

C-more Touch Panels

Section 10



C-more Micro Touch Panels

Section 11



Optimates, DV-1000, LookoutDirect,
Point of View HMI/SCADA and Industrial Monitors

Section 12



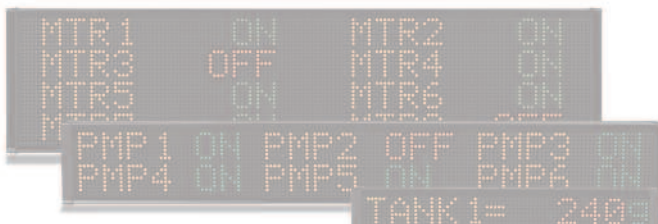
Atlas Industrial Monitors

Section 12

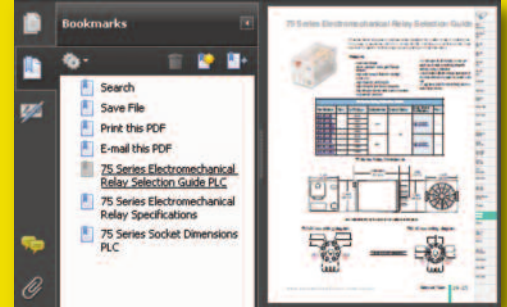


ViewMarq Industrial Marquee Displays

Section 41



In this interactive PDF
you can:



- Use bookmarks to navigate by product category
- Use bookmarks to save, search, print or e-mail the catalog section
- Click on part #s to link directly to our online store for current pricing, specs, stocking information and more

Operator Interface



C-more Operator Touch Panels

Our C-more remote HMI application, for iPad®, iPhone® or iPod touch®, is available on the App Store for \$4.99. It provides remote access and control to a C-more panel for mobile users who have a wi-fi or cellular connection.



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



www.c-moreHMI.com

Easy to configure, install and maintain



Reliable Hardware!

Starting at just \$499.00, **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 the reviews that current **C-more** customers have submitted.

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.

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 iPhone® or iPad® app**

C-more has better value all around!

Allen-Bradley® PLC Driver Support

See complete Driver list on page CR-26

**Import tags directly
from the RSLogix 5000
L5K file**



**Get A-B Ethernet
connectivity and 64K
colors starting at
\$699.00**

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

Drivers for:

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

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.



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 OS501 FRN5 & Higher)	Yes	Yes	**Yes		Yes			
MicroLogix 1000, 1200, 1500	Yes	Yes	**Yes		Yes ^{xxx}			
MicroLogix 1100/1400	Yes	Yes	**Yes		Yes			
PLC5	Yes							
ControlLogix				Yes		Yes	Yes	Yes
CompactLogix				Yes		Yes	Yes	Yes
FlexLogix				Yes		Yes	Yes	Yes

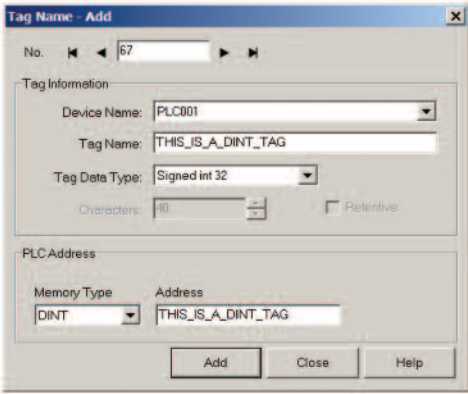
* Ethernet available on full featured C-more panels only. -R units do not support Ethernet

**AIC module from Allen-Bradley required for this connection

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

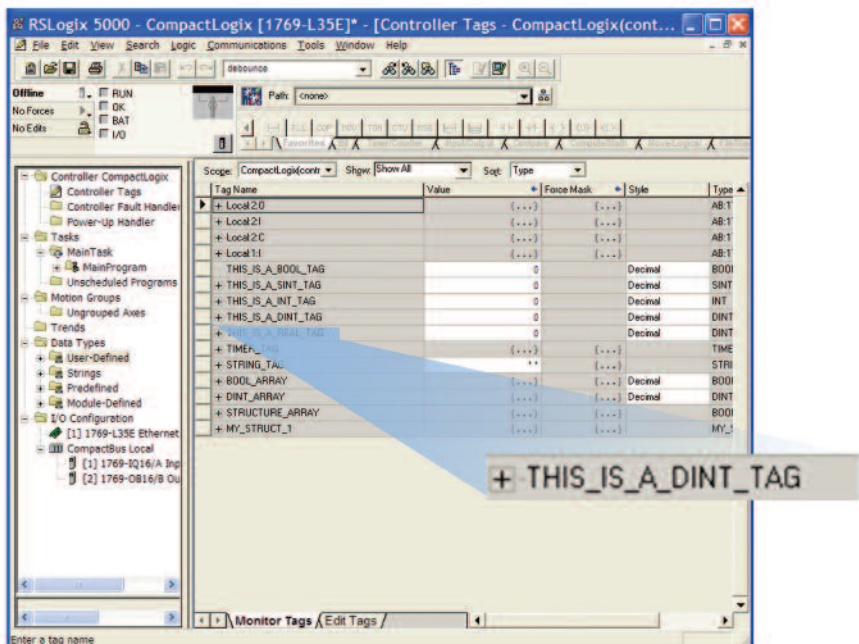
ControlLogix EtherNet/IP Tag-based Messaging

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



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).

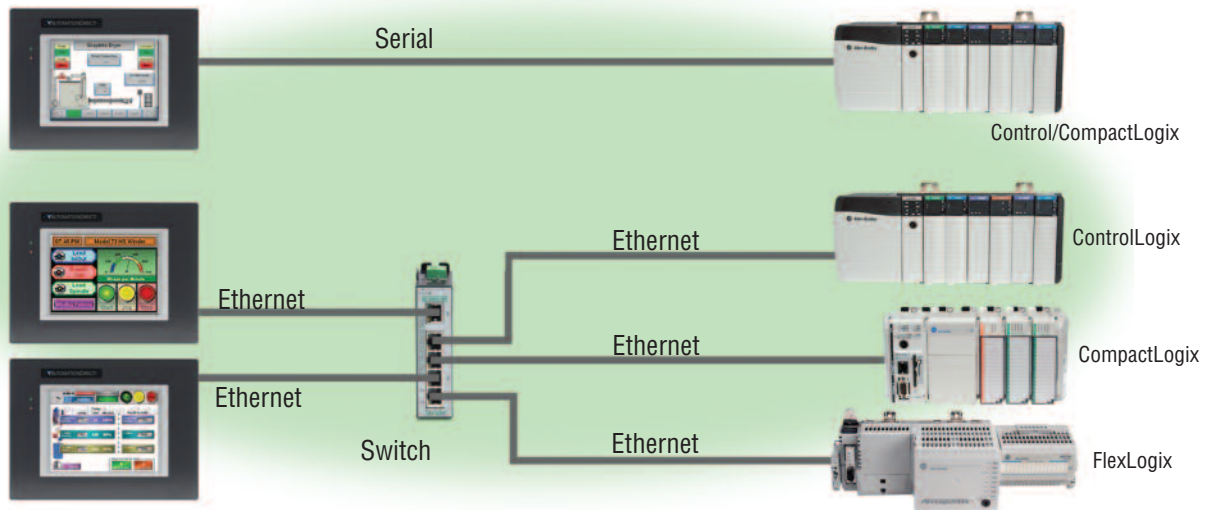


2. Type in the PLC tag names directly. You can use the PLC tag names as your **C-more** tag names or choose a different **C-more** tag name when appropriate.

ControlLogix, CompactLogix and FlexLogix

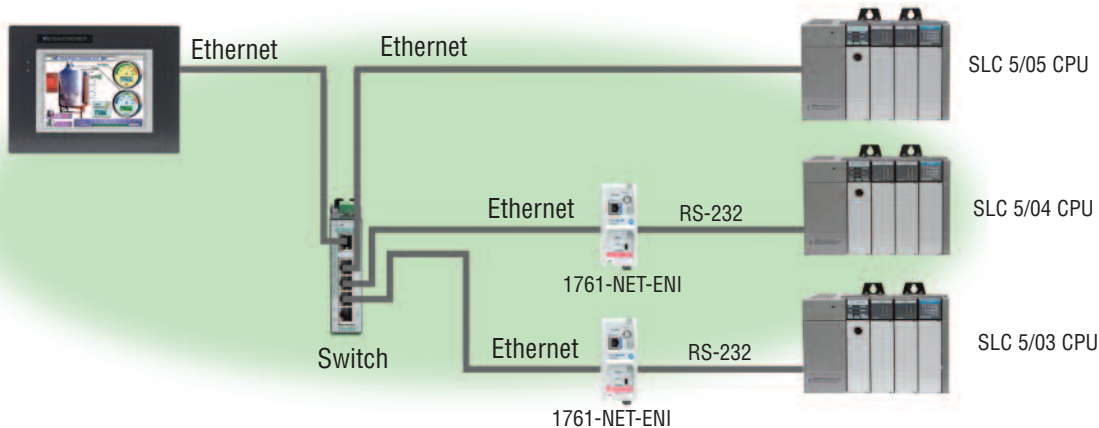
Connect to ControlLogix, CompactLogix and FlexLogix PLCs using either the native serial port or Ethernet port/module. Use direct tag-based messaging or directly enter the

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.



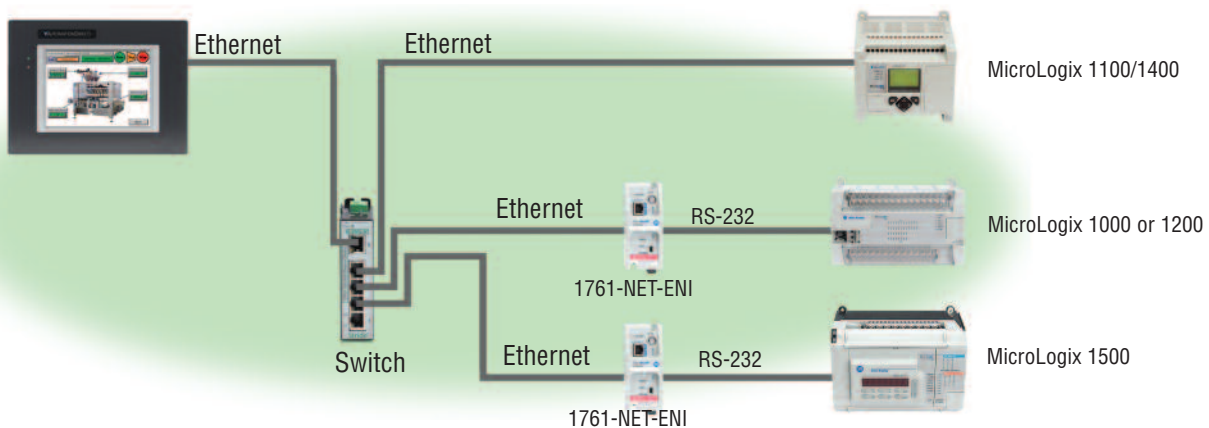
SLC 500 Ethernet and ENI Driver

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.

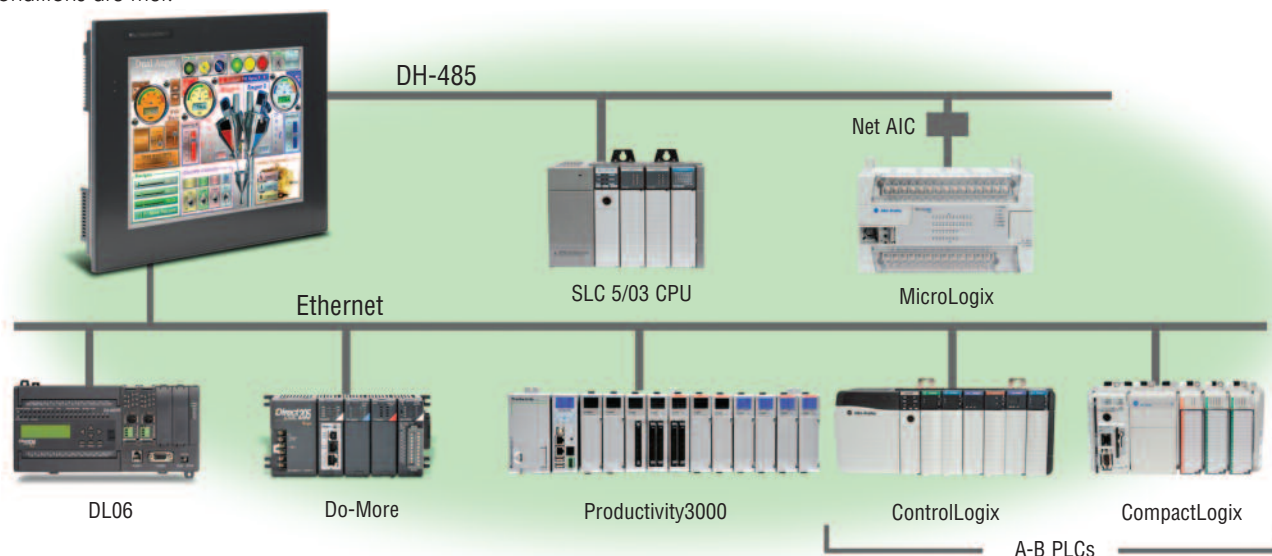


Simultaneous Communications and Panel Pass-through

Connect multiple brands of PLC/PACs

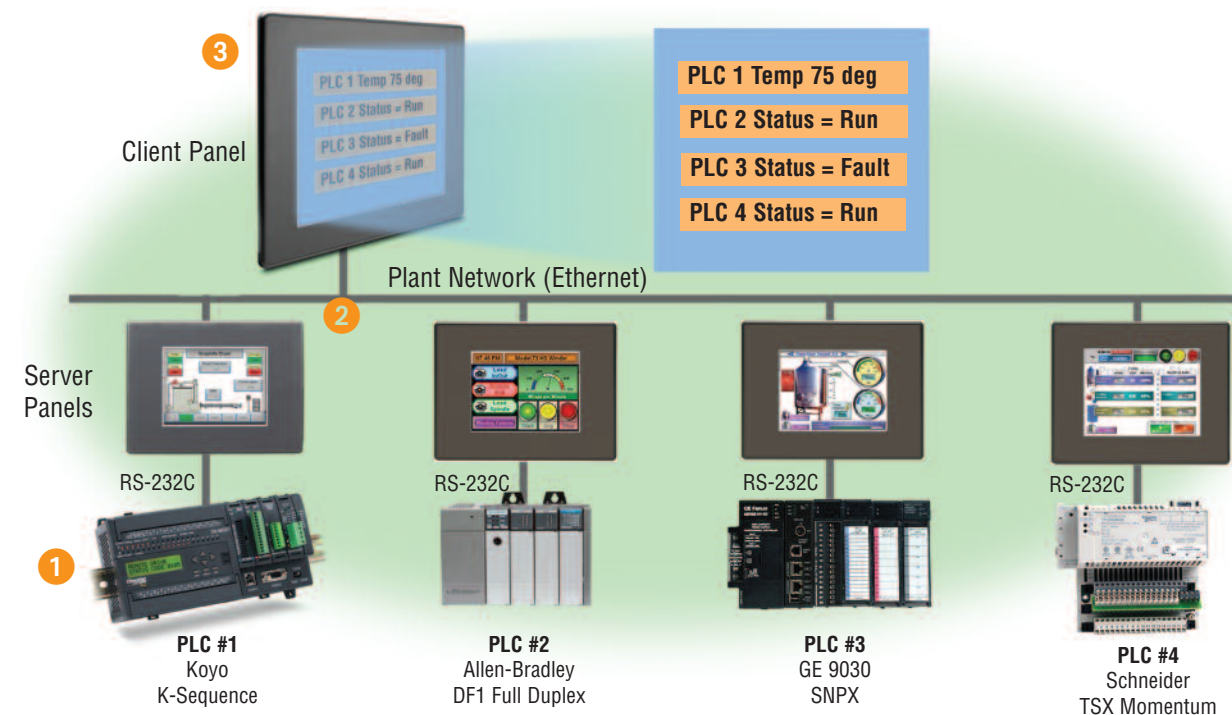
Connect multiple brands of PLC/PACs to **C-more** and communicate with them simultaneously. Use the Event Manager to periodically send tag values from one controller to another or when certain conditions are met.

