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LED Mini Studio PAR RGBW 3x8W

LED PAR

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MUSIC IS OUR PASSION

user manual

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Table of contents

1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – suspended load.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used as an electronic illumination effect using LED technics. The device is designed for professional use and is not suitable for use in households. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

Do not use the device if covers, protectors or optical components are missing or damaged.

DANGER!

Electric shock caused by short-circuit

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

WARNING!

Eye damage caused by high light intensity

Never look directly into the light source.

WARNING!

Risk of epileptic shock

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.

NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

The LED PAR is suitable for almost all applications, for example in clubs, bars, small stages and theatres. It is characterized by compact dimensions and enormous performance.

Special features of the device:

- LED configuration:
  3 × quad-colour LEDs: red, green, blue, white, 8 W each
- Control via DMX (five different modes) as well as via buttons and display on the unit
- Built-in automatic show programmes
- Stroboscope effect with adjustable speed
- Sound control via built-in microphone
- Master / Slave mode
- Robust aluminium die-cast housing

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

NOTICE!

Risk of overheating

Always ensure sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).

NOTICE!

Use of stands

When mounting the device onto a stand, ensure that the stand is in a safe and stable position and that the weight of the device does not exceed the maximum permissible load capacity of the stand.

NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Options

You can install the device in either the hanging or standing position. During use, the device must always be attached to a solid surface or to an approved support. Use the openings provided on the bracket for attaching.

Always work from a stable platform whenever installing, moving or servicing the unit. In doing so, the area underneath the device must be cordoned off.

The safety-rope must be attached to the bracket.

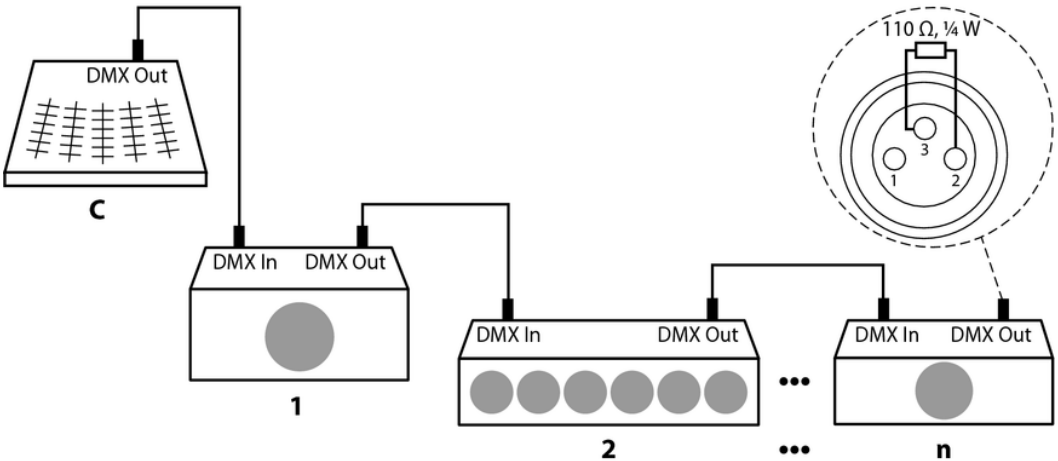
Please note that this device must not be connected to a dimmer.

5 Starting up

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

Connections in DMX mode

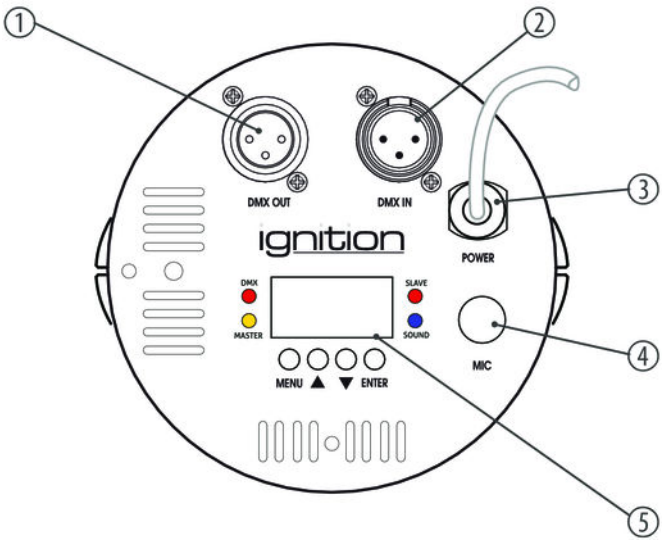
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor (110 Ω, ¼ W).



Connections in master/slave mode

When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave device. Then connect the DMX output of the first slave device to the DMX input of the second slave device and so on.

