

# Instructions For Use

## Command Central v3.0

For *In Vitro* Diagnostic Use



B08410AB  
May 2012



Beckman Coulter, Inc.  
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**Instructions For Use**  
**Command Central v3.0**  
PN B08410AB (May 2012)

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# Revision History

*This document applies to the latest software listed and higher versions. When a subsequent software version changes the information in this document, a new issue will be released.*

## **B08410AA Initial Issue, 06/11**

Software version 3.0

## **B08410AB 5/12**

This revision has added a new Important Note to Chapter 2.

In Chapter 3 Troubleshooting Section added two new procedures.



# Safety Notice

## Hazards

---

### Introduction

This section lists the hazards associated with the Command Central System. Please read this information before operating the system.

### Electrical Ground



**Do not under any circumstances operate the system until an electrical ground is provided and the power cord is properly connected to the ground.**

### Use of Three-Pronged Power Cord

The three-pronged power cord must only be connected to a matching three-wire, grounded outlet. DO NOT use an adapter to connect the power plug to a two-pronged outlet.

### Electric Shock

Replacement or servicing of any components where contact with bare, live hazardous parts could occur, possibly resulting in electric shock, should only be performed by qualified service personnel.

### Flammable Materials

Do not use this system in the presence of flammable materials.

### System Operations and Specifications

System operation should be consistent with the requirements as stated in [CHAPTER 4, \*System Specifications\*](#).

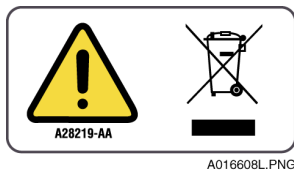
## Instrument Hazards

For information regarding instrument specific hazards, refer to the instrument's *Instructions For Use or Operations Manual*.

## Recycling Label

This symbol is required in accordance with the Waste Electrical and Electronic Equipment (WEEE) Directive of the European Union. The presence of this marking on the product indicates:

1. the device was put on the European Market after August 13, 2005 and
2. the device is not to be disposed of via the municipal waste collection system of any member state of the European Union.



Customers must understand and follow all laws regarding the proper decontamination and safe disposal of electrical equipment. For Beckman Coulter products bearing this label please contact your dealer or local Beckman Coulter office for details on the take back program that facilitates the proper collection, treatment, recovery, recycling and safe disposal of these products.

## Restriction of Hazardous Substances Labels (RoHS)

These labels and materials declaration table (the Table of Hazardous Substance's Name and Concentration) are to meet People's Republic of China Electronic Industry Standard SJ/T11364-2006 "Marking for Control of Pollution Caused by Electronic Information Products" requirements.

### RoHS Caution label

This logo indicates that this electronic information product contains certain toxic or hazardous elements, and can be used safely during its environmental protection use period. The number in the middle of the logo indicates the environmental protection use period for the product. The outer circle indicates that the product can be recycled. The logo also signifies that the product should be recycled immediately after its environmental protection use period has expired. The date on the label indicates the date of manufacture.



## RoHS Environmental label

This logo indicates that the product does not contain any toxic or hazardous substances or elements. The "e" stands for electrical, electronic and environmental electronic information products. This logo indicates that this electronic information product does not contain any toxic or hazardous substances or elements, and is green and is environmental. The outer circle indicates that the product can be recycled. The logo also signifies that the product can be recycled after being discarded, and should not be casually discarded.



## Documentation Symbols

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.

## Alerts for Warning, Caution, Important, and Note

### **WARNING**

**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. May be used to indicate the possibility of erroneous data that could result in an incorrect diagnosis (does not apply to all products).

### **CAUTION**

**CAUTION** indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. May be used to indicate the possibility of erroneous data that could result in an incorrect diagnosis (does not apply to all products).

**IMPORTANT** **IMPORTANT** is used for comments that add value to the step or procedure being performed. Following the advice in the Important Notice adds benefit to the performance of a piece of equipment or to a process.

**NOTE** **NOTE** is used to call attention to notable information that should be followed during installation, use, or servicing of this equipment.



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## General Information

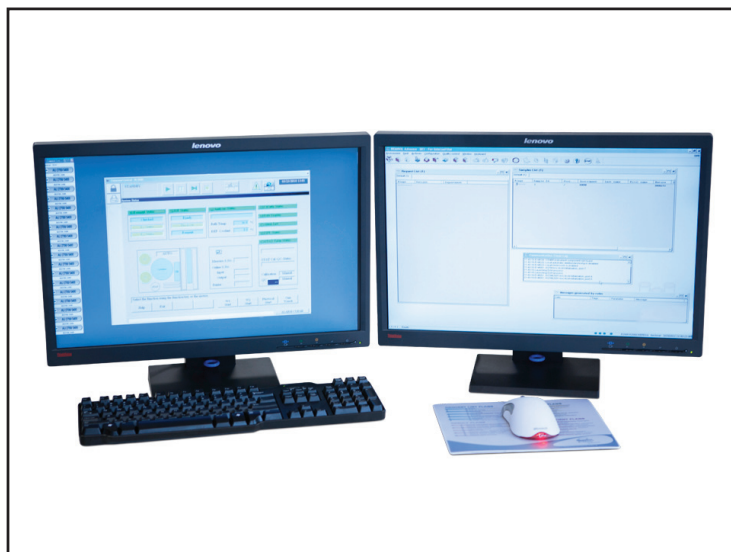
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### Intended Use

Command Central is a software application used to monitor and access instrument screens (instrument, data manager, Beckman Coulter automation) from a single or multiple networked workstations. Command Central allows you to view error alerts and access screens of connected instruments and automation to check programming, test and reagent status, and other instrument specific information. In addition, Command Central may be used by Beckman Coulter Service for remote viewing of instrument screens and instrument troubleshooting.

Command Central was developed to monitor instrument and automation status and allow remote viewing of instrument screens. Routine programming should be performed at instrument and automation consoles.

