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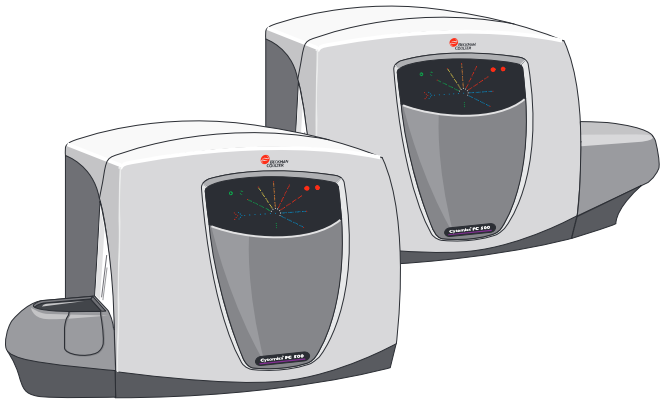
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Find the *Beckman Coulter Cytomics FC 500* at our website: ***Click HERE***

Cytomics FC 500
With CXP Software

Getting Started









PN 177652A (May 2003)

Beckman Coulter, Inc.
Fullerton, CA 92835

BECKMAN COULTER™

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WARNINGS AND PRECAUTIONS

READ ALL PRODUCT MANUALS AND CONSULT WITH BECKMAN COULTER-TRAINED PERSONNEL BEFORE ATTEMPTING TO OPERATE INSTRUMENT. DO NOT ATTEMPT TO PERFORM ANY PROCEDURE BEFORE CAREFULLY READING ALL INSTRUCTIONS. ALWAYS FOLLOW PRODUCT LABELING AND MANUFACTURER'S RECOMMENDATIONS. IF IN DOUBT AS TO HOW TO PROCEED IN ANY SITUATION, CONTACT YOUR BECKMAN COULTER REPRESENTATIVE.

HAZARDS AND OPERATIONAL PRECAUTIONS AND LIMITATIONS

WARNINGS, CAUTIONS, and IMPORTANTS alert you as follows:

WARNING - Can cause injury.
CAUTION - Can cause damage to the instrument.
IMPORTANT - Can cause misleading results.

BECKMAN COULTER, INC. URGES ITS CUSTOMERS TO COMPLY WITH ALL NATIONAL HEALTH AND SAFETY STANDARDS SUCH AS THE USE OF BARRIER PROTECTION. THIS MAY INCLUDE, BUT IT IS NOT LIMITED TO, PROTECTIVE EYEWEAR, GLOVES, AND SUITABLE LABORATORY ATTIRE WHEN OPERATING OR MAINTAINING THIS OR ANY OTHER AUTOMATED LABORATORY ANALYZER.

WARNING Risk of operator injury if:

- All doors, covers and panels are not closed and secured in place prior to and during instrument operation.
- The integrity of safety interlocks and sensors is compromised.
- Instrument alarms and error messages are not acknowledged and acted upon.
- You contact moving parts.
- You mishandle broken parts.
- Doors, covers and panels are not opened, closed, removed and/or replaced with care.
- Improper tools are used for troubleshooting.

To avoid injury:

- Keep doors, covers and panels closed and secured in place while the instrument is in use.
- Take full advantage of the safety features of the instrument. Do not defeat safety interlocks and sensors.
- Acknowledge and act upon instrument alarms and error messages.
- Keep away from moving parts.
- Report any broken parts to your Beckman Coulter Representative.
- Open/remove and close/replace doors, covers and panels with care.
- Use the proper tools when troubleshooting.

CAUTION System integrity might be compromised and operational failures might occur if:

- This equipment is used in a manner other than specified. Operate the instrument as instructed in the Product Manuals.
- You introduce software that is not authorized by Beckman Coulter into your computer. Only operate your system's computer with software authorized by Beckman Coulter.
- You install software that is not an original copyrighted version. Only use software that is an original copyrighted version to prevent virus contamination.

