LASER SYSTEMS

ULTRA R5000 Customer Site Survey & Readiness Requirements

This document is intended to act as a guide to ensure that your facility is ready to accept your new laser system and to facilitate a seamless installation. This document provides a list of requirements that must be completed or verified before the installation of your laser system to avoid any delays during installation or additional charges.

This document must be fully completed, signed, and returned to <u>sitesurvey@ulsinc.com</u> to schedule an installation date. If you have any questions or concerns, contact our ULS Representative or <u>sitesurvey@ulsinc.com</u>.

PART A – System Location Information

INSTALLATION LOCATION

Please provide details for the final system location. This is where the installation will take place.

COMPANY NAME

STREET ADDRESS	
CITY	STATE ZIP
COUNTRY	
CONTACT NAME	TITLE
PHONE NUMBER	EMAIL ADDRESS
NOTES (IF APPLICABLE)	

PART B - Operational Considerations & Requirements

FLOOR SPACE UTILIZATION

System dimensional drawings:



FRONT VIEW WITH AVAILABLE TOUCH SCREEN CONTROL PANEL

SIDE VIEW DOORS OPEN WITHOUT CONTROL PANEL



SIDE VIEW WITH AVAILABLE TOUCH SCREEN CONTROL PANEL FOLDED

Ensure the system is set in a location with a minimum clearance of 2' (610 mm) on each side and overhead as shown below:



ENVIRONMENTAL REQUIREMENTS

The ULTRA R5000 system requires a well ventilated environment with a noncondensing humidity level between the temperatures of 50° F (10° C) to 95° F (35° C). An optimal temperature range of 73° F (22° C) to 77° F (25° C) is recommended for peak performance.

Does your facility meet the environmental requirements?	🗆 YES	□ NO*
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*If NO, provide date requirements will be met: _____

EXHAUST REQUIREMENTS

An exhaust blower or air filtration system is required.

If installing an UAC 4000 air filtration system, verify a separate 220 VAC power receptacle is available. The UAC 4000 is specifically designed for integration with ULTRA laser processing systems. If using a third-party filtration system, consult the manufacturer for recommendations.

If an exhaust blower will be used it must be capable of moving a minimum 700 cubic feet per minute (CFM) of air at 6 inches of static pressure (1190 m³/hour at 1.5 kPa) through a 6-inch (152.4 mm) duct or flexible hose where it connects to the ULTRA R5000 system. When planning an exhaust system, it is essential to consider the length of the duct/flexible hose from the exhaust blower to reach the laser system without tension while also accounting for pressure loss over a long distance. (The blower rating above is intended to allow for approximately 200 cfm (340 m³/hour) airflow at 1.5" (.15 kPa) static pressure through the ULTRA R5000.)

All exhaust solutions must meet local codes and regulations. Consult registered local contractors or exhaust experts if necessary.

Does your facility meet the exhaust requirements?	🗆 YES	□ NO*
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*If NO, provide date requirements will be met: _____

ADDITIONAL REQUIREMENTS (USER SUPPLIED)

• A regulator is required if facility compressed air is utilized. The compressed air should be instrument quality, filtered, dry and oil-free. Air requirement is 100 psi max pressure and 3 CFM free airflow (3.4 bar and 5 cubic meters/hour). Connection is a quick-release fitting that accepts ¼ inch NPT connection.

- If a compressed gas (required non-flammable gas such as Nitrogen) is used, a regulator will be required to supply gas at 100 psi max (6.8 bar). Connection is a fitting that accepts ¼ inch NPT connection.
- Minimum computer requirements (if not configured with available 21" Touch Screen Control Panel) are as follows: Intel i3 processor (or equivalent) with at least 8 GB (16 GB recommended) of memory, Windows 10/11 or Mac 10.15 (Catalina) operating system, and connection to laser system with USB cable.
- Avoid placing the laser system under direct lighting. Glare from lighting can adversely affect camera registration results.

