SYSTEM SETUP SCREENS

CHAPTER
5

In This Chapter...

Introduction

The *C-more* EA9-RHMI includes a series of built-in System Setup Screens that allow the user to view detailed information about the HMI; adjust certain features; configure communications; test various functions of the HMI; backup and restore firmware, recipe, log and project memory; clear memory and reset all values and conditions back to the original factory defaults.

The four Main Menu selections are:

Information

The information tabs display details about the HMI model; the HMI's name; version information for the hardware, boot loader and firmware; clock source, and beeper status. Other tabs display details on the HMI's internal memory and the status of any external memory devices. Communication port details are available in this area, as well as an error log to help in troubleshooting the system

Setting
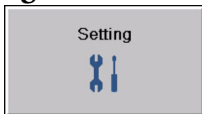
This is the area for (1) making adjustments to the internal clock, (2) setting the IP addresses (3) adjusting (calibrating) a connected touch screen, (4) enabling or disabling the internal beep, and (5) enabling or disabling a mouse pointer.

Test Menu
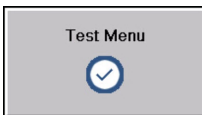
From this sub menu, the user can (1) test the a connected touch screen, (2) test a connected display, (3) test the user LED (4) test the communication ports, and (5) test both the internal beeper. A WAV sound file is system provided for the audio output test.

Memory
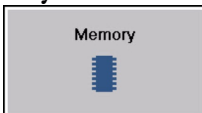
Select the Memory menu item to either backup or restore your project, log data, recipe data and/or system memory. Selections can be made to backup to optional SD card memory or USB pen drive memory. The menu selections also give the user the ability to clear the memory, and there is also a selection to reset all of the HMI settings back to the original factory defaults.
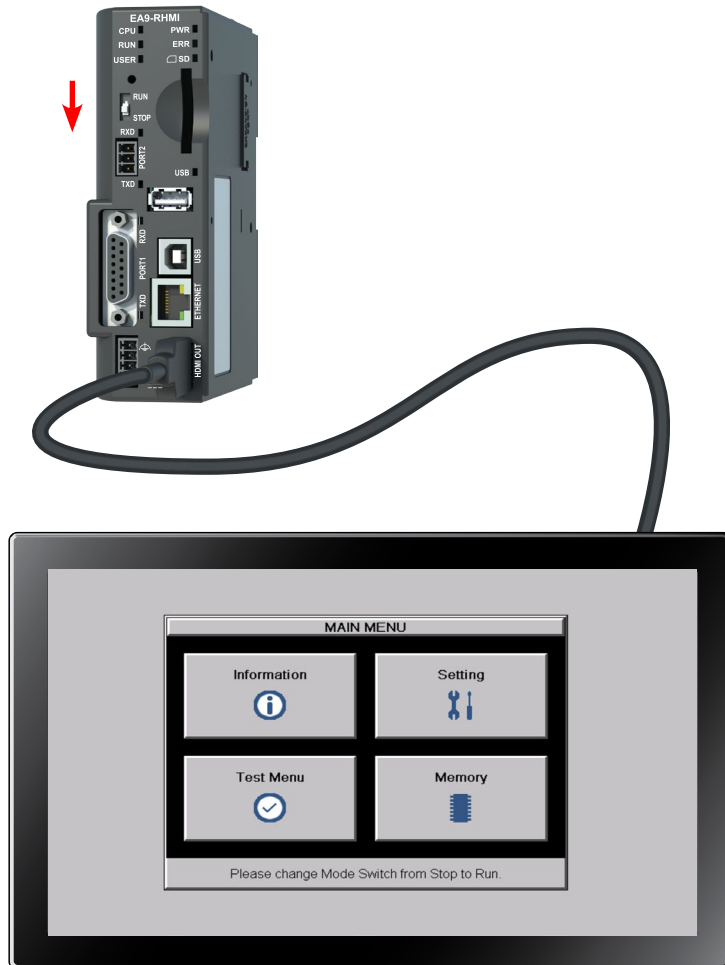
Accessing the System Setup Screens

There are three ways to access the System Setup Screens in the EA9-RHMI.

　　1) On the HMI by moving the RUN/STOP switch to the STOP position

　　2) From a connected compatible touch screen using the Key Button Object

　　3) From the *C-more* Software and using the RHMI USB Remote utility

With no project loaded

To access the Main Menu of the HMI System Setup Screens prior to downloading a project, move the RUN/STOP switch to the STOP position as shown below. If a display is attached to the EA9-RHMI, the Main Menu will be displayed.

With project loaded

To access the Main Menu of the EA9-RHMI System Setup Screens with a project loaded into memory, move the RUN/STOP switch to the STOP position.

If the RUN/STOP Switch is not accessible, a Key Button Object can be added to a screen in the *C-more* HMI project to access the System Screens. See the *C-more* Programming Software Help File Topic, "Key Button Object" for more information.

If the Key Button is used and no system screen password is enabled, the following WARNING dialog box will appear on the connected screen:

System Screen Called

Activating System Screen will stop the
Panel Run Mode.
Do you want to continue?
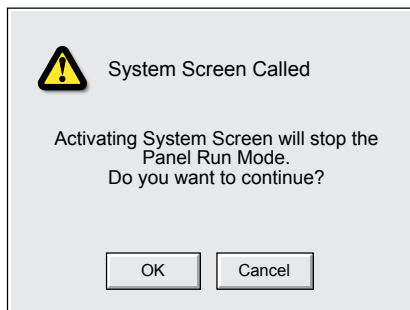
OK   Cancel

- Pressing OK will display the system setup screen. See the WARNING below!

- Pressing Cancel will take you back to the project screen.

- Communication with the PLC is active while the Warning is displayed.

- The dialog box will close if no action is taken for 60 seconds.

- The dialog box will not display if the HMI does not have a project loaded.

- The dialog box will display after a valid password is entered if the System Screen password is enabled.

WARNING: This will STOP the PLC driver and therefore all communications between the EA9-RHMI and PLC will cease. In addition, moving the RUN / STOP switch to the STOP position does not display this warning. This is why it is strongly recommended that the password system tag "SYS SYSTEMSCREENPW" be enabled to add a safeguard step in accessing the system setup screens. See the next section for an overview of how to set the System Tags in the Event Manager Database.

Using RHMI USB Remote

Another option for seeing the System Screens is through a PC connected by USB to the EA9-RHMI.

In the *C-more* programming software, double click Panel Information in the Panel tab on the navigation window as shown below or select Panel Information in the Panel menu.
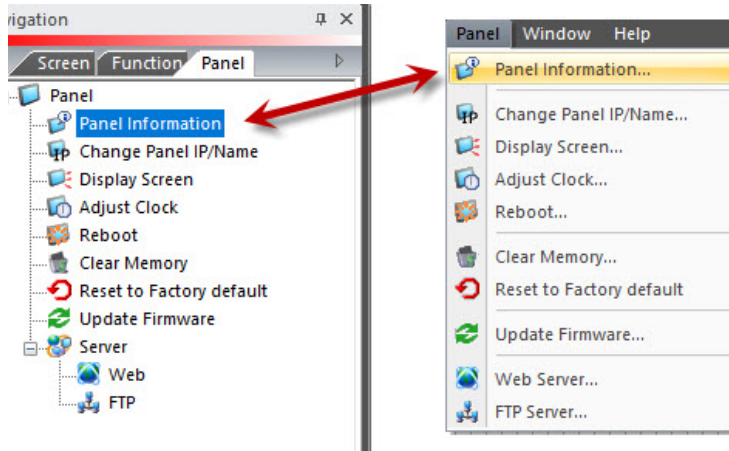
Select RHMI USB Remote. The RHMI USB Remote displays the same screen that is shown on a connected HMI monitor.

NOTE: *The RHMI USB Remote selection is only available if the panel is connected to the PC by a USB cable.*

Select Enable Panel Operation. This allows the screens to be clicked with a mouse and operated as if you were touching a touch screen connected to the HMI.

If the HMI's RUN/STOP Switch is in the RUN position, you can select STOP under Panel Switch Position to see the System Screen. If the Switch is in the STOP position already, the System Screen will already be displayed.

For more information see the Help File topic **Panel Tab - Panel Information**.
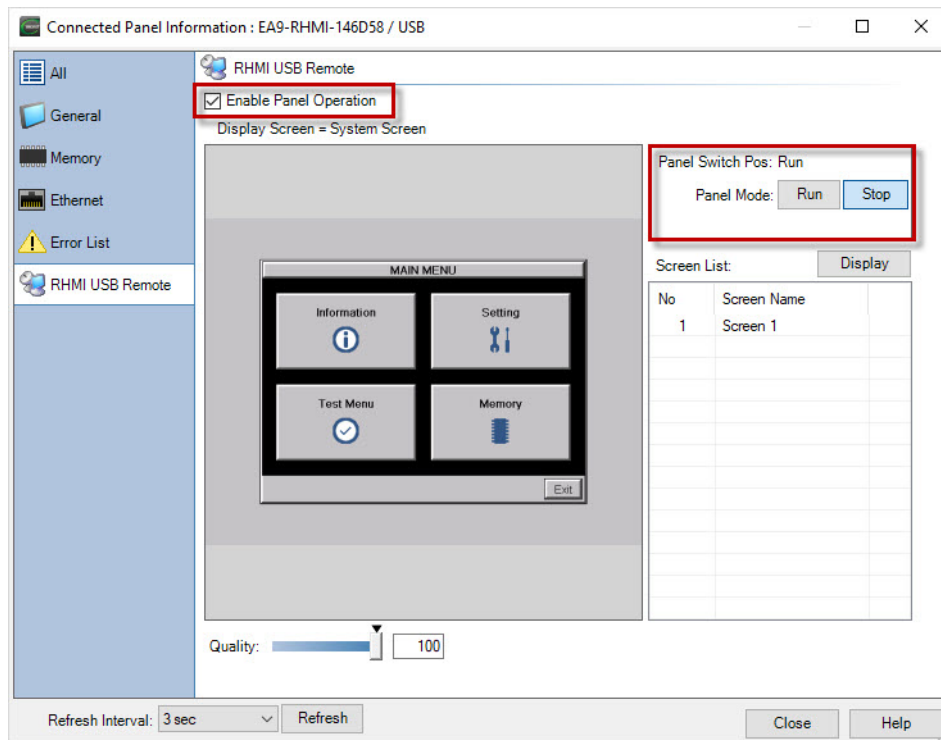
System Setup Screens

Clicking the OK button will open the Main Menu as shown below. You can then proceed to the other system setup screens.
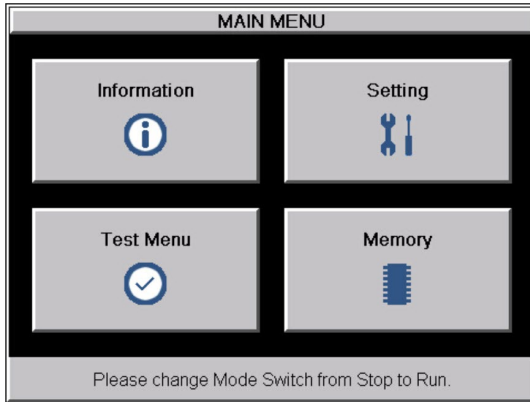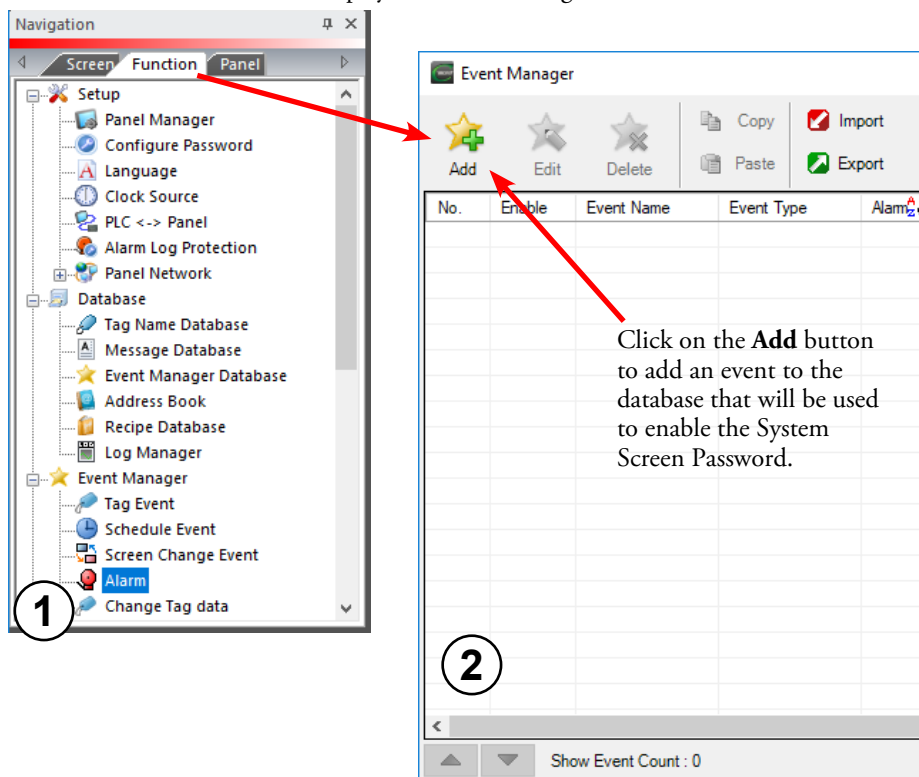

