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

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Part Number	Description	Price
EA9-T6CL-R	C-more EA9 series touch screen HMI, 6in color TFT LCD, analog resistive, 320 x 240 pixel, QVGA, LED backlight, (1) serial, (2) USB ports and (1) memory card slot.	\$799.00
EA9-T6CL	C-more EA9 series touch screen HMI, 6in color TFT LCD, analog resistive, 320 x 240 pixel, QVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$1,003.00
EA9-T7CL-R	C-more EA9 series touch screen HMI, 7in color TFT LCD, analog resistive, widescreen, 800 x 480 pixel, WVGA, LED backlight, (1) serial, (1) Ethernet, (2) USB ports and (1) memory card slot.	\$688.00
<u>EA9-T7CL</u>	C-more EA9 series touch screen HMI, 7in color TFT LCD, analog resistive, widescreen, 800 x 480 pixel, WVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	Retired
EA9-T8CL	C-more EA9 series touch screen HMI, 8in color TFT LCD, analog resistive, 800 x 600 pixel, SVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$1,524.00
EA9-T10CL	C-more EA9 series touch screen HMI, 10in color TFT LCD, analog resistive, 800 x 600 pixel, SVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$1,718.00
EA9-T10WCL	C-more EA9 series touch screen HMI, 10in color TFT LCD, analog resistive, widescreen, 1024 x 600 pixel, WSVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (1) memory card slot and (1) audio line out.	\$1,096.00
EA9-T12CL	C-more EA9 series touch screen HMI, 12in color TFT LCD, analog resistive, 800 x 600 pixel, SVGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (2) memory card slots, (1) HDMI video out and (1) audio line out.	\$1,479.00
EA9-T15CL-R	C-more EA9 series touch screen HMI, 15in color TFT LCD, analog resistive, 1024 x 768 pixel, XGA, LED backlight, (1) serial, (1) Ethernet, (2) USB ports and (2) memory card slots.	\$1,959.00
EA9-T15CL	C-more EA9 series touch screen HMI, 15in color TFT LCD, analog resistive, 1024 x 768 pixel, XGA, LED backlight, (3) serial, (1) Ethernet, (2) USB ports, (2) memory card slots, (1) HDMI video out and (1) audio line out.	\$2,684.00
EA9-RHMI	C-more EA9 series headless HMI, (2) serial, (1) Ethernet and (2) USB ports, (1) HDMI audio/video out and (1) memory card slot.	\$632.00
EA9-PGMSW	<b>C-more</b> Windows programming software, USB or free download. For use with <b>C-more</b> EA9 series touch panels. Requires USB or Ethernet connection to touch panel.	\$13.00 on USB, or FREE download
USB-CBL-AB3	AutomationDirect programming cable, USB A to USB B, 3ft cable length. For use with <i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.	\$12.00
USB-CBL-AB6	AutomationDirect programming cable, USB A to USB B, 6ft cable length. For use with <i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.	\$16.00
USB-CBL-AB10	AutomationDirect programming cable, USB A to USB B, 10ft cable length. For use with <i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.	\$36.50
USB-CBL-AB15	AutomationDirect programming cable, USB A to USB B, 15ft cable length. For use with <i>C-more</i> HMIs, Do-more and Productivity series CPUs and most USB devices.	\$42.50