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.

Program Via Ethernet or USB

Network programming

Full-featured **C-more** panels 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

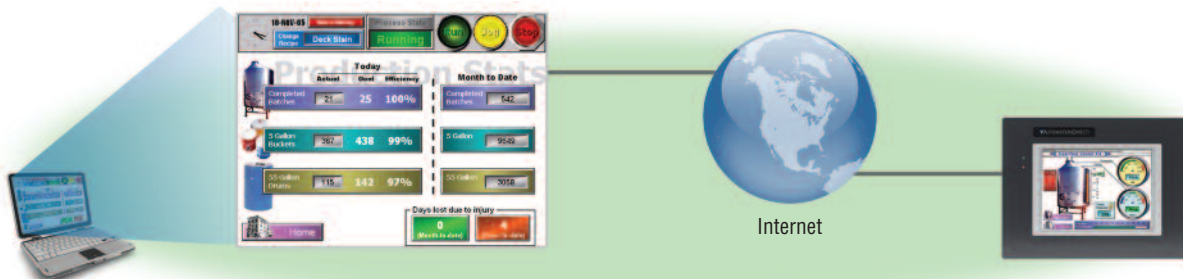
network connection to upload alarm history, PLC/PAC log data or screen captures to a connected PC. **C-more** can send e-mail, based on events or PLC/PAC alarm conditions (if connected to a network and an SMTP (Simple Mail Transport Protocol) server).



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

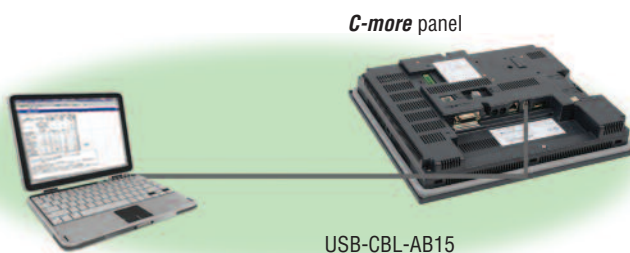
C-more panel and a network that is accessible from the Internet.



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

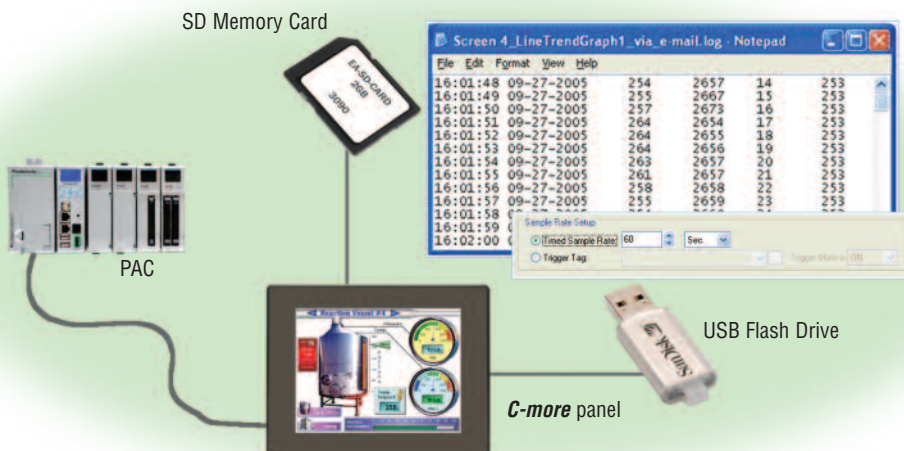
programming cables! USB cables are inexpensive (we sell 'em!) and are readily available so you won't waste time looking for a special cable when your million-dollar operation is down.



Information-Age Features

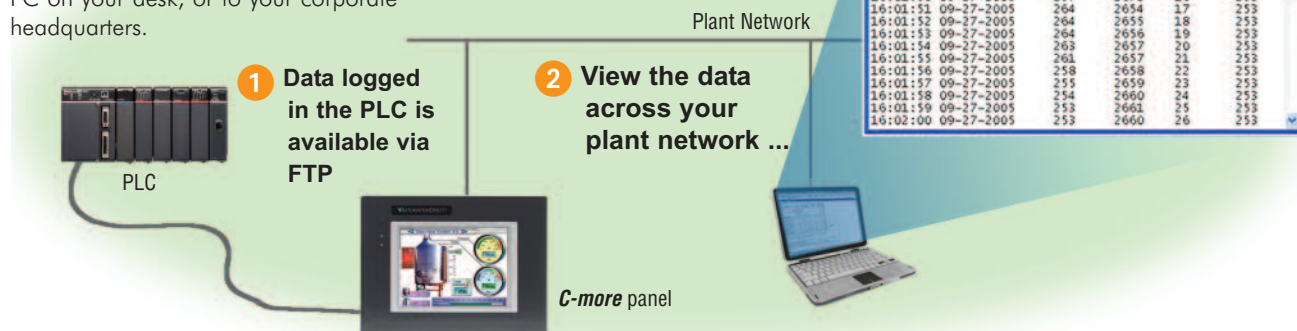
Data logging

Collect large amounts of data or play back long historical records on trend graphs. Insert SD memory cards or a USB memory device for data logging storage.



Web connectivity

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.

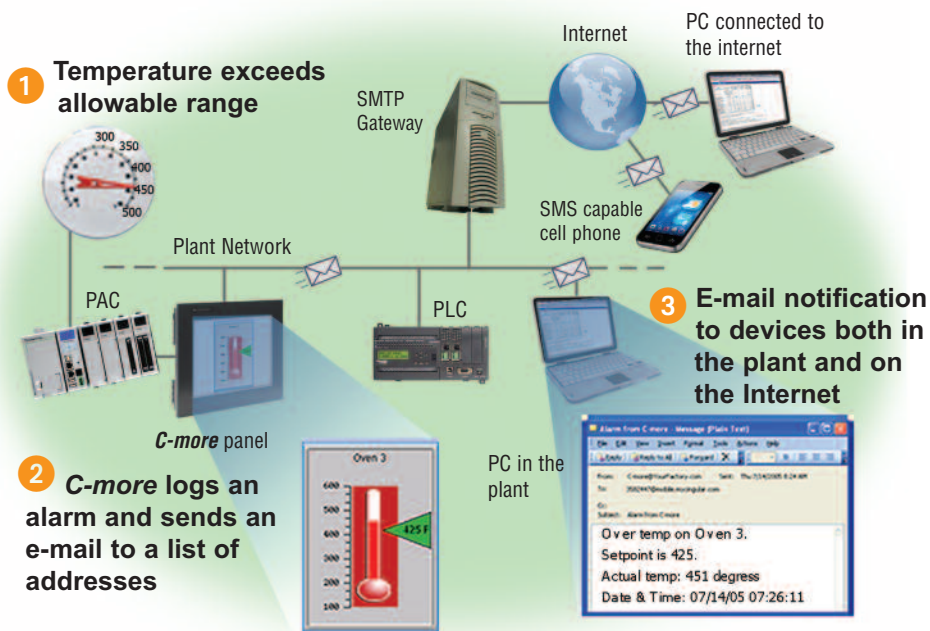


E-mail

Send e-mail messages to any device connected on the Internet, including PCs, cell phones, and other mobile devices!

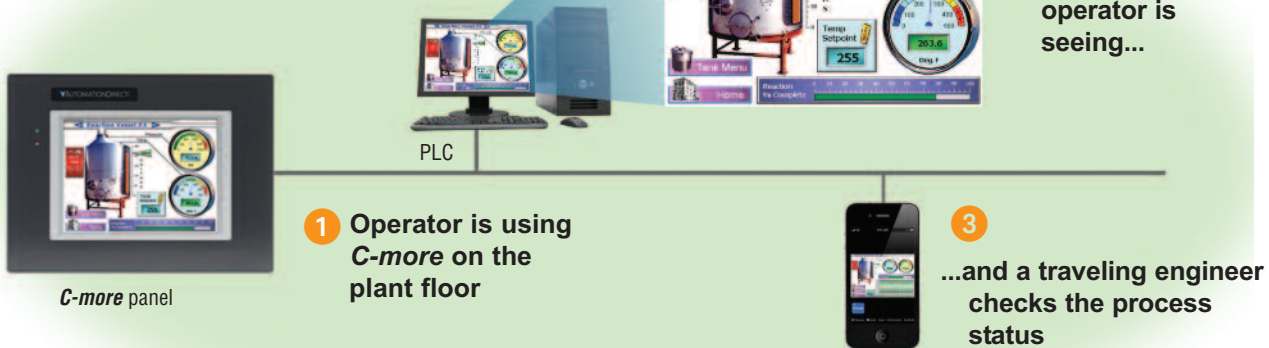
E-mails can be initiated automatically by C-more's Event Manager, or manually via a pushbutton. Operators can even key in a message and then press "Send".

Your machine can actually call for help!



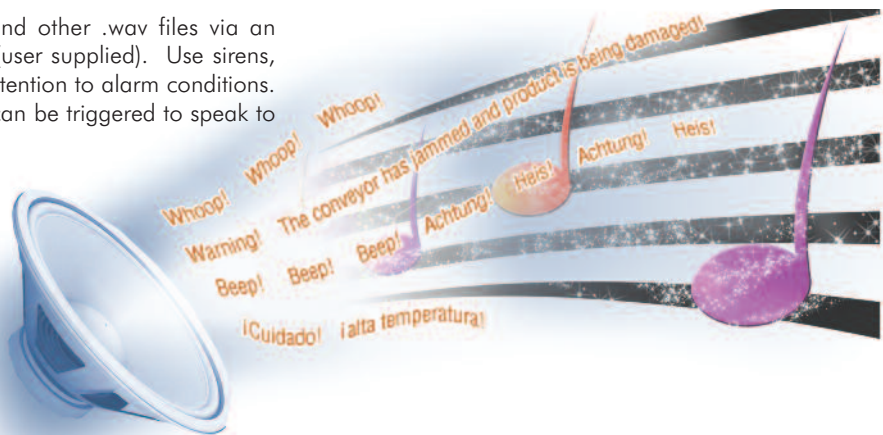
Screen shots via the **C-more** Web server

See up-to-the-minute snapshot pictures of **C-more** screens on your Web-enabled PC or PDA. Request updates as often as you like. It's browser based, so no additional software is needed to view the screens.



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 C-more panels).



Remote Access and Control . . .

Touch your panel from anywhere.



Our **C-more** remote HMI application, for iPad®, iPhone® or iPod touch®, is available on the App Store for \$4.99. It provides remote access and control to a C-more panel for mobile users who have a wi-fi or cellular connection.



Remote access and control

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.

Premium feature at no cost!

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.

Remote HMI App

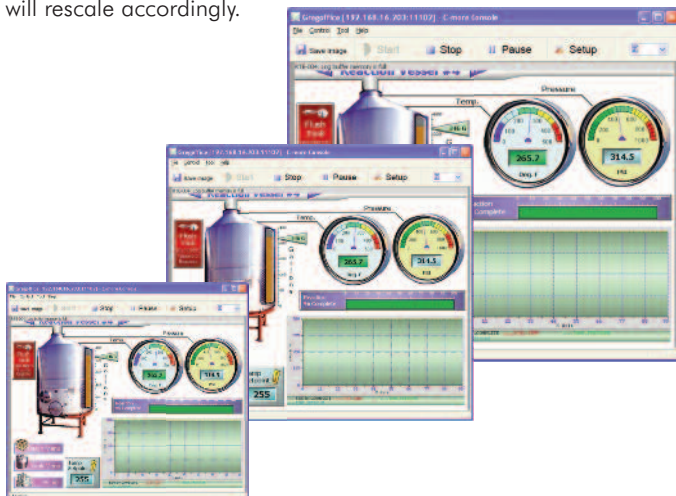
Mobile users can purchase the C-more Remote HMI iOS app from the Apple iTunes store to get remote access and control on their Apple Mobile device for only \$4.99.

