VARYTEC

Fan FX

effect panel

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1 General information

This user manual contains important information on the safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under *www.thomann.de*.

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 – dangerous optical radiation.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for use as an electronic lighting effect by means of LED technology. 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.

Extend the life of the device by regular breaks in operation and avoid switching it on and off frequently. This device is not suitable for continuous use.

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

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. 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.

Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures).

Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction.

!

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.

!

NOTICE!

Possible damage due to installation of a wrong fuse

The use of different types of fuses can cause serious damage to the unit. Fire hazard!

Only fuses of the same type may be used.

3   Features

The device is designed as an effective LED decorative fan and is ideal as a decorative element in clubs, bars and on stages. Several devices can be connected to form a coherent surface.

Special features of the device:

- Fan impeller with five blades
- 36 × RGB LED per blade
- six separately controllable segments per blade
- Control protocols: DMX-512
- stepless speed control of the fan propeller in both directions
- almost silent operation
- Operating modes: Stand alone, DMX (5, 8, 19, 91 channels)
- In and outputs: DMX (3-pin)
- Operating via buttons and display on the unit
- Power Twist connectors for self-supply and for supplying further devices
- Robust metal housing with mounting bracket

For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

4   Installation and starting up

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

Mounting options

The mounting bracket on the rear of the device is used for secure mounting and alignment of the device on a tripod or the like. Secure the device additionally with a safety cable, which is threaded through the safety eyelet on the unit's rear side.

Secure each individual device additionally with a safety cable, which is threaded through the safety eyelet on the unit's rear side.

Make sure that the installation complies with the standards and rules that apply in your country.

Connect the units to be controlled via suitable DMX cables to the device. A maximum of 30 devices may be serially connected to each serial port of the controller. The cable length in a series connection for DMX operation should not exceed 100 metres.

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.

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

5   Connections and controls
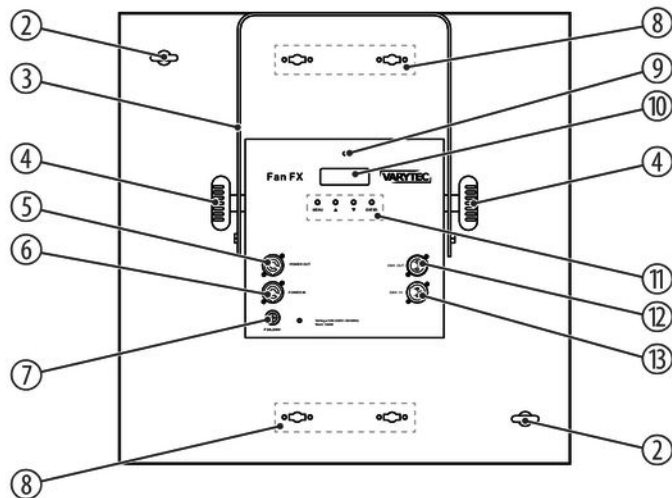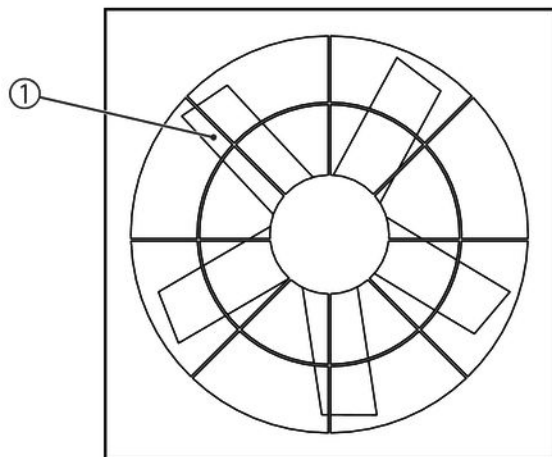
1	Impeller
2	Safety cable eyelet.
3	Mounting bracket
4	Locking screw for the mounting bracket
5	*[POWER OUT]* Lockable Power Twist output socket to supply further devices
6	*[POWER IN]* Lockable Power Twist input socket for power supply.
7	Fuse holder
8	Plug connection for the serial assembly of multiple devices
9	DMX indicator light: lights up when the unit is turned on and receives a DMX signal.
10	Display
11	Buttons for operating the device

	[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 the displayed value by one.
	▼ Decreases the displayed value by one.
12	*[DMX OUT]* DMX output (3-pin) for connecting additional DMX units in a DMX universe.
13	*[DMX IN]* DMX input (3-pin) to control the device via DMX.

