V:Server4

User Manual & Terms of Use

■ ABOUT US

Syncronorm GmbH are highly motivated producers of high-end multimedia show design software, which features a most unique real-time 3D visualizer. Our dynamic & experienced team thereby operates on a world-wide scale, providing you with the best software & hardware solutions fitting to your dedicated project. From show-design, training-programs, instant support & consulting to continuously soft- & hardware development, the team at Syncronorm is eager to realize your visions. Syncronorm provide the most established & renowned products for the entertainment- & water-show sectors within the industry and beyond.

Standalone Showplayer

V:SERVER4

The V:Server is our interactive standalone show controller, which is designed to play back complex multimedia timecode shows composed using the Depence Software. The support of industry standard protocols and interfaces like DMX-RDM, ArtNET, sACN, ModBus, SMPTE and many more guarantees a seamless integration into any multimedia show installation. The different versions of the V:Server ranging from U8 over U16 to U48 are allowing you to control up to 48 DMX Universes. The 7″ touch screen interface offers a quick and easy access to all important settings and status messages. The Live-Panel offers a fully customizable human interface for your customer, on a second touch screen or remotely on any tablet device. The real-time calculation engine along with the powerful node-based logic feature, offers maximum flexibility for any kind of autonomous and interactive installation. The V:Server comes with optically isolated digital/analog inputs & outputs to directly connect sensors and triggers, e.g. to measure water levels, wind levels or gas pressure of your multimedia installation. Create, Connect, Control.

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◢ WELCOME TO SYNCRONORM

You made a great choice by purchasing Syncronorm's V:Server4 hardware unit. Prior to commissioning the unit, please read the following instructions of use carefully and fully familiarise yourself with the unit. Ensure that all work on and with this unit is only carried out in accordance to these instructions. Adhere to the safety information for the correct and safe use of the unit. Keep these instructions in a safe place! Please also hand over the instructions, when passing the unit on to a new owner.

Preface

This document is a guideline for controlling the hardware of Syncronorm's show design & control software Depence. The information contained in this manual will give you a sufficient understanding of this product, helping you to use the unit correctly and effectively. Adhere to all instructions contained in this manual, when installing and operating this unit. Every person working with this equipment must read this manual before installation and commissioning of the equipment/device. Every person working with this device/equipment must read the manual before starting to work. Even personnel working with this device only occasionally must read and understand this manual before beginning to work. This manual must always be available at the site, where the device is located. Every user of this device must be aware of the location of the manual.

Checking the Scope of Delivery

Please check that the scope of delivery is complete. Keep the packaging for later transport. If components are damaged or missing, contact your Syncronorm supplier. To download the current software and firmware, visit the Syncronorm website at *www.syncronorm.com*.

Intended Use

The V:Server4, in the following referred to as „unit", may only be used as specified as follows:

• For controlling DMX and DMX-RDM compatible devices.
• For playback of multimedia shows created with Depence.

◢ SAFETY INSTRUCTIONS ⚠

Safety Information

Danger to persons and assets may emanate from this unit, if it is used in an improper manner or not in accordance with its intended use, or if the safety instructions are ignored. This unit must not be used by persons under the age of 18. Persons with impairments or lack of experience and knowledge may use the unit, as long as they are supervised and instructed on how to use the unit safely and are able to understand the potential risks. Do not allow children to play with this unit. Do not allow children to clean or maintain the unit.

Correct electrical Installation

• Electrical installations must meet the national regulations and may only be carried out by a qualified electrician.
• A person is regarded as a qualified electrician, if, due to his/her vocational education, knowledge and experience, he or she is capable of and authorized to judge and carry out the work commissioned to him/her. This also includes the recognition of possible dangers and the adherence to the pertinent regional and national standards, rules and regulations.
• For your own safety, please consult a qualified electrician.
• The unit may only be connected when the electrical data of the unit and the power supply coincide. The unit data is to be found on the unit type plate or on the packaging, or in this manual.
• Ensure that the unit is fused for a rated fault current of max. 3A on the mains side by means of a fault current protection device.

Save Operation

• Never operate the unit, if either the electrical cables or the housing are defective!
• Do not carry or pull the unit by its electrical cables.
• Route cords/hoses/lines in a way that they are protected against damage, and ensure that they do not present a tripping obstacle.
• Only open the unit housing or its attendant components, when this is explicitly required in the operating instructions or approved/prescribed by Syncronorm's technical support service.
• Only execute work on the unit that is described in this manual. If problems cannot be overcome, please contact an authorized customer service point or, when in doubt, the manufacturer.
• Only use original spare parts and accessories for the unit.
• Never carry out technical modifications to the unit.
• Only operate the unit, if no persons are in the water!
• The unit, the connections and the plugs are not water-proof and must not be routed or installed in water.

