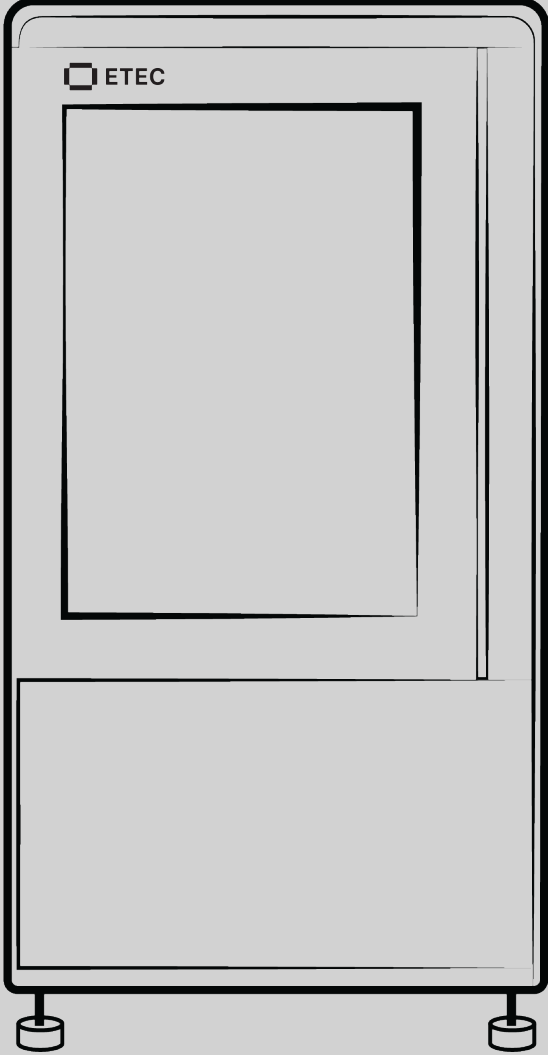


English



This Guide applies to the EnvisionTec Xtreme 8K printer (North American model).

FCC Compliance Information

These devices comply with part 15 of the FCC Rules as applicable. Operation is subject to the following two conditions:
(1) These devices may not cause harmful interference, and
(2) these devices must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by EnvisionTec could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ISED compliance information

This device complies with the Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
CAN ICES-003(A) / NMB-003(A)

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81-00245_Rev02_EN_Xtreme 8K Compliance & Safety Guide

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Product Overview

The Xtreme 8K is the world's largest high-speed DLP printer on the market. With wide material compatibility, including hard plastics, high-temperature plastics, elastomers, and rubbers, the Xtreme 8K enables the production of the broadest possible range of parts.

The Xtreme 8K leverages long-chain polymer chemistry to create fully isotropic, stable, end-use parts, and features a heated vat allowing users to process highly viscous and solid materials at room temperatures.

The Xtreme 8K printer builds 3D models by curing liquid materials through a projector system.





The model created in CAD (Computer-Aided Design) software is loaded into the Envision One RP software supplied with the printer. Envision One RP software slices the model, which then is sent to the printer.

Safety Procedures and Protocols














READ THESE SAFETY INSTRUCTIONS PRIOR TO INSTALLING, OPERATING OR PERFORMING MAINTENANCE ON THE PRINTER. DO NOT DISCARD.

Conventions





	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
	Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
	Indicates important information or a situation that, if not avoided, could result in equipment or property damage.

Safety Pictograms









	Lifting hazard: Indicates possibility of strain or other injury when lifting heavy objects.
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	Electrical hazard: Indicates risk of electrical shock which can cause serious injury or death, or damage to equipment. Do not touch anything that displays this label.
	Hot surface: Indicates risk of burns due to heated areas or surfaces. Avoid areas marked with this label.
	Pinch / Crush hazard: Indicates parts within the furnace that may pinch or crush.
	General warning sign
	UV Radiation
	Flammable material
	Respiratory hazard
	Environmental hazard
	Toxicity hazard
	Consult User Manual for instruction for use.