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

Resizable Window

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



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:

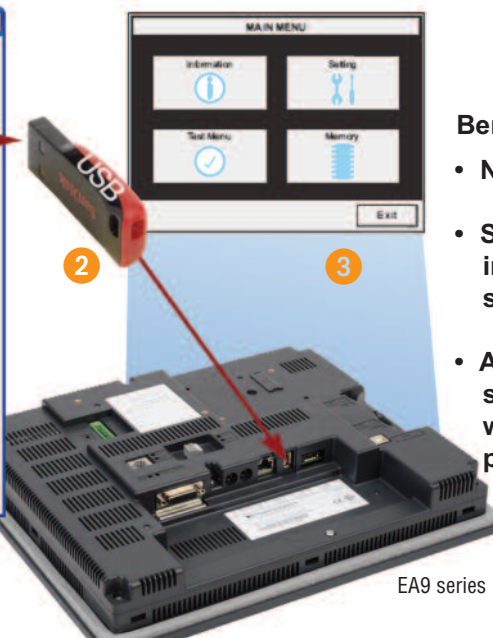
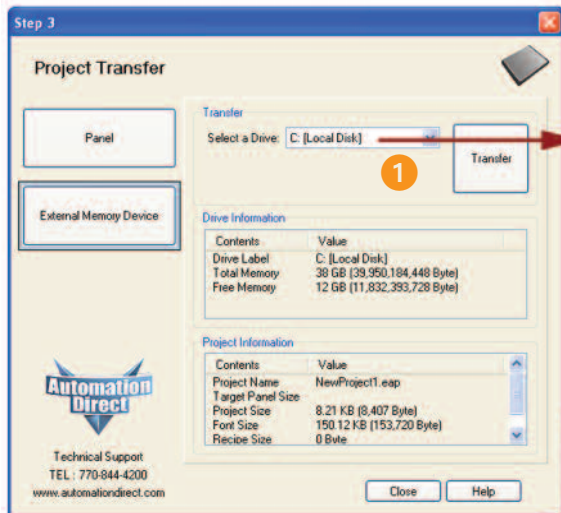
- View Only
- View and allow Screen Change only
- Full Control

USB and SD Panel Updates and Logging

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.



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

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 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.

Maximum Connectivity

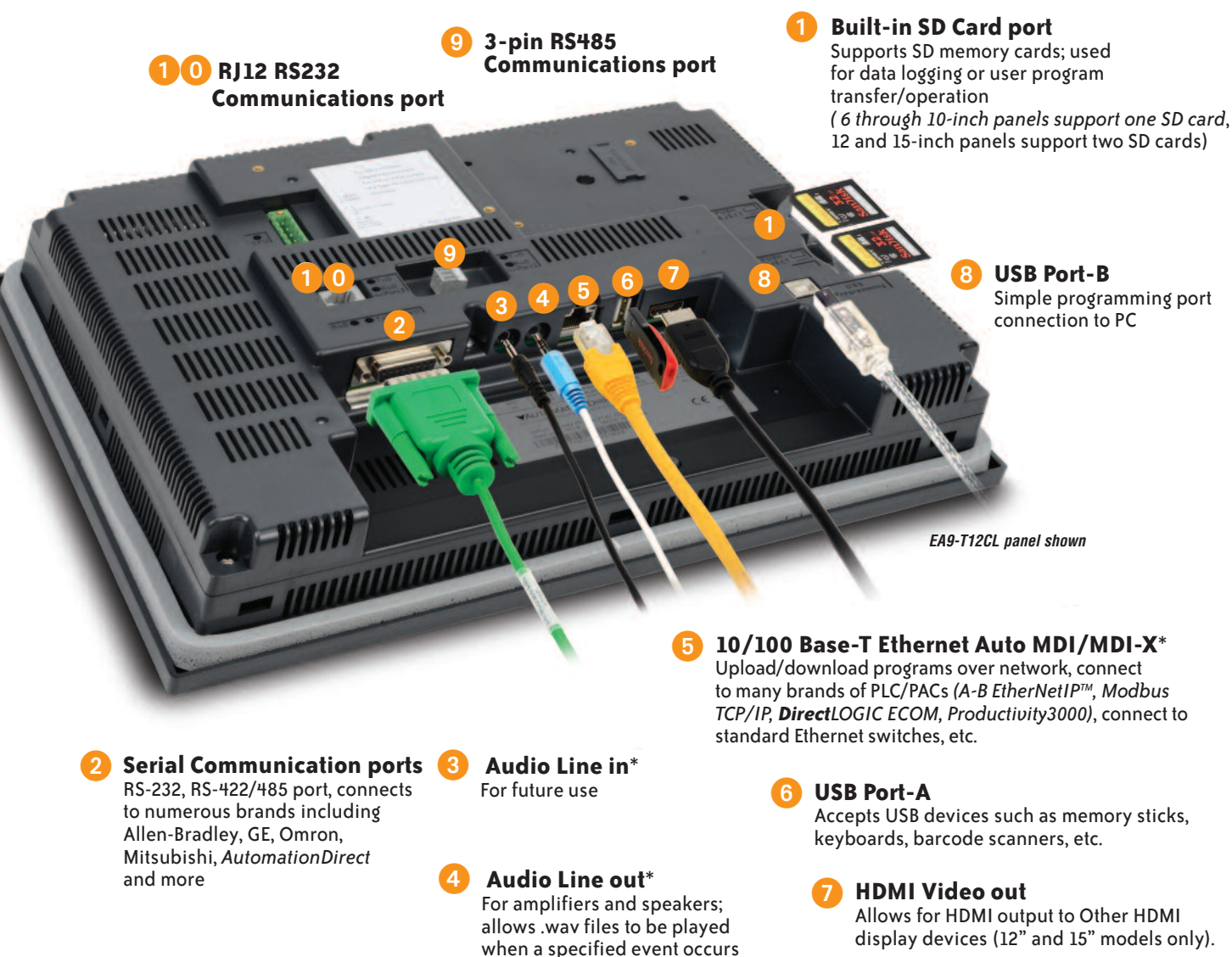
Communicate any way you want

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

Starting at \$699.00 (EA9-T6CL), you can have a 6-inch panel with a 65,536 color TFT display with all these features:

- Built-in 10/100 Base-T Ethernet (*upload/download programs over the network*)
- FTP data exchange
- Send e-mails to PCs, mobile devices, etc.
- Connect to A-B EtherNet/IP™, Modbus/TCP, and many other PLC's
- Built-in USB port A (*connect to memory sticks for data logging, bar code readers, scanners, ID readers, keyboards*)
- Built-in USB Port-B (for programming)
- Built-in Audio Line out (*plays .wav files*)
- 3 built-in serial communication ports that connect to PLC/PACs from various manufacturers (*use a serial port and the Ethernet port to connect simultaneously to multiple brands of PLC/PACs*)
- Built-in SD memory card port for data logging

Get all this connectivity on a 6-inch 65,536 color TFT display panel for \$699



* Available only on full featured units

Smart Power Supply Options and a 2 Year Warranty!

Add the 110 VAC power adaptor for improved reliability

C-more can operate with a 12 or 24 VDC power supplied. 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.

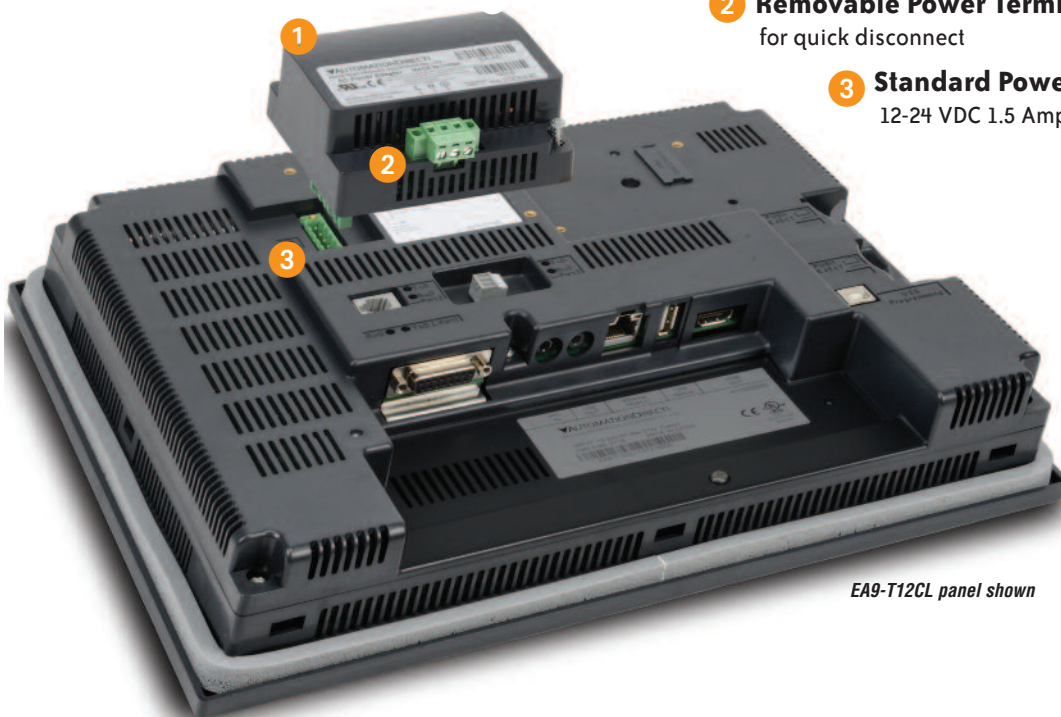
Power Fault Detection Sequential Shut-down Error Flag you can log

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

2-year warranty because it's been designed with quality in mind

C-more is built by our parent company, Koyo Electronics. For over 50 years, Koyo has been a world class manufacturer of reliable and best value products. They are part of the multi-billion dollar JTEKT Group designing and manufacturing OEM products

for demanding customers such as Toyota Motors. Koyo designed **C-more** to meet the most stringent quality requirements, and is confident to offer a 2-year limited warranty on all **C-more** panels.

User-friendly Configuration Software

Simple yet powerful

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 faster and more effective. 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!

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

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

Build your own keypads to use with numeric and text entry

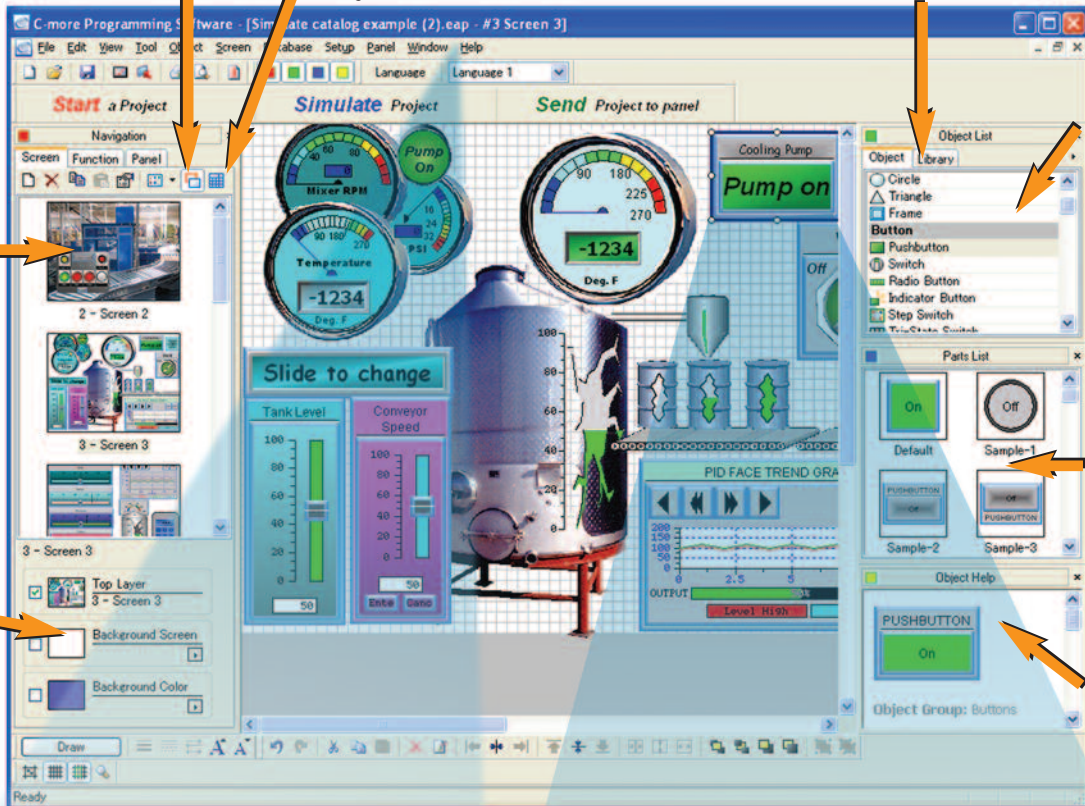
Thumbnail project preview window helps you organize multiscreen projects. And you can rearrange the screens using the screen library!

Select background screen, background color, and screen layering with a click!

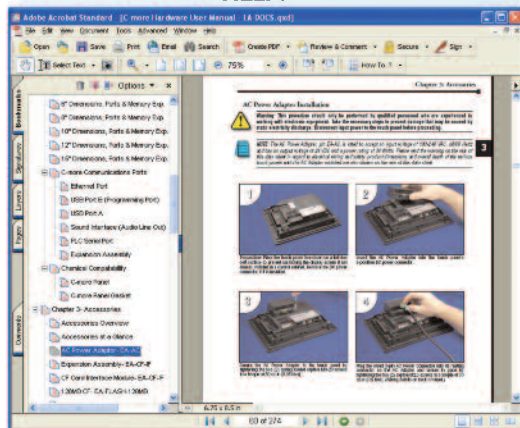
Scrolling object selection window lets you find the object you want fast. Just drag and drop it on the screen.

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

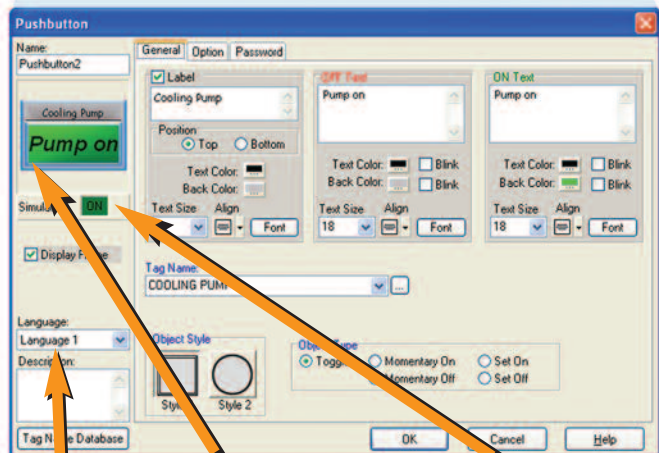
Scrolling help window for each object type selected



HELP!



