

LM3X | **Panasonic**

20K™

OUTDOOR PROJECTION SYSTEM



QUICK START

PROJECTION MAPPING SOFTWARE / CLOUD SERVICE

SPECS AND OVERVIEW

ACCESORIES

MAINTENANCE

SAFETY



Quick Start

„I JUST WANT TO WATCH A MOVIE“

3



Permanent Installation Video-Mapping Tools

- INTERNET ACCESS REQUIRED - ETHERNET OR DATA SIM CARD
- WIRELESS IoT SOLUTION FOR PERMANENT INSTALLATIONS
- EMBEDDED MEDIA PLAYER
- EMBEDDED PROJECTION MAPPING SOFTWARE
- LUMIVERSE CLOUD SERVICES FOR REMOTE ACCESS
- MULTIPROJECTION AND EDGE BLENDING
- PUBLIC INTERACTION MODE

4-11

Quick Start (5min)

1.



CONNECT
PROJECTOR
TO POWER
WITH POWER CABLE

2.



CONNECT
YOUR PC AND PROJECTOR
WITH HDMI CABLE

3.



PRESS BUTTON



FLASHING-WAIT
STEADY-PROCEED TO NEXT STEP

4.



HOLD (10s) BUTTON



BLUE LIGHT-READY



YOU CAN USE THE SUPPLIED
PANASONIC IR REMOTE
CONTROLLER TO CHANGE SETTINGS
OF THE EMBEDDED PANASONIC
PT-MZ20K PROJECTOR. IF YOU
DO SO, MAKE SURE YOU RETURN
THE SETTINGS TO THEIR ORIGINAL
VALUES AFTER USE. THE PANASONIC
PROJECTOR INSIDE HAS BEEN
CONFIGURED FOR USE WITH THE
EMBEDDED LUMIVERSE PLAYER
AND CHANGED SETTINGS WILL
COMPROMISE COMPATIBILITY. IF YOU
DO NOT UNDERSTAND, DO NOT
USE THE SUPPLIED IR
REMOTE CONTROLLER.



PRESS TO SWITCH OFF
WAIT UNTIL STATUS LED
STOPS FLASHING



PROJECTOR REAR VIEW



LUMIVERSE

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Find the complete manual online



<https://LM3X.guide/>

Device type: Lumiverse / 20K

Support phone: +420 725 08 99 08

Support e-mail: support@LM3X.com



Your Lumiverse Credentials

Device ID

my.lumiverse.com

Login

Password

Direct Wi-Fi Access

Wi-Fi Password

My New Password



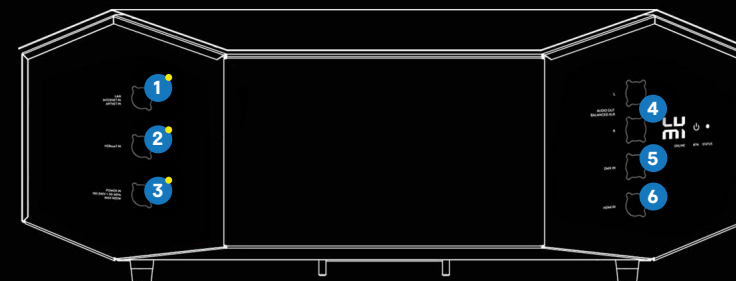
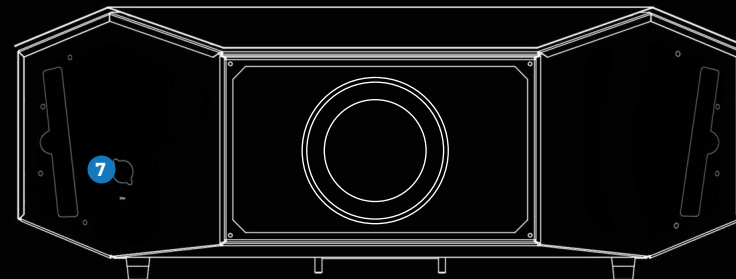
Front & Back Panel



- 1 Power button
- 2 Power LED indicator
- 3 Lumiverse ONLINE indicator
- 4 Beamer lens
- 5 Scanner lens (camera)
- 6 Air filter cover
- 7 GNSS/LTE antenna
- 8 WIFI antenna