SAFETY INSTRUCTIONS

Qualifications and Training of Employees

• Ensure that installation personnel have the required technical qualifications.
• Also ensure that all operating personnel are sufficiently qualified.
• Ensure that maintenance work is only performed by personnel authorized for this purpose, e.g. specialists of Syncronorm GmbH or personnel with suitable training.

Dangers resulting from non-adherence to the Safety Information

Please note that Syncronorm GmbH assumes no liability for damage, downtimes or malfunctions resulting from non-adherence to this installation and operating manual. By ignoring or not adhering to all of the safety information contained in this manual, you could endanger people, the environment and the system of this unit. For example, non-adherence to the safety information contained in this manual can lead to the following dangerous occurrences:
• A malfunction of important features of this unit
• Danger for persons due to electric shock

Safety-conscious Operation

As a user of this unit, ensure that you follow all safety information contained in this manual. Follow the accident prevention regulations at all times. If the unit is used in a location where internal regulations, operating and safety instructions apply, ensure that these regulations and instructions are also adhered to.

Safety Information regarding Maintenance, Inspection and Installation Work

It is the owner/user's responsibility to ensure that all maintenance, inspection and installation work is carried out by authorized and qualified personnel, who have read and understood this manual.
Only carry out maintenance work on this unit, when the unit system is switched off. Ensure that no pressure is applied to the unit and it is disconnected from the power supply (voltage-free) before carrying out maintenance or repair work.

Ensure that small malfunctions are immediately rectified by authorized personnel to avoid possible future damage, malfunctions and/or downtimes of the unit system. Certain maintenance work may require safety barriers to be removed and/or deactivated. If this is the case, ensure that all safety and protective devices/guards are re-installed and/or reactivated after completing the maintenance work.

SAFETY INSTRUCTIONS

Optional retrofitting and Production of Spare Parts

Changes or modifications to the device are only permitted after consultation with the manufacturer. Original spare parts and accessories approved by the manufacturer provide safety. We wish to stress that all parts and accessories not supplied by Syncronorm GmbH have neither been tested nor approved by Syncronorm GmbH. For this reason, the installation and/or use of such products can, under certain circumstances, negatively affect the specifications for the device. This could also lead to restrictions of the active and/or passive safety of the device. Syncronorm GmbH assumes no liability for damage resulting from the use of parts and accessories other than original Syncronorm GmbH parts.
In this case all guarantee expires.

Dangers encountered by the Combination of Water and Electricity

• The combination of water and electricity can lead to death or severe injuries from electrocution, if the unit is incorrectly connected or misused.
• Prior to reaching into the water, always switch off the mains voltage to all units used in the water.