Object Configuration Screen lets you quickly configure objects with fill-in-the-blank point-and-click ease



Set up text for up to nine different languages on each object

Preview object as it is being configured

Simulate object while it is being configured

Create Detailed Objects

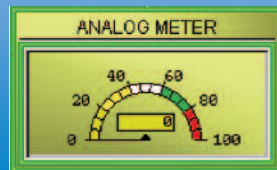
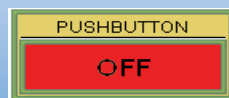
See the difference

C-more's objects look professional since they can use a wide variety of refined graphics, flexible fonts, color gradients, up to 65,536 colors and overlapping objects. Your objects will be more realistic and recognizable, almost true to life!

Customize the background colors and fonts to make your selector switch look more modern, especially with the wide range of fonts



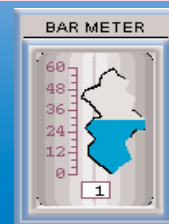
Various shading options on all standard objects allows a more realistic look.



Overlapping objects allows you to create great looking custom objects like this combination of a bitmap and meter.



Use "special effects," such as cutaway bar graphs, with your own bitmaps



Refined Graphics

Flexible Fonts and Typefaces

Color Gradients

Overlapping Objects

65,536 Colors

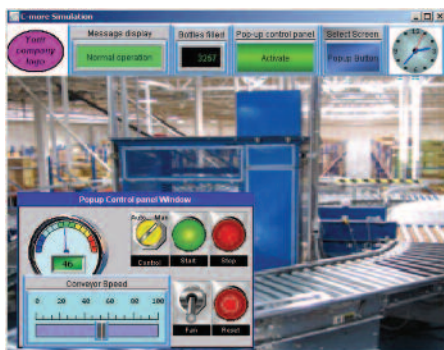


Common-sense editing tools

Use the common-sense editing tools similar to those found in office environment presentation software packages - group, order, nudge, rotate, flip, font up/down, and undo all reduce configuration time.

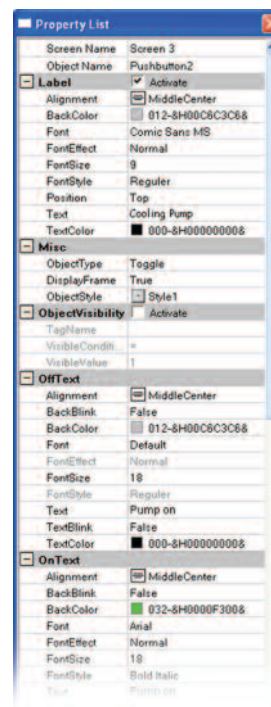
Use common elements across screens

Create a control bar once (like the one at the top of the screen shown below). With a few clicks of your mouse, it can be used as a background screen on all relevant screens. Imagine the time saved!



Power User for global changes

On the main configuration screen, click on View and select the Property List as an alternative "Power User" object configuration/editing tool. Similar to Visual Basic®, the property list dialog box allows power users to quickly configure or make changes to C-more objects. Perfect for an array of similar objects, just copy one object several times and then use the property box to make a few changes. Select multiple objects and change all of them at once. Common properties of different types of objects can even be edited simultaneously, such as background or text color.



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

Need even more fonts? Use any of the dozens from your PC as "Bitmap Text". (Although bitmap text cannot be used as an integral part of standard objects, they can be used for a wide variety of static annotations.)



Bitmap Text Fonts

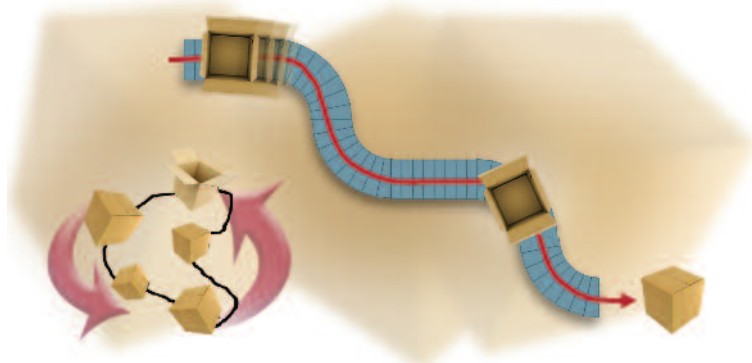
Built-in animation makes the process come to life

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**



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.

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:

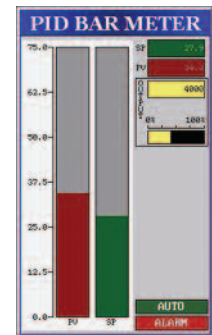
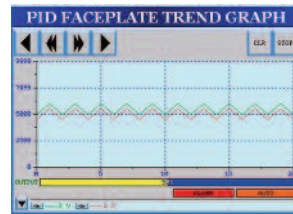
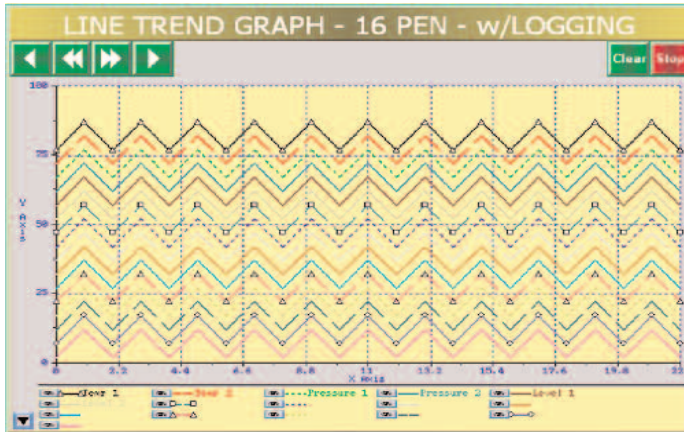
Animations of machine motion and factory processes enhance comprehension, and give operators a visual representation of the desired motion of products, and machinery on screen.

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



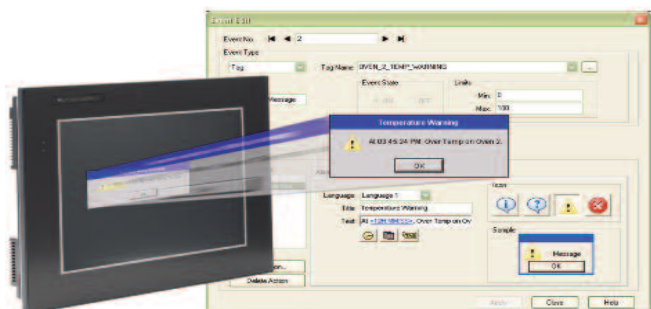
Pop-up windows for information and control

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).



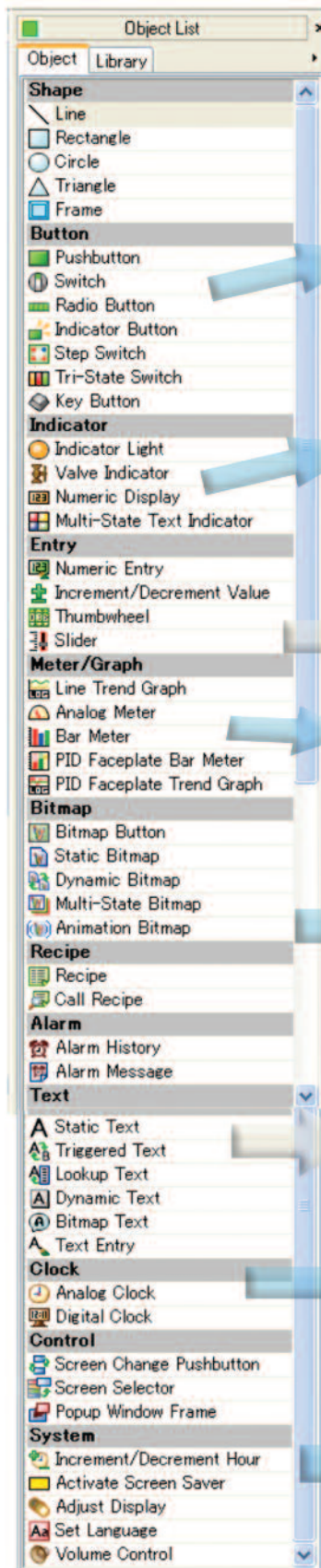
Pop-up Message Boxes for critical events

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).



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



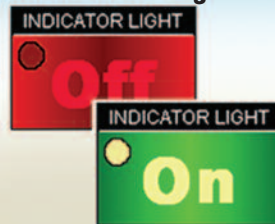
Pushbutton



Switch



Indicator Light



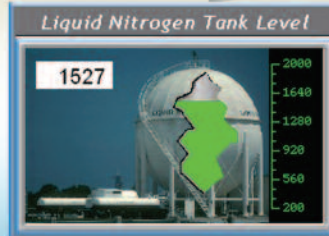
Radio Button



Thumbwheel



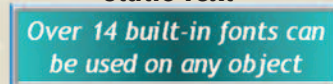
Bar Meter



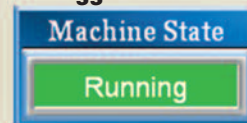
Bitmap Button



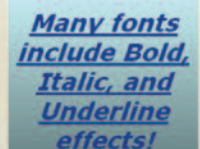
Static Text



Triggered Text



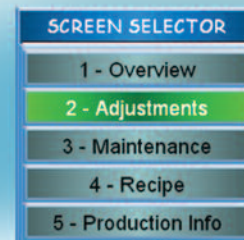
Dynamic Text



Analog Clock

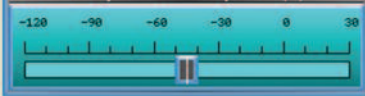


Screen Selector



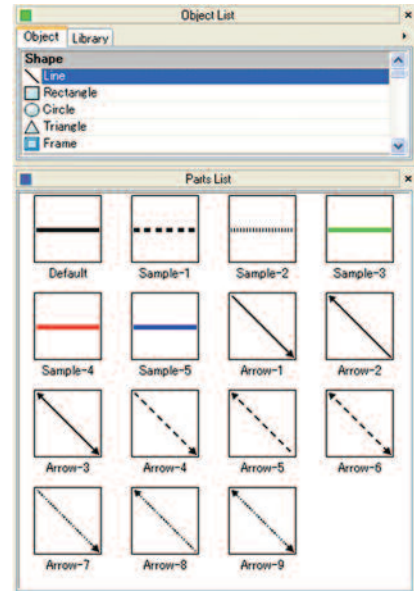
Tri-State Switch**Slider Switch**

Temperature Setpoint (F)

**Dynamic Bitmap****Bitmap Text**Use any Font
on Your PC**Set Language**

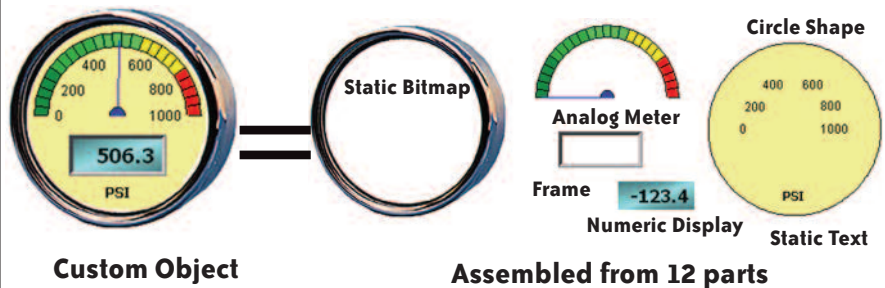
Hundreds of pre-configured parts

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.

**Custom Object****Assembled from 12 parts**

Download our free demo software

and check out all the objects for yourself.

See how easy it is to create your own custom objects.



Powerful Alarm and Event Features

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.

A
CHOOSE
EVENT

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

B
SELECT
ACTIONS



Log an alarm



Change screen



FTP



Play a sound



Send email
(with embedded tag data!)



Write values to tags



Screen capture



Copy tag values



Pop up a message box
(with embedded tag data!)

EVENT MANAGER SCREEN

C
FILL
IN THE
BLANKS

D
CLICK
APPLY

Convenient Recipe Database Functions

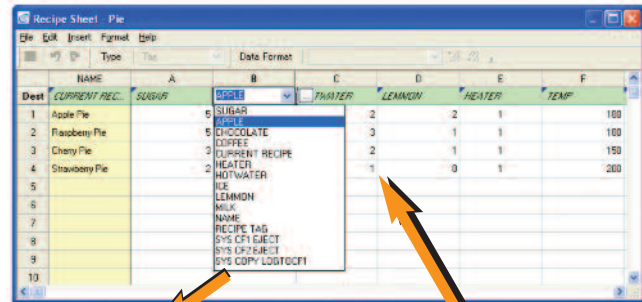
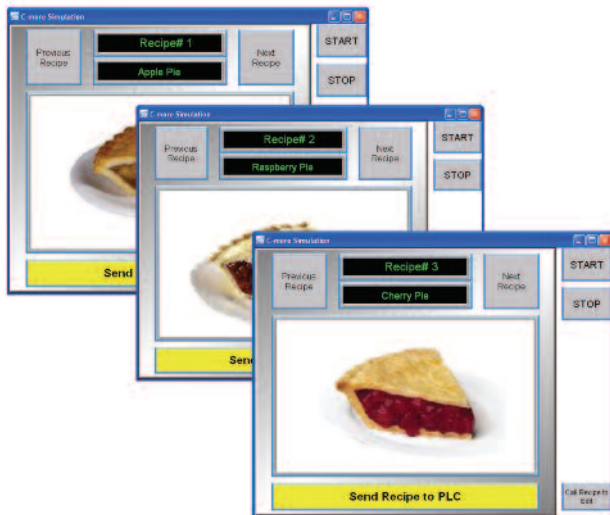
More flexible recipes save time

C-more provides tremendous flexibility and capacity to applications that require multiple recipes. It has a simple recipe button that supports 99 recipe sheets, each with 1000 recipes of 256 possible #tags or values. **C-more** recipe values can be modified and saved on the fly by the operator while the machine is running.

You can even build a pop-up window that uses several other **C-more** objects to create a powerful, graphic oriented recipe object to scroll through all recipes in a sheet, giving the operator a very simple means to select, change and load recipes.