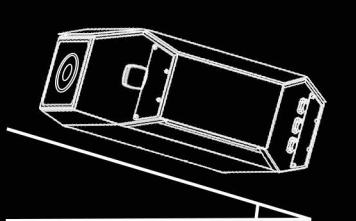
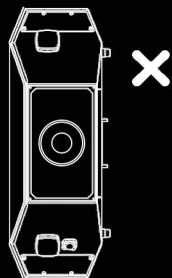
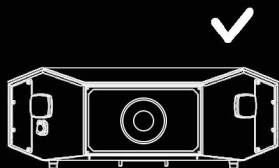
Ports / Connectors



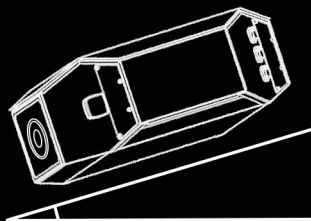
- 1 LAN (Intrenet IN, Artnet IN)
- 2 HDBaseT IN
- 3 Power IN
- 4 XLR Audio OUT (L) (R)
- 5 DMX IN
- 6 HDMI IN
- 7 nanoSIM / cellular data
- compatible waterproof Neutrik connector supplied in plastic bag



Correct Outdoor Positioning



max 20°



max 20°



Technical Data

Input voltage	100 - 240 V ~ 50/60 Hz
Power consumption (max.)	Max 1 420 W
Standby power consumption(typ.)	30W
Operating temperature range	-45°C < > +45 °C -49°F < > +113°F
Survival temperature range	-60°C < > +70 °C -76°F < > +158°F
Ingress protection	IP43
Overvoltage protection	power supply, LAN, audio
Dimensions (HxWxL)	H 325 mm x W 855 mm x L 745 mm, L 795 mm with lens extender
Weight	50 kg
Display type	Panasonic PT-MZ20K LASER LCD
Brightness	20 000 ANSI/Im
Laser lifespan	20 000 h
Native resolution (px)	1920x1200 (WUXGA)
Aspect ratio	16:10
Lens	Panasonic PT-MZ20K 300 - 800 lens range compatible
Camera	5 Mpix
Audio output	2x XLR balanced audio
Shielding	grounded to the chassis
Wireless Control channels	cellular data GSM, Wi-Fi, GPS
Lumiverse™ media storage	400 GB

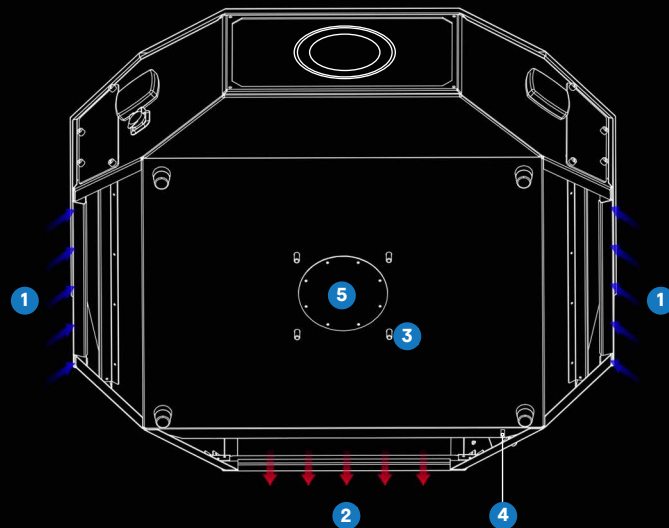


Important Safety Instructions

- The unit must not be exposed to splashing water.
- No leaking objects may be placed above the device.
- This device contains a non-rechargeable lithium battery.
- Failure to read and follow the below specified instructions may result in fire, personal injury, or damage to property.
- Do not cover device while it is running.
- Do not place anything inside of the device.
- The device must be grounded via a grounded power cable using a grounded cable and the device grounding point.
- Always use the device in an electrical circuit that is protected against short circuit by a 16A circuit breaker with B or C characteristic.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
- Installation of the equipment should be supervised by an electrician, who will also verify the correct connection grounding and appropriate IP protection of the components outside the device.
- Protect the power cord from being stepped on or pinched particularly at plugs. Be sure that the power outlet is located near the unit.
- Only use attachments/accessories specified by the manufacturer.
- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the unit. When a cart is used, use caution when moving the cart/unit combination to avoid injury from tipping over.
- Unplug this unit when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as: if power plug is damaged, if liquid is spilled onto or objects fall into the unit, or if the unit does not operate normally or has been dropped.
- Do not place this projector on a blanket, bedding, or any other soft surface.
- Do not cover this projector with a cloth or any other item.
- Do not place inflammables near the projector.
- Do not place this projector in locations near fire alarms.
- Do not place this projector in a space that is poorly ventilated or confined. Allow at least 50 cm clearance from walls and free flow of air around the projector.