6 Connections and controls



1	*[DMX OUT]* DMX output.
2	*[DMX IN]* DMX input.
3	Power cord.
4	*[MIC]* Microphone for sound control.
5	Display and control buttons:
	[MENU] Activates the main menu and toggles between menu items. Closes an opened submenu.
	[ENTER] Selects an option of the respective operating mode, confirms the set value.

	▲, ▼ Increases / decreases the displayed value by one. Increases the displayed value by one.
	[DMX] The LED indicates that a signal is present at the DMX input.
	[SOUND] The LED lights up when the built-in microphone for the sound control detects a signal.
	[MASTER] This LED lights up when the device is configured as 'Master'.
	[SLAVE] The LED indicates that the device is in 'Slave' mode.

7 Operating

7.1 Starting the device

Connect the device to the power supply to start operation.

7.2 Main menu

Press *[MENU]* to open the main menu. Use the arrow buttons ▲ or ▼ to navigate between submenus in the main menu. To open the highlighted submenu, press *[ENTER]*.

DMX address

This setting is only relevant when the device is controlled via DMX.

Press *[MENU]* and use ▲ or ▼ to highlight the option *'Addr'* in the main menu. Confirm with *[ENTER]*.

Now you can set the number of the first DMX channel to be used by the device (DMX address). Use ▲ or ▼ to select a value between 1 and 512 (display shows *'A001'* … *'A512'*).

Make sure that this number matches the configuration of your DMX controller. The following table shows the highest possible first DMX address for the various DMX modes.

Mode	Highest possible DMX address
1 (1-channel)	512
2 (2-channel)	511
3 (5-channel)	508
4 (6-channel)	507
5 (8-channel)	505

Press *[ENTER]* to apply the changes and to return to the main menu.

Operating mode Automatic

Automatic operation can only be activated when the unit is operating in stand alone mode or as master in a master / slave combination. This setting is only relevant if the device is not controlled via DMX.

Press *[MENU]* and use ▲ or ▼ to highlight the option *'Shnd'* in the main menu. Confirm with *[ENTER]*.

Use ▲ or ▼ to select the desired automatic mode (*'Sh1'* … *'Sh9'*).

Press again *[ENTER]* to apply the changes and to return to the main menu.

Process speed

Press *[MENU]* and use ▲ or ▼ to highlight the option *'SPEd'* in the main menu. Confirm with *[ENTER]*.

Use ▲ or ▼ to specify the programme speed in a range from *'SP00'* (fast) … *'SP 31'* (slow).

Press *[ENTER]* to apply the changes and to return to the main menu.

Operating mode DMX / Slave

This setting is only relevant if the device is controlled via DMX or working as slave in a master / slave configuration.

Press *[MENU]* and use ▲ or ▼ to highlight the option *'SLAV'* in the main menu. Confirm with *[ENTER]*.

Use ▲ or ▼ to select one of the following DMX operating modes:

- *'SL1'* (DMX control, one channel)
- *'SL2'* (DMX control, two channels)
- *'SL3'* (DMX control, five channels)
- *'SL4'* (DMX control, six channels)
- *'SL5'* (DMX control, eight channels)
- *'SLA'* (slave operation)

Press *[ENTER]* to apply the changes and to return to the main menu.

Microphone sensitivity

Press *[MENU]* and use ▲ or ▼ to highlight the option *'SenS'* in the main menu. Confirm with *[ENTER]*.

Use ▲ or ▼ to turn the microphone off (setting *'OFF'*) or specify the microphone sensitivity in a range from *'1'* (lowest sensitivity) … *'100'* (maximum sensitivity).

Press *[ENTER]* to apply the changes and to return to the main menu.

Sound-controlled automatic show

The sound controlled automatic show can only be activated when the unit is operating in stand alone mode or as master in a master / slave combination. This setting is only relevant if the device is not controlled via DMX.

Press *[MENU]* and use ▲ or ▼ to highlight the option *'Soud'* in the main menu. Confirm with *[ENTER]*.

Use ▲ or ▼ to toggle between *'Sou1'* (simple colour change) and *'Sou2'* (colour change plus flash).

Press *[ENTER]* to apply the changes and to return to the main menu.

Dimmer

The overall brightness and the brightness of individual colours can be set when the unit is operating in stand alone mode or as master in a master / slave combination. This setting is only relevant if the device is not controlled via DMX.

Press *[MENU]* and use ▲ or ▼ to highlight one of the menu items listed below. Confirm with *[ENTER]*.

Use *[UP]* and *[DOWN]* to select a value in the range from *'0'* … *'255'* to adjust the intensity.