IMPORTANT If you purchased this product from anyone other than Beckman Coulter or an authorized Beckman Coulter distributor, and, if it is not presently under a Beckman Coulter service maintenance agreement, Beckman Coulter cannot guarantee that the product is fitted with the most current mandatory engineering revisions or that you will receive the most current information bulletins concerning the product. If you purchased this product from a third party and would like further information concerning this topic, call your Beckman Coulter Representative.

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Revision Status

Initial Issue 5/03
Software version: 1.0

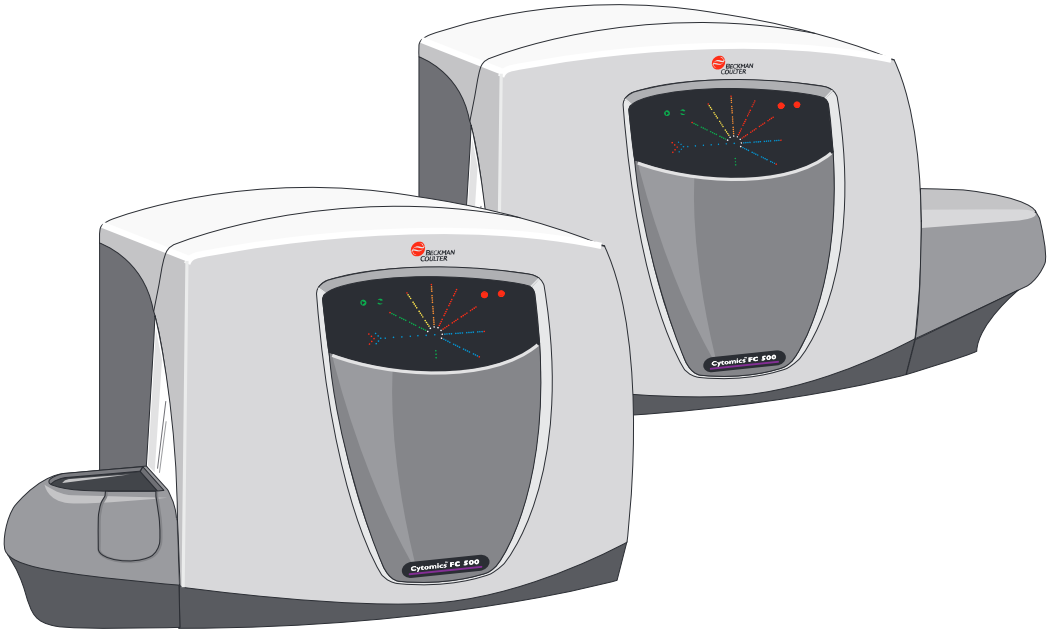
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Welcome

This booklet introduces the Cytomics FC 500 with CXP software. The FC 500 provides automated flow cytometric analysis including DNA analysis, immunophenotyping, and cellular subsetting.

The FC 500 includes a state-of-the-art Workstation that improves:

- Usability
- Workflow efficiency
- Results management
- Data analysis.



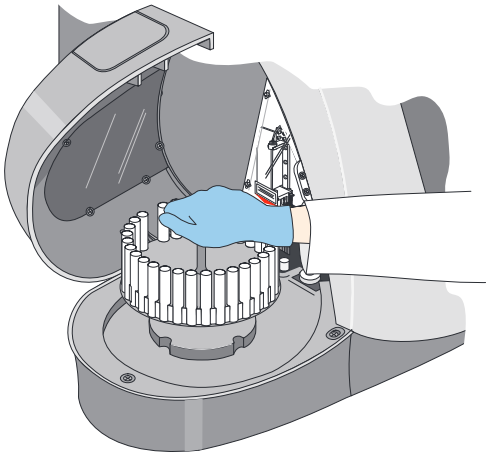
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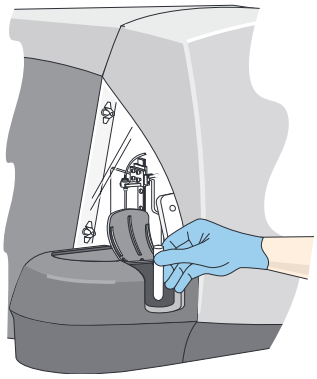
The FC 500 can easily adapt to your laboratory's work flow. This system has three acquisition modes:

- MCL Automatic
- MCL Manual
- Single Tube.

and a variety of analysis methods:

- AutoMATOR Batch Analysis
- MultiFile Analysis
- Listmode Compensation.





