

AUTOMATIONDIRECT.com

C-more[®] Operator Interface



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ftp.



USB



more Value for LESS!

Base Model



C-more 6in EA9-T6CL-R

C-more EA9 series touch screen HMI, 6in color TFT LCD, 320 x 240, QVGA, supports (1) serial and (2) USB ports and (1) memory card slot.



C-more 7in Widescreen EA9-T7CL-R

C-more EA9 series touch screen HMI, 7in color TFT LCD, widescreen, 800 x 480, WVGA, supports (1) serial, (1) Ethernet and (2) USB ports and (1) memory card slot.



C-more 15in EA9-T15CL-R

C-more EA9 series touch screen HMI, 15in color TFT LCD, 1024 x 768 pixels, XGA, LED backlight, supports (1) serial, (1) Ethernet and (2) USB ports, (2) memory card slots.



C-more 6in EA9-T6CL

C-more EA9 series touch screen HMI, 6in color TFT LCD, 320 x 240, QVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (1) memory card slot and (1) audio line out



C-more 7in Widescreen EA9-T7CL

C-more EA9 series touch screen HMI, 7in color TFT LCD, widescreen, 800 x 480, WVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (1) memory card slot and (1) audio line out.



C-more 8in EA9-T8CL

C-more EA9 series touch screen HMI, 8in color TFT LCD, 800 x 600, SVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (1) memory card slot and (1) audio line out.

More Full Feature Models



C-more 10in EA9-T10CL

C-more EA9 series touch screen HMI, 10in color TFT LCD, 800 x 600, SVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (1) memory card slot and (1) audio line out.



C-more 10in Widescreen EA9-T10WCL

C-more EA9 series touch screen HMI, 10in color TFT LCD, wide-screen, 1024 x 600, WSVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (1) memory card slot and (1) audio line out.

Enhanced Feature Models



C-more 12in EA9-T12CL

C-more EA9 series touch screen HMI, 12in color TFT LCD, 800 x 600, SVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (2) memory card slots, (1) HDMI video out and (1) audio line out.



C-more 15in EA9-T15CL

C-more EA9 series touch screen HMI, 15in color TFT LCD, 1024 x 768, XGA, supports (3) serial, (1) Ethernet and (2) USB ports, (2) memory card slots, (1) HDMI video out and (1) audio line out.

All Models Compatible with EA9-PGMSW programming software version 5.0 or later.

See technical specifications for available features in each model

C-more Quick Look

Hardware Selection

Part Number	Ethernet	SD Card Slot	Serial Ports	HDMI Video Output	Audio Output	USB Ports
EA9-T6CL-R		1 Slot	1 Port			USB 2.0 Type A and B
EA9-T7CL-R	Yes	1 Slot	1 Port			
EA9-T6CL	Yes	1 Slot	3 Ports		Yes	
EA9-T7CL	Yes	1 Slot	3 Ports		Yes	
EA9-T8CL	Yes	1 Slot	3 Ports		Yes	
EA9-T10CL	Yes	1 Slot	3 Ports		Yes	
EA9-T10WCL	Yes	1 Slot	3 Ports		Yes	
EA9-T12CL	Yes	2 Slots	3 Ports	Yes	Yes	
EA9-T15CL	Yes	2 Slots	3 Ports	Yes	Yes	
EA9-T15CL-R	Yes	2 Slots	1 Port			

Hardware Features

- 64K colors and LED backlights
- 800MHz CPU
- 26MB to 82MB project memory depending on model
- 12 to 24 VDC powered (Optional AC module available)
- Built in Real-time Clock with 30 day backup (No Battery required)
- NEMA 4/4X IP65
- USB 2.0 Type A for USB HID compliant devices / Storage memory devices
- USB 2.0 Type B port for Programming

Software Features

- Over 50 objects including 16 pen trends, switches, PID trend faceplate, PID bar graph
- Event Manager allows for Logging and Notifications
- Language support for objects in German, French, Italian, Spanish, Chinese and Japanese Characters
- Project simulator
- Bitmap animation
- E-mail messaging
- Built-in FTP server / Web server
- Pop-up windows
- Data logging to USB/SD Flash Drive
- USB 2.0 Type B port for Programming
- Historical alarms with time and date stamp along with alarm frequency reporting
- Supports simultaneous communication to multiple brands of PLC/PACs
- Mouse and Keyboard support within the Project
- Remote HMI feature with smart phone / tablet / PC
- 2 year Warranty and a 30-Day Money Back Policy

Please refer to the catalog technical section for details.

Support Features

- Free Top Rated Technical Phone Support
- 2 year Warranty and a 30-Day Money Back Policy

Please refer to the catalog technical section for details.

Supported drivers

AutomationDirect PLCs

Do-more PLCs

K-Sequence (*Direct*LOGIC PLCs)

DirectNET (*Direct*LOGIC PLCs)

Modbus (Productivity Series controllers, *Direct*LOGIC PLCs, CLICK PLCs)

ECOM Ethernet (*Direct*LOGIC PLCs)

Think & Do (Modbus RTU and Modbus TCP/IP)

GS Drives

SOLO Temperature Controllers

Modbus RTU

Modbus TCP/IP

Allen-Bradley

A-B DF1

A-B DH485

A-B EtherNet/IP Client

A-B Ethernet/IP Server Generic IO Messaging

GE

90/30, 90/70, Micro 90, VersaMax Micro (SNPX)

90/30, Rx3i (SRTP Ethernet)

Omron

Omron Host Link Adapter

Omron FINS (Serial and Ethernet)

Mitsubishi

FX Series CPU

FX-1N(C), 2N(C), 3U(C) CPU

Q Series (QO2, QO2H, Q06H, Q12H, Q25H CPU)

Q/QnA (Serial and Ethernet)

Siemens

S7-200 (Serial: PPI)

S7-200 (Ethernet: ISO over TCP/IP)

S7-300 (Ethernet: ISO over TCP/IP)

S7-400 (Ethernet: ISO over TCP/IP)

S7-1200 (Ethernet: ISO over TCP/IP)

Please refer to the Compatibility Table in the following technical section for detailed information about which protocols are available for use with specific controllers.

C-more Operator Touch Panels

Starting at just \$199, C-more is designed to give you one of the best costs of ownership, considering initial price, features, ease of use, reliability and free award winning technical support.

We continue to improve hardware and software features. Perhaps this is why more and more people find that C-more has what it takes to meet most of their HMI application needs. But don't take our word for it, see for yourself. Visit our Web site (www.automationdirect.com) and read all of the reviews that current C-more customers have submitted.

"I have used the C-More touch panels for years. They are reliable and fairly "bullet proof". I have utilized 6", 8", 10", 12" and 15" to control cell doors and escape detection systems in a maximum security prison, along with the Direct Logic Koyo PLC line and DirectSoft Programming software, with great success. Also you cannot beat the quick shipping, fair pricing and top-notch tech support of all Automation Direct products."
Rick - CONCORD, NH

Customer Reviews

Averages for C-more Touch Panels (all sizes)

Overall Score (4.6)
(129 reviews)

Quality: 4.8 4.8 4.8 4.8 4.8

Ease of Use: 4.8 4.8 4.8 4.8 4.8

Value: 4.8 4.8 4.8 4.8 4.8

"I This thing is amazing. I started out wanting a screen that was all I hoped for to control a pump application. After I got the unit and the C more software I realized that there was an apple store App. Within 15 minutes of plugging it in and without ever cracking the manual open, I had a switch and an indicator on the screen, my phone, and my web browser and each was able to control my application. Clearly I will need to spend some more time to make it pretty but speed to solution? Amazing!!!!!"
Stewart -VALPARAISO, IN

"After using AB PanelViews for several years I started using the 15" EA9. What a great product. Programming is easy, the extra screen space I put to good use and was able to get more pertinent information that will help both the operators and maintenance personnel. This is also 1/3 of the price."
Bobby -COLUMBUS, IN

"Have had to use and understand many different HMI's over the years and the C-more series is by far the most user friendly that I have found. It works naturally well with other AutomationDirect products, but in addition works equally well with other makers' devices."
Bob - FENTON, MI



GET more with C-more®

Easy to configure, install and maintain



Made by Koyo

Koyo Electronics, our parent company, is part of the multibillion dollar JTEKT group of companies that primarily provides components to automotive manufacturers such as Toyota. With this type of engineering and manufacturing background, we knew Koyo could create a product that would offer the best combination of reliability, ease of use, features and price.

Backed with a 2-year warranty

For over 50 years, Koyo has been a world class manufacturer of reliable and best valued products. **C-more** was designed with quality in mind and engineered by Koyo to meet the most stringent quality requirements. Therefore, Koyo is confident to offer a 2-year limited warranty on all **C-more** panels.

Hundreds of powerful features

We maximized every feature, small and large, to make sure you have a great experience with your touch panel.

- **Proven Reliability**
- **Predefined Objects**
- **Enhanced Productivity Tools**
- **Increased Device Connectivity**
- **Remote Access and Control** from any web browser, or with the new mobile apps*

C-more has better value all around!

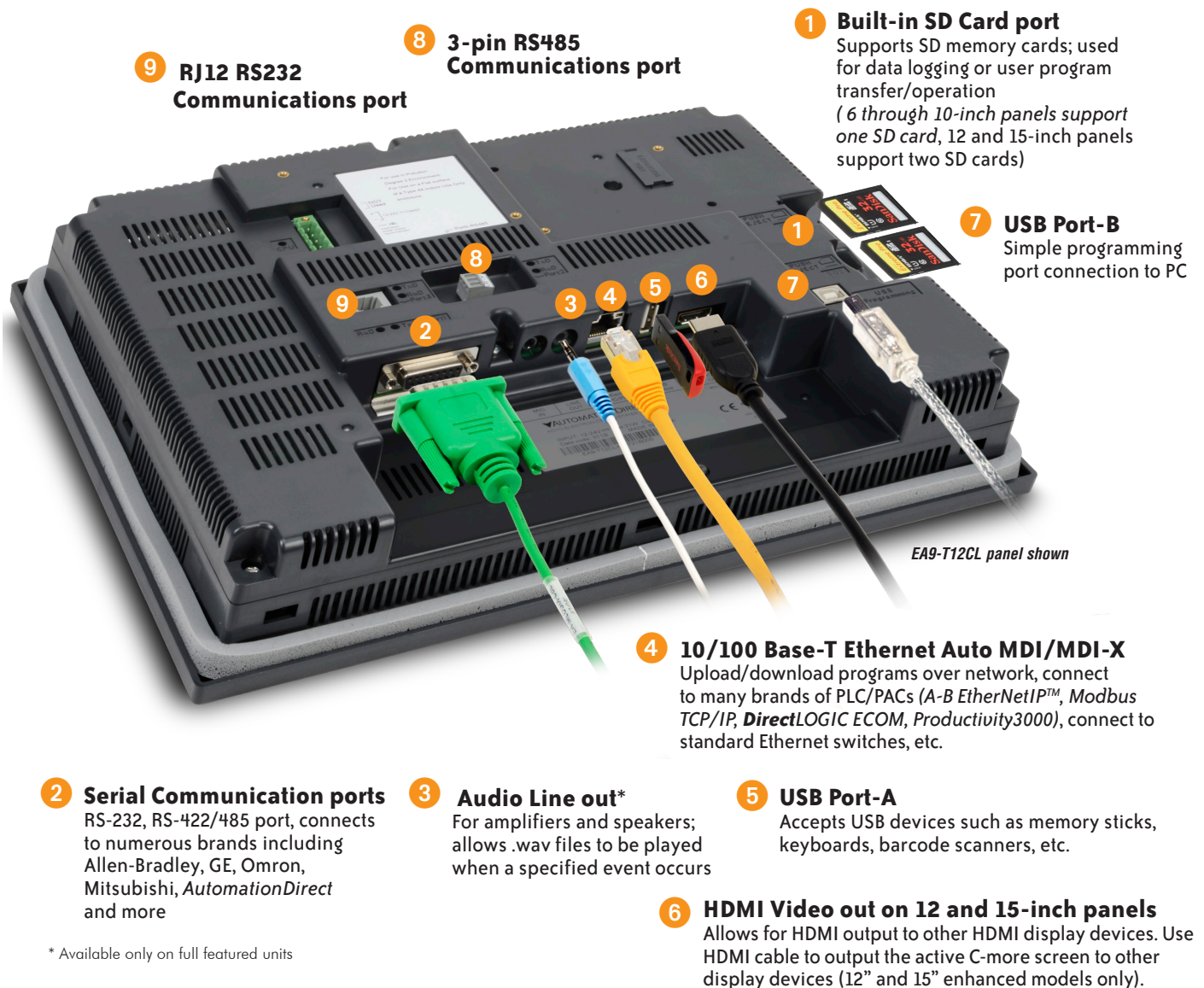
*This refers to C-more panels only. C-more Micro HMI panels do not have remote access capability.

more Connectivity...

Communicate any way you want

C-more was designed to offer the widest range of connectivity options of any PLC touch panel in its class.

Part Number	Ethernet	SD Card Slot	Serial Ports	HDMI Video Output	Audio Output	USB Ports
EA9-T6CL-R		1 Slot	1 Port			USB 2.0 Type A and B
EA9-T7CL-R	Yes	1 Slot	1 Port			
EA9-T6CL	Yes	1 Slot	3 Ports		Yes	
EA9-T7CL	Yes	1 Slot	3 Ports		Yes	
EA9-T8CL	Yes	1 Slot	3 Ports		Yes	
EA9-T10WCL	Yes	1 Slot	3 Ports		Yes	
EA9-T10CL	Yes	1 Slot	3 Ports		Yes	
EA9-T12CL	Yes	2 Slots	3 Ports	Yes	Yes	
EA9-T15CL	Yes	2 Slots	3 Ports	Yes	Yes	
EA9-T15CL-R	Yes	2 Slots	1 Port			



* Available only on full featured units

more — Reliability...

Smart power supply options allow for improved reliability

C-more can operate with 12 or 24 VDC power supply. This is great for applications that have good clean 12 or 24 VDC power. However, there are many situations where the DC power in a cabinet does not meet required specifications for instrumentation.

C-more offers an optional 100-240 VAC screw-on power adapter (EA-AC) that improves panel reliability. Since it is built specifically for **C-more**, it offers power fault detection

with sequential shut-down, and will set an error flag that can be configured with a time and date stamp to help troubleshoot a problem.

The power fault detection will attempt to “close” data logging files on SD memory cards to prevent file corruption. If data logging is critical to your applications, the EA-AC power adapter is a must.

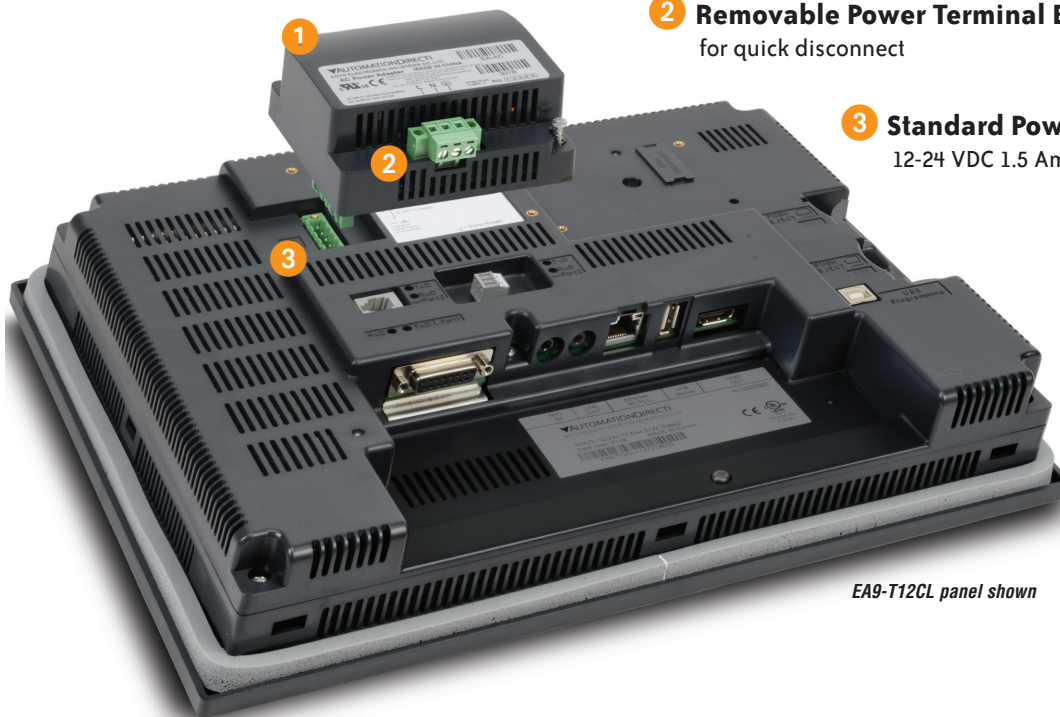
Power Fault Detection Sequential Shut-down Error Flag you can log

1 Optional 110 VAC to 24 VDC Power Supply

- Improves panel reliability
- Power fault protection with sequential shut-down
- Sets error flag; can configure tag with time and date stamp

2 Removable Power Terminal Block for quick disconnect

3 Standard Power Connection 12-24 VDC 1.5 Amp supply required



EA9-T12CL panel shown

more — PLC Compatibility...

Tag-based Messaging

C-more software supports direct insertion of ControlLogix, CompactLogix and FlexLogix tags from the PLC into C-more - no mapping or translations required.

Allen-Bradley® PLC Driver Support:

- ControlLogix®
- CompactLogix®
- FlexLogix
- SLC® 5/05 Ethernet™
- MicroLogix™ 1100/1400 Ethernet



including:

- A-B DF1
- A-B DH485
- A-B EtherNet/IP Client
- A-B Ethernet/IP Server Generic IO Messaging

See complete Driver list on page CR-25

Get A-B Ethernet connectivity and 64K colors starting at

p/n EA9-T6CL: supports serial and Ethernet-based drivers



Fast and Simple Driver Setup

We have many protocols for the Allen-Bradley PLC brand. The A-B Ethernet drivers allow the simple connectivity of multiple panels and/or multiple Allen-Bradley PLCs. We also have ControlLogix EtherNet/IP Tag Messaging support. This feature helps increase productivity by reducing the time often required

to map your PLC tag database into another device. You can import the RSLogix 5000 L5K file directly, or with just a few clicks of the mouse you can directly enter your ControlLogix/ CompactLogix tags from the PLC into **C-more**. No mapping or translation required!

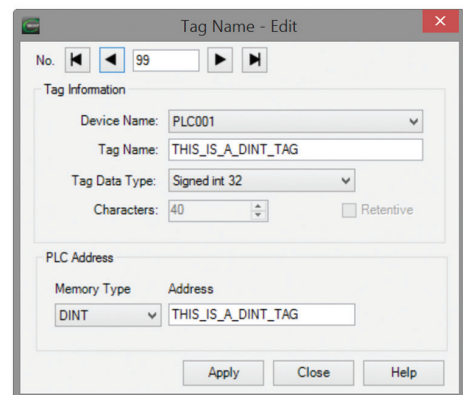
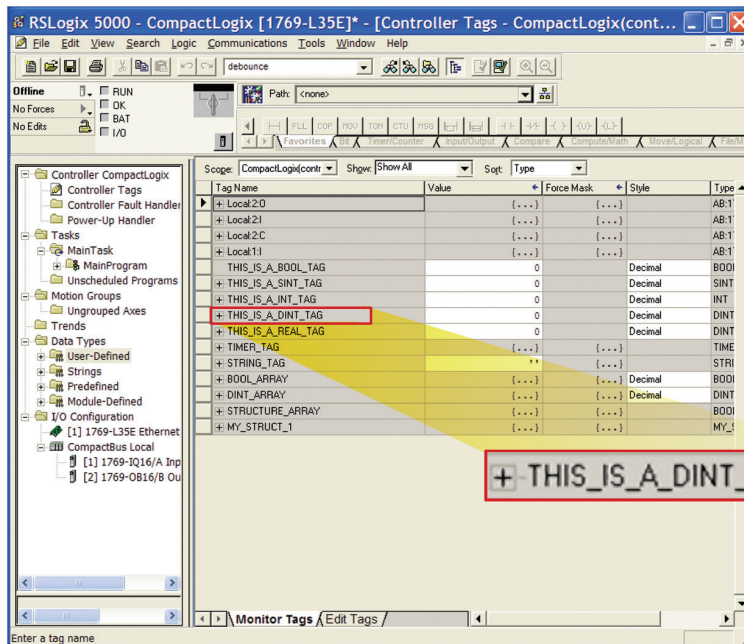
C-more Allen-Bradley Controller Support	DF1 Full Duplex	DF1 Half Duplex	DH485	Generic EtherNet/IP Server (IO Messaging)	EtherNet/IP Client	EtherNet/IP Tag-Based Client	Tag-Based DF1 Full Duplex	Tag-Based DF1 Half Duplex
SLC 5/01, 5/02			Yes					
SLC 5/03	Yes	Yes	Yes		Yes ^{xxx}			
SLC 5/04	Yes	Yes	**Yes		Yes ^{xxx}			
SLC 5/05 (Series A 05501 FRN5 & Higher)	Yes	Yes	**Yes		Yes			
MicroLogix 1000, 1200, 1500	Yes	Yes	**Yes		Yes ^{xxx}			
MicroLogix 1100/1400	Yes	Yes	**Yes		Yes			
Micro 800						Yes		Yes
PLC5	Yes							
ControlLogix				Yes		Yes	Yes	Yes
CompactLogix				Yes		Yes	Yes	Yes
FlexLogix				Yes		Yes	Yes	Yes

^{**}AIC module from Allen-Bradley required for this connection

^{xxx}NET - ENI module from Allen-Bradley required for this connection

ControlLogix EtherNet/IP Tag-based Messaging

Configure ControlLogix, CompactLogix and FlexLogix tags from the PLC into **C-more** (no mapping or translations required).



2. Type in the PLC tag names directly. You can use the PLC tag names as your **C-more** tag names or choose a different **C-more** tag name when appropriate.