Password Protecting System Screen Access

*NOTE: If the password system tag **SYS SYSTEMSCREENPW** is enabled, the Enter Security Code keypad shown below will open. The procedure to enable the **SYS SYSTEMSCREENPW** is detailed below.*
Entering the correct password will display the HMI Run Mode warning dialog described previously. PLC communications continue while the keypad is displayed. The keypad will timeout after 60 seconds.
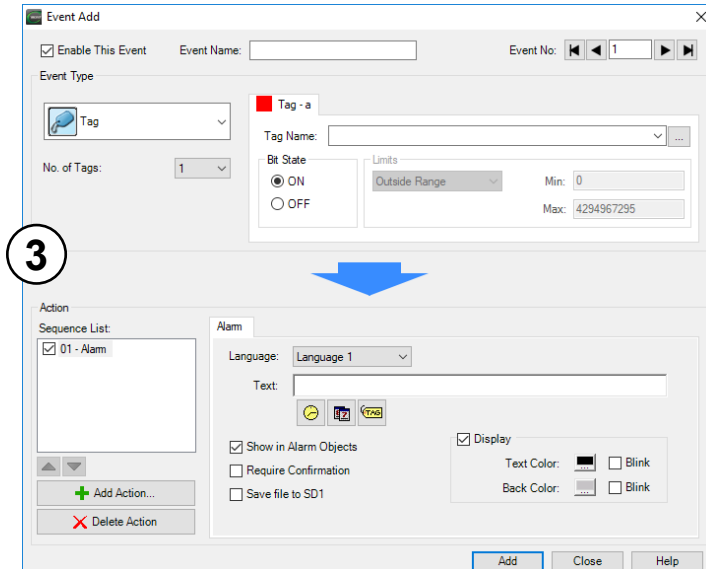
System Setup Screens – Enable Password in Software

Under the **C-more** Programming Software's Navigation window, select the Function tab, then double click on "Alarm Action" to display the Event Manager Database shown below:
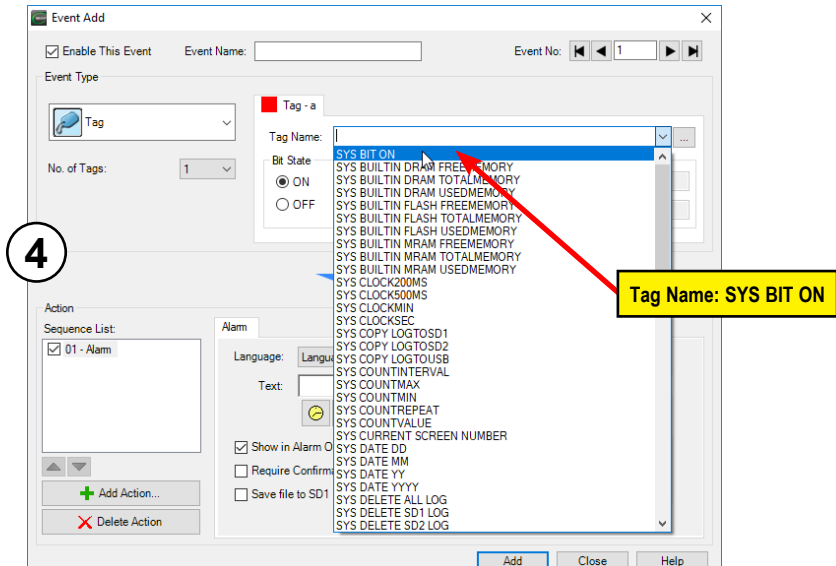

Click on the **Add** button to add an event to the database that will be used to enable the System Screen Password.

System Setup Screens – Enable Password (cont'd)

The **Event Add** dialog box will be displayed as shown.

Click on the **Tag Name:** pull down menu and select the internal **System Bit On (SYS BIT ON)** tag as shown. This will force the tag event type to be continuously active.

System Setup Screens – Enable Password (cont'd)

Use the Event Name: text box to document the event as "System Screen PW" for record keeping This is optional.

In the Action box, click once on the displayed 01-Alarm under the Sequence List: so that 01-Alarm is highlighted. Then click the **Delete Action** button to remove the **01-Alarm**.

System Setup Screens – Enable Password (cont'd)

In the **Action** box, click on the **Add Action...** button. This will bring up the **Add Action** dialog box as shown below:
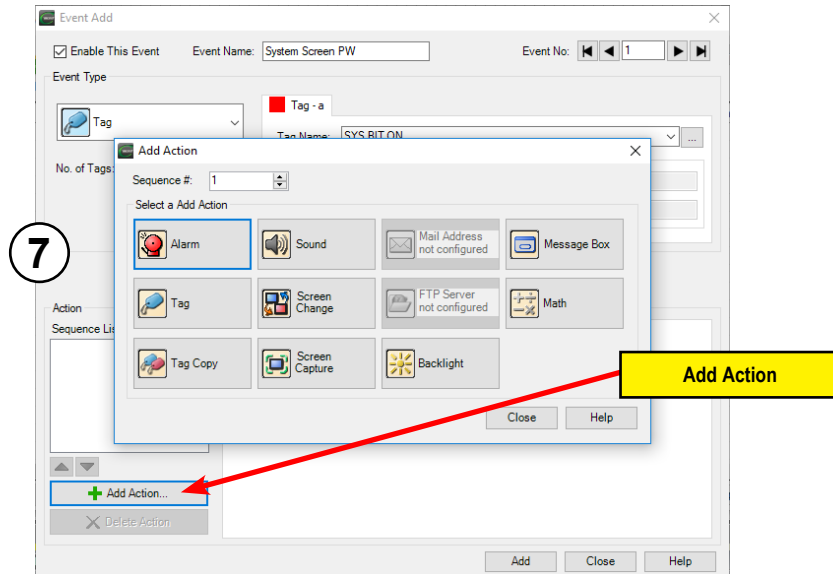
Click on the **Tag** button.
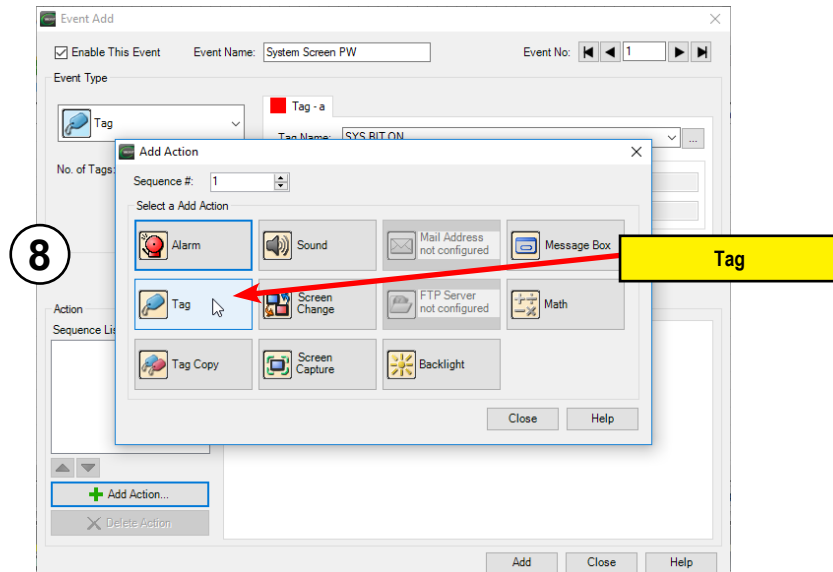
System Setup Screens – Enable Password (cont'd)

A **01-Tag** action item will then be added to the **Sequence List**.
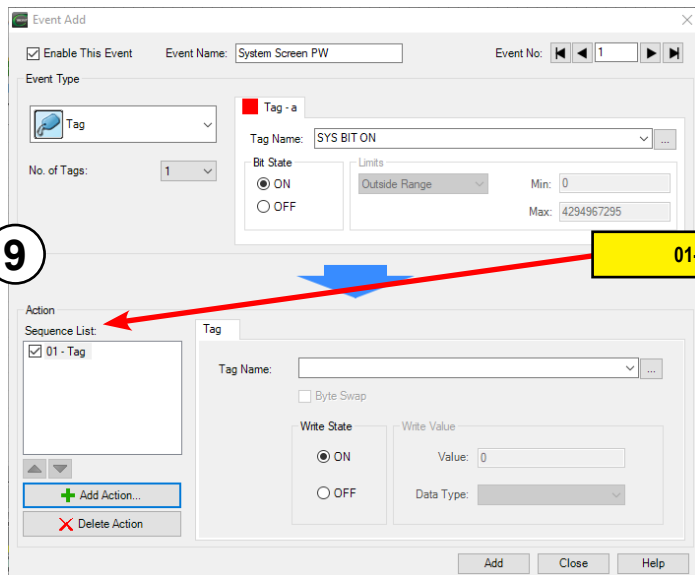
Click on the **Tag Name:** pull down list down arrow in the **Action** box's **Tag** tab, select **SYS SYSTEMSCREENPW** from the list, and click **OK**.
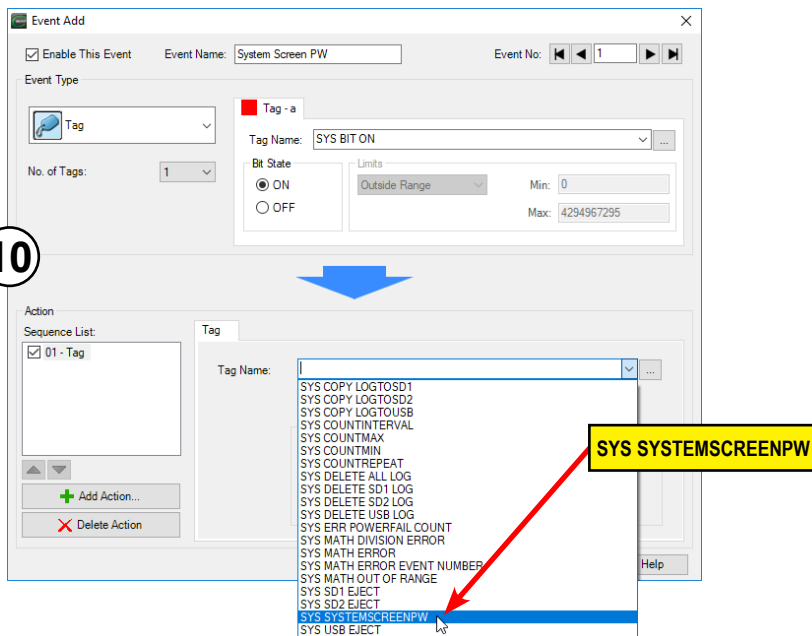
System Setup Screens – Enable Password (cont'd)

Enter a numeric value into the **Value:** box, such as "777". This value becomes the Password code to access the System Setup Screen's **Main Menu**.

Click the **Add** button in the Event Add dialog box and then the **Close** button to return to the Event Manager Database. You now will see that the first event in the database is for the System Screen Password and it is enabled.