User can configure a pop-up screen to scroll through and call up to 1000 recipes

Spreadsheet-based Recipe Creation

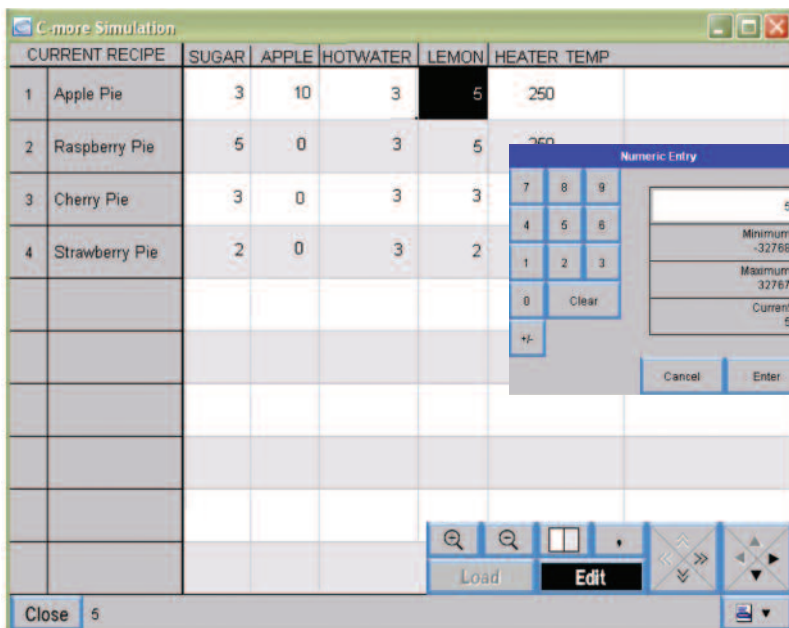


Select tags with one click

Insert constant values or select a tag

- New Recipe Database
- 99 recipe sheets
- 1000 recipes per recipe sheet
- 256 possible tags or values
- Operator editing of recipes while running

Operators can view, edit and load recipes with a touch of the screen



• Operators can select the recipe to edit right from the panel

• Click a cell and then enter the value with a keypad

• Select the "Load" button and the values are written to the PLC Tags

• Toolbar allows operator editing of recipes while running

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 an analog meter move that would be 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 and add their values on the highlighted screen in the list.

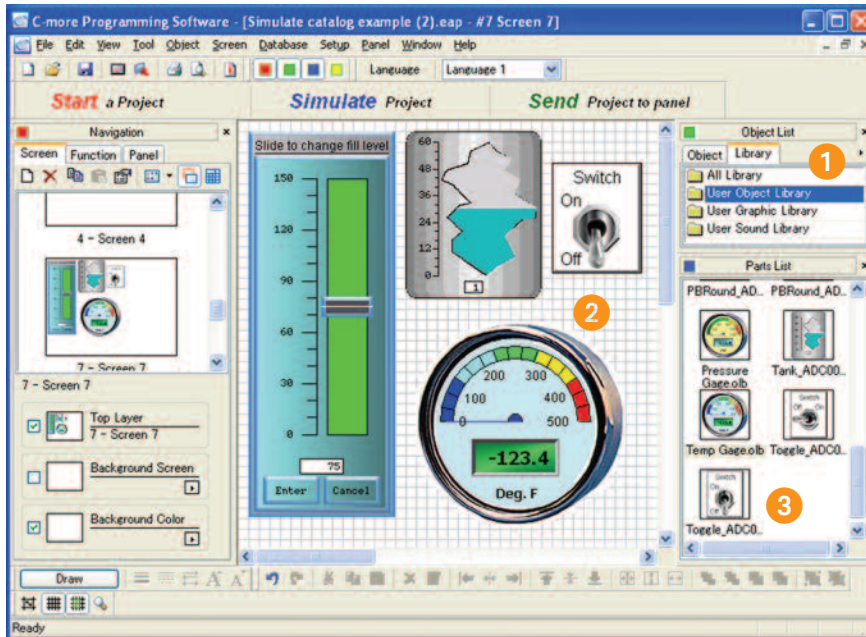
For objects tied to analog data, change actual values here in the tag list, then verify the correct behavior on the screen. You can also change input data on the simulated screen and see the value change in the tag list.

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.

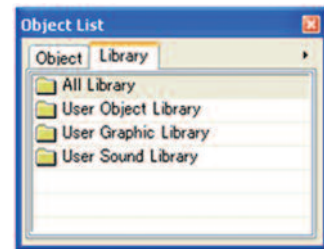


1 Object, graphic and sound libraries

2 Create, store and retrieve your:

- Custom objects
- Entire screens
- Sound bites

3 Re-use your work on this project or future projects



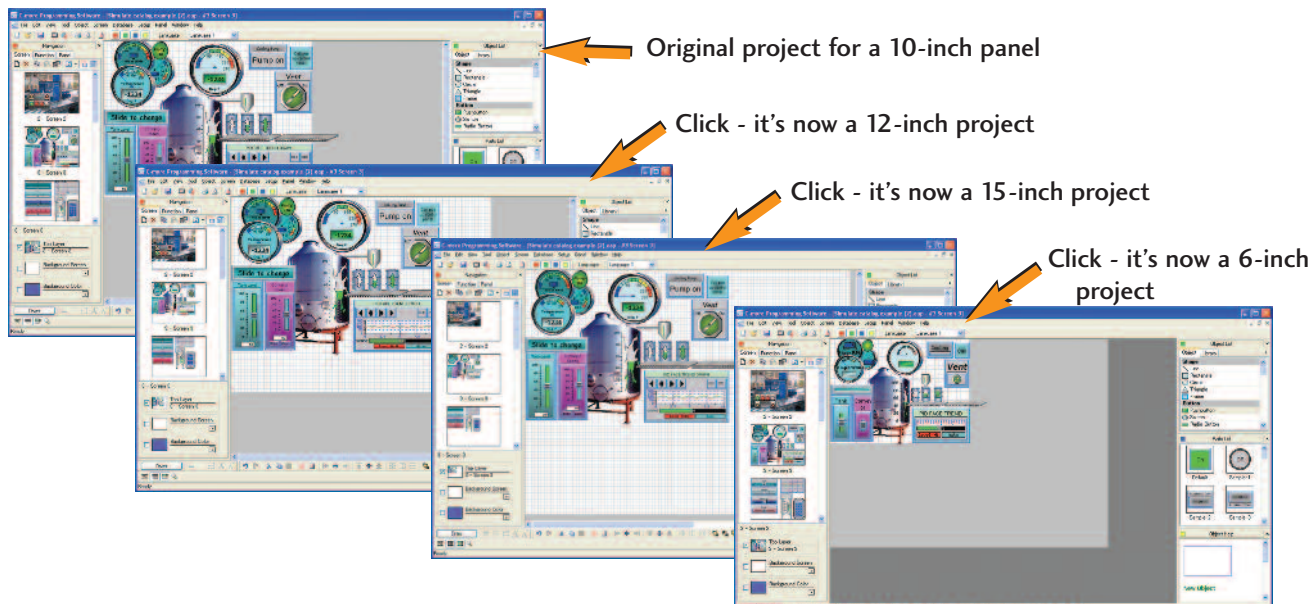
Check out our online library at: www.c-morehmi.com/support_tools/library.html

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.



The C-more Family

Hardware Selection

Part Number	Ethernet	SD Card Slot	Serial Ports	HDMI Video Output	Audio Output
EA9-T6CL-R		1 Slot	1 Port		
EA9-T6CL	Yes	1 Slot	3 Ports		Yes*
EA9-T8CL	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

Hardware Features

- 64K colors
- 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
- Email messaging
- Built-in FTP server / Web server
- Popup 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

Support Features

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

Please refer to the catalog technical section for details.

Supported drivers

AutomationDirect PLCs

Do-more PLC's

K-Sequence (**Direct**LOGIC PLCs)

DirectNET (**Direct**LOGIC PLCs)

Modbus (Productivity3000 PACs, **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 SNPX

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, Q02H, 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 Panel Quick Look

See technical specifications for available features in each model

Base Model



EA9-T6CL-R - **C-more 6"** Base model

\$499

Full Feature Models



EA9-T6CL - **C-more 6"**

\$699



EA9-T8CL - **C-more 8"**

\$999



EA9-T10CL - **C-more 10"**

\$1290

Enhanced Feature Models



EA9-T12CL - **C-more 12"**

\$1790



EA9-T15CL - **C-more 15"**

\$1999



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Starting with the enclosure, we carry everything you need to build an electrical control system, right down to the wire and tools. And we have the devices that go in the panel, such as logic controllers, HMI, drives, relays, and motor controls. If you're maintaining existing systems, we've got great prices on MRO parts such as circuit breakers, fuses, motors, pneumatics and pilot devices. In addition to our catalog all our products are available to
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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", 8", 10", 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 interface panel, 6-inch color TFT (5.7 inch viewable screen), base model, 64k colors, 320 x 240 pixel QVGA screen resolution, 800 MHz 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.	<--->
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, 800 MHz 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.	<--->
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, 800 MHz 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.	<--->
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, 800 MHz 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.	<--->
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, 800 MHz 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.	<--->
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, 800 MHz 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 <None> 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.	<--->
EA9-PGMSW	C-more Windows-based programming software on CD for the C-more EA9 series touch panels. Requires Windows XP Pro 32-bit, Windows 7 (Pro, Ultimate, 32 or 64-bit) or Windows 8 (Pro, Ultimate, 32 or 64-bit). Requires USB or Ethernet connection to touch panel. Cables sold separately. (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

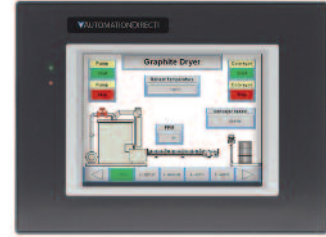
Model	6" TFT color w/ base features	6" TFT color w/ full features	8" TFT color w/ full features	10" TFT color w/ full features	12" TFT color w/ full features	15" TFT color w/ full features
Specification	6" TFT color w/ base features	6" TFT color w/ full features	8" TFT color w/ full features	10" TFT color w/ full features	12" TFT color w/ full features	15" TFT color w/ full features
Part Number	EA9-T6CL-R	EA9-T6CL	EA9-T8CL	EA9-T10CL	EA9-T12CL	EA9-T15CL
Price	<--->	<--->	<--->	<--->	<--->	<--->
Display Actual Size and Type	5.7" TFT color		8.4" TFT color	10.4" TFT color	12.1" TFT color	15.0" TFT color
Display Viewing Area	4.54" x 3.40" [115.2 mm x 86.4 mm]		6.71" x 5.03" [170.4 mm x127.8mm]	8.31" x 6.24" [211.2 mm x 158.4 mm]	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	1.56 lb [710g]	1.59 lb [720g]	2.93 lb [1330g]	4.19 lb [1900g]	4.89 lb [2200g]	6.50 lb [2950g]
Screen Pixels	320 x 240 (QVGA)		800 x 600 (SVGA)			1024 x 768 (XGA)
Display Brightness	280 nits (typ)		310 nits (typ)	280 nits (typ)		
LCD Panel Dot Pitch	0.18 mm x 0.18 mm		0.213 mm x 0.213 mm	0.264 mm x 0.264 mm	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					
Project Memory	26MB			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	N/A	3-wire terminal block - RS-485				
Serial Port 3	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)				
Mic In	N/A	3.5 mm mini jack				
SD Card Slot	1 slot supports max 2 GB (SD,) max 32 GB (SDHC)				2 slots support max 2 GB (SD), max 32 GB (SDHC)	
HDMI Out	N/A				Yes	
Supply Power	12-24 VDC Class 2, 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		18.0 W 1.50 A @ 12VDC 0.75 A @ 24VDC	18.0 W 1.50 A @ 12VDC 0.75 A @ 24VDC	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)	4.0 A		6.3 A			
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	NEMA ICS3-304 (EN61131-2) RFI, (145MHz, 440Mhz 10W @ 10cm) Impulse 1000V @ 1mS pulse 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	1000 VAC, 1 min. (FG to Power supply)					
Insulation Resistance	> 10M ohm @ 500VDC (FG to Power supply)					
Vibration	IEC60068-2-6 (Test Fc)					
Shock	IEC60068-2-27 (Test Ea)					
Emission	EN55011 Class A (Radiated RF emission)					
Enclosure	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)					
Agency Approvals	UL508, E157382 CE (EN61131-2), RoHS (2011/65/EU) CUL Canadian C22.2					
* NOTE: 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 back-light depends on the ambient temperature. The lifetime will decrease under low or high temperature usage.						

* NOTE: 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 back-light depends on the ambient temperature. The lifetime will decrease under low or high temperature usage.

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, 800 MHz 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

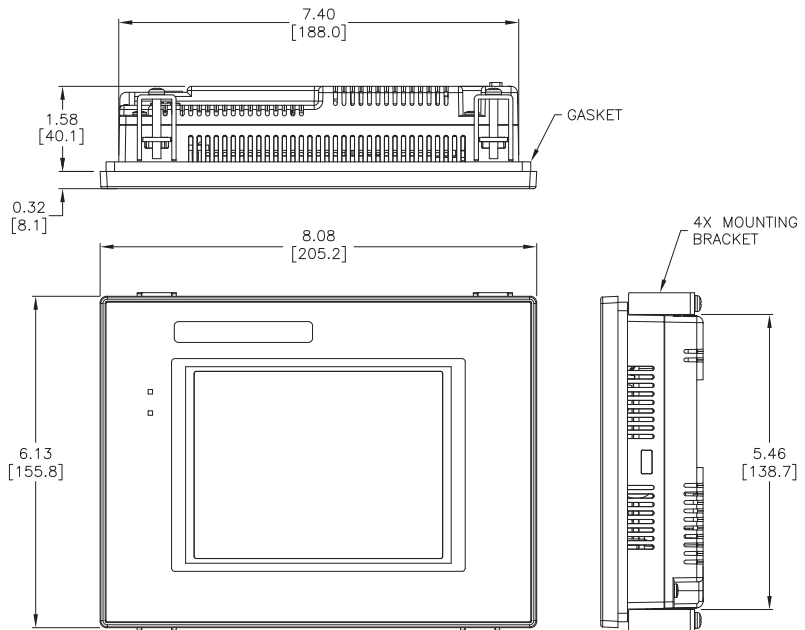
- 5.7" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 640 x 480 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (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
Mic In	No
HDMI Out	No

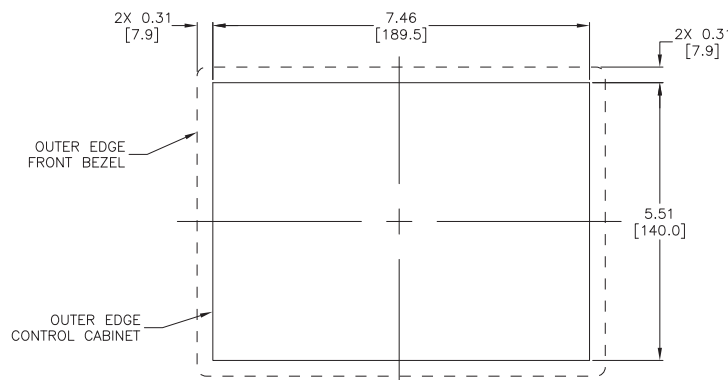
NOTE: EA9-T6CL-R does not support Ethernet.

