Dynamica

*designed in Australia*

# HALO DB-30

## UV-VIS Double Beam Spectrophotometer

- Spectral Range: 190 - 900nm
- Var. Bandwidth: 0.1nm, 0.2nm, 1.0nm, 2.0nm, 5.0nm
- Exceptionally Low Stray Light: 0,010%T
- High Resolution: WL setting in 0.01nm increments
- High Scan Speeds, selectable
- Wide Range of Accessories
- PC controlled
- UV-Detective PC Software Package included

### High End, Top Flexibility

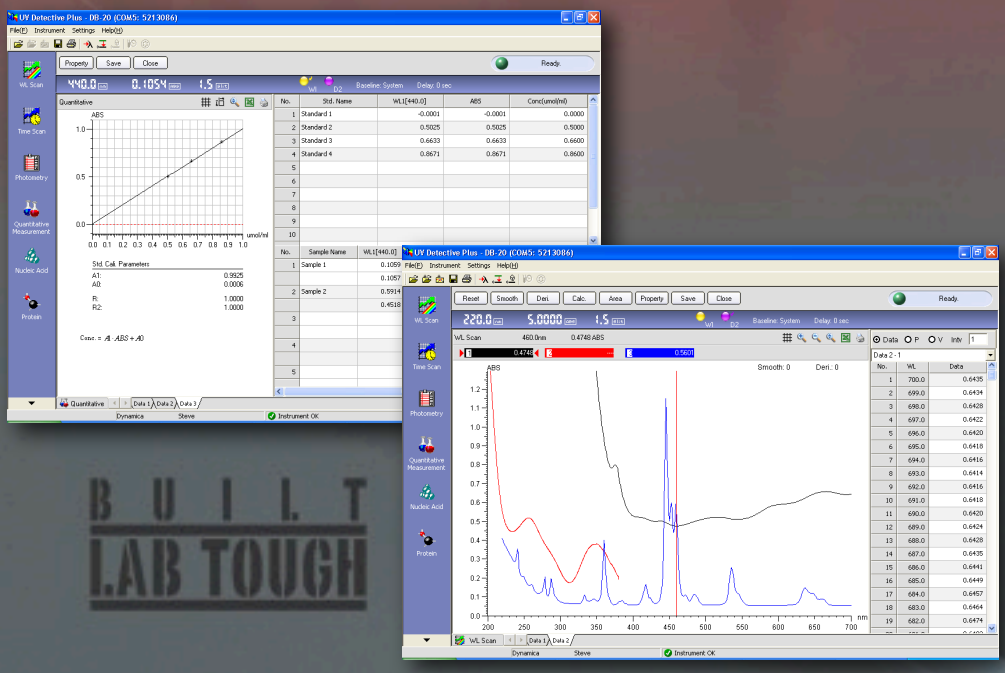
The next generation Halo DB-30 double beam spectrophotometer boasts superlative performance characteristics for applications demanding the utmost sensitivity by combining higher signal to noise ratios with minimal stray light. This warrants the Halo DB-30 suitable to many diverse fields and industries such as pharmaceutical, food, sanitation, environment, biology, agriculture, geology, mineral, petrochemical, optical, life science, education, manufacturing and many others.

### Powerful UV Detective PC Control

The Halo DB-30 is PC controlled using the UV Detective software (included with the instrument). Refer to page 2 for further details on the UV Detective software. UV Detective can also operate optional accessories such as the sample sipper and 6-cuvette holder.

The UV Detective software is powerful but user friendly depicted in the process flow below:

1. Select Function (e.g. Photometry)
2. Set Method Parameters
3. Auto-zero or Baseline
4. Sample test
5. Data processing
6. Report Generation



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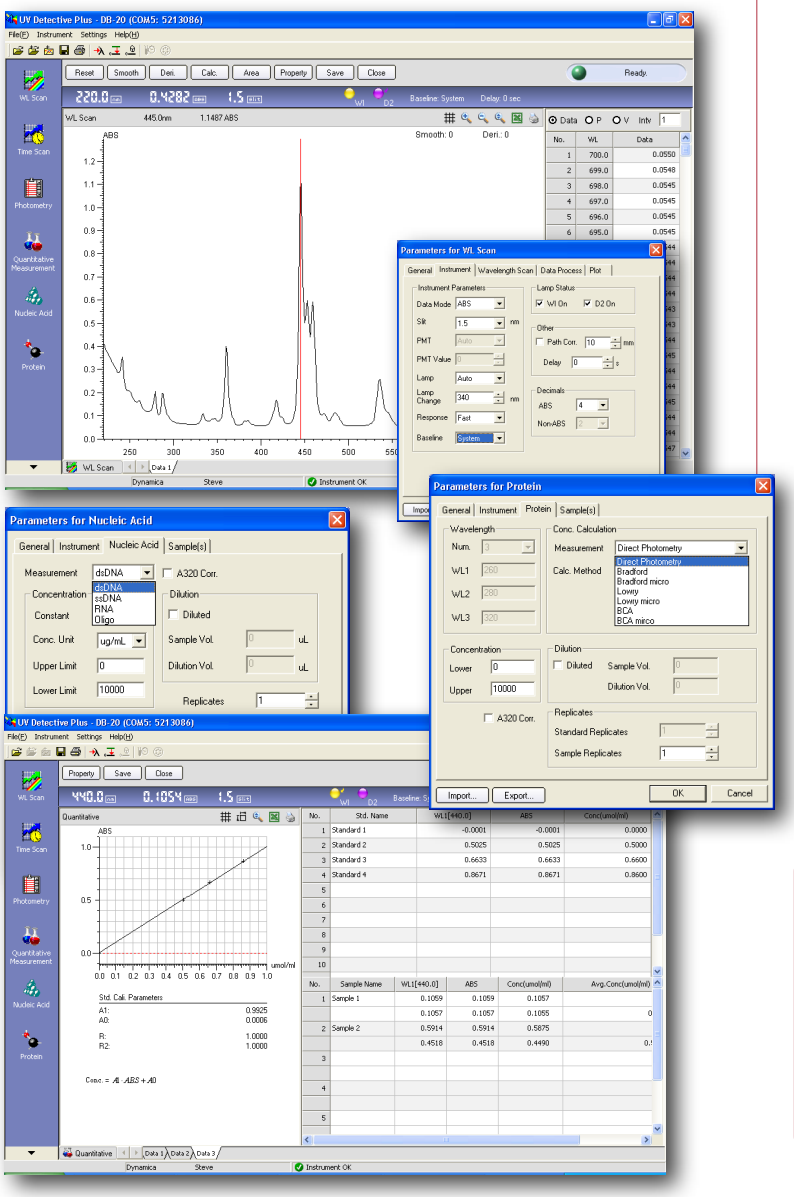
# UV Detective PC Software Package