System Setup Screens Flowchart

Main Menu

Information → General/Memory/Ethernet/Error

Setting → Adjust Clock

IP Address Setting

Adjust Touch Panel (Touch Screen Calibration)

Beep

Mouse

Test Menu → Test Touch Panel

Test Display

Test User LED

Test Communication Port

Test Beep/Sound

Memory → Backup

Restore

Clear Memory

Reset to Factory Default
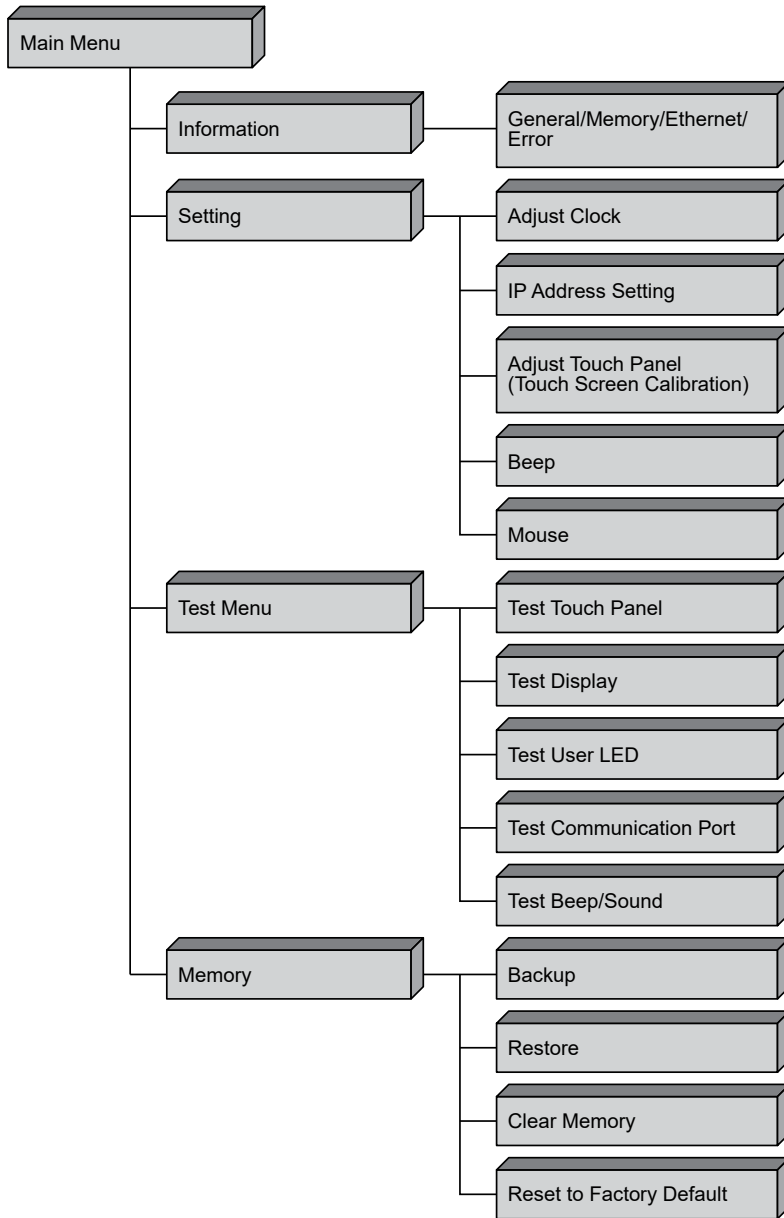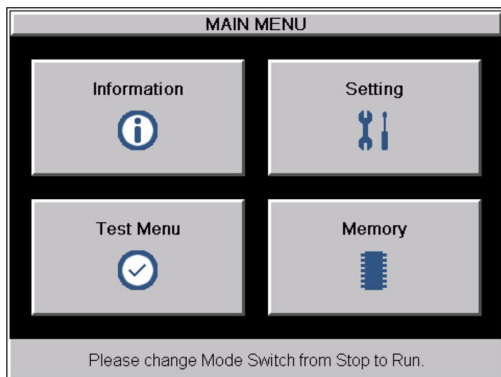
Main Menu

The **Main Menu** system setup screen is the top layer in the menu structure.

Information Menu

Information - General tab
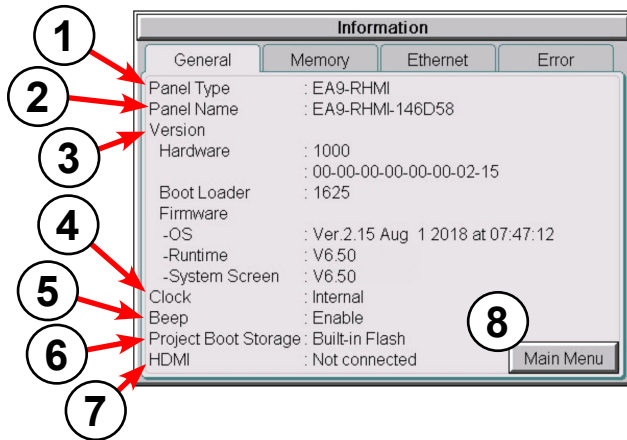
The **General** tab under the Information menu provides detailed information about the *C-more* HMI.

Item No.	Function	Description	Comments
1	**Panel Type**	EA9-T6CL-R EA9-T6CL EA9-T7CL-R EA9-T7CL EA9-T8CL EA9-T10CL EA9-T10WCL EA9-T12CL EA9-T15CL-R EA9-T15CL EA9-RHMI	Model Number
2	**Panel Name**	The panel name is configured in the programming software and saved with a project.	The default panel name is the model number plus the lower three bytes of the panel MAC address, i.e. EA9-T8CL-0022C4.
3	**Version**	The version identifications provide information on the components and firmware in the panel	Files reside in the *C-more* HMI's memory.
4	**Clock**	Internal/External clock selection.	Configured in the *C-more* Programming Software.
5	**Beep**	Status of the internal beeper.	Configurable in the Setting Menu – Beeper shown on page 5-23 or in the *C-more* Programming Software.
6	**Project Boot Storage**	The location of the current project.	Built-in flash, SD1
7	**HDMI**	HDMI connection to an external screen. Only models with HDMI port	Connected, Not connected
8	**Main Menu**	Press to return to the **Main Menu** screen.	**Main Menu** shown on previous page.

Information - Memory tab
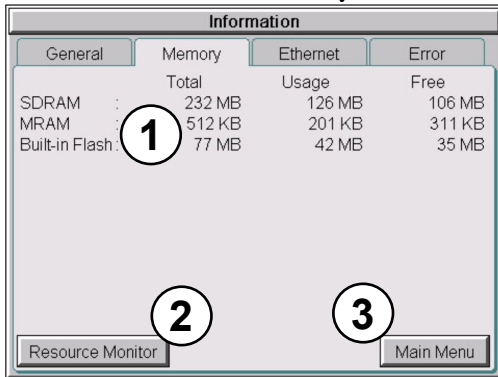
1. **Memory components** - Status of each memory component - SDRAM, MRAM and Built-in Flash are internal memory components. When external memory devices are installed in the panel they will be included in this list : SD and USB.
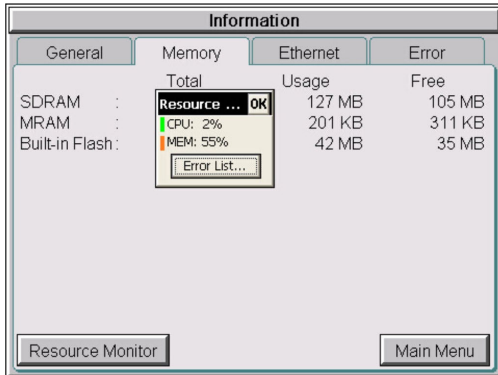
2. **Resource Monitor** - Selecting Resource Monitor displays the CPU and runtime memory usage percentage. This window will remain open after exiting from the system screen. This allows for monitoring the panel resources while the project is running. Pressing the Error List button expands the window to show the PLC communication error list in real time. Press OK once to remove the Error List. Press OK again to close the Resource Monitor window.

3. **Main Menu** - Press to return to the Main Menu screen - Main Menu shown previously

Information - Ethernet tab

Item No.	Function	Description	Comment
1	**Ethernet (Link: Online)**	Ethernet Settings: MAC Address: 00 D0 7C XX XX XX Address Type: DHCP/Static IP Address: Subnet Mask: Default Gateway: DNS: 1) Automatically 　　　2) Use Designated Address	Configurable in the **Setting Menu – IP Address Setting** shown in this section or in the *C-more* Programming Software.
2	**Option Unit**	Opens Ethernet settings for optional EA-ECOM if connected.	
3	**Option (Link Online)**	Ethernet Settings: MAC Address: 00 D0 7C XX XX XX Address Type: DHCP/Static IP Address: Subnet Mask: Note: Option Unit uses the same Default Gateways as Item 1 - Ethernet	
4	**Main Menu**	Press to return to the **Main Menu** screen.	

Information - Error tab

Error message format

Navigation buttons
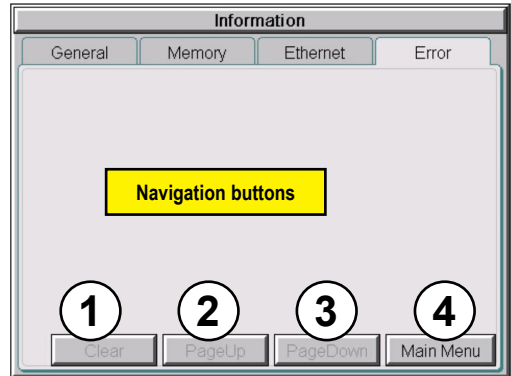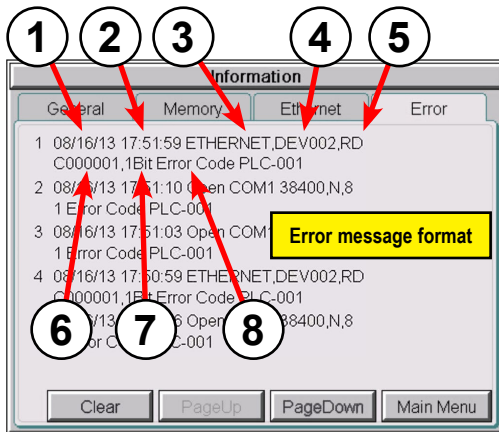
Error Message Format:

| Item No.	Function	Description	Comment
Order of error message functions: **Error Number, Date, Time, Error Port, Device Name, Error Type, PLC Address, Access Bytes, Error Message**			
1	Date	Format: MM/DD/YY	Date error occurred.
2	Time	Format: HH/MM/SS	Time error occurred.
3	Error Port	PLC Serial Communications Port: Ethernet:	
4	Device Name	The name of the device reporting the error.	Device names are configured in the programming software, Panel Manager
5	Error Type	RD: Read WT: Write	
6	PLC Address	The assigned address of the PLC that caused the error.	
7	Access Bytes	The number of access bytes.	
8	Error Message	The error message is the same as the message displayed in the upper left of the *C-more* HMI's connected display.	A list of Error Massages is shown in Appendix A

Error Message navigation buttons:

Item No.	Function	Description	Comment
1	Clear	Press to clear all error messages. This button is grayed out when there are no error messages to display.	Errors are also cleared with firmware is updated on the panel. Errors are not cleared on power cycle or project transfer.
2	Page Down	Press to go to the next page. This button is grayed out when there is no error messages on the next page.	
3	Page Up	Press to go to the previous page. This button is grayed out when there is no error messages on the previous page.	
4	Main Menu	Press to return to the **Main Menu** screen.	

Setting Menu
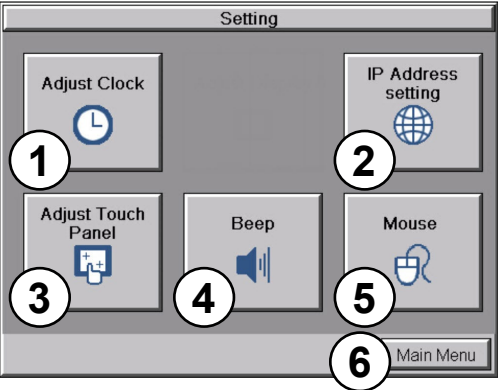
The **Setting Menu** is used to adjust the time & date, adjust the contrast or brightness of the display, enter the IP address settings, adjust (calibrate) the connected touch screen, enable or disable the internal beep and turn on and off the mouse cursor .

Item No.	Function	Description	Comments
1	Adjust Clock	Press to go to the **Adjust Clock** screen.	
2	IP Address	Press to go to the **IP Address** screen	The IP Address can also be set from the programming software or by the project.
3	Adjust Touch Panel	Press to go to the **Adjust Touch Panel** screen.	
4	Beep	Press to go to the **Beep** screen.	
5	Mouse	Press to go to the **Mouse** screen.	
6	Main Menu	Press to return to the **Main Menu** screen.	

Setting – Adjust Clock

Item No.	Function		Description	Comments

1	Select	▶	**Time:** Each press of the **Select** button will cycle thru the following settings.
			  1) No Selection to Hours
			  2) Hours to Minutes
			  3) Minutes to Seconds
			  4) Seconds back to Hours
			Date: Each press of the **Select** button will cycle thru the following settings.
			  1) Month to Day
			  2) Day to Year
			  3) Year back to Month	

2	Up	▲	Press to increment the value by "1" with each press.	
3	Down	▼	Press to decrement the value by "1" with each press.	
4	OK		Press to accept the changes.	
5	Cancel		Press to return to the **Setting Menu** screen without accepting the changes.	

