three colour fade	
	182-207	Red fade in and out	
	208-233	Green fade in and out	
	234-255	Blue fade in and out	

Button functions:

The **"BLACKOUT"** button is used to set the LED's into the power on or off modes.

The **"AR"** button is used to set the LED's into the auto run mode.

The **"S PR"** button is used to set the LED's to run the built-in programmes

Built-in programme selection: 7 colour selection, colour changing and colour fade. Choose between the built-in programmes by pressing the **"+"** and **"-"** buttons.

The **"FL"** button is used to set the LED's to flash on and off, to change the flash frequency use the **"+"** and **"-"** buttons.

The **"SP"** button is used to set the run speed, this button is available only in the colour change or colour fade modes. To change the speed use the **"+"** and **"-"** buttons.

The **"D"** button is used to set the LED's into DMX mode. (See DMX value table)

The **"SA"** button is used to set the LED's into sound activated mode. This function is unavailable on the Exterior Spectra Series.

The **"SL"** button is used to set the LED's into slave mode.

The **"S"**, **"0"**, **"1"**, **"2"**, **"3"**, **"4"**, **"5"**, **"6"**, **"7"**, **"8"** and **"9"** buttons are used to set the DMX address for the LED's. (see example below)

The **"R"**, **"G"**, and **"B"** buttons are used to set the brightness for the LEDs, to change the brightness use the **"+"** and **"-"** buttons.

DMX Address Examples:

To set the DMX address "245";

1) Press the **"S"** button, so the red LED's come on, this means you can now start to set the DMX address.
2) Press the **"2"** button, so the green LED's come on, this means the first digit **"2"** (the hundreds place) setting is successful.
3) Now Press the **"4"** button, and the blue LED's will come on, this now means that the second digit **"4"** (tens place) setting is successful.
4) Now Press the **"5"** button, and all of the R/G/B LED's will come on, this means that the final digit **"5"** (units place) setting is successful and the full DMX address setting has been changed.
5) Now press the **"DMX MODE"** button to save the new address into memory.

To set the DMX address "002";

1) Press the **"S"** button, so the red LED's come on, this means you can now start to set the DMX address.
2) Press the **"0"** button, so the green LED's come on, this means the first digit **"0"** (the hundreds place) setting is successful.
3) Now Press the **"0"** button, and the blue LED's will come on, this now means that the second digit **"0"** (tens place) setting is successful.
4) Now Press the **"2"** button, and all of the R/G/B LED's will come on, this means that the final digit **"2"** (units place) setting is successful and the full DMX address setting has been changed.
5) Now press the **"DMX MODE"** button to save the new address into memory.

Important notes:
• **Set the DMX address on each fixture before plugging into the DMX controller.**
• **The I.R Remote is not usable when the fixture(s) are being controlled by a DMX controller.**
• **The maximum transmitter distance is 10m. Please make sure that you have the I.R remote aimed directly at each fixture to be programmed,**
• **If you do not press the "DMX MODE" button after you have changed the DMX address, when you power down the fixture it will lose the address you have set.**

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 Spectra Par 7T3 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.

IP Rated Exterior Power Cable

IP Rated Exterior DMX Cable

Further exterior DMX and power cables can be purchased from all good sound and lighting suppliers or Prolight dealers.
Please quote:

DMX:	Power:
LEDJ141 - 1m	LEDJ146 - 1m
LEDJ142 - 2m	LEDJ147 - 2m
LEDJ143 - 5m	LEDJ148 - 5m
LEDJ144 - 10m	LEDJ149 - 10m

Interior to exterior DMX:
LEDJ91 - 1m

Interior to IP Rated Exterior DMX Cable

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

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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.
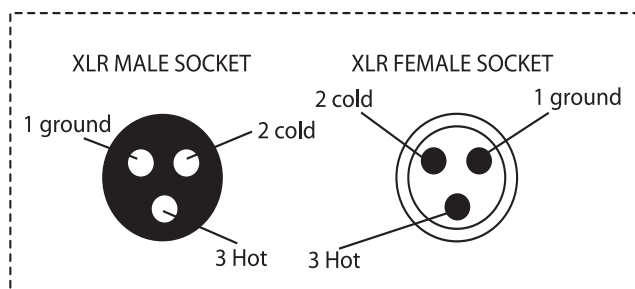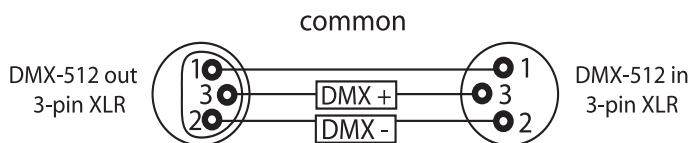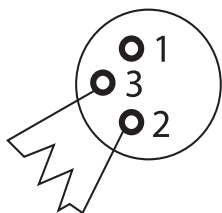
common

DMX-512 out   DMX +   DMX-512 in
3-pin XLR   DMX -   3-pin XLR

XLR MALE SOCKET   XLR FEMALE SOCKET

2 cold   1 ground

1 ground   2 cold

3 Hot   3 Hot

FIGURE 3

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

FIGURE 2

Special Note: Line termination:
• When longer runs of cable are used, you may need to use a DMX terminator on the last unit to avoid erratic behaviour (LEDJ260).