6   Operating

Connect the device to the power grid. Once the display is lit, the device is operational.

Navigating the menu

1. ▶ Press *[MENU]* to call up the main menu and to switch between the main menu items.

2. ▶ Use ▲ or ▼ to select a submenu or value.

3. ▶ Press *[ENTER]* to confirm the selection.

4. ▶ Press *[MENU]* to return to the parent menu level.

DMX mode

This setting is only relevant when the device is controlled via DMX. To control the device via DMX, select the channel mode and then go to the *'DMX Address'* option.

1. ▶ Press *[MENU]* until the display shows the option *'DMX MODE'* .

2. ▶ Press ▲ or ▼ until the display shows the desired DMX mode.

Display	Function
'5CH'	5-channel mode
'8CH'	8-channel mode
'19CH'	19-channel mode
'91CH'	91-channel mode

3. ▶ Press *[ENTER]* to confirm the selection.

DMX address

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

1. ▶ Press *[MENU]* until the display shows the option *'DMX Address'* .

2. ▶ Press ▲ or ▼ until the display shows the desired value between *'001'* and *'512'* .

Highest available DMX address	DMX mode
'507'	in 5-channel mode
'504'	in 8-channel mode
'493'	in 19-channel mode
'421'	in 91-channel mode

3. ▶ Press *[ENTER]* to confirm the selection.

Static colour

This setting is only relevant if the device is not controlled via DMX.

A static colour for the rotor blades can be selected in the menu. The motion is determined in the *'POSITION'* menu. To call up the previously set static colour, you have to return to the colour settings (*'R-DIM'*, *'G-DIM'* or *'B-DIM'*).

1. ▸ Press *[MENU]* until the display shows the option *'R-DIM'*, *'G-DIM'* or *'B-DIM'*.

2. ▸ Press ▲ or ▼ until the display shows the desired brightness value between *'001'* and *'255'*.

Display		Function
'R-DIM'	*'001…255'*	Intensity LED red
'G-DIM'	*'001…255'*	Intensity LED green
'B-DIM'	*'001…255'*	Intensity LED blue

3. ▸ Press *[ENTER]* to confirm the selection.

Motion settings

This setting is only relevant if the device is not controlled via DMX.

In this menu, the colour setting depends on the selected programme. If you want to call up a self-defined static colour, first make the motion setting and then return to the colour settings (*'R-DIM'* , *'G-DIM'* or *'B-DIM'*).

1. ▶ Press *[MENU]* until the display shows the option *'POSITION'* .

2. ▶ Press ▲ or ▼ until the display shows the desired value between *'001'* and *'255'* .

Display	Function
'000…127'	Static position
'128…191'	Counter-clockwise rotation, speed increasing
'192…255'	Clockwise rotation, speed increasing

3. ▶ Press *[ENTER]* to confirm the selection.

Automatic show selection

This setting is only relevant if the device is not controlled via DMX.

1. ▶ Press *[MENU]* until the display shows the option *'PROGRAM'*.

2. ▶ Press ▲ or ▼ until the display shows the desired value between *'01'* and *'25'*. Each value represents a different pre-programmed automatic show. Programmes 1…6 are colour macros, programmes 7…25 are colour change programmes.

3. ▶ Press *[ENTER]* to confirm the selection.

Setting the programme speed

This setting is only relevant if the device is not controlled via DMX.

The setting determines the speed of the automatic show.

1. ▶ Press *[MENU]* until the display shows the option *'SPEED'*.

2. ▶ Press ▲ or ▼ until the display shows the desired value between *'01'* and *'16'* to set the running speed from slow to fast.