NOTE: *The function buttons used to adjust the clock settings on the panel's setup screen are **disabled** if an **External** clock source is selected in the **C-more** programming software. The choice of an internal or external clock source is available by selecting **Clock Source** in the **C-more** programming software under the **Main Menu** drop down function **Setup.***

NOTE: *The panel's clock can also be adjusted from the **C-more** programming software. The **Adjust Clock** function can be accessed in the software by selecting **Adjust Clock** under the **Main Menu** drop down function **Panel** or selecting **Adjust Clock** under the **Panel** tab in the software's **Navigation** window.*

Setting – Adjust Touch Panel

A compatible touch screen can be attached to the EA9-RHMI through the USB Type A port. This procedure is used to calibrate a connected touch screen to ensure accuracy of the touch areas. There are three points on the touch screen that the calibration is based around. The adjustment relies on very narrow areas for the calibration points.
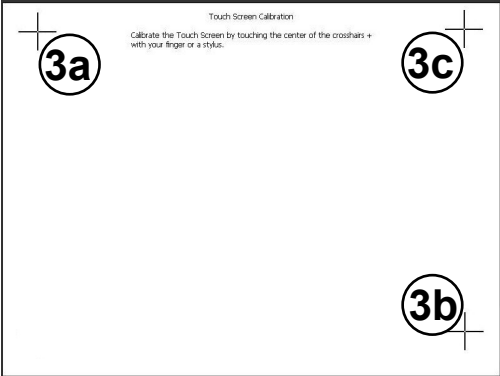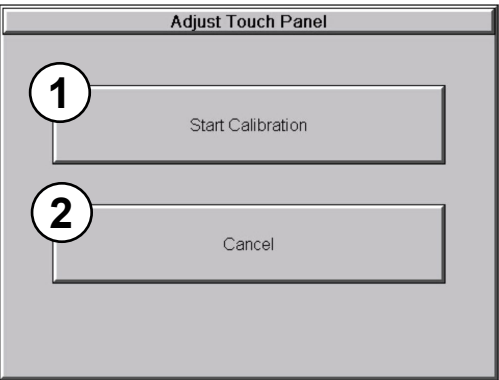
Item No.	Function	Description	Comment
1	**Start Calibration**	Press to begin the touch screen calibration	
2	**Cancel**	Press to return to the **Setting Menu** screen.	
3	**Points 3a thru 3c**	The touch screen calibration crosshairs will appear individually in the order of point 3a thru 3c respectively as each proceeding crosshair is pressed.	Once all three points are touched, select Accept, Redo or Cancel.

Setting – Beep
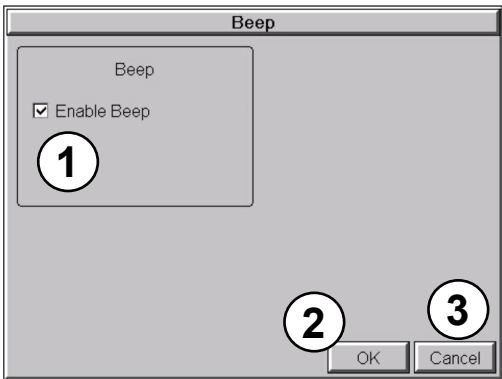
This system setup screen function is used to enable or disable the HMI's internal beep function.

Item No.	Function	Description	Comments
1	**Enable Beep**	Check to enable the internal beep.	
2	**OK**	Press to accept the changes.	
3	**Cancel**	Press to return to the **Setting Menu** screen without accepting the changes.	

*NOTE: The project settings in the **C-more** programming software **Panel Manager** will override the HMI's internal setting upon initial download.*

Setting – Mouse
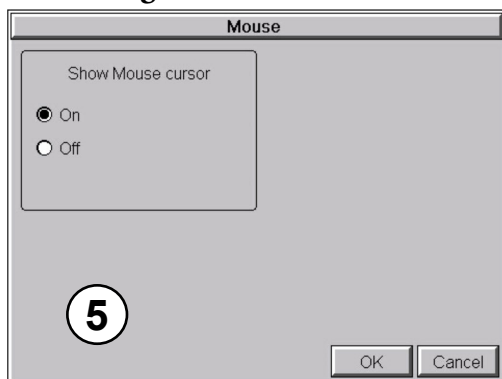
This system setup screen function is used to enable/ disable the arrow mouse cursor on the connected screen. It may be valuable to display the mouse cursor, for example, when an external USB keyboard is connected to the panel. The mouse cursor is enabled by default when the EA9-RHMI panel is the panel used for a project.

*NOTE: The project settings in the **C-more** programming software **Panel Manager** will override the HMI's internal setting upon initial download.*

Setting – IP Address Setting

Item No.	Function	Description	Comment
1	**DHCP**	"DHCP" is enabled as the default when this system setup screen is first selected. All of the other selections on this screen are dimmed when "DHCP" is selected and are not available.	
2	**IP Address**	The "Use the following IP Address" setting is selected when its radio button is pressed. Use the numerical keypad to assign the IP address.	Note: If an Ethernet cable is not connected to the HMI from an active Ethernet device, then the IP Address will show as 0.0.0.0.
3	**IP Address Subnet Mask Default Gateway**	Select the field that needs to be assigned by touching the entry value and use the keypad to enter the desired address.	Each field can be independently assigned.
4	**Keypad**	The keypad is used to enter the Address: Use the numeric keys to enter the address, e.g: 192.168.10.1 **"CL"** = Clear value entered	
5	**IP Address (Option unit)**	Opens Ethernet settings for optional EA-ECOM if connected.	
6	**OK**	Press to accept the changes and return to the **Setting Menu** screen.	
7	**Cancel**	Press to return to the **Setting Menu** screen without accepting the changes.	

NOTE: The project settings in the **C-more** programming software **Panel Manager** will override the HMI's internal setting upon initial download.

Test Menu
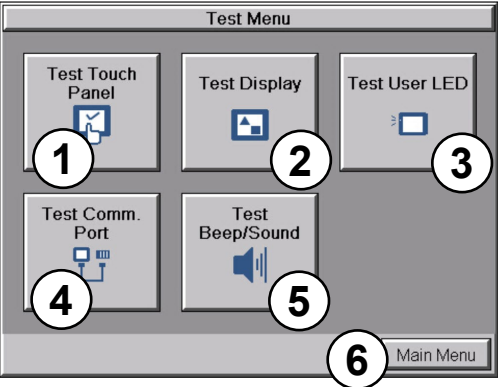
The **Test Menu** gives the user the ability to test the operation of a connected touch screen, test the LCD display, test the various communication ports, and also test the internal beeper.

Item No.	Function	Description	Comments
1	**Test Touch Panel**	Press to go to the **Test Touch Panel** screen.	
2	**Test Display**	Press to go to the **Test Display** screen.	
3	**Test User LED**	Tests the user configurable LED on the front of the panel. Refer to the online help file for details on the configuration of this LED.	
4	**Test Communication Port**	Press to go to the **Test Communication Port** screen.	
5	**Test Beep/Sound**	Press to go to the **Test Beep/Sound** screen.	
6	**Main Menu**	Press to return to the **Main Menu** screen.	

Test Menu – Test Touch Panel
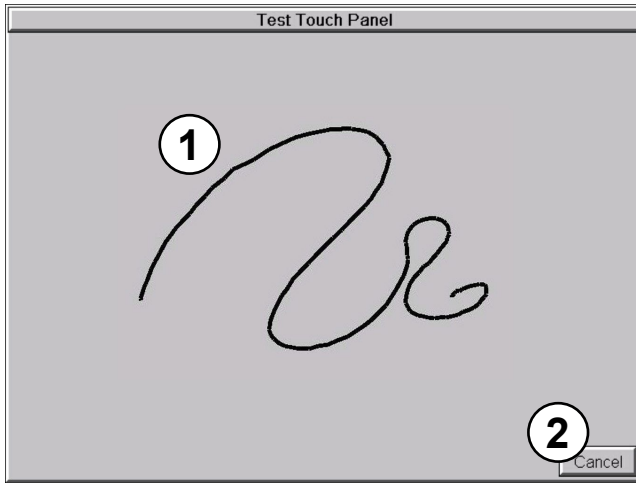
Using this test, normal or unusual operation of the connected analog touch screen can be determined.

Testing:

If an area of the touch screen is suspected to be inoperable, touch that area of the screen while in the Test Touch Panel screen mode. The screen pixels should turn black in that area. If the screen pixels do not turn black when touched, then the touch screen is defective or needs to be calibrated. See Setting - Adjust Touch Screen

Item No.	Function	Description	Comments
1	**Touch area**	Touch to turn on pixels on the screen.	Both the title bar (Test Touch Panel) and **Cancel** button can be drawn across to test the touch operation.
2	**Cancel**	Press to return to the Test Menu screen.	

NOTE: The touch screen driver is designed to respond to a single touch. If it is touched at multiple points at the same time, an unexpected object may be activated.

Test Menu – Test Display
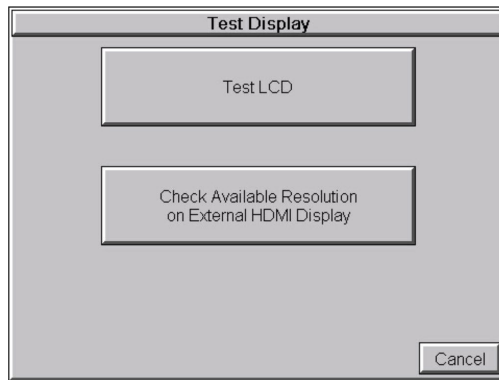
1) Test LCD

There are two different test patterns that may be run on the display to allow the user to check for display screen defects. If an attached touch screen is not touched or a connected mouse is not clicked within 3 seconds of **Test Pattern 1** being displayed, then **Test Pattern 2** will be displayed until the screen is touched or a connected mouse is clicked, otherwise **Test Pattern 1** will remain until cancelled.

Test Pattern 1 displays a test pattern of 16 grayscale graduations and RGB colors.
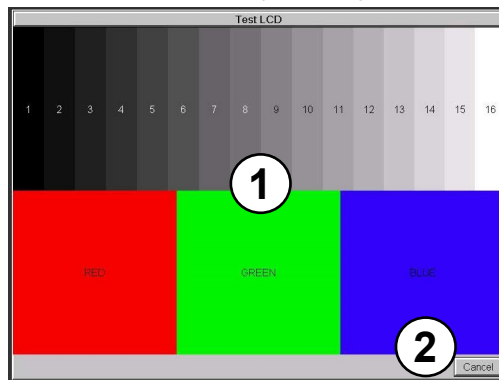
Test Pattern 2 will follow the pattern as shown in the following chart with the color wiping across the screen in the direction indicated by the arrows, then repeats:

Color	1st Time	2nd Time	3rd Time	4th Time
RED	→	↑	↓	←
③ GREEN	←	→	↑	↓
BLUE	↓	←	→	↑

Item No.	Function	Description	Comments
1	**Touch the Test Display screen**	Press the screen anywhere except the Cancel button and the shown **Test Pattern 1** remains.	If the **Test Display** screen is not touched, then in three seconds the display will move to **Test Pattern 2**.
2	**Cancel (Test Pattern 1)**	Press to return to the **Test Menu** screen.	
3	**Touch Anywhere (Test Pattern 2)**	Touch the sceen anywhere during **Test Pattern 2** and return to the **Test Menu** screen.	

Test Results: If any pixels on the screen do not appear the same color as the surrounding pixels, the screen may be defective.

2) Check Available Resolutions on External HDMI Display

This selection performs a check through the HDMI port and attempts to negotiate with a connected display and determine all available resolutions.

NOTE: If the display is connected through a signal converter such as an HDMI-DVI converter, the negotiations may not be sucessful and the available resolutions may not be correct.
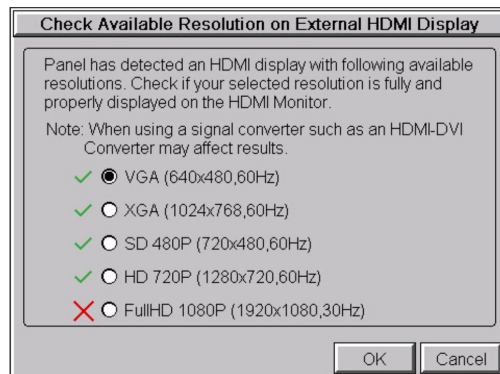
Test Menu – Test Communication Ports: Serial Ports

The following test can be used to check the operation of the serial communication ports, with the use of a loop back connector and can also check the serial communications to any connected and configured PLC.
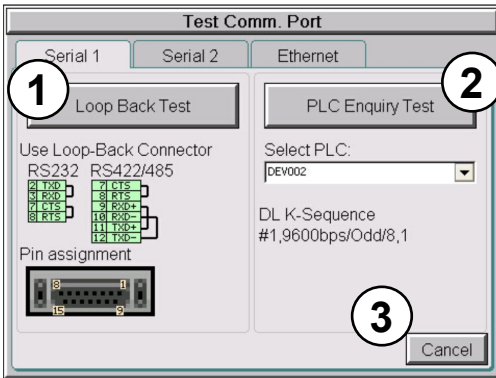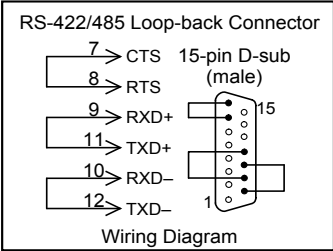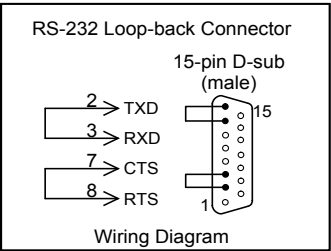
Item No.	Function	Description	Comments
1	**Loop Back Test**	The loop back test checks the hardware components of the selected port for proper operation.	The loop back test may be performed on Serial Port 1 or Serial Port 3. Each tab shows diagrams to assist the user in building the loop back connector.
2	**PLC Enquiry Test**	This function allows the ability to select any PLC that that may be connected to the HMI via a serial connection and checks to see if the communications are working correctly.	The PLC must be configured for the selected port in the *C-more* programming software Panel Manager and transferred to the HMI before attempting the PLC Enquiry test.
3	**Cancel**	Press to return to the **Test Menu** screen.	