**Figure 1** Command Central Workstation



 **CAUTION**

To ensure software and hardware integrity and patient confidentiality, **DO NOT** connect Command Central to local or wide area networks (laboratory, hospital, or Internet).

 **CAUTION**

Command Central software does not network multiple Access 2 systems. When multiple Access 2s are connected to Command Central, Access 2 information is not shared. If a partially used reagent pack is reloaded, it must be returned to the same Access 2 system from which it was inventoried and removed. If loaded onto another Access 2, it will be treated as a full pack and invalid results may occur.

## System Components

The Command Central system is composed of software loaded onto the data manager or a stand alone computer and the following hardware components:

- Two separate flat screen panel monitors (an optional third 22 inch monitor is available)
- USB video adapter (will need two if a third monitor is used)
- Keyboard and mouse
- Keyboard Video Mouse (KVM) boxes
- Ethernet Switch
- Cables
- Command Central software
- Security key
- Optional stand alone computer (if you do not have a Data Manger)

The Command Central application loads onto REMISOL Advance, DM2 and DxLab data management systems. The data management system is not supplied as a component of the Command Central system and must be purchased separately.

## Installation

When your Command Central workstation is delivered, inspect the boxes for damage. If damage is discovered, immediately notify the shipping company and your local Beckman Coulter Sales and Service office.

Do not open the boxes, a Beckman Coulter Service Representative will be assigned to supervise unpacking, perform the installation, and prepare the system for initial use.

## Warranty Information

Command Central is covered by and subject to the exceptions of the standard warranty enclosed with your purchase agreement.

## Telephone Service

Beckman Coulter provides telephone service to allow customer assistance for operational or service questions.

**For USA and Canadian customers only:**

Call Beckman Coulter toll-free from anywhere in the United States and Canada at (800) 854-3633.

**For customers outside of the USA and Canada:**

Call the nearest Beckman Coulter Representative.



# System Description

## Command Central

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### Introduction

In this *Instructions For Use* manual, the term "user interface" describes a computer (and its software) that is connected to the Command Central workstation. When an instrument is configured with several computers connected to Command Central, each computer connection (user interface) appears as a separate application button on the Command Central Application Bar. Refer to [Command Central Application Bar](#) in this chapter.

 **CAUTION**

To ensure software and hardware integrity and patient confidentiality, **DO NOT** connect Command Central to local or wide area networks (laboratory, hospital, or Internet).

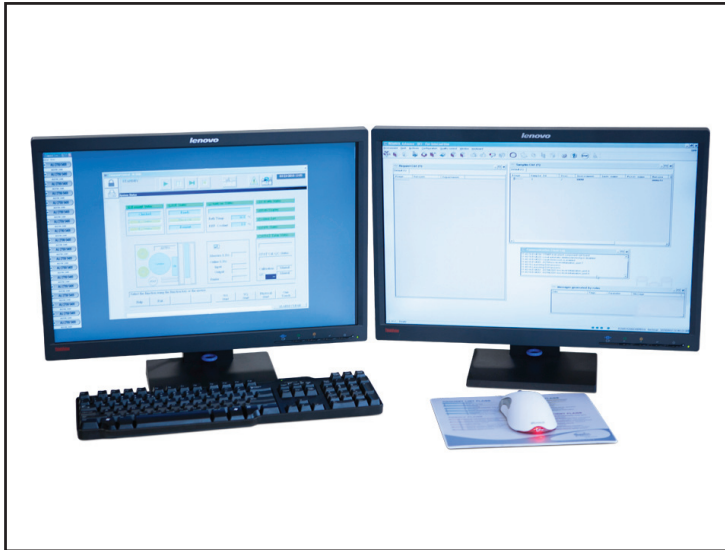
## System Hardware and Software

---

### Introduction

Command Central consists of hardware components and a software application added to the data manager (REMISOL Advance (Normand Info SA product)) or on a Stand Alone CPU.

**Figure 1.1** Command Central Workstation



**Figure 1.2** Command Central Stand Alone CPU



## Hardware Components

The following hardware components are required to interface data managers, instruments, and Beckman Coulter automation to Command Central:

- 22 inch, two separate flat screen panel monitors (optional third 22 inch monitor)
- USB video adapter (will need two if a third monitor is used)
- Keyboard and mouse
- KVM boxes
- Ethernet switch
- Cables
- Security key
- Stand Alone CPU

### Flat Screen Monitor

Two separate flat screen panel LCD monitors are supplied with the Command Central system.

**Figure 1.3** Ethernet Switch



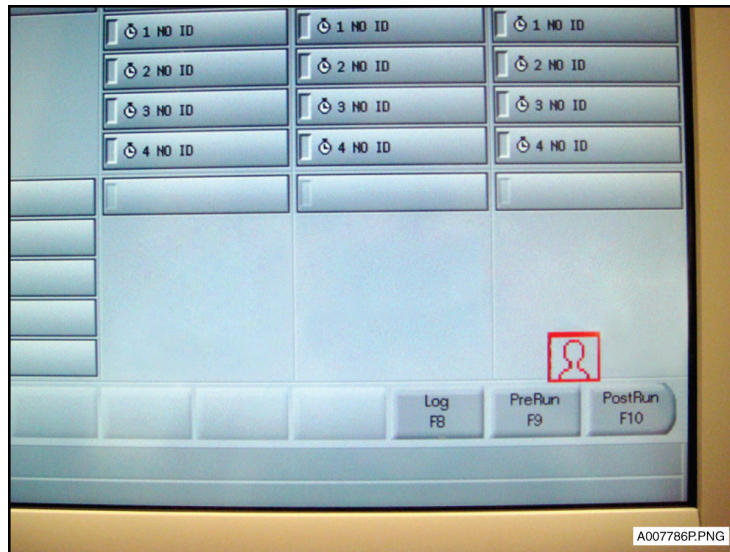
### Figure 1.4 KVM Box



Each instrument interface uses a KVM box to combine the keyboard, video, and mouse cables into one cable that connects with the ethernet switch. Refer to [Figure 1.3](#) and [Figure 1.4](#). When the instrument mouse, keyboard, and video cables are connected to the KVM box and the instrument is connected to Command Central (refer to [Application Buttons](#) and [Table 1.1, Application Button Icons](#) in this chapter), a red, transparent, **Connection** icon appears on the instrument screen. Refer to [Figure 1.5](#).