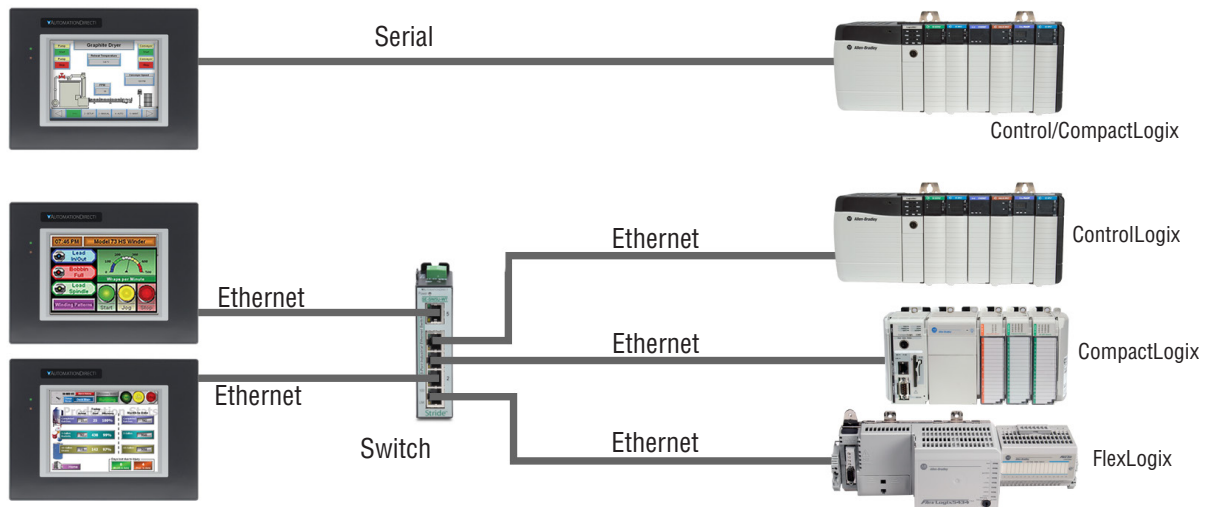
You can configure ControlLogix, CompactLogix and Flexlogic tags in the **C-more** Programming software through two different methods:

1. Import the tags from RSLogix 5000 (.L5K file).

ControlLogix, CompactLogix and FlexLogix

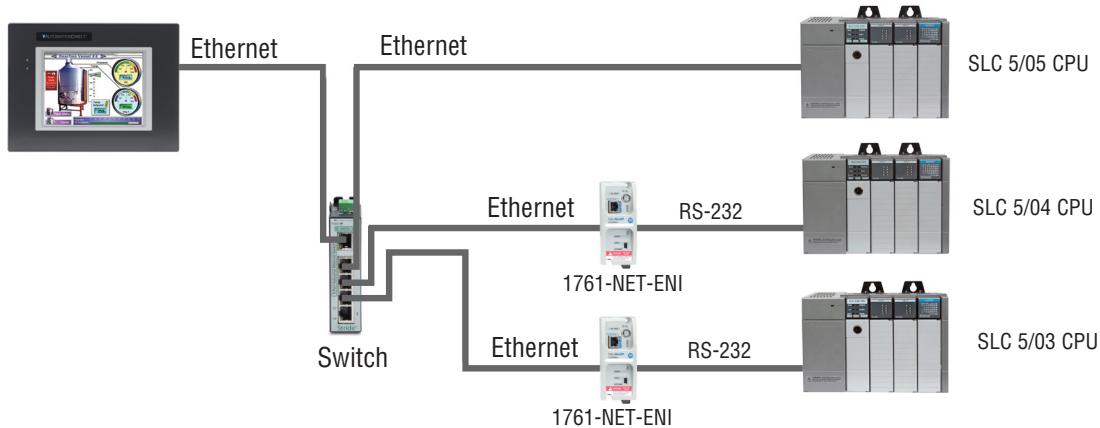
Connect to ControlLogix, CompactLogix and FlexLogix PLCs using either the native serial port or Ethernet port/module. Use direct tag-based messaging or directly enter the

ControlLogix/CompactLogix PLC tags during **C-more** configuration (no mapping or translations required). You can connect multiple **C-more** panels to multiple PLC types on one network.



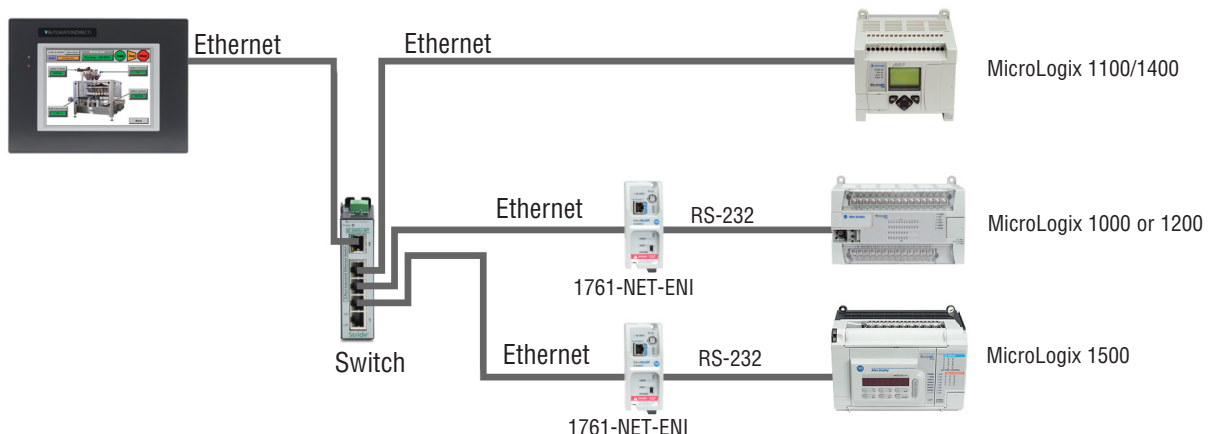
SLC 500 Ethernet and ENI Driver

Connect to the native Ethernet port on SLC 5/05, and to SLC 5/03 and SLC 5/04 through a 1761-NET-ENI DFI serial-to-Ethernet converter.



MicroLogix 1100/1400 Ethernet and ENI Driver

Connect to the native Ethernet port on MicroLogix 1100/1400, and to MicroLogix 1000, 1200 and 1500 through a 1761-NET-ENI DFI serial-to-Ethernet converter.

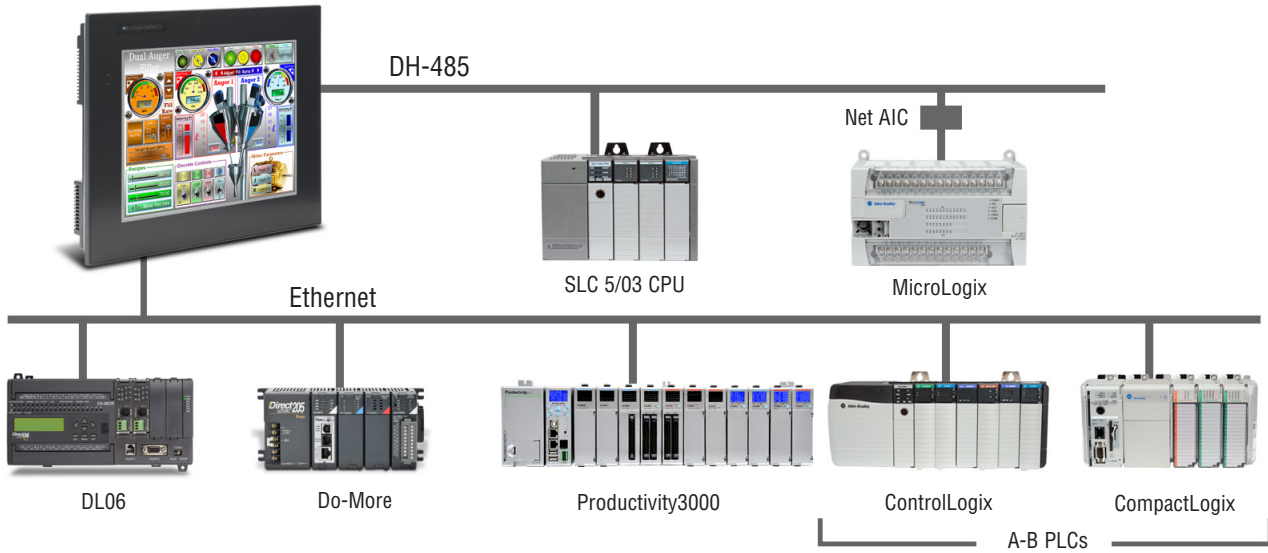


Simultaneous Communications and Panel Pass-through

Connect multiple brands of PLC/PACs

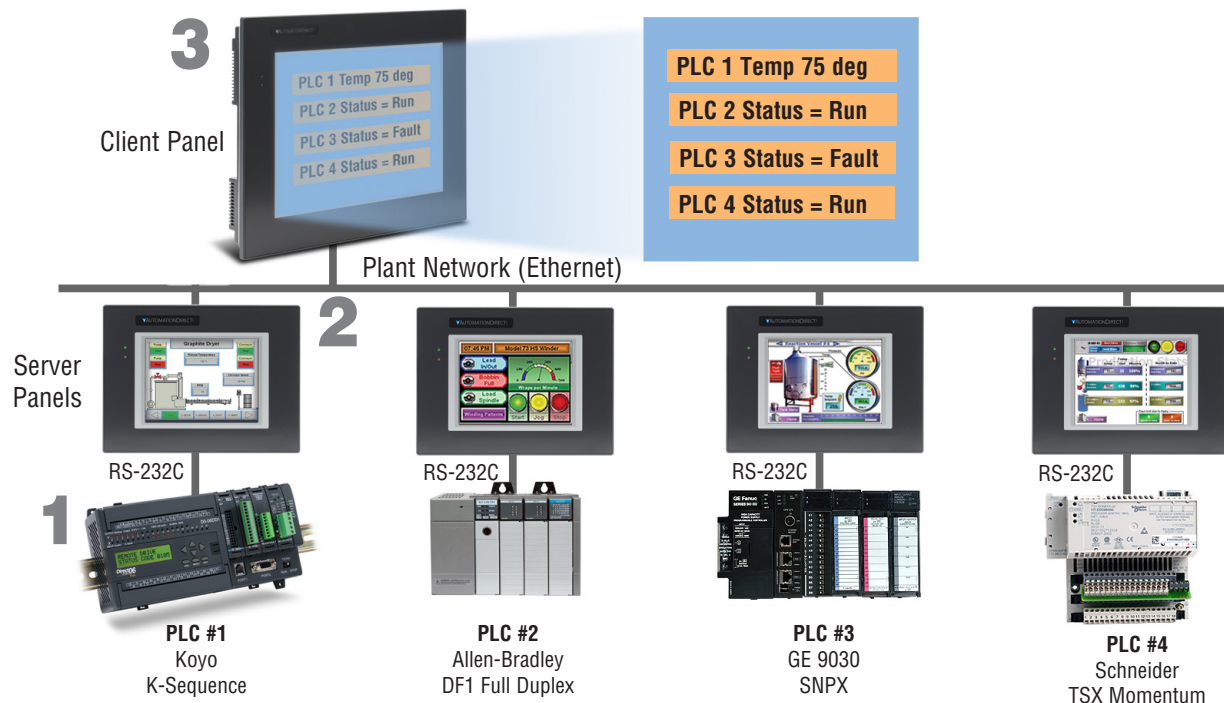
Connect multiple brands of PLC/PACs to **C-more** and communicate with them simultaneously. Use the Event Manager to periodically send tag values from one controller to another or when certain conditions are met.

C-more can even act as a “protocol bridge”, passing values back and forth between PLC/PACs that use different protocols.



Panel pass-through

C-more panels can access data from supported controllers attached to other **C-more** panels via an Ethernet connection.



1 Each PLC is operating a separate application and is connected to a **C-more** panel through a Serial Connection.

2 Each **C-more** is configured as usual. When the client panel is configured, the server panels will pass through data from the PLCs to the client.

3 The **C-more** client panel is configured to display the data collected from each PLC connected through a **C-more** server panel.

more Programming Power...

Powerful configuration software with legendary ease of use

C-more's mission is to make you feel like a touch panel configuration expert. So we put in many tools to make your job go faster and more efficiently. Even simple things, such as object configuration boxes, have improved. We think you'll be able to do more with C-more in even less time!

Save your screens in the Screen Library to use with other projects

Build your own keypads to use with numeric and text entry

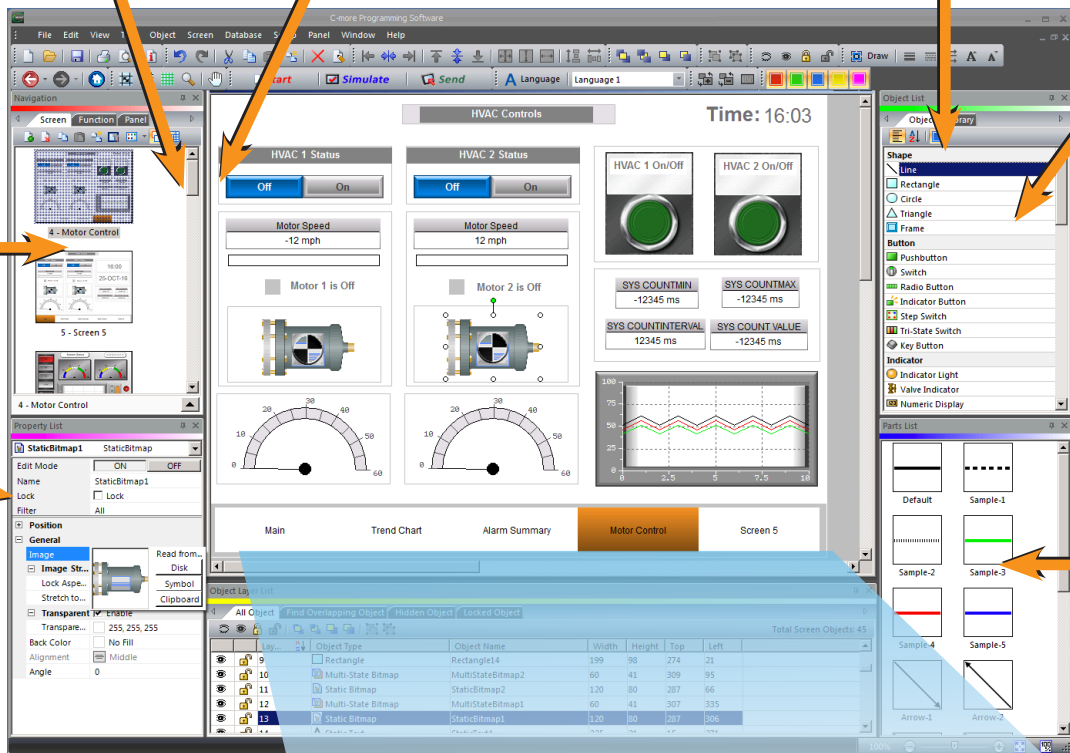
Click on the Library tab to view libraries of personally stored objects, screens, sound bites, etc. This saves hours of work!

Thumbnail project preview window helps you organize multiscreen projects. And you can rearrange the screens with a drag & drop of your mouse

Property List, show and modify images

Scrolling object selection window lets you find the object you want fast. Just drag and drop it on the screen.

Scrolling parts list shows variations of the objects selected above. Just drag and drop on the screen.



Lock/Unlock Object- This editing tool disables edits to objects that are locked. Once Locked, the object will remain locked and saved within the software. Reduces edit mistakes to objects when multiple users may be accessing or editing a project.



Hide/Unhide Object feature- This editing tool allows hiding objects that may interfere with editing other objects on the screen, such as Pop-up window objects.



Object Layer List Window shows all the objects on the active screen. Quickly select an object from the list to edit or highlight the Object.

The screenshot shows the 'Object Layer List' window with a table of objects on the active screen. The table has columns for Layer, Object Type, Object Name, Width, Height, Top, and Left. The total number of screen objects is 9.

Layer	Object Type	Object Name	Width	Height	Top	Left
1	BarMeter	BarMeter1	140	120	370	20
2	DigitalClock	DigitalClock1	290	40	10	490
3	Group	Group1	140	300	60	20
3-1	NumericDisplay	NumericDisplay1	120	50	290	30
3-2	PushButton	Pushbutton3	120	50	220	30
3-3	PushButton	Pushbutton2	120	50	150	30
3-4	PushButton	Pushbutton1	120	50	80	30
3-5	Frame	Frame1	140	300	60	20
4	ScreenSelector	ScreenSelector1	780	80	510	10
5	Slider	Slider1	570	90	250	190
6	LineTrendGraph	LineTrendGraph1	560	120	370	200

Grouping Control: expand or collapse Grouped objects. Access individual objects in a group without having to separate the group or move objects on the screen.

Hardware manuals and help files are a few clicks away. Need more? Follow the links to C-more's online library of objects and sound bites, or visit C-more's online forum.

Powerful Database Tools

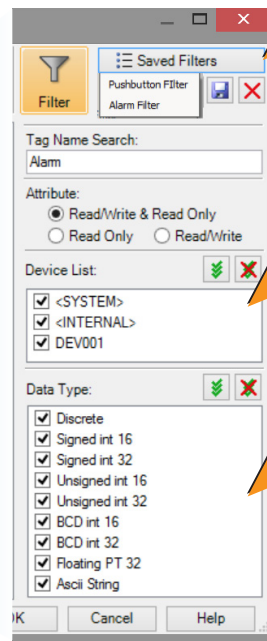
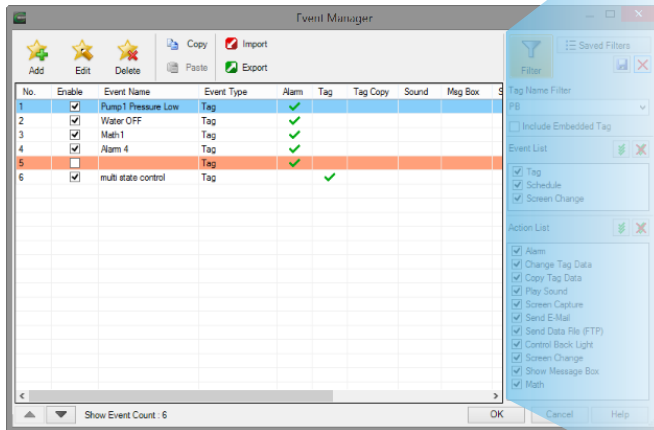
Customize your searches

Easily edit **C-more**'s databases with the latest software tools. Create, import, export and search for tags and other datatypes

with a click of a button. Powerful search filters allow for custom search terms based on various options.

- Tagname Database
- Message Database

- Event Manager Database
- Address Book



Customize and save your own search terms for those most used items.

Device type filters allow you to reduce the view to just the device tags you want to find or edit.

Data type filters allow you to reduce the view to just the specific tag data types you want to find or edit.

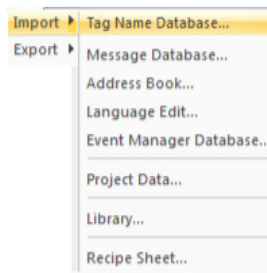
Database Import & Export saves you time

The Import and Export tools allow you to quickly exchange database files between C-more projects, or PLC tagname files. With just a few clicks of the mouse, you can create a .csv or

xls file. This greatly reduces the time needed to create a new database, especially when there are hundreds, or thousands of data points to work with.

Import or Export

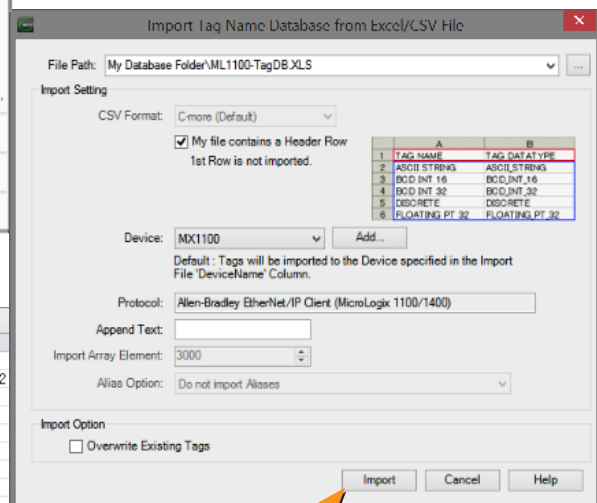
- Tagnames
- Messages
- E-mail Addresses
- Languages
- Events
- Project File
- Screen Library
- Graphics Library
- Object Library
- Sound Library
- Recipe Sheets



Importing PLC tags is easy

With supported PLC databases, simply export the PLC tagnames and use the C-more import tool to select the .csv or xls file.

ProtocolID	DeviceName	TagName	DataType
1	409 MX1100	AXIS_0_POSITION	Floating_PT_32
2	409 MX1101	CONSOLE_PB_LAMP	Discrete
3	409 MX1102	COUNTERS[0].ACC	Signed_int_32
4	409 MX1103	COUNTERS[0].CD	Discrete
5	409 MX1104	COUNTERS[0].CU	Discrete
6	409 MX1105	COUNTERS[0].DN	Discrete
7	409 MX1106	COUNTERS[0].OV	Discrete
8	409 MX1107	COUNTERS[0].PRE	Signed_int_32
9	409 MX1108	COUNTERS[0].UN	Discrete
10	409 MX1109	COUNTERS[1].ACC	Signed_int_32
11	409 MX1110	COUNTERS[1].CD	Discrete
12	409 MX1111	COUNTERS[1].CU	Discrete



Productivity Tools: Built-in Simulator

Built-in project simulator pays for the panel in time savings!

The “one click” built-in simulator is one of **C-more**’s most powerful features. You will find yourself using this feature every couple of minutes while developing your project. Using this intuitive simulator will result in a better looking and more effective project completed in less time.