Serial Port 1

RS-232 Loop-back Connector
15-pin D-sub (male)
2 → TXD
3 → RXD
7 → CTS
8 → RTS
Wiring Diagram

RS-422/485 Loop-back Connector
15-pin D-sub (male)
7 → CTS
8 → RTS
9 → RXD+
11 → TXD+
10 → RXD–
12 → TXD–
Wiring Diagram

## Test Menu – PLC Serial Comm Port – Loop Back Test

Test Results

1.) Bytes Sent:
The number of bytes sent after a test is started.

2.) Receive Counts:
The number of bytes which are received after the test is started.

3.) Error Counts:
The number of bytes which have not been received after the test is started.

4.) RTS/CTS Test: Pass/Fail
RTS is turned on and if CTS receives the signal then the test shows "Pass," otherwise the test shows "Fail."

NOTE: *The test will continue to run until the Cancel button is pressed. If there are any error counts, check the loop back connector.*

```
                    Test Comm. Port

                 Serial : Loop Back Test

    COM3 Port
                    Bytes       Receive        Error
        TXD/RXD     Sent        Counts         Counts
          Test       8            8              0

        RTS/CTS
          Test      Pass




                                        Cancel
```

Test Menu – PLC Enquiry Test: Serial Connection
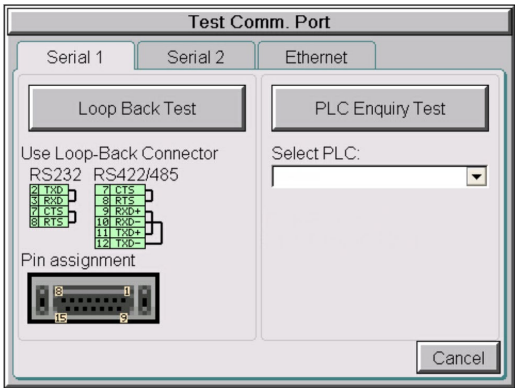
This function allows the ability to select any PLC that may be connected to the HMI through the selected serial comm port connection and checks to see if the communications are working correctly.
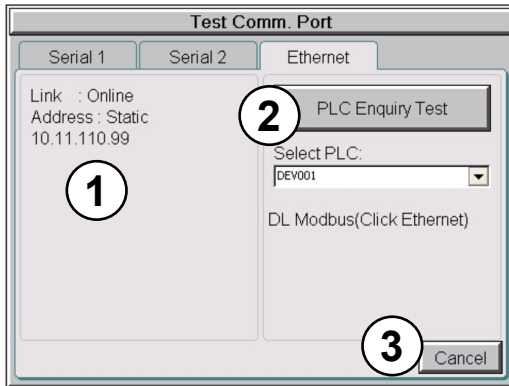
NOTE: *The communications protocol for the PLC being selected must be configured the same as the **C-more** HMI. The HMI's PLC serial communications are configured using the **C-more** Programming Software's Panel Manager.*

PLC Enquiry Test

Four test packets are sent to the selected PLC. The test result with return either Pass or Fail.

Test Menu – Test Communication Ports: Ethernet

Test Comm. Port

| Serial 1 | Serial 2 | Ethernet |

Link : Online
Address : Static
10.11.110.99

①

② PLC Enquiry Test

Select PLC:
DEV001

DL Modbus(Click Ethernet)

③ Cancel

The following test feature can be used to check the operation of the Ethernet communication port by indicating if an Ethernet link has been established or not. It can also check the status of the Ethernet communications to any connected PLC.

Base featured models (-R) do not include an Ethernet port. Therefore, this check is not displayed on -R models.
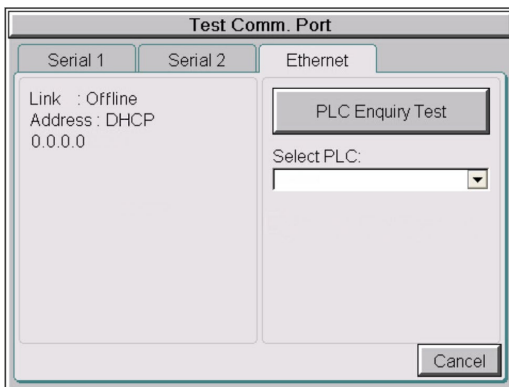
NOTE: The communications protocol for the PLC being selected must be configured the same as the C-more HMI. The HMI's PLC serial communications are configured using the C-more Programming Software's Panel Manager...

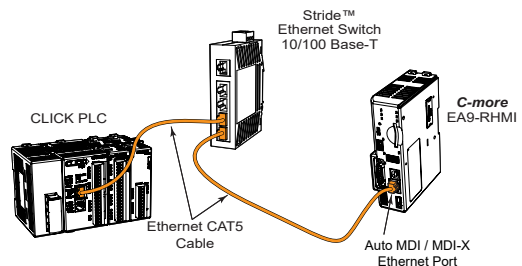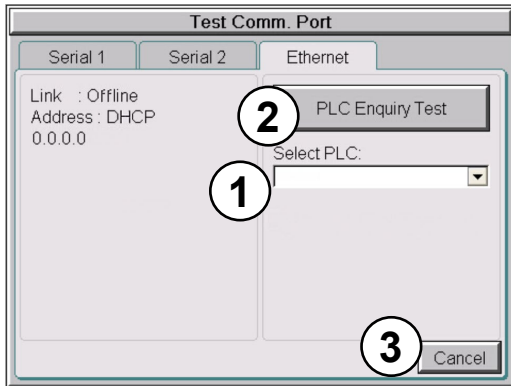| Item No.	Function	Description	Comments
1	**Ethernet Connected**	This area displays information on whether or not an Ethernet link has been established for the HMI's Ethernet comm port. Displays panel's IP address and shows whether it is static or assigned by a DHCP server.	
2	**PLC Enquiry Test**	This function allows the ability to select any PLC configured in the project that may be connected to the HMI via an Ethernet connection and checks to see if the communications are working correctly.	The PLC must be configured for the selected port in the *C-more* programming software Panel Manager and transferred to the panel before attempting the PLC Enquiry test.
3	**Cancel**	Press to return to the **Test Menu** screen.	

Example of displayed message when the HMI's Ethernet port is not connected. Note that the address resets to 0.0.0.0 even if it has previously been entered.

Test Comm. Port

| Serial 1 | Serial 2 | Ethernet |

Link : Offline
Address : DHCP
0.0.0.0

PLC Enquiry Test

Select PLC:

Cancel

Typical Ethernet connection with Ethernet switch

Stride™
Ethernet Switch
10/100 Base-T

C-more
EA9-RHMI

CLICK PLC

Ethernet CAT5
Cable

Auto MDI / MDI-X
Ethernet Port

Test Menu – PLC Enquiry Test: Ethernet Connection

This function allows the ability to select any PLC configured in the project that may be connected to the HMI through an Ethernet port connection and checks to see if the communications are working correctly.
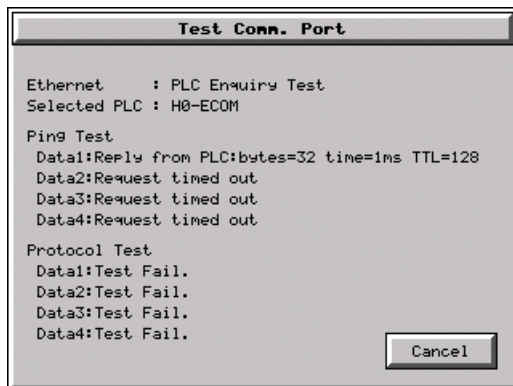
> **NOTE:** *The communications protocol for the PLC being selected must be configured the same as the* ***C-more*** *HMI. The HMI's PLC serial communications are configured using the* ***C-more*** *Programming Software's Panel Manager.*
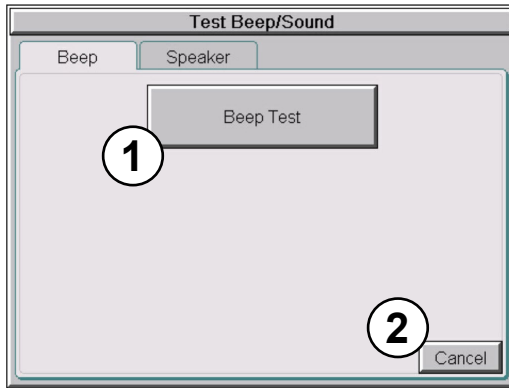
PLC Enquiry Test

Following are the steps that the Ethernet PLC Enquiry Test performs:

1) Ping the network 4 times for the PLC selected.

2) Four of the test read packets are sent to the selected PLC.

The test result will either be Pass or Fail. However, if the result of pinging the network shows an error, the test is stopped.

```
                Test Comm. Port

Ethernet     : PLC Enquiry Test
Selected PLC : H0-ECOM

Ping Test
 Data1:Reply from PLC:bytes=32 time=1ms TTL=128
 Data2:Request timed out
 Data3:Request timed out
 Data4:Request timed out

Protocol Test
 Data1:Test Fail.
 Data2:Test Fail.
 Data3:Test Fail.
 Data4:Test Fail.
                                    Cancel
```
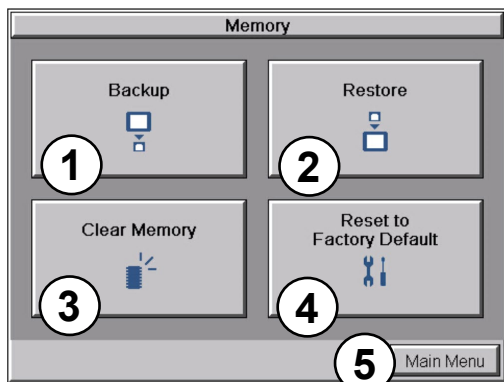
Test Menu – Test Beep/Sound

The internal Beeper can be tested from this system setup screen whether the Beeper is enabled or disabled. After the **Beep Test** button is pressed and released, the Beeper will sound for 500 msec.

Memory Menu

The user's project, Firmware and OS, log and recipes files can be backed up to or restored from an SD memory card or a USB memory device. From this menu the user can also clear the project log files. The user also has the ability to clear the memory within the *C-more* HMI.

Item No.	Function	Description	Comments
1	Backup	Backup project, Firmware and OS, log & recipe files to the following memory devices: USB port - Type A: USB pen drive SD Card Slot: SD card	Any USB 2.0 pen drive. SD formats SD and SDHC are supported. Capacity up to 32GB. The backup data files are created and copied to a folder on the memory device named "EA_Memory Copy." The project file is named StartupStorage.eas9 "Log" and "Recipe" folders with the appropriate data files are also created on the memory device.
2	Restore	Restore project, Firmware and OS, log & recipe files to the internal memory from one of the following memory devices: USB port - Type A: USB pen drive SD Card Slot: SD card	A folder on the memory device named "EA_Memory Copy" must exist containing a file named "StartupStorage.eas9". The project data file is stored in this file, and if the system data file was backed up, it also will be stored in this file. Any backed up log or recipe data files will be located under the appropriate "Log" or "Recipe" folders.
3	Clear Memory	Clear selected data files from the memory of the following internal memory or external memory devices: Built-in FLASH Memory USB port - Type A: USB pen drive SD Card Slot: SD card	Can only clear project, log and recipe data files of the Built-in FLASH memory. Can clear entire contents or individual data files of external memory devices.
4	Reset to Factory Default	The HMI's internal memory is set to the original factory defaults.	Clears all project memory.
5	Main Menu	Press to return to the **Main Menu** screen.	

NOTE: The Project is RESTORED to the panel from an external memory device. A project can be TRANSFERRED to an SD card or USB memory from the programming software to be RESTORED to a panel that is not connected to the programming software. This file has the .eas9 extension NOT the .eap9 extension of a projects SAVED from the software.

