

Manual Change Notice
DR/2400 Instrument Manual, 59400-18
1st Edition, 7/02

Updated procedures are available for download from the Hach website at www.hach.com.

Change Date:	10/02
---------------------	-------

Procedure /Section Name	Method Type	Method Number	Tool	Range
Section 1 Getting Started	NA	NA	NA	NA
Page	Change			
13	Remove DR/Check from packing list			
18	Add catalog number for DR/Check			

Section 1 Getting Started

1.1 Unpacking the Instrument

The DR/2400 Portable Spectrophotometer comes packaged with one each of the following items:

- Instrument
- Power cord
- Power supply
- Batteries
- Round sample cell holder assembly
- Procedure Manual with binder
- Instrument Manual
- CD-ROM containing the Procedure and Instrument Manuals
- Set of 6 sample cells, 10 mL/25 mL

If any of these items are missing or damaged, please contact Hach Company or a sales representative immediately.

Note: Retain the original packaging material. Instruments returned for recertification or service should be shipped in the original packaging material to protect against damage during transportation. See Section 8.8 Recertification Interval for more information.

1.2 Operating Environment

Maintain an ambient temperature of 0 to 40 °C (32 to 104 °F) for proper instrument operation. The relative humidity should be less than 90%; moisture should not condense on the instrument.

1.3 Cable Connections

Figure 1 shows the cable connections on the back of the instrument.

Figure 1 DR/2400 Cable Connections

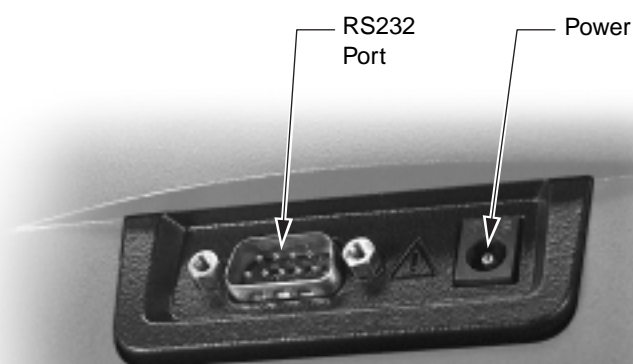



Figure 1 Main Menu—Standard Software

Main Menu		
Hach Programs		
User Programs		
Favorite Programs		
Single Wavelength		
System Checks	 Recall Data	Instrument Setup

1.8 Using the DR/Check™ Absorbance Standards

Hach's DR/Check Absorbance standards (Cat. No. 27639-00) are used in instrument performance verification on both the DR/2400 and DR/800 Series instruments. The set consists of three standards plus a blank. Each of the standards is certified to give a known absorbance value at a particular wavelength. The standards can be used to verify that the instrument is performing in a consistent manner on a routine basis.

1.8.1 How to Use the Standards

Note: Be sure to follow the cell alignment steps found on the product box.

The DR/Check Standards are used to verify instrument performance by measuring a specific absorbance at each of the following wavelengths:

- 420
- 520
- 560
- 610

1. From the Main Menu screen, touch **Single Wavelength**.
2. From the Single Wavelength screen, touch λ .
3. Key in 420 nm.
4. Insert the blank into the instrument so that it is properly aligned with the light source. Touch **Zero**.

Note: For best results, wipe all the cells with a clean tissue and silicone oil before use

5. Place Standard #1 in the instrument so that it is properly aligned. Read the absorbance.
6. Record the initial instrument reading in the blank table provided with the standards. The initial value should be within the tolerance limits of the certified absorbance specified on the Certificate of Analysis for the DR/Check Standards.

Note: If values are not within specified tolerance limits, contact Hach Technical Support. See Repair Service on page 63 for contact information.

7. Repeat steps 2 through 6 for the other two standards, using the correct wavelength in step 3.

Note: To continuously monitor instrument performance, repeat all steps and compare readings to the recorded values.