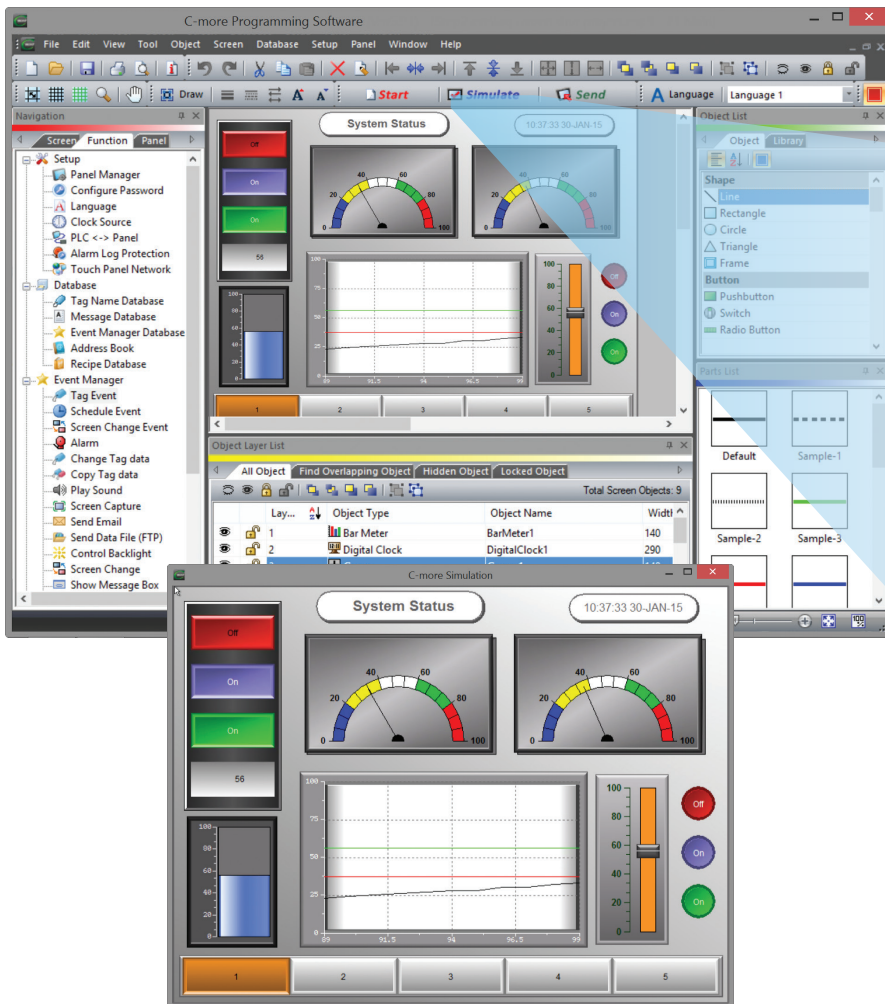
The simulator allows you to fully simulate your entire project (every object, every screen) while it is being developed, without being connected to a touch panel or PLC/PAC. Simply click on the “Simulate Project” button at any stage of project development. A window will appear over your development screen that contains a pixel-for-pixel representation of how your project will appear on your physical **C-more** panel. A simulation control window will also appear.

Now the fun begins. Simply click your mouse on any simulated screen object and it will behave as if your finger is actually touching a **C-more** panel. For example, clicking on a pushbutton object will activate and deactivate it as if an operator were touching it!

The same will be true for thumbwheels, slider switches (simply hold your mouse button down and slide), selector switches, toggle switches and so forth. Want to see how an analog meter moves based on dynamic data from the PLC/PAC? Simply move your mouse to the “Simulation control window” of the simulator, move to the tag and click on the data you wish to change. Now type in the value that you want to simulate, and watch your meter move on the simulated screen.

And here’s the really cool thing - whatever values you modify during simulation, the effect will be propagated throughout your entire project, object by object, screen by screen. That’s because this is a true “project simulator”.

To stop the simulation, just click on your project development screen and you’re back to project configuration. You can go back and forth in a flash. It’s that easy!



The simulation control window shows the list of screens and the tags, with their values, for the highlighted screen in the list.

Simulation			
Screen List			
1 - Main			
2 - Trend Chart			
3 - Alarm Summary			
4 - Motor Control			
5 - Screen 5			
Tag List			
Tag Name	PLC Address	Data Type	Value
ENGAGEALARM4		Discrete	OFF
PB1		Discrete	OFF
PB2		Discrete	OFF
PB3		Discrete	OFF
PRODUCTION ...		Ascii String	
PRODUCTION ...		Ascii String	
SLIDE		Signed int 16	55
SLIDE2		Signed int 16	0
SYS BIT ON		Discrete	ON
SYS COUNTINT ...		Unsigned int 32	500

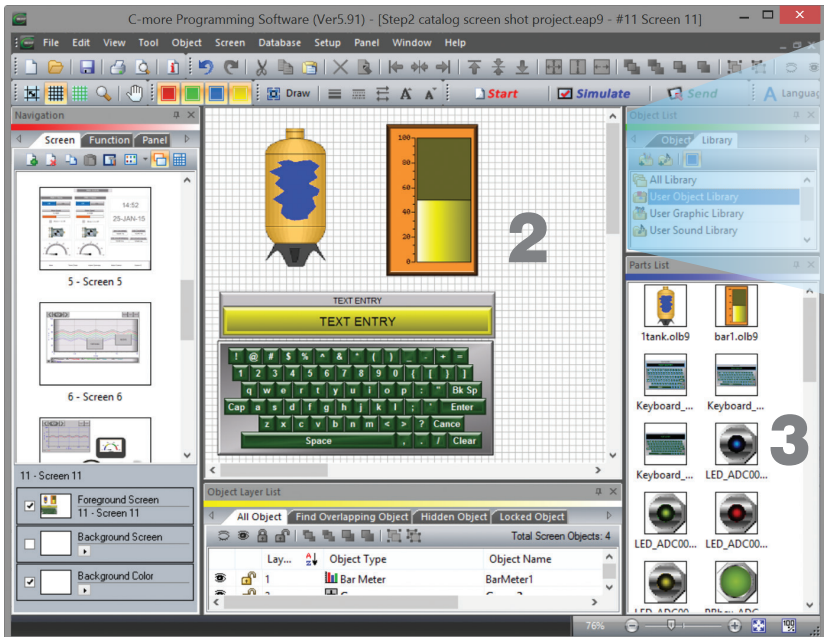
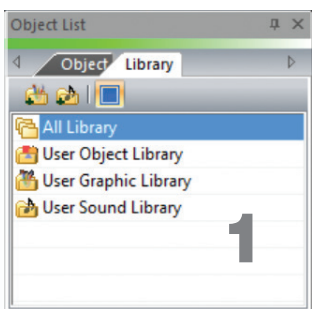
For objects tied to bit or analog data, change actual values here in the tag list, then verify the correct behavior on the screen. You can also change input data on the simulated screen and see the value change in the tag list.

User Libraries and Project Migration

User libraries allow you to re-use your work again and again

C-more provides three user libraries that allow you to efficiently re-use your work throughout your project or for other projects in the future. You can store a custom object, such as your company logo or a group of objects that compose a custom object (see the tank with cut-away and bar

graph below). You can also store entire screens, graphics and sound bites. You can access your libraries at any time and re-use your work by merely clicking on the saved item and dragging it from the library into your project. You can even import and export library items to share with other designers.

- 1** Object, graphic and sound libraries
- 2** Create, store and retrieve your:
 - Custom objects
 - Entire screens
 - Sound bites
- 3** Re-use your work in this project or future projects

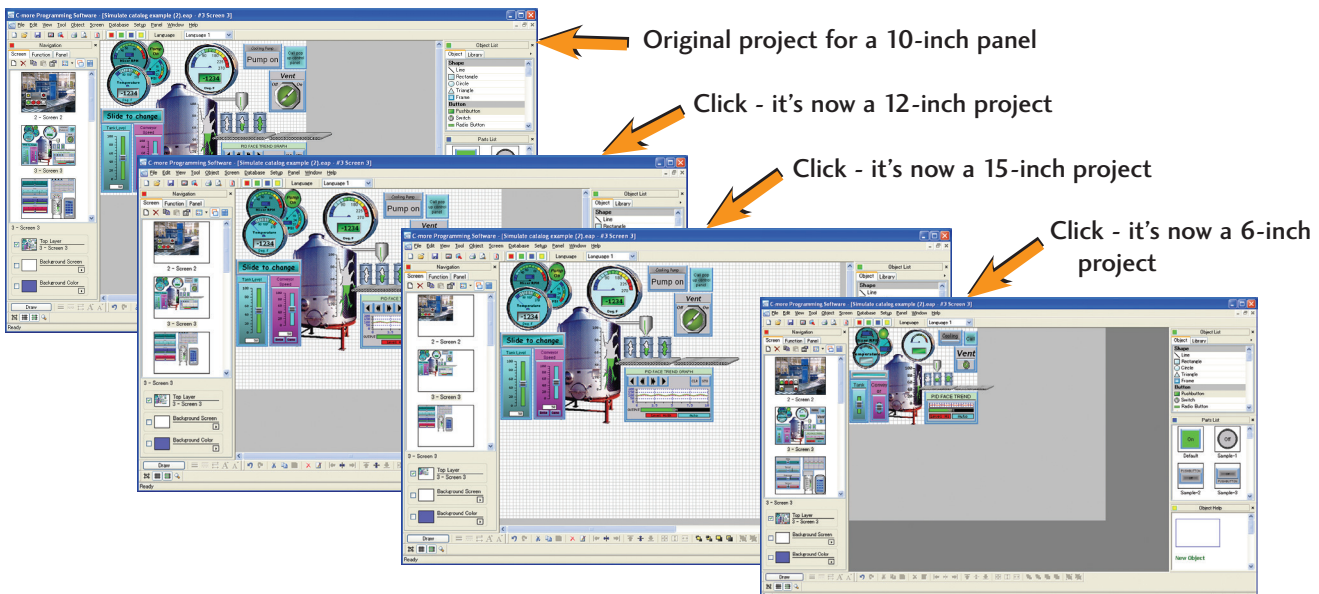
Check out our online library at: c-more.automationdirect.com/support_tools/library.html

Change your project screen size with a click of your mouse

Imagine developing your project on a 10-inch panel and then deciding to change the size to a 15-inch panel or an 8-inch panel. In the past, you most likely had to recreate your entire project and reconfigure every object, tag and screen.

With C-more, your project can be automatically converted for

a different size display with a click of the mouse. Of course, you may wish to move things around a little since you have a different screen size. This feature is great for OEMs or integrators that may be installing different configurations of the same machine or process.



Original project for a 10-inch panel

Click - it's now a 12-inch project

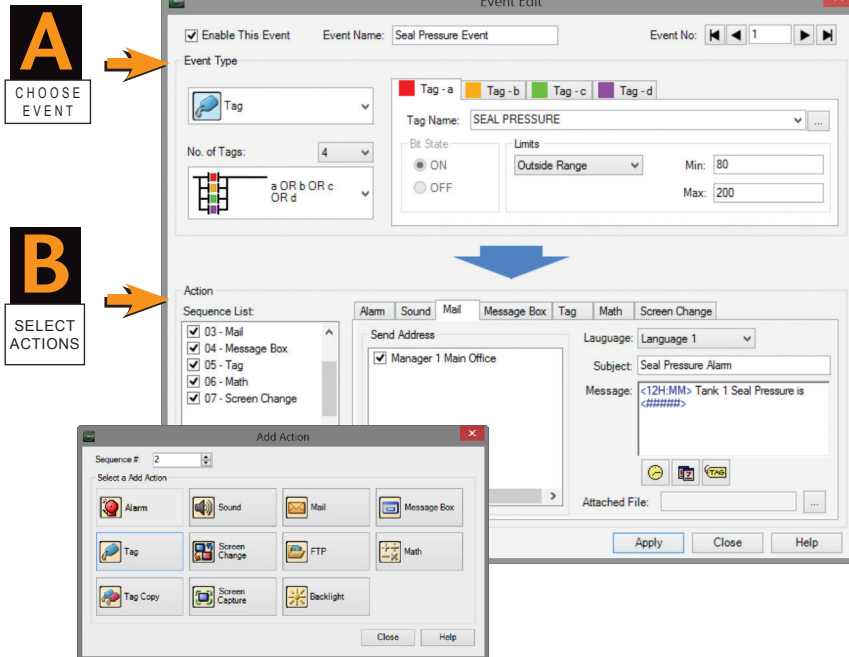
Click - it's now a 15-inch project

Click - it's now a 6-inch project

Powerful Event Manager Triggers Alarms and Actions

Fill-in-the-blank Event Manager saves time, PLC/PAC programming and memory

C-more provides a powerful yet easy-to-use Event Manager which takes exception handling (including alarms) and scheduling to the next level. The simple fill-in-the-blank manager allows events to automatically trigger several actions without the need for hours of PLC/PAC programming.



On the Event Manager screen, create an event, enter the required data, and select multiple actions. It's that easy!

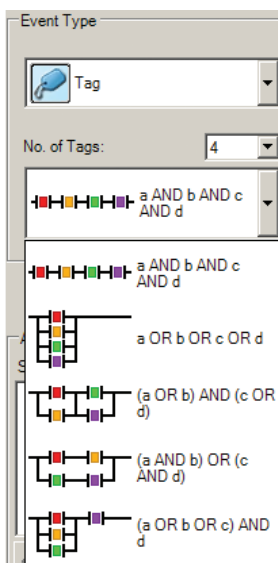
The Event Manager goes beyond simple Alarm and Message functions, and allows C-more to take action based on events such as:

- Tag status or value
- A combination of tag status or values
- Date or time
- A screen change

The Possible Actions include:

- Create an alarm
- Play a sound
- Write values to tags
- Copy tag values
- Send e-mails (with embedded tag data!)
- Force screen changes
- Capture screen image
- Pop-up messages (with embedded tag data!)
- Send files via FTP
- Carry out math formulas

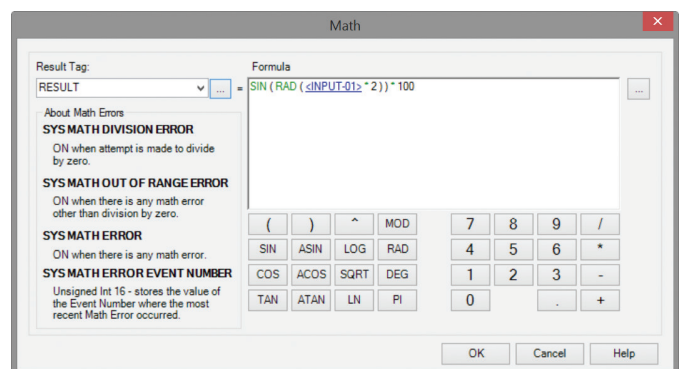
Tag Combinations allow for simple logic with multiple events



Combine up to four different tags into simple logic events that will trigger actions.

Math Actions add more power to your project

Create a custom formula or use the Math Keypad to create formulas with Constants or even Tag Values. The Result is placed into a User Defined Tag.



1234+**SIN**(**<TAG>**+**PI**(123)+**LOG**a

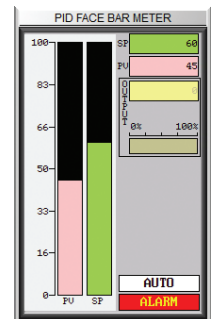
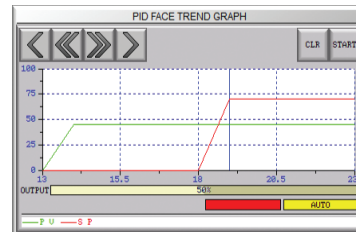
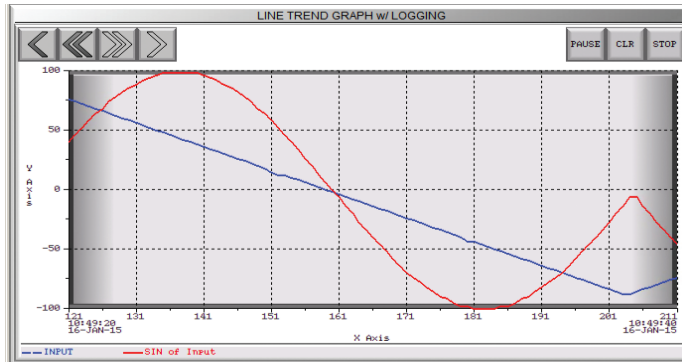
- Numbers in Black
- Tags in Blue
- Calculations and Functions in Green
- Errors in Red

Trends, Logging and Control Options

Trend graphs, PID faceplates, true historical data logging

C-more's trend graph supports 16 pens, selectable to be hidden or shown by the operator. Show only the trends you wish to see, when you wish to see them. In addition, the full featured **C-more** units support data logging to SD cards or USB memory devices. Gigabytes of trend data can be stored,

limited only by you. The information can also be sent from **C-more** to your PC over the Internet, triggered by an event. **C-more** also has the standard PID faceplate and an enhanced version which shows trend data of the setpoint process variable and control variable.



- 16 pen trends
- PID faceplate
- PID with trend faceplate
- Each pen can be turned on/off
- True historical data logging

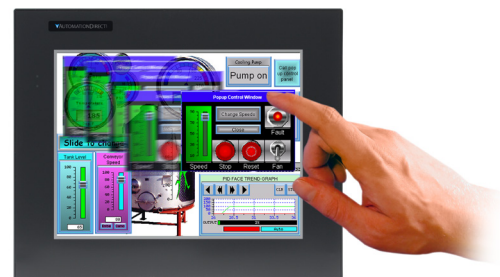


Log to SD card/USB



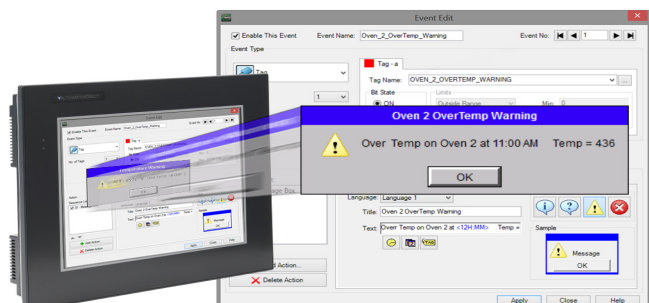
Pop-up windows for information and control

Use Pop-up Window Frames to overlay information or to provide extra controls on top of other screens. Operators can reposition the pop-up anywhere on the screen or close the pop-up when no longer required. Pop-up windows are created just like the other objects in the project, and can include a portion of any **C-more** screen (except other Pop-ups - no cascading available).



Pop-up Message Boxes for critical events

Create Pop-up Message Boxes in the Event Manager. You define the trigger criteria, and then select "Message Box" as the "action". You can type in a short message to appear in the box, and select an icon to display with your message. You can even include tag data, and date/time information in the message. The operator must click the OK button in order to clear the message box. You can also log an alarm at the same time the message box is activated via the event manager (along with many other actions).



Fonts and Animation

Built-in fonts

C-more has 14 different fonts for objects such as pushbuttons, indicators, meters and so on. These fonts are used for object-integrated labels and ON/OFF phrases for each of **C-more**'s standard objects. Each font can be bolded, italicized and underlined. Fonts can be scaled to hundreds of sizes, giving you extreme flexibility.



Object Fonts



Bitmap Text Fonts

Built-in animation makes the process come to life

Virtually any bitmap object (from your PC hard drive, the built-in 4,000 symbol library, custom-drawn, etc.) can be animated to follow a straight line or a scribbled path. In addition, the object can change size or orientation (rotation).

Of course, the object can also do any combination of actions as well. Best of all, the animation process is very straightforward. You will be animating your first object in as little as a few minutes!

5 types of animation (any combination)

- Straight line... X or Y
- Scribbled path with up to 64 points
- Rotational
- Change size
- Multi-State Bitmap

Axis Animation:

PLC tag values dictate the actual screen position of an object. Move objects along a single axis or use different tags for simultaneous X-Y position control.

Point Animation:

Define a path with up to 64 points for point-to-point object motion, or use "ratio" mode to move smoothly along a path. Scaling of PLC tag values to the path positions is optional.

Object Rotation:

Control rotation of an object based on the value of a PLC tag. Also allows scaling of tag values to angular values.

Object Size:

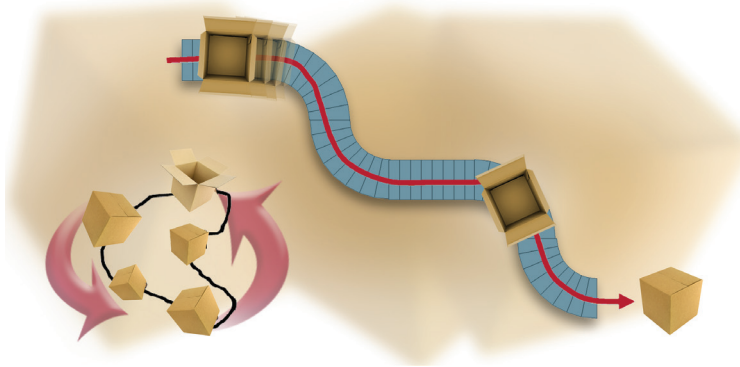
Control the size of an object based on PLC tag values. Independent X and Y-axis scaling of object size is possible, along with scaling of the tag values.

Multi-State Bitmap:

Use up to 16 different bitmap images to animate changes in the appearance of an object.

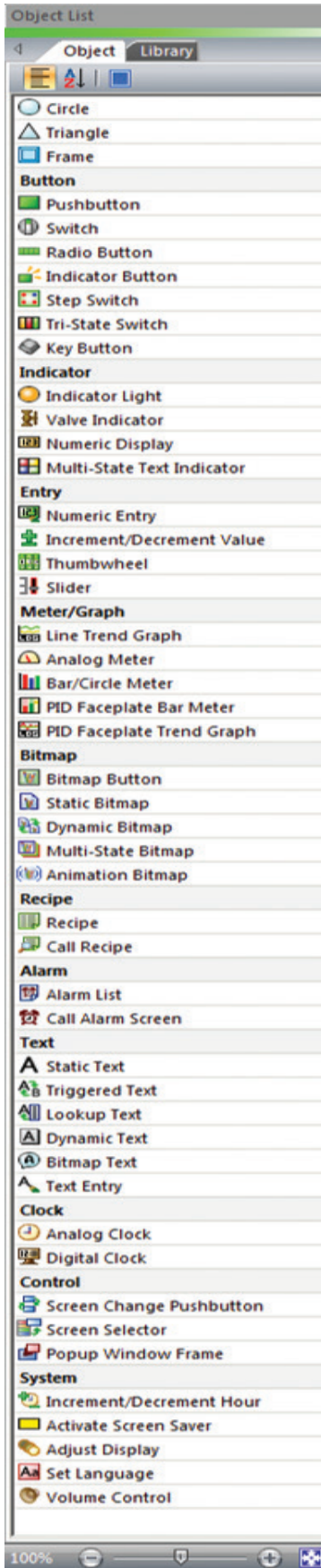
Benefit:

Animations of machine motion and factory processes enhance comprehension, and give operators a visual representation of the desired motion of products, and machinery on screen.