3. ▶ Press *[ENTER]* to confirm the selection.

Stand-alone mode

This setting is only relevant if the device is not controlled via DMX.

1. ▶ Press *[MENU]* until the display shows the option *'STAND ALONE'*.

2. ▶ Press ▲ or ▼ until the display shows *'AUTO'* or *'Sound'*.

Display	Function
'AUTO'	Automatic programme run is started.
'Sound'	The sound control is activated.

3. ▶ Press *[ENTER]* to confirm the selection.

Performing a reset

1. ▶ Press *[MENU]* until the display shows the option *'Reset'*.

2. ▶ Press *[ENTER]* to confirm the selection.

⇨ The reset is carried out.

6.1 Menu overview

DMX Address	DMX Mode	R-DIM	G-DIM	B-DIM	POSITION	PROGRAM	SPEED	STAND ALONE	RESET
001	5CH	0	0	0	0	01	01	AUTO	
⋮	8CH	⋮	⋮	⋮	⋮	⋮	⋮	Sound	
512	19CH	255	255	255	255	25	16		
	91CH								
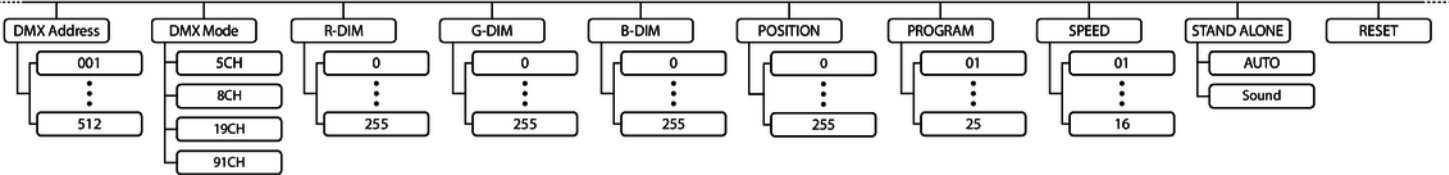
6.2 Functions in 5-channel mode

Channel	Value	Function
1	000 … 127	Static position
	128 … 191	Counter-clockwise rotation, speed increasing
	192 … 255	Clockwise rotation, speed increasing
2	0 … 255	Dimmer function (0 % … 100 %)
3	0 … 255	Intensity LED red (0 % … 100 %)
4	0 … 255	Intensity LED green (0 % … 100 %)
5	0 … 255	Intensity LED blue (0 % … 100 %)

6.3   Functions in 8-channel mode

Channel	Value	Function
1	000 … 127	Static position
	128 … 191	Counter-clockwise rotation, speed increasing
	192 … 255	Clockwise rotation, speed increasing
2	000 … 255	Dimmer function (0 % … 100 %)
3	000 … 255	Intensity LED red (0 % … 100 %)
4	000 … 255	Intensity LED green (0 % … 100 %)
5	000 … 255	Intensity LED blue (0 % … 100 %)
6	000 … 255	RGB colour mixing
7	000 … 255	Selecting one of 35 automatic shows
8	0 … 255	Programme speed (slow … fast)

6.4 Functions in 19-channel mode

Channel	Value	Function
1	000 … 127	Static position
	128 … 191	Counter-clockwise rotation, speed increasing
	192 … 255	Clockwise rotation, speed increasing
2	0 … 255	Intensity red pixels ring 1 (0 % … 100 %)
3	0 … 255	Intensity green pixels ring 1 (0 % … 100 %)
4	0 … 255	Intensity blue pixels ring 1 (0 % … 100 %)
5	0 … 255	Intensity red pixels ring 2 (0 % … 100 %)
6	0 … 255	Intensity green pixels ring 2 (0 % … 100 %)
7	0 … 255	Intensity blue pixels ring 2 (0 % … 100 %)
8	0 … 255	Intensity red pixels ring 3 (0 % … 100 %)
9	0 … 255	Intensity green pixels ring 3 (0 % … 100 %)

