The Thermo Scientific SPECTRONIC 200 instrument is the new standard in rugged, simple-to-use visible spectrophotometers for routine applications. On-board software, controlled from an intuitive navigation pad using a full color screen, delivers capabilities beyond expectations.

Thermo Scientific SPECTRONIC 200

Convenient, capable visible spectrophotometer

For over half a century, laboratories around the world have relied on Thermo Scientific spectrophotometers for quick, easy measurements in water, quality control and clinical facilities.

The SPECTRONIC™ 200 spectrophotometer couples the simplicity and reliability of the SPECTRONIC 20 and GENESYS™ 20 instruments with 21st century technology and a bold new design that promises years of trouble-free performance.

Rugged, Practical Design

The SPECTRONIC 200 spectrophotometer is designed for long term, daily use in busy labs.

- With no internal moving parts, there's nothing to wear out
- Sample compartment lifts out for easy cleaning
- Polymer construction resists corrosion from acidic or oxidizing solutions
- Navigation pad and on-screen menus are second nature to any mobile phone user
- Compact footprint saves space in your lab
- Cuvette racks on both sides of the sample compartment help you keep track of samples
- No computer or serial cable required. Just plug it in and you're ready to measure

The New Standard for Routine Measurements

- Large, bright, color LCD adjusts to the perfect angle for any technician to view
- Standard sample compartment accommodates both 10 mm square cuvettes and test tubes up to 25 mm (1 inch) diameter
- Room light immune optical system allows you to measure tall test tubes with the lid open
- Programmable Analyzer mode
  - *Supports mathematical manipulation of result data*
  - *Puts the calculated result right on your screen*
  - *Saves methods and retrieves them for later use*
  - *Supports methods with up to four factors and wavelengths*
- Screen-print feature gives a permanent record of your data
- Quantitative analysis with either a factor or up to four standards offers confidence and accuracy
- Small footprint, stand-alone system saves bench space
- Low cost to stretch your budget
- Available Thermo Scientific piQue software for your computer controls the instrument and provides data manipulation, storage and report printing options

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Outstanding Capabilities for Routine Spectroscopic Measurements

Program Standard Methods with the Analyzer Mode

With the SPECTRONIC 200 spectrophotometer you won't need to re-enter methods every time. Simply load your Analyzer method from a USB memory stick and start working. The programmable Analyzer mode lets you choose up to four wavelengths and factors, then combine them in an equation you create. Specify your own result unit and name your method using an on-screen keyboard. The working screen shows only the method name, the result and the unit. Print the screen as a permanent record and remove the possibility of transcription and calculation errors.

```
Application              Scan    ←→
Measurement Mode    ABS
Low  λ                    340
High  λ                  1000
Next
```

```
Design your formula  [7][8][9][(][)]
                     [4][5][6][*][/]
press NEXT           [1][2][3][+][−]
when finished        [0][.][F][λ][←]

=F1*λ1+2.53
```

```
                        Red Dye Conc

Result=
       5.03  g/100ml

Press Enter
to freeze display
```

Quantitative Analysis with Greater Accuracy

Single standard calibrations are common, but any error that occurs in the standard carries into all your sample data. With the SPECTRONIC 200 spectrophotometer, you can measure and plot up to four standards, with each sample data point plotted on a graph for comparison. With a graphical display of quant data, you can see whether the standards fall on a straight line and where your sample lies.

```
Application          Quant
No. of STDs(F,1-4)   3
Measurement Mode     ABS
Measurement λ          640 nm
Unit                 mg/L
USB memory           Save
GO
```

```
1.9
                        1.25 ABS

                   Conc
                   0.48 mg/L
0.0
   0.0                        0.8
              ↑ Edit method
Measure sample ←  → Save method
```

Not Ready to Part with Your Old Thermo Scientific Instrument?