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Cytomics FC 500 With CXP Software

MAIN COMPONENTS

Cytometer

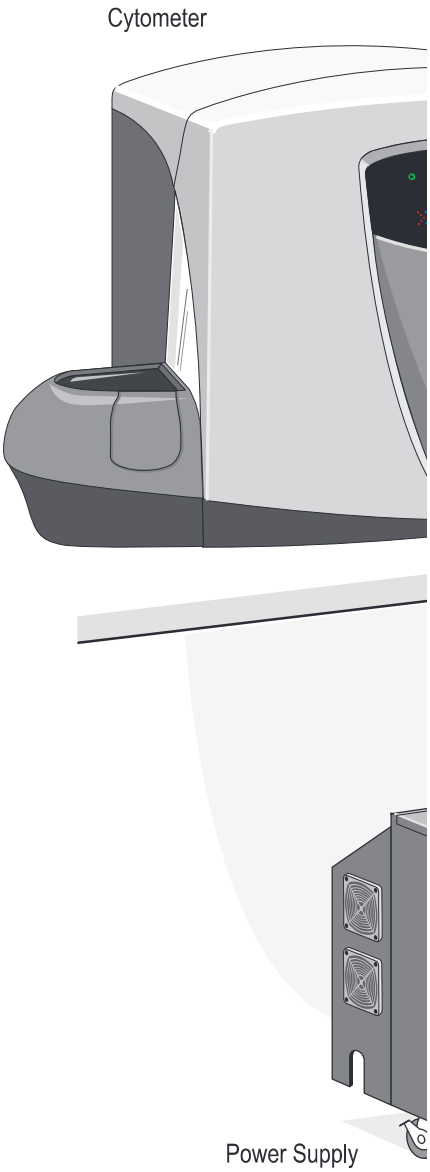
Sends data to the Workstation. The Cytometer includes:

- Analyzer that counts, measures and computes parameters.
- Power Supply that provides voltages, vacuum and pressure.
- MCL that positions the sample tubes in the carousel for sampling.
- Laser(s) for fluorescence excitation.

Workstation

Receives data from the Cytometer. Analyzes and displays numeric results and dataplots. The Workstation includes:

- Monitor that displays the software screens.
- Computer that runs the instrument software.
- Mouse that allows you to navigate through the software.
- Keyboard that allows you to input into the software.
- Handheld Scanner that reads bar-code labels (optional).

