

**SPECTROPOLARIMETER**

JASCO proudly announces the new model J-810 Spectropolarimeter, our latest Circular Dichroism and UV / Visible absorbance research-grade chiroptical spectrometer. Following our successful J-715, the new J-810 offers a host of new hardware and software features to save you time and deliver even better results. Instrument control and data processing are handled effortlessly by our user-friendly and innovative Spectra Manager™ Software running on the Windows® 95 or NT® multi-tasking PC platform.

**Features****Four Channel Simultaneous Data Acquisition**

Up to four channels can be acquired simultaneously. The internal signal selected from CD, FDCD, ORD, LD, UV and Fluorescence for external signals, for example pH measurement

**Three scanning modes**

Continuous scan / Step scan / Auto response scan. The new auto response scan monitors noise in the signal as a function of light throughput and automatically adjusts the response time to optimize measurement parameters.

**New Spectra Manager Software**

The J-810 is now controlled by Jasco's innovative Spectra Manager software for Windows® 95 or NT®. This 32 bit package is the first of its kind allowing control of the CD as well as UV, IR, and Fluorescence spectrometers from Jasco. Complete macro capability is built-in and publication quality presentation and printing are all provided.

**Increased Performance**

A more efficient light source combined with improvements to the optics and data acquisition system bring big performance gains over the J-715. Wavelength range is now extended down to 163 nm. Baseline stability is now less than 0.03 m° / hour. Noise level at 200 nm is a low 0.040 m° and at 185 nm is 0.05 m°

**Alarms**

Light source over-temperature.  
Water leak in sample compartment.  
Nitrogen purge gas shortage (flow meter accessory required).

**Other new features**

Auto scale during measurement data acquisition. Easier operation through greater PC control of instrument facilities such as shutter, nitrogen purge control, PMT HT setting during manual measurements and light source power on / off. More compact design, with a built-in power supply.

## SPECIFICATIONS

Light source:	150W air cooled Xe lamp or 450W water cooled Xe lamp (option)
Detector:	Head-on photomultiplier tube
Modulator:	Piezoelectric modulator
Wavelength accuracy:	±0.2 nm (at 163 to 180 nm) ±0.1 nm (at 180 to 250 nm) ±0.3 nm (at 250 to 500 nm) ±0.8 nm (at 500 to 800 nm) ±2.0 nm (at 800 to 1100 nm)
Spectral Bandwidth:	0.01 to 15 nm
Slit width:	1 to 3000 μm
Response:	0.5 msec to 32 sec
Scanning system:	Continuous scan
	Step scan (Fixed response and auto response system)
Scanning speeds:	1 to 10000 nm/min (continuous scan)
Data interval:	0.025 to 10 nm (continuous scan) 0.1 to 100 nm (step scan) 0.5 msec to 60 min (time change)
CD full scale:	±10, 200, 2000 mdeg
CD resolution:	0.0005 mdeg (at ±10 mdeg full scale) 0.01 mdeg (at ±200 mdeg full scale) 0.1 mdeg (at ±2000 mdeg full scale)
Stray light:	Less than 0.0003% (200 nm)
RMS noise:	185 nm: 0.050 mdeg (150W Xe lamp) 200 nm: 0.040 mdeg (150W Xe lamp) 500 nm: 0.035 mdeg (150W Xe lamp) (Spectral bandwidth 1 nm, response 16 sec)
Baseline Stability:	±0.03 mdeg/hr (Spectral bandwidth 1 nm, response 32 sec, wavelength 290 nm)
External input terminal:	Two channels (input range: -1 to 1 V)
Shutter:	Opens and closes in front of sample
Sample chamber:	Small size (S type) and large size (L type) are available Small size chamber dimensions: 140 (W) x 300 (D) x 130 (H) mm Large size chamber dimensions: 305 (W) x 420 (D) x 270 (H) mm
Nitrogen gas purge:	Atmosphere in the light source unit, monochromator unit, and sample chamber is displaced using dry nitrogen gas.
Dimensions:	S type (Main unit): 1115 (W) x 570 (D) x 410 (H) mm L type (Main unit): 1270 (W) x 570 (D) x 410 (H) mm
Weight:	S type (Main unit): 87 kg L type (Main unit): 106 kg
Power input voltage:	100, 115, 220, 230, 240 V, 50/60 Hz
Power consumption:	270 W

## STANDARD ACCESSORIES

- Main unit	1 set
- Modulator element	1 set
- Detector unit	1 set
- Cable	1 set
- Nitrogen gas inlet tube, 3m	1 pc.
- Nitrogen gas outlet tube, 3m	1 pc.
- Sample chamber window	1 pc.
- CH-434 Cylindrical cell holder	1 set
- Standard sample	1 pc.
- Tools	1 set
- Spectra Manager Software (CD-ROM)	1 pc.
- Instruction manual	1 set

## ORDERING INFORMATION

Code No.	Description
6775-J003A	Model J-810 Spectropolarimeter (150-S type)
6775-J006A	Model J-810 Spectropolarimeter (150-L type)



● Specifications are subject to change without notice.