Dimensions

inches / [mm]



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, 800 MHz 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

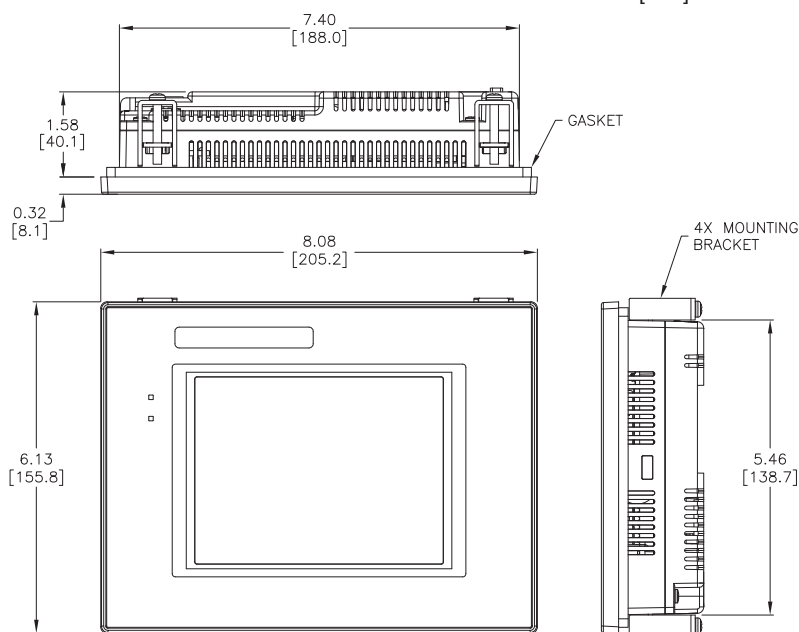
- 5.7" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 320 x 240 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port A (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)
- Microphone in
- 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, CSA & CE agency approvals
- 2-year warranty from date of purchase



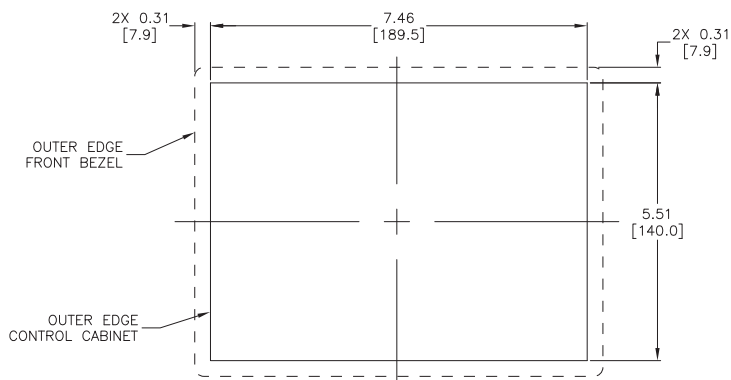
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Dimensions

inches / [mm]



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, 800 MHz 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)
- Microphone in
- 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, CSA & CE agency approvals
- 2-year warranty from date of purchase



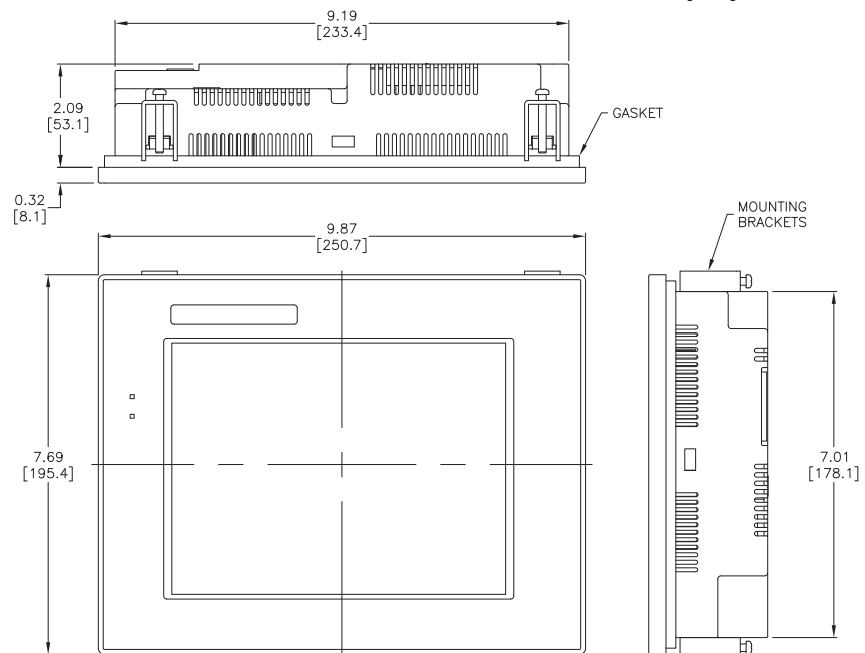
Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
Mic In	Yes
HDMI Out	No



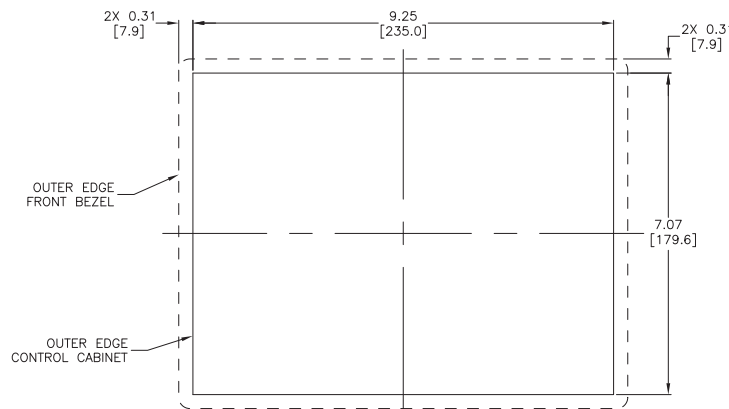
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Dimensions

inches / [mm]



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, 800 MHz 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

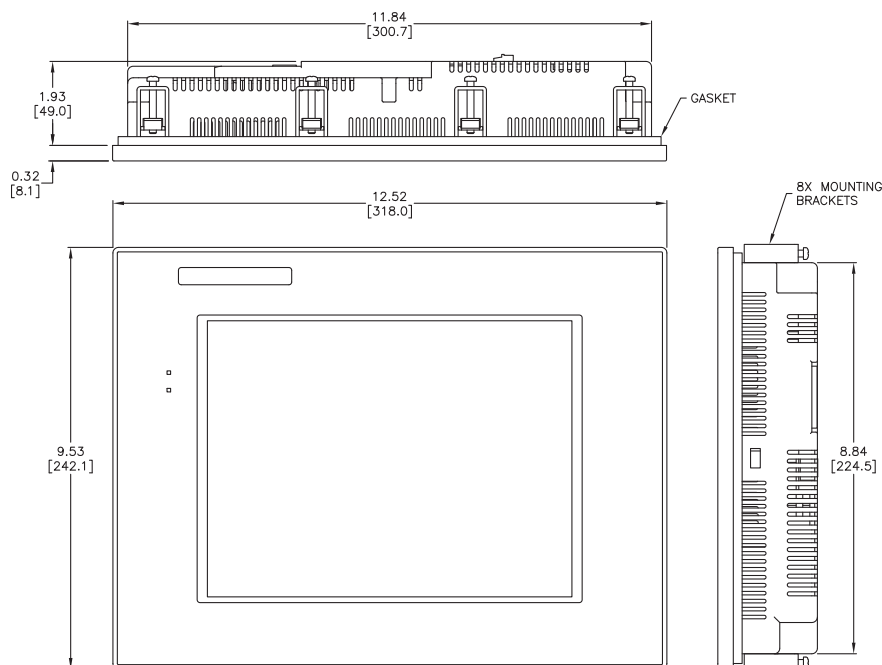
- 10.4" diagonal color TFT (Thin Film Transistor) LCD display with 64K colors
- 800 x 600 pixel resolution
- 280 NITS display brightness
- 50,000 hour average backlight half-life
- Analog resistive (1024 X 1024) touch screen allowing unlimited touch areas
- USB port B (program/download) and USB port 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)
- Microphone in
- 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, CSA & CE agency approvals
- 2-year warranty from date of purchase

Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
Mic In	Yes
HDMI Out	No

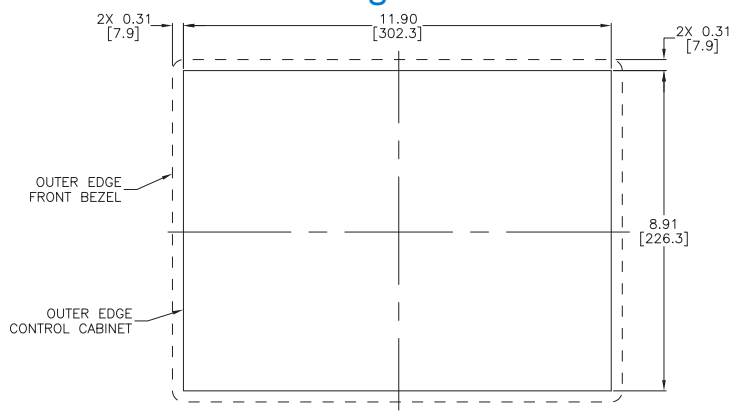


Dimensions

inches / [mm]



Mounting Cutout



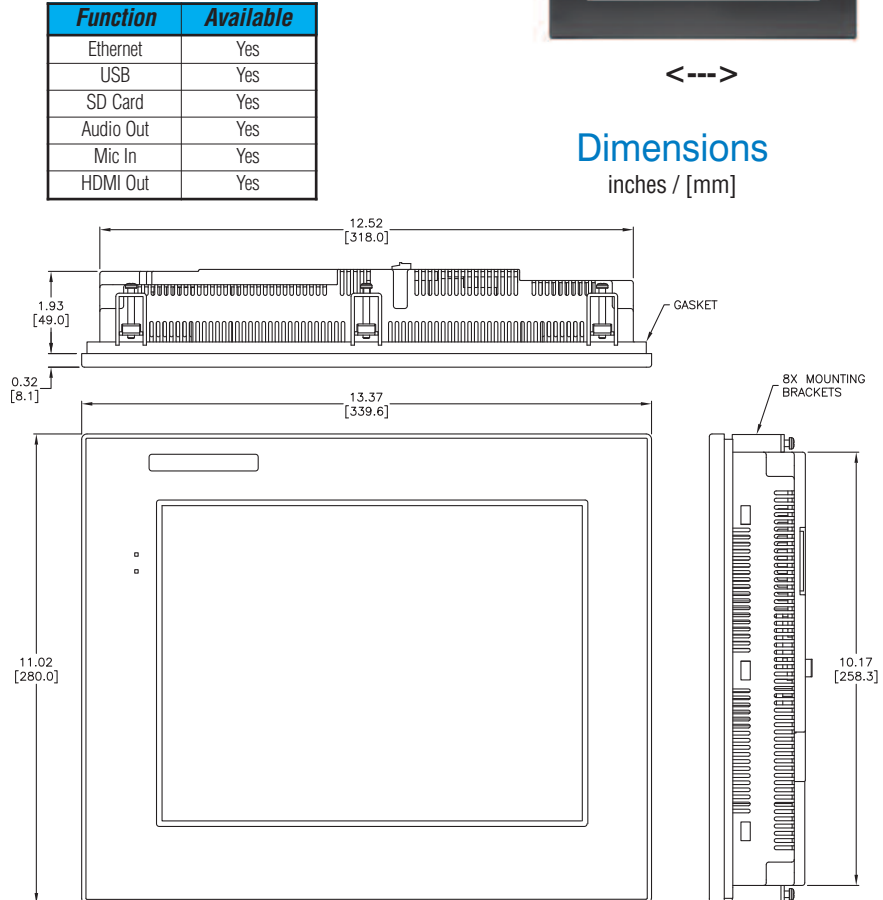
C-more 12" TFT Color Touch Panel - Full Model

Part No. EA9-T12CL



<--->

Dimensions
inches / [mm]

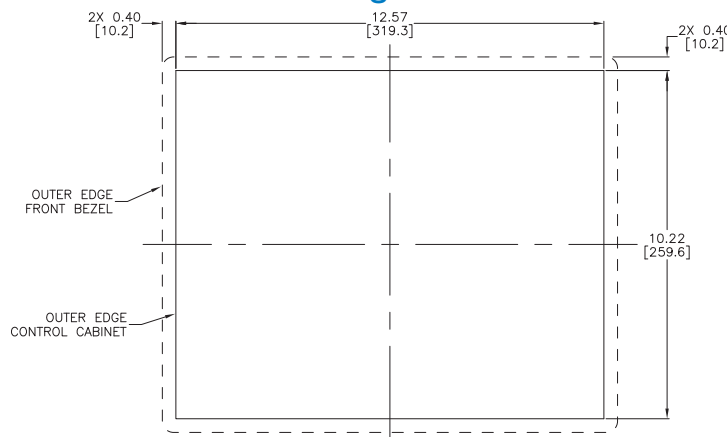


C-more EA9 series touch screen interface panel, 12-inch color TFT (12.1 inch viewable screen), 64k colors, 800 x 600 pixel SVGA screen resolution, 800 MHz CPU, 12-24 VDC powered, NEMA 4/4X, IP65 (when mounted correctly; for indoor use only), non-replaceable LED backlight. Includes (3) serial ports, USB 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)
- Microphone in
- HDMI Port
- 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, CSA & CE agency approvals
- 2-year warranty from date of purchase

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, 800 MHz 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)
- Microphone in
- HDMI Port
- 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, CSA & CE agency approvals
- 2-year warranty from date of purchase