www.automationdirect.com Operator Interface tCME-1

# **C-more Selection Guide & Specifications**

Model	6" TFT color	6" TFT color	7" TFT color	7" TFT color
Specification	w/ base features	w/ full features	w/ base features	w/ full features
Part Number	<u>EA9-T6CL-R</u>	EA9-T6CL	EA9-T7CL-R	EA9-T7CL
Price	\$799.00	\$1,003.00	\$688.00	Retired
Display Actual Size and Type	5.7" TF	-T color	7.0" TF	-T color
Display Viewing Area		x 3.40" x 86.4 mm]		x 3.60" 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 24	0 (QVGA)	800 x 480	(WVGA)
Display Brightness	280 ni	ts (typ)	350 ni	ts (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 hou	ırs @ 25°C	
Touch Panel Type**		Four-wire analog re	sistive, single touch	
Project Memory	26	MB	43	MB
Number of Screens		Up to 999 screens – lim	nited by project memory	
Realtime Clock		Realtime clock built into panel,	backed up for 30 days at 25°C	
Calendar –		Yes - monthly deviation	on 60sec (Reference)	
Month / Day / Year			,	
Serial Port 1		15-pin D-sub female –	,	
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 – Max. cable length 15-feet			
USB Port – Type A	USB 2.0 High speed (480 Mbps) Type A – for USB device options – Max. cable length 15-feet – Bus Power – Less than 200mA at 5VDC			er – Less than 200mA at 5VDC
Ethernet Port	N/A		10/100 Base-T, auto MDI/MDI-X	
Ethernet Port - Expansion Module	N/A	<u>EA-ECOM</u>	N/A	<u>EA-ECOM</u>
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 2GB (SD,) max 32GB (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		Λ (	) A	
(non-replaceable)			-	
Altitude		Up to 2000		
Operating Temperature	0 to 50°C (32 to 122°F) N	Maximum surrounding air temperature		(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 enviro		
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)			
	RFI, (145MHz, 440Mhz 10W @ 10cm), Impulse 1000V @ 1μs pulse			
Withstand Voltage	1000VAC, 1min. (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)  NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 (not tested by UL) (When mounted correctly)			(When mounted correctly)
Agency Approvals	CE (EN61131-2), F	1, Div 2, Groups A, B, C RoHS (2011/65/EU) Idian C22.2	CE (EN61131-2), F	, E157382 RoHS (2011/65/EU) dian C22.2
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\*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.

www.automationdirect.com **Operator Interface** tCME-2

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

Available

Yes

Yes

Yes

Yes

No

Yes

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 <u>EA9-PGMSW</u> programming software version 6.3 or later.

**Function** 

Ethernet

USB

SD Card

Audio Out

HDMI Video Out

**Expansion Module** 

#### **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)
- Expansion Module Support
- Use EA-ECOM for second Ethernet Port
- · 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)
- · 43MB 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

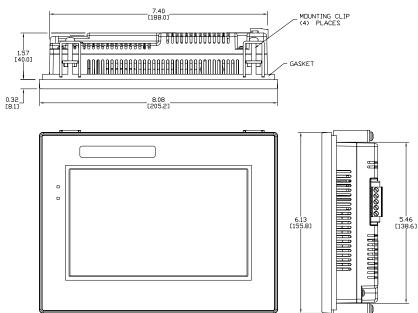
### EA9-T7CL



#### Retired

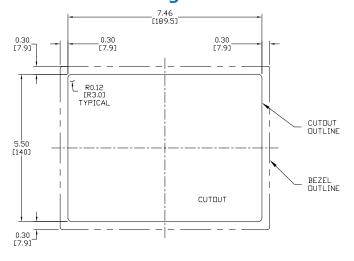
### **Dimensions**

Units: inches [mm]



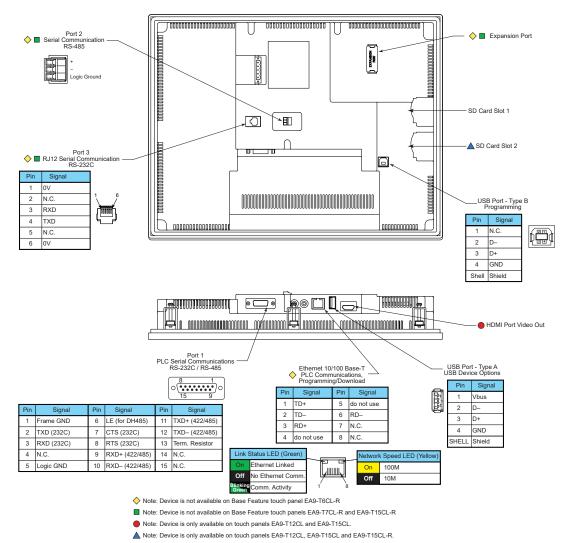
See our website www.AutomationDirect.com for complete engineering drawings.