View From Below



- 1 Air intake
- 2 Air exhaust
- 3 Fixture attachment points x 4
- 4 Electrical grounding point
- 5 A/C inlet



Attachment System

Your 20K™ series outdoor projection system is compatible with several attachment systems (optional). For equipment recommendation or purchase contact info@LM3X.com or call +420 725 08 99 08



1 360° Bracket in wall/pole mode

2 360° Bracket in floor mode

3 Tripod Adapter

4 Urban Pole



Always use sufficient electrical grounding protection attached to the grounding bolt



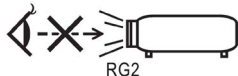
Safety Instructions

- The 20K™ projector is weather protected (IP43) and can operate outdoors within operating temperature range of $-45^{\circ}\text{C} < +45^{\circ}\text{C}$.
If the environment temperature exceeds the allowed limit, the projector will stop displaying content and shut itself down. The projector will resume working when the temperature falls back within the operating range.
- Do not turn off the device if the temperature drops below 0°C .
- The projector's laser unit produces an extensive amount of heat, therefore there are large ventilation openings on the bottom of the machine, AIR INTAKE and AIR EXHAUST. Always ensure that the ventilation openings are not blocked by any objects, which could cause your projector to easily overheat.
- Your 20K™ projector can be operated outdoors as long as it is always positioned horizontally within the allowed angles (see page 7).
- Always use sufficient ground protection attached to the grounding screw to prevent electric shock risk!
- Do not cover the device while it is running as it may cause it to overheat.
- ALWAYS REMOVE THE PROTECTIVE LENS CAP from the lens before you turn your projector ON!
- Do not use the device when it is damaged and do not try to dismantle it. There is a risk of electric shock!
- Do not use any damaged cables!
- The projector is equipped with waterproof plug, ensure that you use a compatible plug supplied with the projector:
Power: Neutrik NAC3FX-W-TOP, Ethernet: Neutrik NE8MC6-MO
- The projector is a heavy machine, therefore always install it carefully and ensure it is securely fastened. Avoid installing the device in places where falling may cause injury!
- Ensure there are no objects closer than 1 m in the projector light cone. Strong light might cause fire!
- Aiming the projector towards the sun may cause fire, or damage.
- Do not look into the projector lens while the lamp is on! The intense light beam may damage your eyes.
- Install the projector carefully so you do not blind passers-by with strong light!
- Do not step on the projector or place any objects on top of it. Besides probable physical damage to the projector, doing so may result in accidents or possible injury.



LASER Safety Instructions

- As with any bright light source, do not stare into the beam, RG2 IEC 62471-5:2015.



- This symbol indicates that there is a potential hazard of eye exposure to laser radiation unless the instructions are closely followed.



This Laser Product is designated as Class 3R during all procedures of operation.
LASER LIGHT - AVOID DIRECT EYE EXPOSURE.
Do not point laser or allow laser light to be directed or reflected toward other people or reflective objects.
Direct or scattered light can be hazardous to eyes and skin.



There is a potential hazard of eye exposure to laser radiation if the included instructions are not followed.
Caution – use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser parameters:

- Wavelength: 450nm - 460nm (Blue)
- Mode of operation: Pulsed, due to frame rate
- Pulse width: 1.34ms
- Pulse repetition rate: 120Hz
- Maximum laser energy: 0.698mJ
- Total internal power: >100w
- Apparent source size: >10mm, at lens stop
- Divergence: >100 mili Radian



Power Management

- The projector is equipped with an automatic dehumidification system to prevent any damage caused by moisture.
- Once installed outdoors, it is important to keep the projector ON and connected to a reliable permanent power source!
- If a blackout occurs, the projector will wake up and continue playing the show automatically once the power source has been restored.



LED Indications

LUMI Logo Indication

- Shining - on-line (connected to internet).
- Not shining - off-line, connection to the internet has been lost (this is always the case a few moments after a start/restart).

Color LED Status

- Not shining - device is off
- White pulsing - Wait, your device is booting, shutting down, or loading. Wait. Do not unplug from electricity!
- White shining - device is on and ready.
- Green pulsing - waiting for the projector lamp to heat up / cooldown.
- Green shining - media is currently playing.
- Yellow pulsing - temperature too warm or ventilation blocked. Wait for cooldown.
- Red shining - check cables. See troubleshooting.
- Red pulsing - factory reset is in progress, do NOT unplug the device from power.