A bitmap object (picture of cardboard box) follows a curving path along a conveyor (the path can be hidden). The box can rotate around the bends in the path and even change sizes. The bitmap changes toward the end to a closed box shape.

Wide Array of Objects and Customized Parts



Here are just a few of the more than 50 types of objects in the standard Object List

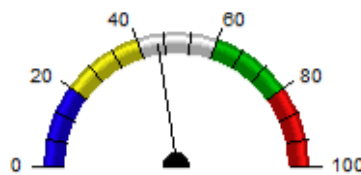
Pushbuttons



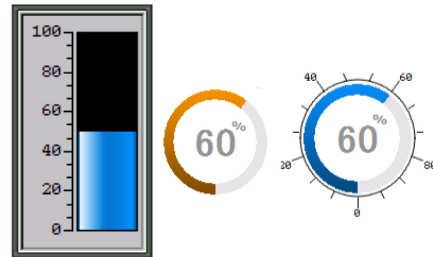
Indicator Lights



Analog Meters



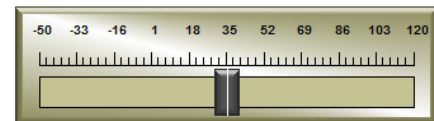
Bar/Circle Meter



Switches



Slider Switch



Personalize your screens

Object Format options make personalizing your screen objects simple. Select the colors, frames, and background effects with just a few clicks of the mouse.

Choose from the default color templates or create and save your own templates to use as often as you like.

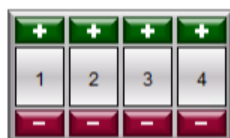
Backgrounds for many objects support gradient fill effects that make them stand out.



Tri-State Switch



Thumbwheel



Dynamic Bitmap



Set Language

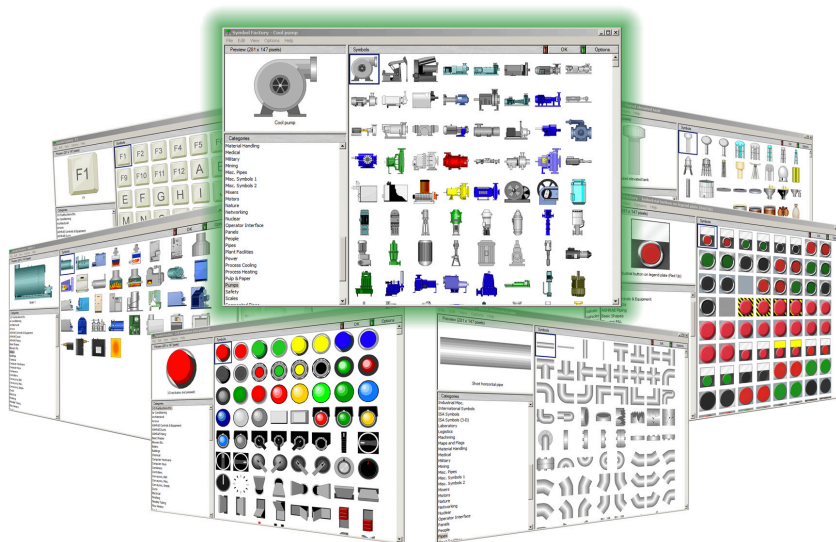


Bitmap Text

Use any Font
on Your PC

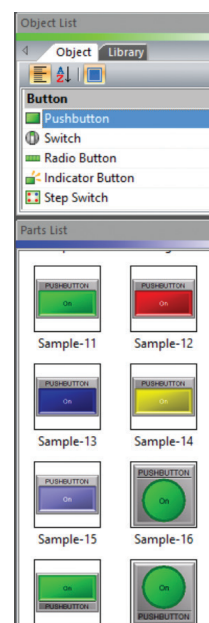
Over 4000 industrial graphics with Symbol Factory

Select from 80 different categories offering vector graphics that can be scaled up and down in size without loss in image quality. Free Cutaway Control is also included for doing tank type fills. If that is not enough, you can always use your own bitmap graphics with the same objects.



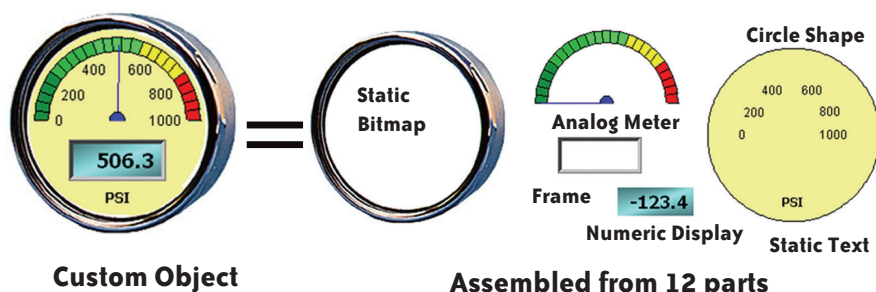
Hundreds of pre-configured parts

C-more also provides ready-made "parts" (versions of each default object) that are available to drag and drop into your project. Select any object to see preconfigured parts in the Parts List. Select the one that most closely matches your needs - and customize it even further, if you like. Then save it in the user library for future use.



Create custom objects

Use a combination of C-more objects and parts to create your own objects, or even entire sections of screens.

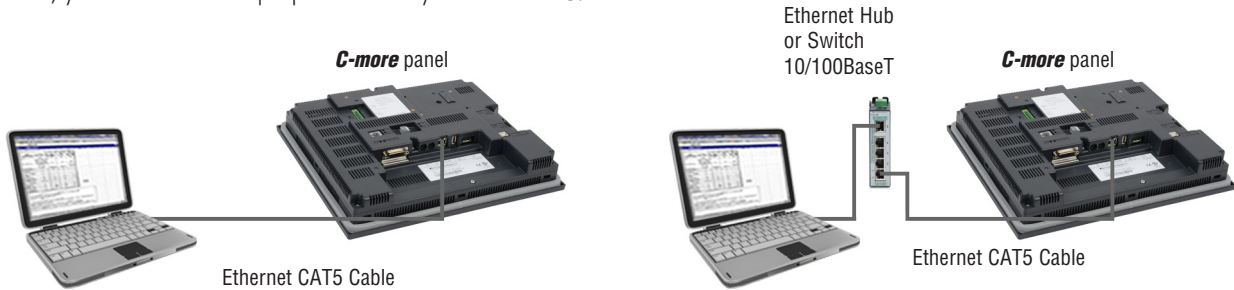


more Built-in Convenience...

Network programming

C-more panels with Ethernet capabilities can be programmed via the built-in Ethernet port (the EA9-T6CL-R model does not support Ethernet). Connect directly from a PC to the **C-more** panel, or connect one or more **C-more** panels to your plant network (via switches and routers). With **C-more** on the plant network, you can download projects from any connected PC.

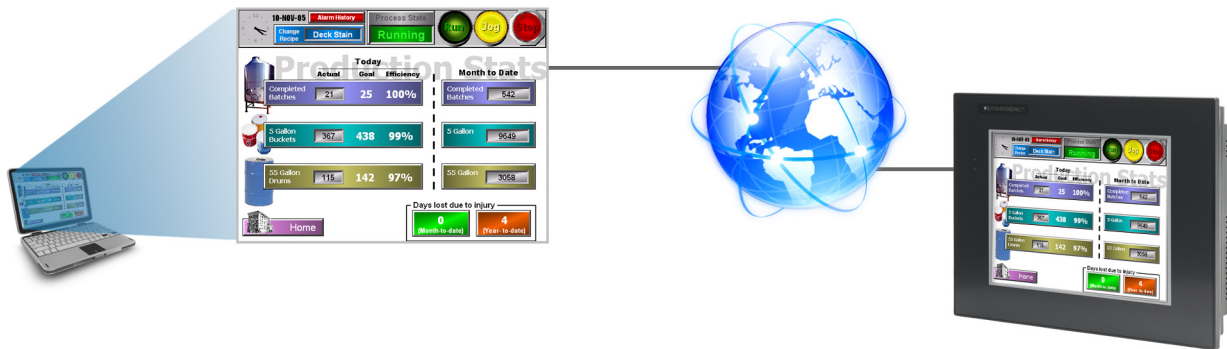
Use the network connection to upload alarm history, PLC/PAC log data or screen captures to a connected PC. **C-more** can send e-mail, based on events or PLC/PAC alarm conditions (if connected to a network and an SMTP (Simple Mail Transport Protocol) server).



C-more programming software with Internet connection

You can program your **C-more** panel remotely via the Internet. All you need is a Public IP address assigned to the

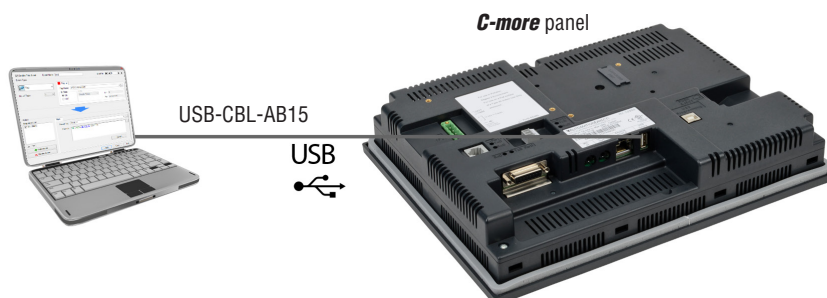
C-more panel and a network that is accessible from the Internet.



USB programming

For convenient programming, use a standard USB cable between your **C-more** panel and your PC. No baud-rate, parity, or stop bit settings to waste your time. USB is fast; most projects download in seconds. Don't pay inflated prices for proprietary

programming cables! USB cables are inexpensive (we sell 'em!) and are readily available so you won't waste time looking for a special cable when your million-dollar operation is down.

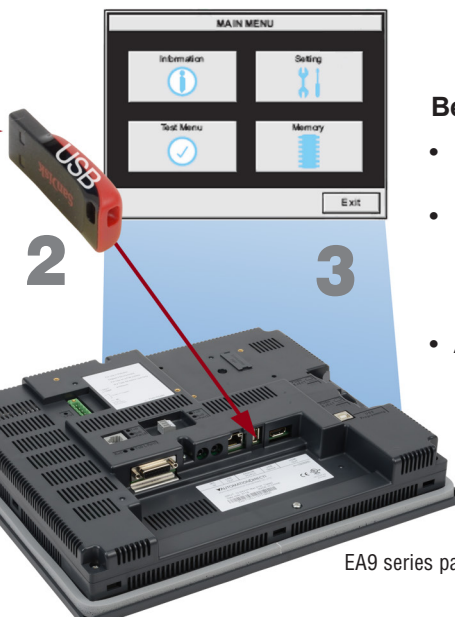
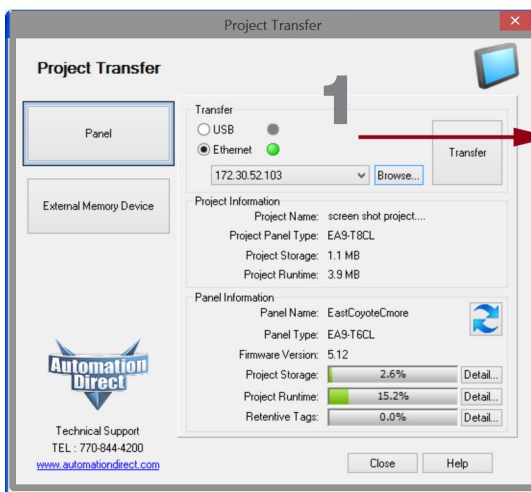


Panel Updates using USB or SD Memory Devices

Update your panel without a PC

Use SD memory cards or a USB flash drive to transfer projects to your panel without having to connect the panel to a PC. Perfect for updating remote **C-more** EA9 series panels, simply transfer the project to the SD memory card or the Pen Drive, take or send the flash device to the remote location, plug it into the panel and transfer the project into the panel. This is also

a convenient backup of your project, or for when a damaged panel must be replaced. Send project updates to users who might not even have the programming software. Projects can be transferred onto the flash device, and restored to the panel.



C-more

Benefits:

- No PC required
- Saves you from traveling to job site, which saves you money
- Allows the end user to safely load the project without the **C-more** programming software

USB



EA9 series panel

1 From the PC, transfer your project to an "External memory device"

2 Take (or send) the memory device to the panel and plug it in

3 Use the **C-more** system screens to restore your project into the panel memory



Lots of memory for your project

C-more EA9 series panels start with a minimum of 26 MB of user project space on the 6-inch through 10-inch units, while the 12-inch and 15-inch units supply 82 MB for project memory.

How about data storage? Many comparably priced touch panels offer no memory options or they support only proprietary memory cards. With **C-more**, all EA9 series models have a USB Port-A connector, and one SD card slot (12 and 15-inch panels include two SD card slots). This allows memory for data logging, screen captures, message logging and alarm logging.



more Remote HMI Options...

Touch your panel from anywhere with Remote Access and Control!

- No additional hardware required.
- The C-more Remote Access feature resides in all panels with Ethernet support, and requires no option modules.
- Access real-time data or initiate an action on a control system from anywhere, any time.

C-more from your PC

With a Web browser on any PC, remote users can operate and monitor a local **C-more** HMI system from anywhere on the Internet or on a local network.

C-more from your Mobile Device

Mobile users can download the C-more Remote HMI app from the Apple iTunes store, Google Play, or Amazon App Store, to get remote access and control for Mobile devices for only \$4.99.



Remote HMI



Authorized users have the ability to remotely:

- Monitor and control screen operations of the **C-more** panel as if touching the panel itself
- Test and troubleshoot the **C-more** project
- View, zoom, print and save screen captures of active screens

Convenient yet secure

Multilevel Logon Security

Three Remote Access user accounts can be configured and stored in the panel project. Each account allows up to five remote users to be connected simultaneously.

Multilevel Access Control

Each account can be configured in one of the following levels of access:

- View Only
- View and allow Screen Change only
- Full Control

Log on Information

Account #1

Permissions: View & Screen Change

Account Name: Manager

Password: ****

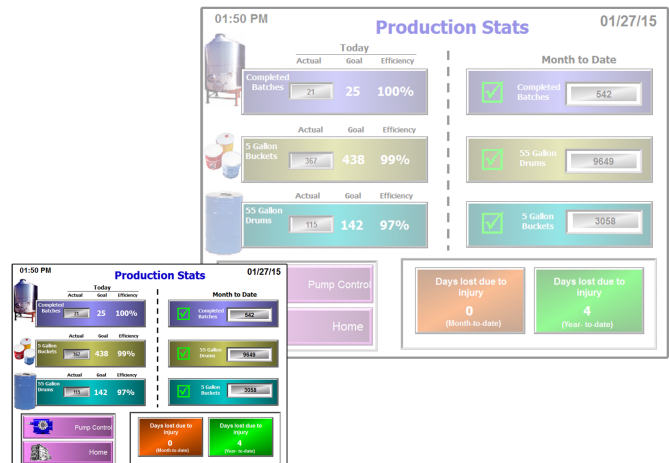
User Restrictions: 4

Disable Tag: DISABLE_REMOTE1

Notification Tag: NOTIFY_REMOTE1

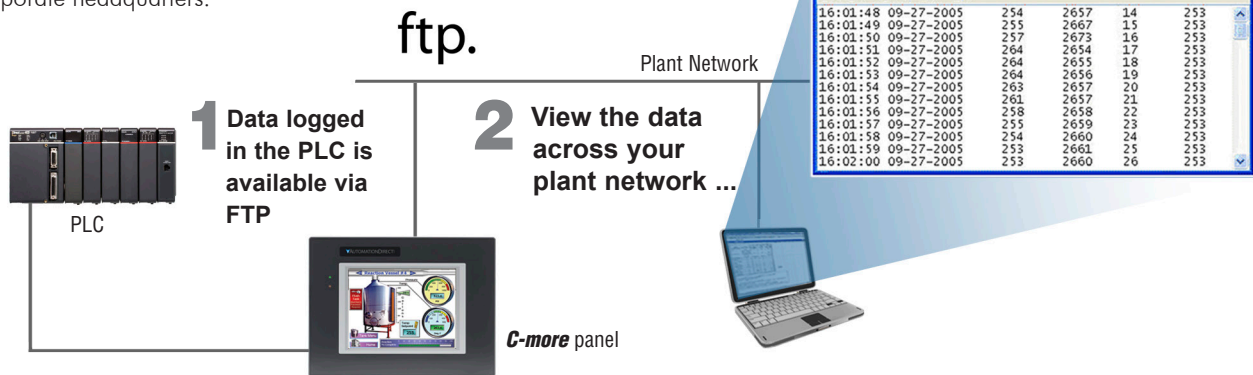
Resizable Window

Unlike many other remote access software brands, the **C-more** remote viewer is completely sizable. When the user shrinks or expands the browser window, the project objects will rescale accordingly.



FTP Data Transfer

The FTP server (File Transfer Protocol) allows transfer of data files between **C-more** and any connected FTP compatible device (usually a PC). Your HMI can collect data and pass it to the PC on your desk, or to your corporate headquarters.

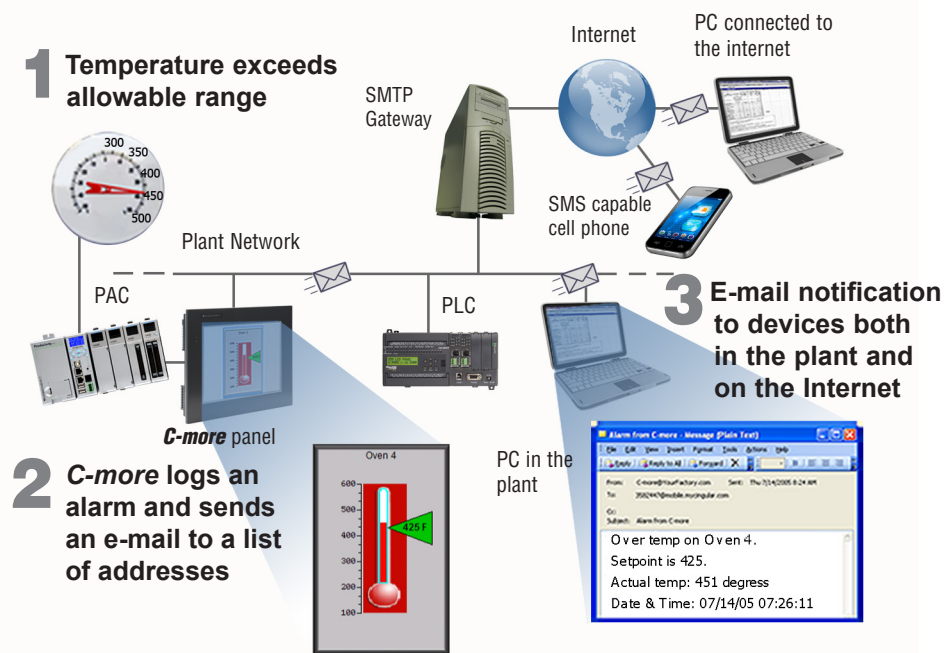


E-mail

Use the Event Manager to send e-mail periodically or when certain Alarms or Events occur. You can even attach log files to the e-mail message.

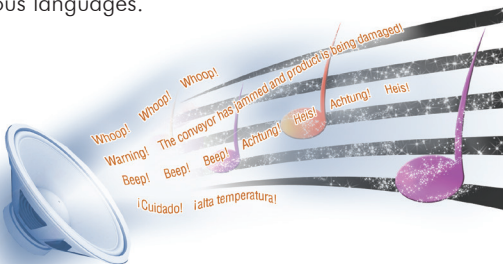
Operators can even key in a message and then press "Send".

C-more supports SSL and Tag based storage of e-mail address so that operators can update e-mail addresses without the programmer's support.



C-more and hear more!

C-more can play warning sounds and other .wav files via an external amplifier and loudspeakers (user supplied). Use sirens, buzzers or beeping sounds to draw attention to alarm conditions. Even pre-recorded verbal messages can be triggered to speak to your operators in various languages.



HDMI Video Output

Connect your HDMI TV or monitor to the **C-more** HDMI video output and allow others to monitor what is being displayed on the **C-more** Touch Panel. Mouse support allows any HDMI compatible device to function as a machine interface. (HDMI support only on the 12-inch and 15-inch enhanced **C-more** panels).

DMITM
ON MULTIMEDIA INTERFACE



C-more Operator Touch Panels

mCME-25

C-more Operator Panels Overview

Getting started

Installing the software and configuring the **C-more** panel is simple. You will need the following to successfully connect, configure and send a project to the panel:

- **C-more** touch panel - 6", 7" wide, 8", 10", 10" wide, 12" or 15" model
- **C-more** Programming Software, p/n EA9-PGMSW
- **C-more** programming cable, USB or Ethernet
- 12-24 VDC switching power supply or the optional **C-more** AC Power Adapter, p/n EA-AC
- Personal Computer - to run **C-more** programming software
- PLC communications cable (serial or Ethernet) to connect the **C-more** touch panel to your controller

Part Number	Description	Price
EA9-T6CL-R	C-more EA9 series touch screen HMI, 6in color TFT LCD, 320 x 240, QVGA, supports (1) serial and (2) USB ports and (1) memory card slot.	
EA9-T6CL	C-more EA9 series touch screen HMI, 6in color TFT LCD, 320 x 240, QVGA, supports (3) serial, (1) Ethernet and (2) USB ports and (1) memory card slot, audio line out.	
EA9-T7CL-R	C-more EA9 series touch screen HMI, 7in color TFT LCD, widescreen, 800 x 480, WVGA, supports (1) serial, (1) Ethernet and (2) USB ports and (1) memory card slot.	
EA9-T7CL	C-more EA9 series touch screen HMI, 7in color TFT LCD, widescreen, 800 x 480, WVGA, supports (3) serial, (1) Ethernet and (2) USB ports and (1) memory card slot, audio line out.	
EA9-T8CL	C-more EA9 series touch screen HMI, 8in color TFT LCD, 800 x 600, SVGA, supports (3) serial, (1) Ethernet and (2) USB ports and (1) memory card slot, audio line out.	
EA9-T10CL	C-more EA9 series touch screen HMI, 10in color TFT LCD, 800 x 600, SVGA, supports (3) serial, (1) Ethernet and (2) USB ports and (1) memory card slot, audio line out.	
EA9-T10WCL	C-more EA9 series touch screen HMI, 10in color TFT LCD, widescreen, 1024 x 600 pixel, WSVGA, LED backlight, supports (3) serial, (1) Ethernet and (2) USB ports, (1) memory card slot and (1) audio line out.	
EA9-T12CL	C-more EA9 series touch screen HMI, 12in color TFT LCD, 800 x 600, SVGA, supports (3) serial, (1) Ethernet and (2) USB ports, (2) memory card slots and (1) HDMI video out, audio line out.	
EA9-T15CL-R	C-more EA9 series touch screen HMI, 15in color TFT LCD, 1024 x 768 pixel, XGA, LED backlight, supports (1) serial, (1) Ethernet and (2) USB ports and (2) memory card slots.	
EA9-T15CL	C-more EA9 series touch screen HMI, 15in color TFT LCD, 1024 x 768, XGA, supports (3) serial, (1) Ethernet and (2) USB ports, (2) memory card slots and (1) HDMI video out, audio line out.	
EA9-PGMSW	C-more Windows-based programming software, CD. For use with C-more EA9 series touch panels. Requires USB or Ethernet connection to touch panel. (Does not support C-more EA7 series panels.)	
USB-CBL-AB3	Standard 3-ft. (0.9m) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any C-more touch panel for setup and programming. (Note: Touch panels require a power source for configuration and operation.)	
USB-CBL-AB6	Standard 6-ft. (1.8m) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any C-more touch panel for setup and programming. (Note: Touch panels require a power source for configuration and operation.)	
USB-CBL-AB10	Standard 10-ft (3 meter) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any C-more touch panel for setup and programming. (Note: Touch panels require a power source for configuration and operation.)	
USB-CBL-AB15	Standard 15-ft. (4.6m) USB 2.0 cable, A-type connector to B-type connector, used to connect personal computer to any C-more touch panel for setup and programming. (Note: Touch panels require a power source for configuration and operation.)	