Menu item	Meaning
'ALLC'	Overall brightness
'rEd'	Intensity red (0 % … 100 %)
'GrEE'	Intensity green (0 % … 100 %)
'bLUE'	Intensity blue (0 % … 100 %)
'Ult'	Intensity white (0 % … 100 %)

Press *[ENTER]* to apply the changes and to return to the main menu.

Display off time

Press *[MENU]* and use ▲ or ▼ to highlight the option *'Led'* in the main menu. Confirm with *[ENTER]*. To set how the display behaves when no button is pressed for a certain time, select one of the options listed below.

Menu item	Meaning	
'ON'	Display remains constantly on	
'30'	Display is automatically switched off after	30 seconds
'60'		60 seconds
'90'		90 seconds

Reset

Press *[MENU]* and use ▲ or ▼ to highlight the option *'reset'* in the main menu. Confirm with *[ENTER]*. The device now performs a reset.

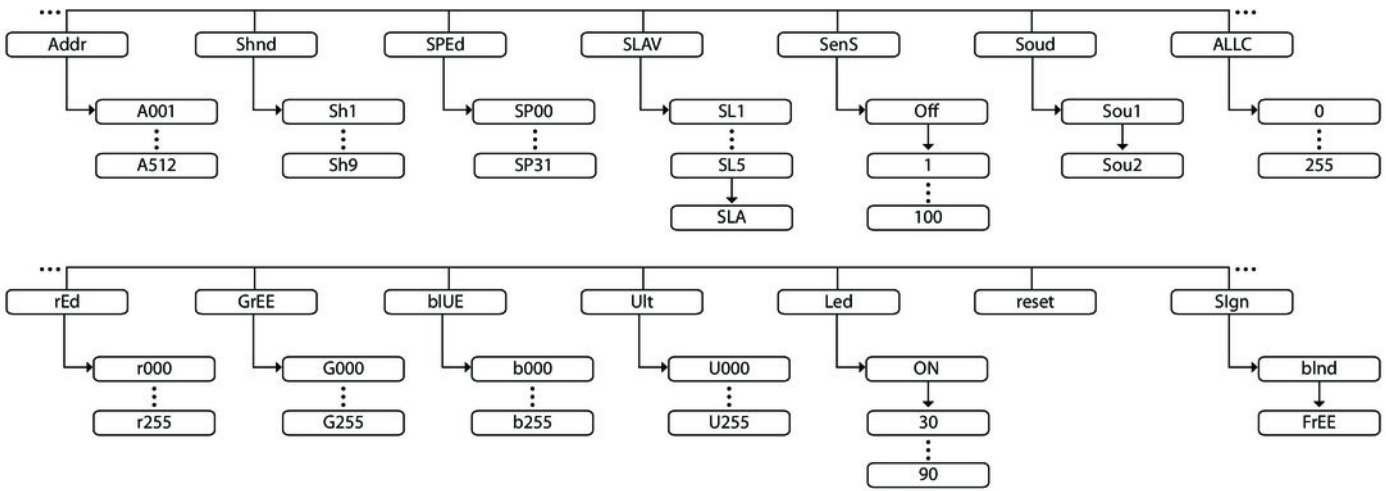
Behaviour on DMX signal failure

Press *[MENU]* and use ▲ or ▼ to highlight the option *'SIgN'* in the main menu. Confirm with *[ENTER]*.

To set how the unit reacts when the DMX signal fails, select between *'bInd'* (if the DMX signal fails, all values are set to zero) or *'FrEE'* (if the DMX signal fails, the last received values are retained).

Press *[ENTER]* to apply the changes and to return to the main menu.

7.3 Menu overview



7.4 Functions in DMX mode 1 (1 channel)

Channel	Value	Function
1	Colour macros	
	0…6	No function
	7…13	Colour 1
	14…20	Colour 2
	21…27	Colour 3
	28…34	Colour 4
	35…41	Colour 5
	42…48	Colour 6
	49…55	Colour 7
	56…62	Colour 8
	63…69	Colour 9

Channel	Value	Function
	70…76	Colour 10
	77…83	Colour 11
	84…90	Colour 12
	91…97	Colour 13
	98…104	Colour 14
	105…111	Colour 15
	112…118	Colour 16
	119…125	Colour 17
	126…132	Colour 18
	133…139	Colour 19
	140…146	Colour 20
	147…153	Colour 21
	154…160	Colour 22

Channel	Value	Function
	161…167	Colour 23
	168…174	Colour 24
	175…181	Colour 25
	182…188	Colour 26
	189…195	Colour 27
	196…202	Colour 28
	203…209	Colour 29
	210…216	Colour 30
	217…223	Colour 31
	224…230	Colour 32
	231…237	Colour 33
	238…244	Colour 34
	245…255	Colour 35