GENESYS 20 and SPECTRONIC 20 instruments are installed in laboratories all over the world. If you aren't ready to re-write your test protocols to take advantage of our new interface, the SPECTRONIC 200 spectrophotometer will emulate the interface and controls on your old instrument to integrate seamlessly into your laboratory.

```
565 nm        65.49 %T


     ▲      ▼

  Utility   A/T/C
```

```
                    MODE →
                    ● CONCENTRATION
WAVELENGTH    DATA
615nm         71.28
```
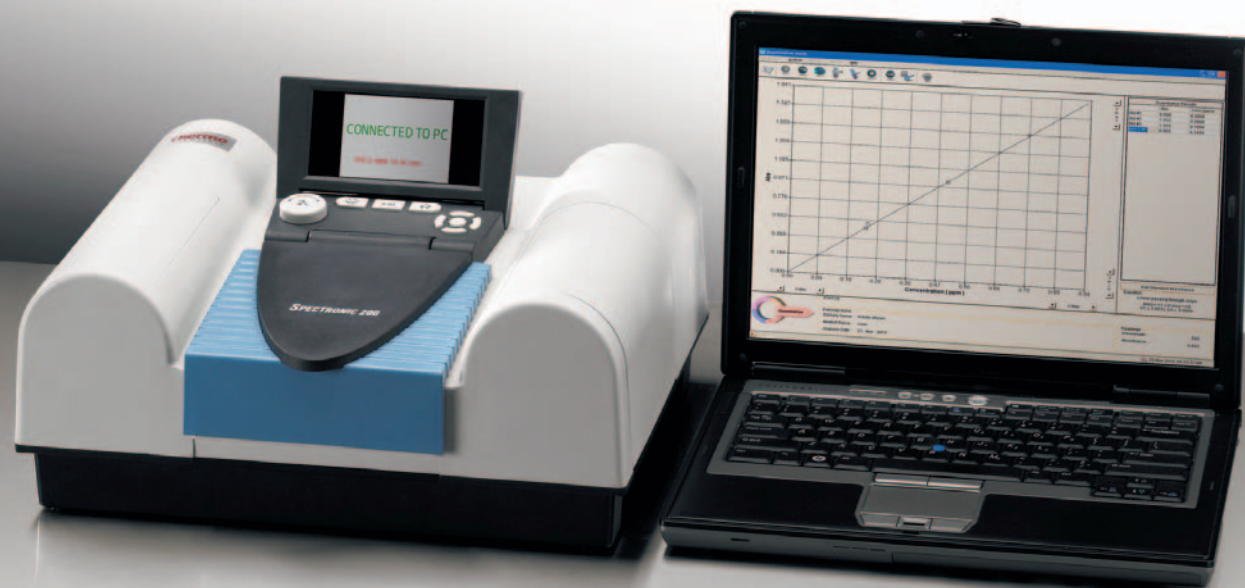
Designed for Your Laboratory

A sturdy hinge on the sample compartment lid means it stays open when it should. The room light resistant optical system ensures that you get the same high-quality data with the lid open or closed. Cuvette racks in compartments on both sides are not only convenient, but also increase sample throughput.