The **Connection** icon indicates that Command Central is communicating with the KVM box at an instrument. It does not indicate that a screen is being watched or that a Command Central user has unlocked that connection. If the connection between the KVM box and Command Central fails, the red Connection icon still shows on the instrument screen. However, if the user disconnects the KVM box from Command Central using the KVM software, the **Connection** icon does not show. Refer to CHAPTER 2, *Operation*, [Using KVM Software Disconnect](#).

**Figure 1.5** User Interface Screen with KVM Version 2 Connection Icon



### Ethernet Switch

The ethernet switch combines the KVM cables from all instrument interfaces into one cable that connects with the data manager. Refer to [Figure 1.3](#).

### Security Key

The security key allows access to the Command Central software on the data manager computer.

### Local Language Keyboards

Command Central and the KVM units support local languages and local language keyboards. However, due to the variation of monitored systems, some special handling may be required with the use of local languages.

- Where possible, all connected instruments should use the same local language keyboards and settings.
- If a connected system uses a different keyboard (English, for example), some keyboard mapping may be changed. This is due to the differences in keyboard mapping between the English keyboard and certain local language keyboards. In these cases, alphabetic character entry should be done at the local keyboard.
- When connecting to a Synchron LX or UniCel Dx C system through Command Central and using local language keyboards, some keyboard mapping may be different than expected. In these cases, alphabetic character entry should be done at the local keyboard.

## Software

The Command Central software is designed to monitor instrument screens and alert you to status changes requiring attention. The importance of the status change is designated by color.

With Command Central software, you can access instrument screens. Also, Command Central allows remote access of instrument screens for troubleshooting by Beckman Coulter Service and Clinical Support.

The following data managers, instruments, and Beckman Coulter automation systems may be accessed and monitored by the Command Central workstation:

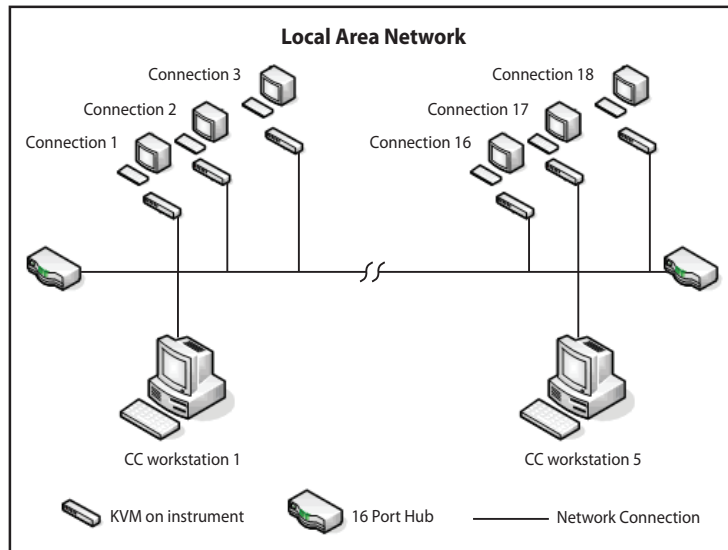
- PrepLink
- Line Control Computer
- AU (480, 680, 2700, 5400, 5800)
- DxH
- Automate (1200, 2500)\*
- AutoMate (600/800)
- Synchron LX systems (LX20, LX20 PRO, LXi 725)
- UniCel Dx C Synchron systems (DxC 600, DxC 800, DxC 600i, DxC 880i)
- LH 1500 Line Computer
- LH systems (LH500, LH750, LH755, LH780, LH785)
- Access2, DxI 600, DxI 800
- Instrument Manager\*
- ACL Top\*

## Networked Command Central Workstations

Up to five Command Central workstations can be linked on a network with up to eighteen instrument consoles or other stand alone computers (However it is not recommended to open more than five instrument windows at one time). Operators can look at the same connections from any of the networked workstations. One instrument console can be linked to a single workstation, or multiple workstations can share control of a group of instrument consoles. Up to five workstations and one user at an instrument can share control of an instrument. Refer to [Figure 1.6](#) for an example of a network where five workstations are linked with eighteen instrument consoles and stand alone computers.

---

\* Systems that are accessed but not monitored.

**Figure 1.6** Networked Command Central Workstations

## Command Central Application Bar

The Command Central Application Bar displays at the side with a vertical bar or at the bottom of the screen with horizontal bar and contains a menu bar at the top and Application Buttons at the bottom. Refer to [Figure 1.7](#) below.

**Figure 1.7** Command Central Application Bar



### Menu Bar

The menu bar contains two menu options, **Language** and **About**.

- Select **Language** to change the language displayed by the Command Central software.
- Select **About** to view the Command Central software version. A dialog box opens and shows the software version and serial number.

## Application Buttons



Application Buttons are grey oblong buttons located in the bottom section of the Application Bar. The buttons may be positioned in one vertical bar or in one to three rows of six horizontal bars if there are more than six buttons. A maximum of 18 buttons may be displayed.

Each Application Button represents a user interface connection and displays the name of the connected instrument or system. Some systems display two or three Application Buttons. The LXi displays two Application Buttons, one button for the Access 2 and one button for the LX20 and CTA. Power Processor may display two or three buttons: PrepLink, Automation Line Controller, and Instrument Manager.

**NOTE** The data manager computer containing Command Central software will not display as a button on the Application Bar. The data manager window opens on the Command Central monitor and it is accessed directly.

On the left side of the Application Button, there is an icon that shows the status of the user interface (instrument) connection. Refer to [Figure 1.7](#). The icon can be either a red circle with a line through it or a circle with a black arrow pointing to the right. Refer to [Table 1.1](#) for icon definitions.