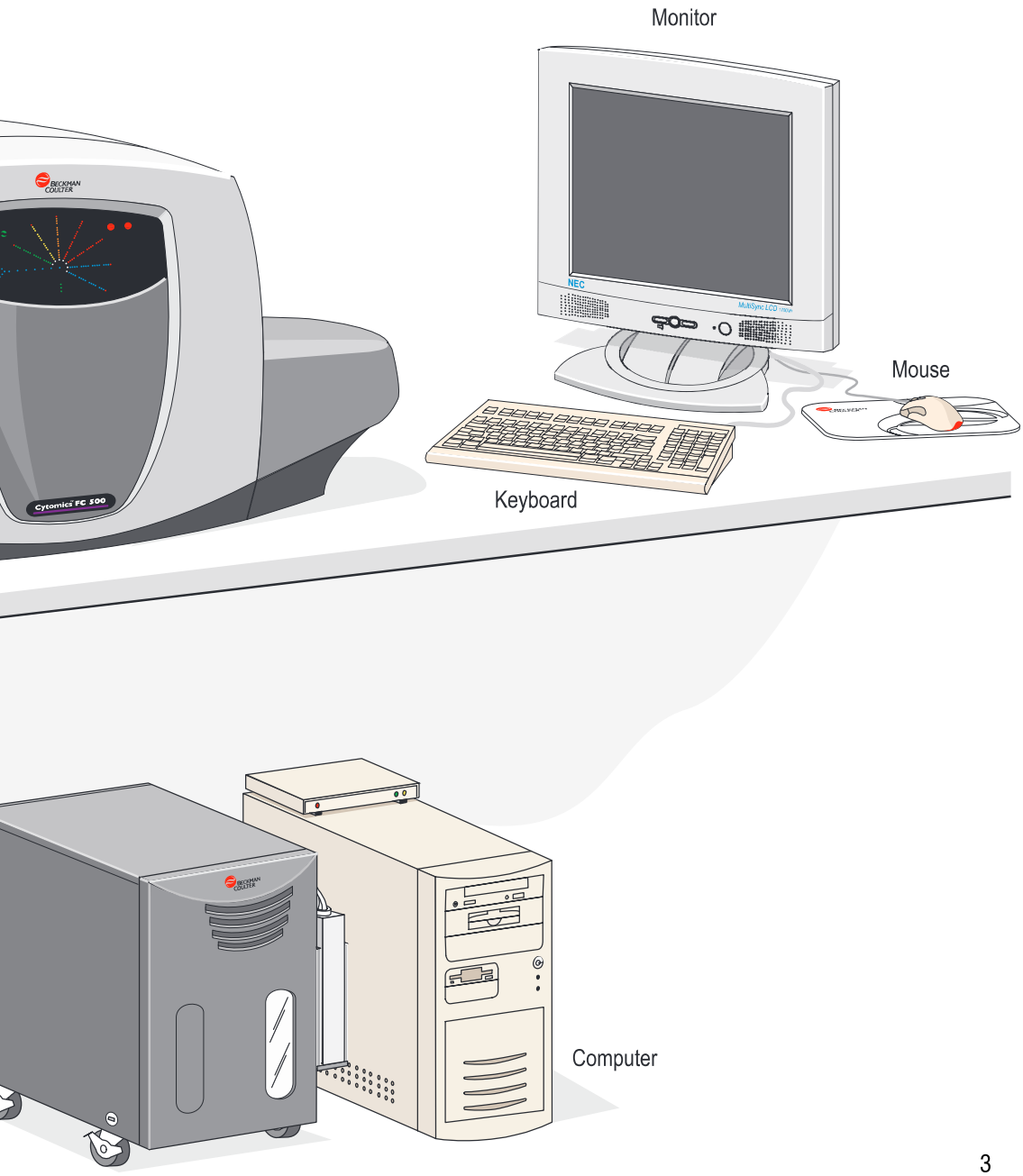


SYSTEM UPGRADES

Printer

You can use most printers that are supported by Windows® software and Beckman Coulter.