C-more Selection Guide & Specifications

Model	6" TFT color w/ base features		6" TFT color w/ full features		7" TFT color w/ base features		7" TFT color w/ full features	
Specification								
Part Number	EA9-T6CL-R		EA9-T6CL		EA9-T7CL-R		EA9-T7CL	
Price								
Display Actual Size and Type	5.7" TFT color				7.0" TFT color			
Display Viewing Area	4.54" x 3.40" [115.2 mm x 86.4 mm]				6.00" x 3.60" [152.4 mm x 91.4 mm]			
Weight	1.56 lb [710g]		1.59 lb [720g]		1.46 lb [660g]		1.48 lb [670g]	
Screen Pixel	320 x 240 (QVGA)				800 x 480 (WVGA)			
Display Brightness	280 nits (typ)				350 nits (typ)			
LCD Panel Dot Pitch	0.18 mm x 0.18 mm				0.190 mm x 0.190 mm			
Color Scale	65,536 colors							
Backlight Average Lifetime*	50,000 hours @ 25°C							
Touch Panel Type**	Four-wire analog resistive, single touch							
Project Memory	26MB							
Number of Screens	Up to 999 screens – limited by project memory							
Realtime Clock	Realtime Clock Built into panel, backed up for 30 days at 25°C							
Calendar - Month / Day / Year	Yes - monthly deviation 60 sec (Reference)							
Serial Port 1	15-pin D-sub female - RS232C, RS-422/485							
Serial Port 2	N/A		3-wire terminal block - RS-485		N/A		3-wire terminal block - RS-485	
Serial Port 3	N/A		RJ-12 modular jack - RS-232C		N/A		RJ-12 modular jack - RS-232C	
USB Port - Type B	USB 2.0 High speed (480 Mbps) Type B - Download/Program							
USB Port - Type A	USB 2.0 High speed (480 Mbps) Type A -for USB device options							
Ethernet Port	N/A		Ethernet Port Ethernet 10/100 Base-T, auto MDI/MDI-X					
Audio Line Out	N/A		3.5 mm mini jack – requires amplifier and speaker(s)		N/A		3.5 mm mini jack – requires amplifier and speaker(s)	
Mic In (Future)	N/A		3.5 mm mini jack		N/A		3.5 mm mini jack	
SD Card Slot	1 slot supports max 2 GB (SD,) max 32 GB (SDHC)							
HDMI Video Out	N/A							
HDMI Supported Resolution	N/A							
Supply Power	10.2-26.4 VDC Class 2 or SELV (Safety Extra-Low Voltage) Circuit or Limited Energy Circuit (LEC), or use the AC/DC Power Adapter, EA-AC, to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected							
Power Consumption	16.0 W 1.30 A @ 12VDC 0.66 A @ 24VDC							
Internal Fuse (non-replaceable)	4.0 A							
Altitude	Up to 2000m (6562 ft)							
Operating Temperature	0 to 50 °C (32 to 122 °F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)							
Storage Temperature	-20 to +60°C (-4 to +140 °F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)							
Humidity	5–95% RH (non-condensing)							
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted							
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity)							
Withstand Voltage	(Local Test) RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse							
Insulation Resistance	1000 VAC, 1 min. (FG to Power supply)							
Vibration	> 10M ohm @ 500VDC (FG to Power supply)							
Shock	IEC60068-2-6 (Test Fc)							
Emission	IEC60068-2-27 (Test Ea)							
Enclosure	EN55011 Class A (Radiated RF emission)							
Agency Approvals	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)				NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 (not tested by UL) (When mounted correctly)			
NOTES:	UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2				UL61010, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2			
	*The backlight average lifetime is defined as the average usage time it takes before the brightness becomes 50% of the initial brightness. The lifetime of the backlight depends on the ambient temperature. The lifetime will decrease under low or high temperature usage. **The touchscreen 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.							

C-more Selection Guide & Specifications

Model Specification	8" TFT color w/ full features	10" TFT color w/ full features	10" TFT color Widescreen w/ full features
Part Number	EA9-T8CL	EA9-T10CL	EA9-T10WCL
Price			
Display Actual Size and Type	8.4" TFT color	10.4" TFT color	10.1" TFT color
Display Viewing Area	6.71" x 5.03" [170.4 mm x127.8mm]	8.31" x 6.24" [211.2 mm x 158.4 mm]	8.77" x 4.93" [222.7 mm x 125.3 mm]
Weight	2.93 lb [1330g]	4.19 lb [1900g]	2.43 lb [1100g]
Screen Pixel	800 x 600 (SVGA)		1024 x 600 (WSVGA)
Display Brightness	310 nits (typ)	280 nits (typ)	240 nits (typ)
LCD Panel Dot Pitch	0.213 mm x 0.213 mm	0.264 mm x 0.264 mm	0.218 mm x 0.209 mm
Color Scale	65,536 colors		
Backlight Average Lifetime*	50,000 hours @ 25°C		
Touch Panel Type**	Four-wire analog resistive, single touch		
Project Memory	26MB		
Number of Screens	Up to 999 screens – limited by project memory		
Realtime Clock	Realtime Clock Built into panel, backed up for 30 days at 25°C		
Calendar - Month / Day / Year	Yes - monthly deviation 60 sec (Reference)		
Serial Port 1	15-pin D-sub female - RS232C, RS-422/485		
Serial Port 2	3-wire terminal block - RS-485		
Serial Port 3	RJ-12 modular jack - RS-232C		
USB Port - Type B	USB 2.0 High speed (480 Mbps) Type B - Download/Program		
USB Port - Type A	USB 2.0 High speed (480 Mbps) Type A -for USB device options		
Ethernet Port	Ethernet Port Ethernet 10/100 Base-T, auto MDI/MDI-X		
Audio Line Out	3.5 mm mini jack – requires amplifier and speaker(s)		
Mic In (Future)	3.5 mm mini jack		
SD Card Slot	1 slot supports max 2 GB (SD,) max 32 GB (SDHC)		
HDMI Video Out	N/A		
Supply Power	10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), or use the AC/DC Power Adapter, EA-AC, to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected		
Power Consumption	18.0 W 1.50 A @ 12VDC 0.75 A @ 24VDC	17.0W 1.42A @ 12 VDC 0.71A @ 24 VDC	
Internal Fuse (non-replaceable)	6.3 A		
Altitude	Up to 2000m (6562 ft)		
Operating Temperature	0 to 50 °C (32 to 122 °F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)		
Storage Temperature	-20 to +60°C (-4 to +140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)		
Humidity	5–95% RH (non-condensing)		
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted		
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity)		
Withstand Voltage	RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse (Local Test)		
Insulation Resistance	1000 VAC, 1 min. (FG to Power supply)		
Vibration	> 10M ohm @ 500VDC (FG to Power supply)		
Shock	IEC60068-2-6 (Test Fc)		
Emission	IEC60068-2-27 (Test Ea)		
Enclosure	EN55011 Class A (Radiated RF emission)		
Agency Approvals	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)		
	UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2		
NOTES:	*The backlight average lifetime is defined as the average usage time it takes before the brightness becomes 50% of the initial brightness. The lifetime of the backlight depends on the ambient temperature. The lifetime will decrease under low or high temperature usage. **The touchscreen 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.		

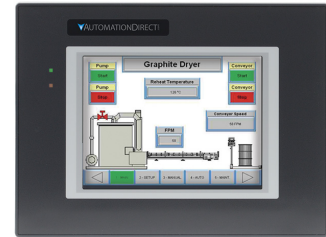
C-more Selection Guide & Specifications

Model	12" TFT color w/ full features		15" TFT color w/ base features	15" TFT color w/ full features
Specification				
Part Number	EA9-T12CL		EA9-T15CL-R	
Price				
Display Actual Size and Type	12.1" TFT color		15.0" TFT color	
Display Viewing Area	9.69" x 7.26" [246.0 mm x 184.5 mm]		11.97" x 8.98" [304.1 mm x 228.0 mm]	
Weight	4.89 lb [2200g]		6.46 lb (2930g)	6.50 lb [2950g]
Screen Pixel	800 x 600 (SVGA)		1024 x 768 (XGA)	
Display Brightness			280 nits (typ)	
LCD Panel Dot Pitch	0.3075 mm x 0.3075 mm		0.297 mm x 0.297 mm	
Color Scale	65,536 colors			
Backlight Average Lifetime*	50,000 hours @ 25°C			
Touch Panel Type**	Four-wire analog resistive, single touch			
Project Memory	82MB			
Number of Screens	Up to 999 screens – limited by project memory			
Realtime Clock	Realtime Clock Built into panel, backed up for 30 days at 25°C			
Calendar - Month / Day / Year	Yes - monthly deviation 60 sec (Reference)			
Serial Port 1	15-pin D-sub female - RS232C, RS-422/485			
Serial Port 2	3-wire terminal block - RS-485	N/A		3-wire terminal block - RS-485
Serial Port 3	RJ-12 modular jack - RS-232C	N/A		RJ-12 modular jack - RS-232C
USB Port - Type B	USB 2.0 High speed (480 Mbps) Type B - Download/Program			
USB Port - Type A	USB 2.0 High speed (480 Mbps) Type A -for USB device options			
Ethernet Port	Ethernet Port Ethernet 10/100 Base-T, auto MDI/MDI-X			
Audio Line Out	3.5 mm mini jack – requires amplifier and speaker(s)	N/A		3.5 mm mini jack – requires amplifier and speaker(s)
Mic In (Future)	3.5 mm mini jack	N/A		3.5 mm mini jack
SD Card Slot	2 slots support max 2 GB (SD), max 32 GB (SDHC)			
HDMI Video Out	HDMI Type A Port	N/A		HDMI Type A Port
HDMI Supported Resolution	800 x 600 (SVGA)	N/A		1024 x 768 (XGA)
Supply Power	10.2-26.4 VDC Class 2, Use Class2 and SELV (Safety Extra-Low Voltage) Circuit and Limited Energy Circuit (LEC), or use the AC/DC Power Adapter, EA-AC, to power the touch panel from a 100-240 VAC, 50/60 Hz power source. Reverse Polarity Protected			
Power Consumption	21.0 W 1.75 A @ 12VDC 0.88 A @ 24VDC	29.0 W 2.40 A @ 12VDC 1.20 A @ 24VDC		
Internal Fuse (non-replaceable)	6.3 A			
Altitude	Up to 2000m (6562 ft)			
Operating Temperature	0 to 50 °C (32 to 122 °F) Maximum surrounding air temperature rating: 50°C (122°F) IEC 60068-2-14 (Test Nb, Thermal Shock)			
Storage Temperature	-20 to +60°C (-4 to +140°F) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) IEC 60068-2-14 (Test Na, Thermal Shock)			
Humidity	5–95% RH (non-condensing)			
Environment	For use in Pollution Degree 2 environment, no corrosive gases permitted			
Noise Immunity	(EN61131-2), EN61000-4-2 (ESD), EN61000-4-3 (RFI), EN61000-4-4 (FTB), EN61000-4-5 (Serge), EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity) (Local Test)			
Withstand Voltage	RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1µs pulse			
Insulation Resistance	1000 VAC, 1 min. (FG to Power supply)			
Vibration	> 10M ohm @ 500VDC (FG to Power supply)			
Shock	IEC60068-2-6 (Test Fc)			
Emission	IEC60068-2-27 (Test Ea)			
Enclosure	EN55011 Class A (Radiated RF emission)			
Agency Approvals	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)			
	UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2			
NOTES:	*The backlight average lifetime is defined as the average usage time it takes before the brightness becomes 50% of the initial brightness. The lifetime of the backlight depends on the ambient temperature. The lifetime will decrease under low or high temperature usage. **The touchscreen 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.			

C-more 6" TFT Color Touch Panel - Base Model

Part No. EA9-T6CL-R

C-more EA9 series touch screen interface panel, 6-inch color TFT (5.7 inch viewable screen), base model, 64K colors, 320 x 240 pixel QVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (1) serial port, USB 2.0 Type A and B ports, supports SD memory card, no Ethernet support. Compatible with EA9-PGMSW programming software version 5.0 or later.



Features

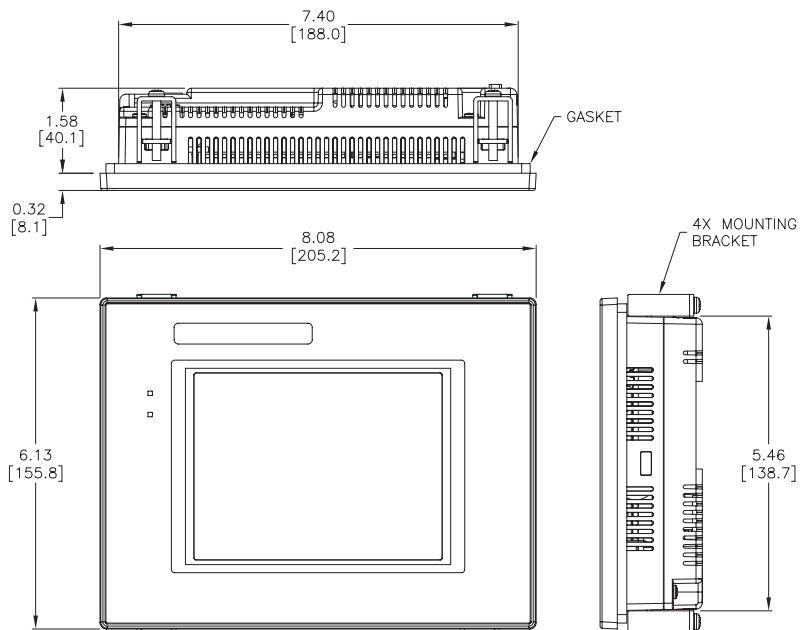
- 5.7" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 320 x 240 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12-24 VDC powered, 110 VAC power adapter (optional)
- 26MB project memory
- 0 to 50°C (32 to 122°F) operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

Function	Available
Ethernet	No
USB	Yes
SD Card	Yes
Audio Out	No
HDMI Video Out	No

NOTE: EA9-T6CL-R does not support Ethernet.

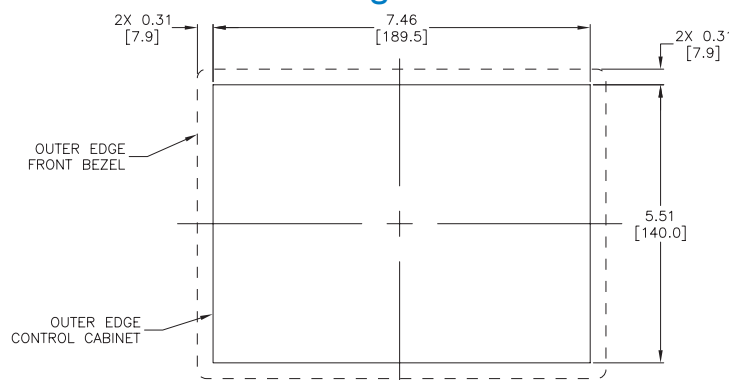
Dimensions

inches / [mm]



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Mounting Cutout



C-more 6" TFT Color Touch Panel - Full Model

Part No. EA9-T6CL

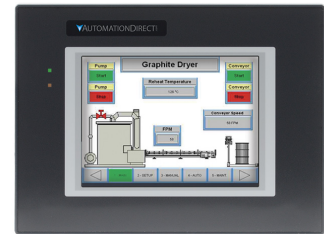
C-more EA9 series touch screen interface panel, 6-inch color TFT (5.7 inch viewable screen), 64K colors, 320 x 240 pixel QVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 5.0 or later.

Features

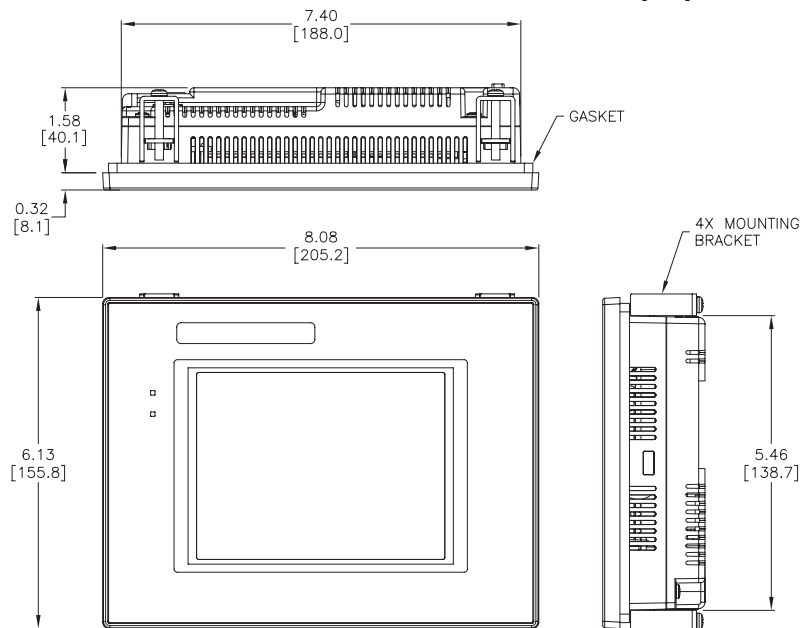
- 5.7" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 320 x 240 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- 26MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	No

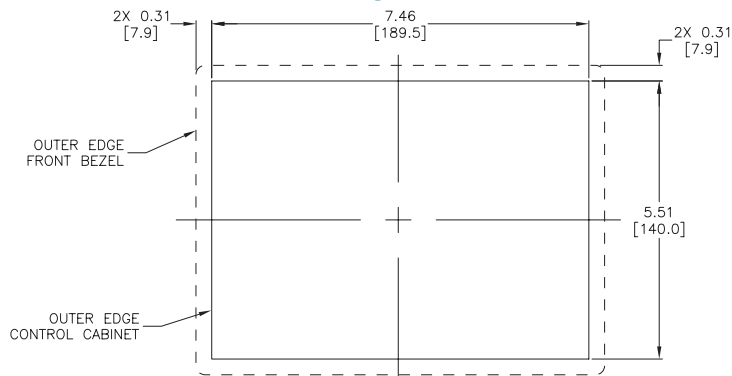


Dimensions inches / [mm]



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Mounting Cutout



C-more 7" TFT Color Touch Panel - Base Model

Part No. EA9-T7CL-R

C-more EA9 series touch screen interface panel, 7-inch color TFT (7.0 inch viewable screen), 64K colors, 800 x 480 pixel WVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only)(not tested by UL), non-replaceable LED backlight. Includes (1) serial port, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 6.3 or later.



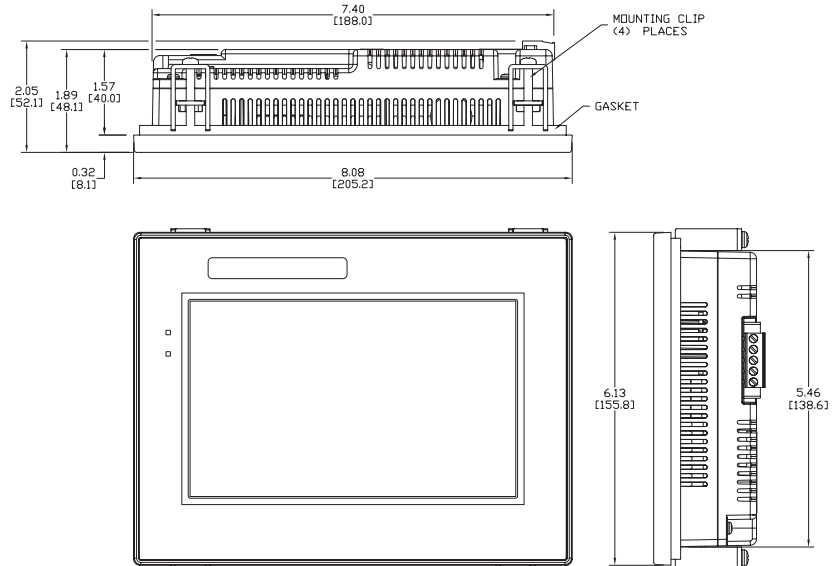
Features

- 7.0" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 800 x 480 pixel resolution
- 350 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12–24 VDC powered, 110VAC power adapter (optional)
- 26MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 (not tested by UL) when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase



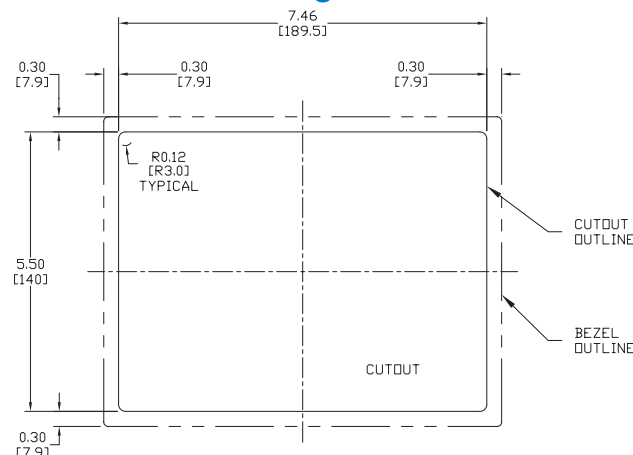
<i>Function</i>	<i>Available</i>
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	No
HDMI Video Out	No

Dimensions



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for complete Engineering drawings.**

Mounting Cutout



C-more 7" TFT Color Touch Panel - Full Model

Part No. EA9-T7CL

C-more EA9 series touch screen interface panel, 7-inch color TFT (7.0 inch viewable screen), 64K colors, 800 x 480 pixel WVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only)(not tested by UL), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 6.3 or later.

