SHIMADZU Spectrofluorophotometer

RF-6000

Pre Installation Requirements

Configuration Table

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SHIMADZU Spectrofluorophotometer
RF-6000

Pre Installation Requirements
(Installation Preparations / Confirmation)

Shimadzu Corporation
Analytical & Measuring Instruments Division

1. Introduction

The Shimadzu RF-6000 spectrofluorophotometer is a spectrophotometer that measures the fluorescence intensity.

The Pre Installation Requirements summarize the preparations to be made by the customer prior to the installation of the RF-6000 to ensure smooth installation. Please observe the contents of the requirements to ensure accurate analysis, stable operation, and long service life of the instrument.

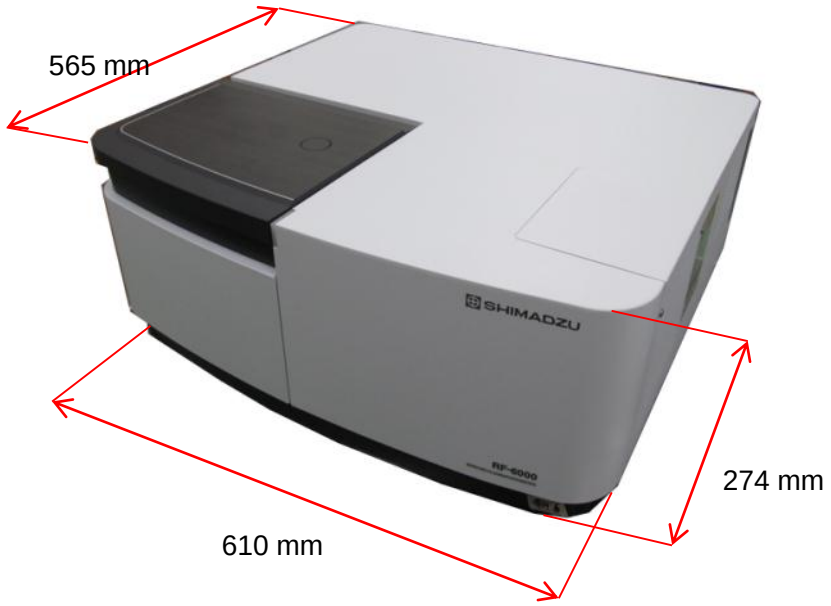
2. Installation Conditions

2.1 Installation conditions and space requirements

(1) To ensure proper performance and long-term safe use of the instrument, please install the instrument in an environment that satisfies the following conditions.

- When using flammable and toxic samples, be sure to install ventilation equipment at the installation site.
- Do not install the instrument in an environment filled with dust or corrosive gas.
  These conditions will adversely affect the durability and performance of the instrument.
- Do not install the instrument near a device that produces strong magnetic fields.
  Magnetic fields may adversely affect the accuracy of the instrument.
  Noise filters may be added to the power supply lines to reduce any electrical noise.
- To ensure performance of the instrument, the installation site must meet the following requirements.
  - The ambient temperature must be between 15 °C and 35 °C with minimal temperature variations.
  - Air flow directly from air conditioners and heating systems must be avoided.
  - Exposure to direct sunlight must be avoided.
  - The site must be free from vibration.
  - Humidity must remain between 30 % and 80 % with no condensation.
    (Humidity must be maintained under 70 % at ambient temperatures over 30 °C.)