7.5 Functions in DMX mode 2 (2 channels)

Channel	Value	Function
1	Colour macros	
	0…6	No function
	7…13	Colour 1
	14…20	Colour 2
	21…27	Colour 3
	28…34	Colour 4
	35…41	Colour 5
	42…48	Colour 6
	49…55	Colour 7
	56…62	Colour 8
	63…69	Colour 9

Channel	Value	Function
	70…76	Colour 10
	77…83	Colour 11
	84…90	Colour 12
	91…97	Colour 13
	98…104	Colour 14
	105…111	Colour 15
	112…118	Colour 16
	119…125	Colour 17
	126…132	Colour 18
	133…139	Colour 19
	140…146	Colour 20
	147…153	Colour 21
	154…160	Colour 22

Channel	Value	Function
	161…167	Colour 23
	168…174	Colour 24
	175…181	Colour 25
	182…188	Colour 26
	189…195	Colour 27
	196…202	Colour 28
	203…209	Colour 29
	210…216	Colour 30
	217…223	Colour 31
	224…230	Colour 32
	231…237	Colour 33
	238…244	Colour 34

Channel	Value	Function
	245…255	Colour 35
2	0…255	Master dimmer (0 % to 100 %)

7.6 Functions in DMX mode 3 (5 channels)

Channel	Value	Function
1	0…255	Intensity red (0 % to 100 %)
2	0…255	Intensity green (0 % to 100 %)
3	0…255	Intensity blue (0 % to 100 %)
4	0…255	Intensity white (0 % to 100 %)
5	0…255	Master dimmer (0 % to 100 %)

7.7 Functions in DMX mode 4 (6 channels)

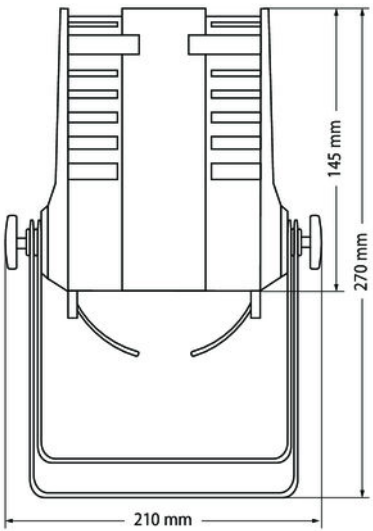
Channel	Value	Function
1	0…255	Intensity red (0 % to 100 %)
2	0…255	Intensity green (0 % to 100 %)
3	0…255	Intensity blue (0 % to 100 %)
4	0…255	Intensity white (0 % to 100 %)
5	Strobe effect	
	0…8	No function
	9…255	Stroboscope effect, increasing speed
6	0…255	Master dimmer (0 % to 100 %)

7.8 Functions in DMX mode 5 (8 channels)

Channel	Value	Function
1	0…255	Intensity red (0 % to 100 %)
2	0…255	Intensity green (0 % to 100 %)
3	0…255	Intensity blue (0 % to 100 %)
4	0…255	Intensity white (0 % to 100 %)
5	Strobe effect	
	0…8	No function
	9…255	Stroboscope effect, increasing speed
6	0…255	Master dimmer (0 % to 100 %)
7	Special functions	
	0…31	No function
	32…63	Automatic fade in

Channel	Value	Function
	64…95	Automatic fade out
	96…127	Automatic fade In / out
	128…159	Automatic colour transition
	160…191	Colour change (3 colours)
	192…223	Colour change (7 colours)
	224…255	Sound control
8	0…255	Depending on the operating mode, either setting the microphone sensitivity or the programme speed

8 Technical specifications



Illuminant	3 × quad-colour LEDs, 8 W (red, green, blue, white)
Beam angle	15 °
Number of DMX channels	1, 2, 5, 6, or 8 channels, depending on operating mode
Operating supply voltage	AC 100 – 240 V ~ 50/60 Hz
Power consumption	30 W max.
Dimensions (L × W × H)	210 mm × 145 mm × 270 mm
Weight	2.1 kg

9 Plug and connection assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX–, 'cold signal')
3	Signal (DMX+, 'hot signal')

10 Troubleshooting

NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work, no light.	Check the mains connection and the fuse.
No response to the DMX controller.	1. Check the DMX ports and cables for proper connection.
	2. Check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at *www.thomann.de*.

11 Cleaning

Optical lenses

Clean the optical lenses, that are accessible from the outside, regularly in order to optimize the light output. The frequency of cleaning depends on the operating environment: wet, smoky or particularly dirty surroundings can cause more accumulation of dirt on the optics of the device.

- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

Fan grids

The fan grids of the device must be cleaned on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. Never use solvents or alcohol for cleaning.

12 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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