Features

- 7.0" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 800 x 480 pixel resolution
- 350 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- 26MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65(not tested by UL) when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

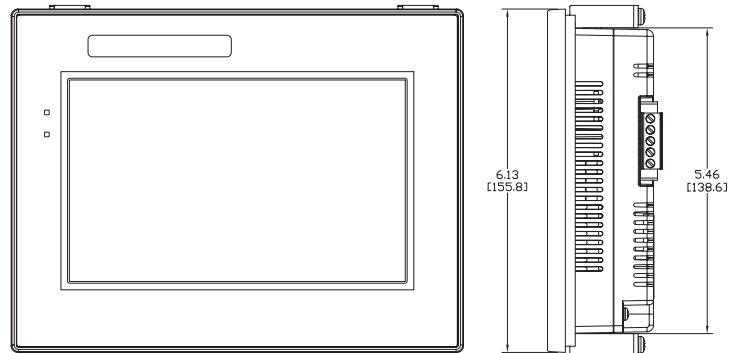
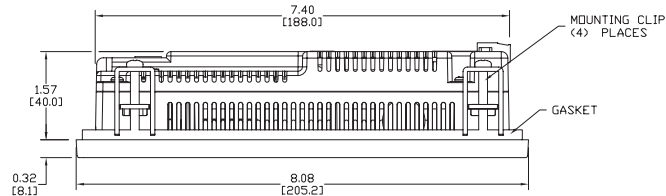


Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	No



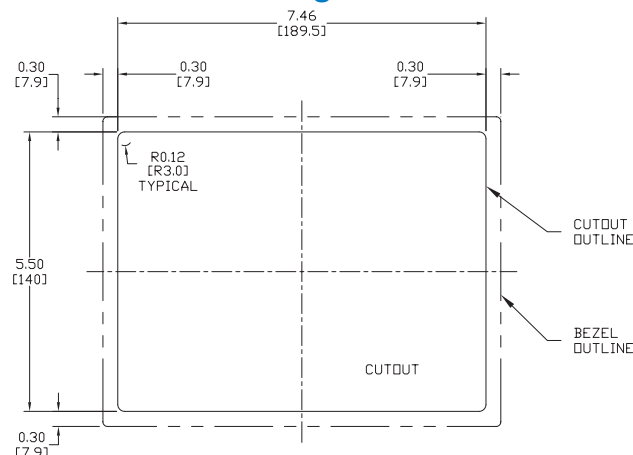
Dimensions

inches / [mm]



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Mounting Cutout



C-more 8" TFT Color Touch Panel - Full Model

Part No. EA9-T8CL

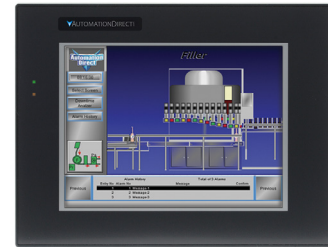
C-more EA9 series touch screen interface panel, 8-inch color TFT (8.4 inch viewable screen), 64K colors, 800 x 600 pixel SVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 5.0 or later.

Features

- 8.4" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 800 x 600 pixel resolution
- 310 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- 26MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

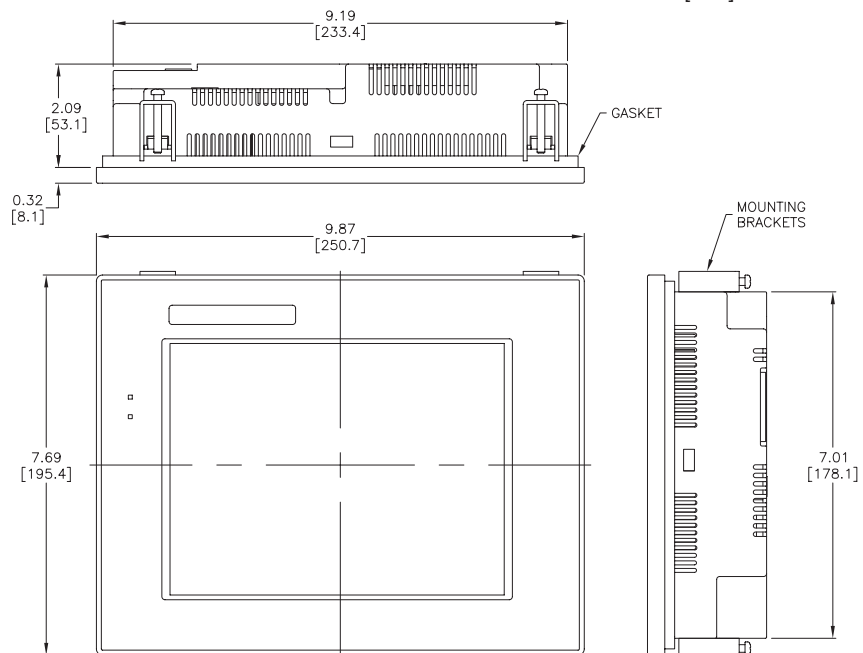


Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	No



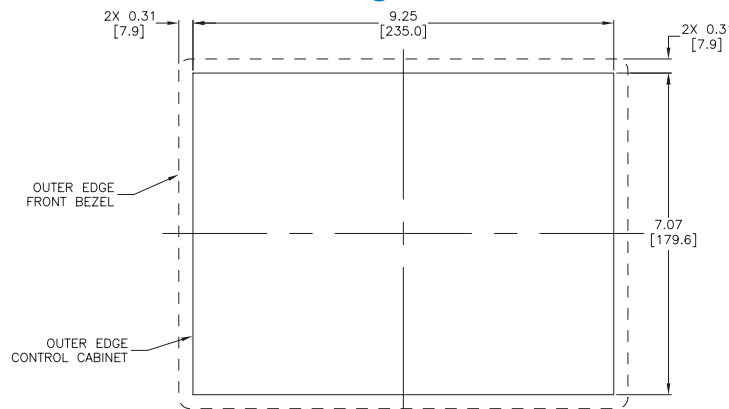
Dimensions

inches / [mm]



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Mounting Cutout



C-more 10" TFT Color Touch Panel - Full Model

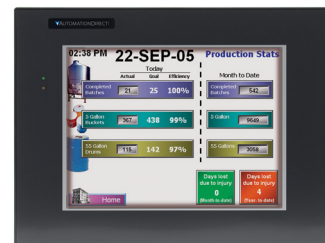
Part No. EA9-T10CL

C-more EA9 series touch screen interface panel, 10-inch color TFT (10.4 inch viewable screen), 64K colors, 800 x 600 pixel SVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 5.0 or later.

Features

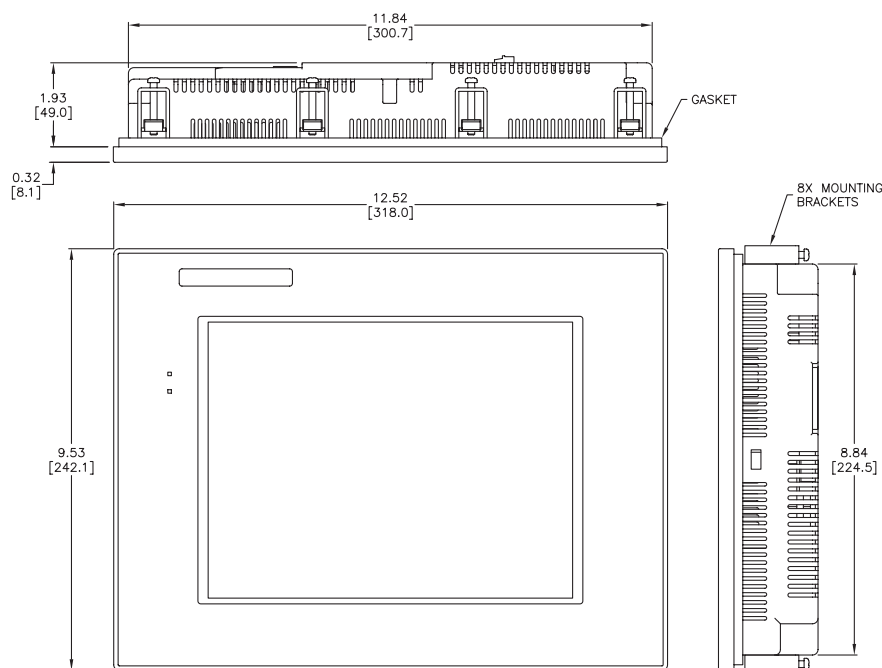
- 10.4" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 800 x 600 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- 26MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design save panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	No



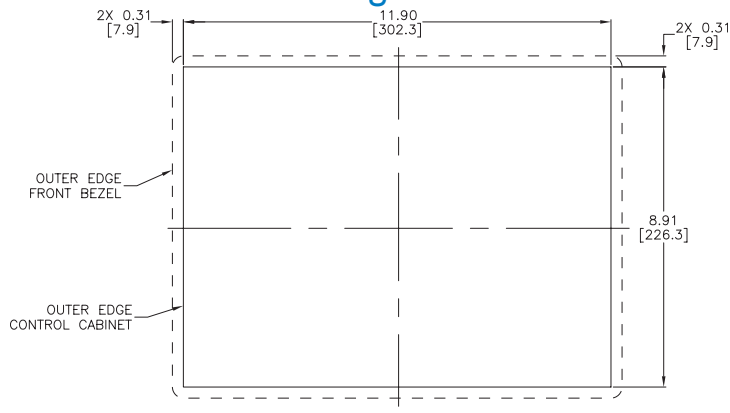
Dimensions

inches / [mm]



See our Web site www.AutomationDirect.com for complete Engineering drawings.

Mounting Cutout



C-more 10" Wide TFT Color Touch Panel - Full Model

Part No. EA9-T10WCL

C-more EA9 series touch screen interface panel, 10-inch widescreen color TFT (10.1 inch viewable screen), 64K colors, 1024 x 600 pixel WSVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports SD memory card. Compatible with EA9-PGMSW programming software version 6.4 or later.

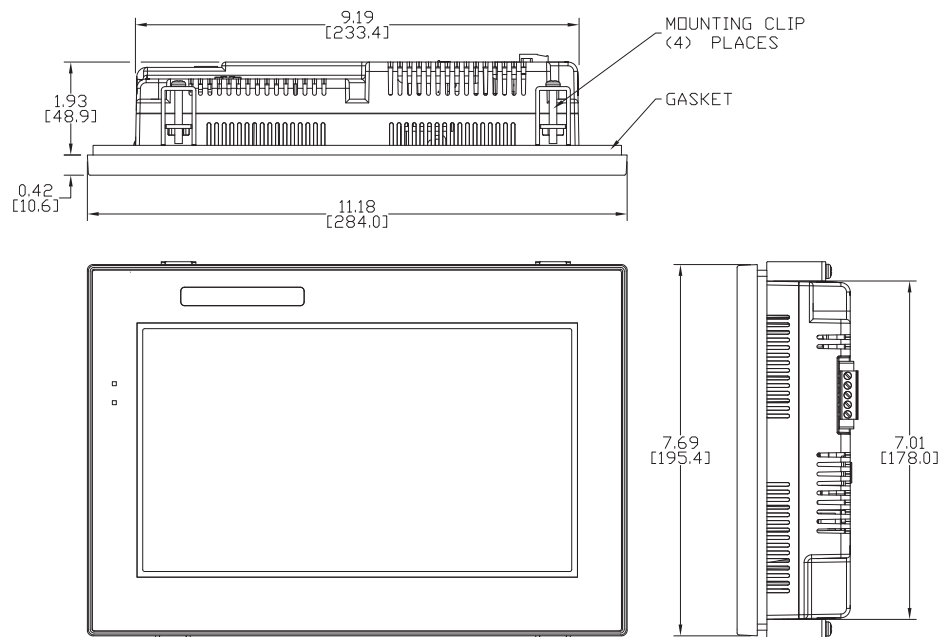
Features

- 10.1" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 1024 x 600 pixel resolution
- 240 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- One built-in SD memory card slot
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- 26MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design save panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	No

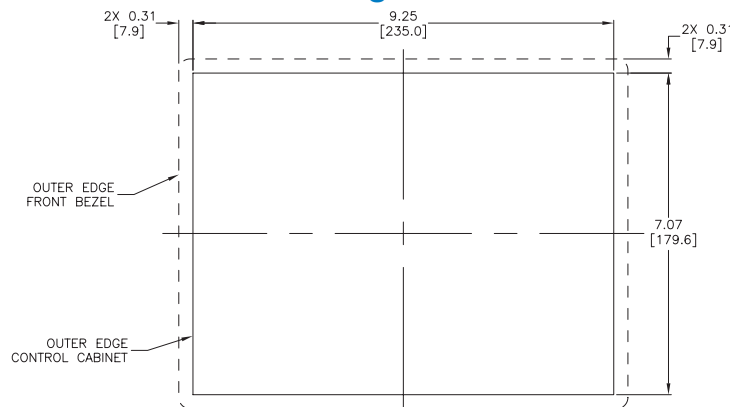


Dimensions inches / [mm]



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Mounting Cutout



C-more 12" TFT Color Touch Panel - Full Model

Part No. EA9-T12CL

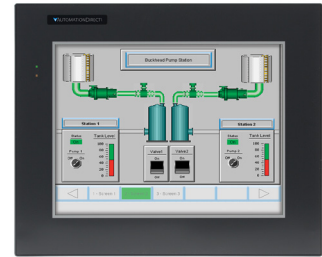
C-more EA9 series touch screen interface panel, 12-inch color TFT (12.1 inch viewable screen), 64K colors, 800 x 600 pixel SVGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports (2) SD memory cards. Includes HDMI video out. Compatible with EA9-PGMSW programming software version 5.0 or later.

Features

- 12.1" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 800 x 600 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- Two built-in SD memory card slots
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- HDMI Video Out
- 82MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

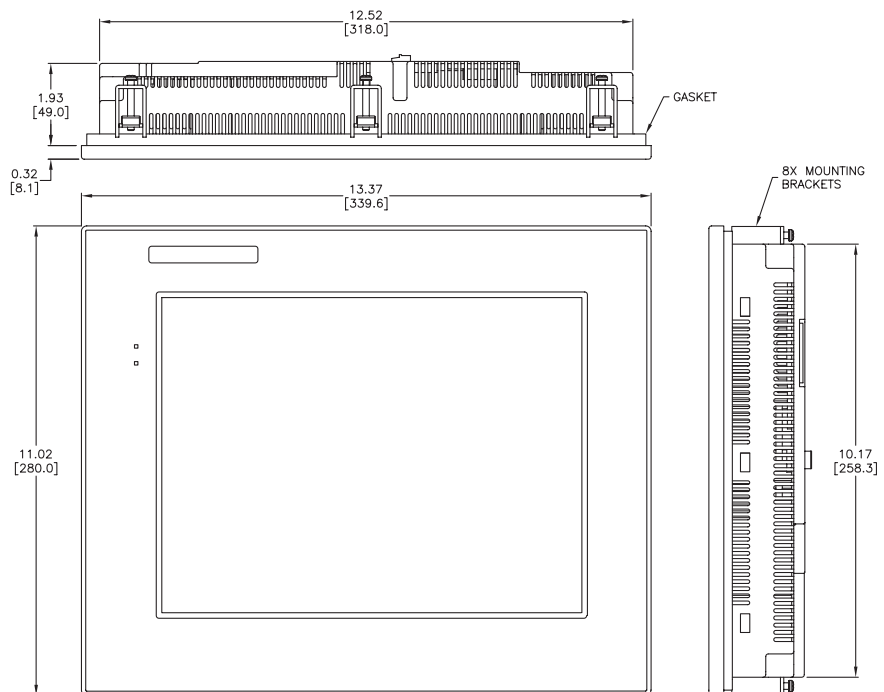


Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	Yes



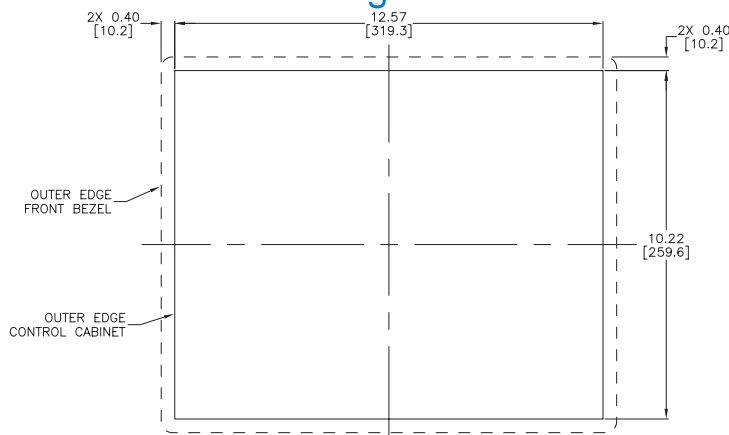
Dimensions

inches / [mm]



See our Web site www.AutomationDirect.com for complete Engineering drawings.

Mounting Cutout



C-more 15" TFT Color Touch Panel - Full Model

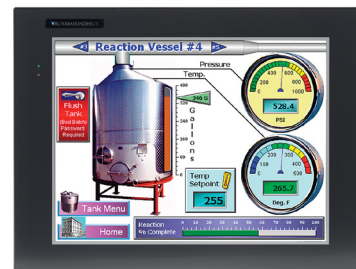
Part No. EA9-T15CL

C-more EA9 series touch screen interface panel, 15-inch color TFT (15 inch viewable screen), 64K colors, 1024 x 768 pixel XGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 2.0 Type A and B ports and Ethernet port; supports (2) SD memory cards. Includes HDMI video out. Compatible with EA9-PGMSW programming software version 5.0 or later.

Features

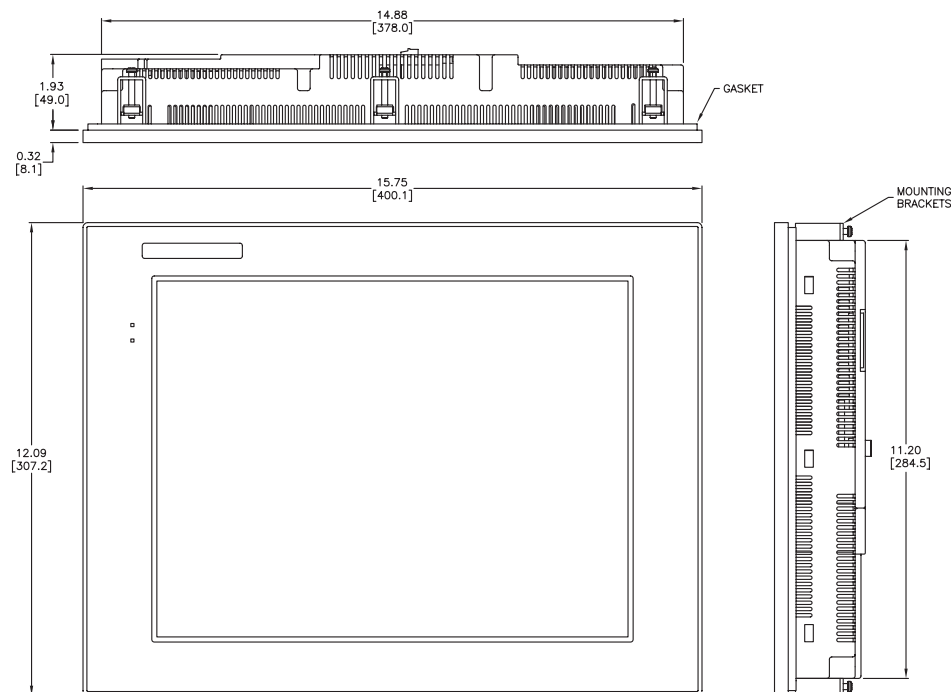
- 15.0" diagonal color TFT (Thin Film Transfer) LCD display with 64K colors
- 1024x 768 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- Two built-in SD memory card slots
- 12-24 VDC powered, 110VAC power adapter (optional)
- Audio Line Out, stereo - requires amplifier and speaker(s)
- HDMI Video Out
- 82MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
HDMI Video Out	Yes

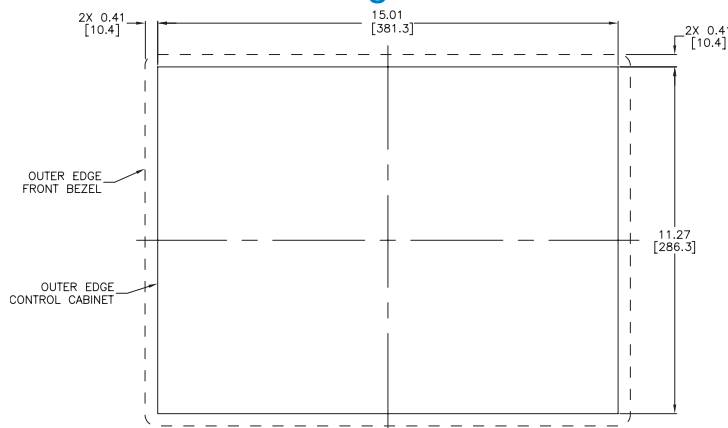


Dimensions

inches / [mm]



Mounting Cutout



See our Web site www.AutomationDirect.com for complete Engineering drawings.