**Table 1.1** Application Button Icons

Icon	Function
	Instrument not connected to Command Central. The instrument screen does not display a <b>Connection</b> icon. Refer to <a href="#">Figure 1.8</a> .
NO icon	
	Instrument connected to Command Central. The instrument screen displays a <b>Connection</b> icon. Refer to <a href="#">Figure 1.8</a> .
Arrow icon	

If you right click on an Application Button, a drop-down list will open. The drop-down list has two options. The top option is either Connect or Disconnect and the other option is main . Refer to [Figure 1.8](#) and [Table 1.2](#).

**Figure 1.8** Application Drop-down List



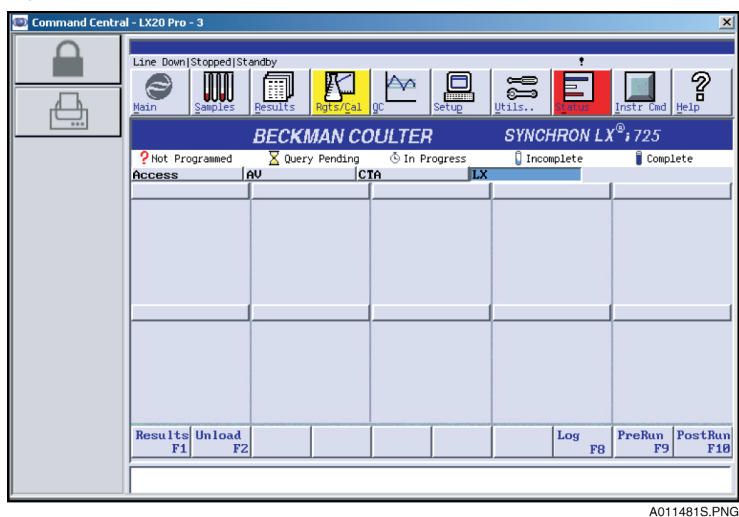
**Table 1.2** Application Button Drop-down List Options

Option	Function
Connect OR Disconnect	Connects the user interface to Command Central. OR Disconnects the user interface from Command Central.
Main Screen	Moves the Application screen to the main screen. Required when troubleshooting remotely with Beckman Coulter Service.

## Control Bar

Once the operator selects an Application Button, the user interface application window opens. Attached to the left side of the application window is a Command Central Control Bar. Refer to [Figure 1.9](#).

**Figure 1.9** LX20 PRO Application Window with Control Bar Attached



The Control Bar contains two buttons, Lock and Print. Refer to [Table 1.3](#) below.

**Table 1.3** Functions of the Control Bar Buttons

Button	Function
Lock Button	Allows the Command Central operator access to the user interface screens.
Print Button	Prints the Application window and Control Bar.

# Operation

## Overview

---

Command Central software can be loaded onto the data management computer (Remisol Advanced, DM2) or a stand alone computer. When the data manager starts, Command Central starts and the Command Central Application Bar appears at the bottom of the screen. The Command Central software starts to monitor the instruments automatically.

 **CAUTION**

The use of the remote console access may cause operation of the attached system resulting in operator injury. Insure that personnel are clear of the remote system before use.

 **CAUTION**

The instrument operator **MUST NOT** change the resolution or positioning of the screen at the instrument console. If the resolution or position of the screen is changed, Command Central may not find the yellow and red status alerts on the instrument screen during the scanning process. To return the instrument software screen to the correct default settings, contact Beckman Coulter Service.

 **CAUTION**

Specific instrument conditions affect the ability of Command Central to monitor instrument error conditions. The instrument operator and Command Central user should be knowledgeable of the instrument conditions listed under Important Instrument Information.





## Important Instrument Information

The following instrument conditions cause interference with the Command Central monitoring process.

- An instrument dialog box that appears over a yellow or red error alert
- An instrument system in *Standby* or *Hibernation* mode

- An instrument monitor or computer in *Hibernation* or *Power Save* mode
- An instrument hard drive that is turned OFF
- An instrument screen saver that is turned ON
- An instrument monitor resolution that is changed from the default setting
- An instrument window that is moved or resized at the instrument console

## Page Up/Page Down with LX Systems ONLY

To page up or down in screens with scroll bars and  or  Arrows, use the mouse and not the  or  keyboard functions.

## Important Note

Before exiting Windows close Command Central.

## System Notes

Changes to the Command Central system setup may cause interference with instrument monitoring. Contact Beckman Coulter Service to schedule service for all system setup changes.

## Start Up Procedure

---

To start Command Central follow the procedure below:

- 1 Turn **ON** the data manager computer or the stand alone computer. Log on to Windows and select the **OK** button. If Command Central is hosted by a REMISOL Advance console, the REMISOL Advance application will open first and Command Central opens second.  
The Command Central Applications Bar appears at the bottom of the screen and the software starts monitoring the instruments automatically.
  - If the Command Central application is closed and you need to restart it, place the mouse cursor in the lower left corner of the main screen. The Start button appears. Select the **Start** button and select **Programs/Beckman Coulter/Command Central/CCW**. Then continue to Step 2.
- 2 Before a user interface is scanned at start up, the **NO** icon appears on the instrument's Application Button. After the user interface (instrument) is scanned, its Application Button will display the **Arrow** icon to indicate the user interface is connected to Command Central.
  - If all the Application Buttons show the **Arrow** icon, continue to Step 4.

OR

- If one or more buttons show the **NO** icon after all the user interfaces have been scanned, continue to Step 3.

---

**3** Right click on the **Application Button** with the **NO** icon. A drop-down list opens. Select **Connect** and wait two minutes.

- If the **NO** icon changes to an **Arrow** icon, the user interface is connected to Command Central and monitoring starts. Continue to Step 4.

OR

- If the **NO** icon still appears after two minutes, refer to CHAPTER 3, *Troubleshooting*, [NO Icon Troubleshooting](#).