Will the system be placed under direct lighting?	□ YES*	
*If YES, please describe:		

	Does your facility meet these	e additional requirements?	🗆 YES	□ NO*
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*If NO, provide date requirements will be met: ______

CLASS 4 SAFETY NOTICE

There are specific legal regulations that must be adhered to when operating in Class 4 mode. You must provide interlocked entrances and illuminated indicator signs outside the room. A trained Laser Safety Officer (LSO) must be designated, and the laser system registered with the appropriate agencies.

If the Class 4 Conversion Module for Pass-Through was purchased, you must read the Class 4 Acknowledgement in full. Sign and return the Class 4 Acknowledgement to ULS before receiving an installation date.

POWER REQUIREMENTS

The system location requires the following facility power receptacles:

A. ULTRA R5000 - 208/230 VAC, 16 A, 50/60 Hz single-phase dedicated circuit (a dedicated 20 or 30 A outlet recommended)



SHOWN WITH AVAILABLE TOUCH SCREEN CONTROL PANEL

B. ULS Compressed Air Source* – 110 VAC @ 10 A or 220 VAC @ 5 A

Please select:
110 VAC
220 VAC

C. Vacuum Booster* – 110 VAC @ 10 A or 220 VAC @ 5 A; auto-switching
Please select: □ 110 VAC □ 220 VAC



*Available feature

Note, you must supply appropriate plugs for all 220 VAC facility power receptacles (for example L6-30 plug). The service technician will connect the plug(s) to the equipment cable(s) during installation.

Does your facility meet the power requirements?	□ YES	□ NO*
*If NO, provide date requirements will be met:		

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PART C - System Receiving and Transport Considerations

SYSTEM CRATE AND TRANSPORT

The ULTRA R5000 system will arrive in a crate with dimensions of 75" x 75" x 60" (1905 x 1905 x 1524 mm) and will weigh as much as 1,000 lbs. (454 kg). Please indicate in the following questionnaire if you have a receiving dock. Please indicate if a liftgate is required on the delivery truck.

A forklift with extensions is recommended to remove the ULTRA R5000 system from the crate and move it through your facility. If a forklift is not available, it is strongly recommended a rigging company be available to remove and relocate the laser system. A pallet jack can also be used to move the laser system through your facility.

SYSTEM RECEIVING 1. Is a receiving dock present at the delivery site? YES NO 2. Will a rigging company be utilized? YES* NO *If yes, please supply the company name, contact, phone number, and email address. RIGGING COMPANY NAME CONTACT NAME PHONE NUMBER PHONE NUMBER EMAIL ADDRESS 3. Is a lift gate needed on the delivery truck?

4. Does the facility have a forklift with a minimum of 5' (152 cm) forks? (Extension forks may be required.)

*If no, please describe options for removal of the system from the base of the crate.

PATHWAY TO FINAL POSITION

As a reminder, the minimum dimensions to consider when moving the uncrated system (with available touch screen control panel folded in) to the final position are as follows: width of 59.4" (1509 mm), depth of 46.32" (1177 mm), and height of 54.5" (1384 mm).

1. How will the system be transported through the facility (forklift, heavy equipment casters, etc.)?

2. Are steps present in the pathway?

YES*
NO

*If yes, how many steps, are they ascending (up) or descending (down)? Where are they located? What are the dimensions of the stairway (width, depth, and height)?

*IF STEPS ARE PRESENT, A RIGGING COMPANY MAY BE REQUIRED.

*If yes, what are the dimensions of the elevator door (height and width) and elevator interior (width, depth, and height)?

*ELEVATOR WITH LIFT CAPACITY GREATER THAN 1,100 LBS. (500 KG) IS REQUIRED.

4. Door(s) to pass through? □ YES* □ NO

*If yes, how many and what are the dimensions (width and height) of each door?

*If yes, what are they, and what is proposed to bypass them?

6. Is it required for the laser system to be detached from its carts for movement to the installation location? □ YES* □ NO

*A RIGGING COMPANY AND A ULS SERVICE TECHNICIAN MAY BE REQUIRED.

CUSTOMER ACKNOWLEDGEMENT

I acknowledge that I understand the requirements and that the facility meets all requirements or will meet all requirements for system installation by the latest date listed above.

PRINTED NAME

TITLE

SIGNATURE

DATE