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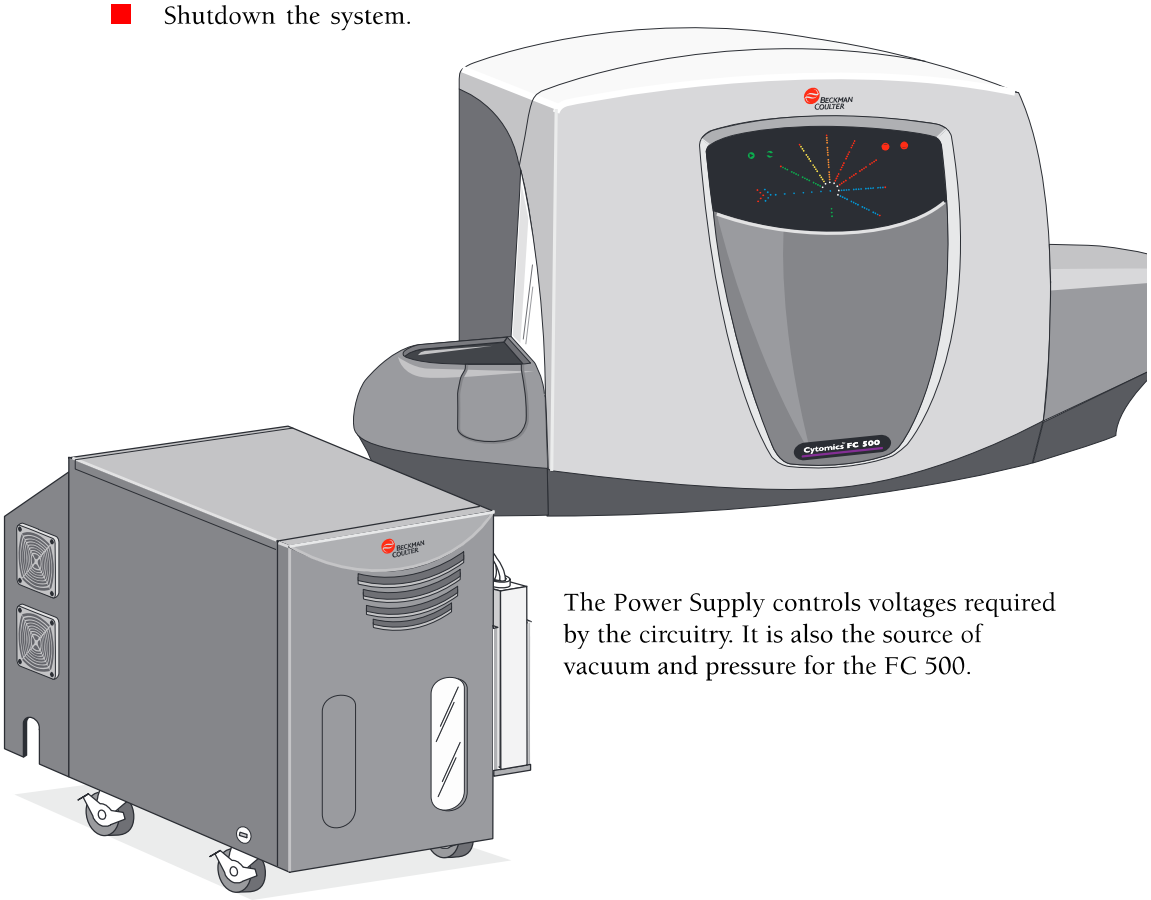


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Cytometer

The Cytometer counts, measures and computes parameters. These functions are performed by the Cytometer:

- Initialize the system.
- Run samples.
- Provide visual display on the Cytometer Indicator Panel.
- Transmit data to the Workstation.
- Shutdown the system.