Project Executed from SD Card Slot 1

If the Project Storage/Boot Location is set to Auto or SD1 in the *C-more* software Panel Manager, and an SD memory card is located in the SD Card Slot 1 at the time a project is transferred to the panel, the project will be stored on the SD card and the Internal Project Memory will be cleared.

If Slot 1 contains an SD memory card with a project and the HMI's power is cycled, then the project file stored on the SD card is loaded into the HMI's internal memory and executed. Any project in the internal FLASH memory is cleared.

WARNING: During power up with an SD memory card plugged into an SD card slot, do not remove the memory card from the slot. Damage to the SD memory card and possibly the HMI may result.

WARNING: After a firmware update, the project files which are located in either the HMI's internal FLASH memory or an SD memory card plugged into an SD card slot are cleared. The programming software will need to be used to transfer the project file back into the panel. If you wish to retain the project on the SD memory card, power down the HMI and remove the SD card before performing a firmware upgrade.

Increasing Project Memory Size using an SD memory card:

If a project is transferred to the panel with an SD memory card in SD slot 1, the Font and Recipe data files are not included in the 82MB project size. Therefore using an SD memory card can allow a project to be loaded that is larger than 82MB if the excessive size is caused by Fonts and/or Recipe Sheets.

Memory – Backup
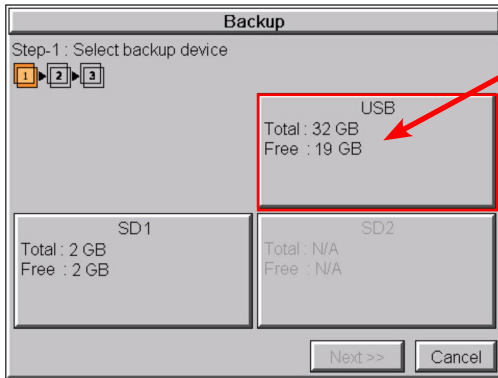
The Memory - Backup selection allows you to backup the panel's **Project**, **Log** files, **Recipe** files or even the **Firmware** files to either an SD memory card or **USB** pen drive. The available memory devices will be displayed with their total and free memory.

If the device is not available, it will be grayed out. The **Next** button is grayed out until a device is selected.

The **Cancel** button can be pressed at any time to return to the **Memory Menu** screen.
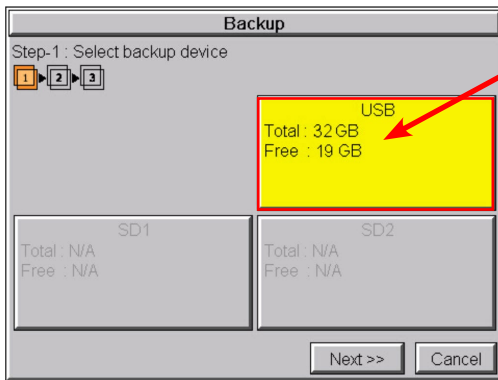
This is an example of selecting a USB memory device to write the backed up files to.

The selected device is highlighted. Pressing again deselects it.

Even if there is only one available memory device, it still needs to be highlighted in order to go to the next step.

Press the Next button to continue to Step 2.

Please read the explanation for the availability of SD1 under different conditions that follow:

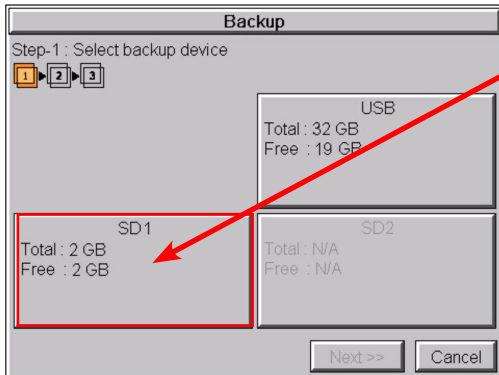## Memory – Backup (cont'd)

SD Card Slot1 Availability Explanation:
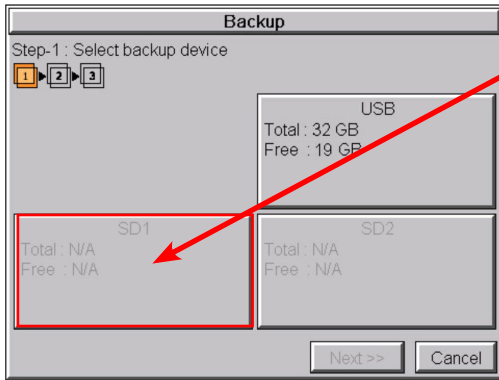
SD1 may be unavailable (grayed out) if there is no card in SD Slot 1 or the card in SD slot 1 has the project currently running on the panel stored on it.

The project will exist on SD1 if the SD card was installed in SD1 when the project was TRANSFERRED to the panel by the *C-more* programming software.

If the panel is powered up or rebooted with an SD card inserted into SD1 Slot, then the SD1 button's Total and Free memory will be displayed.

5

Memory – Backup (cont'd)

NOTE: The following definitions are for the various file types that can be backed up:

Project data – *consists of the actual developed project data that is created in the **C-more** programming software and includes all functionality, objects, screens, tag names, labels, comments, graphics, etc. Included in backup file name StartupStorage.eas9.*

Recipe data – *consists of all the data values and labels that have been created for the various recipe sheets. Includes all recipe sheets loaded to the panel. Only recipe sheets used in the project are loaded to the panel.*

Firmware – *consists of the operating system, firmware and run time files. Included in backup file name StartupStorage.eas9.*

Log data – *consists of the Alarm Log, Message Log and Trend Data Logging files.*

Select the data file(s) to be backed up by pressing the appropriate data file button. The selection will be highlighted.
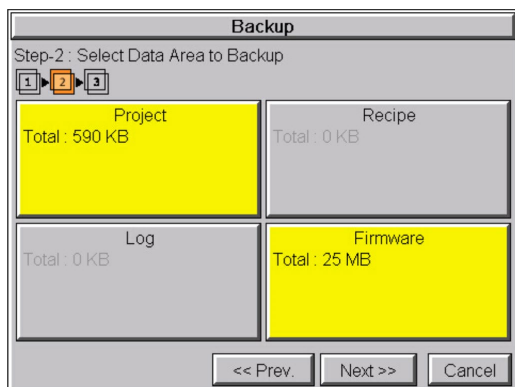
Pressing the highlighted data file button again will turn it off.

The Next >> button will stay grayed out until at least one data file is selected.

Any file type not available will be grayed out.

The Next >> button is now enabled.

Pressing Cancel will return to the previous menu.

Press the Next button to continue.

*NOTE: In the case of the **Project** and **Firmware** files, these can be **Restored** later to another panel.*
***Recipe** files can be edited externally from the panel and then **Restored** to the panel.*
*The **Log** files are for viewing purposes only.*
*See **Memory - Restore** later in this chapter for instructions on Restoring the Project, Firmware and/or Recipe files to a Panel.*
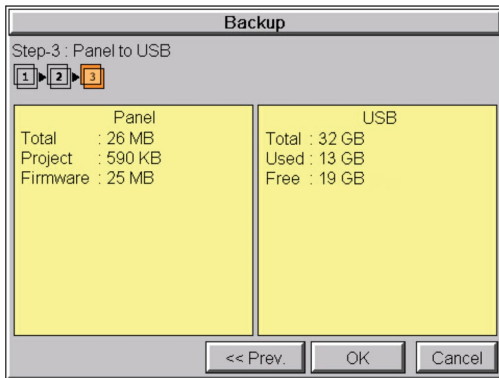
Memory – Backup (cont'd)

Backup Data Files Naming and Organization

The following graphic shows how the various data files are organized on the memory device when doing a **Backup** and also the file naming convention that is used when viewed in Windows® File Explorer on a PC.
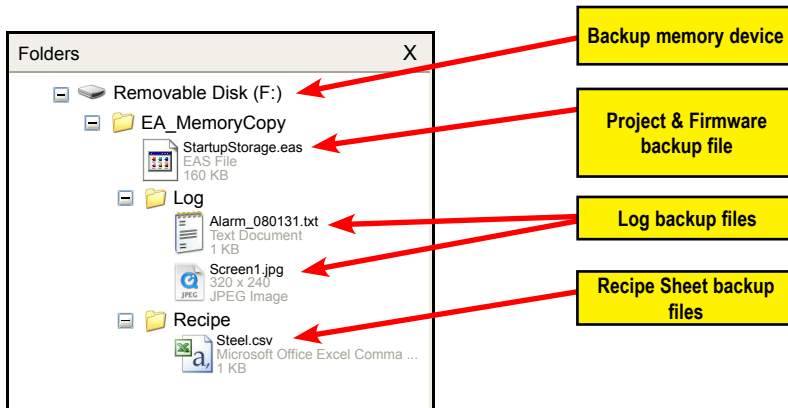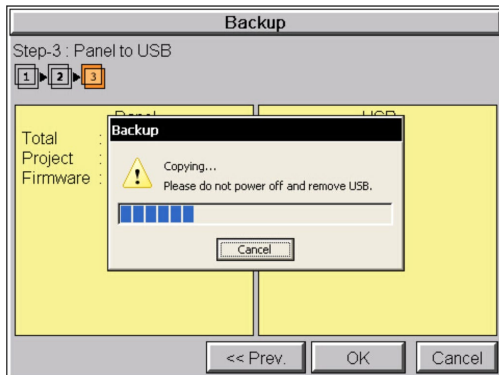
Memory – Backup (cont'd)

The next system setup screen allows the verification of the data file selections. When the OK button is pressed, the backup begins.

The user can return to the previous screen by pressing the << Prev button.

This message is displayed during the **Backup** copying process. Press the **Cancel** button to abort the backup.

The following text is shown in the copying progress message box:

Copy to USB Memory:
"Please do not Power Off and Remove USB"

Copy to SD1:
"Please do not Power Off and Remove SD"

WARNING: During the copying process do not power off the HMI or remove the memory device.
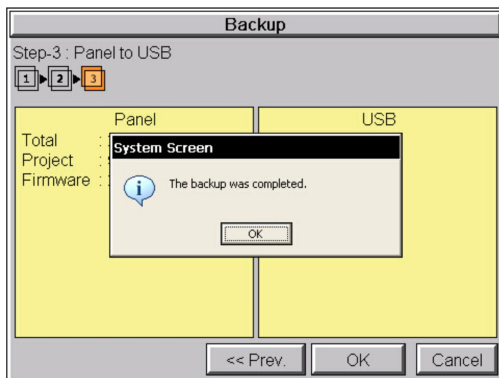
This message is displayed to indicate the **Backup** is complete. Press the **OK** button to return to the previous menu selection.

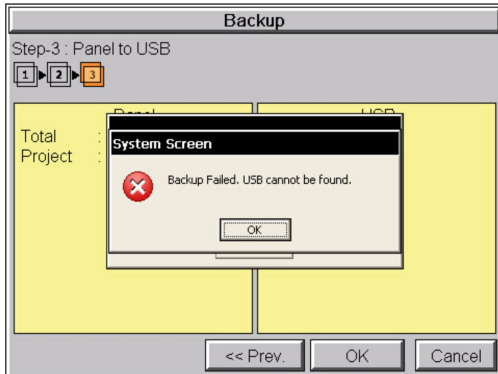### Memory – Backup (cont'd)
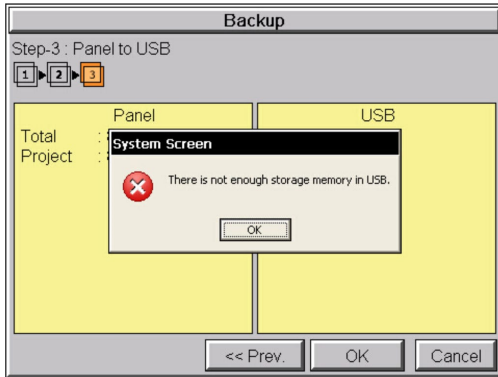
Warning Messages

If the destination does not have enough space to store the selected memory size, then the message shown here will be displayed. Press the **OK** button to clear the warning message.

The warning message will read "There is not enough storage memory in %Device%."

%Device% will show either "SD1" or "USB."
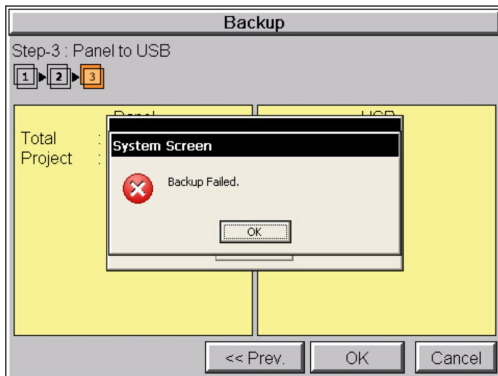

This warning message will be displayed if the backup Memory device fails or is removed during the backup. Press the OK button to clear the warning message.