### **Mounting Cutout**



www.automationdirect.com **Operator Interface** tCME-9

# **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 Webserver (Secure HTTPs)
- 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.

### **Expansion Port**

The expansion port supports the <u>EA-ECOM</u> module to provide a second Ethernet Port for all full featured models.

#### **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 on all models and can be used to connect various USB HID (Human Input Device) devices to the panel, such as the following:

- USB flash drives (USB-FLASH)
- USB keyboards
- USB barcode scanners
- USB card scanners

**C-more** can log data to the USB flash 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**

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

# 1-800-633-0405 C-more Communication Protocols & Cables

	C	ompatibility Table	
PLC Family		Model	Protocols
	MicroLogix 1000, 110 SLC 5-/01/02/03	00, 1200, 1400, 1500,	DH485/AIC/AIC+
	MicroLogix 1000, 110	00, 1200, 1400 and 1500	DE4 Helf Durley, DE4 Edl Doll
	SLC 5-/03/04/05 Controll ogix™ Com	pactLogix™, FlexLogix™	DF1 Half Duplex; DF1 Full Duplex
	PLC-5	paoteogix , i lexeogix	DF1 Full Duplex
		actLogix, FlexLogix - Tag	DF1 Half Duplex; DF1 Full Duplex
	ControlLogix, Compa Generic I/O Messagi	actLogix, FlexLogix -	EtherNet/IP Server
Allen-Bradley	Generic I/O Messagi	ng actLogix, FlexLogix - Tag	Elliethevir Server
Alleli-bladley	Based		
	Micrologix 1100, 140 Ethernet port	0 & SLC5/05, all via native	EtherNet/IP Client
	MicroLogix 1000, 110	00, 1200, 1400,1500 & ria ENI Adapter	
		na Eini Adapter	Modbus RTU
	Micro 800 series		Modbus TCP
	Micro 800 series - Ta	in Rasad	DF1 Full Duplex
	Wilcio ooo series - Ta		EtherNet/IP Client
Modbus RTU	Modbus RTU devices	S	Modbus RTU
Modbus TCP/IF	Modbus TCP/IP devi	ces	Modbus TCP/IP
GE	90/30, 90/70, Micro 9	00, VersaMax Micro	SNPX
	90/30, Rx3i	-	SRTP Ethernet
	FX Series Q02, Q02H, Q06H, Q	12H 025H	FX Direct Q CPU
Mitsubishi	Q, QnA Serial	x 12(1), W2U17	QnA Serial
	Q, QnA Ethernet		QnA Ethernet
Omron	C200 Adapter, C500		Host Link
Omion	CJ1/CS1 Serial, CJ1	/CS1 Ethernet	FINS
Modicon	984 CPU, Quantum Series 110 CPU: 311	113 CPU, AEG Modicon Micro -xx, 411-xx, 512-xx, 612-xx	Modbus RTU
	S7-200 CPU, RS-485	5 Serial	PPI
Siemens	S7-200 CPU, S7-300 S7-1500; Ethernet	) CPU, S7-400, S7-1200 CPU,	Ethernet ISO over TCP
Productivity	all		Productivity Serial
Series			Productivity Ethernet
D	-II		Do-more Serial
Do-more	all		Do-more Ethernet
CLICK	all		Modbus (CLICK addressing)
			Modbus TCP (CLICK addressing)
		all	K-Sequence DirectNET
	DL05/DL06		Modbus (Koyo addressing)
		H0-ECOM/H0-ECOM100	Direct LOGIC Ethernet
	DL105	all	K-Sequence
		D2-230	K-Sequence
		D2-240	K-Sequence DirectNET
			K-Sequence
	DL205	D2-250/D2-250-1/D2-260/ D2-262	DirectNET
		DZ-202	Modbus (Koyo addressing)
		D2-240/D2-250-1/D2-260	DirectNET
		using D2-DCM	Modbus (Koyo addressing)
	<u> </u>	H2-ECOM/H2-ECOM100 D3-330/330P	Direct LOGIC Ethernet
		(Requires the use of a Data Communications Unit)	DirectNET
		D3-340	DirectNET
Direct LOGIC	DI 305	200.0	K-Sequence
	DL305	D3-350	DirectNET
			Modbus (Koyo addressing)
		D3-350 using D3-DCM	DirectNET  Madhua (Kaya addressing)
			Modbus (Koyo addressing) K-Sequence
		D4-430	DirectNET
		D4 440	K-Sequence
		D4-440	DirectNET
	DL405	D4 450/D4 454	K-Sequence
	1	D4-450/D4-454	DirectNET  Modbus (Koyo addressing)
			Modbus (Koyo addressing)  DirectNET
		All with D4-DCM	Modbus (Koyo addressing)
		H4-ECOM/H4-ECOM100	Direct LOGIC Ethernet
		Do) Live V5.2 or later and	Think & Do Modbus RTU
	Studio any version H2-WinPLC (Think &	Do) Live V5.5.1 or later and	(serial port) Think & Do Modbus TCP/IP
	Studio V7.2.1 or later	Do) Live V5.5.1 or later and	(Ethernet port)