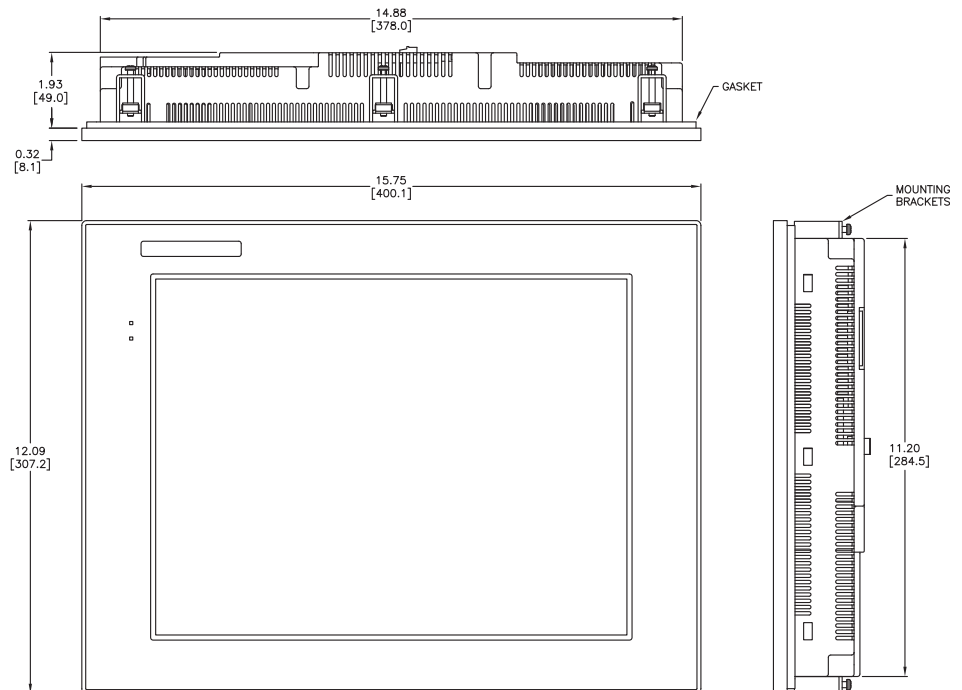
Function	Available
Ethernet	Yes
USB	Yes
SD Card	Yes
Audio Out	Yes
Mic In	Yes
HDMI Out	Yes



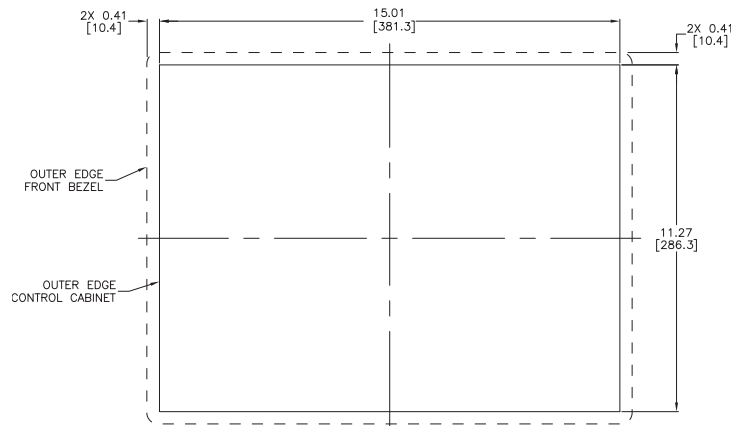
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Dimensions

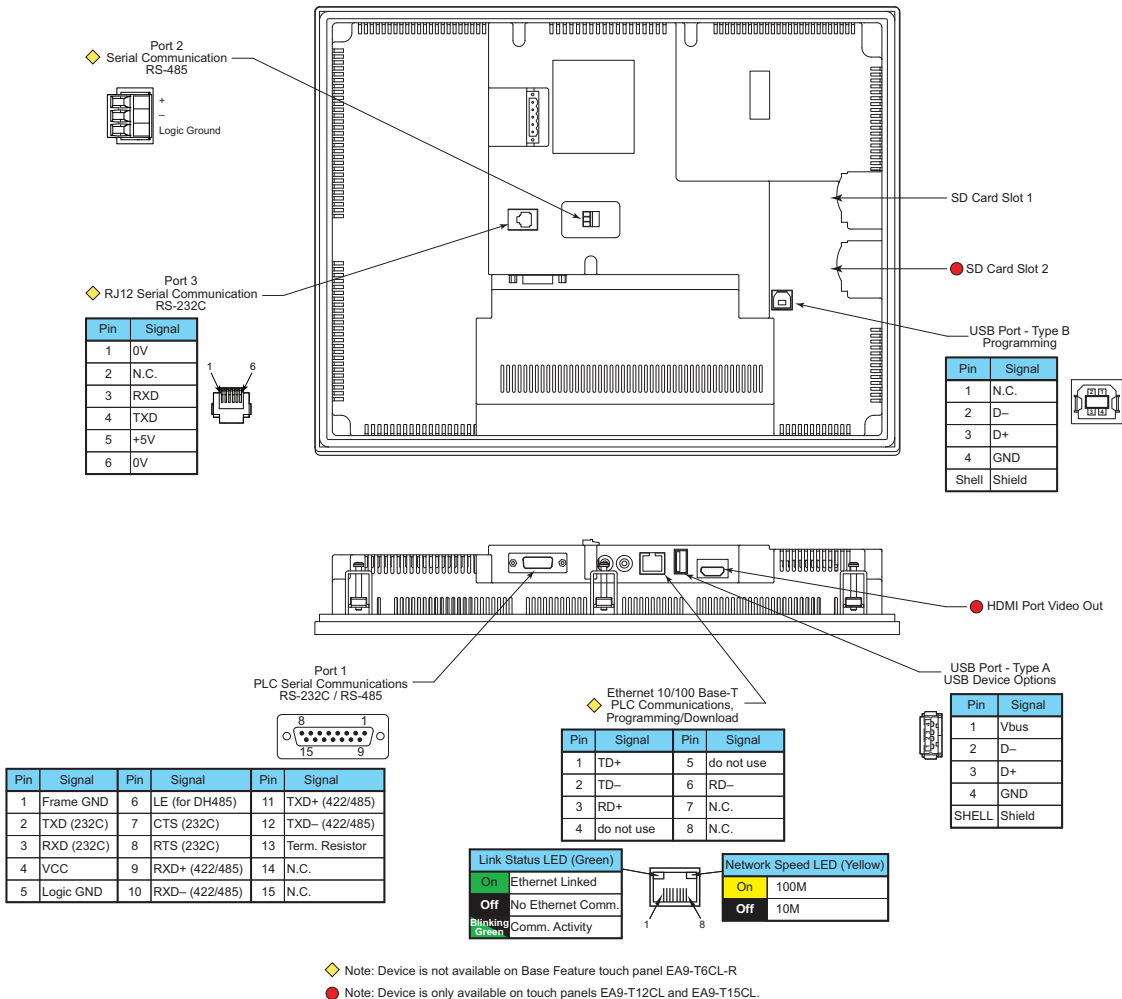
inches / [mm]



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: The base panels (-R part numbers) do not include an Ethernet port, and do 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 Port

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, PLC5	DH485/AIC/AIC+
	MicroLogix 1000, 1100, 1200 and 1500	DF1 Half Duplex; DF1 Full Duplex
	SLC 5-03/04/05	
	ControlLogix™, CompactLogix™, FlexLogix™	DF1 Full Duplex
	PLC-5	
	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 & SLC 5/05, both via native Ethernet port	
	MicroLogix 1000, 1100, 1200, 1400, 1500 & SLC 5-03/04/05, all via ENI Adapter	
Modbus TCP/IP	Modbus TCP/IP devices	Modbus RTU
		Modbus TCP
GE	90/30, 90/70, Micro 90, VersaMax Micro	Modbus TCP/IP
Mitsubishi	FX Series	SNPX
	Q02, Q02H, Q06H, Q12H, Q25H	FX Direct
	Q, QnA Serial	Q CPU
Omron	Q, QnA Ethernet	QnA Serial
	C200 Adapter, C500	QnA Ethernet
Modicon	CJ1/CS1 Serial, CJ1/CS1 Ethernet	Host Link
	984 CPU, Quantum 113 CPU, AEG Modicon Micro Series 110 CPU: 311-xx, 411-xx, 512-xx, 612-xx	FINS
Siemens	S7-200 CPU, RS-485 Serial	Modbus RTU
	S7-200 CPU, S7-300 CPU, S7-400, S7-1200 CPU; Ethernet	PPI
Productivity Series	Productivity3000 Serial (P3-550)	Ethernet ISO over TCP
	Productivity3000 Ethernet (P3-550)	AutomationDirect P3000 Serial
Do-more	all	AutomationDirect P3000 Ethernet
		Do-more Serial
CLICK	all	Do-more Ethernet
		AutomationDirect Modbus (CLICK)
DirectLOGIC	DL05/DL06	K-Sequence
		DirectNET
	DL105	Modbus (Koyo addressing)
		DirectLOGIC Ethernet
	DL205	H0-ECOM/H0-ECOM100
		D2-230
		D2-240
		D2-250/D2-250-1/D2-260
		D2-240/D2-250-1/D2-260 using D2-DCM
		H2-ECOM/H2-ECOM100
		D3-330/330P (Requires the use of a Data Communications Unit)
		D3-340
		D3-350
		D3-350 using D3-DCM
	DL405	D4-430
		D4-440
		D4-450
		All with D4-DCM
		H4-ECOM/H4-ECOM100
		H2-WinPLC (Think & Do) Live V5.2 or later and Studio any version
		H2-WinPLC (Think & Do) Live V5.5.1 or later and Studio V7.2.1 or later
		Think & Do Modbus RTU (serial port)
		Think & Do Modbus TCP/IP (Ethernet port)
		Think & Do Modbus TCP/IP (Ethernet port)

Cable Description	Cable Part Number	Price
AutomationDirect Productivity Series, Do-more, CLICK, DirectLOGIC PLC RJ-12 port, DL05, DL06, DL105, DL205, D3-350, D4-450 & H2-WinPLC (RS-232C)	EA-2CBL	<--->
DirectLOGIC (VGA Style) 15-pin port, DL06, D2-250 (250-1), D2-260 (RS-232C)	EA-2CBL-1	<--->
DirectLOGIC PLC RJ-11 port, D3-340 (RS-232C)	EA-3CBL	<--->
DirectLOGIC DL405 PLC 15-pin D-sub port, DL405 (RS-232C)	EA-4CBL-1	<--->
DirectLOGIC PLC 25-pin D-sub port, DL405, D3-350, DL305 DCU and all DCMs (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:

- Keyboard and Mouse or compatible pointing device
- Super VGA color video adapter and monitor with at least 800 x 600 pixels resolution (1024 x 768 pixels recommended) 64K color minimum
- 300 MB free hard-disk space
- CD-ROM or DVD drive for installing software from the CD
- USB port or Ethernet 10/100 Mbps port for project transfer from software to touch panel (Ethernet port not available on -R models)
- Operating System - Windows® XP Professional Edition (32 bit), Windows 7 (32 or 64 bit) or Windows 8 (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. SE-SW5U

<--->

Ethernet Configuration Kit



Part No. RT-CNFGKIT

<--->

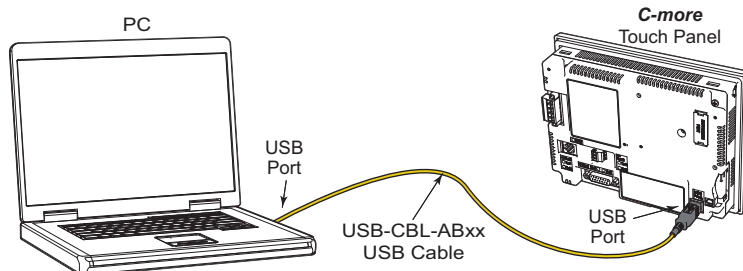
The Ethernet Configuration Kit includes a five-port 10/100 Base-T Ethernet switch, four straight-through cables, and one crossover cable. (The cables are at least five feet in length.) The kit provides a great convenience for configuring systems, demonstration systems or basic control projects using Ethernet.

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

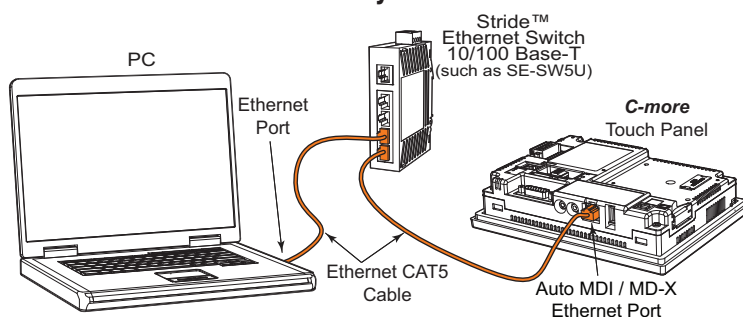
If you intend to take advantage of the methods of remote access to the panel, including the web server, PC remote access, FTP, iPhone or iPad app, you need to consider the security exposure in order to minimize the risks to your process and your C-more panel.

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.