The sample compartment supports standard 1 cm pathlength square cuvettes and test-tube cuvettes from 13 mm (0.5 inch) up to 25 mm (1 inch) diameter. Do you measure in long pathlength cuvettes? Cuvette holders for rectangular or cylindrical cuvettes up to 100 mm pathlength are available as optional accessories. There's no need to buy new cells when you upgrade to the SPECTRONIC 200 spectrophotometer.
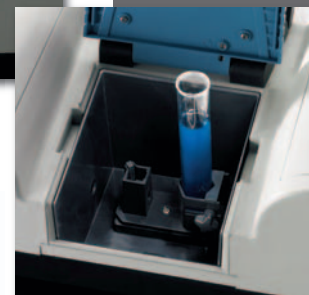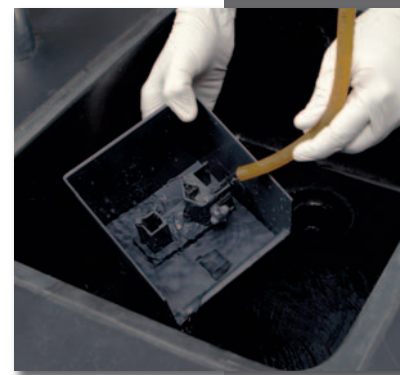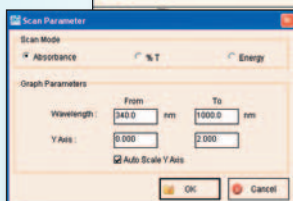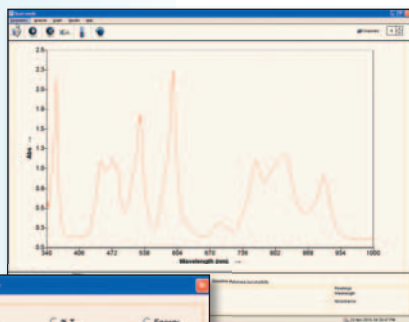
Easy to Own

With almost no metal components, the sample compartment resists corrosion from spilled solutions. Even large spills of up to 250 mL are contained and won't get into your instrument. After a spill or at the end of the workday, simply lift out the sample compartment and wash it in the sink. Dry it off and you're ready to start working again.

Computer Control with piQue Software

Added Power for Formal Data Presentation

piQue™ software adds the power to print data tables and formal reports of your quantitative analysis data. Use Scan mode to store, manipulate and compare up to 100 spectra. piQue Fixed Wavelength mode expands your choices to 10 wavelengths. The Validation mode lets you test your spectrophotometer to document that it's working in top condition, giving you full confidence in your data. piQue software gives you the option to save all your data either as native files for later reference, or as CSV files that you can load into the data processing program of your choice.

Specifications

Optical Design		Single Beam
Spectral Bandwidth		≤ 4 nm
Light Source		Tungsten-halogen
Detector		2048 element CCD
Wavelength	Range	340 nm – 1000 nm
	Accuracy	± 2 nm
	Repeatability	± 1 nm
	Data interval	1 nm
Photometric	Range	-0.3 A to 2.5 A
	Readout	ABS, %T, Concentration
	Accuracy	± 0.01 A at 0.3 A ± 0.05 A at 1.0 A (SPECTRONIC standard filters measured at 590 nm)
	Repeatability	± 0.3 %T at 50 %T
Stray Light		< 0.2 %T (with SPECTRONIC standard SRM 400 filter)
Display		Variable angle 320 x 240 pixel color graphical LCD 7 × 5 cm, 8.6 cm diagonal (2.75" × 2", 3.4" diagonal)
Keypad		Sealed tactile rubber
Standard Features	Sample compartment	Lifts out for cleaning
	Cuvette racks and compartments	2 included with dedicated compartments
	Included cuvettes	1 cm plastic (quantity 10)
Standard Interfaces		USB-B for connection to a remote computer USB-A for connection to a printer or USB memory device
Languages		On-board software in English, Spanish, French, German and Italian
Power Requirements		100 – 240 V, 50 – 60 Hz (selected automatically)
Dimensions		39 cm W × 30 cm D × 16 cm H (15.3" W × 11.8" D × 3.6" H)
Weight		4.4 kg (9.7 lbs)

Ordering Information

Description	Part Number
SPECTRONIC 200, US Power Cord	222-265700
SPECTRONIC 200, UK Power Cord	222-265800
SPECTRONIC 200, Euro Power Cord	222-265900

Optional Software and Accessories	Part Number
Long Path Rectangular Cell Holder to 100 mm	840-214100
Long Path Cylindrical Cell Holder to 100 mm	840-214200
Cuvette Rack – package of 6	222-265600
piQue Software Single Copy and License	869-142000
Epson® TM-T88IV Printer US Power Cord	222-268200
Lamp	714-039400

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