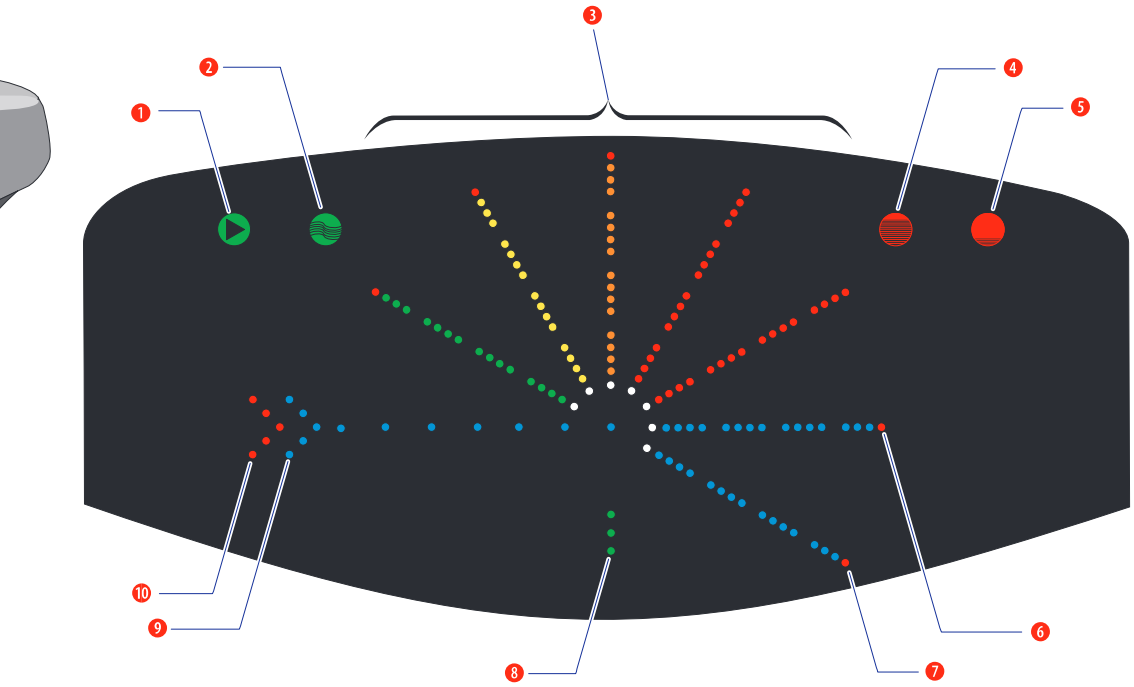


The Power Supply controls voltages required by the circuitry. It is also the source of vacuum and pressure for the FC 500.

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The Cytometer Indicator Panel provides a display of several Cytometer activities:

1. Ready icon
2. Sample flow in process
3. Fluorescent channels 1-5
4. Waste full icon
5. Sheath fluid low icon
6. Forward scatter
7. Side scatter
8. Low, medium, high flow rate
9. Blue laser ON
10. Red laser shutter open



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FC 500 Workstation

The FC 500 Workstation receives information from the Cytometer, sets protocols and panels, analyzes results, then displays, stores and prints the results. The CXP software gives you immediate access to these features:


Displays the Cytometer Control dialog box to adjust the cytometer settings and select parameters.


Starts acquisition or continues an acquisition if previously paused.


Pauses the acquisition of the current sample.


Stops the acquisition of the current sample and outputs results.


Runs a carousel of samples one tube at a time.


Runs a single tube in fixed position #10.


Clears the Acquisition Manager to create a new worklist.


Inserts a panel from file into the current worklist.


Places the Cytometer in the Idle mode in order to perform various cleaning and replacing procedures.


Flushes the sample line and flow cell with sheath fluid to declog or remove bubbles.

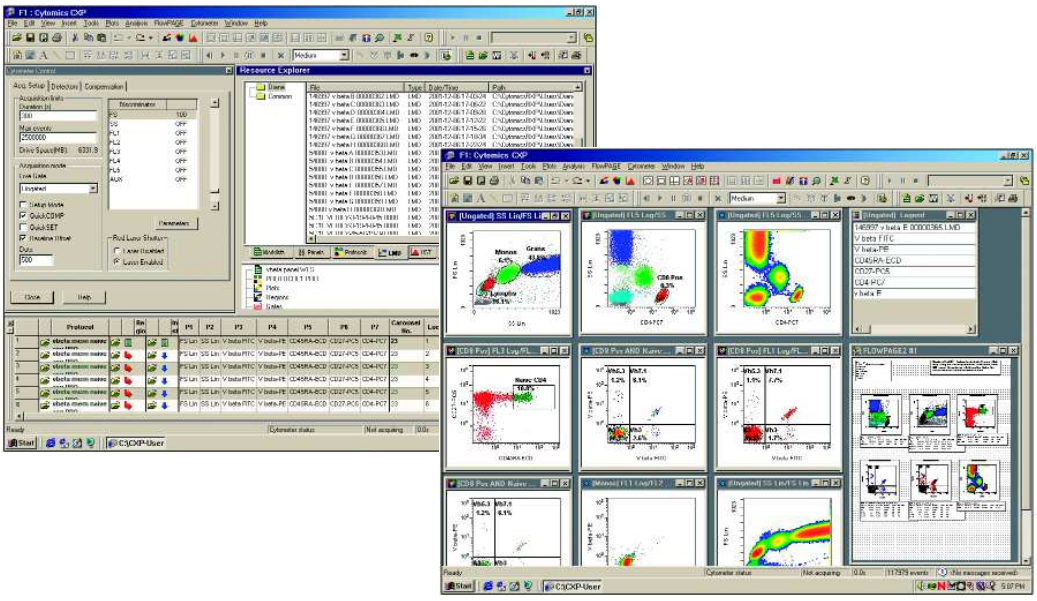

Flushes the sample line and flow cell with cleaning agent.