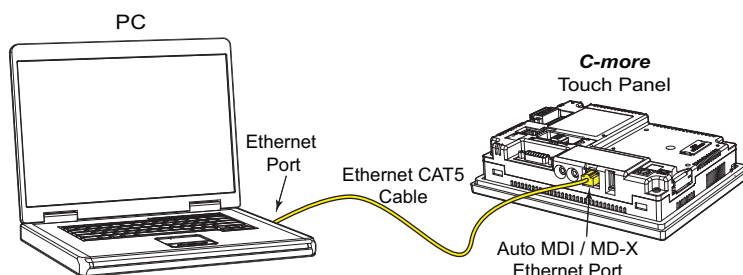
USB Connectivity



Ethernet Connectivity via a Hub or Switch



Ethernet Direct Connection

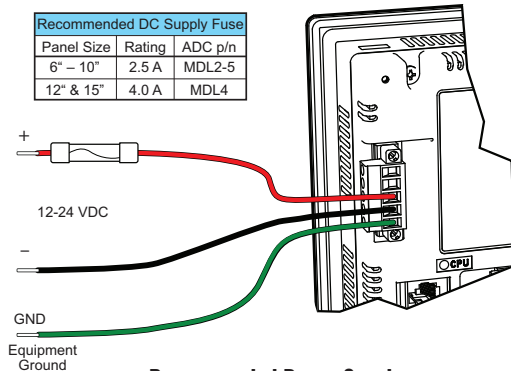


C-more Power Connection Wiring

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

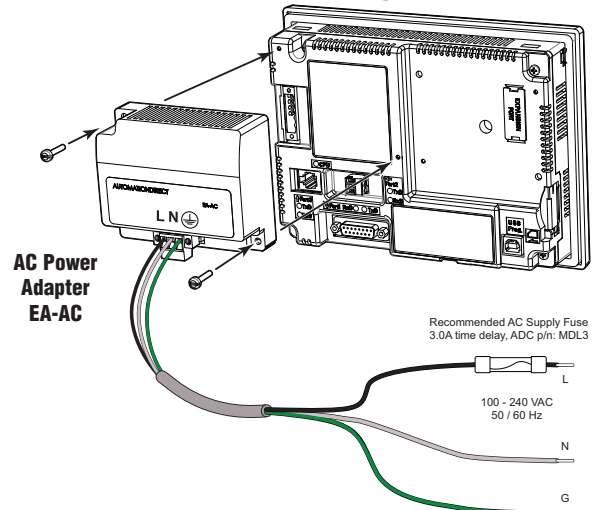


Recommended DC Supply Fuse		
Panel Size	Rating	ADC p/n
6" – 10"	2.5 A	MDL2-5
12" & 15"	4.0 A	MDL4

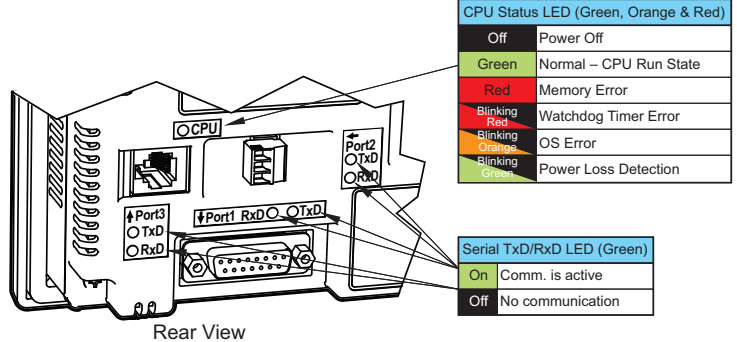
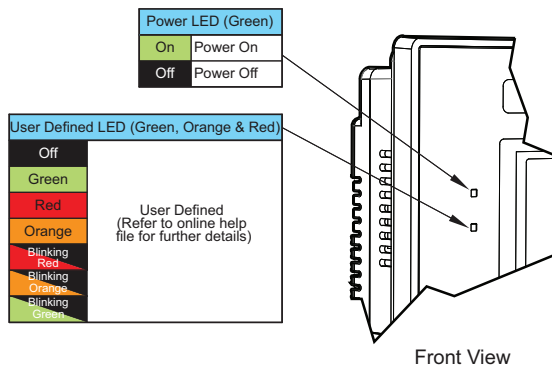
Recommended Power Supply:
AutomationDirect Part No. PSC-24-060

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 1-800-633-0405 or 770-844-4200.

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

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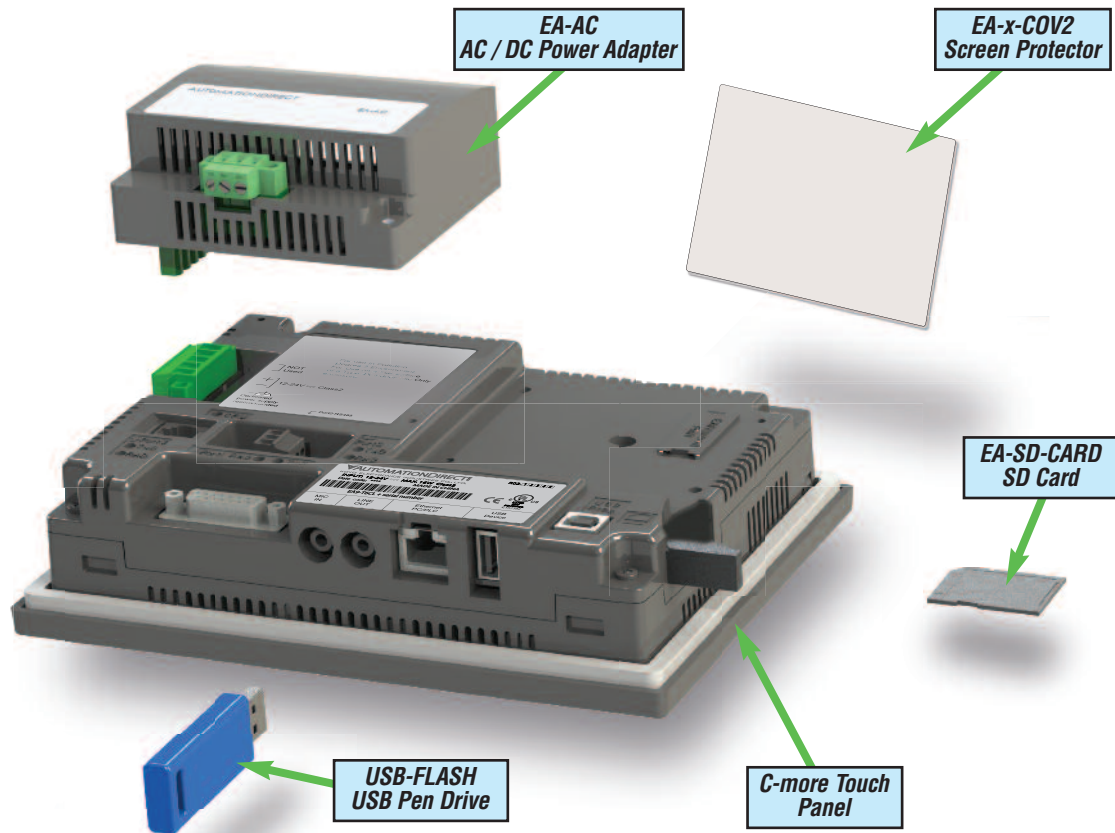
C-more Accessories

Accessories

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

Part Number	Description	Price
EA-AC	AC/DC Adapter for C-more 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. C-more 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 C-more touch screen and helps reduce glare from external light sources. Compatible with C-more EA7 and EA9 series and C-more Micro-Graphic 6-inch panels. Package of 3.	<--->
EA-8-COV2	Non-glare protective overlay, 8-inch, protects C-more touch screen and helps reduce glare from external light sources. Compatible with C-more EA7 and EA9 series 8-inch panels. Package of 3.	<--->
EA-10-COV2	Non-glare protective overlay, 10-inch, protects C-more touch screen and helps reduce glare from external light sources. Compatible with C-more EA7 and EA9 series 10-inch panels. Package of 3.	<--->
EA-12-COV2	Non-glare protective overlay, 12-inch, protects C-more touch screen and helps reduce glare from external light sources. Compatible with C-more EA7 and EA9 series 12-inch panels. Package of 3.	<--->
EA-15-COV2	Non-glare protective overlay, 15-inch, protects C-more touch screen and helps reduce glare from external light sources. Compatible with C-more EA7 and EA9 series 15-inch panels. Package of 3.	<--->
EA-SD-CARD	SD memory card for non-volatile storage, 2GB industrial grade, 85 degrees C maximum operating temperature makes it suitable for data logging in industrial applications. Recommended for the C-more EA9 series touch panels.	<--->
USB-FLASH	USB Flash drive, SanDisk, 4GB (SanDisk P/N SDCZ50-004G-A46). Recommended for use with the C-more 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 24 VDC @ 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

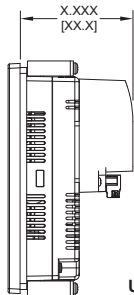
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Dimensions

inches / [mm]

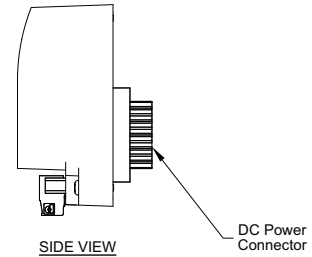
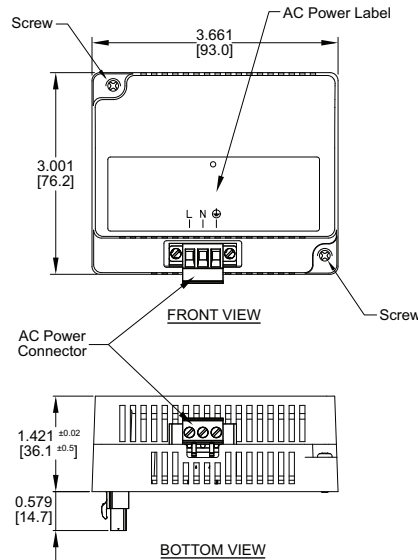


Overall Panel Depth w/ EA-AC Installed



EA9-T6CL-R = 2.99 [75.9]
EA9-T6CL = 2.99 [75.9]
EA9-T8CL = 3.51 [89.2]
EA9-T10CL = 3.51 [89.2]
EA9-T12CL = 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/s ² (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**



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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.

USB Pen Drive

**Part No.
USB-FLASH**



<--->

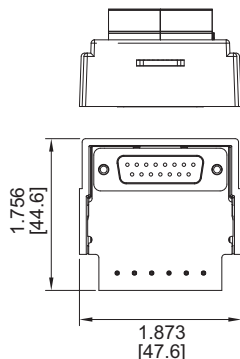
USB flash drive for non-volatile storage, 4GB. Recommended for the **C-more** EA9 series touch panels.

C-more Accessories

D-SUB 15-pin to Terminal Block Adapter

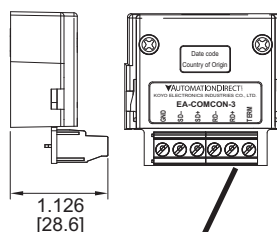
The EA-COMCON-3 adapter plugs into the 15-pin serial port on the rear of the panel to allow wire terminal connections for an RS-422/RS-485/DH-485 PLC communication cable. UL Recognized for use with **C-more** panels.

Part No. EA-COMCON-3

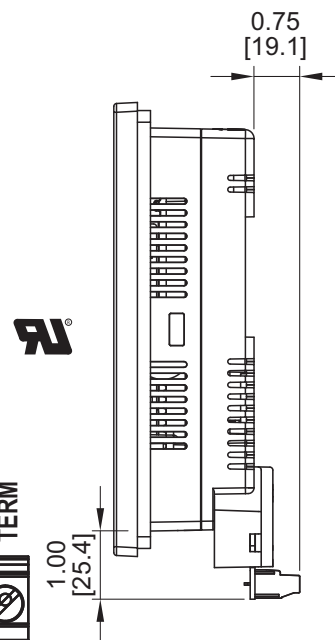
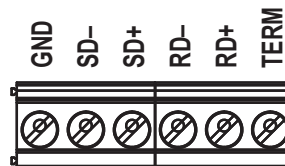


Dimensions

Units: inches [mm]



Terminals



EA-COMCON-3 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.

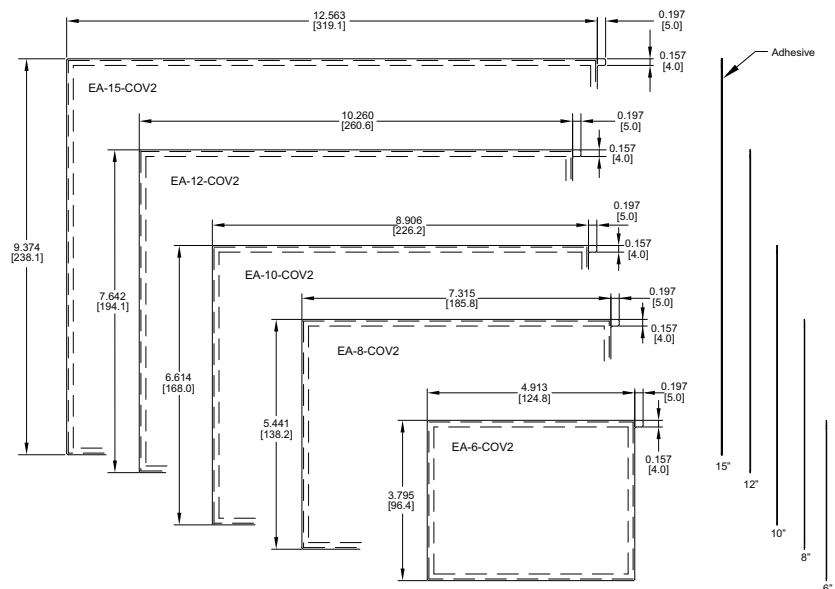
Part Nos. EA-6-COV2, EA-8-COV2, EA-10-COV2, EA-12-COV2 and EA-15-COV2

Dimensions

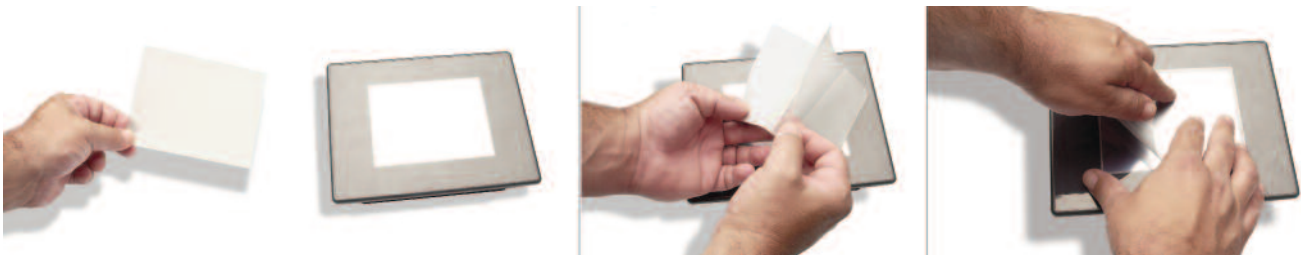
inches / [mm]



EA-6-COV2	<--->
EA-8-COV2	<--->
EA-10-COV2	<--->
EA-12-COV2	<--->
EA-15-COV2	<--->



Installation






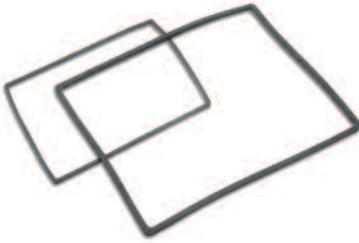


NOTE: The Protective Cover ships with a thin protective sheet on the face of the cover that needs to be carefully removed. If your panel is not clear, the protective sheet may not have been removed.

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		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 15-inch touch panel, NEMA 4/4X
EA9-12-GSK		Panel mounting gasket, replacement, for C-more EA9-T12CL 12-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) 6-inch touch panels, NEMA 4/4X