---

**4** Command Central scans the user interface screens at a set interval. As each user interface is scanned, the Application Buttons will change to show the following:

- The Application Button may change from grey to yellow or red to indicate an instrument error condition found on the instrument screens.
  - The Application Button returns to grey when a previous error or warning condition is corrected.
  - An **Arrow** icon can change to the **NO** icon if the connection with Command Central fails.
- 

## Shut Down Procedure

---

To shut down Command Central, close the Application Bar by clicking the **Close** button in the upper right corner of the screen. Refer to [Figure 2.1](#). All open Application Windows close. However, the data manager remains open.

If using a stand alone computer proceed to Step 2.

To continue and completely shut down the data manager computer follow the procedure below:

---

**1** Close the data manager window by clicking the **Close** button in the upper right corner of the screen.

---

**2** Click on the **Start** button in the lower left corner of the screen and select **Shut Down**.

---

## Using the Command Central Application Bar

The Application Bar contains a Menu Bar and one vertical bar or in one to three rows of six horizontal bars of Application Buttons. Refer to [Figure 2.1](#).

**Figure 2.1** Command Central Application Bar



### Menu Bar

The menu bar contains two options to select from. The options are Language and About. Refer to [Figure 2.1](#).

## Language

The Language option is selected to change the language used by the Command Central Application Bar and Error Codes. When Language is selected, a drop-down list opens and the operator selects the language version. Once a new language is selected, the drop-down list closes and the new language displays.

## About

The About option is selected to view the Command Central software version. A dialog box opens and displays the software version and serial number.

## Application Buttons

The operator uses the Application Buttons to check status and to access user interfaces. Each button displays the instrument name and user interface (instrument computer). The laboratory-selected name for the instrument displays below the button, for example LX1 or LX2. Refer to [Figure 2.1](#). To name your Application Buttons, contact your local Beckman Coulter Service representative.

During operation, Command Central software scans the user interfaces and updates the Application Buttons. The operator is alerted to an important instrument status when the color of the Application Button changes from grey to yellow or red. Refer to [Table 2.1](#).

**NOTE** Instrument Manager, Remisol Advanced, TOP, Application Buttons do not display the red and yellow error status color changes. However, you can access the user interface from Command Central.

**Table 2.1** Application Button Hazard Colors

Color	Meaning
Yellow	Needs inspection
Red	Needs immediate inspection

If Command Central detects both yellow and red status for the same instrument, red status will have priority and the Application Button will display red.

## Accessing an Application Window

You can select an **Application Button** to access an instrument screen, check status, or use software functions. To access an Application Window (instrument screen), click on the icon one time using the left mouse button. The Application Window opens with a Control Bar attached to its left side. Refer to [Figure 2.3](#). The instrument name and the laboratory selected name for the instrument display on the Application Window title bar.

## Moving an Application Window

Several Application Windows can be opened at once. You can move windows for improved viewing but you cannot resize windows. To move the Application Window, place the cursor on the title bar, click and hold the left mouse button as you move the window to a new location.

## Closing an Application Window

An Application Window automatically closes when minimized or when its Application Button is clicked. To open the Application Window again, click on the **Application Button**.

## Application Button Drop-Down List

You can access the Application Button drop-down list by right clicking on the **Application Button**. Refer to [Figure 2.2](#). The drop-down list includes Connect or Disconnect and main . Refer to [Table 2.2](#).

**Figure 2.2** Application Drop-Down List



**Table 2.2** Application Button Drop-Down List Options

Option	Function
Connect OR Disconnect	Connects the user interface to Command Central. OR Disconnects the connection between the user interface and Command Central.
Main	Required for remote troubleshooting by Beckman Coulter Service. Moves the Application Window to the main screen.

## Connect or Disconnect Option

You can select the first option, **Connect** or **Disconnect**, when performing instrument maintenance or when troubleshooting a **NO** icon status.

If the **Arrow** icon appears on the Application Bar, the drop-down list shows the Disconnect option. You can select **Disconnect** to disconnect the network connection between the user interface (instrument) and Command Central. When Disconnect is selected, the option changes to Connect.

If the **NO** icon appears on the Applications Bar, the drop-down list shows the Connect option. You can select **Connect** to establish the network connection between the instrument's user interface and Command Central. After you select **Connect**, the option changes to Disconnect, Command Central scans the user interface again and the application button displays the **Arrow** icon.

## Inactive Instrument Screen Causes Disconnection

The Command Central KVM disconnects from an instrument if no activity occurs on an instrument's screen within 24 hours.

If the instrument disconnects from Command Central, to reconnect, follow the procedure below:

## Reconnect Procedure

---

- 1 From Command Central,
    - Right click the **Application Button**.
    - Select **Disconnect**.
    - Right click the **Application Button** again.
    - Select **Connect**.
  - 2 After Command Central scans the instrument's user interface for approximately two minutes, the **Arrow** icon appears on the application button.  
 If the **NO** icon appears, refer to CHAPTER 3 *Troubleshooting*, [NO Icon Troubleshooting](#).
- 

## Main Option

The operator must ensure that the Application Window is in the main screen for remote access viewing.

To move the Application Window to the main position, follow the instructions below:

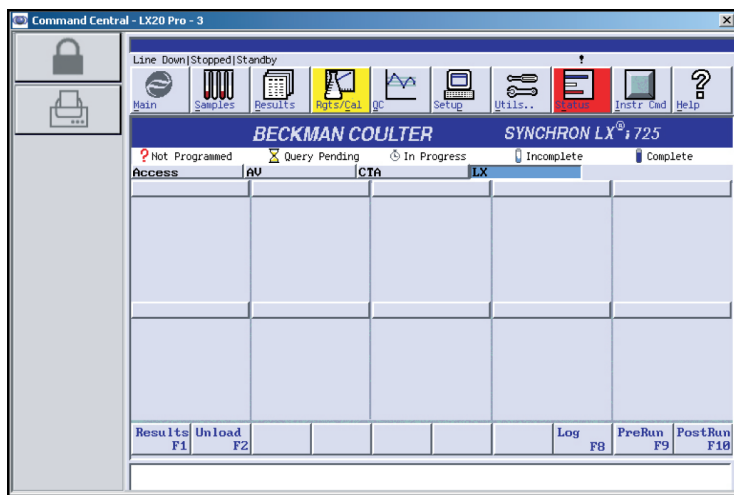
---

- 1 Right click on the **Application Button** for the Application Window that must be moved.  
 A drop-down list opens.
  - 2 Select **Main**.  
 The Application Window moves to the main position.
-

## Using the Control Bar

The Command Central Control Bar at the left side of the instrument's Application Window contains the Lock and Print buttons. Use these buttons to print and access instrument screens.