## OPTIONAL ACCESSORIES

Code No.	Description
<b>Accessories for J-810 150-S and J-810 150-L</b>	
6784-J034A	CH-434 Standard cylindrical cell holder, up to 20mm path. cell
6784-J035A	CH-435 Long path cylindrical cell holder, up to 100mm path. cell
6784-J036A	JTC-436 Water thermostatable cylindrical cell holder
6748-J037A	RCH-437 Rectangular cell holder
6784-J038A	RTC-438 Water thermostatable rectangular cell holder
6784-J039A	TWS-439 Rectangular cell holder with stirrer
6784-J040A	HWS-440 Water thermostatable rectangular cell holder with stirrer
6784-J006A	MA-406 Micro cylindrical cell holder without lens
6580-0311A	MAC-10 cylindrical micro quartz cell
6784-J008A	MCH-408 Micro rectangular cell holder without lens
6784-J022A	EXWL-422 Extended wavelength option
6784-J001A	ORDM-401 ORD accessory
6784-J002A	ORDE-402 ORD accessory
6784-J003A	LD-403 Linear dichroism accessory
6784-J041A	SCAT-441 Light scattering cell holder
6784-J045A	UVD-445 Double beam UV accessory
xxxx-xxxx	SFA-452 Stopped-flow accessory (2 syringes)
xxxx-xxxx	SFA-453 Stopped-flow accessory (3 syringes)
xxxx-xxxx	SFA-454 Stopped-flow accessory (4 syringes)
xxxx-xxxx	SFA-452T Peltier thermostatted stopped-flow accessory (2 syringes)
xxxx-xxxx	SFA-453T Peltier thermostatted stopped-flow accessory (3 syringes)
xxxx-xxxx	SFA-454T Peltier thermostatted stopped-flow accessory (4 syringes)
6784-J018A	SFH-418 Holder for Bio-Logic stopped-flow
6784-J030A	FLM-430 N2 gas flow meter, 0 to 25L/min
6784-J031A	FLM-431 N2 gas flow meter, 0 to 100 L/min
6784-J032A	FLM-432 N2 gas flow meter (set of FLM-430 and FLM-431)
6784-J033A	FLMA-433 N2 gas flow meter (PC Control Type)
6784-J046A	FLMS-446 N2 gas flow meter with sensor
6784-J043A	MB-443 Support bench

### Accessories for J-810 150-S

6784-J123A	PTC-423S Peltier thermostatted single cell holder
6784-J124A	PTC-424S Peltier thermostatted 6-position cell changer
6784-J128A	PMH-428S Peltier thermostatted micro cell holder with micro cell
6784-J104A	FDCD-404S Fluorescence CD accessory
6784-J125A	PFD-425S Peltier thermostatted fluorescence CD accessory
6784-J126A	CFD-426S Peltier thermostatted CD/Fluorescence accessory
6784-J129A	ATS-429S Automatic titration accessory
6784-J119A	SA-419S Sample alternator

### Accessories for J-810 150-L

6784-J023A	PTC-423L Peltier thermostatted single cell holder
6784-J125A	PTC-424L Peltier thermostatted 6-position cell changer
6784-J028A	PMH-428L Peltier thermostatted micro cell holder with micro cell
6784-J004A	FDCD-404L Fluorescence CD accessory
6784-J025A	PFD-425L Peltier thermostatted fluorescence CD accessory
6784-J026A	CFD-426L Peltier thermostatted CD/Fluorescence accessory
6784-J029A	ATS-429L Automatic titration accessory
6784-J019A	SA-419L Sample alternator
6784-J009A	PM-409 Permanent magnet, 4000 Gauss
6784-J010A	PM-410 Permanent magnet, 7000 Gauss
6784-J011A	MCD-411 Electro-magnet, 8000 Gauss
6784-J012A	MCD-412 Electro-magnet, 10000 Gauss
6784-J013A	MCD-413 Electro-magnet, 12500 Gauss
6784-J014A	MCD-414 Electro-magnet, 15000 Gauss
6784-J015A	CRYS-415 Cryostat for solid sample, -180 deg.
6784-J016A	CRYL-416 Cryostat for liquid sample, -150 deg.

**JASCO**<sup>®</sup>

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