The warning message will read "Backup Failed. "%Device% cannot be found."

%Device% will show either "SD1" or "USB."

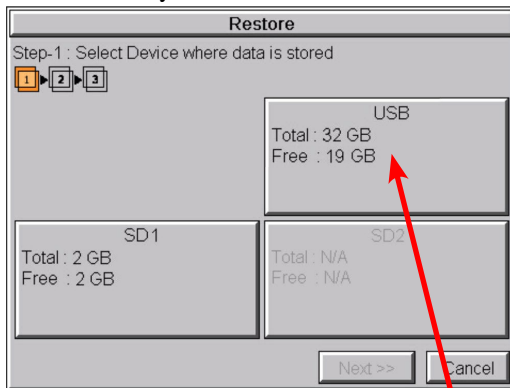Refer to **Chapter 8: Troubleshooting** for additional help.

For any other reason the backup fails, then this warning message will be displayed. Press the **OK** button to clear the warning message.

The warning message will read "Backup Failed."

Refer to **Chapter 8: Troubleshooting** for additional help.

Memory – Restore

The **Memory - Restore** function is used to:

1.) **Restore** a project previously backed up on an SD card or USB pen drive memory device to the same panel. See **Memory - Backup** previously in this chapter.

2.) Copy a project from one panel to another panel using a memory device to physically transport the data files.

3.) **Restore** a project into the panel that was transferred to an "External Memory Device" using the *C-more* Programming Software.

4.) **Restore Recipe Sheet(s)** previously backed up to a memory device or copied to the memory device using a PC.

The available memory devices will be displayed showing the total and free available memory for that device. If the device is not available, it will be grayed out. The **Next** button is grayed out until a device is selected.

The **Cancel** button can be pressed at any time to return to the **Memory Menu** screen.

This is an example of a USB memory device selected to be the source for restoring the data file(s).

The selected device is highlighted. Pressing again deselects it.

Even if there is only one available memory device, it needs to be highlighted in order to go to the next step.

Press the **Next** button to continue to Step 2.

*NOTE: If you have a memory device inserted into the proper port on the HMI, but it doesn't show up as highlighted in Step 1 of the **Backup** setup screen, then try a different device to determine if the memory device is defective or if there is a possible problem with the memory device connection. It may not be compatible with the panel. Some USB pen drives are not USB 2.0 compatible and will not work with **C-more** HMIs. Some USB pen drives may take several minutes before they are recognized by the panel.*
*SD cards must be formatted using the SD formatter provided by **SDcard.org***

Memory – Restore (cont'd)

Please read the explanation for the availability of SD1 under different conditions as shown on this page and the next.

SD1 Availability Explanation:
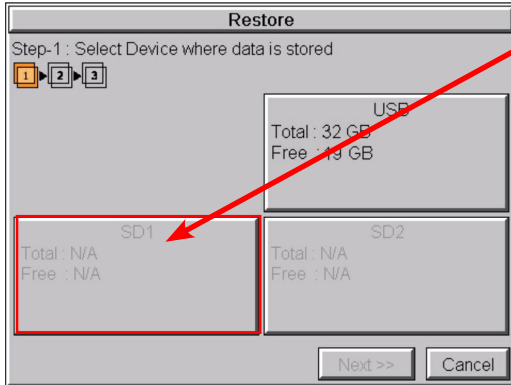
SD1 may be unavailable (grayed out) if there is no card in SD Slot 1 or the card in SD slot 1 has the project currently running on the panel stored on it.

The project will exist on SD1 if the SD card was installed in SD1 when the project was TRANSFERRED to the panel by the *C-more* programming software.
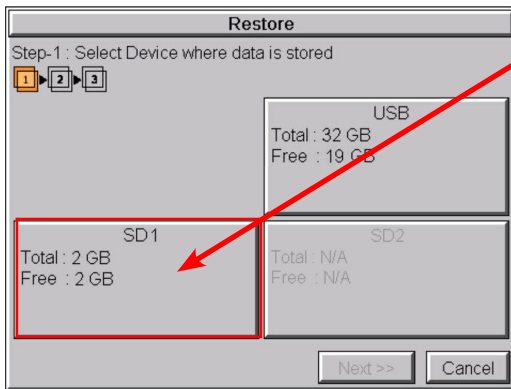
If the panel is powered up or rebooted with an SD card inserted into SD1 Slot, then the SD1 button's Total and Free memory will be displayed.

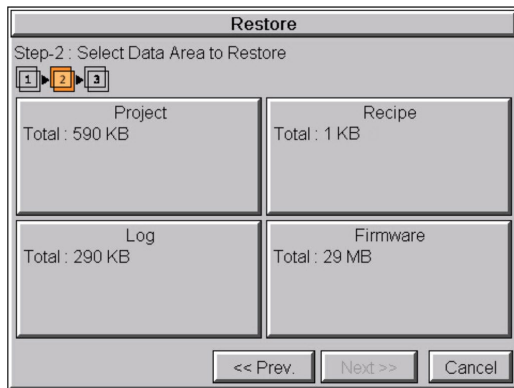*NOTE: The following definitions are for the various file types that can be restored:*

Project data – consists of the actual developed project data that is created in the **C-more** programming software and includes all functionality, objects, screens, tag names, labels, comments, graphics, etc. Included in backup file name StartupStorage.eas9.

Recipe data – consists of all the data values and labels that have been created for the various recipe sheets. Includes all recipe sheets loaded to the panel. Only recipe sheets used in the project are loaded to the panel.

Firmware – consists of the operating system, firmware and run time files. Included in backup file name StartupStorage.eas9.

Log data – consists of the Alarm Log, Message Log and Trend Data Logging files.

Memory – Restore (cont'd)

Select the data file(s) to be restored by pressing the appropriate data file button. The selection will be highlighted. The data file can be either the **Project, Firmware** and/or **Recipe files**. The selected data is restored to the internal built-in memory if there is no SD card inserted into the SD1 slot.

Pressing the highlighted data file again will turn it off.

The **Next >>** button will stay grayed out until at least one data file is selected.

Any file type not available will be grayed out.
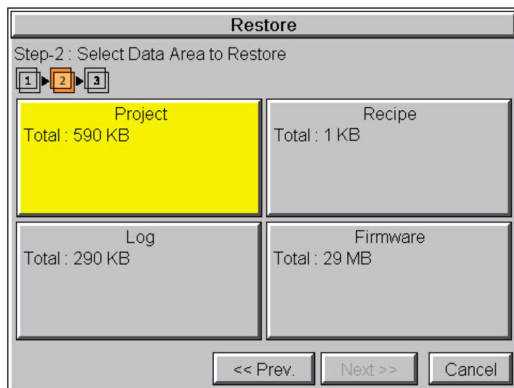
This is an example of a file selected to restore.

The selected file is highlighted.

The **Next >>** button is now enabled.

Pressing **Cancel** will return to the previous menu.

Press the **Next** button to continue.

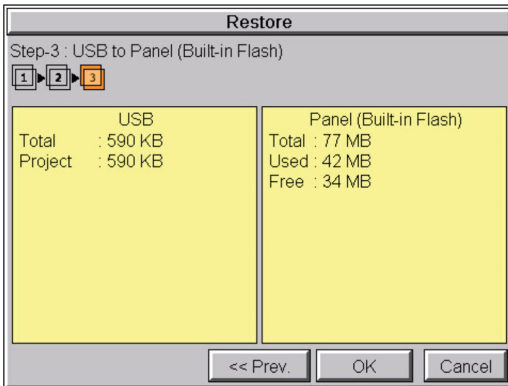*NOTE: The following definitions are for the various file types that can be restored:*

Project data – consists of the actual developed project data that is created in the C-more programming software and includes all functionality, objects, screens, tag names, labels, comments, graphics, etc. Included in backup file name StartupStorage.eas9.

Recipe data – consists of all the data values and labels that have been created for the various recipe sheets. Includes all recipe sheets loaded to the panel. Only recipe sheets used in the project are loaded to the panel.

Firmware – consists of the operating system, firmware and run time files. Included in backup file name StartupStorage.eas9.

Log data – consists of the Alarm Log, Message Log and Trend Data Logging files.


Memory – Restore (cont'd)

The data selected to restore is checked. If the data is good, then the **OK** button can be pressed to start the restore.

If there is a problem with the data, the **OK** button will remain grayed out and the user can return to the previous screen by pressing the **<< Prev** button.

The problem could be caused by a corrupted data file. See **Chapter 8: Troubleshooting** for additional help.
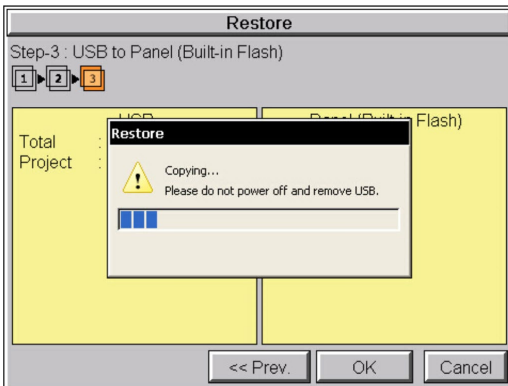
This message is displayed during the **Restore** process. Press the **Cancel** button to abort the backup.

The following text is shown in the copying progress message box:

Copy to USB Memory:
"Please do not Power Off and Remove USB"

Copy to SD1:
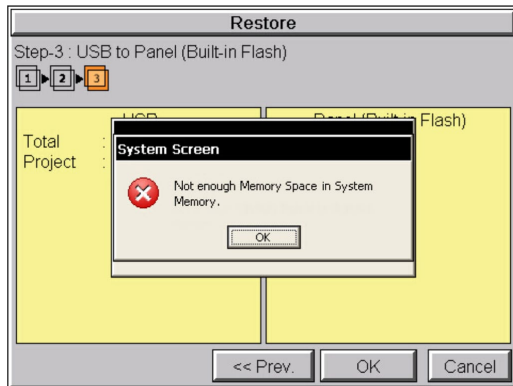"Please do not Power Off and Remove SD card"

> ⚠️ **WARNING: During the copying process. Do not power off the HMI or remove the memory device.**
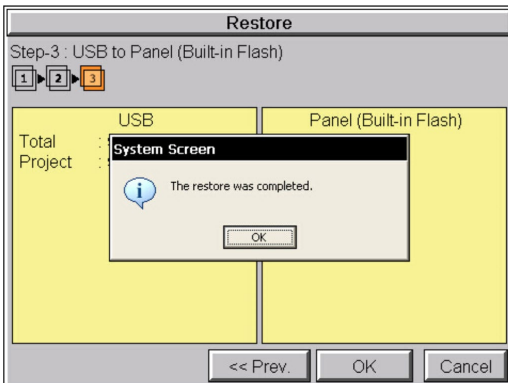
This message is displayed to indicate the **Restore** is complete. Press the **OK** button to return to the previous menu selection.
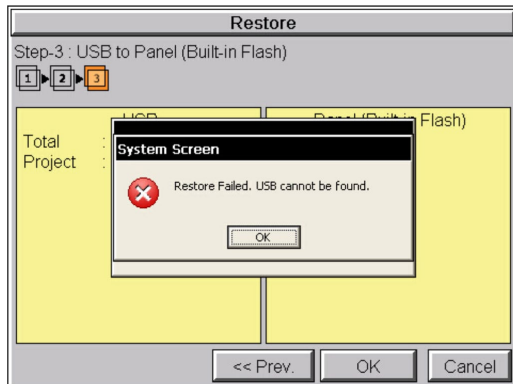
Memory – Restore (cont'd)

Warning Messages:

If the system memory does not have enough space to restore the selected memory size, then the message shown here will be displayed. Press the **OK** button to clear the warning message.

The warning message will read "Not enough Memory Space in System Memory."

The Project size must be less than 40 MB.

This warning message will be displayed if the restore Memory device fails or is removed during the backup. Press the **OK** button to clear the warning message.

The warning message will read "Restore Failed. "%Device% cannot be found."

%Device% will show show "SD1" or "USB."