◢ OVERVIEW

Front

MULTICOLOR LED   7" TOUCH DISPLAY   USB 2.0

POWER BUTTON

Back Connectors

USB 2.0   AUDIO OUT   SMPTE   4x DMX-RDM INPUT/OUTPUT   DVI-D OUT   POWER SUPPLY

ETHERNET   ANALOG INPUT/OUTPUT   DIGITAL INPUT/OUTPUT   RS232   EMERGENCY STOP

OVERVIEW
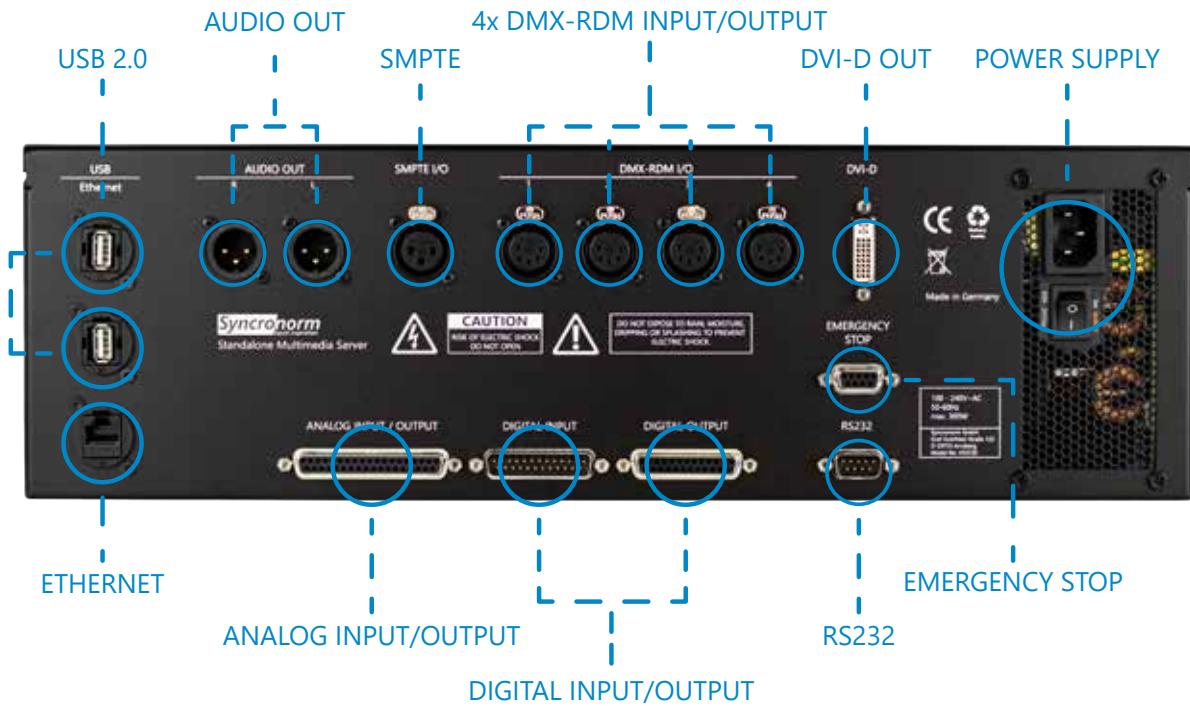
Technical Data

Dimensions	19" 3HE 330mm depth (482 x 330 x 178)
Weight	8.2kg
Protection Class	IP20
Operation Temperature	0...40° / 0...80% humidity
Power Supply	110V / 230V 50/60Hz AC max. 350W
Certification	CE
DMX Output	2048 Channel 4 Universes DMX-RDM
DMX Output over ArtNET	4096 Channel (U8), 8192 Channel (U16), 24576 Channel (U48)
Digital Output	8x 12...24V DC max. 1A
Digital Input	8x 12...24V DC
Analaog Ports (I/O)	12x 0...10V DC 25mA Current Drive Capability with Overcurrent Protection
Connectors	4x DMX-RDM Neutrix XLR 5pin male optical isolated
	2x Audio output symmetric stereo XLR 3pin male
	1x SMPTE Timecode input/output XLR 3pin female
	1x Ethernet RJ45
	1x DVI-D Monitor output
	3x USB 2.0 (1x front, 2x back)
	1x RS232 9pol SUB-D male
	1x Emergency Stop 9pol SUB-D female
	1x Digital Output 25pol SUB-D female (provides 8 outputs)
	1x Digital Input 25pol SUB-D male (provides 8 inputs)
	1x Analog Port 37pol SUB-D female (provides 12 inputs or outputs)
Memory	8GB RAM, 256GB internal NVMe M.2 SSD
Display	7" internal Touch Display
Synchronization	SMPTE, NetTime, SNTC
Scope of delivery	Server, Powercable, Documentation

OVERVIEW

Connectors Pin Out

Pin	Analog I/O	Digital Output	Digital Input	Emergency Stop	DMX RDM	SMPTE	Audio L+R	RS232
1	+12V	Out1	Inp1+	Switch+	GND	GND	GND	DCD
2	+5V	Out2	Inp2+	nc	Data-	Signal-	Signal-	TXD
3	GND	Out3	Inp3+	nc	Data+	Signal+	Signal+	GND
4	A11	Out4	Inp4+	nc	nc			RTS
5	A9	GND 1-4	Inp5+	Switch-	nc			RI
6	A7	nc	Inp6+	nc				RXD
7	A5	nc	Inp7+	nc				DTR
8	A3	nc	Inp8+	nc				DSR
9	A1	Out5	nc	nc				CTS
10	GND	Out6	nc					
11	TS2 P	Out7	nc					
12	TS1 P	Out8	nc					
13	GND	GND 5-8	nc					
14	nc	VCC 1-4	Inp1-					
15	nc	VCC 1-4	Inp2-					
16	nc	VCC 1-4	Inp3-					
17	nc	VCC 1-4	Inp4-					
18	nc	nc	Inp5-					
19	nc	nc	Inp6-					
20	5V	nc	Inp7-					
21	GND	nc	Inp8-					
22	A12	VCC 5-8	nc					
23	A10	VCC 5-8	nc					
24	A8	VCC 5-8	nc					
25	A6	VCC 5-8	nc					
26	A4							
27	A2							
28	GND							
29	TS2 N							
30	TS1 N							
31	GND							
32 - 37	nc							

GETTING STARTED

Connecting the V:Server4

Unpack carefully and get the V:Server4 device out of the cardboard box. Remove the packing material from the device. Place the device on a secure & stable surface or directly mount the device into a 19"-rack system.