Cable Description	Cable Part Number	Price
AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ12, shielded, 9.8ft/3m cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and AutomationDirect PLCs with RJ12 ports.	EA-2CBL	\$37.00
AutomationDirect communication cable, 15-pin male D-sub to 15-pin D-sub HD15 male, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and a DL06, D2-250(-1), D2-260 or D2-262 (bottom port) CPU.	<u>EA-2CBL-1</u>	\$38.00
AutomationDirect communication cable, 15-pin male D-sub to 4-pin RJ11, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and a D3-340 CPU top or bottom port.	EA-3CBL	Retired
AutomationDirect communication cable, 15-pin male D-sub to 15-pin male D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and a DL405 (top port) CPU.	<u>EA-4CBL-1</u>	\$37.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and a D2-DCM, D3-232-DCU, D3-350 (bottom port) or DL405 (bottom port) CPU.	EA-4CBL-2	\$38.50
AutomationDirect communication cable, 15-pin male D-sub to 8-pin male mini DIN, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> of <i>C-more</i> Micro panel and an Allen-Bradley Micrologix CPU.	EA-MLOGIX-CBL	\$57.00
AutomationDirect communication cable, 15-pin male D-sub to 9-pin female D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and an Allen-Bradley SLC 5/03, 5/04 or 5/05 CPU with DF-1 port.	EA-SLC-232-CBL	\$37.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, 3m/9.6ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and an Allen-Bradley PLC-5 CPU with a DF1 port.	EA-PLC5-232-CBL	Retired
AutomationDirect communication cable, 15-pin male D-sub to 6-pin RJ45, shielded, 3m/9.8ft cable length. For use with <b>C-more</b> or <b>C-more</b> Micro panel and an Allen-Bradley SLC 5/01, 5/02 or 5/03 CPU with a DH485 port cable.	EA-DH485-CBL	\$36.50
AutomationDirect communication cable, 15-pin male D-sub to 15-pin male D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro and GE Fanuc Series 90/30 or 90/70 serial port.	EA-90-30-CBL	\$37.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and a Mitsubishi FX Series CPU.	<u>EA-MITSU-CBL</u>	\$31.00
AutomationDirect communication cable, 15-pin male D-sub to 8-pin male mini DIN, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and a Mitsubishi FX Series CPU.	EA-MITSU-CBL-1	\$37.00
AutomationDirect communication cable, 15-pin male D-sub to 25-pin male D-sub, shielded, 3m/9.8ft cable length. For use with <i>C-more</i> or <i>C-more</i> Micro panel and an Omron C200 or C500 CPU	EA-OMRON-CBL	\$37.00

## **Example Cables:**



# **C-more Computer Programming Connections**

Using the **C-more** Programming Software <u>EA9-PGMSW</u> for project development, the HMI 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* HMI. The USB connection is for direct connection only and does not support USB hubs.
- Connect the *C-more* HMI to a PC with a Cat5 Ethernet cable via an Ethernet switch. Multiple *C-more* HMIs can be programmed in this configuration.