Try using a different device with known good data in the same connector or using the device that is causing the error in a different connector.
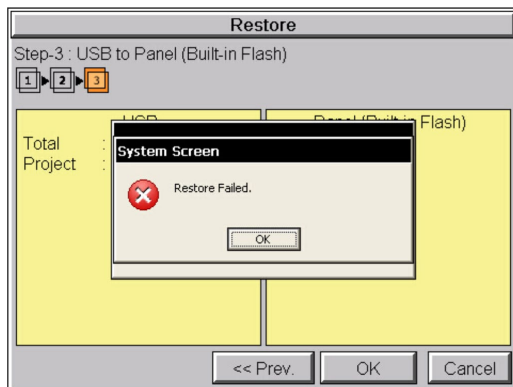
For any other reason the restore fails, then this warning message will be displayed. Press the **OK** button to clear the warning message.
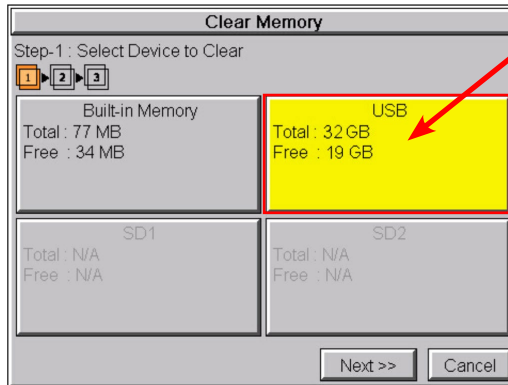
Memory – Clear Memory
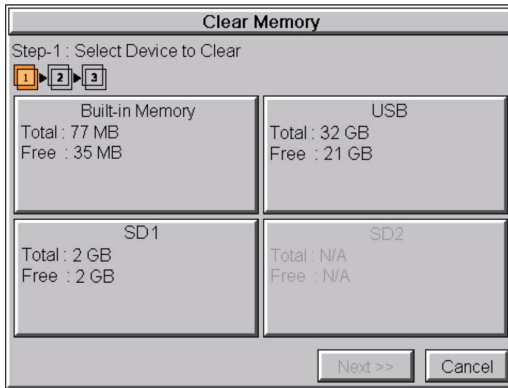
This function is used to clear individually selected data files, or all data files, within the panel's **Built-in Memory** or any installed memory device such as a USB pen drive or an SD card.

Select the memory device to clear. If the device is not available, it will be grayed out.

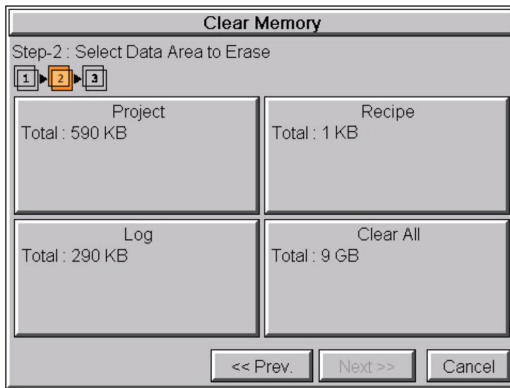The Next button is grayed out until a device is selected.

The selected device is highlighted. Pressing again deselects it.

When there are more than two available backup devices, the one selected will be highlighted. If another is selected, then the highlight will change to the last one pressed. Only one device can be selected at a time.

Press the **Next** button to continue.

Memory – Clear Memory (cont'd)

Clear Memory

Step-2 : Select Data Area to Erase

1 ▶ 2 ▶ 3

Project Total : 590 KB	Recipe Total : 1 KB
Log Total : 290 KB	Clear All Total : 9 GB

<< Prev.   Next >>   Cancel

Select the data file(s) to be cleared.

This is an example of an SD card or USB memory that was selected in **Clear Memory - Step-1**.

The selected file will be highlighted. Pressing again deselects it.

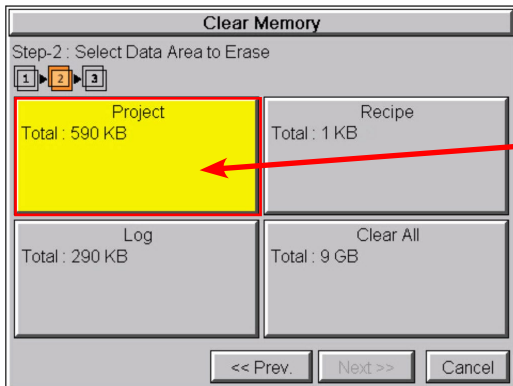The **Next >>** button will stay grayed out until file(s) are selected.

Selecting **Clear All** will erase all files located on the memory device.

This is an example of **USB Memory** that was selected in **Clear Memory - Step-1**.

Notice the ability to select either the **Project** file, **Log** files, **Recipe** files, or the **System** files.

NOTE: Firmware files cannot be cleared from internal memory.

Clear Memory

Step-2 : Select Data Area to Erase

1 ▶ 2 ▶ 3

Project Total : 590 KB	Recipe Total : 1 KB
Log Total : 290 KB	Clear All Total : 9 GB

<< Prev.   Next >>   Cancel

This is an example of the **Project** data file being selected for clearing.
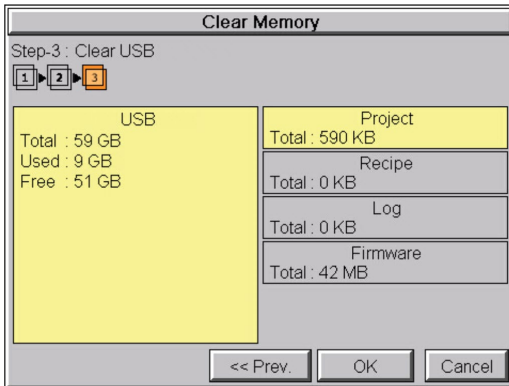
The selected memory area is highlighted. Pressing again deselects it.

The **Next >>** button is now enabled.

Pressing **Cancel** will deselect the file(s).

Press the **Next** button to continue.

Memory – Clear Memory (cont'd)

The data file(s)selected to clear are checked. If the data file is good, then the **OK** button can be pressed to start the clear procedure.

If there is a problem with the data file, the **OK** button will remain grayed out and the user can return to the previous screen by pressing the **<< Prev** button.

Press the **OK** button to continue.
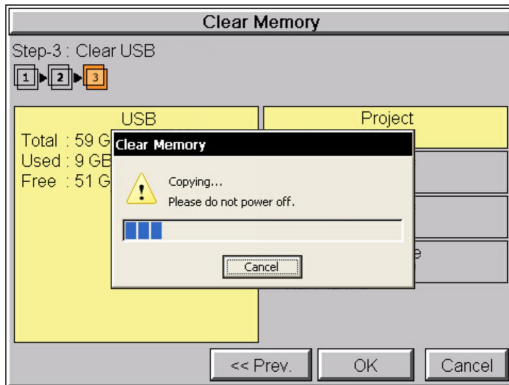
This message is displayed during the clearing process. Press the **Cancel** button to abort the clearing.

The following text is shown in the clearing progress message box:

Clearing Built-in Memory:
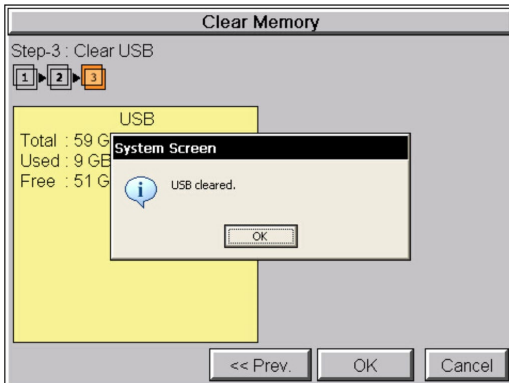"Please do not Power Off"

Clearing USB Memory:
"Please do not Power Off or Remove USB"

Clearing SD1
"Please do not Power Off or Remove SD"

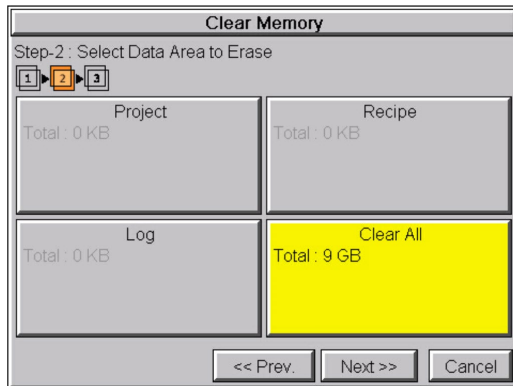⚠️ **WARNING: During the clearing process, do not power off the HMI or remove the memory device.**

The following message is displayed when the clearing process is complete:

"%Device% cleared"

%Device% will show either "SD1," "SD2," or "USB."

Press the **OK** button to return to the **Memory Menu** screen.

Memory – Clear Memory (cont'd)

The following is an example of **Clear All** selected for clearing.

The selected device is highlighted.
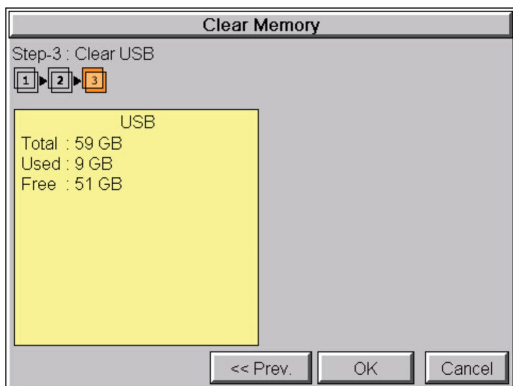
The **Next >>** button is now enabled.

Pressing **Cancel** will deselect the **Clear All**.

NOTE: If Clear All is selected, all files will be erased from the memory device, even those not related to the C-more HMI.

The data file(s)selected to clear are verified. If the data file is good, then the **OK** button can be pressed to start the clear procedure.

If there is a problem with the data file, the **OK** button will remain grayed out and the user can return to the previous screen by pressing the << Prev button.
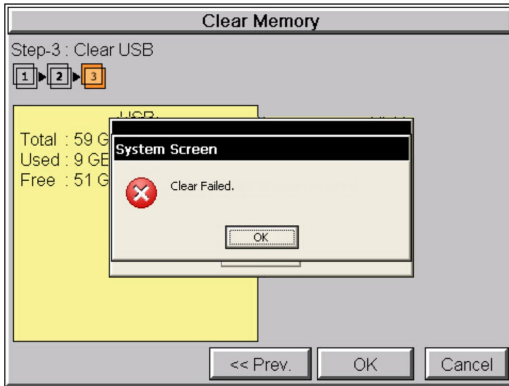
Press the **OK** button to continue.
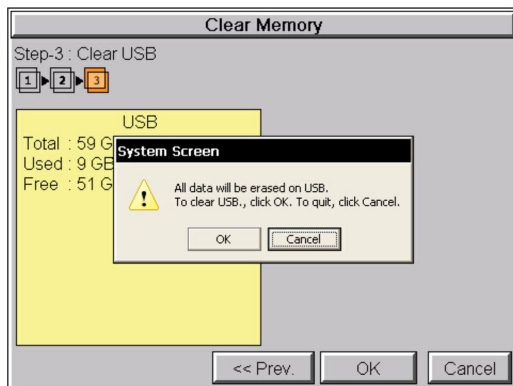
The warning message shown here will be displayed to give the user the opportunity to decide if they want to proceed or not.

Press the **OK** button to continue.

The **Clear All** process will start with a warning message as seen in the first example and continue until a message saying the device is cleared or a warning message as shown on the next page appears.
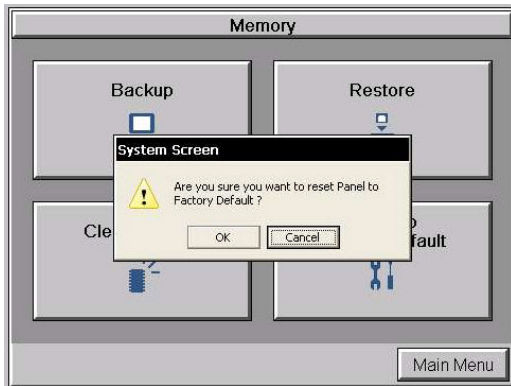
Memory – Clear Memory (cont'd)

The warning message shown here will be displayed if the clearing process fails.

"Clear Failed."

Press the **OK** button to return to the **Clear Memory** screen and try again.

If the selected memory still fails to clear, then refer to **Chapter 8: Troubleshooting** for additional help.

Memory – Reset to Factory Default

After pressing the **Reset to Factory Default** button from the **Memory Menu**, the message box shown will be displayed.

Resetting to the Factory Defaults produces the following actions:

    1.) The project file is cleared.

    2.) The log, recipe & WAV files are cleared.

    4.) The IP address is set to DHCP.

WARNING: As a precaution, it is recommended to create a backup file to an SD card or USB storage device using the Memory Backup function before resetting to factory defaults.
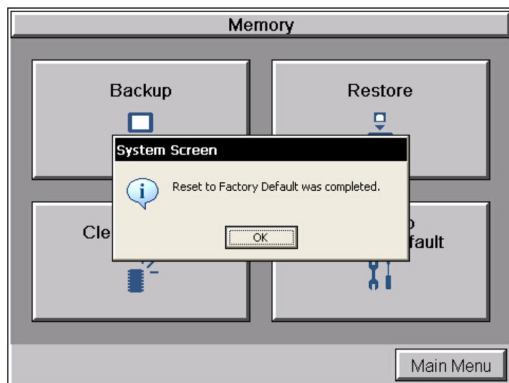
The message shown here is displayed once the **Factory Default** values have been stored into the system memory.

Press **OK** to continue.