

Short user's manual

VWR® Premium and VWR® Auto *lite* colony counter

EU cat. No Premium 90HR: 710-2074, Premium 150: 710-2073
Auto lite: 710-2072

Working safely with your VWR® Colony Counter systems

Safety practices

This document describes the general safety practices and precautions that must be observed when operating the VWR® Colony Counter systems.

This advice is intended to supplement, not supersede, the normal safety codes in the user's country. The information provided does not cover every safety procedure that should be followed. Ultimately, maintenance of a safe laboratory environment is the responsibility of the user and the user's organization.

Please consult all documentation supplied with the VWR® Colony Counter before you start working with the instrument. Carefully read the safety information in this document and in the other documentation supplied. When setting up the instrument or performing analyses or maintenance procedures, strictly follow the instructions provided.

Warning notices



We use 'Warnings' to highlight information or instructions that **MUST** be followed to avoid personal injury to yourself or other people in the vicinity.

For example: Switch off the mains voltage and remove the mains cord before cleaning

Ensure that all instrument operators read and understand the precautions listed below.

You are advised to post a copy of the precautions near or on the instrument shelf.



The following precautions must be observed when using the VWR® Colony Counter.

- Be sure that the voltage of the VWR® Colony Counter instrument corresponds to the voltage used in your laboratory.
- Never remove the bottom panels of the VWR® Colony Counter instrument without shutting down the instrument and disconnecting the instrument power cord from line power.
- The Power cord must be an appropriately rated and approved cord-set in accordance with the regulations of the country it is used in.
- Do not replace the Power cord with one of inadequate rating

General operating conditions

The VWR® Colony Counter have been designed and tested in accordance with the safety requirements of the International Electrotechnical Commission (IEC). The VWR® Colony Counter conform to IEC61010-1 (Safety Requirements for electrical equipment for measurement, control and laboratory use) as it applies to IEC Class 1 (earthed) appliances, and therefore meet the requirements of EC directive 73/23/EEC.

If possible, avoid any adjustment, maintenance or repair to the instrument while it is open and operative. However, if any adjustment, maintenance or repair is necessary while the instrument is open, this *must* be done by a *skilled* person who is aware of the *hazards* involved.

Whenever circumstances arise that mean your VWR® Colony Counter may be unsafe, make it inoperative. In particular, an VWR® Colony Counter may be unsafe if it:

- Shows visible damage
- Fails to perform the intended measurement
- Has been subjected to severe transport stresses
- Has been subjected to prolonged storage in unfavorable conditions

Moving the Instrument

If you must move the imaging system any great distance please contact your local distributor to advise you about moving your system.

The VWR® Premium weighs 25kg.

The VWR® Auto *lite* weighs 3.5kg.

Environmental conditions

- The instrument should only be used under the following conditions:
- Indoors
- Altitudes below 2000m
- Ambient temperature between 5°C and 40°C
- Relative humidity below 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C
- Electrical supply fluctuations not exceeding $\pm 10\%$ of the nominal voltage.



The protection provided by the equipment may be impaired if the operating conditions do not lie within these parameters.

Electrical safety

The instrument has been designed to protect the operator from potential electrical hazards. This section describes some recommended electrical safety practices.



WARNING

Lethal voltages are present at certain points within the instrument.

When the instrument is connected to line power, removing the instrument covers is likely to expose live parts.

Even when the power switch is off, high voltages can still be present – capacitors within the instrument may still be charged even if the instrument has been disconnected from all voltage sources.

The instrument must be correctly connected to a suitable electrical supply. The supply must have a correctly installed protective conductor (earth ground) and must be installed or checked by a qualified electrician before connecting the instrument.



WARNING

Any interruption of the protective conductor (earth ground) inside or outside the instrument, or disconnection of the protective conductor terminal is likely to make the instrument dangerous.

Intentional interruption of the protective conductor is prohibited.



WARNING

Ensure that the electricity supply inlets on the instrument are not obstructed, i.e. leave a gap to allow easy disconnection from the electricity supply.

When working with the instrument:

- Connect the instrument to a correctly installed line power outlet that has a protective conductor connection (earth ground).
- Do not operate the instrument with any covers or internal parts removed.
- Do not attempt to make internal adjustments or replacements except as directed in the manuals.
- Disconnect the instrument from all voltage sources before opening it for any adjustment, replacement, maintenance or repair. If the opened instrument must be operated for further adjustment, maintenance or repair, this must *only* be done by your supplier's Service Engineer.
- Whenever it is possible that the instrument is no longer electrically safe for use, make the instrument inoperative and secure it against any unauthorized or unintentional operation. The electrical safety of the instrument is likely to be impaired if, for example, the instrument:
 - Shows visible damage
 - Has been subjected to prolonged storage under favorable conditions
 - Has been subjected to severe stress during transportation

Electrical protection

- Insulation: Class I rating for external circuits. Only connect equipment that meets the requirements of IEC 61010-1, IEC 60950 or equivalent standards.
- Installation Category: The instruments are able to withstand transient over voltages typically present on the MAINS supply. The normal level of transient over voltages is impulse withstand (overvoltage) category II of IEC 60364-4-443.
- Pollution Degree 2: Normally only non-conductive POLLUTION occurs. Occasionally, however, temporary conductivity caused by condensation must be expected.

EMC compliance

EC directive

The Colony Counter instrument has been designed and tested to meet the requirements of the EU directive 2014/30/EU. The Colony Counter instrument complies with the EMC standard EN61326 (EMC standard for electrical equipment for measurement, control and laboratory use) and EN55011 (ISM) class A (rf emissions)

FCC rules and regulations

This product is classified as a digital device used exclusively as industrial, commercial or medical test equipment. It is exempt from the technical standards specified in Part 15 of the FCC Rules and Regulations based on Section 15.103 (c).



Warning labels attached to the instrument draw your attention to specific hazards- you must refer to this user guide and other documentation provided with your system for more details concerning the potential hazard and any precautions or other actions that must be taken.

Looking after your VWR® Colony Counter system

The system does not require regular maintenance or calibration other than occasional checking and cleaning.

Cleaning the imaging system



WARNING

Switch off the mains voltage and remove the mains cord before cleaning.

You can clean the outside of the VWR® Colony Counter using a soft lint-free cloth, moistened if required with a little water. Mild detergent may be used, if necessary. Do not use abrasive or solvent based cleaning materials. Always perform a patch test on an inconspicuous area before you clean the entire accessory.

Avoid spilling any liquid into the body of the VWR® Colony Counter and clean any external spills immediately. If any liquid enters the main body of the instrument, make the system inoperative and contact your dealer

For information specific to the VWR® Colony Counter, contact VWR International at:

- Website: www.vwr.com
- **Contact us** for information or technical assistance contact your local VWR representative or visit. **www.vwr.com**.

For more information, please consult the full manual