Mandatory Action Signs

		
Use protective hand wear	Use UV rated protective goggles	Use protective clothing
		
Use respirator		

Printer Safety Warnings


 WARNING	Risk of fire or explosion: Do not use flammable materials or materials generating flammable gases when heated in this Printer.
 WARNING	Respiratory hazard: Wear PPE adequate for processed resin, consult with material SDS and EHS.
 WARNING	Fire hazard: Some materials used for washing may be flammable. Do not wash any parts in proximity of the Printer. The washing equipment must be certified for use with flammable solvents. Respect Washing Equipment Manufacturer retirements for classification of explosive atmosphere areas. Use fire-extinguishing media suitable for the flammable solvent and surrounding equipment. Refer to section 5 of SDS.
 WARNING	Risk of electric shock: Disconnect power before servicing the printer.
 WARNING	Risk of electric shock: Make sure all conducting components are in good order and condition. The switch cabinet may be opened by trained and authorized service personnel only. Do not try to set up the printer yourself. Have the printer set up by trained and authorized service personnel only.
 WARNING	Risk of UV radiation hazard: Use PPE, UV rated protective goggles, during calibration or when working with the Printer's projectors shining light.
 WARNING	Risk of injury: The use of the materials intended for the printer may cause risks to the health and safety of the operator or third persons. To ensure safe handling of the materials, the hazard and precautionary statements shown in SDS must be observed.
 WARNING	Risk of electric shock: Connect the printer to a grounded outlet. Only use supply cord with plug acceptable in the country of use of the printer.

 WARNING	<p>Risk of injury from crushing caused by automatically moving printer parts: The printer may only be operated by instructed and specially trained personnel. Make sure that all persons are clear of the danger zone. The printer may only be operated if the protecting devices are working properly.</p>
 WARNING	<p>Risk of injury: All emergency stopping devices and protection doors must be checked one by one and separately. In case of defective safety equipment, shut the printer down immediately and secure it against being switched on again. Do not bypass safety interlocks.</p>
 CAUTION	<p>Burn hazard: Some parts inside the printer may be hot. Allow printer to cool down before touching any parts with burn hazard signs.</p>
 CAUTION	<p>Risk of hand crushing caused by automatically moving printer parts: Always keep the doors closed when operating the Printer. The Printer may only be operated by an instructed and specially trained personnel. Servicing of the Printer shall only be done by trained and authorized personnel.</p>
 CAUTION	<p>Risk of injury: Printer overturning during transportation can cause injury. Do not try to move the printer yourself. Have the printer transported by trained personnel only.</p>
 CAUTION	<p>Risk of injury caused by improper handling of the build platform: Before taking the build platform out, make sure that all persons are clear of the danger zone. Respect pinch point warnings.</p>
 CAUTION	<p>Risk of injury: Avoid unnecessary movements. Avoid non-ergonomic joint positions. Maintain a healthy posture.</p>
 CAUTION	<p>Risk of injury: Risk for the operator to slip, stumble or fall. Keep the floor of the printer area clear of loose cables, objects, or liquids.</p>