1. Make sure you have switched off the device on its BACKSIDE.
2. Now connect an IEC power cord with 110/230V AC to the device.
3. Connect the V:Server4 to your Shownet Network using the ethernet connector on the BACKSIDE.
4. Connect an USB keyboard, mouse or touch screen to one of the available USB ports.
5. Optionally connect a second monitor on the DVI connector.
6. Connect your DMX devices.

First Start-Up

1. Switch on the device on its BACKSIDE.
2. Switch on the device on its FRONTSIDE.
3. Wait until the V:Server4 booting sequence is finished, this can take several minutes on first start up.
4. As soon as you can see the information page pop up on the screen, the server has started up completely.

◤ MAINTENANCE

The device requires regular maintenance.
Carry out maintenance in accordance with the maintenance schedule:

• If necessary, update your software version.
• Check, if all installed fans are working properly.
• Remove dust, if necessary.
• Check, if all external cables are working properly.

Important Information!

Maintenance must be carried out by qualified personnel only!

Protecting the Environment

For the transport and Protective packaging, environmentally friendly
materials have been choosen that can be supplied normaly recycling.
Do not just dispose of these materials with your normal household waste,
but make sure that they are collected for recycling
This product is subject to the European Waste Electrical and Electronic
Equipment Directive (WEEE).
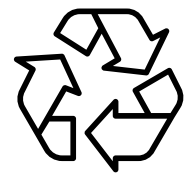
◢ GUARANTEE

Syncronorm GmbH assures a 12 month manufacturer's guarantee for this specific Syncronorm unit, purchased by you. This guarantee only exists in accordance to the specific guarantee conditions lad down as follows:

The guarantee period starts with the purchase from a Syncronorm GmbH specialist dealer. In the event of a resale, the guarantee period will not start again.
If services by Syncronorm GmbH are provided under the terms of this guarantee, this does not lead to extension or renewal of the guarantee period. Your legal rights as a purchaser, especially those ensuing from the warranty, persist. They are not restricted by this guarantee.

Syncronorm warranties are limited to our product only and do not extend to any direct, indirect or subsequential loss under any circumstances.

Misusage of the device leads to a loss of guarantee!

Guarantee Conditions

SYNCRONORM GmbH guarantees impeccable, purpose-related properties and workmanship, expert assembly and proper functionality. Subject to our discretion, the guarantee refers to free-of-charge repair or free-of-charge supply of spare parts or of a replacement unit respectively. Should the unit type concerned no longer be manufactured, we reserve the right, at our discretion, to supply a replacement unit from our range that is closest to the type subject to complaint. Claims, the origin of which can be traced back to installation and operating faults as well as lack of care, e.g. the use of unsuitable cleaning materials or negligent maintenance, use other than that intended, damage due to accidents, falls, impact, effect of frost, cutting plugs, shortening cables, calcium deposits or improper attempts to repair the unit, are not covered by our guarantee. We hereby refer to the proper use as specified in the instructions of use that form an integral part of the guarantee. Wearing parts such as bulbs etc. are exempted from the guarantee.

The refund of costs for removal and installation, checks, claims for lost profit and damages are exempted from the guarantee together with further reaching claims for damages and loss of whatever nature caused by the unit or its use. The guarantee is only valid in the country in which the unit was purchased from a Syncronorm GmbH dealer. This guarantee is governed by German law under the exclusion of the agreement of the United Nations covering contracts, governing the international sale of goods (CISG) regulations. Guarantee claims can only be brought forward by presenting the sales receipt to

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by returning the unit or part of the unit's subject of complaint to us, freight free, at your own risk, accompanied by a copy of the original purchase receipt from the Syncronorm GmbH specialist dealer, this guarantee document and written information of the fault encountered.

Please visit the Syncronorm V:Server4 Online Manual to get further information & detailed operational advice.

https://vserver4.manual.syncronorm.com

YOUR NOTES

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