Figure 2.3 Control Bar



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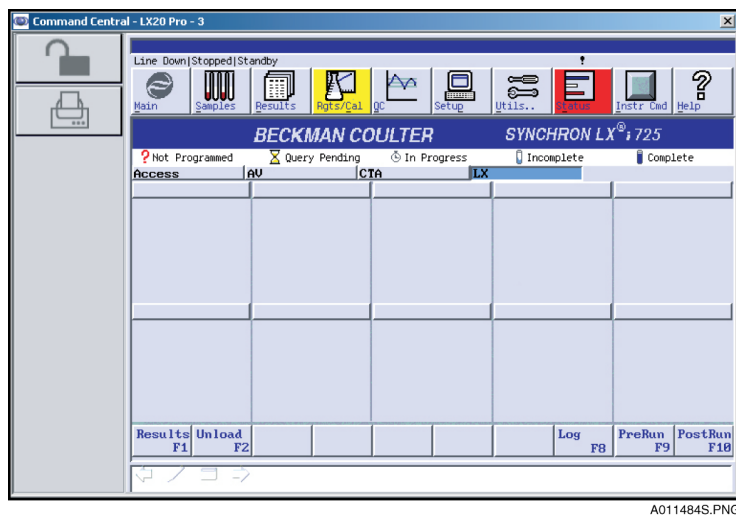
## Using the Lock/Unlock Button

The Lock button allows you to access the instrument screens. Click the Lock button one time with the left mouse button to change the Application Window to the Unlocked status. Refer to [Figure 2.4](#). The Unlock status allows you to move through the instrument screens, check status, and find patient and sample information.

**IMPORTANT** Because you are sharing one keyboard among many instrument Application Windows, you must check the **(Caps Lock)** and **(Num Lock)** usage when moving from one instrument Application window to another, and to the Remisol Advanced. If you cannot type numbers from the number keypad and/or capital letters into the instrument Application window (at the Command Central keyboard), follow these instructions:

- To type numbers from the keypad, make sure the **(Num Lock)** keys for the Command Central and the Instrument keyboards are ON.
- To type Capital letters, press the **(Cap Lock)** key on the Command Central keyboard.

Figure 2.4 Control Bar with Unlocked Status



A011484S.PNG

Only one Application Window can be *Unlocked* even if several Application Windows are open. The *Unlocked* Application Window appears as a depressed button on the Command Central Application Bar inside a rectangle.

You should lock the Application Window as soon as you finish interacting with a remote system to prevent anyone from moving the mouse and inadvertently accessing any of the connected instrument screens. Select the **Unlock** button. As a precaution, an Unlocked Application Window automatically locks when the Application Window is minimized or closed. Also, if you unlock an Application Window when another screen is Unlocked, Command Central automatically locks the first Application Window.

### CAUTION

When Unlock is activated, keyboard and mouse functions at the instrument workstation are not restricted. Operators at both the Command Central workstation and the instrument workstation can control the instrument software at the same time. When you Unlock a screen, make sure to communicate any software control issues with the other instrument operators, if necessary.

### CAUTION

To avoid software control problems between the instrument and Command Central workstations, the instrument operator can disconnect the network connection through the KVM box software. Refer to KVM Software Disconnect. Use KVM box software to disconnect the network when performing maintenance or making changes to set up and other password protected screens. When the connection is disconnected, the red Connection Icon does not display on the instrument screen. The NO icon appears on the Application Button after Command Central scans the network connection and finds the disconnected user interface.

 **CAUTION**

The Operator of the Command Central workstation must be careful when closing instrument error messages. The Command Central Operator must communicate any problems to the instrument operator.

**IMPORTANT Special Keys and Key Combinations**

When using the Command Central workstation console to access a connected instrument, some special keys and key combinations may not be communicated to the instrument. For example, the Windows key and the Ctrl-Alt-Del combination, which have special meaning to the local Command Central workstation console, will not be interpreted correctly by the remote instrument.

## Using the Print Button

An operator can print the Application Window and Control Bar by selecting the Print button. Refer to [Figure 2.3](#). The print request goes to the default printer for the data manager computer.

## Using KVM Software Disconnect

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The connection between Command Central and an instrument may be disconnected through the KVM software at the instrument console. The user should use KVM disconnect when performing maintenance, or when making changes to set up or other password protected screens. To Disconnect or Allow Connection of Command Central by using the KVM software, follow the procedures below:

### Disconnect Procedure

---

- 1 At the instrument console, press the **(Scroll Lock)** key on the keyboard twice.
  - 2 Highlight **Disconnect** and press **(Enter)** on the keyboard.  
The KVM disconnects the network connection to Command Central and the **Connection** icon no longer displays on the instrument screen. Once Command Central scans the instrument connection, the Instrument Application Button will display the **NO** icon.
- 

### Allow Connection Procedure

---

- 1 At the instrument console, press the **(Scroll Lock)** key on the keyboard twice. The KVM configuration menu opens.
  - 2 Make sure Allow Connection is highlighted and press **(Enter)** on the keyboard.
-

- 
- 3 To connect the instrument to Command Central, right click the Command Central **Application Button** and select **Connect**. The **Connection** icon displays on the instrument screen.
- 

 **CAUTION**

**Do not select Factory Defaults in the KVM configuration menu unless a Beckman Coulter Representative specifically instructs you to do so. Changing to Factory Defaults will cause a loss or disruption to your touchscreen operation and a loss of communication with the KVM, which will require you to contact a Beckman Coulter Representative in order to correct this problem.**

## Using Remote Access

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Beckman Coulter Service and Clinical Support can access the Command Central software and instrument screens by telephone modem, or through ProService. When troubleshooting with a Beckman Coulter Representative, follow the representative's instructions to allow remote access.