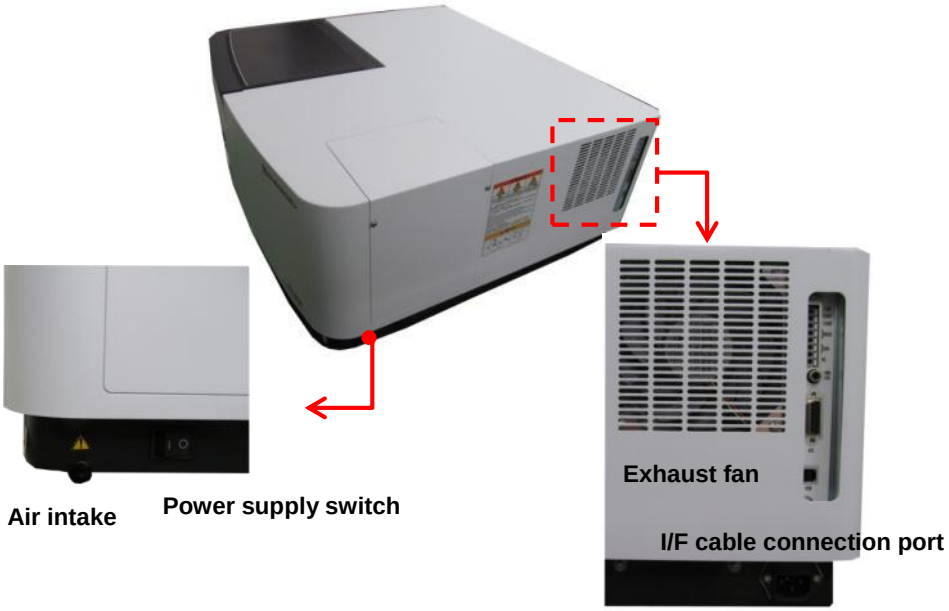
(2) The RF-6000 is 610 mm wide × 565 mm deep × 274 mm high. In addition, it is operated by a personal computer.
Accordingly, the installation space for the RF-6000 and computer will depend on the size of the computer used, but a space approximately 1100 mm wide × 600 mm deep is required.



(3) Install the instrument on the flat surface of a desk that can support the weights indicated below.
RF-6000: 38 kg
Computer and printer: Approx. 15 kg*

* The sizes and weights will differ depending on the type of computer and printer.
For details, please check each manufacturer's website or catalog.

(4) On the right side of the instrument, there is a power supply switch and an exhaust and cooling fan. There are also AC power cable and I/F cable connection ports, so leave a space of at least 100 mm between the right side of the instrument and the wall.



(5) There is a cooling air intake on the left side of the instrument. Leave a space of at least 50 mm between the left side of the instrument and the wall.

2.2 Power supply

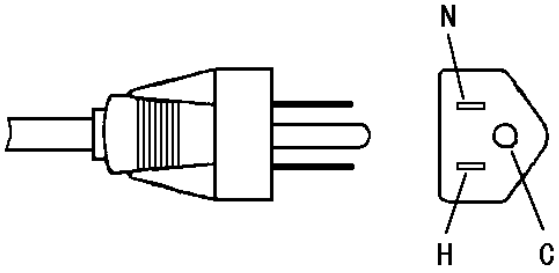
The power consumption of the RF-6000 is 300 VA. If the computer and any peripheral devices such as a printer are used, check the power consumption of these devices. Use an appropriate power supply that has sufficient capacity for the combined power consumption. (The power consumption of the computer and printer is approximately 160 VA.)
Also, the tolerance for voltage fluctuations is ±10 %. If the voltage fluctuations exceed ±10 %, use a voltage generator.

	RF-6000
Voltage	100 V to 240 V
Voltage tolerance	±10 %
Power capacity	300 VA
Power frequency	50 to 60 Hz
Connection	Grounded outlet (about 2.4 m in length)

2.3 Grounding

The power cable for this instrument is a three-wire type that includes a grounding wire. The shape of the power cable plug is illustrated in the figure below. Insert this into a three-wire power supply outlet. Ensure proper grounding.