 CAUTION	<p>Burn hazard: Touching the hot light source might result in severe burns. Use heat-resistant protective gloves. Only authorized, trained personnel may touch the light source.</p>
 CAUTION	<p>Risk of injury: As handling chemicals puts you at risk of coming into contact with corrosive chemicals, being burnt, inhaling poisonous vapors, etc., always put on suitable protective clothing (nitrile gloves, protective goggles) before working with construction substances. Take utmost care to avoid getting any chemicals in your eyes or breathing the chemical vapors in. Always wash your hands thoroughly afterwards with soap and water only. Don't use Isopropyl alcohol to wash your hands if come in contact with materials. Be careful not to spill chemicals.</p>
 CAUTION	<p>Risk of injury from slipping, stumbling or falling of persons through loose cables, objects or liquids on the floor. Keep the printer area clean and dry. Make sure that no loose cables or objects are lying on the floor of the printer area. Place all printer cables carefully to prevent trip hazard. After repairing the printer, place cables back carefully to prevent trip hazard. Remove tools and other objects from the printer. Inform the personnel of residual risks.</p>
 CAUTION	<p>Risk of injury: Improper use of the remote printer control over local network using VNC software may lead to damage. Use the remote printer control with great attention. Do not use the remote printer control without an operator next to printer. The printer owner is responsible for any unsafe operation of the printer using the remote printer control.</p>
NOTICE	<p>The printer may only be used for the intended purposes. The printer may only be operated if in a flawless state in terms of technical safety. Only then the operational safety of the printer is guaranteed.</p>
NOTICE	<p>Do not use materials other than the photopolymers delivered by EnvisionTec. Read the relevant Material Safety Data Sheets supplied with the materials before use.</p>
NOTICE	<p>Ensure that you put the RFID material tag into the material tag reader. Failure to do so can result in damage to the RFID material tag and material tag reader.</p>

NOTICE	<p>The printer must be positioned on a flat and even surface to prevent the printer from moving.</p> <p>Check the horizontal orientation of the printer at regular intervals. This can be done by use of a spirit level placed on the build platform. If the printer is not levelled any more, e. g. if it has suffered an impact, have the printer repositioned by trained and authorized service personnel.</p>
NOTICE	<p>Do not try to touch or open anything on the screen before the Controller Software has finished booting. This can cause damage to the files on the printer.</p>
NOTICE	<p>Use a different material tank for each kind of material to avoid contamination.</p>
NOTICE	<p>Do not turn the printer off during software update.</p>
NOTICE	<p>Make sure the build platform is clean and the material tank has material in it before starting a print. Failure to do so will result in failed builds and damage to the equipment.</p>
NOTICE	<p>Carry out the maintenance tasks according to the Operations Manual and the intervals specified therein.</p>
NOTICE	<p>Use 99% IPA away from the material tank and thoroughly wipe all IPA completely from the build platform before installing it back onto the printer.</p>
NOTICE	<p>Use of non-authorized chemicals in the material tank may cause contamination and material damage.</p>
NOTICE	<p>Do not adjust the position of the level sensor. This may result in false readings to the sensor and cause print failure.</p>
NOTICE	<p>Do not:</p> <ul style="list-style-type: none"> • Operate the printer with inappropriate materials. • Exceed the technical values specified for normal operation. • Make unauthorized modifications and changes to the printer. <p>For any damage resulting from such misuse the printer owner bears the sole responsibility. The manufacturer assumes no liability.</p>

Users in California: California Proposition 65

 <p>WARNING</p>	<p>Cancer and Reproductive Harm: This product can expose you to Carbon Black which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to:</p> <p>http://www.p65warnings.ca.gov/</p>
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General Safety

All general workplace safety rules should be followed when operating the printer. It is the responsibility of the user to ensure compliance with all local, regional, and national regulations. Additionally, it is the responsibility of the user to ensure that the system is installed and maintained properly by EnvisionTec.

Materials Safety

Safety data sheets (SDS) for materials used in the printing process are available either from EnvisionTec or directly from suppliers. Read and understand the information provided in these documents prior to attempting to operate the printer or handle any media.

If SDS indicates presence of a substance with an established occupational exposure limit, the Employer is responsible for exposure controls.

Note: Make sure the extraction is sufficient. EnvisionTec recommends an air change of 25 m³/h per m² effective surface of the laboratory per EN 13779 or 3.2 m³/h per m² per US ANSI ASRAE 62. Check local requirements.

For accident prevention, make sure all operators wear suitable protective clothing:

- protective gloves
- safety boots
- laboratory coats
- safety goggles
- dust mask during post-processing

First Aid

If you are injured while operating the printer or handling media, refer to any first aid directions included in the material SDS. If minor injury occurs—such as cuts, bruises, lifting injuries, or other related injuries—generally accepted first aid procedures should be followed. If serious injury occurs, procedures for contacting emergency first responder personnel should be immediately implemented.



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