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

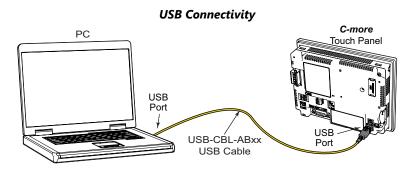
- USB or Ethernet connection to HMI (cables sold separately).
- Windows operating system see automationdirect.com for specific operating system requirements.



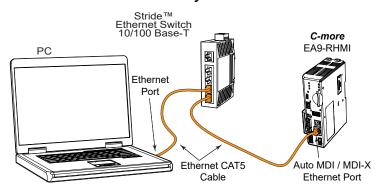
NOTE: Regarding Ethernet access to a C-more HMI.

If you intend to take advantage of the methods of remote access to the HMI, including the Webserver (Secure HTTPs), 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 HMI.

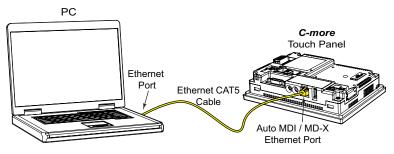
Security measures may include password protection, changing the ports exposed on your network, including a VPN in your network, and other methods. Security should always be carefully evaluated for each installation.



#### Ethernet Connectivity via a Hub or Switch



#### **Ethernet Direct Connection**



### **USB Programming Cable**



#### Part No. USB-CBL-ABxx

USB Programming Cables				
Part Number Length Price				
USB-CBL-AB3	3 feet	\$12.00		
USB-CBL-AB6	6 feet	\$16.00		
USB-CBL-AB10	10 feet	\$36.50		
USB-CBL-AB15	15 feet	\$42.50		