○ The shape of 100 V/120 V power cable plug



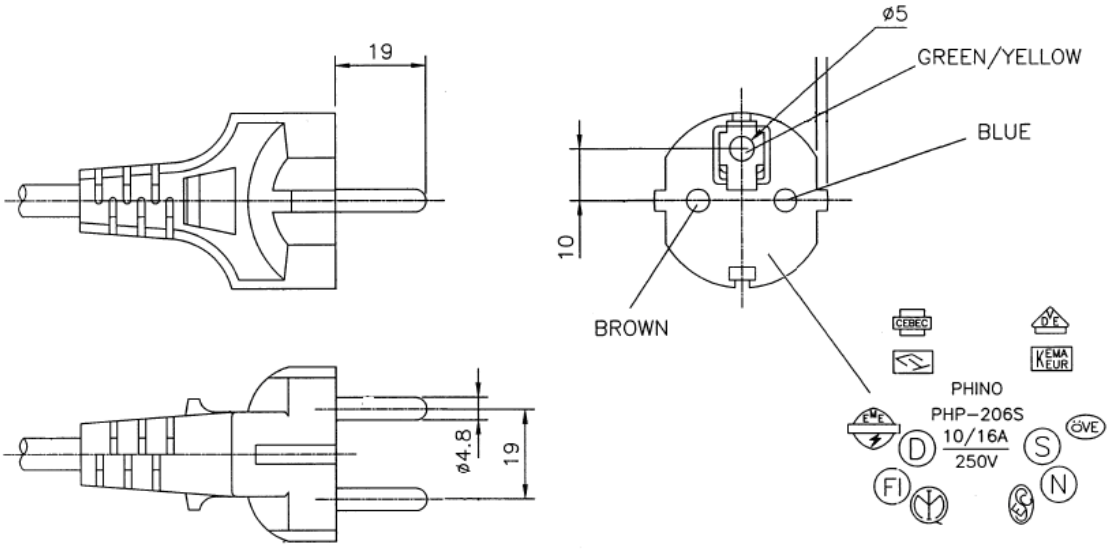
Terminal Symbol	Pole	Cord Color	Remarks
H	HOT	Black	Electric potential (100 V) for grounding
N	NEUTRAL	White	No electric potential for grounding (0 V)
C	GROUND	Green	Grounding

- This is compatible with the JIS C 8303 grounded two-pole outlet connector.
- If the power supply outlet is a two-wire type, connect a grounding adapter to the power cable, and ground the instrument. In this case, make separate arrangements for a grounding adapter and grounding wire.

Grounding Adapter (P/N: 071-60803-01)

- If you are using a two-wire outlet, make sure that the type used has different connection hole lengths (right and left).
- To ensure safety, a power supply with a circuit breaker is recommended.

○ The shape of 230 V / 240 V power cable plug



○ The shape of 240 V power cable plug (for China)

3. Other necessary items

After installation, Shimadzu service technicians will immediately make adjustments and perform measurements for acceptance validation. The following will be required for this, so please prepare them in advance.

(1) Cell with four polished sides: 1 pc., P/N 200-34441
(2) Distilled water: Use an appropriate amount of fresh distilled water.
(3) Power strip Power strip with enough outlets for the RF-6000, the computer, and any peripherals.

4. Pre Installation Checklist

To: _____

Address: _____

_____

The following page is a checklist summarizing the pre-installation conditions described above.

Dear Customer,

Please complete this checklist and return it to your Shimadzu representative.

Customer Name: _____

Address: _____

_____

Phone: _____

Item		Requirements	Check
1. Installation environment	1-1 Ambient temperature	15 °C to 35 °C (minimal daily room temperature variations)	☐
	1-2 Humidity	30 % to 80 % (no condensation) (70 % max. if the room temperature is 30 °C or higher)	☐
	1-3 Installation site	Not exposed to direct sunlight. Not exposed to vibrations. Free of magnetic fields or electromagnetic interference Free of corrosive gases or gases with absorbability in the ultraviolet region Non-dusty area	☐
	1-4 Installation space (including the computer)	At least 1,100 mm wide × 600 mm deep	☐
	Size of the RF unit	W610 mm × D565 mm × H274 mm	
	Desk strength	Must be able to support the weight of the RF-6000, approx. 38 kg, plus the weight of the computer and any peripherals.	
	Clearance around the instrument	Leave at least 100 mm of space to the right of the RF-6000. Leave at least 50 mm of space to the left of the RF-6000. A computer will be connected, so be sure to provide enough space for the computer and any peripherals.	
2. Power supply	2-1 Power supply voltage	100 V AC to 240 V AC ±10 %	☐
	2-2 Power consumption	300 VA (RF-6000 only)	☐
	2-3 Grounding	A three-wire power supply outlet is required. ・ Alternatively, ground it using a grounding adapter and grounding wire.	☐
3. Other necessary items	3-1 Cell with four polished sides	P/N 200-34441	☐
	3-2 Distilled water	Prepare an appropriate amount of fresh distilled water.	
	3-3 Power strip (outlets)	Provide a power strip with enough outlets for the RF-6000, the computer, and any peripherals.	☐