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.

AC Plug:
• The Spectra Par 7T3 features captive power cords terminated with IP66 connectors for power input and power linking. The fixture is then supplied with a short 13A to IP66 connector power cord. If at any stage the 13A plug is removed please follow the chart below. Any changes to the connector types must be verified by a PAT test or equivalent electrical safety test.

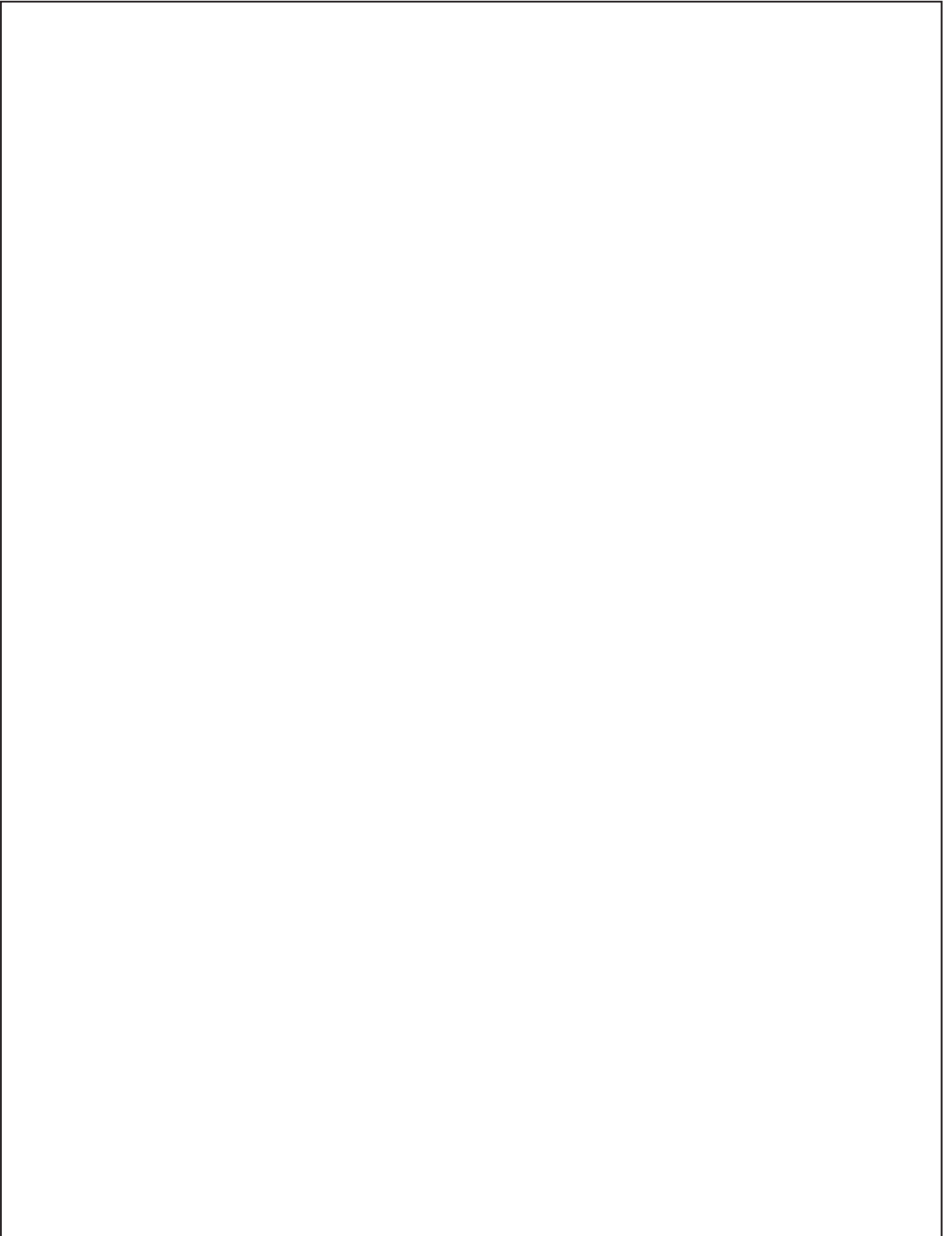| Connection	Wire (Europe)
AC Live	Brown
AC Neutral	Blue
AC Ground	Green/Yellow