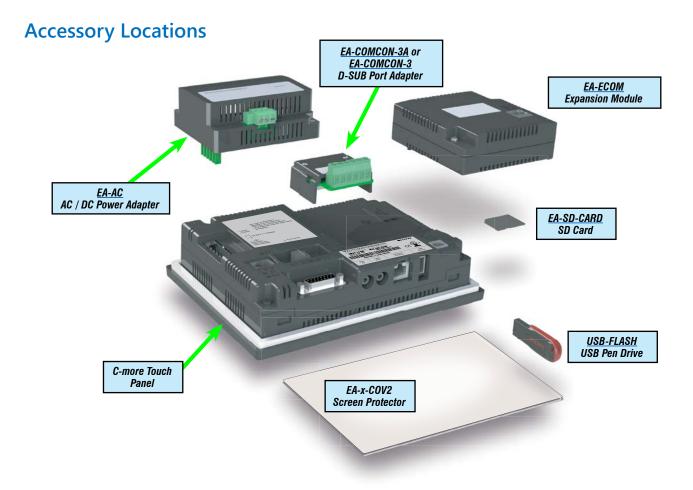
### Stride® Ethernet Switch



#### **Accessories**

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

Part Number	Description	Price
EA-AC	C-more AC/DC power adapter, 24 VDC, 1.5A. For use with C-more EA7 and EA9 series touch panels.	
EA-6-COV2	C-more screen protector, non-glare, 6in. Package of 3. For use with C-more and C-more Micro 6in HMIs.	\$53.50
EA-7-COV2	C-more screen protector, non-glare, 7in. Package of 3. For use with C-more 7in HMIs.	\$55.00
EA-8-COV2	C-more screen protector, non-glare, 8in. Package of 3. For use with C-more and C-more Micro 8in HMIs.	\$57.00
EA-10-COV2	C-more Micro screen protector, non-glare, 10in. Package of 3. For use with C-more EA9-T10CL and C-more Micro EA3-T10CL HMIs.	\$63.50
EA-10W-COV2	C-more screen protector, non-glare, 10in. Package of 3. For use with C-more EA9-T10WCL widescreen HMI.	\$63.50
EA-12-COV2	C-more screen protector, non-glare, 12in. Package of 3. For use with C-more 12in HMIs.	\$66.00
EA-15-COV2	C-more screen protector, non-glare, 15in. Package of 3. For use with C-more 15in HMIs.	\$77.50
EA-ECOM	C-more communication expansion module, (1) RJ45 10/100 Mbps Ethernet port. For use with C-more Micro EA3 series 6in, 8in and 10in panels and all C-more HMIs except CM5 series and -R models.	\$105.00
EA-COMCON-3	C-more DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, right angle cable entry. For use with C-more Micro EA1 series 4in and 6in HMIs, C-more Micro EA3 series 3in, 4in, and 6in HMIs, C-more EA9 6in and 7in HMIs and C-more CM5 series 4in HMI.	\$59.50
EA-COMCON-3A	C-more Micro DSUB port adapter, 15-pin male to 6-pole RS-422/485 terminal block, straight cable entry. For use with C-more Micro EA1 3in with EA1-MG-SP1, EA3 8in and 10in HMIs, C-more EA9 8in, 10in, 12in and 15in and CM5 7in, 10in, 12in, 15in and 22in HMIs.	\$30.50
EA-SD-CARD	C-more industrial memory card, 2 GB SD. For use with all products with SD memory card slot.	\$140.00
<u>USB-FLASH</u>	SanDisk USB Flash drive, 32 GB.	\$30.50



### **AC/DC Power Adapter**

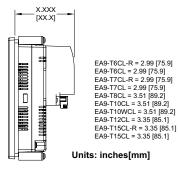
The optional *C-more* AC/DC Power Adapter can be used to power the *C-more* touch panels from a 100-240 VAC, 50/60 Hertz, voltage source. The adapter provides 24VDC @ 1.5 A to the touch panel's DC power connector and can be conveniently secured to the touch panel with two captive screws. The adapter 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. EA-AC is not compatible with EA9-RHMI.

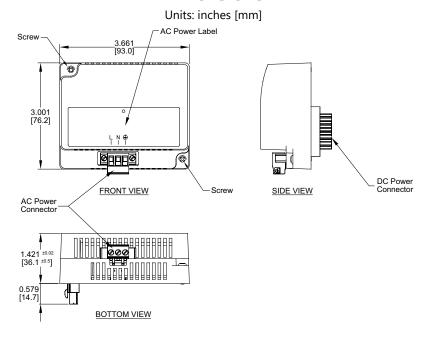
#### Part No. <u>EA-AC</u> \$118.00



# Overall Panel Depth w/ EA-AC Installed



#### **Dimensions**



	AC/DC Power Ada	pter 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 <i>C-more</i> 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)

#### SD Card





\$140.00

SD memory card for non-volatile storage, 2GB industrial grade, 70° C maximum operating temperature makes it suitable for data logging in industrial applications. Recommended for *C-more* EA9 series. The EA-SD-CARD utilizes SLC technology so it is the fastest option for writing and storing data. If logged data is saved to external memory, AutomationDirect recommends using an EA-SD-CARD. EA-SD-CARD may be used with all products with an SD card slot.

SLC Flash memory utilized by EA-SD-CARD has the advantage of being the most accurate flash memory type when reading and writing data. SLC Flash has the longest lifespan of flash types and can operate in a broader temperature range than other types.

EA-SD-CARD with SLC Flash memory is recommended for industrial workloads that require heavy read / write cycles.