**NOTE** If applicable with the two monitors the Application Window needs to be located in the main position on the Command Central screen for remote viewing.

## Mouse Synchronization

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After an Application Window is Unlocked, the Command Central mouse arrow and the Application Window mouse arrow are synchronized to move together. If the two mouse arrows do not synchronize, Lock and Unlock the Application Window to synchronize them.

### **IMPORTANT NT-based Console Cursors**

On the Application Window for NT-based consoles, such as the Access 2 system, the Command Central cursor is yellow and it does NOT track with the white cursor from the local instrument screen. Use the yellow cursor to remotely access items on the instrument screen. Once the window is unlocked, the white instrument cursor will not synchronize with the yellow cursor until the Command Central mouse is clicked, at which time the cursors will synchronize.



# Troubleshooting

## Overview

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You can perform troubleshooting instructions explained in this chapter or follow instructions given by a Beckman Coulter Representative. For additional troubleshooting or repair not discussed in this chapter, contact Beckman Coulter Service.

## System Errors

The following system errors may appear as a dialog box on the monitor at the Command Central workstation:

**Table 3.1** System Errors

Message Number	Action
Error 1: Configure file not found.	Please contact your local Beckman Coulter Service Representative.
Error 2: Cannot read configure file	Please contact your local Beckman Coulter Service Representative.
Error 3: Activation code not correct Serial Number: XXXXXX	Please contact your local Beckman Coulter Service Representative.
Error 4: Cannot communicate with system # XXXXX	Follow the instructions contained in NO Icon Troubleshooting below.

## NO Icon Troubleshooting

When Command Central opens, the Application Buttons on the Application Bar shows **Arrow** icons for connected user interfaces (instruments). If one or more buttons show the **NO** icon follow the procedure below:

---

**1** Right click on the **Application Button** with the **NO** icon. A drop-down list opens. Select **Connect** and wait two minutes.

- If the **NO** icon changes to an **Arrow** icon, the user interface is connected to Command Central and the monitoring process is active.

OR

- If the **NO** icon remains after two minutes, continue to Step 2.

---

**2** Do the following:

- Check that the KVM software is in *Allow Connection* status. Refer to CHAPTER 2 *Operation, Using KVM Software Disconnect*.
- Check the KVM box. The network connection green LED must be blinking.
- Secure all connections from the instrument to Command Central.
- Check that the temperature around the KVM box is within the manufacturer's specifications.

Continue to Step 4.

OR

If the green LED on the KVM box are not blinking, continue to Step 3.

---

**3** Unplug the KVM box power cord and plug the cord in again.

Right click the **Application Button** and select **Connect**. Wait two minutes.

- If the **NO** icon changes to an **Arrow** icon, the user interface is connected to Command Central and the monitoring process is active.
- If the **NO** icon remains after two minutes, continue to Step 4.

- 4 Close Command Central and minimize the data manager window. Start Command Central again by double-clicking on the **Command Central** icon on the desktop.  
OR  
Right click on the **Application Button** with the **NO** icon. A drop-down list opens. Select **Connect** and wait two minutes.
  - If the **NO** icon changes to an **Arrow** icon, the user interface is connected to Command Central and the monitoring process is active.  
OR
  - If the **NO** icon remains after two minutes, call Beckman Coulter Service.

## Blank Application Window, Application Window with Old Information, or Loss of Mouse Control

If one of the following conditions occur, follow the procedure below:

- When an Application Button is selected, the Application Window opens but shows no information.
- When an Application Button is selected, the Application Window shows old information.
- The Command Central mouse cursor does not move correctly.

- 1 Right click on the instrument's **Application Button** and select **Disconnect** if Command Central is still connected.
- 2 Right click on the instrument's **Application Button** and select **Connect**.
  - If there is still no connection or display, continue to Step 3.
- 3 Exit the Command Central application and restart the application. Refer to CHAPTER 2 *Operation*, [Start Up Procedure](#) and [Shut Down Procedure](#).
- 4 Select the instrument's **Application Button**.
  - If there is still no connection or display, continue to Step 5.
- 5 Verify that the KVM has not been set to Disconnect.
  - On the instrument keyboard, press the Scroll Lock key twice (quickly) to bring up the local KVM setup screen.
  - If the KVM Main Menu shows Disconnect, continue to Step 6.

- If the KVM Main Menu shows Allow Connection, then select Allow Connection and select the instrument's **Application Button**.
  - If there is still no connection or display, continue to Step 6.
- 

- 6** Verify that all cables are properly connected to the KVM.
- If not, then correct the cable connections and select the instrument's **Application Button**.
  - If the cables are properly connected, continue to Step 7.
- 

- 7** On the instrument keyboard, press the Scroll Lock key twice (quickly) to bring up the local KVM setup screen.
- In the KVM Main Menu, select Debug - Factory Only.
  - Then select Warm Reset.
- 

- 8** After the KVM has rebooted, select the instrument's **Application Button**.
- If there is still no connection or display, repeat Steps 1 through 4.
  - If there is still no connection or display, continue to Step 9.
- 

- 9** Unplug the power from the KVM, wait 5 seconds and then reconnect power.
- Select the instrument's **Application Button**.
  - If there is still no connection or display, repeat Steps 1 through 4.
  - If there is still no connection or display after Step 4, contact your Beckman Coulter Representative.
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## Bypass the KVM

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If the KVM box has no connection or icon shown on the instrument console, and the mouse, keyboard, or monitor does not work, then the KVM may be temporarily bypassed, which will restore full mouse and keyboard control to the users at the local instrument console. If you think this might be the issue, you can contact BCI Customer Support for assistance, or else perform the following KVM Bypass procedure:

