LC 300 Fluorescence Detector

Fluorescence Detector

Preparation Checklist

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Congratulations on the purchase of your new LC 300 Fluorescence (FL) detector. This instrument should provide you with many years of use if you prepare your laboratory appropriately and ensure proper maintenance. This document will provide you with the details you will need to prepare your laboratory for the installation of the LC 300 FL detector.

This document is used to confirm site conformity needed for the successful installation of the PerkinElmer LC 300 FL detector. The site conditions must meet these requirements before the PerkinElmer Service Engineer can proceed with the installation.

Improper site preparation may result in the loss of instrument use during the warranty period. Please follow these instructions carefully and complete the sign–off sheet at the end of this document.

Instrument Delivery

When your LC 300 FL detector is delivered, it is your responsibility to provide storage of the shipment containers until installation. Contact your PerkinElmer service representative as soon as your shipment arrives to arrange an installation date.

Upon receipt of your instrument, carefully inspect the outside of the shipping container to identify any instances of damage or mishandling during shipment. If damage in shipment is suspected, please notify the shipping carrier and PerkinElmer immediately. Do not open any of the shipping containers unless a PerkinElmer representative is present.

The LC 300 FL detector should be stored in a dry location within the storage temperature range of -20 °C to 60 °C (-4 °F to 140 °F), relative humidity within the range of 20% to 80%, and a non-condensing and non-corrosive environment. The instrument should be allowed to thermally equilibrate for 4-6 hours at the laboratory operating temperature before the installation is started and the power is turned on.

Order Review

Please closely review the sales order received from PerkinElmer. Record any discrepancies between the PerkinElmer sales order and your purchase order, along with any agreements or commitments made by your PerkinElmer sales representative that are not listed on the sales order document. Please let your PerkinElmer Customer Care Representative know about any discrepancies and/or commitments with your site readiness confirmation.

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Installation Responsibilities

Customer

The customer is responsible for ensuring that necessary operating supplies, consumables, and usage dependent items such as vials, syringes, pipettes, and solvents are available. The customer is responsible for the preparation of their laboratory before the arrival of the instrument, assuring that adequate facilities are available.

Failure to have the site prepared properly will result in additional Service charges. Preparation includes the availability of:

- Adequate space for the LC 300 FL detector and the LC system stack.
- A suitable bench for the instrument.
- Adequate electrical power at the correct voltages and frequencies.
- Environmental control systems adequate to maintain a correct, stable room operating environment.
- Consumables and supplies necessary for instrument analysis, including HPLC grade methanol and isopropanol, and HPLC grade water.

PerkinElmer

The PerkinElmer Service Engineer will be responsible for the following aspects of the installation of your LC 300 FL detector:

- Unpacking of the LC 300 FL detector from the shipping container.
- Verification that all components are present and undamaged.
- Installation, connection and powering-on of the LC 300 FL detector.
- Verification that the system is operational.
- If purchased, execution of the IQOQ.
- Conduct a basic user familiarization of the system hardware.

Laboratory Requirements

Bench Space

The laboratory bench should be sturdy enough to support the full weight of the LC 300 FL detector, as well as any additional equipment required for operation of the instrument (for example, LC pump, LC autosampler, LC waste management module, computer, and/or printer). Users should expect that the total weight of the LC system and accessories can be at least 114 kg (250 lb). Minimum clearance space around the instrument should be at least:

- 15 cm (6 in) on each side
- 22.9 cm (9 in) at the rear
- 137.2 cm (54 in) at the top of the LC 300 stack.

The LC 300 FL detector is designed to be part of an LC system that is typically utilized in a stacked design. Do not stack more than an additional LC detector, oven or solvent tray on top of the FL detector. Further, it is recommended that the LC 300 FL detector should be the last component plumbed in the chromatographic stream.

LC 300 FL Detector Dimensions

Dimensions of the LC 300 FL detector have been measured at:

	LC 300 FL Detector
Height	24.1 cm / 9.5 in
Width	34.5 cm / 13.5 in
Depth	56 cm / 22 in
Weight	31.2 kg / 69 lbs

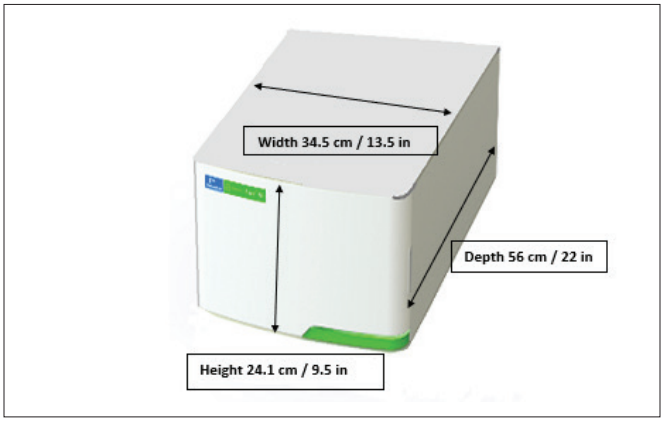

Figure 1. LC 300 FL Detector Dimensions.