Power linking:
• The Spectra Par 7T3 supports power linking. You can link up to 8 products at 120 VAC or 16 at 240 VAC.
•This product supplied with a fixed power input cord. This product is not suppled with a power link cable; however, power cables are available as an option (see page 8).
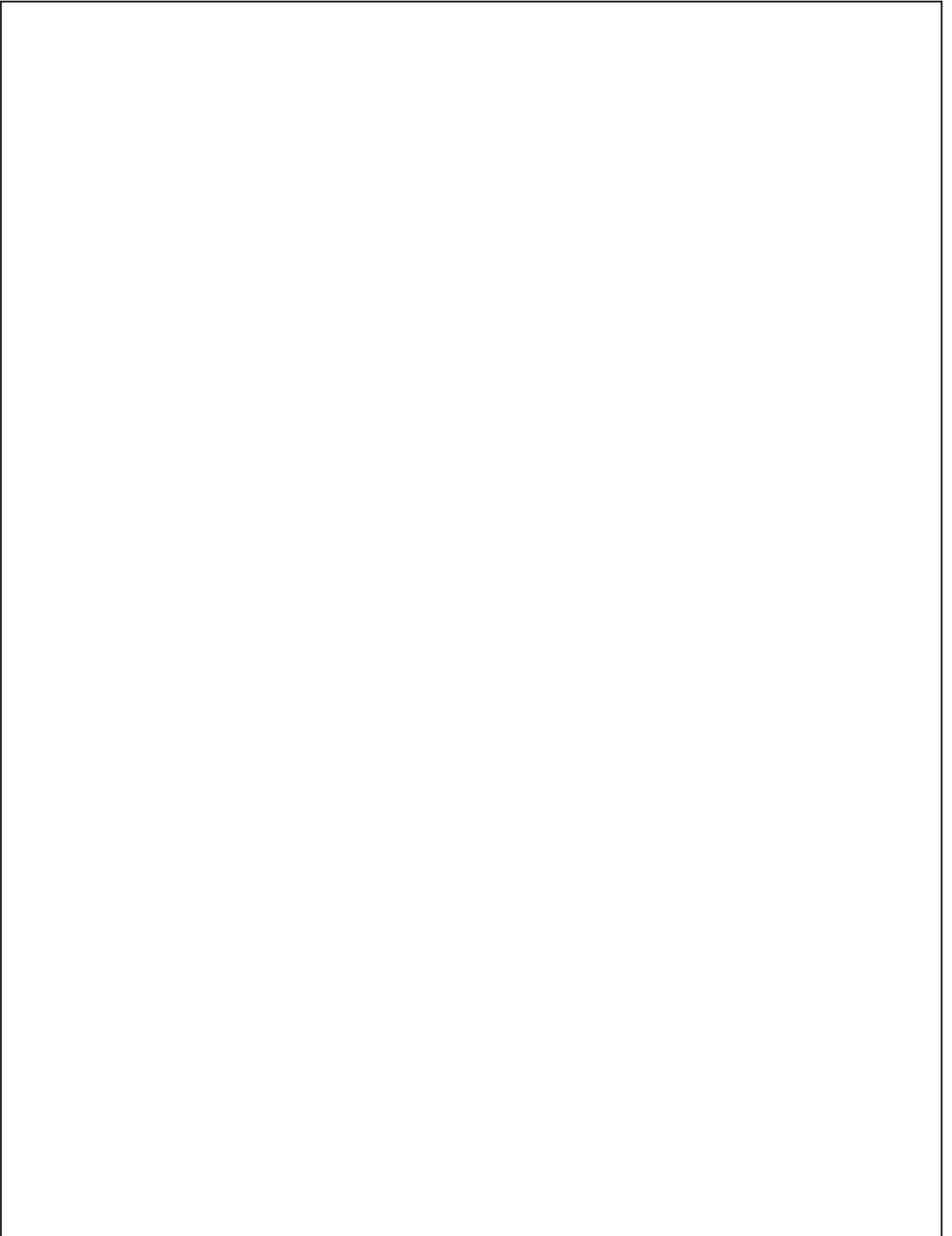
Problem	Probable cause	Solution
One or more fixtures are completely dead.	No power to the fixture.	Check that the power is switched on and cables are connected.
	Internal fuse has blown.	Contact your Prolight dealer.
Fixtures reset correctly, but all are responding erratically or not at all to the controller.	The controller is not connected.	Connect the controller.
	The 3-pin XLR out of the controller does not match the XLR out of the first fixture (i.e. signal is reversed).	Install a phase reversing cable between the controller and the first fixture in the link.
Fixtures reset correctly, but some are responding erratically or not at all to the controller.	Poor data quality.	Check the data quality. If much lower than 100%, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug or a defective fixture is disturbing the link.
	Bad data link connection.	Inspect the connection and cables. Correct the connection. Repair or replace the damaged cables.
	Data link not terminated with 120 Ohm termination plug.	Insert a termination plug into the output socket of the last fixture.
	Incorrect addressing of the fixtures.	Check that DMX address setting is correct.
	One of the fixtures is defective and disturbs the data transmission on the link.	Bypass one fixture at a time until normal operation is regained. Unplug both connectors and connect them together. Have the fixture serviced by a qualified technician.
	The 3-pin XLR Out on the fixture do not match (pins 2 and 3 reversed).	Install a phase reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically.

Problem	Probable cause	Solution
Fixture black out suddenly	The fixture is resetting the effect.	Contact a technician for servicing if the problem persists.
No Light.	Fixture is too hot.	Allow the fixture to cool down.
		Make sure that all air vents are not blocked.
	The LEDs are damaged.	Disconnect the fixture and return it to your dealer.
	The power supply settings do not match the local AC voltage and frequency.	Disconnect the fixture and check settings and correct if necessary.

Notes:

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Create the right effect

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