Connectors Matching

To maintain functional IP protection, use only with these Neutrik® connectors:

POWER connector:
Ethernet LAN connector:
AUDIO connector:
DMX connector:

NAC3FX-W-TOP (1 included in plastic bag)
NE8MC6-MO (1 included in plastic bag)
NC3FX1-TOP
NC5FX1-TOP



Maintenance

Laser

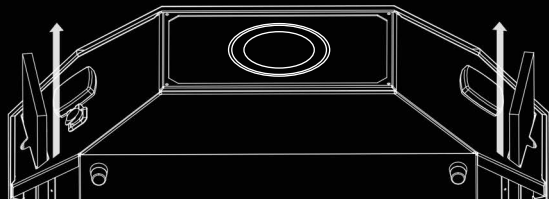
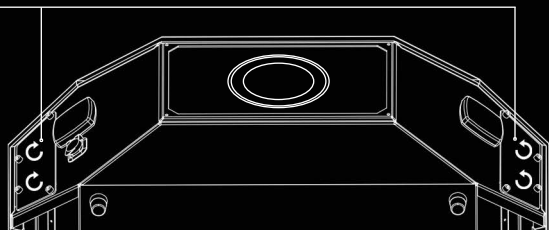
Laser lifespan is 20,000 hours. See, for how many hours has your laser been used in Lumiverse UI Settings/Advanced/Sensors

Lens

Dirt on the projector lens may affect the light show quality and the scanner results. Clean with a regular soft glass cleaning liquid and cloth. Use a screwdriver to remove the lens for cleaning.

Air Filter

The 20K™ projector is equipped with an interchangeable air filter. We recommend replacing the air filter once a year. In dusty environment replace the filter more often.



Troubleshooting

In case a projector malfunction occurs, try the following steps:

Reboot

In order to resolve a malfunction issue, try the REBOOT command from the POWER BUTTON menu in the Lumiverse UI

Turn Off and Turn On

Lumiverse UI offline? Turn the projector off by pressing the power button and switch it on again. If that does not help, pull the power cord out of the machine and reconnect and switch on again.

Factory Reset

The factory reset will erase some of your data and restore the system to its factory settings. Turn the device OFF and wait for 5 seconds. Turn the device ON and hold down the power button until the LED indicator turns red.

Didn't help? Contact our support!



Support

Support e-mail: support@LM3X.com

Support phone: +420 725 08 99 08



Software Upgrade

LM3X.com company is constantly developing new features, upgrades, security systems, and bug fixes.

Information about new updates can be found in Lumiverse™ and will be installed on your device at your request.



Declaration of Conformity

Hereby declare that:

Product: OUTDOOR PROJECTOR
Product No. 20K™



Is compliant with the essential requirements and any other relevant provisions of the following EC directives, and that all the necessary steps have been taken and are in force to assure that the production units of the same product will continue to comply with the above specified requirements.

ELECTRICAL SAFETY TEST

The following regulations have been used:
EN 62368-1:2014 + AC:2015-05 + A11:2017

ELECTROMAGNETIC COMPATIBILITY TEST

The following regulations have been used:

EN 55024:2010
EN 55032:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 61000-4-2:2008
EN 61000-4-3:2006 + A1:2007 + A2:2010
EN 61000-4-4:2012
EN 61000-4-5:2014
EN 61000-4-6:2014
EN 61000-4-11:2004



Declaration of RoHS2 Compliance

Product: OUTDOOR PROJECTOR
Product No. 20K™



This product has been designed and manufactured in compliance with Directive 2011/65/EU of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2 Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	< 0.1%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium (Cr6+)	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%

Certain components of products as stated above are exempted under the Annex III of the RoHS2 Directives as noted below:
Examples of exempted components are:

- Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):
 - (1) Short length (≤ 500 mm): maximum 3.5 mg per lamp.
 - (2) Medium length (> 500 mm and $\leq 1,500$ mm): maximum 5 mg per lamp.
 - (3) Long length ($> 1,500$ mm): maximum 13 mg per lamp.
- Lead in glass of cathode ray tubes.
- Lead in glass of fluorescent tubes not exceeding 0.2% by weight.
- Lead as an alloying element in aluminium containing up to 0.4% lead by weight.
- Copper alloy containing up to 4% lead by weight.
- Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

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Device ID