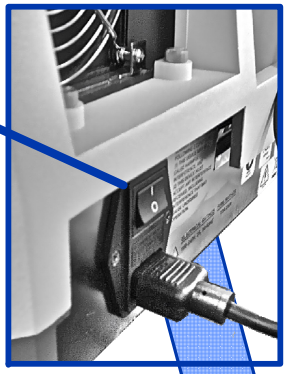
ORNL

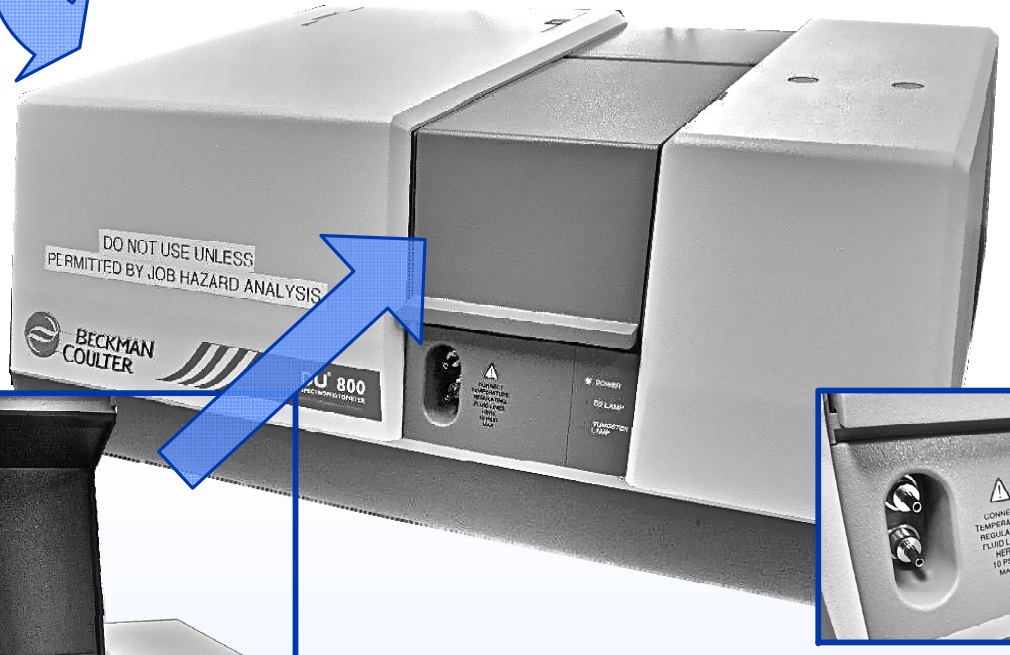
NEUTRON SCIENCES

Beckman Coulter UV/ Visible Spectrophotometer Model: DU 800

The rear contains the USB port for the necessary PC to operate the unit.

On the rear of the unit is the Main Power Switch, located above the plug in for the unit.

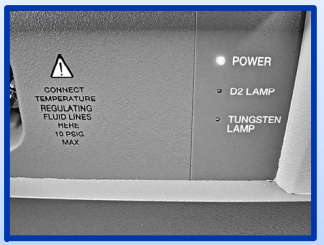




Sample Compartment

Cell Holder(Single Cell)

There are 2 ports for connecting Temperature Regulating Fluid Lines



On the front panel are 3 lights indicating power, the UV lamp, and the Tungsten lamp status

QSGORNL-23

OAK RIDGE National Laboratory

SETUP

A Keep unit away from dust, fumes, excessive moisture and corrosive chemicals. Keep away from CENTRIFUGES or large motors.

B Lift sample compartment cover and verify that it is clean of debris or samples.

C Ensure PC is connected via USB port.

D To set up Time/Date, Language, Baseline Expiration and other parameters, press the UTILITY button and follow on screen prompts.

E Creating a BLANK:

-After sample cuvette is in chamber and desired wavelength has been set, press BLANK button on screen
-You may use air or similar solvent to samples
-Change blanks/re-blank each time wavelength or solvent changes
-Unit can store up to 12 blanks
-Blank is subtracted from sample data to give absorbance(or transmittance)
-Scan may be smoothed(see user's manual)

OPERATION

A Install cell holder in sample compartment.

B Configure software for particular holder in Transport/ Holder Tab in Accessories window(usually Single Cell Holder).

C Turn both lamps on(Visible and UV). Allow UV lamp 30 seconds to warm up.

D Make sure <Fixed Wavelength> and <Default Method> appear in upper left hand boxes.

E To change the number and range of wavelengths, go to <Edit Method> and adjust.

F Insert sample cuvette into sample compartment and close lid. Take a BLANK(see Setup).

G Click READ. Record Absorbance. You can also select SAVE if desired. CLEAR when finished. (Note: choosing <Wavelength Scan> instead of <Fixed Wavelength> will give a graphical image of the data).

HAZARDS

ELECTRICAL HAZARD
This equipment contains electrical units that may come into contact with skin or liquids.

UV HAZARD
This unit contains a UV lamp. Appropriate precautions should be taken while operating.

PINCH HAZARD
This unit has parts which may close causing a pinch hazard.

CHEMICAL HAZARD
Because chemicals are being used in and near this unit, chemical spills are possible.

FIRE HAZARD
Any improper use of this unit may cause a fire hazard.

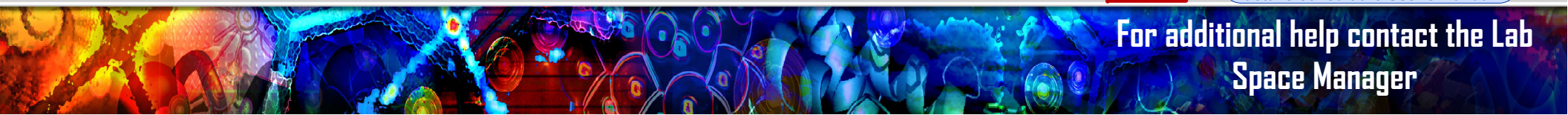
PREVENTION

EYE PROTECTION
Wear safety glasses while operating.

PROTECTIVE GLOVES
Wear appropriate gloves for heat and chemical usage.

NON-SLIP, CLOSED SHOES
Wear non-slip, closed shoes to avoid spills.

READ MANUAL
This guide contains information for quickly using the unit. For full details consult the User's Manual.



For additional help contact the Lab Space Manager