C-more 15" TFT Color Touch Panel - Base Model

Part No. EA9-T15CL-R

C-more EA9 series touch screen interface panel, 15-inch color TFT (15 inch viewable screen), 64K colors, 1024 x 768 pixel XGA screen resolution, 800MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (1) serial port, USB 2.0 Type A and B ports and Ethernet port; supports (2) SD memory cards. Compatible with EA9-PGMSW programming software version 6.4 or later.

Features

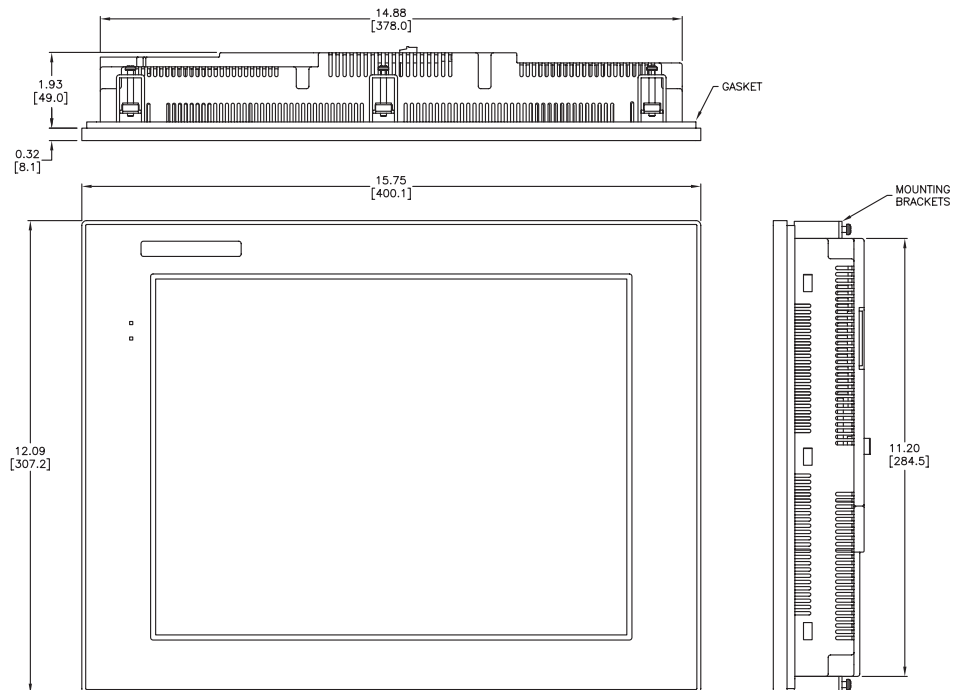
- 15.0" diagonal color TFT (Thin Film Transfer) LCD display with 64K colors
- 1024x 768 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (USB device options)
- Ethernet 10/100 Base-T port (program/download & PLC communication)
- Remote Internet Access
- Serial PLC interface (RS-232/422/485)
- Two built-in SD memory card slots
- 12-24 VDC powered, 110VAC power adapter (optional)
- 82MB project memory
- Data logging
- 0 to 50°C [32 to 122°F] operating temperature range
- NEMA 4/4X, IP65 compliant when mounted correctly, indoor use only
- Slim design saves panel space
- UL, cUL & CE agency approvals
- 2-year warranty from date of purchase

Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	No
HDMI Video Out	No



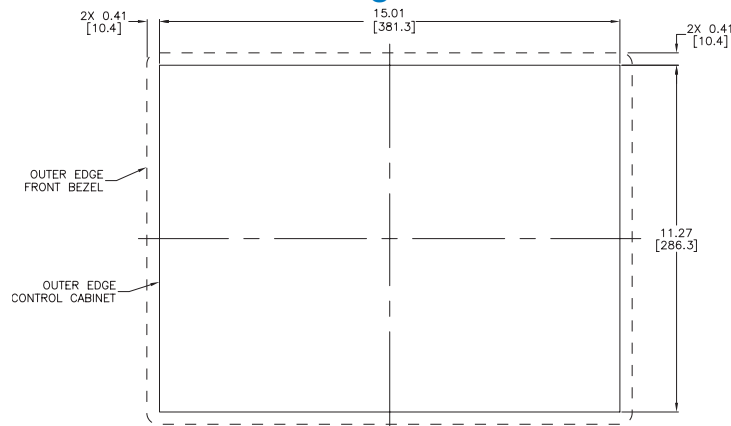
Dimensions

inches / [mm]

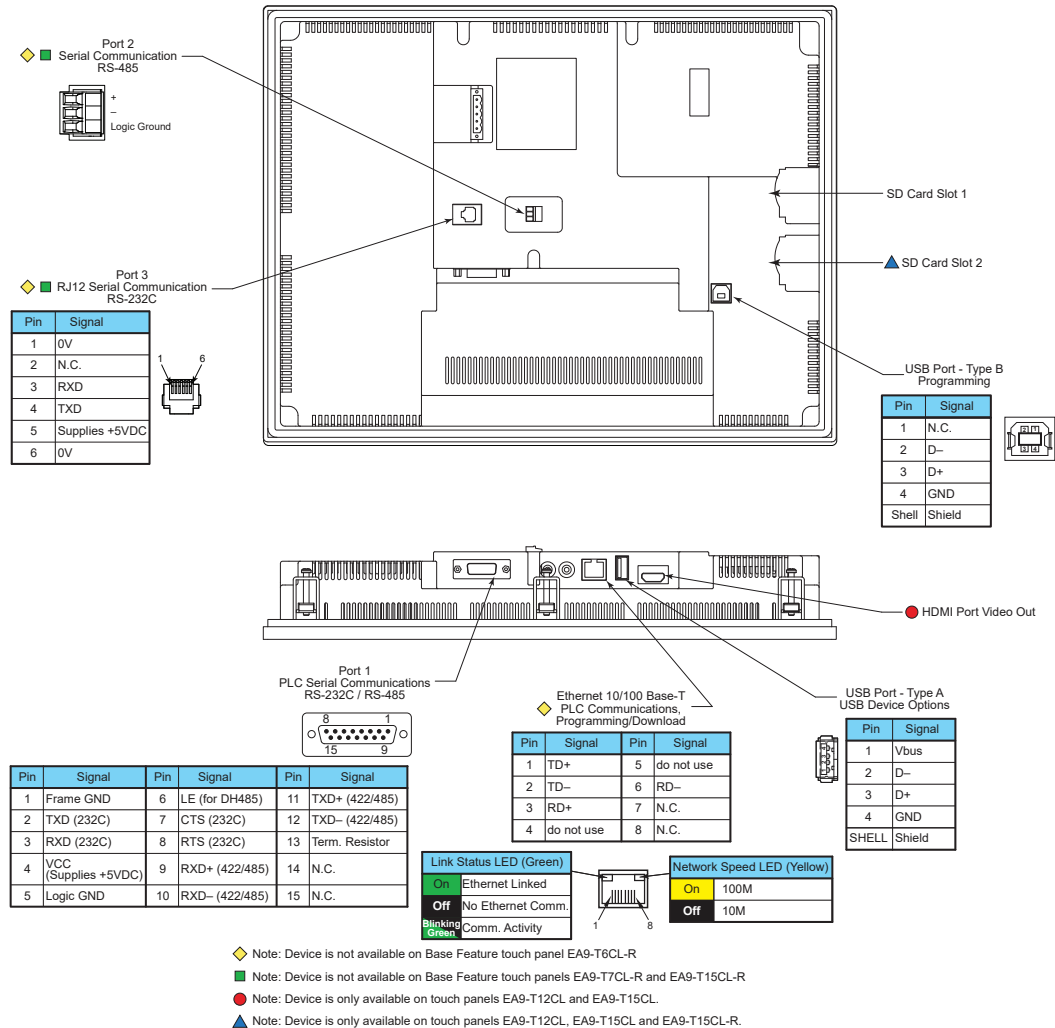


See our Web site www.AutomationDirect.com for complete Engineering drawings.

Mounting Cutout



C-more Communication Ports



Ethernet Port

The Ethernet port has several uses:

- Download program to panel
- Communicate to PLCs/PCs
- Send e-mail
- Access FTP server
- Act as a Web server
- Remote Internet Access

The Ethernet port has an RJ-45 8-wire modular connector with green and yellow LEDs.

- The yellow LED indicates network speed; off for a 10 Mbps connection and illuminated for a 100 Mbps connection.
- The green LED indicates link status and illuminates when a link is established.

Note: EA6-T6CL-R does not include an Ethernet port, and does not have these capabilities.

USB Port B

Program *C-more* via the USB programming port. It's fast and easy, with no baud rate settings, parity, or stop bits to worry about. We stock standard USB cables for your convenience. USB Port B can be used to upload or download projects to and from a PC.

USB Port A

The Universal Serial Bus (USB) Port A is a standard feature for all models and can be used to connect various USB HID (Human Input Device) devices to the panel, such as:

- USB pen drives, (USB-FLASH)
- USB keyboards
- USB barcode scanners
- USB card scanners

C-more can log data to the USB pen drive as well as load projects to the panel from the pen drive. You can also back up project files and panel firmware.

Sound Interface (Audio Line Out)

When attached to an amplifier and speaker(s), *C-more* can play warning sounds or pre-recorded messages such as: "conveyor is jammed". *C-more* supports WAV type files. The output is stereo.

Serial Port

Port 1 - Connect to your serial controller network via Port 1. Port 1 is a 15-pin port that supports RS-232 or RS-422/485.

Port 2 - Connect your RS-485 network via Port 2. Port 2 is provided with a 3-wire removable terminal block.

Port 3 - Connect to your RS-232C device via Port 3. Port 3 is an RJ12 connection.

HDMI Video Out

EA9-T12CL and EA9-T15CL include an HDMI Type A port to provide video output to a projector or remote monitor.

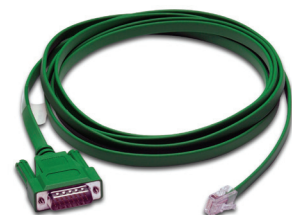
C-more Communication Protocols & Cables

Compatibility Table				
PLC Family	Model		Protocols	
Allen-Bradley	MicroLogix 1000, 1100, 1200, 1400, 1500, SLC 5-01/02/03		DH485/AIC/AIC+	
	MicroLogix 1000, 1100, 1200, 1400 and 1500 SLC 5-03/04/05		DF1 Half Duplex; DF1 Full Duplex	
	ControlLogix™, CompactLogix™, FlexLogix™			
	PLC-5		DF1 Full Duplex	
	ControlLogix, CompactLogix, FlexLogix - Tag Based		DF1 Half Duplex; DF1 Full Duplex	
	ControlLogix, CompactLogix, FlexLogix - Generic I/O Messaging		EtherNet/IP Server	
	ControlLogix, CompactLogix, FlexLogix - Tag Based		EtherNet/IP Client	
	Micrologix 1100, 1400 & SLC5/05, all via native Ethernet port			
	MicroLogix 1000, 1100, 1200, 1400,1500 & SLC 5-03/04/05, all via ENI Adapter			
	Micro 800 series		Modbus RTU Modbus TCP	
Modbus RTU	Modbus RTU devices		Modbus RTU	
Modbus TCP/IP	Modbus TCP/IP devices		Modbus TCP/IP	
GE	90/30, 90/70, Micro 90, VersaMax Micro		SNPX	
	90/30, Rx3i		S RTP Ethernet	
Mitsubishi	FX Series		FX Direct	
	Q02, Q02H, Q06H, Q12H, Q25H		Q CPU	
	Q, QnA Serial		QnA Serial	
	Q, QnA Ethernet		QnA Ethernet	
Omron	C200 Adapter, C500		Host Link	
	CJ1/CS1 Serial, CJ1/CS1 Ethernet		FINS	
Modicon	984 CPU, Quantum 113 CPU, AEG Modicon Micro Series 110 CPU: 311-xx, 411-xx, 512-xx, 612-xx		Modbus RTU	
Siemens	S7-200 CPU, RS-485 Serial		PPI	
	S7-200 CPU, S7-300 CPU, S7-400, S7-1200 CPU; Ethernet		Ethernet ISO over TCP	
Productivity Series	all		AutomationDirect P3000 Serial AutomationDirect P3000 Ethernet	
Do-more	all		Do-more Serial Do-more Ethernet	
CLICK	all		AutomationDirect Modbus (CLICK)	
DirectLOGIC	DL05/DL06	all	K-Sequence	
			Direct NET	
		H0-ECOM/H0-ECOM100	Modbus (Koyo addressing) DirectLOGIC Ethernet	
	DL105	all	K-Sequence	
		D2-230	K-Sequence	
	DL205	D2-240	K-Sequence Direct NET	
		D2-250/D2-250-1/D2-260	K-Sequence Direct NET	
			Modbus (Koyo addressing)	
			D2-240/D2-250-1/D2-260 using D2-DCM	Direct NET Modbus (Koyo addressing)
		H2-ECOM/H2-ECOM100	DirectLOGIC Ethernet	
		DL305	D3-330/330P (Requires the use of a Data Communications Unit)	Direct NET
			D3-340	Direct NET
	D3-350		K-Sequence Direct NET	
			Modbus (Koyo addressing) Direct NET	
	D3-350 using D3-DCM		Modbus (Koyo addressing)	
	DL405		D4-430	K-Sequence Direct NET
			D4-440	K-Sequence Direct NET
		K-Sequence Direct NET		
		D4-450	K-Sequence Direct NET	
			Modbus (Koyo addressing) Direct NET	
		All with D4-DCM	Modbus (Koyo addressing)	
		H4-ECOM/H4-ECOM100	DirectLOGIC Ethernet	
	H2-WinPLC (Think & Do) Live V5.2 or later and Studio any version		Think & Do Modbus RTU (serial port)	
	H2-WinPLC (Think & Do) Live V5.5.1 or later and Studio V7.2.1 or later		Think & Do Modbus TCP/IP (Ethernet port)	

Cable Description	Cable Part Number	Price
AutomationDirect Productivity Series, Do-more, CLICK, Direct LOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C)	EA-2CBL	
Direct LOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C)	EA-2CBL-1	
Direct LOGIC PLC RJ-11 port, D3-340 (RS-232C)	EA-3CBL	
Direct LOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C)	EA-4CBL-1	
Direct LOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCM's (RS-232C)	EA-4CBL-2	
Allen-Bradley MicroLogix 1000, 1100, 1200, 1400 & 1500 (RS-232C)	EA-MLOGIX-CBL	
Allen-Bradley SLC 5-03/04/05 ControlLogix, CompactLogix, FlexLogix, DF1 port (RS-232C)	EA-SLC-232-CBL	
Allen-Bradley PLC-5 DF1 port (RS-232C)	EA-PLC5-232-CBL	
Allen-Bradley SLC 500 DH485 port (RS-485A)	EA-DH485-CBL	
GE 90/30, 90/70, Micro 90, VersaMax Micro 15-pin D-sub port (RS-422A)	EA-90-30-CBL	
MITSUBISHI FX Series 25-pin port (RS-422A)	EA-MITSU-CBL	
MITSUBISHI FX Series 8-pin mini-DIN (RS-422A)	EA-MITSU-CBL-1	
OMRON Host Link C200 Adapter, C500 (RS-232C)	EA-OMRON-CBL	

Example Cables:

EA-2CBL



EA-2CBL-1



C-more Computer Programming Connections

Using the **C-more** Programming Software EA9-PGMSW for project development, the touch panel can be connected to a PC (personal computer) in one of several ways:

- Connect a USB Programming Cable such as (USB-CBL-AB15) from a USB port type A on the PC to the USB type B programming port on the C-more touch panel. The USB connection is for direct connection only and does not support USB hubs.
- Connect the **C-more** touch panel to a PC with a Cat5 Ethernet cable via an Ethernet switch. Multiple panels can be programmed in this configuration.

Following are the minimum system requirements for running **C-more** Programming Software, p/n EA9-PGMSW, on a PC:

- USB or Ethernet connection to touch panel (cables sold separately).
- Operating System - Windows 7, 8, 8.1 or 10 (32 or 64-bit)

USB Programming Cable



Part No. USB-CBL-AB15

Other lengths available see
USB-CBL-AB3, USB-CBL-AB6, USB-CBL-AB10

Stride® Ethernet Switch



Message is sent out only from the port connected to destination device

Message in from a device

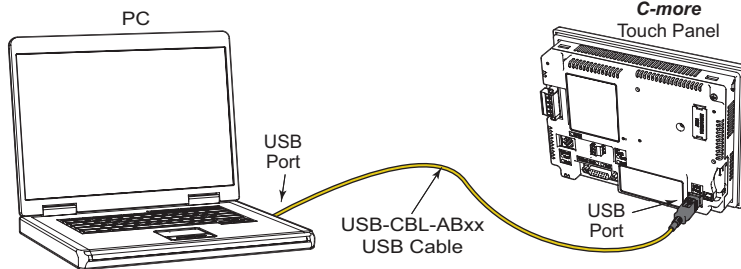
Part No. SE2-SW5U

NOTE: Regarding Ethernet access to a C-more panel.

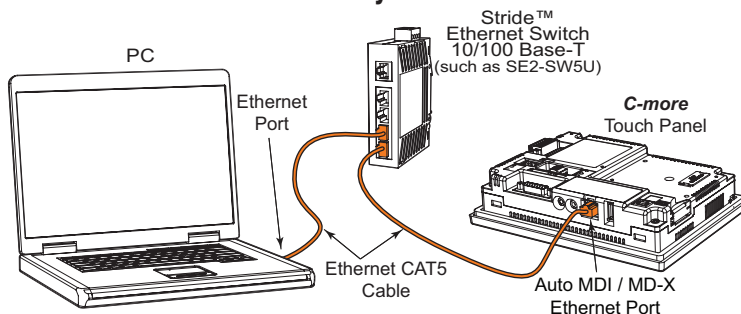
If you intend to take advantage of the methods of remote access to the panel, including the web server, PC remote access, FTP, iPhone or iPad app, you need to consider the security exposure in order to minimize the risks to your process and your C-more panel.

Security measures may include password protection, changing the ports exposed on your network, including a VPN in your network, and other methods. Security should always be carefully evaluated for each installation.

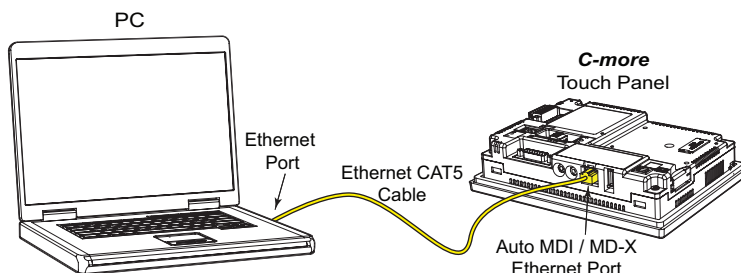
USB Connectivity



Ethernet Connectivity via a Hub or Switch



Ethernet Direct Connection

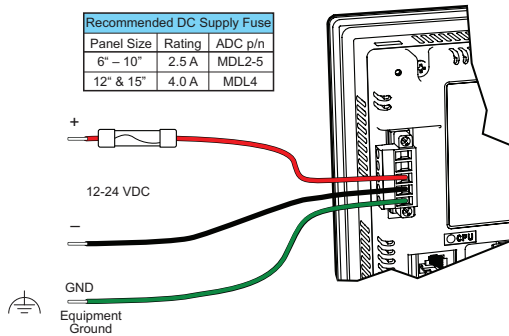


C-more Power Connection Wiring

Providing Power to the Touch Panel

- Connect a dedicated 12–24 VDC Class 2 power supply to the DC connector on the rear of the **C-more** touch panel. Connect the ground terminal to a proper equipment ground.
- or, install a **C-more** AC Power Adapter (EA-AC) to the rear of the touch panel and connect an AC voltage source of 100–240 VAC, 50/60 Hz, to its AC connector.
- then, turn on the power source and check the LED status indicators on the front and rear of the **C-more** touch panel for proper operation.

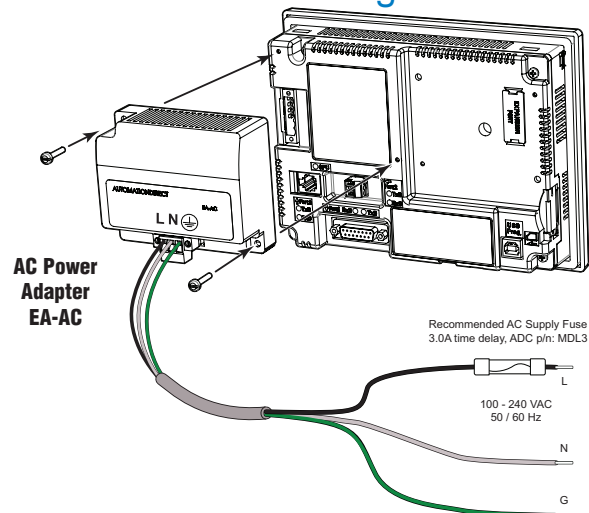
DC Wiring



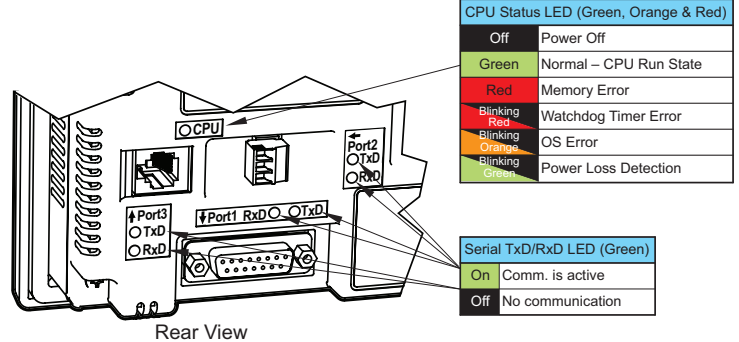
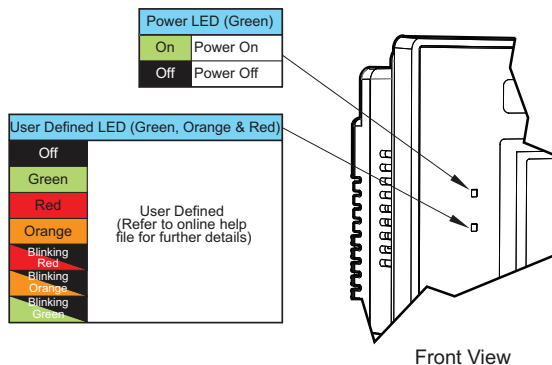
Recommended Power Supply:
AutomationDirect Part No. PSC-24-060

DC-CON Tightening Torque	
Power connector screw torque	70.4 oz-in [0.5 Nm]
Power connector mounting torque	56 oz-in [0.4 Nm]

AC Wiring



EA-AC Tightening Torque	
Power supply cable torque	71 - 85 oz-in [0.5 - 0.6 Nm]
Power connector mounting torque	71 - 85 oz-in [0.5 - 0.6 Nm]
Mounting flange screw torque	57 - 71 oz-in [0.4 - 0.5 Nm]



WARNING: To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

Equipment damage or serious injury to

personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call us at or

This publication is based on information that was available at the time it was printed.