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 Flash Drive**

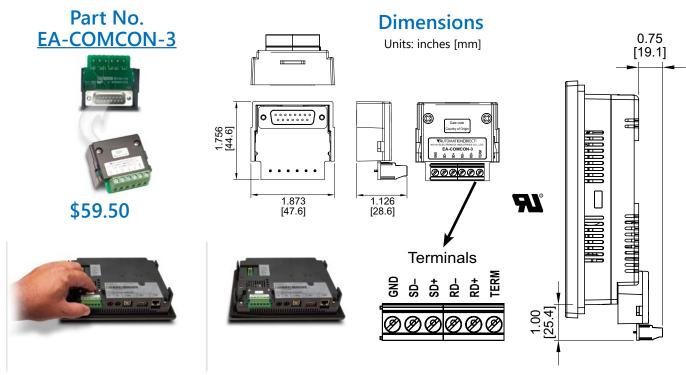


\$30.50

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

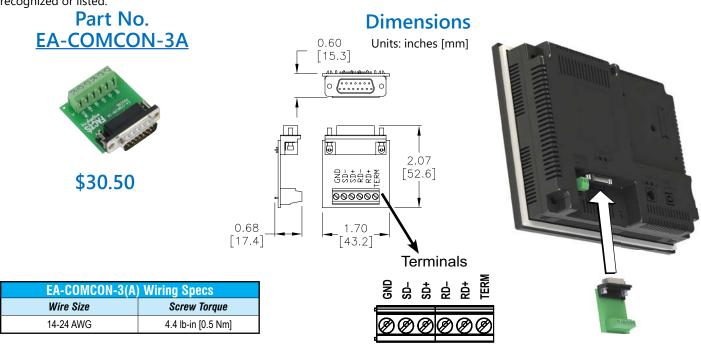
### D-SUB 15-pin to Terminal Block Adapter - Right Angle

The <u>EA-COMCON-3</u> 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) and EA9-T7CL(-R) panels, CM5-T4W and **C-more** Micro 4" and 6" panels. EA-COMCON-3 is UL Recognized



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

The <u>EA-COMCON-3A</u> 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, EA9-RHMI, CM5-T7W, CM5-T10W, CM5-T12W, CM5-T15W, CM5-T22W, **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. The <u>EA-COMCON-3A</u> is not UL recognized or listed.



## 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.

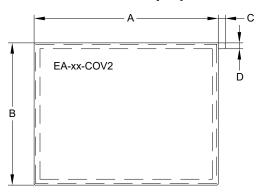
Part Numbers: EA-6-COV2, EA-7-COV2, EA-8-COV2, EA-10-COV2, EA-12-COV2 and EA-15-COV2



EA-6-COV2	\$53.50
<u>EA-7-COV2</u>	\$55.00
<u>EA-8-COV2</u>	\$57.00
EA-10-COV2	\$63.50
<u>EA-10W-COV2</u>	\$63.50
EA-12-COV2	\$66.00
EA-15-COV2	\$77.50

#### **Dimensions**

Units: inches [mm]



Non-glare Screen Covers Dimensions - inches [mm]				
Part Number	A	В	C	D
EA-6-COV2	4.91 [124.8]	3.80 [96.4]		
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]	0.197 [5.0]	0.157 [4.0]
EA-10W-COV2	9.23 [234.5]	5.38 [136.7]		
EA-12-COV2	10.10 [256.5]	7.64 [194.1]		
EA-15-COV2	12.56 [319.1]	9.37 [238.1]		

## Installation











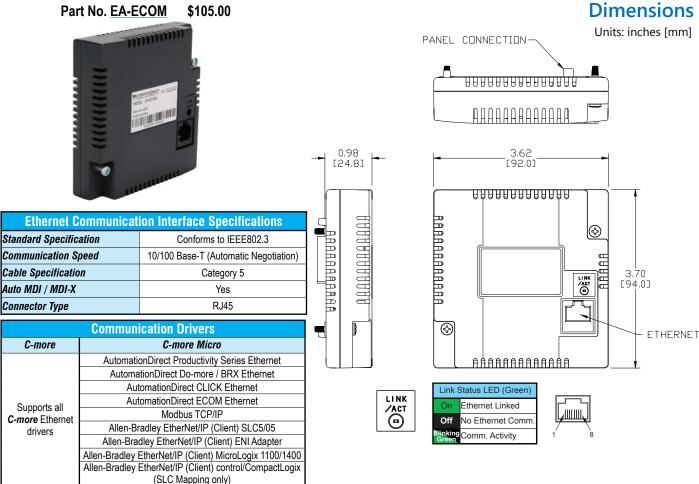
NOTE: The Protective Cover ships with a thin protective sheet on the face of the cover that needs to be carefully removed. If your panel is not clear, the protective sheet may not have been removed.

www.automationdirect.com **Operator Interface** 

# **Communication Expansion Module**

### **EA-ECOM** Ethernet Communication Module

The <u>EA-ECOM</u> communication module is compatible with EA3 series *C-more* Micro 6-inch, 8-inch and 10-inch panels and most *C-more* panels. It adds an Ethernet (RJ45) port for programming and PLC communications at 10/100 Mbps. *C-more* Micro Software and firmware version 4.0 or later is required. *C-more* Software and firmware version 6.50 or later is required.