Performs the Vacuum Line Cleaning procedure.


Accesses the CXP online Help System.

Note: For a complete list of software icons, see the CXP online Help System.

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Some additional analysis features are:



Creates a Surface Plot and selects the Data Source and Format.



Creates an Overlay Plot to compare single parameter histograms.



Creates a Tomogram Plot and selects the Data Source and Format.



Allows batch analysis of stored data using a single file or multifile protocol.

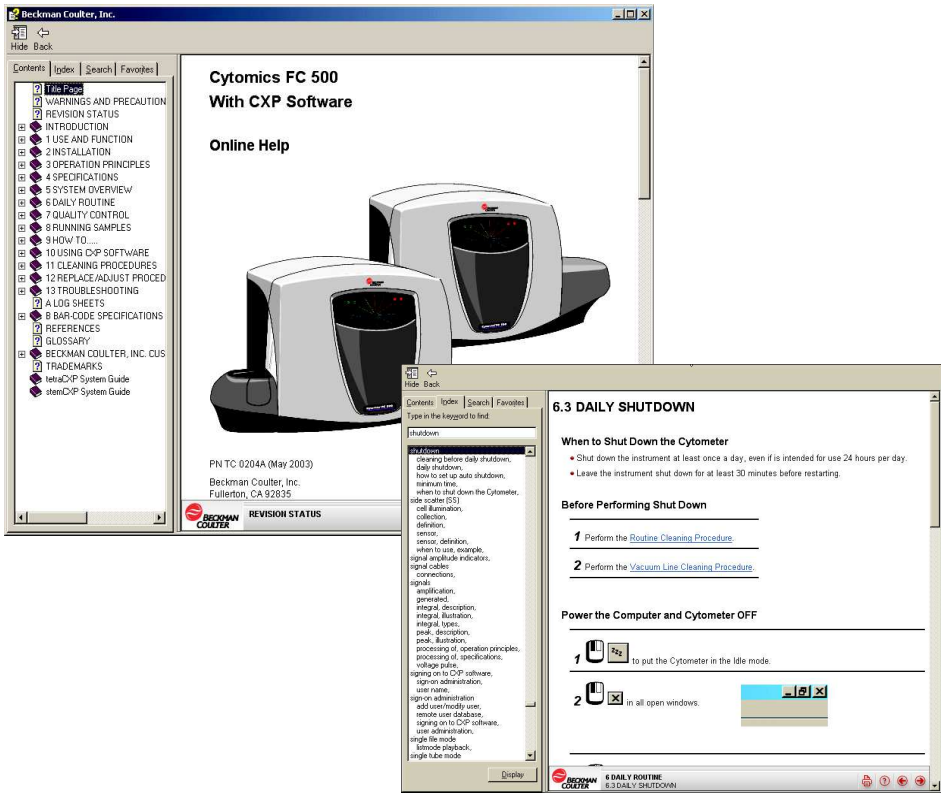
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Online Help System

The FC 500 Workstation has a comprehensive Help System that includes all the information you need to operate the system.

INFORMATION INCLUDED

- Procedures for using the FC 500.
- Concepts to better understand the FC 500.
- Reference information, such as FC 500 performance specifications and characteristics.
- Videos to help illustrate special procedures.



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SPECIAL FEATURES INCLUDED

- Contents list to locate information in a book-like fashion.
- Index list for finding key information quickly.
- Search utility to locate specific information.
- Glossary list for definitions of terms and fields.



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Documents

Your system comes with this Getting Started booklet. The other documents are available in hard copy only by order. To order hard-copy documents, contact your Beckman Coulter Representative.