Channel	Value	Function
10	0 … 255	Intensity blue pixels ring 3 (0 % … 100 %)
11	0 … 255	Intensity red pixels ring 4 (0 % … 100 %)
12	0 … 255	Intensity green pixels ring 4 (0 % … 100 %)
13	0 … 255	Intensity blue pixels ring 4 (0 % … 100 %)
14	0 … 255	Intensity red pixels ring 5 (0 % … 100 %)
15	0 … 255	Intensity green pixels ring 5 (0 % … 100 %)
16	0 … 255	Intensity blue pixels ring 5 (0 % … 100 %)
17	0 … 255	Intensity red pixels ring 6 (0 % … 100 %)
18	0 … 255	Intensity green pixels ring 6 (0 % … 100 %)
19	0 … 255	Intensity blue pixels ring 6 (0 % … 100 %)

6.5   Functions in 91-channel mode

Channel	Value	Function
1	000 … 127	Static position
	128 … 191	Counter-clockwise rotation, speed increasing
	192 … 255	Clockwise rotation, speed increasing
2	0 … 255	Blade 1 segment 1 red (0 % … 100 %)
3	0 … 255	Blade 1 segment 1 green (0 % … 100 %)
4	0 … 255	Blade 1 segment 1 blue (0 % … 100 %)
5	0 … 255	Blade 1 segment 2 red (0 % … 100 %)
6	0 … 255	Blade 1 segment 2 green (0 % … 100 %)
7	0 … 255	Blade 1 segment 2 blue (0 % … 100 %)
…		
17	0 … 255	Blade 1 segment 6 red (0 % … 100 %)

Channel	Value	Function
18	0 … 255	Blade 1 segment 6 green (0 % … 100 %)
19	0 … 255	Blade 1 segment 6 blue (0 % … 100 %)
20	0 … 255	Blade 2 segment 1 red (0 % … 100 %)
21	0 … 255	Blade 2 segment 1 green (0 % … 100 %)
22	0 … 255	Blade 2 segment 1 blue (0 % … 100 %)
…		
89	0 … 255	Blade 5 segment 5 red (0 % … 100 %)
90	0 … 255	Blade 5 segment 5 green (0 % … 100 %)
91	0 … 255	Blade 5 segment 5 blue (0 % … 100 %)

7 Technical specifications
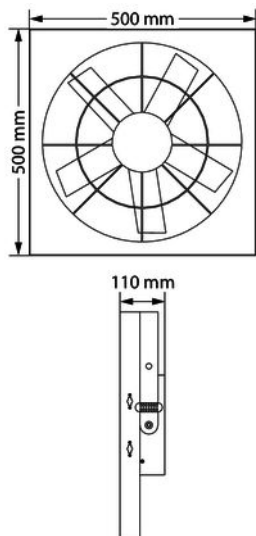
Light source		180 × RGB LED, SMD 5050 (30 segments)
Rotation speed		8 … 100 rpm
Control		DMX
		Buttons and display on the unit
Number of DMX channels		5, 8, 19, 91
Input connections	Voltage supply	lockable input socket (Power Twist)
	DMX control	XLR chassis socket, 3-pin
Output connections	Voltage supply	lockable output socket (Power Twist)
	DMX control	XLR chassis socket, 3-pin
Power consumption		55 W
Operating supply voltage		AC 100 – 240 V ∼ 50/60 Hz

Fuse		5 mm × 20 mm, 2 A, 250 V, fast-acting
Protection class		IP20
Mounting options		hanging
Dimensions (W × H × D)		500 mm × 500 mm × 110 mm
Weight		7.0 kg
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non-condensing

Further information

Type	Wall decoration
Rechargeable battery operation	No

8   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')

9 Cleaning

Device components

Clean the device components that are accessible from the outside regularly. The cleaning frequency depends on the operating environment: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the device components.

■ Clean with a dry soft cloth.
■ Stubborn dirt can be removed with a slightly dampened cloth.
■ Never use solvents or alcohol for cleaning.

10   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) in its currently valid version. 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.