NOTE: Do not position the instrument so that it is difficult to operate the AC power on/off switch located in the right rear of the instrument.

Figure 2. Potential System Configuration with LC 300 FL Detector.

Safety Requirements

Ventilation

The use of an LC 300 FL detector without adequate ventilation to outside air may constitute a health hazard.

Laboratory Environment

Please ensure that general laboratory safety equipment needed to operate a liquid chromatography system is available at installation. Laboratory equipment that might be required includes eye protection, gloves, laboratory coats, fire extinguishers, first-aid equipment, safety shower, eye-wash fountain, and spill cleanup equipment.

The LC 300 FL detector has been designed for indoor use. Do not use the instrument in an area where explosion hazards may exist. The instrument should be kept in an indoor laboratory environment that is clean and is free of drafts, direct sunlight, and excessive vibration. The laboratory should be free of flammable, explosive, toxic, caustic, or corrosive vapors or gases and should be relatively free of dust to avoid sample and instrument contamination problems.

Ambient laboratory temperature for instrument operation should be between 10 and 30 °C (50 - 95 °F). For optimum instrument performance, the ambient room temperature should be controlled at 20° ± 2 °C. The instrument should be operated in a humidity range of 35 to 85% (relative humidity). If ambient humidity exceeds 85% (relative humidity), condensation may deteriorate optical components. Atmospheric pressure should be maintained at a range of 750 to 1060 hPa.

Avoid strong magnetic fields and sources of high frequency. The instrument may not function properly when near a strong magnetic field or high frequency source. Avoid vibration from vacuum pumps, electric motors, processing instrument and machine tools.

The instrument must be properly grounded during operation. Do not operate the instrument under voltage fluctuations exceeding 10% of the recommended line voltage. Otherwise, the instrument may not function properly.

Before the instrument is installed, the area around, under and behind the instrument's planned location is to be cleared of any dirt and dust to prevent their entry into the instrument's interior which could cause a negative effect on performance.

Power Requirements

Measure the line voltage at the customer's site before starting the install process.

Measured Line Voltage =_____

All electrical supplies must be smooth, clean, and free of line transients greater than 40 V peak-to-peak, and must meet and remain within the following tolerances:

Allowable Voltage Variance	±10%
Maximum Allowable Percent Sag	5%
Maximum Allowable Percent Swell	5%
Power Specifications	100 to 240 VAC, 50 or 60 HZ
Neutral to Ground Voltage	<0.5V AC
Power Consumption	230 VA Max

Do not operate the instrument under voltage fluctuations exceeding 10% of the recommended line voltage. Otherwise, the instrument may not function properly. The instrument and associated peripherals must not be connected to circuits with large inductive or large and frequent loads (for example, large motors, discharge lamps, photocopy systems, radio transmitters, etc.). The LC 300 FL detector has been designed for indoor use and should not be used in an area where explosion hazards may exist.

Specifications

The specifications of the LC 300 FL detector are:

Temperature Range	10 °C to 30 °C
Required Power	AC 100 to 240 V, 50/60 Hz Maximum, 230 VA
Humidity Range	35 to 85% (RH)

Environmental Requirements

Do not use photocopiers, discharge lamps, radio transmitters, and other equipment with large or frequent transient loads on the same supply circuit. Avoid placement near high magnetic fields or generators of high transient RF signals, such as electric motors, elevators, etc.

LC 300 FL Heat Dissipation Requirements

The room air handling system should be capable of removing 785 BTU per hour when the LC 300 FL detector is operating.

NOTE: Always leave sufficient space around the instrument to allow adequate ventilation for cooling.

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Customer Site Preparation Sign-off Page

Customer Name: _____ **Purchase Order Number:** _____

Contact Name: _____ **Sales Order Number:** _____

Phone: ( ) / Fax: ( ) _____ **Instrument Model #:** _____

The intent of this document is to ensure that your lab is prepared for the installation of your new instrument. In order to assure that your instrument is up and running as quickly as possible, please verify that:

- Your lab meets all the enclosed specifications. After reviewing the specifications, check the appropriate box related to each category listed below.
- Your signature at the bottom of this page will confirm that your lab is ready.

LC 300 FL Detector	Specified Requirements	Action Required
	Order Review	
	Laboratory Space Requirements	
	Environmental Requirements	
	Power Requirements	
	Safety Requirements	

Customer Name: _____ **Phone:** _____

Signature: _____ **Date:** _____

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