

Month / year

Laboratory / site

Instrument ID

Location

Owner

SOP / reference

DAILY CHECK																
Cuvettes and holders																
Sample and blank																
Instrument readiness																
Compartment and result condition																

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FORTNIGHTLY CHECKS - complete twice each month

Cells and optical faces: Inspect cells for residue, fingerprints, scratches or clouding; clean and store them by the approved procedure. Do not touch or clean protected

F1

☐

F2

☐

Accessories and tubing: Check holders, changers, sippers, probes and temperature accessories for cleanliness, secure seating, leaks and tubing that could obstruct the

F1

☐

F2

☐

MONTHLY REVIEW

☐ Performance status: Confirm required qualification and in-use checks remain current at the laboratory's approved interval.

POST-MAINTENANCE / RETURN TO USE

☐ Reassembly, function and qualification impact assessed and recorded.

Concerns / task reference:

Annual servicing is one important control - not a year-round maintenance strategy.

UV-Vis instruments are exposed to samples, solvents, cell handling, temperature effects and optical contamination throughout the year. Their condition needs maintaining between service visits through appropriate cleaning, checks and timely response to early warning signs.

DAILY

Cuvettes and holders

Confirm the cell material and path length suit the method and wavelength range. Use identified or matched cells where required; keep optical faces clean, scratch-free and consistently oriented.

DAILY

Sample and blank

Use the approved blank or reference matrix in a suitable clean cell; check fill level, bubbles, particles, evaporation and sample clarity before measurement.

FORTNIGHTLY

Cells and optical faces

Inspect cells for residue, fingerprints, scratches or clouding; clean and store them by the approved procedure. Do not touch or clean protected instrument optics unless instructed by the OEM.

FORTNIGHTLY

Accessories and tubing

Check holders, changers, sippers, probes and temperature accessories for cleanliness, secure seating, leaks and tubing that could obstruct the beam.

MONTHLY

Performance status

Confirm required qualification and in-use checks remain current at the laboratory's approved interval.

MONTHLY

Cuvette control

Review cell identity, material, path length, matching or equivalence, cleaning, storage and replacement status.

SHUTDOWN

Clean, secure and leave the instrument in its defined state.

POST-MAINTENANCE

Check reassembly and function; assess verification or qualification impact.

METHOD CONTROL

Current standard, method, OEM manual and SOP remain controlling.

PAUSE AND INVESTIGATE WHEN YOU SEE

• Blank or baseline drift

A blank changes during the sequence or fails to return to the expected response.

• Poor repeatability

Results change with repeat filling, cell orientation, position or replacement.

• Unexpected noise

Noise, spikes or instability exceed normal method behaviour.

• Condensation or residue

Moisture, deposits, particles or fingerprints are visible in the optical path.

• Wavelength concern

Known peaks appear displaced or a wavelength check is unsatisfactory.

• Lamp or diagnostic warning

A self-test, lamp-energy or instrument-status message appears.

MONTH-END REVIEW

Reviewed by: _____ Date: _____ Outcome / follow-up: _____