(CEO mapping only)				
EA-ECOM Specifications				
Part Number <u>EA-ECOM</u>				
Operating Temperature	0 to 50 °C (32 to 122 °F)  Maximum surrounding air temperature rating: 50 °C			
Storage Temperature	−20 to +60 °C (−4 to +140 °F)			
Humidity	5–95% RH (non-condensing)			
Environmental Air	For use in pollution degree 2 environment			
Vibration	IEC60068-2-6 (Test Fc), 5-9 Hz: 3.5 mm amplitude, 9-150 Hz: 1.0G, sweeping, at a rate of 1 octave/min. (±10%), 10 sweep cycles per axis on each of 3 mutually perpendicular axes			
Shock	IEC60068-2-27 (Test Ea), 15 G peak, 11ms duration, three shocks in each direction per axis, on 3 mutually perpendicular axes (total of 18 shocks)			
Noise Immunity	NEMA ICS3-304 RFI, (145 MHz, 440 MHz 10 W @ 10 cm) Impulse 1000 V @ 1 μs pulse			
Emission	EN55011 Class A (Radiated RF emission)			
Enclosure (panel door installation)	NEMA 250 type 4/4X indoor use only UL50 type 4X indoor use only IP-65 indoor use only (When mounted correctly)			
Agency Approvals	CE (EN61131-2), UL508, CUL Canadian C22.2  To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page			
Mounting Torque	50 oz∙in [0.35 N·m]			
Weight	0.23 lb [105g]			

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# **C-more** Replacement Parts

These 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	\$41.50		<b>C-more</b> panel mounting brackets, replacement. Package of 8. For use with <b>C-more</b> EA9 series touch panels.
EA9-LBL	\$47.50		C-more blank label insert, replacement. Package of 10. For use with C-more EA9 series HMI front bezel.
EA9-3TB	\$16.00	in the state of th	<b>C-more</b> pluggable terminal block, replacement, 3-pole. Package of 2. For use with 3-wire RS485 communications port on <b>C-more</b> EA9 series panels.
<u>C0-4TB</u>	\$11.00	THE THE	CLICK terminal blocks, replacement, 4-pole. Package of 2. For use with CLICK PLCs, <b>C-more</b> CM5 series HMIs and <b>C-more</b> EA9-RHMI.
EA-DC-CON	\$20.50		<b>C-more</b> DC 5-terminal power connector, replacement. For use with <b>C-more</b> EA7 and EA9 series touch panels.
EA-AC-CON	\$11.00		C-more AC 3-terminal power connector, replacement. For use with C-more AC adapter (p/n EA-AC).
EA9-15-GSK	\$45.00		C-more panel mounting gasket, replacement. For use with C-more EA9 series 15in HMls.
EA9-12-GSK	\$31.50		C-more panel mounting gasket, replacement. For use with C-more EA9-T12CL 12in touch panel.
EA9-10W-GSK	\$31.50		C-more panel mounting gasket, replacement. For use with C-more EA9-T10WCL 10in HMI.
EA9-10-GSK	\$35.00	1	C-more panel mounting gasket, replacement. For use with C-more EA9-T10CL 10in HMI.
EA9-8-GSK	\$31.00		<b>C-more</b> panel mounting gasket, replacement. For use with <b>C-more</b> EA9-T8CL 8in touch panel.
EA9-6-GSK	\$27.00		<b>C-more</b> panel mounting gasket, replacement. For use with <b>C-more</b> EA9 series 6in and 7in touch panels.