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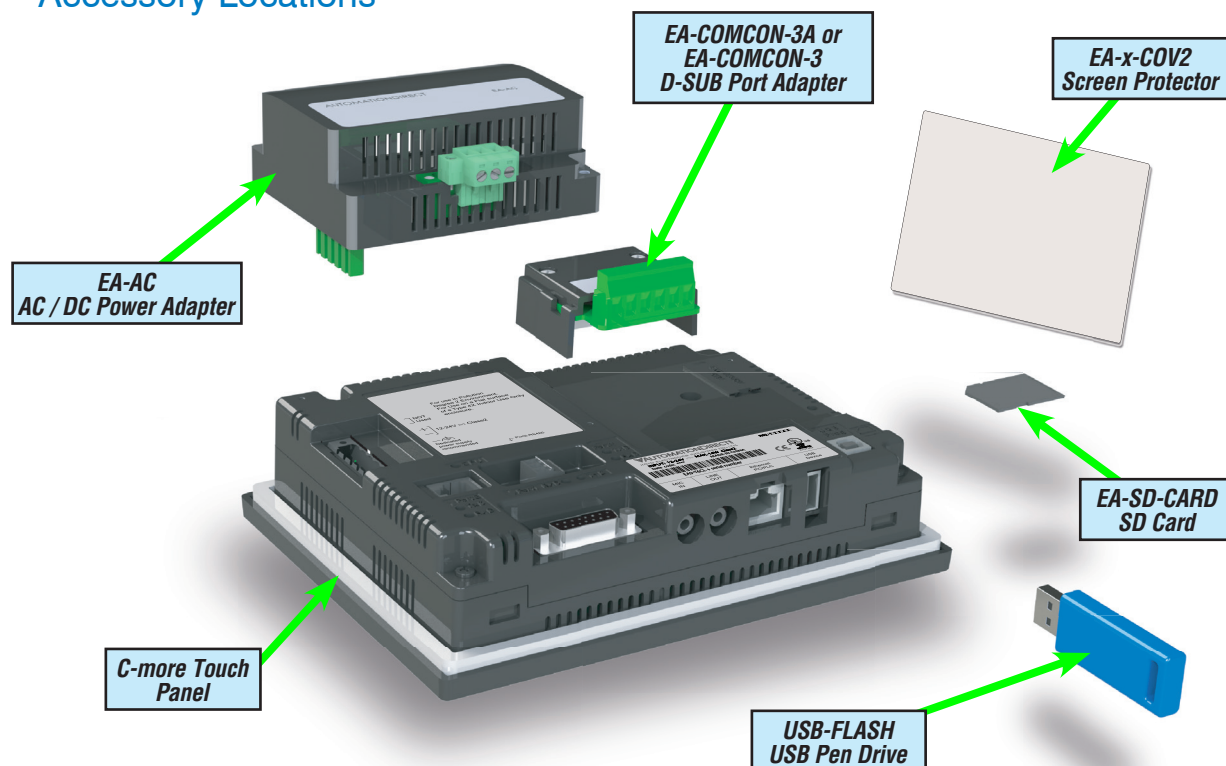
C-more Accessories

Accessories

C-more touch panels can be enhanced with the accessories below:

Part Number	Description	Price
EA-AC	AC/DC Adapter for <i>C-more</i> EA7 and EA9 series touch panels; powered from a 100-240 VAC, 50/60 Hertz power source. Provides 24VDC at 1.5A. Power Fault features help protect data being logged to Compact Flash or SD card during power failures. <i>C-more</i> EA7 series panels must have firmware version 1.21 Build 6.18E or higher for proper operation.	
EA-6-COV2	Non-glare protective overlay, 6-inch, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA7 and EA9 series and <i>C-more</i> Micro-Graphic 6-inch panels. Package of 3.	
EA-7-COV2	Non-glare protective overlay, 7-inch, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA9-T7CL(-R) panels. Package of 3.	
EA-8-COV2	Non-glare protective overlay, 8-inch, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA7 and EA9 series 8-inch panels. Package of 3.	
EA-10-COV2	Non-glare protective overlay, 10-inch, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA7 and EA9 series 10-inch panels. Package of 3.	
EA-10W-COV2	Non-glare protective overlay, 10-inch widescreen, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA9-T10WCL panels. Package of 3.	
EA-12-COV2	Non-glare protective overlay, 12-inch, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA7 and EA9 series 12-inch panels. Package of 3.	
EA-15-COV2	Non-glare protective overlay, 15-inch, protects <i>C-more</i> touch screen and helps reduce glare from external light sources. Compatible with <i>C-more</i> EA7 and EA9 series 15-inch panels. Package of 3.	
EA-COMCON-3	DSUB port adapter, 15-pin to 6-terminal RS-422/485, right angle connector, plugs into the 15-pin serial port on rear of touch panel to allow wire terminal connections for an RS-422/485 communication cable. Compatible with <i>C-more</i> EA7 series, EA9-T6CL(-R), EA9-T7CL(-R) and <i>C-more</i> Micro-Graphic 4 or 6-inch panels.	
EA-COMCON-3A	DSUB port adapter, 15-pin to 6-terminal RS-422/485, straight connector, plugs into the 15-pin serial port on rear of touch panel to allow wire terminal connections for an RS-422/485 communication cable. Compatible with <i>C-more</i> EA9 series panels, <i>C-more</i> Micro EA3-T8CL and EA3-T10CL panels and EA1-S3x with EA1-MG-SP1. Not compatible with EA9-T6CL(-R) and EA9-T7CL(-R) panels.	
EA-SD-CARD	SD memory card for non-volatile storage, 2GB industrial grade. 70 degrees C maximum operating temperature makes it suitable for data logging in industrial applications. Recommended for the <i>C-more</i> EA9 series touch panels.	
USB-FLASH	USB Flash drive, SanDisk, 32GB (SanDisk P/N SDCZ50-032G-B35). Recommended for use with the <i>C-more</i> touch panels and Productivity3000 controllers.	

Accessory Locations



C-more Accessories

AC/DC Power Adapter

The optional **C-more** AC/DC Power Adapter can be used to power the **C-more** touch panels from a 100-240 VAC, 50/60 Hertz, voltage source. The adapter provides 24VDC @ 1.5 A to the touch panel's DC power connector and can be conveniently secured to the touch panel with two captive screws.

The adapter provides a power loss signal to the touch panel that causes the touch panel to stop writing data to SD memory devices providing a controlled shutdown for increased data logging reliability.

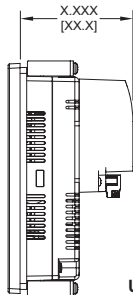
Part No. EA-AC

Dimensions

inches / [mm]

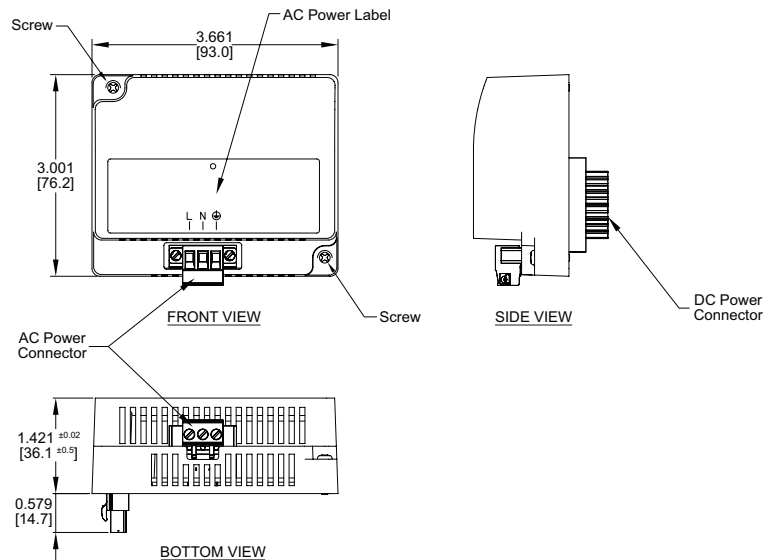


Overall Panel Depth w/ EA-AC Installed



EA9-T6CL-R = 2.99 [75.9]
EA9-T6CL = 2.99 [75.9]
EA9-T7CL-R = 2.99 [75.9]
EA9-T7CL = 2.99 [75.9]
EA9-T8CL = 3.51 [89.2]
EA9-T10CL = 3.51 [89.2]
EA9-T10WCL = 3.51 [89.2]
EA9-T12CL = 3.35 [85.1]
EA9-T15CL-R = 3.35 [85.1]
EA9-T15CL = 3.35 [85.1]

Units: inches[mm]



AC/DC Power Adapter Specifications			
Part Number	EA-AC	Short Circuit Protection	85VAC: 2.6 A, 100VAC: 2.8 A, 264VAC: 3.9 A
Input Voltage & Frequency	100-240 VAC +10% -15%; 50/60 Hertz	Static Electricity Discharge Resistance	Compliant with IEC61000-4-2, Contact: 4 kV, Air: 8 kV
Wire	24-14 AWG, 60 / 75°C Copper. Tighten to 72 oz-in (0.5 Nm)	Agency Approvals	UL508 - UL Recognized for use with C-more panels, cUL, CE, EMC EN61132-2
Permissible Momentary Power Failure	Within 40ms	Environment	For use in pollution degree 2 environment
Input Power	68VA or less	Grounding	Ground resistance: less than 100 ohm
Operating Temperature Range	0°C to 50°C [32 to 122°F] Maximum surrounding temperature rating, 50°C	Dimensions - inches [mm]	3.00" (H) x 3.66" (W) x 1.42" (D) [76.2 mm x 93.0 mm x 36.1 mm] (Excluding DC Power Connector.)
Storage Temperature Range	-20 to 60°C [-4 to 140°F]	Weight	6.13 oz. [175 g]
Operating & Storage Humidity	10-85% RH (non-condensing)	Cooling Method	Natural convection
Noise Immunity	1000VAC p-p (Pulse width 1 µs, rise time: 1 ns), with proper ground connection on AC terminal block.	Removable AC Power Connector (included)	EA-AC-CON or DECA Switchlab MC101-508-03G Secured with (2) captive M2.5 screws, torque to 70 oz-in [0.5 Nm]
Hi-Pot	1000VAC, 1 minute, with proper ground connection on AC terminal block.	Output Voltage and Ripple	21.6 - 26.4 VDC, Ripple < 100 mV p-p
Insulation Resistance	500VDC, 10 M ohm or above, with proper ground connection on AC terminal block.	Output Current	Maximum 1.5 A
Vibration	Compliant with IEC61131-2	Inrush Current	For 100VAC: 15A, 3ms or less For 240VAC: 20A, 3ms or less
Shock	Pulse shape: Sine half wave, Peak acceleration: 147 m/s² (15 G), X, Y, Z: 3 directions, 2 times each	Mounting to Touch Panel	Secure with (2) spring loaded captive M3-20 screws, torque to 50 oz-in [0.35 Nm]
Thermal Protection	140°C [284°F], with autorecovery	Recommended External Fuse	3.0A (ADC p/n: MDL3)

C-more Accessories

SD Card

Part No.
EA-SD-CARD



SD memory card for non-volatile storage, 2GB industrial grade. 70 degrees C maximum operating temperature. Recommended for the C-more EA9 series touch panels. The SD card is the fastest option for writing data. If logged data is saved to external memory, AutomationDirect recommends using an EA-SD-CARD.

EA-SD-CARD Specifications	
Operating Temperature	0 to 70°C (32 to 158°F)
Humidity	20 to 85% (Non-condensing)
Capacity	2GB
Speed Modes	High-Speed Normal-Speed
Interface	SD Memory Card Specification Ver. 3.0
Speed Class	Class 6

USB Pen Drive

Part No.
USB-FLASH



USB flash drive for non-volatile storage, 32GB. Recommended for the C-more EA9 series touch panels.

C-more Accessories

D-SUB 15-pin to Terminal Block Adapter - Right Angle

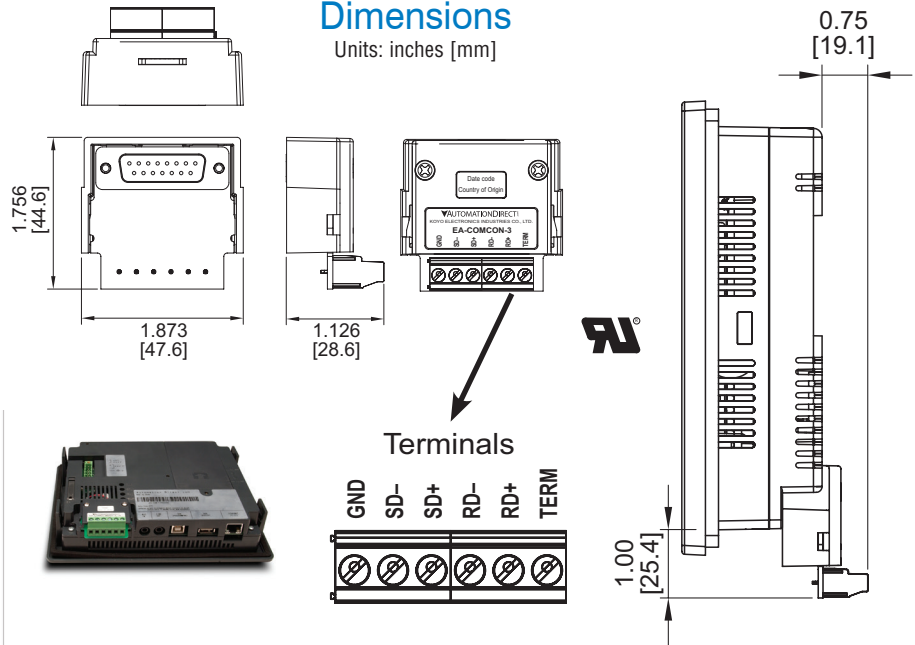
The EA-COMCON-3 adapter plugs into the 15-pin serial port on the rear of a panel to allow wire terminal connections for an RS-422/RS-485 communication cable. Compatible with all **C-more** EA7 series panels, EA9-T6CL(-R) panels, EA9-T7CL(-R) panels and **C-more** Micro 4" and 6" panels. UL Recognized

Part No.
EA-COMCON-3

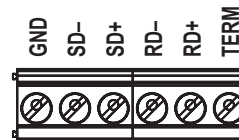


Dimensions

Units: inches [mm]



Terminals



D-SUB 15-pin to Terminal Block Adapter - Straight Through

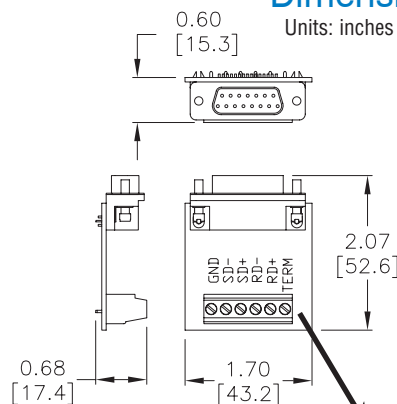
The EA-COMCON-3A adapter plugs into the 15-pin serial port on the rear of a panel to allow wire terminal connections for an RS-422/RS-485 communication cable. Compatible with C-more EA9 series panels, C-more Micro EA3-T8CL and EA3-T10CL panels and EA1-S3x with EA1-MG-SP1. Not compatible with EA9-T6CL(-R) and EA9-T7CL(-R) panels.

Part No.
EA-COMCON-3A

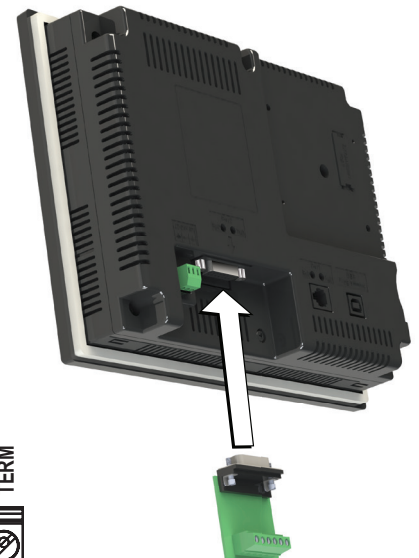
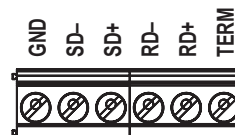


Dimensions

Units: inches [mm]



Terminals



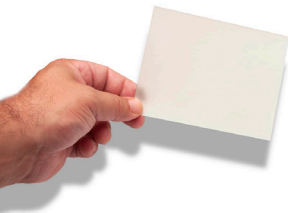
EA-COMCON-3(A) Wiring Specs	
Wire Size	Screw Torque
14-24 AWG	4.4 lb-in [0.5 Nm]

C-more Accessories

Non-glare Screen Covers (in packages of 3)

The non-glare screen covers are protective overlays used to protect the touch screen while helping to reduce the glare from external light sources.

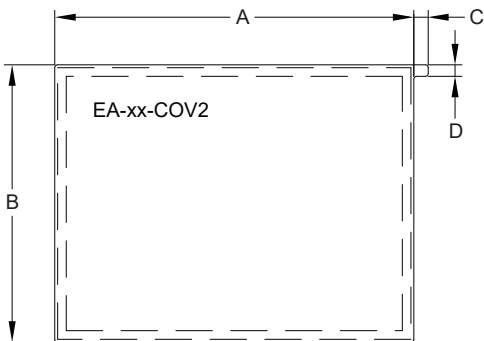
Part Numbers: EA-6-COV2, EA-7-COV2, EA-8-COV2, EA-10-COV2, EA-10W-COV2, EA-12-COV2 and EA-15-COV2



- EA-6-COV2
- EA-7-COV2
- EA-8-COV2
- EA-10-COV2
- EA-10W-COV2
- EA-12-COV2
- EA-15-COV2

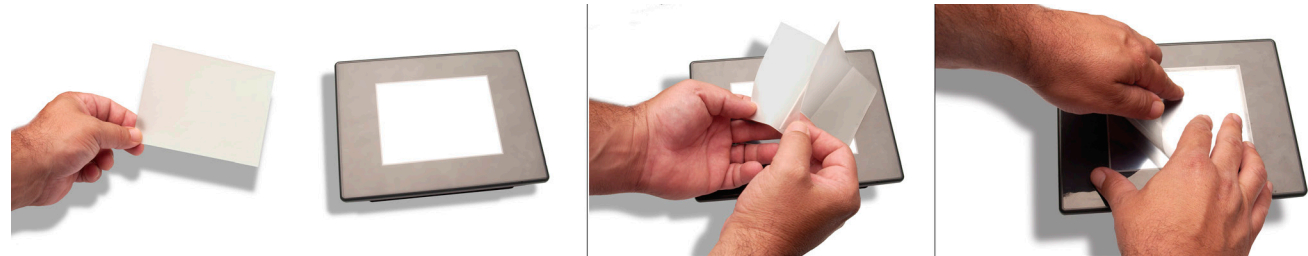
Dimensions

inches / [mm]



Non-glare Screen Covers Dimensions - inches [mm]				
Part Number	A	B	C	D
EA-6-COV2	4.91 [124.8]	3.80 [96.4]	0.197 [5.0]	0.157 [4.0]
EA-7-COV2	6.40 [162.6]	4.00 [101.5]		
EA-8-COV2	7.32 [185.8]	5.44 [138.2]		
EA-10-COV2	8.91 [226.2]	6.61 [168.0]		
EA-10W-COV2	9.23 [234.5]	5.38 [136.7]		
EA-12-COV2	10.26 [260.6]	7.64 [194.1]		
EA-15-COV2	12.56 [319.1]	9.37 [238.1]		

Installation


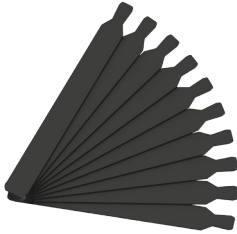



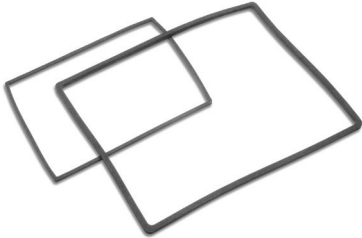


NOTE: The Protective Cover ships with a thin protective sheet on the face of the cover that needs to be carefully removed. If your panel is not clear, the protective sheet may not have been removed.

C-more Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost **C-more** components.

Replacement parts at a glance:

Part Number	Price		Description
EA9-BRK			Panel mounting brackets, replacement, for C-more EA9 series touch panels. Package of 8 brackets and screws.
EA9-LBL			Blank label insert for front bezel, replacement, for C-more EA9 series touch panels. Package of 10.
EA9-3TB			3-pole terminal block, replacement, for 3-wire RS485 communications port on C-more EA9 series panels. Package of 2.
EA-DC-CON			5-terminal DC power connector, replacement, for C-more EA7 and EA9 series touch panels
EA-AC-CON			3-terminal AC power connector, replacement, for C-more EA7 and EA9 series touch panels
EA9-15-GSK			Panel mounting gasket, replacement, for C-more EA9-T15CL and EA9-T15CL-R 15-inch touch panels, NEMA 4/4X
EA9-12-GSK			Panel mounting gasket, replacement, for C-more EA9-T12CL 12-inch touch panel, NEMA 4/4X
EA9-10W-GSK			Panel mounting gasket, replacement, for C-more EA9-T10WCL 10-inch touch panel, NEMA 4/4X
EA9-10-GSK			Panel mounting gasket, replacement, for C-more EA9-T10CL 10-inch touch panel, NEMA 4/4X
EA9-8-GSK			Panel mounting gasket, replacement, for C-more EA9-T8CL 8-inch touch panel, NEMA 4/4X
EA9-6-GSK			Panel mounting gasket, replacement, for C-more EA9-T6CL-R, EA9-T6CL, EA9-T7CL-R and EA9-T7CL touch panels, NEMA 4/4X