SHIPPED WITH SYSTEM

- **Getting Started**
  PN 177652

  Brief overview of the FC 500 hardware and CXP software. This is the document you are reading now.

- **Operator Manuals CD-ROM**
  PN 177628

  Use this CD-ROM at any compatible PC to access the same Instructions For Use information that is accessible through the CXP software online Help System on the FC 500 Workstation.

  This CD-ROM contains PDF formatted documents for on-site printing and viewing.

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Note: All information included in the hard-copy documents is available in the CXP software online Help system.

AVAILABLE BY ORDER

- **Instructions For Use**
  PN 175571

  Day-to-day operating procedures:
  - Startup
  - Performance characteristics
  - QC
  - Run samples
  - Review data
  - Shutdown
  - The methods the instrument uses
  - Setup
  - Error messages
  - Troubleshooting

- **Reference**
  PN 175570

  In-depth information about:
  - What the instrument does
  - Performance specifications
  - Information on installation
  - Safety information
  - Predefined panels and protocols
  - Software description

- **Special Procedures**
  PN 175572

  - Cleaning procedures
  - Replacement and adjustment procedures

- **Master Index**
  PN 175653

  This is a combined index of the hard-copy documents.

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Reagent System

These reagents are available for use with the Cytomics FC 500 with CXP Software:

- IsoFlow™ Sheath Fluid
- COULTER CLENZ® cleaning agent



Quality control materials are also available for use with the FC 500. They include:

- Flow-Check™ Fluorospheres
- Flow-Set™ Fluorospheres
- Flow-Count™ Fluorospheres
- CYTO-TROL™ Control Cells
- Immuno-Trol™ Cells
- Immuno-Trol™ Low Cells
- CYTO-COMP™ Cell Kit
- QuickCOMP 2 Kit
- QuickCOMP 4 Kit

These quality control materials are
For Research Use Only.
Not for use in diagnostic procedures.

- PC7 (770/488) Setup Kit
- APC (675/633) Setup Kit

Installing CXP Software

Installing the CXP Software instructions are in the Installation Chapter of the Operator Manuals CD-ROM. The Installation Chapter appears in the:

- System Help
- Reference manual

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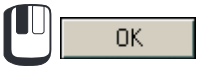
Logging On to the FC 500 Workstation

1. Turn on the FC 500 Workstation power.



2. When the Log On to Windows screen appears, check that:
   - The User name field displays `Administrator` or your Windows log-in user name. If not, type in your user name. Note: When first installing the software, the User name field must display `Administrator`.
   - The check box is unchecked.

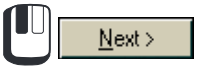


3. Enter a password, if needed for your laboratory and 

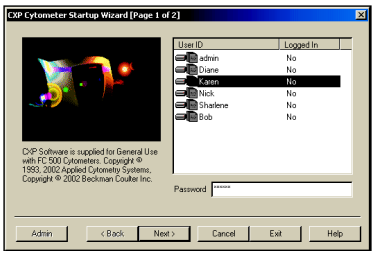
.

4. 

 (CXP Cytometer) to start the software and power up the Cytometer.

5. At the CXP Cytometer Startup Wizard [Page 1 of 2] screen:
   a. Highlight your operator ID.
   b. Enter your password.
   c. 

.



6. Select a protocol, if needed.

7. 

.

Note: In the event that you cannot access the FC 500 online Help System from your instrument, contact your Beckman Coulter Representative.

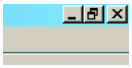
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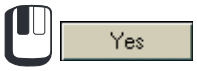
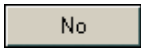
Shutting Down the FC 500 Workstation

After you have performed the Daily Shutdown procedure:

1.  to put the Cytometer in the Idle mode.

2.  in the main windows to exit.



3.  or  to save or not save the current protocol.

4.  (FC OFF) to turn off the Cytometer.



5.  to shutdown the Workstation.

6. When the Shut Down Windows screen appears:

   Ensure Shut down appears below
   What do you want the computer to do?



7. .

8. Turn off the monitor and Printer separately.

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