UV Detective™ is Dynamica's powerful, user friendly PC software specifically designed for the control (and data processing) of selected Halo spectrophotometers from computers installed with the Windows® XP Pro and Vista operating system.

The versatile UV Detective can control all spectrophotometer operations such as photometry, wavelength scans, time scans and more. Further functions include storage of methods programs, saving of numerical and graphical data, downstream data processing, data transfer to commercial
spreadsheets such as Microsoft® Excel and report generation.

| | |
|---|---|
| Compatible Spectrophotometers | Halo RB-10 (optional), Halo DB-20 (optional), Halo DB-30 (standard) |
| Control Functions | Wavelength setting, auto-zero, auto calibration, optical path calibration, accessories such as 6-cuvette positioner and sipper |
| Measurement Conditions | Start-up, setting, output and storage of measurement parameters |
| Measurement Function | Wavelength scan, time scan, quantitative analysis, multi-spectrum measurement, kinetic analysis, concentration measurement, nucleic acid / protein measurements |
| Data Output | Display of spectra, data and scans (time and spectrum) |
| Quantitative Methods | Multi-wavelength, input of constant, standard curve calibration (linear, quadratic, cubic and segment) |
| Data Processing | Integral, derivative, flatness, calculation (spectrum and constant), kinetic |




## HALO DB-30 Accessories (please see main catalog or website for full details)

- Rectangular Long-Path Cuvette Holder
- Cylindrical Long-Path Cuvette Holder
- Thermostatic Cuvette Holder
- 5-Cuvette Holder / Changer
- 6-Cuvette Holder / Changer (with electronic temperature control)
- 6-Cuvette Holder / Changer (without electronic temperature control)
- Micro-cuvette Holder
- Auto Sample Sipper (without temperature control)
- Auto Sample Sipper (with temperature control)
- Micro Flow Cuvette Holder
- Glass Sample Holder
- Film Sample Holder

## HALO DB-30 Specifications

| | |
|---|---|
| Optics | Concave diffraction grating / Double Beam |
| Wavelength Range | 190nm - 900nm |
| Spectral Bandwidth | Selectable } 0.1nm, 0.2nm, 1.0nm, 2.0nm, 5.0nm |
| Stray Light | < = 0.010%T (220nm NaI, 340nm NaNO2) |
| Wavelength Accuracy | ±0.3nm |
| Wavelength Repeatability | ±0.1nm |
| Setting Wavelength | 0.01nm increments |
| Photometric Accuracy (NIST 930D filter) | ±0.002Abs (0~0.5Abs)<br>±0.004Abs (0.5~1Abs)<br>±0.008Abs (1~2Abs)<br>±0.3% T |
| Photometric Repeatability (NIST 930D filter) | ±0.001Abs (0~0.5Abs)<br>±0.002Abs (0.5~1Abs)<br>±0.004Abs (1~2Abs)<br>±0.15% T |
| Measurement Mode | Abs, %T, Conc. E(S), E(R) |
| Photometric Range | Absorbance: -4 to +5 |
| | %T: 0% to 600%T |
| | Conc: -9,999 ~ +9,999 |
| | E(S), E(R): 0 ~ 600 |
| Wavelength Scan Speed | 1, 5, 20, 120, 300, 1,000, 1,600, 2,000 nm/minute |
| Wavelength Slew Speed | 3,000nm/min. |
| Baseline Flatness | ±0.001Abs (200~850 nm) |
| Baseline Stability | 0.0004 Abs/hr (500nm, after 2 hours) |
| Noise Level | ±0.0003 Abs (500nm) |
| Light Source | Tungsten-Halogen and Deuterium Lamps |
| Light Source Switching | Automatic switching, selectable from 325nm to 370nm |
| Detector | Photomultiplier |
| Instrument Control | PC with Windows® XP Pro operating system |
| Dimensions / Weight | 710(W) x 630(D) x 268(H) mm / 50Kg (net), 56kg (gross) |
| Power Requirements | 220V AC (50/60Hz), 300VA |

Presented by: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