- 1 Turn off the PC. Refer to CHAPTER 2 *Operation*, [Start Up Procedure](#) and [Shut Down Procedure](#).
- 2 Unplug the KVM box power cord.
- 3 Disconnect the mouse cable from the KVM, if connected. Disconnect the corresponding cable between the KVM and the PC. Plug the mouse cable directly into the mouse port on the back of the PC.
- 4 Disconnect the keyboard cable from the KVM. Disconnect the corresponding cable between the KVM and the PC. Plug the keyboard cable directly into the appropriate keyboard port (USB or PS2) on the back of the PC.
- 5 Disconnect the touchscreen cable from the KVM, if connected. Disconnect the corresponding cable between the KVM and the PC. Plug the touchscreen cable directly into the touchscreen port on the back of the PC.
- 6 Disconnect the video cable from the KVM. Disconnect the corresponding cable between the KVM and the PC. Plug the video cable directly into the video port on the back of the PC.
- 7 Turn on the PC. Refer to CHAPTER 2 *Operation*, [Start Up Procedure](#) and [Shut Down Procedure](#).

It may be necessary to reboot the instrument to reestablish the mouse, keyboard and video functionality.

## Inactive Instrument Screen Causes Disconnection

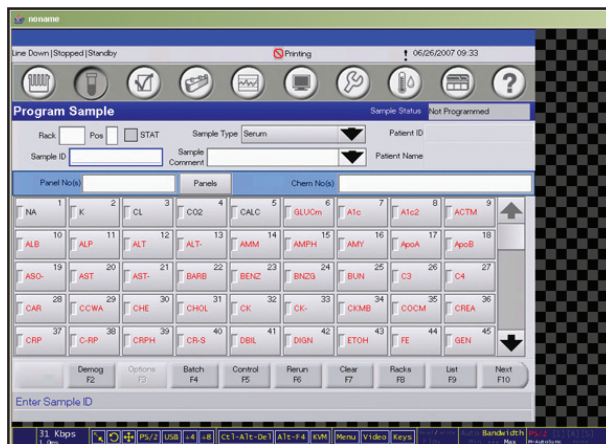
The connection between the instrument and Command Central will disconnect if there is no activity (changes) in the instrument screen within 24 hours. To reconnect follow the procedure below:

- 1 From Command Central,
  - Right click the **Application Button**.
  - Select **Disconnect**.
  - Right click the **Application Button** again.
  - Select **Connect**.
- 2 After Command Central scans the user interface, which takes approximately two minutes, the **Application Button** displays the **Arrow** icon.  
If the **NO** icon appears, refer to [NO Icon Troubleshooting](#) in this chapter.

## Extra buttons on the instrument window

In rare occasions, If you observe an instrument window with buttons at the bottom of the window disconnect and reconnect by following the procedure below:

**Figure 3.1** Extra buttons on the window



- 1 From Command Central,
  - Right click the **Application Button**.
  - Select **Disconnect**.

- Right click the **Application Button** again.
- Select **Connect**.

## Keyboard shortcut issue on Command Central

The following behavior of the Command Central platform may occur in rare situations:

- Pressing the C key will have the active application jump to the central screen.
- Pressing the E key will expand the active application to all the Command Central screens.

- 1 If you observe this behavior,
  - Press the ALT key.

- 2 If the problem keeps coming back, replace the keyboard.

## **Troubleshooting**

Keyboard shortcut issue on Command Central

# System Specifications

## Introduction

This section contains electronic and hardware information regarding the Command Central system that may be required by a regulatory agency. For individual component information please refer to the manufacturer's instructions for use.

## System Specifications

The following information includes testing for the Command Central system (DL2000 computer, monitor, keyboard, mouse, ethernet switch, and KVM box).

**Table 4.1** Command Central System Specifications

Item	Description
Environment	Indoor use only 18 degree C to 30 degree C 25% to 85% relative humidity, non-condensing
Power Requirements	100–120VAC, 200–240VAC Frequency range: 50/60Hz
Installation Category	II
Pollution Degree	2
CISPR 11	Meets Class A

## Power Requirements by Component

**Table 4.2** Component Power Specifications

Item	Description
Computer	110-240VAC, nominal, single phase, 5A One 6-foot power cord (included) NEMA L5-15R receptacle
Two Screen Monitor	110-240VAC, nominal, single phase, 2.1/1.1A Three 6-foot power cords (included) NEMA L5-15R receptacle
KVM Box	110-240VAC, nominal, single phase, 0.8/0.4A External Power Supply (included) NEMA L5-15R receptacle
Ethernet Switch	110-240VAC, nominal, single phase, 0.3A One 6-foot power cord (included) NEMA L5-15R receptacle

## Component Dimensions and Weight

**Table 4.3** Component Dimensions and Weight

Item	Description
Computer	Length 19.3 inches (49.1 cm) Depth 15.7 inches (39.9 cm) Height 18.8 inches (47.8 cm) Weight 30 pounds (13.61 kg)
Two Screen Monitor	Length 19.92 inches (50.6 cm) Depth 6.11 inches (15.5 cm) Height 15.68 inches (39.8 cm) Weight 11.49 pounds (5.2 kg)
KVM Box	Length 7.375 inches (18.7 cm) Depth 7.0 inches (17.8 cm) Height 0.9 inches (2.29 cm) Weight 1.5 pounds (0.7 kg)
Ethernet Switch	Length 13 inches (32.5 cm) Depth 8 inches (20 cm) Height 1.7 inches (4.25 cm) Weight 4.4 pounds (2 kg)

## Installation Location

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Place Command Central away from direct sunlight and drafts. Locate the system on a level surface within +/- 5% of level. The console, keyboard and mouse must be placed on a surface without dust or vibration. Also, allow adequate ventilation for electronic components.

When moving the Command Central system, always shut down the system and disconnect all power and network cables.

## Related Documents

No Related Documents

[www.beckmancoulter.com](http://www.beckmancoulter.com)

